SEW EURODRIVE

Catalog

DRN.. Gearmotors (IE3)

Edition 04/2022

26883198/EN

Table of contents

1 Introduction 6
1.1 The SEW-EURODRIVE group of companies 6
1.2 Documentation 9
1.3 Product names and trademarks 9
1.4 Copyright notice 9

2 Product description 10
2.1 Product features 10
2.2 Corrosion and surface protection 19
2.3 Sealing systems 22
2.4 Extended storage 25
2.5 Condition monitoring 27
2.6 Oil expansion tank 27
2.7 Agitator designs 28

3 Overview of types and type designations 33
3.1 Designs and options – R..-, F..-, K..-, S..-, W.. gear units 33
3.2 Versions and options for the DRN.. motor series 36
3.3 Type designation of a DRN.. gearmotor 45
3.4 DRN.. gearmotor nameplates 46
3.5 Gearmotor types 48

4 Project planning for drives 60
4.1 Additional publications 60
4.2 Drive and gear unit selection data 60
4.3 Project planning procedure for DR.. gearmotors 61
4.4 Project planning notes – R.., F.., K.., S.., W.. gear units 64
4.5 Service factor 67
4.6 Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units 71
4.7 Multi-stage gearmotors 77
4.8 Project planning notes – Motor 78

5 Gear unit mounting positions and order information 79
5.1 General mounting position information for R..-, F..-, K..-, S..-, W.. gear units 79
5.2 Order information 84
5.3 Key to the mounting position sheets 89
5.4 Mounting position sheets 90
5.5 Mounting positions of AC motors 122

6 Design and operating notes 123
6.1 Lubricants 123
6.2 Gear unit venting 147
6.3 Reduced backlash gear unit design /R 148
6.4 Assembly/disassembly of gear units with hollow shaft and key 149
6.5 Gear units with hollow shaft 157
6.6 TorqLOC® mounting system for gear units with hollow shaft 159
6.7 Shouldered hollow shaft option with shrink disk 161
6.8 Notes on stainless shrink disk or output shaft 167

26883198/EN – 04/2022

6.9 Adapter for mounting IEC and NEMA motors ... 168
6.10 Adapter for mounting servomotors ... 176
6.11 Gear unit mounting ... 185
6.12 Torque arms ... 186
6.13 Flange contours of RF.. and R..F gear units ... 188
6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units ... 190
6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units ... 192
6.16 Optional output shafts ... 194
6.17 Safety covers ... 202
6.18 Technical data of condition monitoring ... 208
6.19 PT1000 temperature sensor ... 213

7 Important information on selection tables and dimension drawings ... 215
7.1 Possible geometrical combinations ... 215
7.2 Selection tables for gearmotors ... 216
7.3 Dimension sheet information ... 218

8 Helical gearmotors ... 223
8.1 R..DRN.. designs ... 223
8.2 Possible geometrical combinations of R..DRN.. ... 225
8.3 R..DRN.. selection tables in kW ... 261
8.4 R..R..DRN.. selection tables for low output speeds in Nm ... 336
8.5 R..DRN.. dimension sheets in mm ... 352
8.6 R..R..DRN.. dimension sheets in mm ... 403

9 Parallel-shaft helical gearmotors ... 405
9.1 F..DRN.. designs ... 405
9.2 Possible geometrical combinations of F..DRN ... 408
9.3 F..DRN.. selection tables in kW ... 434
9.4 F..R..DRN.. selection tables for low output speeds in Nm ... 474
9.5 F..DRN.. dimension sheets in mm ... 490
9.6 F..R..DRN.. dimension sheets in mm ... 562

10 Helical-bevel gearmotors ... 564
10.1 K..DRN.. variant ... 564
10.2 K..DRN.. possible geometrical combinations ... 567
10.3 K..DRN.. selection tables in kW ... 592
10.4 K..R..DRN.. selection tables for low output speeds in Nm ... 647
10.5 K..DRN.. dimension sheets in mm ... 661
10.6 K..R..DRN.. dimension sheets in mm ... 755

11 Helical-worm gearmotors ... 757
11.1 S..DRN.. designs ... 757
11.2 Possible geometrical combinations of S..DRN.. ... 759
11.3 S..DRN.. selection tables in kW ... 785
11.4 S..R..DRN.. selection tables for low output speeds in Nm ... 828
11.5 S..DRN.. dimension sheets in mm ... 844
11.6 Dimension sheets S..(p)R..DRN.. in mm ... 878
11.7 Technical data S..37 – 97 ... 879

26883198/EN – 04/2022

SEW EURODRIVE

11.8 Technical data S..37p – 97p 907

12 SPIROPLAN® gearmotors 935
12.1 W..DRN.. designs 935
12.2 Possible geometrical combinations of W..DRN.. 937
12.3 W..DRN.. selection tables in kW 947
12.4 W..R..DRN.. selection tables for low output speeds in Nm 971
12.5 W..DRN.. dimension sheets in mm 975
12.6 W..R..DRN.. dimension sheets in mm 1003

13 Technical data of the motors 1004
13.1 Key to the data tables 1004
13.2 IE3 DRN.. motors, 400 V, 50 Hz, 2-pole 1005
13.3 IE3 DRN.. motors, 400 V, 50 Hz, 4-pole 1007
13.4 IE3 DRN.. motors, 400 V, 50 Hz, 6-pole 1009
13.5 IE3 DRN.. motors, 400 V, 50 Hz, 8-pole 1011

14 Address directory SEW-EURODRIVE 1013

Index 1033

26883198/EN – 04/2022

1 Introduction

1.1 The SEW-EURODRIVE group of companies

1.1.1 Global presence

Driving the world – with innovative drive solutions for all industries and for every application. Products and systems from SEW-EURODRIVE are used all over the world. Be it in the automotive, building materials, food and beverage, or metal-processing industry – the decision to use drive technology "made by SEW-EURODRIVE" means you get reliable products and a safe investment.

SEW-EURODRIVE's products and services can be found in all the important industries of our era. We also demonstrate this presence with subsidiaries and production plants all over the world, as well as with our service, which we see as an integrative part of our portfolio that extends SEW-EURODRIVE's high quality standards.

1.1.2 Always the right drive solution

With the broad product range of SEW-EURODRIVE, which also includes mechatronic drive units, frequency inverters, controllers, software and communication in addition to the tried-and-tested modular system for gearmotors, it is possible to implement the perfect drive solution for every application.

Gear units and motors

Using the modular system, gearmotors can be individually assembled according to the required speed and torque ranges, the available space and the ambient conditions. Gear units and gearmotors offering a unique and finely graduated power range and the best economic prerequisites to face any drive challenge.

Motors by SEW-EURODRIVE can be mounted directly or via adapter to SEW-EURODRIVE gear units. They meet all global requirements in terms of energy efficiency and technical regulations. A wide range of options and accessories ensures high flexibility for adjusting the motor to the requirements of the user and the application.

Inverters

MOVITRAC®, MOVIDRIVE® and MOVIAXIS® inverter series enhance the gearmotors, forming a combination that blends in perfectly with the existing range of SEW-EURODRIVE systems.

Modular automation system

With its trademark MOVI-C®, SEW-EURODRIVE launches a new generation of drive and automation technology. MOVI-C® is the modular automation system that allows for the highest level of system and machine automation. It comprises drive technology, motion control, control technology, and visualization.

MOVIDRIVE® modular is the modular application inverter for all types of applications, ranging from simple open-loop speed control to servo drives with kinematic model. MOVIDRIVE® modular can be supplemented by connecting MOVIDRIVE® system single-axis units. These possess functionalities comparable to those of axis modules, but have their own line connection. Especially in the upper power range, MOVIDRIVE® system complements the modular application inverter.

26883198/EN – 04/2022

MOVIDRIVE® modular and MOVIDRIVE® system are intended for operation at the MOVI-C® CONTROLLER, the controller from SEW-EURODRIVE. They offer a powerful clock-synchronous connection via the integrated EtherCAT®/SBus^{PLUS} communication interface. Other EtherCAT® stations from SEW-EURODRIVE or other manufacturers can be controlled and diagnosed by the MOVI-C® CONTROLLER.

The MOVISUITE® engineering software with its unique operating philosophy is above all MOVI-C® hardware and software components. MOVISUITE® was developed with a focus on systematically shortening the startup time and covers the entire engineering process, from planning to diagnostics.

Decentralized drive technology

For economical, decentralized installations, SEW-EURODRIVE offers components from decentralized drive technology, such as MOVIMOT®, the gearmotor with integrated frequency inverter, or MOVI-SWITCH®, the gearmotor with integrated switching and protection function. SEW-EURODRIVE hybrid cables have been designed specifically to ensure cost-effective solutions, independent of the philosophy behind or the size of the system.

The decentralized drive technology portfolio is complemented by the DRC.. electronic motor, the MOVIGEAR® mechatronic drive system, the MOVIFIT® decentralized drive controller, the MOVIPRO® decentralized drive, positioning, and application controller, as well as MOVITRANS® system components for contactless energy transfer.

The MOVI-DPS® smart energy management system enhances the modular product range of SEW-EURODRIVE. With MOVI-DPS®, SEW-EURODRIVE offers the perfect combination: Conserving resources and reducing costs.

MOVI-DPS® allows for stable power grids, no power failures, and consequently reliable system availability. MOVI-DPS® is convincing in both, mobile and stationary applications. In addition, MOVI-DPS® can be combined with other systems, such as the MOVITRANS® contactless energy transfer system, resulting in further important synergy effects.

Industrial gear units

Power, quality, and sturdy design combined into one standard product: Industrial gear units from SEW-EURODRIVE realize major movements at high torque levels. The modular concept will once again provide optimum adaptation of industrial gear units to meet a wide range of different applications.

Individual system solutions with MAXOLUTION®

MAXOLUTION® from SEW-EURODRIVE provides individual system solutions in all areas of system and machine automation. From electromechanical drives, controllers and communication to visualization and the MOVITRANS® contactless energy transfer system and even a comprehensive service portfolio, MAXOLUTION® offers all modules required to design customer-specific solutions for machines and systems.

MAXOLUTION® combines individual products of the proven modular system with innovative system components to form individual system solutions that perfectly match the requirements of the specific application – "powered by SEW-EURODRIVE".

Safe – flexible – effective: safetyDRIVE

Guaranteeing the safety of all employees and preventing work accidents while ensuring trouble-free production processes are demands placed on all production areas. safetyDRIVE, the comprehensive safety concept, allows you to implement your machines "safely" in accordance with the currently valid guidelines. With controllers that meet the respective requirement of the safety categories or performance levels and that monitor instead of shut down.

26883198/EN – 04/2022

All of our drive and frequency inverters provide the function that safely stops the electrical power to the motor (STO). The MOVISAFE® components complete the product range – integrated into the inverter as option cards or modular as safety modules. The decentralized MOVIFIT® and MOVIPRO® drive controllers with integrated safety functions are ready for use in decentralized installations.

The functionally safe motor options allow for implementing safety functions in safety-related applications. Safety encoders are used to implement safety functions with respect to speed, direction of rotation, standstill, and relative position. Safety brakes can implement safety functions with respect to decelerating and stopping.

1.1.3 Your ideal partner

Its global presence, extensive product portfolio and wide range of services make SEW-EURODRIVE the ideal partner for the machinery and plant construction industry when it comes to providing drive systems for demanding drive tasks in all industries and applications.

For detailed information on the entire product range of SEW-EURODRIVE, refer to our website www.sew-eurodrive.com. The website provides information about components, system solutions, services, and industries. Online Support provides access to a wide range of documents and tools such as the product configurator and various selection aids, as well as all documentation available for download in various languages.

26883198/EN – 04/2022

1.2 Documentation

1.2.1 Content of this publication

This "DRN.. Gearmotors (IE3)" catalog describes the following product groups from SEW-EURODRIVE in detail:

- DRN.. helical gearmotors
- DRN.. parallel-shaft helical gearmotors
- DRN.. helical-bevel gearmotors
- DRN.. helical-worm gearmotors
- DRN.. SPIROPLAN® gearmotors

1.2.2 Additional documentation

In addition to this "DRN.. Gearmotors (IE3)" catalog, you can order or download other documents from the SEW-EURODRIVE homepage. The complete range of technical documentation is available in various languages for download from the web at **www.sew-eurodrive.com**.

Catalogs

- Gear unit
- AC motors
- DRS../DR2S.. gearmotors (IE1)

Drive Engineering – Practical Implementation

For detailed documentation about the entire topic of electrical drive technology, refer to the "Drive Engineering – Practical Implementation" documentation series:

- Project planning manual – Project Planning for Controlled and Non-Controlled Drives
- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions

1.3 Product names and trademarks

All product names included in this documentation are trademarks or registered trademarks of the respective titleholders.

1.4 Copyright notice

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26883198/EN – 04/2022

2 Product description

2.1 Product features

2.1.1 Operating temperatures

Gear units and gearmotors from SEW-EURODRIVE can be operated in a wide ambient temperature range.

Gear units

The following standard temperature ranges are permitted for filling the gear units according to the lubricant table:

Gear unit	Filled with	Permitted standard temperature range
K..19 – K..49	CLP PG VG460	-20 °C to +40 °C
K..37 – K..187 **RX.57 – RX.107** **R.07 – R.167** **F..27 – F..157**	CLP(CC) VG220	-15 °C to +40 °C
S..37 – S..97	CLP(CC) VG680	0 °C to +40 °C
S..37p – S..97p	CLP PG VG460	-20 °C to +40 °C
W..10 – W..30	CLP PG VG460	-20 °C to +40 °C
W..19 – W..59	CLP PG VG220	-25 °C to +40 °C

The rated data of the gear units and gearmotors specified in the catalog refer to an ambient temperature of +25 °C.

INFORMATION

For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 🗎 65).

Gear units from SEW-EURODRIVE can be operated outside the standard temperature range if project planning is adapted to ambient temperatures from as low as up to -40 °C in the intensive cooling range up to +60 °C. Project planning must take special operating conditions into account and adapt the drive to the ambient conditions by selecting suitable lubricants and seals.

SEW-EURODRIVE recommends thermal project planning for the drives in general and offers to perform the project planning.

Motors

Motors of the DRN.. product family by SEW-EURODRIVE are designed for use in a temperature range from -20 °C to +40 °C.

This expands the standardized temperature range required by IEC 60034.

Using the motors outside the above temperature range is possible with some special adjustments. Contact SEW-EURODRIVE in this case.

26883198/EN – 04/2022

INFORMATION

If the drive is to be operated on a frequency inverter, you must also consider the project planning notes of the inverter and take into account the thermal effects of inverter operation.

2.1.2 Installation altitude

Due to the low air density at high installation altitudes, heat dissipation on the surface of motors and gear units decreases. The rated data listed in the catalog applies to a maximum installation altitude of 1000 m above sea level. Installation altitudes > 1000 m above sea level must be taken into account for the project planning of gear units and gearmotors.

2.1.3 Power and torque

The power and torque ratings refer to mounting position M1 and similar mounting positions in which the input stage is not completely submerged in oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

2.1.4 Speeds

The quoted output speeds of the gearmotors are recommended values. You can calculate the rated output speed based on the rated motor speed and the gear unit reduction ratio. Please note that the actual output speed depends on the motor load and the supply system conditions.

2.1.5 Noise

The noise levels of all SEW-EURODRIVE gear units, motors and gearmotors are well within the maximum permitted noise levels set forth in the VDI guideline 2159 for gear units and IEC 60034 for motors.

2.1.6 Painting

The gear units, motors and gearmotors from SEW-EURODRIVE are painted as follows:

Gear unit	Painting
R..-, F..-, K..-, S..-, W.. gear units	blue/gray RAL7031

Exception: SPIROPLAN® W..10DR2S5 gearmotors have an aluminum housing and are supplied unpainted as standard.

Special paintings are available on request.

2.1.7 Surface and anti-corrosion protection

If required, all gear units, motors and gearmotors from SEW-EURODRIVE can also be supplied with surface protection for applications in extremely humid and chemically aggressive environments.

26883198/EN – 04/2022

2.1.8 Heat dissipation and accessibility

Make sure to maintain adequate distance in the axial and radial direction when installing gearmotors/geared brakemotors to the driven machine. The distance is necessary for air circulation for the heat dissipation, for maintenance of the brake and of the MOVIMOT® inverter, if installed.

Please also observe to the notes in the motor dimension sheets in the "AC Motors" catalog.

2.1.9 Weights

Please note that the weight information shown in the catalogs only applies to the gear units and gearmotors without lubricant. The weight varies according to gear unit design and gear unit size. The lubricant fill depends on the mounting position, which is the reason that no universally applicable information can be provided. For recommended lubricant fill quantities depending on the mounting position, refer to the chapter "Lubricant fill quantities" (→ 🗎 142). For the exact weight, refer to the quotation or the order confirmation.

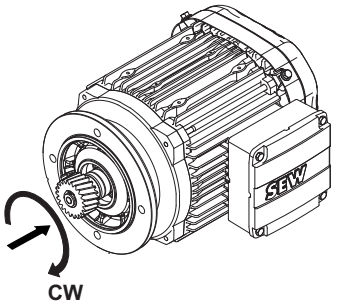
2.1.10 Directions of rotation

Direction of rotation of the motor shaft

In accordance with the standard IEC 60034-8 defined as standard:

Clockwise (CW) direction of rotation when looking onto the pinion shaft end of the motor.

Prerequisite: Connection U1-V1-W1



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Direction of rotation of the output shaft

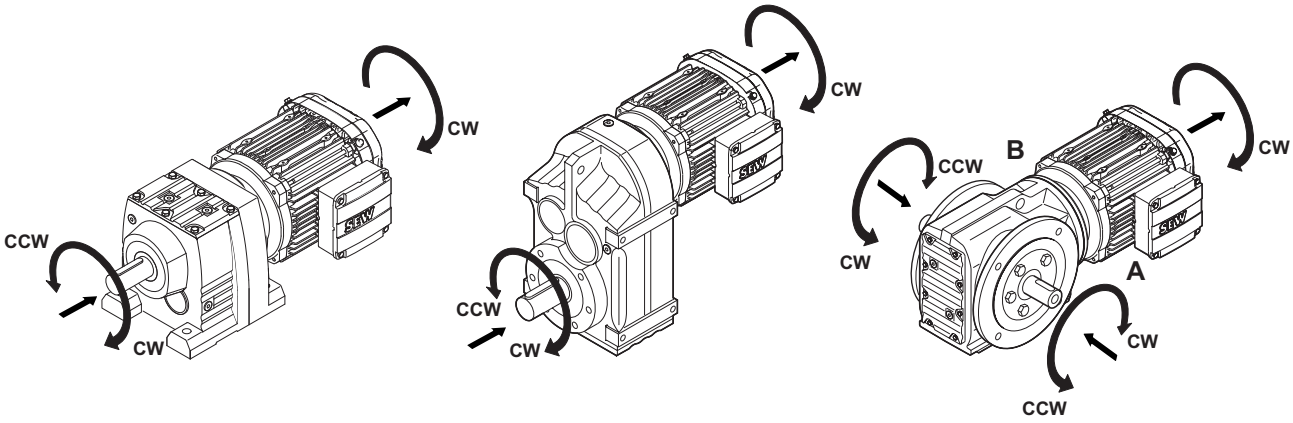
The standard direction of rotation when looking onto the output shaft of the gear unit:

- CW (clockwise)

  Clockwise direction of rotation
- CCW (counterclockwise)

  Counterclockwise direction of rotation

26883198/EN – 04/2022



Direction of rotation of the gear unit

INFORMATION

Shaft position A, B, or AB (shaft output at both ends) is possible for K.. helical-bevel gear units, S.. helical-worm gear units, and SPIROPLAN® W gear units.

The direction of rotation is indicated according to the shaft position when looking onto the output end A or B or onto A and B respectively.

Series	Size	Gear unit stages	Shaft position	Standard direction of rotation when looking onto the output shaft[1)]
RX..	57 – 107	1		CCW
R..	07 – 167	2		CW
		3		CCW
F..	27 – 157	2		CW
		3		CCW

1) CW = clockwise; CCW = counterclockwise.

Series	Size	Gear unit stages	Shaft position	Standard direction of rotation when looking onto the output shaft[1)]	
				View of output end A	View of output end B
K..	19 – 49	2	A	CW	
			AB	CW	CCW
			B		CCW
K..	37 – 187	3	A	CCW	
			AB	CCW	CW
			B		CCW
S..	37 – 97	2	A	CW	
			AB	CW	CCW
			B		CCW

26883198/EN – 04/2022

Series	Size	Gear unit stages	Shaft position	Standard direction of rotation when looking onto the output shaft[1]	
				View of output end A	View of output end B
W..	10 – 30	1	A	CCW	
			AB	CCW	CW
			B		CW
W..	19 – 59	2	A	CW	
			AB	CW	CCW
			B		CCW
		3	A	CCW	
			AB	CCW	CW
			B		CW

1) CW = clockwise; CCW = counterclockwise.

2.1.11 Backlash reduction

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash (only K..7) are available as of gear unit size 37.

The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input end is blocked. The specified values have a tolerance of ± 2 angular minutes. For further information, refer to chapter "Reduced backlash gear unit design /R" (→ 🗎 148).

2.1.12 Multi-stage gearmotors

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This requires a helical gear unit on the input end as a second gear unit.

It may be necessary to limit the maximum motor torque to match the maximum permitted output torque of the gear unit.

2.1.13 Gear units and gearmotors for agitators and mixers

A special design variant of the helical gear, parallel-shaft and helical-bevel gear units are gear units and gearmotors equipped with an extended output bearing hub (RM../FM../FAM../KM.. and KAM..). These units are designed especially for agitator and mixer applications and allow for high bending moments as well as overhung and axial loads. The remaining data corresponds to that of standard gear units and gearmotors. For further information on gear unit and gearmotor designs for agitators and mixers, refer to chapter "Agitator designs" (→ 🗎 28).

26883198/EN – 04/2022

2.1.14 SPIROPLAN® gearmotors

SPIROPLAN® gearmotors are robust, single- and two-stage, right-angle gearmotors with SPIROPLAN® gearing. The difference compared to helical-worm gear units is the material combination of the steel-on-steel gearing, the special tooth meshing relation, and the aluminum housing. As a result, SPIROPLAN® right-angle gearmotors are wear-free and lightweight.

The particularly short design and the aluminum housing make for very compact and lightweight drive solutions.

The wear-free gearing and the life-long lubrication facilitate long periods of maintenance-free operation. The identical hole spacing in the foot and face as well as the same shaft height to both makes for a number of mounting options.

On request, SPIROPLAN® right-angle gearmotors can be equipped with a torque arm.

2.1.15 Brakemotors

On request, motors and gearmotors can be supplied with an integrated mechanical brake. The SEW-EURODRIVE brake is an electromagnetic disk brake with a DC coil that releases electrically and brakes using spring force. Due to its operating principle, the brake is applied if the power fails. It meets the basic safety requirements. The brake can also be released mechanically if equipped with manual brake release. Included in the delivery is either an automatic disengaging hand lever or an adjustable setscrew. The brake is controlled by a brake control that is installed in either the motor wiring space or the control cabinet.

A characteristic feature of the brakes is their extremely short design. The brake bearing end shield is a part of both the motor and the brake. The integrated construction of the SEW-EURODRIVE brakemotor permits particularly compact and sturdy solutions.

2.1.16 International markets

Market access is contingent to local approvals in many countries. Additional laws, regulations and market conventions must be adhered to. Experience has shown that an identification of the product is required together with certification. This is realized at SEW-EURODRIVE with one or several logos on the main nameplate, with additional labels on the motor, or by providing the relevant certificates.

The countries listed below, for example, have special requirements for motors. The country-specific requirements apply to the motor in general, the efficiency or to the explosion protection. For further details, refer to the relevant motor catalogs.

Some countries, such as the states of the European Union impose certain requirements regarding the gear unit. The relevant marking is attached to the gear unit if these requirements are met.

Contact SEW-EURODRIVE, if required.

CE	CE mark to state compliance with European Directives (see EC declaration of conformity).
Ex	ATEX mark to state compliance with the European Directive 2014/34/EU.
UR®	UR logo to confirm that UL (Underwriters Laboratory) is informed about the registered components; register number by UL: E189357

UKCA	The UKCA mark states the compliance with the following British guidelines: • Low Voltage Directive S.I. 2016/1101[1)] • EMC S. I. 2016/1091 • Machinery Safety S. I. 2008/1597 • Directive S. I. 2012/3032 for limiting the use of certain hazardous substances in electrical and electronic equipment • Ecodesign Regulation S. I. 2019/539
MC170602 CSA®	CSA mark to confirm the market conformity of the Canadian Standard Association (CSA)
EAC	EAC mark (EurAsian Conformity) Confirms compliance with the technical regulations of the economic and customs union of Russia, Belarus, Kazakhstan, Armenia.
	CEL mark to represent the energy efficiency in the Chinese grade classification.
UA.TR. 013	The UA.TR mark declares conformity with the technical regulations of Ukraine.
	CMIM logo to confirm compliance with technical regulations of the country Morocco.

1) For products with functional safety, the requirements from the Low Voltage Directive are fulfilled by the Machinery Safety S.I. 2008/1597.

2.1.17 Components on the input side

The following components on the input end are available for the gear units from SEW-EURODRIVE:

- **Input shaft assemblies** with input shaft end, optionally with
  - Centering shoulder
  - Backstop
  - Motor platform
- **Adapters**
  - For mounting IEC or NEMA motors with the option of a backstop
  - For mounting servomotors with a square flange
  - With safety slipping coupling optionally with speed monitor or slip monitor
  - With hydraulic start-up coupling, also with disk brake or backstop

Refer to the "Gear Units" catalog for more information.

26883198/EN – 04/2022

2.1.18 Swing base

A swing base is a drive unit consisting of helical-bevel gear unit, hydraulic start-up coupling, and electric motor. The complete arrangement is mounted to a torsionally rigid mounting rail.

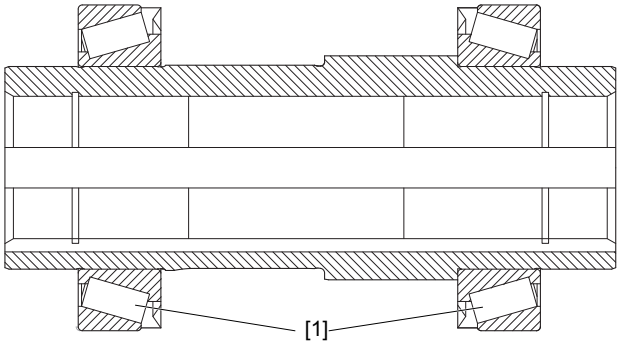
Motor swings are available with the following optional accessories:

- Torque arm
- Mechanical thermal monitoring device
- Contactless thermal monitoring device

Contact SEW-EURODRIVE for additional information.

2.1.19 Reinforced hollow shaft bearing

With the reinforced hollow shaft bearing, the standard deep groove ball bearings are replaced with tapered roller bearings. This measure enables considerably higher overhung and axial loads and at the same time an increased service life of the bearings. Contact SEW-EURODRIVE for additional information.

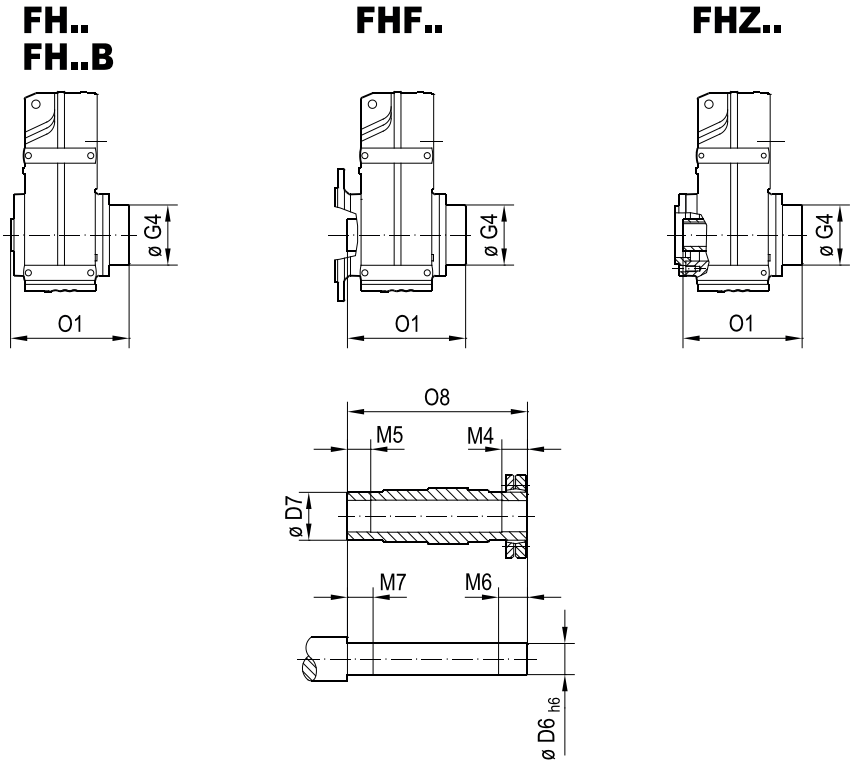


[1] Tapered roller bearing

26883198/EN – 04/2022

Gear unit dimensions with reinforced bearings

With the exception of the FH.87 and FH.97 gear units, the dimensions of the gear units with reinforced bearings are identical to those of the gear units with standard bearings. The following figure shows the differing dimensions of FH.87 and FH.97 gear units with reinforced bearings:



Type	Dimensions in mm								
	D6	D7	G4	M4	M5	M6	M7	O1	O8
FH.87	Ø 65 $_{h6}$	Ø 85	Ø 163	41	40	46	45	312.5	299.5
FH.97	Ø 75 $_{h6}$	Ø 95	Ø 184	55	50	60	55	382.5	367

26883198/EN – 04/2022

2.2 Corrosion and surface protection

2.2.1 General information

For motor and gear unit operation in aggressive environments, SEW-EURODRIVE optionally offers the following preventive measure:

- KS corrosion protection for motors
- Surface protection OS for motors and gear units

For motors, optimum protection is offered by a combination of KS corrosion protection and OS surface protection.

Optional preventive measures are also available for the output shafts.

2.2.2 KS corrosion protection

KS corrosion protection for motors comprises the following measures:

- All retaining screws that are loosened during operation are made of stainless steel.
- The nameplates are made of stainless steel.
- Various motor parts have a surface coating.
- The flange contact surfaces and shaft ends are treated with a temporary rust preventive.
- For brakemotors, additional measures are performed.

A sticker labeled "KORROSIONSSCHUTZ" (corrosion protection) on the fan guard indicates that special treatment has been applied.

INFORMATION

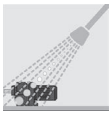
The following motor options are not available with KS corrosion protection:

- Forced cooling fan /V
- Shaft-centered encoders /ES, /ES7, /EG, /EG7, /EV7, /AS, /AS7, /AG, /AG7, /AV7

26883198/EN – 04/2022

2.2.3 OS surface protection

As an option for standard surface protection, motors and gear units are also available with OS1 to OS4 surface protection. The special measure "Z" is also available in addition. Special measure "Z" means that large contour recesses are filled with rubber before painting.

Surface protection[1)2)]		Ambient conditions	Sample applications
Standard		Suitable for machines and systems in buildings and rooms indoors with neutral atmospheres. Based on corrosivity category[3)]. • C1 (negligible)	• Machines and systems in the automotive industry • Transport systems in logistics • Conveyor belts at airports
OS1		Suitable for environments prone to condensation and atmospheres with low humidity or contamination, such as applications outdoors under roof or with protection device. Based on corrosivity category[3)]: • C2 (low)	• Systems in saw mills • Hall gates • Agitators and mixers
OS2		Suited for environments with high humidity or moderate atmospheric contamination, such as applications outdoors subject to direct weathering. Based on corrosivity category[3)]: • C3 (moderate)	• Applications in amusement parks • Cable cars and chairlifts • Applications in gravel plants • Systems in nuclear power plants
OS3		Suitable for environments with high humidity and occasionally severe atmospheric and chemical contamination. Occasionally acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt load. Based on corrosivity category[3)]: • C4 (high)	• Sewage treatment plants • Port cranes • Mining applications
OS4		Suitable for environments with permanent humidity and severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents. Based on corrosivity category[3)]: • C5-1 (very high)	• Drives in malting plants • Wet areas in the beverage industry • Conveyor belts in the food industry

1) Motors/brakemotors in degree of protection IP56 or IP66 are only available with OS2, OS3, or OS4 surface protection.
2) Gearmotors with OS2 – OS4 surface protection are only offered in combination with KS corrosion protection for motors.
3) According to ISO 12944-2, classification of ambient conditions

26883198/EN – 04/2022

2.2.4 Special protection measures

For operation under severe environmental impact or for particularly demanding applications special preventive measures for the output shafts of the gear units or gearmotors are optionally available, see also chapter "Sealing systems" (→ 🗎 22).

Measure	Protection principle	Suitable for
Output shaft made of stainless steel	Surface protection with high-quality material	Particularly demanding applications with regard to corrosion

2.2.5 NOCO® fluid

As standard, SEW-EURODRIVE supplies NOCO® fluid corrosion protection and lubricant with every hollow-shaft gear unit. Use NOCO® fluid when installing gear units with hollow shafts. Using this fluid can help prevent possible contact corrosion and makes it easier to disassemble the drive at a later time. NOCO® fluid is also suitable for protecting machined metal surfaces that do not have corrosion protection such as parts of shaft ends or flanges. You can order NOCO® fluid also in larger quantities from SEW-EURODRIVE.

Batch size	Packaging type	Part number
5.5 g	Sachet	09107819
100 g	Tube	03253147
1 kg	Tub	09107827

NOCO® fluid is food grade according to NSF-H1. You can recognize the food compatibility of NOCO® fluid by the NSF-H1 designation on the packaging.

26883198/EN – 04/2022

2.3 Sealing systems

SEW-EURODRIVE offers sealing systems suitable for different ambient conditions and applications:

2.3.1 Input seals

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
NBR Standard sealing system	• Speeds up to 1800 min^{-1} • Temperature range from -40 °C to +80 °C	Oil seal according to Fig. 1	≈ 10000 h	High-quality NBR (acrylonitrile butadiene rubber)[1)]
FKM Sealing system for increased rotational speeds and/or increased temperatures	• Speeds up to 4500 min^{-1} • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies)	Oil seal with optimization based on Fig. 1	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1)]
Premium Sine Seal Premium sealing system for longer service life	• Speeds up to 4500 min^{-1} • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Extended maintenance interval • Especially recommended with GearOil by SEW-EURODRIVE	Premium Sine Seal according to Fig. 2	≈ 20000 h	High-quality FKM (fluorocarbon rubber)[1)]

26883198/EN – 04/2022

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
Premium Sine Seal LV Sealing system to avoid current passage	• Speeds up to 4500 min^{-1} • Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Current passage in the motor bearings • Especially recommended with GearOil by SEW-EURODRIVE	Premium Sine Seal with electrically conductive properties based on fig. 3	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1], fleece with electrically conductive properties

1) According to SEW-EURODRIVE specification 97 118 __15.

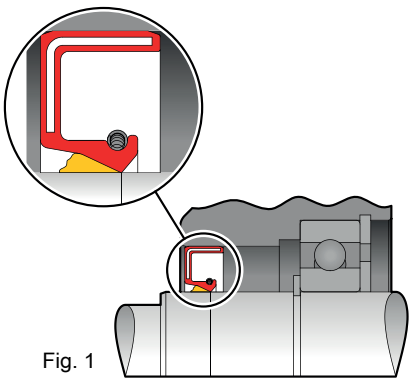


Fig. 1

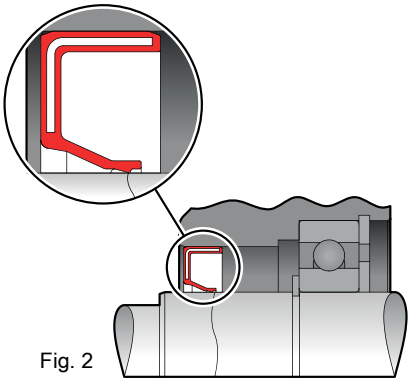


Fig. 2

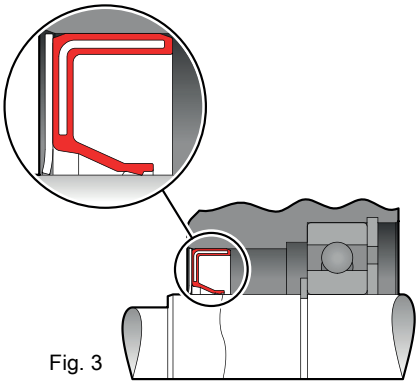


Fig. 3

26883198/EN – 04/2022

2.3.2 Output seals

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
NBR Standard sealing system	• Temperature range from -40 °C to +80 °C • Moderate ambient conditions	Oil seal with dust lip according to Fig. 4	≈ 10000 h	High-quality NBR (acrylonitrile butadiene rubber)[1)]
FKM Sealing system for elevated temperatures	• Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions	Oil seal with dust lip according to Fig. 4	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1)]
NBR/FKM Combination seal – premium sealing system for longer service life, especially at low temperatures	• Temperature range from -40 °C to +80 °C • Moderate ambient conditions • Extended maintenance interval • Especially recommended with GearOil by SEW-EURODRIVE	Combination seal comprising NBR oil seal with dust lip and FKM sine seal according to Fig. 5	≈ 20000 h	High-quality NBR in combination with high-quality FKM (fluorocarbon rubber)[1)]
FKM/FKM Combination seal – premium sealing system for longer service life at elevated temperatures	• Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Moderate ambient conditions • Extended maintenance interval • Especially recommended with GearOil by SEW-EURODRIVE	Combination seal comprising FKM oil seal with dust lip and FKM sine seal according to Fig. 5	≈ 20000 h	High-quality FKM (fluorocarbon rubber)[1)]

26883198/EN – 04/2022

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
FKM + fleece On request: Sealing system for very demanding ambient conditions	• Temperature range from -25 °C to +115 °C • S3 operation (high switching frequencies) • Abrasive and damp ambient conditions	Oil seal with dust lip and fleece disk based on Fig. 6	≈ 10000 h	High-quality FKM (fluorocarbon rubber)[1] + special fleece

1) According to SEW-EURODRIVE specification 97 118 __15.

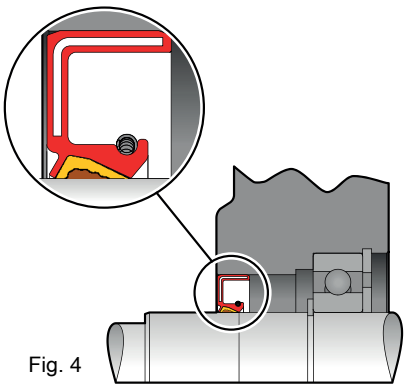


Fig. 4

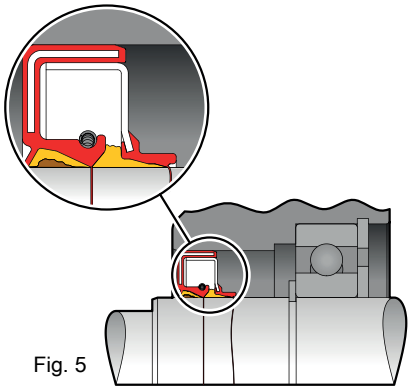


Fig. 5

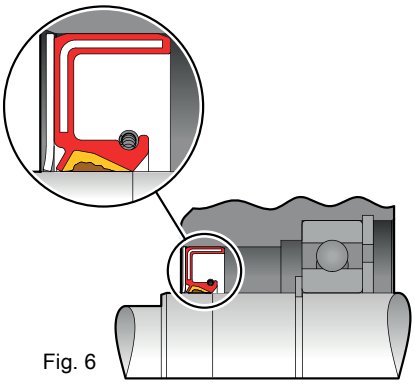


Fig. 6

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2.4 Extended storage

2.4.1 Design

SEW-EURODRIVE recommends the "extended storage" gear unit design for storage periods longer than 9 months. A VCI anti-corrosion agent (**v**olatile **c**orrosion **i**nhibitors) is added to the lubricant of these gear units. Please note that this VCI anti-corrosion agent is only effective in a temperature range of -25 °C to +50 °C. The flange contact surfaces and shaft ends are also treated with an anti-corrosion agent. As standard, the gear unit with "extended storage" option will be supplied with OS1 surface protection. Instead of OS1, you can order OS2, OS3 or OS4.

INFORMATION

To prevent the VCI anti-corrosion agent from evaporating, the gear units in "extended storage" design must remain tightly sealed until startup.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). Always check the oil level before you take the gear unit into operation.

2.4.2 Storage conditions for long-term storage

Observe the storage conditions specified in the following table for extended storage:

Climate zone	Packaging[1)]	Storage[2)]	Storage duration
Temperate (Europe, USA, Canada, China and Russia, excluding tropical zones)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap	• Under roof • Protected against rain and snow • Vibration-free	Up to 4 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%)
	Open	• Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, relative humidity < 50%) • No sudden temperature variations • Controlled ventilation with filter (free from dust and dirt) • No aggressive vapors • No shocks	2 years or more with regular inspections • Check for cleanness and mechanical damage during the inspection • Check corrosion protection
Tropical (Asia, Africa, Central and South America, Australia, New Zealand excluding temperate zones)	• Packed in containers • With desiccant and moisture indicator sealed in the plastic wrap • Protected against insect damage and mildew by chemical treatment	• Under roof • Protected against rain and snow • Vibration-free	Up to 3 years with regular inspection of the packaging and humidity indicator (rel. humidity < 50%)
	Open	• Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity) • No sudden temperature variations • Controlled ventilation with filter (free from dust and dirt) • No aggressive vapors • No shocks • Protected against insect damage	2 years or more with regular inspections • Check for cleanness and mechanical damage during the inspection • Check corrosion protection

1) Packaging must be carried out by an experienced company using packaging material specifically suited for the application.

2) SEW-EURODRIVE recommends storing the gear units according to the mounting position.

26883198/EN – 04/2022

2.5 Condition monitoring

2.5.1 /DUO10A oil aging sensor

The DUO10A diagnostic unit consists of a temperature sensor and the actual evaluation unit. The service life curves of the oil grades common in SEW-EURODRIVE gear units are stored in the evaluation unit. SEW-EURODRIVE can customize any oil grade in the diagnostic unit. Standard parameterization is performed directly on the evaluation unit. During operation, the evaluation unit uses the oil temperature to continuously calculate the remaining service life in days until the next oil change. The remaining service life is displayed directly on the evaluation unit. When the service life has expired, a binary signal can be sent to a higher-level system and evaluated or visualized in the system.

Using the DUO10A diagnostic unit, the system operator no longer replaces the oil within predefined intervals, but can adapt the replacement interval individually to the actual load. The benefits are reduced maintenance and service costs and increased system availability.

For the technical data and part numbers of the DUO10A oil aging sensor, refer to chapter "Information on oil aging sensor /DUO10A" (→ 🗎 208).

2.5.2 /DUV40A vibration monitoring system

The DUV40A vibration monitoring system is used to detect damage of gear units and gearmotors at an early stage (e.g. bearing damage or imbalances). Permanent broadband frequency-selective monitoring of the gearmotor is used for this purpose. Apart from the vibration analysis, additional measured values of up to 3 signal encoders can be detected, recorded and analyzed. The additional signals can be used as reference values for signal analysis e.g. to trigger event-based measuring tasks. After the analysis and, depending on alarm limits defined during rated operation of the drive (teach-in mode), the system can switch outputs and display the alarm state using LEDs.

The SmartWeb software is used to configure and visualize the DUV40A system. If you use several DUV40A systems, you can control them via the SmartUtility Light software centrally from one PC (this software is included in the scope of delivery).

If you purchase the full version of the SmartUtility, you can analyze measurement data in the SmartUtility Viewer and download configurations or upload them onto other devices.

For information on the scope of delivery, part number and technical data, refer to chapter "Information on the /DUV40A vibration monitoring system" (→ 🗎 210).

2.6 Oil expansion tank

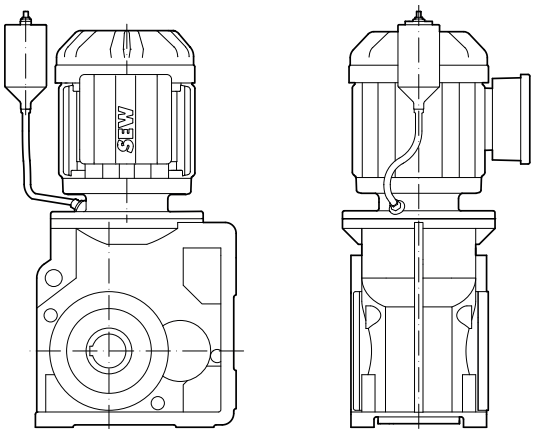
The oil fill level for gear units in mounting position M4 is set due to technical reasons. In case of unfavorable circumstances, oil may leak from the breather valve of these gear units. Use an oil expansion tank to reliably prevent oil from leaking. The oil expansion tank provides additional space for the lubricant to expand.

SEW-EURODRIVE recommends using an oil expansion tank for gear units and gearmotors in mounting position M4, in the following cases:

- For input speeds > 2000 min^{-1}
- For sizes 77 – 97 and input speeds > 1800 min^{-1}
- For gear units and gearmotors from size 107

26883198/EN – 04/2022

The following figure shows the oil expansion tank mounted to a gear unit.



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The oil expansion tank is delivered as an assembly kit for mounting onto the gearmotor. In case of limited space or of gear units without motor, the oil expansion tank can also be mounted to nearby machine parts.

INFORMATION

Transverse acceleration is not permitted for gear units with expansion tanks with fixed piping for third-part motors and for servomotors.

For further information, contact your SEW-EURODRIVE sales representative.

2.7 Agitator designs

All gear units in agitator design are equipped with an extended bearing hub especially suitable for mixing and agitating applications. Agitator gear units are based on 3 proven standard gear unit series by SEW-EURODRIVE. Almost any agitating, mixing, blending or kneading application from a wide range of industries is covered by one of the agitator designs of the gear unit.

For project planning, please contact SEW-EURODRIVE.

Advantages of agitator gear units:

- FEM-optimized housing and a special agitator flange for particularly high permitted overhung loads
- No additional bearing for the agitator shaft required
- Shaft and flange dimensions are compatible with standard dimensions.
- Many options and design variants for optimal adaptation to the application
- Gear units/gearmotors also available in explosion-protected design
- Global service provided by SEW-EURODRIVE

	Helical gear units RM.. series (2 and 3 stages)	Parallel-shaft helical gear units FM../FAM.. series (2 and 3 stages)	Helical-bevel gear units KM../KAM.. series (3-stage)
Sizes	57 / 67 / 77 / 87 / 97 / 107 / 127 / 137 / 147 / 167	67 / 77 / 87 / 97 / 107 / 127 / 157	67 / 77 / 87 / 97 / 107 / 127 / 157

26883198/EN – 04/2022

	Helical gear units RM.. series (2 and 3 stages)	Parallel-shaft helical gear units FM../FAM.. series (2 and 3 stages)	Helical-bevel gear units KM../KAM.. series (3-stage)
Gear unit ratio i	4.29 – 289.74	3.87 – 281.71	5.20 – 197.37
Maximum output torque in Nm	450 – 20000	820 – 20000	820 – 20000
Maximum permitted output overhung load in N	4000 – 120000	35000 – 135000	20000 – 135000

Available options:

- Double oil seal on the output end for additional protection against leakage
- Grease nipple for relubrication of output shaft bearings
- The gear units use series housings and series gearing components. The special flange is bolted to the output end of the standard gear unit.
- Energy efficiency classes IE1 – IE4 for gearmotors
- Motor power range of 0.12 to 200 kW
- Motor adapter AMS.. for mounting IEC and NEMA motors

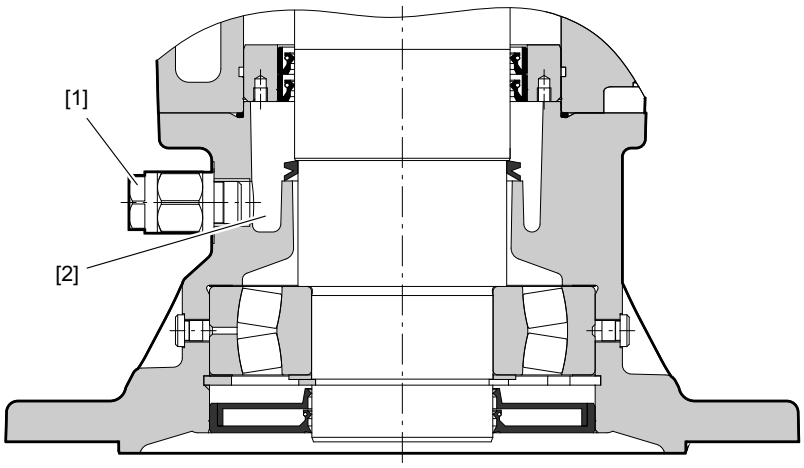
Also available for the FM../FAM... and KM../KAM.. series:

- Reinforced bearings also opposite the output end. These increase the permitted overhung load, particularly for high output speeds and low gear ratios.
- Drywell design with leak sensor prevents the product from being contaminated by leaking lubricant.

2.7.1 Drywell with oil sight glass

INFORMATION

The following specifications apply to gear units in agitator design with oil sight glass in mounting position M4 for FM.., FAM and in mounting position M5A, M6B for KM.., KAM..



The oil sight glass [1] makes it possible to visually check if gear unit oil has accumulated in the collecting space [2] of the output flange.

26883198/EN – 04/2022

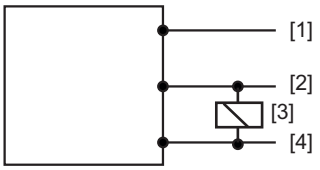
2.7.2 Leak sensor (Drywell design) with the agitator design

A Drywell design with level sensor is optionally available for FM.., FAM.., KM.. and KAM.. agitator drives.

One of the two following sensors is used, depending on the gear unit size:

Level sensor for sizes 67 – 97

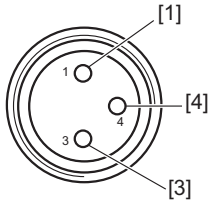
Electrical connection



23527583115

[1] DC 12 V – 32 V
[2] Output
[3] Load
[4] 0 V

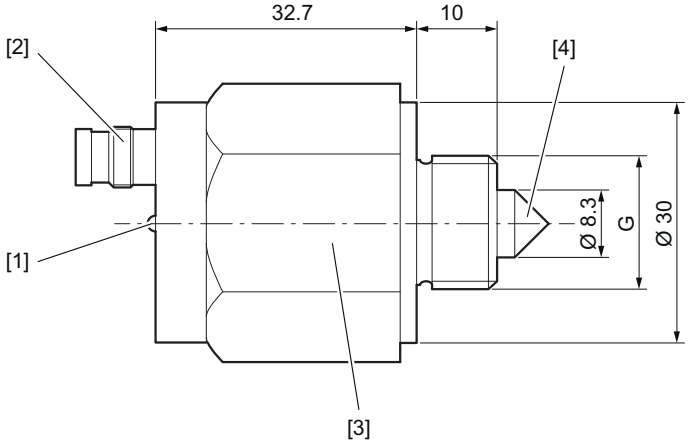
Pin assignment



23527590411

[1] DC 12 V – 32 V
[4] Output
[3] Load

Dimensions



23563256075

[1] LED function indicator
[2] M8×1 circular connector; 3-pin (alternatively cable connection)
[3] Wrench size: 30
[4] Glass prism

26883198/EN – 04/2022

Technical data

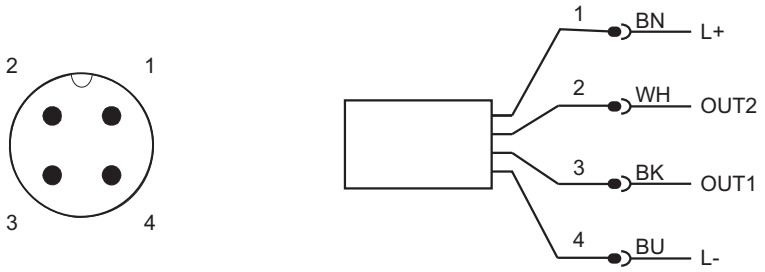
Measuring accuracy	± 0.5 mm
Minimum distance of the glass tip to an opposite surface	≥ 10 mm
Mounting position	Any
Optical display of the switching status	1 LED
Process connection	Male thread G 3/8", G 1/2" or M12 × 1

For more information, please contact SEW-EURODRIVE.

Level sensor for sizes 107 – 157

Electrical connection

M12 plug-in connector:



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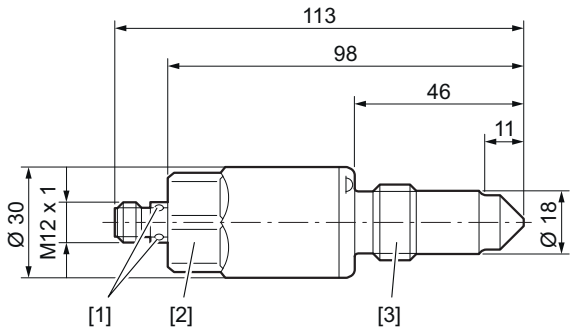
OUT1: Switching output/IO link/teach
OUT2: Switching output

Dimensions



23563253643

[1] LED
[2] Tightening torque 20 – 25 Nm
[3] G 1/2

Tightening torque 20 – 25 Nm

Technical Data

- Plug-in connection
- Process connection G 1/2 A

26883198/EN – 04/2022

- Gold-plated contacts
- 2 switching outputs

26883198/EN – 04/2022

3 Overview of types and type designations

3.1 Designs and options – R..-, F..-, K..-, S..-, W.. gear units

Below, there is an overview of type designations for R..-, F..-, K..-, S..-, and W.. gear units and their options.

3.1.1 Helical gear units

Designation	Description
RX..	Single-stage foot-mounted design, output shaft with key
RXF..	Single-stage B5 flange-mounted design, output shaft with key
R..	Foot-mounted design, output shaft with key
R..F	Foot- and B5 flange-mounted design, output shaft with key
RF..	B5 flange-mounted design, output shaft with key
RZ..	B14 flange-mounted design, output shaft with key
RM..	B5 flange-mounted design with extended bearing hub, output shaft with key

3.1.2 Parallel-shaft helical gear units

Designation	Description
F..	Foot-mounted design, output shaft with key
FA..B	Foot-mounted design, hollow shaft with keyway
FH..B	Foot-mounted design, hollow shaft with shrink disk
FV..B	Foot-mounted design, splined hollow shaft to DIN 5480
FF..	B5 flange-mounted design, output shaft with key
FAF..	B5 flange-mounted design, hollow shaft with keyway
FHF..	B5 flange-mounted design, hollow shaft with shrink disk
FVF..	B5 flange-mounted design, splined hollow shaft to DIN 5480
FA..	Hollow shaft with keyway
FH..	Hollow shaft with shrink disk
FT..	Hollow shaft with TorqLOC® hollow shaft mounting system
FV..	Splined hollow shaft to DIN 5480
FZ..	B14 flange-mounted design, output shaft with key
FAZ..	B14 flange-mounted design, hollow shaft with keyway
FHZ..	B14 flange-mounted design, hollow shaft with shrink disk
FVZ..	B14 flange-mounted design, splined hollow shaft to DIN 5480
FM..	B5 flange-mounted design with extended bearing hub, output shaft with key
FAM..	B5 flange-mounted design with extended bearing hub, hollow shaft with keyway

26883198/EN – 04/2022

3.1.3 Helical-bevel gear units

Designation	
K..	Foot-mounted design, output shaft with key
KA..B	Foot-mounted design, hollow shaft with keyway
KAF..B	B5 flange-mounted design, foot-mounted design, hollow shaft with keyway
KF..B	B5 flange-mounted design, foot-mounted design, output shaft with key
KH..B	Foot-mounted design, hollow shaft with shrink disk
KHF..B	B5 flange-mounted design, foot-mounted design, hollow shaft with shrink disk
KV..B	Foot-mounted design, splined hollow shaft to DIN 5480
KF..	B5 flange-mounted design, output shaft with key
KAF..	B5 flange-mounted design, hollow shaft with keyway
KHF..	B5 flange-mounted design, hollow shaft with shrink disk
KVF..	B5 flange-mounted design, splined hollow shaft to DIN 5480
KA..	Hollow shaft with keyway
KH..	Hollow shaft with shrink disk
KT..	Hollow shaft with TorqLOC® hollow shaft mounting system
KV..	Splined hollow shaft according to DIN 5480
KZ..	B14 flange-mounted design, output shaft with key
KAZ..	B14 flange-mounted design, hollow shaft with keyway
KHZ..	B14 flange-mounted design, hollow shaft with shrink disk
KVZ..	B14 flange-mounted design, splined hollow shaft to DIN 5480
KM..	B5 flange-mounted design with extended bearing hub, output shaft with key
KAM..	B5 flange-mounted design with extended bearing hub, hollow shaft with keyway

3.1.4 Helical-worm gear units

Designation	Description
S..	Foot-mounted design, output shaft with key
SF..	B5 flange-mounted design, output shaft with key
SAF..	B5 flange-mounted design and hollow shaft with keyway
SHF..	B5 flange-mounted design and hollow shaft with shrink disk
SA..	Hollow shaft with keyway
SH..	Hollow shaft with shrink disk
ST..	Hollow shaft with TorqLOC® hollow shaft mounting system
SAZ..	B14 flange-mounted design and hollow shaft with keyway

26883198/EN – 04/2022

Designation	Description
SHZ..	B14 flange-mounted design and hollow shaft with shrink disk

3.1.5 SPIROPLAN® gear units

Designation	Description
W..	Foot-mounted design, output shaft with key
WF..	B5 flange-mounted design, output shaft with key
WAF..	B5 flange-mounted design and hollow shaft with keyway
WA..	Hollow shaft with keyway
WHF..	B5 flange-mounted design and hollow shaft with shrink disk
WH..	Hollow shaft with shrink disk
WT..	Hollow shaft with TorqLOC® hollow shaft mounting system

The size W..59 shown in this catalog will be available from the 3rd quarter of 2022.

3.1.6 Options

R, F, and K..7 gear units:

Designation	Description
/R	Reduced backlash

K, S and W gear units:

Designation	Description
/T	With torque arm

F gear units:

Designation	Description
/G	With rubber buffer

3.1.7 Condition monitoring

Designation	Description
/DUO	Diagnostic Unit Oil = Oil aging sensor
/DUV40A	Diagnostic Unit Vibration = Vibration sensor

26883198/EN – 04/2022

3.2 Versions and options for the DRN.. motor series

The type designations of the motor series DRN.. and the designs and options are listed in the following tables.

3.2.1 Designation of the DRN.. motors

The following table shows the types of AC motors:

Designation	
DR2S..	Standard motor, standard efficiency IE1 (2nd generation)
DRN..	Energy-efficient motor, Premium Efficiency IE3
56 – 315	Nominal sizes: 56, 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
K, S, MK, MS, M, MC, ME, LS, LM, L, LC, H	Lengths
R, Q P, I B	Power designation (identification of motors with the same size but with different power)
2, 4, 6, 8, 4/2, 8/2, 8/4	Number of poles

3.2.2 Motor design

Code in the type designation	Description	Size
/FI	IEC foot-mounted motor	63MS – 315
/F.A, /F.B	Universal foot-mounted motor	71MS – 132S
/F.A, /F.B	(/F.A = motor feet enclosed in delivery, /F.B = motor feet mounted at the factory)	225 – 315
/FIA	Motor feet included loose	225 – 315
/FIB	Motor feet installed at the factory	225 – 315
/FF	IEC flange-mounted motor with through bores	63 – 315
/FE	IEC flange-mounted motor with through bores and IEC feet	63 – 315
/FT	IEC flange-mounted motor with threads	63 – 100
/FY	IEC flange-mounted motor with thread and IEC feet	63 – 100
/FC	C-face flange-mounted motor, dimensions in inches	63 – 160
/FG	Integral motor, as stand-alone motor	56 – 315
/FM	Integral motor with IEC feet	63 – 315
/FL	Flange-mounted motor (deviating from IEC)	63 – 315
/FK	Flange-mounted motor (deviating from IEC) with feet	63 – 280

26883198/EN – 04/2022

3.2.3 Oil seals

Material

Code in the type designation	Description	Size
None	Oil seal made of NBR	56 – 315
None	FKM oil seal	56 – 315

Design

Code in the type designation	Description	Size
None	PSS - Premium Sine Seal	56 – 315

3.2.4 Bearings

Code in the type designation	Description	Size
/NIB	Current-insulated rolling bearings (B-side, NDE)	200L – 315
/ERF	Reinforced bearings (A-side, DE) with roller bearing	250 – 315
/NS	Relubrication device	225 – 315

3.2.5 Winding

Thermal class

Code in the type designation	Description	Size
None	Thermal class B	56 – 315
None	Thermal class F	56 – 315
None	Thermal class H	63 – 315

Insulation

Code in the type designation	Description	Size
/RI	Reinforced winding insulation	63 – 315
/RI2	Reinforced winding insulation with increased resistance against partial discharge	112 – 315

26883198/EN – 04/2022

3.2.6 Condition monitoring

Thermal monitoring

Code in the type designation	Description	Size
/TF	Temperature sensor (PTC thermistor or PTC resistor)	56 – 315
/TH	Thermostat (bimetallic switch)	56 – 315
/PK	PT1000 sensor	63 – 315
/PT	PT100 sensor	63 – 315
/PI		56 – 315

Brake

Code in the type designation	Description	Size
/DUE	Diagnostic Unit Eddy Current = function/wear monitoring for BE1 to BE122 brake	80 – 315

Vibration

Code in the type designation	Description	Size
None	Preparation for accommodating SPM measuring nipples	112 – 315

3.2.7 Connection

Terminal board

Code in the type designation	Description	Size
None	Terminal board – 6 terminals	63 – 315
None	Terminal board – 12 terminals	71 – 280

Cage clamp terminals

Code in the type designation	Description	Size
/KCC	6-pole terminal strip with cage clamp contacts	71 – 132S
/KC1	C1 profile-compliant connection of the electrified monorail system drive (according to VDI guideline 3643)	71 – 132S
/KCW	6-pole series terminal	71 – 132S

26883198/EN – 04/2022

Integrated plug connector

Code in the type designation	Description	Size
/IS	Integrated plug connector with terminal block in upper part of terminal box	63 – 132S
/ISU	Integrated plug connector without terminal block in upper part of terminal box	63 – 132S

Mounted plug connector

Code in the type designation	Description	Size
/ASE.	Mounted Han® 10ES plug connector on terminal box with single locking latch (cage clamp contacts on the motor side)	63 – 132M
/ASB.	Mounted Han® 10ES plug connector on terminal box with double locking latch (cage clamp contacts on the motor side)	63 – 132M
/ACE.	Mounted Han® 10E plug connector on terminal box with single locking latch (crimp contacts on the motor side)	63 – 132S
/ACB.	Mounted Han® 10E plug connector on terminal box with double locking latch (crimp contacts on the motor side)	63 – 132S
/AME.	Mounted Han® Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	63 – 132M
/ABE.	Mounted Han® Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	71 – 225
/ADE.	Mounted Han® Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	71 – 225
/AKE.	Mounted Han® Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	132M – 225
/AMB.	Mounted Han® Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	63 – 132M
/ABB.	Mounted Han® Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	71 – 225
/ADB.	Mounted Han® Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	71 – 225
/AKB.	Mounted Han® Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	132M – 225
/AND.	Harting Han® Q8/0, single locking latch	56 – 132M
/IV	Other industrial plug connectors according to customer specifications	56 – 225

26883198/EN – 04/2022

3.2.8 Ventilation

Fan guard design

Code in the type designation	Description	Size
None	Noise-reducing fan guard made of plastic	56 – 90
None	Steel fan guard	63 – 315
/LN	Noise-reducing fan guard	100L – 132S

Type of ventilation

Code in the type designation	Description	Size
None	Fan-cooled	56 – 315
/V	Forced cooling fan	71 – 315
/U	Non-ventilated (without fan)	63 – 315
/OL	Non-ventilated (closed B-side)	63 – 132S

Fan

Code in the type designation	Description	Size
None	Fan made of plastic	56 – 315
/AL	Aluminum fan	63 – 315
/Z	Additional inertia mass (flywheel fan)	63 – 132

3.2.9 Brake and backstop

Brake

Code in the type designation	Description	Size
/BE..[1)]	Spring-loaded brake with specification of size	56 – 315
BG1Z	Integrated brake control with MOVILINK® DDI interface and brake diagnostics as well as brake wear detection	71 – 180

1) Optionally available as safety brake

Brake options

Code in the type designation	Description	Size
HR	Manual brake release, re-engaging	56 – 315
HF	Manual brake release, lockable	63 – 315

26883198/EN – 04/2022

Backstop

Code in the type designation	Description	Size
/RS	Backstop	63 – 315

3.2.10 Encoder

Built-in encoders

Code in the type designation	Description	Size
/EI7C[1)]	Built-in incremental encoder with HTL interface, 24 periods	63 – 132S
/EI76	Built-in incremental encoder with HTL interface and 6/2/1 period(s)	71 – 132S
/EI72		71 – 132S
/EI71		71 – 132S
/EI8R	Built-in incremental encoder with TTL interface and 1024 periods (4096 increments)	71 – 132S
/EI8C	Built-in incremental encoder with HTL interface and 1024 periods (4096 increments)	71 – 132S
/EI8Z	Built-in incremental encoder with MOVILINK® DDI interface (13 bit incremental)	71 – 132S

1) Optional for sizes 71MS – 132S available as safety encoder

Add-on encoders

Code in the type designation	Description	Size
/EK8S[1)]	Add-on encoder with sin/cos interface	71 – 315
/EV8S		71 – 280
/EK8R	Add-on encoder with TTL(RS422) interface	71 – 315
/EV8R		71 – 280
/EK8C	Add-on encoder with HTL interface	71 – 315
/EV8C		71 – 280
/EK8Z	Add-on incremental encoder with MOVILINK® DDI interface (18 bit incremental)	71 – 180
/AK8W[1)]	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	71 – 315
/AV8W		71 – 280
/AK8Y[1)]	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	71 – 315
/AV8Y		71 – 280
/AK8H	Add-on absolute encoder with sin/cos and RS485 interface and HIPERFACE® protocol	71 – 315
/AV8H		71 – 280
/AK8Z	Add-on absolute encoder with MOVILINK® DDI interface (18 bit incremental, 16 bit multi-turn)	71 – 180

26883198/EN – 04/2022

Code in the type designation	Description	Size
/EG7S[1)]	Add-on encoder with sin/cos interface	132M – 280M
/ES7S[1)]		80MS – 132S
/EV7S		80MS – 280M
/EH7S		315S – 315H
/ES7R	Add-on encoder with TTL(RS422) interface	80MS – 132S
/EG7R		132M – 280M
/EV7R		80MS – 280M
/EH7R		315S – 315H
/AS7W[1)]	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	80MS – 132S
/AG7W[1)]		132M – 280M
/AV7W		80MS – 280M
/AS7Y[1)]	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	80MS – 132S
/AG7Y[1)]		132M – 280M
/AV7Y		80MS – 280M
/AH7Y		315S – 315H
/ES7C	Add-on encoder with HTL interface	80MS – 132S
/EG7C		132M – 280M
/EV7C		80MS – 280M
/EH7C		315S – 315H
/EH7T	Add-on encoder with TTL(RS422) interface	315S – 315H

1) Optionally available as safety encoder

Encoder mounting adapters

Code in the type designation	Description	Size
/EG7A	Mounting adapter for encoders from the SEW-EURODRIVE portfolio	132M – 280
/EV7A		80MS – 280M
/EH7A		315
/EK8A		71 – 315
/XV8A		71 – 280M
/XV.A	Mounting adapter for third-party encoders	80MS – 280M
/XH1.	Mounted third-party encoder	80MS – 132S
/XV..		80MS – 280M

26883198/EN – 04/2022

3.2.11 Digital motor integration

Interfaces

Code in the type designation	Description	Size
/DI	MOVILINK® DDI	71 – 180LS

Mounted plug connector

Code in the type designation	Description	Size
/KD1	M23 hybrid plug connector (cable cross section 1.5 mm² – 4 mm²)	71 – 180
/KD	Hybrid cable gland M25/M32 (cable cross section 1.5 mm² – 10 mm²)	132M – 180[1)]
/KDB	M40 hybrid plug connector (cable cross section 6 mm² – 10 mm²)	112 – 180
/KDD	Power cable gland and M23 signal connector (MOVILINK® DDI)	132M-180[1)]

1) Size 71-132S in preparation

Built-in encoder

Code in the type designation	Description	Size
/EI8Z	Incremental encoder with DDI interface and 1024 periods (4096 increments)	

Add-on encoders

Code in the type designation	Description	Size
/EK8Z	Incremental encoder with DDI interface and 1024 periods (4096 increments)	
/AK8Z	Absolute encoder with DDI interface (multi-turn)	

Brake rectifier

Code in the type designation	Description	Size
/BG1Z		

26883198/EN – 04/2022

3.2.12 Plug connectors

Code in the type designation	Description	Size
/IS	Integrated plug connector with terminal block in upper part of terminal box	63MS – 132S
/ISU	Integrated plug connector without terminal block in upper part of terminal box	63MS – 132S
/ASE.	Mounted Han® 10ES plug connector on terminal box with single locking latch (cage clamp contacts on the motor side)	63MS – 132M
/ASB.	Mounted Han® 10ES plug connector on terminal box with double locking latch (cage clamp contacts on the motor side)	63MS – 132M
/ACE.	Mounted Han® 10E plug connector on terminal box with single locking latch (crimp contacts on the motor side)	63MS – 132S
/ACB.	Han® plug connector mounted on terminal box with double locking latch (crimp contacts on motor end)	63MS – 132S
/AME.	Han® Modular 10B plug connector mounted on terminal box with single locking latch (crimp contacts on motor end)	63MS – 132M
/ABE.		71MS – 225M
/ADE.		71MS – 225M
/AKE.		132M – 225M
/AMB.	Han® Modular 10B plug connector mounted on terminal box with double locking latch (crimp contacts on motor end)	63MS – 132M
/ABB.		71MS – 225M
/ADB.		71MS – 225M
/AKB.		132M – 225M
/AND.	Harting Han® Q8/0, single locking latch	56M – 132M
/IV	Other industrial plug connectors according to customer specifications	56M – 225M

3.2.13 Other motor designs

Code in the type designation	Description	Size
/2W	Second shaft end at motor	63 – 315
None	Motor design according to recommendation VE01 of the VIK (Verband der Industriellen Energie- und Kraftwirtschaft e.V. – Association of Energy and Power Generation Industry)	63 – 315

26883198/EN – 04/2022

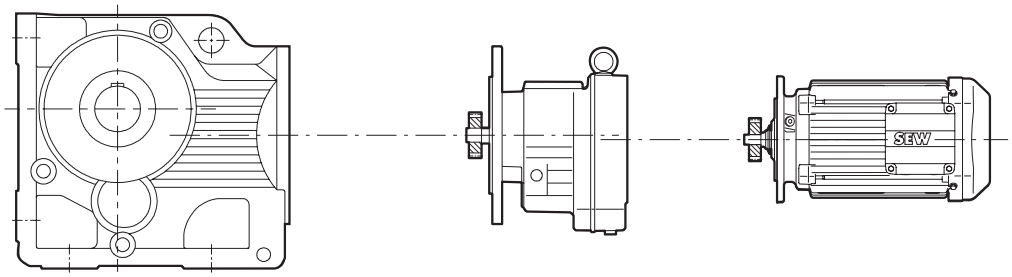
3.3 Type designation of a DRN.. gearmotor

The type designation of the gearmotor starts from the component on the output end.

For instance, a multi-stage helical-bevel gearmotor with temperature sensor in the motor winding has the following type designation:

Example: K107R77 DRN100LS4 /TF		
Gear unit type	K	1st gear unit
Size	107	
Gear unit type	R	2nd gear unit
Size	77	
Motor series	DR	Motor
Product line	N	
Size	100LS	
Number of poles	4	
Motor option temperature sensor	/TF	Option

Example: DRN.. gearmotor



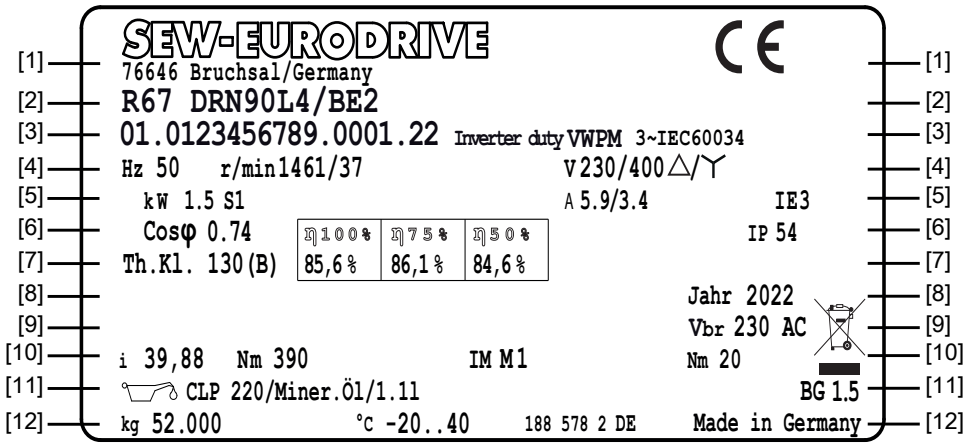
K107 R77 DRN100LS4/TF

20684745867

3.4 DRN.. gearmotor nameplates

The following figures show examples of the nameplates of a DRN.. gearmotor.

Nameplate 1



18014423934358283

Line	Information
[1]	• Manufacturer, address, CE mark
[2]	• Type designation
[3]	• Serial number • Suitability for inverter operation • Number of phases and underlying rating and performance standard
[4]	• Rated frequency • Rated speed of the motor / speed of the gear unit output shaft • Nominal voltage
[5]	• Rated power and operating mode • Rated current • Energy efficiency class according to IEC 60034-30-1
[6]	• Power factor • Efficiency after capacity utilization of 100%, 75%, and 50% • Degree of protection according to IEC 60034-5
[7]	• Thermal class
[8]	• Year of manufacture
[9]	• Brake voltage • Waste disposal according to WEEE Directive
[10]	• Gear unit ratio • Output torque • Mounting position • Nominal braking torque
[11]	• Oil type and oil fill volume • Brake control

26883198/EN – 04/2022

Line	Information
[12]	• Gearmotor weight • Permitted ambient temperature of the motor • Nameplate number • Country of manufacture

Nameplate 2

18014432148567307

The QR code on the product gives you quick access to the digital services from SEW-EURODRIVE.

In addition to being able to enter the QR code with the camera of your mobile device or an appropriate app, you can also use the "Product ID Plus" app from SEW-EURODRIVE. After scanning, you will see the technical data to identify the product directly.

In addition, the search for product-specific spare parts and documentation, as well as fault diagnostics and direct service requests are simple and fast.

26883198/EN – 04/2022

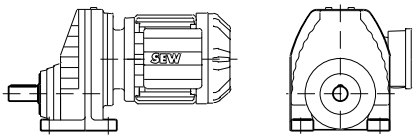
3.5 Gearmotor types

INFORMATION

The designs described in this chapter refer to DRN.. gearmotors from SEW-EURODRIVE. They also apply to gear units without motors.

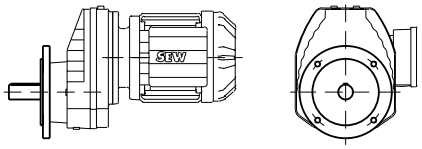
3.5.1 Helical gearmotors

The following designs of helical gearmotors are available:



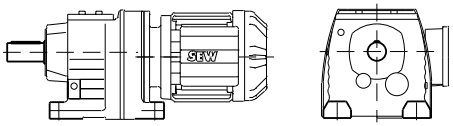
RX..DRN..

Single-stage, helical gearmotor in foot-mounted design



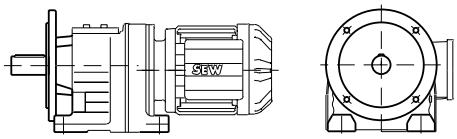
RXF..DRN..

Single-stage helical gearmotor in B5 flange-mounted design



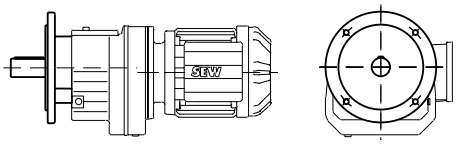
R..DRN..

Helical gearmotor in foot-mounted design



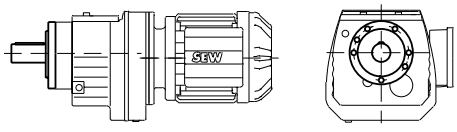
R..F DRN..

Helical gearmotor in foot-mounted and B5 flange-mounted design



RF..DRN..

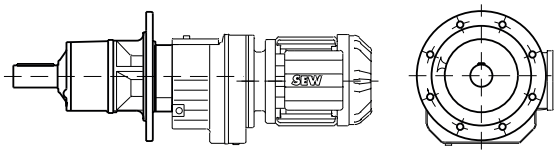
Helical gearmotor in B5 flange-mounted design



RZ..DRN..

Helical gearmotor in B14 flange-mounted design

26883198/EN – 04/2022

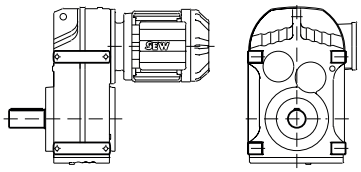


RM..DRN..

Helical gearmotor in B5 flange-mounted design with extended bearing hub

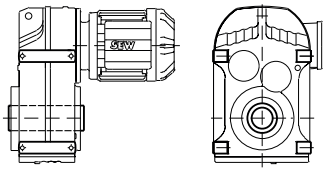
3.5.2 Parallel-shaft helical gearmotors

The following designs of parallel-shaft helical gearmotors are available:



F..DRN..

Parallel-shaft helical gearmotor in foot-mounted design

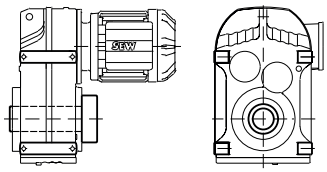


FA..B DRN..

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft

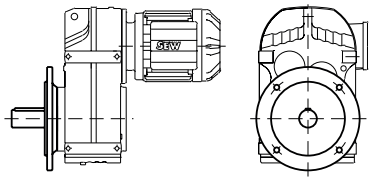
FV..B DRN..

Parallel-shaft helical gearmotor in foot-mounted design with splined hollow shaft to DIN 5480



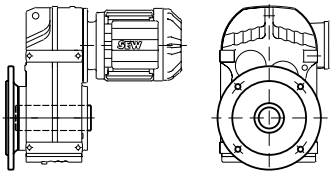
FH..B DRN..

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft and shrink disk



FF..DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design

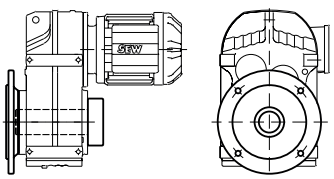


FAF..DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft

FVF..DRN..

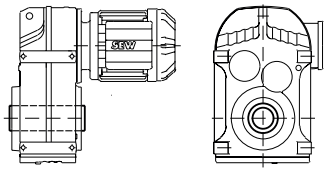
Parallel-shaft helical gearmotor in B5 flange-mounted design with splined hollow shaft to DIN 5480



FHF..DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

26883198/EN – 04/2022

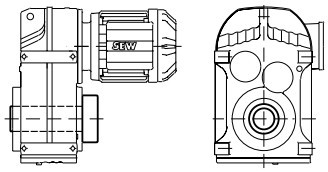


FA..DRN..

Parallel-shaft helical gearmotor with hollow shaft

FV..DRN..

Parallel-shaft helical gearmotor with splined hollow shaft according to DIN 5480

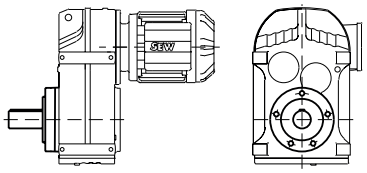


FH..DRN..

Parallel-shaft helical gearmotor with hollow shaft and shrink disk

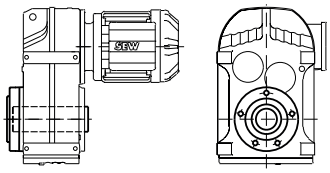
FT..DRN..

Parallel-shaft helical gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system



FZ..DRN..

Parallel-shaft helical gearmotor in B14 flange-mounted design

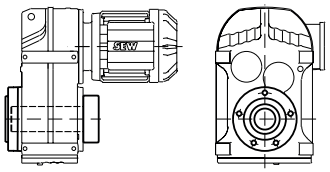


FAZ..DRN..

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft

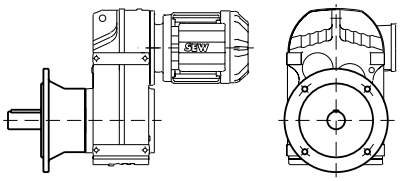
FVZ..DRN..

Parallel-shaft helical gearmotor in B14 flange-mounted design with splined hollow shaft to DIN 5480



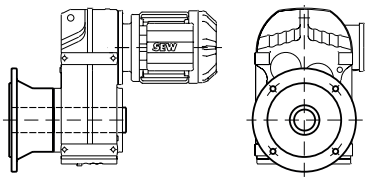
FHZ..DRN..

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and shrink disk



FM.. DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with extended bearing hub, output shaft with key



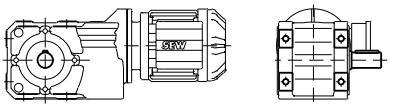
FAM.. DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with extended bearing hub and hollow shaft

26883198/EN – 04/2022

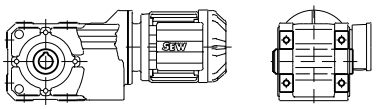
3.5.3 Helical-bevel gearmotors, gear unit sizes K..19 and K..29

The following designs of helical-bevel gearmotors with gear units of size K..19 and K..29 are available:



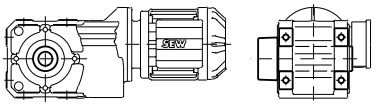
K19 DRN.., K29 DRN..

Helical-bevel gearmotor in foot-mounted design



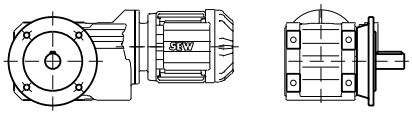
KA19B DRN.., KA29B DRN..

Helical-bevel gearmotor in foot-mounted design with hollow shaft



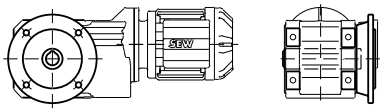
KH19B DRN.., KH29B DRN..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk



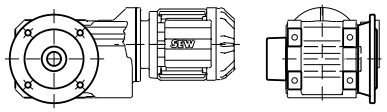
KF19B DRN.., KF29B DRN..

Foot-mounted helical-bevel gearmotor in B5 flange-mounted design



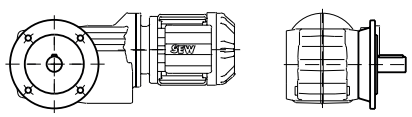
KAF19B DRN.., KAF29B DRN..

Foot-mounted helical-bevel gearmotor in B5 flange-mounted design with hollow shaft



KHF19B DRN.., KHF29B DRN..

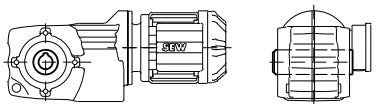
Foot-mounted helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



KF19 DRN.., KF29 DRN..

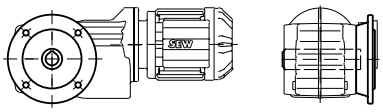
Helical-bevel gearmotor in B5 flange-mounted design

26883198/EN – 04/2022



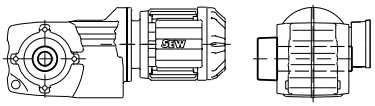
KA19 DRN.., KA29 DRN..

Helical-bevel gearmotor with hollow shaft



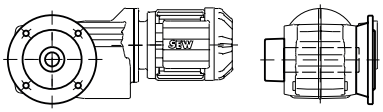
KAF19 DRN.., KAF29 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft



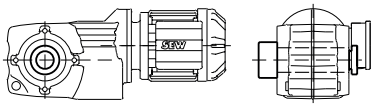
KH19 DRN.., KH29 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk



KHF19 DRN.., KHF29 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

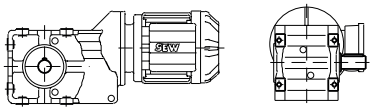


KT19 DRN.., KT29 DRN..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

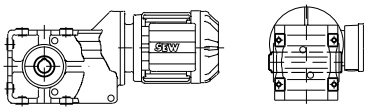
3.5.4 Helical-bevel gearmotors, gear unit sizes K..39 and K..49

The following designs of helical-bevel gearmotors with gear units of sizes K..39 and K..49 are available:



K39 DRN.., K49 DRN..

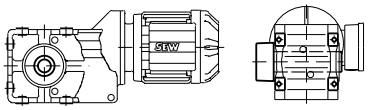
Helical-bevel gearmotor in foot-mounted design



KA39B DRN.., KA49B DRN..

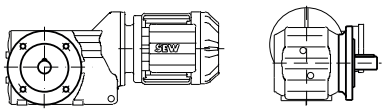
Helical-bevel gearmotor in foot-mounted design

26883198/EN – 04/2022



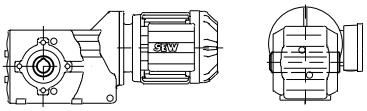
KH39B DRN.., KH49B DRN..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk



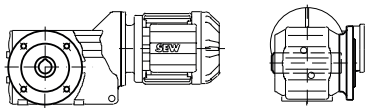
KF39 DRN.., KF49 DRN..

Helical-bevel gearmotor in B5 flange-mounted design



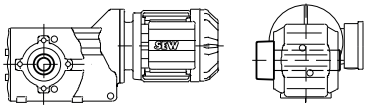
KA39 DRN.., KA49 DRN..

Helical-bevel gearmotor with hollow shaft



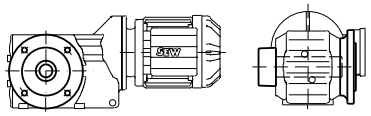
KAF39 DRN.., KAF49 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft



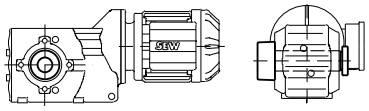
KH39 DRN.., KH49 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk



KHF39 DRN.., KHF49 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



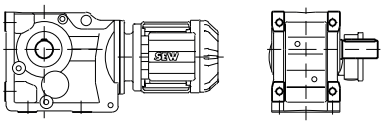
KT39 DRN.., KT49 DRN..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

26883198/EN – 04/2022

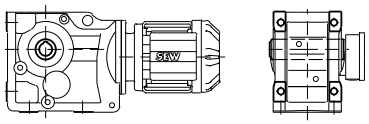
3.5.5 Helical-bevel gearmotors, gear unit sizes K..7

The following designs of helical-bevel gearmotors with gear units of size K..7 are available:



K..7 DRN..

Helical-bevel gearmotor in foot-mounted design

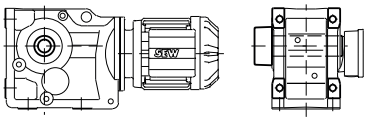


KA..7B DRN..

Helical-bevel gearmotor in foot-mounted design with hollow shaft

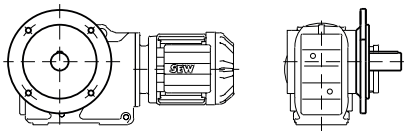
KV..7B DRN..

Helical-bevel gearmotor in foot-mounted design with splined hollow shaft according to DIN 5480



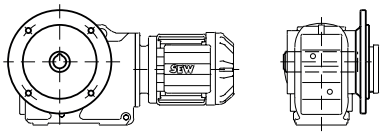
KH..7B DRN..

Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk



KF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design

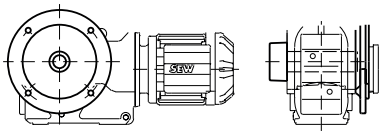


KAF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft

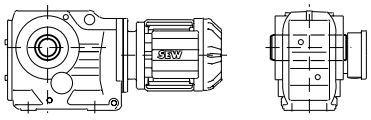
KVF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with splined hollow shaft to DIN 5480



KHF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



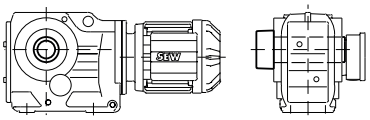
KA..7 DRN..

Helical-bevel gearmotor with hollow shaft

KV..7 DRN..

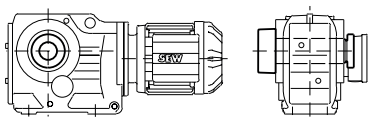
Helical-bevel gearmotor with hollow shaft and splined hollow shaft according to DIN 5480

26883198/EN – 04/2022



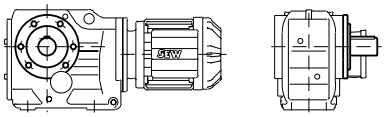
KH..7 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk



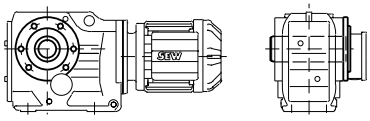
KT..7 DRN..

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system



KZ..7 DRN..

Helical-bevel gearmotor in B14 flange-mounted design

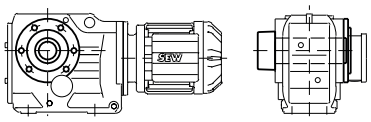


KAZ..7 DRN..

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft

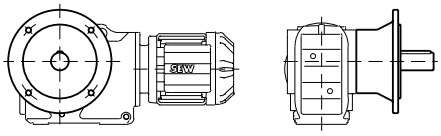
KVZ..7 DRN..

Helical-bevel gearmotor in B14 flange-mounted design with splined hollow shaft to DIN 5480



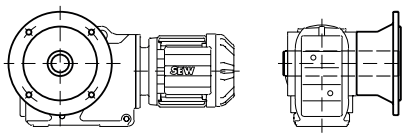
KHZ..7 DRN..

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft and shrink disk



KM..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with extended bearing hub, output shaft with key



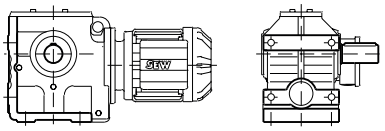
KAM..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with extended bearing hub and hollow shaft

26883198/EN – 04/2022

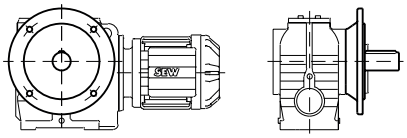
3.5.6 Helical-worm gearmotors

The following designs of helical-worm gearmotors are available:



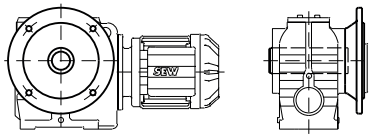
S..DRN..

Helical-worm gearmotor in foot-mounted design



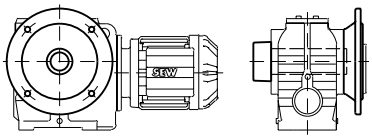
SF..DRN..

Helical-worm gearmotor in B5 flange-mounted design



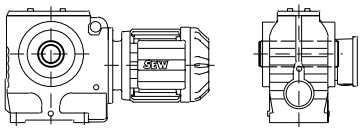
SAF..DRN..

Helical-worm gearmotor in B5 flange-mounted design with hollow shaft



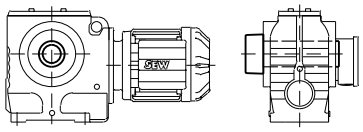
SHF..DRN..

Helical-worm gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



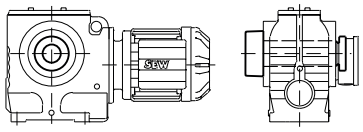
SA..DRN..

Helical-worm gearmotor with hollow shaft



SH..DRN..

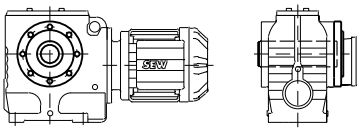
Helical-worm gearmotor with hollow shaft and shrink disk



ST..DRN..

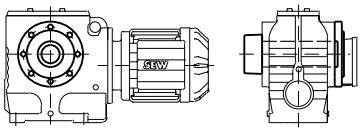
Helical-worm gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

26883198/EN – 04/2022



SAZ..DRN..

Helical-worm gearmotor in B14 flange-mounted design with hollow shaft



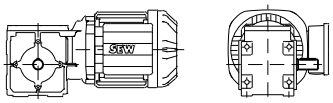
SHZ..DRN..

Helical-worm gearmotor in B14 flange-mounted design with hollow shaft and shrink disk

26883198/EN – 04/2022

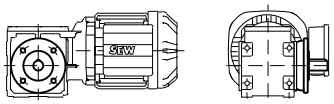
3.5.7 SPIROPLAN® gearmotors, gear unit sizes W..10, W..20, W..30

The following designs of SPIROPLAN® gearmotors with gear units in sizes W..10, W..20, and W..30 are available:



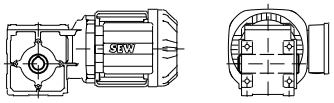
W10 DRN.., W20 DRN.., W30 DRN..,

Foot-mounted SPIROPLAN® gearmotor



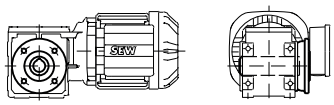
WF10 DRN.., WF20 DRN.., WF30 DRN..

SPIROPLAN® gearmotor in B5 flange mounted design



WA10 DRN.., WA20 DRN.., WA30 DRN..

SPIROPLAN® gearmotor with hollow shaft



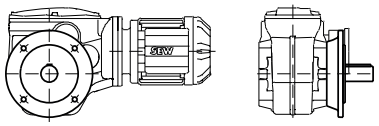
WAF10 DRN.., WAF20 DRN.., WAF30 DRN..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft

3.5.8 SPIROPLAN®gearmotors, gear unit size W..9

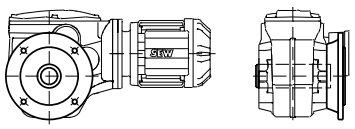
The following designs of SPIROPLAN® gearmotors of sizes W..9 are available:

The size W..59 shown in this catalog will be available from the 3rd quarter of 2022.



WF.9 DRN..

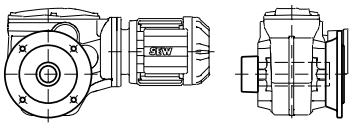
SPIROPLAN® gearmotor in B5 flange mounted design



WAF.9 DRN..

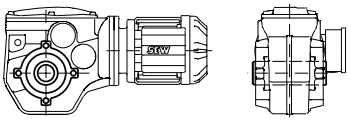
SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft

26883198/EN – 04/2022



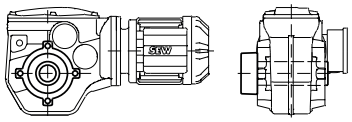
WHF.9 DRN..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft and shrink disk



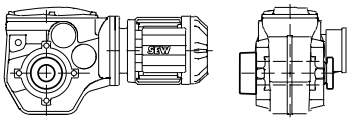
WA.9 DRN..

SPIROPLAN® gearmotor with hollow shaft



WH.9 DRN..

SPIROPLAN® gearmotor with hollow shaft and shrink disk



WT.9 DRN..

SPIROPLAN® gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

26883198/EN – 04/2022

4 Project planning for drives

4.1 Additional publications

For more detailed information about the project planning for drives, refer to the website of SEW-EURODRIVE where you can order or download the following documentations.

- Drive Engineering – Practical Implementation
  - EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
  - Efficient Plant Automation with Mechatronic Drive Solutions
- Manuals
  - Project Planning for BE.. Brakes
- Project Planning for Drives

4.2 Drive and gear unit selection data

Determining application data

To select the proper drive, you first need the data (weight, speed, setting range, etc.) of the machine to be driven. This data helps determine the required power, torque and speed. Refer to the documentation "Drive Engineering – Practical Implementation, Project Planning" or the SEW-Workbench project planning software for assistance.

Selecting the correct drive

Calculate the power, rotational speed, torque, and overhung load of the drive. Observe all mechanical requirements. The suitable drive can then be determined.

Application data required for project planning:

Designation	Meaning	Unit
n_{amin}	Minimum output speed	min^{-1}
n_{amax}	Maximum output speed	min^{-1}
P_a at N_{amax}	Output power at maximum output speed	kW
P_a at N_{amin}	Output power at minimum output speed	kW
M_a at N_{amax}	Output torque at maximum output speed	Nm
M_a at N_{amin}	Output torque at minimum output speed	Nm
F_{Aa}	Axial load (tension and compression) on the output shaft	N
F_{Ra}	Overhung load acting on the output shaft	N
J_L	Mass moment of inertia to be driven	10^{-4} kgm^2
R, F, K, S, W M1 - M6	Mounting position and required gear unit type, see chapter "Gear unit mounting positions" (→ 🗎 79) and "Project planning notes R, F, K, S, W gear units" (→ 🗎 64)	-
IP..	Required degree of protection	-
T_{amb}	Ambient temperature	°C
h	Installation altitude	m above sea level
S.., ..% cdf	Duty type and cyclic duration factor cdf – the exact load cycle can be entered instead	-
Z	Switching frequency – or exact load cycle can be specified	h^{-1}
f_{line}	Line frequency	Hz
U_{Mot}	Motor operating voltage	V
V_B	Brake operating voltage	V
$M_{B\,req}$	Required braking torque	Nm
For inverter operation: required control mode and setting range		

26883198/EN – 04/2022

4.3 Project planning procedure for DR.. gearmotors

4.3.1 Drive selection – non-controlled operation

The following flow diagram illustrates the project planning procedure for a non-controlled drive. The drive consists of a gearmotor operated on the grid.

Necessary information regarding the machine to be driven

- Technical data and environmental conditions
- Stopping accuracy
- Output speed
- Starting acceleration and deceleration
- Cyclic duration factor and starting frequency

↓

Calculation of the relevant application data

- Static and dynamic power
- Rotational speeds
- Torques, power ratings
- Travel diagram, if required
- Determination of the required service factor f_{B_req}

↓

Motor selection

- Torque/power/speed (number of poles)
- Acceleration torque/starting torque
- Switching frequency
- Determination of the energy efficiency class IE
- Mechanical brake (braking work, braking torque, brake service life)
- Motor equipment (brake, plug connector, thermal motor protection, etc.)

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Checking the positioning accuracy
- Checking the service factor f_B

↓

Ensuring that all requirements have been met.

26883198/EN – 04/2022

4.3.2 Drive selection – controlled operation

The following flow diagram illustrates the project planning procedure for a positioning drive. The drive consists of a gearmotor that is powered by an inverter.

Necessary information regarding the machine to be driven

- Technical data and environmental conditions
- Positioning accuracy
- Speed setting range
- Travel cycle calculation

↓

Calculation of the relevant application data

- Travel diagram
- Rotational speeds
- Static, dynamic torques
- Regenerative power

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Checking the positioning accuracy
- Checking the gear unit utilization ($M_{a\,max} \geq M_a$)
- Checking the input speed (churning losses)

↓

Motor selection

- Maximum torque
- With dynamic drives: effective torque at medium speed
- Maximum speed
- Determination of the energy efficiency class IE
- Observing of dynamic and thermal torque curves
- Selection of the correct encoder
- Mechanical brake (braking work, braking torque, brake service life)
- Motor equipment (brake, plug connector, thermal motor protection, etc.)

↓

Selecting the inverter

- Motor/inverter assignment
- Continuous current and peak current for current-controlled inverters/axes

↓

Braking resistor selection

- Based on the calculated regenerative power, cdf and peak braking power

↓

26883198/EN – 04/2022

Options

- EMC measures
- Operation/communication
- Additional functions

↓

Ensuring that all requirements have been met.

26883198/EN – 04/2022

4.4 Project planning notes – R.., F.., K.., S.., W.. gear units

4.4.1 Efficiency of gear units

General information

The efficiency of the gear units is mainly determined by the gearing and bearing friction as well as by churning losses. Keep in mind that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This factor is particularly true for helical-worm and SPIROPLAN® right-angle gear units.

INFORMATION

For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 🗎 65).

R, F, K gear units

Depending on the number of gear stages, the gearing efficiency of helical, parallel-shaft and helical-bevel gear units is up to 96% (3-stage), 97% (2-stage) and 98% (1-stage).

S and W gear units

The gearing in helical-worm and SPIROPLAN® gear units produces a high proportion of sliding friction. This is the reason why these gear units have higher tooth friction losses and lower efficiency than R, F or K gear units.

Other factors influencing the efficiency:

- Gear ratio of the helical-worm or SPIROPLAN® stage
- Input speed
- Ambient temperature

Helical-worm gear units from SEW-EURODRIVE are helical gear/worm combinations that are significantly more efficient than plain worm gear units; see chapter "Technical data S..37" (→ 🗎 879) and subsequent chapters.

The efficiency may reach $\eta < 0.5$ if the helical-worm gear stage has a very high gear ratio.

Self-locking

Retrodriving torque in helical-worm gear units produces an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forward efficiency η. The helical-worm gear unit is statically self-locking if the forward efficiency is $\eta \leq 0.5$. Contact SEW-EURODRIVE if you want to make technical use of the braking effect of self-locking characteristics.

INFORMATION

Note that the self-locking effect of helical-worm gear units is not permitted as the sole safety function for hoists.

Run-in phase

The tooth flanks of new helical-worm and SPIROPLAN® gear units of the W..0 series are not yet completely smooth. This makes for a greater friction angle and less efficiency during the run-in phase than during later operation. This effect intensifies with increasing gear ratio.

26883198/EN – 04/2022

During the running-in phase, the nominal efficiency of the gear unit is reduced by the respective value in the following tables.

	Worm	
	i range	η reduction
1-start	approx. 50 – 280	approx. 12%
2-start	approx. 20 – 75	approx. 6%
3-start	approx. 20 – 90	approx. 3%
5-start	approx. 6 – 25	approx. 3%
6-start	approx. 7 – 25	approx. 2%

SPIROPLAN® W..10 to W..30	
i range	η reduction
approx. 35 – 75	approx. 15%
approx. 20 – 35	approx. 10%
approx. 10 – 20	approx. 8%
approx. 8	approx. 5%
approx. 6	approx. 3%

The run-in phase usually lasts 48 hours. Helical-worm gear units achieve their nominal efficiency values when the following conditions have been met:

- The gear unit has been completely run-in.
- The gear unit has reached nominal operating temperature.
- The recommended lubricant has been filled.
- The gear unit is operating in the nominal load range.

Churning losses and thermal rating

* (→ 🗎 X)

Churning losses may occur with the following conditions. They must be considered during the thermal check:

- A mounting position where the first gear unit stage is fully immersed in the lubricant. The respective mounting positions of the gear units are marked with * in chapter "Mounting position sheets".
- A high mean input speed and consequently a high circumferential speed of the gear wheels of the input gear stage.

If one or both of these conditions apply, determine the requirements from the application and the corresponding operating conditions (see chapter "Data for calculating the thermal rating" (→ 🗎 66)) and consult SEW-EURODRIVE. SEW-EURODRIVE can calculate the thermal rating based on the actual operating conditions. The thermal rating of the gear unit can be increased by appropriate measures, such as by using a synthetic lubricant with higher thermal endurance properties.

INFORMATION

To reduce churning losses to a minimum, use gear units, preferably in the M1 mounting position.

26883198/EN – 04/2022

Data for calculating the thermal rating

The following information is required for calculating the thermal rating:

Gear unit type and design:

- Gear unit ratio i
- Mean input speed n_{em} or mean output speed n_{am} each in min^{-1}
- Effective motor torque M_{eff} in Nm
- Input motor power P_{Mot} in kW
- Mounting position M1 – M6 or pivoting angle

Installation site:

- Ambient temperature T_{amb} in °C
- Installation altitude
- In small, closed rooms or in large rooms (halls) or outdoors

Installation situation:

- Space-critical or well ventilated
- Steel base or concrete base

26883198/EN – 04/2022

4.5 Service factor

4.5.1 Service factor f_B

The method for determining the maximum permitted continuous torque M_{a_max} and using this value to derive the service factor $f_B = M_{a_max}/M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. With a service factor f_B = 1, gear units by SEW-EURODRIVE in any case offer an extremely high level of safety and reliability in the fatigue strength range (With exception of: Low temperatures and wear of the worm gear with helical-worm gear units). The service factor may differ from specifications of other gear unit manufacturers. If in doubt, contact SEW-EURODRIVE.

For the service factor, refer to the order confirmation and the selection tables in the gearmotor catalogs from SEW-EURODRIVE"" (→ 🗎 216).

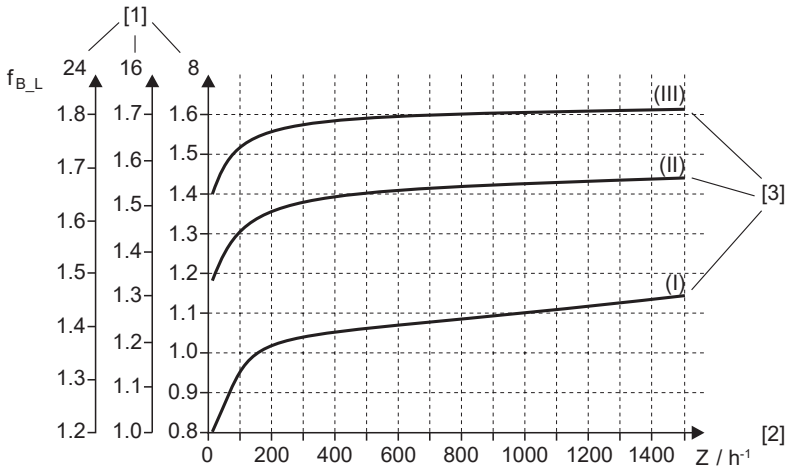
4.5.2 Required service factor f_{B_req}

The operating conditions are considered in order to determine the required service factor f_{B_req} for the gearmotor selection. Decisive factors are the requirements of the driven machine, as well as the ambient temperature and gear unit type, if applicable.

The service factor f_{B_req} results from other service factors described in the following chapters.

4.5.3 Application service factor

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the application service factor f_{B_L}. The service factor is determined according to the daily operating time and the switching frequency Z. Three load classifications are taken into account depending on the mass acceleration factor. You can read the service factor applicable to your application from the following diagram.



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[1] Service factor f_{B_L} in relation to the daily operating time in hours/day
[2] Switching frequency Z: The cycles include all starting and braking procedures as well as changeovers from low to high speed and vice versa.
[3] Curves for load classification I, II and III

Definition of the load classification

The following 3 load classifications are distinguished:

- Load classification I: Uniform, almost no shock load, permitted mass acceleration factor ≤ 0.2

26883198/EN – 04/2022

- Load classification II: Non-uniform, moderate shock load, permitted mass acceleration factor ≤ 3
- Load classification III: Very non-uniform, severe shock load, permitted mass acceleration factor ≤ 10

Mass moment of inertia ratio

The mass moment of inertia ratio is calculated as follows:

$$f_a = \frac{J_x}{J_{Mot}}$$

9007223243041803

f_a = Mass moment of inertia ratio
J_x = Load moment of inertia, reduced to motor shaft [J_{Lx}] = kgm²
J_{mot} = Motor moment of inertia [J_{Mot}] = kgm²

The motor moment of inertia J_{Mot} is the mass moment of inertia of the motor and, if installed, the brake and the flywheel fan (Z fan).

The load moment of inertia J_x includes the mass moments of inertia of the driven machine and the gear unit, reduced to the motor shaft.

Reducing the mass moment of inertia to the motor shaft

The calculation for scaling down to motor speed is performed using the following formula:

$$J_x = J_L \times \left(\frac{1}{i_G}\right)^2$$

9007223243044747

J_x = Load moment of inertia, reduced to motor shaft [J_{Lx}] = kgm²
J_L = Mass moment of inertia with reference to the output speed of the gear unit [J_L] = kgm²
i_G = Gear unit ratio

Service factors f_{B_L} > 1.8 may be required with large mass acceleration factors (> 10), high levels of backlash in the transmission elements or large overhung loads. Contact SEW-EURODRIVE in such cases.

4.5.4 Service factor at low temperatures

At an ambient temperature of < -30 °C, observe the additional service factor f_{B3} = 1.2.

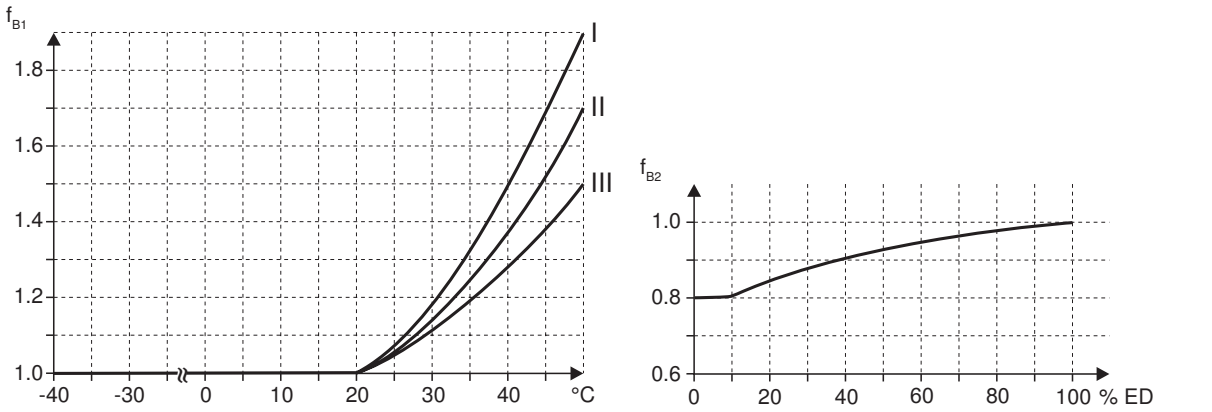
4.5.5 Service factors for helical-worm gear units

In case of helical-worm gear units, the following 2 service factors must be observed:

- f_{B1} = Service factor based on ambient temperature
- f_{B2} = Service factor from cyclic duration factor

26883198/EN – 04/2022

The additional service factors f_{B1} and f_{B2} can be determined by referring to the diagram below. For f_{B1}, the load classification is taken into account in the same way as for f_{B_L}. The following diagram shows the additional service factors f_{B1} and f_{B2}:



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Cyclic duration factor

$$ED = \frac{t_L}{60} \times 100$$

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ED = Cyclic duration factor [cdf] = %
t_L = Time under load [t_{L_tot}] = min h^{-1}

4.5.6 Conditions for selecting gear units based on the service factor

The determined required service factor f_{B_req} must be smaller than or equal to the service factor according to the selection tables (see chapter "Structure of the selection tables", (→ 🗎 216)).

$$f_{B_req} \le f_B$$

$$F_{B_L} \times [f_{B1} \times f_{B2} \times f_{B3}] \le f_B$$

or

$$M_a \le f_{B_req} \le M_{a\max}$$

$$M_a \times F_{B_L} \times [f_{B1} \times f_{B2} \times f_{B3}] \le M_{a\max}$$

The service factors in square brackets are only taken into account for specific conditions regarding the application and ambient conditions. Else, the value is 1.

f_B = Service factor
f_{B_req} = Required service factor
f_{B_L} = Application service factor based on load classification and switching frequency
f_{B3} = Low temperature service factor, only applies to ambient temperatures of < -30 °C
f_{B1} = Service factor for helical-worm gear units only, based on ambient temperature
f_{B2} = Service factor for helical-worm gear units only, based on cdf
M_a = Gearmotor output torque ($M_{Mot} \times i_G$) [M_a] = Nm
M_{a_max} = Maximum permitted output torque [M_{a_max}] = Nm

26883198/EN – 04/2022

Additional requirements for selecting gear units based on the service factor

When special ambient or application-related conditions need to be observed, additional requirements on gear unit selection based on the service factor need to be adhered to:

- SPIROPLAN® gearmotors with food grade oil:
  - W..10 – W..30: $f_B \geq 1.0$
- Gear units and compound gear units in combination with explosion-protected motors: $f_B \geq 1.0$

4.5.7 Examples

- An application with mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/day (→ 🗎 67)) and 300 cycles/h produce a service factor $f_{B_L} = 1.5$ as shown in the figure. The f_B value of the required gearmotor must therefore be ≥ 1.5.

  If the gearmotor is intended for operation at -35 °C, the following applies:

  $f_{B_req} = f_{B_L} \times f_{B3} = 1.5 \times 1.2 = 1.8$

  The gearmotor to be selected now requires an f_B value of ≥ 1.8.
- The gearmotor with service factor $f_{B_L} = 1.5$ of the previous example is to be a helical-worm gearmotor, and the ambient temperature is 40 °C:

  → $f_{B1} = 1.36$ (read off at load classification II (→ 🗎 68))

  Time under load = 40 min/h → cdf = 66.67% → $f_{B2} = 0.95$

  The required service factor is:

  $f_{B_req} = f_{B_L} \times f_{B1} \times f_{B2} = 1.5 \times 1.36 \times 0.95 = 1.94$

  The selected helical-worm gearmotor requires a service factor $f_B \geq 1.94$.

26883198/EN – 04/2022

4.6 Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units

4.6.1 Determining the overhung load

When determining the resulting overhung load, the type of transmission element mounted on the shaft end must be considered. The following transmission element factors f_Z must be considered for various transmission elements.

Transmission element	Transmission element factor f_Z	Comments
Gear wheels	1.15	< 17 teeth
Sprockets	1.40	< 13 teeth
Sprockets	1.25	< 20 teeth
Narrow V-belt pulleys	1.75	Consider influence of pre-tension force
Flat belt pulleys	2.50	Consider influence of pre-tension force
Toothed belt pulleys	1.50	Consider influence of pre-tension force
Gear rack pinion, pretensioned	2.00	Consider influence of pre-tension force
Gear rack pinion, not pretensioned	1.15	< 17 teeth

Transmission element factor at low temperatures

For temperatures < -30 °C, observe a transmission element factor f_{Z1} = 1.2.

The overhung load exerted on the motor or gear shaft is calculated as follows:

$$F_R = \frac{M_{max} \times 2000}{d_0} \times f_Z \times f_{Z1}$$

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F_R = Overhung load [F_R] = N
M_{max} = Torque [M_{max}] = Nm
f_Z = Transmission element factor
f_{Z1} = Transmission element factor f_{Z1} = 1.2 for ambient temperatures < -30 °C.
For ambient temperatures ≥ -30 °C, f_{Z1} = 1
d_0 = Overhung load determined by diameter of installed transmission element [d] = mm

4.6.2 Permitted overhung load F_{Ra}

The following important information refers to the overhung load value F_{Ra} in the relevant tables of this catalog:

F_{Ra} is calculated from the nominal bearing service life L_{10h} (according to ISO 281). For special operating conditions, the permitted overhung loads can be determined based on the modified bearing service life L_{na}. Consult SEW-EURODRIVE in this case.

The permitted overhung load is influenced by the direction of rotation and the force application angle. The values F_{Ra} listed in the catalog are based on the least favorable conditions.

The permitted overhung loads F_{Ra} for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for gearmotors. For other designs, please contact SEW-EURODRIVE.

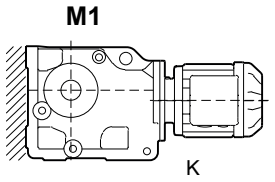
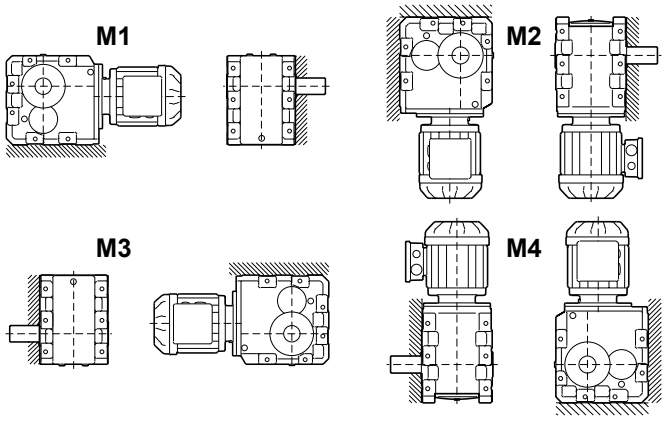
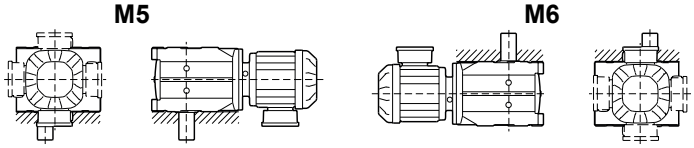
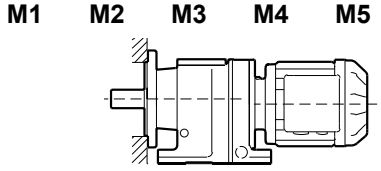
26883198/EN – 04/2022

The overhung load data refers to a force application at the center of the output shaft 0.5 × l. With right-angle gear units, the application point is assumed to be at the A-side.

For gear units with hollow shaft and key (shaft-mounted design), the values refer to force application to the front end of the hollow shaft.

Reduced permitted overhung load

The following table shows the cases in which the overhung load must be limited:

Mounting surface	Gear unit	Mounting position	Restriction
	K37 – K157 S37 – S97	M1	Maximally 50% of the overhung load F_{Ra} specified in the selection tables is permitted in the case of mounting at the front-end (shaded areas).
	K167 K187	M1 M2 M3 M4	No reduction when the unit is mounted using the gray-shaded feet. A maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted in the case of deviating mounting.
	K167 K187	M5 M6	No reduction when the unit is mounted using the gray-shaded feet. In case of deviating mounting, contact SEW-EURODRIVE.
	R07F – R87F	M1 – M6	For all foot-mounted/flange-mounted gear units (R..F..) with torque transmission via the flange connection, a maximum of 50% of the overhung load F_{Ra} specified in the selection tables is permitted.

26883198/EN – 04/2022

4.6.3 Higher permitted overhung loads

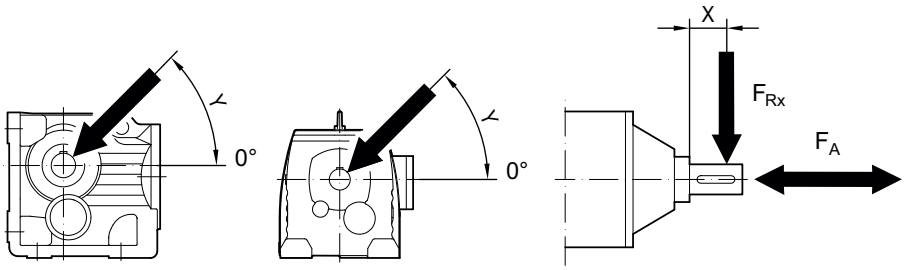
Precisely considering the force application angle γ and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

Furthermore, higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units.

Contact SEW-EURODRIVE in such cases.

4.6.4 Definition of the force application

Force application is defined according to the following figure:



γ	=	Force application angle	[γ] = °
F_{Rx}	=	Permitted overhung load at distance x	[F_{Rx}] = N
F_A	=	Permitted axial force	[F_A] = N

4.6.5 Permitted axial forces

If there is no overhung load, then an axial load F_A (tension or compression) amounting to 50% of the overhung load given in the selection tables is permitted. This condition applies to the following gearmotors:

- Helical gearmotors except for R..127.. to R..167..
- Parallel-shaft helical and helical-bevel gearmotors with solid shaft except for F97...
- Helical-worm gearmotors with solid shaft

INFORMATION

Contact SEW-EURODRIVE for all other gear unit designs and in the event of significantly greater axial loads or combinations of overhung load and axial load.

26883198/EN – 04/2022

4.6.6 Input side: Overhung load conversion for off-center force application

INFORMATION

Contact SEW-EURODRIVE with regard to the project planning of gear units with input shaft assemblies and off-center force application.

4.6.7 Output side: Overhung load conversion for off-center force application

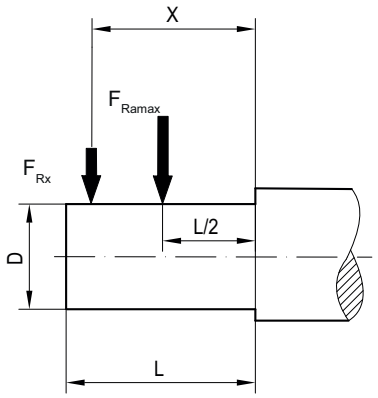
The permitted overhung loads must be calculated according to the selection tables using the following formulas in the event of force application to areas other than the center of the shaft end. The smaller of the two values F_{Rb} (according to bearing service life) and F_{Rw} (according to shaft strength) is the permitted value for the overhung load at distance x. Note that the calculations apply to M_{amax}. The permitted overhung load values F_{Ramax} specified in the data tables apply to force application at 0.5 × l (solid shaft).

The following conditions must be met:

F_{Rb} according to bearing service life: $$F_{Rb} = F_{Ramax} \times \frac{a}{b + x}$$

F_{Rw} according to shaft strength: $$F_{Rw} = \frac{c}{f + x}$$

F_{Rx}	Permitted overhung load at distance x	$[F_{Rx}]$ = N
F_{Ramax}	Permitted overhung load	$[F_{Ramax}]$ = N
x	Distance from the shaft shoulder to the force application point	[x] = mm
a, b, f	Gear unit constants for overhung load conversion	[a, b, f] = mm
c	Gear unit constant for overhung load conversion	[c] = Nmm



Gear unit constants for overhung load conversion

Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
RX57	43.5	23.5	1.51×10^5	34.2	20	40
RX67	52.5	27.5	2.42×10^5	39.7	25	50

26883198/EN – 04/2022

Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
RX77	60.5	30.5	1.95×10^5	0	30	60
RX87	73.5	33.5	7.69×10^5	48.9	40	80
RX97	86.5	36.5	1.43×10^6	53.9	50	100
RX107	102.5	42.5	2.47×10^6	62.3	60	120
R07	72.0	52.0	4.67×10^4	11	20	40
R17	88.5	68.5	6.53×10^4	17	20	40
R27	106.5	81.5	1.56×10^5	11.8	25	50
R37	118	93	1.24×10^5	0	25	50
R47	137	107	2.44×10^5	15	30	60
R57	147.5	112.5	3.77×10^5	18	35	70
R67	168.5	133.5	2.65×10^5	0	35	70
R77	173.7	133.7	3.97×10^5	0	40	80
R87	216.7	166.7	8.47×10^5	0	50	100
R97	255.5	195.5	1.06×10^6	0	60	120
R107	285.5	215.5	2.06×10^6	0	70	140
R127	311	226	4.93×10^6	0	90	170
R137	343.5	258.5	4.58×10^6	0	90	170
R147	402	297	8.65×10^6	33	110	210
R167	450	345	1.26×10^7	0	120	210
F27	109.5	84.5	1.13×10^5	0	25	50
F37	123.5	98.5	1.07×10^5	0	25	50
F47	153.5	123.5	1.40×10^5	0	30	60
F57	170.7	135.7	2.70×10^5	0	35	70
F67	181.3	141.3	4.12×10^5	0	40	80
F77	215.8	165.8	7.87×10^5	0	50	100
F87	263	203	1.06×10^6	0	60	120
F97	350	280	2.09×10^6	0	70	140
F107	373.5	288.5	4.23×10^6	0	90	170
F127	442.5	337.5	9.45×10^6	0	110	210
F157	512	407	1.05×10^7	0	120	210
K19	103.7	83.7	8.66×10^4	0	20	40
K29	124.5	99.5	1.26×10^5	0	25	50
K37	123.5	98.5	1.30×10^5	0	25	50
K39	155.5	125.5	2.25×10^5	0	30	60
K47	153.5	123.5	1.40×10^5	0	30	60
K49	183.5	148.5	2.63×10^5	0	35	70

26883198/EN – 04/2022

Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
K57	169.7	134.7	2.70×10^5	0	35	70
K67	181.3	141.3	4.12×10^5	0	40	80
K77	215.8	165.8	7.69×10^5	0	50	100
K87	252	192	1.64×10^6	0	60	120
K97	319	249	2.80×10^6	0	70	140
K107	373.5	288.5	5.53×10^6	0	90	170
K127	443.5	338.5	8.31×10^6	0	110	210
K157	509	404	1.18×10^7	0	120	210
K167	621.5	496.5	1.88×10^7	0	160	250
K187	720.5	560.5	3.04×10^7	0	190	320
S37	118.5	98.5	6.0×10^4	0	20	40
S47	130	105	1.33×10^5	0	25	50
S57	150	120	2.14×10^5	0	30	60
S67	184	149	3.04×10^5	0	35	70
S77	224	179	5.26×10^5	0	45	90
S87	281.5	221.5	1.68×10^6	0	60	120
S97	326.3	256.3	2.54×10^6	0	70	140

Values for designs not listed are available on request.

26883198/EN – 04/2022

4.7 Multi-stage gearmotors

4.7.1 General information

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This means an additional second gear unit, usually a helical gear unit, is installed in front of the gear unit or between gear unit and motor.

The resulting total reduction ratio might make protecting the gear unit from high output torques necessary.

4.7.2 Limiting the motor power

Reduce the maximum output motor power according to the maximum permitted output torque on the gear unit (M_{a_max}). For this purpose, you first have to determine the maximum permitted motor torque (M_{Mot_max}).

You can calculate the maximum permitted motor torque as follows:

Maximum permitted motor torque

$$M_{Mot} = \frac{M_{amax}}{i_{tot} \times \eta_{tot}}$$

M_{Mot}	Maximum permitted motor torque	$[M_{Mot}]$ = Nm
M_{amax}	Maximum permitted output torque	$[M_{amax}]$ = Nm
i_{tot}	Total gear unit ratio	$[i_{tot}]$ = 1
η_{tot}	Overall efficiency	$[\eta_{tot}]$ = %

Use this maximum permitted motor torque M_{Mot} and the load diagram of the motor to determine the associated value for the motor current.

Take appropriate measures to prevent the continuous current consumption of the motor from exceeding the pre-determined value for the motor torque M_{Mot}. An appropriate measure would be to set the tripping current of the motor protection switch to this maximum current value. A motor circuit breaker offers the option to bridge a brief overload, for example, during the startup phase of the motor. A suitable measure for inverter drives is to limit the output current of the inverter according to the determined motor current.

4.7.3 Checking brake torques

If you use a compound gear unit brakemotor, you have to limit the braking torque (M_B) according to the maximum permitted motor torque M_{Mot}. The maximum permitted braking torque is 200% M_{Mot}.

Maximum braking torque

$$M_B \leq 200\%\ M_{Mot}$$

M_B	Maximum braking torque in Nm
M_{Mot}	Maximum permitted motor torque in Nm

If you have questions regarding the approved switching frequency of compound gear unit brake motors, please contact SEW-EURODRIVE.

26883198/EN – 04/2022

4.7.4 Preventing blocking

Blockage on the output side of the double gear unit or multi-stage gearmotor is not permitted. The reason is that indeterminable torques and uncontrolled overhung and axial loads may occur. The gear units may suffer irreparable damage as a result.

INFORMATION

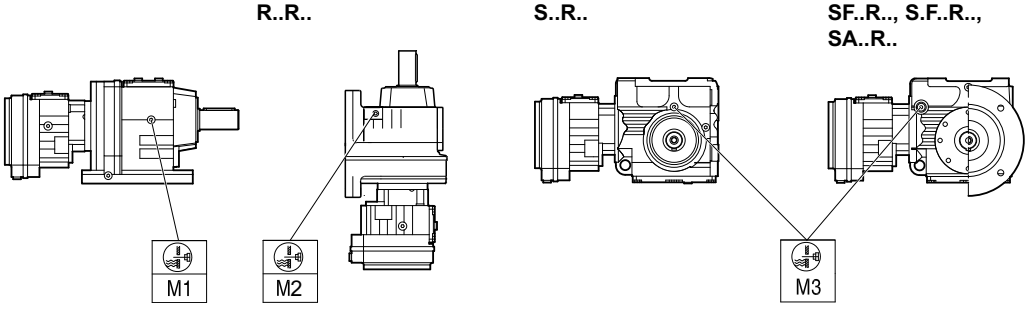
Contact SEW-EURODRIVE if blockages of the double gear unit or multi-stage gearmotor cannot be avoided due to the application.

4.7.5 Position of the oil level plug of compound gear units

To ensure sufficient lubrication of the first gear unit (larger gear unit) in the case of compound gear units, the following gear units have a higher oil level in the specified mounting positions:

- Helical gear unit type R..R in mounting position M1 and M2
- Helical-worm gear unit type S..R in mounting position M3

The oil level plugs are located at the following positions, deviating from the specifications on the mounting position sheets:



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Symbol	Meaning
	Oil level plug

4.8 Project planning notes – Motor

4.8.1 Inverter operation

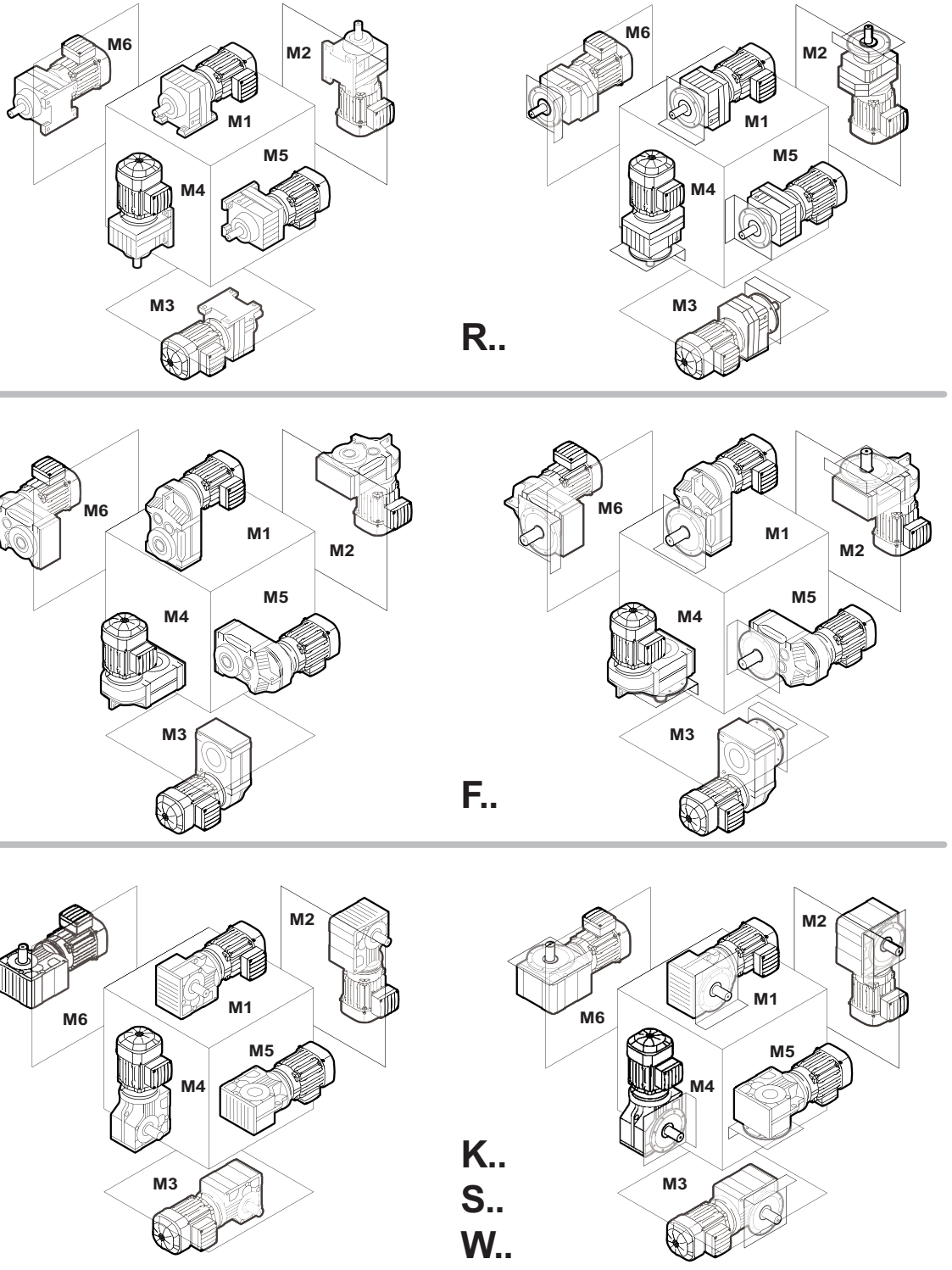
AC motors from SEW-EURODRIVE can be operated with inverters. If motors at the frequency inverter are operated at speeds > 1800 min^{-1}, SEW-EURODRIVE recommends using shaft seals made of FKM (fluorocarbon rubber) on the A and B sides of the motor.

26883198/EN – 04/2022

5 Gear unit mounting positions and order information

5.1 General mounting position information for R..-, F..-, K..-, S..-, W.. gear units

The following illustration shows the SEW-EURODRIVE mounting positions M1 – M6:



5.1.1 Change of mounting position

Observe the following information when you operate the gearmotor in a mounting position other than the one indicated in the order:

- Adjust the lubricant fill quantity to the changed mounting position.
- Adjust the position of the breather valve.
- When changing the mounting position to M4: Contact SEW-EURODRIVE. Depending on the drive's operating mode, an oil expansion tank might be necessary (see chapter "Oil expansion tank").
- For helical-bevel gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M5 or M6.
- For helical-worm gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M2 or M3.
- For helical gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M2.
- If you change the mounting position to a mounting position that requires more oil, SEW-EURODRIVE recommends to perform a thermal check/project planning again.

5.1.2 Gear units in pivoted mounting position (dynamic)

The dynamic pivoted mounting position is available on request for gear units of the types R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

In the pivoted mounting position, the gear units are delivered with the maximum required oil fill quantity and sealed with oil screw plugs. The gear unit can be pivoted during operation to the mounting positions required by the customer.

5.1.3 Gear unit in pivoted mounting position (stationary)

The stationary pivoted mounting position is available for all gear units of the type R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

In the stationary pivoted mounting position, the gear units are delivered with the oil fill quantity required for this pivoted mounting position and sealed with oil screw plugs. For gear units with stationary pivoted mounting position, replace the highest screw plug with the supplied breather valve before startup.

5.1.4 Universal mounting position M0

SPIROPLAN® gear units W10.. – W30.. are available in universal mounting position M0. Because of their compact size, they are fully enclosed and do not have a breather valve. You can use them in any M1 – M6 mounting position without having to adapt the gear unit.

All W10.. to W30.. gear units of a certain size have the same oil fill quantity.

5.1.5 Mounting position MX

Mounting position MX is available for all gear units of sizes R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

Before startup, make adjustments dependent on the mounting position for gear units in mounting position MX.

26883198/EN – 04/2022

In the mounting position MX, the gear units are delivered with the maximum required oil fill quantity and sealed with oil screw plugs. A breather valve is included with each drive. The oil fill volume must be adapted according to the mounting position of the gear unit (see chapter "Lubricant fill quantities" (→ 🗎 142)). Customers will also have to mount the enclosed breather valve at the proper location depending on the mounting position, see chapter "Mounting position sheets" (→ 🗎 90).

Compound gear units in MX mounting position

In MX mounting position, both gear units (primary and subsequent gear unit) are in the same mounting position.

5.1.6 Variable mounting position

The variable mounting position is available on request for gear units of the types R..7, F..7, K..7, K..9, S..7 and SPIROPLAN® W..9.

Before startup, make adjustments dependent on the mounting position for gear units in the variable mounting position. It is not necessary to adjust the oil fill quantity.

In the variable mounting position, the gear units are delivered with the maximum required oil fill quantity of the mentioned mounting positions and sealed with oil screw plugs. A breather valve is included if necessary. The enclosed breather valve must be mounted in the proper location depending on the mounting position, see chapter "Mounting position sheets" (→ 🗎 90).

5.1.7 Position of breather valve/oil drain plug in motor flange

As shown in the mounting position sheets in chapter "Mounting position sheets" (→ 🗎 90), the position of the breather valve and oil drain plug depends on the mounting position of the gear unit.

The following table shows the position of the breather valve and the oil drain plug depending on the mounting position:

Mounting position	Breather valve position	Oil drain plug position
M1, M3, M5, M6	In the gear unit housing	In the gear unit housing
M4	**In the motor flange**	In the gear unit housing
M2	In the gear unit housing	**In the motor flange**

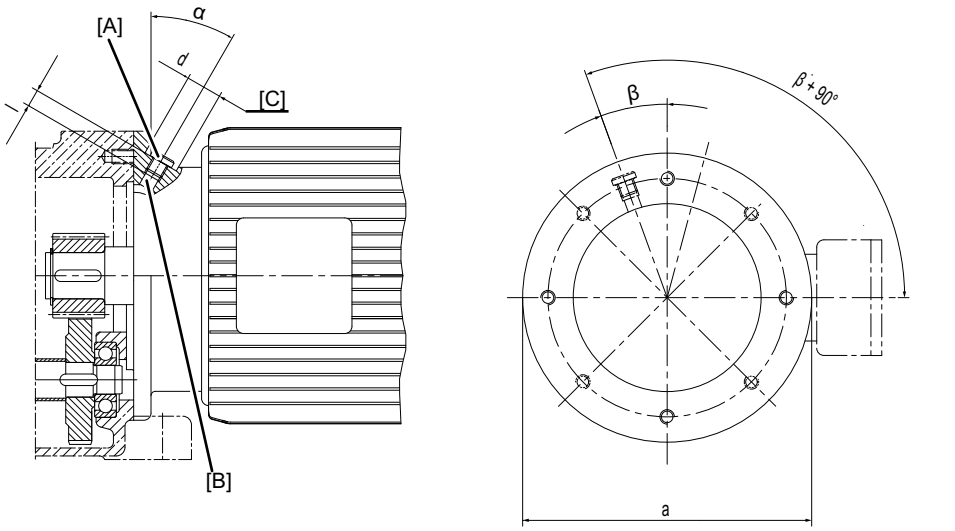
If the breather valve (M4 mounting position) or the oil drain plug (M2 mounting position) is positioned in the motor flange, the position depends on the terminal box position.

INFORMATION

The position of the breather valve / oil drain plug in the mounting position sheets in chapter "Mounting position sheets" (→ 🗎 90) always refers to the standard terminal box position 0°. Note that the position of the breather valve/oil drain plug is changed depending on the possible terminal box positions (90°, 180°, 270°).

26883198/EN – 04/2022

The following illustration shows the exact position of the breather valve/oil drain plug in the motor flange.



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[A] Position of breather valve/oil drain plug
[B] Continuous core drilling
[C] Counterbored bore
[α] Drill angle
[d] Diameter of countersinking
[l] Thread length
[a] Flange diameter
[β] Position angle

Dimension tables

The following tables contain the dimensions regarding the position of the breather valve and the oil drain plug depending on the motor size.

Motor	a in mm	α in °	β in °	Thread designation	Ø d in mm	l in mm
DR2S56	105	0	45	M10×1	–	10
DRN63	105	0	45	M10×1	–	10
	120				15	
	160					
	200	30	22.5	M12x1.5	18	12
DRN71	105	0	45	M10×1	–	10
	120				15	
	160					
	200	30	22.5	M12x1.5	18	12
	250					
	300	90		M22x1.5	28	14
DRN80	105	0	45	M10×1	–	10
	120	15	22.5		15	
	160	30				
	200			M12x1.5	18	12
	250					
	300	90		M22x1.5	28	14
DRN90	120	30	22.5	M10×1	15	12
	160					
	200			M12x1.5	15	16
	250				18	12
	300			M22x1.5	28	

26883198/EN – 04/2022

Motor	a in mm	α in °	β in °	Thread designation	Ø d in mm	l in mm
DRN100	120	30	22.5	M10×1	15	10
	160					12
	200			M12x1.5	18	
	250					
	300			M22x1.5	28	14
	350					
DRN112M DRN132S	160	30	22.5	M10×1	15	10
	200			M12x1.5	18	12
	250					
	300			M22x1.5	28	14
	350					
	400	45				10
	450			M33×2	40	16
DRN132M/L	160	30	22.5	M10×1	15	10
	200	15		M12x1.5	18	14
	250	30				
	300			M22x1.5	28	12
	350					14
	400					13
	450	75		M33×2	40	16
	550	90		M42×2	50	18
DRN160	200	30	22.5	M10×1	15	17
	250			M12x1.5	18	15
	300			M22x1.5	28	12
	350					
	400					16
	450			M33×2	40	
	550	90		M42×2	50	
DRN180	250	30	22.5	M12x1.5	18	15
	300			M22x1.5	28	
	350					
	400					16
	450			M33×2	40	
	550	90		M42×2	50	17
DRN200	250	30	22.5	M12x1.5	18	15
	300			M22x1.5	28	
	350					14
	400					16
	450			M33×2	40	
	550			M42×2	50	19
DRN225	300	30	22.5	M22x1.5	28	15
	350					14
	400					16
	450			M33×2	40	17
	550			M42×2	50	29
DRN250 DRN280	350	15	22.5	M22x1.5	28	14
	400		21			
	450		22.5	M33×2	40	16
	550			M42×2	50	
DRN315	450	30	22.5	M33×2	40	30
	550		11.25	M42×2	50	20

26883198/EN – 04/2022

5.2 Order information

INFORMATION

The following order information is required for R, F, K, S, and W gear units or gearmotors in addition to the mounting position to precisely determine the drive design.

This information is also required for gearmotors that do not depend on a particular mounting position.

5.2.1 Order information for all gear units and gearmotors

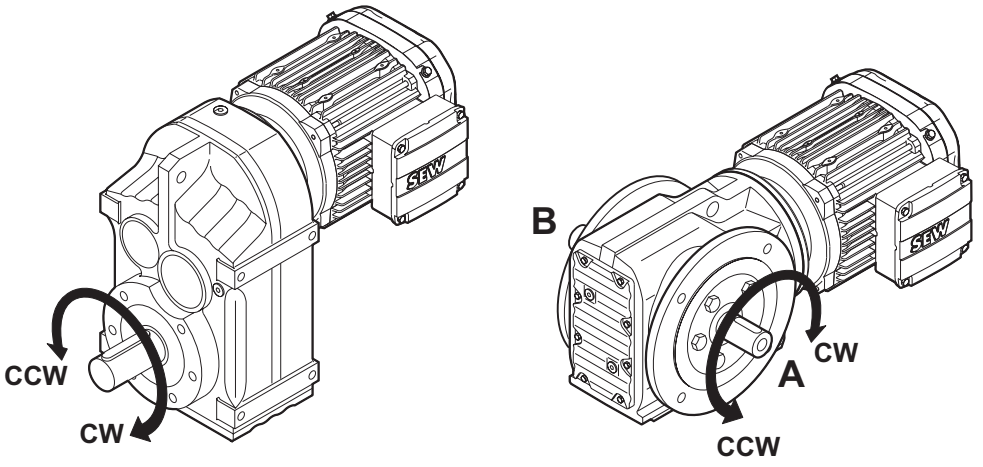
Observe the following notes for all gear units and gearmotors from SEW-EURODRIVE.

Output direction of rotation with backstop

The purpose of a backstop is to prevent unwanted directions of rotation. During operation, the backstop permits rotation only in the specified direction. If the drive has an RS backstop, you have to indicate the direction of rotation of the output for the drive.

The direction of rotation is specified as viewed onto the output shaft (LSS):

- CW rotation
- CCW rotation



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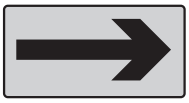
In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B-side.

The permitted direction of rotation is indicated by a direction arrow on the housing:



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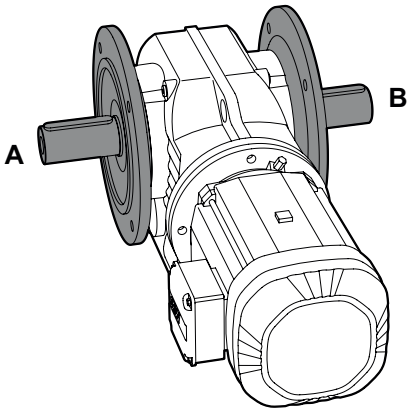
A replacement label is enclosed for the customer.

Position of the output shaft and the output flange

In right-angle gear units, you also have to indicate the position of the output shaft and the output flange:

- A or B or AB

26883198/EN – 04/2022



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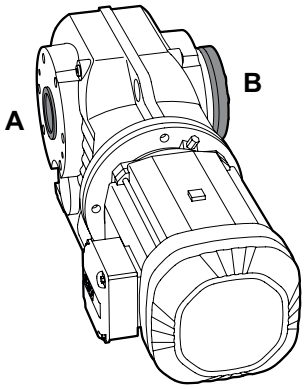
Position of the output end in right-angle gear units

In shaft-mounted, right-angle gear units with a shrink disk, you also have to indicate whether the A or B-side is the output end. In the figure below, the A-side is the output end. The shrink disk is located opposite the output end.

In shaft-mounted, right-angle gear units, the designation "output end" is equivalent to the designation "position of the output shaft" used for right-angle gear units with solid shaft.



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INFORMATION

For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets (see chapter "Mounting position sheets").

5.2.2 Position of motor terminal box and cable entry

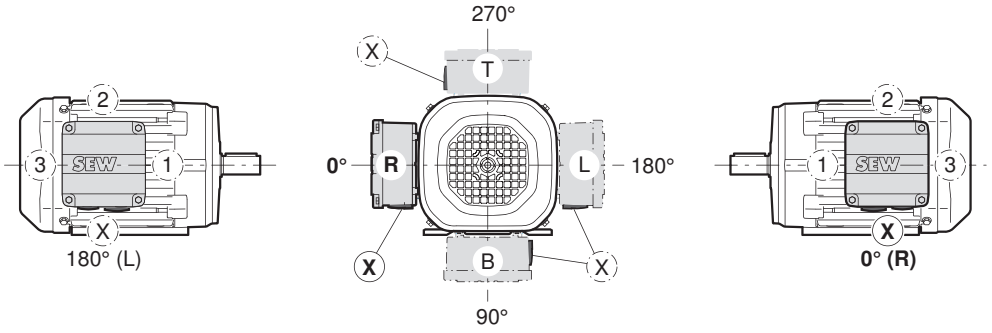
The position of the motor terminal box has so far been indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard (= B-side), see also the following figure. A change in the standard DIN EN 60034 specifies that the following designations will have to be used for terminal box positions for foot-mounted motors in the future:

- As viewed onto the output shaft = A-side
- Designation as R (right), B (bottom), L (left) and T (top)

This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). For gearmotors, the previous designation is maintained. The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly. In motor mounting position B8 (= M3), T is at the bottom.

26883198/EN – 04/2022

The position of the cable entry can be selected as well. "X" (= normal position), "1", "2" or "3" are possible, as shown in following figure.



3975310859

Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. SEW-EURODRIVE recommends selecting cable entry "2" with mounting position M3.

INFORMATION

Only cable entries "X" and "2" are possible for DR2S56.. and DRN63.. motors. Exception: This limitation does not apply with IS plug connectors.

INFORMATION

When the **terminal box is in the 90° (B) position**, check to see if the gearmotor has to be supported.

Software support

Not all cable entry positions X, 1, 2, 3 and terminal box positions 0°(R), 90°(B), 180°(L), 270°(T) are possible in any case. Some additional features for the motor require a connection inside the terminal box, which means this terminal box is larger than the standard terminal box due to the normative air gaps and creepage distances. The dimension sheets only depict the standard terminal box.

Dimensions not listed in the dimension sheets are available on the SEW-EURODRIVE website via the respective CAD data.

5.2.3 Sample orders

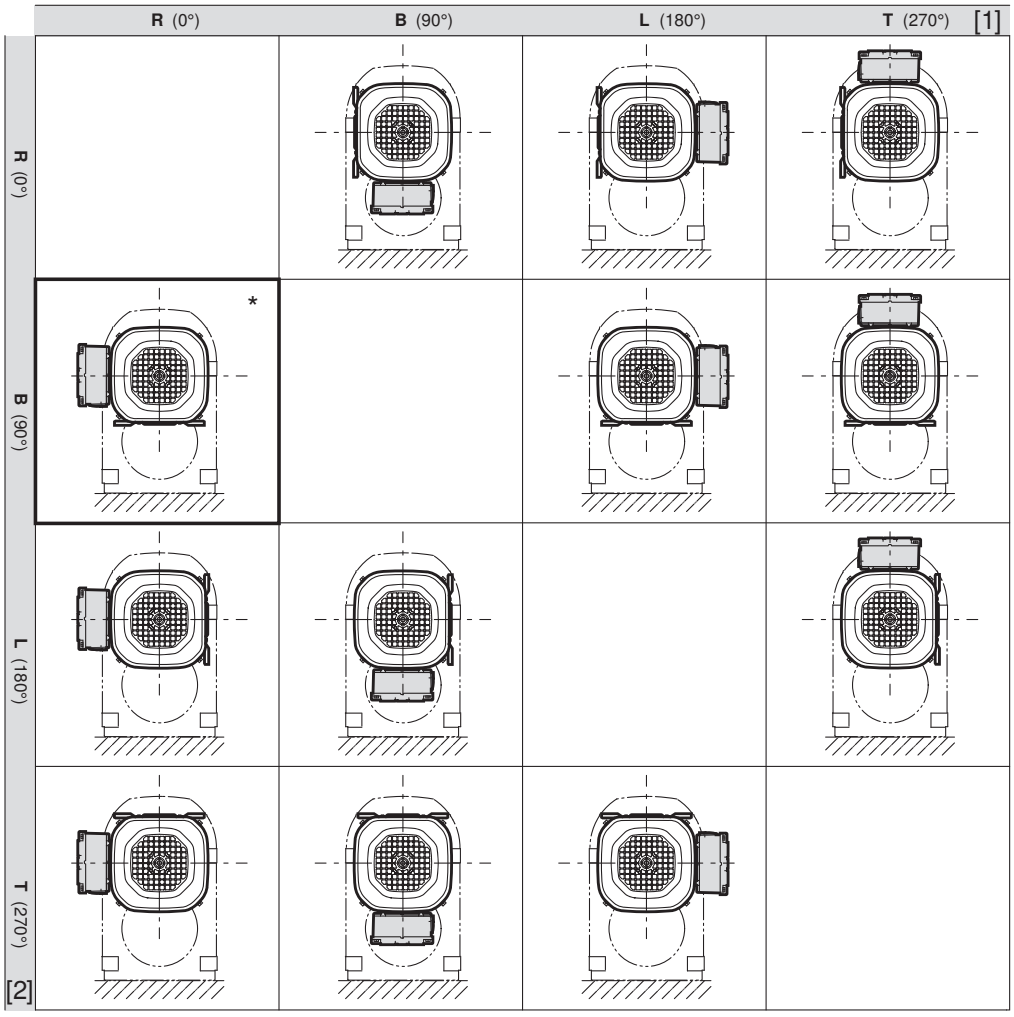
Type (examples)	Mounting position	Shaft position	Flange position	Terminal box position	Cable entry position	Output direction of rotation
K47 DRN71M4/RS	M2	A	-	0°	"X"	Right
SF77 DR2S90L4	M6	AB	AB	90°	"3"	-
KA97/II2GD EDRN132M4/2GD	M4	B	-	270°	"2"	-
KH107 DRN160M4	M1	A	-	180°	"3"	-
KAF67AM90	M3	A	B	-	-	-
K47 DRE90MJ4	M2	A	-	0°	"X"	-
R67 DR2S80M4	M1	-	-	90°	"X"	-
KA29/II2GD EDRN90L4/3G	M4	B	-	270°	"2"	-

26883198/EN – 04/2022

5.2.4 Position motor terminal box and foot for gearmotors with motor option /FM

With gearmotors, the motor is designed as flange-mounted motor for mounting to gear units. It is also possible to provide the motor with feet that can be used for customer components. The load values of the feet are available from SEW-EURODRIVE on request. The position of the foot must be specified in the order.

The following figure shows the possible positions of the terminal box and the feet for gearmotors with motor option /FM.



13588943243

[1] Terminal box positions [2] Foot positions

*) If not specified otherwise in the order, the gearmotor is delivered with foot position B (90°) and terminal box position R (0°).

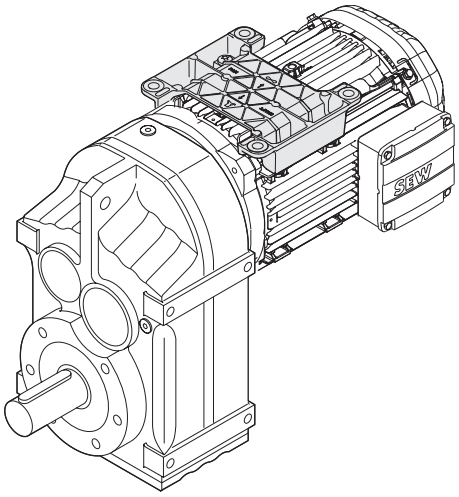
INFORMATION

For motors in size 63 the foot is always positioned at 90° and the terminal box at 270°.

INFORMATION

The foot on the motor is not suited to attach a complete gearmotor.

Example: Gearmotor with motor option /FM:



13678896779

Order information on mounting position of the complete drive, foot positions, terminal box and cable entry:

Mounting position entire drive:	M1
Terminal box position:	R (0°)
Cable entry:	X
Foot position:	T (270°)

26883198/EN – 04/2022

5.3 Key to the mounting position sheets

INFORMATION

The positions of the breather valve, oil level plug, and oil drain plug specified in the mounting position sheets are binding and comply with the assembly specifications.

The motors are only depicted symbolically on the mounting position sheets.

INFORMATION

For gear units with solid shaft: The displayed shaft is always on the A-side.

For shaft-mounted gear units: The shaft with dashed lines represents the customer shaft. The output end (= output shaft position) is always shown on the A-side.

INFORMATION

SPIROPLAN®gearmotors W..10, W..20 and W..30 are independent of the mounting position. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.

INFORMATION

SPIROPLAN® gearmotors W..10 to W..30 cannot be equipped with breather valves, oil level plugs or oil drain plugs.

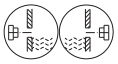
The SPIROPLAN®W..9 gearmotors are only equipped with a breather valve in mounting position M4.

INFORMATION

Some gear units can be supplied in mounting position M0. In this case, the gear unit is delivered in a universal mounting position and can be adjusted to various mounting positions by the customer. It may be necessary to contact SEW-EURODRIVE.

5.3.1 Symbols used

The following table shows the symbols used in the mounting position sheets.

Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug

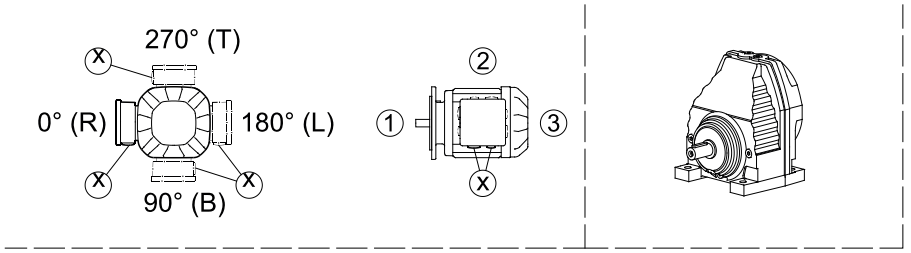
26883198/EN – 04/2022

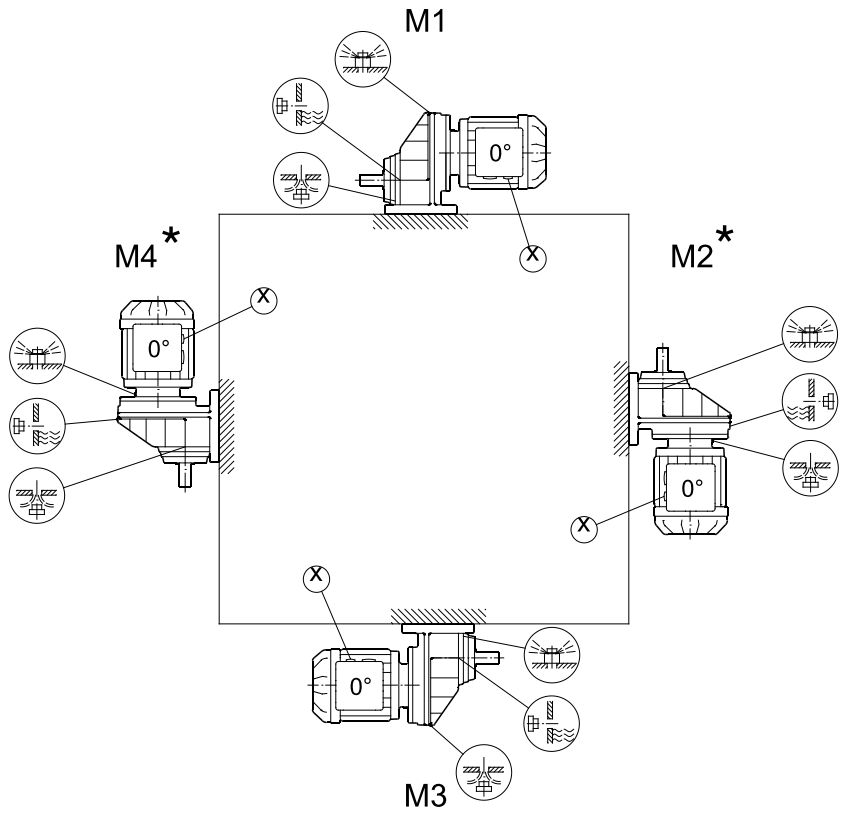
5.4 Mounting position sheets

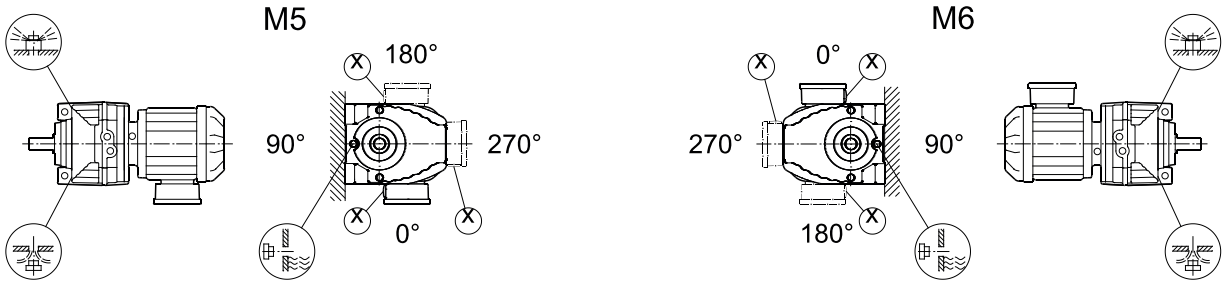
5.4.1 Mounting positions of helical gear units

RX57 – RX107

04 043 03 00





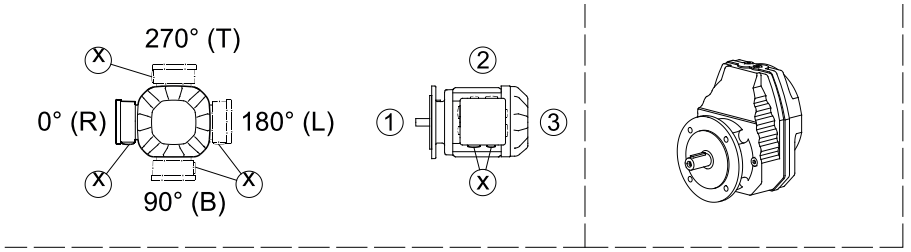


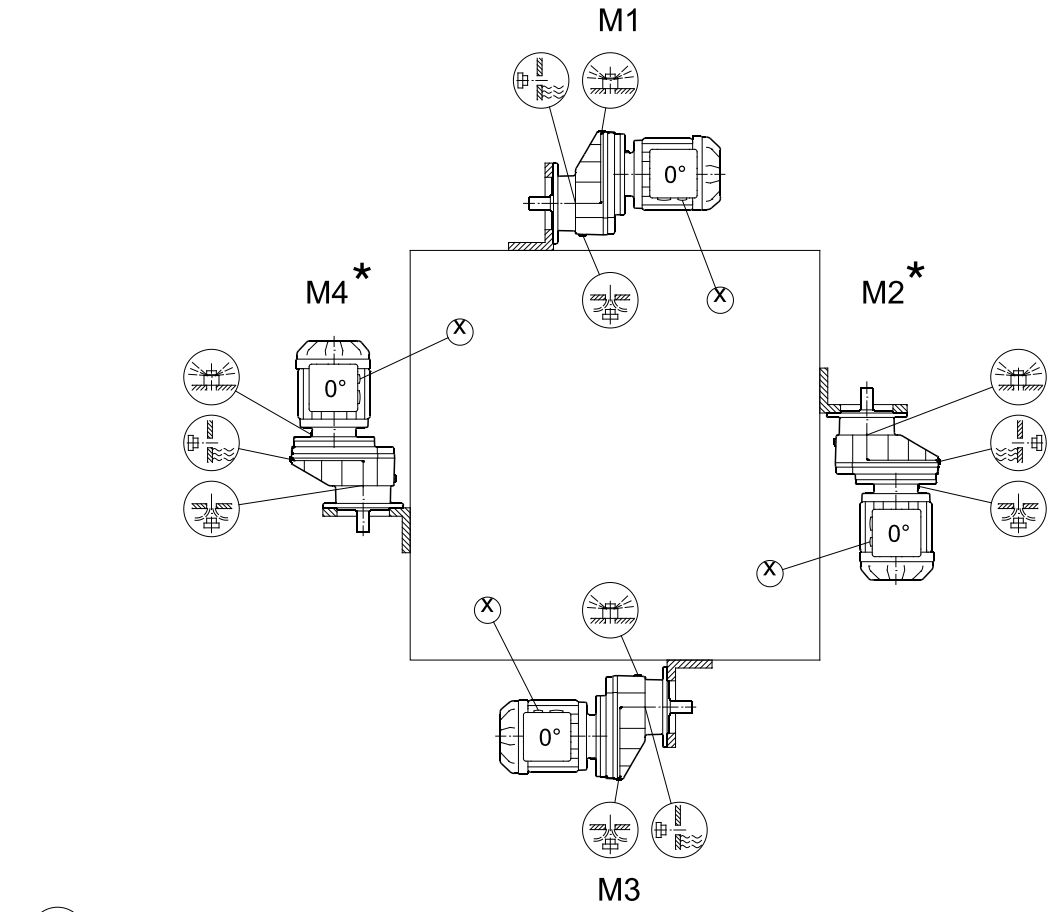
* (→ 🗎 65)

26883198/EN – 04/2022

RXF57 – RXF107

04 044 03 00

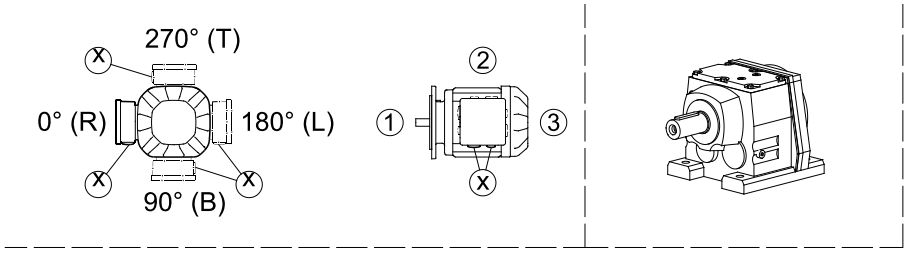


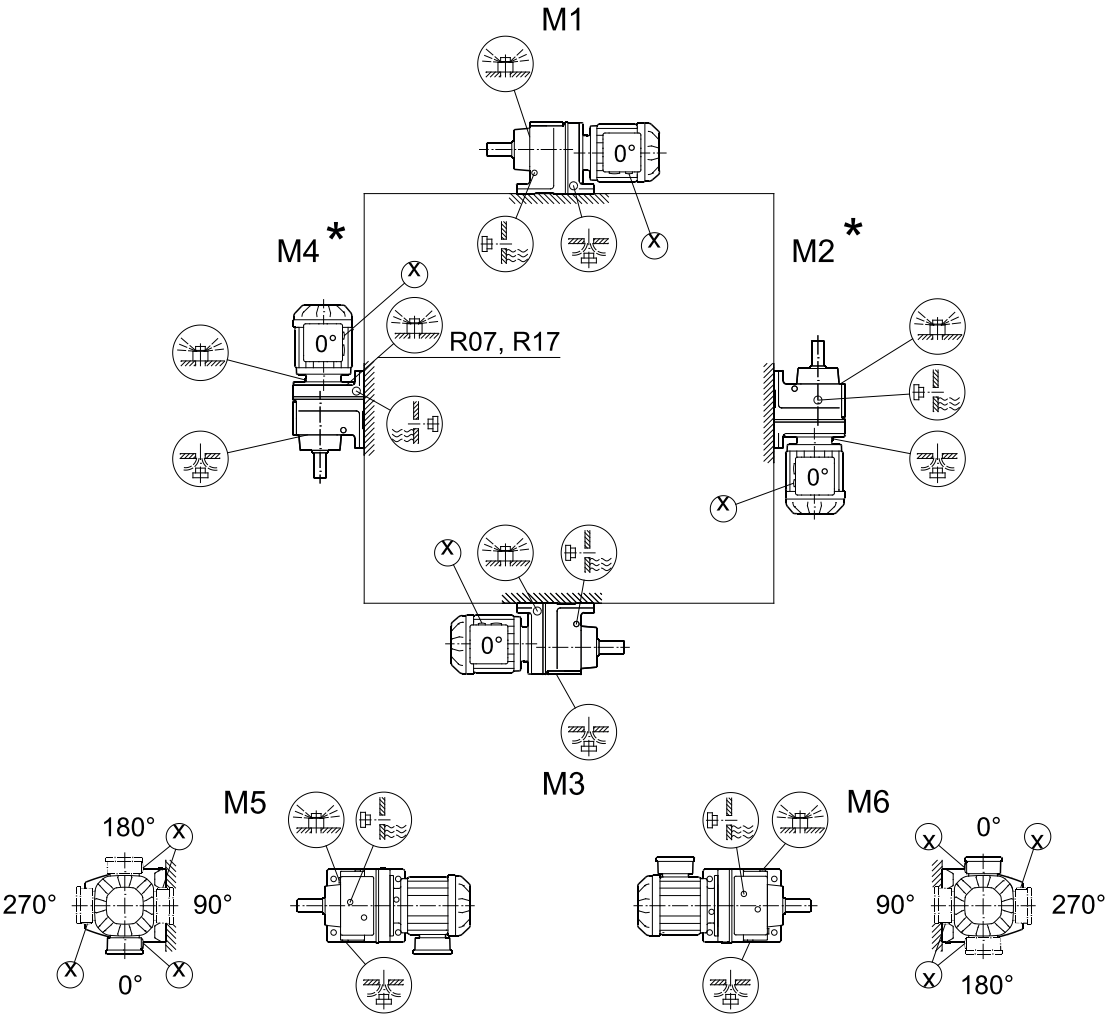


* (→ 🗎 65)

R07 – R167

04 040 04 00





R07	⊗	M1, M2, M3, M5, M6
R17, R27	⊗	M1, M3, M5, M6
R07, R17, R27	⊗ ⊗	
R47, R57	⊗	M5

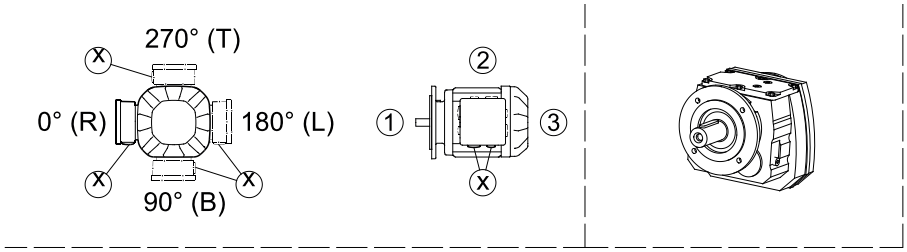
* (→ 🗎 65)

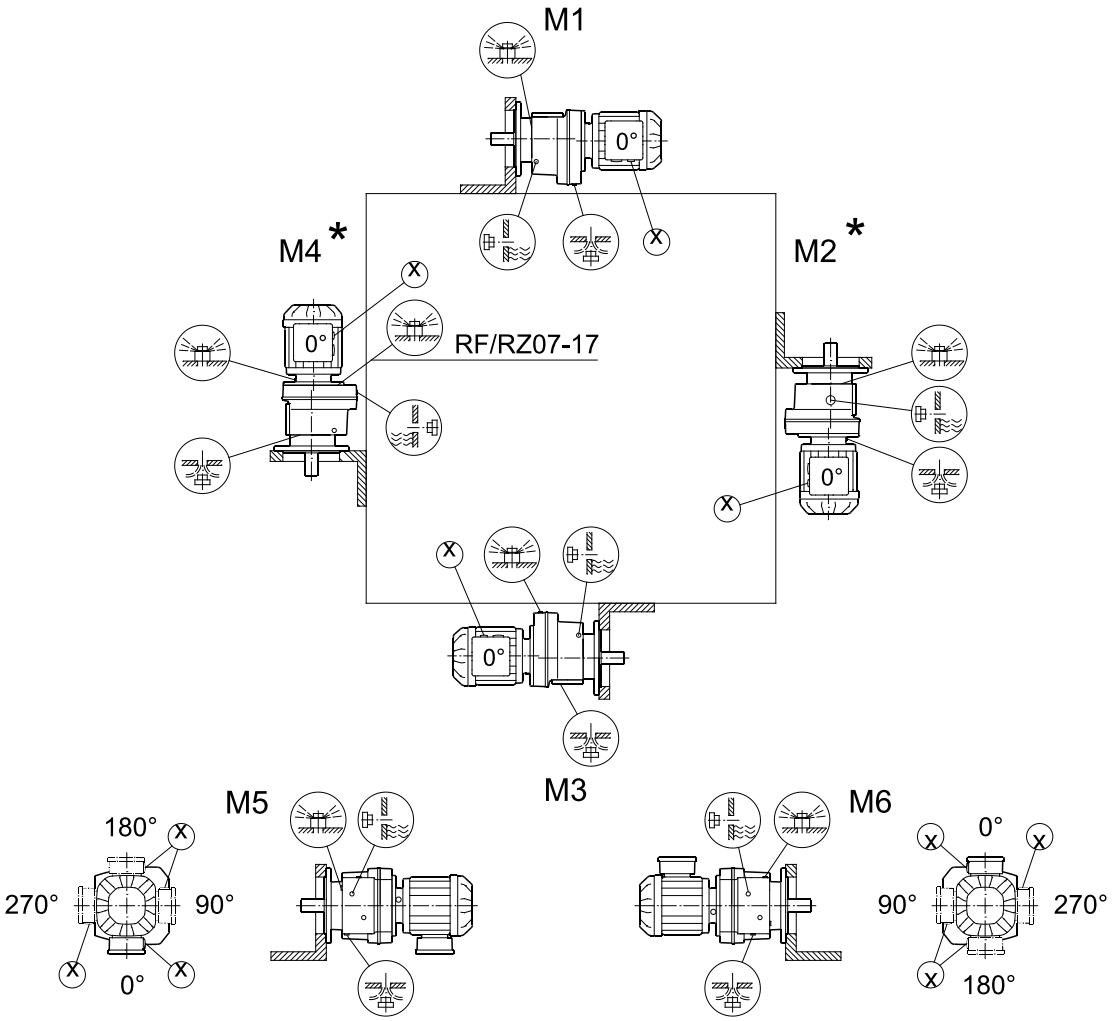
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

26883198/EN – 04/2022

RF07 – RF167, RZ07 – RZ87, RM57 – RM167

04 041 04 00





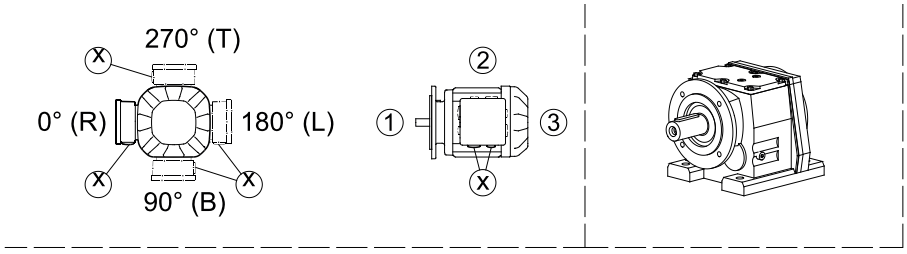
RF/RZ07	⊗	M1, M2, M3, M5, M6
RF/RZ17, 27	⊗	M1, M3, M5, M6
RF/RZ07, 17, 27	⊗ ⊗	
RF/RZ47, 57	⊗	M5

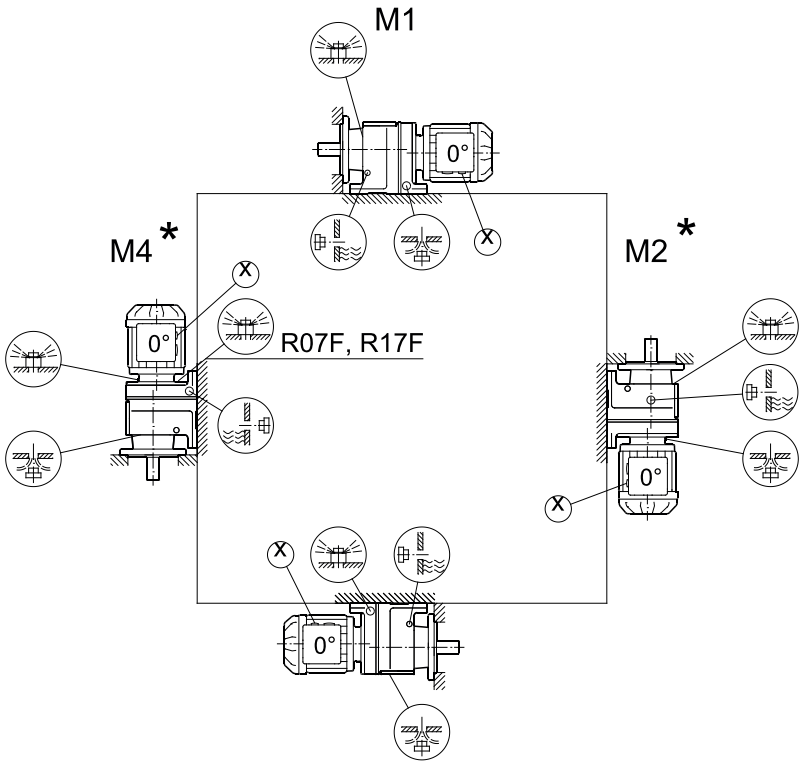
* (→ 🗎 65)

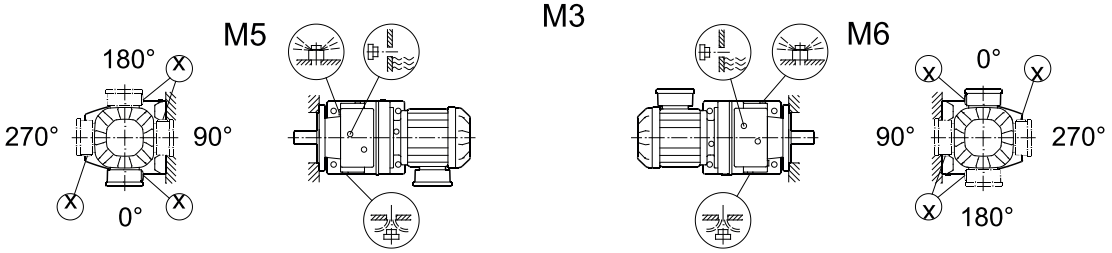
26883198/EN – 04/2022

R07F – R87F

04 042 04 00







R07F	M1, M2, M3, M5, M6
R17F, R27F	M1, M3, M5, M6
R07F, R17F, R27F	
R47F, R57F	M5

* (→ 🗎 65)

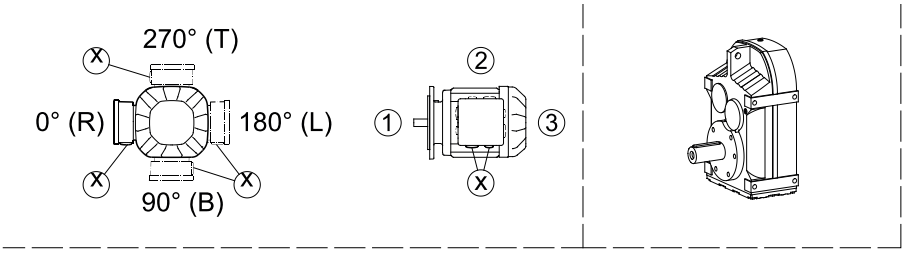
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

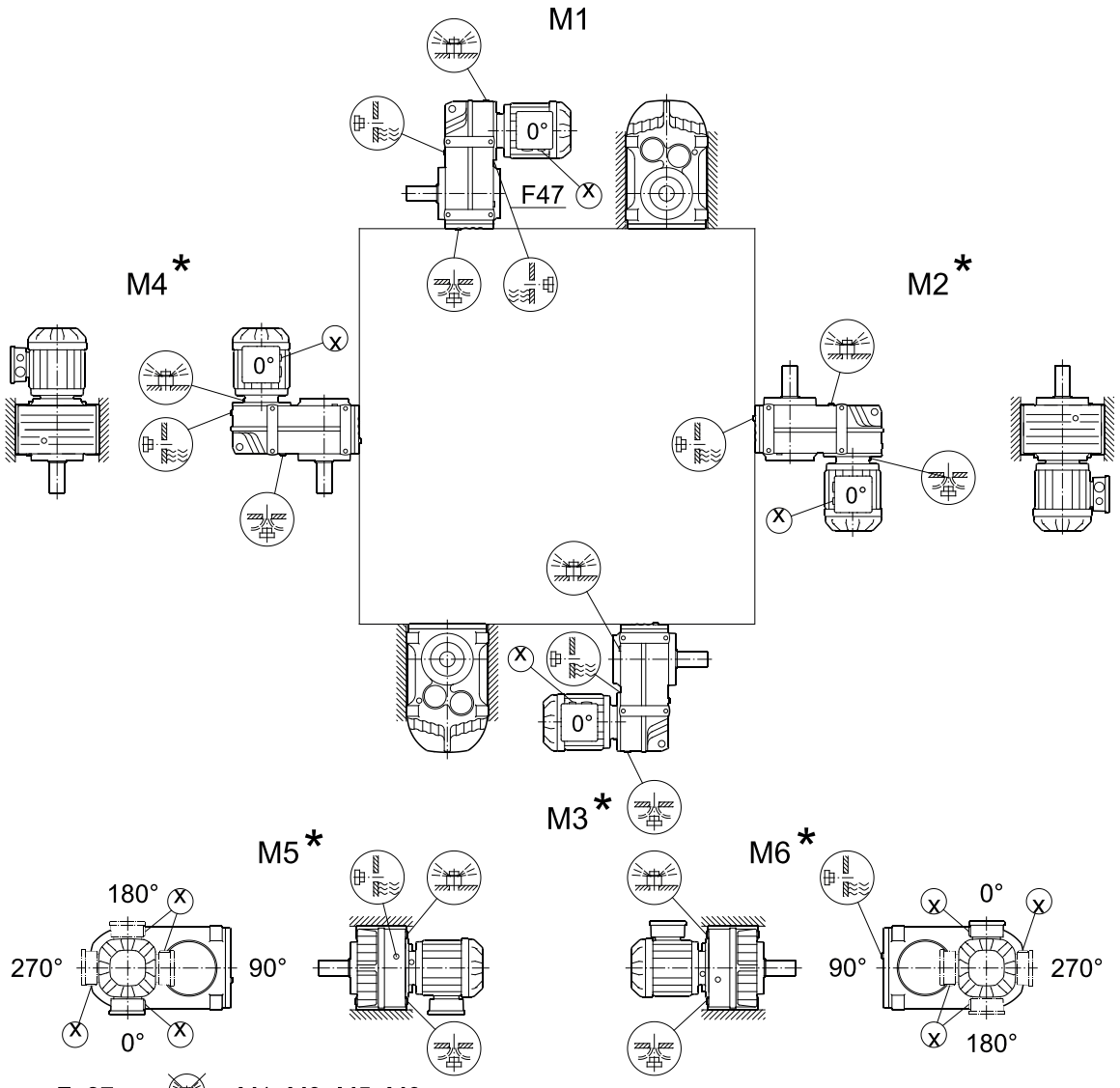
26883198/EN – 04/2022

5.4.2 Mounting positions of parallel-shaft helical gear units

F/FA..B/FH27B – 157B, FV27B – 107B

42 042 04 00





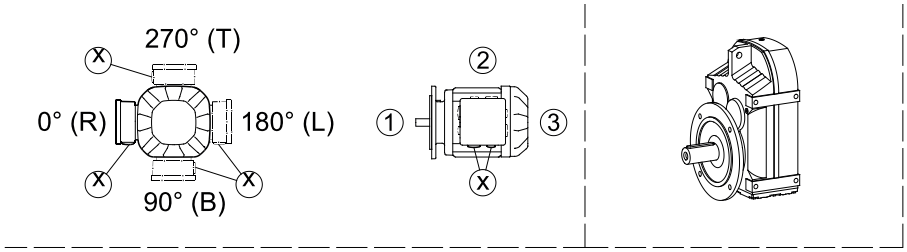
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

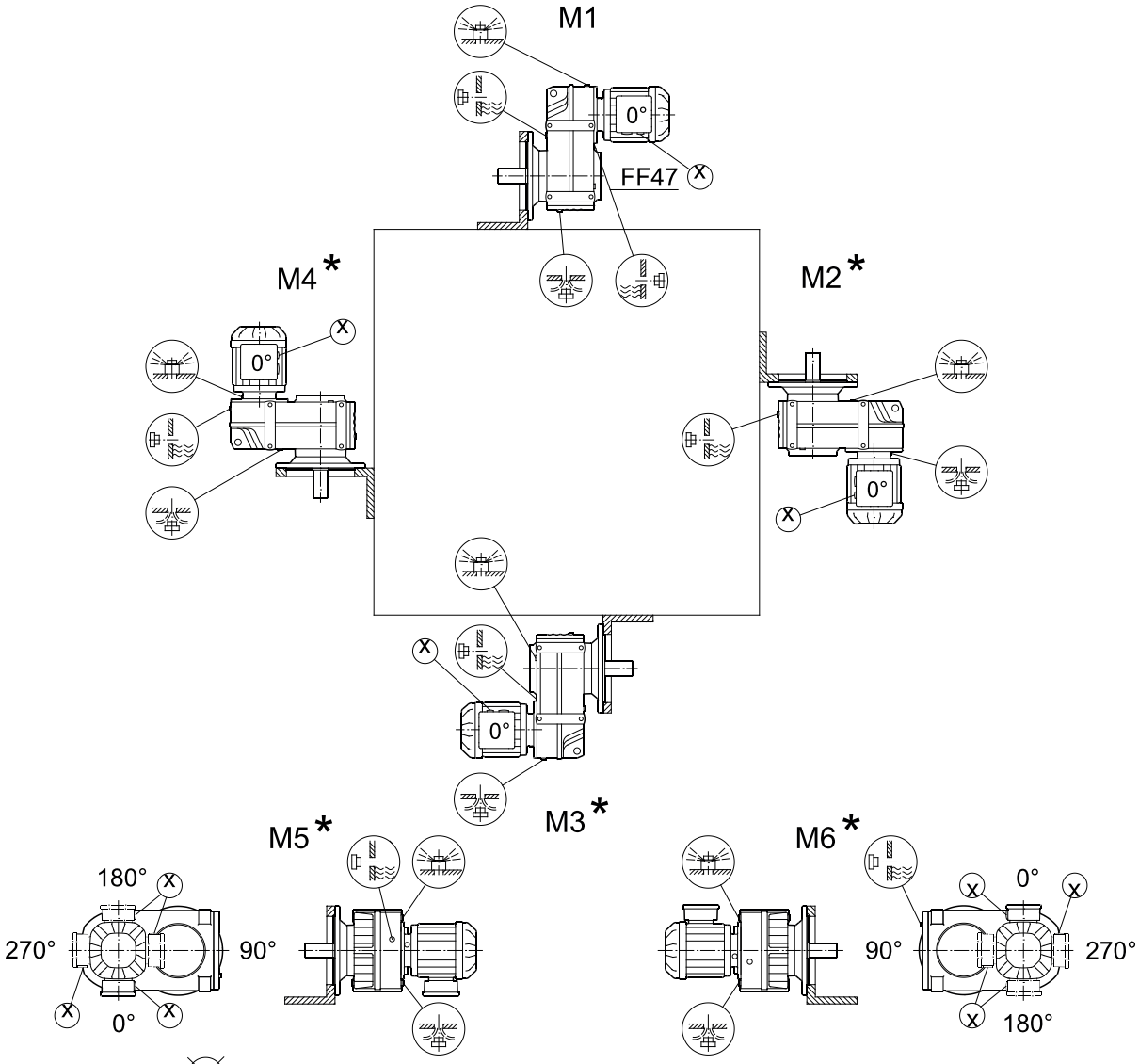
* (→ 🗎 65)

26883198/EN – 04/2022

FF/FAF/FHF/FZ/FAZ/FHZ27 – 157, FVF/FVZ27 – 107, FM/FAM67 – 157

42 043 04 00





F..27 M1, M3, M5, M6

F..27 M1 - M6

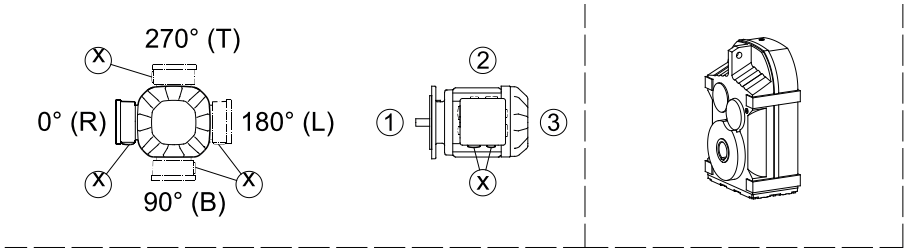
F..27 M1, M3, M5, M6

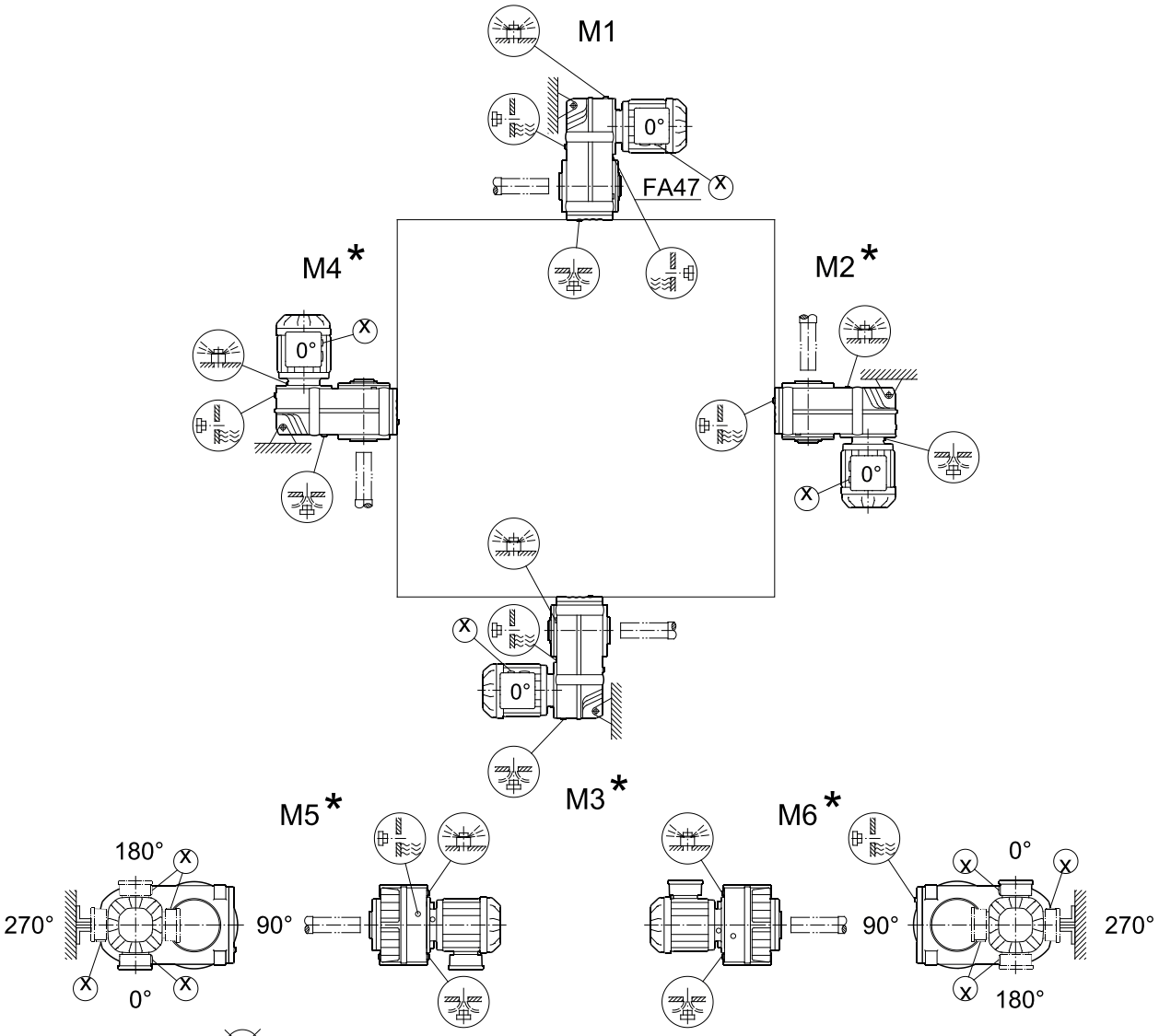
* (→ 🗎 65)

26883198/EN – 04/2022

FA/FH27 – 157, FV27 – 107, FT37 – 157

42 044 04 00





F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

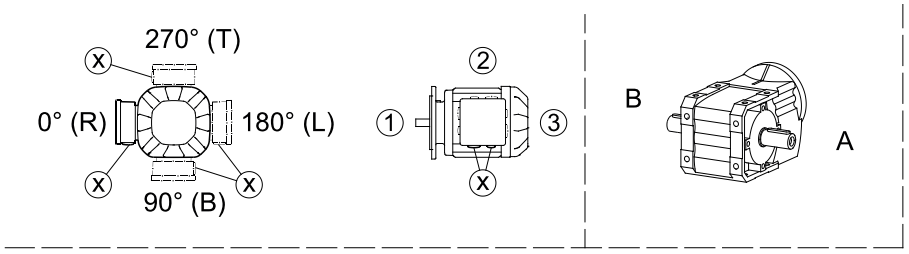
* (→ 🗎 65)

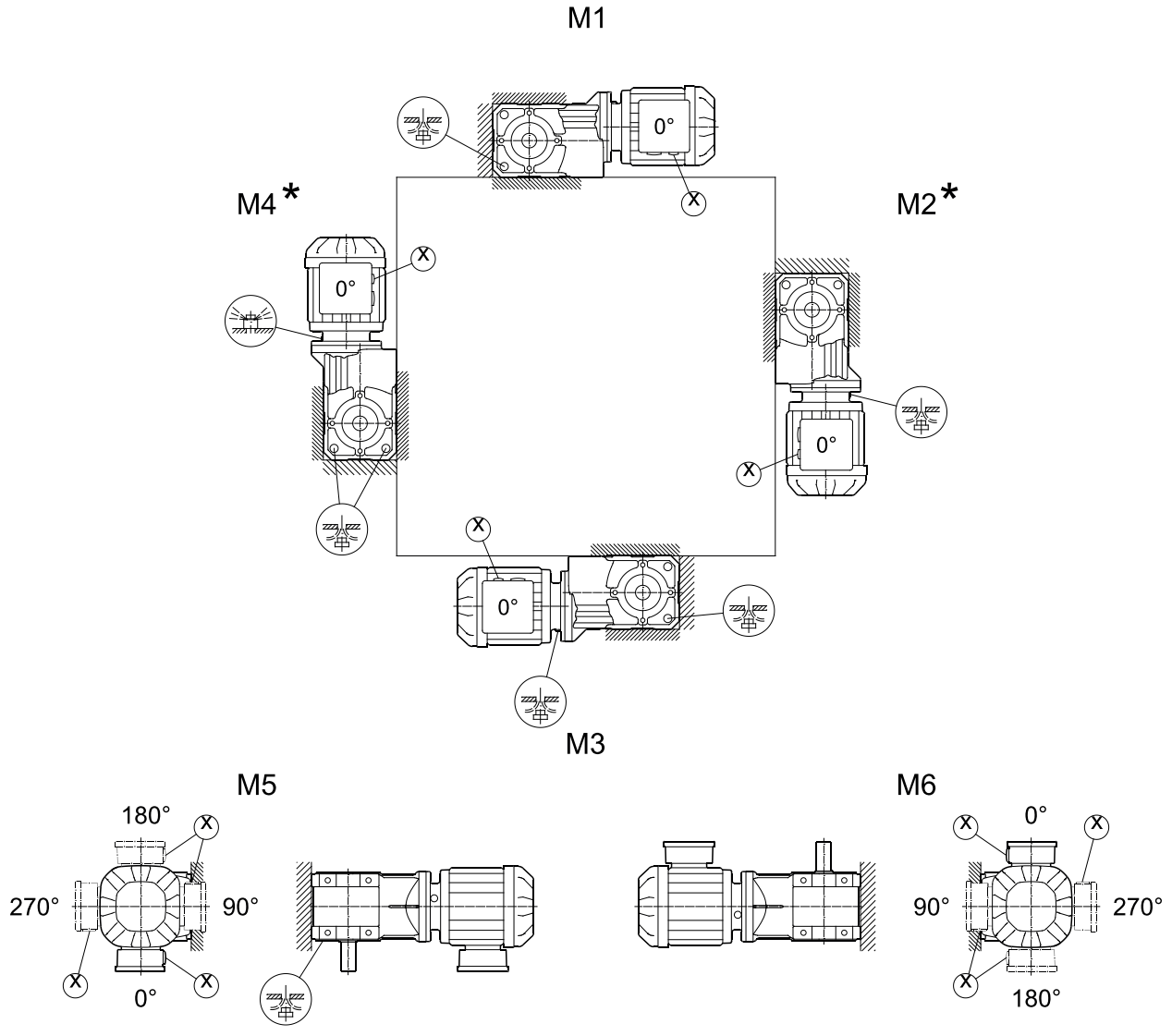
26883198/EN – 04/2022

5.4.3 Mounting positions of helical-bevel gear units

K/KA..B/KH19B – 29B

33 023 00 15





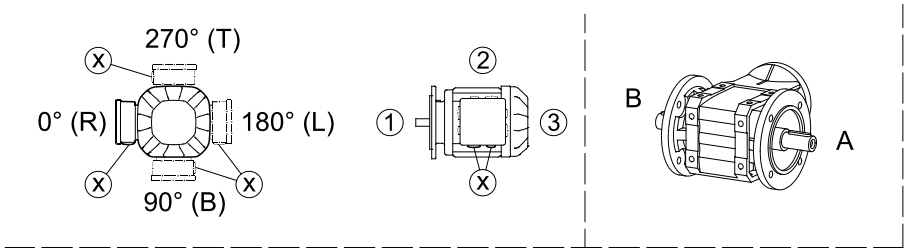
* (→ 🗎 65)

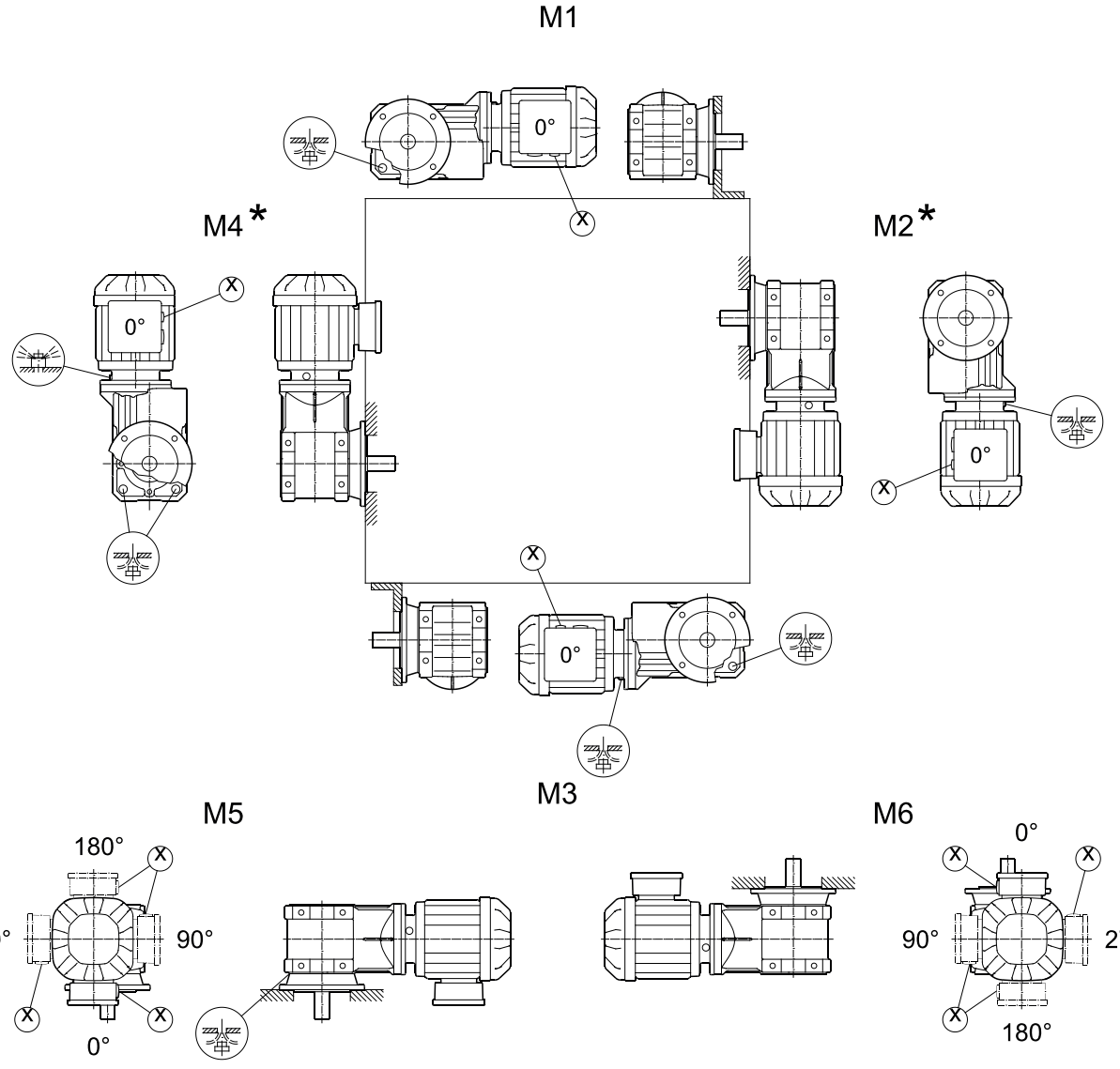
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

26883198/EN – 04/2022

KF..B/KAF..B/KHF19B – 29B

33 024 00 15





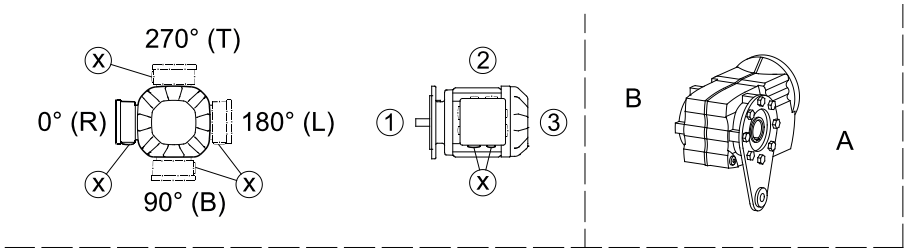
* (→ 🗎 65)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

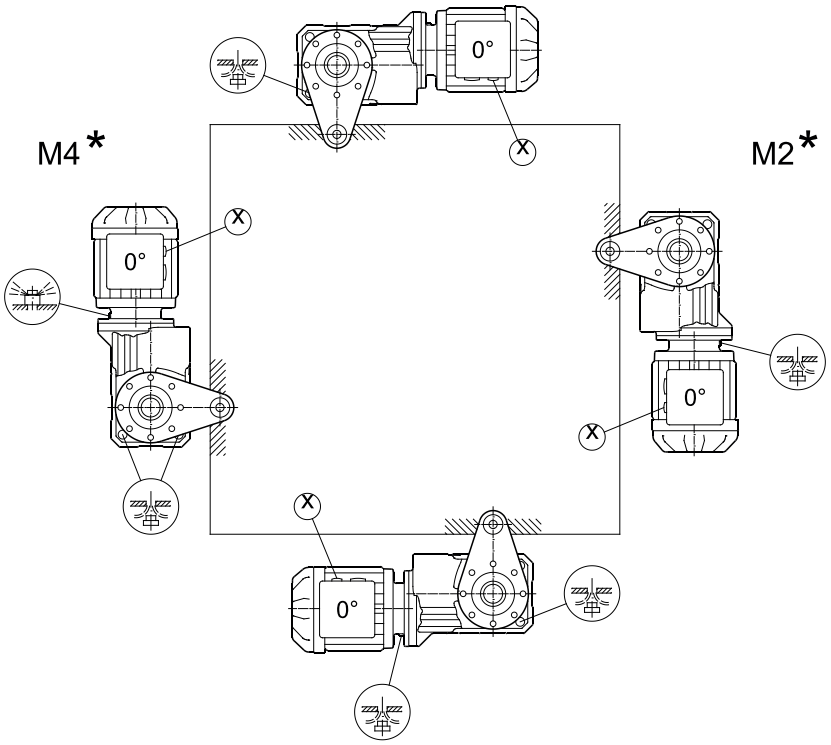
26883198/EN – 04/2022

KA..B/KH19B – 29B

33 025 00 15



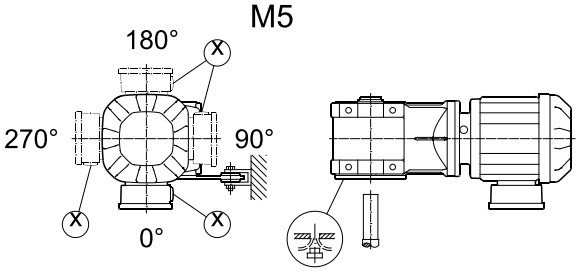
M1



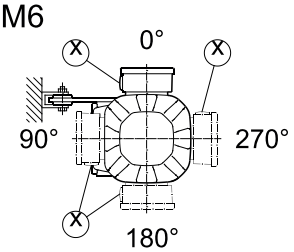
M4 * M2 *

M3

M5



M6



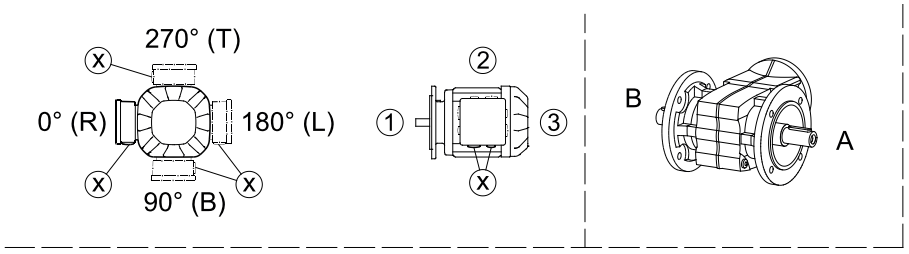
* (→ 🗎 65)

Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

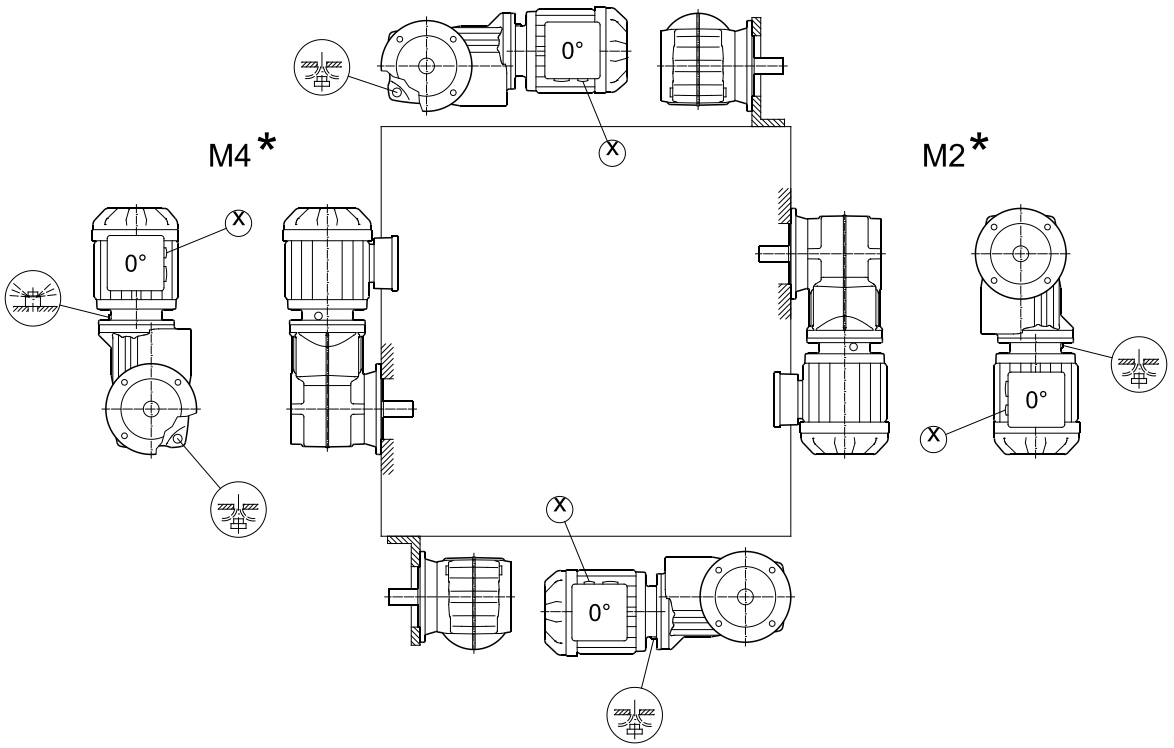
26883198/EN – 04/2022

KF/KAF/KHF19 – 29

33 026 00 15

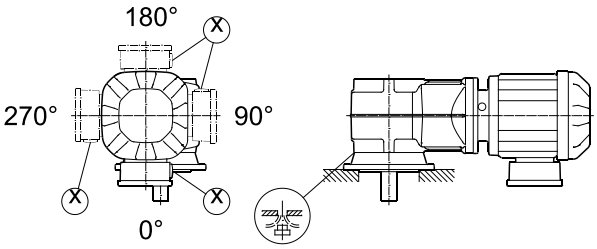


M1

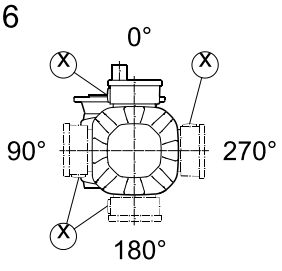


M3

M5



M6

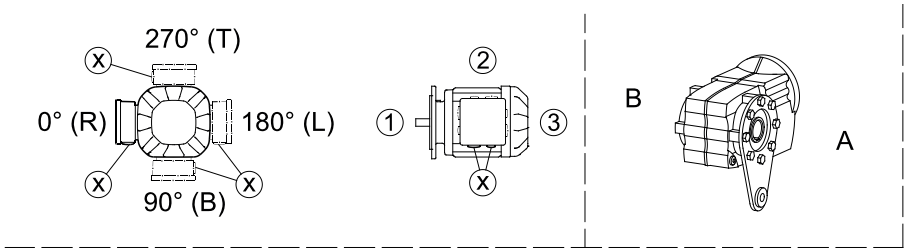


* (→ 🗎 65)

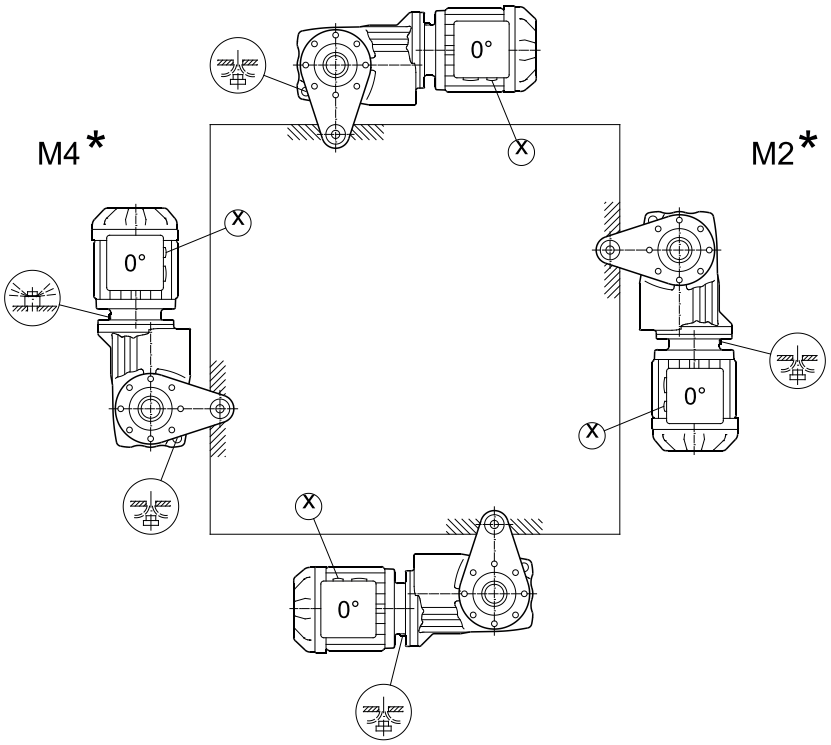
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

KA/KH/KT19 – 29

33 027 00 15



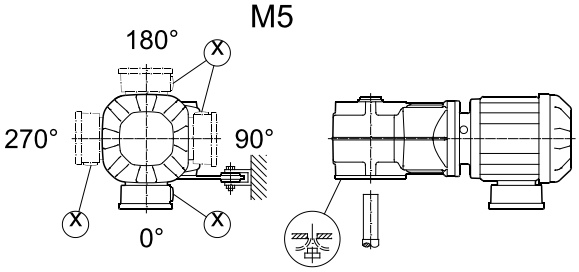
M1



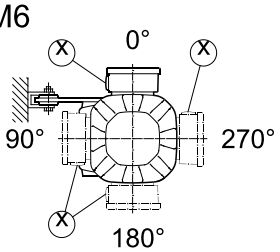
M4 * M2 *

M3

M5



M6

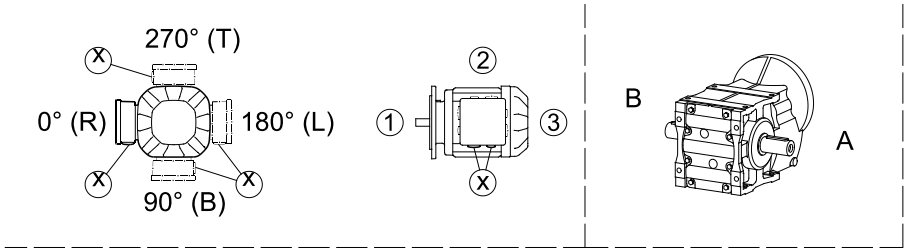


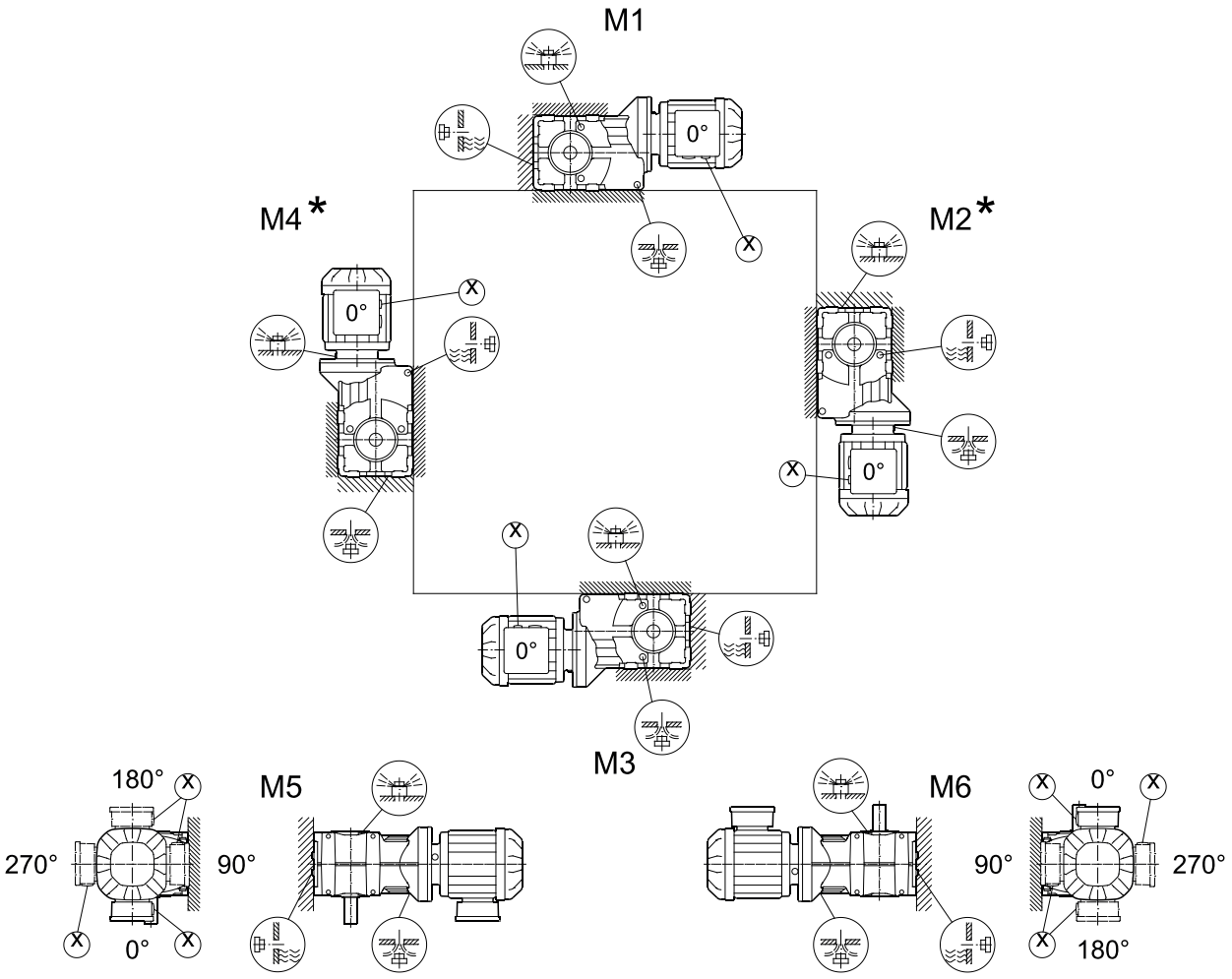
* (→ 65)

26883198/EN – 04/2022

K/KA..B39 – 49

33 092 03 14



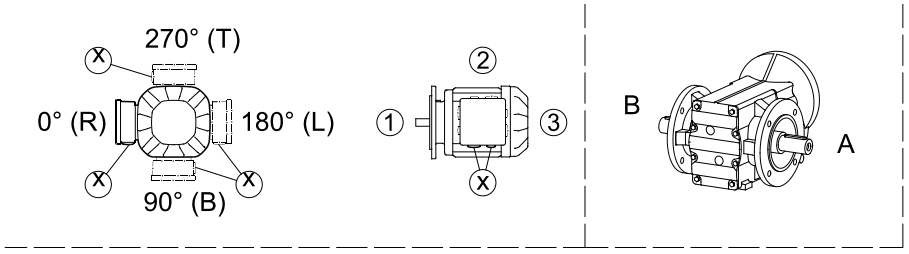


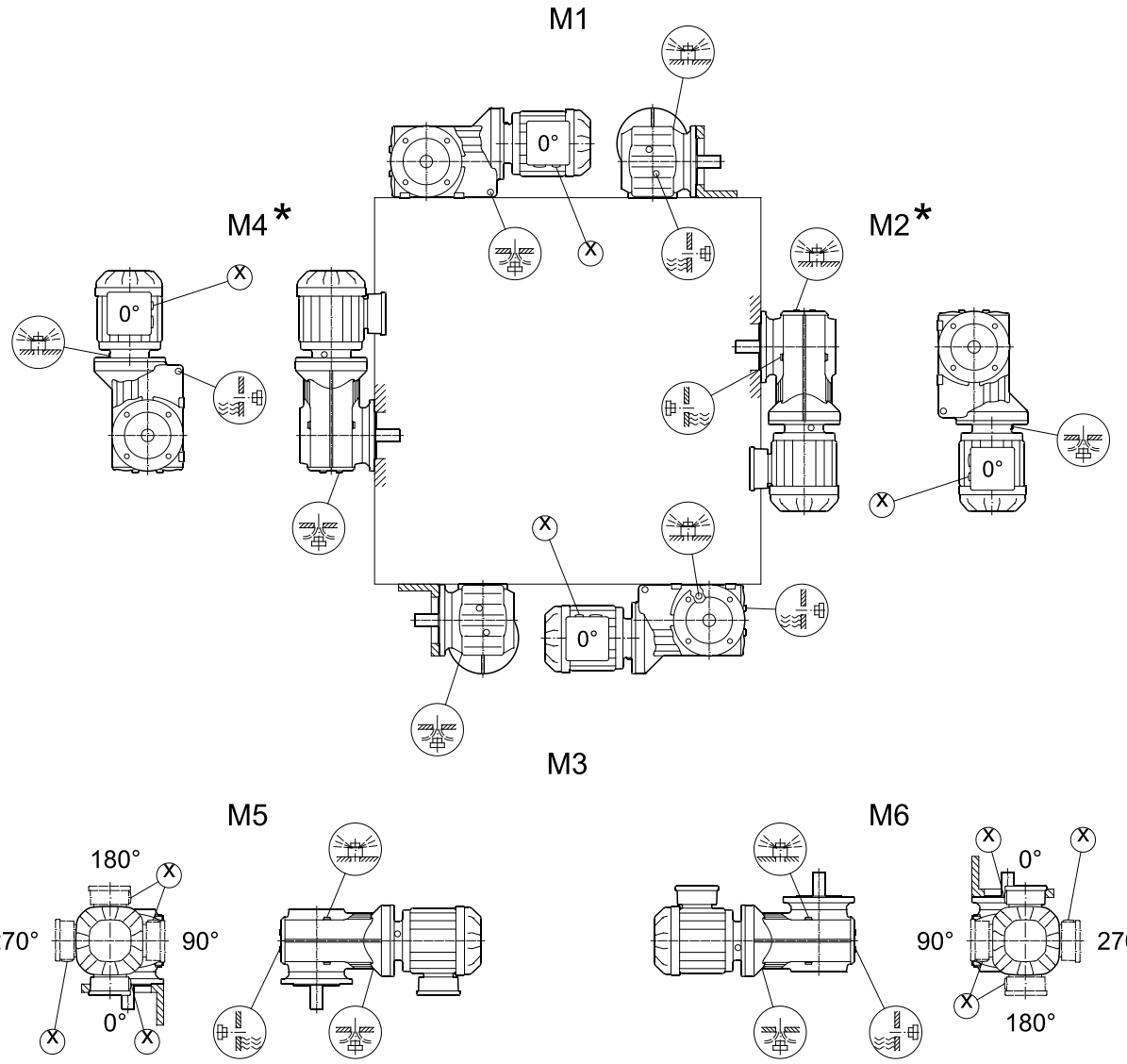
* (→ 🗎 65)

26883198/EN – 04/2022

KF/KAF/KHF39 – 49

33 093 01 14



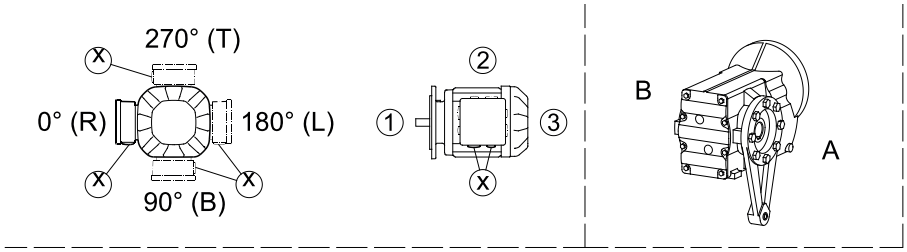


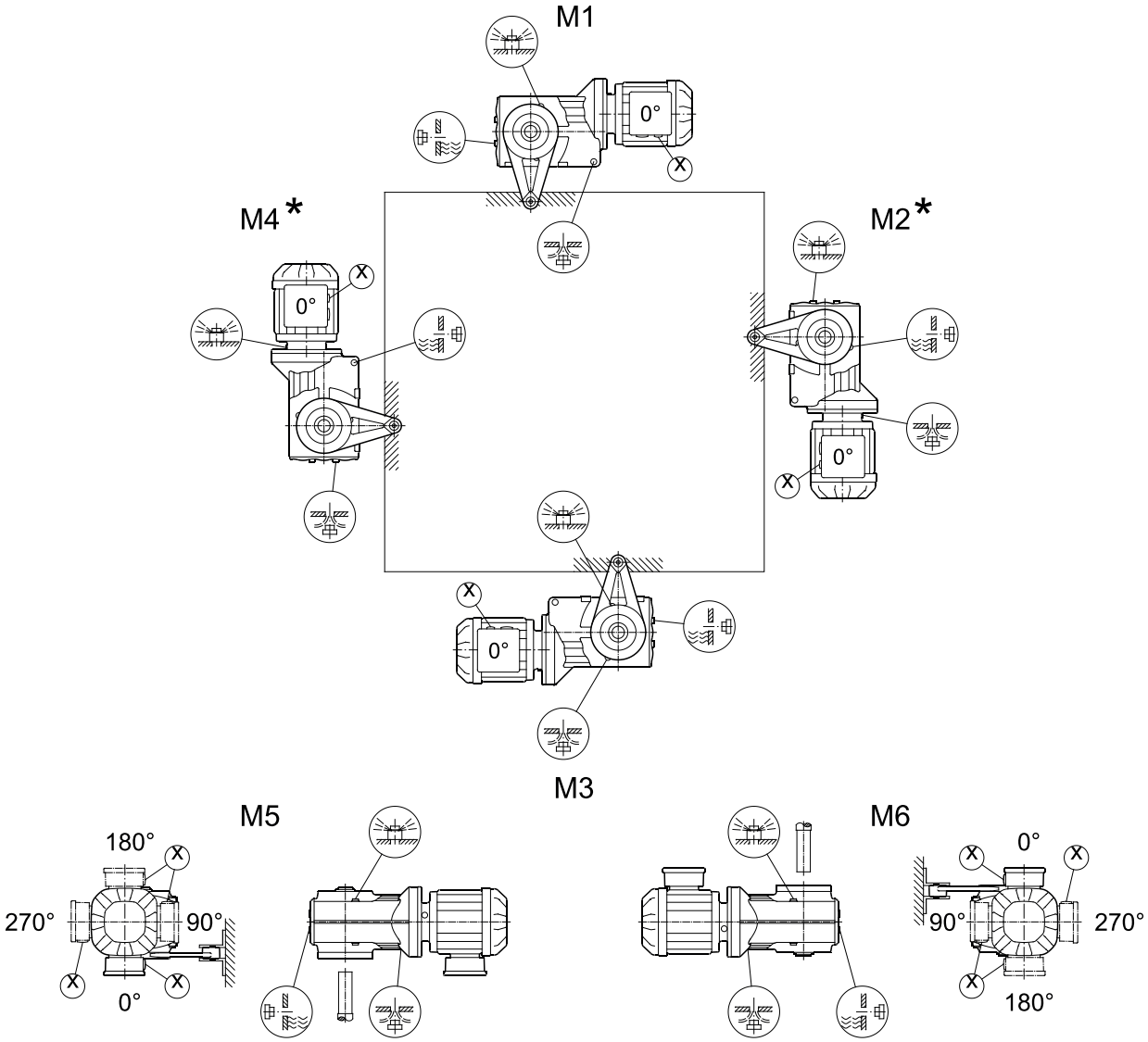
* (→ 🗎 65)

26883198/EN – 04/2022

KA/KH/KT39 – 49

33 094 01 14



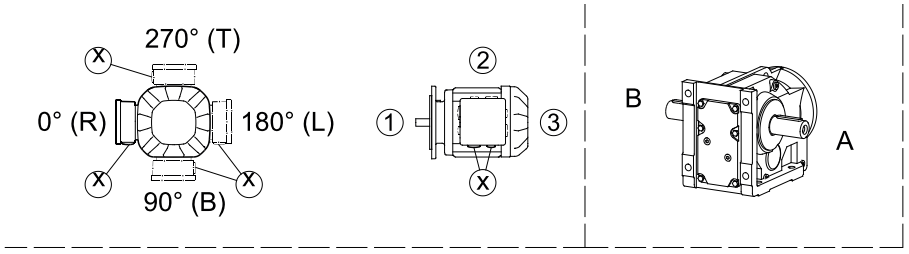


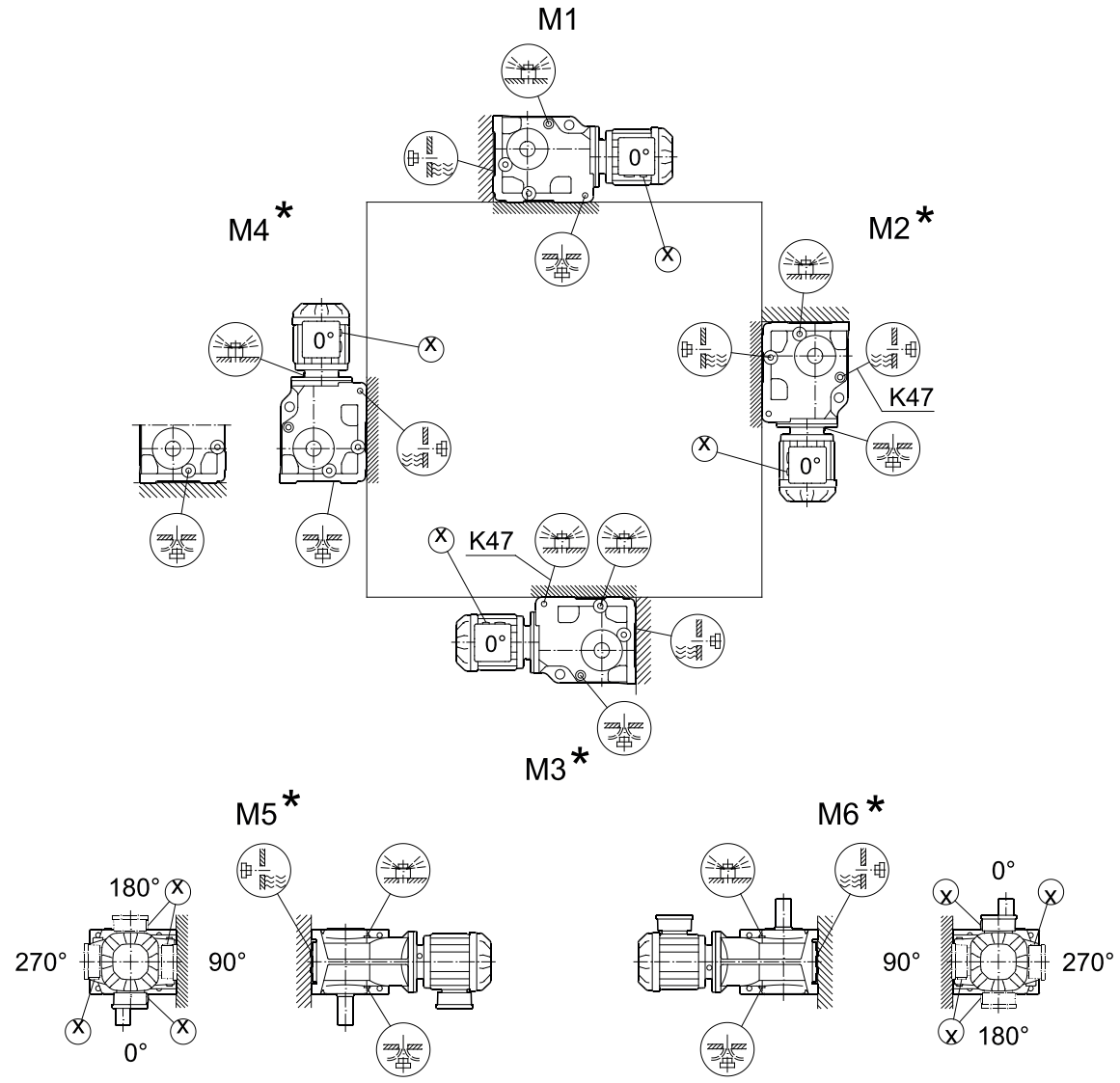
* (→ 65)

26883198/EN – 04/2022

K37 – 157, KA..B/KH47B – 157B, KV47B – 107B

34 025 05 00





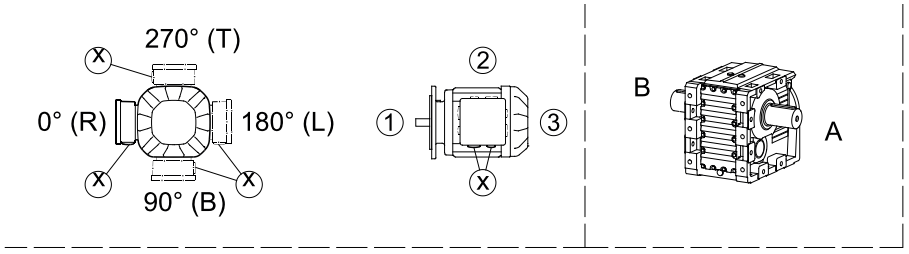
* (→ 🗎 65)

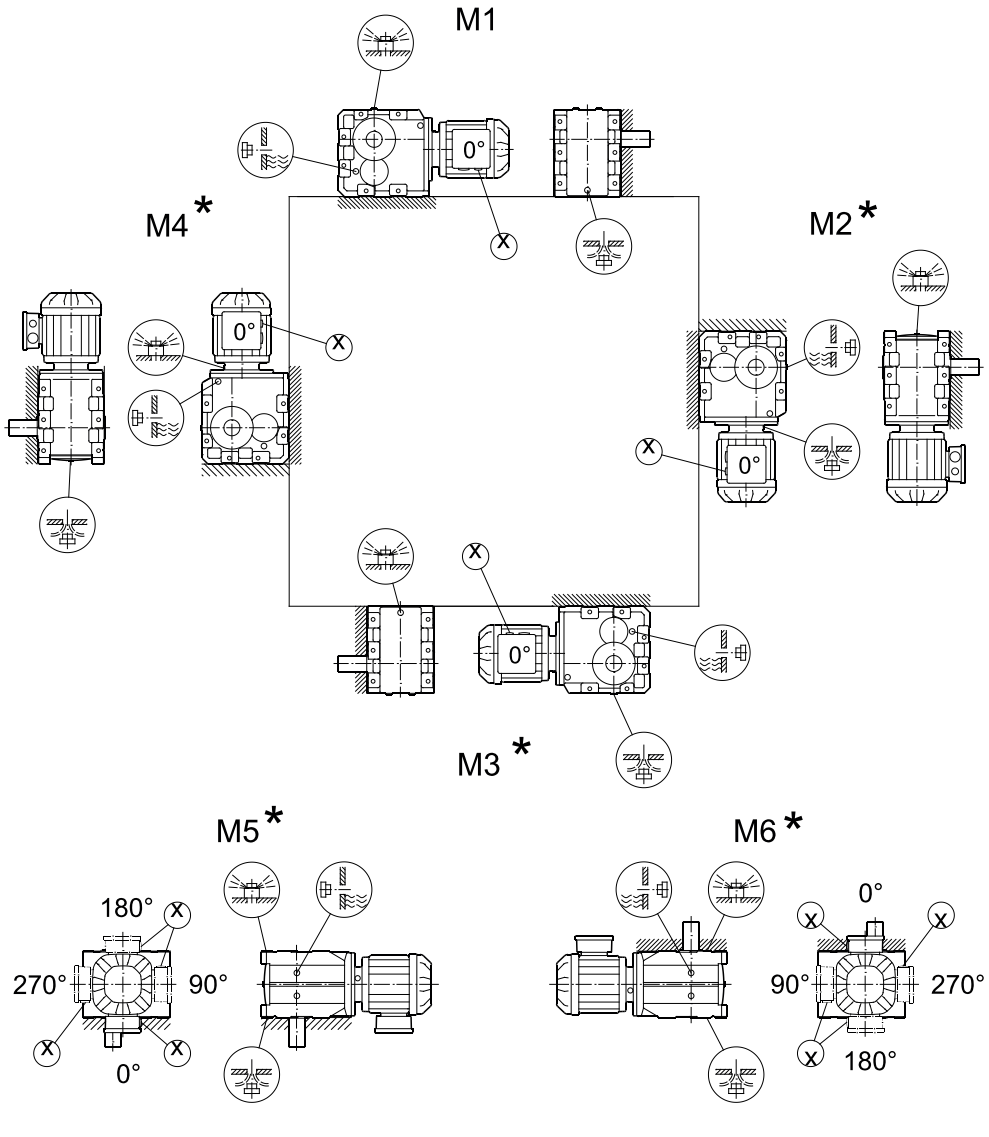
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

26883198/EN – 04/2022

K167 – 187, KH167B – 187B

34 026 05 00





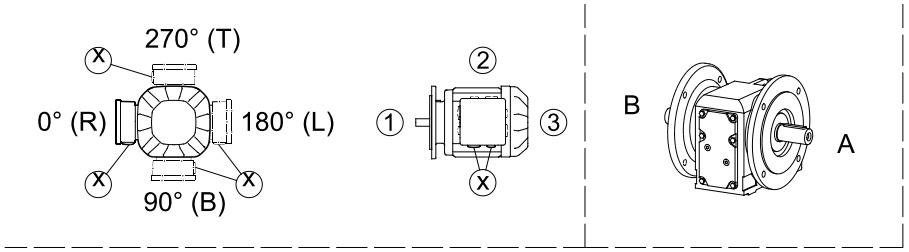
* (→ 🗎 65)

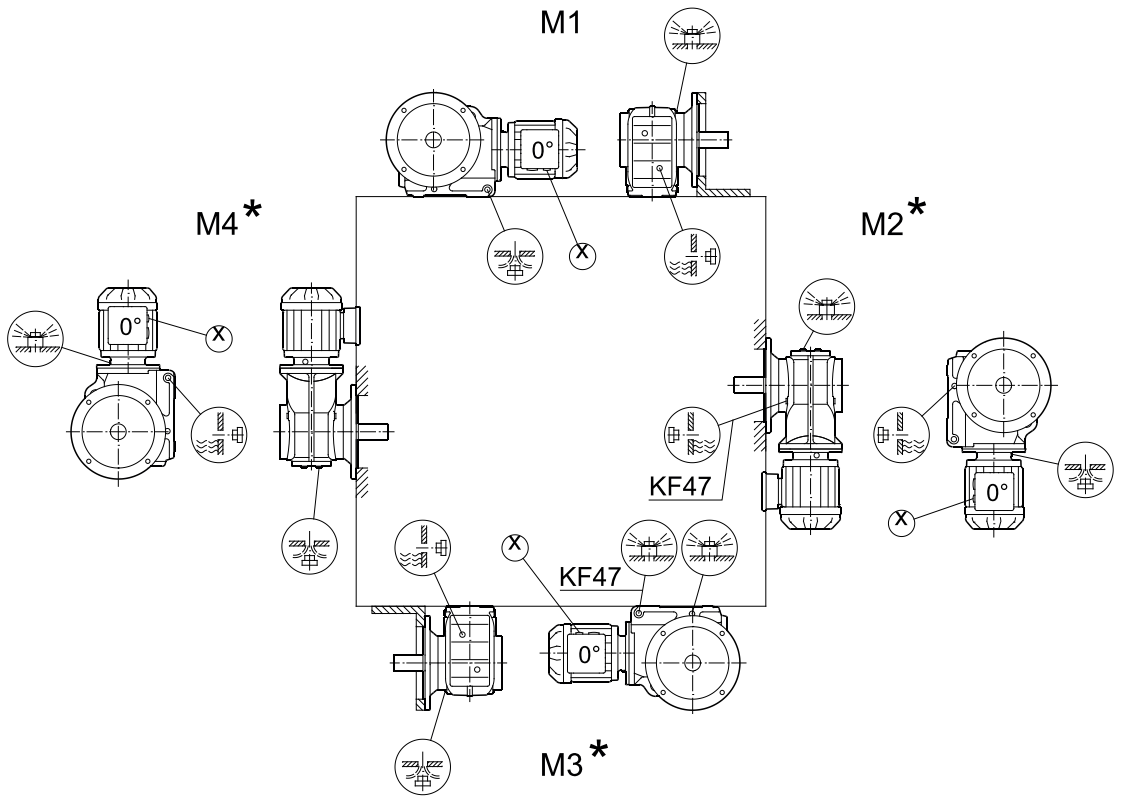
Observe the information in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

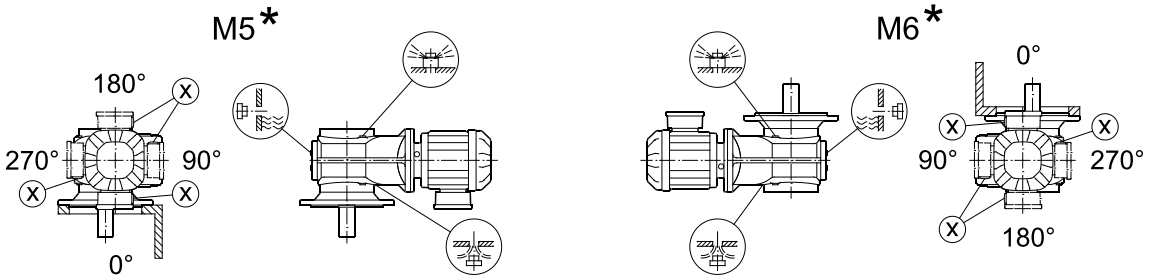
26883198/EN – 04/2022

KF/KAF/KHF/KZ/KAZ/KHZ37 – 157, KVF/KVZ37 – 107, KM/KAM67 – 157

34 027 04 00





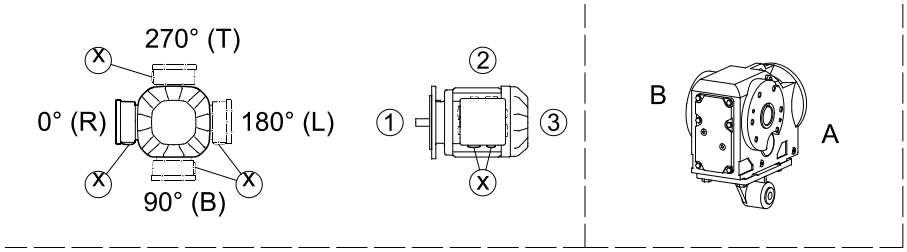


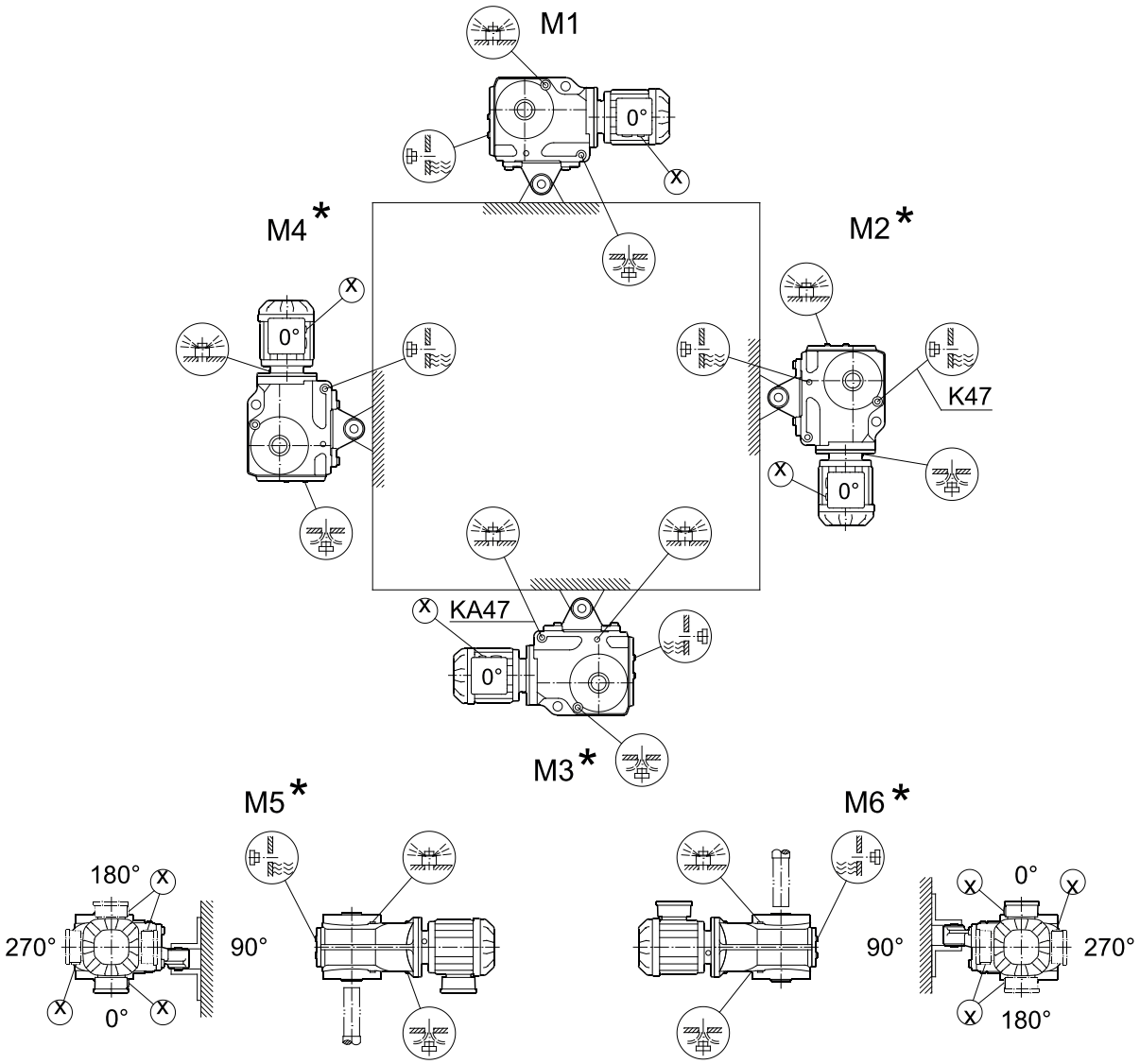
* (→ 65)

26883198/EN – 04/2022

KA/KH37 – 157, KV37 – 107, KT37 – 157

39 025 05 00



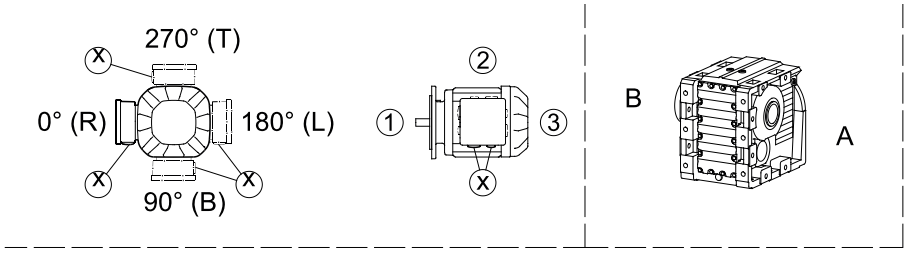


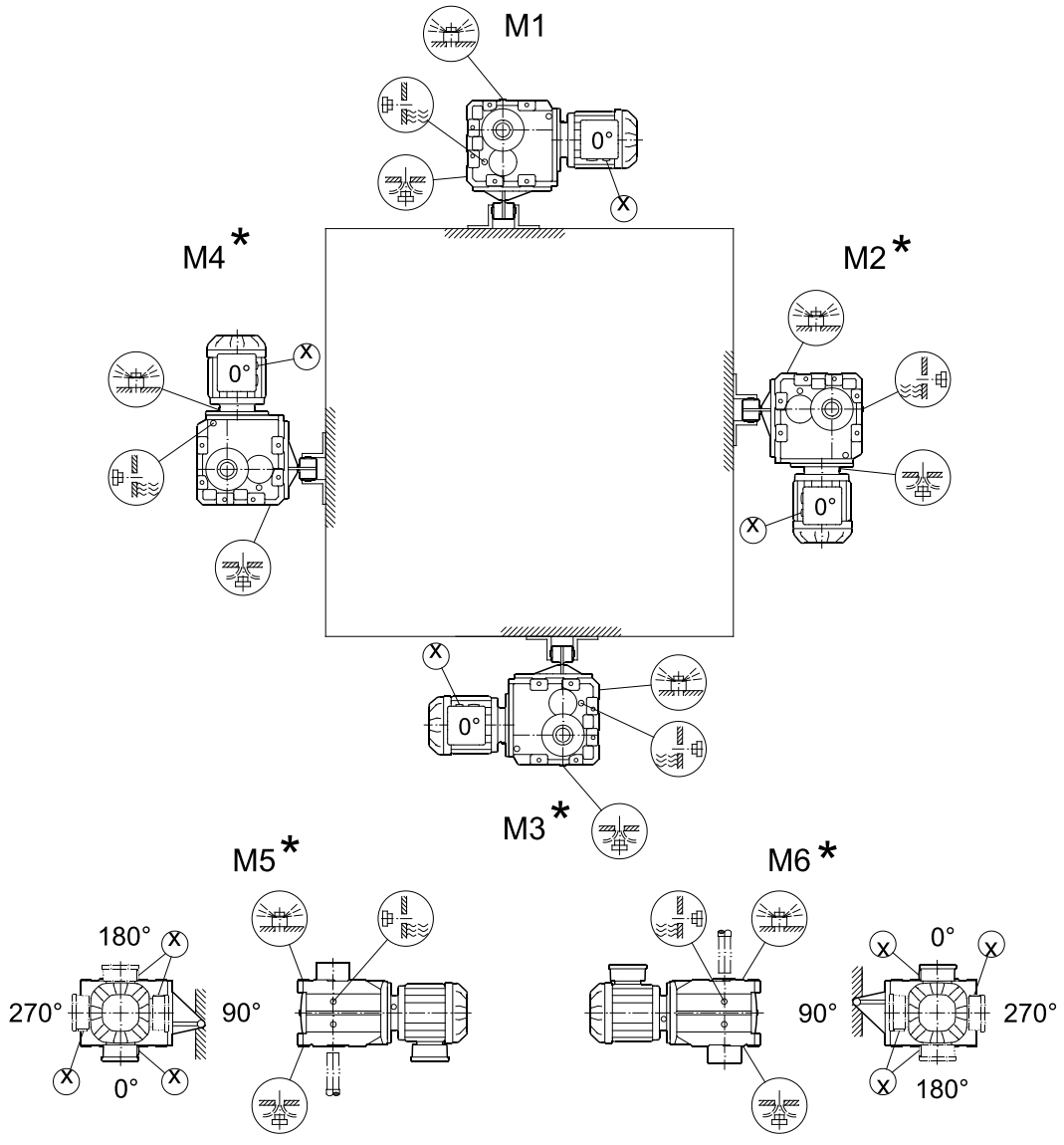
* (→ 🗎 65)

26883198/EN – 04/2022

KH167 – 187

39 026 05 00



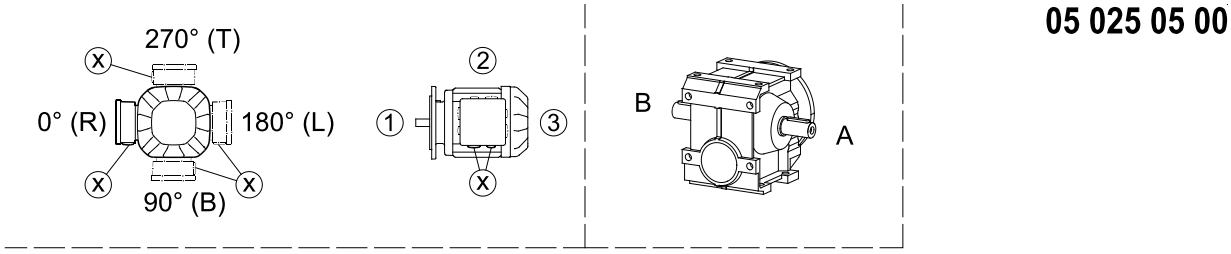


* (→ 🗎 65)

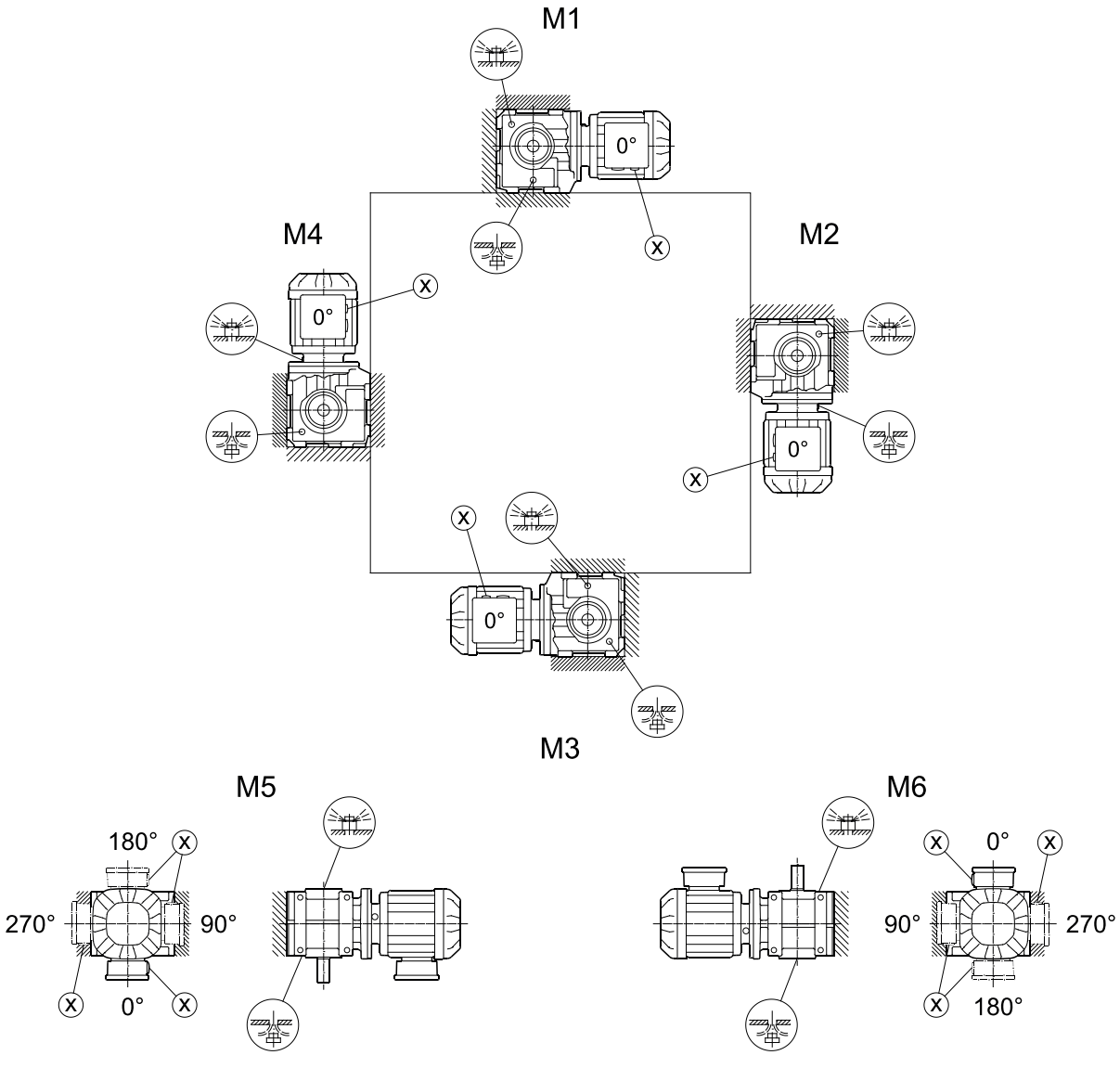
26883198/EN – 04/2022

5.4.4 Mounting positions of helical-worm gear units

S37



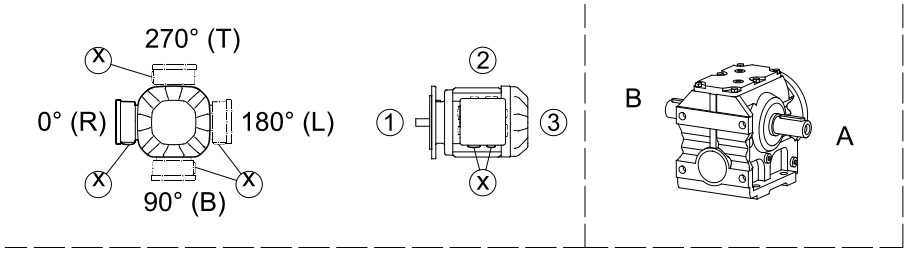
05 025 05 00

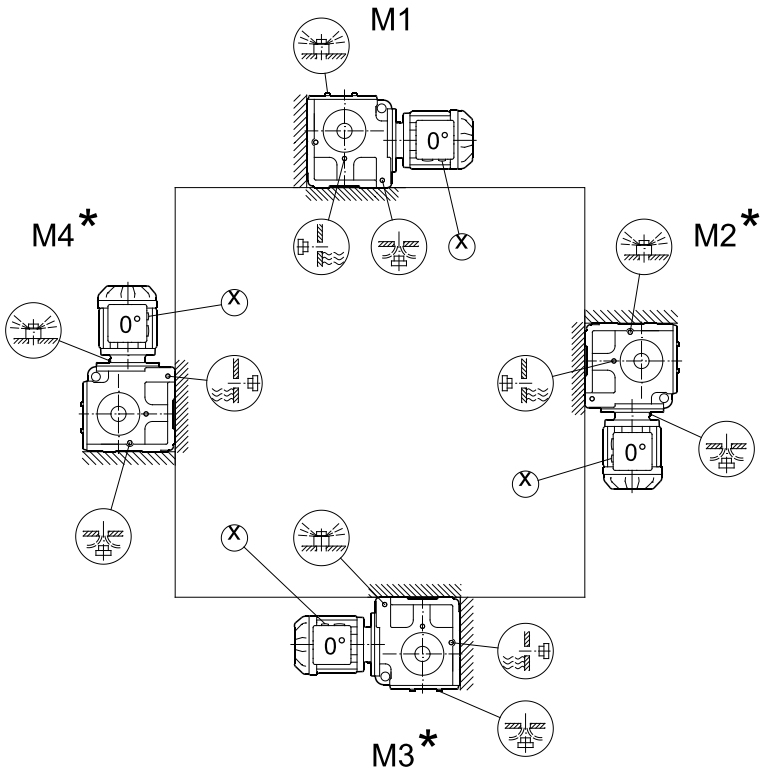


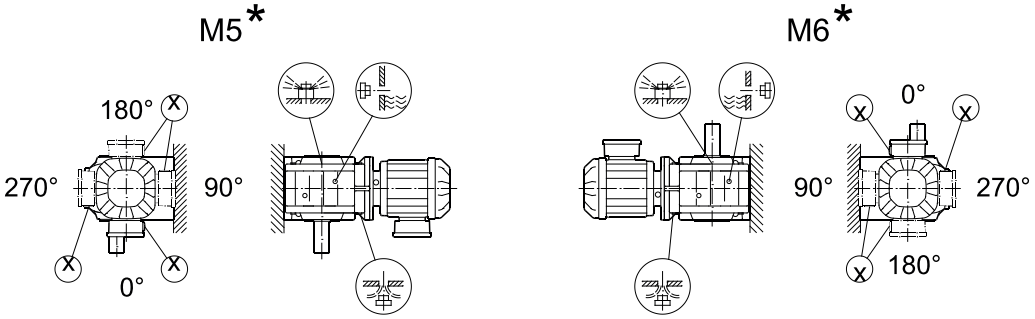
Observe the notes in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

S47 – S97

05 026 04 00







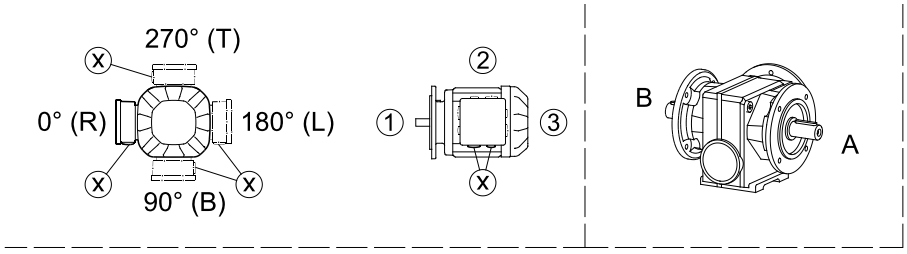
* (→ 🗎 65)

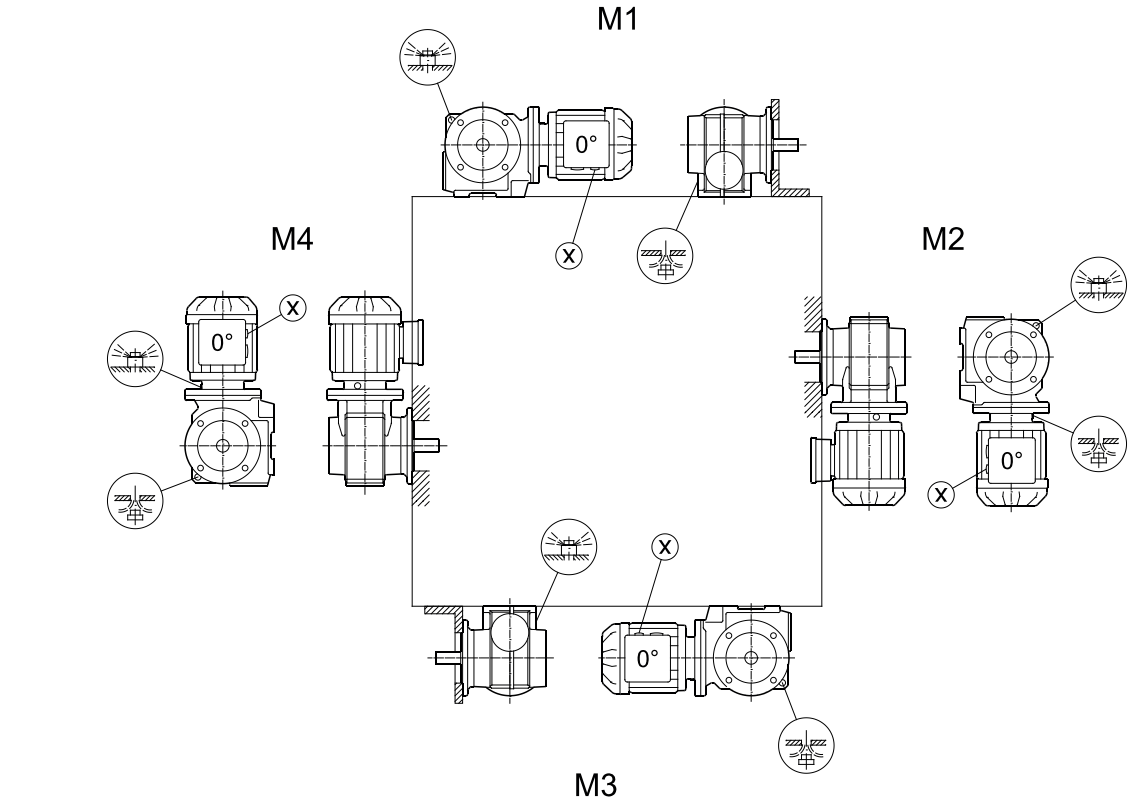
Observe the notes in chapter "Overhung and axial loads of R..-, F..-, K..-, S..-, and W.. gear units" (→ 🗎 71).

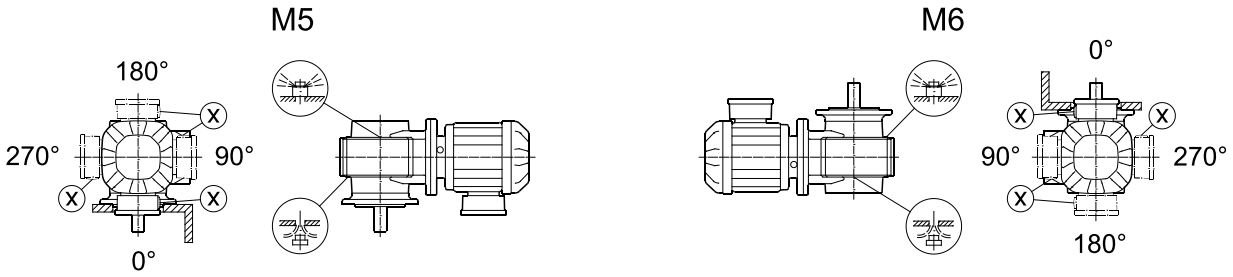
26883198/EN – 04/2022

SF/SAF/SHF37

05 027 05 00



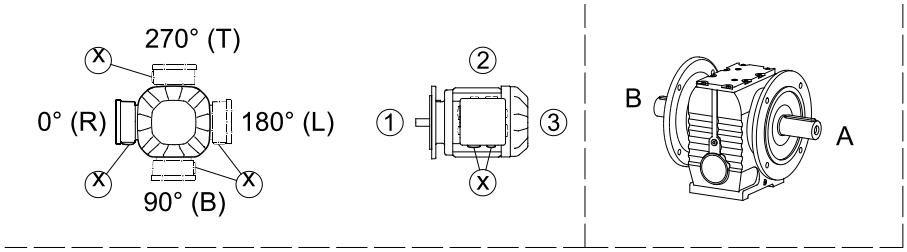


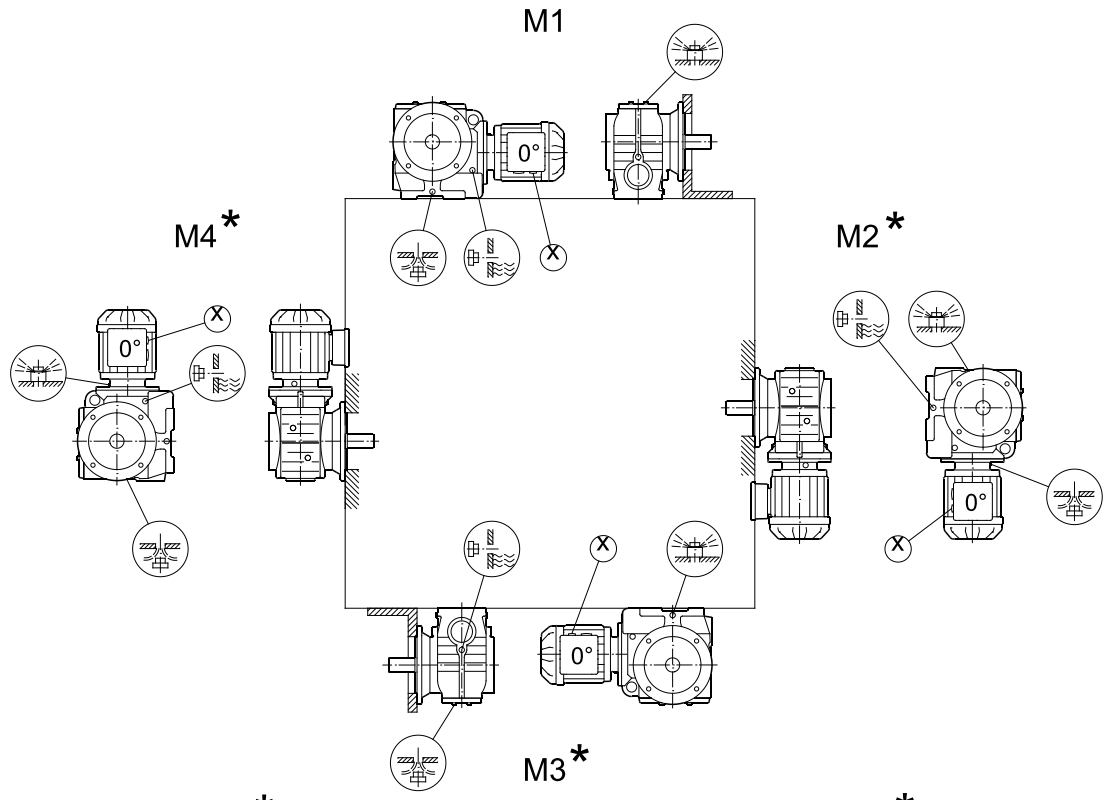


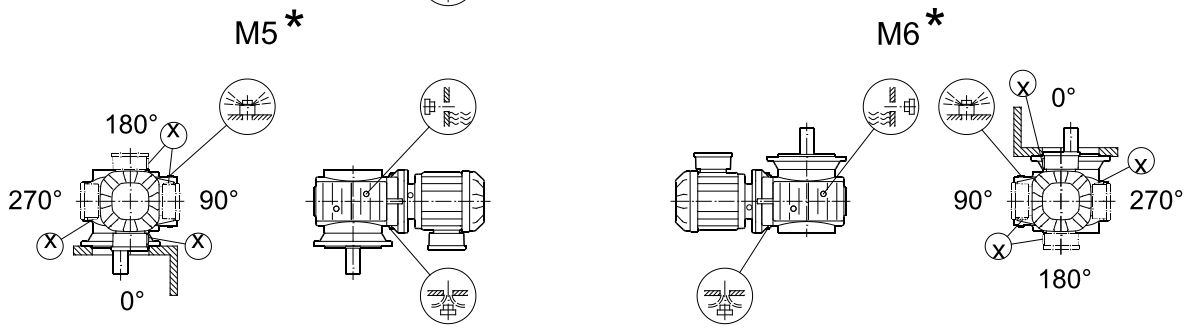
26883198/EN – 04/2022

SF/SAF/SHF/SAZ/SHZ47 – 97

05 028 04 00





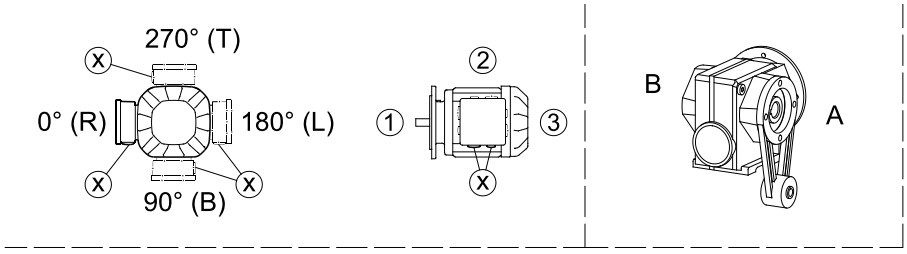


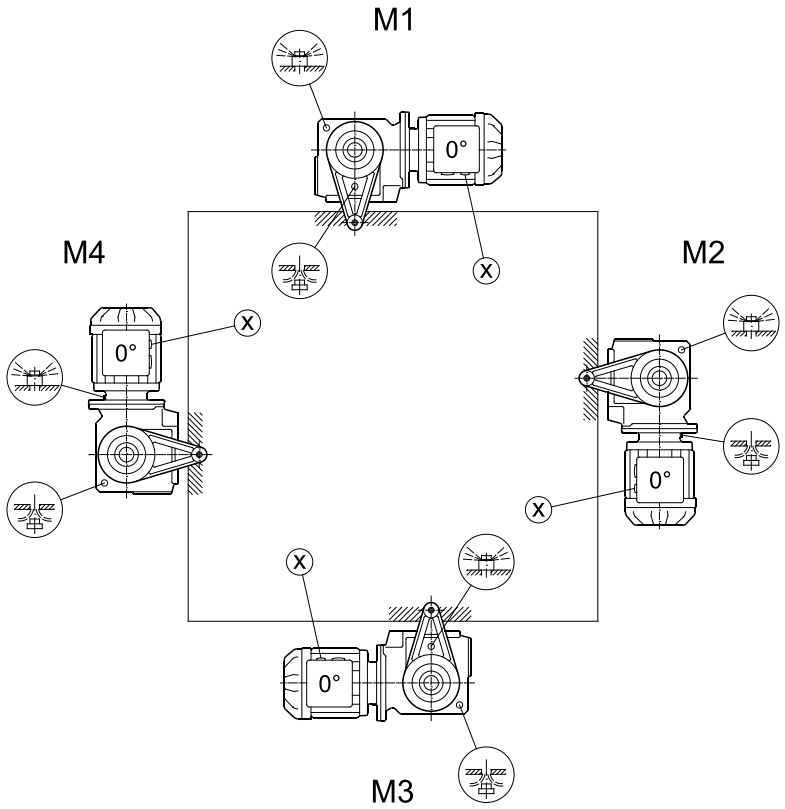
* (→ 🗎 65)

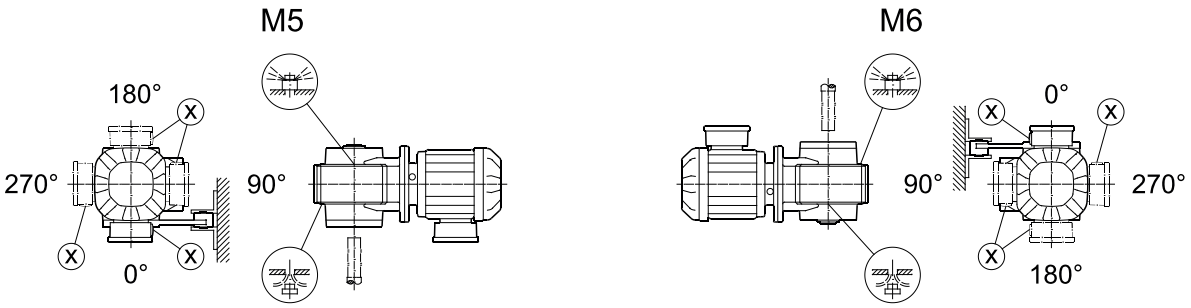
26883198/EN – 04/2022

SA/SH/ST37

28 020 06 00







26883198/EN – 04/2022

SA/SH/ST47 – 97

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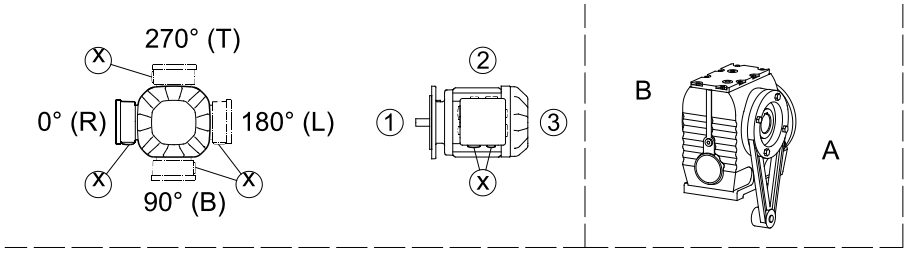
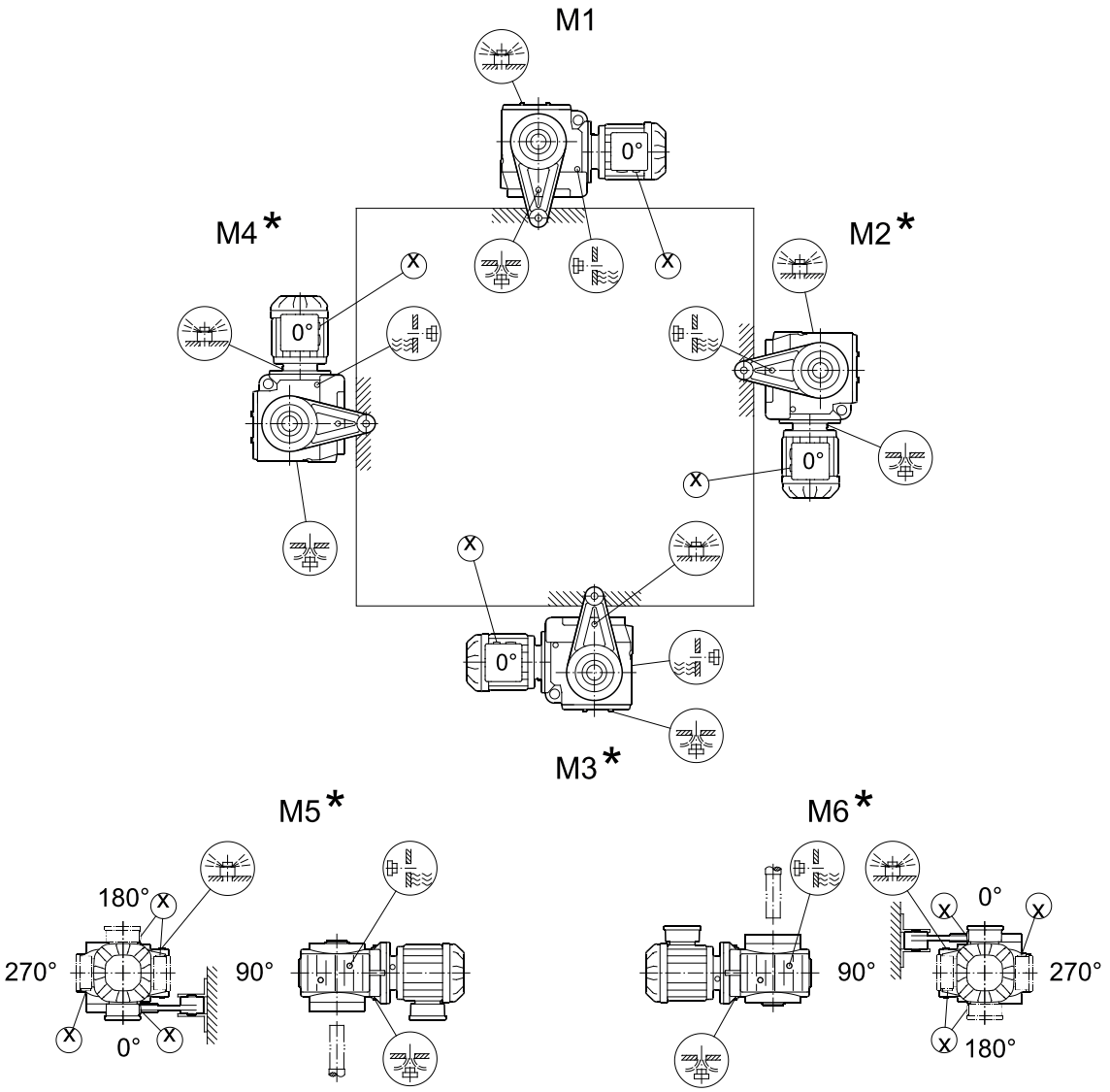




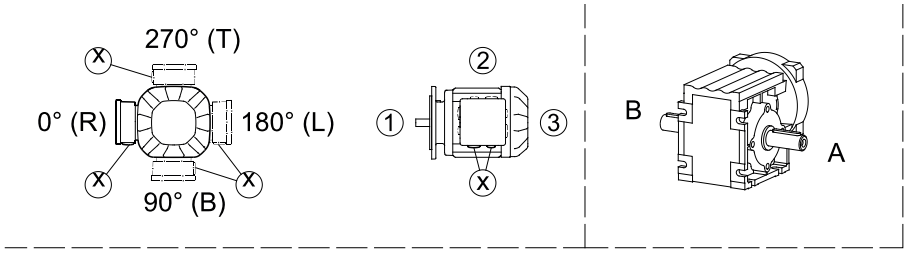
* (→ 🗎 65)

26883198/EN – 04/2022

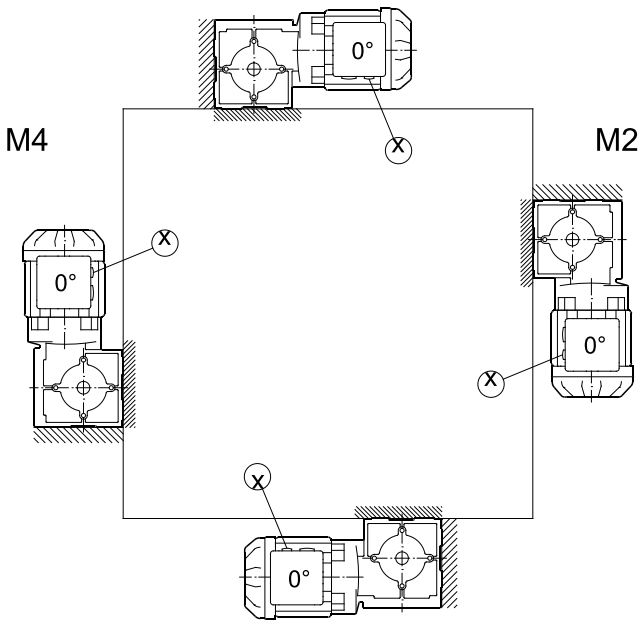
5.4.5 Mounting positions of SPIROPLAN® gear units

W10 – 30

20 001 02 02

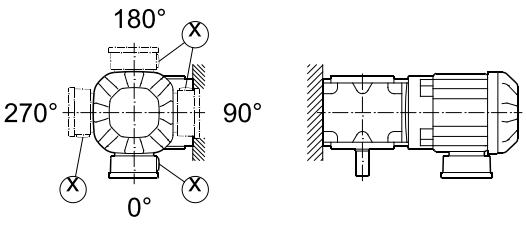


M1

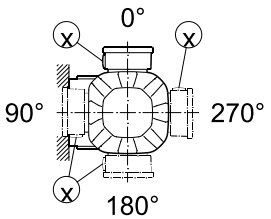


M3

M5

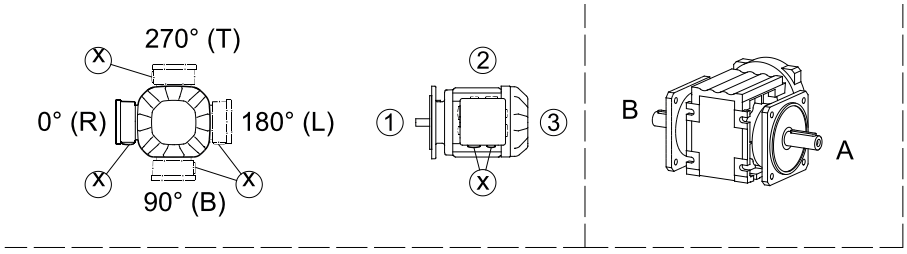


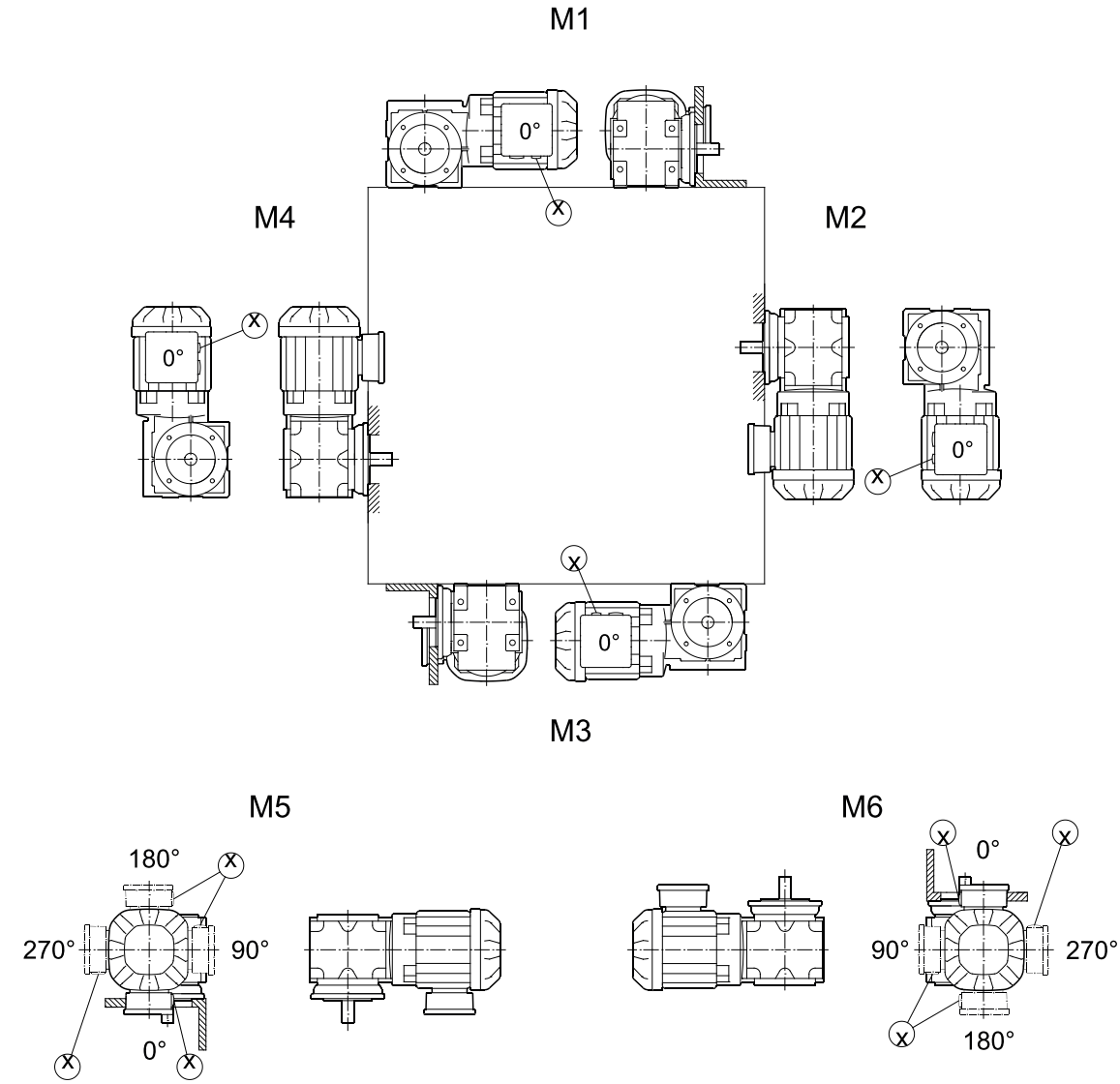
M6



WF10-30

20 002 02 02

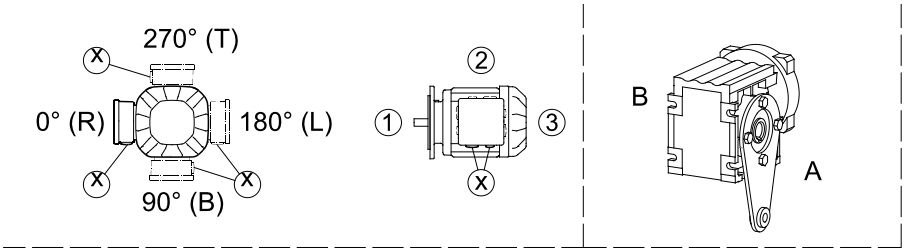


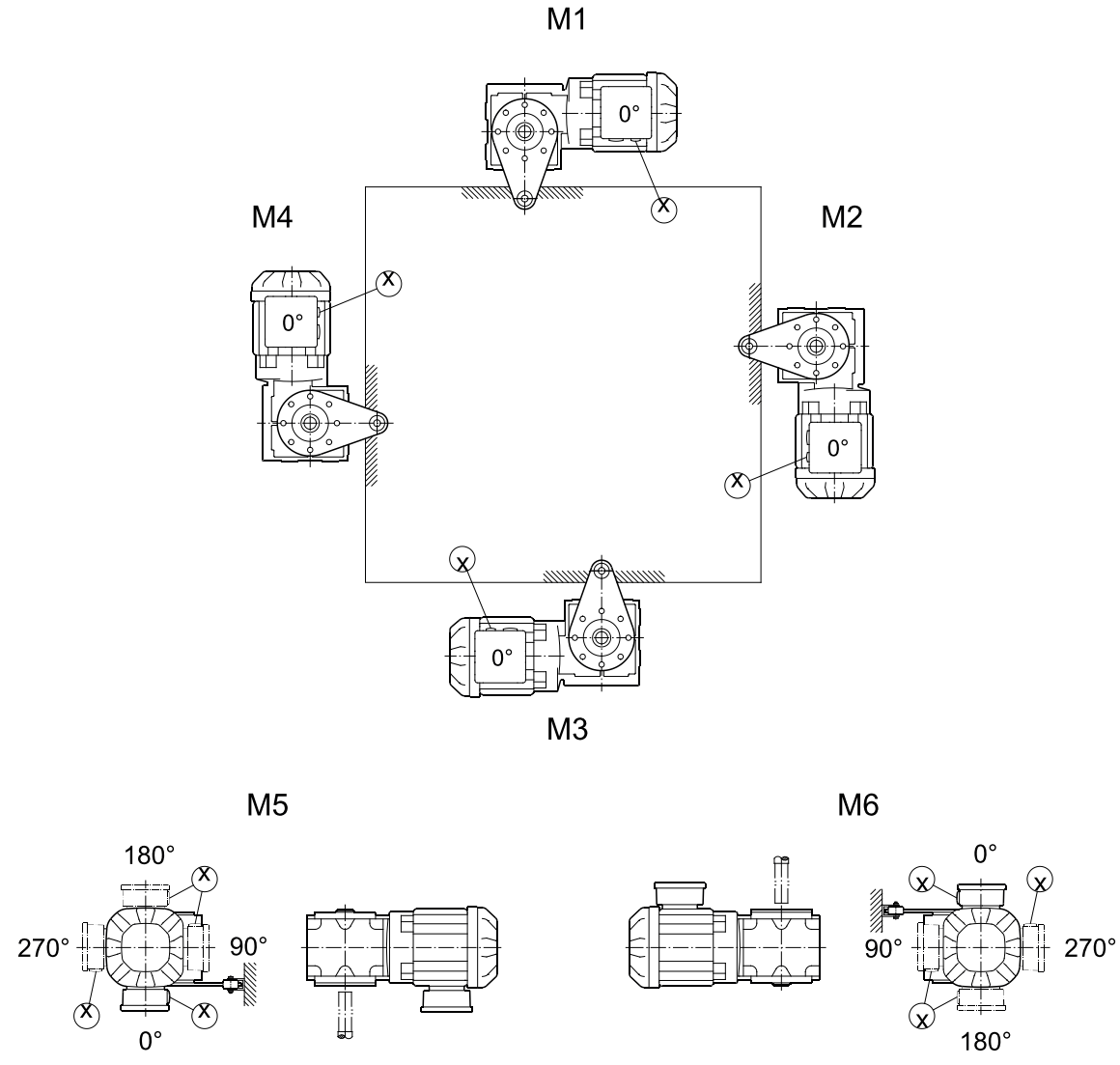


26883198/EN – 04/2022

WA10-30

20 003 03 02

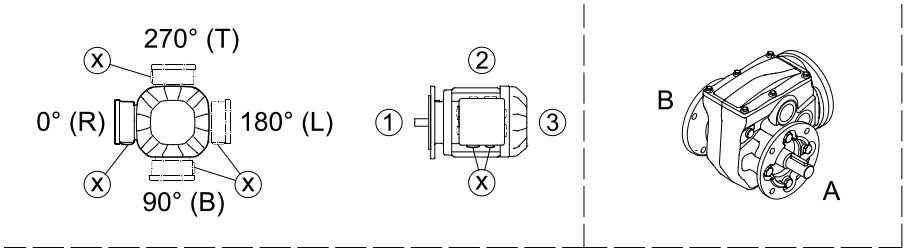


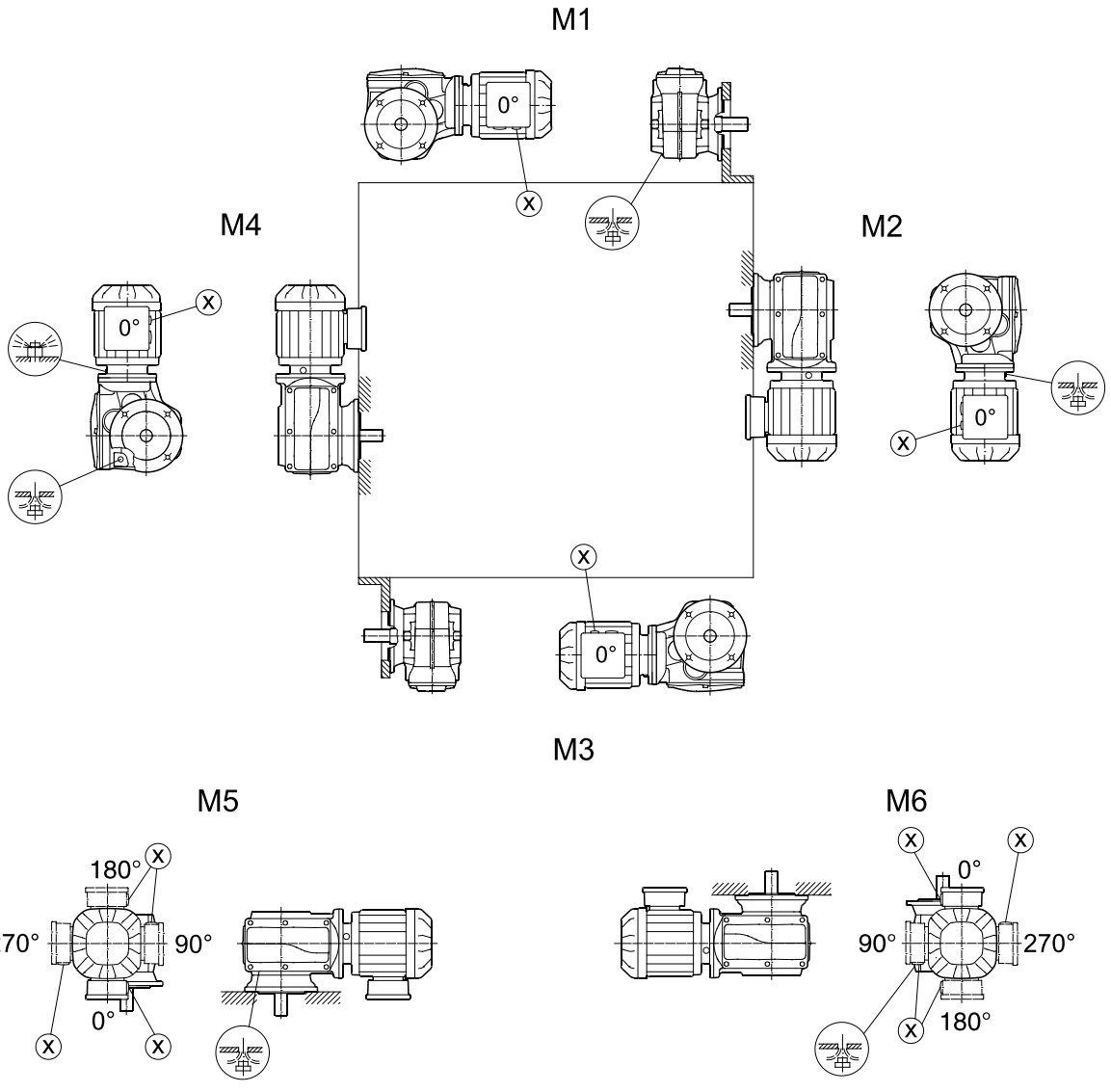


26883198/EN – 04/2022

WF/WAF19 – 59, WHF29 – 59

20 175 00 20





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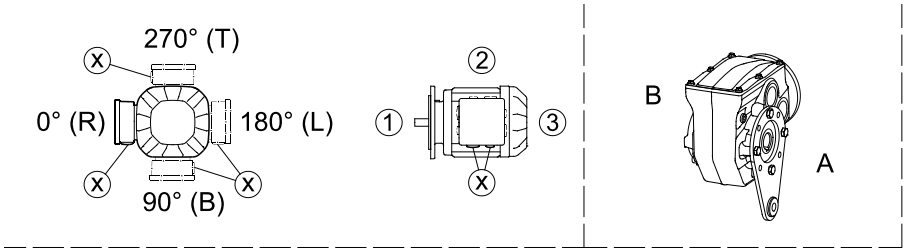
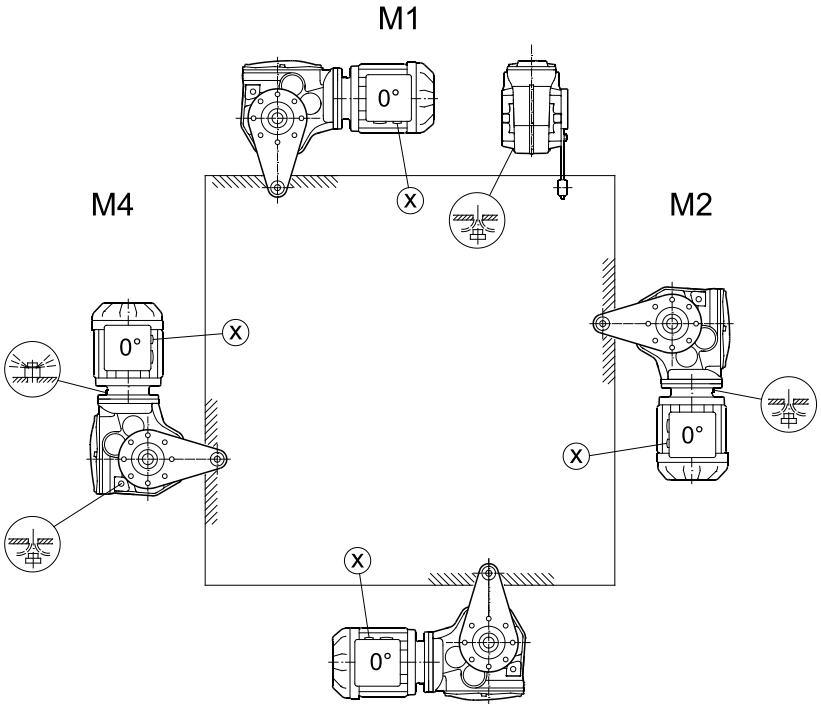
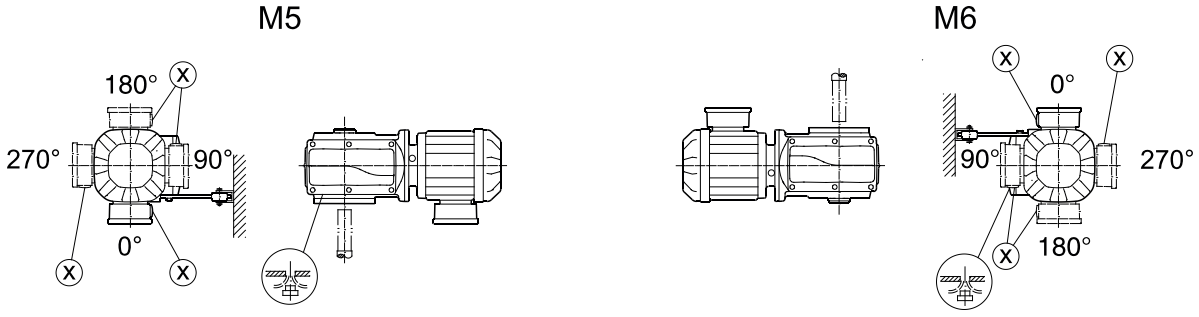
26883198/EN – 04/2022

WA19 – 59, WH/WT29 – 59

20 176 00 20



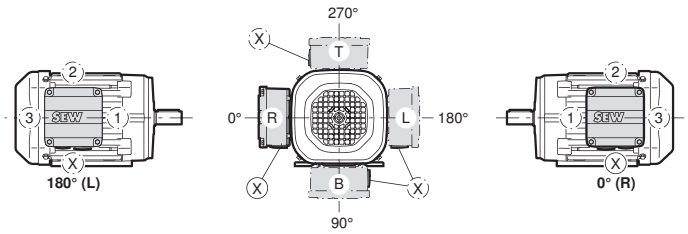




35990457227

5.5 Mounting positions of AC motors

5.5.1 Motor terminal box position and cable entry



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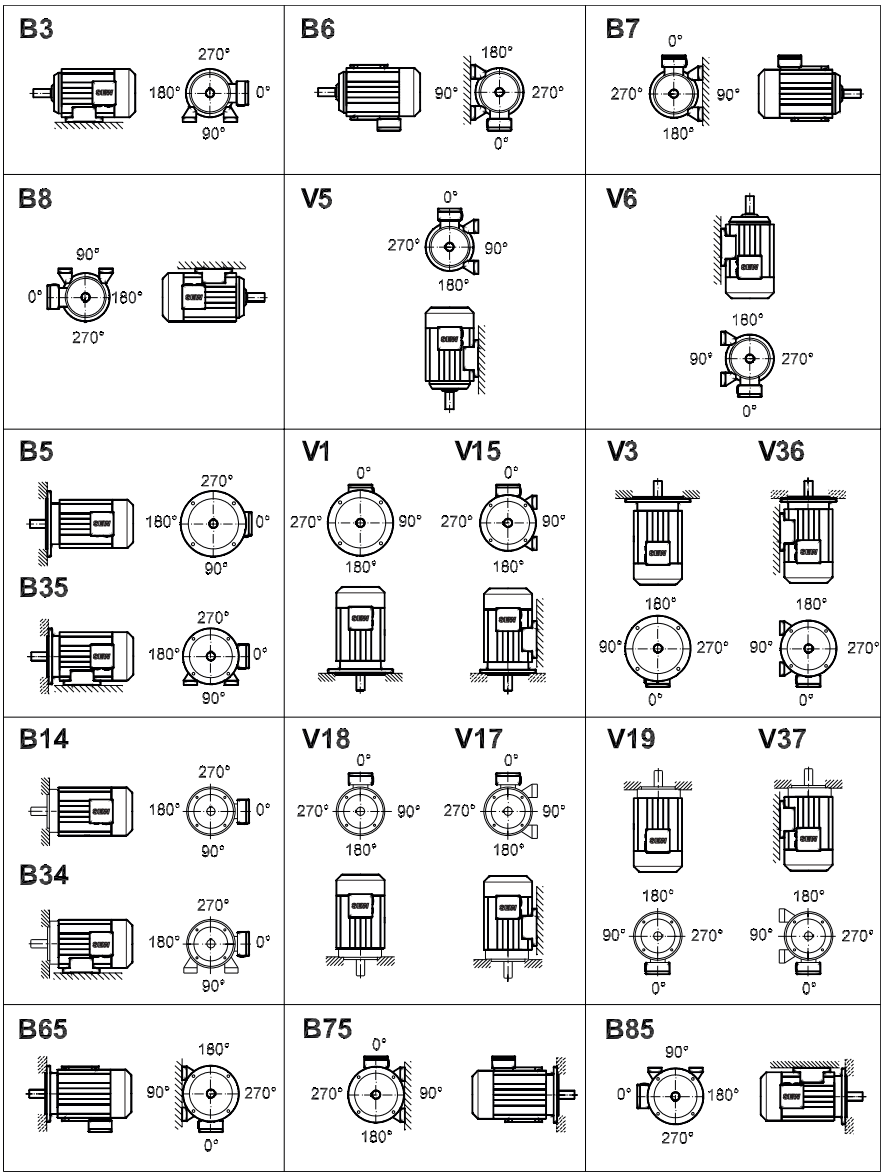
5.5.2 Mounting positions



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26883198/EN – 04/2022

6 Design and operating notes

6.1 Lubricants

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position specified when ordering the drive. If you change the mounting position later, you must adapt the lubricant fill quantity accordingly.

6.1.1 GearOil by SEW-EURODRIVE – lubricant for gear units

With decades of experience in gear unit development and construction, as well as numerous customer applications, SEW-EURODRIVE has extensive tribological knowledge. On this basis and in accordance with long-term test runs, SEW-EURODRIVE has developed a special formulation for its own premium gear oil: GearOil by SEW-EURODRIVE – the optimum protection for SEW-EURODRIVE gear units.

By using high-quality base materials and additives as well as the appropriate logistics, SEW-EURODRIVE ensures the highest level of quality.

GearOil by SEW-EURODRIVE increases the performance of the gear unit, regardless of whether it is a standard, servo, or industrial gear unit. The premium gear oil reduces the friction between gear wheels by creating a very good lubrication film. This increases the service life of lubricant and wear parts, such as seals and bearings. The high damage load stage of the mineral lubricants GearOil Base (damage load stage 14) improves protection against pitting of the gearing. At the same time, GearOil increases the efficiency of the gear unit and protects against corrosion and harmful foaming of the oil. The "self-cleaning" properties of the lubricants prevent deposits as they bind water and dirt particles.

Optionally, you can select GearOil by SEW-EURODRIVE as the initial filling for the gear units and gearmotors. The premium gear oil can be ordered in can or barrel containers for service and maintenance purposes. GearOil by SEW-EURODRIVE can be stored for up to 6 years in unopened containers.

Refer to the following table for the quantities that can be ordered as well as for the corresponding part numbers:

GearOil Base	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters	IBC 1000 liters
GearOil Base 150 E1			03287866	03287742	03096750
GearOil Base 220 E1	03044130	03044084	03287858	03287734	03096688
GearOil Base 320 E1			03287831	03287726	03096742
GearOil Base 460 E1			03287823	03287718	03096734
GearOil Base 680 E1			03287815	03287696	03096726
GearOil Base 680 S E1	03044432		03287807	03287688	03096718

GearOil Poly	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters
GearOil Poly 150 E1		03099296		03099172
GearOil Poly 220 E1	03044211	03099288		03099164

26883198/EN – 04/2022

GearOil Poly	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters
GearOil Poly 460 E1		03099261		03099148
GearOil Poly 460 W E1		03096599	03287750	03287645
GearOil Poly 150 H1 E1		03099253		03099121
GearOil Poly 220 H1 E1		03099237	03099180	03099113
GearOil Poly 460 H1 E1	03044165	03287076	03288099	03287068

GearOil Synth	Can 1 liter	Can 5 liters	Can 20 liters	Barrel 205 liters
GearOil Synth 150 E1		03042545	03042413	03042308
GearOil Synth 220 E1	03044270	03042537	03042405	03042294
GearOil Synth 320 E1		03042529	03042391	03042286
GearOil Synth 460 E1		03042510	03042383	03042278
GearOil Synth 680 E1		03042502	03042375	03042251
GearOil Synth 220 H1 E1		03042596	03042464	03042340
GearOil Synth 460 H1 E1	03044319	03042588	03042456	03042332

= Lubricant suitable for the food and feed industry

For further information on the use of GearOil lubricants and their essential technical properties, please refer to the lubricant tables, see chapter "Lubricant table" (→ 🗎 126). Technical data sheets and safety data sheets are available from SEW-EURODRIVE on request.

6.1.2 Grease by SEW-EURODRIVE – lubricant for rolling bearings

Lubricant	Cartridge 500 g
Grease HL2 E1	03041476
Grease HL2 H1 E1	03041484

26883198/EN – 04/2022

6.1.3 Bearing greases

The gear unit rolling bearings are given a factory-fill with the greases listed below. SEW-EURODRIVE recommends re-greasing the rolling bearings with a grease filling at the same time as changing the oil.

This table shows the lubricants recommended by SEW-EURODRIVE:

Operating range	Ambient temperature	Manufacturer	Type
Standard	-40 °C to +80 °C	SEW-EURODRIVE	Grease HL 2 E1[1)]
		Fuchs	Renolit CX-TOM 15[1)]
		Klüber	Petamo GHY 133 N
2)	-40 °C to +40 °C	SEW-EURODRIVE	Grease HL 2 H1 E1
		Bremer & Leguil	Cassida Grease GTS 2
3)	-20 °C to +40 °C	Fuchs	Plantogel 2S

1) Bearing grease based on semi-synthetic base oil.
2) Lubricant for the food processing industry.
3) Readily biodegradable lubricant for environmentally sensitive areas.

INFORMATION

The following grease quantities are required:

- **For fast-running bearings (gear unit input side):** Fill the cavities between the rolling elements one-third full with grease.
- **For slow-running bearings (gear unit output side):** Fill the cavities between the rolling elements two-thirds full with grease.

26883198/EN – 04/2022

6.1.4 Lubricant table

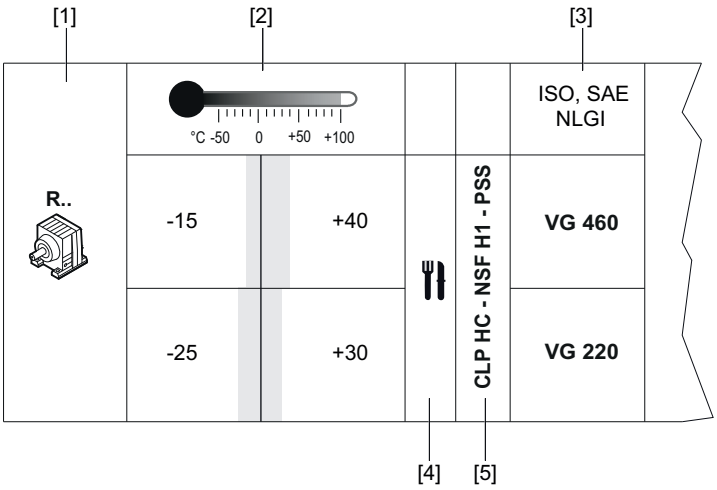
NOTICE

Damage to the gear unit due to improper lubricants.

Possible damage to property.

- The oil viscosity and type (mineral/synthetic) to be used are determined by SEW-EURODRIVE specifically for each order. This information is noted in the order confirmation and on the gear unit's nameplate. If you use other lubricants for the gear units and/or use the lubricants at temperatures outside the recommended temperature range, SEW-EURODRIVE does not assume liability.
- The lubricant recommendation in the lubricant table in no way represents a guarantee regarding the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product.
- Do not mix synthetic lubricants.
- Do not mix synthetic lubricants and mineral lubricants.
- Oils of the same viscosity class from different manufacturers do not have the same characteristics. In particular, the minimally and maximally permitted oil bath temperatures are manufacturer-specific. These temperatures are specified in the lubricant tables.
- The values specified in the lubricant tables apply as of the time of printing of this document. The data of the lubricants is subject to dynamic change on the part of the lubricant manufacturers. For the latest information about the lubricants, visit: **www.sew-eurodrive.de/lubricants**.

Information on the table structure



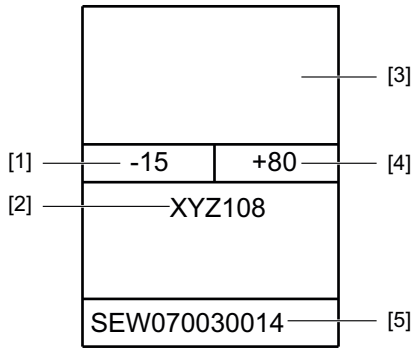
18014416412986635

[1] Gear unit type
[2] Ambient temperature range
[3] Viscosity class
[4] Note on special approvals
[5] Lubricant type

26883198/EN – 04/2022

The specified ambient temperatures are guide values for selecting a suitable lubricant. The exact upper and lower temperature limits for project planning are specified in the table with the respective trade name. Bear in mind during project planning that the viscosity increases at low temperatures and that this might influence the starting behavior.

Information on the various lubricants



[1] Lowest oil sump temperature in °C, **going below this value during operation is not permitted**
[2] Trade name
[3] Manufacturer
[4] Highest oil sump temperature in °C. The service life will be considerably reduced when this temperature is exceeded. Adhere to the lubricant change intervals in chapter "Current lubricant change intervals" in the operating instructions.
[5] Approvals regarding compatibility of the lubricant with approved oil seals

Lubricant compatibility with oil seals

Approval	Explanation
SEW07004_ _13:	A lubricant especially recommended with regard to compatibility with the approved oil seals. The lubricant exceeds the state-of-the-art requirements regarding elastomer compatibility.

Approved application temperature range of the oil seals

In the low temperature range, oil seals can withstand shaft deflections (e. g. through overhung load) only to a limited extent. Especially avoid or limit pulsating or changing radial displacements of the shaft. Contact SEW-EURODRIVE, if required.

Oil seal material class	Permitted oil sump temperature
NBR	-40 °C to +80 °C
FKM	-25 °C to +115 °C
FKM-PSS	-25 °C to +115 °C

26883198/EN – 04/2022

Limitations of use of oil seals with the specific lubricant are described in the following table:

Material class			Manufacturer		Material	
S	1	NBR	1	Freudenberg		72 NBR 902
			2	Trelleborg		4NV11
	2	FKM	1	Freudenberg	1	75 FKM 585
					2	75 FKM 170055
			2	Trelleborg	1	VCBVR
			3	SKF	1	FKM 00934

Examples:

S11: Only the elastomer 72NBR902 of the Freudenberg company meets the requirements of the approval in conjunction with the specific lubricant.

S2: Only the elastomer FKM meets the requirements of the approval in conjunction with the specific lubricant.

26883198/EN – 04/2022

Key

The following table shows the abbreviations and symbols used in the lubricant table and explains what they mean:

Abbreviation/symbol	Meaning
	Synthetic lubricant (marked gray)
	Mineral lubricant
CLP	Mineral oil
CLP PG	Polyglycol (PG)
CLP HC	Synthetic hydrocarbons – polyalphaolefins (PAO)
E	Ester-based oil
	Lubricant for the food processing industry and feed industry. Oils are NSF-H1 registered and compliant in accordance with FDA 21 CFR § 178.3570
	Lubricants with particularly reduced CO2 footprint (cradle-to-gate) with sustainable raw materials
	Lubricants with slight bio-degradability for environmentally sensitive areas (> 60% according to OECD 301 or according to appendix A of EPA 2013 VGP)
	Lubricant suitable for explosion-protected gear units and gearmotors
1)	Helical-worm gear units with CLP-PG: Contact SEW-EURODRIVE.
2)	Low-viscosity grease
3)	With appropriate measures, the gear units can be operated at ambient temperatures as low as -40 °C. Contact SEW-EURODRIVE.
Oil seal	Oil seal
Premium Sine Seal	Oil seal of the Premium Sine Seal type. The addendum "PSS" for the lubricant type indicates compatibility with the sealing system.

26883198/EN – 04/2022

Lubricant table for R.., F.., and K..7 gear units

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 🗎 127).

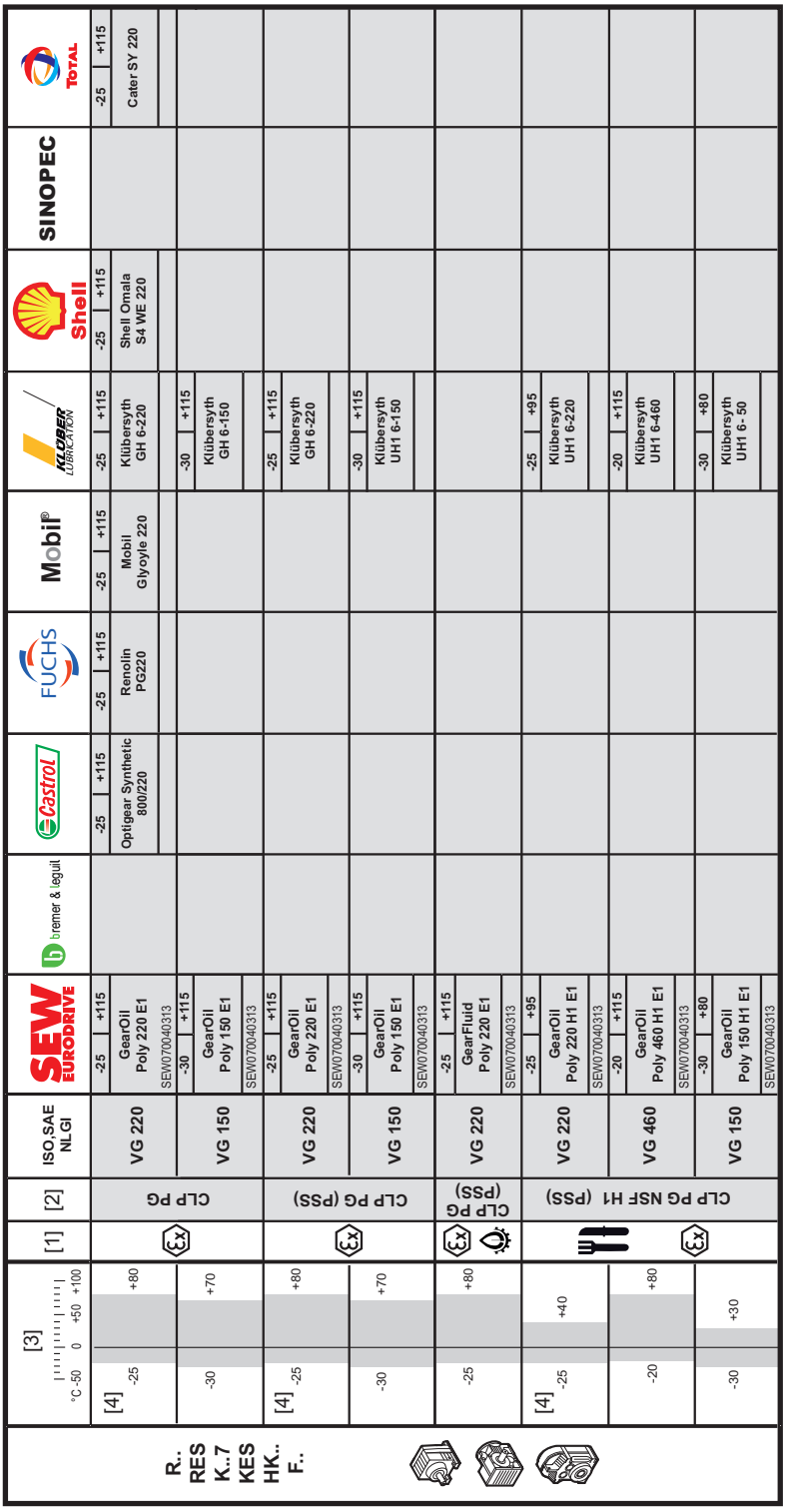
R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +40		CLP	VG 220	-15 | +80 GearOil Base 220 E1/US1/CN1/BR1 SEW07004031 3		-15 | +80 Optigear BM 220	-15 | +80 Renolin CLP 220 Plus SEW07004031 3	-15 | +80 Mobilgear 600 XP 220 SEW07004001 3	-15 | +80 Klüberoil GEM 1-220 N	-15 | +80 Shell Omala SG 220	-15 | +80 AP-SGO 220 SEW07004031 3	-15 | +80 Cater EP 220
	-20 +30		CLP	VG 150	-20 | +80 GearOil Base 150 E1/US1/CN1/BR1 SEW07004031 3		-20 | +80 Optigear BM 150	-20 | +80 Renolin CLP150 Plus SEW07004031 3	-20 | +80 Mobilgear 600 XP 150 SEW07004001 3	-20 | +80 Klüberoil GEM 1-150 N	-20 | +80 Shell Omala SG 150	-20 | +80 AP-SGO 150 SEW07004031 3	-20 | +80 Cater EP 150
	[4] -15 +40		CLP PSS	VG 220	-15 | +80 GearOil Base 220 E1/US1/CN1/BR1 SEW07004031 3			-15 | +80 Renolin CLP 220 Plus SEW07004031 3	-15 | +80 Mobilgear 600 XP 220 SEW07004001 3			-15 | +80 AP-SGO 220 SEW07004031 3	
	-20 +30		CLP PSS	VG 150	-20 | +80 GearOil Base 150 E1/US1/CN1/BR1 SEW07004031 3			-20 | +80 Renolin CLP150 Plus SEW07004031 3	-20 | +80 Mobilgear 600 XP 150 SEW07004001 3			-20 | +80 AP-SGO 150 SEW07004031 3	

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).



[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).

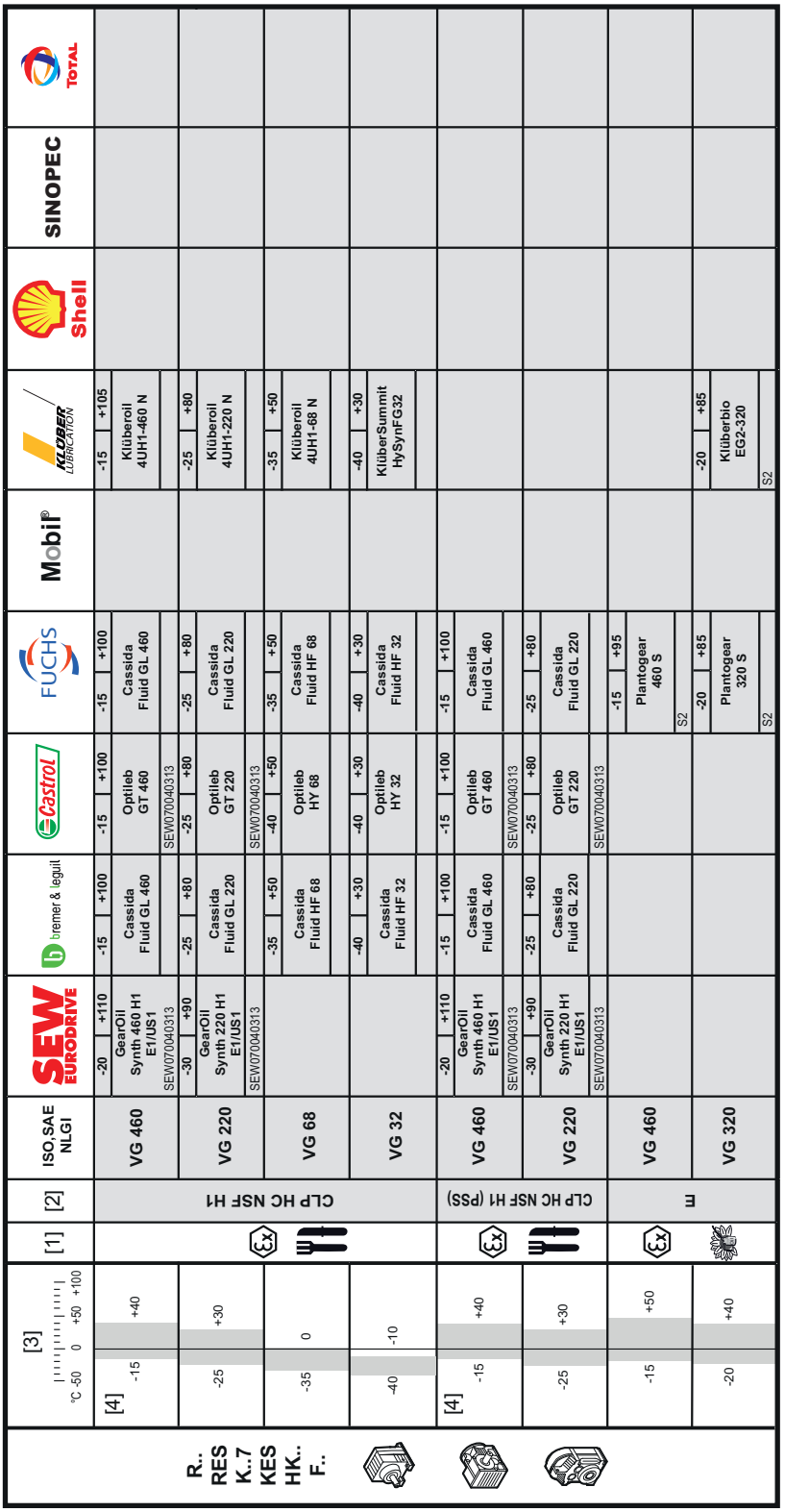
R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[4]	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
				CLP HC	3) VG 220	-30 | +110 GearOil Synth 220 E1/US1 SEW0700403 13			-25 | +110 Renolin Unisyn CLP220	-25 | +110 Mobil SHC 630	-25 | +110 Klübersynth GEM 4-220 N	-25 | +110 Shell Omala S4 GX 220		-25 | +110 Cater SH 220
					3) VG 150	-35 | +105 GearOil Synth 150 E1/US1 SEW0700403 13			-30 | +95 Renolin Unisyn CLP150	-30 | +100 Mobil SHC 629	-30 | +100 Klübersynth GEM 4-150 N	-30 | +100 Shell Omala S4 GX 150		-30 | +95 Cater SH 150
					VG 68				-35 | +75 Renolin Unisyn CLP68	-40 | +75 Mobil SHC 626		-40 | +75 Shell Omala S4 GX 68		
					VG 32				-40 | +50 Renolin Unisyn OL32	-40 | +50 Mobil SHC 624				-40 | +50 Dacnis SH 32
				CLP HC (PSS)	3) VG 220	-30 | +110 GearOil Synth 220 E1/US1 SEW0700403 13				-25 | +110 Mobil SHC 630				
					3) VG 150	-35 | +105 GearOil Synth 150 E1/US1 SEW0700403 13				-30 | +100 Mobil SHC 629				
	-50 0 +50 +100	-25				+60								
		-30				+50								
		-35				+20								
		-40				0								
	-50 0 +50 +100	-25				+60								
		-30				+50								

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).



R.. RES K..7 KES HK.. F..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +40		CLP HC NSF H1	VG 460	-20 | +110 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +100 Cassida Fluid GL 460	-15 | +100 Optileb GT 460 SEW07004031	-15 | +100 Cassida Fluid GL 460		-15 | +105 Klüberoil 4UH1-460 N			
	-25 +30			VG 220	-30 | +90 GearOil Synth 220 H1 E1/US1 SEW07004031	-25 | +80 Cassida Fluid GL 220	-25 | +80 Optileb GT 220 SEW07004031	-25 | +80 Cassida Fluid GL 220		-25 | +80 Klüberoil 4UH1-220 N			
	-35 0			VG 68		-35 | +50 Cassida Fluid HF 68	-40 | +50 Optileb HY 68	-35 | +50 Cassida Fluid HF 68		-35 | +50 Klüberoil 4UH1-68 N			
	-40 -10			VG 32		-40 | +30 Cassida Fluid HF 32	-40 | +30 Optileb HY 32	-40 | +30 Cassida Fluid HF 32		-40 | +30 KlüberSummit HySynFG32			
	[4] -15 +40		CLP HC NSF H1 (PSS)	VG 460	-20 | +110 GearOil Synth 460 H1 E1/US1 SEW07004031	-15 | +100 Cassida Fluid GL 460	-15 | +100 Optileb GT 460 SEW07004031	-15 | +100 Cassida Fluid GL 460					
	-25 +30			VG 220	-30 | +90 GearOil Synth 220 H1 E1/US1 SEW07004031	-25 | +80 Cassida Fluid GL 220	-25 | +80 Optileb GT 220 SEW07004031	-25 | +80 Cassida Fluid GL 220					
	-15 +50		E	VG 460				-15 | +95 Plantogear 460 S S2					
	-20 +40			VG 320				-20 | +85 Plantogear 320 S S2		-20 | +85 Klüberbio EG2-320 S2			

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

Lubricant table for K..9 gear units

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 🗎 127).

K.9	[3] °C -50 0 +50 +100	[1]	[2]	ISO, SAE, NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -20 +60		CLP PG NSF H1 (PSS)	VG 460	-20 | +95 GearOil Poly 460 H1 E1 SEW 070040313					-20 | +95 Klübersynth UH1 6-460			
	-15 +80			VG 680	SEW 070040313					-15 | +115 Klübersynth UH1 6-680			
	-25 +40			VG 220	-25 | +70 GearOil Poly 220 H1 E1 SEW 070040313					-25 | +70 Klübersynth UH1 6-220			
	-30 +30			VG 150	-30 | +60 GearOil Poly 150 H1 E1 SEW 070040313					-30 | +60 Klübersynth UH1 6-150			
	-25 +40		CLP PG (PSS)	VG 220	-25 | +70 GearFluid Poly 220 E1 SEW 070040313								
	[4] -20 +60			VG 460	-20 | +95 GearOil Poly 460 E1 SEW 070040313					-20 | +95 Klübersynth GH 6-460			
	-15 +80			VG 680	SEW 070040313					-15 | +115 Klübersynth GH 6-680			
	-25 +40			VG 220	-25 | +70 GearOil Poly 220 E1 SEW 070040313					-25 | +70 Klübersynth GH 6-220			
	-30 +30			VG 150	-30 | +60 GearOil Poly 150 E1 SEW 070040313					-30 | +60 Klübersynth GH 6-150			
	-25 +40			VG 220	-25 | +70 GearFluid Poly 220 E1 SEW 070040313								

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

Lubricant table for S.. gear units

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

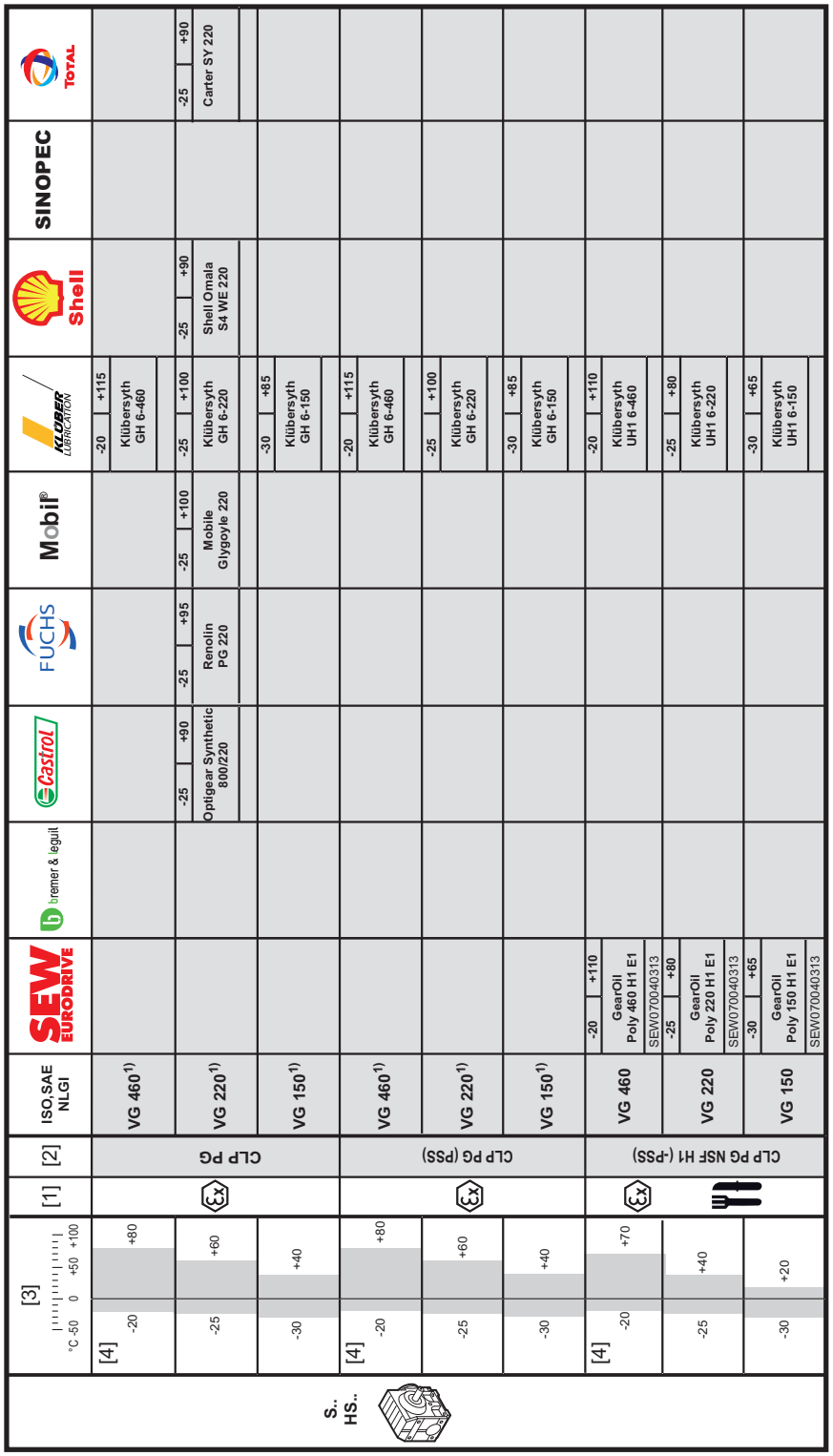
Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 🗎 127).

S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] 0 +40		CLP	VG 680	0 | +80 SEW GearOil Base 680 S E1 SEW07040313		0 | +80 Optigear BM 680	0 | +80 Renolin CLP 680 Plus SEW07040313	0 | +80 Mobilgear 600 XP 680 SEW07040313	0 | +80 Klüberoil GEM 1-680 N	0 | +80 Shell Omala SG 680	0 | +80 AP-SGO 680 SEW07040313	0 | +80 Carter EP 680
	-20 +25				-20 | +65 SEW GearOil Base 150 E1/US1CN1/BR1 SEW07040313		-20 | +65 Optigear BM150	-20 | +65 Renolin CLP 150 Plus SEW07040313	-20 | +65 Mobilgear 600 XP 150 SEW07040313	-20 | +65 Klüberoil GEM 1-150 N	-20 | +65 Shell Omala SG 150	-20 | +65 AP-SGO 150 SEW07040313	-20 | +65 Carter EP 150
	[4] 0 +40		CLP (PSS)	VG 680	0 | +80 SEW GearOil Base 680 S E1 SEW07040313			0 | +80 Renolin CLP 680 Plus SEW07040313	0 | +80 Mobilgear 600 XP 680 SEW07040313			0 | +80 AP-SGO 680 SEW07040313	
	-20 +25			VG 150	-20 | +65 SEW GearOil Base 150 E1/US1CN1/BR1 SEW07040313			-20 | +65 Renolin CLP 150 Plus SEW07040313	-20 | +65 Mobilgear 600 XP 150 SEW07040313			-20 | +65 AP-SGO 150 SEW07040313	

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).



S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	b bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -20 +80	Ex	CLP PG	VG 460[1]	-20 +110 GearOil Poly 460 H1 E1 SEW070040313		-25 +90 Optigear Synthetic 800/220	-25 +95 Renolin PG 220	-25 +100 Mobile Glygoyle 220	-20 +115 Klübersyth GH 6-460	-25 +90 Shell Omala S4 WE 220		-25 +90 Carter SY 220
	-25 +60			VG 220[1]						-25 +100 Klübersyth GH 6-220			
	-30 +40			VG 150[1]						-30 +85 Klübersyth GH 6-150			
	[4] -20 +80	Ex	CLP PG (PSS)	VG 460[1]						-20 +115 Klübersyth GH 6-460			
	-25 +60			VG 220[1]						-25 +100 Klübersyth GH 6-220			
	-30 +40			VG 150[1]						-30 +85 Klübersyth GH 6-150			
	[4] -20 +70	Ex	CLP PG NSF H1 (-PSS)	VG 460	-20 +110 GearOil Poly 460 H1 E1 SEW070040313					-20 +110 Klübersyth UH1 6-460			
	-25 +40			VG 220	-25 +80 GearOil Poly 220 H1 E1 SEW070040313					-25 +80 Klübersyth UH1 6-220			
	-30 +20			VG 150	-30 +65 GearOil Poly 150 H1 E1 SEW070040313					-30 +65 Klübersyth UH1 6-150			

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

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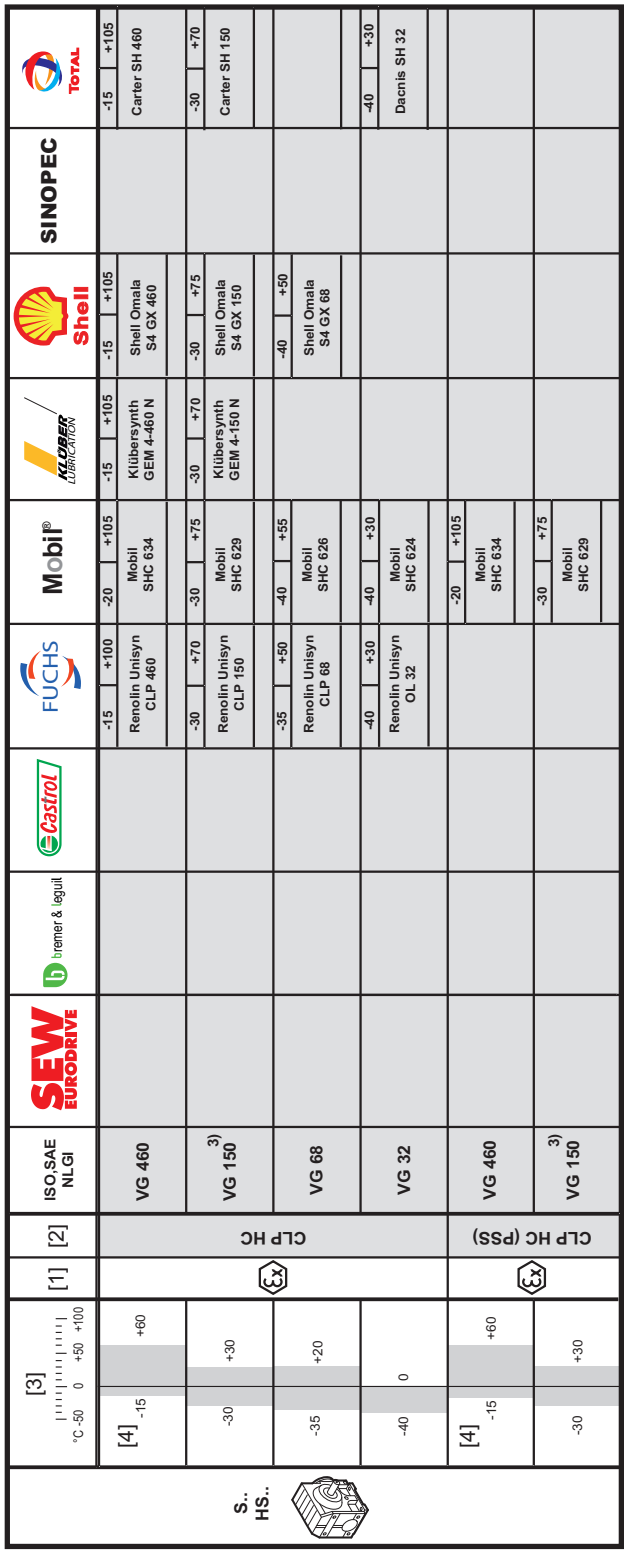
Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).



S.. HS..	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +60	Ex	CLP HC	VG 460				-15 +100 Renolin Unisyn CLP 460	-20 +105 Mobil SHC 634	-15 +105 Klübersynth GEM 4-460 N	-15 +105 Shell Omala S4 GX 460		-15 +105 Carter SH 460
	-30 +30			3) VG 150				-30 +70 Renolin Unisyn CLP 150	-30 +75 Mobil SHC 629	-30 +70 Klübersynth GEM 4-150 N	-30 +75 Shell Omala S4 GX 150		-30 +70 Carter SH 150
	-35 +20			VG 68				-35 +50 Renolin Unisyn CLP 68	-40 +55 Mobil SHC 626		-40 +50 Shell Omala S4 GX 68		
	-40 0			VG 32				-40 +30 Renolin Unisyn OL 32	-40 +30 Mobil SHC 624				-40 +30 Dacnis SH 32
	[4] -15 +60	Ex	CLP HC (PSS)	VG 460					-20 +105 Mobil SHC 634				
	-30 +30			3) VG 150					-30 +75 Mobil SHC 629				

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).

S.. HS..	[3] °C -40 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -15 +40	Ex	CLP HC NSF H1	VG 460		-15 | +85 Cassida Fluid GL 460	-15 | +90 Optileb GT 460 SEW070040313	-15 | +85 Cassida Fluid GL 460		-15 | +90 Klüberoil 4UH1-460 N			
	-25 +30	Ex		VG 220		-25 | +75 Cassida Fluid GL 220	-25 | +70 Optileb GT 220 SEW070040313	-25 | +75 Cassida Fluid GL 220		-25 | +70 Klüberoil 4UH1-220 N			
	[4] -35 0			VG 68		-35 | +40 Cassida Fluid HF 68	-40 | +40 Optileb HY 68	-35 | +40 Cassida Fluid HF 68		-35 | +40 Klüberoil 4UH1-68 N			
	-40 -10			VG 32		-40 | +25 Cassida Fluid HF 32	-40 | +20 Optileb HY 32	-40 | +25 Cassida Fluid HF 32		-40 | +25 KlüberSummit HySyn FG 32			
	[4] -15 +40	Ex	CLP HC NSF H1 (PSS)	VG 460		-15 | +85 Cassida Fluid GL 460	-15 | +90 Optileb GT 460 SEW070040313	-15 | +85 Cassida Fluid GL 460					
	-25 +30			VG 220		-25 | +75 Cassida Fluid GL 220	-25 | +70 Optileb GT 220 SEW070040313	-25 | +75 Cassida Fluid GL 220					
	-15 +50	Ex	E	VG 460				-15 | +95 Plantogear 460 S S2					
	-20 +40			VG 320				-20 | +85 Plantogear 320 S S2		-20 | +85 Klüberbio EG2-320 S2			

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).

S.7p	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	[4] -20 +80		CLP PG (PSS)	VG 460 [1]	-20 | +115 GearOil Poly 460 E1 SEW07004031 3								
	[4] -25 +60		CLP PG (PSS)	VG 220 [1]	-25 | +100 GearOil Poly 220 E1 SEW07004031 3								
	[4] -30 +40		CLP PG (PSS)	VG 150 [1]	-30 | +85 GearOil Poly 150 E1 SEW07004031 3								
	[4] -25 +60		CLP PG (PSS)	VG 220	-25 | +100 GearFluid Poly 220 E1 SEW07004031 3								

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

Lubricant table for W.. gear units

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oils seals" (→ 🗎 127).

W.. HW..	[3] °C -50 0 +50 +100	[4]	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	tremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
	+60	–20	Ex	CLP PG (PSS)	VG 460	-20 | +115 GearOil Poly 460 W E1 SEW070040313								
	+60	–20	Ex	CLP PG NSF H1 (PSS)	VG 460	-20 | +115 GearOil Poly 460 H1 E1 SEW070040313					-20 | +115 Klübersynth UH1 6-460			
	+20	–30	Ex	CLP PG NSF H1 (PSS)	VG 150[1]	-30 | +65 GearOil Poly 150 H1 E1 SEW070040313					-30 | +65 Klübersynth UH1 6-150			
	+10	–40	Ex	API GL5	SAE 75W90 (~VG 100)					-40 | +65 Mobil Synthetic Gear Oil 75 W90				

[1] Information regarding special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

26883198/EN – 04/2022

The lubricant table is valid on the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seals" (→ 127).

	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil	KLÜBER LUBRICATION	Shell	SINOPEC	TOTAL
W.9	[4] –25 +60		CLP PG (PSS)	VG 220	-25 | +100 GearOil Poly 220 E1 SEW0700040313					-25 | +100 Klübersynth GH 6-220			
	–20 +80			VG 460	-20 | +115 GearOil Poly 460 E1 SEW0700040313					-20 | +115 Klübersynth GH 6-460			
	–30 +40			VG 150	-30 | +85 GearOil Poly 150 H1 E1 SEW0700040313					-30 | +85 Klübersynth GH 6-150			
	–25 +60		CLP PG (PSS)	VG 220	-25 | +100 GearFluid Poly 220 E1 SEW0700040313								
	[4] –25 +40		CLP PG NSF H1 (PSS)	VG 220	-25 | +80 GearOil Poly 220 H1 E1 SEW0700040313					-25 | +80 Klübersynth UH 6-220			
	–20 +70			VG 460	-20 | +110 GearOil Poly 460 H1 E1 SEW0700040313					-20 | +110 Klübersynth UH 6-460			
	–30 +20			VG 150	-30 | +65 GearOil Poly 150 H1 E1 SEW0700040313					-30 | +65 Klübersynth UH 6-150			

[1] Information regarding special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

6.1.5 Lubricant fill quantities

INFORMATION

The specified fill quantities are **guide values**. The exact values vary depending on the number of gear stages and gear ratio. Check the **oil level plug for the exact oil quantity**.

INFORMATION

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific mounting position. The mounting position (see chapter "Gear unit mounting positions and order information" (→ 🗎 79)) must therefore be specified in the drive order.

When the mounting position is changed, the lubricant fill quantity must be adapted accordingly (see the following chapters). Consequently, a mounting position may only be **changed** after consultation with SEW-EURODRIVE, **otherwise your rights to claim under limited warranty no longer apply.**

The following tables show guide values for lubricant fill quantities in relation to the mounting position M1 – M6.

26883198/EN – 04/2022

Helical (R) gear units

R.., R..F

Gear unit	Fill quantity in liters					
	M1[1)]	M2[1)]	M3[1)]	M4	M5	M6
R07	0.12	0.20				
R17	0.25	0.55	0.35	0.55	0.35	0.40
R27	0.25/0.40	0.70	0.50	0.70	0.50	
R37	0.30/0.95	0.85	0.95	1.05	0.75	0.95
R47	0.70/1.50	1.60	1.50	1.65	1.50	
R57	0.80/1.70	1.90	1.70	2.10	1.70	
R67	1.10/2.30	2.40	2.80	2.90	1.80	2.00
R77	1.20/3.00	3.30	3.60	3.80	2.50	3.40
R87	2.30/6.0	6.5/8.1	7.4/7.2	7.4	6.4	6.6
R97	4.60/9.8	11.7		13.4	11.3	11.7
R107	6.0/13.7	16.3	16.9	19.2	13.2	15.9
R127	6.4/17	18.3	18.2	22.0	16.8	17.9
R137	10.0/25.0	28.0	29.5	31.5	25.0	
R147	15.4/40.0	46.5	48.0	52.0	39.5	41.0
R167	27.0/70.0	82.0	78.0	88.0	66.0	69.0

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

RF.., RM.., RZ..

Gear unit	Fill quantity in liters					
	M1[1)]	M2[1)]	M3	M4	M5	M6
RF07	0.12	0.20				
RF17	0.25	0.55	0.35	0.55	0.35	0.40
RF27	0.25/0.40	0.70	0.50	0.70	0.50	
RF37	0.35/0.95	0.90	0.95	1.05	0.75	0.95
RF47	0.65/1.50	1.60	1.50	1.65	1.50	
RF57	0.80/1.70	1.80	1.70	2.00	1.70	
RF67	1.20/2.50	2.50/3.2	2.70	2.80	1.90	2.10
RF77	1.20/2.60	3.10/4.0	3.30	3.60	2.40	3.00
RF87	2.40/6.0	6.5/8.2	7.3	7.4	6.4	6.5
RF97	5.1/10.2	11.9	11.2	14.0	11.2	11.8
RF107	6.3/14.9	15.9	17.0	19.2	13.1	15.9
RF127	6.6/16.0	18.3	18.2	21.4	15.9	17.0
RF137	9.5/25.0	27.0	29.0	32.5	25.0	
RF147	16.4/42.0	47.0	48.0	52.0	42.0	
RF167	26.0/70.0	82.0	78.0	88.0	65.0	71.0

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

RX..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
RX57	0.60	0.80	1.30		0.90	
RX67	0.80		1.70	1.40	1.10	
RX77	1.10	1.50	2.60	2.70	1.60	
RX87	1.70	2.50	4.80		2.90	
RX97	2.10	3.40	7.4	7.0	4.80	
RX107	3.90	5.6	11.6	11.9	7.7	

RXF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
RXF57	0.50	0.80	1.10		0.70	
RXF67	0.70	0.80	1.50	1.40	1.00	

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
RXF77	0.90	1.30	2.40	2.00	1.60	
RXF87	1.60	1.95	4.90	3.95	2.90	
RXF97	2.10	3.70	7.1	6.3	4.80	
RXF107	3.10	5.7	11.2	9.3	7.2	

Parallel shaft helical (F) gear units

F.., FA..B, FH..B, FV..B

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
F..27	0.60	0.80	0.65	0.70	0.60	
F..37	0.95	1.25	0.70	1.25	1.00	1.10
F..47	1.50	1.80	1.10	1.90	1.50	1.70
F..57	2.25	3.15	1.65	3.15	2.40	2.50
F..67	2.70	3.80	1.90	3.80	2.90	3.20
F..77	5.90	7.30	4.30	8.00	6.00	6.30
F..87	11.0	13.1	7.70	14.0	10.9	11.1
F..97	18.8	22.7	12.6	25.5	18.6	20.2
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	40.5	54.5	34.0	61.0	46.3	47.0
F..157	74.0	106.5	63.0	110.0	88.5	80.5

FF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
FF27	0.60	0.80	0.65	0.70	0.60	
FF37	1.00	1.25	0.70	1.30	1.00	1.10
FF47	1.60	1.85	1.10	1.90	1.50	1.70
FF57	2.30	3.05	1.70	3.10	2.30	2.40
FF67	2.70	3.80	1.90	3.80	2.90	3.20
FF77	5.90	7.30	4.30	8.10	6.00	6.30
FF87	11.0	13.3	7.80	14.3	11.1	11.3
FF97	19.3	22.7	12.6	25.9	19.0	20.7
FF107	25.5	32.0	19.5	38.5	18.6	28.0
FF127	41.5	55.5	34.0	63.0	45.0	49.0
FF157	77.0	107.5	64.0	111.0	89.5	81.5

FA.., FH.., FV.., FAF.., FAZ.., FHF.., FZ.., FHZ.., FVF.., FVZ.., FT.., FM.., FAM..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
F..27	0.60	0.80	0.65	0.70	0.60	
F..37	0.95	1.25	0.70	1.25	1.00	1.10
F..47	1.50	1.80	1.10	1.90	1.50	1.70
F..57	2.40	3.10	1.70	3.15	2.40	2.50
F..67	2.70	3.80	1.90	3.80	2.90	3.20
F..77	5.90	7.30	4.30	8.00	6.00	6.30
F..87	11.0	13.1	7.70	14.0	10.9	11.1
F..97	18.8	22.7	12.6	25.5	18.6	20.2
F..107	24.5	32.0	19.5	37.5	27.0	
F..127	39.0	54.5	34.0	61.0	45.0	46.5
F..157	73.0	105.5	62.0	109.0	87.5	79.5

26883198/EN – 04/2022

Helical-bevel (K) gear units

INFORMATION

All K..19 and K..29 gear units have a universal mounting position, which means that K..19 and K..29 gear units of the same design are filled with the same oil quantity independent of the mounting position. An exception to this is the M4 mounting position.

K.., KA..B, KH..B, KV..B

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.86	1.65	1.55	2.10	1.55	1.30
K..49	1.65	3.35	2.80	4.20	3.15	2.75
K..37	0.50	1.00		1.25	0.95	
K..47	0.80	1.30	1.50	2.00	1.60	
K..57	1.10	2.20		2.80	2.30	2.10
K..67	1.10	2.40	2.60	3.45	2.60	
K..77	2.20	4.10	4.40	5.80	4.20	4.40
K..87	3.70	8.20	8.90	10.90	8.20	
K..97	7.0	14.0	15.70	20.0	15.70	15.50
K..107	10.0	21.0	25.50	33.50	24.0	
K..127	19.0	41.50	44.0	54.0	40.0	41.0
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

KF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF19	0.40			0.45	0.40	
KF29	0.70			0.85	0.70	
KF39	0.86	1.65	1.55	2.10	1.55	1.30
KF49	1.65	3.35	2.80	4.20	3.15	2.75
KF37	0.50	1.10		1.40	1.00	
KF47	0.80	1.30	1.70	2.20	1.60	
KF57	1.20	2.20	2.40	3.15	2.50	2.30
KF67	1.10	2.40	2.80	3.70	2.70	
KF77	2.10	4.10	4.40	5.90	4.50	
KF87	3.70	8.30	9.2	11.90	8.60	8.50
KF97	7.0	14.70	17.30	21.50	15.70	16.50
KF107	10.0	21.90	26.0	35.10	25.40	25.30
KF127	19.0	41.50	46.0	55.0	41.0	
KF157	31.0	66.0	69.0	92.0	63.0	

KA.., KH.., KV.., KAF.., KHF.., KVF.., KZ.., KAZ.., KHZ.., KVZ.., KT.., KM.., KAM..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.86	1.65	1.55	2.10	1.55	1.30
K..49	1.65	3.35	2.80	4.20	3.15	2.75
K..37	0.50	1.00		1.30	1.00	
K..47	0.80	1.30	1.60	2.0	1.60	
K..57	1.20	2.20	2.40	3.15	2.70	2.40

26883198/EN – 04/2022

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..67	1.10	2.40	2.70	3.70	2.60	
K..77	2.10	4.10	4.60	5.90	4.40	
K..87	3.70	8.40	9.0	11.10	8.2	
K..97	7.0	14.70	15.70	20.0	15.70	
K..107	10.0	20.80	24.5	32.4	24.5	24.3
K..127	19.0	41.50	43.0	52.0	40.0	
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

Helical-worm (S) gear units

S..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
S37	0.25	0.40	0.50	0.55	0.40	
S47	0.35	0.80	0.70/0.90	1.00	0.80	
S57	0.50	1.20	1.00/1.20	1.35	1.30	
S67	1.00	2.00	2.20/3.10	3.10	2.60	2.60
S77	1.90	4.20	3.70/5.4	5.9	4.40	
S87	3.30	8.1	6.9/10.4	11.3	8.4	
S97	6.8	15.0	13.4/18.0	21.8	17.0	

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

SF..

Gear unit	Fill quantity in liters										
	M1	M2	M3[1)]	M4 Output		M5 Output			M6 Output		
				A/B	A + B	A	B	A + B	A	B	A + B
SF37	0.25	0.40	0.50	0.55	0.6	0.4	0.4	0.4	0.4	0.4	0.4
SF47	0.40	0.90	0.90/1.05	1.10	1.15	1.0	0.9	1.0	0.9	1.0	1.0
SF57	0.50	1.20	1.00/1.50	1.50	1.55	1.4	1.4	1.4	1.4	1.4	1.4
SF67	1.00	2.20	2.30/3.00	3.20	3.5	2.7	2.6	2.7	2.6	2.7	2.7
SF77	1.90	4.10	3.90/5.8	6.5	7.2	4.9	4.6	4.9	4.6	4.9	4.9
SF87	3.80	8.0	7.1/10.1	12.0	13.2	9.1	8.2	9.1	8.2	9.1	9.1
SF97	7.4	15.0	13.8/18.8	23.1	25.2	18.0	17.0	18.0	17.0	18.0	18.0

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

SA.., SH.., SAF.., SHZ.., SAZ.., SHF.., ST..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
S..37	0.25	0.40	0.50		0.40	
S..47	0.40	0.80	0.70/0.90	1.05	0.80	
S..57	0.50	1.10	1.00/1.50	1.45	1.20	
S..67	1.00	2.00	1.80/2.60	2.90	2.50	
S..77	1.80	3.90	3.60/5.0	5.8	4.50	
S..87	3.80	7.4	6.0/8.7	10.8	8.0	
S..97	7.0	14.0	11.4/16.0	21.0	15.7	

1) The larger gear unit of compound gear units must be filled with the larger oil quantity.

26883198/EN – 04/2022

SPIROPLAN® (W) gear units

INFORMATION

SPIROPLAN® gear units W..10 to W..30 have a universal mounting position, which means that gear units of the same design are filled with the same oil quantity independent of the mounting position.

WF.., WA.., WAF.., WH.., WHF.., WT..

Gear unit	Fill quantity in liters						
	M1	M2	M3	M4		M5	M6
				2	3		
W..10	0.16						
W..19	0.34			0.6	0.54	0.54	
W..20	0.24						
W..29	0.54			0.93	0.78	0.72	
W..30	0.40						
W..39	0.85			1.5	1.35	1.25	
W..49	1.39			2.41	2.19	2.15	
W..59	2.0			3.49	3.2	3.0	

6.2 Gear unit venting

INFORMATION

Dirt and dust in the environment may affect the function of the breather valves.

Contact SEW-EURODRIVE regarding alternative venting systems, if required.

26883198/EN – 04/2022

6.3 Reduced backlash gear unit design /R

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input side is blocked. The specified values have a tolerance of ± 2 angular minutes.

(→ 🗎 216)

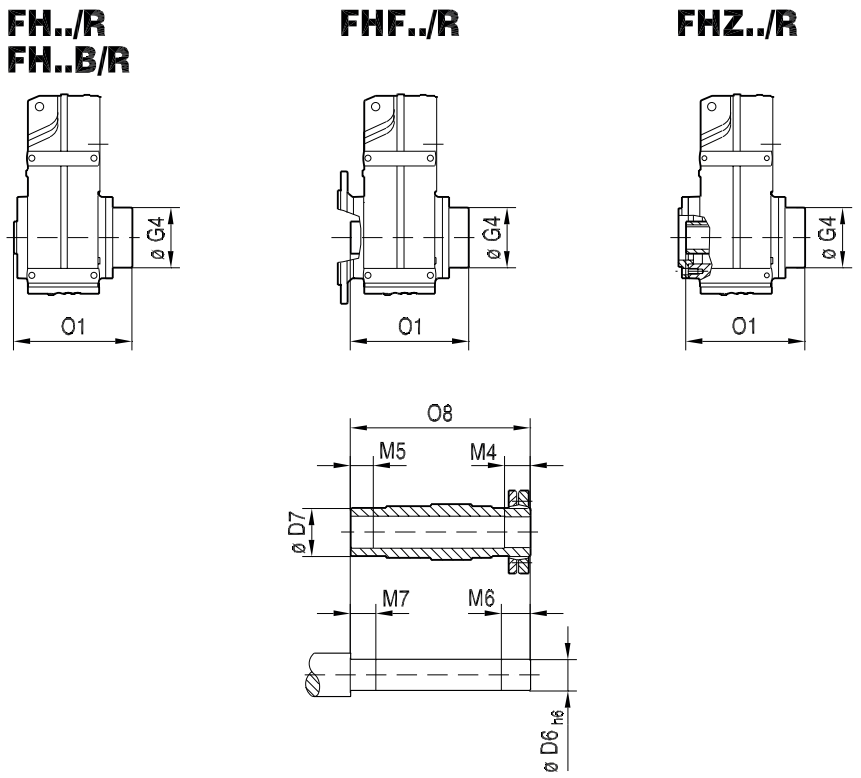
The reduced backlash design is available for the following gear units:

- Helical gear units (R), sizes 37 to 167
- Parallel-shaft helical gear units (F), sizes 37 to 157
- Helical-bevel gear units (only K..7) in gear unit sizes 37 to 187

The dimensions of the reduced backlash variants correspond to the dimensions of the standard designs, except for parallel-shaft helical gear units FH.87 and FH.97 with reduced backlash.

The following figure shows the dimensions of the FH.87 and FH.97 gear units with reduced backlash:

42 020 00 09



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Type	Dimensions in mm								
	D6	D7	G4	M4	M5	M6	M7	O1	O8
FH.87/R	Ø 65 $_{h6}$	Ø 85	Ø 163	41	40	46	45	312.5	299.5
FH.97/R	Ø 75 $_{h6}$	Ø 95	Ø 184	55	50	60	55	382.5	367

26883198/EN – 04/2022

6.4 Assembly/disassembly of gear units with hollow shaft and key

INFORMATION

Use the supplied NOCO® fluid for mounting. The fluid prevents contact corrosion and facilitates subsequent disassembly.

INFORMATION

The key dimension L12 is specified for the customer and depends on the application requirements and the used materials.

See the following figure "Customer shaft with contact shoulder [A] and without contact shoulder [B].

INFORMATION

When dimensioning the keyed connection, take into account that the hollow shaft of the gear unit (hub) is made of the material C45R(1.1201).

SEW-EURODRIVE recommends **2 options for mounting** gear units with hollow shaft and key onto the input shaft of the driven machine (= customer shaft):

- Mounting using supplied fastening parts
- Mounting/dismounting using the SEW-EURODRIVE assembly and disassembly kit

The following sections describe the two options.

6.4.1 Mounting using supplied fastening parts

The following fastening parts are provided as standard:

- Retaining screw with washer [2]
- Retaining ring [3]

Note the following information concerning the customer shaft:

- The installation length of the customer shaft with contact shoulder [A] must be "L8" - 1 mm.
- The installation length of the customer shaft without contact shoulder [B] must equal "L8".

26883198/EN – 04/2022

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

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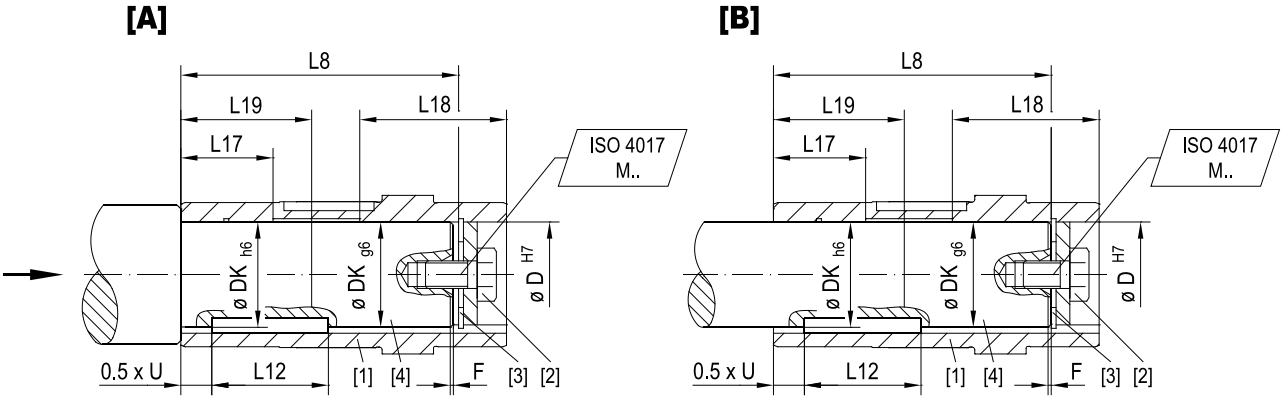


27021619247083659

D Hollow shaft diameter
DK Customer shaft diameter
F Shaft end chamfer
L8 Customer shaft length
L12 Key length
L17 Cylinder section length with dimension H7
L18 Cylinder section length with dimension H7
L19 Depending on the insertion side of the customer shaft, the dimension L19 should be > L17 or > L18
U Key width
[1] Hollow shaft
[2] Retaining screw with washer
[3] Retaining ring
[4] Customer shaft

Dimensions and tightening torques MS for retaining screw [2] for standard gear units:

Gear unit type	D^{H7} mm	DK mm	F mm	L8 mm	L17 mm	L18 mm	U mm	MS Nm	ISO 4017 M..
FA..27	25		1	89	30	30	8	20	M10 × 25
FA..37, KA..37	30		1	105	39	45	8	20	M10 × 25
FA..47, KA..47	35		1	132	45	52	10	20	M12 × 30
FA..57, KA..57	40		1	142	50	60	12	40	M16 × 40
FA..67, KA..67	40		1	156	50	60	12	40	M16 × 40
FA..77, KA..77	50		1	183	65	75	14	40	M16 × 45
FA..87, KA..87	60		1	210	75	90	18	80	M20 × 50
FA..97, KA..97	70		2	270	90	105	20	80	M20 × 50
FA..107, KA..107	90		2	313	110	125	25	200	M24 × 60
FAM67, KAM67	40		1	278	50	60	12	40	M16 × 40
FAM77, KAM77	50		1	309	65	75	14	40	M16 × 45
FAM87, KAM87	60		1	363	75	90	18	80	M20 × 50
FAM97, KAM97	70		2	422	90	105	20	80	M20 × 50

26883198/EN – 04/2022

Gear unit type	D^{H7}	DK	F	L8	L17	L18	U	MS	ISO 4017
	mm	mm	mm	mm	mm	mm	mm	Nm	M..
FAM107, KAM107	90		2	473	110	125	25	200	M24 × 60
KA..19	20		1	92	28	30	6	8	M6 × 16
KA..29	25		1	107	30	38	8	20	M10 × 25
KA..29	30		1	107	35	35	8	20	M10 × 25
KA..39	30		1	137	35	45	8	20	M10 × 25
KA..39	35		1	137	35	45	10	20	M12 × 30
KA..49	35		1	160	35	45	10	20	M12 × 30
KA..49	40		1	154	35	45	12	40	M16 × 40
SA..37	20		1	104	40	40	6	8	M6 × 16
SA..47	25		1	105	38	38	8	20	M10 × 25
SA..47	30		1	105	39	45	8	20	M10 × 25
SA..57	30		1	132	39	45	8	20	M10 × 25
SA..57	35		1	132	45	52	10	20	M12 × 30
SA..67	40		1	144	50	60	12	40	M16 × 40
SA..67	45		1	144	50	60	14	40	M16 × 40
SA..77	50		1	180	63	75	14	40	M16 × 45
SA..77	60		1	180	72	90	18	80	M20 × 50
SA..87	60		1	220	75	90	18	80	M20 × 50
SA..87	70		2	220	90	105	20	80	M20 × 50
SA..97	70		2	260	90	105	20	80	M20 × 50
SA..97	90		2	255	110	125	25	200	M24 × 60
WA..10	16		0.5	69	24	24	5	8	M5 × 12
WA..19	18		1	84	27	27	6	8	M6 × 16
WA..19	20		1	84	26	30	6	8	M6 × 16
WA..20	18		1	84	24	27	6	8	M6 × 16
WA..29	20		1	92	28	30	6	8	M6 × 16
WA..29	25		0.5	92	28	30	8	20	M10 × 25
WA..29	30		0.5	92	28	30	8	20	M10 × 25
WA..30	20		1	105	30	30	6	8	M6 × 16
WA..39	25		1	107	30	38	8	20	M10 × 25
WA..39	30		1	107	30	38	8	20	M10 × 25
WA..49	30		1	137	35	45	8	20	M10 × 25
WA..49	35		1	137	35	45	10	20	M12 × 30
WA..59	35		1	160	35	45	10	20	M12 × 30
WA..59	40		1	154	35	45	12	40	M16 × 40

26883198/EN – 04/2022

6.4.2 Assembly/disassembly with SEW-EURODRIVE assembly and disassembly kit

Assembly

You can use the optional assembly/disassembly kit for mounting. The kit can be ordered for the respective gear unit types by quoting the part numbers in the table below. The scope of delivery includes:

- Spacer tube for installation without contact shoulder [5]
- Retaining screw for assembly [2]
- Forcing washer for disassembly [7]
- Fixed nut for disassembly [8]

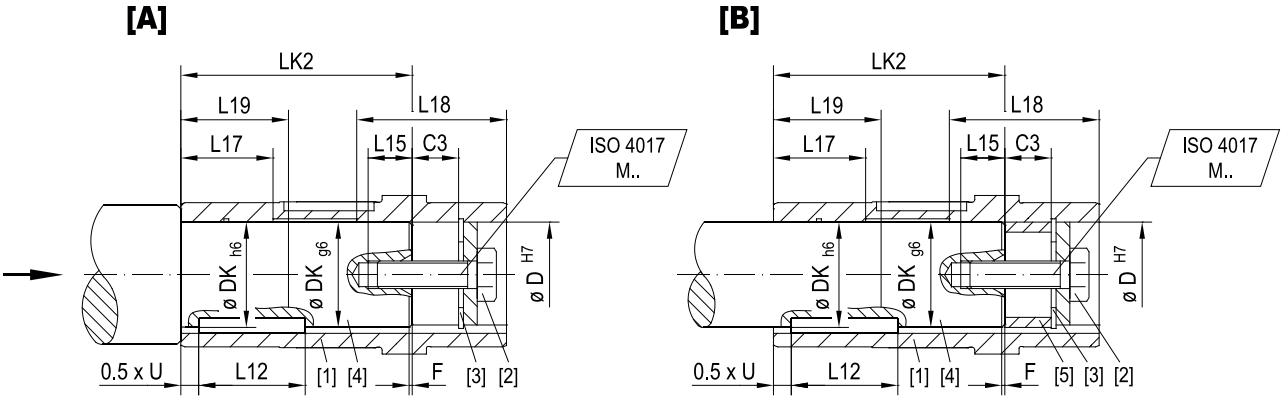
The short retaining screw delivered as standard is not required.

Note the following information concerning the customer shaft:

- The installation length of the customer shaft must be LK2. **Do not use the spacer tube if the customer shaft has a contact shoulder [A].**
- The installation length of the customer shaft must be LK2. Use the **spacer tube if the customer shaft has no contact shoulder [B]**.

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].

00 002 02 02



54043199837413003

C3 Indentation fixed nut and forcing washer
D Hollow shaft diameter
DK Customer shaft diameter
F Shaft end chamfer
L8 Customer shaft length
L12 Key length
L15 Thread depth of customer shaft
L17 Cylinder section length with dimension H7
L18 Cylinder section length with dimension H7
L19 Depending on the insertion side of the customer shaft, the dimension L19 should be > L17 or > L18
LK2 Length of the customer shaft when using the optional assembly/disassembly kit
U Key width
[1] Hollow shaft
[2] Retaining screw with washer
[3] Retaining ring
[4] Customer shaft
[5] Spacer tube

26883198/EN – 04/2022

Dimensions, tightening torque MS and part numbers for retaining screw [2]:

Type	C3	D^{H7}	DK	L15	L17	L18	LK2	U	MS	ISO 4017	Part number of the assembly/disassembly kit
	mm	mm	mm	mm	mm	mm	mm	mm	Nm	M..	
FA..27	16	25		22	30	30	73	8	20	M10 × 35	06436846
FA..37	16	30		22	39	45	89	8	20	M10 × 35	06436854
FA..47	18	35		28	45	52	114	10	20	M12 × 45	06436862
FA..57	18	40		36	50	60	124	12	40	M16 × 50	06436870
FA..67	18	40		36	50	60	138	12	40	M16 × 50	06436870
FA..77	18	50		36	65	75	165	14	40	M16 × 50	06436897
FA..87	22	60		42	75	90	188	18	80	M20 × 60	06436900
FA..97	22	70		42	90	105	248	20	80	M20 × 60	06436919
FA..107	26	90		50	110	125	287	25	200	M24 × 70	06436927
FA..127	26	100		50	120	150	347	28	200	M24 × 70	06436935
FA..157	26	120		50	180	180	434	32	200	M24 × 70	06436943
FAM67	18	40		36	50	60	260	12	40	M16 × 50	06436870
FAM77	18	50		36	65	75	291	14	40	M16 × 50	06436897
FAM87	22	60		42	75	90	341	18	80	M20 × 60	06436900
FAM97	22	70		42	90	105	400	20	80	M20 × 60	06436919
FAM107	26	90		50	110	125	447	25	200	M24 × 70	06436927
FAM127	26	100		50	120	150	527	28	200	M24 × 70	06436935
FAM157	26	120		50	180	180	665	32	200	M24 × 70	06436943
KA..19	12	20		16	28	30	80	6	8	M6 × 25	06436838
KA..29	16	25		22	30	38	91	8	20	M10 × 35	06436846
KA..29	16	30		22	35	35	91	8	20	M10 × 35	06436854
KA..37	16	30		22	39	45	89	8	20	M10 × 35	06436854
KA..39	16	30		22	35	45	121	8	20	M10 × 35	06436854
KA..39	18	35		28	35	45	119	10	20	M12 × 45	06436862
KA..47	18	35		28	45	52	114	10	20	M12 × 45	06436862
KA..49	18	35		28	35	45	142	10	20	M12 × 45	06436862
KA..49	18	40		36	35	45	136	12	40	M16 × 50	06436870
KA..57	18	40		36	50	60	124	12	40	M16 × 50	06436870
KA..67	18	40		36	50	60	138	12	40	M16 × 50	06436870
KA..77	18	50		36	65	75	165	14	40	M16 × 50	06436897
KA..87	22	60		42	75	90	188	18	80	M20 × 60	06436900
KA..97	22	70		42	90	105	248	20	80	M20 × 60	06436919
KA..107	26	90		50	110	125	287	25	200	M24 × 70	06436927
KA..127	26	100		50	120	150	347	28	200	M24 × 70	06436935
KA..157	26	120		50	180	180	434	32	200	M24 × 70	06436943

26883198/EN – 04/2022

Type	C3	D^{H7}	DK	L15	L17	L18	LK2	U	MS	ISO 4017	Part number of the assembly/disassembly kit
	mm	mm	mm	mm	mm	mm	mm	mm	Nm	M..	
KAM77	18	50		36	65	75	291	14	40	M16 × 50	06436897
KAM67	18	40		36	50	60	260	12	40	M16 × 50	06436870
KAM87	22	60		42	75	90	341	18	80	M20 × 60	06436900
KAM97	22	70		42	90	105	400	20	80	M20 × 60	06436919
KAM107	26	90		50	110	125	447	25	200	M24 × 70	06436927
KAM127	26	100		50	120	150	527	28	200	M24 × 70	06436935
KAM157	26	120		50	180	180	665	32	200	M24 × 70	06436943
SA..37	12	20		16	40	40	92	6	8	M6 × 25	06436838
SA..47	16	25		22	38	38	89	8	20	M10 × 35	06436846
SA..47	16	30		22	39	45	89	8	20	M10 × 35	06436854
SA..57	16	30		22	39	45	116	8	20	M10 × 35	06436854
SA..57	18	35		28	45	52	114	10	20	M12 × 45	06436862
SA..67	18	40		36	50	60	126	12	40	M16 × 50	06436870
SA..67	18	45		36	50	60	126	14	40	M16 × 50	06436889
SA..77	18	50		36	63	75	165	14	40	M16 × 50	06436897
SA..77	22	60		42	72	90	158	18	80	M20 × 60	06436900
SA..87	22	60		42	75	90	198	18	80	M20 × 60	06436900
SA..87	22	70		42	90	105	198	20	80	M20 × 60	06436919
SA..97	22	70		42	90	105	238	20	80	M20 × 60	06436919
SA..97	26	90		50	110	125	229	25	200	M24 × 70	06436927
WA..10	11	16		12.5	24	24	58	5	8	M5 × 50	06437125
WA..19	12	18		16	27	27	72	6	8	M6 × 25	0643682X
WA..19	12	20		16	26	30	72	6	8	M6 × 25	06436838
WA..20	12	18		16	27	27	72	6	8	M6 × 25	0643682X
WA..20	12	20		16	26	30	72	6	8	M6 × 25	06436838
WA..29	12	20		16	28	30	80	6	8	M6 × 16	06436838
WA..29	16	25		22	28	30	91	8	20	M10 × 35	06436846
WA..29	16	30		22	28	30	76	8	20	M10 × 35	06436854
WA..30	12	20		16	30	30	93	6	8	M6 × 25	06436838
WA..39	16	25		22	30	38	91	8	20	M10 × 35	06436846
WA..39	16	30		22	35	35	91	8	20	M10 × 35	06436854
WA..49	16	30		22	35	45	121	8	20	M10 × 35	06436854
WA..49	18	35		28	35	45	119	10	20	M12 × 45	06436862
WA..59	18	35		28	35	45	142	10	20	M12 × 45	06436862
WA..59	18	40		36	35	45	136	12	40	M16 × 50	06436870

26883198/EN – 04/2022

Disassembly

INFORMATION

The depicted assembly kit for attaching the customer shaft is a recommendation by SEW-EURODRIVE.

- Always check whether this design can compensate the present axial loads.
- In particular applications (e.g. mounting agitator shafts), a different design may have to be used to secure the shaft axially. You can use your own devices to secure the shaft axially if it can be ensured that the designs do not cause potential ignition sources according to ISO 80079-36 and -37 (e.g. impact sparks).

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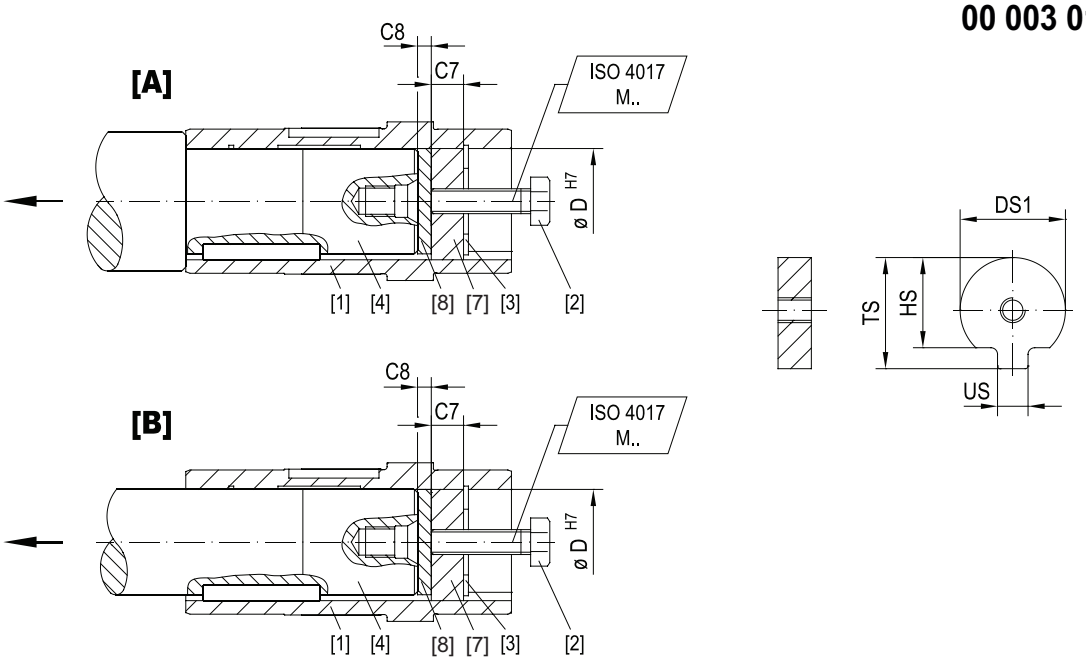

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C7	Width of fixed nut
C8	Width of forcing washer
D	Hollow shaft diameter
DS1	Diameter of fixed nut
HS	Height 1 fixed nut
TS	Height 2 fixed nut
US	Base width of fixed nut
[1]	Hollow shaft
[2]	Retaining screw
[3]	Retaining ring
[4]	Customer shaft
[7]	Fixed nut for disassembly
[8]	Forcing washer

Dimensions and part numbers of the assembly/disassembly kit:

Gear unit	D^{H7} mm	C8 mm	C7 mm	HS mm	US mm	TS mm	DS1 mm	ISO 4017 M..	Part number of the assembly/disassembly kit
WA..10	16	5	5	12	4.5	18	15.7	M5 × 50	06437125
WA..19, WA..20	18	5	6	13.5	5.5	20.5	17.7	M6 × 25	0643682X

26883198/EN – 04/2022

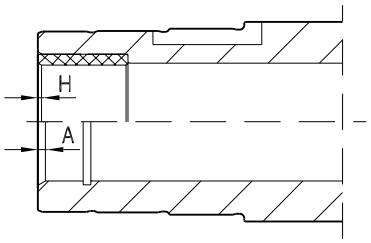
Gear unit	D^{H7} mm	C8 mm	C7 mm	HS mm	US mm	TS mm	DS1 mm	ISO 4017 M..	Part number of the assembly/disassembly kit
KA..19, SA..37, WA..19, WA..20, WA..29, WA..30	20	5	6	15.5	5.5	22.5	19.7	M6 × 25	06436838
FA..27, KA..29, SA..47,WA..29, WA..39	25	5	10	20	7.5	28	24.7	M10 × 35	06436846
FA..37, KA..29, KA..37, KA..39, SA..47, SA..57, WA..29, WA..39, WA..49	30	5	10	25	7.5	33	29.7	M10 × 35	06436854
FA..47, KA..39, KA..47, KA..49, SA..57, WA..49, WA..59	35	5	12	29	9.5	38	34.7	M12 × 45	06436862
FA..57, KA..57, FA..67, KA..49, KA..67, SA..67, WA..59	40	5	12	34	11.5	41.9	39.7	M16 × 50	06436870
SA..67	45	5	12	38.5	13.5	48.5	44.7	M16 × 50	06436889
FA..77, KA..77, SA..77	50	5	12	43.5	13.5	53.5	49.7	M16 × 50	06436897
FA..87, KA..87, SA..77, SA..87	60	5	16	56	17.5	64	59.7	M20 × 60	06436900
FA..97, KA..97, SA..87, SA..97	70	5	16	65.5	19.5	74.5	69.7	M20 × 60	06436919
FA..107, KA..107, SA..97	90	5	20	80	24.5	95	89.7	M24 × 70	06436927
FA..127, KA..127	100	5	20	89	27.5	106	99.7	M24 × 70	06436935
FA..157, KA..157	120	5	20	107	31	127	119.7	M24 × 70	06436943

26883198/EN – 04/2022

6.5 Gear units with hollow shaft

6.5.1 Chamfers on hollow shafts

The following figure shows the chamfers of parallel-shaft helical, helical-bevel, helical-worm and SPIROPLAN® gear units with hollow shaft:



Dimension table for the chamfers of the F, K, S, and W gear units:

Gear unit	Design	
	with hollow shaft (A)	with hollow shaft and shrink disk (H)
W..10	1.5 × 30°	-
W..19, W..20, W..30	2 × 30°	-
F..27	2 × 30°	0.5 × 45°
K..19, W..29	2 × 30°	0.5 × 45°
K..29, W..39	2 × 30°	0.5 × 45°
F../K../S..37	2 × 30°	0.5 × 45°
K..39, W..49	2 × 30°	0.5 × 45°
F../K../S..47	2 × 30°	0.5 × 45°
K..49, W..59	2 × 30°	0.5 × 45°
S..57	2 × 30°	0.5 × 45°
F../K..57	2 × 30°	0.5 × 45°
F../K../S..67	2 × 30°	0.5 × 45°
F../K../S..77	2 × 30°	0.5 × 45°
F../K../S..87	3 × 30°	0.5 × 45°
F../K../S..97	3 × 30°	0.5 × 45°
F../K..107	3 × 30°	0.5 × 45°
F../K..127	5 × 30°	0.5 × 45°
F../K..157	5 × 30°	0.5 × 45°
KH167	-	0.5 × 45°
KH187	-	0.5 × 45°

26883198/EN – 04/2022

6.5.2 Special motor/gear unit combinations

Please note for parallel-shaft helical gearmotors with hollow shaft (FA..B, FV..B, FH..B, FAF, FVF, FHF, FA, FV, FH, FT, FAZ, FVZ, FHZ):

- If you are using a customer shaft pushed through on the motor end, there may be a collision when a "small gear unit" is used in combination with a "large motor."
- Check the motor dimension AC to decide whether there will be a collision with a pushed-through customer shaft.

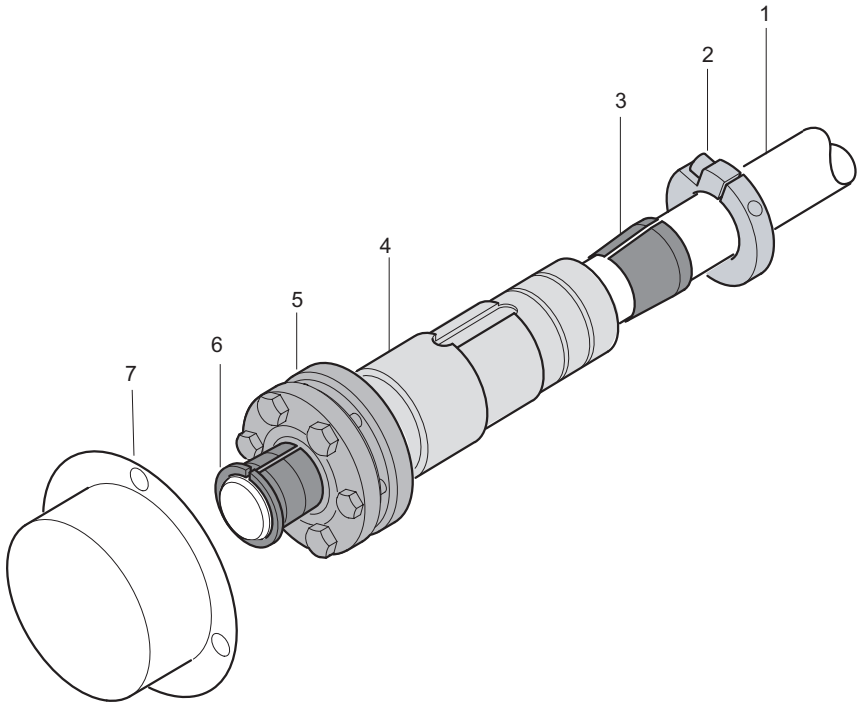
26883198/EN – 04/2022

6.6 TorqLOC® mounting system for gear units with hollow shaft

6.6.1 TorqLOC® description

The TorqLOC® hollow shaft mounting system is used for achieving a non-positive connection between the customer shaft and the hollow shaft in the gear unit. This makes the TorqLOC® hollow shaft mounting system an alternative to the previous hollow shaft with shrink disk, hollow shaft with key, and splined hollow shaft.

The TorqLOC® hollow shaft mounting system consists of the following components:



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[1] Customer shaft
[2] Clamping ring
[3] Conical bronze bushing
[4] Hollow shaft in gear unit
[5] Shrink disk
[6] Conical steel bushing
[7] Fixed safety cover

6.6.2 Advantages of TorqLOC®

The TorqLOC® hollow shaft mounting system is characterized by the following advantages:

- Cost saving as the customer shaft can be made from drawn material up to quality h11.
- Cost saving because different customer shaft diameters can be realized with one hollow shaft diameter and different bushings.
- Simple installation as there is no need to accommodate any shaft connections.
- Simple removal even after many hours of operation as the formation of contact corrosion has been reduced and the conical connections can easily be released.

26883198/EN – 04/2022

6.6.3 Technical data of TorqLOC®

The TorqLOC® hollow shaft mounting system is approved for output torques of 80 Nm to 20 000 Nm.

The following gear units are available with TorqLOC® hollow shaft mounting system:

- Parallel-shaft helical gear units in gear unit sizes 37 to 157 (FT37 – FT157).
- Helical-bevel gear units in gear unit sizes 37 to 157 (KT37 – KT157), 19 to 49 (KT19 – KT49).
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 – ST97).
- SPIROPLAN® gear units in size 29 – 59 (WT.9)

Available options

The following options are available for gear units with TorqLOC® hollow shaft mounting system:

- For helical-bevel, worm and SPIROPLAN® gear units (KT.., ST.., WT.9..): "Torque arm" option (../T).
- For parallel-shaft helical gear units (FT..): "Rubber buffer" option (../G).

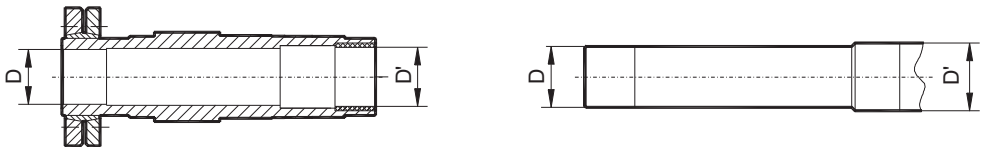
26883198/EN – 04/2022

6.7 Shouldered hollow shaft option with shrink disk

The following gear units with a hollow shaft and shrink disk also have the option of the larger bore diameter D':

- Parallel-shaft helical gear units FH/FHF/FHZ37 – 157
- Helical-bevel gear units KH/KHF/KHZ37 – 157
- Helical-worm gear units SH/SHF47 – 97

D' = D as standard.



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Gear unit	Bore diameter D/ optionally D' mm
FH/FHF/FHZ37, KH/KHF/KHZ37, SH/SHF/SHZ47	30/32
FH/FHF/FHZ47, KH/KHF/KHZ47, SH/SHF/SHZ57	35/36
FH/FHF/FHZ57, KH/KHF/KHZ57	40/42
FH/FHF/FHZ67, KH/KHF/KHZ67, SH/SHF/SHZ67	40/42
FH/FHF/FHZ77, KH/KHF/KHZ77, SH/SHF/SHZ77	50/52
FH/FHF/FHZ87, KH/KHF/KHZ87, SH/SHF/SHZ87	65/66
FH/FHF/FHZ97, KH/KHF/KHZ97, SH/SHF/SHZ97	75/76
FH/FHF/FHZ107, KH/KHF/KHZ107	95/96
FH/FHF/FHZ127, KH/KHF/KHZ127	105/106
FH/FHF/FHZ157, KH/KHF/KHZ157	125/126

Diameter D/D' must be specified when ordering gear units with a shouldered hollow shaft (optional bore diameter D').

6.7.1 Sample order

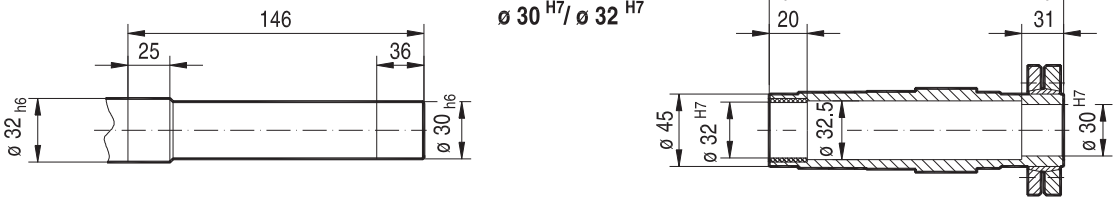
FH37 DRN80M4 with hollow shaft 30/32 mm

26883198/EN – 04/2022

6.7.2 Parallel-shaft helical gear units with shouldered hollow shaft (dimensions in mm):

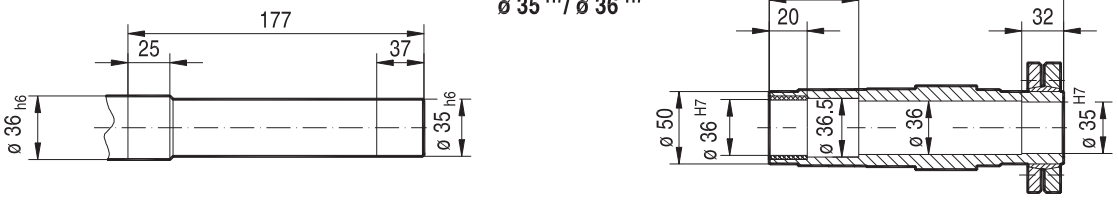
FH / FHF / FHZ37

ø 30 H7/ ø 32 H7



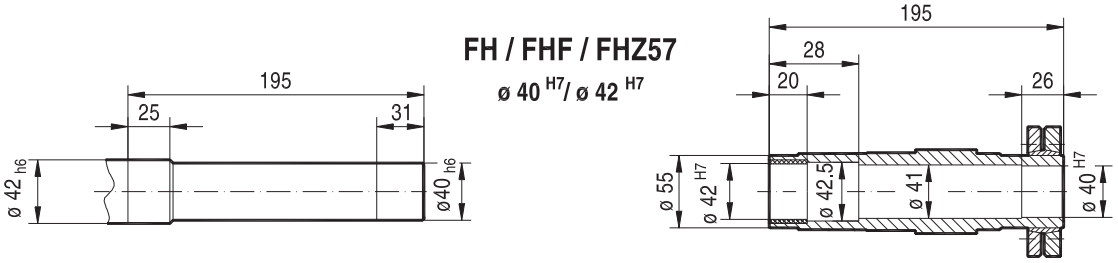
FH / FHF / FHZ47

ø 35 H7/ ø 36 H7



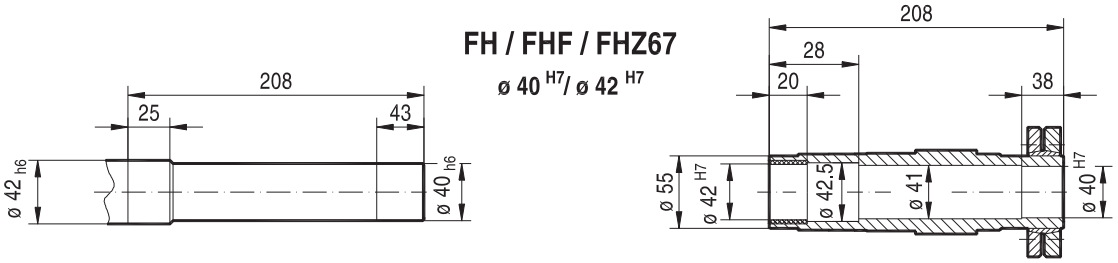
FH / FHF / FHZ57

ø 40 H7/ ø 42 H7



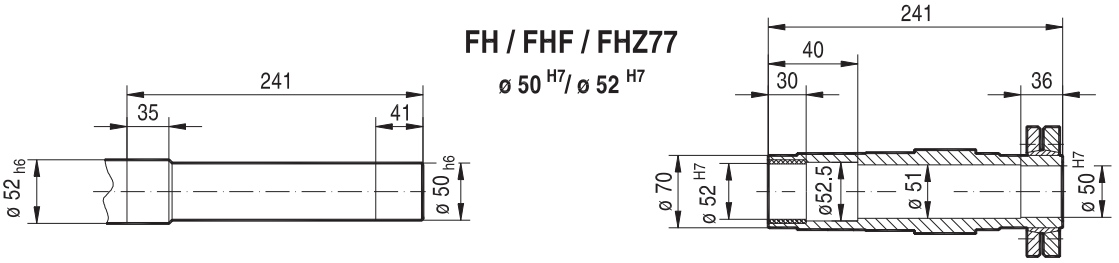
FH / FHF / FHZ67

ø 40 H7/ ø 42 H7



FH / FHF / FHZ77

ø 50 H7/ ø 52 H7



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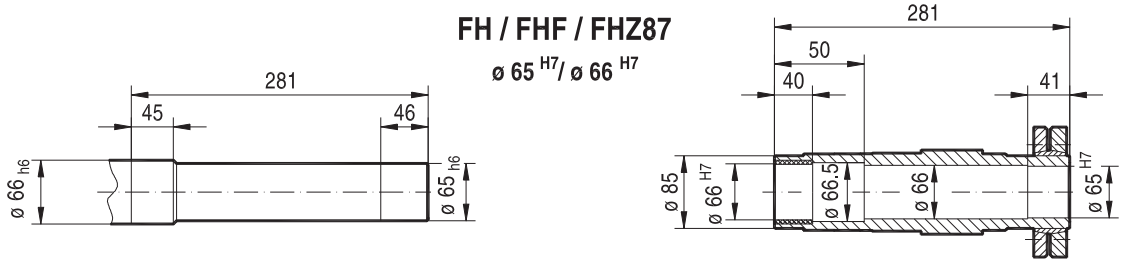
26883198/EN – 04/2022

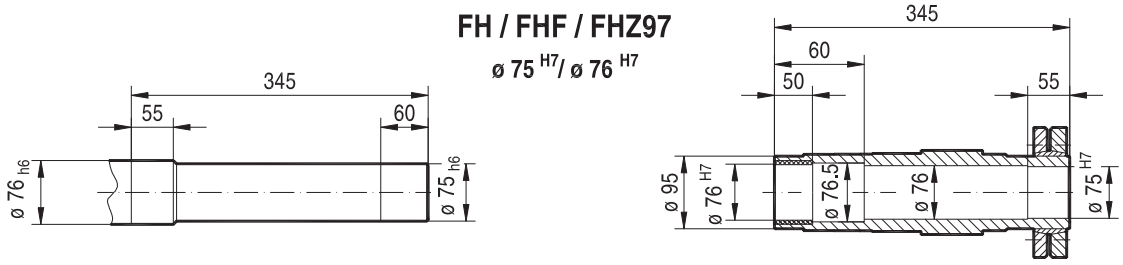
FH / FHF / FHZ87

ø 65 H7/ ø 66 H7



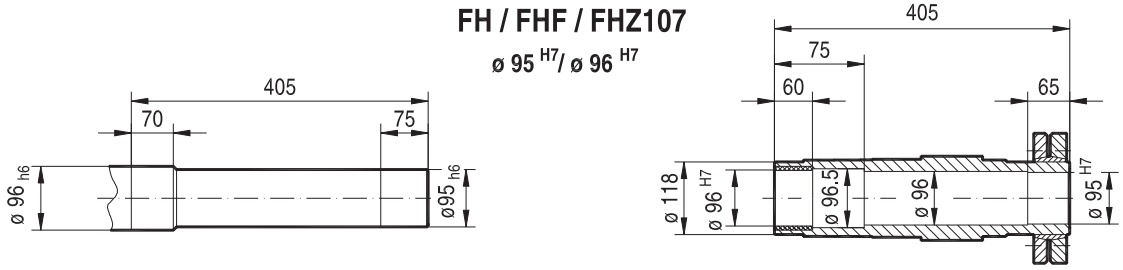
FH / FHF / FHZ97

ø 75 H7/ ø 76 H7



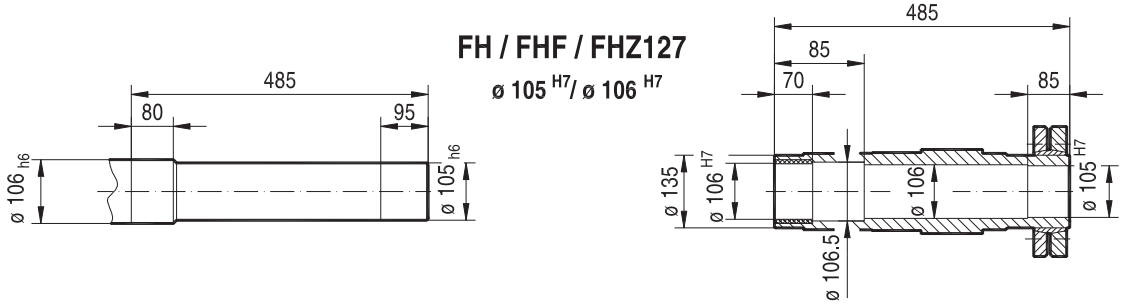
FH / FHF / FHZ107

ø 95 H7/ ø 96 H7



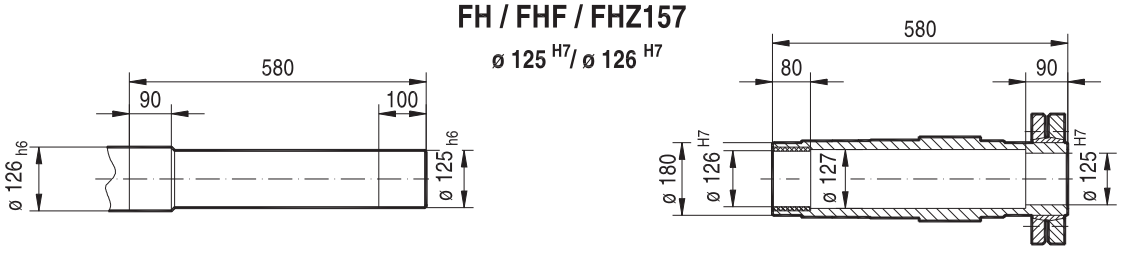
FH / FHF / FHZ127

ø 105 H7/ ø 106 H7



FH / FHF / FHZ157

ø 125 H7/ ø 126 H7



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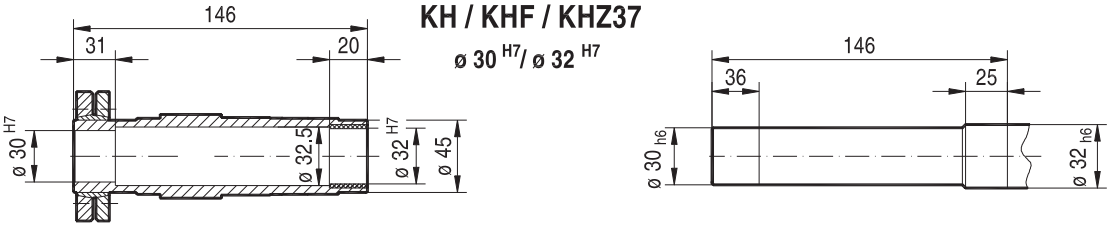
26883198/EN – 04/2022

6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):

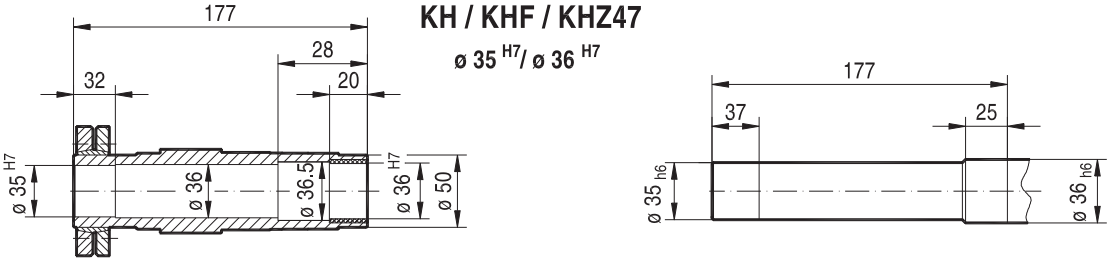
KH / KHF / KHZ37

ø 30 H7/ ø 32 H7



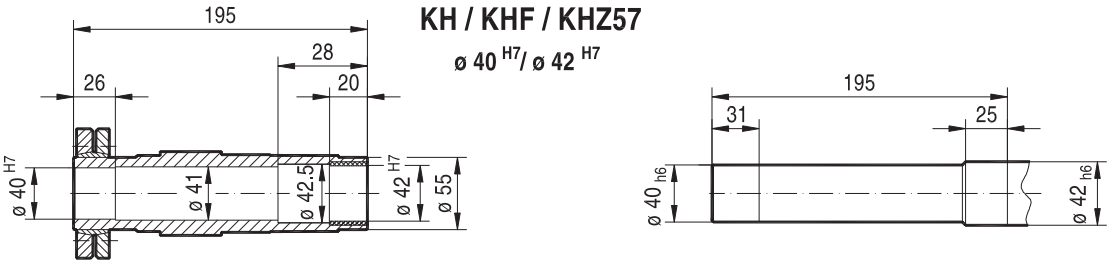
KH / KHF / KHZ47

ø 35 H7/ ø 36 H7



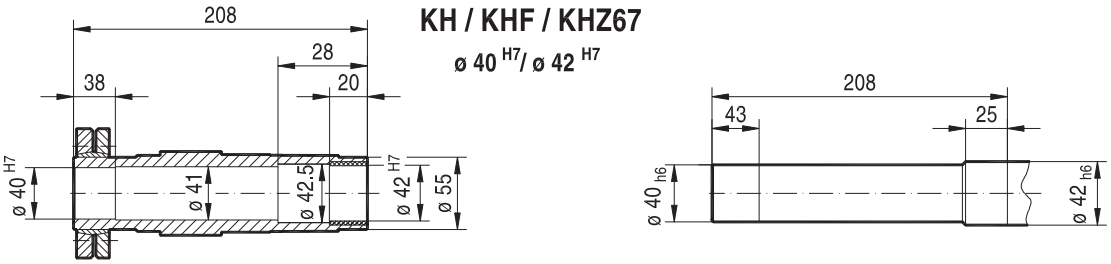
KH / KHF / KHZ57

ø 40 H7/ ø 42 H7



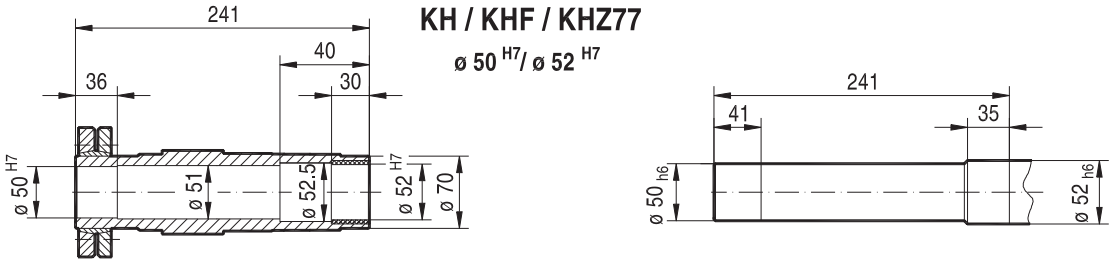
KH / KHF / KHZ67

ø 40 H7/ ø 42 H7



KH / KHF / KHZ77

ø 50 H7/ ø 52 H7



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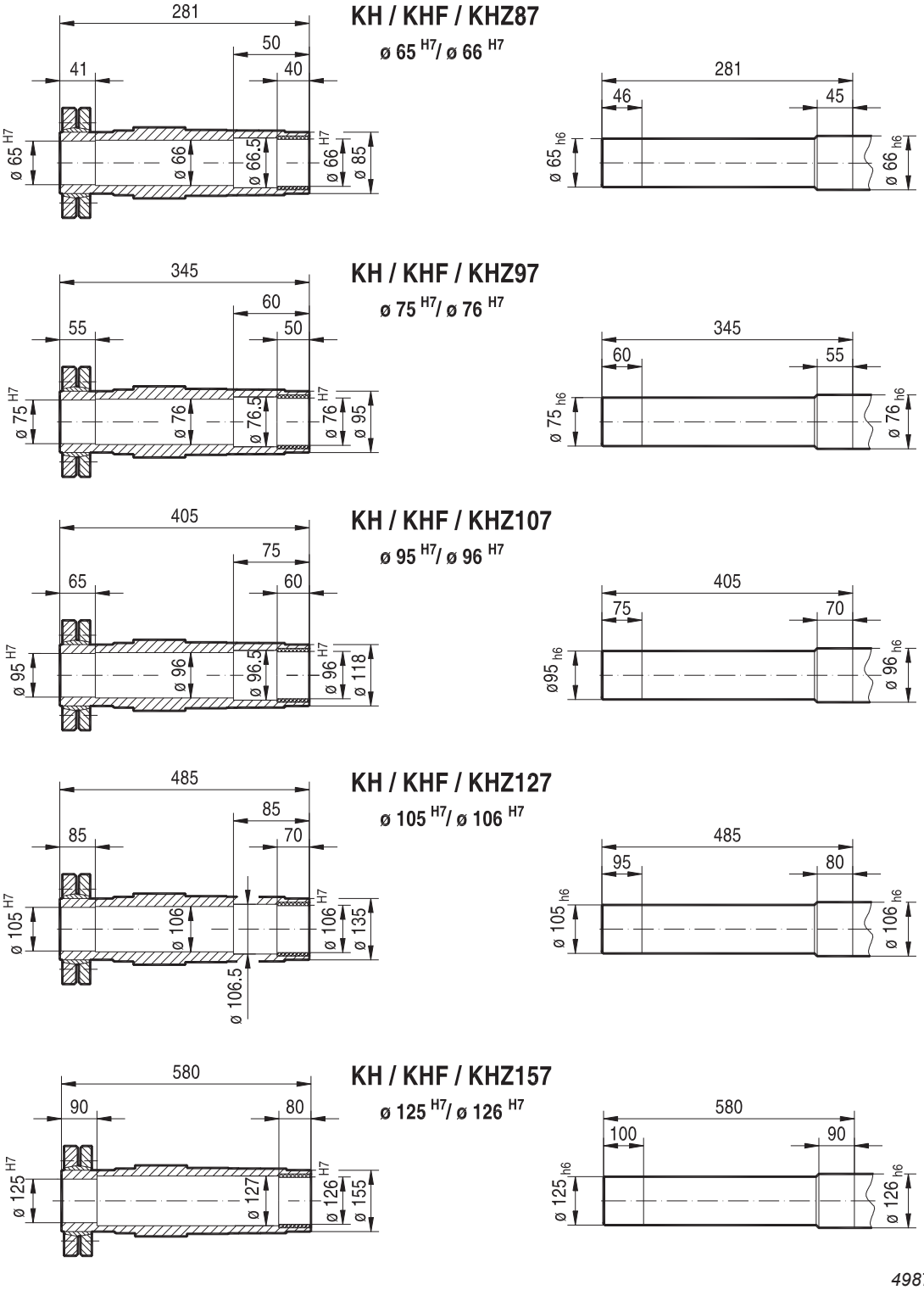
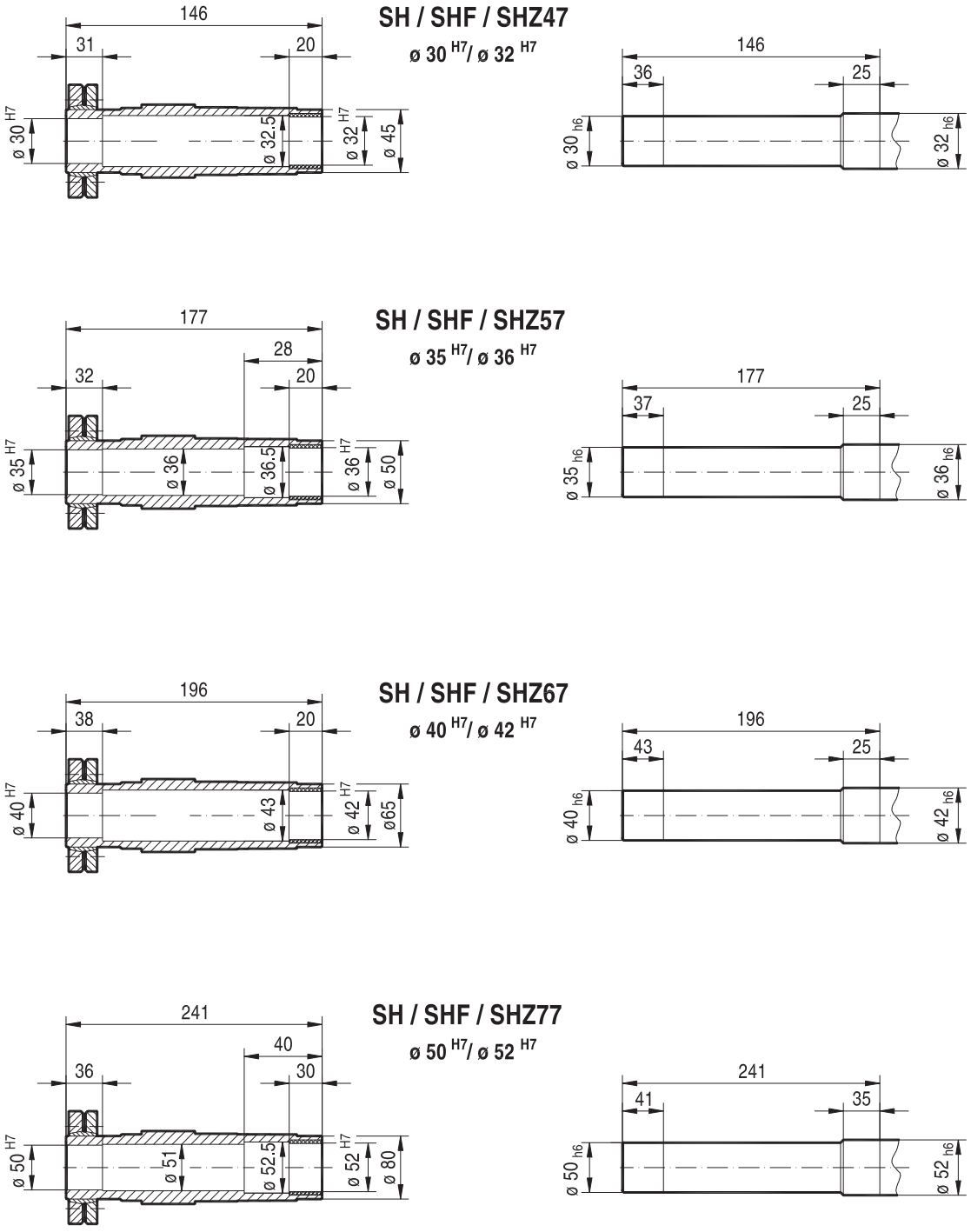
26883198/EN – 04/2022



4987065099

26883198/EN – 04/2022

6.7.4 Helical-worm gear units with shouldered hollow shaft (dimensions in mm):



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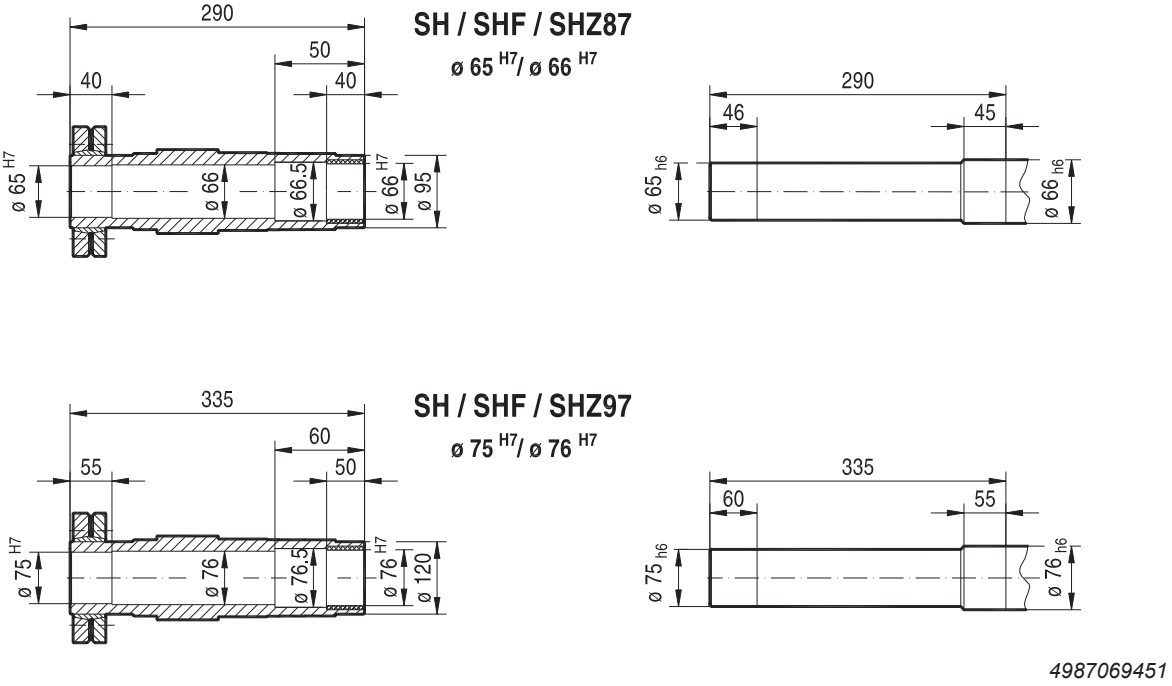
26883198/EN – 04/2022



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6.8 Notes on stainless shrink disk or output shaft

Before using a stainless steel shrink disk or stainless steel output shaft, check if the ambient conditions, used chemicals and cleaning agents are compatible with the stainless steel material. For information on the material, refer to the order confirmation.

26883198/EN – 04/2022

6.9 Adapter for mounting IEC and NEMA motors

6.9.1 Description of AMS.. adapter

AMS.. adapters are used for mounting motors according to IEC standard or NEMA (type C or TC) to SEW-EURODRIVE helical gear units, parallel-shaft helical gear units, helical-bevel and helical-worm gear units and SPIROPLAN® gear units.

Adapters are available for sizes 63 to 280 for IEC motors. Adapters are available for sizes 56 to 365 for NEMA motors.

The designation of the adapter size corresponds to the respective IEC or NEMA motor size.

Torque is transmitted between the motor and the gear unit via a positive and impact resistant claw coupling. Vibrations and shocks occurring during operation are effectively attenuated by an inserted polyurethane girth gear.

The following options are available for the AMS.. adapters:

AMS.. adapter with Drain Hole (DH)

The Drain Hole option is only available for the M4 mounting position. It is recommended if moisture or liquids (water) can enter the adapter space due to external influences. The design provides 4 drain holes around the circumference of the spacer ring for this case. Incoming liquids encounter the installed oil flinger, which transports the liquids to the outside due to rotary motion. The medium can run off to the outside through the drainage slope when in idle state.

AMS.. adapter with backstop (RS)

If the application requires only one permitted direction of rotation, the AMS.. adapter can be configured with an integrated backstop. Backstops with centrifugal lift-off sprags are used. The advantage of this design is that the sprags move around inside the backstop without making contact above a certain speed (lift-off speed). This means the backstops operate wear-free, without losses, maintenance-free and are suited for high speeds.

The backstop is completely integrated in the adapter.

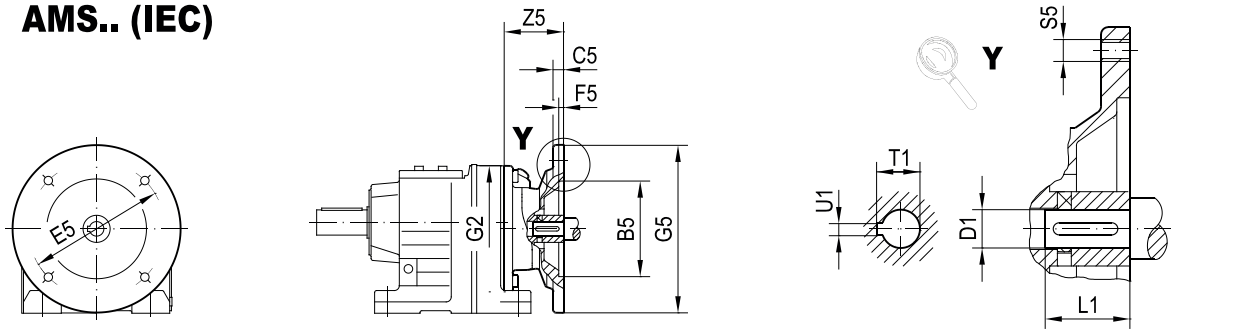
26883198/EN – 04/2022

6.9.2 Dimension sheets of the AMS.. adapters

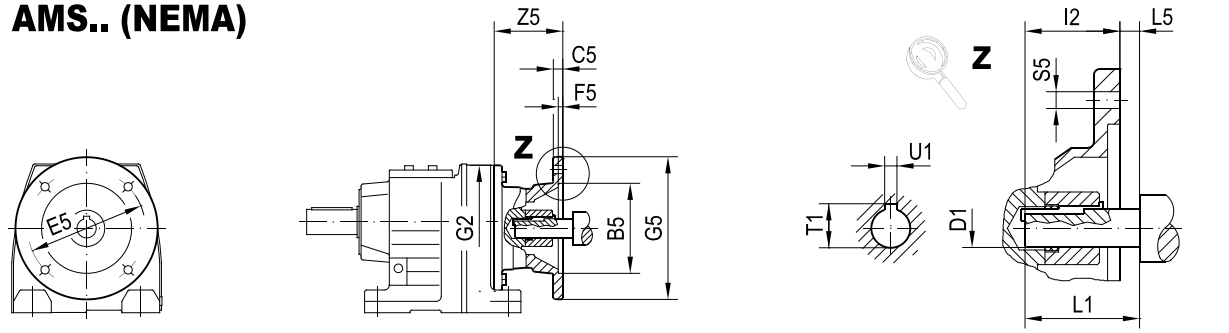
Key

01 196 00 20

AMS.. (IEC)



AMS.. (NEMA)



35485603339

B5	Center bore diameter
C5	Flange thickness
D1	Coupling bore diameter
E5	Hole circle diameter
F5	Centering depth
G2	Gear unit input end flange diameter
G5	Adapter flange diameter
I2	Maximum insertion depth in adapter
L1	Shaft end length (motor)
L5	Shaft collar length to flange surface
S5	Tapped hole
T1	Keyway depth
U1	Keyway width
Z5	Adapter length

26883198/EN – 04/2022

Adapters for mounting IEC motors

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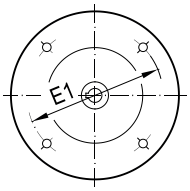

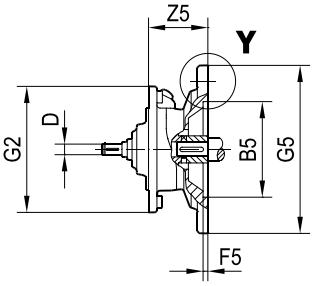

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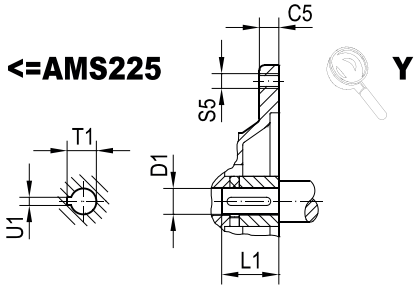

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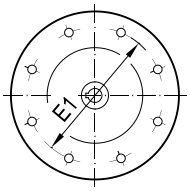

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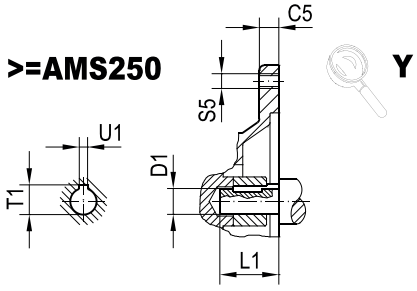

Gear unit type	Adapter type	Dimensions in mm												
		B5	C5	D	D1	E5	F5	G2	G5	L1	S5	T1	U1	Z5[1]
R..07, R..17 W..19	AMS63[2]	95	10	10	11	115	3.5	105	140	23	M8	12.8	4	56.5
	AMS71[2]	110	10	10	14	130	4	105	160	30	M8	16.3	5	56.5
	AMS80[2]	130	12	12	19	165	4.5	105	200	40	M10	21.8	6	73.5
R..27, R..37 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 S..37p, S..47p, S..57p W..29, W..39	AMS63	95	10	10	11	115	3.5	120	140	23	M8	12.8	4	56.5
	AMS71[3]	110	10	10	14	130	4	120	160	30	M8	16.3	5	56.5
	AMS80[2][3]	130	12	12	19	165	4.5	120	200	40	M10	21.8	6	73.5
	AMS90[2][3]	130	12	14	24	165	4.5	120	200	50	M10	27.3	8	86.5
RX..57, RX..67 R..47, R..57, R..67 F..57, F..67 K..39, K..47, K..57, K..67 S..67, S..67p W..49, W..59	AMS63	95	10	10	11	115	3.5	160	140	23	M8	12.8	4	50
	AMS71	110	10	10	14	130	4	160	160	30	M8	16.3	5	50
	AMS80[3]	130	12	12	19	165	4.5	160	200	40	M10	21.8	6	67
	AMS90[3]	130	12	14	24	165	4.5	160	200	50	M10	27.3	8	80
	AMS100[2][3]	180	15	16	28	215	5	160	250	60	M12	31.3	8	108.5
	AMS112[2][3]	180	15	18	28	215	5	160	250	60	M12	31.3	8	108.5
	AMS132S/M[2]	230	16	22	38	265	5	160	300	80	M12	41.3	10	134
RX..77 R..77 F..77 K..49, K..77 S..77, S..77p	AMS63	95	10	10	11	115	3.5	200	140	23	M8	12.8	4	44
	AMS71	110	10	10	14	130	4	200	160	30	M8	16.3	5	44
	AMS80	130	12	12	19	165	4.5	200	200	40	M10	21.8	6	60
	AMS90	130	12	14	24	165	4.5	200	200	50	M10	27.3	8	73
	AMS100[2]	180	15	16	28	215	5	200	250	60	M12	31.3	8	100.5
	AMS112[2]	180	15	18	28	215	5	200	250	60	M12	31.3	8	100.5
	AMS132S/M[2][3]	230	16	22	38	265	5	200	300	80	M12	41.3	10	126
	AMS132ML[2][3]	230	16	28	38	265	5	200	300	80	M12	41.3	10	126

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.
2) Check dimension 1/2 G5 because the component may protrude beyond the foot mounting surface when mounted on an R, K, S or W foot-mounted gear unit.
3) For F. 37/47/57/77, the adapter length Z5 may change depending on the gear unit design.

26883198/EN – 04/2022

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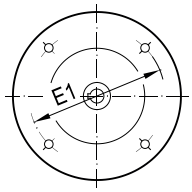

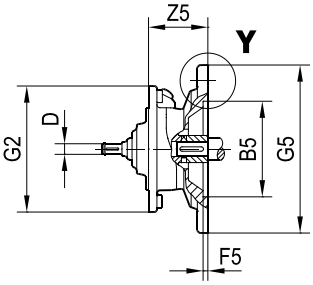

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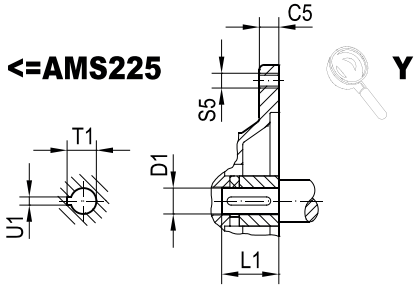

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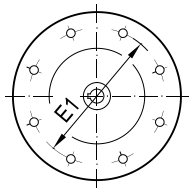

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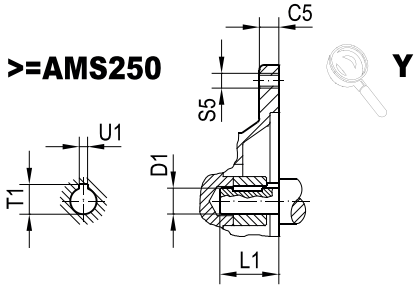

Gear unit type	Adapter type	Dimensions in mm												
		B5	C5	D	D1	E5	F5	G2	G5	L1	S5	T1	U1	Z5[1]
RX..87 R..87 F..87 K..87 S..87[2], S..87p[2]	AMS80	130	12	12	19	165	4.5	250	200	40	M10	21.8	6	55
	AMS90	130	12	14	24	165	4.5	250	200	50	M10	27.3	8	68
	AMS100	180	15	16	28	215	5	250	250	60	M12	31.3	8	95.5
	AMS112	180	15	18	28	215	5	250	250	60	M12	31.3	8	95.5
	AMS132S/M	230	16	22	38	265	5	250	300	80	M12	41.3	10	121
	AMS132ML	230	16	28	38	265	5	250	300	80	M12	41.3	10	121
	AMS160	250	18	28	42	300	6	250	350	110	M16	45.3	12	184
	AMS180	250	18	32	48	300	6	250	350	110	M16	51.8	14	184
RX..97[3] R..97[3] F..97 K..97 S..97, S..97p	AMS100	180	15	16	28	215	5	300	250	60	M12	31.3	8	90.5
	AMS112	180	15	18	28	215	5	300	250	60	M12	31.3	8	90.5
	AMS132S/M	230	16	22	38	265	5	300	300	80	M12	41.3	10	116
	AMS132ML	230	16	28	38	265	5	300	300	80	M12	41.3	10	116
	AMS160	250	18	28	42	300	6	300	350	110	M16	45.3	12	179
	AMS180	250	18	32	48	300	6	300	350	110	M16	51.8	14	179
	AMS200	300	20	38	55	350	7	300	400	110	M16	59.3	16	240
	AMS225	350	22	38	60	400	7	300	450	140	M16	64.4	18	255
RX..107 R..107, R..127 F..107 K..107	AMS100	180	15	16	28	215	5	350	250	60	M12	31.3	8	84.5
	AMS112	180	15	18	28	215	5	350	250	60	M12	31.3	8	84.5
	AMS132S/M	230	16	22	38	265	5	350	300	80	M12	41.3	10	110
	AMS132ML	230	16	28	38	265	5	350	300	80	M12	41.3	10	110
	AMS160	250	18	28	42	300	6	350	350	110	M16	45.3	12	173
	AMS180	250	18	32	48	300	6	350	350	110	M16	51.8	14	173
	AMS200	300	20	38	55	350	7	350	400	110	M16	59.3	16	234
	AMS225	350	22	38	60	400	7	350	450	140	M16	64.4	18	249
R..137	AMS132S/M	230	16	22	38	265	5	400	300	80	M12	41.3	10	103
	AMS132ML	230	16	28	38	265	5	400	300	80	M12	41.3	10	103
	AMS160	250	18	28	42	300	6	400	350	110	M16	45.3	12	166
	AMS180	250	18	32	48	300	6	400	350	110	M16	51.8	14	166
	AMS200	300	20	38	55	350	7	400	400	110	M16	59.3	16	227
	AMS225	350	22	38	60	400	7	400	450	140	M16	64.4	18	242

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.
2) Not with AMS180.
3) Not with AMS225.

26883198/EN – 04/2022

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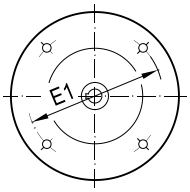

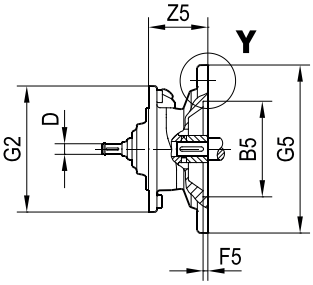

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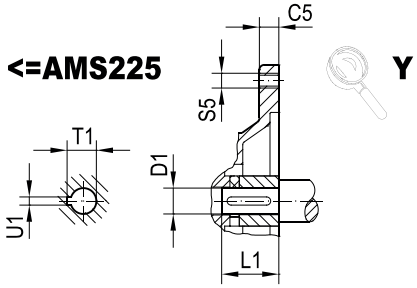

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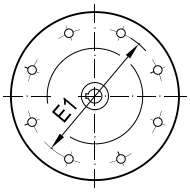

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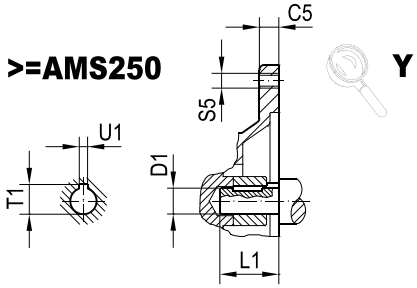


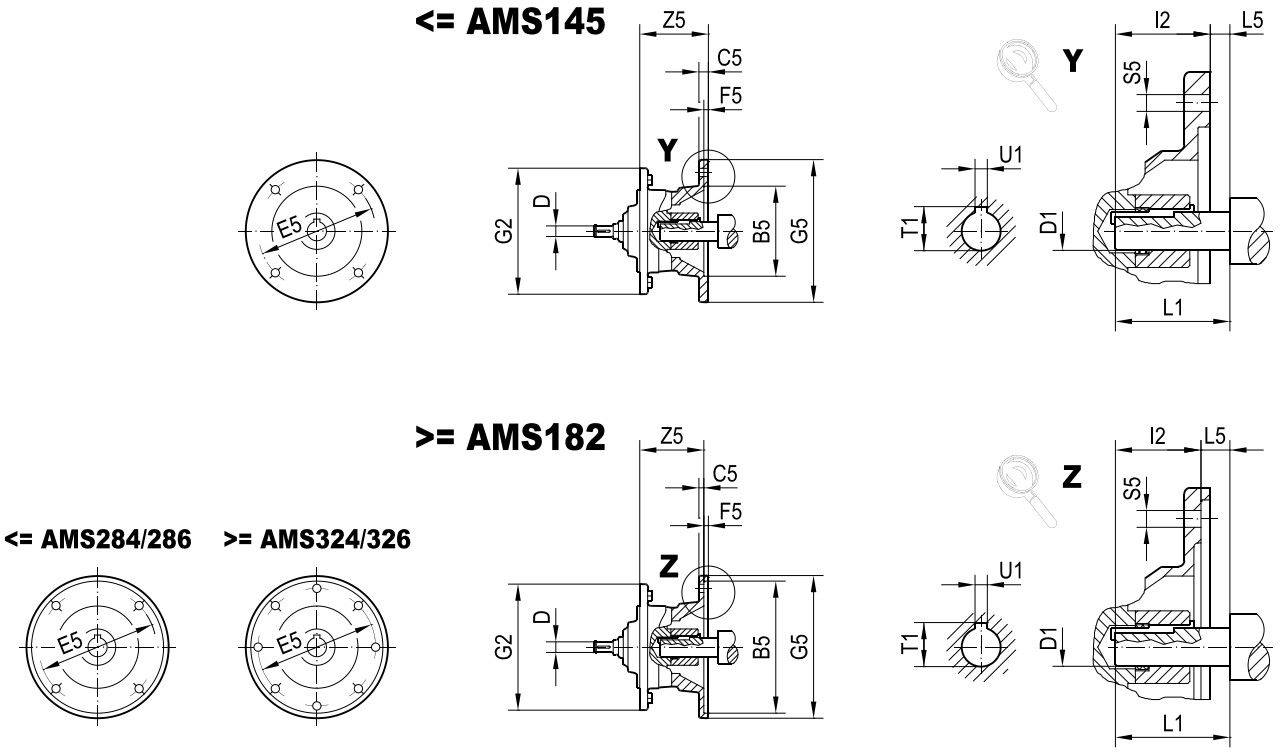
Gear unit type	Adapter type	Dimensions in mm												
		B5	C5	D	D1	E5	F5	G2	G5	L1	S5	T1	U1	Z5[1]
R..147 F..127 K..127	AMS132S/M	230	16	22	38	265	5	450	300	80	M12	41.3	10	95
	AMS132ML	230	16	28	38	265	5	450	300	80	M12	41.3	10	95
	AMS160	250	18	28	42	300	6	450	350	110	M16	45.3	12	158
	AMS180	250	18	32	48	300	6	450	350	110	M16	51.8	14	158
	AMS200	300	20	38	55	350	7	450	400	110	M16	59.3	16	219
	AMS225	350	22	38	60	400	7	450	450	140	M16	64.4	18	234
	AMS250	450	25	48	65	500	7	450	550	140	M16	69.4	18	297.5
	AMS280	450	25	48	75	500	7	450	550	140	M16	79.9	20	297.5
R..167 F..157 K..157, K..187	AMS160	250	18	28	42	300	6	550	350	110	M16	45.3	12	150
	AMS180	250	18	32	48	300	6	550	350	110	M16	51.8	14	150
	AMS200	300	20	38	55	350	7	550	400	110	M16	59.3	16	211
	AMS225	350	22	38	60	400	7	550	450	140	M16	64.4	18	226
	AMS250	450	25	48	65	500	7	550	550	140	M16	69.4	18	289.5
	AMS280	450	25	48	75	500	7	550	550	140	M16	79.9	20	289.5

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.

26883198/EN – 04/2022

Adapters for mounting NEMA motors

23 002 01 21

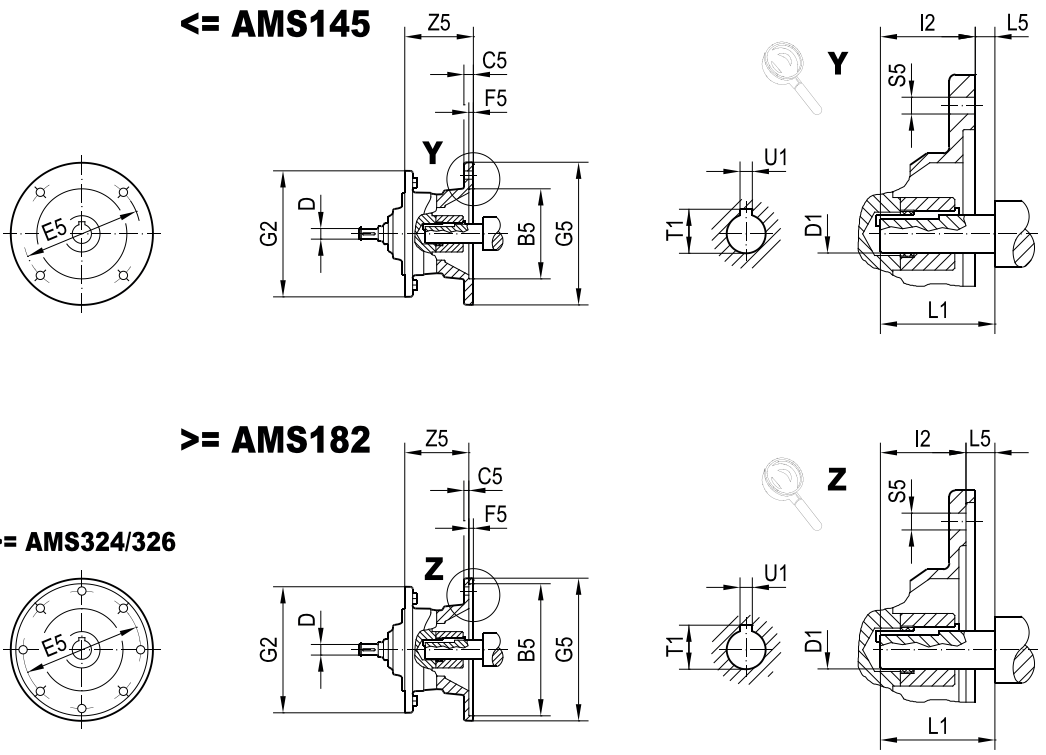


Gear unit type	Adapter type	Dimensions in mm														
		B5	C5	D	D1	E5	F5	G2	G5	I2	L1	L5	S5	T1	U1	Z5[1]
R..07 R..17 W..19	AMS56	114.3	11	10	15.875	149.2	4.5	105	170	52.3	48	-4.6	10.5	18.1	4.76	81.4
R..27, R..37 F..27,F..37,F..47	AMS56	114.3	11	10	15.875	149.2	4.5	120	170	52.3	48	-4.6	10.5	18.1	4.76	81.4
K..19, K..29, K..37	AMS143	114.3	12	12	22.225	149.2	4.5	120	170	53.9	57	3.3	10.5	24.7	4.76	93.6
K..19, K..29, K..37 S..37, S..47, S..57 S..37p,S..47p, S..57p W..29, W..39	AMS145	114.3	12	14	22.225	149.2	4.5	120	170	53.9	57	3.3	10.5	24.7	4.76	93.6
RX..57, RX..67	AMS56	114.3	11	10	15.875	149.2	4.5	160	170	52.3	48	-4.6	10.5	18.1	4.76	74.9
R..47, R..57, R..67 F..57, F..67 K..39, K..47, K..57, K..67 S..67, S..67p W..49, W..59	AMS143	114.3	12	12	22.225	149.2	4.5	160	170	53.9	57	3.3	10.5	24.7	4.76	87.1
	AMS145	114.3	12	14	22.225	149.2	4.5	160	170	53.9	57	3.3	10.5	24.7	4.76	87.1
	AMS182	215.9	10	16	28.575	184.0	5	160	228	66.6	70	3.3	15	31.7	6.35	114.1
	AMS184	215.9	10	18	28.575	184.0	5	160	228	66.6	70	3.3	15	31.7	6.35	114.1
	AMS213/215	215.9	11	22	34.925	184.0	5	160	228	79.3	86	6.6	15	38.7	7.94	138.5
RX..77 R..77 F..77 K..49, K..77 S..77, S..77p	AMS56	114.3	11	10	15.875	149.2	4.5	200	170	52.3	48	-4.6	10.5	18.1	4.76	67.9
	AMS143	114.3	12	12	22.225	149.2	4.5	200	170	53.9	57	3.3	10.5	24.7	4.76	80.1
	AMS145	114.3	12	14	22.225	149.2	4.5	200	170	53.9	57	3.3	10.5	24.7	4.76	80.1
	AMS182	215.9	10	16	28.575	184.0	5	200	228	66.6	70	3.3	15	31.7	6.35	106.1
	AMS184	215.9	10	18	28.575	184.0	5	200	228	66.6	70	3.3	15	31.7	6.35	106.1
	AMS213/215	215.9	11	22	34.925	184.0	5	200	228	79.3	86	6.6	15	38.7	7.94	130.5

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.

26883198/EN – 04/2022

23 002 01 21



Gear unit type	Adapter type	Dimensions in mm														
		B5	C5	D	D1	E5	F..5	G2	G5	I2	L1	L5	S5	T1	U1	Z5[1]
RX..87 R..87 F..87 K..87 S..87[2], S..87p[2]	AMS143	114.3	12	12	22.225	149.2	4.5	250	170	53.9	57	3.3	10.5	24.7	4.76	75.1
	AMS145	114.3	12	14	22.225	149.2	4.5	250	170	53.9	57	3.3	10.5	24.7	4.76	75.1
	AMS182	215.9	10	16	28.575	184.0	5	250	228	66.6	70	3.3	15	31.7	6.35	101.1
	AMS184	215.9	10	18	28.575	184.0	5	250	228	66.6	70	3.3	15	31.7	6.35	101.1
	AMS213/215	215.9	11	22	34.925	184.0	5	250	228	79.3	86	6.6	15	38.7	7.94	125.5
	AMS254/256	215.9	12	28	41.275	184.0	5	250	228	95.3	102	6.4	15	45.8	9.53	184.9
	AMS284/286	266.7	15	32	47.625	228.6	5	250	286	111.3	117	6.1	15	53.4	12.7	191.5
RX..97[3] R..97[3] F..97 K..97 S..97, S..97p	AMS182	215.9	10	16	28.575	184.0	5	300	228	66.6	70	3.3	15	31.7	6.35	96.1
	AMS184	215.9	10	18	28.575	184.0	5	300	228	66.6	70	3.3	15	31.7	6.35	96.1
	AMS213/215	215.9	11	22	34.925	184.0	5	300	228	79.3	86	6.6	15	38.7	7.94	120.5
	AMS254/256	215.9	12	28	41.275	184.0	5	300	228	95.3	102	6.4	15	45.8	9.53	179.9
	AMS284/286	266.7	15	32	47.625	228.6	5	300	286	111.3	117	6.1	15	53.4	12.7	186.5
	AMS324/326	317.5	17	38	53.975	279.4	5	300	356	127.0	133	6.4	17.5	60.0	12.7	252.4
	AMS364/365	317.5	17	38	60.325	279.4	5	300	356	142.8	149	6.6	17.5	67.6	15.88	252.4
RX..107 R..107, R..127 F..107 K..107	AMS182	215.9	10	16	28.575	184.0	5	350	228	66.6	70	3.3	15	31.7	6.35	90.1
	AMS184	215.9	10	18	28.575	184.0	5	350	228	66.6	70	3.3	15	31.7	6.35	90.1
	AMS213/215	215.9	11	22	34.925	184.0	5	350	228	79.3	86	6.6	15	38.7	7.94	114.5
	AMS254/256	215.9	12	28	41.275	184.0	5	350	228	95.3	102	6.4	15	45.8	9.53	173.9
	AMS284/286	266.7	15	32	47.625	228.6	5	350	286	111.3	117	6.1	15	53.4	12.7	180.5
	AMS324/326	317.5	17	38	53.975	279.4	5	350	356	127.0	133	6.4	17.5	60.0	12.7	246.4
	AMS364/365	317.5	17	38	60.325	279.4	5	350	356	142.8	149	6.6	17.5	67.6	15.88	246.4

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.

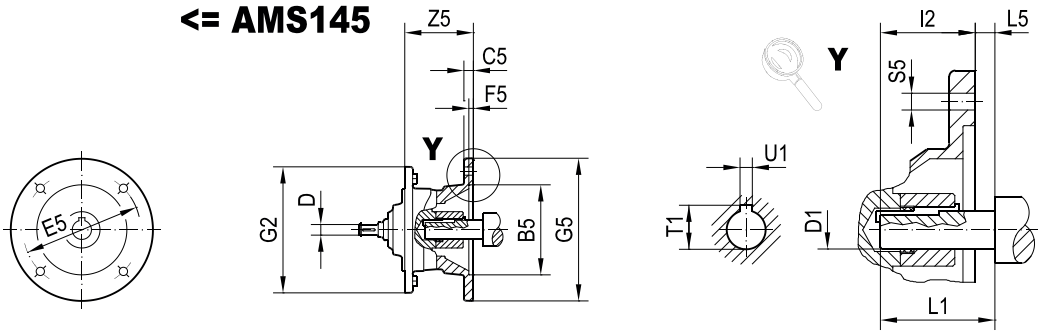
2) Not with AMS284/286.

3) Not with AMS364/365.

26883198/EN – 04/2022

23 002 01 21

<= AMS145



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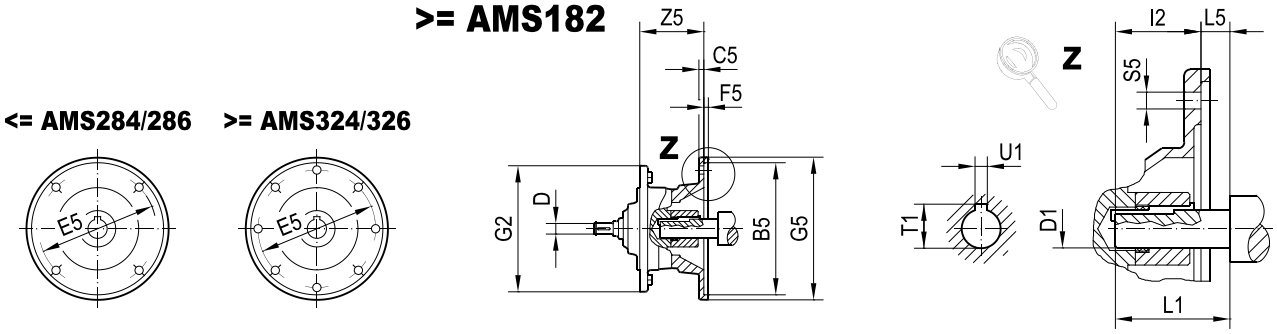
<= AMS284/286 **>= AMS324/326**



Gear unit type	Adapter type	Dimensions in mm														
		B5	C5	D	D1	E5	F5	G2	G5	I2	L1	L5	S5	T1	U1	Z5[1)]
R..137	AMS213/215	215.9	11	22	34.925	184.0	5	400	228	79.3	86	6.6	15	38.7	7.94	107.5
	AMS254/256	215.9	12	28	41.275	184.0	5	400	228	95.3	102	6.4	15	45.8	9.53	166.9
	AMS284/286	266.7	15	32	47.625	228.6	5	400	286	111.3	117	6.1	15	53.4	12.7	173.5
	AMS324/326	317.5	17	38	53.975	279.4	5	400	356	127.0	133	6.4	17.5	60.0	12.7	239.4
	AMS364/365	317.5	17	38	60.325	279.4	5	400	356	142.8	149	6.6	17.5	67.6	15.88	239.4
R..147 F..127 K..127	AMS213/215	215.9	11	22	34.925	184.0	5	450	228	79.3	86	6.6	15	38.7	7.94	99.5
	AMS254/256	215.9	12	28	41.275	184.0	5	450	228	95.3	102	6.4	15	45.8	9.53	158.9
	AMS284/286	266.7	15	32	47.625	228.6	5	450	286	111.3	117	6.1	15	53.4	12.7	165.5
	AMS324/326	317.5	17	38	53.975	279.4	5	450	356	127.0	133	6.4	17.5	60.0	12.7	231.4
	AMS364/365	317.5	17	38	60.325	279.4	5	450	356	142.8	149	6.6	17.5	67.6	15.88	231.4
R..167 F..157 K..157, K..167, K..187	AMS254/256	215.9	12	28	41.275	184.0	5	550	228	95.3	102	6.4	15	45.8	9.53	150.9
	AMS284/286	266.7	15	32	47.625	228.6	5	550	286	111.3	117	6.1	15	53.4	12.7	157.5
	AMS324/326	317.5	17	38	53.975	279.4	5	550	356	127.0	133	6.4	17.5	60.0	12.7	223.4
	AMS364/365	317.5	17	38	60.325	279.4	5	550	356	142.8	149	6.6	17.5	67.6	15.88	223.4

1) For the dimensions Z5 for the RS and DH options, refer to the "Gear units" catalog.

26883198/EN – 04/2022

6.10 Adapter for mounting servomotors

6.10.1 AQS.. adapter description

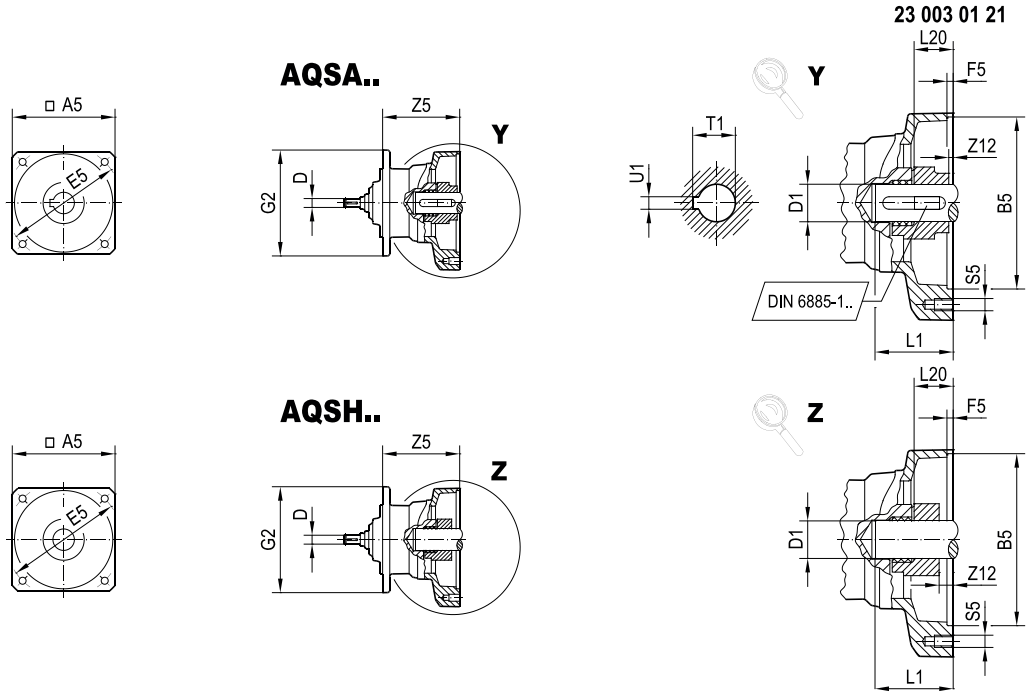
An adapter with square flange is used for mounting servomotors to R, F, K, S, and W.9 gear units.

The torque is transmitted via a claw coupling. Possible vibrations and shocks occurring during operation are effectively attenuated and dissipated by an inserted polyurethane girth gear.

The coupling half on the motor side is available with a clamping ring hub (non-positive, for smooth motor shafts) in the AQSH.. design as well as with a keyway (positive) in the AQSA.. design.

6.10.2 Dimension sheets for AQS.. adapters

Key



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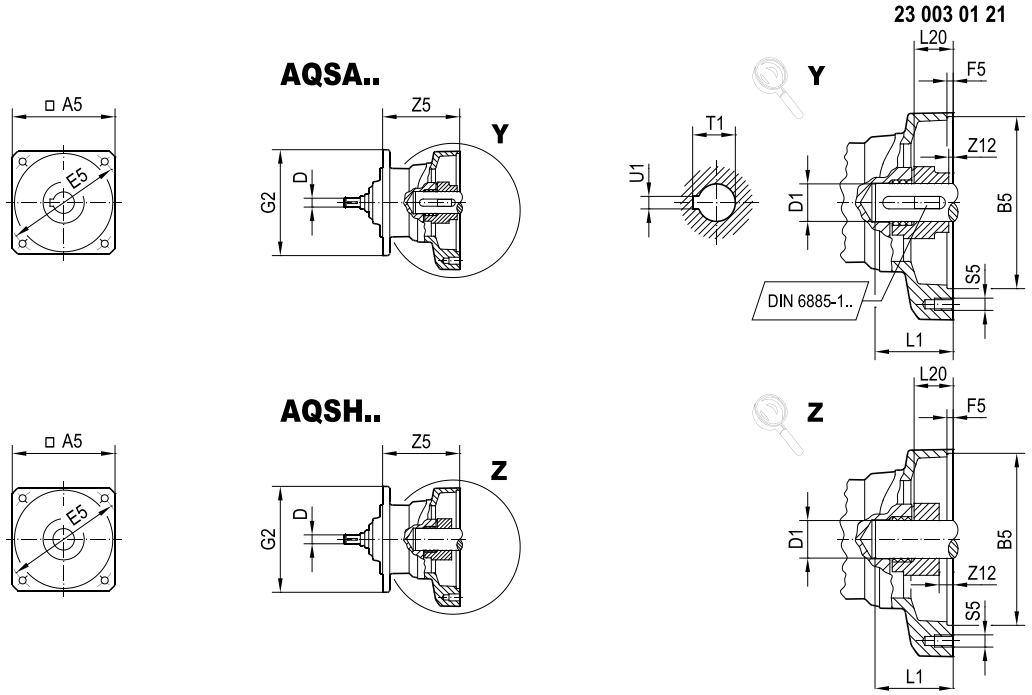
A5	Square dimension
B5	Centering diameter
D1	Coupling bore diameter
E5	Hole circle diameter
F5	Centering depth
G2	Gear unit input end flange diameter
L1	Maximum insertion depth of the motor
L20	Distance between flange contact surface and claw base of the coupling
S5	Tapped hole
T1	Keyway depth
U1	Keyway width
Z12	Distance from flange contact surface – coupling

26883198/EN – 04/2022

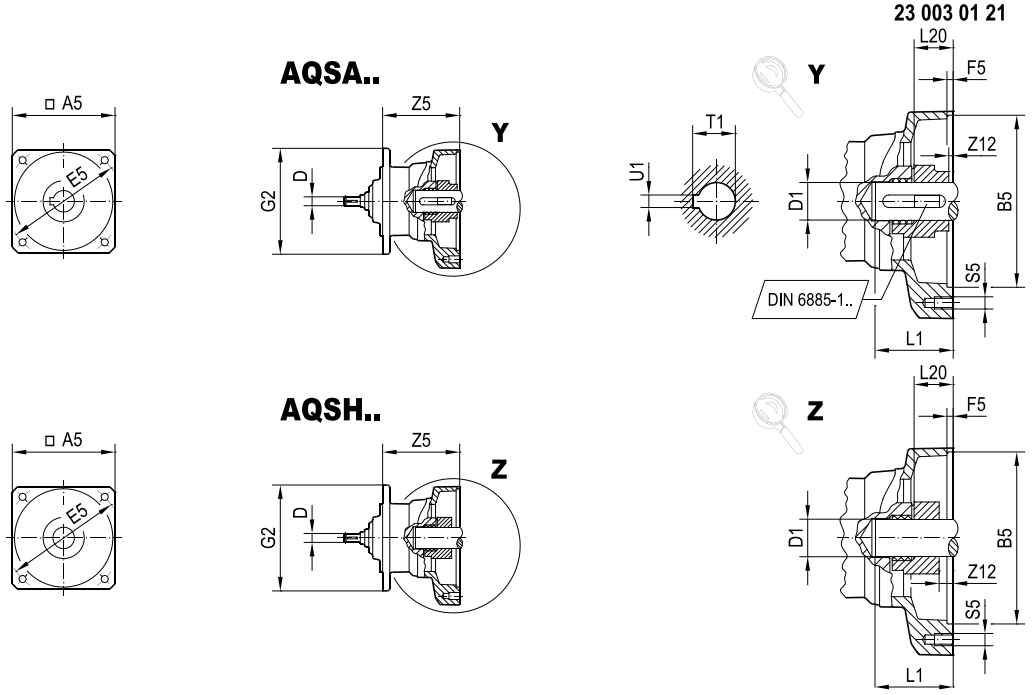
Adapters for mounting servomotors



D1	T1	U1	AQS..							
			50/1 50/2	80/1 80/2 80/3 80/4 80/5	100/1 100/2 100/3 100/4 100/5	115/1 115/2 115/3 115/4 115/5	140/1 140/2 140/3 140/4 140/5 140/6	160/1	190/1 190/2 190/3 190/4 190/5	190/6
mm	mm	mm								
8[1]	-	-	X							
9	10.4	3	X							
11	12.8	4		X						
14	16.3	5		X	X					
16	18.3	5			X					
19	21.8	6			X	X				
22[1]	-	-				X				
24	27.3	8				X	X			
28	31.3	8					X	X	X	
32	35.3	10					X	X	X	
35	38.3	10						X[1]	X[1]	X
38	41.3	10						X	X	

1) Terminal connection only (AQSH).

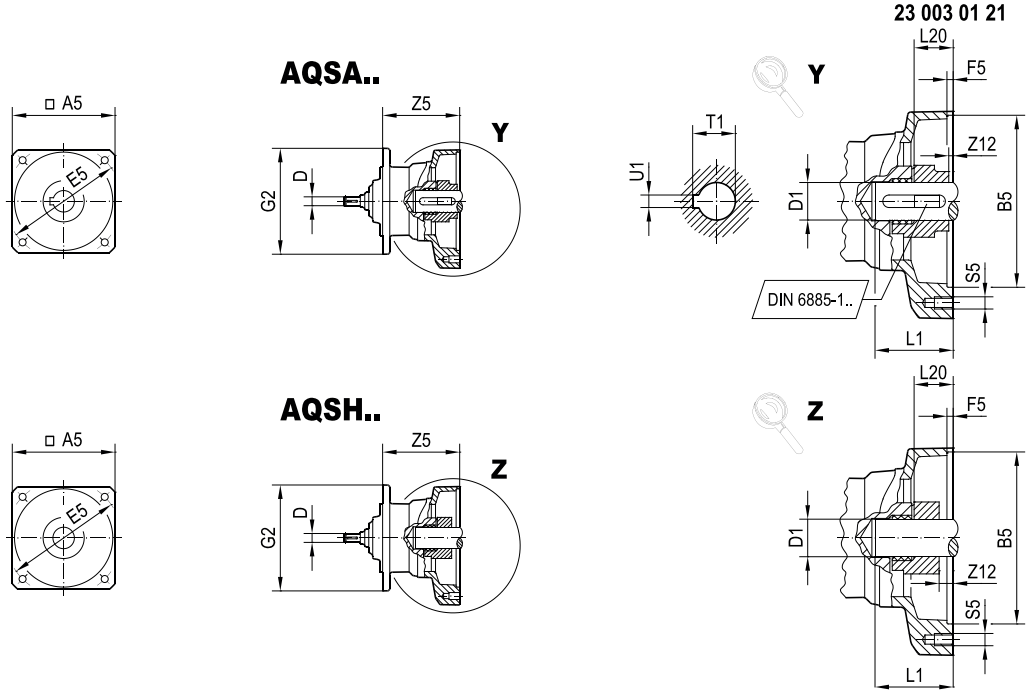
26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
R..07, R..17 W..19	AQS. 50/1	8 K7[1)] 9 H7	14 14	– A3 × 3 × 12	40	30	10	46	2.5	105	25	M4 × 7	52.5	0	4
	AQS. 50/2				55	40	10	63	2.5	105	25	M4 × 7	52.5	0	4
	AQS. 80/1	11 H7 14 H7	18 18	B4 × 4 × 10 B5 × 5 × 10	73	60	10/12	75	3.5	105	31	M5 × 8	56.5	0	6
	AQS. 80/2				73	60	10/12	75	3.5	105	31	M5 × 8	56.5	0	6
	AQS. 80/3				82	50	10/12	95	3.5	105	31	M6 × 10	56.5	0	6
	AQS. 80/4				60	50	10/12	70	3.5	105	31	M5 × 8	56.5	0	6
	AQS. 80/5				75	60	10/12	90	3.5	105	31	M6 × 10	56.5	0	6
	AQS. 100/1	14 H7 16 H7 19 H7	20 20 20	B5 × 5 × 12 B5 × 5 × 12 B6 × 6 × 12	94	80	10/12	100	4	105	45	M6 × 10	73.7	0	6
	AQS. 100/2				105	95	10/12	115	4	105	45	M8 × 12	73.7	0	6
	AQS. 100/3				94	80	10/12	100	4	105	45	M6 × 10	73.7	0	6
	AQS. 100/4				105	95	10/12	115	4	105	45	M8 × 12	73.7	0	6
	AQS. 100/5	19 H7		B6 × 6 × 7	94	70	10/12	90	4	105	45	M6 × 10	73.7	0	6

1) Only clamp connection (AQSH).

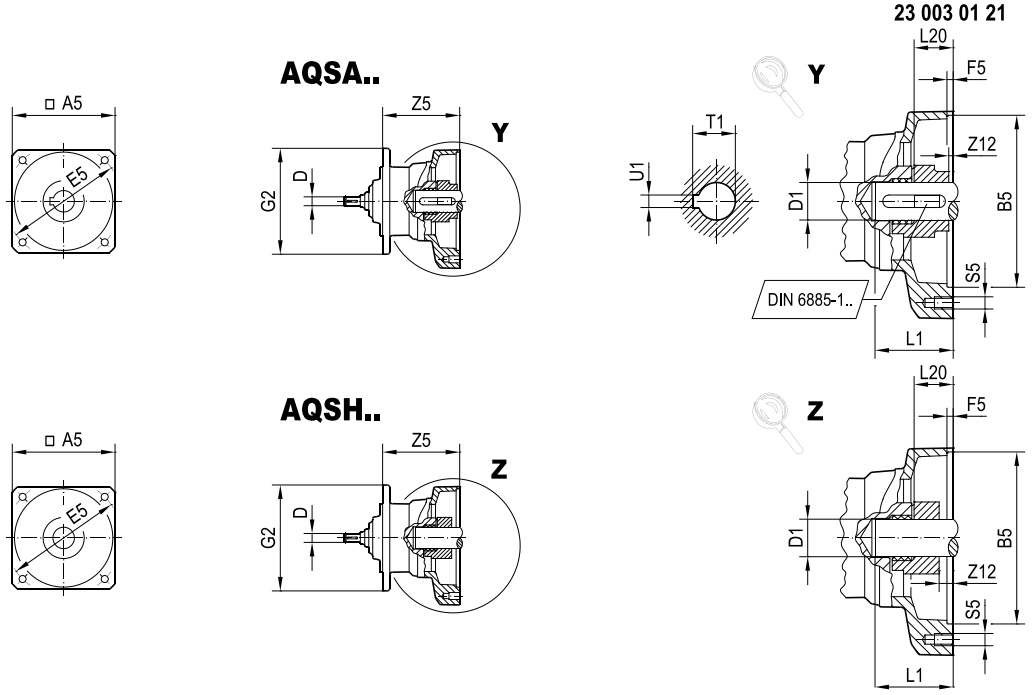
26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
R..27, R..37 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 S..37p, S..47p, S..57p W..29, W..39	AQS. 50/1	8 K7[1)] 9 H7	14 14	– A3 × 3 × 12	40	30	10	46	2.5	120	25	M4 × 7	52.5	0	4
	AQS. 50/2				55	40	10	63	2.5	120	25	M4 × 7	52.5	0	4
	AQS. 80/1	11 H7 14 H7	18 18	B4 × 4 × 10 B5 × 5 × 10	73	60	10/12	75	3.5	120	31	M5 × 8	56.5	0	6
	AQS. 80/2				73	60	10/12	75	3.5	120	31	M5 × 8	56.5	0	6
	AQS. 80/3				82	50	10/12	95	3.5	120	31	M6 × 10	56.5	0	6
	AQS. 80/4				60	50	10/12	70	3.5	120	31	M5 × 8	56.5	0	6
	AQS. 80/5				75	60	10/12	90	3.5	120	31	M6 × 10	56.5	0	6
	AQS. 100/1	14 H7 16 H7 19 H7	20 20 20	B5 × 5 × 12 B5 × 5 × 12 B6 × 6 × 12	94	80	10/12/14/16	100	4	120	45	M6 × 10	73.7	0	6
	AQS. 100/2				105	95	10/12/14/16	115	4	120	45	M8 × 12	73.7	0	6
	AQS. 100/3				94	80	10/12/14/16	100	4	120	45	M6 × 10	73.7	0	6
	AQS. 100/4				105	95	10/12/14/16	115	4	120	45	M8 × 12	73.7	0	6
	AQS. 100/5	19 H7		B6 × 6 × 7	94	70	10/12	90	4	105	45	M6 × 10	73.7	0	6
	AQS. 115/1	19 H7 22 H7[1)] 24 H7	25 31 25	B6 × 6 × 10 – B8 × 7 × 12	115	95	10/12/14/16	130	5	120	50	M8 × 14.5	86.25	0	9
	AQS. 115/2				115	110	10/12/14/16	130	5	120	50	M8 × 14.5	86.25	0	9
	AQS. 115/3				115	110	10/12/14/16	130	5	120	50	M8 × 14.5	86.25	0	9
	AQS. 115/4				130	110	10/12/14/16	145	6.5	120	58	M8 × 14.5	92.25	6	15
	AQS. 115/5				115	95	10/12/14/16	115	5	120	50	M8 × 14.5	86.25	0	9
	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16	165	5	120	60	M10 × 20	108.9	0	8
	AQS. 140/2				140	130	16	165	5	120	60	M10 × 20	108.9	0	8
	AQS. 140/3				140	130	16	165	5	120	60	M10 × 20	108.9	0	8
	AQS. 140/4				140	130	16	165	5	120	60	M10 × 20	108.9	0	8
	AQS. 140/5				190	180	16	215	5	120	60	M12 × 22	108.9	0	8

1) Only clamp connection (AQSH).

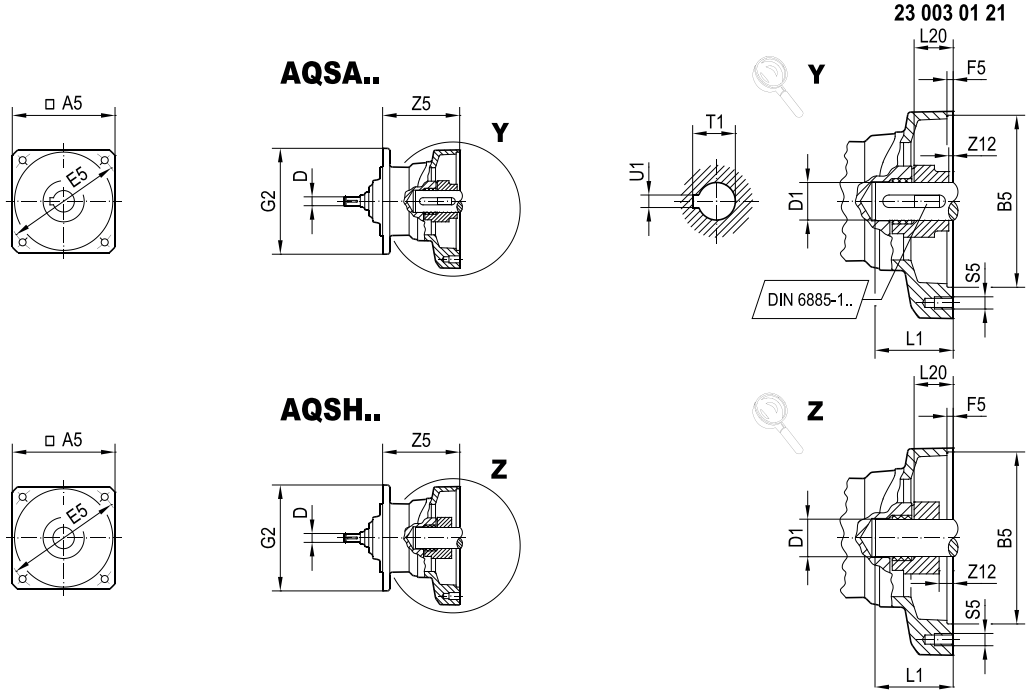
26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
RX..57, RX..67 R..47, R..57, R..67 F..57, F..67 K..39, K..47, K..57, K..67 S..67, S..67p W..49, W..59	AQS. 80/1	11 H7 14 H7	18 18	B4 × 4 × 10 B5 × 5 × 10	73	60	10/12	75	3.5	160	31	M5 × 8	50	0	6
	AQS. 80/2				73	60	10/12	75	3.5	160	31	M5 × 8	50	0	6
	AQS. 80/3				82	50	10/12	95	3.5	160	31	M6 × 10	50	0	6
	AQS. 80/4				60	50	10/12	70	3.5	160	31	M5 × 8	50	0	6
	AQS. 80/5				75	60	10/12	90	3.5	160	31	M6 × 10	50	0	6
	AQS. 100/1	14 H7 16 H7 19 H7	20 20 20	B5 × 5 × 12 B5 × 5 × 12 B6 × 6 × 12	94	80	10/12/14/16	100	4	160	45	M6 × 10	67.2	0	6
	AQS. 100/2				105	95	10/12/14/16	115	4	160	45	M8 × 12	67.2	0	6
	AQS. 100/3				94	80	10/12/14/16	100	4	160	45	M6 × 10	67.2	0	6
	AQS. 100/4				105	95	10/12/14/16	115	4	160	45	M8 × 12	67.2	0	6
	AQS. 100/5	19 H7		B6 × 6 × 7	94	70	10/12	90	4	105	45	M6 × 10	73.7	0	6
	AQS. 115/1	19 H7 22 H7[1] 24 H7	25 31 25	B6 × 6 × 10 – B8 × 7 × 12	115	95	10/12/14/16	130	5	160	50	M8 × 14.5	79.75	0	9
	AQS. 115/2				115	110	10/12/14/16	130	5	160	50	M8 × 14.5	79.75	0	9
	AQS. 115/3				115	110	10/12/14/16	130	5	160	50	M8 × 14.5	79.75	0	9
	AQS. 115/4				130	110	10/12/14/16	145	6.5	160	58	M8 × 14.5	85.75	6	15
	AQS. 115/5				115	95	10/12/14/16	115	5	160	50	M8 × 14.5	79.75	0	9
	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16/18/22	165	5	160	60	M10 × 20	108.4	0	8
	AQS. 140/2				140	130	16/18/22	165	5	160	60	M10 × 20	108.4	0	8
	AQS. 140/3				140	130	16/18/22	165	5	160	60	M10 × 20	108.4	0	8
	AQS. 140/4				140	130	16/18/22	165	5	160	60	M10 × 20	108.4	0	8
	AQS. 140/5				190	180	16/18/22	215	5	160	60	M12 × 22	108.4	0	8
	AQS. 140/6				140	130	22	165	5	160	80	M10 × 20	108.4	0	8
	AQS. 160/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	163	155	16/18/22	190	5	160	60	M10 × 20	133.8	0	8
	AQS. 190/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22	215	5	160	80	M12 × 22	133.8	0	8
	AQS. 190/2				190	180	22	215	5	160	80	M12 × 22	133.8	0	8
	AQS. 190/3				190	180	22	215	5	160	80	M12 × 22	133.8	0	8
	AQS. 190/4				180	114.3	22	200	5	160	80	M12 × 22	133.8	0	8
	AQS. 190/5				240	230	22	265	5	160	80	M12 × 22	133.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22	200	5	160	100	M12 × 22	152.8	5	27

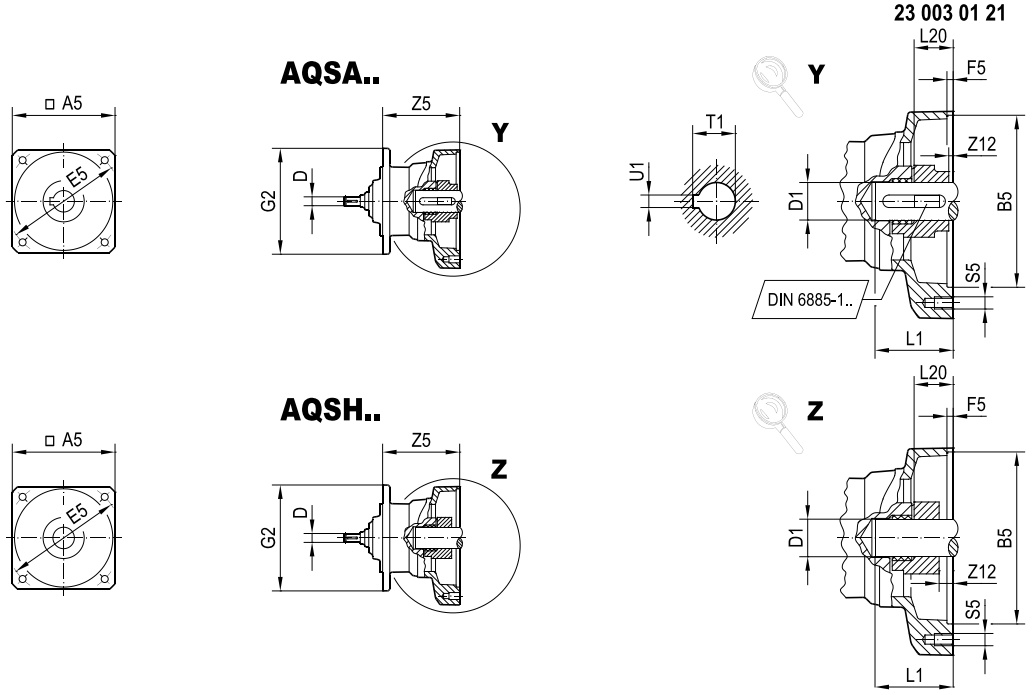
1) Only clamp connection (AQSH).

26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
RX..77 R..77 F..77 K..49 K..77 S..77, S..77p	AQS. 80/1	11 H7 14 H7	18 18	B4 × 4 × 10 B5 × 5 × 10	73	60	10/12	75	3.5	200	31	M5 × 8	44	0	6
	AQS. 80/2				73	60	10/12	75	3.5	200	31	M5 × 8	44	0	6
	AQS. 80/3				82	50	10/12	95	3.5	200	31	M6 × 10	44	0	6
	AQS. 80/4				60	50	10/12	70	3.5	200	31	M5 × 8	44	0	6
	AQS. 80/5				75	60	10/12	90	3.5	200	31	M6 × 10	44	0	6
	AQS. 100/1	14 H7 16 H7 19 H7	20 20 20	B5 × 5 × 12 B5 × 5 × 12 B6 × 6 × 12	94	80	10/12/14/16	100	4	200	45	M6 × 10	60.2	0	6
	AQS. 100/2				105	95	10/12/14/16	115	4	200	45	M8 × 12	60.2	0	6
	AQS. 100/3				94	80	10/12/14/16	100	4	200	45	M6 × 10	60.2	0	6
	AQS. 100/4				105	95	10/12/14/16	115	4	200	45	M8 × 12	60.2	0	6
	AQS. 100/5				94	70	10/12/14/16	90	4	200	45	M6 × 10	60.2	0	6
	AQS. 115/1	19 H7 22 H7[1] 24 H7	25 31 25	B6 × 6 × 10 – B8 × 7 × 12	115	95	10/12/14/16	130	5	200	50	M8 × 14.5	72.75	0	9
	AQS. 115/2				115	110	10/12/14/16	130	5	200	50	M8 × 14.5	72.75	0	9
	AQS. 115/3				115	110	10/12/14/16	130	5	200	50	M8 × 14.5	72.75	0	9
	AQS. 115/4				130	110	10/12/14/16	145	6.5	200	58	M8 × 14.5	78.75	6	15
	AQS. 115/5				115	95	10/12/14/16	115	5	200	50	M8 × 14.5	72.75	0	9
	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16/18/22	165	5	200	60	M10 × 20	100.4	0	8
	AQS. 140/2				140	130	16/18/22	165	5	200	60	M10 × 20	100.4	0	8
	AQS. 140/3				140	130	16/18/22	165	5	200	60	M10 × 20	100.4	0	8
	AQS. 140/4				140	130	16/18/22	165	5	200	60	M10 × 20	100.4	0	8
	AQS. 140/5				190	180	16/18/22	215	5	200	60	M12 × 22	100.4	0	8
	AQS. 140/6				140	130	22	165	5	200	80	M10 × 20	100.4	0	8
	AQS. 160/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	163	155	16/18/22	190	5	200	60	M10 × 20	125.8	0	8
	AQS. 190/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	200	80	M12 × 22	125.8	0	8
	AQS. 190/2				190	180	22/28	215	5	200	80	M12 × 22	125.8	0	8
	AQS. 190/3				190	180	22/28	215	5	200	80	M12 × 22	125.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	200	80	M12 × 22	125.8	0	8
	AQS. 190/5				240	230	22/28	265	5	200	80	M12 × 22	125.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	200	100	M12 × 22	144.8	5	27

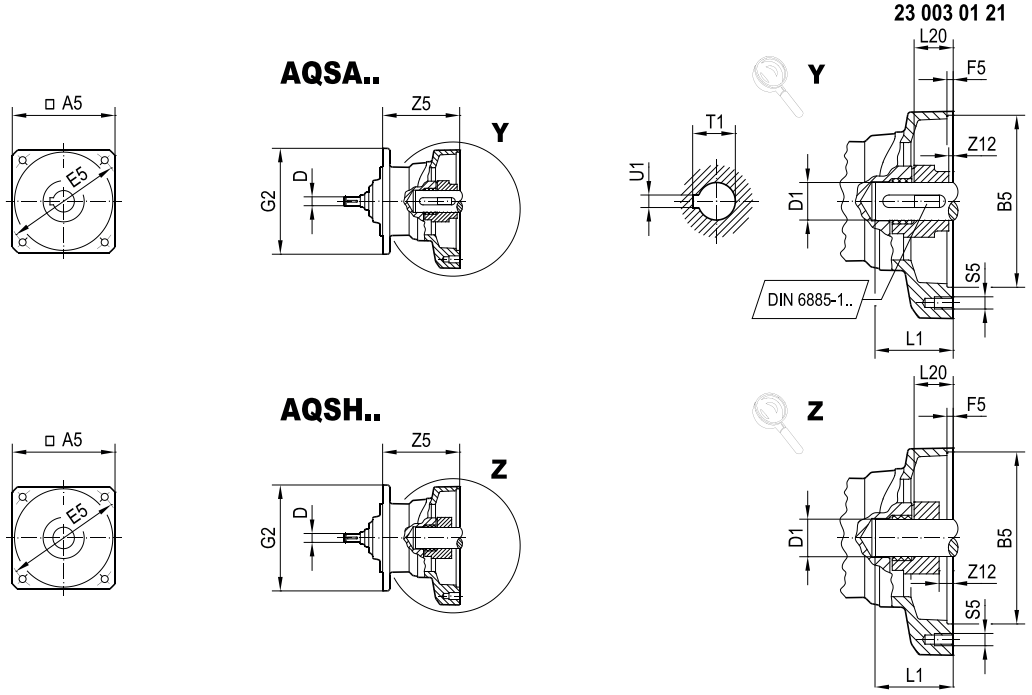
1) Only clamp connection (AQSH).



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12 AQSA	Z12 AQSH
RX..87 R..87 F..87 K..87 S..87, S..87p	AQS. 100/1	14 H7 16 H7 19 H7	20 20 20	B5 × 5 × 12 B5 × 5 × 12 B6 × 6 × 12	94	80	12/14/16	100	4	250	45	M6 × 10	55.2	0	6
	AQS. 100/2				105	95	12/14/16	115	4	250	45	M8 × 12	55.2	0	6
	AQS. 100/3				94	80	12/14/16	100	4	250	45	M6 × 10	55.2	0	6
	AQS. 100/4				105	95	12/14/16	115	4	250	45	M8 × 12	55.2	0	6
	AQS. 100/5				94	70	12/14/16	90	4	250	45	M6 × 10	55.2	0	6
	AQS. 115/1	19 H7 22 H7[1] 24 H7	25 31 25	B6 × 6 × 10 – B8 × 7 × 12	115	95	12/14/16	130	5	250	50	M8 × 14.5	67.75	0	9
	AQS. 115/2				115	110	12/14/16	130	5	250	50	M8 × 14.5	67.75	0	9
	AQS. 115/3				115	110	12/14/16	130	5	250	50	M8 × 14.5	67.75	0	9
	AQS. 115/4				130	110	12/14/16	145	6.5	250	58	M8 × 14.5	73.75	6	15
	AQS. 115/5				115	95	12/14/16	115	5	250	50	M8 × 14.5	67.75	0	9
	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16/18/22	165	5	250	60	M10 × 20	95.4	0	8
	AQS. 140/2				140	130	16/18/22	165	5	250	60	M10 × 20	95.4	0	8
	AQS. 140/3				140	130	16/18/22	165	5	250	60	M10 × 20	95.4	0	8
	AQS. 140/4				140	130	16/18/22	165	5	250	60	M10 × 20	95.4	0	8
	AQS. 140/5				190	180	16/18/22	215	5	250	60	M12 × 22	95.4	0	8
	AQS. 140/6				140	130	22	165	5	250	80	M10 × 20	95.4	0	8
	AQS. 160/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	163	155	16/18/22	190	5	250	60	M10 × 20	120.8	0	8
	AQS. 190/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	250	80	M12 × 22	120.8	0	8
	AQS. 190/2				190	180	22/28	215	5	250	80	M12 × 22	120.8	0	8
	AQS. 190/3				190	180	22/28	215	5	250	80	M12 × 22	120.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	250	80	M12 × 22	120.8	0	8
	AQS. 190/5				240	230	22/28	265	5	250	80	M12 × 22	120.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	250	100	M12 × 22	139.8	5	27

1) Only clamp connection (AQSH).

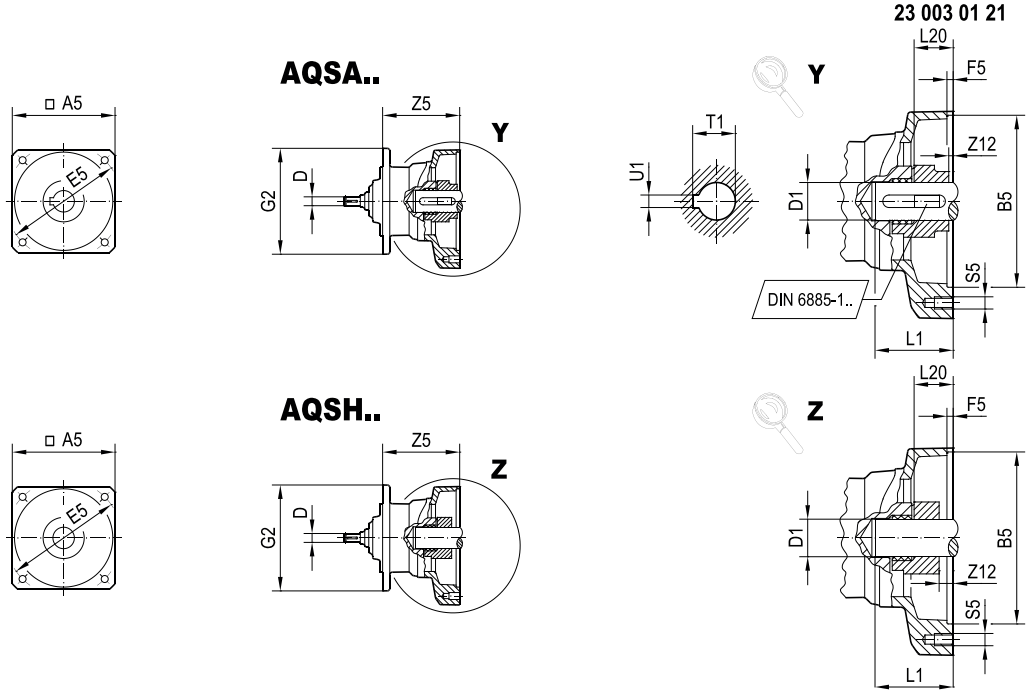
26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
RX..97 R..97 F..97 K..97 S..97, S..97p	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16/18/22	165	5	300	60	M10 × 20	90.4	0	8
	AQS. 140/2				140	130	16/18/22	165	5	300	60	M10 × 20	90.4	0	8
	AQS. 140/3				140	130	16/18/22	165	5	300	60	M10 × 20	90.4	0	8
	AQS. 140/4				140	130	16/18/22	165	5	300	60	M10 × 20	90.4	0	8
	AQS. 140/5				190	180	16/18/22	215	5	300	60	M12 × 22	90.4	0	8
	AQS. 140/6				140	130	22	165	5	300	80	M10 × 20	90.4	0	8
	AQS. 160/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 23 – B10 × 8 × 23	163	155	16/18/22	190	5	300	60	M10 × 20	115.8	0	8
	AQS. 190/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	300	80	M12 × 22	115.8	0	8
	AQS. 190/2				190	180	22/28	215	5	300	80	M12 × 22	115.8	0	8
	AQS. 190/3				190	180	22/28	215	5	300	80	M12 × 22	115.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	300	80	M12 × 22	115.8	0	8
	AQS. 190/5				240	230	22/28	265	5	300	80	M12 × 22	115.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	300	100	M12 × 22	134.8	5	27
RX..107 R..107 R..127 F..107 K..107	AQS. 140/1	24 H7 28 H7 32 H7	30 30 30	B8 × 7 × 20 B8 × 7 × 20 B10 × 8 × 18	140	110	16/18/22	165	5	350	60	M10 × 20	84.4	0	8
	AQS. 140/2				140	130	16/18/22	165	5	350	60	M10 × 20	84.4	0	8
	AQS. 140/3				140	130	16/18/22	165	5	350	60	M10 × 20	84.4	0	8
	AQS. 140/4				140	130	16/18/22	165	5	350	60	M10 × 20	84.4	0	8
	AQS. 140/5				190	180	16/18/22	215	5	350	60	M12 × 22	84.4	0	8
	AQS. 140/6				140	130	22	165	5	350	80	M10 × 20	84.4	0	8
	AQS. 160/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	163	155	16/18/22	190	5	350	60	M10 × 20	109.8	0	8
	AQS. 190/1	28 H7 32 H7 35 H7[1] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	350	80	M12 × 22	109.8	0	8
	AQS. 190/2				190	180	22/28	215	5	350	80	M12 × 22	109.8	0	8
	AQS. 190/3				190	180	22/28	215	5	350	80	M12 × 22	109.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	350	80	M12 × 22	109.8	0	8
	AQS. 190/5				240	230	22/28	265	5	350	80	M12 × 22	109.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	350	100	M12 × 22	128.8	5	27

1) Only clamp connection (AQSH).

26883198/EN – 04/2022



Gear unit type	Adapter type	Dimensions in mm													
		D1	L20	DIN 6885-1 (AQSA)	A5	B5	D	E5	F5	G2	L1	S5	Z5	Z12	
														AQSA	AQSH
R..137	AQS. 190/1	28 H7 32 H7 35 H7[1)] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	400	80	M12 × 22	102.8	0	8
	AQS. 190/2				190	180	22/28	215	5	400	80	M12 × 22	102.8	0	8
	AQS. 190/3				190	180	22/28	215	5	400	80	M12 × 22	102.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	400	80	M12 × 22	102.8	0	8
	AQS. 190/5				240	230	22/28	265	5	400	80	M12 × 22	102.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	400	100	M12 × 22	121.8	5	27
R..147 F..127 K..127	AQS. 190/1	28 H7 32 H7 35 H7[1)] 38 H7	34 34 34 34	B8 × 7 × 25 B10 × 8 × 20 – B10 × 8 × 20	190	130	22/28	215	5	450	80	M12 × 22	94.8	0	8
	AQS. 190/2				190	180	22/28	215	5	450	80	M12 × 22	94.8	0	8
	AQS. 190/3				190	180	22/28	215	5	450	80	M12 × 22	94.8	0	8
	AQS. 190/4				180	114.3	22/28	200	5	450	80	M12 × 22	94.8	0	8
	AQS. 190/5				240	230	22/28	265	5	450	80	M12 × 22	94.8	0	8
	AQS. 190/6	35 H7	53	B10 × 8 × 20	180	114.3	22/28	200	5	450	100	M12 × 22	113.8	5	27

1) Only clamp connection (AQSH).

26883198/EN – 04/2022

6.11 Gear unit mounting

Strength class of the screws

Always mount gearmotors using screws of strength class 8.8. The gearmotors in flange-mounted design and in foot/flange-mounted design listed in the following table are an exception. Always use screws of strength class 10.9 for these gearmotors. Use suitable washers.

Gear unit	Flange Ø mm	Strength class of the screws
RF37/R37F SF37p	120	10.9
RF47/R47F	140	
RF57/R57F	160	
SF67p	200	
FF/FAF77 KF/KAF77 SF77p	250	
FM/FAM67, FM/FAM77 KM/KAM67, KM/KAM77	300	
FM/FAM87 KM/KAM87 SF87p	350	
FM/FAM97 KM/KAM97	400	
RF147 FM/FAM107 KM/KAM107	450	
RF167 FM/FAM127 KM/KAM127	550	
FM/FAM157 KM/KAM157	660	
RZ37 – RZ87	60ZR – 130ZR	

26883198/EN – 04/2022

6.12 Torque arms

NOTICE

Danger due to static overdetermination if gear units with foot (e.g. KA19/29B, KA127/157B or FA127/157B) are mounted both via the torque arm and via the foot plate.

Risk of injuries and damage to property can occur.

- The simultaneous use of the foot plates and the torque arm, especially for the KA.9B/T version, is not permitted.
- Attach the KA.9B/T design only via the torque arm.
- Attach the K.9 or KA.9B design only via the foot plate.
- If you want to use foot plates and torque arms for mounting, contact SEW-EURODRIVE.

INFORMATION

Note that torque arms are always mounted on the output end.

6.12.1 Standard torque arms

The following table lists the part numbers of all galvanized steel or gray cast iron torque arms available for shipment:

Gear unit	Size			
	19	29	39	49
KA, KH, KT	10684115	10684107	10682279	06442439

Gear unit	Size					
	27	37	47	57	67	77
KA, KH, KV, KT	-	6434258	6434282	6434312	6434312	6434347
SA, SH, ST	-	1269941	6442374	6442404	6442439	6442463
FA, FH, FV, FT Rubber buffer (2 pieces)	0133485	0133485	0133485	0133485	0133485	0133493

Gear unit	Size				
	87	97	107	127	157
KA, KH, KV, KT	6434371	6434401	6434436	6432948	-
SA, SH, ST	6442498	6442528	-	-	-
FA, FH, FV, FT Rubber buffer (2 pieces)	0133493	0133507	0133507	0133515	0133477

Gear unit	Size			
	10	19	20	29
WA, WH, WT	10610219	01680730	1680730	10684115

Gear unit	Size			
	30	39	49	59
WA, WH, WT	1680110	10684107	29226015	29226430

26883198/EN – 04/2022

6.12.2 Stainless steel torque arm

Torque arms made of stainless steel are available for K..19/29 and SPIROPLAN® gear units. Suitable retaining screws made of stainless steel are included in the delivery in a bag.

Gear unit	Size	
	19	29
KA, KH, KT	10638008	10638016

Gear unit	Size			
	10	19	20	29
WA, WH, WT	10638024	10638032	10638032	10638008

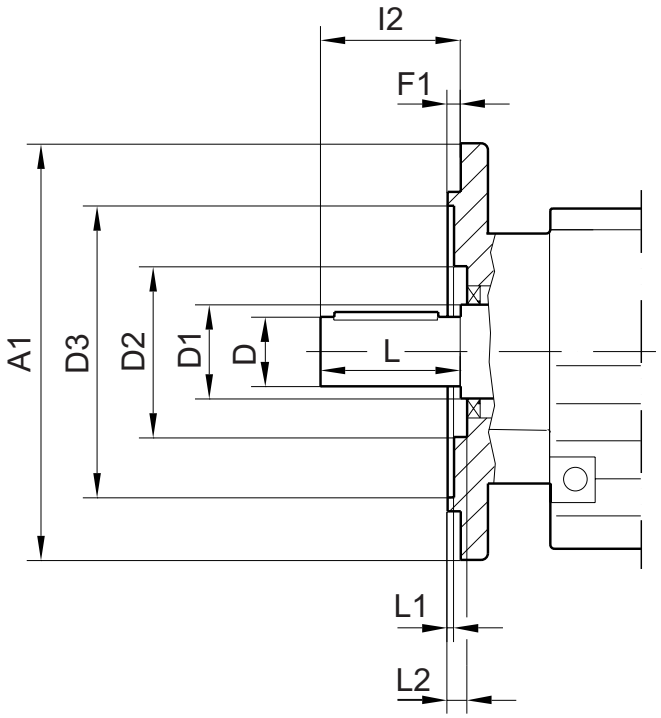
Gear unit	Size			
	30	39	49	59
WA, WH, WT	10638040	10638016	18762611	18762638

6.12.3 Torque arms for KH167.., KH187..

As standard, torque arms are not available for gear unit sizes KH167.. and KH187... Consult SEW-EURODRIVE if you need torque arms for these gear units.

26883198/EN – 04/2022

6.13 Flange contours of RF.. and R..F gear units



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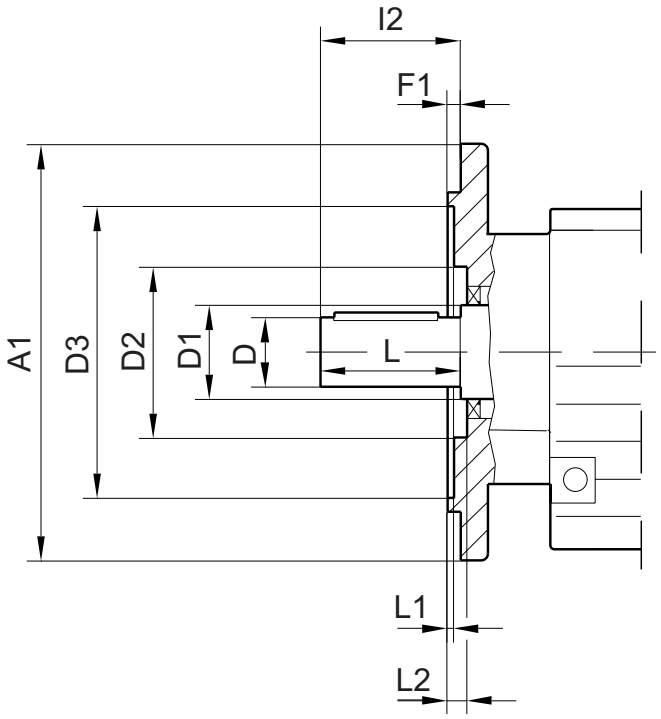
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm											
	A1	D	D1	D2		D3	F1	I2	L	L1		L2
				RF	R..F					RF	R..F	
RF07, R07F	120	20	22	38	38	72	3	40	40	2	2	6
	140[1)]	20	22	38	–	85	3	40	40	2	–	6
	160[1)]	20	22	38	–	100	3.5	40	40	2.5	–	6.5
RF17, R17F	120	20	25	46	46	65	3	40	40	1	1	5
	140	20	25	46	–	78	3	40	40	1	–	5
	160[1)]	20	25	46	–	95	3.5	40	40	1	–	6
RF27, R27F	120	25	30	54	54	66	3	50	50	1	1	6
	140	25	30	54	–	79	3	50	50	3	–	7
	160	25	30	54	–	92	3.5	50	50	3	–	7
RF37, R37F	120	25	35	60	63	70	3	50	50	5	4	7
	160	25	35	60	–	96	3.5	50	50	1	–	7.5
	200[1)]	25	35	60	–	119	3.5	50	50	1	–	7.5
RF47, R47F	140	30	35	72	64	82	3	60	60	4	1	6
	160	30	35	72	–	96	3.5	60	60	0.5	–	6.5
	200	30	35	72	–	116	3.5	60	60	0.5	–	6.5
RF57, R57F	160	35	40	76	75	96	3.5	70	70	4	2.5	5
	200	35	40	76	–	116	3.5	70	70	0	–	5
	250[1)]	35	40	76	–	160	4	70	70	0.5	–	5.5
RF67, R67F	200	35	50	90	90	118	3.5	70	70	2	4	7
	250	35	50	90	–	160	4	70	70	1	–	7.5

1) The flange contour protrudes from under the base surface.

26883198/EN – 04/2022



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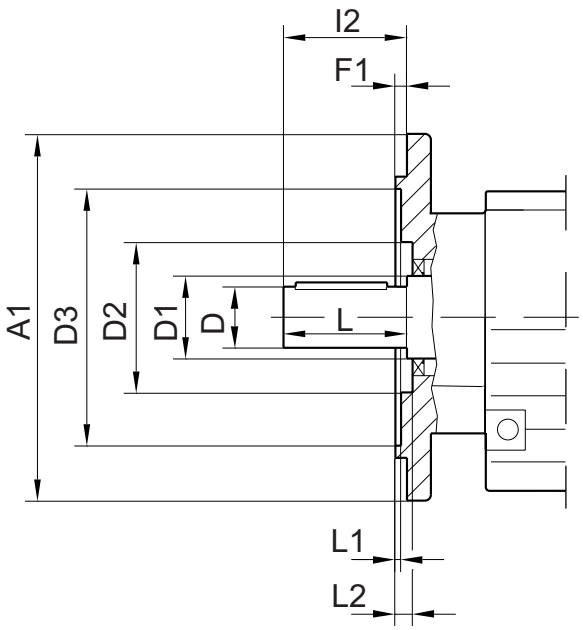
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm											
	A1	D	D1	D2		D3	F1	I2	L	L1		L2
				RF	R..F					RF	R..F	
RF77, R77F	250	40	52	112	100	160	4	80	80	0.5	2.5	7
	300[1)]	40	52	112	–	210	4	80	80	0.5	–	7
RF87, R87F	300	50	62	123	122	210	4	100	100	0	1.5	8
	350	50	62	123	–	226	5	100	100	1	–	9
RF97	350	60	72	136		236	5	120	120	0		9
	450	60	72	136		320	5	120	120	0		9
RF107	350	70	82	157		232	5	140	140	0		11
	450	70	82	186		316	5	140	140	0		11
RF127	450	90	108	180		316	5	170	170	0		10
RF137	450	90	108	180		316	5	170	170	0		10
	550	90	108	180		416	5	170	170	0		10
RF147	450	110	125	210		316	5	210	210	0		10
	550	110	125	210		416	5	210	210	0		10
RF167	550	120	145	290		416	5	210	210	1		10
	660	120	145	290		517	6	210	210	2		11

1) The flange contour protrudes from under the base surface.

26883198/EN – 04/2022

6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units



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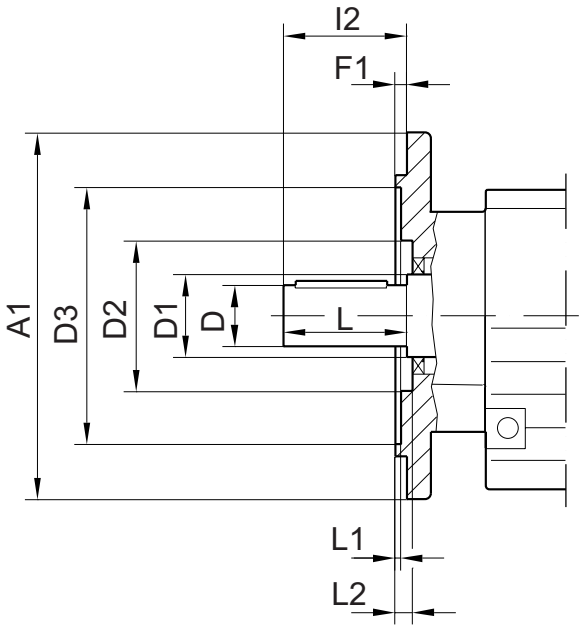
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm									
	A1	D	D1	D2	D3	F1	I2	L	L1	L2
FF27	160	25	40	66	96	3.5	50	50	3	18.5
FF37	160	25	30	70	94	3.5	50	50	2	6
FF47	200	30	40	72	115	3.5	60	60	3.5	7.5
FF57	250	35	40	84	155	4	70	70	4	9
FF67	250	40	50	84	155	4	80	80	4	9
FF77	300	50	55	82	205	4	100	100	5	9
FF87	350	60	65	115	220	5	120	120	5	9
FF97	450	70	75	112	320	5	140	140	8	10
FF107	450	90	100	159	318	5	170	170	16	9
FF127	550	110	118	-	420	5	210	210	10	-
FF157	660	120	135	190	520	6	210	210	8	14
KF19	120	20	25	-	70	2.5	40	40	-	11.5
	160	20	25	-	100	2.5	40	40	-	11.5
KF29	160	25	30	-	109	3.5	50	50	-	6.5
	200	25	30	-	115	3.5	50	50	-	6.5
KF37	160	25	30	70	94	3.5	50	50	2	6
KF39	160	30	39	68	96	3.5	60	60	13.5	23.5
KF47	200	30	40	72	115	3.5	60	60	3.5	7.5
KF49	200	35	49	76	115	3.5	70	70	24.5	28
KF57	250	35	40	84	155	4	70	70	4	9
KF67	250	40	50	84	155	4	80	80	4	9
KF77	300	50	55	82	205	4	100	100	5	9
KF87	350	60	65	115	220	5	120	120	5	9
KF97	450	70	75	112	320	5	140	140	8	10
KF107	450	90	100	159	318	5	170	170	16	9
KF127	550	110	118	-	420	5	210	210	10	-
KF157	660	120	135	190	520	6	210	210	8	14

26883198/EN – 04/2022



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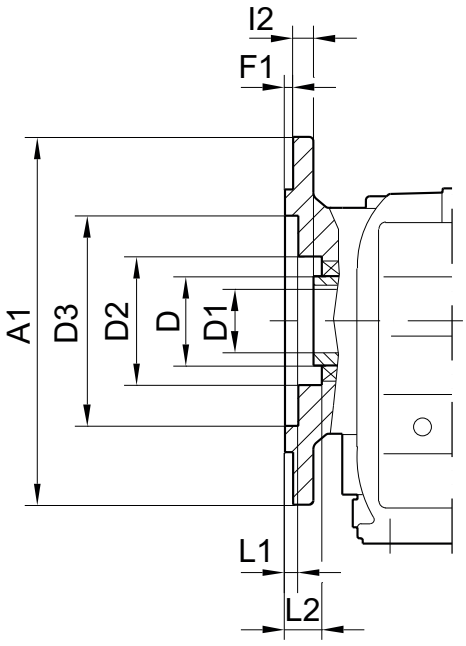
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm									
	A1	D	D1	D2	D3	F1	I2	L	L1	L2
SF37	120	20	25	-	68	3	40	40	6	-
	160	20	25	-	96	3.5	40	40	5.5	-
SF47	160	25	30	70	94	3.5	50	50	2	6
SF57	200	30	40	72	115	3.5	60	60	3.5	7.5
SF67	200	35	45	-	115	3.5	70	70	8.5	-
SF77	250	45	55	108	160	4	90	90	8	9
SF87	350	60	65	130	220	5	120	120	6	10
SF97	450	70	75	150	320	5	140	140	8.5	10
WF10	80	16	25	-	39	2.5	40	40	30	-
	120	16	25	39	74	3	40	40	5	30
WF19	110	20	30	44	53	-4	40	40	27	35
	120	20	30	-	45	2.5	40	40	37.5	-
WF20	110	20	30	44	53	-4	40	40	27	35
	120	20	30	-	45	2.5	40	40	37.5	-
WF29	120	20	25	-	70	2.5	40	40	-	11.5
	160	20	25	-	100	2.5	40	40	-	11.5
WF30	120	20	30	48	63	2.5	40	40	18	27
	160	20	30	48	63	2.5	40	40	33	42
WF39	160	25	30	-	109	3.5	50	50	-	6.5
	200	25	30	-	115	3.5	50	50	-	6.5
WF49	160	30	39	-	97	3.5	60	60	15.3	23.5
WF59	200	35	49	76	115	3.5	70	70	16	25

26883198/EN – 04/2022

6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units



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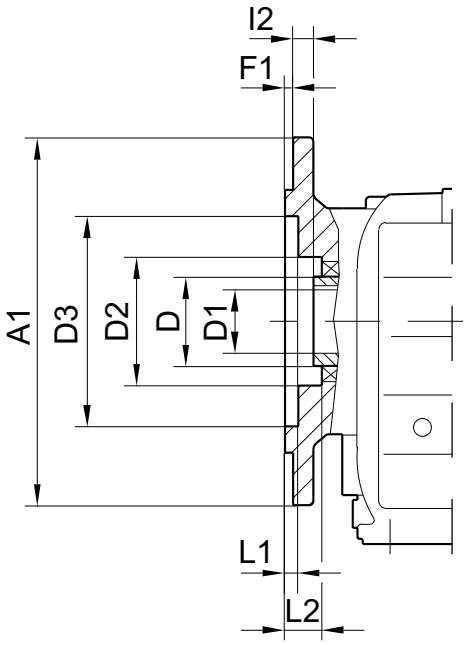
Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm								
	A1	D	D1	D2	D3	F1	I2	L1	L2
FAF27	160	40	25	66	96	3.5	20	3	18.5
FAF37	160	45	30	62	94	3.5	24	2	30
FAF47	200	50	35	70	115	3.5	25	3.5	31.5
FAF57	250	55	40	76	155	4	23.5	4	31
FAF67	250	55	40	76	155	4	23	4	31
FAF77	300	70	50	95	205	4	37	5	45
FAF87	350	85	60	120	220	5	30	5	39
FAF97	450	95	70	135	320	5	41.5	5.5	51
FAF107	450	118	90	224	320	5	41	16	52
FAF127	550	135	100	185	420	5	51	6	63
FAF157	660	155	120	200	520	6	60	10	74
KAF19	120	30	20	60	70	2.5	25	9	25.5
	160	30	20	60	100	2.5	25	9	25.5
KAF29	160	40	25 / 30	-	105	3.5	33.5	-	6.5
	200	40	25 / 30	-	118	3.5	33.5	-	6.5
KAF39	160	50	30 / 35	68	96	3.5	24.5	10	27
KAF37	160	45	30	62	94	3.5	24	2	30
KAF47	200	50	35	70	115	3.5	25	3.5	8.5
KAF49	200	55	35 / 40	76	115	3.5	32.5	16	34.5
KAF57	250	55	40	76	155	4	23.5	4	31
KAF67	250	55	40	76	155	4	23	4	31
KAF77	300	70	50	95	205	4	37	5	45
KAF87	350	85	60	120	220	5	30	5	39
KAF97	450	95	70	135	320	5	41.5	5.5	51
KAF107	450	118	90	224	320	5	41	16	52
KAF127	550	135	100	185	420	5	51	6	63
KAF157	660	155	120	200	520	6	60	10	74

26883198/EN – 04/2022



45036000584108811

Check dimensions L1 and L2 for selection and installation of output elements.

Type	Dimensions in mm								
	A1	D	D1	D2	D3	F1	I2	L1	L2
SAF37	120	35	20	-	68	3	15	6	-
	160	35	20	-	96	3.5	15	5.5	-
SAF47	160	45	30 / 25	62	94	3.5	24	2	30
SAF57	200	50	35 / 30	70	115	3.5	25	3.5	31.5
SAF67	200	65	45 / 40	91	115	3.5	42.5	4	48.5
SAF77	250	80	60 / 50	112	164	4	45.5	5	53.5
SAF87	350	95	70 / 60	131	220	5	52.5	6	62.5
SAF97	450	120	90 / 70	160	320	5	60	6.5	69
WAF10	80	25	16	-	39	2.5	23	30	-
	120	25	16	39	74	3	23	5	30
WAF19	110	30	18 / 20	45	53	-4	30	27	35
	120	30	18 / 20	-	45	2.5	30	37.5	-
WAF20	110	30	18 / 20	45	53	-4	30	27	35
	120	30	18 / 20	-	45	2.5	30	37.5	-
WAF29	120	30	20	60	70	2.5	25	9	25.5
	160	30	20	60	100	2.5	25	9	25.5
WAF30	120	30	20	48	63	2.5	19.5	18	27
	160	30	20	48	63	2.5	34.5	22	42
WAF39	160	40	25 / 30	-	105	3.5	33.5	-	6.5
	200	40	25 / 30	-	118	3.5	33.5	-	6.5
WAF49	160	50	30 / 35	-	97	3.5	24.5	15.3	23.5
WAF59	200	55	35 / 40	76	115	3.5	32.5	16	25

26883198/EN – 04/2022

6.16 Optional output shafts

The available output shafts for the gear units and gearmotors are shown below. For the standard shaft dimensions, refer to the dimension sheets. Optional shafts are available on request. Further shaft dimensions are available on request.

6.16.1 R, RF, RZ, R..F helical gear units

R, RF, RZ, R..F helical gear units									
Gear unit size	**07**	**17**	**27**	**37**	**47**	**57**	**67**	**77**	**87**
Solid shaft in mm	20×40[1)] 16×40	20×40[1)2)] 16×40	25×50[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)]	35×70[1)2)] 40×80	40×80[1)2)]	50×100[1)2)]
Solid shaft in inches	0.75×1.57[1)]	0.75×1.57[1)]	1×1.97[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)]	1.375×2.76[1)]	1.625×3.15[1)]	2.125×3.94[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

R, RF helical gear units						
Gear unit size	**97**	**107**	**127**	**137**	**147**	**167**
Solid shaft in mm	60×120[1)2)]	70×140[1)2)]	90×170[2)]	90×170[1)2)]	110×210[1)2)]	120×210
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51	3.25×6.69	3.25×6.69	4.375×8.27	4.75×8.27

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.16.2 F series parallel-shaft helical gear units

F series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)2)]	35×70[1)]	40×80[1)2)] 35×70	50×100[1)2)] 45×90[1)2)]
Solid shaft in mm 2nd shaft end	25×50	25×50	30×60[1)2)] 35×70[1)]	35×70[2)]	40×80[1)2)]	50×100[1)2)]
Solid shaft in inches	1×1.97[1)]	1×1.97[1)]	1.25×2.36[1)] 1.375×2.76	1.375×2.76[1)]	1.625×3.15[1)] 1.375×2.76	2×3.94[1)] 1.75×3.54
Solid shaft in inches 2nd shaft end	-	-	1.25×2.36	-	1.625×3.15	2×3.94

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

F series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120[1)2)]	70×140[1)]	90×170	110×210	120×210
Solid shaft in mm 2nd shaft end	60×120[1)2)]	70×140	90×170[1)2)]	110×210[2)]	-
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27
Solid shaft in inches 2nd shaft end	-	-	3.625×6.69	4.375×8.27	-

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

26883198/EN – 04/2022

6.16.3 FF series parallel-shaft helical gear units

FF series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]	40×80[1)2)] 35×70	50×100[1)2)] 45×90
Solid shaft in inches	1×1.97[1)]	1×1.97[1)]	1.25×2.76[1)] 1.375×2.76	1.375×2.76[1)]	1.625×3.15[1)] 1.375×2.76	2×3.94[1)] 1.75×3.54

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

FF series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120[1)]	70×140[1)]	90×170	110×210	120×210[2)]
Solid shaft in inches	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.16.4 FZ series parallel-shaft helical gear units

FZ series parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50[1)]	25×50	30×60 35×70	35×70	40×80	50×100

1) Optional stainless steel X17CrNi16-2+QT900.

FZ series parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120	70×140	90×170[1)]	110×210	120×210

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.5 FA, FAF, FAZ parallel-shaft helical gear units

FA, FAF, FAZ parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm	25[1)]	25[1)] 30[1)]	30[1)2) 3)] 35[1)2)3)]	40[1)2)3)]	40[1)2)3)]	50[1)2)3)]
Hollow shaft in inches	1[1)]	1.25[1)]	1.188 1.25[1)] 1,375[1)]	1.438 1.5[1)]	1.438 1.5[1)]	1.938 2[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional with reinforced bearings.

3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

FA, FAF, FAZ parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	60[1)2)3)]	70[1)2)3)]	80[1)2)3)] 90[1)2)3)]	100[1)2)3)]	120[1)]
Hollow shaft in inches	2,375[1)] 2.438	2.75[1)] 2.938	3.25 3.438 3.625	4	4.5

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional with reinforced bearings.

3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

26883198/EN – 04/2022

6.16.6 FH, FHF, FHZ parallel-shaft helical gear units

FH, FHF, FHZ parallel-shaft helical gear units						
Gear unit size	**27**	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm	25[1)]	30[1)] 30/32[1)]	35[1)2)3)] 35/36[1)2)3)]	40 [1)2)3)] 40/42[1)2)3)]	40 [1)2)3)] 40/42[1)2)3)]	50[1)2)3)] 50/52[1)2)3)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

FH, FHF, FHZ parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	65[1)2)3)] 65/66[1)2)3)]	75[1)2)3)] 75/76[1)2)3)]	95[1)2)3)] 95/96[1)2)3)]	105[1)2)3)] 105/106[1)2)3)]	125[1)] 125/126

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

6.16.7 FV, FVF, FVZ parallel-shaft helical gear units

FV, FVF, FVZ parallel-shaft helical gear units								
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**	**107**
Hollow shaft Splined hollow shaft	N30	N35	N35	N45	N50	N65[1)]	N70	N85

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.8 FT parallel-shaft helical gear units

FT parallel-shaft helical gear units					
Gear unit size	**37**	**47**	**57**	**67**	**77**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	25[1)] 30[1)]	25 30[1)] 35[1)]	35[1)] 38[1)] 40[1)]	35[1)] 38[1)] 40[1)]	40 42 45 50[1)] 51
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	1[1)] 1.188[1)] 1.25[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1.438[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688	1,625[1)] 1.688 1.75[1)] 1,938[1)] 2[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

FT parallel-shaft helical gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	50 51[1)] 55 60[1)] 62[1)] 65[1)]	60 62[1)] 65 70[1)] 75[1)]	80[1)] 85[1)] 90[1)] 92[1)] 95[1)]	90 95[1)] 100[1)] 105[1)]	110[1)] 120 125[1)] 127[1)]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	1.938[1)] 2[1)] 2.375[1)] 2.438[1)]	2.438[1)] 2.75[1)] 2.938[1)]	3.25[1)] 3.438[1)] 3,625[1)] 3.75[1)]	3,438[1)] 3.75[1)] 3,938[1)] 4[1)] 4,188[1)]	4,438[1)] 4.5[1)] 4,938[1)] 5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

26883198/EN – 04/2022

6.16.9 K series helical-bevel gear unit

K series helical-bevel gear unit								
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**	**67**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)2)]	35×70[1)2)]	40×80[1)2)] 35×70
Solid shaft in mm 2nd shaft end	20×40[1)]	25×50[1)]	30×60[1)2)]	35×70[1)2)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]	40×80[1)2)] 35×70
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1×1.97[1)] 1.25×2.36[1)]	1.375×2.76[1)]	1×1.97[1)]	1.25×2.36[1)] 1.375×2.76	1.375×2.76[1)]	1.375×2.76 1.625×3.15[1)]
Solid shaft in inches 2nd shaft end	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)]	1×1.97	1.25×2.36 1.375×2.76	1.375×2.76	1.625×3.15 1.375×2.76

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

K series helical-bevel gear units								
Gear unit size	**77**	**87**	**97**	**107**	**127**	**157**	**167**	**187**
Solid shaft in mm	50×100[1)2)] 45×90[1)2)]	60×120[1)2)]	70×140[1)2)]	90×170[1)2)]	110×210[1)]	120×210[2)]	160×250[2)] 140×250	190×320[2)] 160×300
Solid shaft in mm 2nd shaft end	50×100[1)2)] 45×90	60×120[1)2)]	70×140[2)]	90×170[1)2)]	110×210[2)]	120×210[2)]	160×250	190×320[2)]
Solid shaft in inches	2×3.94[1)] 1.75 × 3.54	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27	6.25×9.84	7.5×12.6
Solid shaft in inches 2nd shaft end	2×3.94 1.75 × 3.54	2.375×4.72	2.875×5.51	3.625×6.69	4.375×8.27	4.75×8.27	6.25×9.84	7.5×12.6

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.16.10 KF helical-bevel gear units

KF helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Solid shaft in mm	20×40[1)]	25×50[1)]	30×60[1)]	35×70[1)]	25×50[1)2)]	30×60[1)2)] 35×70[1)]	35×70[1)2)]
Solid shaft in mm 2nd shaft end	-	-	-	-	25 × 50[1)]	30 × 60	35 × 70
Solid shaft in inches	0.75×157[1)]	1×1.97[1)]	1×1.97[1)] 1.25×2.36[1)]	1.375×2.76[1)]	1×1.97[1)]	1.25×2.76[1)]	1.375×2.76[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

KF helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	40×80[1)2)] 35×70	50×100[1)2)] 45×90	60×120[1)2)]	70×140[1)2)]	90×170[2)]	110×210	120×210[2)]
Solid shaft in mm 2nd shaft end	40×80 35×70	50×100[1)]	60×120	70×140[2)]	90×170	110×210	-
Solid shaft in inches	1.625×3.15[1)] 1.375×2.76	2×3.94[1)] 1.75×3.54	2.375×4.72[1)]	2.875×5.51[1)]	3.625×6.69	4.375×8.27	4.75×8.27

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

26883198/EN – 04/2022

6.16.11 KZ helical-bevel gear units

KZ helical-bevel gear units					
Gear unit size	**37**	**47**	**57**	**67**	**77**
Solid shaft in mm	25×50	30×60 35×70	35×70	40×80	50×100

KF helical-bevel gear units					
Gear unit size	**87**	**97**	**107**	**127**	**157**
Solid shaft in mm	60×120	70×140	90×170[1)]	110×210	120×210

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.12 KA, KAF, KAZ helical-bevel gear units

KA, KAF, KAZ helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Hollow shaft in mm	20[1)]	25[1)] 30[1)]	30[1)] 35[1)]	35[1)] 40[1)]	25[1)] 30[1)]	30[1)2)3)] 35[1)2)3)]	40[1)2)3)]
Hollow shaft in inches	0.75[1)]	1[1)]	1.25[1)] 1,375[1)]	1,375[1)] 1.5[1)]	1.25[1)]	1.188 1.25[1)] 1,375[1)]	1.438 1.5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

KA, KAF, KAZ helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm	40[1)2)3)]	50[1)2)3)]	60[1)2)3)]	70[1)2)3)]	80[1)2)3)] 90[1)2)3)]	100[1)2)3)]	120[1)]
Hollow shaft in inches	1.438 1.5[1)]	1.938 2[1)]	2,375[1)] 2.438	2.75[1)] 2.938	3.25 3.438 3.625	4[2)]	4.5

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

6.16.13 KH, KHF, KHZ helical-bevel gear units

KH, KHF, KHZ helical-bevel gear units								
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**	**67**
Hollow shaft in mm	20[1)]	25[1)]	35[1)]	40[1)]	30[1)] 30/32[1)]	35[1)2) 3)] 35/36[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]	40[1)2)3)] 40/42[1)2)3)]

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

KH, KHF, KHZ helical-bevel gear units								
Gear unit size	**77**	**87**	**97**	**107**	**127**	**157**	**167**	**187**
Hollow shaft in mm	50[1)2)3)] 50/52[1)2)3)]	65[1)2)3)] 65/66[1)2)3)]	75[1)2)3)] 75/76[1)2)3)]	95[1)2)3)] 95/96[1)2)3)]	105[1)2)3)] 105/106[1)2)3)]	125[1)] 125/126	135/140[1)]	155/160[1)] 135/140

1) Optional stainless steel X17CrNi16-2+QT900.
2) Optional with reinforced bearings.
3) Optional stainless steel X17CrNi16-2+QT900 with reinforced bearings.

26883198/EN – 04/2022

6.16.14 KV, KVF, KVZ helical-bevel gear units

KV, KVF, KVZ helical-bevel gear units								
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**	**107**
Splined hollow shaft	N30	N35	N35	N45	N50	N65[1)]	N70	N85

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.15 KT helical-bevel gear units

KT helical-bevel gear units							
Gear unit size	**19**	**29**	**39**	**49**	**37**	**47**	**57**
Hollow shaft in mm with TorqLOC® with TorqLOC® Plus	20[1)]	25[1)]	30[1)] 35[1)]	35[1)] 40[1)]	25[1)] 30[1)]	25 30[1)] 35[1)]	35[1)] 38[1)] 40[1)]
Hollow shaft in inch with TorqLOC® with TorqLOC® Plus	0,625[1)] 0,688[1)] 0.75[1)]	0,984[1)] 1[1)]	1,188[1)] 1.25[1)] 1,375[1)] 1,438[1)]	1.25 1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688	1[1)] 1,188[1)] 1.25[1)]	1,188[1)] 1.25[1)] 1,375[1)] 1,438[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

KT helical-bevel gear units							
Gear unit size	**67**	**77**	**87**	**97**	**107**	**127**	**157**
Hollow shaft in mm with TorqLOC® with TorqLOC® Plus	35[1)] 38[1)] 40[1)]	40 42 45 50[1)] 51	50 51[1)] 55 60[1)] 62[1)] 65[1)]	60 62[1)] 65 70[1)] 75[1)]	80[1)] 85[1)] 90[1)] 92[1)] 95[1)]	90 95[1)] 100[1)] 105[1)]	110[1)] 120 125[1)] 127[1)]
Hollow shaft in inch with TorqLOC® with TorqLOC® Plus	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688	1,625[1)] 1.688 1.75[1)] 1,938[1)] 2[1)]	1,938[1)] 2[1)] 2,375[1)] 2,438[1)]	2,438[1)] 2.75[1)] 2,938[1)]	3.25[1)] 3,438[1)] 3,625[1)] 3.75[1)]	3,438[1)] 3.75[1)] 3,938[1)] 4[1)] 4,188[1)]	4,438[1)] 4.5[1)] 4,938[1)] 5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.16 S series helical-worm gear units

S series helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80[1)]	45×90[1)2)] 50×100[1)]	60×120[1)]	70×140[1)]
Solid shaft in mm 2nd shaft end	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80	45×90[1)] 50×100	60×120	70×140[1)]
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)] 1.625×3.15	1.75×3.54[1)] 2×3.94	2.375×4.72[1)]	2.875×5.51[1)]
Solid shaft in inches 2nd shaft end	0.75×1.57	1×1.97	1.25×2.36	1.375×2.76 1.625×3.15	1.75×3.54 2×3.94	2.375×4.72	2.875×5.51

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

26883198/EN – 04/2022

6.16.17 SF helical-worm gear units

SF helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Solid shaft in mm	20×40[1)2)]	25×50[1)2)]	30×60[1)2)]	35×70[1)2)] 40×80[1)]	45×90[1)2)] 50×100[1)]	60×120[1)]	70×140[1)]
Solid shaft in mm 2nd shaft end	20×40[1)]	25×50[1)]	30×60	35×70	45×90	60×120	70×140
Solid shaft in inches	0.75×1.57[1)]	1×1.97[1)]	1.25×2.36[1)]	1.375×2.76[1)] 1.625×3.15	1.75×3.54[1)] 2×3.94	2.375×4.72[1)]	2.875×5.51[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.16.18 SA, SAF, SAZ helical-worm gear units

SA, SAF, SAZ helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm	20[1)]	25[1)] 30[1)]	30[1)] 35[1)]	40[1)] 45[1)]	50[1)] 60[1)]	60[1)] 70[1)]	70[1)] 90[1)]
Hollow shaft in inches	0.75[1)]	1.25[1)]	1.188 1.25[1)] 1,375[1)]	1.5[1)]	2[1)]	2,375[1)]	2.75[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.19 SH, SHF, SHZ helical-worm gear units

SH, SHF, SHZ helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm	20[1)]	30[1)] 30/32[1)]	35[1)] 35/36[1)]	40[1)] 40/42	50[1)] 50/52	65[1)] 65/66	75[1)] 75/76

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.20 ST helical-worm gear units

ST helical-worm gear units							
Gear unit size	**37**	**47**	**57**	**67**	**77**	**87**	**97**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	16[1)] 19[1)] 20[1)]	25[1)] 30[1)]	25 30[1)] 35[1)]	35[1)] 38[1)] 40[1)]	40 45 50[1)] 51[1)]	50 51[1)] 60[1)] 62[1)] 65[1)]	60 62[1)] 70[1)] 75[1)]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	0.625[1)] 0.688[1)] 0.75[1)]	1[1)] 1.188[1)] 1.25[1)]	1.188[1)] 1.25[1)] 1.375[1)] 1,438[1)]	1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688	1,625[1)] 1.688 1.75[1)] 1,938[1)] 2[1)]	1.938[1)] 2[1)] 2.375[1)] 2.438[1)]	2.438[1)] 2.75[1)] 2.938[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

26883198/EN – 04/2022

6.16.21 SPIROPLAN® gear units W10, W20, W30

W series SPIROPLAN® gear units			
Gear unit size	**10**	**20**	**30**
Solid shaft in mm	14×30 16×40	20×40[1)2)]	20×40[1)2)]
Solid shaft in mm 2nd shaft end	16×40	20×40[1)]	20×40[1)2)]
Solid shaft in inches	0.625×1.57	0.75×1.57[1)]	0.75×1.57[1)]
Solid shaft in inches 2nd shaft end	0.625×1.57	0.75×1.57	0.75×1.57

1) Optional stainless steel X17CrNi16-2+QT900.

2) Optional solid shaft without key (smooth).

6.16.22 SPIROPLAN® gear units WF

SPIROPLAN® gear units WF								
Gear unit size	**10**	**20**	**30**	**19**	**29**	**39**	**49**	**59**
Solid shaft in mm	16×40[1)]	20×40[1)]	20×40[1)]	20×40[1)]	20×40[1)]	25×50[1)]	30×60[1)]	35×70[1)]
Solid shaft in mm 2nd shaft end	20×40	20×40	20×40	20×40	-	-	-	-
Solid shaft in inches	0.625×1.57	0.75×1.57	0.75×1.57	0.75×1.57	0.75×1.57 [1)]	1×1.97[1)]	1×1.97[1)]	1.375×2.76[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.23 SPIROPLAN® gear units WA, WAF

SPIROPLAN® gear units WA, WAF								
Gear unit size	**10**	**20**	**30**	**19**	**29**	**39**	**49**	**59**
Hollow shaft in mm	14 16[1)]	18[1)] 20[1)]	20[1)]	18[1)] 20[1)]	20[1)] 25 30	25[1)] 30[1)]	30[1)] 35[1)]	35[1)] 40[1)]
Hollow shaft in inches	0.625	0.75[1)]	0.75[1)]	0.75[1)]	0.75[1)]	1[1)]	1.25[1)] 1.375[1)]	1.375[1)] 1.5[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.24 SPIROPLAN® gear units WH, WHF

SPIROPLAN® gear units WH, WHF				
Gear unit size	**29**	**39**	**49**	**59**
Hollow shaft in mm	20[1)]	25[1)]	35[1)]	40[1)]

1) Optional stainless steel X17CrNi16-2+QT900.

6.16.25 SPIROPLAN® gear units WT

SPIROPLAN® gear units WT				
Gear unit size	**29**	**39**	**49**	**59**
Hollow shaft in mm With TorqLOC® With TorqLOC® Plus	16[1)] 19[1)] 20[1)]	25[1)]	30[1)] 35[1)]	35[1)] 40[1)]
Hollow shaft in inches With TorqLOC® With TorqLOC® Plus	0.625[1)] 0.688[1)] 0.75[1)]	0,984[1)] 1[1)]	1,188[1)] 1.25[1)] 1,375[1)] 1,438[1)]	1.25 1,375[1)] 1,438[1)] 1.5[1)] 1,625[1)] 1.688

1) Optional stainless steel X17CrNi16-2+QT900.

26883198/EN – 04/2022

6.17 Safety covers

6.17.1 Rotating safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a rotating safety cover as standard:

Gear unit type	Sizes
KH..	19 – 49 and 37 – 97
FH.., SH..	37 – 97
WH..	29 – 59

Should you require a fixed plastic or metal safety cover for safety reasons, refer to the part numbers in the following chapters.

6.17.2 High fixed plastic safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a high fixed plastic safety cover as standard:

Gear unit type	Sizes
FH..	27 and 107 – 127
KH..	107 – 127

Should you require a high fixed plastic safety cover for other gear unit types or sizes due to safety reasons, refer to the part numbers in the following chapters.

6.17.3 Fixed sheet metal safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a fixed sheet metal safety cover as standard:

Gear unit type	Sizes
KH..	157, 167 and 187
FH..	157
FT.., KT.., ST.., WT.. (with TorqLOC® hollow shaft mounting system)	All available sizes
Explosion-protected gear units FH.., KH.., SH.., WH..	All available sizes

Should you require a fixed sheet metal safety cover for other gear unit types or sizes, the part numbers required to order the cover can be found in the following chapter.

26883198/EN – 04/2022

6.17.4 Flat fixed plastic safety cover

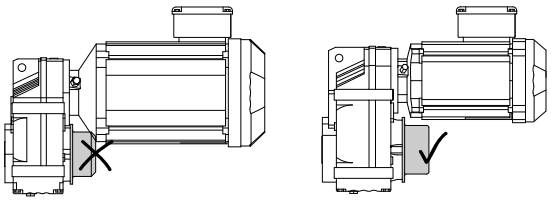
The following gear unit types with hollow shaft can optionally be equipped with a flat fixed plastic safety cover:

Gear unit type	Sizes
FA.., FV..	27 – 97
KA..	19 – 49 and 37 – 97
KV..	37 – 97
SA..	37 – 97
WA..	10 – 30 and 19 – 59

Should you require a flat fixed plastic safety cover for these gear unit types due to safety reasons, refer to the part numbers in the following chapters.

6.17.5 Motor mounting sizes and terminal box position with fixed safety cover

The size of the attached motor may be limited by the use of a high fixed safety cover for parallel-shaft helical gear units.



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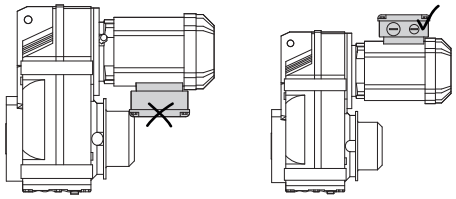

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INFORMATION

SEW-EURODRIVE recommends the terminal box position ≠ 90° for parallel-shaft helical gear units with high safety cover to simplify assembly and maintenance.

If necessary, check the configuration in the product configurator on the SEW-EURODRIVE website.

High fixed plastic safety cover

The following table shows the maximum possible motor mounting sizes, depending on the gear unit size, for a high fixed plastic safety cover:

Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting sizes	71M	80M	90L	112M	132L	160L	180L

26883198/EN – 04/2022

Fixed sheet metal safety cover

The following table shows the maximum possible motor sizes, depending on the gear unit size, for a high fixed sheet metal safety cover:

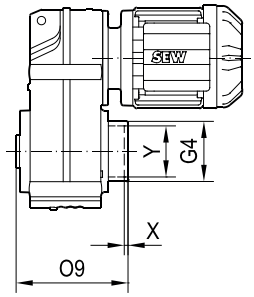
Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting sizes	71M	71M	80M	100L	132L	160L	180L

26883198/EN – 04/2022

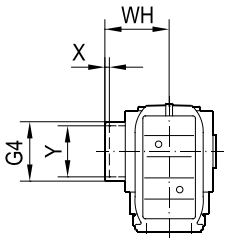
6.17.6 Part numbers and dimensions for high fixed plastic covers

00 002 00 18

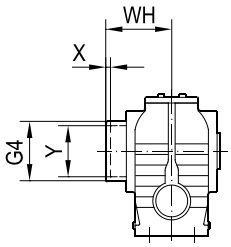
FH../FA..



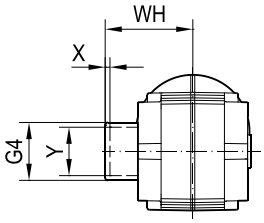
KH../KA..



SH../SA..



WH../WA..



Parallel-shaft helical gearmotors	FH/FA ..27	FH/FA ..37	FH/FA ..47	FH/FA ..57	FH/FA ..67	FH/FA ..77	FH/FA ..87	FH/FA ..97
Part number	06435319	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	58	78	88	100	100	121	164	185
O9 in mm	134	157	188.5	207.5	221.5	255	295	363.5
X in mm	0.8	2	4.5	7.5	6	6	4	6.5
Y in mm	56	75	83	83	93	114	159	174

Helical-bevel gearmotors	KH/KA ..19	KH/KA ..29
Part number	10684158	10684166
G4 in mm	62	68
WH in mm	83	90
X in mm	2	4
Y in mm	50	60

Helical-bevel gearmotors[1)]	KH/KA ..37	KH/KA ..47	KH/KA ..57	KH/KA ..67	KH/KA ..77	KH/KA ..87	KH/KA ..97
Part number	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	78	88	100	100	121	164	185
WH in mm	95	111.5	122.5	129	147	172	210.5
X in mm	0	1.5	5.5	3	1	2	4.5
Y in mm	75	83	83	93	114	159	174

1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B).

Helical-worm gearmotors	SH/SA ..37	SH/SA ..47	SH/SA ..57	SH/SA ..67	SH/SA ..77	SH/SA .. 87	SH/SA ..97
Part number	6435122	6435130	6435149	6435157	6435165	6435173	6435181
G4 in mm	59	78	88	100	121	164	185
WH in mm	88	95	111.5	123	147	176	204.5
X in mm	1	0	1.5	3	1	0	0.5
Y in mm	53	75	83	93	114	159	174

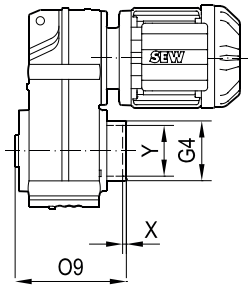
SPIROPLAN® gearmotors	WH/WA ..29	WH/WA ..39
Part number	10684158	10684166
G4 in mm	62	68
WH in mm	83	90
X in mm	2	4
Y in mm	50	60

26883198/EN – 04/2022

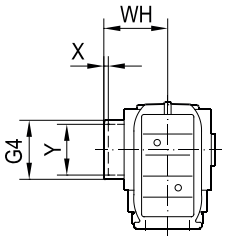
6.17.7 Part numbers and dimensions for fixed sheet metal covers

19 004 00 18

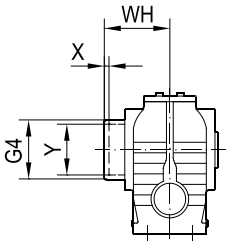
FT../FH../FA..



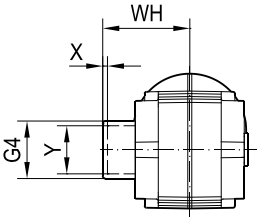
KT../KH../KA..



ST../SH../SA..



WT../WH../WA..



Parallel-shaft helical gearmotors	FT/FH/FA ..37	FT/FH/FA ..47	FT/FH/FA ..57	FT/FH/FA ..67	FT/FH/FA ..77	FT/FH/FA ..87	FT/FH/FA ..97	FT/FH/FA ..107	FT/FH/FA ..127	FT/FH/FA ..157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421830
G4 in mm	81	90	101	101	124	165	200	196	229	275
O9 in mm	166	199	222	236	285	322	382	421	502	605
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

Helical-bevel gearmotors	KH/KA ..19	KT..19	KH/KA ..29	KT..29	KT/KH/KA ..39	KT/KH/KA ..49
Part number	10686320	29225299	10686339	29225086	10682651	10682964
G4 in mm	60	61	68	70	86	97
WH in mm	84.5	87	91.5	98.5	117.5	138
X in mm	1.5	1.5	1.5	1.5	1	1
Y in mm	50	58	60	67	84	95

Helical-bevel gearmotors[1)]	KT/KH/KA ..37	KT/KH/KA ..47	KT/KH/KA ..57	KT/KH/KA ..67	KT/KH/KA ..77	KT/KH/KA ..87	KT/KH/KA ..97	KT/KH/KA ..107	KT/KH/KA ..127	KT/KH/KA ..157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421879
G4 in mm	81	90	101	101	124	165	200	196	229	275
WH in mm	104	122	137	143	177	229	382	246	297	375
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B).

Helical-worm gearmotors	ST/SH/SA ..37	ST/SH/SA ..47	ST/SH/SA ..57	ST/SH/SA ..67	ST/SH/SA ..77	ST/SH/SA ..87	ST/SH/SA ..97
Part number	06444768	0643584X	06435858	06435866	06435874	06435882	06435882
G4 in mm	64	81	90	101	124	165	165
WH in mm	98	104	122	137	177	203	223
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	61	78	87	98	121	162	162

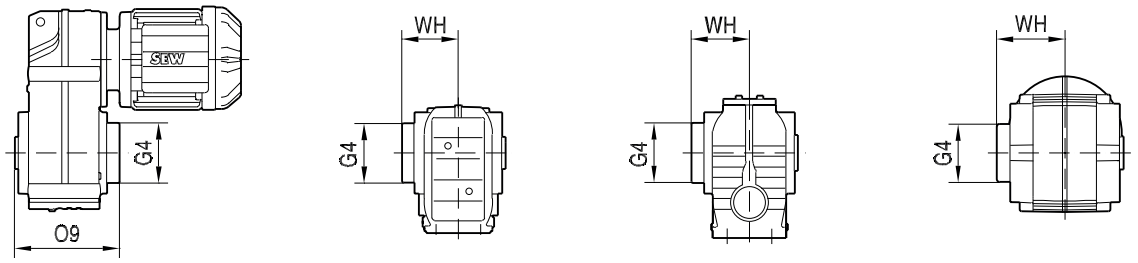
SPIROPLAN® gearmotors	WH/WA ..29	WT ..29	WH/WA ..39	WT ..39	WT/WH/WA ..49	WT/WH/WA ..59
Part number	10686320	29225299	10686339	29225086	29225612	29226147
G4 in mm	60	61	68	70	87	97
WH in mm	84.5	87	91.5	98	119	138
X in mm	1.5	1.5	1.5	1.5	1.5	1.0
Y in mm	50	58	60	67	84	95

26883198/EN – 04/2022

6.17.8 Part numbers and dimensions for flat fixed plastic covers

19 003 00 18

FA../FV.. KA../KV.. SA.. WA..



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Parallel-shaft helical gearmotors	FA/FV..27	FA/FV..37	FA/FV..47	FA/FV..57	FA/FV..67	FA/FV..77	FA/FV..87	FA/FV..97
Part number	10688684	10688293	10688390	10688498	10688498	10688595	10688692	10688781
G4 in mm	57.4	80.4	80.4	84.7	84.7	117.4	147.5	187.4
O9 in mm	111	134	163	179	193	223	251	313

Helical-bevel gearmotors	KA ..19	KA ..29	KA ..39	KA ..49
Part number	10688684	10688293	10688498	10688498
G4 in mm	57.4	80.4	84.7	84.7
WH in mm	63.2	73.5	90	102

Helical-bevel gearmotors[1)]	KA/KV..37	KA/KV..47	KA/KV..57	KA/KV..67	KA/KV..77	KA/KV..87	KA/KV..97
Part number	10688293	10688390	10688498	10688498	10688595	10688692	10688781
G4 in mm	80.4	80.4	84.7	84.7	117.4	147.5	187.4
WH in mm	72.5	87	95	101.5	116	131	161

1) Not possible for helical-bevel gear units with hollow shaft in foot-mounted design (KH..B and KA..B)

Helical-worm gearmotors	SA ..37	SA..47	SA ..57	SA..67	SA..77	SA.. 87	SA..97
Part number	10687890	10688293	10688390	10688498	10688595	10688692	10688781
G4 in mm	57.4	80.4	80.4	84.7	117.4	147.5	187.4
WH in mm	68	72.5	87	95.5	116	135	155

SPIROPLAN® gearmotors	WA..10	WA..19	WA..20	WA ..29	WA..30	WA ..39	WA ..49	WA ..59
Part number	10687998	10687998	10687998	10688684	10688099	10688293	10690794	10690794
G4 in mm	42.4	42.4	42.4	57.4	57.4	80.4	87.4	87.4
WH in mm	51	58.5	58.5	63.2	69	73.5	90	102

26883198/EN – 04/2022

6.18 Technical data of condition monitoring

6.18.1 Information on oil aging sensor /DUO10A

Technical data

	Technical data		
Preset oil grades	OIL1	CLP mineral oil	T_{max} = 100 °C
		Biodegradable oil	T_{max} = 100 °C
	OIL2	CLP HC synthetic oil	T_{max} = 130 °C
		CLP PAO oil	T_{max} = 130 °C
	OIL3	CLP PG polyglycol	T_{max} = 130 °C
	OIL4	Food grade oil	T_{max} = 100 °C
Switch outputs	1: Early warning (time to next oil change can be set to between 2 and 100 days) 2: Main alarm (time to oil change 0 days) 3: Exceeded temperature T_{max} 4: DUO10A is ready for operation		
Permitted oil temperature	-40 °C – +130 °C		
Permitted temperature sensor	PT1000		
EMC	IEC1000-4-2/3/4/6		
Ambient temperature	-25 °C – +70 °C		
Operating voltage	DC 18 – 28 V		
Current consumption for DC 24 V	< 90 mA		
Protection class	III		
Degree of protection	IP67 (optionally IP69K)		
Housing materials	Evaluation unit: V2A, EPDM/X, PBT, FPM Temperature sensor: V4A		
Electrical connection	Evaluation unit: M12 plug connector PT1000 temperature sensor: M12 plug connector		

26883198/EN – 04/2022

Designations and part numbers

Designation	Description	Part number
DUO10A	Evaluation unit (basic device)	13438751
DUO10A-PUR-M12-5m	5 m PUR cable with 1 connector	13438778
DUO10A-PVC-M12-5m	5 m PVC cable with 1 connector	13438786
DUO10A	Angle bracket	13438808
DUO10A D = 34	Mounting clamp	13438794
W4843 PT1000	PT1000 temperature sensor	13438816
W4843_4x0.34-2m-PUR	2 m PUR cable for PT1000[1)]	13438824
W4843_4x0.34-2m-PVC	2 m PVC cable for PT1000[2)]	13438832
DUO10A	Protection cap (for aseptic design, IP69K)	13439022

1) PUR cables are particularly suited for use in oil-contaminated environments.
2) PVC cables are particularly suited for use in moist environments.

Mounting to standard gear units (R, F, K,S)

Adapter for mounting the PT1000 temperature sensor in screw plug bores:

Complete adapter for PT1000 sensor	Part number
M10 × 1	13439030
M12 × 1.5	13439049
M22 × 1.5	13439057
M33 × 2	13439065

26883198/EN – 04/2022

Complete adapter for PT1000 sensor	Part number
M42 × 2	13439073

Mounting base for installing the diagnostic unit at the gear unit with an angle bracket:

Mounting base with sealing ring	Part number
M10 × 1	13434411
M12 × 1.5	13438271
M22 × 1.5	13438298
M33 × 2	13438301
M42 × 2	13438328

6.18.2 Information on the /DUV40A vibration monitoring system

Scope of delivery

- Vibration SmartCheck unit with integrated SmartWeb software
- Vibration SmartCheck and SmartWeb documentation on CD-ROM
- SmartUtility Light software with user documentation on CD-ROM

Technical data

DUV40A (Diagnostic Unit Vibration)	
Housing	Glass fiber reinforced plastic
Fastening	Hexagon socket head screw M6 × 45 Contact surface on the machine: 25 mm Ø
Current consumption	< 200 mA at 24 V
Ambient temperature	-20 to +70 °C
Internal operating temperature	-20 to +85 °C
Voltage supply	DC 11 – 32 V or Power over Ethernet (PoE) based on 802.3af Mode A
Size	44 mm × 57 mm × 55 mm
Weight	Approx. 210 g
Degree of protection	IP 67
Operating system	Embedded Linux
Software	SmartWeb (Mozilla Firefox ESR 38 (recommended), Internet Explorer 11, Internet Explorer 9 not recommended due to performance reasons) Vibration SmartUtility Light or optionally Vibration SmartUtility Languages: German, English, Chinese, Spanish, and French

Internal sensor technology	
Vibration	Acceleration sensor (piezoelectric sensor) Frequency range 0.8 Hz to 10 kHz Measuring range ±50 g

26883198/EN – 04/2022

Internal sensor technology	
Temperature	Measuring range -20 to +70 °C

Measurement	
Measurement functions	Acceleration Speed and distance by integration System temperature Process parameters (e.g. speed, load, pressure)
Diagnostic methods	Time signal, envelope, spectrum and trend analysis, rotational speed and frequency tracking

Characteristic values (time and frequency range)	
Defined characteristic values	DIN/ISO 10816
Calculated characteristic values	RMS, frequency selected RMS, direct component, peak, peak to peak, crest factor, Wellhausen count, carpet level, condition monitoring Other user-defined characteristic values are available.

Signal processor	
Frequency resolution	1600, 3200, 6400, or 12800 lines
Measurement resolution	24-bit (A/D converter)
Frequency range	0.8 Hz – 10 kHz
Low passes	50 Hz – 10 kHz (50 Hz, 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz)
High passes (only envelope)	750 Hz, 1 kHz, 2 kHz (other filters on request)

Memory	
Program and data	64 MB RAM, 128 MB flash

Inputs and outputs	
Inputs	**2 analog inputs** (0 – 10 V / 0 – 24 V / 0 – 20 mA / 4 – 20 mA), frequency range 0 – 500 Hz, 12-bit **1 digital input** (0 – 30 V, 0.1 Hz – 1 kHz)
Outputs	**1 analog output** (0 – 10 V / -20 mA / 4 – 20 mA), 12-bit **1 switching output** (open collector, max. 1 A, 28 V)

Interfaces	
Control elements	2 capacitive pushbuttons (learning mode, alarm reset, restart, factory settings)
Display elements	1 LED to display status and alarm 1 LED to acknowledge the pushbuttons 2 LEDs to display communication
Communication	Ethernet 100 Mb/s OPC UA (server) available with additional license
Electrical connections	3 polarity reversal-protected M12 plug connectors for supply, input/outputs and Ethernet

26883198/EN – 04/2022

Part numbers

	Description	Part number
Sensor	DUV40A (Diagnostic Unit Vibration)	19175892
Cables	Voltage supply cable 8-pin for SmartCheck 5 m; M12(B) <-> open end	19179596
Cables	Ethernet cable for SmartCheck 5 m; M12 <-> RJ45	19179618
Cables	I/O cable 8-pin for SmartCheck 5 m; M12(St) <-> open end	19179626
Cables	Power/Ethernet/I-O signals in 10 m and 20 m	

	Description	Part number
Base for mounting on standard gear units (R, F, K, and S gear units)	Mounting base with sealing ring M10 × 1	20593422
	Mounting base with sealing ring M12 × 1.5	20593430
	Mounting base with sealing ring M22 × 1.5	20593449
	Mounting base with sealing ring M33 × 2	20593457
	Mounting base with sealing ring M42 × 2	20593465

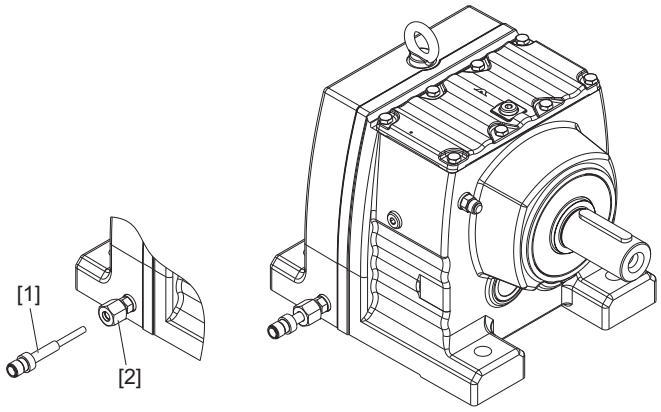
	Description	Part number
Base for mounting on industrial gear units	Mounting base with sealing ring G3/4"	20593384
	Mounting base with sealing ring G1"	20593392
	Mounting base with sealing ring G1 1/4"	20593406
	Mounting base with sealing ring G1 1/2"	20593414

	Description	Part number
Base for mounting on standard motors	Mounting base M5	21014175
	Mounting base M6	21014167
	Mounting base M8	20593503
	Mounting base M10	21014248
	Mounting base M12	20593473
	Mounting base M16	20593481
	Mounting base M20	20593511

26883198/EN – 04/2022

6.19 PT1000 temperature sensor

The optional PT1000 temperature sensor (part number 13438816) is used for continuously measuring the oil temperature of the gear unit.



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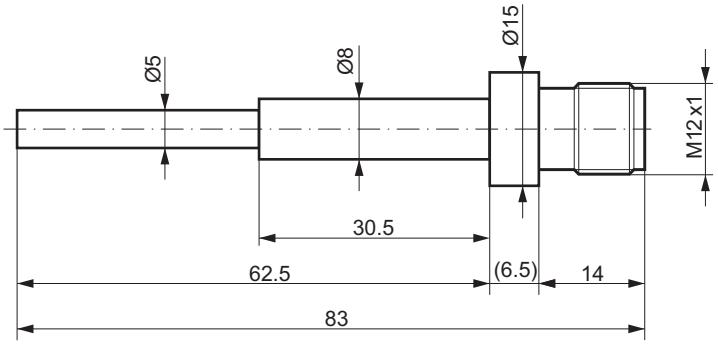
[1] Temperature sensor
[2] Adapter screw fitting

The temperature sensor [1] is delivered in mounted condition. It is attached to the gear unit by means of an adapter screw fitting [2] in the corresponding screw plug bore.

For using the temperature sensor in potentially explosive areas, observe the corresponding information in the "Explosion-Protected Gear Units" assembly and operating instructions (Mechanical installation → Optional equipment).

6.19.1 PT1000 dimension drawing



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6.19.2 PT1000 technical data

Technical data	Value
Rod length	62.5 mm
Measuring range	-40 – 130 °C
Permitted oil temperature	-40 – 130 °C
Accuracy	± (PT1000 + 0.2 K)
Measuring element	1 × PT1000 to DIN EN 60751, class B, 4-wire connection
Dynamic response T05/T09 (s)	3/8 to DIN EN 60751

26883198/EN – 04/2022

Technical data	Value
Ambient temperature	-25 – 80 °C
Degree of protection, protection class	IP67, III
Housing materials	V4A (1.4404)
Materials in contact with the medium	V4A (1.4404)
Port	M12 plug-in connection; gold-plated contacts

26883198/EN – 04/2022

7 Important information on selection tables and dimension drawings

7.1 Possible geometrical combinations

7.1.1 Structure of the combination tables

These tables show geometrically possible combinations of single-speed gear units and AC (brake) motors. Please contact SEW-EURODRIVE for information on pole-changing AC (brake) motors.

The output speed n_a, the maximum output torque M_{amax}, the permitted overhung load F_{Ra} at maximum output torque (valid for foot-mounted gear units with solid shaft), the torsion angle φ (/R), and the gear unit ratio are specified for input speed n_e = 1400 min^{-1} for each combination.

Only if a value is specified for the torsion angle $\varphi_{(/R)}$, is the gear unit with this gear unit ratio available with "reduced backlash (/R)" option. The numerical value specifies the rotational clearance of the reduced backlash version in angular minutes ' (tolerance: ± 2 angular minutes).

R77, n_e=1400 min^{-1}											820Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ ´	i	DRN 63MS 63M 71MS ...	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					3						
7.2	820	9920	7	195.24*							
8.4	820	9920	7	166.59							

Gear unit ratio: A value marked with * indicates finite gear unit ratio.

No data (-): The reduced backlash option (/R) is not possible for this i value.
Numerical value given: Reduced backlash option is possible. The numerical v

Permitted overhung load at maximum output torque M_{amax}
The value refers to the foot-mounted gear unit design with solid shaft

Maximum output torque of the gear unit

Output speed of the gear unit

Combination with the motor in the header is possible

Combination with the motor in the header is not possible

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2 Number of stages of the gear ratios (1, 2 or 3 stages). Helical gear units (R) – with the exception of single-stage RX gear units – and parallel-shaft helical gear units (F) as well as SPIROPLAN®gear units W..9 are 2- or 3-stage gear units depending on the gear unit ratio.

26883198/EN – 04/2022

The RX helical, helical-bevel, helical-worm and SPIROPLAN® W..0 gear units have a defined number of stages:

- RX helical gear units: RX.. always 1-stage
- Helical-bevel gear units: K..7 always 3-stage, K..9 always 2-stage
- Helical-worm gear units: always 2-stage
- SPIROPLAN® gear units: W..10 to W..30 always 1-stage, W..37 and W..47 always 2-stage

Stages of the compound gear unit ratios (2-2, 3-3, 2-3 or 3-2 stages). The number of stages of the primary gear unit (= small gear unit) is given on the right; the number of stages of the output gear unit (= large gear unit) is given on the left. The primary gear unit of the compound gear unit is always a helical gear unit.

7.2 Selection tables for gearmotors

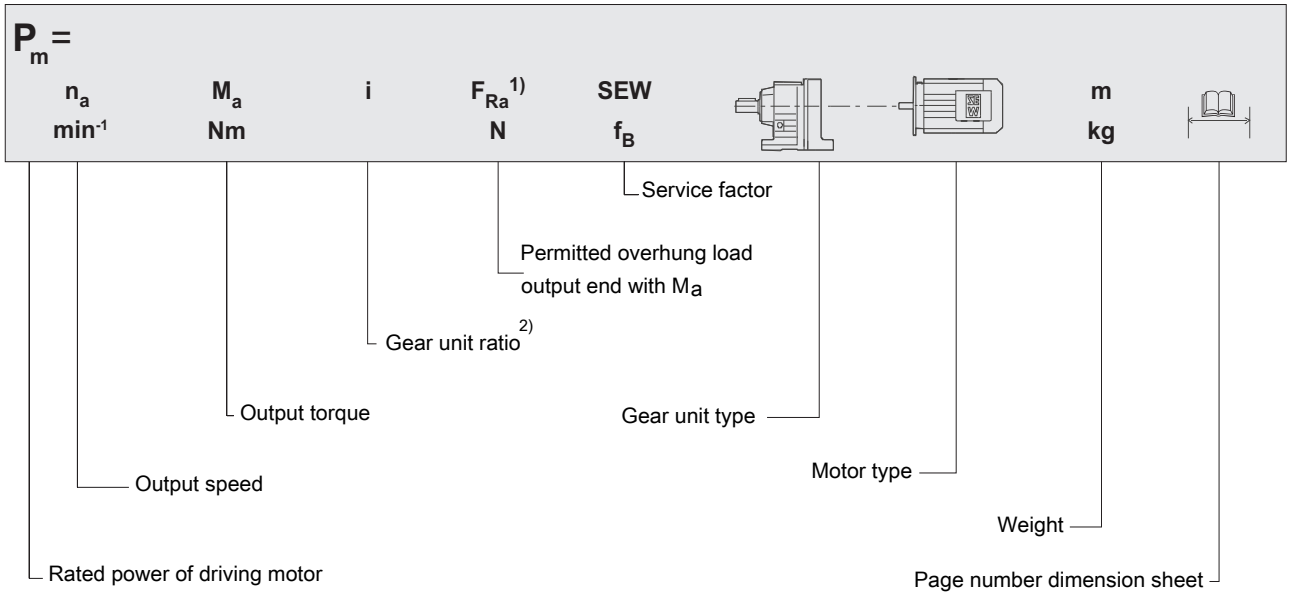
7.2.1 Structure of the selection tables

The two figures below illustrate the structure of the selection tables for gearmotors.

There are two types of selection tables:

1. For standard output speeds, sorted by the rated power P_m of the driving motor in kW.
2. For extremely low output speeds, always compound gearmotors sorted by the maximum permitted output torque M_{amax} in Nm.

Table for standard output speeds:



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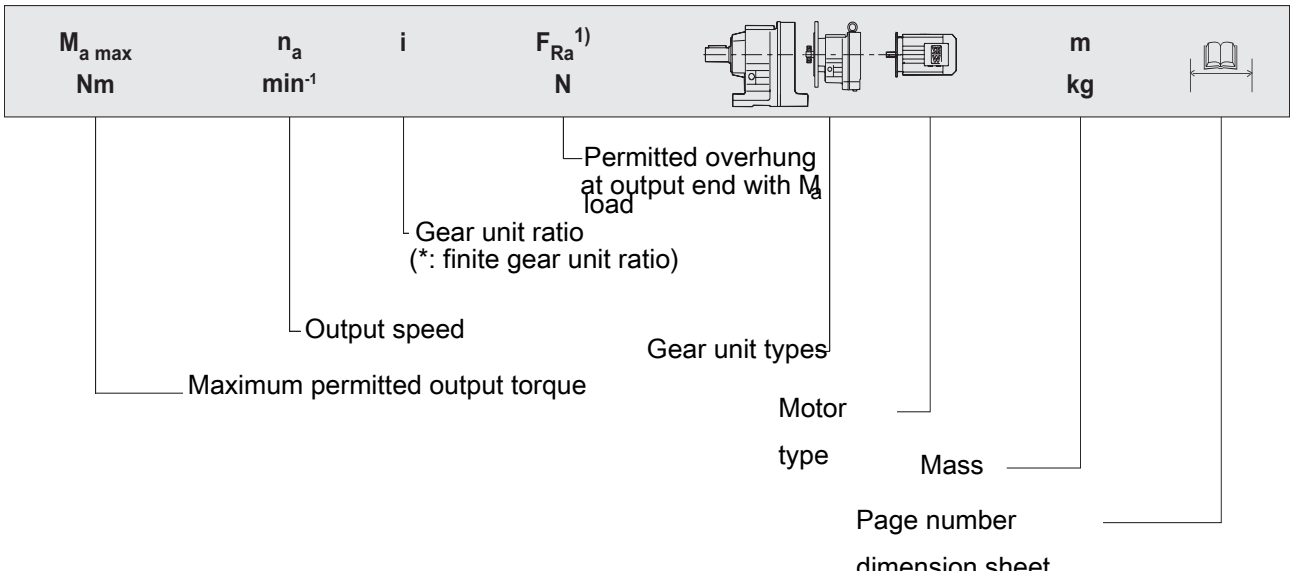
[1] Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design types upon request

[2] A value marked with * indicates finite gear unit ratio.

26883198/EN – 04/2022

Table for extremely low output speeds (compound gearmotors):



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1) Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design types upon request

INFORMATION

In drives for particularly low output speeds (multi-stage gearmotors), the motor power must be limited to the maximum permitted output torque of the gear unit.

26883198/EN – 04/2022

7.3 Dimension sheet information

7.3.1 Tolerances

Shaft heights

The following tolerances apply to the indicated dimensions:

h	≤ 250 mm	→ -0.5 mm
h	> 250 mm	→ -1 mm

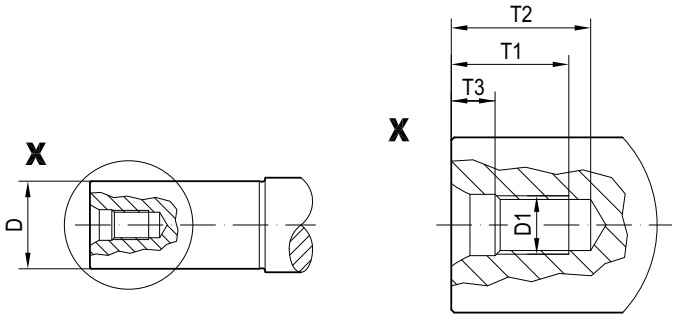
Foot-mounted gear units: Check the mounted motor because it might project below the mounting surface.

Shaft ends

Diameter tolerance:

Ø	≤ 50 mm	→ ISO k6
Ø	> 50 mm	→ ISO m6

Center holes according to DIN 332, shape DR:



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D	D1	T1 +2/0	T2 min	T3 +1/0
13 < D ≤ 16	M5	12.5	17	4
16 < D ≤ 21	M6	16	21	5
21 < D ≤ 24	M8	19	25	6
24 < D ≤ 30	M10	22	30	7.5
30 < D ≤ 38	M12	28	37	9.5
38 < D ≤ 50	M16	36	45	12
50 < D ≤ 85	M20	42	53	15
85 < D ≤ 130	M24	50	63	18
130 < D ≤ 225	M30	63	85	20

Keys: according to DIN 6885 (domed type)

Keyway width to ISO N9

26883198/EN – 04/2022

Hollow shafts

Diameter tolerance:

Ø → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA.37 with shaft Ø 25 mm and for KA.29 with shaft Ø 30 mm according to DIN 6885-3 (low form)

Keyway width to ISO JS9

Multiple-spline shafts

D_m Measuring roller diameter

M_e Check size

The fit of the hollow shafts with splined hollow shaft is 9H.

The assumed fit of the customer shaft in the dimension sheets of the catalog is 7d.

The fit pair 9H/7d specified in the dimension sheets is a clearance fit. Depending on the application requirements, it is the customer's responsibility to choose another fit pair and to manufacture the customer shaft accordingly.

Flanges

Centering shoulder tolerance:

Ø ≤ 230 mm (flange sizes A120 – A300) → ISO j6

Ø > 230 mm (flange sizes A350 – A660) → ISO h6

For helical gear units, SPIROPLAN® gear units, AC (brake) motors and explosion-protected AC (brake) motors, up to 3 different flange dimensions are available per size. The mountable flange for each size can be found in the respective dimension sheets.

7.3.2 Eyebolts, lifting eyes

R07 – R27 helical gear units, K..167 – K..187 helical-bevel gear units, motors up to DRN90 and SPIROPLAN® gearmotors W..10 – W..30 are delivered without special transportation fixtures. All other gear units and motors are equipped with cast-on lifting eyes, screw-on lifting eyes, or screw-on eyebolts.

Gear unit/motor type	Screw-on		Cast-on
	Lifting eyebolts	Lifting eyes	Lifting eyes
R..37 – R..57	—	X	—
R..67 – R..167	X	—	—
RX57/RX67	—	X	—
RX77 – RX107	X	—	—
F..27 – F..157	—	—	X
K..19 – K..49	—	X	—
K..37 – K..157	—	—	X
S..37/S47	—	X	—
S..47 – S..97	—	—	X

26883198/EN – 04/2022

Gear unit/motor type	Screw-on		Cast-on
	Lifting eyebolts	Lifting eyes	Lifting eyes
W..19 – W..59	—	X	—
≥ DRN100L	X	—	—

Legend: —not available, X available

7.3.3 Breather valves

The gear unit dimension drawings always show the screw plugs. The corresponding screw plug is replaced by an activated breather valve at the factory depending on the ordered mounting position M1 to M6. The result may be slightly altered contour dimensions.

7.3.4 Shrink disk connection

In order to non-positively transfer the torques stated in the catalog in case of gear units with hollow shaft and shrink disk connection, observe the following peripheral conditions in addition to the information on the respective dimension sheet when dimensioning the customer shaft:

- Surface roughness $R_z \leq 16$ µm
- Elastic limit of the customer shaft material R_e and/or $Rp_{0.2} \geq 305$ N/mm²
- Design of the customer shaft as solid shaft

For customer shafts designed as hollow shaft, contact SEW-EURODRIVE.

7.3.5 Splined hollow shaft

FV.. hollow shaft gear unit sizes 27 to 107, and KV.. sizes 37 to 107 are supplied with splining according to standard DIN 5480.

7.3.6 Rubber buffer for FA/FH/FV/FT

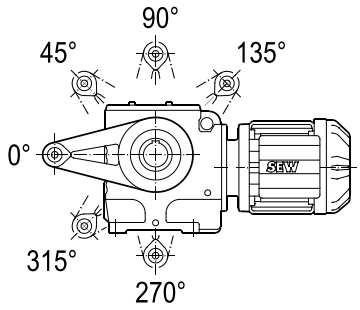
The depictions on the dimension sheets show the rubber buffers for FA/FH/FV/FT gear units in loose state. Preload rubber buffer by the indicated value ΔL. The characteristic curve of spring for the rubber buffer is available upon request from SEW-EURODRIVE.

7.3.7 Position of the torque arm

The following illustration shows the possible torque arm positions for helical-worm gear units, 2-stage K..9 helical-bevel gear units, and SPIROPLAN® gear units with the respective angles.

26883198/EN – 04/2022

Exceptions: The 135° position is only possible for the SPIROPLAN® W..59 gear unit. For SPIROPLAN® W..29 and W..39 gear units, the 90° position is not possible.



18014403492200459

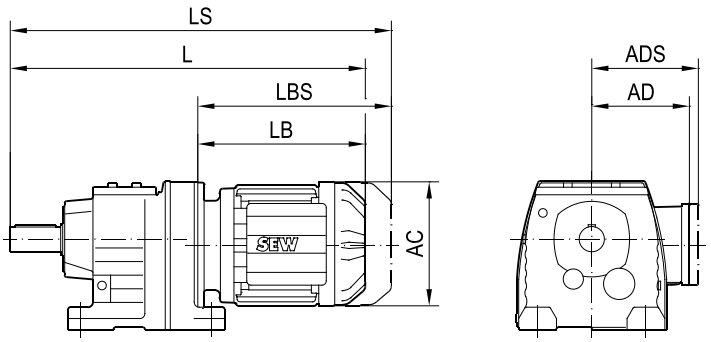
For more information about torque arms, refer to the respective dimension sheets of the gearmotors:

Gearmotor	Dimension sheets on page
Helical-bevel gearmotors	(→ 🗎 661)
Helical-worm gearmotors	(→ 🗎 844)
SPIROPLAN® gearmotors	(→ 🗎 975)

26883198/EN – 04/2022

7.3.8 Gearmotor dimension drawings

The dimension drawings of the gearmotors are described below:



36907376651

L	Total length of gearmotor
LB	Length of motor
LBS	Length of brakemotor
LS	Total length of gearmotor including brake
AC	Diameter of motor
AD	Center of motor shaft to top part of terminal box
ADS	Center of brakemotor shaft to top part of terminal box

INFORMATION

The motor dimensions may change when installing motor options. Refer to the dimension drawings of the motor options in the "AC Motors" catalog.

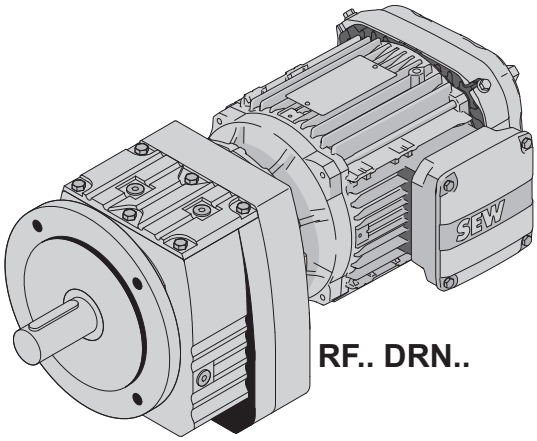
INFORMATION

The terminal box dimensions in special designs might vary from the standard.

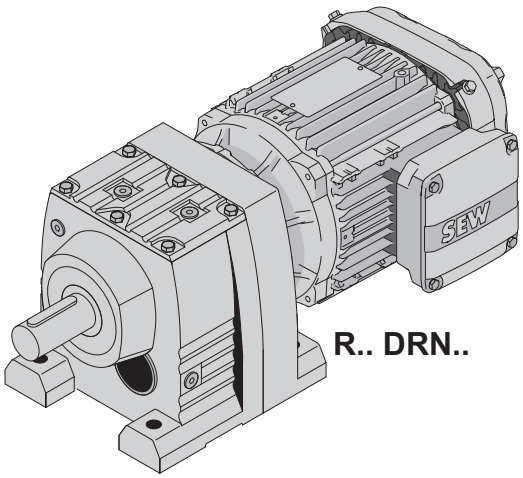
26883198/EN – 04/2022

8 Helical gearmotors

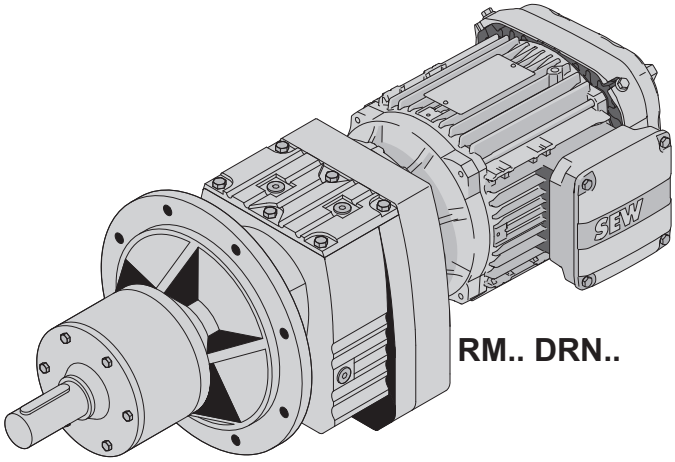
8.1 R..DRN.. designs



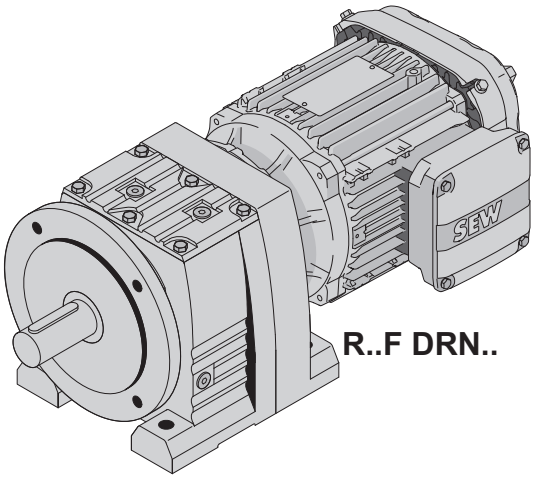
RF.. DRN..



R.. DRN..



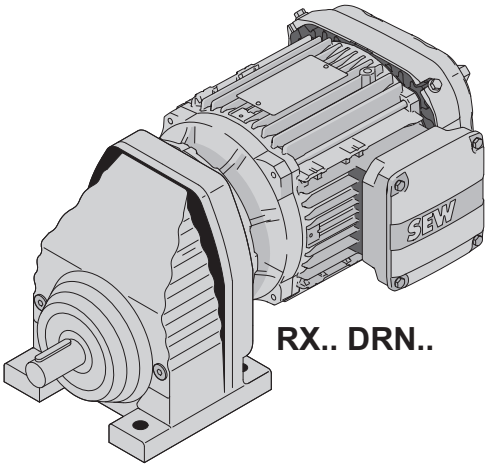
RM.. DRN..



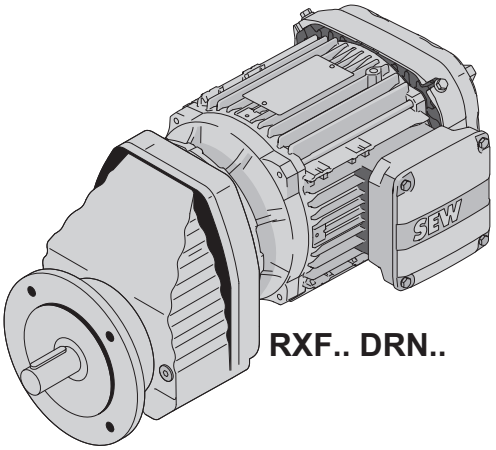
R..F DRN..

18014407163939083

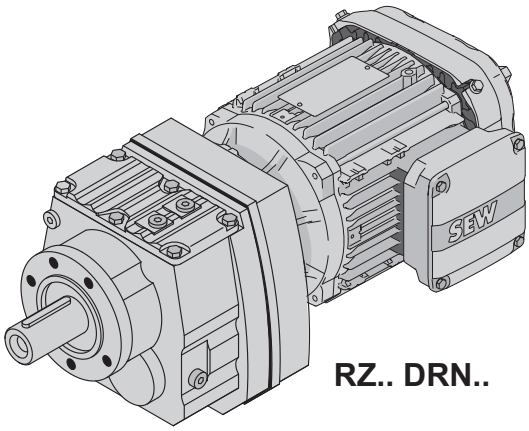
26883198/EN – 04/2022



RX.. DRN..



RXF.. DRN..



RZ.. DRN..

18014407471703307

26883198/EN – 04/2022

8.2 Possible geometrical combinations of R..DRN..

RX57, n_e = 1400 min^{-1} — 69 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						1				
255	39	3100	-	5.50*						
276	36	3030	-	5.07						
322	68	2640	-	4.35						
369	69	2480	-	3.79						
394	69	2420	-	3.55*						
446	65	2320	-	3.14						
481	67	2170	-	2.91						
530	69	1810	-	2.64*						
591	69	1500	-	2.37						
686	69	1070	-	2.04						
729	69	880	-	1.92*						
848	69	430	-	1.65						
946	68	112	-	1.48						
1075	63	132	-	1.30						

RX67, n_e = 1400 min^{-1} — 134 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						1				
231	43	4000	-	6.07						
270	75	3580	-	5.18						
309	82	3350	-	4.53						
326	80	3300	-	4.30*						
371	87	3090	-	3.77						
438	100	2800	-	3.20*						
484	106	2640	-	2.89						
551	118	2000	-	2.54						
583	123	1530	-	2.40*						
686	134	230	-	2.04						
753	126	225	-	1.86						
870	114	245	-	1.61						
1000	104	205	-	1.40*						

RX77, n_e = 1400 min^{-1} — 215 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						1					
175	57	6330	-	8.00*							
187	53	6200	-	7.47							

26883198/EN – 04/2022

RX77, n_e = 1400 min^{-1} — 215 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
218	103	5600	-	6.41							
249	110	5300	-	5.63							
262	103	5240	-	5.35*							
296	123	4890	-	4.73							
347	143	4490	-	4.04*							
378	153	4280	-	3.70							
431	182	3140	-	3.25*							
455	193	2490	-	3.08*							
519	215	1030	-	2.70							
576	215	425	-	2.43							
657	200	360	-	2.13							
745	187	255	-	1.88*							
838	173	240	-	1.67							
986	155	240	-	1.42							

RX87, n_e = 1400 min^{-1} — 405 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							1						
162	139	7890	-	8.65									
183	149	7500	-	7.63									
194	140	7380	-	7.20*									
217	192	6860	-	6.45									
252	225	6330	-	5.56*									
276	250	5990	-	5.07									
311	290	5520	-	4.50*									
370	305	5050	-	3.78									
402	405	2810	-	3.48									
453	405	2030	-	3.09									
507	405	1200	-	2.76*									
565	405	470	-	2.48									
651	385	42	-	2.15									
725	355	185	-	1.93									
875	315	74	-	1.60*									
1005	290	74	-	1.39									

RX97, n_e = 1400 min^{-1} — 595 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							1						
170	225	9570	-	8.23									
196	260	8960	-	7.16*									
213	300	8510	-	6.56									
242	420	7650	-	5.79									
285	395	7240	-	4.91									

26883198/EN – 04/2022

RX97, n_e = 1400 min^{-1} — 595 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
310	595	6210	-	4.52									
347	595	5450	-	4.04									
385	595	4610	-	3.64*									
424	595	3820	-	3.30									
479	595	2890	-	2.92									
530	595	2020	-	2.64									
625	595	545	-	2.24*									
714	570	19	-	1.96									
854	505	51	-	1.64									
986	455	132	-	1.42									

RX107, n_e = 1400 min^{-1} — 830 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					1					
211	460	9660	-	6.63*						
250	455	9040	-	5.61						
270	695	7780	-	5.19						
301	695	7380	-	4.65						
333	830	6140	-	4.20*						
367	830	5260	-	3.81						
414	830	4190	-	3.38						
456	830	3300	-	3.07						
530	830	1850	-	2.64*						
609	830	760	-	2.30						
718	765	420	-	1.95						
819	705	345	-	1.71						
972	645	315	-	1.44						

R07, n_e = 1400 min^{-1} — 50 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3		
18	50	1510	-	78.24			
20	50	1510	-	71.47			
23	50	1510	-	60.32			
27	50	1510	-	51.52			
29	50	1470	-	47.78			
32	50	1420	-	44.16			
34	50	1380	-	41.31			
35	50	1370	-	40.34			
36	50	1340	-	38.51			
41	50	1270	-	34.05			
48	50	1190	-	29.08			
52	50	1150	-	26.97			

26883198/EN – 04/2022

R07, n_e = 1400 min^{-1}							50 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
60	50	1080	-	23.32			
64	50	1040	-	21.73			
2							
76	50	960	-	18.31			
84	50	920	-	16.73			
99	50	850	-	14.12			
116	50	790	-	12.06			
125	50	760	-	11.18			
145	50	710	-	9.67			
155	50	685	-	9.01			
178	49	645	-	7.85			
187	43	595	-	7.48			
205	43	535	-	6.83			
243	40	530	-	5.76			
285	37	530	-	4.92			
306	36	520	-	4.57			
354	34	505	-	3.95			
380	33	500	-	3.68			
436	31	495	-	3.21			

R17, n_e = 1400 min^{-1}						85 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
3						
17	85	1770	-	81.64		
20	85	1770	-	70.39		
21	85	1770	-	65.61		
24	85	1770	-	57.35		
26	85	1770	-	53.76		
30	85	1770	-	47.44		
32	85	1770	-	44.18		
36	85	1770	-	38.61		
39	85	1770	-	36.20		
44	85	1770	-	31.94		
49	85	1770	-	28.32		
58	85	1650	-	24.07		
2						
55	85	1680	-	25.23		
60	85	1620	-	23.15		
71	85	1500	-	19.71		
82	85	1400	-	16.99		
88	85	1350	-	15.84		
101	85	1270	-	13.84		
108	85	1230	-	12.98		

26883198/EN – 04/2022

R17, n_e = 1400 min^{-1}						85 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
122	81	1180	-	11.45		
138	77	1140	-	10.15		
162	72	1090	-	8.63		
185	56	1040	-	7.55		
199	55	1010	-	7.04		
228	54	950	-	6.15		
243	53	930	-	5.76		
275	51	890	-	5.09		
310	48	870	-	4.51		
366	45	820	-	3.83		

R27, n_e = 1400 min^{-1}								130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
10	130	4230	-	135.09				
11	130	4230	-	123.91				
13	130	4230	-	105.49				
15	130	4230	-	90.96				
17	130	4230	-	84.78				
19	130	4230	-	74.11				
20	130	4180	-	69.47				
23	130	3980	-	61.30				
25	130	3840	-	55.87				
29	130	3630	-	48.17				
31	130	3530	-	44.90				
36	130	3350	-	39.25				
38	130	3260	-	36.79				
43	130	3100	-	32.47				
49	130	2950	-	28.78				
57	130	2760	-	24.47				
					2			
49	130	2940	-	28.37				
54	130	2840	-	26.09				
63	130	2660	-	22.32				
72	130	2510	-	19.35				
77	130	2440	-	18.08				
90	130	2290	-	15.63				
105	130	2140	-	13.28*				
118	129	1980	-	11.86				
138	122	1890	-	10.13				
149	122	900	-	9.41				
172	116	870	-	8.16				
183	112	900	-	7.63*				
212	106	880	-	6.59				

26883198/EN – 04/2022

R27, n_e = 1400 min^{-1}								130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
250	99	880	-	5.60*				
280	95	860	-	5.00*				
328	87	920	-	4.27				
350	85	900	-	4.00*				
415	79	900	-	3.37				

R27R17, n_e = 1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
				3 3			
0.16	130	4230	-	8612			
0.19	130	3320	-	7425			
0.20	130	4230	-	6921			
0.23	130	4230	-	6050			
0.27	130	3320	-	5217			
0.30	130	4230	-	4661			
0.34	130	3320	-	4073			
0.40	130	4230	-	3516			
0.44	130	4230	-	3160			
0.51	130	4230	-	2763			
0.58	130	4230	-	2414			
0.66	130	4230	-	2110			
0.75	130	4230	-	1862			
0.86	130	3320	-	1625			
0.98	130	4230	-	1434			
1.1	130	4230	-	1254			
				2 3			
0.77	130	4230	-	1822			
0.89	130	4230	-	1580			
0.96	130	4230	-	1464			
1.1	130	4230	-	1270			
1.3	130	4230	-	1100			
1.4	130	4230	-	972			
1.7	130	4230	-	840			
1.9	130	4230	-	741			
2.1	130	4230	-	654			
2.5	130	4230	-	566			
2.8	130	4230	-	499			
				3 2			
1.3	130	4230	-	1101			
1.5	130	4230	-	962			
1.7	130	3320	-	848			
1.9	130	3320	-	743			
2.2	130	4230	-	649			
2.5	130	4230	-	567			

26883198/EN – 04/2022

R27R17, n_e = 1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
2.8	130	4230	-	509			
3.2	130	4230	-	432			
3.6	130	4230	-	387			
4.1	130	3320	-	339			
4.7	130	3320	-	296			
5.4	130	4230	-	259			
6.1	130	4230	-	229			
7.0	130	4230	-	200			
7.9	130	3320	-	177			
8.4	130	4230	-	166			
9.3	130	4230	-	150			
9.9	130	4230	-	141			
11	130	3320	-	124			
13	130	4230	-	110			
15	130	4230	-	94			
2 2							
3.2	130	4230	-	440			
3.7	130	4230	-	381			
4.3	130	4230	-	329			
4.8	130	4230	-	290			
5.5	130	4230	-	256			
6.2	130	4230	-	227			
6.9	130	4230	-	203			
7.8	130	4230	-	179			
9.0	130	4230	-	156			
10	130	4230	-	135			
12	130	4230	-	118			
13	130	4230	-	104			
16	130	4230	-	90			

R37, n_e = 1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
3								
10	200	4940	8	134.82				
11	200	4940	8	123.66				
13	200	4940	8	105.28				
15	200	4940	8	90.77				
17	200	4940	8	84.61				
19	200	4940	8	73.96				
20	200	4940	8	69.33				
23	200	4940	9	61.18				
25	200	4940	9	55.76				
29	200	4940	9	48.08				
31	200	4940	9	44.81				

26883198/EN – 04/2022

R37, n_e = 1400 min^{-1}								200 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
36	200	4760	9	39.17				
38	200	4540	9	36.72				
43	200	4120	9	32.40				
49	200	3740	9	28.73				
57	200	3240	9	24.42				
					2			
49	200	3690	8	28.32				
54	185	3860	8	26.03				
63	200	2970	8	22.27				
73	200	2570	8	19.31				
78	200	2390	8	18.05				
90	200	2010	8	15.60				
106	190	1880	8	13.25				
118	183	1810	8	11.83				
138	170	1820	9	10.11				
148	167	1760	9	9.47				
176	156	1720	9	7.97				
210	144	1000	13	6.67				
247	142	760	13	5.67				
277	135	790	13	5.06				
324	126	820	13	4.32				
346	122	840	14	4.05				
411	112	900	14	3.41				

R37R17, n_e = 1400 min^{-1}							200 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DR2S	DRN	DRN
min^{-1}	Nm	N	'		56M	63MS 63M 71MS 71M 80MK	80M
					3 3		
0.16	200	4940	9	8595			
0.19	200	4940	9	7411			
0.20	200	4940	9	6907			
0.23	200	4940	9	6038			
0.27	200	4940	9	5206			
0.30	200	4940	9	4651			
0.34	200	4940	9	4065			
0.38	200	4940	10	3658			
0.44	200	4940	10	3154			
0.51	200	4940	10	2757			
0.58	200	4940	10	2409			
0.66	200	4940	10	2106			
0.75	200	4940	10	1856			
0.86	200	4940	10	1622			
0.98	200	4940	10	1431			
1.1	200	4940	10	1251			
					2 3		

26883198/EN – 04/2022

R37R17, n_e = 1400 min^{-1}							200 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DR2S	DRN	DRN
min^{-1}	Nm	N	'		56M	63MS 63M 71MS 71M 80MK	80M
0.77	200	4940	9	1818			
0.89	200	4940	9	1576			
1.0	200	4940	9	1359			
1.1	200	4940	9	1267			
1.3	200	4940	10	1098			
1.4	200	4940	9	970			
1.7	200	4940	10	839			
1.9	200	4940	10	740			
2.1	200	4940	9	653			
2.4	200	4940	9	577			
2.8	200	4940	10	498			
3 2							
1.3	200	4940	10	1099			
1.5	200	4940	9	960			
1.7	200	4940	9	847			
1.9	200	4940	9	741			
2.2	200	4940	9	647			
2.5	200	4940	10	566			
2.8	200	4940	10	508			
3.2	200	4940	9	431			
3.6	200	4940	10	387			
4.1	200	4940	10	338			
4.7	200	4940	10	296			
5.4	200	4940	10	259			
6.1	200	4940	10	228			
7.0	200	4940	10	199			
8.1	200	4940	11	172			
9.3	200	4940	11	150			
11	200	4940	11	130			
11	200	4940	10	124			
13	200	4940	11	110			
15	200	4940	11	94			
2 2							
3.2	200	4940	9	439			
3.7	200	4940	9	378			
4.3	200	4940	9	328			
4.8	200	4940	9	289			
5.3	200	4940	10	265			
6.2	200	4940	9	226			
6.9	200	4940	10	202			
7.8	200	4940	10	179			
9.0	200	4940	9	156			
10	200	4940	10	135			
11	200	4940	10	127			
13	200	4940	10	104			
16	200	4940	10	90			

26883198/EN – 04/2022

R47, n_e = 1400 min^{-1}										300 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S
					3					
7.9	300	5420	7	176.88						
8.6	300	5420	7	162.94						
10	300	5420	7	139.99						
11	300	5420	7	121.87						
12	300	5420	7	114.17						
14	300	5420	7	100.86						
15	300	5420	7	93.68						
16	300	5420	7	84.90						
18	300	5420	7	76.23						
20	300	5420	8	68.54						
22	300	5420	8	64.21						
25	300	5420	8	56.73						
27	300	5350	8	52.69						
29	300	5140	8	47.75						
33	300	4930	8	42.87						
38	300	4630	8	36.93						
40	300	4520	8	34.73						
47	300	4240	8	29.88						
52	300	4050	8	26.70						
59	300	3840	8	23.59						
					2					
41	240	4680	7	33.79						
45	220	4610	7	31.12						
52	300	4050	7	26.74						
60	300	3820	7	23.28						
64	300	3710	7	21.81						
73	295	3530	7	19.27						
78	290	3390	7	17.89						
86	275	3350	7	16.22						
96	265	3230	7	14.56						
112	250	3080	8	12.54						
119	245	3020	8	11.79						
138	230	2880	8	10.15						
154	220	2780	8	9.07						
175	205	2690	8	8.01						
180	163	2720	10	7.76*						
201	159	2620	10	6.96						
233	156	2470	10	6.00						
248	155	2410	10	5.64*						
289	150	2280	11	4.85						
323	146	2190	12	4.34						
366	144	2080	12	3.83						

26883198/EN – 04/2022

R47R37, n_e = 1400 min^{-1}								300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.10	300	5420	8	13598				
0.11	300	5420	8	12472				
0.13	300	5420	8	10619				
0.15	300	5420	8	9155				
0.16	300	5420	8	8534				
0.19	300	5420	8	7460				
0.20	300	5420	8	6993				
0.23	300	5420	8	6171				
0.25	300	5420	8	5624				
0.29	300	5420	8	4849				
0.31	300	5420	8	4520				
0.35	300	5420	8	3951				
0.38	300	5420	8	3704				
0.43	300	5420	8	3268				
0.48	300	5420	8	2898				
0.57	300	5420	8	2463				
					2 3			
0.54	300	5420	8	2598				
0.59	300	5420	8	2383				
0.69	300	5420	8	2029				
0.80	300	5420	8	1749				
0.86	300	5420	8	1630				
0.98	300	5420	8	1425				
1.0	300	5420	8	1336*				
1.2	300	5420	8	1179				
1.3	300	5420	8	1074				
1.5	300	5420	8	927				
1.6	300	5420	8	863				
1.9	300	5420	8	755				
2.0	300	5420	8	708				
2.2	300	5420	8	624				
2.5	300	5420	8	554				
3.0	300	5420	8	471				
					3 2			
0.49	300	5420	8	2856				
0.53	300	5420	8	2625				
0.62	300	5420	8	2246				
0.72	300	5420	8	1948				
0.77	300	5420	8	1821				
0.89	300	5420	8	1573				
1.2	300	5420	8	1193				
1.4	300	5420	8	1020				
1.5	300	5420	8	955				
1.7	300	5420	8	804				
2.1	300	5420	8	673				
2.4	300	5420	8	572				
2.7	300	5420	8	510				

26883198/EN – 04/2022

R47R37, n_e = 1400 min^{-1}								300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
3.2	300	5420	8	436				
3.4	300	5420	8	408				
4.1	300	5420	8	344				
					2	2		
2.6	300	5420	8	546				
2.8	300	5420	8	502				
3.3	300	5420	8	429				
3.8	300	5420	8	372				
4.0	300	5420	8	348				
4.7	300	5420	8	301				
5.5	300	5420	8	255				
6.1	300	5420	8	228				
7.2	300	5420	8	195				
7.7	300	5420	8	182				
9.1	300	5420	8	154				
11	300	5420	9	129				
13	300	5420	9	109				
14	300	5420	9	98				

R57, n_e = 1400 min^{-1}										450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						3				
7.5	450	7100	7	186.89						
8.1	450	7100	7	172.17						
9.5	450	7100	7	147.92						
11	450	7100	7	128.77						
12	450	7100	7	120.63						
13	450	7100	7	106.58						
14	450	7100	7	98.99						
16	450	7100	7	89.71						
17	450	7100	7	80.55						
20	450	7100	8	69.23						
22	450	6980	8	64.85						
24	450	6630	8	57.29						
26	450	6430	8	53.22						
29	450	6170	8	48.23						
32	450	5900	8	43.30						
38	450	5530	8	37.30*						
40	450	5390	8	35.07						
46	450	5040	8	30.18						
52	450	4800	8	26.97						
						2				
53	450	4750	7	26.31						

26883198/EN – 04/2022

R57, n_e = 1400 min^{-1}										450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
56	450	4640	7	24.99*						
64	450	4370	7	21.93						
75	450	4050	7	18.60*						
83	450	3860	7	16.79						
95	435	3690	7	14.77*						
100	430	3610	7	13.95*						
118	405	3430	7	11.88						
130	390	3330	8	10.79						
150	370	3180	8	9.35						
155	375	2010	9	9.06						
176	355	2020	9	7.97						
186	350	1950	9	7.53						
218	335	1770	9	6.41						
241	320	1820	10	5.82						
277	305	1730	10	5.05						
319	280	1900	11	4.39						

R57R37, n_e = 1400 min^{-1}								450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.10	450	7100	8	14369				
0.12	450	7100	8	12095				
0.13	450	7100	8	10860				
0.15	450	7100	8	9445				
0.17	450	7100	8	8480				
0.19	450	7100	8	7312				
0.21	450	7100	8	6521				
0.25	450	7100	8	5585				
0.28	450	7100	8	4928				
0.32	450	7100	8	4378				
0.36	450	7100	8	3873				
0.42	450	7100	8	3344				
0.48	450	7100	8	2907				
0.55	450	7100	8	2567				
0.62	450	7100	8	2244				
0.71	450	7100	8	1967				
					2 3			
0.47	450	7100	8	2957				
0.56	450	7100	8	2508				
0.61	450	7100	8	2309				
0.70	450	7100	8	1991				
0.79	450	7100	8	1768				
0.92	450	7100	8	1520				
1.0	450	7100	8	1342*				

26883198/EN – 04/2022

R57R37, n_e = 1400 min^{-1}								450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
1.2	450	7100	8	1164				
1.4	450	7100	8	1027				
1.6	450	7100	8	894				
1.7	450	7100	8	805				
2.0	450	7100	8	683				
2.3	450	7100	8	603				
2.6	450	7100	8	534				
3.1	450	7100	8	454				
3.4	450	7100	8	410				
3 2								
0.81	450	7100	8	1732				
0.90	450	7100	8	1555				
1.0	450	7100	8	1399				
1.2	450	7100	8	1189				
1.4	450	7100	8	1034				
1.8	450	7100	8	782				
2.1	450	7100	8	678				
2.3	450	7100	8	604				
2.6	450	7100	8	537				
3.0	450	7100	9	471				
3.9	450	7100	9	357				
4.4	450	7100	9	319				
5.1	450	7100	9	273				
5.8	450	7100	9	241				
6.5	450	7100	9	215				
7.5	450	7100	9	187				
8.5	450	7100	9	164				
9.9	450	7100	9	142				
2 2								
3.9	450	7100	8	359				
4.3	450	7100	8	324				
4.8	450	7100	8	290				
5.3	450	7100	8	262				
5.7	450	7100	8	246*				
6.4	450	7100	8	220*				
7.4	450	7100	8	188				
8.8	450	7100	8	159				
9.6	450	7100	8	146				
10	450	7100	8	134				

R67, n_e = 1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3										
7.0	600	7560	7	199.81						

26883198/EN – 04/2022

R67, n_e = 1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
7.6	600	7560	7	184.07						
8.9	600	7560	7	158.14						
10	600	7560	7	137.67						
11	600	7560	7	128.97						
12	600	7560	7	113.94						
13	600	7560	7	105.83						
15	600	7560	7	95.91						
16	600	7560	7	86.11						
19	600	7560	7	74.17						
20	600	7560	7	69.75						
23	600	7560	7	61.26						
25	600	7560	7	56.89						
27	600	7560	8	51.56						
30	600	7560	8	46.29						
35	580	7790	8	39.88*						
37	570	7900	8	37.50						
43	540	8210	8	32.27						
49	520	8400	8	28.83						
						2				
50	540	8210	6	28.13						
52	540	8210	6	26.72						
60	560	8010	7	23.44						
70	600	7560	7	19.89						
78	590	7330	7	17.95						
89	560	7130	7	15.79						
94	550	6980	7	14.91						
110	520	6640	7	12.70						
121	500	6500	7	11.54						
140	470	6220	7	10.00						
161	440	5960	7	8.70*						
180	380	5830	9	7.79						
190	370	5790	9	7.36*						
223	330	5590	9	6.27						
246	310	5450	10	5.70						
284	290	5210	10	4.93						
326	270	5000	10	4.29						

R67R37, n_e = 1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3	3		
0.09	600	7560	7	15361				
0.11	600	7560	7	12931				
0.12	600	7560	7	11996				

26883198/EN – 04/2022

R67R37, n_e = 1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.14	600	7560	7	10097				
0.15	600	7560	7	9066				
0.18	600	7560	7	7816				
0.21	600	7560	7	6732				
0.23	600	7560	7	5970				
0.27	600	7560	7	5268				
0.30	600	7560	8	4680				
0.34	600	7560	7	4136				
0.39	600	7560	7	3566				
0.45	600	7560	7	3125				
0.51	600	7560	8	2745				
0.58	600	7560	7	2403				
0.52	600	7560	8	2682				
0.57	600	7560	8	2460				
0.67	600	7560	8	2094				
0.78	600	7560	8	1805				
0.86	600	7560	8	1629				
0.95	600	7560	8	1471				
1.0	600	7560	8	1379				
1.3	600	7560	8	1109				
1.5	600	7560	8	956				
1.6	600	7560	8	891				
1.9	600	7560	8	730				
2.2	600	7560	8	644				
2.5	600	7560	8	571				
2.9	600	7560	8	486				
0.66	600	7560	7	2136				
0.76	600	7560	7	1852				
0.85	600	7560	7	1652				
0.98	600	7560	7	1432				
1.1	600	7560	7	1259				
1.3	600	7560	8	1106				
1.7	600	7560	8	836				
1.9	600	7560	7	750				
2.2	600	7560	7	646				
2.4	600	7560	7	574				
2.8	600	7560	7	495				
3.2	600	7560	8	438				
3.6	600	7560	7	388				
4.1	600	7560	8	344				
4.8	600	7560	7	294				
5.4	600	7560	8	261				
6.0	600	7560	8	234				
7.0	600	7560	8	200				
8.0	600	7560	8	176				
8.9	600	7560	8	158				

26883198/EN – 04/2022

R67R37, n_e = 1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2	2		
3.2	600	7560	8	443				
3.6	600	7560	8	384				
3.9	600	7560	8	359				
4.5	600	7560	8	310				
5.3	600	7560	8	264*				
6.0	600	7560	8	235				
7.0	600	7560	8	201				
7.7	600	7560	8	181				
8.8	600	7560	8	159				

R77, n_e = 1400 min^{-1}											820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					3						
7.2	820	9920	7	195.24*							
8.4	820	9920	7	166.59							
9.6	820	9920	7	145.67							
10	820	9920	7	138.39							
12	820	9920	7	121.42							
14	820	9920	7	102.99							
15	820	9920	7	92.97							
17	820	9920	7	81.80							
18	820	9920	7	77.24							
21	820	9920	7	65.77							
24	820	9920	8	57.68							
27	820	9920	8	52.07							
31	820	9920	8	45.81							
32	820	9920	8	43.26							
38	820	9920	8	36.83							
42	820	9920	8	33.47							
48	820	9920	8	29.00							
55	780	10100	8	25.23							
					2						
60	820	8870	7	23.37							
65	820	8250	7	21.43							
74	780	7980	7	18.80							
79	780	7620	7	17.82*							
90	740	7390	7	15.60							
100	720	7050	7	14.05							
114	690	6740	7	12.33							
129	660	6490	7	10.88							
145	630	6300	7	9.64							
163	630	4110	8	8.59							

26883198/EN – 04/2022

R77, n_e = 1400 min^{-1}											820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
181	610	3940	8	7.74							
206	580	3850	8	6.79							
234	540	3990	8	5.99*							
264	510	3990	9	5.31*							

R77R37, n_e = 1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.09	820	9920	7	16370				
0.09	820	9920	7	15015				
0.10	820	9920	7	13885				
0.11	820	9920	7	12783				
0.13	820	9920	7	11021				
0.14	820	9920	7	9788				
0.16	820	9920	7	8714				
0.18	820	9920	7	7617				
0.21	820	9920	7	6770				
0.24	820	9920	7	5838				
0.27	820	9920	7	5184				
0.31	820	9920	7	4470				
0.35	820	9920	8	3999				
0.40	820	9920	7	3488				
0.46	820	9920	8	3053				
0.52	820	9920	7	2671				
					2 3			
0.44	820	9920	7	3151				
0.48	820	9920	7	2890				
0.57	820	9920	7	2460				
0.66	820	9920	7	2121				
0.71	820	9920	7	1977				
0.81	820	9920	7	1728				
0.86	820	9920	7	1620				
0.98	820	9920	7	1430				
1.1	820	9920	7	1303				
1.2	820	9920	7	1124				
1.3	820	9920	7	1047				
1.5	820	9920	7	915				
1.6	820	9920	7	858				
1.8	820	9920	7	757				
2.1	820	9920	7	671				
2.5	820	9920	7	571				
					3 2			
0.60	820	9920	7	2345				
0.68	820	9920	7	2070				

26883198/EN – 04/2022

R77R37, n_e = 1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.77	820	9920	7	1822				
0.89	820	9920	7	1580				
1.0	820	9920	7	1394				
1.1	820	9920	7	1218				
1.3	820	9920	7	1084*				
1.5	820	9920	8	940				
1.7	820	9920	7	821				
1.9	820	9920	7	731				
2.2	820	9920	8	646				
2.5	820	9920	8	560				
2.9	820	9920	8	488				
3.2	820	9920	8	436				
3.8	820	9920	7	373				
4.3	820	9920	8	327				
4.8	820	9920	8	289				
5.4	820	9920	8	260				
6.2	820	9920	7	224				
7.1	820	9920	8	197				
8.3	820	9920	9	169				
9.4	820	9920	8	149				
2.7	820	9920	7	520				
3.1	820	9920	7	451				
3.3	820	9920	7	422				
3.8	820	9920	7	365				
4.5	820	9920	7	310*				
5.1	820	9920	7	276				
5.9	820	9920	7	236				
6.3	820	9920	7	221				
7.5	820	9920	7	186				

R87, n_e = 1400 min^{-1}													1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
5.7	1550	16900	6	246.54									
6.5	1550	16900	6	216.54									
6.8	1550	16900	6	205.71									
7.7	1550	16900	6	181.77									
9.0	1550	16900	6	155.34									
9.8	1550	16900	6	142.41									
11	1550	16900	6	124.97									
12	1550	16900	6	118.43*									
14	1550	16900	6	103.65									
15	1550	16900	6	93.38									
17	1550	16900	6	81.92									

26883198/EN – 04/2022

R87, n_e = 1400 min^{-1}													1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
19	1550	16900	7	72.57									
22	1550	15800	7	63.68*									
23	1550	15200	7	60.35*									
27	1550	13500	7	52.82									
29	1550	12300	7	47.58									
34	1550	10800	7	41.74									
38	1550	9470	7	36.84*									
43	1550	8220	7	32.66*									
50	1500	7370	7	27.88									
							2						
41	1500	9480	6	34.40*									
45	1550	7820	6	31.40									
50	1550	6640	6	27.84*									
60	1550	5000	6	23.40									
65	1500	4970	6	21.51									
73	1440	4800	6	19.10									
82	1390	4580	6	17.08*									
91	1340	4450	6	15.35									
105	1280	4220	6	13.33									
117	1230	4120	6	11.93									
141	1180	3520	7	9.90*									
153	1210	99	7	9.14*									
170	1160	225	7	8.22									
196	1070	820	7	7.13									
219	1020	970	7	6.39									
264	910	1710	7	5.30*									

R87R57, n_e = 1400 min^{-1}										1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						3 3				
0.08	1550	16900	7	17452						
0.09	1550	16900	7	15310						
0.10	1550	16900	7	13813						
0.12	1550	16900	7	12025						
0.13	1550	16900	7	10549						
0.15	1550	16900	7	9244						
0.17	1550	16900	7	8109						
0.20	1550	16900	7	7038						
0.23	1550	16900	7	6174						
0.26	1550	16900	7	5449						
0.29	1550	16900	8	4831						
0.33	1550	16900	8	4206						
0.37	1550	16900	7	3744						
0.43	1550	16900	8	3233						
0.49	1550	16900	7	2873						
0.56	1550	16900	7	2518						

26883198/EN – 04/2022

R87R57, n_e = 1400 min^{-1}										1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
0.63	1550	16900	7	2209						
0.71	1550	16900	7	1961						
1.4	1550	16900	7	994						
1.6	1550	16900	8	881						
						2 3				
0.35	1550	16900	7	4020						
0.38	1550	16900	7	3703						
0.44	1550	16900	7	3182						
0.51	1550	16900	7	2770						
0.54	1550	16900	7	2595						
0.66	1550	16900	7	2129						
0.73	1550	16900	7	1930						
0.81	1550	16900	7	1733						
0.94	1550	16900	7	1489						
1.0	1550	16900	7	1395						
1.1	1550	16900	7	1232						
1.2	1550	16900	7	1145						
1.4	1550	16900	7	1037						
1.5	1550	16900	7	931						
1.7	1550	16900	7	802*						
1.9	1550	16900	7	754						
2.2	1550	16900	7	649						
2.4	1550	16900	7	580						
						3 2				
0.81	1550	16900	7	1737						
0.92	1550	16900	7	1524						
1.1	1550	16900	7	1303						
1.2	1550	16900	7	1143						
1.4	1550	16900	7	1008						
1.6	1550	16900	7	885						
1.8	1550	16900	7	776						
2.0	1550	16900	7	685*						
2.3	1550	16900	7	599						
2.7	1550	16900	7	525						
3.1	1550	16900	8	456*						
3.5	1550	16900	7	398						
4.0	1550	16900	8	352						
4.6	1550	16900	8	305						
5.2	1550	16900	7	268						
5.9	1550	16900	8	236*						
6.7	1550	16900	7	209*						
						2 2				
2.6	1550	16900	7	538						
3.0	1550	16900	7	472						
3.5	1550	16900	7	400						
3.9	1550	16900	7	361						
4.7	1550	16900	7	300						
5.5	1550	16900	7	256						

26883198/EN – 04/2022

R87R57, n_e = 1400 min^{-1}										1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
6.0	1550	16900	7	232						
7.2	1550	16900	7	195						

R97, n_e = 1400 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
3													
4.8	3000	19800	6	289.74									
5.5	3000	19800	6	255.71									
5.8	3000	19800	6	241.25									
6.5	3000	19800	6	216.28									
7.5	3000	19800	6	186.30									
8.2	3000	19800	6	170.02									
9.3	3000	19800	6	150.78									
11	3000	19800	6	126.75									
12	3000	19800	6	116.48									
14	3000	19800	6	103.44									
15	3000	19800	6	92.48									
17	3000	19800	6	83.15									
19	3000	18000	6	72.17									
21	3000	16300	7	65.21									
23	3000	14800	7	59.92									
26	3000	12900	7	53.21									
29	3000	11100	7	47.58									
33	3000	9480	7	42.78									
38	3000	7410	7	37.13									
42	2890	7160	7	33.25									
51	2670	7260	7	27.58									
2													
44	2560	10600	6	32.05									
51	2560	8380	6	27.19									
56	2830	4140	6	25.03									
63	2720	4060	6	22.37									
70	2610	4110	6	20.14									
77	2500	4270	6	18.24									
87	2400	4130	6	16.17									
96	2300	4240	6	14.62									
113	2190	3850	6	12.39									
129	2090	3720	6	10.83									
151	2030	-	6	9.29									
167	2030	-	6	8.39									
197	2000	-	6	7.12									
225	1890	-	6	6.21									
269	1780	-	7	5.20									
311	1630	-	7	4.50*									

26883198/EN – 04/2022

R97R57, n_e = 1400 min^{-1}										3000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
					3 3					
0.06	3000	19800	6	21769						
0.07	3000	19800	6	19332						
0.08	3000	19800	6	17230						
0.09	3000	19800	6	14999						
0.11	3000	19800	6	13320						
0.13	3000	19800	6	11156						
0.14	3000	19800	6	10030						
0.16	3000	19800	6	8706						
0.18	3000	19800	6	7692						
0.21	3000	19800	6	6708						
0.24	3000	19800	7	5931						
0.27	3000	19800	7	5161						
0.31	3000	19800	7	4559						
0.35	3000	19800	6	4004						
0.40	3000	19800	6	3481						
					2 3					
0.30	3000	19800	7	4678						
0.32	3000	19800	7	4309						
0.38	3000	19800	7	3702						
0.46	3000	19800	7	3019						
0.52	3000	19800	7	2668						
0.62	3000	19800	7	2245						
0.69	3000	19800	7	2016						
0.81	3000	19800	7	1733						
0.86	3000	19800	7	1623						
0.98	3000	19800	7	1434						
1.2	3000	19800	7	1207						
1.3	3000	19800	7	1084						
1.5	3000	19800	7	934						
1.6	3000	19800	7	878						
1.9	3000	19800	7	755						
					3 2					
0.46	3000	19800	6	3065						
0.51	3000	19800	6	2722						
0.61	3000	19800	6	2311						
0.67	3000	19800	6	2078						
0.77	3000	19800	6	1823						
0.88	3000	19800	6	1583						
1.0	3000	19800	6	1396						
1.1	3000	19800	6	1228						
1.3	3000	19800	7	1069						
1.5	3000	19800	7	938						
1.7	3000	19800	6	824						
1.9	3000	19800	6	737						
2.2	3000	19800	7	632						
2.5	3000	19800	7	560						
2.9	3000	19800	6	484						

26883198/EN – 04/2022

R97R57, n_e = 1400 min^{-1}										3000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
3.2	3000	19800	7	431						
3.7	3000	19800	7	379						
4.2	3000	19800	7	336						
4.7	3000	19800	7	296						
5.6	3000	19800	7	249						
6.0	3000	19800	7	234						
6.7	3000	19800	7	209						
						2 2				
2.2	3000	19800	6	625						
2.6	3000	19800	6	549						
3.0	3000	19800	6	466						
3.3	3000	19800	6	420						
3.8	3000	19800	7	370						
4.0	3000	19800	7	349						
4.7	3000	19800	7	297						
5.2	3000	19800	7	270						
6.2	3000	19800	7	227						

R107, n_e = 1400 min^{-1}										4300 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M
						3				
5.6	4300	29500	7	251.15						
6.1	4300	29500	7	229.95						
6.9	4300	29500	7	203.16						
8.1	4300	29500	7	172.34						
8.8	4300	29500	7	158.68						
9.9	4300	29500	7	141.83						
11	4300	29500	7	127.68						
12	4300	29500	7	115.63						
14	4300	29500	7	102.53						
15	4300	29500	7	92.70						
18	4300	29500	8	78.57						
19	4300	29500	8	72.88						
21	4300	29200	8	65.60*						
24	4300	28000	8	59.41						
27	4300	26600	8	52.68						
29	4300	25500	8	47.63						
35	4300	23800	8	40.37*						
40	4300	22400	8	35.26						
47	4300	20700	8	29.49						
						2				
45	4300	21100	7	30.77						
51	4300	20100	7	27.58						
56	4300	19200	7	24.90*						
62	4300	18300	7	22.62						

26883198/EN – 04/2022

R107, n_e = 1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
70	4300	17300	7	20.07						
77	4300	16600	7	18.21						
89	4300	15400	7	15.65						
102	4300	14400	7	13.66						
121	4300	13300	7	11.59						
138	4300	12400	8	10.13						
164	4300	11300	8	8.56						
178	2970	13800	9	7.86						
210	2970	12800	9	6.66						
241	2970	12100	9	5.82						
285	2900	11300	10	4.92						

R107R77, n_e = 1400 min^{-1}											4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3	3				
0.07	4300	29500	8	20018							
0.08	4300	29500	8	17080							
0.09	4300	29500	8	14936							
0.11	4300	29500	8	12829							
0.12	4300	29500	8	11256							
0.15	4300	29500	8	9547							
0.16	4300	29500	8	8618							
0.18	4300	29500	8	7583							
0.21	4300	29500	8	6743							
0.24	4300	29500	8	5914							
0.27	4300	29500	8	5168							
0.32	4300	29500	8	4435							
0.36	4300	29500	8	3896							
0.41	4300	29500	8	3432							
0.46	4300	29500	8	3039							
0.52	4300	29500	8	2688							
0.60	4300	29500	8	2339							
						2	3				
0.36	4300	29500	8	3918							
0.42	4300	29500	8	3343							
0.46	4300	29500	8	3034							
0.53	4300	29500	8	2653							
0.61	4300	29500	8	2280							
0.68	4300	29500	8	2067							
0.83	4300	29500	8	1693							
0.90	4300	29500	8	1550							
1.00	4300	29500	8	1407							
1.2	4300	29500	8	1209							
1.3	4300	29500	8	1055							
1.5	4300	29500	8	919							
1.7	4300	29500	8	815							

26883198/EN – 04/2022

R107R77, n_e = 1400 min^{-1}											4300 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
2.0	4300	29500	8	717							
2.2	4300	29500	9	626							
2.7	4300	29500	8	528							
0.70	4300	29500	8	1987							
0.77	4300	29500	8	1827							
0.88	4300	29500	8	1599							
1.0	4300	29500	8	1400*							
1.1	4300	29500	8	1226							
1.3	4300	29500	8	1104							
1.5	4300	29500	8	939							
1.7	4300	29500	8	822							
2.3	4300	29500	8	614							
2.6	4300	29500	8	544							
2.8	4300	29500	8	492							
3.4	4300	29500	8	417							
3.8	4300	29500	8	369							
4.3	4300	29500	8	323							
4.9	4300	29500	8	285							
5.5	4300	29500	8	253							
6.5	4300	29500	8	214*							
7.5	4300	29500	8	187							
3.0	4300	29500	8	469							
3.3	4300	29500	8	426							
3.7	4300	29500	8	377							
4.3	4300	29500	8	325							
4.9	4300	29500	8	284							
5.5	4300	29500	8	256							
6.4	4300	29500	8	220							
7.3	4300	29500	8	193							
8.1	4300	29500	8	172							

R127, n_e = 1400 min^{-1}											6000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M	250M
5.3	6000	43000	6	262.65							
5.8	6000	43000	6	240.48							
6.6	6000	43000	6	212.46							
7.8	6000	43000	6	180.23							
8.4	6000	43000	6	165.95							
9.4	6000	43000	6	148.33							
10	6000	43000	6	133.53							
12	6000	43000	6	120.92							
13	6000	43000	6	107.23							

26883198/EN – 04/2022

R127, n_e = 1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
14	6000	43000	6	96.95							
16	6000	43000	7	85.26							
17	6000	43000	6	82.17							
18	6000	43000	7	76.21							
20	6000	43000	7	68.61*							
23	6000	43000	7	62.13							
25	6000	43000	7	55.09							
28	6000	43000	7	49.81							
33	6000	43000	7	42.22*							
38	5730	43000	7	36.88							
45	5380	43000	7	30.84							
							2				
44	6000	43000	6	32.18							
49	6000	43000	6	28.84							
54	6000	43000	6	26.04*							
59	6000	43000	6	23.65							
67	6000	43000	6	20.98							
74	6000	43000	6	19.04							
86	6000	43000	6	16.37*							
98	6000	43000	6	14.29							
116	5940	43000	6	12.12							
132	5700	43000	6	10.59							
156	5420	41400	7	8.96							
158	3930	43000	8	8.85							
186	3930	42400	8	7.51							
213	3930	40200	8	6.56							
252	3930	37600	8	5.55							

R127R77, n_e = 1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3	3				
0.07	6000	43000	7	20936							
0.08	6000	43000	7	17863							
0.09	6000	43000	7	15620							
0.10	6000	43000	7	14123							
0.10	6000	43000	7	13417							
0.12	6000	43000	7	11772							
0.14	6000	43000	7	9985							
0.16	6000	43000	7	9013							
0.16	6000	43000	7	8771							
0.17	6000	43000	7	8282							
0.18	6000	43000	7	7639							
0.20	6000	43000	7	7053							
0.21	6000	43000	7	6722							
0.22	6000	43000	7	6347							
0.23	6000	43000	7	6185							

26883198/EN – 04/2022

R127R77, n_e = 1400 min^{-1}											6000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
0.25	6000	43000	7	5592							
0.30	6000	43000	7	4740							
0.32	6000	43000	7	4441							
0.35	6000	43000	7	3949							
0.37	6000	43000	7	3764							
0.39	6000	43000	7	3571							
0.45	6000	43000	7	3110							
0.50	6000	43000	7	2812							
0.59	6000	43000	7	2383							
0.72	6000	43000	8	1934							
0.76	6000	43000	8	1835							
0.90	6000	43000	8	1555							
0.97	6000	43000	8	1444							
1.1	6000	43000	8	1224							
						2	3				
0.40	6000	43000	7	3495							
0.46	6000	43000	7	3056							
0.48	6000	43000	7	2903							
0.55	6000	43000	7	2547							
0.65	6000	43000	7	2161							
0.72	6000	43000	7	1951							
0.82	6000	43000	7	1716							
0.86	6000	43000	7	1620							
1.0	6000	43000	7	1380							
1.2	6000	43000	7	1210							
1.5	6000	43000	7	961							
1.8	6000	43000	7	773							
2.3	6000	43000	7	608							
						3	2				
0.56	6000	43000	7	2506							
0.62	6000	43000	7	2266							
0.69	6000	43000	7	2016							
0.73	6000	43000	7	1920							
0.77	6000	43000	7	1823							
0.84	6000	43000	7	1673							
0.91	6000	43000	7	1545							
0.93	6000	43000	7	1512							
1.1	6000	43000	7	1322							
1.1	6000	43000	7	1282							
1.2	6000	43000	7	1195							
1.2	6000	43000	8	1164							
1.4	6000	43000	7	1034							
1.4	6000	43000	7	1013							
1.4	6000	43000	8	987							
1.5	6000	43000	8	936							
1.5	6000	43000	7	935							
1.7	6000	43000	7	830							
1.8	6000	43000	8	794							

26883198/EN – 04/2022

R127R77, n_e = 1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
1.8	6000	43000	7	792							
1.8	6000	43000	8	777							
1.9	6000	43000	7	750							
2.1	6000	43000	8	659							
2.2	6000	43000	7	642							
2.2	6000	43000	7	636							
2.3	6000	43000	8	614							
2.4	6000	43000	7	581							
2.7	6000	43000	8	521							
2.8	6000	43000	7	492							
2.9	6000	43000	8	480							
3.4	6000	43000	8	407							
3.6	6000	43000	8	386							
4.7	6000	43000	8	298							
5.5	6000	43000	8	253							
2.9	6000	43000	7	490							
3.6	6000	43000	7	394							
4.3	6000	43000	7	327							
5.4	6000	43000	7	259							
6.9	6000	43000	7	202							
8.6	6000	43000	7	162							
11	6000	43000	7	126							

R137, n_e = 1400 min^{-1}									8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
6.3	8000	53400	6	222.60*					
7.4	8000	53400	6	188.45					
8.0	8000	53400	7	174.40*					
9.0	8000	53400	7	156.31					
9.9	8000	53400	7	141.12*					
11	8000	53400	7	128.18					
12	8000	53400	7	113.72					
14	8000	53400	7	103.20*					
16	8000	53400	7	88.70*					
17	8000	53400	7	80.91*					
19	8000	53400	7	73.49					
21	8000	53400	7	65.20					
24	8000	53400	7	59.17*					
28	8000	53400	7	50.86*					
32	8000	53400	7	44.39					
37	8000	53400	7	37.65					
43	8000	53400	7	32.91					
50	7680	54100	7	27.83					

26883198/EN – 04/2022

R137, n_e = 1400 min^{-1}									8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
					2				
47	7780	53900	6	29.57*					
58	8000	49400	6	24.12					
64	8000	47100	6	22.00*					
74	8000	43500	6	19.04*					
83	8000	40600	6	16.80*					
96	8000	37300	6	14.51					
109	8000	34700	6	12.83					
130	8000	31100	7	10.79					
161	7840	27600	7	8.71					
184	5110	39000	8	7.59					
219	5110	35900	9	6.38					
272	4600	34500	9	5.15					

R137R77, n_e = 1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					3 3						
0.06	8000	53400	7	22203*							
0.07	8000	53400	7	18945							
0.08	8000	53400	7	16566							
0.09	8000	53400	7	14777							
0.11	8000	53400	7	12921							
0.12	8000	53400	7	11712							
0.13	8000	53400	7	10573*							
0.16	8000	53400	7	8784							
0.19	8000	53400	7	7479							
0.21	8000	53400	7	6559							
0.24	8000	53400	7	5834							
0.27	8000	53400	7	5116							
0.31	8000	53400	7	4464							
0.36	8000	53400	7	3928*							
0.41	8000	53400	7	3454							
0.47	8000	53400	7	2993							
					2 3						
0.30	8000	53400	7	4709*							
0.35	8000	53400	7	4018							
0.40	8000	53400	7	3514							
0.42	8000	53400	7	3338							
0.48	8000	53400	7	2929							
0.56	8000	53400	7	2484							
0.62	8000	53400	7	2242*							
0.75	8000	53400	7	1863							
0.88	8000	53400	7	1586							
1.0	8000	53400	7	1391							
1.1	8000	53400	7	1256							

26883198/EN – 04/2022

R137R77, n_e = 1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
1.3	8000	53400	7	1105							
1.3	8000	53400	7	1043							
1.6	8000	53400	7	888							
2.0	8000	53400	7	699							
2.3	8000	53400	7	609							
						3 2					
0.53	8000	53400	7	2658							
0.58	8000	53400	7	2412							
0.68	8000	53400	7	2073*							
0.76	8000	53400	7	1839*							
0.88	8000	53400	7	1598							
1.0	8000	53400	7	1397							
1.1	8000	53400	7	1226*							
1.3	8000	53400	7	1090*							
1.5	8000	53400	7	951							
1.7	8000	53400	7	831							
1.9	8000	53400	7	730							
2.2	8000	53400	7	629							
2.5	8000	53400	7	560							
2.9	8000	53400	7	490*							
3.3	8000	53400	7	428							
3.7	8000	53400	7	381							
4.3	8000	53400	7	323							
4.8	8000	53400	7	291							
5.5	8000	53400	7	255*							
6.3	8000	53400	7	223							
7.1	8000	53400	7	197*							
8.0	8000	53400	7	175							
						2 2					
2.5	8000	53400	7	564							
2.7	8000	53400	7	517							
3.1	8000	53400	7	453*							
3.7	8000	53400	7	376							
4.1	8000	53400	7	339							
4.7	8000	53400	7	297							

R147, n_e = 1400 min^{-1}								13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
					3			
8.6	13000	62700	6	163.31				
9.5	13000	62700	6	146.91				
12	13000	62700	6	119.86				
13	13000	62700	6	109.31				
15	13000	62700	6	94.60*				
17	13000	62700	6	83.47				

26883198/EN – 04/2022

R147, n_e = 1400 min^{-1}								13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
19	13000	62700	6	72.09				
21	13000	62700	6	66.99				
23	13000	62700	6	61.09				
26	13000	62700	6	52.87				
30	13000	62700	6	46.65				
35	13000	62700	6	40.29				
39	13000	62700	6	35.64				
47	13000	62700	6	29.95				
58	11900	64700	6	24.19				
2								
68	12000	64600	6	20.44				
78	10500	67000	6	18.04				
90	13000	62700	6	15.64				
101	12600	63400	6	13.91				
117	13000	60400	6	11.99				
144	13000	54400	6	9.74				
169	13000	49900	6	8.26				
193	8670	58400	8	7.25				
238	8670	53200	8	5.89				
280	8670	49300	8	5.00				

R147R77, n_e = 1400 min^{-1}											13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
3 3											
0.06	13000	62700	6	23401							
0.07	13000	62700	6	21342							
0.08	13000	62700	6	18210							
0.09	13000	62700	6	15923							
0.10	13000	62700	6	14075							
0.11	13000	62700	6	12344							
0.13	13000	62700	6	11143							
0.14	13000	62700	6	9743							
0.17	13000	62700	6	8443							
0.19	13000	62700	6	7307							
0.22	13000	62700	6	6447							
0.25	13000	62700	6	5568							
0.28	13000	62700	6	4926							
0.32	13000	62700	7	4325							
0.37	13000	62700	6	3754							
0.42	13000	62700	6	3302							
0.48	13000	62700	6	2898							
3 2											
0.55	13000	62700	6	2555							
0.63	13000	62700	6	2211							
0.72	13000	62700	6	1951							

26883198/EN – 04/2022

R147R77, n_e = 1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
0.82	13000	62700	6	1705							
0.91	13000	62700	6	1536							
1.1	13000	62700	6	1329							
1.2	13000	62700	6	1166							
1.4	13000	62700	6	1029							
1.6	13000	62700	6	889							
1.8	13000	62700	6	784							
2.0	13000	62700	6	695							
2.3	13000	62700	6	619							
2.5	13000	62700	6	558							
2.9	13000	62700	6	489							
3.4	13000	62700	7	415							

R147R87, n_e = 1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							3 2						
2.6	13000	62700	6	533									
3.0	13000	62700	7	462									
3.3	13000	62700	7	426									
3.8	13000	62700	7	368									
4.3	13000	62700	7	326									
5.0	13000	62700	7	280									
5.7	13000	62700	7	247									
6.5	13000	62700	7	214									
7.4	13000	62700	7	189									
8.8	13000	62700	7	159									

R167, n_e = 1400 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
6.1	20000	120000	6	229.71						
7.5	20000	120000	6	186.93*						
9.1	20000	120000	6	153.07						
10	20000	120000	6	139.98						
11	20000	120000	6	121.81*						
13	20000	120000	6	107.49						
15	20000	120000	6	93.19						
17	20000	120000	6	82.91*						
19	20000	120000	6	73.70*						
21	20000	120000	6	67.40						
24	20000	120000	6	58.65						
27	20000	120000	6	51.76						
31	20000	120000	6	44.87						

26883198/EN – 04/2022

R167, n_e = 1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
35	20000	120000	6	39.92						
41	20000	120000	6	34.41						
50	20000	119500	6	27.96						
59	18800	114400	6	23.71						
						2				
30	9460	120000	5	46.00						
37	10200	120000	5	37.74						
46	11700	120000	5	30.71						
57	16400	120000	6	24.57						
64	20000	107100	6	21.85						
74	20000	100600	6	19.03						
82	20000	95400	6	16.98						
97	19700	89300	6	14.48						
117	19000	83300	6	11.99						
137	18500	77500	6	10.24						

R167R97, n_e = 1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3 3						
0.05	20000	120000	6	27001									
0.06	20000	120000	6	22482									
0.07	20000	120000	6	20002*									
0.08	20000	120000	6	17361									
0.09	20000	120000	6	15446									
0.10	20000	120000	6	14051									
0.12	20000	120000	6	11812									
0.13	20000	120000	6	10509									
0.15	20000	120000	6	9631									
0.18	20000	120000	6	7749									
0.20	20000	120000	6	6894									
0.23	20000	120000	6	6077									
0.26	20000	120000	6	5407									
0.30	20000	120000	6	4650									
0.34	20000	120000	6	4129									
0.38	20000	120000	6	3692									
0.45	20000	120000	6	3099									
							3 2						
0.53	20000	120000	6	2657*									
0.60	20000	120000	6	2333									
0.67	20000	120000	6	2085									
0.75	20000	120000	6	1877									
0.84	20000	120000	6	1670*									
0.97	20000	120000	6	1438									
1.1	20000	120000	6	1279									
1.2	20000	120000	6	1123									
1.4	20000	120000	6	999									
1.6	20000	120000	6	861									

26883198/EN – 04/2022

R167R97, n_e = 1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
1.8	20000	120000	6	760									
2.1	20000	120000	6	656									
2.4	20000	120000	6	579									
2.8	20000	120000	6	503									
3.2	20000	120000	6	432									
3.7	20000	120000	6	376									
4.2	20000	120000	6	335									
4.6	20000	120000	7	303									
5.0	20000	120000	6	279									

R167R107, n_e = 1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					2 3					
0.38	20000	120000	6	3637						
0.42	20000	120000	6	3330						
0.51	20000	120000	6	2757						
0.57	20000	120000	6	2436						
0.61	20000	120000	6	2298						
0.68	20000	120000	6	2066						
0.76	20000	120000	6	1849						
0.84	20000	120000	6	1674						
0.94	20000	120000	6	1485						
1.0	20000	120000	6	1342						
1.1	20000	120000	6	1229						
1.3	20000	120000	6	1111						
1.5	20000	120000	6	950						
1.6	20000	120000	6	860						
1.8	20000	120000	6	763						
2.0	20000	120000	6	690						
2.4	20000	120000	6	585						
2.7	20000	120000	6	511						
					3 2					
4.0	20000	120000	6	349						
4.7	20000	120000	6	295						
5.2	20000	120000	6	270						
6.1	20000	120000	6	229						
7.0	20000	120000	6	200						
8.3	20000	120000	6	169						
					2 2					
3.1	20000	120000	6	446						
3.5	20000	120000	6	399						
3.9	20000	120000	6	361						
4.3	20000	120000	6	328						
4.8	20000	120000	6	291						
5.3	20000	120000	6	264						
6.2	20000	120000	6	227						
7.1	20000	120000	6	198						

26883198/EN – 04/2022

R167R107, n_e = 1400 min^{-1}										20000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M
8.3	20000	120000	6	168						

26883198/EN – 04/2022

8.3 R..DRN.. selection tables in kW

P_m = 0.09 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	48	78.24	1260	1.05						
19	44	71.47	1290	1.10						
23	37	60.32	1340	1.35						
27	32	51.52	1380	1.55						
29	29	47.78	1400	1.70						
31	27	44.16	1420	1.80						
33	25	41.31	1430	1.95	**R**	**07**	**DR2S**	**56MR4**	5.8	365
34	25	40.34	1440	2.0	**RF**	**07**	**DR2S**	**56MR4**	5.8	366
36	23	38.51	1440	2.1						
41	21	34.05	1460	2.4						
47	18	29.08	1440	2.8						
51	16	26.97	1410	3.0						
59	14	23.32	1350	3.4						
63	13	21.73	1320	3.7						
75	11	18.31	1260	4.4						
82	10	16.73	1230	4.8						
98	8.0	14.12	1170	5.7						
114	7.0	12.06	1120	6.7						
123	6.0	11.18	1090	7.2						
143	6.0	9.67	1040	8.3						
153	5.0	9.01	1020	8.9						
176	4.0	7.85	980	10	**R**	**07**	**DR2S**	**56MR4**	5.7	365
185	4.0	7.48	970	9.2	**RF**	**07**	**DR2S**	**56MR4**	5.7	366
202	4.0	6.83	940	10						
239	3.0	5.76	890	11						
280	3.0	4.92	850	12						
302	2.0	4.57	830	13						
350	2.0	3.95	790	14						
375	2.0	3.68	775	14						
430	2.0	3.21	740	16						

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.06	13300	21342	62000	1.00						
0.08	11300	18210	65700	1.15						
0.09	9920	15923	67900	1.30						
0.10	8770	14075	69400	1.50						
0.11	7640	12344	70700	1.70	**R**	**147R77**	**DRN**	**63MS4**	420	404
0.12	6730	11143	71600	1.95	**RF**	**147R77**	**DRN**	**63MS4**	430	404
0.14	6030	9743	72200	2.1	**RM**	**147R77**	**DRN**	**63MS4**	600	404
0.16	4830	8443	73000	2.7						
0.19	4180	7307	73400	3.1						
0.21	3690	6447	73700	3.5						
0.25	3180	5568	73900	4.1						
0.11	8050	12921	53300	1.00						
0.12	7250	11712	54900	1.10						
0.13	6390	10573	56400	1.25						
0.16	5020	8784	58400	1.60	**R**	**137R77**	**DRN**	**63MS4**	290	404
0.18	4090	7479	59400	1.95	**RF**	**137R77**	**DRN**	**63MS4**	310	404
0.21	4060	6559	59400	1.95	**RM**	**137R77**	**DRN**	**63MS4**	425	404
0.24	3190	5834	60200	2.5						
0.27	3160	5116	60200	2.5						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.12	7330	11772	43000	0.80						
0.14	6180	9985	43000	0.95						
0.15	5450	9013	43000	1.10						
0.16	5100	8771	43000	1.20						
0.17	4740	8282	43000	1.25						
0.18	4620	7639	43000	1.30						
0.20	3860	7053	43000	1.55						
0.21	3910	6722	43000	1.55	**R**	**127R77**	**DRN**	**63MS4**	260	404
0.22	3630	6347	43000	1.65	**RF**	**127R77**	**DRN**	**63MS4**	270	404
0.22	3830	6185	43000	1.55	**RM**	**127R77**	**DRN**	**63MS4**	365	404
0.25	3460	5592	43000	1.75						
0.29	2930	4740	43000	2.0						
0.31	2580	4441	43000	2.3						
0.35	2160	3949	43000	2.8						
0.37	2190	3764	43000	2.7						
0.39	1950	3571	43000	3.1						
0.44	1560	3110	43000	3.9						
0.39	2200	3495	43000	2.7						
0.45	1920	3056	43000	3.1	**R**	**127R77**	**DRN**	**63MS4**	245	404
0.48	1830	2903	43000	3.3	**RF**	**127R77**	**DRN**	**63MS4**	265	404
0.54	1600	2547	43000	3.7	**RM**	**127R77**	**DRN**	**63MS4**	360	404
					R	**127R77**	**DRN**	**63MS4**	260	404
0.55	1570	2506	43000	3.8	**RF**	**127R77**	**DRN**	**63MS4**	270	404
					RM	**127R77**	**DRN**	**63MS4**	365	404
0.18	4410	7583	28800	0.95						
0.20	3690	6743	32400	1.15						
0.23	3660	5914	32500	1.15	**R**	**107R77**	**DRN**	**63MS4**	200	404
0.27	2820	5168	35500	1.50	**RF**	**107R77**	**DRN**	**63MS4**	210	404
0.31	2530	4435	36100	1.70	**RM**	**107R77**	**DRN**	**63MS4**	295	404
0.35	2260	3896	36500	1.90						
0.45	1880	3039	36900	2.3						
0.35	2470	3918	36200	1.75						
0.41	2100	3343	36600	2.0	**R**	**107R77**	**DRN**	**63MS4**	195	404
0.45	1910	3034	36900	2.2	**RF**	**107R77**	**DRN**	**63MS4**	200	404
0.52	1670	2653	37100	2.6	**RM**	**107R77**	**DRN**	**63MS4**	290	404
0.61	1430	2280	37300	3.0						
0.67	1290	2067	37400	3.3						
0.30	3050	4559	17700	1.00	**R**	**97R57**	**DRN**	**63MS4**	130	404
0.34	2560	4004	18200	1.15	**RF**	**97R57**	**DRN**	**63MS4**	145	404
0.40	2270	3481	21700	1.30	**RM**	**97R57**	**DRN**	**63MS4**	195	404
0.29	3230	4678	4840	0.95						
0.32	2980	4309	20400	1.00						
0.37	2560	3702	23700	1.15						
0.46	2080	3019	26100	1.45	**R**	**97R57**	**DRN**	**63MS4**	125	404
0.52	1800	2668	27100	1.65	**RF**	**97R57**	**DRN**	**63MS4**	145	404
0.61	1480	2245	27700	2.0	**RM**	**97R57**	**DRN**	**63MS4**	195	404
0.68	1300	2016	27900	2.3						
0.80	1190	1733	28000	2.5						
0.45	2120	3065	23400	1.40						
0.51	1880	2722	26200	1.60						
0.60	1590	2311	27500	1.90						
0.66	1430	2078	27700	2.1	**R**	**97R57**	**DRN**	**63MS4**	130	404
0.76	1230	1823	28000	2.4	**RF**	**97R57**	**DRN**	**63MS4**	145	404
0.87	1070	1583	28200	2.8	**RM**	**97R57**	**DRN**	**63MS4**	195	404
0.99	900	1396	28300	3.3						
1.1	770	1228	28400	3.9						
					R	**87R57**	**DRN**	**63MS4**	86	404
0.48	1760	2873	9380	0.90	**RF**	**87R57**	**DRN**	**63MS4**	93	404
0.70	1300	1961	18500	1.20	**RM**	**87R57**	**DRN**	**63MS4**	125	404
0.53	1780	2595	15000	0.85						
0.65	1430	2129	17700	1.10	**R**	**87R57**	**DRN**	**63MS4**	85	404
0.72	1270	1930	18600	1.20	**RF**	**87R57**	**DRN**	**63MS4**	92	404
0.80	1120	1733	19300	1.40	**RM**	**87R57**	**DRN**	**63MS4**	120	404

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.79	1140	1737	18400	1.35						
0.91	1000	1524	19800	1.55						
1.1	810	1303	20000	1.90						
1.2	710	1143	20000	2.2	**R**	**87R57**	**DRN**	**63MS4**	85	404
1.6	580	885	20000	2.6	**RF**	**87R57**	**DRN**	**63MS4**	92	404
1.8	510	776	20000	3.0	**RM**	**87R57**	**DRN**	**63MS4**	120	404
2.0	450	685	20000	3.4						
2.3	360	599	20000	4.3						
1.1	930	1303	8660	0.85						
1.2	795	1124	10100	1.05	**R**	**77R37**	**DRN**	**63MS4**	45	404
1.3	740	1047	10600	1.10	**RF**	**77R37**	**DRN**	**63MS4**	51	404
1.5	635	915	11300	1.30	**RM**	**77R37**	**DRN**	**63MS4**	76	404
1.1	820	1218	9910	1.00						
1.3	740	1084	10600	1.10						
1.5	660	940	11200	1.25	**R**	**77R37**	**DRN**	**63MS4**	46	404
1.7	520	821	12000	1.55	**RF**	**77R37**	**DRN**	**63MS4**	52	404
1.9	475	731	12200	1.70	**RM**	**77R37**	**DRN**	**63MS4**	77	404
2.1	455	646	12300	1.80						
2.6	375	520	12600	2.2						
3.1	320	451	12700	2.5	**R**	**77R37**	**DRN**	**63MS4**	45	404
3.3	300	422	12800	2.7	**RF**	**77R37**	**DRN**	**63MS4**	51	404
3.8	255	365	12900	3.2	**RM**	**77R37**	**DRN**	**63MS4**	76	404
1.6	625	891	7190	0.95						
1.9	505	730	8530	1.20	**R**	**67R37**	**DRN**	**63MS4**	40	404
2.1	440	644	9060	1.35	**RF**	**67R37**	**DRN**	**63MS4**	43	404
2.4	385	571	9430	1.55	**RM**	**67R37**	**DRN**	**63MS4**	59	404
2.8	320	486	9790	1.85						
1.6	590	836	7670	1.00						
1.8	490	750	8630	1.20						
2.1	440	646	9050	1.35	**R**	**67R37**	**DRN**	**63MS4**	41	404
2.4	400	574	9330	1.50	**RF**	**67R37**	**DRN**	**63MS4**	44	404
2.8	340	495	9660	1.75	**RM**	**67R37**	**DRN**	**63MS4**	60	404
3.1	285	438	9940	2.1						
1.8	550	782	4650	0.80						
2.0	455	678	6980	1.00						
2.3	410	604	7260	1.10	**R**	**57R37**	**DRN**	**63MS4**	34	404
2.6	370	537	7400	1.20	**RF**	**57R37**	**DRN**	**63MS4**	38	404
2.9	325	471	7550	1.35	**RM**	**57R37**	**DRN**	**63MS4**	50	404
3.9	240	357	7760	1.85						
4.3	215	319	7820	2.1						
3.8	255	359	7730	1.75						
4.3	230	324	7790	1.95						
4.8	200	290	7840	2.2	**R**	**57R37**	**DRN**	**63MS4**	33	404
5.3	184	262	7880	2.4	**RF**	**57R37**	**DRN**	**63MS4**	37	404
5.6	170	246	7900	2.6	**RM**	**57R37**	**DRN**	**63MS4**	49	404
6.3	150	220	7930	3.0						
2.7	340	510	3910	0.85						
3.2	285	436	5300	1.05	**R**	**47R37**	**DRN**	**63MS4**	29	404
3.4	265	408	5590	1.10	**RF**	**47R37**	**DRN**	**63MS4**	29	404
4.0	215	344	5780	1.35						
2.8	365	502	3020	0.80						
3.2	310	429	4680	0.95						
3.7	265	372	5580	1.10						
4.0	245	348	5670	1.20	**R**	**47R37**	**DRN**	**63MS4**	28	404
4.6	210	301	5810	1.40	**RF**	**47R37**	**DRN**	**63MS4**	29	404
5.4	176	255	5920	1.70						
6.0	155	228	5980	1.95						
7.1	129	195	6040	2.3						
4.1	225	338	3490	0.90						
4.7	210	296	3900	0.95						
5.3	184	259	4680	1.10	**R**	**37R17**	**DRN**	**63MS4**	18	404
6.0	162	228	5300	1.25	**RF**	**37R17**	**DRN**	**63MS4**	19	404
6.9	140	199	5550	1.40						
8.0	122	172	5680	1.65						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	235	328	3160	0.85						
4.8	200	289	4100	1.00						
5.2	192	265	4450	1.05	**R**	**37R17**	**DRN**	**63MS4**	17	404
6.1	156	226	5410	1.30	**RF**	**37R17**	**DRN**	**63MS4**	19	404
6.8	143	202	5520	1.40						
7.7	125	179	5660	1.60						
6.0	158	229	2790	0.80						
6.9	138	200	3320	0.95	**R**	**27R17**	**DRN**	**63MS4**	12	404
7.8	120	177	3770	1.05	**RF**	**27R17**	**DRN**	**63MS4**	12	404
8.3	116	166	3900	1.10						
6.1	156	227	2830	0.85						
6.8	143	203	3170	0.90	**R**	**27R17**	**DRN**	**63MS4**	11	404
7.7	125	179	3660	1.05	**RF**	**27R17**	**DRN**	**63MS4**	11	404
8.8	105	156	4020	1.25						
4.5	255	195.24*	12900	3.2	**R**	**77**	**DRN**	**63M6**	38	386
5.2	215	166.59	13000	3.7	**RF**	**77**	**DRN**	**63M6**	44	387
6.0	191	145.67	13000	4.3	**RM**	**77**	**DRN**	**63M6**	69	387
4.3	260	199.81	10000	2.3						
4.7	240	184.07	10100	2.5						
5.5	205	158.14	10200	2.9	**R**	**67**	**DRN**	**63M6**	31	383
6.3	181	137.67	10300	3.3	**RF**	**67**	**DRN**	**63M6**	34	384
6.8	169	128.97	10300	3.5	**RM**	**67**	**DRN**	**63M6**	50	384
7.6	150	113.94	10400	4.0						
6.9	165	199.81	10300	3.6	**R**	**67**	**DRN**	**63MS4**	30	383
7.5	152	184.07	10400	3.9	**RF**	**67**	**DRN**	**63MS4**	33	384
					RM	**67**	**DRN**	**63MS4**	49	384
4.7	245	186.89	7760	1.85						
5.0	225	172.17	7800	2.0						
5.9	194	147.92	7860	2.3	**R**	**57**	**DRN**	**63M6**	24	380
6.8	169	128.77	7900	2.6	**RF**	**57**	**DRN**	**63M6**	27	381
7.2	158	120.63	7920	2.8	**RM**	**57**	**DRN**	**63M6**	39	381
8.2	140	106.58	7940	3.2						
8.8	130	98.99	7950	3.5						
7.4	155	186.89	7920	2.9	**R**	**57**	**DRN**	**63MS4**	23	380
8.0	142	172.17	7940	3.1	**RF**	**57**	**DRN**	**63MS4**	27	381
9.3	122	147.92	7960	3.7	**RM**	**57**	**DRN**	**63MS4**	39	381
11	106	128.77	7980	4.2						
4.9	230	176.88	5730	1.30						
5.3	210	162.94	5800	1.40	**R**	**47**	**DRN**	**63M6**	19	377
6.2	184	139.99	5900	1.65	**RF**	**47**	**DRN**	**63M6**	19	378
7.1	160	121.87	5970	1.85						
7.8	146	176.88	6000	2.0						
8.5	135	162.94	6030	2.2						
9.9	116	139.99	6070	2.6	**R**	**47**	**DRN**	**63MS4**	18	377
11	101	121.87	6100	3.0	**RF**	**47**	**DRN**	**63MS4**	18	378
12	94	114.17	6100	3.2						
14	83	100.86	6120	3.6						
15	77	93.68	6130	3.9						
6.5	177	134.82	4870	1.15						
7.0	162	123.66	5290	1.25						
8.3	138	105.28	5560	1.45	**R**	**37**	**DRN**	**63M6**	15	374
9.6	119	90.77	5700	1.65	**RF**	**37**	**DRN**	**63M6**	17	375
10	111	84.61	5750	1.80						
12	97	73.96	5830	2.0						
10	111	134.82	5750	1.80						
11	102	123.66	5800	1.95						
13	87	105.28	5880	2.3	**R**	**37**	**DRN**	**63MS4**	14	374
15	75	90.77	5930	2.6	**RF**	**37**	**DRN**	**63MS4**	16	375
16	70	84.61	5950	2.9						
19	61	73.96	5980	3.3						
7.0	163	123.91	2660	0.80						
8.2	138	105.49	3300	0.95						
9.6	119	90.96	3800	1.10	**R**	**27**	**DRN**	**63M6**	9.3	371
10	111	84.78	3990	1.15	**RF**	**27**	**DRN**	**63M6**	9.2	372
12	97	74.11	4060	1.35						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	112	135.09	3990	1.15						
11	102	123.91	4040	1.25						
13	87	105.49	4110	1.50						
15	75	90.96	4170	1.70						
16	70	84.78	4200	1.85						
19	61	74.11	4240	2.1	**R**	**27**	**DRN**	**63MS4**	8.4	371
20	57	69.47	4260	2.2	**RF**	**27**	**DRN**	**63MS4**	8.4	372
23	50	61.30	4290	2.5						
25	46	55.87	4280	2.8						
29	40	48.17	4090	3.2						
31	37	44.90	4000	3.5						
11	107	81.64	-	0.80						
12	92	70.39	1250	0.90						
13	86	65.61	1680	1.00	**R**	**17**	**DRN**	**63M6**	8.9	368
15	75	57.35	2300	1.15	**RF**	**17**	**DRN**	**63M6**	8.8	369
16	70	53.76	2400	1.20						
18	62	47.44	2460	1.35						
17	67	81.64	2420	1.25						
20	58	70.39	2490	1.45						
21	54	65.61	2500	1.55						
24	47	57.35	2500	1.80						
26	44	53.76	2500	1.90						
29	39	47.44	2500	2.2	**R**	**17**	**DRN**	**63MS4**	8.1	368
31	36	44.18	2500	2.3	**RF**	**17**	**DRN**	**63MS4**	8.0	369
36	32	38.61	2430	2.6						
38	30	36.20	2390	2.8						
43	26	31.94	2310	3.2						
49	23	28.32	2230	3.6						
57	19	24.07	2130	4.2						
23	50	60.32	1250	1.00						
27	42	51.52	1300	1.15						
29	39	47.78	1330	1.25						
31	36	44.16	1350	1.35						
33	34	41.31	1370	1.45						
34	33	40.34	1370	1.50	**R**	**07**	**DRN**	**63MS4**	6.9	365
36	31	38.51	1380	1.55	**RF**	**07**	**DRN**	**63MS4**	6.9	366
41	28	34.05	1410	1.75						
47	24	29.08	1390	2.1						
51	22	26.97	1360	2.2						
59	19	23.32	1320	2.6						
63	18	21.73	1290	2.8						
75	15	18.31	1230	3.3						
82	13	16.73	1200	3.6						
98	11	14.12	1150	4.3						
114	10	12.06	1100	5.0						
123	9.0	11.18	1070	5.4						
143	8.0	9.67	1030	6.2						
153	7.0	9.01	1010	6.7						
176	6.0	7.85	970	7.5	**R**	**07**	**DRN**	**63MS4**	6.8	365
185	6.0	7.48	950	6.9	**RF**	**07**	**DRN**	**63MS4**	6.8	366
202	5.0	6.83	930	7.6						
239	4.0	5.76	880	8.4						
280	4.0	4.92	840	9.1						
302	3.0	4.57	820	9.5						
350	3.0	3.95	785	10						
375	3.0	3.68	765	11						
430	2.0	3.21	735	12						
227	5.0	6.07	4260	8.5						
267	4.0	5.18	4050	17	**RX**	**67**	**DRN**	**63MS4**	16	355
305	3.0	4.53	3870	22	**RXF**	**67**	**DRN**	**63MS4**	20	356
321	3.0	4.30*	3810	22						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
251	4.0	5.50*	3360	8.5						
272	4.0	5.07	3270	8.6						
317	3.0	4.35	3120	19						
364	3.0	3.79	2980	22						
389	2.0	3.55*	2910	23						
440	2.0	3.14	2800	25	**RX**	**57**	**DRN**	**63MS4**	14	353
474	2.0	2.91	2730	28	**RXF**	**57**	**DRN**	**63MS4**	16	354
523	2.0	2.64*	2640	31						
582	1.0	2.37	2550	35						
676	1.0	2.04	2430	41						
719	1.0	1.92*	2380	43						
835	1.0	1.65	2260	50						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.10	14200	14075	59000	0.90						
0.11	12400	12344	63700	1.05						
0.12	11000	11143	66100	1.15						
0.14	9840	9743	68000	1.30						
0.16	8130	8443	70200	1.60						
0.19	7030	7307	71300	1.85	**R**	**147R77**	**DRN**	**63M4**	420	404
0.21	6200	6447	72000	2.1	**RF**	**147R77**	**DRN**	**63M4**	430	404
0.25	5360	5568	72700	2.4	**RM**	**147R77**	**DRN**	**63M4**	600	404
0.28	4900	4926	73000	2.6						
0.32	4200	4325	73400	3.1						
0.37	3730	3754	73700	3.5						
0.42	3210	3302	73900	4.0						
0.16	8460	8784	52000	0.95						
0.18	7010	7479	55300	1.15						
0.21	6620	6559	56000	1.20	**R**	**137R77**	**DRN**	**63M4**	290	404
0.24	5470	5834	57800	1.45	**RF**	**137R77**	**DRN**	**63M4**	315	404
0.27	5160	5116	58200	1.55	**RM**	**137R77**	**DRN**	**63M4**	425	404
0.31	4290	4464	59200	1.85						
0.35	3780	3928	59700	2.1						
0.29	4830	4709	58600	1.65						
0.34	4120	4018	59400	1.95	**R**	**137R77**	**DRN**	**63M4**	280	404
0.39	3600	3514	59900	2.2	**RF**	**137R77**	**DRN**	**63M4**	305	404
0.41	3420	3338	60000	2.3	**RM**	**137R77**	**DRN**	**63M4**	415	404
0.47	3000	2929	60300	2.7						
0.19	6610	7053	43000	0.90						
0.20	6530	6722	43000	0.90						
0.22	6110	6347	43000	1.00						
0.22	6240	6185	43000	0.95						
0.25	5640	5592	43000	1.05						
0.29	4780	4740	43000	1.25						
0.31	4320	4441	43000	1.40						
0.35	3700	3949	43000	1.60	**R**	**127R77**	**DRN**	**63M4**	260	404
0.37	3660	3764	43000	1.65	**RF**	**127R77**	**DRN**	**63M4**	270	404
0.39	3340	3571	43000	1.80	**RM**	**127R77**	**DRN**	**63M4**	365	404
0.44	2770	3110	43000	2.2						
0.49	2500	2812	43000	2.4						
0.58	2120	2383	43000	2.8						
0.71	1880	1934	43000	3.2						
0.75	1720	1835	43000	3.5						
0.88	1450	1555	43000	4.1						
0.39	3580	3495	43000	1.65						
0.45	3130	3056	43000	1.90						
0.47	2980	2903	43000	2.0						
0.54	2610	2547	43000	2.3	**R**	**127R77**	**DRN**	**63M4**	245	404
0.64	2200	2161	43000	2.7	**RF**	**127R77**	**DRN**	**63M4**	265	404
0.70	1960	1951	43000	3.0	**RM**	**127R77**	**DRN**	**63M4**	360	404
0.80	1680	1716	43000	3.5						
0.85	1580	1620	43000	3.8						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	2560	2506	43000	2.3						
0.61	2310	2266	43000	2.6						
0.68	1980	2016	43000	3.0						
0.72	1960	1920	43000	3.1	**R**	**127R77**	**DRN**	**63M4**	260	404
0.75	1790	1823	43000	3.3	**RF**	**127R77**	**DRN**	**63M4**	270	404
0.82	1580	1673	43000	3.8	**RM**	**127R77**	**DRN**	**63M4**	365	404
0.89	1520	1545	43000	3.9						
0.91	1430	1512	43000	4.2						
0.31	4270	4435	29600	1.00	**R**	**107R77**	**DRN**	**63M4**	205	404
0.35	3780	3896	32000	1.15	**RF**	**107R77**	**DRN**	**63M4**	210	404
0.45	3060	3039	34700	1.40	**RM**	**107R77**	**DRN**	**63M4**	295	404
0.35	4020	3918	30900	1.05						
0.41	3430	3343	33400	1.25						
0.45	3110	3034	34600	1.40	**R**	**107R77**	**DRN**	**63M4**	195	404
0.52	2720	2653	35800	1.60	**RF**	**107R77**	**DRN**	**63M4**	205	404
0.60	2330	2280	36400	1.85	**RM**	**107R77**	**DRN**	**63M4**	290	404
0.67	2110	2067	36600	2.0						
0.69	2000	1987	36800	2.1						
0.75	1780	1827	37000	2.4	**R**	**107R77**	**DRN**	**63M4**	200	404
0.86	1510	1599	37200	2.8	**RF**	**107R77**	**DRN**	**63M4**	210	404
0.98	1360	1400	37300	3.1	**RM**	**107R77**	**DRN**	**63M4**	295	404
1.1	1160	1226	37500	3.7						
0.52	2860	2668	21900	1.05						
0.61	2370	2245	24700	1.25						
0.68	2100	2016	26000	1.45						
0.79	1880	1733	26800	1.60						
0.85	1750	1623	27200	1.70	**R**	**97R57**	**DRN**	**63M4**	125	404
0.96	1530	1434	27600	1.95	**RF**	**97R57**	**DRN**	**63M4**	145	404
1.1	1270	1207	27900	2.4	**RM**	**97R57**	**DRN**	**63M4**	195	404
1.3	1130	1084	28100	2.6						
1.5	950	934	28300	3.1						
1.6	890	878	28300	3.4						
1.8	750	755	28400	4.0						
0.51	2950	2722	13500	1.00	**R**	**97R57**	**DRN**	**63M4**	130	404
0.59	2500	2311	18900	1.20	**RF**	**97R57**	**DRN**	**63M4**	145	404
0.66	2250	2078	21900	1.35	**RM**	**97R57**	**DRN**	**63M4**	195	404
0.92	1610	1489	16400	0.95						
0.99	1510	1395	17200	1.05						
1.1	1320	1232	18300	1.15	**R**	**87R57**	**DRN**	**63M4**	86	404
1.2	1220	1145	18900	1.25	**RF**	**87R57**	**DRN**	**63M4**	93	404
1.3	1090	1037	19400	1.40	**RM**	**87R57**	**DRN**	**63M4**	120	404
1.5	970	931	19900	1.60						
1.7	820	802	20000	1.90						
0.90	1600	1524	11700	0.95						
1.1	1320	1303	15800	1.15	**R**	**87R57**	**DRN**	**63M4**	86	404
1.2	1160	1143	18100	1.35	**RF**	**87R57**	**DRN**	**63M4**	93	404
1.6	930	885	20000	1.65	**RM**	**87R57**	**DRN**	**63M4**	125	404
1.8	810	776	20000	1.90						
1.6	930	858	8720	0.90						
1.8	810	757	9950	1.00	**R**	**77R37**	**DRN**	**63M4**	46	404
2.0	715	671	10800	1.15	**RF**	**77R37**	**DRN**	**63M4**	52	404
2.4	600	571	11500	1.35	**RM**	**77R37**	**DRN**	**63M4**	77	404
1.7	840	821	9650	0.95						
1.9	765	731	10400	1.05						
2.1	710	646	10800	1.15						
2.5	615	560	11400	1.30	**R**	**77R37**	**DRN**	**63M4**	47	404
2.8	525	488	12000	1.55	**RF**	**77R37**	**DRN**	**63M4**	53	404
3.1	465	436	12200	1.75	**RM**	**77R37**	**DRN**	**63M4**	78	404
3.7	400	373	12500	2.0						
4.2	350	327	12600	2.3						
4.8	315	289	12800	2.6						
2.4	610	571	7430	1.00	**R**	**67R37**	**DRN**	**63M4**	41	404
2.8	510	486	8470	1.15	**RF**	**67R37**	**DRN**	**63M4**	44	404
					RM	**67R37**	**DRN**	**63M4**	60	404

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.4	625	574	7220	0.95						
2.8	540	495	8200	1.10						
3.1	455	438	8920	1.30	**R**	**67R37**	**DRN**	**63M4**	42	404
3.5	405	388	9290	1.45	**RF**	**67R37**	**DRN**	**63M4**	45	404
4.0	375	344	9490	1.60	**RM**	**67R37**	**DRN**	**63M4**	61	404
4.7	300	294	9870	2.0						
5.3	275	261	9980	2.1						
3.0	475	454	6560	0.95	**R**	**57R37**	**DRN**	**63M4**	34	404
3.4	430	410	7180	1.05	**RF**	**57R37**	**DRN**	**63M4**	38	404
					RM	**57R37**	**DRN**	**63M4**	50	404
2.9	510	471	5880	0.85						
3.9	385	357	7360	1.15						
4.3	340	319	7510	1.30	**R**	**57R37**	**DRN**	**63M4**	35	404
5.0	285	273	7660	1.55	**RF**	**57R37**	**DRN**	**63M4**	39	404
5.7	245	241	7760	1.80	**RM**	**57R37**	**DRN**	**63M4**	51	404
6.4	220	215	7810	2.0						
3.8	400	359	7300	1.10						
4.2	360	324	7440	1.25						
4.7	320	290	7570	1.40						
5.2	285	262	7660	1.55	**R**	**57R37**	**DRN**	**63M4**	34	404
5.6	265	246	7710	1.65	**RF**	**57R37**	**DRN**	**63M4**	38	404
6.2	235	220	7780	1.90	**RM**	**57R37**	**DRN**	**63M4**	50	404
7.3	200	188	7850	2.2						
8.7	168	159	7900	2.7						
4.6	330	301	4200	0.90						
5.4	275	255	5510	1.10	**R**	**47R37**	**DRN**	**63M4**	29	404
6.0	245	228	5680	1.20	**RF**	**47R37**	**DRN**	**63M4**	29	404
7.1	205	195	5820	1.45						
6.9	215	199	3700	0.90						
8.0	190	172	4510	1.05	**R**	**37R17**	**DRN**	**63M4**	18	404
9.2	165	150	5220	1.20	**RF**	**37R17**	**DRN**	**63M4**	20	404
6.8	220	202	3550	0.90						
7.7	196	179	4340	1.00	**R**	**37R17**	**DRN**	**63M4**	18	404
8.8	167	156	5150	1.20	**RF**	**37R17**	**DRN**	**63M4**	20	404
9.8	150	141	3000	0.85						
11	132	124	3470	1.00	**R**	**27R17**	**DRN**	**63M4**	13	404
12	119	110	3820	1.10	**RF**	**27R17**	**DRN**	**63M4**	12	404
15	99	94	4050	1.30						
10	145	135	3130	0.90						
12	132	118	3460	1.00	**R**	**27R17**	**DRN**	**63M4**	12	404
13	115	104	3920	1.10	**RF**	**27R17**	**DRN**	**63M4**	12	404
15	99	90	4050	1.30						
4.7	365	195.24*	12600	2.2						
5.5	310	166.59	12800	2.6	**R**	**77**	**DRN**	**71MS6**	38	386
6.3	270	145.67	12900	3.0	**RF**	**77**	**DRN**	**71MS6**	44	387
6.6	255	138.39	12900	3.1	**RM**	**77**	**DRN**	**71MS6**	69	387
7.5	225	121.42	13000	3.6						
7.0	240	195.24*	12900	3.4						
8.2	205	166.59	13000	3.9	**R**	**77**	**DRN**	**63M4**	38	386
9.4	182	145.67	13000	4.5	**RF**	**77**	**DRN**	**63M4**	44	387
9.9	173	138.39	13000	4.7	**RM**	**77**	**DRN**	**63M4**	69	387
4.6	375	199.81	9490	1.60						
5.0	345	184.07	9660	1.75						
5.8	295	158.14	9900	2.0						
6.7	255	137.67	10100	2.3						
7.1	240	128.97	10100	2.5	**R**	**67**	**DRN**	**71MS6**	31	383
8.0	210	113.94	10200	2.8	**RF**	**67**	**DRN**	**71MS6**	34	384
8.7	198	105.83	10300	3.0	**RM**	**67**	**DRN**	**71MS6**	50	384
9.5	180	95.91	10300	3.3						
11	161	86.11	10400	3.7						
12	139	74.17	10400	4.3						
13	131	69.75	10400	4.6						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.9	245	199.81	10100	2.4						
7.5	230	184.07	10200	2.6						
8.7	197	158.14	10300	3.0	**R**	**67**	**DRN**	**63M4**	31	383
10.0	172	137.67	10300	3.5	**RF**	**67**	**DRN**	**63M4**	34	384
11	161	128.97	10400	3.7	**RM**	**67**	**DRN**	**63M4**	50	384
12	142	113.94	10400	4.2						
13	132	105.83	10400	4.5						
4.9	350	186.89	7480	1.30						
5.3	320	172.17	7560	1.40	**R**	**57**	**DRN**	**71MS6**	25	380
6.2	275	147.92	7690	1.60	**RF**	**57**	**DRN**	**71MS6**	28	381
7.1	240	128.77	7770	1.85	**RM**	**57**	**DRN**	**71MS6**	40	381
7.6	225	120.63	7800	2.0						
7.4	230	186.89	7790	1.95						
8.0	215	172.17	7820	2.1						
9.3	184	147.92	7880	2.4						
11	160	128.77	7910	2.8	**R**	**57**	**DRN**	**63M4**	24	380
11	150	120.63	7930	3.0	**RF**	**57**	**DRN**	**63M4**	27	381
13	133	106.58	7950	3.4	**RM**	**57**	**DRN**	**63M4**	39	381
14	123	98.99	7960	3.6						
15	112	89.71	7970	4.0						
7.8	220	176.88	5780	1.35						
8.4	200	162.94	5840	1.45						
9.8	175	139.99	5930	1.70						
11	152	121.87	5990	1.95						
12	142	114.17	6010	2.1	**R**	**47**	**DRN**	**63M4**	19	377
14	126	100.86	6050	2.4	**RF**	**47**	**DRN**	**63M4**	19	378
15	117	93.68	6070	2.6						
16	106	84.90	6090	2.8						
18	95	76.23	6100	3.1						
7.4	230	123.66	3330	0.85						
8.7	197	105.28	4300	1.00	**R**	**37**	**DRN**	**71MS6**	16	374
10	170	90.77	5070	1.15	**RF**	**37**	**DRN**	**71MS6**	17	375
11	158	84.61	5390	1.25						
10	168	134.82	5130	1.20						
11	154	123.66	5430	1.30						
13	131	105.28	5620	1.50						
15	113	90.77	5740	1.75						
16	105	84.61	5780	1.90	**R**	**37**	**DRN**	**63M4**	15	374
19	92	73.96	5860	2.2	**RF**	**37**	**DRN**	**63M4**	17	375
20	86	69.33	5880	2.3						
22	76	61.18	5930	2.6						
25	69	55.76	5950	2.9						
29	60	48.08	5890	3.3						
11	154	123.91	2880	0.85						
13	131	105.49	3490	1.00						
15	113	90.96	3960	1.15						
16	105	84.78	4020	1.25						
19	92	74.11	4090	1.40						
20	86	69.47	4110	1.50						
22	76	61.30	4160	1.70						
25	69	55.87	4170	1.85	**R**	**27**	**DRN**	**63M4**	9.3	371
29	60	48.17	4000	2.2	**RF**	**27**	**DRN**	**63M4**	9.2	372
31	56	44.90	3920	2.3						
35	49	39.25	3770	2.6						
37	45	36.79	3700	2.8						
42	40	32.47	3560	3.2						
48	35	28.78	3440	3.6						
56	30	24.47	3270	4.2						
48	35	28.37	3420	3.7						
53	32	26.09	3340	4.0						
62	27	22.32	3180	4.7						
71	24	19.35	3050	5.4	**R**	**27**	**DRN**	**63M4**	9.0	371
76	22	18.08	2980	5.8	**RF**	**27**	**DRN**	**63M4**	8.9	372
88	19	15.63	2850	6.7						
104	16	13.28*	2710	7.8						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	102	81.64	485	0.85						
20	87	70.39	1580	0.95						
21	82	65.61	1950	1.05						
24	71	57.35	2390	1.20						
26	67	53.76	2420	1.25						
29	59	47.44	2420	1.45	**R**	**17**	**DRN**	**63M4**	8.9	368
31	55	44.18	2390	1.55	**RF**	**17**	**DRN**	**63M4**	8.8	369
36	48	38.61	2320	1.75						
38	45	36.20	2280	1.90						
43	39	31.94	2210	2.1						
49	35	28.32	2150	2.4						
57	30	24.07	2060	2.8						
54	31	25.23	2080	2.7						
59	28	23.15	2040	2.9	**R**	**17**	**DRN**	**63M4**	8.6	368
70	24	19.71	1950	3.5	**RF**	**17**	**DRN**	**63M4**	8.5	369
81	21	16.99	1870	4.0						
29	59	47.78	1180	0.85						
31	55	44.16	1210	0.90						
33	51	41.31	1240	0.95						
34	50	40.34	1240	1.00						
36	48	38.51	1260	1.05	**R**	**07**	**DRN**	**63M4**	7.8	365
40	42	34.05	1300	1.15	**RF**	**07**	**DRN**	**63M4**	7.8	366
47	36	29.08	1300	1.40						
51	33	26.97	1280	1.50						
59	29	23.32	1240	1.70						
63	27	21.73	1220	1.85						
75	22	18.31	1180	2.2						
82	20	16.73	1150	2.4						
97	17	14.12	1100	2.8						
114	15	12.06	1060	3.3						
123	13	11.18	1040	3.6						
142	12	9.67	1000	4.1						
153	11	9.01	980	4.4						
175	9.0	7.85	940	5.0	**R**	**07**	**DRN**	**63M4**	7.6	365
184	9.0	7.48	930	4.6	**RF**	**07**	**DRN**	**63M4**	7.6	366
201	8.0	6.83	910	5.0						
239	7.0	5.76	860	5.5						
279	6.0	4.92	830	6.0						
301	5.0	4.57	810	6.3						
348	4.0	3.95	775	6.9						
374	4.0	3.68	755	7.2						
429	4.0	3.21	725	7.7						
244	7.0	11.18	860	7.1						
282	6.0	9.67	820	8.2						
302	5.0	9.01	800	8.8						
347	4.0	7.85	775	9.9						
364	4.0	7.48	765	9.1						
399	4.0	6.83	740	10.0	**R**	**07**	**DRN**	**63MS2**	6.8	365
473	3.0	5.76	705	11	**RF**	**07**	**DRN**	**63MS2**	6.8	366
553	3.0	4.92	670	12						
597	2.0	4.57	655	12						
690	2.0	3.95	625	14						
741	2.0	3.68	610	14						
850	2.0	3.21	585	15						
151	11	6.07	4860	3.8						
177	9.0	5.18	4610	7.7	**RX**	**67**	**DRN**	**71MS6**	18	355
202	8.0	4.53	4410	9.6	**RXF**	**67**	**DRN**	**71MS6**	22	356
213	8.0	4.30*	4340	9.9						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
227	7.0	6.07	4250	5.7						
266	6.0	5.18	4040	12						
304	5.0	4.53	3860	14						
320	5.0	4.30*	3800	15						
364	4.0	3.77	3640	18	**RX**	**67**	**DRN**	**63M4**	17	355
430	4.0	3.20*	3450	25	**RXF**	**67**	**DRN**	**63M4**	21	356
476	3.0	2.89	3340	29						
541	3.0	2.54	3200	37						
573	3.0	2.40*	3140	41						
673	2.0	2.04	2980	52						
166	10	5.50*	3820	3.8						
181	9.0	5.07	3720	3.8	**RX**	**57**	**DRN**	**71MS6**	15	353
210	8.0	4.35	3540	8.3	**RXF**	**57**	**DRN**	**71MS6**	17	354
241	7.0	3.79	3390	9.7						
250	6.0	5.50*	3350	5.7						
271	6.0	5.07	3260	5.7						
316	5.0	4.35	3110	12						
363	4.0	3.79	2970	15						
387	4.0	3.55*	2910	16						
438	3.0	3.14	2790	17	**RX**	**57**	**DRN**	**63M4**	15	353
472	3.0	2.91	2720	18	**RXF**	**57**	**DRN**	**63M4**	16	354
521	3.0	2.64*	2640	21						
580	2.0	2.37	2540	23						
673	2.0	2.04	2420	27						
716	2.0	1.92*	2380	29						
832	2.0	1.65	2260	33						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.05	33800	27001	120000	0.60	**R**	**167R97**	**DRN**	**71MS4**	750	405
0.06	28200	22482	120000	0.70	**RF**	**167R97**	**DRN**	**71MS4**	760	405
0.07	25100	20002	120000	0.80	**RM**	**167R97**	**DRN**	**71MS4**	950	405
0.08	21700	17361	120000	0.90						
0.14	13900	9743	60700	0.95						
0.17	11600	8443	65200	1.10						
0.19	10000	7307	67700	1.30						
0.22	8890	6447	69200	1.45						
0.25	7680	5568	70600	1.70	**R**	**147R77**	**DRN**	**71MS4**	420	404
0.29	6950	4926	71400	1.85	**RF**	**147R77**	**DRN**	**71MS4**	430	404
0.32	6000	4325	72200	2.2	**RM**	**147R77**	**DRN**	**71MS4**	600	404
0.37	5300	3754	72700	2.5						
0.43	4580	3302	73200	2.8						
0.48	3990	2898	73500	3.2						
0.24	7900	5834	53600	1.00	**R**	**137R77**	**DRN**	**71MS4**	290	404
0.27	7300	5116	54800	1.10	**RF**	**137R77**	**DRN**	**71MS4**	315	404
0.31	6160	4464	56800	1.30	**RM**	**137R77**	**DRN**	**71MS4**	425	404
0.36	5420	3928	57900	1.50						
0.30	6820	4709	55700	1.15						
0.35	5820	4018	57300	1.35	**R**	**137R77**	**DRN**	**71MS4**	280	404
0.40	5090	3514	58300	1.55	**RF**	**137R77**	**DRN**	**71MS4**	305	404
0.42	4830	3338	58600	1.65	**RM**	**137R77**	**DRN**	**71MS4**	415	404
0.48	4240	2929	59300	1.90						
0.53	3830	2658	59600	2.1						
0.58	3480	2412	60000	2.3						
0.68	2990	2073	60300	2.7	**R**	**137R77**	**DRN**	**71MS4**	290	404
0.76	2560	1839	60600	3.1	**RF**	**137R77**	**DRN**	**71MS4**	310	404
1.0	1990	1397	60900	4.0	**RM**	**137R77**	**DRN**	**71MS4**	425	404
1.1	1720	1226	61100	4.6						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.30	6760	4740	43000	0.90						
0.32	6170	4441	43000	0.95						
0.36	5350	3949	43000	1.10						
0.37	5230	3764	43000	1.15						
0.39	4830	3571	43000	1.25						
0.45	4060	3110	43000	1.45	**R**	**127R77**	**DRN**	**71MS4**	260	404
0.50	3670	2812	43000	1.65	**RF**	**127R77**	**DRN**	**71MS4**	270	404
0.59	3110	2383	43000	1.90	**RM**	**127R77**	**DRN**	**71MS4**	365	404
0.73	2680	1934	43000	2.2						
0.77	2480	1835	43000	2.4						
0.90	2100	1555	43000	2.9						
0.97	1890	1444	43000	3.2						
1.1	1600	1224	43000	3.7						
0.40	5060	3495	43000	1.20						
0.46	4420	3056	43000	1.35						
0.48	4200	2903	43000	1.45						
0.55	3690	2547	43000	1.65						
0.65	3120	2161	43000	1.90	**R**	**127R77**	**DRN**	**71MS4**	245	404
0.72	2780	1951	43000	2.1	**RF**	**127R77**	**DRN**	**71MS4**	265	404
0.82	2410	1716	43000	2.5	**RM**	**127R77**	**DRN**	**71MS4**	360	404
0.87	2260	1620	43000	2.6						
1.0	1890	1380	43000	3.2						
1.2	1740	1210	43000	3.4						
0.56	3620	2506	43000	1.65						
0.62	3270	2266	43000	1.85						
0.70	2830	2016	43000	2.1						
0.73	2770	1920	43000	2.2						
0.77	2560	1823	43000	2.3						
0.84	2290	1673	43000	2.6	**R**	**127R77**	**DRN**	**71MS4**	260	404
0.91	2170	1545	43000	2.8	**RF**	**127R77**	**DRN**	**71MS4**	270	404
0.93	2070	1512	43000	2.9	**RM**	**127R77**	**DRN**	**71MS4**	365	404
1.1	1750	1322	43000	3.4						
1.1	1750	1282	43000	3.4						
1.2	1580	1195	43000	3.8						
1.2	1680	1164	43000	3.6						
1.4	1420	987	43000	4.2						
					R	**107R77**	**DRN**	**71MS4**	205	404
0.46	4330	3039	29300	1.00	**RF**	**107R77**	**DRN**	**71MS4**	210	404
					RM	**107R77**	**DRN**	**71MS4**	300	404
					R	**107R77**	**DRN**	**71MS4**	195	404
0.46	4390	3034	28900	1.00	**RF**	**107R77**	**DRN**	**71MS4**	205	404
					RM	**107R77**	**DRN**	**71MS4**	290	404
0.71	2830	1987	35400	1.50						
0.77	2550	1827	36100	1.70						
0.88	2190	1599	36600	1.95	**R**	**107R77**	**DRN**	**71MS4**	200	404
1.0	1950	1400	36800	2.2	**RF**	**107R77**	**DRN**	**71MS4**	210	404
1.1	1680	1226	37100	2.6	**RM**	**107R77**	**DRN**	**71MS4**	295	404
1.5	1310	939	37400	3.3						
1.7	1120	822	37500	3.8						
					R	**97R57**	**DRN**	**71MS4**	125	404
0.81	2610	1733	23400	1.15	**RF**	**97R57**	**DRN**	**71MS4**	145	404
0.87	2440	1623	24400	1.25	**RM**	**97R57**	**DRN**	**71MS4**	195	404
0.77	2720	1823	16300	1.10						
0.89	2360	1583	20500	1.25						
1.0	2040	1396	24300	1.45						
1.1	1770	1228	27200	1.70	**R**	**97R57**	**DRN**	**71MS4**	130	404
1.3	1610	1069	27500	1.85	**RF**	**97R57**	**DRN**	**71MS4**	145	404
1.5	1400	938	27800	2.1	**RM**	**97R57**	**DRN**	**71MS4**	195	404
1.7	1190	824	28000	2.5						
1.9	1060	737	28200	2.8						
2.2	910	632	28300	3.3						
1.2	1700	1145	15800	0.90						
1.4	1530	1037	17000	1.00	**R**	**87R57**	**DRN**	**71MS4**	86	404
1.5	1360	931	18100	1.15	**RF**	**87R57**	**DRN**	**71MS4**	93	404
1.8	1160	802	19100	1.35	**RM**	**87R57**	**DRN**	**71MS4**	125	404

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	1640	1143	11200	0.95						
1.6	1300	885	18400	1.20						
1.8	1140	776	19200	1.35						
2.0	1010	685	19800	1.55	**R**	**87R57**	**DRN**	**71MS4**	87	404
2.4	850	599	20000	1.80	**RF**	**87R57**	**DRN**	**71MS4**	94	404
2.7	745	525	20000	2.1	**RM**	**87R57**	**DRN**	**71MS4**	125	404
3.1	655	456	20000	2.4						
5.2	375	268	20000	4.1						
					R	**77R37**	**DRN**	**71MS4**	47	404
2.5	840	571	9700	0.95	**RF**	**77R37**	**DRN**	**71MS4**	53	404
					RM	**77R37**	**DRN**	**71MS4**	78	404
2.5	850	560	9580	0.95						
2.9	730	488	10700	1.10						
3.2	650	436	11200	1.25						
3.8	555	373	11800	1.45	**R**	**77R37**	**DRN**	**71MS4**	48	404
4.3	490	327	12100	1.65	**RF**	**77R37**	**DRN**	**71MS4**	53	404
4.9	435	289	12300	1.90	**RM**	**77R37**	**DRN**	**71MS4**	78	404
5.4	385	260	12500	2.1						
6.3	325	224	12700	2.5						
3.6	570	388	7890	1.05						
4.1	520	344	8390	1.15						
4.8	425	294	9150	1.40						
5.4	385	261	9400	1.55	**R**	**67R37**	**DRN**	**71MS4**	42	404
6.0	345	234	9640	1.70	**RF**	**67R37**	**DRN**	**71MS4**	45	404
7.0	295	200	9900	2.0	**RM**	**67R37**	**DRN**	**71MS4**	61	404
8.0	255	176	10100	2.4						
8.9	225	158	10200	2.6						
3.7	590	384	7630	1.00						
3.9	550	359	8070	1.10						
4.5	475	310	8790	1.25	**R**	**67R37**	**DRN**	**71MS4**	41	404
5.3	400	264	9330	1.50	**RF**	**67R37**	**DRN**	**71MS4**	45	404
6.0	355	235	9600	1.70	**RM**	**67R37**	**DRN**	**71MS4**	60	404
7.0	300	201	9880	2.0						
7.7	270	181	10000	2.2						
4.4	475	319	6620	0.95						
5.2	400	273	7300	1.10						
5.8	350	241	7480	1.30	**R**	**57R37**	**DRN**	**71MS4**	36	404
6.5	310	215	7590	1.45	**RF**	**57R37**	**DRN**	**71MS4**	39	404
7.5	275	187	7690	1.65	**RM**	**57R37**	**DRN**	**71MS4**	51	404
8.6	235	164	7780	1.90						
9.9	205	142	7840	2.2						
4.3	500	324	6130	0.90						
4.8	440	290	7130	1.00	**R**	**57R37**	**DRN**	**71MS4**	35	404
5.4	400	262	7300	1.10	**RF**	**57R37**	**DRN**	**71MS4**	38	404
5.7	370	246	7400	1.20	**RM**	**57R37**	**DRN**	**71MS4**	50	404
6.4	330	220	7540	1.35						
6.2	340	228	3900	0.85						
7.2	290	195	5210	1.05	**R**	**47R37**	**DRN**	**71MS4**	30	404
7.7	270	182	5560	1.10	**RF**	**47R37**	**DRN**	**71MS4**	30	404
9.1	225	154	5760	1.35						
9.4	225	150	3430	0.85						
11	194	130	4400	1.05						
11	184	124	4670	1.10	**R**	**37R17**	**DRN**	**71MS4**	19	404
13	163	110	5260	1.20	**RF**	**37R17**	**DRN**	**71MS4**	20	404
15	139	94	5560	1.45						
10	200	135	4160	1.00						
11	196	127	4330	1.00	**R**	**37R17**	**DRN**	**71MS4**	19	404
14	159	104	5370	1.25	**RF**	**37R17**	**DRN**	**71MS4**	20	404
16	138	90	5570	1.45						
4.7	505	195.24*	12000	1.60	**R**	**77**	**DRN**	**71M6**	40	386
5.5	430	166.59	12400	1.90	**RF**	**77**	**DRN**	**71M6**	45	387
6.3	380	145.67	12600	2.2	**RM**	**77**	**DRN**	**71M6**	70	387

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	330	195.24*	12700	2.5						
8.4	280	166.59	12800	2.9	**R**	**77**	**DRN**	**71MS4**	38	386
9.7	245	145.67	12900	3.3	**RF**	**77**	**DRN**	**71MS4**	44	387
10	235	138.39	13000	3.5	**RM**	**77**	**DRN**	**71MS4**	69	387
12	205	121.42	13000	4.0						
4.6	520	199.81	8390	1.15						
5.0	480	184.07	8750	1.25						
5.8	410	158.14	9250	1.45	**R**	**67**	**DRN**	**71M6**	32	383
6.7	355	137.67	9580	1.65	**RF**	**67**	**DRN**	**71M6**	36	384
7.1	335	128.97	9700	1.80	**RM**	**67**	**DRN**	**71M6**	51	384
8.0	295	113.94	9900	2.0						
8.7	275	105.83	9990	2.2						
7.0	335	199.81	9690	1.75						
7.6	310	184.07	9820	1.90						
8.9	265	158.14	10000	2.2						
10	230	137.67	10100	2.6	**R**	**67**	**DRN**	**71MS4**	31	383
11	215	128.97	10200	2.7	**RF**	**67**	**DRN**	**71MS4**	34	384
12	193	113.94	10300	3.1	**RM**	**67**	**DRN**	**71MS4**	50	384
13	179	105.83	10300	3.3						
15	162	95.91	10400	3.7						
16	146	86.11	10400	4.1						
4.9	485	186.89	6390	0.90						
5.3	445	172.17	7110	1.00						
6.2	385	147.92	7360	1.15	**R**	**57**	**DRN**	**71M6**	26	380
7.1	335	128.77	7520	1.35	**RF**	**57**	**DRN**	**71M6**	29	381
7.6	310	120.63	7590	1.45	**RM**	**57**	**DRN**	**71M6**	41	381
8.6	275	106.58	7690	1.60						
9.2	255	98.99	7730	1.75						
7.5	315	186.89	7580	1.40						
8.2	290	172.17	7650	1.55						
9.5	250	147.92	7750	1.80						
11	215	128.77	7820	2.1						
12	200	120.63	7840	2.2	**R**	**57**	**DRN**	**71MS4**	25	380
13	181	106.58	7880	2.5	**RF**	**57**	**DRN**	**71MS4**	28	381
14	168	98.99	7900	2.7	**RM**	**57**	**DRN**	**71MS4**	40	381
16	152	89.71	7920	3.0						
17	136	80.55	7940	3.3						
20	117	69.23	7960	3.8						
7.9	300	176.88	4980	1.00						
8.6	275	162.94	5540	1.10						
10	235	139.99	5710	1.25						
12	205	121.87	5830	1.45						
12	193	114.17	5870	1.55						
14	171	100.86	5940	1.75						
15	159	93.68	5970	1.90	**R**	**47**	**DRN**	**71MS4**	19	377
17	144	84.90	6010	2.1	**RF**	**47**	**DRN**	**71MS4**	20	378
18	129	76.23	6040	2.3						
20	116	68.54	6070	2.6						
22	109	64.21	6080	2.8						
25	96	56.73	6100	3.1						
27	89	52.69	6110	3.4						
29	81	47.75	5940	3.7						
10	225	134.82	3420	0.85						
11	210	123.66	3950	0.95						
13	178	105.28	4840	1.10						
15	154	90.77	5430	1.30						
17	143	84.61	5520	1.40						
19	125	73.96	5660	1.60						
20	117	69.33	5710	1.70	**R**	**37**	**DRN**	**71MS4**	16	374
23	103	61.18	5800	1.90	**RF**	**37**	**DRN**	**71MS4**	17	375
25	94	55.76	5840	2.1						
29	81	48.08	5740	2.5						
31	76	44.81	5630	2.6						
36	66	39.17	5410	3.0						
38	62	36.72	5310	3.2						
43	55	32.40	5110	3.6						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	144	84.78	3160	0.90						
19	125	74.11	3640	1.05						
20	118	69.47	3850	1.10						
23	104	61.30	4030	1.25						
25	94	55.87	4010	1.35						
29	81	48.17	3860	1.60	**R**	**27**	**DRN**	**71MS4**	9.8	371
31	76	44.90	3790	1.70	**RF**	**27**	**DRN**	**71MS4**	9.8	372
36	66	39.25	3650	1.95						
38	62	36.79	3590	2.1						
43	55	32.47	3460	2.4						
49	48	28.78	3350	2.7						
57	41	24.47	3200	3.1						
50	48	28.37	3340	2.7						
54	44	26.09	3260	2.9						
63	37	22.32	3110	3.4						
73	32	19.35	2980	4.0						
78	30	18.08	2920	4.2						
90	26	15.63	2800	4.9						
106	22	13.28*	2660	5.8						
118	20	11.86	2570	6.4						
139	17	10.13	2450	7.1	**R**	**27**	**DRN**	**71MS4**	9.6	371
149	15	9.41	2380	7.6	**RF**	**27**	**DRN**	**71MS4**	9.5	372
172	13	8.16	2280	8.4						
184	12	7.63*	2230	8.6						
213	11	6.59	2130	9.5						
251	9.0	5.60*	2020	10						
281	8.0	5.00*	1950	11						
329	7.0	4.27	1860	12						
351	6.0	4.00*	1820	13						
417	5.0	3.37	1720	14						
24	97	57.35	890	0.85						
26	91	53.76	1350	0.95						
30	80	47.44	2030	1.05						
32	75	44.18	2220	1.15						
36	65	38.61	2170	1.30	**R**	**17**	**DRN**	**71MS4**	9.4	368
39	61	36.20	2140	1.40	**RF**	**17**	**DRN**	**71MS4**	9.4	369
44	54	31.94	2090	1.55						
50	48	28.32	2040	1.75						
58	40	24.07	1960	2.1						
56	42	25.23	1990	2.0						
61	39	23.15	1950	2.2						
71	33	19.71	1870	2.5						
83	28	16.99	1800	2.9	**R**	**17**	**DRN**	**71MS4**	9.2	368
89	26	15.84	1770	3.2	**RF**	**17**	**DRN**	**71MS4**	9.1	369
102	23	13.84	1710	3.6						
108	22	12.98	1680	3.9						
123	19	11.45	1620	4.2						
41	57	34.05	1190	0.85						
48	49	29.08	1190	1.00						
52	45	26.97	1180	1.10	**R**	**07**	**DRN**	**71MS4**	8.3	365
60	39	23.32	1150	1.25	**RF**	**07**	**DRN**	**71MS4**	8.3	366
65	36	21.73	1140	1.35						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
77	31	18.31	1110	1.60						
84	28	16.73	1090	1.75						
100	23	14.12	1050	2.1						
117	20	12.06	1010	2.4						
126	19	11.18	990	2.6						
145	16	9.67	960	3.0						
156	15	9.01	940	3.3						
179	13	7.85	910	3.7	**R**	**07**	**DRN**	**71MS4**	8.2	365
188	12	7.48	900	3.4	**RF**	**07**	**DRN**	**71MS4**	8.2	366
206	11	6.83	880	3.7						
244	9.0	5.76	840	4.1						
285	8.0	4.92	800	4.4						
308	7.0	4.57	785	4.6						
356	6.0	3.95	755	5.1						
382	6.0	3.68	740	5.3						
438	5.0	3.21	710	5.7						
246	9.0	11.18	840	5.2						
285	8.0	9.67	800	6.0						
306	7.0	9.01	785	6.4						
351	6.0	7.85	755	7.2						
368	6.0	7.48	745	6.6						
403	5.0	6.83	725	7.3	**R**	**07**	**DRN**	**63M2**	7.6	365
478	5.0	5.76	690	8.0	**RF**	**07**	**DRN**	**63M2**	7.6	366
560	4.0	4.92	660	8.7						
603	3.0	4.57	645	9.1						
698	3.0	3.95	615	9.9						
749	3.0	3.68	605	10						
859	2.0	3.21	580	11						
151	15	6.07	4830	2.7						
177	13	5.18	4590	5.5	**RX**	**67**	**DRN**	**71M6**	19	355
202	11	4.53	4390	6.9	**RXF**	**67**	**DRN**	**71M6**	23	356
213	11	4.30*	4320	7.1						
232	10	6.07	4210	4.2						
271	8.0	5.18	4000	8.5						
310	7.0	4.53	3820	11						
327	7.0	4.30*	3760	11						
372	6.0	3.77	3600	14	**RX**	**67**	**DRN**	**71MS4**	18	355
439	5.0	3.20*	3420	18	**RXF**	**67**	**DRN**	**71MS4**	22	356
486	4.0	2.89	3300	22						
553	4.0	2.54	3170	27						
585	4.0	2.40*	3110	30						
688	3.0	2.04	2950	39						
166	14	5.50*	3790	2.7						
181	13	5.07	3700	2.7	**RX**	**57**	**DRN**	**71M6**	16	353
210	11	4.35	3520	6.0	**RXF**	**57**	**DRN**	**71M6**	18	354
241	9.0	3.79	3370	7.0						
255	9.0	5.50*	3310	4.2						
277	8.0	5.07	3220	4.2						
323	7.0	4.35	3070	9.2						
371	6.0	3.79	2930	11						
396	6.0	3.55*	2870	11						
448	5.0	3.14	2760	12	**RX**	**57**	**DRN**	**71MS4**	15	353
482	4.0	2.91	2690	14	**RXF**	**57**	**DRN**	**71MS4**	17	354
532	4.0	2.64*	2610	15						
593	4.0	2.37	2520	17						
688	3.0	2.04	2400	20						
732	3.0	1.92*	2350	21						
850	2.0	1.65	2240	25						

26883198/EN – 04/2022

P_m = 0.37 kW

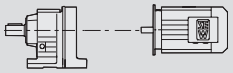
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.05	53900	27001	-	0.35						
0.06	44800	22482	-	0.45						
0.07	39900	20002	52000	0.50						
0.08	34600	17361	120000	0.60	**R**	**167R97**	**DRN**	**71M4**	750	405
0.09	30800	15446	120000	0.65	**RF**	**167R97**	**DRN**	**71M4**	760	405
0.10	28000	14051	120000	0.70	**RM**	**167R97**	**DRN**	**71M4**	960	405
0.12	23400	11812	120000	0.85						
0.13	20800	10509	120000	0.95						
0.15	19200	9631	120000	1.05						
0.19	15500	7307	43700	0.85						
0.22	13600	6447	61200	0.95						
0.25	11800	5568	64900	1.10						
0.29	10600	4926	66900	1.25	**R**	**147R77**	**DRN**	**71M4**	425	404
0.33	9210	4325	68800	1.40	**RF**	**147R77**	**DRN**	**71M4**	430	404
0.38	8080	3754	70200	1.60	**RM**	**147R77**	**DRN**	**71M4**	600	404
0.43	7030	3302	71300	1.85						
0.49	6140	2898	72100	2.1						
					R	**137R77**	**DRN**	**71M4**	290	404
0.32	9470	4464	41400	0.85	**RF**	**137R77**	**DRN**	**71M4**	315	404
0.36	8330	3928	52500	0.95	**RM**	**137R77**	**DRN**	**71M4**	425	404
0.35	8840	4018	50300	0.90						
0.40	7730	3514	53900	1.05						
0.42	7340	3338	54700	1.10	**R**	**137R77**	**DRN**	**71M4**	280	404
0.48	6440	2929	56300	1.25	**RF**	**137R77**	**DRN**	**71M4**	305	404
0.57	5450	2484	57800	1.45	**RM**	**137R77**	**DRN**	**71M4**	415	404
0.63	4880	2242	58500	1.65						
0.53	5830	2658	57300	1.35						
0.59	5290	2412	58000	1.50						
0.68	4550	2073	58900	1.75						
0.77	3940	1839	59500	2.0	**R**	**137R77**	**DRN**	**71M4**	290	404
1.0	3040	1397	60300	2.6	**RF**	**137R77**	**DRN**	**71M4**	315	404
1.1	2640	1226	60600	3.0	**RM**	**137R77**	**DRN**	**71M4**	425	404
1.3	2370	1090	60700	3.4						
1.5	2070	951	60900	3.9						
0.46	6370	3110	43000	0.95						
0.50	5760	2812	43000	1.05						
0.59	4880	2383	43000	1.25						
0.73	4120	1934	43000	1.45	**R**	**127R77**	**DRN**	**71M4**	260	404
0.77	3840	1835	43000	1.55	**RF**	**127R77**	**DRN**	**71M4**	275	404
0.91	3260	1555	43000	1.85	**RM**	**127R77**	**DRN**	**71M4**	370	404
0.98	2960	1444	43000	2.0						
1.2	2510	1224	43000	2.4						
0.46	6720	3056	43000	0.90						
0.49	6380	2903	43000	0.95						
0.56	5600	2547	43000	1.05						
0.65	4740	2161	43000	1.25						
0.73	4250	1951	43000	1.40	**R**	**127R77**	**DRN**	**71M4**	245	404
0.82	3700	1716	43000	1.60	**RF**	**127R77**	**DRN**	**71M4**	265	404
0.87	3480	1620	43000	1.70	**RM**	**127R77**	**DRN**	**71M4**	360	404
1.0	2920	1380	43000	2.0						
1.2	2650	1210	43000	2.3						
1.5	2070	961	43000	2.9						
1.8	1640	773	43000	3.7						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.56	5500	2506	43000	1.10						
0.62	4970	2266	43000	1.20						
0.70	4340	2016	43000	1.40						
0.74	4210	1920	43000	1.40						
0.78	3930	1823	43000	1.55						
0.85	3540	1673	43000	1.70						
0.92	3330	1545	43000	1.80						
0.94	3200	1512	43000	1.85						
1.1	2740	1322	43000	2.2	**R**	**127R77**	**DRN**	**71M4**	260	404
1.1	2710	1282	43000	2.2	**RF**	**127R77**	**DRN**	**71M4**	270	404
1.2	2480	1195	43000	2.4	**RM**	**127R77**	**DRN**	**71M4**	365	404
1.2	2550	1164	43000	2.4						
1.4	2100	1013	43000	2.9						
1.4	2160	987	43000	2.8						
1.5	2020	936	43000	3.0						
1.7	1740	830	43000	3.4						
1.8	1710	794	43000	3.5						
1.8	1640	777	43000	3.6						
1.9	1570	750	43000	3.8						
0.68	4530	2067	28100	0.95						
0.84	3690	1693	32400	1.15						
0.91	3320	1550	33800	1.30	**R**	**107R77**	**DRN**	**71M4**	200	404
1.0	3020	1407	34900	1.40	**RF**	**107R77**	**DRN**	**71M4**	205	404
1.2	2590	1209	36000	1.65	**RM**	**107R77**	**DRN**	**71M4**	290	404
1.3	2260	1055	36500	1.90						
0.71	4330	1987	29300	1.00						
0.77	3920	1827	31400	1.10						
0.88	3390	1599	33600	1.25	**R**	**107R77**	**DRN**	**71M4**	205	404
1.0	3000	1400	34900	1.45	**RF**	**107R77**	**DRN**	**71M4**	210	404
1.1	2600	1226	36000	1.65	**RM**	**107R77**	**DRN**	**71M4**	300	404
1.5	2010	939	36800	2.1						
1.7	1740	822	37000	2.5						
1.2	2690	1207	23000	1.10	**R**	**97R57**	**DRN**	**71M4**	130	404
1.3	2400	1084	24600	1.25	**RF**	**97R57**	**DRN**	**71M4**	145	404
					RM	**97R57**	**DRN**	**71M4**	195	404
1.0	3090	1396	11900	0.95						
1.1	2700	1228	16600	1.10						
1.3	2410	1069	24500	1.25						
1.5	2100	938	26000	1.40	**R**	**97R57**	**DRN**	**71M4**	130	404
1.7	1810	824	27100	1.65	**RF**	**97R57**	**DRN**	**71M4**	145	404
1.9	1620	737	27500	1.85	**RM**	**97R57**	**DRN**	**71M4**	200	404
2.2	1380	632	27800	2.2						
3.3	950	431	28300	3.1						
3.7	830	379	28400	3.6						
4.2	745	336	28400	4.0						
1.8	1760	802	15300	0.90	**R**	**87R57**	**DRN**	**71M4**	87	404
1.9	1650	754	16200	0.95	**RF**	**87R57**	**DRN**	**71M4**	95	404
2.2	1400	649	17800	1.10	**RM**	**87R57**	**DRN**	**71M4**	125	404
1.8	1730	776	15500	0.90						
2.1	1520	685	17100	1.00						
2.4	1290	599	16200	1.20	**R**	**87R57**	**DRN**	**71M4**	88	404
2.7	1130	525	18500	1.35	**RF**	**87R57**	**DRN**	**71M4**	95	404
3.1	990	456	19800	1.55	**RM**	**87R57**	**DRN**	**71M4**	125	404
5.3	580	268	20000	2.7						
6.0	510	236	20000	3.0						
2.6	1220	538	18800	1.25	**R**	**87R57**	**DRN**	**71M4**	87	404
3.0	1070	472	19500	1.45	**RF**	**87R57**	**DRN**	**71M4**	94	404
3.5	900	400	20000	1.70	**RM**	**87R57**	**DRN**	**71M4**	125	404
3.9	810	361	20000	1.90						

26883198/EN – 04/2022

P_m = 0.37 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
3.8	830	373	9740	1.00							
4.3	735	327	10600	1.10							
4.9	650	289	11200	1.25							
5.5	580	260	11600	1.40	**R**	**77R37**	**DRN**	**71M4**		49	404
6.3	490	224	12100	1.65	**RF**	**77R37**	**DRN**	**71M4**		55	404
7.2	430	197	12400	1.90	**RM**	**77R37**	**DRN**	**71M4**		80	404
8.4	375	169	12600	2.2							
9.5	330	149	12700	2.5							
4.8	645	294	6700	0.95							
5.4	580	261	7730	1.05	**R**	**67R37**	**DRN**	**71M4**		44	404
6.0	525	234	8350	1.15	**RF**	**67R37**	**DRN**	**71M4**		47	404
7.1	445	200	9020	1.35	**RM**	**67R37**	**DRN**	**71M4**		62	404
3.2	1090	289.74	28100	2.7							
3.7	960	255.71	28300	3.1	**R**	**97**	**DRN**	**80MK6**		110	392
3.9	910	241.25	28300	3.3	**RF**	**97**	**DRN**	**80MK6**		125	393
4.3	810	216.28	28400	3.7	**RM**	**97**	**DRN**	**80MK6**		180	393
3.8	930	246.54	20000	1.65							
4.3	810	216.54	20000	1.90							
4.5	775	205.71	20000	2.0	**R**	**87**	**DRN**	**80MK6**		68	389
5.1	685	181.77	20000	2.3	**RF**	**87**	**DRN**	**80MK6**		75	390
6.0	585	155.34	20000	2.6	**RM**	**87**	**DRN**	**80MK6**		105	390
6.6	535	142.41	20000	2.9							
5.6	625	166.59	11400	1.30	**R**	**77**	**DRN**	**80MK6**		42	386
6.4	550	145.67	11800	1.50	**RF**	**77**	**DRN**	**80MK6**		48	387
6.8	520	138.39	12000	1.55	**RM**	**77**	**DRN**	**80MK6**		73	387
7.2	485	195.24*	12100	1.70							
8.5	415	166.59	12400	1.95							
9.7	360	145.67	12600	2.2	**R**	**77**	**DRN**	**71M4**		40	386
10	345	138.39	12700	2.4	**RF**	**77**	**DRN**	**71M4**		45	387
12	300	121.42	12800	2.7	**RM**	**77**	**DRN**	**71M4**		70	387
14	255	102.99	12900	3.2							
15	230	92.97	13000	3.5							
5.9	595	158.14	7590	1.00							
6.8	520	137.67	8400	1.15	**R**	**67**	**DRN**	**80MK6**		35	383
7.2	485	128.97	8690	1.25	**RF**	**67**	**DRN**	**80MK6**		38	384
8.2	430	113.94	9130	1.40	**RM**	**67**	**DRN**	**80MK6**		54	384
7.1	495	199.81	8590	1.20							
7.7	455	184.07	8910	1.30							
8.9	390	158.14	9370	1.50							
10	340	137.67	9670	1.75							
11	320	128.97	9780	1.85							
12	280	113.94	9950	2.1	**R**	**67**	**DRN**	**71M4**		32	383
13	260	105.83	10000	2.3	**RF**	**67**	**DRN**	**71M4**		36	384
15	235	95.91	10100	2.5	**RM**	**67**	**DRN**	**71M4**		51	384
16	215	86.11	10200	2.8							
19	185	74.17	10300	3.2							
20	174	69.75	10300	3.4							
23	152	61.26	10400	3.9							
25	142	56.89	10400	4.2							
7.3	485	128.77	6410	0.90							
7.8	455	120.63	7000	1.00	**R**	**57**	**DRN**	**80MK6**		28	380
8.8	400	106.58	7300	1.10	**RF**	**57**	**DRN**	**80MK6**		32	381
9.4	370	98.99	7400	1.20	**RM**	**57**	**DRN**	**80MK6**		44	381

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.6	465	186.89	6790	0.95						
8.2	425	172.17	7190	1.05						
9.6	365	147.92	7420	1.20						
11	320	128.77	7570	1.40						
12	300	120.63	7630	1.50						
13	265	106.58	7720	1.70						
14	245	98.99	7760	1.80	**R**	**57**	**DRN**	**71M4**	26	380
16	220	89.71	7810	2.0	**RF**	**57**	**DRN**	**71M4**	29	381
18	200	80.55	7850	2.2	**RM**	**57**	**DRN**	**71M4**	41	381
20	172	69.23	7900	2.6						
22	161	64.85	7910	2.8						
25	143	57.29	7700	3.1						
27	132	53.22	7540	3.4						
29	120	48.23	7320	3.7						
10	345	139.99	3770	0.85						
12	300	121.87	4880	1.00						
12	285	114.17	5360	1.05						
14	250	100.86	5650	1.20						
15	230	93.68	5730	1.30						
17	210	84.90	5810	1.40						
19	190	76.23	5880	1.60						
21	171	68.54	5940	1.75	**R**	**47**	**DRN**	**71M4**	21	377
22	160	64.21	5970	1.85	**RF**	**47**	**DRN**	**71M4**	21	378
25	141	56.73	6020	2.1						
27	131	52.69	5940	2.3						
30	119	47.75	5780	2.5						
33	107	42.87	5610	2.8						
38	92	36.93	5370	3.2						
41	86	34.73	5280	3.5						
42	84	33.79	5230	2.8						
45	77	31.12	5110	2.8						
53	66	26.74	4880	4.5	**R**	**47**	**DRN**	**71M4**	20	377
61	58	23.28	4680	5.2	**RF**	**47**	**DRN**	**71M4**	20	378
65	54	21.81	4590	5.5						
16	225	90.77	3480	0.90						
17	210	84.61	3920	0.95						
19	184	73.96	4670	1.10						
20	173	69.33	5000	1.15						
23	152	61.18	5450	1.30						
25	139	55.76	5560	1.45						
29	120	48.08	5550	1.65	**R**	**37**	**DRN**	**71M4**	17	374
32	111	44.81	5440	1.80	**RF**	**37**	**DRN**	**71M4**	18	375
36	97	39.17	5250	2.0						
39	91	36.72	5160	2.2						
44	80	32.40	4980	2.5						
49	71	28.73	4810	2.8						
58	60	24.42	4590	3.3						
50	70	28.32	4790	2.8						
54	65	26.03	4680	2.9						
64	55	22.27	4470	3.6						
73	48	19.31	4280	4.2	**R**	**37**	**DRN**	**71M4**	17	374
78	45	18.05	4200	4.4	**RF**	**37**	**DRN**	**71M4**	18	375
91	38	15.60	4020	5.1						
107	33	13.25	3820	5.7						
120	29	11.83	3690	6.2						
23	153	61.30	2930	0.85						
25	139	55.87	3280	0.95						
29	120	48.17	3660	1.10						
32	112	44.90	3600	1.15						
36	98	39.25	3490	1.35	**R**	**27**	**DRN**	**71M4**	11	371
38	91	36.79	3430	1.40	**RF**	**27**	**DRN**	**71M4**	11	372
44	81	32.47	3330	1.60						
49	71	28.78	3230	1.80						
58	61	24.47	3090	2.1						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
50	70	28.37	3220	1.85						
54	65	26.09	3140	2.0						
63	55	22.32	3020	2.3						
73	48	19.35	2900	2.7	**R**	**27**	**DRN**	**71M4**	11	371
78	45	18.08	2840	2.9	**RF**	**27**	**DRN**	**71M4**	11	372
91	39	15.63	2730	3.3						
107	33	13.28*	2600	3.9						
37	96	38.61	970	0.90						
39	90	36.20	1420	0.95						
44	79	31.94	1900	1.05	**R**	**17**	**DRN**	**71M4**	11	368
50	70	28.32	1870	1.20	**RF**	**17**	**DRN**	**71M4**	11	369
59	60	24.07	1820	1.40						
56	63	25.23	1840	1.35						
61	57	23.15	1810	1.45						
72	49	19.71	1750	1.75						
83	42	16.99	1700	2.0						
89	39	15.84	1680	2.1						
102	34	13.84	1620	2.5						
109	32	12.98	1600	2.6						
124	28	11.45	1550	2.8						
139	25	10.15	1510	3.0	**R**	**17**	**DRN**	**71M4**	10	368
164	21	8.63	1450	3.3	**RF**	**17**	**DRN**	**71M4**	10	369
187	18	7.55	1360	3.0						
201	17	7.04	1340	3.1						
230	15	6.15	1290	3.5						
245	14	5.76	1270	3.7						
278	12	5.09	1230	4.0						
314	11	4.51	1190	4.3						
369	9.0	3.83	1140	4.7						
77	45	18.31	990	1.10						
85	41	16.73	980	1.20						
100	35	14.12	960	1.40						
117	30	12.06	940	1.65						
127	27	11.18	920	1.80						
146	24	9.67	900	2.1						
157	22	9.01	890	2.2						
180	19	7.85	860	2.5	**R**	**07**	**DRN**	**71M4**	9.4	365
189	18	7.48	860	2.3	**RF**	**07**	**DRN**	**71M4**	9.4	366
207	17	6.83	840	2.5						
245	14	5.76	800	2.8						
287	12	4.92	775	3.0						
310	11	4.57	760	3.2						
358	9.0	3.95	730	3.5						
385	9.0	3.68	715	3.6						
441	8.0	3.21	690	3.9						
291	12	9.67	770	4.1						
312	11	9.01	755	4.4						
358	9.0	7.85	730	5.0						
376	9.0	7.48	720	4.6						
411	8.0	6.83	705	5.0						
487	7.0	5.76	670	5.5	**R**	**07**	**DRN**	**71MS2**	8.2	365
571	6.0	4.92	640	6.0	**RF**	**07**	**DRN**	**71MS2**	8.2	366
615	5.0	4.57	625	6.3						
712	4.0	3.95	600	6.8						
764	4.0	3.68	590	7.1						
876	4.0	3.21	565	7.7						
181	19	5.18	4520	3.8						
207	17	4.53	4330	4.8	**RX**	**67**	**DRN**	**80MK6**	21	355
217	16	4.30*	4260	4.9	**RXF**	**67**	**DRN**	**80MK6**	25	356
248	14	3.77	4080	6.1						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
233	15	6.07	4160	2.8						
273	12	5.18	3960	5.8						
313	11	4.53	3790	7.3						
329	10	4.30*	3730	7.5						
375	9.0	3.77	3580	9.2	**RX**	**67**	**DRN**	**71M4**	19	355
442	7.0	3.20*	3390	13	**RXF**	**67**	**DRN**	**71M4**	23	356
490	7.0	2.89	3280	15						
557	6.0	2.54	3150	19						
590	5.0	2.40*	3090	21						
692	5.0	2.04	2930	26						
215	16	4.35	3460	4.1						
247	14	3.79	3310	4.8	**RX**	**57**	**DRN**	**80MK6**	19	353
263	13	3.55*	3240	5.1	**RXF**	**57**	**DRN**	**80MK6**	21	354
257	13	5.50*	3270	2.8						
279	12	5.07	3190	2.9						
325	10	4.35	3040	6.3						
373	9.0	3.79	2900	7.3						
399	8.0	3.55*	2840	7.8						
451	7.0	3.14	2740	8.3	**RX**	**57**	**DRN**	**71M4**	16	353
486	7.0	2.91	2670	9.2	**RXF**	**57**	**DRN**	**71M4**	18	354
536	6.0	2.64*	2590	10						
597	5.0	2.37	2500	12						
693	5.0	2.04	2380	14						
737	4.0	1.92*	2330	14						
856	4.0	1.65	2220	17						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.15	29600	9631	120000	0.65						
0.24	18600	6077	120000	1.05	**R**	**167R97**	**DRN**	**80MK4**	760	405
0.27	16500	5407	120000	1.20	**RF**	**167R97**	**DRN**	**80MK4**	760	405
0.31	14000	4650	120000	1.40	**RM**	**167R97**	**DRN**	**80MK4**	960	405
0.35	12200	4129	120000	1.65						
0.54	8270	2657	120000	2.4						
0.62	7150	2333	120000	2.8						
0.69	6270	2085	120000	3.2						
1.0	4480	1438	120000	4.5	**R**	**167R97**	**DRN**	**80MK4**	750	405
1.1	3980	1279	120000	5.0	**RF**	**167R97**	**DRN**	**80MK4**	760	405
1.3	3440	1123	120000	5.8	**RM**	**167R97**	**DRN**	**80MK4**	950	405
1.4	3060	999	120000	6.5						
1.7	2640	861	120000	7.6						
1.9	2350	760	120000	8.5						
0.29	15900	4926	37500	0.80						
0.33	13800	4325	60800	0.95	**R**	**147R77**	**DRN**	**80MK4**	425	404
0.38	12100	3754	64300	1.05	**RF**	**147R77**	**DRN**	**80MK4**	435	404
0.43	10600	3302	66900	1.25	**RM**	**147R77**	**DRN**	**80MK4**	600	404
0.50	9280	2898	68800	1.40						
0.56	8400	2555	69800	1.55						
0.65	7270	2211	71100	1.80						
0.74	6410	1951	71900	2.0	**R**	**147R77**	**DRN**	**80MK4**	425	404
0.84	5480	1705	72600	2.4	**RF**	**147R77**	**DRN**	**80MK4**	435	404
0.93	4910	1536	73000	2.6	**RM**	**147R77**	**DRN**	**80MK4**	600	404
1.1	4250	1329	73400	3.1						
1.2	3690	1166	73700	3.5						
					R	**137R77**	**DRN**	**80MK4**	285	404
0.58	8170	2484	53000	1.00	**RF**	**137R77**	**DRN**	**80MK4**	305	404
					RM	**137R77**	**DRN**	**80MK4**	420	404

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.54	8740	2658	50800	0.90						
0.59	7930	2412	53500	1.00						
0.69	6820	2073	55700	1.15						
0.78	5960	1839	57100	1.35						
0.90	5110	1598	58300	1.55	**R**	**137R77**	**DRN**	**80MK4**	295	404
1.0	4570	1397	58900	1.75	**RF**	**137R77**	**DRN**	**80MK4**	315	404
1.2	3980	1226	59500	2.0	**RM**	**137R77**	**DRN**	**80MK4**	425	404
1.3	3560	1090	59900	2.2						
1.5	3110	951	60300	2.6						
1.7	2650	831	60600	3.0						
0.74	6210	1934	43000	0.95						
0.78	5830	1835	43000	1.05	**R**	**127R77**	**DRN**	**80MK4**	265	404
0.92	4940	1555	43000	1.20	**RF**	**127R77**	**DRN**	**80MK4**	275	404
0.99	4520	1444	43000	1.35	**RM**	**127R77**	**DRN**	**80MK4**	370	404
1.2	3830	1224	43000	1.55						
0.66	7100	2161	43000	0.85						
0.74	6380	1951	43000	0.95						
0.84	5580	1716	43000	1.05						
0.89	5250	1620	43000	1.15	**R**	**127R77**	**DRN**	**80MK4**	250	404
1.0	4430	1380	43000	1.35	**RF**	**127R77**	**DRN**	**80MK4**	270	404
1.2	3980	1210	43000	1.50	**RM**	**127R77**	**DRN**	**80MK4**	365	404
1.5	3120	961	43000	1.90						
1.9	2480	773	43000	2.4						
2.4	1920	608	43000	3.1						
0.71	6550	2016	43000	0.90						
0.75	6310	1920	43000	0.95						
0.79	5920	1823	43000	1.00						
0.86	5370	1673	43000	1.10						
0.93	5020	1545	43000	1.20						
0.95	4860	1512	43000	1.25						
1.1	4180	1322	43000	1.45						
1.1	4120	1282	43000	1.45						
1.2	3780	1195	43000	1.60						
1.2	3830	1164	43000	1.55	**R**	**127R77**	**DRN**	**80MK4**	265	404
1.4	3210	1013	43000	1.85	**RF**	**127R77**	**DRN**	**80MK4**	275	404
1.4	3240	987	43000	1.85	**RM**	**127R77**	**DRN**	**80MK4**	370	404
1.5	3040	936	43000	1.95						
1.7	2650	830	43000	2.3						
1.8	2580	794	43000	2.3						
1.9	2490	777	43000	2.4						
1.9	2400	750	43000	2.5						
2.2	2110	659	43000	2.8						
2.3	2030	636	43000	3.0						
2.3	1940	614	43000	3.1						
2.8	1640	521	43000	3.6						
					R	**127R77**	**DRN**	**80MK4**	245	404
2.9	1630	490	43000	3.7	**RF**	**127R77**	**DRN**	**80MK4**	265	404
					RM	**127R77**	**DRN**	**80MK4**	365	404
1.0	4550	1407	28000	0.95						
1.2	3910	1209	31400	1.10						
1.4	3420	1055	33500	1.25	**R**	**107R77**	**DRN**	**80MK4**	200	404
1.6	2980	919	35000	1.45	**RF**	**107R77**	**DRN**	**80MK4**	205	404
1.8	2660	815	35900	1.60	**RM**	**107R77**	**DRN**	**80MK4**	295	404
2.0	2330	717	36400	1.85						
2.3	2030	626	36700	2.1						
1.0	4530	1400	28100	0.95						
1.2	3940	1226	31300	1.10	**R**	**107R77**	**DRN**	**80MK4**	205	404
1.3	3530	1104	33000	1.20	**RF**	**107R77**	**DRN**	**80MK4**	210	404
1.5	3040	939	34800	1.40	**RM**	**107R77**	**DRN**	**80MK4**	300	404
1.8	2640	822	36000	1.65						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.7	2710	824	16400	1.10						
1.9	2420	737	19800	1.25						
2.3	2080	632	26100	1.45						
2.6	1800	560	27100	1.65						
3.0	1570	484	27500	1.90	**R**	**97R57**	**DRN**	**80MK4**	135	404
3.3	1420	431	27700	2.1	**RF**	**97R57**	**DRN**	**80MK4**	150	404
3.8	1240	379	28000	2.4	**RM**	**97R57**	**DRN**	**80MK4**	200	404
4.3	1110	336	28100	2.7						
4.8	970	296	28200	3.1						
5.8	810	249	28400	3.7						
2.7	1710	525	10200	0.90						
3.1	1490	456	17300	1.05	**R**	**87R57**	**DRN**	**80MK4**	90	404
3.6	1290	398	18500	1.20	**RF**	**87R57**	**DRN**	**80MK4**	98	404
4.1	1140	352	19200	1.35	**RM**	**87R57**	**DRN**	**80MK4**	125	404
4.7	980	305	19900	1.55						
3.0	1590	472	16600	0.95	**R**	**87R57**	**DRN**	**80MK4**	89	404
3.6	1340	400	18200	1.15	**RF**	**87R57**	**DRN**	**80MK4**	96	404
4.0	1210	361	18900	1.30	**RM**	**87R57**	**DRN**	**80MK4**	125	404
5.2	930	276	8710	0.90						
6.1	790	236	10200	1.05	**R**	**77R37**	**DRN**	**80MK4**	50	404
6.5	740	221	10600	1.10	**RF**	**77R37**	**DRN**	**80MK4**	56	404
7.7	620	186	11400	1.30	**RM**	**77R37**	**DRN**	**80MK4**	81	404
3.3	1570	289.74	27500	1.90						
3.8	1390	255.71	27800	2.2	**R**	**97**	**DRN**	**90SR6**	120	392
4.0	1310	241.25	27900	2.3	**RF**	**97**	**DRN**	**90SR6**	135	393
4.5	1170	216.28	28000	2.5	**RM**	**97**	**DRN**	**90SR6**	185	393
5.0	1060	289.74	28200	2.8						
5.6	930	255.71	28300	3.2	**R**	**97**	**DRN**	**80MK4**	110	392
6.0	880	241.25	28300	3.4	**RF**	**97**	**DRN**	**80MK4**	125	393
6.6	790	216.28	28400	3.8	**RM**	**97**	**DRN**	**80MK4**	180	393
3.9	1340	246.54	15600	1.15						
4.5	1170	216.54	17900	1.30	**R**	**87**	**DRN**	**90SR6**	77	389
4.7	1110	205.71	18800	1.40	**RF**	**87**	**DRN**	**90SR6**	84	390
5.3	980	181.77	19900	1.55	**RM**	**87**	**DRN**	**90SR6**	115	390
6.2	840	155.34	20000	1.85						
5.8	900	246.54	20000	1.70						
6.6	790	216.54	20000	1.95						
7.0	750	205.71	20000	2.1						
7.9	665	181.77	20000	2.3	**R**	**87**	**DRN**	**80MK4**	68	389
9.2	565	155.34	20000	2.7	**RF**	**87**	**DRN**	**80MK4**	75	390
10	520	142.41	20000	3.0	**RM**	**87**	**DRN**	**80MK4**	105	390
11	455	124.97	20000	3.4						
12	430	118.43*	20000	3.6						
14	375	103.65	20000	4.1						
8.6	605	166.59	11500	1.35						
9.8	530	145.67	11900	1.55						
10	505	138.39	12000	1.60						
12	440	121.42	12300	1.85	**R**	**77**	**DRN**	**80MK4**	42	386
14	375	102.99	12600	2.2	**RF**	**77**	**DRN**	**80MK4**	48	387
15	340	92.97	12700	2.4	**RM**	**77**	**DRN**	**80MK4**	73	387
18	295	81.80	12800	2.7						
19	280	77.24	12800	2.9						
22	240	65.77	12900	3.4						
9.1	575	158.14	7800	1.05						
10	500	137.67	8550	1.20						
11	470	128.97	8820	1.25						
13	415	113.94	9220	1.45						
14	385	105.83	9420	1.55	**R**	**67**	**DRN**	**80MK4**	35	383
15	350	95.91	9630	1.70	**RF**	**67**	**DRN**	**80MK4**	38	384
17	315	86.11	9810	1.90	**RM**	**67**	**DRN**	**80MK4**	54	384
19	270	74.17	10000	2.2						
21	255	69.75	10100	2.4						
23	220	61.26	10200	2.7						
25	205	56.89	10200	2.9						

26883198/EN – 04/2022

P_m = 0.55 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
12	440	120.63	7140	1.00							
13	390	106.58	7340	1.15							
14	360	98.99	7440	1.25							
16	325	89.71	7550	1.35							
18	290	80.55	7640	1.55							
21	250	69.23	7740	1.80	**R**	**57**	**DRN**	**80MK4**		28	380
22	235	64.85	7670	1.90	**RF**	**57**	**DRN**	**80MK4**		32	381
25	205	57.29	7420	2.1	**RM**	**57**	**DRN**	**80MK4**		44	381
27	194	53.22	7280	2.3							
30	176	48.23	7090	2.5							
33	158	43.30	6880	2.8							
38	136	37.30*	6600	3.3							
41	128	35.07	6480	3.5							
55	96	26.31	5960	4.7							
57	91	24.99*	5870	4.9	**R**	**57**	**DRN**	**80MK4**		27	380
65	80	21.93	5650	5.6	**RF**	**57**	**DRN**	**80MK4**		31	381
77	68	18.60*	5380	6.6	**RM**	**57**	**DRN**	**80MK4**		43	381
15	340	93.68	3940	0.85							
17	310	84.90	4730	0.95							
19	275	76.23	5510	1.10							
21	250	68.54	5660	1.20							
22	235	64.21	5720	1.30							
25	205	56.73	5800	1.45	**R**	**47**	**DRN**	**80MK4**		23	377
27	192	52.69	5690	1.55	**RF**	**47**	**DRN**	**80MK4**		23	378
30	174	47.75	5550	1.70							
33	156	42.87	5400	1.90							
39	135	36.93	5190	2.2							
41	127	34.73	5100	2.4							
48	109	29.88	4890	2.7							
54	97	26.74	4740	3.1							
62	85	23.28	4560	3.5	**R**	**47**	**DRN**	**80MK4**		22	377
66	79	21.81	4470	3.8	**RF**	**47**	**DRN**	**80MK4**		23	378
23	220	61.18	3560	0.90							
26	200	55.76	4120	1.00							
30	175	48.08	4920	1.15							
32	164	44.81	5170	1.20							
37	143	39.17	5010	1.40	**R**	**37**	**DRN**	**80MK4**		19	374
39	134	36.72	4930	1.50	**RF**	**37**	**DRN**	**80MK4**		21	375
44	118	32.40	4780	1.70							
50	105	28.73	4630	1.90							
59	89	24.42	4430	2.2							
64	81	22.27	4320	2.5							
74	70	19.31	4160	2.8							
80	66	18.05	4080	3.0	**R**	**37**	**DRN**	**80MK4**		19	374
92	57	15.60	3910	3.5	**RF**	**37**	**DRN**	**80MK4**		20	375
108	48	13.25	3730	3.9							
121	43	11.83	3610	4.2							
37	143	39.25	3180	0.90							
39	134	36.79	3210	0.95							
44	118	32.47	3130	1.10	**R**	**27**	**DRN**	**80MK4**		13	371
50	105	28.78	3050	1.25	**RF**	**27**	**DRN**	**80MK4**		13	372
59	89	24.47	2940	1.45							

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
64	81	22.32	2870	1.60						
74	70	19.35	2770	1.85						
79	66	18.08	2730	1.95						
92	57	15.63	2630	2.3						
108	48	13.28*	2520	2.7						
121	43	11.86	2440	3.0						
142	37	10.13	2330	3.3						
152	34	9.41	2260	3.5	**R**	**27**	**DRN**	**80MK4**	13	371
176	29	8.16	2170	3.9	**RF**	**27**	**DRN**	**80MK4**	13	372
188	27	7.63*	2130	4.0						
218	24	6.59	2040	4.4						
256	20	5.60*	1950	4.8						
287	18	5.00*	1880	5.2						
336	15	4.27	1800	5.6						
359	14	4.00*	1760	5.8						
426	12	3.37	1670	6.4						
53	99	53.76	680	0.85						
60	88	47.44	1560	0.95	**R**	**17**	**DRN**	**71M2**	11	368
64	82	44.18	1600	1.05	**RF**	**17**	**DRN**	**71M2**	11	369
73	71	38.61	1580	1.20						
73	72	19.71	1580	1.20						
84	62	16.99	1550	1.35						
91	57	15.84	1530	1.45						
104	50	13.84	1500	1.70						
111	47	12.98	1480	1.80						
125	41	11.45	1450	1.95						
141	37	10.15	1410	2.1						
166	31	8.63	1370	2.3	**R**	**17**	**DRN**	**80MK4**	13	368
190	27	7.55	1280	2.0	**RF**	**17**	**DRN**	**80MK4**	12	369
204	25	7.04	1260	2.1						
233	22	6.15	1220	2.4						
249	21	5.76	1200	2.5						
282	18	5.09	1170	2.7						
318	16	4.51	1140	2.9						
374	14	3.83	1090	3.2						
327	16	8.63	1160	4.5						
374	14	7.55	1090	4.0	**R**	**17**	**DRN**	**71M2**	10	368
402	13	7.04	1070	4.2	**RF**	**17**	**DRN**	**71M2**	10	369
459	11	6.15	1030	4.7						
154	34	18.31	800	1.45						
169	31	16.73	795	1.60						
200	26	14.12	775	1.90						
234	22	12.06	755	2.2						
253	20	11.18	745	2.4						
292	17	9.67	725	2.8						
313	16	9.01	710	3.0						
360	14	7.85	690	3.4	**R**	**07**	**DRN**	**71M2**	9.4	365
378	13	7.48	685	3.1	**RF**	**07**	**DRN**	**71M2**	9.4	366
414	12	6.83	670	3.4						
490	10	5.76	645	3.7						
574	9.0	4.92	620	4.0						
619	8.0	4.57	605	4.2						
715	7.0	3.95	585	4.6						
768	6.0	3.68	570	4.8						
881	5.0	3.21	550	5.2						
187	28	5.18	4410	2.7						
213	24	4.53	4230	3.3	**RX**	**67**	**DRN**	**90SR6**	29	355
225	23	4.30*	4160	3.4	**RXF**	**67**	**DRN**	**90SR6**	33	356
256	20	3.77	4000	4.2						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
277	18	5.18	3900	4.0						
317	16	4.53	3740	5.0						
334	15	4.30*	3680	5.1						
380	13	3.77	3530	6.3						
448	11	3.20*	3350	8.5						
497	10	2.89	3240	10	**RX**	**67**	**DRN**	**80MK4**	21	355
565	9.0	2.54	3110	13	**RXF**	**67**	**DRN**	**80MK4**	25	356
598	8.0	2.40*	3050	14						
702	7.0	2.04	2900	18						
773	6.0	1.86	2810	19						
892	5.0	1.61	2680	19						
222	23	4.35	3370	2.9						
255	20	3.79	3230	3.4						
272	19	3.55*	3160	3.6	**RX**	**57**	**DRN**	**90SR6**	27	353
308	17	3.14	3040	3.8	**RXF**	**57**	**DRN**	**90SR6**	29	354
332	15	2.91	2980	4.2						
330	15	4.35	2990	4.3						
379	13	3.79	2860	5.0						
404	12	3.55*	2800	5.3						
458	11	3.14	2700	5.7						
493	10	2.91	2630	6.3						
544	9.0	2.64*	2550	7.1	**RX**	**57**	**DRN**	**80MK4**	19	353
605	8.0	2.37	2470	8.0	**RXF**	**57**	**DRN**	**80MK4**	21	354
703	7.0	2.04	2350	9.2						
747	7.0	1.92*	2300	9.8						
869	6.0	1.65	2200	11						
972	5.0	1.48	2120	13						
1100	4.0	1.30	2040	13						

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.19	31500	7749	120000	0.65						
0.21	28000	6894	120000	0.70						
0.24	26000	6077	120000	0.75	**R**	**167R97**	**DRN**	**80M4**	760	405
0.27	23100	5407	120000	0.85	**RF**	**167R97**	**DRN**	**80M4**	770	405
0.31	19700	4650	120000	1.00	**RM**	**167R97**	**DRN**	**80M4**	960	405
0.35	17300	4129	120000	1.15						
0.39	15200	3692	120000	1.30						
0.54	11500	2657	120000	1.75						
0.62	10000	2333	120000	2.0						
0.69	8850	2085	120000	2.3						
0.77	7850	1877	120000	2.5						
0.86	6980	1670	120000	2.9	**R**	**167R97**	**DRN**	**80M4**	760	405
1.0	6250	1438	120000	3.2	**RF**	**167R97**	**DRN**	**80M4**	760	405
1.1	5560	1279	120000	3.6	**RM**	**167R97**	**DRN**	**80M4**	960	405
1.3	4830	1123	120000	4.1						
1.4	4300	999	120000	4.7						
1.7	3700	861	120000	5.4						
1.9	3290	760	120000	6.1						
0.44	14600	3302	54700	0.90	**R**	**147R77**	**DRN**	**80M4**	430	404
0.50	12800	2898	63000	1.00	**RF**	**147R77**	**DRN**	**80M4**	435	404
					RM	**147R77**	**DRN**	**80M4**	600	404
0.56	11500	2555	65300	1.10						
0.65	10000	2211	67800	1.30						
0.74	8830	1951	69300	1.45	**R**	**147R77**	**DRN**	**80M4**	430	404
0.84	7590	1705	70700	1.70	**RF**	**147R77**	**DRN**	**80M4**	435	404
0.94	6810	1536	71500	1.90	**RM**	**147R77**	**DRN**	**80M4**	600	404
1.1	5890	1329	72300	2.2						
1.2	5130	1166	72900	2.5						
0.77	8340	1863	52500	0.95						
0.91	7060	1586	55300	1.15	**R**	**137R77**	**DRN**	**80M4**	285	404
1.0	6290	1391	56600	1.25	**RF**	**137R77**	**DRN**	**80M4**	310	404
1.1	5660	1256	57500	1.40	**RM**	**137R77**	**DRN**	**80M4**	420	404

26883198/EN – 04/2022

P_m = 0.75 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.69	9380	2073	43000	0.85							
0.78	8230	1839	52900	0.95							
0.90	7080	1598	55200	1.15							
1.0	6300	1397	56600	1.25	**R**	**137R77**	**DRN**	**80M4**		295	404
1.2	5500	1226	57800	1.45	**RF**	**137R77**	**DRN**	**80M4**		320	404
1.3	4910	1090	58500	1.65	**RM**	**137R77**	**DRN**	**80M4**		430	404
1.5	4290	951	59200	1.85							
1.7	3680	831	59800	2.2							
2.0	3210	730	60200	2.5							
0.93	6840	1555	43000	0.90	**R**	**127R77**	**DRN**	**80M4**		265	404
1.0	6280	1444	43000	0.95	**RF**	**127R77**	**DRN**	**80M4**		280	404
1.2	5320	1224	43000	1.15	**RM**	**127R77**	**DRN**	**80M4**		375	404
0.89	7250	1620	43000	0.85							
1.0	6140	1380	43000	1.00							
1.2	5470	1210	43000	1.10	**R**	**127R77**	**DRN**	**80M4**		250	404
1.5	4310	961	43000	1.40	**RF**	**127R77**	**DRN**	**80M4**		270	404
1.9	3440	773	43000	1.75	**RM**	**127R77**	**DRN**	**80M4**		370	404
2.4	2680	608	43000	2.2							
0.86	7440	1673	43000	0.80							
0.93	6930	1545	43000	0.85							
0.95	6730	1512	43000	0.90							
1.1	5820	1322	43000	1.05							
1.1	5700	1282	43000	1.05							
1.2	5260	1195	43000	1.15							
1.2	5270	1164	43000	1.15							
1.4	4490	1034	43000	1.35							
1.4	4460	1013	43000	1.35							
1.5	4460	987	43000	1.35							
1.5	4200	936	43000	1.45							
1.5	4060	935	43000	1.50							
1.7	3680	830	43000	1.65	**R**	**127R77**	**DRN**	**80M4**		265	404
1.8	3560	794	43000	1.70	**RF**	**127R77**	**DRN**	**80M4**		275	404
1.8	3440	792	43000	1.75	**RM**	**127R77**	**DRN**	**80M4**		375	404
1.9	3450	777	43000	1.75							
1.9	3320	750	43000	1.80							
2.2	2930	659	43000	2.0							
2.2	2810	642	43000	2.1							
2.3	2820	636	43000	2.1							
2.4	2700	614	43000	2.2							
2.5	2540	581	43000	2.4							
2.8	2290	521	43000	2.6							
2.9	2150	492	43000	2.8							
3.0	2080	480	43000	2.9							
3.5	1760	407	43000	3.4							
3.7	1700	386	43000	3.5							
2.9	2240	490	43000	2.7	**R**	**127R77**	**DRN**	**80M4**		250	404
3.6	1790	394	43000	3.4	**RF**	**127R77**	**DRN**	**80M4**		270	404
					RM	**127R77**	**DRN**	**80M4**		365	404
1.4	4720	1055	25800	0.90	**R**	**107R77**	**DRN**	**80M4**		205	404
1.6	4120	919	30400	1.05	**RF**	**107R77**	**DRN**	**80M4**		210	404
1.8	3670	815	32500	1.15	**RM**	**107R77**	**DRN**	**80M4**		300	404
1.5	4200	939	30000	1.00							
1.8	3650	822	32500	1.20	**R**	**107R77**	**DRN**	**80M4**		210	404
3.9	1630	369	37100	2.6	**RF**	**107R77**	**DRN**	**80M4**		215	404
4.5	1420	323	37300	3.0	**RM**	**107R77**	**DRN**	**80M4**		305	404
2.3	2860	632	21900	1.05							
2.6	2500	560	24100	1.20							
3.0	2170	484	25700	1.40	**R**	**97R57**	**DRN**	**80M4**		135	404
3.3	1960	431	26500	1.55	**RF**	**97R57**	**DRN**	**80M4**		155	404
3.8	1710	379	27300	1.75	**RM**	**97R57**	**DRN**	**80M4**		205	404
4.3	1520	336	27600	1.95							
4.9	1340	296	27900	2.2							
5.8	1110	249	28100	2.7							

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.6	1780	398	15100	0.85						
4.1	1580	352	16700	1.00	**R**	**87R57**	**DRN**	**80M4**	94	404
4.7	1360	305	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	404
5.4	1200	268	18900	1.30	**RM**	**87R57**	**DRN**	**80M4**	130	404
6.1	1060	236	19600	1.45						
4.0	1660	361	16100	0.95	**R**	**87R57**	**DRN**	**80M4**	92	404
4.8	1370	300	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	404
5.6	1160	256	19100	1.35	**RM**	**87R57**	**DRN**	**80M4**	130	404
3.7	1910	255.71	25900	1.55	**R**	**97**	**DRN**	**90S6**	120	392
4.0	1800	241.25	27100	1.65	**RF**	**97**	**DRN**	**90S6**	135	393
4.4	1610	216.28	27500	1.85	**RM**	**97**	**DRN**	**90S6**	185	393
5.0	1440	289.74	27700	2.1						
5.6	1270	255.71	27900	2.4						
6.0	1190	241.25	28000	2.5	**R**	**97**	**DRN**	**80M4**	115	392
6.7	1070	216.28	28200	2.8	**RF**	**97**	**DRN**	**80M4**	130	393
7.7	920	186.30	28300	3.2	**RM**	**97**	**DRN**	**80M4**	180	393
8.5	840	170.02	28400	3.5						
4.4	1620	216.54	11500	0.95	**R**	**87**	**DRN**	**90S6**	77	389
4.7	1530	205.71	12700	1.00	**RF**	**87**	**DRN**	**90S6**	84	390
5.3	1360	181.77	15300	1.15	**RM**	**87**	**DRN**	**90S6**	115	390
					R	**87**	**DRN**	**90S6**	77	389
6.2	1160	155.34	18100	1.35	**RF**	**87**	**DRN**	**90S6**	84	390
6.7	1060	142.41	19500	1.45	**RM**	**87**	**DRN**	**90S6**	115	390
5.8	1220	246.54	18800	1.25						
6.7	1070	216.54	19500	1.45						
7.0	1020	205.71	19700	1.50						
7.9	900	181.77	20000	1.70						
9.3	770	155.34	20000	2.0	**R**	**87**	**DRN**	**80M4**	72	389
10	705	142.41	20000	2.2	**RF**	**87**	**DRN**	**80M4**	79	390
12	620	124.97	20000	2.5	**RM**	**87**	**DRN**	**80M4**	110	390
12	585	118.43*	20000	2.6						
14	515	103.65	20000	3.0						
15	460	93.38	20000	3.3						
8.6	820	166.59	9840	1.00	**R**	**77**	**DRN**	**80M4**	46	386
9.9	720	145.67	10700	1.15	**RF**	**77**	**DRN**	**80M4**	51	387
10	685	138.39	11000	1.20	**RM**	**77**	**DRN**	**80M4**	76	387
12	600	121.42	11500	1.35						
14	510	102.99	12000	1.60						
15	460	92.97	12200	1.75						
18	405	81.80	12500	2.0						
19	380	77.24	12500	2.1	**R**	**77**	**DRN**	**80M4**	46	386
22	325	65.77	12700	2.5	**RF**	**77**	**DRN**	**80M4**	51	387
25	285	57.68	12800	2.9	**RM**	**77**	**DRN**	**80M4**	76	387
28	255	52.07	12900	3.2						
31	225	45.81	13000	3.6						
33	215	43.26	13000	3.8						
11	640	128.97	7030	0.95						
13	565	113.94	7940	1.05						
14	525	105.83	8340	1.15						
15	475	95.91	8780	1.25						
17	425	86.11	9150	1.40	**R**	**67**	**DRN**	**80M4**	38	383
19	365	74.17	9530	1.65	**RF**	**67**	**DRN**	**80M4**	41	384
21	345	69.75	9650	1.75	**RM**	**67**	**DRN**	**80M4**	57	384
24	300	61.26	9860	1.95						
25	280	56.89	9960	2.1						
28	255	51.56	10100	2.3						
31	230	46.29	10200	2.6						
14	530	106.58	5570	0.85						
15	490	98.99	6910	0.90						
16	445	89.71	7120	1.00	**R**	**57**	**DRN**	**80M4**	32	380
18	400	80.55	7300	1.10	**RF**	**57**	**DRN**	**80M4**	35	381
21	340	69.23	7460	1.30	**RM**	**57**	**DRN**	**80M4**	47	381
22	320	64.85	7360	1.40						
25	280	57.29	7150	1.60						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
27	260	53.22	7020	1.70						
30	235	48.23	6850	1.90						
33	215	43.30	6670	2.1	**R**	**57**	**DRN**	**80M4**	32	380
39	185	37.30*	6410	2.4	**RF**	**57**	**DRN**	**80M4**	35	381
41	174	35.07	6310	2.6	**RM**	**57**	**DRN**	**80M4**	47	381
48	150	30.18	6060	3.0						
53	134	26.97	5870	3.4						
55	130	26.31	5830	3.4						
58	124	24.99*	5750	3.6	**R**	**57**	**DRN**	**80M4**	31	380
66	109	21.93	5540	4.1	**RF**	**57**	**DRN**	**80M4**	34	381
77	92	18.60*	5280	4.9	**RM**	**57**	**DRN**	**80M4**	46	381
21	340	68.54	4530	0.90						
22	315	64.21	5310	0.95	**R**	**47**	**DRN**	**80M4**	26	377
25	280	56.73	5510	1.05	**RF**	**47**	**DRN**	**80M4**	27	378
27	260	52.69	5430	1.15						
30	235	47.75	5320	1.25						
34	210	42.87	5180	1.40						
39	183	36.93	5000	1.65	**R**	**47**	**DRN**	**80M4**	26	377
41	172	34.73	4930	1.75	**RF**	**47**	**DRN**	**80M4**	27	378
48	148	29.88	4740	2.0						
54	132	26.70	4610	2.3						
61	117	23.59	4460	2.6						
54	132	26.74	4610	2.3						
62	115	23.28	4440	2.6						
66	108	21.81	4360	2.8	**R**	**47**	**DRN**	**80M4**	26	377
75	95	19.27	4220	3.1	**RF**	**47**	**DRN**	**80M4**	26	378
80	89	17.89	4130	3.3						
89	80	16.22	4020	3.4						
30	235	48.08	3630	0.85						
32	220	44.81	4490	0.90	**R**	**37**	**DRN**	**80M4**	23	374
37	194	39.17	4760	1.05	**RF**	**37**	**DRN**	**80M4**	24	375
39	182	36.72	4690	1.10						
44	161	32.40	4570	1.25	**R**	**37**	**DRN**	**80M4**	23	374
50	142	28.73	4440	1.40	**RF**	**37**	**DRN**	**80M4**	24	375
59	121	24.42	4280	1.65						
65	110	22.27	4180	1.80						
75	96	19.31	4030	2.1						
80	89	18.05	3960	2.2						
92	77	15.60	3810	2.6	**R**	**37**	**DRN**	**80M4**	22	374
109	65	13.25	3640	2.9	**RF**	**37**	**DRN**	**80M4**	24	375
122	58	11.83	3530	3.1						
142	50	10.11	3380	3.4						
152	47	9.47	3310	3.5						
50	143	28.78	2860	0.90	**R**	**27**	**DRN**	**80M4**	17	371
59	121	24.47	2770	1.05	**RF**	**27**	**DRN**	**80M4**	17	372
65	111	22.32	2720	1.15						
74	96	19.35	2640	1.35						
80	89	18.08	2610	1.45						
92	77	15.63	2520	1.65						
108	66	13.28*	2430	1.95						
121	58	11.86	2360	2.2						
142	50	10.13	2260	2.4	**R**	**27**	**DRN**	**80M4**	16	371
153	46	9.41	2180	2.6	**RF**	**27**	**DRN**	**80M4**	16	372
177	40	8.16	2110	2.9						
189	37	7.63*	2070	3.0						
218	32	6.59	1990	3.2						
257	27	5.60*	1900	3.5						
288	24	5.00*	1840	3.8						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
73	98	19.71	840	0.85						
85	84	16.99	1380	1.00						
91	78	15.84	1380	1.10						
104	68	13.84	1370	1.25						
111	64	12.98	1360	1.30						
126	56	11.45	1340	1.40						
142	50	10.15	1320	1.55						
167	42	8.63	1280	1.70	**R**	**17**	**DRN**	**80M4**	16	368
191	37	7.55	1190	1.50	**RF**	**17**	**DRN**	**80M4**	15	369
205	34	7.04	1180	1.55						
234	30	6.15	1150	1.75						
250	28	5.76	1140	1.85						
283	25	5.09	1110	2.0						
319	22	4.51	1080	2.1						
376	19	3.83	1040	2.4						
249	28	11.45	1180	2.8						
281	25	10.15	1150	3.0						
331	21	8.63	1110	3.3						
378	18	7.55	1040	3.0						
406	17	7.04	1030	3.1	**R**	**17**	**DRN**	**80MS2**	16	368
464	15	6.15	990	3.5	**RF**	**17**	**DRN**	**80MS2**	15	369
495	14	5.76	980	3.7						
561	12	5.09	950	4.0						
633	11	4.51	920	4.2						
745	9.0	3.83	880	4.7						
211	33	4.53	4180	2.4						
223	32	4.30*	4120	2.5	**RX**	**67**	**DRN**	**90S6**	29	355
254	28	3.77	3960	3.1	**RXF**	**67**	**DRN**	**90S6**	33	356
299	23	3.20*	3760	4.2						
278	25	5.18	3850	2.9						
318	22	4.53	3700	3.6						
335	21	4.30*	3640	3.7						
382	18	3.77	3490	4.6						
450	15	3.20*	3320	6.3						
498	14	2.89	3210	7.4	**RX**	**67**	**DRN**	**80M4**	25	355
567	12	2.54	3080	9.3	**RXF**	**67**	**DRN**	**80M4**	29	356
600	11	2.40*	3030	10						
705	10	2.04	2880	13						
775	9.0	1.86	2790	14						
895	8.0	1.61	2660	14						
253	28	3.79	3180	2.4						
270	26	3.55*	3120	2.6						
305	23	3.14	3010	2.8	**RX**	**57**	**DRN**	**90S6**	27	353
329	21	2.91	2940	3.1	**RXF**	**57**	**DRN**	**90S6**	29	354
362	19	2.64*	2860	3.5						
331	21	4.35	2940	3.1						
380	18	3.79	2820	3.7						
406	17	3.55*	2760	3.9						
459	15	3.14	2660	4.2						
494	14	2.91	2600	4.6						
545	13	2.64*	2520	5.3	**RX**	**57**	**DRN**	**80M4**	22	353
608	11	2.37	2440	5.8	**RXF**	**57**	**DRN**	**80M4**	24	354
705	10	2.04	2330	6.8						
750	9.0	1.92*	2280	7.2						
872	8.0	1.65	2180	8.4						
975	7.0	1.48	2100	9.3						
1105	6.0	1.30	2020	9.7						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.31	29400	4650	120000	0.70	**R**	**167R97**	**DRN**	**90S4**	760	405
0.35	25900	4129	120000	0.75	**RF**	**167R97**	**DRN**	**90S4**	770	405
0.39	22900	3692	120000	0.85	**RM**	**167R97**	**DRN**	**90S4**	970	405

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	17100	2657	120000	1.15						
0.62	14900	2333	120000	1.35						
0.70	13200	2085	120000	1.50						
0.78	11800	1877	120000	1.70						
0.87	10500	1670	120000	1.90	**R**	**167R97**	**DRN**	**90S4**	760	405
1.0	9290	1438	120000	2.1	**RF**	**167R97**	**DRN**	**90S4**	770	405
1.1	8270	1279	120000	2.4	**RM**	**167R97**	**DRN**	**90S4**	960	405
1.3	7200	1123	120000	2.8						
1.5	6410	999	120000	3.1						
1.7	5520	861	120000	3.6						
1.9	4900	760	120000	4.1						
0.66	14600	2211	54200	0.90						
0.75	12900	1951	62700	1.00						
0.85	11100	1705	65900	1.15						
0.95	10000	1536	67700	1.30						
1.1	8700	1329	69500	1.50	**R**	**147R77**	**DRN**	**90S4**	435	404
1.2	7600	1166	70700	1.70	**RF**	**147R77**	**DRN**	**90S4**	440	404
1.4	6670	1029	71600	1.95	**RM**	**147R77**	**DRN**	**90S4**	610	404
1.6	5790	889	72400	2.2						
1.9	5080	784	72900	2.5						
2.1	4490	695	73300	2.9						
1.1	9230	1391	45500	0.85						
1.2	8320	1256	52600	0.95	**R**	**137R77**	**DRN**	**90S4**	290	404
1.3	7290	1105	54800	1.10	**RF**	**137R77**	**DRN**	**90S4**	315	404
1.4	6870	1043	55600	1.15	**RM**	**137R77**	**DRN**	**90S4**	425	404
1.6	5830	888	57300	1.35						
1.0	9250	1397	45200	0.85						
1.2	8090	1226	53200	1.00						
1.3	7210	1090	55000	1.10						
1.5	6300	951	56600	1.25	**R**	**137R77**	**DRN**	**90S4**	300	404
1.8	5440	831	57800	1.45	**RF**	**137R77**	**DRN**	**90S4**	325	404
2.0	4750	730	58700	1.70	**RM**	**137R77**	**DRN**	**90S4**	435	404
2.3	4060	629	59400	1.95						
2.6	3670	560	59800	2.2						
3.0	3160	490	60200	2.5						
1.5	6340	961	43000	0.95	**R**	**127R77**	**DRN**	**90S4**	255	404
1.9	5070	773	43000	1.20	**RF**	**127R77**	**DRN**	**90S4**	275	404
2.4	3960	608	43000	1.50	**RM**	**127R77**	**DRN**	**90S4**	375	404
1.4	6680	1034	43000	0.90						
1.4	6600	1013	43000	0.90						
1.5	6550	987	43000	0.90						
1.6	6180	936	43000	0.95						
1.6	6040	935	43000	1.00						
1.8	5430	830	43000	1.10						
1.8	5240	794	43000	1.15						
1.8	5110	792	43000	1.15						
1.9	5100	777	43000	1.20						
1.9	4910	750	43000	1.20						
2.2	4320	659	43000	1.40	**R**	**127R77**	**DRN**	**90S4**	270	404
2.3	4170	642	43000	1.45	**RF**	**127R77**	**DRN**	**90S4**	280	404
2.3	4160	636	43000	1.45	**RM**	**127R77**	**DRN**	**90S4**	380	404
2.4	4000	614	43000	1.50						
2.5	3770	581	43000	1.60						
2.8	3390	521	43000	1.75						
3.0	3190	492	43000	1.90						
3.0	3100	480	43000	1.95						
3.6	2630	407	43000	2.3						
3.8	2520	386	43000	2.4						
4.9	1930	298	43000	3.1						
5.8	1640	253	43000	3.6						
3.0	3290	490	43000	1.80	**R**	**127R77**	**DRN**	**90S4**	255	404
3.7	2630	394	43000	2.3	**RF**	**127R77**	**DRN**	**90S4**	275	404
4.5	2170	327	43000	2.8	**RM**	**127R77**	**DRN**	**90S4**	370	404
5.6	1700	259	43000	3.5						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	4730	717	25600	0.90	**R** **RF** **RM**	**107R77** **107R77** **107R77**	**DRN** **DRN** **DRN**	**90S4** **90S4** **90S4**	210 215 305	404 404 404
2.4	3980	614	31100	1.10						
2.7	3510	544	33100	1.20						
3.0	3180	492	34300	1.35						
3.5	2690	417	35900	1.60	**R** **RF**	**107R77** **107R77**	**DRN** **DRN**	**90S4** **90S4**	215 220	404 404
4.0	2410	369	36300	1.80	**RM**	**107R77**	**DRN**	**90S4**	310	404
4.5	2100	323	36700	2.0						
5.1	1850	285	36900	2.3						
5.8	1630	253	37100	2.6						
3.4	2870	431	21800	1.05						
3.8	2510	379	24000	1.20						
4.3	2240	336	25400	1.35	**R**	**97R57**	**DRN**	**90S4**	140	404
4.9	1960	296	26500	1.55	**RF**	**97R57**	**DRN**	**90S4**	160	404
5.8	1640	249	27400	1.80	**RM**	**97R57**	**DRN**	**90S4**	210	404
6.2	1530	234	27600	1.95						
7.0	1360	209	27800	2.2						
5.4	1770	268	15200	0.90	**R**	**87R57**	**DRN**	**90S4**	100	404
6.2	1560	236	16800	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	404
7.0	1360	209	18100	1.15	**RM**	**87R57**	**DRN**	**90S4**	135	404
5.7	1710	256	15700	0.90	**R**	**87R57**	**DRN**	**90S4**	99	404
6.3	1550	232	16900	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	404
7.5	1310	195	18400	1.20	**RM**	**87R57**	**DRN**	**90S4**	135	404
4.4	2370	216.28	20500	1.25	**R**	**97**	**DRN**	**90L6**	120	392
5.1	2040	186.30	24300	1.45	**RF**	**97**	**DRN**	**90L6**	140	393
					RM	**97**	**DRN**	**90L6**	190	393
5.7	1840	255.71	27000	1.65						
6.0	1740	241.25	27300	1.70						
6.7	1560	216.28	27600	1.90						
7.8	1340	186.30	27900	2.2	**R**	**97**	**DRN**	**90S4**	120	392
8.6	1220	170.02	28000	2.4	**RF**	**97**	**DRN**	**90S4**	135	393
9.7	1080	150.78	28100	2.8	**RM**	**97**	**DRN**	**90S4**	185	393
11	910	126.75	28300	3.3						
12	840	116.48	28400	3.6						
6.7	1560	216.54	16800	1.00	**R**	**87**	**DRN**	**90S4**	77	389
7.1	1480	205.71	17400	1.05	**RF**	**87**	**DRN**	**90S4**	84	390
8.0	1310	181.77	18400	1.20	**RM**	**87**	**DRN**	**90S4**	115	390
9.4	1120	155.34	19300	1.40						
10	1020	142.41	19700	1.50						
12	900	124.97	20000	1.70						
12	850	118.43*	20000	1.80						
14	745	103.65	20000	2.1	**R**	**87**	**DRN**	**90S4**	77	389
16	670	93.38	20000	2.3	**RF**	**87**	**DRN**	**90S4**	84	390
18	590	81.92	20000	2.6	**RM**	**87**	**DRN**	**90S4**	115	390
20	520	72.57	20000	3.0						
23	455	63.68*	20000	3.4						
24	435	60.35*	20000	3.6						
28	380	52.82	20000	4.1						
12	870	121.42	9360	0.95	**R**	**77**	**DRN**	**90S4**	50	386
14	740	102.99	10600	1.10	**RF**	**77**	**DRN**	**90S4**	56	387
16	670	92.97	11100	1.20	**RM**	**77**	**DRN**	**90S4**	81	387
18	590	81.80	11600	1.40						
19	555	77.24	11800	1.45						
22	470	65.77	12200	1.75						
25	415	57.68	12400	1.95	**R**	**77**	**DRN**	**90S4**	50	386
28	375	52.07	12600	2.2	**RF**	**77**	**DRN**	**90S4**	56	387
32	330	45.81	12700	2.5	**RM**	**77**	**DRN**	**90S4**	81	387
34	310	43.26	12800	2.6						
40	265	36.83	12900	3.1						
43	240	33.47	12900	3.4						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	620	86.11	7290	0.95						
20	535	74.17	8260	1.10						
21	500	69.75	8550	1.20						
24	440	61.26	9050	1.35						
26	410	56.89	9270	1.45	**R**	**67**	**DRN**	**90S4**	45	383
28	370	51.56	9510	1.60	**RF**	**67**	**DRN**	**90S4**	48	384
31	330	46.29	9720	1.80	**RM**	**67**	**DRN**	**90S4**	64	384
36	285	39.88*	9940	2.0						
39	270	37.50	10000	2.1						
45	230	32.27	10200	2.3						
50	205	28.83	10200	2.5						
52	200	28.13	10100	2.7						
54	192	26.72	10000	2.8	**R**	**67**	**DRN**	**90S4**	44	383
62	169	23.44	9620	3.3	**RF**	**67**	**DRN**	**90S4**	47	384
73	143	19.89	9160	4.2	**RM**	**67**	**DRN**	**90S4**	63	384
21	495	69.23	6720	0.90	**R**	**57**	**DRN**	**90S4**	38	380
22	465	64.85	6800	0.95	**RF**	**57**	**DRN**	**90S4**	41	381
25	410	57.29	6660	1.10	**RM**	**57**	**DRN**	**90S4**	53	381
27	380	53.22	6560	1.15						
30	345	48.23	6440	1.30						
34	310	43.30	6290	1.45	**R**	**57**	**DRN**	**90S4**	38	380
39	265	37.30*	6090	1.65	**RF**	**57**	**DRN**	**90S4**	41	381
41	250	35.07	6000	1.80	**RM**	**57**	**DRN**	**90S4**	53	381
48	215	30.18	5790	2.1						
54	194	26.97	5630	2.3						
55	189	26.31	5600	2.4						
58	180	24.99*	5530	2.5	**R**	**57**	**DRN**	**90S4**	37	380
66	158	21.93	5340	2.8	**RF**	**57**	**DRN**	**90S4**	40	381
78	134	18.60*	5110	3.4	**RM**	**57**	**DRN**	**90S4**	52	381
87	121	16.79	4970	3.7						
30	340	47.75	4310	0.85						
34	305	42.87	4810	0.95						
39	265	36.93	4680	1.15						
42	250	34.73	4620	1.20	**R**	**47**	**DRN**	**90S4**	33	377
49	215	29.88	4480	1.40	**RF**	**47**	**DRN**	**90S4**	33	378
54	192	26.70	4370	1.55						
62	170	23.59	4250	1.75						
62	168	23.28	4240	1.80						
67	157	21.81	4170	1.90						
76	139	19.27	4040	2.1						
81	129	17.89	3970	2.2						
90	117	16.22	3870	2.4	**R**	**47**	**DRN**	**90S4**	32	377
100	105	14.56	3760	2.5	**RF**	**47**	**DRN**	**90S4**	32	378
116	90	12.54	3620	2.8						
123	85	11.79	3550	2.9						
143	73	10.15	3410	3.1						
160	65	9.07	3300	3.4						
45	230	32.40	3040	0.85						
51	205	28.73	3410	0.95	**R**	**37**	**DRN**	**90S4**	28	374
60	176	24.42	3800	1.15	**RF**	**37**	**DRN**	**90S4**	30	375
75	139	19.31	3810	1.45						
81	130	18.05	3750	1.55	**R**	**37**	**DRN**	**90S4**	28	374
93	112	15.60	3630	1.80	**RF**	**37**	**DRN**	**90S4**	30	375
110	95	13.25	3490	2.0						
123	85	11.83	3390	2.1						
144	72	10.11	3260	2.3						
154	68	9.47	3200	2.4	**R**	**37**	**DRN**	**90S4**	28	374
182	57	7.97	3060	2.7	**RF**	**37**	**DRN**	**90S4**	30	375
218	48	6.67	2890	3.0						
257	40	5.67	2760	3.5						
288	36	5.06	2670	3.7						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
75	139	19.35	2420	0.95						
80	130	18.08	2400	1.00						
93	112	15.63	2340	1.15						
110	95	13.28*	2270	1.35						
123	85	11.86	2220	1.50						
144	73	10.13	2140	1.65						
155	67	9.41	2060	1.80						
178	58	8.16	1990	1.95	**R**	**27**	**DRN**	**90S4**	22	371
191	55	7.63*	1960	2.0	**RF**	**27**	**DRN**	**90S4**	22	372
221	47	6.59	1900	2.2						
260	40	5.60*	1820	2.5						
291	36	5.00*	1770	2.6						
341	30	4.27	1700	2.8						
364	28	4.00*	1670	2.9						
432	24	3.37	1600	3.2						
215	48	13.28*	1950	2.7						
241	43	11.86	1890	3.0						
282	37	10.13	1820	3.3						
304	34	9.41	1750	3.5						
351	29	8.16	1690	3.9						
375	28	7.63*	1660	4.0	**R**	**27**	**DRN**	**80M2**	16	371
434	24	6.59	1590	4.4	**RF**	**27**	**DRN**	**80M2**	16	372
511	20	5.60*	1520	4.8						
572	18	5.00*	1480	5.2						
670	15	4.27	1410	5.5						
715	14	4.00*	1380	5.8						
849	12	3.37	1320	6.4						
145	72	19.71	1140	1.15						
168	62	16.99	1140	1.35						
181	58	15.84	1130	1.45						
207	50	13.84	1120	1.65						
220	47	12.98	1110	1.80						
250	42	11.45	1090	1.95						
282	37	10.15	1070	2.1						
331	31	8.63	1040	2.3	**R**	**17**	**DRN**	**80M2**	16	368
379	27	7.55	960	2.0	**RF**	**17**	**DRN**	**80M2**	15	369
407	25	7.04	950	2.1						
465	22	6.15	930	2.4						
496	21	5.76	920	2.5						
562	18	5.09	900	2.7						
634	16	4.51	870	2.9						
746	14	3.83	840	3.2						
258	40	5.63	5610	2.7						
272	38	5.35*	5520	2.7	**RX**	**77**	**DRN**	**90S4**	41	357
308	34	4.73	5320	3.6	**RXF**	**77**	**DRN**	**90S4**	43	358
254	41	3.77	3880	2.1	**RX**	**67**	**DRN**	**90L6**	34	355
					RXF	**67**	**DRN**	**90L6**	38	356
321	32	4.53	3620	2.5						
338	31	4.30*	3560	2.6						
386	27	3.77	3430	3.2						
455	23	3.20*	3260	4.3						
504	20	2.89	3160	5.1						
572	18	2.54	3040	6.4	**RX**	**67**	**DRN**	**90S4**	31	355
606	17	2.40*	2980	7.1	**RXF**	**67**	**DRN**	**90S4**	35	356
712	14	2.04	2840	9.1						
783	13	1.86	2750	9.4						
904	11	1.61	2630	9.8						
1040	10	1.40*	2510	10						
305	34	3.14	2930	1.90	**RX**	**57**	**DRN**	**90L6**	32	353
362	28	2.64*	2790	2.4	**RXF**	**57**	**DRN**	**90L6**	34	354

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
384	27	3.79	2750	2.5						
410	25	3.55*	2700	2.7						
464	22	3.14	2600	2.9						
499	21	2.91	2540	3.2						
551	19	2.64*	2470	3.6						
614	17	2.37	2390	4.0	**RX**	**57**	**DRN**	**90S4**	29	353
713	14	2.04	2280	4.7	**RXF**	**57**	**DRN**	**90S4**	30	354
758	13	1.92*	2240	5.0						
881	11	1.65	2140	5.8						
986	10	1.48	2060	6.4						
1115	9.0	1.30	1990	6.7						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	23600	2657	120000	0.85						
0.63	20600	2333	120000	0.95						
0.70	18300	2085	120000	1.10						
0.78	16300	1877	120000	1.20						
0.87	14500	1670	120000	1.35	**R**	**167R97**	**DRN**	**90L4**	760	405
1.0	12700	1438	120000	1.55	**RF**	**167R97**	**DRN**	**90L4**	770	405
1.1	11300	1279	120000	1.75	**RM**	**167R97**	**DRN**	**90L4**	970	405
1.3	9930	1123	120000	2.0						
1.5	8840	999	120000	2.3						
1.7	7620	861	120000	2.6						
1.9	6750	760	120000	3.0						
3.4	3770	426	73700	3.5	**R**	**147R87**	**DRN**	**90L4**	455	404
4.0	3250	368	73900	4.0	**RF**	**147R87**	**DRN**	**90L4**	465	404
					RM	**147R87**	**DRN**	**90L4**	630	404
0.86	15300	1705	45900	0.85						
0.95	13700	1536	61000	0.95						
1.1	11900	1329	64700	1.10						
1.2	10400	1166	67100	1.25						
1.4	9180	1029	68900	1.40	**R**	**147R77**	**DRN**	**90L4**	435	404
1.6	7950	889	70400	1.65	**RF**	**147R77**	**DRN**	**90L4**	445	404
1.9	6990	784	71300	1.85	**RM**	**147R77**	**DRN**	**90L4**	610	404
2.1	6180	695	72100	2.1						
2.4	5570	619	72500	2.3						
2.6	5010	558	72900	2.6						
1.4	9410	1043	42400	0.85						
1.6	7990	888	53400	1.00	**R**	**137R77**	**DRN**	**90L4**	295	404
2.1	6260	699	56600	1.30	**RF**	**137R77**	**DRN**	**90L4**	320	404
2.4	5430	609	57800	1.45	**RM**	**137R77**	**DRN**	**90L4**	430	404
1.3	9870	1090	32900	0.80						
1.5	8610	951	51300	0.95						
1.8	7460	831	54500	1.05						
2.0	6520	730	56200	1.25						
2.3	5590	629	57600	1.45	**R**	**137R77**	**DRN**	**90L4**	305	404
2.6	5040	560	58400	1.60	**RF**	**137R77**	**DRN**	**90L4**	325	404
3.0	4360	490	59100	1.85	**RM**	**137R77**	**DRN**	**90L4**	440	404
3.4	3800	428	59700	2.1						
3.8	3430	381	60000	2.3						
4.5	2910	323	60400	2.8						
1.9	6950	773	43000	0.85	**R**	**127R77**	**DRN**	**90L4**	260	404
2.4	5440	608	43000	1.10	**RF**	**127R77**	**DRN**	**90L4**	280	404
					RM	**127R77**	**DRN**	**90L4**	375	404

26883198/EN – 04/2022

P_m = 1.5 kW

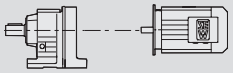
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	7450	830	43000	0.80						
1.8	7170	794	43000	0.85						
1.8	7040	792	43000	0.85						
1.9	6990	777	43000	0.85						
1.9	6740	750	43000	0.90						
2.2	5920	659	43000	1.00						
2.3	5730	642	43000	1.05						
2.3	5710	636	43000	1.05	**R**	**127R77**	**DRN**	**90L4**	275	404
2.4	5490	614	43000	1.10	**RF**	**127R77**	**DRN**	**90L4**	285	404
2.5	5180	581	43000	1.15	**RM**	**127R77**	**DRN**	**90L4**	380	404
2.8	4650	521	43000	1.30						
3.0	4390	492	43000	1.35						
3.0	4270	480	43000	1.40						
3.6	3620	407	43000	1.65						
3.8	3460	386	43000	1.75						
4.9	2660	298	43000	2.2						
5.8	2250	253	43000	2.7						
3.0	4500	490	43000	1.35						
3.7	3600	394	43000	1.65	**R**	**127R77**	**DRN**	**90L4**	260	404
4.5	2980	327	43000	2.0	**RF**	**127R77**	**DRN**	**90L4**	280	404
5.7	2340	259	43000	2.6	**RM**	**127R77**	**DRN**	**90L4**	375	404
7.2	1820	202	43000	3.3						
					R	**107R77**	**DRN**	**90L4**	210	404
2.8	4720	528	25800	0.90	**RF**	**107R77**	**DRN**	**90L4**	220	404
					RM	**107R77**	**DRN**	**90L4**	305	404
2.7	4840	544	21300	0.90						
3.0	4380	492	29000	1.00	**R**	**107R77**	**DRN**	**90L4**	220	404
3.5	3710	417	32300	1.15	**RF**	**107R77**	**DRN**	**90L4**	225	404
4.0	3310	369	33900	1.30	**RM**	**107R77**	**DRN**	**90L4**	310	404
4.5	2890	323	35300	1.50						
					R	**107R77**	**DRN**	**90L4**	210	404
3.1	4300	469	29400	1.00	**RF**	**107R77**	**DRN**	**90L4**	215	404
					RM	**107R77**	**DRN**	**90L4**	305	404
4.3	3050	336	17400	1.00						
4.9	2680	296	23000	1.10	**R**	**97R57**	**DRN**	**90L4**	145	404
5.9	2250	249	25300	1.35	**RF**	**97R57**	**DRN**	**90L4**	165	404
6.2	2100	234	26000	1.45	**RM**	**97R57**	**DRN**	**90L4**	215	404
7.0	1870	209	26800	1.60						
3.8	3740	251.15	32200	1.15						
4.2	3420	229.95	33400	1.25						
4.7	3020	203.16	34900	1.40	**R**	**107**	**DRN**	**100L6**	190	394
5.6	2560	172.34	36100	1.65	**RF**	**107**	**DRN**	**100L6**	195	395
6.1	2360	158.68	36300	1.80	**RM**	**107**	**DRN**	**100L6**	285	395
6.8	2110	141.83	36600	2.0						
5.7	2500	255.71	24000	1.20						
6.1	2360	241.25	24800	1.25						
6.8	2120	216.28	25900	1.40						
7.8	1820	186.30	27000	1.65						
8.6	1660	170.02	27400	1.80	**R**	**97**	**DRN**	**90L4**	120	392
9.7	1470	150.78	27700	2.0	**RF**	**97**	**DRN**	**90L4**	140	393
12	1240	126.75	28000	2.4	**RM**	**97**	**DRN**	**90L4**	190	393
13	1140	116.48	28100	2.6						
14	1010	103.44	28200	3.0						
16	900	92.48	28300	3.3						
8.0	1780	181.77	15100	0.85						
9.4	1520	155.34	17100	1.00						
10	1390	142.41	17900	1.10	**R**	**87**	**DRN**	**90L4**	80	389
12	1220	124.97	18800	1.25	**RF**	**87**	**DRN**	**90L4**	87	390
12	1160	118.43*	19200	1.35	**RM**	**87**	**DRN**	**90L4**	115	390
14	1010	103.65	19800	1.55						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	910	93.38	20000	1.70						
18	800	81.92	20000	1.95						
20	710	72.57	20000	2.2						
23	620	63.68*	20000	2.5	**R**	**87**	**DRN**	**90L4**	80	389
24	590	60.35*	20000	2.6	**RF**	**87**	**DRN**	**90L4**	87	390
28	515	52.82	20000	3.0	**RM**	**87**	**DRN**	**90L4**	115	390
31	465	47.58	20000	3.3						
35	405	41.74	20000	3.8						
40	360	36.84*	19400	4.3						
16	910	92.97	8980	0.90						
18	800	81.80	10100	1.00	**R**	**77**	**DRN**	**90L4**	54	386
19	755	77.24	10500	1.10	**RF**	**77**	**DRN**	**90L4**	59	387
22	640	65.77	11300	1.25	**RM**	**77**	**DRN**	**90L4**	84	387
25	565	57.68	11700	1.45						
28	510	52.07	12000	1.60						
32	445	45.81	12300	1.85						
34	420	43.26	12400	1.95	**R**	**77**	**DRN**	**90L4**	54	386
40	360	36.83	12600	2.3	**RF**	**77**	**DRN**	**90L4**	59	387
44	325	33.47	12700	2.5	**RM**	**77**	**DRN**	**90L4**	84	387
50	280	29.00	12400	2.9						
58	245	25.23	11900	3.1						
62	225	23.37	11600	3.6	**R**	**77**	**DRN**	**90L4**	52	386
68	210	21.43	11400	3.9	**RF**	**77**	**DRN**	**90L4**	58	387
78	184	18.80	10900	4.2	**RM**	**77**	**DRN**	**90L4**	83	387
24	600	61.26	7550	1.00						
26	555	56.89	8030	1.10						
28	505	51.56	8530	1.20						
32	450	46.29	8960	1.30	**R**	**67**	**DRN**	**90L4**	48	383
37	390	39.88*	9390	1.50	**RF**	**67**	**DRN**	**90L4**	51	384
39	365	37.50	9530	1.55	**RM**	**67**	**DRN**	**90L4**	67	384
45	315	32.27	9810	1.70						
51	280	28.83	9960	1.85						
52	275	28.13	9890	1.95						
55	260	26.72	9760	2.1	**R**	**67**	**DRN**	**90L4**	47	383
62	225	23.44	9410	2.4	**RF**	**67**	**DRN**	**90L4**	50	384
73	194	19.89	8980	3.1	**RM**	**67**	**DRN**	**90L4**	66	384
81	176	17.95	8720	3.4						
27	520	53.22	5900	0.85	**R**	**57**	**DRN**	**90L4**	41	380
30	470	48.23	5980	0.95	**RF**	**57**	**DRN**	**90L4**	45	381
34	420	43.30	5880	1.05	**RM**	**57**	**DRN**	**90L4**	57	381
39	365	37.30*	5730	1.25						
42	340	35.07	5670	1.30	**R**	**57**	**DRN**	**90L4**	41	380
48	295	30.18	5500	1.50	**RF**	**57**	**DRN**	**90L4**	45	381
54	260	26.97	5380	1.70	**RM**	**57**	**DRN**	**90L4**	57	381
56	255	26.31	5350	1.75						
58	245	24.99*	5290	1.85						
67	215	21.93	5130	2.1						
79	182	18.60*	4930	2.5	**R**	**57**	**DRN**	**90L4**	40	380
87	164	16.79	4810	2.7	**RF**	**57**	**DRN**	**90L4**	44	381
99	144	14.77*	4650	3.0	**RM**	**57**	**DRN**	**90L4**	56	381
105	136	13.95*	4580	3.1						
123	116	11.88	4390	3.5						
40	360	36.93	3260	0.85						
42	340	34.73	4290	0.90						
49	290	29.88	4190	1.00	**R**	**47**	**DRN**	**90L4**	36	377
55	260	26.70	4110	1.15	**RF**	**47**	**DRN**	**90L4**	36	378
62	230	23.59	4020	1.30						

26883198/EN – 04/2022

P_m = 1.5 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
63	225	23.28	4010	1.30							
67	210	21.81	3960	1.40							
76	188	19.27	3860	1.55							
82	175	17.89	3800	1.65							
90	159	16.22	3710	1.75							
100	142	14.56	3620	1.85							
116	122	12.54	3490	2.0							
124	115	11.79	3440	2.1							
144	99	10.15	3310	2.3	**R**	**47**	**DRN**	**90L4**		35	377
161	88	9.07	3210	2.5	**RF**	**47**	**DRN**	**90L4**		35	378
182	78	8.01	3110	2.6							
188	76	7.76*	3040	2.1							
210	68	6.96	2950	2.3							
244	58	6.00	2830	2.6							
259	55	5.64*	2780	2.8							
301	47	4.85	2670	3.1							
337	42	4.34	2590	3.4							
381	37	3.83	2500	3.8							
76	189	19.31	2760	1.05							
81	176	18.05	2930	1.15	**R**	**37**	**DRN**	**90L4**		31	374
94	152	15.60	3230	1.30	**RF**	**37**	**DRN**	**90L4**		33	375
110	129	13.25	3320	1.45							
123	116	11.83	3240	1.60							
145	99	10.11	3130	1.70							
154	92	9.47	3080	1.80							
183	78	7.97	2950	2.0							
219	65	6.67	2800	2.2	**R**	**37**	**DRN**	**90L4**		31	374
258	55	5.67	2680	2.6	**RF**	**37**	**DRN**	**90L4**		33	375
289	49	5.06	2600	2.7							
338	42	4.32	2490	3.0							
361	39	4.05	2450	3.1							
429	33	3.41	2330	3.4							
218	65	13.25	2830	2.9							
244	58	11.83	2740	3.1							
286	50	10.11	2630	3.4	**R**	**37**	**DRN**	**90S2**		28	374
305	46	9.47	2580	3.5	**RF**	**37**	**DRN**	**90S2**		30	375
362	39	7.97	2460	3.9							
93	153	15.63	1780	0.85							
110	130	13.28*	2080	1.00							
123	116	11.86	2060	1.10							
144	99	10.13	2010	1.25							
179	79	8.16	1870	1.45							
192	74	7.63*	1850	1.50	**R**	**27**	**DRN**	**90L4**		25	371
222	64	6.59	1800	1.65	**RF**	**27**	**DRN**	**90L4**		25	372
261	54	5.60*	1740	1.80							
292	49	5.00*	1700	1.95							
342	41	4.27	1640	2.1							
365	39	4.00*	1610	2.2							
434	33	3.37	1540	2.4							
243	58	11.86	1810	2.2							
285	50	10.13	1750	2.4							
354	40	8.16	1620	2.9							
378	37	7.63*	1600	3.0							
438	32	6.59	1540	3.2	**R**	**27**	**DRN**	**90S2**		22	371
515	27	5.60*	1480	3.6	**RF**	**27**	**DRN**	**90S2**		22	372
577	24	5.00*	1430	3.8							
676	21	4.27	1370	4.1							
722	19	4.00*	1350	4.3							
856	16	3.37	1290	4.7							

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
259	55	5.63	5520	2.0						
273	52	5.35*	5440	1.95						
309	46	4.73	5240	2.6						
362	39	4.04*	4990	3.6						
394	36	3.70	4860	4.2	**RX**	**77**	**DRN**	**90L4**	44	357
450	31	3.25*	4670	5.7	**RXF**	**77**	**DRN**	**90L4**	46	358
474	30	3.08*	4590	6.4						
542	26	2.70	4400	8.1						
602	23	2.43	4260	9.0						
323	44	4.53	3540	1.85						
340	42	4.30*	3490	1.90						
387	36	3.77	3360	2.4						
457	31	3.20*	3200	3.2						
506	28	2.89	3100	3.7						
575	24	2.54	2990	4.7	**RX**	**67**	**DRN**	**90L4**	34	355
609	23	2.40*	2940	5.2	**RXF**	**67**	**DRN**	**90L4**	38	356
715	20	2.04	2790	6.7						
787	18	1.86	2710	6.9						
908	15	1.61	2590	7.2						
1045	13	1.40*	2480	7.6						
386	37	3.79	2670	1.85						
412	34	3.55*	2620	2.0						
466	30	3.14	2540	2.1						
502	28	2.91	2480	2.4						
553	25	2.64*	2410	2.7						
616	23	2.37	2340	3.0	**RX**	**57**	**DRN**	**90L4**	32	353
716	20	2.04	2240	3.5	**RXF**	**57**	**DRN**	**90L4**	34	354
761	18	1.92*	2200	3.7						
884	16	1.65	2100	4.3						
990	14	1.48	2030	4.7						
1120	12	1.30	1960	4.9						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.40	47900	3637	-	0.40						
0.44	43800	3330	-	0.45						
0.53	36300	2757	120000	0.55						
0.60	32100	2436	120000	0.60	**R**	**167R107**	**DRN**	**100LS4**	820	405
0.63	30200	2298	120000	0.65	**RF**	**167R107**	**DRN**	**100LS4**	820	405
0.70	27200	2066	120000	0.75	**RM**	**167R107**	**DRN**	**100LS4**	1020	405
0.78	24100	1849	120000	0.85						
0.87	21700	1674	120000	0.90						
					R	**167R97**	**DRN**	**100LS4**	770	405
0.47	39400	3099	69300	0.50	**RF**	**167R97**	**DRN**	**100LS4**	780	405
					RM	**167R97**	**DRN**	**100LS4**	970	405
0.70	27500	2085	120000	0.75						
0.77	24600	1877	120000	0.80						
0.87	21900	1670	120000	0.90						
1.0	19100	1438	120000	1.05						
1.1	17000	1279	120000	1.15	**R**	**167R97**	**DRN**	**100LS4**	770	405
1.3	14800	1123	120000	1.35	**RF**	**167R97**	**DRN**	**100LS4**	780	405
1.4	13200	999	120000	1.50	**RM**	**167R97**	**DRN**	**100LS4**	970	405
1.7	11400	861	120000	1.75						
1.9	10100	760	120000	2.0						
2.2	8460	656	120000	2.4						
2.7	6980	533	71300	1.85						
3.1	6010	462	72200	2.2	**R**	**147R87**	**DRN**	**100LS4**	460	404
3.4	5650	426	72500	2.3	**RF**	**147R87**	**DRN**	**100LS4**	470	404
3.9	4880	368	73000	2.7	**RM**	**147R87**	**DRN**	**100LS4**	640	404
4.5	4310	326	73400	3.0						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	15500	1166	42600	0.85						
1.4	13700	1029	61200	0.95						
1.6	11800	889	64800	1.10						
1.9	10400	784	67100	1.25	**R**	**147R77**	**DRN**	**100LS4**	440	404
2.1	9240	695	68800	1.40	**RF**	**147R77**	**DRN**	**100LS4**	450	404
2.3	8300	619	70000	1.55	**RM**	**147R77**	**DRN**	**100LS4**	620	404
2.6	7470	558	70900	1.75						
3.0	6540	489	71800	2.0						
2.1	9340	699	43700	0.85	**R**	**137R77**	**DRN**	**100LS4**	300	404
2.4	8110	609	53100	1.00	**RF**	**137R77**	**DRN**	**100LS4**	325	404
					RM	**137R77**	**DRN**	**100LS4**	435	404
2.0	9740	730	35900	0.80						
2.3	8360	629	52400	0.95						
2.6	7510	560	54400	1.05						
3.0	6520	490	56200	1.25						
3.4	5690	428	57500	1.40	**R**	**137R77**	**DRN**	**100LS4**	310	404
3.8	5110	381	58300	1.55	**RF**	**137R77**	**DRN**	**100LS4**	330	404
4.5	4330	323	59200	1.85	**RM**	**137R77**	**DRN**	**100LS4**	445	404
5.0	3900	291	59600	2.0						
5.7	3410	255	60000	2.3						
6.5	2980	223	60400	2.7						
2.8	6950	521	43000	0.85						
2.9	6560	492	43000	0.90						
3.0	6390	480	43000	0.95	**R**	**127R77**	**DRN**	**100LS4**	280	404
3.6	5410	407	43000	1.10	**RF**	**127R77**	**DRN**	**100LS4**	290	404
3.8	5160	386	43000	1.15	**RM**	**127R77**	**DRN**	**100LS4**	385	404
4.9	3980	298	43000	1.50						
5.7	3370	253	43000	1.80						
3.0	6690	490	43000	0.90						
3.7	5360	394	43000	1.10						
4.4	4440	327	43000	1.35	**R**	**127R77**	**DRN**	**100LS4**	260	404
5.6	3490	259	43000	1.70	**RF**	**127R77**	**DRN**	**100LS4**	285	404
7.2	2720	202	43000	2.2	**RM**	**127R77**	**DRN**	**100LS4**	380	404
8.9	2200	162	43000	2.7						
12	1690	126	43000	3.5						
4.5	4320	323	29300	1.00	**R**	**107R77**	**DRN**	**100LS4**	220	404
5.1	3800	285	31900	1.15	**RF**	**107R77**	**DRN**	**100LS4**	230	404
5.7	3360	253	33700	1.30	**RM**	**107R77**	**DRN**	**100LS4**	315	404
6.8	2850	214	35400	1.50						
					R	**107R77**	**DRN**	**100LS4**	215	404
4.5	4410	325	28800	0.95	**RF**	**107R77**	**DRN**	**100LS4**	220	404
					RM	**107R77**	**DRN**	**100LS4**	310	404
					R	**97R57**	**DRN**	**100LS4**	150	404
6.9	2790	209	22300	1.05	**RF**	**97R57**	**DRN**	**100LS4**	165	404
					RM	**97R57**	**DRN**	**100LS4**	220	404
5.5	3800	262.65	43000	1.60						
6.0	3480	240.48	43000	1.70						
6.8	3070	212.46	43000	1.95						
8.1	2610	180.23	43000	2.3	**R**	**127**	**DRN**	**100LS4**	240	396
8.7	2400	165.95	43000	2.5	**RF**	**127**	**DRN**	**100LS4**	250	397
9.8	2140	148.33	43000	2.8	**RM**	**127**	**DRN**	**100LS4**	345	397
11	1930	133.53	43000	3.1						
12	1750	120.92	43000	3.4						
14	1550	107.23	43000	3.9						
4.8	4380	203.16	29000	1.00	**R**	**107**	**DRN**	**112M6**	200	394
5.7	3720	172.34	32300	1.15	**RF**	**107**	**DRN**	**112M6**	205	395
6.1	3420	158.68	33500	1.25	**RM**	**107**	**DRN**	**112M6**	295	395
6.9	3060	141.83	34700	1.40						
5.8	3630	251.15	32600	1.20	**R**	**107**	**DRN**	**100LS4**	185	394
6.3	3330	229.95	33800	1.30	**RF**	**107**	**DRN**	**100LS4**	190	395
7.1	2940	203.16	35100	1.45	**RM**	**107**	**DRN**	**100LS4**	275	395

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.4	2490	172.34	36200	1.70						
9.1	2290	158.68	36400	1.85						
10	2050	141.83	36700	2.1	**R**	**107**	**DRN**	**100LS4**	185	394
11	1840	127.68	36900	2.3	**RF**	**107**	**DRN**	**100LS4**	190	395
13	1670	115.63	37100	2.6	**RM**	**107**	**DRN**	**100LS4**	275	395
14	1480	102.53	37200	2.9						
16	1340	92.70	37400	3.2						
6.7	3130	216.28	13800	0.95	**R**	**97**	**DRN**	**100LS4**	125	392
7.8	2690	186.30	22900	1.10	**RF**	**97**	**DRN**	**100LS4**	145	393
8.5	2460	170.02	24300	1.20	**RM**	**97**	**DRN**	**100LS4**	195	393
9.6	2180	150.78	25600	1.35						
11	1830	126.75	27000	1.65						
12	1680	116.48	27400	1.80						
14	1490	103.44	27600	2.0						
16	1330	92.48	27900	2.2	**R**	**97**	**DRN**	**100LS4**	125	392
17	1200	83.15	28000	2.5	**RF**	**97**	**DRN**	**100LS4**	145	393
20	1040	72.17	28200	2.9	**RM**	**97**	**DRN**	**100LS4**	195	393
22	940	65.21	27500	3.2						
24	860	59.92	26800	3.5						
27	770	53.21	25900	3.9						
30	685	47.58	25000	4.3						
12	1810	124.97	13900	0.85						
12	1710	118.43*	15700	0.90	**R**	**87**	**DRN**	**100LS4**	85	389
14	1500	103.65	17300	1.05	**RF**	**87**	**DRN**	**100LS4**	92	390
16	1350	93.38	18200	1.15	**RM**	**87**	**DRN**	**100LS4**	120	390
18	1180	81.92	19000	1.30						
20	1050	72.57	19600	1.45						
23	920	63.68*	20000	1.70						
24	870	60.35*	20000	1.75	**R**	**87**	**DRN**	**100LS4**	85	389
27	765	52.82	20000	2.0	**RF**	**87**	**DRN**	**100LS4**	92	390
30	685	47.58	20000	2.2	**RM**	**87**	**DRN**	**100LS4**	120	390
35	600	41.74	19700	2.6						
39	530	36.84*	19000	2.9						
44	470	32.66*	18400	3.3						
42	495	34.40*	18700	3.0						
46	450	31.40	18200	3.4	**R**	**87**	**DRN**	**100LS4**	83	389
52	400	27.84*	17500	3.8	**RF**	**87**	**DRN**	**100LS4**	90	390
62	335	23.40	16700	4.6	**RM**	**87**	**DRN**	**100LS4**	120	390
67	310	21.51	16200	4.8						
22	950	65.77	7900	0.85						
25	830	57.68	9770	1.00	**R**	**77**	**DRN**	**100LS4**	58	386
28	750	52.07	10500	1.10	**RF**	**77**	**DRN**	**100LS4**	64	387
32	660	45.81	11200	1.25	**RM**	**77**	**DRN**	**100LS4**	88	387
34	625	43.26	11400	1.30						
39	530	36.83	11900	1.55	**R**	**77**	**DRN**	**100LS4**	58	386
43	485	33.47	12100	1.70	**RF**	**77**	**DRN**	**100LS4**	64	387
50	420	29.00	12000	1.95	**RM**	**77**	**DRN**	**100LS4**	88	387
57	365	25.23	11600	2.1						
62	335	23.37	11400	2.4						
68	310	21.43	11100	2.6	**R**	**77**	**DRN**	**100LS4**	57	386
77	270	18.80	10700	2.9	**RF**	**77**	**DRN**	**100LS4**	62	387
81	255	17.82*	10500	3.0	**RM**	**77**	**DRN**	**100LS4**	87	387
93	225	15.60	10100	3.3						
103	200	14.05	9830	3.5						
36	575	39.88*	7820	1.00	**R**	**67**	**DRN**	**100LS4**	52	383
39	540	37.50	8180	1.05	**RF**	**67**	**DRN**	**100LS4**	55	384
45	465	32.27	8850	1.15	**RM**	**67**	**DRN**	**100LS4**	71	384
50	415	28.83	9220	1.25						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
62	335	23.44	9070	1.65						
73	285	19.89	8700	2.1						
81	260	17.95	8470	2.3						
92	225	15.79	8180	2.5						
97	215	14.91	8050	2.5	**R**	**67**	**DRN**	**100LS4**	51	383
114	183	12.70	7700	2.8	**RF**	**67**	**DRN**	**100LS4**	54	384
126	167	11.54	7500	3.0	**RM**	**67**	**DRN**	**100LS4**	70	384
145	144	10.00	7190	3.2						
167	126	8.70*	6910	3.5						
186	112	7.79	6700	3.4						
39	540	37.30*	5120	0.85						
41	505	35.07	5100	0.90	**R**	**57**	**DRN**	**100LS4**	45	380
48	435	30.18	5010	1.05	**RF**	**57**	**DRN**	**100LS4**	48	381
54	390	26.97	4940	1.15	**RM**	**57**	**DRN**	**100LS4**	60	381
66	315	21.93	4780	1.40						
78	265	18.60*	4630	1.65						
86	240	16.79	4540	1.85						
98	210	14.77*	4420	2.0						
104	200	13.95*	4360	2.1	**R**	**57**	**DRN**	**100LS4**	44	380
122	172	11.88	4210	2.4	**RF**	**57**	**DRN**	**100LS4**	48	381
134	156	10.79	4110	2.5	**RM**	**57**	**DRN**	**100LS4**	60	381
155	135	9.35	3970	2.7						
160	131	9.06	3950	2.9						
182	115	7.97	3820	3.1						
132	158	21.93	4120	2.8						
156	134	18.60*	3960	3.4	**R**	**57**	**DRN**	**90L2**	40	380
173	121	16.79	3860	3.7	**RF**	**57**	**DRN**	**90L2**	44	381
197	106	14.77*	3730	4.1	**RM**	**57**	**DRN**	**90L2**	56	381
208	100	13.95*	3680	4.3						
75	275	19.27	3540	1.05						
89	230	16.22	3450	1.15						
100	210	14.56	3380	1.25						
116	181	12.54	3290	1.40						
123	170	11.79	3250	1.45						
143	147	10.15	3140	1.55						
160	131	9.07	3070	1.65						
181	116	8.01	2980	1.75	**R**	**47**	**DRN**	**100LS4**	39	377
187	112	7.76*	2890	1.45	**RF**	**47**	**DRN**	**100LS4**	39	378
208	100	6.96	2820	1.60						
242	86	6.00	2720	1.80						
257	81	5.64*	2680	1.90						
299	70	4.85	2580	2.1						
334	62	4.34	2510	2.3						
378	55	3.83	2430	2.6						
151	139	19.27	3110	2.1						
179	117	16.22	2980	2.3						
200	105	14.56	2910	2.5						
232	90	12.54	2800	2.8	**R**	**47**	**DRN**	**90L2**	35	377
246	85	11.79	2760	2.9	**RF**	**47**	**DRN**	**90L2**	35	378
286	73	10.15	2650	3.1						
320	65	9.07	2570	3.4						
363	57	8.01	2490	3.5						
93	225	15.60	1180	0.90	**R**	**37**	**DRN**	**100LS4**	35	374
109	192	13.25	1740	1.00	**RF**	**37**	**DRN**	**100LS4**	37	375
123	171	11.83	2060	1.05						
143	146	10.11	2410	1.15						
153	137	9.47	2530	1.20						
182	115	7.97	2790	1.35						
217	96	6.67	2500	1.50						
256	82	5.67	2550	1.75	**R**	**37**	**DRN**	**100LS4**	35	374
287	73	5.06	2490	1.85	**RF**	**37**	**DRN**	**100LS4**	37	375
336	62	4.32	2400	2.0						
358	58	4.05	2360	2.1						
425	49	3.41	2260	2.3						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
186	112	15.60	2770	1.75	**R**	**37**	**DRN**	**90L2**	31	374
219	95	13.25	2680	2.0	**RF**	**37**	**DRN**	**90L2**	33	375
245	85	11.83	2610	2.1						
287	73	10.11	2520	2.3						
307	68	9.47	2480	2.4						
364	57	7.97	2370	2.7						
436	48	6.67	2240	3.0						
513	40	5.67	2150	3.5	**R**	**37**	**DRN**	**90L2**	31	374
574	36	5.06	2080	3.7	**RF**	**37**	**DRN**	**90L2**	33	375
672	31	4.32	1990	4.0						
718	29	4.05	1960	4.2						
852	24	3.41	1860	4.5						
143	146	10.13	1180	0.85						
220	95	6.59	1180	1.10						
259	81	5.60*	1430	1.20						
290	72	5.00*	1570	1.30	**R**	**27**	**DRN**	**100LS4**	29	371
340	61	4.27	1530	1.40	**RF**	**27**	**DRN**	**100LS4**	29	372
362	57	4.00*	1510	1.45						
430	48	3.37	1460	1.60						
219	96	13.28*	1700	1.35						
245	85	11.86	1680	1.50						
287	73	10.13	1630	1.65						
441	47	6.59	1450	2.2						
519	40	5.60*	1400	2.4	**R**	**27**	**DRN**	**90L2**	25	371
581	36	5.00*	1360	2.6	**RF**	**27**	**DRN**	**90L2**	25	372
680	30	4.27	1320	2.8						
726	28	4.00*	1290	2.9						
862	24	3.37	1240	3.2						
307	68	4.73	5140	1.80						
359	58	4.04*	4910	2.4						
392	53	3.70	4780	2.9						
446	47	3.25*	4600	3.9						
471	44	3.08*	4530	4.3						
538	39	2.70	4350	5.5	**RX**	**77**	**DRN**	**100LS4**	48	357
597	35	2.43	4210	6.1	**RXF**	**77**	**DRN**	**100LS4**	50	358
681	30	2.13	4040	6.5						
771	27	1.88*	3890	6.9						
870	24	1.67	3740	7.2						
1020	20	1.42	3560	7.5						
384	54	3.77	3250	1.60						
453	46	3.20*	3110	2.2						
502	41	2.89	3020	2.5						
570	36	2.54	2920	3.2						
604	34	2.40*	2870	3.5	**RX**	**67**	**DRN**	**100LS4**	38	355
710	29	2.04	2740	4.5	**RXF**	**67**	**DRN**	**100LS4**	42	356
781	26	1.86	2660	4.7						
901	23	1.61	2550	4.9						
1035	20	1.40*	2440	5.1						
462	45	3.14	2430	1.45						
549	38	2.64*	2330	1.80						
612	34	2.37	2260	2.0						
710	29	2.04	2170	2.3	**RX**	**57**	**DRN**	**100LS4**	36	353
755	27	1.92*	2130	2.5	**RXF**	**57**	**DRN**	**100LS4**	37	354
878	23	1.65	2040	2.9						
982	21	1.48	1980	3.2						
1110	18	1.30	1910	3.3						

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.98	26300	1485	120000	0.75	**R**	**167R107**	**DRN**	**100L4**	820	405
1.1	23600	1342	120000	0.85	**RF**	**167R107**	**DRN**	**100L4**	830	405
1.2	21800	1229	120000	0.90	**RM**	**167R107**	**DRN**	**100L4**	1030	405
1.3	19600	1111	120000	1.00						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	26100	1438	120000	0.75						
1.1	23200	1279	120000	0.85						
1.3	20300	1123	120000	1.00						
1.5	18100	999	120000	1.10	**R**	**167R97**	**DRN**	**100L4**	780	405
1.7	15600	861	120000	1.30	**RF**	**167R97**	**DRN**	**100L4**	780	405
1.9	13800	760	120000	1.45	**RM**	**167R97**	**DRN**	**100L4**	980	405
2.2	11600	656	120000	1.70						
2.9	8940	503	120000	2.2						
2.7	9590	533	68400	1.35						
3.1	8260	462	70000	1.55						
3.4	7730	426	70600	1.70	**R**	**147R87**	**DRN**	**100L4**	470	404
4.0	6680	368	71600	1.95	**RF**	**147R87**	**DRN**	**100L4**	475	404
4.5	5910	326	72300	2.2	**RM**	**147R87**	**DRN**	**100L4**	640	404
5.2	5010	280	72900	2.6						
1.6	16200	889	33300	0.80						
1.9	14200	784	58900	0.90	**R**	**147R77**	**DRN**	**100L4**	445	404
2.1	12600	695	63400	1.05	**RF**	**147R77**	**DRN**	**100L4**	455	404
2.4	11300	619	65700	1.15	**RM**	**147R77**	**DRN**	**100L4**	620	404
2.6	10100	558	67500	1.25						
3.0	8910	490	50000	0.90						
3.4	7780	428	53800	1.05						
3.8	6970	381	55400	1.15	**R**	**137R77**	**DRN**	**100L4**	315	404
4.5	5910	323	57200	1.35	**RF**	**137R77**	**DRN**	**100L4**	340	404
5.0	5320	291	58000	1.50	**RM**	**137R77**	**DRN**	**100L4**	450	404
5.7	4650	255	58800	1.70						
6.5	4070	223	59400	1.95						
2.8	9600	517	38900	0.85	**R**	**137R77**	**DRN**	**100L4**	305	404
3.2	8410	453	52200	0.95	**RF**	**137R77**	**DRN**	**100L4**	330	404
					RM	**137R77**	**DRN**	**100L4**	440	404
3.6	7400	407	43000	0.80						
3.8	7040	386	43000	0.85	**R**	**127R77**	**DRN**	**100L4**	285	404
4.9	5430	298	43000	1.10	**RF**	**127R77**	**DRN**	**100L4**	295	404
5.8	4600	253	43000	1.30	**RM**	**127R77**	**DRN**	**100L4**	395	404
3.7	7320	394	43000	0.80						
4.5	6050	327	43000	1.00						
5.6	4770	259	43000	1.25	**R**	**127R77**	**DRN**	**100L4**	270	404
7.2	3720	202	43000	1.60	**RF**	**127R77**	**DRN**	**100L4**	290	404
9.0	3000	162	43000	2.0	**RM**	**127R77**	**DRN**	**100L4**	385	404
12	2310	126	43000	2.6						
5.8	4600	253	27700	0.95	**R**	**107R77**	**DRN**	**100L4**	230	404
6.8	3900	214	31500	1.10	**RF**	**107R77**	**DRN**	**100L4**	235	404
7.8	3400	187	33500	1.25	**RM**	**107R77**	**DRN**	**100L4**	325	404
					R	**107R77**	**DRN**	**100L4**	225	404
5.7	4730	256	25600	0.90	**RF**	**107R77**	**DRN**	**100L4**	230	404
					RM	**107R77**	**DRN**	**100L4**	315	404
5.5	5160	262.65	43000	1.15						
6.0	4730	240.48	43000	1.25						
6.8	4180	212.46	43000	1.45						
8.1	3540	180.23	43000	1.70						
8.8	3260	165.95	43000	1.85						
9.8	2910	148.33	43000	2.1	**R**	**127**	**DRN**	**100L4**	245	396
11	2620	133.53	43000	2.3	**RF**	**127**	**DRN**	**100L4**	260	397
12	2370	120.92	43000	2.5	**RM**	**127**	**DRN**	**100L4**	355	397
14	2100	107.23	43000	2.8						
15	1900	96.95	43000	3.1						
17	1670	85.26	43000	3.6						
18	1610	82.17	43000	3.7						
6.1	4660	158.68	27300	0.90	**R**	**107**	**DRN**	**132S6**	210	394
6.9	4170	141.83	30100	1.05	**RF**	**107**	**DRN**	**132S6**	215	395
7.6	3750	127.68	32100	1.15	**RM**	**107**	**DRN**	**132S6**	305	395

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.3	4520	229.95	28200	0.95						
7.2	3990	203.16	31000	1.10						
8.4	3390	172.34	33600	1.25						
9.2	3120	158.68	34500	1.40						
10	2790	141.83	35600	1.55	**R**	**107**	**DRN**	**100L4**	190	394
11	2510	127.68	36200	1.70	**RF**	**107**	**DRN**	**100L4**	195	395
13	2270	115.63	36500	1.90	**RM**	**107**	**DRN**	**100L4**	285	395
14	2010	102.53	36800	2.1						
16	1820	92.70	37000	2.4						
19	1540	78.57	35500	2.8						
20	1430	72.88	34800	3.0						
9.7	2960	150.78	21000	1.00						
11	2490	126.75	24100	1.20						
12	2290	116.48	25100	1.30						
14	2030	103.44	26200	1.45						
16	1810	92.48	27100	1.65						
18	1630	83.15	27400	1.85						
20	1410	72.17	27500	2.1	**R**	**97**	**DRN**	**100L4**	135	392
22	1280	65.21	26700	2.3	**RF**	**97**	**DRN**	**100L4**	150	393
24	1170	59.92	26100	2.5	**RM**	**97**	**DRN**	**100L4**	200	393
27	1040	53.21	25300	2.9						
31	930	47.58	24500	3.2						
34	840	42.78	23800	3.6						
39	730	37.13	22800	4.1						
44	650	33.25	22100	4.4						
16	1830	93.38	12100	0.85						
18	1610	81.92	16500	0.95	**R**	**87**	**DRN**	**100L4**	92	389
20	1420	72.57	17700	1.10	**RF**	**87**	**DRN**	**100L4**	99	390
23	1250	63.68*	18700	1.25	**RM**	**87**	**DRN**	**100L4**	130	390
24	1180	60.35*	19000	1.30						
28	1030	52.82	19700	1.50						
31	930	47.58	19800	1.65	**R**	**87**	**DRN**	**100L4**	92	389
35	820	41.74	19200	1.90	**RF**	**87**	**DRN**	**100L4**	99	390
40	720	36.84*	18500	2.1	**RM**	**87**	**DRN**	**100L4**	130	390
45	640	32.66*	17900	2.4						
52	545	27.88	17200	2.7						
42	675	34.40*	18200	2.2						
46	615	31.40	17700	2.5						
52	545	27.84*	17200	2.8						
62	460	23.40	16300	3.4	**R**	**87**	**DRN**	**100L4**	90	389
68	420	21.51	15900	3.5	**RF**	**87**	**DRN**	**100L4**	97	390
76	375	19.10	15400	3.8	**RM**	**87**	**DRN**	**100L4**	125	390
85	335	17.08*	14900	4.1						
95	300	15.35	14400	4.4						
32	900	45.81	9090	0.90						
34	850	43.26	9620	0.95	**R**	**77**	**DRN**	**100L4**	65	386
40	720	36.83	10700	1.15	**RF**	**77**	**DRN**	**100L4**	71	387
44	655	33.47	11200	1.25	**RM**	**77**	**DRN**	**100L4**	96	387
					R	**77**	**DRN**	**100L4**	65	386
50	570	29.00	11600	1.45	**RF**	**77**	**DRN**	**100L4**	71	387
58	495	25.23	11200	1.55	**RM**	**77**	**DRN**	**100L4**	96	387
62	455	23.37	11000	1.80						
68	420	21.43	10700	1.95						
77	365	18.80	10400	2.1						
82	350	17.82*	10200	2.2						
93	305	15.60	9870	2.4						
104	275	14.05	9600	2.6	**R**	**77**	**DRN**	**100L4**	64	386
118	240	12.33	9250	2.9	**RF**	**77**	**DRN**	**100L4**	70	387
134	210	10.88	8930	3.1	**RM**	**77**	**DRN**	**100L4**	94	387
151	189	9.64	8620	3.3						
169	169	8.59	8400	3.7						
188	152	7.74	8140	4.0						
214	133	6.79	7830	4.3						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
62	460	23.44	8660	1.20						
73	390	19.89	8350	1.55						
81	350	17.95	8150	1.65						
92	310	15.79	7900	1.80	**R**	**67**	**DRN**	**100L4**	58	383
98	290	14.91	7790	1.85	**RF**	**67**	**DRN**	**100L4**	61	384
115	245	12.70	7470	2.1	**RM**	**67**	**DRN**	**100L4**	77	384
126	225	11.54	7290	2.2						
146	196	10.00	7010	2.4						
					R	**57**	**DRN**	**100L4**	52	380
54	530	26.97	4430	0.85	**RF**	**57**	**DRN**	**100L4**	56	381
					RM	**57**	**DRN**	**100L4**	68	381
66	430	21.93	4360	1.05	**R**	**57**	**DRN**	**100L4**	51	380
78	365	18.60*	4280	1.25	**RF**	**57**	**DRN**	**100L4**	55	381
87	330	16.79	4220	1.35	**RM**	**57**	**DRN**	**100L4**	67	381
99	290	14.77*	4140	1.50						
104	270	13.95*	4100	1.55						
123	230	11.88	3980	1.75						
135	210	10.79	3900	1.85						
156	183	9.35	3790	2.0						
161	178	9.06	3780	2.1	**R**	**57**	**DRN**	**100L4**	51	380
183	156	7.97	3670	2.3	**RF**	**57**	**DRN**	**100L4**	55	381
193	148	7.53	3620	2.4	**RM**	**57**	**DRN**	**100L4**	67	381
227	126	6.41	3480	2.7						
250	114	5.82	3400	2.8						
289	99	5.05	3270	3.1						
332	86	4.39	3160	3.2						
132	215	21.93	3920	2.1	**R**	**57**	**DRN**	**100LM2**	51	380
156	184	18.60*	3790	2.4	**RF**	**57**	**DRN**	**100LM2**	55	381
172	166	16.79	3700	2.7	**RM**	**57**	**DRN**	**100LM2**	67	381
196	146	14.77*	3600	3.0						
207	138	13.95*	3550	3.1	**R**	**57**	**DRN**	**100LM2**	51	380
244	117	11.88	3410	3.4	**RF**	**57**	**DRN**	**100LM2**	55	381
268	106	10.79	3330	3.6	**RM**	**57**	**DRN**	**100LM2**	67	381
90	315	16.22	2210	0.85						
100	285	14.56	2650	0.90	**R**	**47**	**DRN**	**100L4**	46	377
116	245	12.54	3040	1.00	**RF**	**47**	**DRN**	**100L4**	46	378
123	230	11.79	3020	1.05						
143	199	10.15	2950	1.15						
161	178	9.07	2890	1.25						
182	157	8.01	2820	1.30						
188	152	7.76*	2720	1.05						
209	137	6.96	2660	1.15	**R**	**47**	**DRN**	**100L4**	46	377
243	118	6.00	2590	1.30	**RF**	**47**	**DRN**	**100L4**	46	378
258	110	5.64*	2550	1.40						
300	95	4.85	2470	1.55						
336	85	4.34	2410	1.70						
380	75	3.83	2340	1.90						
245	116	11.79	2650	2.1						
285	100	10.15	2560	2.3						
319	89	9.07	2490	2.5						
361	79	8.01	2410	2.6						
373	76	7.76*	2350	2.1						
416	68	6.96	2290	2.3	**R**	**47**	**DRN**	**100LM2**	46	377
483	59	6.00	2200	2.6	**RF**	**47**	**DRN**	**100LM2**	46	378
513	55	5.64*	2170	2.8						
596	48	4.85	2080	3.1						
667	42	4.34	2020	3.4						
755	37	3.83	1950	3.8						
144	198	10.11	920	0.85	**R**	**37**	**DRN**	**100L4**	42	374
154	186	9.47	1140	0.90	**RF**	**37**	**DRN**	**100L4**	44	375
183	156	7.97	1610	1.00						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
218	131	6.67	1350	1.10						
257	111	5.67	1700	1.25						
288	99	5.06	1900	1.35	**R**	**37**	**DRN**	**100L4**	42	374
337	85	4.32	2110	1.50	**RF**	**37**	**DRN**	**100L4**	44	375
360	79	4.05	2180	1.55						
427	67	3.41	2160	1.65						
286	100	10.11	2380	1.70						
306	93	9.47	2360	1.80	**R**	**37**	**DRN**	**100LM2**	42	374
363	78	7.97	2270	2.0	**RF**	**37**	**DRN**	**100LM2**	44	375
434	66	6.67	2150	2.2						
511	56	5.67	2070	2.5						
572	50	5.06	2020	2.7	**R**	**37**	**DRN**	**100LM2**	42	374
670	42	4.32	1940	3.0	**RF**	**37**	**DRN**	**100LM2**	44	375
715	40	4.05	1900	3.0						
849	33	3.41	1820	3.3						
260	110	5.60*	455	0.90						
291	98	5.00*	695	0.95						
341	84	4.27	970	1.05	**R**	**27**	**DRN**	**100L4**	37	371
364	78	4.00*	1070	1.10	**RF**	**27**	**DRN**	**100L4**	37	372
432	66	3.37	1280	1.20						
439	65	6.59	1290	1.60						
517	55	5.60*	1320	1.80						
579	49	5.00*	1290	1.90	**R**	**27**	**DRN**	**100LM2**	37	371
678	42	4.27	1250	2.1	**RF**	**27**	**DRN**	**100LM2**	37	372
724	39	4.00*	1240	2.1						
859	33	3.37	1190	2.4						
226	127	6.45	7050	1.50						
262	109	5.56*	6760	2.1						
287	99	5.07	6580	2.5	**RX**	**87**	**DRN**	**100L4**	72	359
324	88	4.50*	6350	3.3	**RXF**	**87**	**DRN**	**100L4**	77	360
385	74	3.78	6030	4.1						
308	93	4.73	5000	1.30						
360	79	4.04*	4780	1.80						
393	72	3.70	4670	2.1	**RX**	**77**	**DRN**	**100L4**	55	357
448	63	3.25*	4500	2.9	**RXF**	**77**	**DRN**	**100L4**	57	358
473	60	3.08*	4430	3.2						
386	74	3.77	3120	1.15						
455	62	3.20*	3000	1.60						
504	56	2.89	2920	1.85						
573	50	2.54	2820	2.4						
607	47	2.40*	2780	2.6	**RX**	**67**	**DRN**	**100L4**	45	355
713	40	2.04	2660	3.3	**RXF**	**67**	**DRN**	**100L4**	49	356
784	36	1.86	2590	3.5						
905	31	1.61	2480	3.6						
1040	27	1.40*	2380	3.8						
464	61	3.14	2310	1.05						
552	51	2.64*	2220	1.35						
614	46	2.37	2160	1.50						
713	40	2.04	2080	1.70	**RX**	**57**	**DRN**	**100L4**	43	353
758	37	1.92*	2050	1.85	**RXF**	**57**	**DRN**	**100L4**	45	354
881	32	1.65	1970	2.1						
986	29	1.48	1910	2.3						
1115	25	1.30	1850	2.5						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.3	26300	1111	120000	0.75	**R**	**167R107**	**DRN**	**112M4**	830	405
1.5	22700	950	120000	0.90	**RF**	**167R107**	**DRN**	**112M4**	840	405
1.7	20500	860	120000	0.95	**RM**	**167R107**	**DRN**	**112M4**	1030	405

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.43	77300	6894	-	0.25						
0.49	70100	6077	-	0.30						
0.55	62300	5407	-	0.30	**R**	**167R97**	**DRN**	**112M2**	790	405
0.63	53400	4650	-	0.35	**RF**	**167R97**	**DRN**	**112M2**	790	405
0.71	47000	4129	-	0.40	**RM**	**167R97**	**DRN**	**112M2**	990	405
0.80	41700	3692	-	0.50						
1.5	24100	999	120000	0.85						
1.7	20800	861	120000	0.95						
1.9	18400	760	120000	1.10	**R**	**167R97**	**DRN**	**112M4**	780	405
2.2	15600	656	120000	1.30	**RF**	**167R97**	**DRN**	**112M4**	790	405
2.9	11900	503	120000	1.65	**RM**	**167R97**	**DRN**	**112M4**	990	405
3.9	8970	376	120000	2.2						
4.4	7980	335	120000	2.5						
1.1	31300	2657	120000	0.65						
1.3	27100	2333	120000	0.75						
1.4	24000	2085	120000	0.85						
1.6	21400	1877	120000	0.95						
1.8	19100	1670	120000	1.05	**R**	**167R97**	**DRN**	**112M2**	780	405
2.0	16900	1438	120000	1.20	**RF**	**167R97**	**DRN**	**112M2**	790	405
2.3	15000	1279	120000	1.35	**RM**	**167R97**	**DRN**	**112M2**	990	405
2.6	13000	1123	120000	1.55						
3.0	11600	999	120000	1.70						
3.4	10000	861	120000	2.0						
3.9	8870	760	120000	2.2						
2.8	12800	533	63000	1.00						
3.2	11000	462	66200	1.20						
3.4	10300	426	67300	1.25						
4.0	8900	368	69200	1.45						
4.5	7870	326	70400	1.65	**R**	**147R87**	**DRN**	**112M4**	475	404
5.2	6700	280	71600	1.95	**RF**	**147R87**	**DRN**	**112M4**	485	404
5.9	5910	247	72300	2.2	**RM**	**147R87**	**DRN**	**112M4**	650	404
6.9	5110	214	72900	2.5						
7.8	4520	189	73200	2.9						
9.2	3790	159	73600	3.4						
2.4	15000	619	49400	0.85						
2.6	13500	558	61500	0.95	**R**	**147R77**	**DRN**	**112M4**	455	404
3.0	11800	489	64800	1.10	**RF**	**147R77**	**DRN**	**112M4**	465	404
3.5	10000	415	67700	1.30	**RM**	**147R77**	**DRN**	**112M4**	630	404
3.8	9280	381	44800	0.85						
4.5	7870	323	53700	1.00	**R**	**137R77**	**DRN**	**112M4**	325	404
5.0	7080	291	55200	1.15	**RF**	**137R77**	**DRN**	**112M4**	350	404
5.8	6190	255	56700	1.30	**RM**	**137R77**	**DRN**	**112M4**	460	404
6.5	5420	223	57900	1.45						
3.9	9260	376	45100	0.85	**R**	**137R77**	**DRN**	**112M4**	315	404
4.3	8340	339	52500	0.95	**RF**	**137R77**	**DRN**	**112M4**	340	404
4.9	7300	297	54800	1.10	**RM**	**137R77**	**DRN**	**112M4**	450	404
4.9	7240	298	43000	0.85	**R**	**127R77**	**DRN**	**112M4**	295	404
5.8	6130	253	43000	1.00	**RF**	**127R77**	**DRN**	**112M4**	305	404
					RM	**127R77**	**DRN**	**112M4**	400	404
5.7	6350	259	43000	0.95						
7.2	4960	202	43000	1.20	**R**	**127R77**	**DRN**	**112M4**	280	404
9.0	3990	162	43000	1.50	**RF**	**127R77**	**DRN**	**112M4**	300	404
12	3080	126	43000	1.95	**RM**	**127R77**	**DRN**	**112M4**	395	404
					R	**107R77**	**DRN**	**112M4**	240	404
7.8	4530	187	28100	0.95	**RF**	**107R77**	**DRN**	**112M4**	245	404
					RM	**107R77**	**DRN**	**112M4**	330	404
					R	**107R77**	**DRN**	**112M4**	230	404
7.6	4740	193	25200	0.90	**RF**	**107R77**	**DRN**	**112M4**	240	404
8.5	4240	172	29800	1.00	**RM**	**107R77**	**DRN**	**112M4**	325	404
4.3	8780	222.60*	50600	0.90						
5.1	7430	188.45	54500	1.10	**R**	**137**	**DRN**	**132S6**	295	398
5.5	6880	174.40*	55600	1.15	**RF**	**137**	**DRN**	**132S6**	320	399
6.2	6160	156.31	56800	1.30	**RM**	**137**	**DRN**	**132S6**	430	399
6.9	5560	141.12*	57700	1.45						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.5	5050	128.18	58300	1.60						
8.5	4480	113.72	59000	1.80	**R**	**137**	**DRN**	**132S6**	295	398
9.4	4070	103.20*	59400	1.95	**RF**	**137**	**DRN**	**132S6**	320	399
11	3500	88.70*	59900	2.3	**RM**	**137**	**DRN**	**132S6**	430	399
5.6	6850	262.65	43000	0.90						
6.1	6270	240.48	43000	0.95						
6.9	5540	212.46	43000	1.10						
8.1	4700	180.23	43000	1.30						
8.8	4320	165.95	43000	1.40						
9.9	3870	148.33	43000	1.55						
11	3480	133.53	43000	1.70	**R**	**127**	**DRN**	**112M4**	255	396
12	3150	120.92	43000	1.90	**RF**	**127**	**DRN**	**112M4**	265	397
14	2790	107.23	43000	2.1	**RM**	**127**	**DRN**	**112M4**	360	397
15	2520	96.95	43000	2.4						
17	2220	85.26	43000	2.7						
18	2140	82.17	43000	2.8						
19	1980	76.21	43000	3.0						
21	1790	68.61*	43000	3.4						
24	1620	62.13	43000	3.7						
8.5	4490	172.34	28400	0.95						
9.2	4140	158.68	30300	1.05						
10	3700	141.83	32400	1.15						
11	3330	127.68	33800	1.30						
13	3010	115.63	34900	1.45						
14	2670	102.53	35900	1.60	**R**	**107**	**DRN**	**112M4**	200	394
16	2410	92.70	36200	1.80	**RF**	**107**	**DRN**	**112M4**	205	395
19	2050	78.57	34600	2.1	**RM**	**107**	**DRN**	**112M4**	295	395
20	1900	72.88	33900	2.3						
22	1710	65.60*	33000	2.5						
25	1550	59.41	32100	2.8						
28	1370	52.68	31000	3.1						
13	3030	116.48	18300	1.00						
14	2690	103.44	22900	1.10						
16	2410	92.48	24500	1.25						
18	2160	83.15	25700	1.40						
20	1880	72.17	26500	1.60						
22	1700	65.21	25800	1.75	**R**	**97**	**DRN**	**112M4**	140	392
24	1560	59.92	25300	1.90	**RF**	**97**	**DRN**	**112M4**	160	393
28	1380	53.21	24600	2.2	**RM**	**97**	**DRN**	**112M4**	210	393
31	1240	47.58	23800	2.4						
34	1110	42.78	23200	2.7						
39	960	37.13	22300	3.1						
44	860	33.25	21600	3.3						
46	830	32.05	21400	3.1						
54	705	27.19	20400	3.6	**R**	**97**	**DRN**	**112M4**	140	392
58	650	25.03	20000	4.3	**RF**	**97**	**DRN**	**112M4**	155	393
65	580	22.37	19300	4.7	**RM**	**97**	**DRN**	**112M4**	205	393
73	525	20.14	18700	5.0						
23	1660	63.68*	13700	0.95	**R**	**87**	**DRN**	**112M4**	100	389
24	1570	60.35*	14300	1.00	**RF**	**87**	**DRN**	**112M4**	110	390
28	1370	52.82	15500	1.10	**RM**	**87**	**DRN**	**112M4**	140	390
31	1240	47.58	16300	1.25						
35	1080	41.74	17000	1.40	**R**	**87**	**DRN**	**112M4**	100	389
40	960	36.84*	17500	1.60	**RF**	**87**	**DRN**	**112M4**	110	390
45	850	32.66*	17400	1.80	**RM**	**87**	**DRN**	**112M4**	140	390
52	725	27.88	16700	2.1						
43	890	34.40*	17600	1.65						
47	810	31.40	17200	1.90						
53	725	27.84*	16700	2.1						
63	610	23.40	15900	2.5						
68	560	21.51	15600	2.7	**R**	**87**	**DRN**	**112M4**	99	389
77	495	19.10	15100	2.9	**RF**	**87**	**DRN**	**112M4**	105	390
86	445	17.08*	14600	3.1	**RM**	**87**	**DRN**	**112M4**	135	390
95	400	15.35	14200	3.3						
110	345	13.33	13600	3.7						
123	310	11.93	13200	4.0						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
40	960	36.83	7260	0.85						
44	870	33.47	9400	0.95	**R**	**77**	**DRN**	**112M4**	74	386
50	755	29.00	10500	1.10	**RF**	**77**	**DRN**	**112M4**	80	387
58	655	25.23	10700	1.20	**RM**	**77**	**DRN**	**112M4**	105	387
63	605	23.37	10500	1.35						
68	555	21.43	10300	1.45						
78	490	18.80	10000	1.60						
82	460	17.82*	9880	1.70						
94	405	15.60	9560	1.80						
104	365	14.05	9310	1.95						
119	320	12.33	9000	2.1	**R**	**77**	**DRN**	**112M4**	73	386
135	280	10.88	8700	2.3	**RF**	**77**	**DRN**	**112M4**	79	387
152	250	9.64	8420	2.5	**RM**	**77**	**DRN**	**112M4**	105	387
170	220	8.59	8240	2.8						
189	200	7.74	8000	3.0						
216	177	6.79	7700	3.3						
244	156	5.99*	7420	3.5						
276	138	5.31*	7160	3.7						
74	515	19.89	7910	1.15						
82	465	17.95	7750	1.25						
93	410	15.79	7550	1.35						
98	385	14.91	7460	1.40						
115	330	12.70	7190	1.55						
127	300	11.54	7030	1.65						
146	260	10.00	6790	1.80	**R**	**67**	**DRN**	**112M4**	67	383
168	225	8.70*	6550	1.95	**RF**	**67**	**DRN**	**112M4**	70	384
188	200	7.79	6390	1.85	**RM**	**67**	**DRN**	**112M4**	86	384
199	192	7.36*	6290	1.95						
234	163	6.27	6020	2.0						
257	148	5.70	5860	2.1						
297	128	4.93	5630	2.2						
341	112	4.29	5410	2.4						
79	485	18.60*	3680	0.95	**R**	**57**	**DRN**	**112M4**	61	380
87	435	16.79	3820	1.05	**RF**	**57**	**DRN**	**112M4**	64	381
99	385	14.77*	3790	1.15	**RM**	**57**	**DRN**	**112M4**	76	381
105	360	13.95*	3770	1.20						
123	305	11.88	3700	1.30						
136	280	10.79	3650	1.40						
157	240	9.35	3560	1.50						
162	235	9.06	3570	1.60	**R**	**57**	**DRN**	**112M4**	61	380
184	205	7.97	3480	1.70	**RF**	**57**	**DRN**	**112M4**	64	381
194	196	7.53	3440	1.80	**RM**	**57**	**DRN**	**112M4**	76	381
228	167	6.41	3330	2.0						
251	151	5.82	3260	2.1						
290	131	5.05	3160	2.3						
333	114	4.39	3050	2.4						
144	260	10.15	2070	0.85						
161	235	9.07	2450	0.95						
183	205	8.01	2630	1.00						
210	181	6.96	2470	0.90						
244	156	6.00	2420	1.00	**R**	**47**	**DRN**	**112M4**	56	377
260	147	5.64*	2400	1.05	**RF**	**47**	**DRN**	**112M4**	56	378
302	126	4.85	2340	1.20						
338	113	4.34	2290	1.30						
382	99	3.83	2230	1.45						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
182	210	16.22	2630	1.30						
202	188	14.56	2590	1.40						
235	162	12.54	2520	1.55						
250	152	11.79	2500	1.60						
290	131	10.15	2430	1.75						
325	117	9.07	2370	1.85						
368	103	8.01	2310	1.95	**R**	**47**	**DRN**	**112M2**	56	377
380	100	7.76*	2230	1.60	**RF**	**47**	**DRN**	**112M2**	56	378
423	90	6.96	2180	1.75						
492	77	6.00	2110	2.0						
523	73	5.64*	2080	2.1						
607	62	4.85	2010	2.4						
680	56	4.34	1950	2.6						
769	49	3.83	1890	2.9						
263	145	5.56*	6580	1.55						
289	132	5.07	6420	1.90	**RX**	**87**	**DRN**	**112M4**	81	359
325	117	4.50*	6210	2.5	**RXF**	**87**	**DRN**	**112M4**	86	360
387	98	3.78	5910	3.1						
362	105	4.04*	4630	1.35						
395	96	3.70	4530	1.60						
450	84	3.25*	4370	2.1						
475	80	3.08*	4310	2.4						
543	70	2.70	4150	3.1	**RX**	**77**	**DRN**	**112M4**	64	357
603	63	2.43	4030	3.4	**RXF**	**77**	**DRN**	**112M4**	67	358
687	55	2.13	3880	3.6						
779	49	1.88*	3740	3.8						
878	43	1.67	3620	4.0						
1030	37	1.42	3450	4.2						
458	83	3.20*	2860	1.20						
507	75	2.89	2790	1.40						
576	66	2.54	2710	1.80						
610	62	2.40*	2670	1.95	**RX**	**67**	**DRN**	**112M4**	55	355
716	53	2.04	2560	2.5	**RXF**	**67**	**DRN**	**112M4**	59	356
788	48	1.86	2500	2.6						
910	41	1.61	2400	2.7						
1045	36	1.40*	2310	2.9						
555	68	2.64*	1740	1.00						
618	61	2.37	1840	1.10						
717	53	2.04	1960	1.30						
762	50	1.92*	1950	1.40	**RX**	**57**	**DRN**	**112M4**	52	353
886	43	1.65	1880	1.60	**RXF**	**57**	**DRN**	**112M4**	54	354
992	38	1.48	1830	1.75						
1120	34	1.30	1780	1.85						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.9	25200	763	120000	0.80	**R**	**167R107**	**DRN**	**132S4**	840	405
2.1	22700	690	120000	0.90	**RF**	**167R107**	**DRN**	**132S4**	850	405
					RM	**167R107**	**DRN**	**132S4**	1040	405
1.9	25400	760	120000	0.80						
2.2	21700	656	120000	0.90						
2.5	19000	579	120000	1.05						
2.9	16600	503	120000	1.20	**R**	**167R97**	**DRN**	**132S4**	800	405
3.4	14100	432	120000	1.40	**RF**	**167R97**	**DRN**	**132S4**	800	405
3.9	12400	376	120000	1.60	**RM**	**167R97**	**DRN**	**132S4**	1000	405
4.4	11000	335	120000	1.80						
4.8	9930	303	120000	2.0						
5.2	9150	279	120000	2.2						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	15300	462	45900	0.85						
3.4	14200	426	59000	0.90						
4.0	12300	368	64000	1.05						
4.5	10900	326	66400	1.20	**R**	**147R87**	**DRN**	**132S4**	490	404
5.2	9300	280	68700	1.40	**RF**	**147R87**	**DRN**	**132S4**	495	404
5.9	8210	247	70100	1.60	**RM**	**147R87**	**DRN**	**132S4**	660	404
6.8	7090	214	71200	1.85						
7.7	6270	189	72000	2.1						
7.2	6860	202	43000	0.85	**R**	**127R77**	**DRN**	**132S4**	290	404
9.0	5520	162	43000	1.10	**RF**	**127R77**	**DRN**	**132S4**	310	404
12	4260	126	43000	1.40	**RM**	**127R77**	**DRN**	**132S4**	405	404
6.0	8790	163.31	69400	1.50	**R**	**147**	**DRN**	**132L6**	450	400
6.6	7910	146.91	70400	1.65	**RF**	**147**	**DRN**	**132L6**	455	401
8.1	6450	119.86	71800	2.0	**RM**	**147**	**DRN**	**132L6**	620	401
8.9	5880	109.31	72300	2.2	**R**	**147**	**DRN**	**132L6**	450	400
10	5090	94.60*	72900	2.5	**RF**	**147**	**DRN**	**132L6**	455	401
12	4490	83.47	73300	2.9	**RM**	**147**	**DRN**	**132L6**	620	401
5.6	9390	174.40*	42800	0.85						
6.2	8420	156.31	52200	0.95	**R**	**137**	**DRN**	**132L6**	320	398
6.9	7600	141.12*	54200	1.05	**RF**	**137**	**DRN**	**132L6**	345	399
7.6	6900	128.18	55500	1.15	**RM**	**137**	**DRN**	**132L6**	455	399
8.6	6120	113.72	56800	1.30						
					R	**137**	**DRN**	**132L6**	320	398
9.4	5550	103.20*	57700	1.45	**RF**	**137**	**DRN**	**132L6**	345	399
					RM	**137**	**DRN**	**132L6**	455	399
6.6	8000	222.60*	53400	1.00						
7.8	6770	188.45	55800	1.20	**R**	**137**	**DRN**	**132S4**	295	398
8.4	6260	174.40*	56600	1.30	**RF**	**137**	**DRN**	**132S4**	320	399
9.3	5610	156.31	57600	1.40	**RM**	**137**	**DRN**	**132S4**	430	399
10	5070	141.12*	58300	1.60						
11	4600	128.18	58900	1.75						
13	4080	113.72	59400	1.95						
14	3700	103.20*	59800	2.2						
16	3180	88.70*	60200	2.5	**R**	**137**	**DRN**	**132S4**	295	398
18	2900	80.91*	60400	2.8	**RF**	**137**	**DRN**	**132S4**	320	399
20	2640	73.49	60600	3.0	**RM**	**137**	**DRN**	**132S4**	430	399
22	2340	65.20	60800	3.4						
25	2120	59.17*	60900	3.8						
29	1820	50.86*	61000	4.4						
8.1	6470	180.23	43000	0.95						
8.8	5960	165.95	43000	1.00						
9.8	5330	148.33	43000	1.15						
11	4800	133.53	43000	1.25						
12	4340	120.92	43000	1.40						
14	3850	107.23	43000	1.55						
15	3480	96.95	43000	1.70	**R**	**127**	**DRN**	**132S4**	265	396
17	3060	85.26	43000	1.95	**RF**	**127**	**DRN**	**132S4**	280	397
18	2950	82.17	43000	2.0	**RM**	**127**	**DRN**	**132S4**	375	397
19	2730	76.21	43000	2.2						
21	2460	68.61*	43000	2.4						
24	2230	62.13	43000	2.7						
27	1980	55.09	43000	3.0						
29	1790	49.81	43000	3.4						
35	1510	42.22*	43000	4.0						
11	4590	127.68	27800	0.95						
13	4150	115.63	30200	1.05						
14	3680	102.53	32400	1.15						
16	3330	92.70	33800	1.30						
19	2820	78.57	33400	1.50	**R**	**107**	**DRN**	**132S4**	210	394
20	2610	72.88	32800	1.65	**RF**	**107**	**DRN**	**132S4**	215	395
22	2350	65.60*	31900	1.80	**RM**	**107**	**DRN**	**132S4**	305	395
25	2130	59.41	31100	2.0						
28	1890	52.68	30200	2.3						
31	1710	47.63	29400	2.5						
36	1450	40.37*	28100	3.0						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	2980	83.15	20000	1.00						
20	2590	72.17	22100	1.15						
22	2340	65.21	24600	1.30						
24	2150	59.92	24100	1.40						
27	1910	53.21	23500	1.55	**R**	**97**	**DRN**	**132S4**	155	392
31	1710	47.58	22900	1.75	**RF**	**97**	**DRN**	**132S4**	170	393
34	1530	42.78	22400	1.95	**RM**	**97**	**DRN**	**132S4**	220	393
39	1330	37.13	21600	2.2						
44	1190	33.25	21000	2.4						
53	990	27.58	20000	2.7						
46	1150	32.05	20800	2.2						
54	970	27.19	19900	2.6						
58	890	25.03	19500	3.1	**R**	**97**	**DRN**	**132S4**	150	392
65	800	22.37	18900	3.4	**RF**	**97**	**DRN**	**132S4**	165	393
73	720	20.14	18300	3.6	**RM**	**97**	**DRN**	**132S4**	220	393
80	655	18.24	17800	3.8						
90	580	16.17	17200	4.1						
31	1710	47.58	15700	0.90						
35	1500	41.74	17300	1.05	**R**	**87**	**DRN**	**132S4**	110	389
40	1320	36.84*	17100	1.15	**RF**	**87**	**DRN**	**132S4**	120	390
45	1170	32.66*	16600	1.30	**RM**	**87**	**DRN**	**132S4**	150	390
52	1000	27.88	16100	1.50						
52	1000	27.84*	16000	1.55						
62	840	23.40	15400	1.85						
68	770	21.51	15100	1.95						
76	685	19.10	14600	2.1						
86	610	17.08*	14200	2.3						
95	550	15.35	13800	2.4	**R**	**87**	**DRN**	**132S4**	110	389
110	475	13.33	13300	2.7	**RF**	**87**	**DRN**	**132S4**	120	390
122	425	11.93	12900	2.9	**RM**	**87**	**DRN**	**132S4**	150	390
148	355	9.90*	12200	3.3						
160	325	9.14*	12100	3.7						
178	295	8.22	11700	3.9						
205	255	7.13	11200	4.2						
78	675	18.80	9320	1.15	**R**	**77**	**DRN**	**132S4**	84	386
82	640	17.82*	9360	1.20	**RF**	**77**	**DRN**	**132S4**	90	387
94	560	15.60	9110	1.30	**RM**	**77**	**DRN**	**132S4**	115	387
104	505	14.05	8910	1.45						
119	440	12.33	8650	1.55						
134	390	10.88	8390	1.70						
152	345	9.64	8150	1.80	**R**	**77**	**DRN**	**132S4**	84	386
170	305	8.59	8030	2.0	**RF**	**77**	**DRN**	**132S4**	90	387
189	275	7.74	7810	2.2	**RM**	**77**	**DRN**	**132S4**	115	387
215	240	6.79	7530	2.4						
244	215	5.99*	7270	2.5						
275	190	5.31*	7030	2.7						
92	565	15.79	6720	1.00						
98	535	14.91	6980	1.05						
115	455	12.70	6790	1.15						
127	410	11.54	6660	1.20						
146	355	10.00	6470	1.30						
168	310	8.70*	6280	1.40	**R**	**67**	**DRN**	**132S4**	79	383
187	280	7.79	6150	1.35	**RF**	**67**	**DRN**	**132S4**	82	384
199	260	7.36*	6070	1.40	**RM**	**67**	**DRN**	**132S4**	98	384
233	225	6.27	5830	1.45						
257	200	5.70	5690	1.50						
296	177	4.93	5480	1.65						
340	154	4.29	5280	1.75						
337	155	8.70*	5280	2.8						
377	139	7.79	5140	2.7						
399	131	7.36*	5060	2.8	**R**	**67**	**DRN**	**132S2**	79	383
468	112	6.27	4830	2.9	**RF**	**67**	**DRN**	**132S2**	82	384
515	101	5.70	4700	3.0	**RM**	**67**	**DRN**	**132S2**	98	384
595	88	4.93	4510	3.3						
684	76	4.29	4330	3.5						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
99	530	14.77*	1860	0.80	**R**	**57**	**DRN**	**132S4**	72	380
105	500	13.95*	2200	0.85	**RF**	**57**	**DRN**	**132S4**	76	381
123	425	11.88	3000	0.95	**RM**	**57**	**DRN**	**132S4**	88	381
135	385	10.79	3270	1.00						
156	335	9.35	3240	1.10						
183	285	7.97	3210	1.25						
194	270	7.53	3190	1.30	**R**	**57**	**DRN**	**132S4**	72	380
228	230	6.41	3110	1.45	**RF**	**57**	**DRN**	**132S4**	76	381
251	205	5.82	3060	1.55	**RM**	**57**	**DRN**	**132S4**	88	381
290	181	5.05	2980	1.70						
333	157	4.39	2900	1.75						
314	167	9.35	2920	2.2						
368	142	7.97	2840	2.5						
390	134	7.53	2800	2.6	**R**	**57**	**DRN**	**132S2**	72	380
458	114	6.41	2700	2.9	**RF**	**57**	**DRN**	**132S2**	76	381
504	104	5.82	2640	3.1	**RM**	**57**	**DRN**	**132S2**	88	381
582	90	5.05	2550	3.4						
668	78	4.39	2460	3.6						
301	174	4.85	1920	0.85						
337	155	4.34	2110	0.95	**R**	**47**	**DRN**	**132S4**	67	377
381	137	3.83	2070	1.05	**RF**	**47**	**DRN**	**132S4**	67	378
234	220	12.54	1780	1.10						
249	210	11.79	1970	1.15						
289	181	10.15	2250	1.25						
324	162	9.07	2210	1.35						
366	143	8.01	2170	1.45	**R**	**47**	**DRN**	**132S2**	67	377
489	107	6.00	1990	1.45	**RF**	**47**	**DRN**	**132S2**	67	378
520	100	5.64*	1970	1.55						
605	86	4.85	1910	1.75						
677	77	4.34	1860	1.90						
766	68	3.83	1810	2.1						
221	235	6.63*	10400	1.95						
260	200	5.61	9920	2.3	**RX**	**107**	**DRN**	**132S4**	150	363
281	186	5.19	9700	3.7	**RXF**	**107**	**DRN**	**132S4**	165	364
314	167	4.65	9400	4.2						
252	205	5.79	8330	2.0						
297	176	4.91	7960	2.2						
323	162	4.52	7780	3.7						
361	145	4.04	7530	4.1						
401	130	3.64*	7310	4.5						
443	118	3.30	7100	5.0	**RX**	**97**	**DRN**	**132S4**	115	361
500	105	2.92	6850	5.7	**RXF**	**97**	**DRN**	**132S4**	125	362
553	95	2.64	6650	6.3						
652	80	2.24*	6320	7.4						
747	70	1.96	6070	8.1						
893	58	1.64	5740	8.6						
1030	50	1.42	5490	8.9						
325	161	4.50*	6000	1.80						
386	135	3.78	5740	2.2						
420	124	3.48	5610	3.2						
473	110	3.09	5430	3.6	**RX**	**87**	**DRN**	**132S4**	92	359
529	99	2.76*	5260	4.1	**RXF**	**87**	**DRN**	**132S4**	97	360
589	89	2.48	5100	4.5						
678	77	2.15	4900	5.0						
450	116	3.25*	4200	1.55						
474	110	3.08*	4140	1.75						
542	96	2.70	4010	2.2						
602	87	2.43	3900	2.5	**RX**	**77**	**DRN**	**132S4**	76	357
686	76	2.13	3760	2.6	**RXF**	**77**	**DRN**	**132S4**	78	358
777	67	1.88*	3640	2.8						
877	59	1.67	3520	2.9						
1025	51	1.42	3360	3.0						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
575	91	2.54	2540	1.30						
609	86	2.40*	2510	1.45						
715	73	2.04	2420	1.80	**RX**	**67**	**DRN**	**132S4**	66	355
787	66	1.86	2370	1.90	**RXF**	**67**	**DRN**	**132S4**	70	356
908	57	1.61	2290	1.95						
1045	50	1.40*	2210	2.1						
716	73	2.04	725	0.95						
761	69	1.92*	810	1.00						
884	59	1.65	990	1.15	**RX**	**57**	**DRN**	**132S4**	64	353
990	53	1.48	1060	1.30	**RXF**	**57**	**DRN**	**132S4**	65	354
1120	46	1.30	1200	1.35						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.5	26200	585	120000	0.75	**R**	**167R107**	**DRN**	**132M4**	860	405
2.9	22700	511	120000	0.90	**RF**	**167R107**	**DRN**	**132M4**	870	405
					RM	**167R107**	**DRN**	**132M4**	1060	405
3.3	20500	446	120000	1.00	**R**	**167R107**	**DRN**	**132M4**	850	405
					RF	**167R107**	**DRN**	**132M4**	860	405
					RM	**167R107**	**DRN**	**132M4**	1060	405
2.5	26000	579	120000	0.75						
2.9	22700	503	120000	0.90						
3.4	19400	432	120000	1.05	**R**	**167R97**	**DRN**	**132M4**	810	405
3.9	17000	376	120000	1.20	**RF**	**167R97**	**DRN**	**132M4**	820	405
4.4	15100	335	120000	1.30	**RM**	**167R97**	**DRN**	**132M4**	1020	405
4.8	13500	303	120000	1.45						
5.3	12500	279	120000	1.60						
4.5	14800	326	52300	0.90						
5.2	12600	280	63300	1.00						
5.9	11200	247	65900	1.15	**R**	**147R87**	**DRN**	**132M4**	510	404
6.9	9670	214	68200	1.35	**RF**	**147R87**	**DRN**	**132M4**	510	404
7.8	8550	189	69700	1.50	**RM**	**147R87**	**DRN**	**132M4**	680	404
9.2	7190	159	71200	1.80						
9.0	7510	162	43000	0.80	**R**	**127R77**	**DRN**	**132M4**	310	404
12	5800	126	43000	1.05	**RF**	**127R77**	**DRN**	**132M4**	330	404
					RM	**127R77**	**DRN**	**132M4**	425	404
4.3	16800	229.71	120000	1.20	**R**	**167**	**DRN**	**160M6**	730	402
5.2	13600	186.93*	120000	1.45	**RF**	**167**	**DRN**	**160M6**	730	403
					RM	**167**	**DRN**	**160M6**	930	403
6.4	11100	153.07	120000	1.80						
7.0	10200	139.98	120000	1.95						
8.0	8910	121.81*	120000	2.2						
9.1	7860	107.49	120000	2.5	**R**	**167**	**DRN**	**160M6**	730	402
11	6810	93.19	120000	2.9	**RF**	**167**	**DRN**	**160M6**	730	403
12	6060	82.91*	120000	3.3	**RM**	**167**	**DRN**	**160M6**	930	403
13	5390	73.70*	120000	3.7						
15	4930	67.40	120000	4.1						
6.0	11900	163.31	64600	1.10	**R**	**147**	**DRN**	**160M6**	480	400
6.7	10700	146.91	66700	1.20	**RF**	**147**	**DRN**	**160M6**	490	401
8.2	8760	119.86	69400	1.50	**RM**	**147**	**DRN**	**160M6**	660	401
9.0	7990	109.31	70300	1.65	**R**	**147**	**DRN**	**160M6**	480	400
10	6920	94.60*	71400	1.90	**RF**	**147**	**DRN**	**160M6**	490	401
12	6100	83.47	72100	2.1	**RM**	**147**	**DRN**	**160M6**	660	401
7.8	9190	188.45	46300	0.85						
8.4	8500	174.40*	51800	0.95	**R**	**137**	**DRN**	**132M4**	315	398
9.4	7620	156.31	54200	1.05	**RF**	**137**	**DRN**	**132M4**	335	399
10	6880	141.12*	55600	1.15	**RM**	**137**	**DRN**	**132M4**	445	399

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	6250	128.18	56600	1.30						
13	5540	113.72	57700	1.45						
14	5030	103.20*	58400	1.60						
17	4320	88.70*	59200	1.85	**R**	**137**	**DRN**	**132M4**	315	398
18	3940	80.91*	59600	2.0	**RF**	**137**	**DRN**	**132M4**	335	399
20	3580	73.49	59900	2.2	**RM**	**137**	**DRN**	**132M4**	445	399
23	3180	65.20	60200	2.5						
25	2880	59.17*	60400	2.8						
29	2480	50.86*	60700	3.2						
9.9	7230	148.33	43000	0.85						
11	6510	133.53	43000	0.90						
12	5890	120.92	43000	1.00						
14	5230	107.23	43000	1.15						
15	4720	96.95	43000	1.25						
17	4150	85.26	43000	1.45						
18	4000	82.17	43000	1.50	**R**	**127**	**DRN**	**132M4**	285	396
19	3710	76.21	43000	1.60	**RF**	**127**	**DRN**	**132M4**	295	397
21	3340	68.61*	43000	1.80	**RM**	**127**	**DRN**	**132M4**	390	397
24	3030	62.13	43000	2.0						
27	2680	55.09	43000	2.2						
29	2430	49.81	43000	2.5						
35	2050	42.22*	43000	2.9						
40	1790	36.88	43000	3.2						
48	1500	30.84	43000	3.6						
					R	**127**	**DRN**	**132M4**	270	396
46	1570	32.18	43000	3.8	**RF**	**127**	**DRN**	**132M4**	290	397
					RM	**127**	**DRN**	**132M4**	385	397
16	4520	92.70	28200	0.95						
19	3830	78.57	31600	1.10						
20	3550	72.88	31100	1.20						
22	3200	65.60*	30500	1.35						
25	2890	59.41	29800	1.50	**R**	**107**	**DRN**	**132M4**	230	394
28	2570	52.68	29000	1.65	**RF**	**107**	**DRN**	**132M4**	235	395
31	2320	47.63	28300	1.85	**RM**	**107**	**DRN**	**132M4**	320	395
36	1960	40.37*	27200	2.2						
42	1720	35.26	26200	2.5						
50	1430	29.49	25000	3.0						
48	1500	30.77	25300	2.9						
53	1340	27.58	24600	3.2	**R**	**107**	**DRN**	**132M4**	220	394
59	1210	24.90*	23900	3.5	**RF**	**107**	**DRN**	**132M4**	230	395
65	1100	22.62	23300	3.9	**RM**	**107**	**DRN**	**132M4**	315	395
24	2920	59.92	21500	1.05						
28	2590	53.21	22100	1.15	**R**	**97**	**DRN**	**132M4**	170	392
31	2320	47.58	21600	1.30	**RF**	**97**	**DRN**	**132M4**	190	393
34	2080	42.78	21200	1.45	**RM**	**97**	**DRN**	**132M4**	240	393
40	1810	37.13	20600	1.65						
					R	**97**	**DRN**	**132M4**	170	392
44	1620	33.25	20100	1.80	**RF**	**97**	**DRN**	**132M4**	190	393
53	1340	27.58	19200	2.0	**RM**	**97**	**DRN**	**132M4**	240	393
46	1560	32.05	19900	1.65						
54	1320	27.19	19200	1.95						
59	1220	25.03	18800	2.3	**R**	**97**	**DRN**	**132M4**	170	392
66	1090	22.37	18300	2.5	**RF**	**97**	**DRN**	**132M4**	185	393
73	980	20.14	17800	2.7	**RM**	**97**	**DRN**	**132M4**	235	393
80	880	18.24	17300	2.8						
40	1790	36.84*	14700	0.85	**R**	**87**	**DRN**	**132M4**	130	389
45	1590	32.66*	15600	0.95	**RF**	**87**	**DRN**	**132M4**	135	390
53	1360	27.88	15200	1.10	**RM**	**87**	**DRN**	**132M4**	165	390

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	1350	27.84*	15200	1.15						
63	1140	23.40	14600	1.35						
68	1040	21.51	14400	1.45						
77	930	19.10	14000	1.55						
86	830	17.08*	13700	1.65						
96	745	15.35	12600	1.80	**R**	**87**	**DRN**	**132M4**	130	389
110	650	13.33	12900	1.95	**RF**	**87**	**DRN**	**132M4**	135	390
123	580	11.93	12500	2.1	**RM**	**87**	**DRN**	**132M4**	165	390
148	480	9.90*	11900	2.4						
161	445	9.14*	11800	2.7						
179	400	8.22	11500	2.9						
206	345	7.13	11000	3.1						
230	310	6.39	10700	3.3						
277	255	5.30*	10100	3.5						
78	910	18.80	5520	0.85						
82	860	17.82*	5910	0.90						
94	760	15.60	6760	0.95						
104	685	14.05	7300	1.05						
119	600	12.33	7850	1.15						
135	530	10.88	7960	1.25	**R**	**77**	**DRN**	**132M4**	100	386
152	470	9.64	7770	1.35	**RF**	**77**	**DRN**	**132M4**	110	387
171	415	8.59	7690	1.50	**RM**	**77**	**DRN**	**132M4**	135	387
190	375	7.74	7540	1.60						
216	330	6.79	7300	1.75						
245	290	5.99*	7060	1.85						
276	255	5.31*	6840	1.95						
116	615	12.70	4420	0.85						
127	560	11.54	5010	0.90						
147	485	10.00	5740	0.95						
169	420	8.70*	5900	1.05						
188	380	7.79	5600	1.00	**R**	**67**	**DRN**	**132M4**	97	383
199	355	7.36*	5760	1.05	**RF**	**67**	**DRN**	**132M4**	100	384
234	305	6.27	5570	1.10	**RM**	**67**	**DRN**	**132M4**	115	384
258	275	5.70	5450	1.10						
298	240	4.93	5270	1.20						
342	205	4.29	5100	1.30						
184	385	7.97	1120	0.90						
195	365	7.53	1410	0.95						
229	310	6.41	2120	1.05	**R**	**57**	**DRN**	**132M4**	91	380
252	280	5.82	2470	1.15	**RF**	**57**	**DRN**	**132M4**	94	381
291	245	5.05	2750	1.25	**RM**	**57**	**DRN**	**132M4**	105	381
334	210	4.39	2700	1.30						
199	360	14.77*	2620	1.20						
210	340	13.95*	2800	1.25						
247	285	11.88	2770	1.40						
272	260	10.79	2750	1.50						
314	225	9.35	2700	1.60	**R**	**57**	**DRN**	**132S2**	72	380
368	194	7.97	2660	1.85	**RF**	**57**	**DRN**	**132S2**	76	381
390	183	7.53	2630	1.90	**RM**	**57**	**DRN**	**132S2**	88	381
458	156	6.41	2560	2.1						
504	142	5.82	2510	2.2						
582	123	5.05	2440	2.5						
669	107	4.39	2360	2.6						
222	320	6.63*	10000	1.40						
262	270	5.61	9620	1.65						
283	250	5.19	9420	2.7	**RX**	**107**	**DRN**	**132M4**	165	363
316	225	4.65	9140	3.1	**RXF**	**107**	**DRN**	**132M4**	185	364
350	200	4.20*	8890	4.0						
253	280	5.79	8030	1.50						
299	235	4.91	7700	1.65						
325	220	4.52	7530	2.7						
363	197	4.04	7310	3.0	**RX**	**97**	**DRN**	**132M4**	135	361
403	177	3.64*	7110	3.4	**RXF**	**97**	**DRN**	**132M4**	140	362
445	160	3.30	6910	3.7						
502	142	2.92	6680	4.2						

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
326	215	4.50*	5720	1.30						
388	184	3.78	5500	1.65						
422	169	3.48	5380	2.4						
476	150	3.09	5230	2.7						
532	134	2.76*	5080	3.0	**RX**	**87**	**DRN**	**132M4**	110	359
592	121	2.48	4940	3.4	**RXF**	**87**	**DRN**	**132M4**	115	360
682	105	2.15	4750	3.7						
761	94	1.93	4610	3.8						
918	78	1.60*	4370	4.0						
1055	67	1.39	4200	4.3						
452	158	3.25*	3890	1.15						
477	150	3.08*	3910	1.30						
545	131	2.70	3800	1.65						
604	118	2.43	3710	1.80	**RX**	**77**	**DRN**	**132M4**	94	357
689	103	2.13	3600	1.90	**RXF**	**77**	**DRN**	**132M4**	96	358
781	91	1.88*	3490	2.0						
881	81	1.67	3380	2.1						
1030	69	1.42	3240	2.2						
578	124	2.54	1590	0.95						
612	117	2.40*	1700	1.05						
718	99	2.04	1890	1.35	**RX**	**67**	**DRN**	**132M4**	85	355
790	90	1.86	2000	1.40	**RXF**	**67**	**DRN**	**132M4**	89	356
913	78	1.61	2120	1.45						
1050	68	1.40*	2070	1.50						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.7	22500	399	120000	0.90	**R**	**167R107**	**DRN**	**132L4**	860	405
4.1	20300	361	120000	1.00	**RF**	**167R107**	**DRN**	**132L4**	870	405
					RM	**167R107**	**DRN**	**132L4**	1070	405
3.4	23800	432	120000	0.85						
3.9	20900	376	120000	0.95	**R**	**167R97**	**DRN**	**132L4**	820	405
4.4	18600	335	120000	1.05	**RF**	**167R97**	**DRN**	**132L4**	830	405
4.9	16700	303	120000	1.20	**RM**	**167R97**	**DRN**	**132L4**	1020	405
5.3	15400	279	120000	1.30						
5.2	15500	280	42500	0.85						
6.0	13700	247	61100	0.95	**R**	**147R87**	**DRN**	**132L4**	510	404
6.9	11800	214	64800	1.10	**RF**	**147R87**	**DRN**	**132L4**	520	404
7.8	10500	189	67000	1.25	**RM**	**147R87**	**DRN**	**132L4**	690	404
9.3	8830	159	69300	1.45						
					R	**127R77**	**DRN**	**132L4**	315	404
12	7120	126	43000	0.85	**RF**	**127R77**	**DRN**	**132L4**	335	404
					RM	**127R77**	**DRN**	**132L4**	435	404
9.0	9760	163.31	68100	1.35	**R**	**147**	**DRN**	**132L4**	450	400
10	8770	146.91	69400	1.50	**RF**	**147**	**DRN**	**132L4**	455	401
12	7160	119.86	71200	1.80	**RM**	**147**	**DRN**	**132L4**	620	401
13	6530	109.31	71800	2.0						
16	5650	94.60*	72500	2.3	**R**	**147**	**DRN**	**132L4**	450	400
18	4980	83.47	73000	2.6	**RF**	**147**	**DRN**	**132L4**	455	401
20	4300	72.09	73400	3.0	**RM**	**147**	**DRN**	**132L4**	620	401
22	4000	66.99	73500	3.2						
9.4	9340	156.31	43800	0.85						
10	8430	141.12*	52100	0.95	**R**	**137**	**DRN**	**132L4**	320	398
11	7660	128.18	54100	1.05	**RF**	**137**	**DRN**	**132L4**	345	399
13	6790	113.72	55700	1.20	**RM**	**137**	**DRN**	**132L4**	455	399
14	6160	103.20*	56800	1.30						
17	5300	88.70*	58000	1.50						
18	4830	80.91*	58600	1.65						
20	4390	73.49	59100	1.80	**R**	**137**	**DRN**	**132L4**	320	398
23	3890	65.20	59600	2.0	**RF**	**137**	**DRN**	**132L4**	345	399
25	3530	59.17*	59900	2.3	**RM**	**137**	**DRN**	**132L4**	455	399
29	3030	50.86*	60300	2.6						
33	2650	44.39	60600	3.0						

26883198/EN – 04/2022

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	7220	120.92	43000	0.85						
14	6400	107.23	43000	0.95						
15	5790	96.95	43000	1.05						
17	5090	85.26	43000	1.20						
18	4910	82.17	43000	1.20						
19	4550	76.21	43000	1.30	**R**	**127**	**DRN**	**132L4**	295	396
21	4100	68.61*	43000	1.45	**RF**	**127**	**DRN**	**132L4**	305	397
24	3710	62.13	43000	1.60	**RM**	**127**	**DRN**	**132L4**	400	397
27	3290	55.09	43000	1.80						
30	2970	49.81	43000	2.0						
35	2520	42.22*	43000	2.4						
40	2200	36.88	43000	2.6						
48	1840	30.84	43000	2.9						
46	1920	32.18	43000	3.1	**R**	**127**	**DRN**	**132L4**	275	396
51	1720	28.84	43000	3.5	**RF**	**127**	**DRN**	**132L4**	300	397
56	1550	26.04*	43000	3.9	**RM**	**127**	**DRN**	**132L4**	395	397
19	4690	78.57	26900	0.90						
20	4350	72.88	29200	1.00						
22	3920	65.60*	29200	1.10						
25	3550	59.41	28700	1.20	**R**	**107**	**DRN**	**132L4**	235	394
28	3140	52.68	28000	1.35	**RF**	**107**	**DRN**	**132L4**	245	395
31	2840	47.63	27400	1.50	**RM**	**107**	**DRN**	**132L4**	330	395
36	2410	40.37*	26400	1.80						
42	2100	35.26	25600	2.0						
50	1760	29.49	24500	2.4						
48	1830	30.77	24700	2.3						
53	1640	27.58	24000	2.6	**R**	**107**	**DRN**	**132L4**	230	394
59	1480	24.90*	23400	2.9	**RF**	**107**	**DRN**	**132L4**	235	395
65	1350	22.62	22800	3.2	**RM**	**107**	**DRN**	**132L4**	325	395
73	1190	20.07	22100	3.6						
28	3180	53.21	10800	0.95	**R**	**97**	**DRN**	**132L4**	180	392
31	2840	47.58	20600	1.05	**RF**	**97**	**DRN**	**132L4**	195	393
34	2550	42.78	20200	1.15	**RM**	**97**	**DRN**	**132L4**	250	393
40	2210	37.13	19800	1.35	**R**	**97**	**DRN**	**132L4**	180	392
44	1980	33.25	19300	1.45	**RF**	**97**	**DRN**	**132L4**	195	393
53	1640	27.58	18600	1.60	**RM**	**97**	**DRN**	**132L4**	250	393
59	1490	25.03	18200	1.90						
66	1330	22.37	17800	2.0						
73	1200	20.14	17300	2.2	**R**	**97**	**DRN**	**132L4**	175	392
81	1090	18.24	16900	2.3	**RF**	**97**	**DRN**	**132L4**	195	393
91	960	16.17	16400	2.5	**RM**	**97**	**DRN**	**132L4**	245	393
101	870	14.62	16000	2.6						
119	740	12.39	15300	3.0						
68	1280	21.51	13800	1.15						
77	1140	19.10	13500	1.25						
86	1020	17.08*	13200	1.35						
96	910	15.35	12900	1.45						
110	795	13.33	12500	1.60	**R**	**87**	**DRN**	**132L4**	135	389
123	710	11.93	12200	1.70	**RF**	**87**	**DRN**	**132L4**	145	390
148	590	9.90*	11600	2.0	**RM**	**87**	**DRN**	**132L4**	175	390
161	545	9.14*	11600	2.2						
179	490	8.22	11300	2.4						
206	425	7.13	10900	2.5						
230	380	6.39	10500	2.7						
105	830	14.05	4880	0.85						
119	735	12.33	5730	0.95	**R**	**77**	**DRN**	**132L4**	110	386
135	650	10.88	6380	1.00	**RF**	**77**	**DRN**	**132L4**	115	387
152	575	9.64	6880	1.10	**RM**	**77**	**DRN**	**132L4**	140	387
190	460	7.74	6370	1.30						
216	405	6.79	6770	1.45	**R**	**77**	**DRN**	**132L4**	110	386
245	355	5.99*	6890	1.50	**RF**	**77**	**DRN**	**132L4**	115	387
277	315	5.31*	6690	1.60	**RM**	**77**	**DRN**	**132L4**	140	387

26883198/EN – 04/2022

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
283	310	5.19	9200	2.2						
316	275	4.65	8940	2.5						
350	250	4.20*	8710	3.3	**RX**	**107**	**DRN**	**132L4**	175	363
385	225	3.81	8490	3.6	**RXF**	**107**	**DRN**	**132L4**	190	364
434	200	3.38	8220	4.1						
325	270	4.52	7330	2.2						
364	240	4.04	7130	2.5						
404	215	3.64*	6940	2.7						
446	197	3.30	6760	3.0						
503	174	2.92	6550	3.4	**RX**	**97**	**DRN**	**132L4**	140	361
556	157	2.64	6370	3.8	**RXF**	**97**	**DRN**	**132L4**	150	362
656	133	2.24*	6080	4.4						
751	116	1.96	5850	4.9						
898	97	1.64	5560	5.2						
1040	84	1.42	5320	5.4						
423	205	3.48	5200	1.95						
476	184	3.09	5060	2.2						
533	164	2.76*	4930	2.5						
592	148	2.48	4800	2.7	**RX**	**87**	**DRN**	**132L4**	120	359
682	128	2.15	4630	3.0	**RXF**	**87**	**DRN**	**132L4**	125	360
762	115	1.93	4500	3.1						
919	95	1.60*	4270	3.3						
1055	83	1.39	4110	3.5						
605	145	2.43	3070	1.50						
690	127	2.13	3210	1.55						
782	112	1.88*	3300	1.65	**RX**	**77**	**DRN**	**132L4**	100	357
882	99	1.67	3270	1.75	**RXF**	**77**	**DRN**	**132L4**	105	358
1035	85	1.42	3140	1.80						

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	22700	349	120000	0.90						
5.0	19100	295	120000	1.05						
5.5	17800	270	120000	1.10	**R**	**167R107**	**DRN**	**160M4**	900	405
6.4	15000	229	120000	1.35	**RF**	**167R107**	**DRN**	**160M4**	910	405
7.3	13000	200	120000	1.55	**RM**	**167R107**	**DRN**	**160M4**	1100	405
8.7	11000	169	120000	1.80						
4.5	22000	328	120000	0.90	**R**	**167R107**	**DRN**	**160M4**	900	405
5.1	19500	291	120000	1.05	**RF**	**167R107**	**DRN**	**160M4**	900	405
					RM	**167R107**	**DRN**	**160M4**	1100	405
3.9	25000	376	120000	0.80						
4.4	22200	335	120000	0.90	**R**	**167R97**	**DRN**	**160M4**	860	405
4.9	20000	303	120000	1.00	**RF**	**167R97**	**DRN**	**160M4**	860	405
5.3	18400	279	120000	1.10	**RM**	**167R97**	**DRN**	**160M4**	1060	405
6.0	16400	247	29500	0.80						
6.9	14200	214	59800	0.90	**R**	**147R87**	**DRN**	**160M4**	550	404
7.8	12500	189	63500	1.05	**RF**	**147R87**	**DRN**	**160M4**	560	404
9.3	10500	159	67000	1.25	**RM**	**147R87**	**DRN**	**160M4**	720	404
6.4	16300	229.71	120000	1.20	**R**	**167**	**DRN**	**160M4**	730	402
7.9	13300	186.93*	120000	1.50	**RF**	**167**	**DRN**	**160M4**	730	403
					RM	**167**	**DRN**	**160M4**	930	403
9.6	10900	153.07	120000	1.85						
11	9980	139.98	120000	2.0						
12	8680	121.81*	120000	2.3	**R**	**167**	**DRN**	**160M4**	730	402
14	7660	107.49	120000	2.6	**RF**	**167**	**DRN**	**160M4**	730	403
16	6640	93.19	120000	3.0	**RM**	**167**	**DRN**	**160M4**	930	403
18	5910	82.91*	120000	3.4						
9.0	11600	163.31	65200	1.10	**R**	**147**	**DRN**	**160M4**	480	400
10	10400	146.91	67100	1.25	**RF**	**147**	**DRN**	**160M4**	490	401
12	8540	119.86	69700	1.50	**RM**	**147**	**DRN**	**160M4**	660	401

26883198/EN – 04/2022

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	7790	109.31	70500	1.65						
16	6740	94.60*	71600	1.95						
18	5950	83.47	72200	2.2	**R**	**147**	**DRN**	**160M4**	480	400
20	5140	72.09	72900	2.5	**RF**	**147**	**DRN**	**160M4**	490	401
22	4770	66.99	73100	2.7	**RM**	**147**	**DRN**	**160M4**	660	401
24	4350	61.09	73300	3.0						
28	3770	52.87	73700	3.5						
10	10000	141.12*	27800	0.80						
11	9140	128.18	47100	0.90						
13	8100	113.72	53100	1.00						
14	7350	103.20*	54700	1.10						
17	6320	88.70*	56500	1.25						
18	5760	80.91*	57400	1.40	**R**	**137**	**DRN**	**160M4**	355	398
20	5240	73.49	58100	1.55	**RF**	**137**	**DRN**	**160M4**	375	399
23	4640	65.20	58800	1.70	**RM**	**137**	**DRN**	**160M4**	485	399
25	4210	59.17*	59300	1.90						
29	3620	50.86*	59800	2.2						
33	3160	44.39	60200	2.5						
39	2680	37.65	60600	3.0						
45	2340	32.91	60800	3.4						
15	6910	96.95	43000	0.85						
17	6080	85.26	43000	1.00						
18	5850	82.17	43000	1.00						
19	5430	76.21	43000	1.10						
21	4890	68.61*	43000	1.25	**R**	**127**	**DRN**	**160M4**	325	396
24	4430	62.13	43000	1.35	**RF**	**127**	**DRN**	**160M4**	335	397
27	3920	55.09	43000	1.55	**RM**	**127**	**DRN**	**160M4**	435	397
30	3550	49.81	43000	1.70						
35	3010	42.22*	43000	2.0						
40	2620	36.88	43000	2.2						
48	2190	30.84	43000	2.5						
46	2290	32.18	43000	2.6						
51	2050	28.84	43000	2.9	**R**	**127**	**DRN**	**160M4**	310	396
57	1850	26.04*	43000	3.2	**RF**	**127**	**DRN**	**160M4**	330	397
62	1680	23.65	43000	3.6	**RM**	**127**	**DRN**	**160M4**	425	397
22	4670	65.60*	27200	0.90						
25	4230	59.41	27500	1.00						
28	3750	52.68	27000	1.15	**R**	**107**	**DRN**	**160M4**	270	394
31	3390	47.63	26500	1.25	**RF**	**107**	**DRN**	**160M4**	275	395
36	2870	40.37*	25600	1.50	**RM**	**107**	**DRN**	**160M4**	365	395
42	2510	35.26	24900	1.70						
50	2100	29.49	23900	2.0						
48	2190	30.77	24100	1.95						
53	1960	27.58	23500	2.2						
59	1770	24.90*	22900	2.4	**R**	**107**	**DRN**	**160M4**	265	394
65	1610	22.62	22400	2.7	**RF**	**107**	**DRN**	**160M4**	270	395
73	1430	20.07	21700	3.0	**RM**	**107**	**DRN**	**160M4**	355	395
81	1290	18.21	21200	3.3						
34	3050	42.78	17800	1.00						
40	2640	37.13	18900	1.15	**R**	**97**	**DRN**	**160M4**	210	392
44	2370	33.25	18600	1.20	**RF**	**97**	**DRN**	**160M4**	230	393
53	1960	27.58	18000	1.35	**RM**	**97**	**DRN**	**160M4**	280	393
59	1780	25.03	17600	1.60	**R**	**97**	**DRN**	**160M4**	210	392
66	1590	22.37	17200	1.70	**RF**	**97**	**DRN**	**160M4**	225	393
73	1430	20.14	16900	1.80	**RM**	**97**	**DRN**	**160M4**	275	393
81	1300	18.24	16500	1.90						
91	1150	16.17	16000	2.1						
101	1040	14.62	15600	2.2						
119	880	12.39	15000	2.5	**R**	**97**	**DRN**	**160M4**	210	392
136	770	10.83	14500	2.7	**RF**	**97**	**DRN**	**160M4**	225	393
159	660	9.29	14200	3.1	**RM**	**97**	**DRN**	**160M4**	275	393
175	595	8.39	13800	3.4						
207	505	7.12	13100	3.9						
237	440	6.21	12600	4.3						

26883198/EN – 04/2022

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
68	1530	21.51	13200	1.00	**R**	**87**	**DRN**	**160M4**	170	389
77	1360	19.10	13000	1.05	**RF**	**87**	**DRN**	**160M4**	175	390
86	1210	17.08*	12700	1.15	**RM**	**87**	**DRN**	**160M4**	205	390
96	1090	15.35	12500	1.20						
111	950	13.33	12100	1.35						
123	850	11.93	11800	1.45						
149	705	9.90*	11300	1.65	**R**	**87**	**DRN**	**160M4**	170	389
161	650	9.14*	11400	1.85	**RF**	**87**	**DRN**	**160M4**	175	390
179	585	8.22	11100	2.0	**RM**	**87**	**DRN**	**160M4**	205	390
206	505	7.13	10700	2.1						
231	455	6.39	10400	2.2						
278	375	5.30*	9850	2.4						
135	775	10.88	4400	0.85	**R**	**77**	**DRN**	**160M4**	140	386
153	685	9.64	5130	0.90	**RF**	**77**	**DRN**	**160M4**	150	387
					RM	**77**	**DRN**	**160M4**	175	387
190	550	7.74	4740	1.10	**R**	**77**	**DRN**	**160M4**	140	386
217	480	6.79	5340	1.20	**RF**	**77**	**DRN**	**160M4**	150	387
246	425	5.99*	5800	1.25	**RM**	**77**	**DRN**	**160M4**	175	387
277	375	5.31*	6140	1.35						
284	370	5.19	8950	1.90						
317	330	4.65	8720	2.1						
351	295	4.20*	8510	2.8						
386	270	3.81	8300	3.0	**RX**	**107**	**DRN**	**160M4**	210	363
435	240	3.38	8050	3.4	**RXF**	**107**	**DRN**	**160M4**	225	364
480	215	3.07	7840	3.8						
558	188	2.64*	7530	4.4						
326	320	4.52	7120	1.85						
364	285	4.04	6940	2.1						
405	255	3.64*	6770	2.3						
447	235	3.30	6600	2.5						
504	205	2.92	6410	2.9	**RX**	**97**	**DRN**	**160M4**	175	361
557	188	2.64	6240	3.2	**RXF**	**97**	**DRN**	**160M4**	185	362
658	159	2.24*	5970	3.7						
753	139	1.96	5750	4.1						
900	116	1.64	5470	4.3						
1040	101	1.42	5240	4.5						
424	245	3.48	5000	1.65						
477	220	3.09	4890	1.85						
534	196	2.76*	4770	2.1						
594	176	2.48	4660	2.3	**RX**	**87**	**DRN**	**160M4**	150	359
684	153	2.15	4500	2.5	**RXF**	**87**	**DRN**	**160M4**	155	360
764	137	1.93	4380	2.6						
921	114	1.60*	4170	2.8						
1060	99	1.39	4020	2.9						
607	173	2.43	1980	1.25						
691	151	2.13	2220	1.30	**RX**	**77**	**DRN**	**160M4**	135	357
784	134	1.88*	2400	1.40	**RXF**	**77**	**DRN**	**160M4**	135	358
884	118	1.67	2520	1.45						
1035	101	1.42	2630	1.55						

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.0	26300	295	120000	0.75						
5.5	24300	270	120000	0.80	**R**	**167R107**	**DRN**	**160L4**	920	405
6.4	20600	229	120000	0.95	**RF**	**167R107**	**DRN**	**160L4**	920	405
7.4	17900	200	120000	1.10	**RM**	**167R107**	**DRN**	**160L4**	1120	405
8.7	15100	169	120000	1.30						
5.1	26600	291	120000	0.75						
5.6	24100	264	120000	0.85	**R**	**167R107**	**DRN**	**160L4**	910	405
6.5	20700	227	120000	0.95	**RF**	**167R107**	**DRN**	**160L4**	920	405
7.5	18000	198	120000	1.10	**RM**	**167R107**	**DRN**	**160L4**	1110	405

26883198/EN – 04/2022

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.3	25200	279	120000	0.80	R	167R97	DRN	160L4	870	405
					RF	167R97	DRN	160L4	880	405
					RM	167R97	DRN	160L4	1070	405
6.4	22300	229.71	120000	0.90	R	167	DRN	160L4	740	402
7.9	18100	186.93*	120000	1.10	RF	167	DRN	160L4	750	403
					RM	167	DRN	160L4	940	403
9.6	14800	153.07	120000	1.35						
11	13600	139.98	120000	1.45						
12	11800	121.81*	120000	1.70						
14	10400	107.49	120000	1.90	R	167	DRN	160L4	740	402
16	9050	93.19	120000	2.2	RF	167	DRN	160L4	750	403
18	8050	82.91*	120000	2.5	RM	167	DRN	160L4	940	403
20	7160	73.70*	120000	2.8						
22	6540	67.40	120000	3.0						
9.0	15800	163.31	38500	0.80						
10	14200	146.91	59000	0.90	R	147	DRN	160L4	495	400
12	11600	119.86	65200	1.10	RF	147	DRN	160L4	500	401
13	10600	109.31	66900	1.20	RM	147	DRN	160L4	670	401
16	9190	94.60*	68900	1.40						
18	8110	83.47	70200	1.60						
20	7000	72.09	71300	1.85	R	147	DRN	160L4	495	400
22	6500	66.99	71800	2.0	RF	147	DRN	160L4	500	401
24	5930	61.09	72300	2.2	RM	147	DRN	160L4	670	401
28	5130	52.87	72900	2.5						
32	4530	46.65	73200	2.9						
14	10000	103.20*	28800	0.80						
17	8620	88.70*	51300	0.95	R	137	DRN	160L4	370	398
18	7860	80.91*	53700	1.00	RF	137	DRN	160L4	390	399
20	7140	73.49	55100	1.10	RM	137	DRN	160L4	500	399
23	6330	65.20	56500	1.25						
25	5740	59.17*	57400	1.40						
29	4940	50.86*	58500	1.60	R	137	DRN	160L4	370	398
33	4310	44.39	59200	1.85	RF	137	DRN	160L4	390	399
39	3650	37.65	59800	2.2	RM	137	DRN	160L4	500	399
45	3190	32.91	60200	2.5						
53	2700	27.83	60500	2.8						
19	7400	76.21	43000	0.80						
21	6660	68.61*	43000	0.90						
24	6030	62.13	43000	1.00						
27	5350	55.09	43000	1.10	R	127	DRN	160L4	340	396
30	4840	49.81	43000	1.25	RF	127	DRN	160L4	355	397
35	4100	42.22*	43000	1.45	RM	127	DRN	160L4	450	397
40	3580	36.88	43000	1.60						
48	2990	30.84	43000	1.80						
46	3120	32.18	43000	1.90						
51	2800	28.84	43000	2.1						
57	2530	26.04*	43000	2.4	R	127	DRN	160L4	325	396
62	2290	23.65	43000	2.6	RF	127	DRN	160L4	345	397
70	2030	20.98	43000	2.9	RM	127	DRN	160L4	440	397
77	1850	19.04	43000	3.2						
90	1590	16.37*	43000	3.8						
31	4620	47.63	24400	0.95	R	107	DRN	160L4	285	394
37	3920	40.37*	23900	1.10	RF	107	DRN	160L4	290	395
42	3420	35.26	23400	1.25	RM	107	DRN	160L4	380	395
50	2860	29.49	22600	1.50						
48	2990	30.77	22800	1.45						
53	2680	27.58	22300	1.60						
59	2410	24.90*	21800	1.80						
65	2190	22.62	21400	1.95	R	107	DRN	160L4	280	394
73	1940	20.07	20800	2.2	RF	107	DRN	160L4	285	395
81	1760	18.21	20400	2.4	RM	107	DRN	160L4	375	395
94	1520	15.65	19600	2.8						
108	1320	13.66	19000	3.2						

26883198/EN – 04/2022

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	2680	27.58	16500	1.00	**R** **RF** **RM**	**97** **97** **97**	**DRN** **DRN** **DRN**	**160L4** **160L4** **160L4**	230 245 295	392 393 393
59	2430	25.03	16300	1.15						
66	2170	22.37	16100	1.25						
73	1950	20.14	15800	1.35						
81	1770	18.24	15500	1.40						
91	1570	16.17	15200	1.55						
101	1420	14.62	14900	1.60	**R** **RF** **RM**	**97** **97** **97**	**DRN** **DRN** **DRN**	**160L4** **160L4** **160L4**	225 240 295	392 393 393
119	1200	12.39	14400	1.80						
136	1050	10.83	13900	2.0						
159	900	9.29	13800	2.2						
176	810	8.39	13400	2.5						
207	690	7.12	12800	2.9						
237	600	6.21	12300	3.1						
86	1650	17.08*	11600	0.85						
96	1490	15.35	11500	0.90	**R** **RF** **RM**	**87** **87** **87**	**DRN** **DRN** **DRN**	**160L4** **160L4** **160L4**	185 190 220	389 390 390
111	1290	13.33	11300	1.00						
124	1150	11.93	11100	1.05						
149	960	9.90*	10700	1.25						
161	880	9.14*	10900	1.35						
179	795	8.22	10700	1.45	**R** **RF** **RM**	**87** **87** **87**	**DRN** **DRN** **DRN**	**160L4** **160L4** **160L4**	185 190 220	389 390 390
207	690	7.13	10300	1.55						
231	620	6.39	10000	1.65						
278	515	5.30*	9570	1.75						
284	500	5.19	8420	1.40						
317	450	4.65	8240	1.55						
351	405	4.20*	8080	2.0						
386	370	3.81	7910	2.2						
436	325	3.38	7690	2.5						
480	295	3.07	7520	2.8	**RX** **RXF**	**107** **107**	**DRN** **DRN**	**160L4** **160L4**	225 240	363 364
558	255	2.64*	7240	3.2						
640	220	2.30	6990	3.7						
754	189	1.95	6690	4.0						
863	166	1.71	6450	4.2						
1020	140	1.44	6150	4.6						
326	435	4.52	6650	1.35						
365	390	4.04	6520	1.50						
405	350	3.64*	6380	1.70						
447	320	3.30	6250	1.85						
504	280	2.92	6100	2.1	**RX** **RXF**	**97** **97**	**DRN** **DRN**	**160L4** **160L4**	190 200	361 362
558	255	2.64	5960	2.3						
658	215	2.24*	5720	2.7						
753	190	1.96	5530	3.0						
901	159	1.64	5280	3.2						
1040	137	1.42	5080	3.3						
424	335	3.48	4310	1.20						
477	295	3.09	4500	1.35						
534	265	2.76*	4420	1.50						
594	240	2.48	4340	1.70	**RX** **RXF**	**87** **87**	**DRN** **DRN**	**160L4** **160L4**	165 170	359 360
684	205	2.15	4220	1.85						
764	187	1.93	4130	1.90						
921	155	1.60*	3960	2.0						
1060	135	1.39	3830	2.1						

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.4	22100	200	120000	0.90	**R** **RF** **RM**	**167R107** **167R107** **167R107**	**DRN** **DRN** **DRN**	**180M4** **180M4** **180M4**	940 950 1140	405 405 405
7.5	22200	198	120000	0.90	**R** **RF** **RM**	**167R107** **167R107** **167R107**	**DRN** **DRN** **DRN**	**180M4** **180M4** **180M4**	930 940 1130	405 405 405

26883198/EN – 04/2022

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.9	22300	186.93*	120000	0.90						
9.7	18200	153.07	120000	1.10	**R**	**167**	**DRN**	**180M4**	770	402
11	16700	139.98	120000	1.20	**RF**	**167**	**DRN**	**180M4**	770	403
12	14500	121.81*	120000	1.35	**RM**	**167**	**DRN**	**180M4**	970	403
14	12800	107.49	120000	1.55						
16	11100	93.19	120000	1.80						
18	9910	82.91*	120000	2.0	**R**	**167**	**DRN**	**180M4**	770	402
20	8800	73.70*	120000	2.3	**RF**	**167**	**DRN**	**180M4**	770	403
22	8050	67.40	120000	2.5	**RM**	**167**	**DRN**	**180M4**	970	403
25	7000	58.65	120000	2.9						
12	14300	119.86	58400	0.90	**R**	**147**	**DRN**	**180M4**	520	400
14	13000	109.31	62500	1.00	**RF**	**147**	**DRN**	**180M4**	530	401
16	11300	94.60*	65800	1.15	**RM**	**147**	**DRN**	**180M4**	690	401
18	9970	83.47	67800	1.30						
20	8610	72.09	69600	1.50						
22	8000	66.99	70300	1.60	**R**	**147**	**DRN**	**180M4**	520	400
24	7300	61.09	71000	1.80	**RF**	**147**	**DRN**	**180M4**	530	401
28	6310	52.87	71900	2.1	**RM**	**147**	**DRN**	**180M4**	690	401
32	5570	46.65	72500	2.3						
37	4810	40.29	73100	2.7						
18	9670	80.91*	37500	0.85						
20	8780	73.49	50600	0.90	**R**	**137**	**DRN**	**180M4**	390	398
23	7790	65.20	53800	1.05	**RF**	**137**	**DRN**	**180M4**	415	399
25	7070	59.17*	55200	1.15	**RM**	**137**	**DRN**	**180M4**	530	399
29	6070	50.86*	56900	1.30						
33	5300	44.39	58000	1.50	**R**	**137**	**DRN**	**180M4**	390	398
39	4500	37.65	59000	1.80	**RF**	**137**	**DRN**	**180M4**	415	399
45	3930	32.91	59600	2.0	**RM**	**137**	**DRN**	**180M4**	530	399
53	3320	27.83	60100	2.3						
50	3530	29.57*	59900	2.2						
61	2880	24.12	60400	2.8	**R**	**137**	**DRN**	**180M4**	380	398
67	2620	22.00*	60600	3.0	**RF**	**137**	**DRN**	**180M4**	405	399
78	2270	19.04*	60800	3.5	**RM**	**137**	**DRN**	**180M4**	520	399
88	2000	16.80*	60900	4.0						
24	7420	62.13	43000	0.80						
27	6580	55.09	43000	0.90						
30	5950	49.81	43000	1.00	**R**	**127**	**DRN**	**180M4**	365	396
35	5040	42.22*	43000	1.20	**RF**	**127**	**DRN**	**180M4**	375	397
40	4400	36.88	43000	1.30	**RM**	**127**	**DRN**	**180M4**	470	397
48	3680	30.84	43000	1.45						
57	3110	26.04*	43000	1.95						
62	2820	23.65	43000	2.1						
70	2500	20.98	43000	2.4	**R**	**127**	**DRN**	**180M4**	345	396
78	2270	19.04	43000	2.6	**RF**	**127**	**DRN**	**180M4**	370	397
90	1950	16.37*	43000	3.1	**RM**	**127**	**DRN**	**180M4**	465	397
103	1700	14.29	43000	3.5						
167	1050	8.85	43000	3.7						
37	4820	40.37*	22100	0.90	**R**	**107**	**DRN**	**180M4**	305	394
42	4210	35.26	22000	1.00	**RF**	**107**	**DRN**	**180M4**	310	395
50	3520	29.49	21500	1.20	**RM**	**107**	**DRN**	**180M4**	400	395
59	2970	24.90*	20900	1.45						
65	2700	22.62	20500	1.60						
74	2390	20.07	20100	1.80						
81	2170	18.21	19700	2.0						
94	1870	15.65	19000	2.3	**R**	**107**	**DRN**	**180M4**	300	394
108	1630	13.66	18400	2.6	**RF**	**107**	**DRN**	**180M4**	305	395
128	1380	11.59	17700	3.1	**RM**	**107**	**DRN**	**180M4**	395	395
146	1210	10.13	17100	3.5						
188	930	7.86	16300	3.2						
222	795	6.66	15500	3.7						

26883198/EN – 04/2022

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
73	2400	20.14	14900	1.10						
81	2180	18.24	14700	1.15						
91	1930	16.17	14400	1.25						
101	1740	14.62	14200	1.30						
119	1480	12.39	13800	1.50						
137	1290	10.83	13400	1.60	**R**	**97**	**DRN**	**180M4**	245	392
159	1100	9.29	13400	1.85	**RF**	**97**	**DRN**	**180M4**	265	393
176	1000	8.39	13100	2.0	**RM**	**97**	**DRN**	**180M4**	315	393
208	850	7.12	12500	2.4						
238	740	6.21	12100	2.5						
284	620	5.20	11500	2.9						
328	535	4.50*	11100	3.0						
111	1590	13.33	10500	0.80						
124	1420	11.93	10400	0.85						
149	1180	9.90*	10200	1.00						
162	1090	9.14*	10500	1.10	**R**	**87**	**DRN**	**180M4**	205	389
180	980	8.22	10300	1.20	**RF**	**87**	**DRN**	**180M4**	215	390
207	850	7.13	10000	1.25	**RM**	**87**	**DRN**	**180M4**	245	390
231	760	6.39	9750	1.35						
279	630	5.30*	9330	1.45						
352	500	4.20*	7700	1.65						
387	455	3.81	7560	1.80						
437	400	3.38	7390	2.0						
481	365	3.07	7240	2.3						
560	315	2.64*	6990	2.6	**RX**	**107**	**DRN**	**180M4**	245	363
641	275	2.30	6770	3.0	**RXF**	**107**	**DRN**	**180M4**	260	364
756	230	1.95	6500	3.3						
865	200	1.71	6280	3.5						
1025	172	1.44	6000	3.7						
406	435	3.64*	6050	1.35						
448	390	3.30	5950	1.50						
506	345	2.92	5820	1.70						
559	315	2.64	5700	1.90	**RX**	**97**	**DRN**	**180M4**	215	361
660	265	2.24*	5500	2.2	**RXF**	**97**	**DRN**	**180M4**	220	362
755	230	1.96	5340	2.4						
903	195	1.64	5110	2.6						
1045	169	1.42	4930	2.7						
536	325	2.76*	3090	1.25						
596	295	2.48	3380	1.35						
686	255	2.15	3670	1.50	**RX**	**87**	**DRN**	**180M4**	190	359
766	230	1.93	3850	1.55	**RXF**	**87**	**DRN**	**180M4**	195	360
924	191	1.60*	3760	1.65						
1060	166	1.39	3660	1.75						

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					R	**167R107**	**DRN**	**180L4**	950	405
8.7	22300	169	120000	0.90	**RF**	**167R107**	**DRN**	**180L4**	960	405
					RM	**167R107**	**DRN**	**180L4**	1160	405
					R	**167R107**	**DRN**	**180L4**	950	405
8.8	22400	168	120000	0.90	**RF**	**167R107**	**DRN**	**180L4**	960	405
					RM	**167R107**	**DRN**	**180L4**	1150	405
9.7	21700	153.07	120000	0.90	**R**	**167**	**DRN**	**180L4**	780	402
11	19900	139.98	120000	1.00	**RF**	**167**	**DRN**	**180L4**	790	403
12	17300	121.81*	120000	1.15	**RM**	**167**	**DRN**	**180L4**	980	403
14	15200	107.49	120000	1.30						
16	13200	93.19	120000	1.50						
18	11700	82.91*	120000	1.70						
20	10400	73.70*	120000	1.90	**R**	**167**	**DRN**	**180L4**	780	402
22	9580	67.40	120000	2.1	**RF**	**167**	**DRN**	**180L4**	790	403
25	8340	58.65	120000	2.4	**RM**	**167**	**DRN**	**180L4**	980	403
29	7360	51.76	120000	2.7						
33	6380	44.87	120000	3.1						

26883198/EN – 04/2022

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	15500	109.31	43100	0.85						
16	13400	94.60*	61700	0.95	**R**	**147**	**DRN**	**180L4**	530	400
18	11800	83.47	64800	1.10	**RF**	**147**	**DRN**	**180L4**	540	401
20	10200	72.09	67400	1.25	**RM**	**147**	**DRN**	**180L4**	710	401
22	9520	66.99	68400	1.35						
24	8680	61.09	69500	1.50						
28	7520	52.87	70800	1.75	**R**	**147**	**DRN**	**180L4**	530	400
32	6630	46.65	71700	1.95	**RF**	**147**	**DRN**	**180L4**	540	401
37	5730	40.29	72400	2.3	**RM**	**147**	**DRN**	**180L4**	710	401
41	5060	35.64	72900	2.6						
49	4260	29.95	73400	3.0						
23	9270	65.20	44900	0.85						
25	8410	59.17*	52200	0.95	**R**	**137**	**DRN**	**180L4**	410	398
29	7230	50.86*	54900	1.10	**RF**	**137**	**DRN**	**180L4**	430	399
33	6310	44.39	56500	1.25	**RM**	**137**	**DRN**	**180L4**	540	399
39	5350	37.65	58000	1.50	**R**	**137**	**DRN**	**180L4**	410	398
45	4680	32.91	58800	1.70	**RF**	**137**	**DRN**	**180L4**	430	399
53	3950	27.83	59500	1.95	**RM**	**137**	**DRN**	**180L4**	540	399
50	4200	29.57*	59300	1.85						
61	3430	24.12	60000	2.3	**R**	**137**	**DRN**	**180L4**	400	398
67	3120	22.00*	60200	2.6	**RF**	**137**	**DRN**	**180L4**	420	399
78	2700	19.04*	60500	3.0	**RM**	**137**	**DRN**	**180L4**	530	399
88	2380	16.80*	60700	3.4	**R**	**137**	**DRN**	**180L4**	400	398
102	2060	14.51	60900	3.9	**RF**	**137**	**DRN**	**180L4**	420	399
115	1820	12.83	61000	4.4	**RM**	**137**	**DRN**	**180L4**	530	399
30	7080	49.81	43000	0.85						
35	6000	42.22*	43000	1.00	**R**	**127**	**DRN**	**180L4**	380	396
40	5240	36.88	43000	1.10	**RF**	**127**	**DRN**	**180L4**	390	397
48	4380	30.84	43000	1.25	**RM**	**127**	**DRN**	**180L4**	485	397
57	3700	26.04*	43000	1.60						
62	3360	23.65	43000	1.80						
70	2980	20.98	43000	2.0						
78	2700	19.04	43000	2.2						
90	2320	16.37*	43000	2.6	**R**	**127**	**DRN**	**180L4**	365	396
103	2030	14.29	43000	3.0	**RF**	**127**	**DRN**	**180L4**	385	397
122	1720	12.12	43000	3.5	**RM**	**127**	**DRN**	**180L4**	480	397
139	1500	10.59	43000	3.8						
167	1250	8.85	43000	3.1						
197	1060	7.51	43000	3.7						
42	5010	35.26	11500	0.85	**R**	**107**	**DRN**	**180L4**	320	394
50	4190	29.49	20400	1.05	**RF**	**107**	**DRN**	**180L4**	330	395
					RM	**107**	**DRN**	**180L4**	415	395
59	3540	24.90*	20000	1.20	**R**	**107**	**DRN**	**180L4**	315	394
65	3210	22.62	19700	1.35	**RF**	**107**	**DRN**	**180L4**	320	395
74	2850	20.07	19300	1.50	**RM**	**107**	**DRN**	**180L4**	410	395
81	2590	18.21	19000	1.65						
94	2220	15.65	18400	1.95						
108	1940	13.66	17900	2.2						
127	1640	11.59	17300	2.6	**R**	**107**	**DRN**	**180L4**	315	394
146	1440	10.13	16800	3.0	**RF**	**107**	**DRN**	**180L4**	320	395
172	1210	8.56	16100	3.5	**RM**	**107**	**DRN**	**180L4**	410	395
188	1110	7.86	16000	2.7						
222	940	6.66	15300	3.1						
254	820	5.82	14800	3.6						
73	2860	20.14	14000	0.90	**R**	**97**	**DRN**	**180L4**	260	392
81	2590	18.24	13900	0.95	**RF**	**97**	**DRN**	**180L4**	280	393
91	2300	16.17	13700	1.05	**RM**	**97**	**DRN**	**180L4**	330	393
101	2080	14.62	13500	1.10						

26883198/EN – 04/2022

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
119	1760	12.39	13200	1.25						
136	1530	10.83	12900	1.35						
159	1320	9.29	13100	1.55						
176	1190	8.39	12800	1.70	**R**	**97**	**DRN**	**180L4**	260	392
208	1010	7.12	12300	2.0	**RF**	**97**	**DRN**	**180L4**	280	393
238	880	6.21	11900	2.1	**RM**	**97**	**DRN**	**180L4**	330	393
284	735	5.20	11300	2.4						
328	640	4.50*	10900	2.5						
149	1400	9.90*	9630	0.85						
162	1300	9.14*	10100	0.95						
180	1160	8.22	9940	1.00	**R**	**87**	**DRN**	**180L4**	220	389
207	1010	7.13	9680	1.05	**RF**	**87**	**DRN**	**180L4**	230	390
231	900	6.39	9470	1.10	**RM**	**87**	**DRN**	**180L4**	260	390
279	750	5.30*	9100	1.20						
352	595	4.20*	7330	1.40						
387	540	3.81	7220	1.55						
436	480	3.38	7080	1.70						
481	435	3.07	6950	1.90						
559	375	2.64*	6740	2.2	**RX**	**107**	**DRN**	**180L4**	260	363
641	325	2.30	6550	2.5	**RXF**	**107**	**DRN**	**180L4**	280	364
756	275	1.95	6310	2.8						
865	240	1.71	6100	2.9						
1025	205	1.44	5860	3.1						
406	515	3.64*	5720	1.15						
448	465	3.30	5640	1.25						
505	415	2.92	5550	1.45						
559	375	2.64	5460	1.60	**RX**	**97**	**DRN**	**180L4**	230	361
659	315	2.24*	5290	1.85	**RXF**	**97**	**DRN**	**180L4**	235	362
755	275	1.96	5150	2.0						
903	230	1.64	4950	2.2						
1045	200	1.42	4780	2.3						
535	390	2.76*	1320	1.05						
595	350	2.48	1760	1.15						
686	305	2.15	2200	1.25	**RX**	**87**	**DRN**	**180L4**	205	359
766	270	1.93	2490	1.30	**RXF**	**87**	**DRN**	**180L4**	210	360
923	225	1.60*	2790	1.40						
1060	197	1.39	3060	1.45						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	23500	121.81*	120000	0.85						
14	20800	107.49	120000	0.95	**R**	**167**	**DRN**	**200L4**	890	402
16	18000	93.19	120000	1.10	**RF**	**167**	**DRN**	**200L4**	900	403
18	16000	82.91*	120000	1.25	**RM**	**167**	**DRN**	**200L4**	1090	403
20	14200	73.70*	120000	1.40						
22	13000	67.40	120000	1.55						
25	11300	58.65	120000	1.75						
29	10000	51.76	120000	2.0	**R**	**167**	**DRN**	**200L4**	890	402
33	8680	44.87	120000	2.3	**RF**	**167**	**DRN**	**200L4**	900	403
37	7720	39.92	120000	2.6	**RM**	**167**	**DRN**	**200L4**	1090	403
43	6660	34.41	120000	3.0						
53	5410	27.96	120000	3.7						
62	4580	23.71	120000	4.1						
18	16100	83.47	34200	0.80						
21	13900	72.09	60600	0.95	**R**	**147**	**DRN**	**200L4**	640	400
22	12900	66.99	62700	1.00	**RF**	**147**	**DRN**	**200L4**	650	401
24	11800	61.09	64900	1.10	**RM**	**147**	**DRN**	**200L4**	820	401
28	10200	52.87	67400	1.25						
32	9030	46.65	69100	1.45						
37	7790	40.29	70500	1.65	**R**	**147**	**DRN**	**200L4**	640	400
42	6890	35.64	71400	1.90	**RF**	**147**	**DRN**	**200L4**	650	401
49	5790	29.95	72400	2.2	**RM**	**147**	**DRN**	**200L4**	820	401
61	4680	24.19	73200	2.5						

26883198/EN – 04/2022

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
72	3950	20.44	73600	3.0	**R**	**147**	**DRN**	**200L4**	630	400
82	3490	18.04	73800	3.0	**RF**	**147**	**DRN**	**200L4**	640	401
95	3020	15.64	74000	4.3	**RM**	**147**	**DRN**	**200L4**	810	401
29	9840	50.86*	33600	0.80						
33	8590	44.39	51400	0.95	**R**	**137**	**DRN**	**200L4**	510	398
39	7280	37.65	54800	1.10	**RF**	**137**	**DRN**	**200L4**	540	399
45	6370	32.91	56500	1.25	**RM**	**137**	**DRN**	**200L4**	650	399
53	5380	27.83	57900	1.45						
61	4660	24.12	58800	1.70						
67	4250	22.00*	59200	1.90	**R**	**137**	**DRN**	**200L4**	500	398
78	3680	19.04*	59800	2.2	**RF**	**137**	**DRN**	**200L4**	530	399
88	3250	16.80*	60200	2.5	**RM**	**137**	**DRN**	**200L4**	640	399
102	2800	14.51	59500	2.9						
115	2480	12.83	58300	3.2	**R**	**137**	**DRN**	**200L4**	500	398
137	2080	10.79	56600	3.8	**RF**	**137**	**DRN**	**200L4**	530	399
195	1460	7.59	53200	3.5	**RM**	**137**	**DRN**	**200L4**	640	399
232	1230	6.38	51200	4.1						
					R	**127**	**DRN**	**200L4**	490	396
40	7130	36.88	43000	0.80	**RF**	**127**	**DRN**	**200L4**	500	397
48	5970	30.84	43000	0.90	**RM**	**127**	**DRN**	**200L4**	600	397
71	4060	20.98	43000	1.50						
78	3680	19.04	43000	1.65						
90	3160	16.37*	43000	1.90						
104	2760	14.29	43000	2.2						
122	2340	12.12	43000	2.5	**R**	**127**	**DRN**	**200L4**	470	396
140	2050	10.59	43000	2.8	**RF**	**127**	**DRN**	**200L4**	495	397
165	1730	8.96	43000	3.1	**RM**	**127**	**DRN**	**200L4**	590	397
167	1710	8.85	43000	2.3						
197	1450	7.51	43000	2.7						
225	1270	6.56	43000	3.1						
267	1070	5.55	43000	3.7						
74	3880	20.07	17600	1.10						
81	3520	18.21	17400	1.20						
95	3020	15.65	17100	1.40						
108	2640	13.66	16800	1.65						
128	2240	11.59	16300	1.90	**R**	**107**	**DRN**	**200L4**	425	394
146	1960	10.13	15900	2.2	**RF**	**107**	**DRN**	**200L4**	430	395
173	1650	8.56	15300	2.6	**RM**	**107**	**DRN**	**200L4**	520	395
188	1520	7.86	15500	1.95						
222	1280	6.66	14800	2.3						
254	1120	5.82	14300	2.6						
301	950	4.92	13700	3.0						
101	2830	14.62	12000	0.80						
119	2390	12.39	11900	0.90	**R**	**97**	**DRN**	**200L4**	370	392
137	2090	10.83	11800	1.00	**RF**	**97**	**DRN**	**200L4**	390	393
159	1790	9.29	12300	1.15	**RM**	**97**	**DRN**	**200L4**	440	393
176	1620	8.39	12000	1.25						
208	1370	7.12	11700	1.45						
238	1200	6.21	11300	1.55	**R**	**97**	**DRN**	**200L4**	370	392
285	1000	5.20	10900	1.75	**RF**	**97**	**DRN**	**200L4**	390	393
329	870	4.50*	10500	1.85	**RM**	**97**	**DRN**	**200L4**	440	393
437	655	3.38	6370	1.25						
482	590	3.07	6300	1.40						
561	510	2.64*	6180	1.60						
642	445	2.30	6050	1.85	**RX**	**107**	**DRN**	**200L4**	370	363
757	375	1.95	5870	2.0	**RXF**	**107**	**DRN**	**200L4**	385	364
866	330	1.71	5710	2.1						
1025	275	1.44	5520	2.3						
506	565	2.92	3170	1.05						
560	510	2.64	3600	1.15						
661	430	2.24*	4090	1.35	**RX**	**97**	**DRN**	**200L4**	335	361
756	375	1.96	4480	1.50	**RXF**	**97**	**DRN**	**200L4**	345	362
904	315	1.64	4570	1.60						
1045	270	1.42	4450	1.65						

26883198/EN – 04/2022

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	22200	93.19	120000	0.90						
18	19700	82.91*	120000	1.00						
20	17500	73.70*	120000	1.15						
22	16000	67.40	120000	1.25						
25	13900	58.65	120000	1.45	**R**	**167**	**DRN**	**225S4**	920	402
29	12300	51.76	120000	1.60	**RF**	**167**	**DRN**	**225S4**	930	403
33	10600	44.87	120000	1.85	**RM**	**167**	**DRN**	**225S4**	1120	403
37	9510	39.92	120000	2.1						
43	8200	34.41	120000	2.4						
53	6660	27.96	120000	3.0						
48	7320	30.71	120000	1.60						
60	5850	24.57	120000	2.8	**R**	**167**	**DRN**	**225S4**	910	402
68	5200	21.85	120000	3.8	**RF**	**167**	**DRN**	**225S4**	920	403
78	4530	19.03	120000	4.4	**RM**	**167**	**DRN**	**225S4**	1120	403
87	4040	16.98	120000	4.9						
22	15900	66.99	37000	0.80	**R**	**147**	**DRN**	**225S4**	670	400
24	14500	61.09	55600	0.90	**RF**	**147**	**DRN**	**225S4**	680	401
28	12600	52.87	63400	1.05	**RM**	**147**	**DRN**	**225S4**	850	401
32	11100	46.65	66100	1.15						
37	9600	40.29	68300	1.35	**R**	**147**	**DRN**	**225S4**	670	400
42	8490	35.64	69700	1.55	**RF**	**147**	**DRN**	**225S4**	680	401
49	7140	29.95	71200	1.80	**RM**	**147**	**DRN**	**225S4**	850	401
61	5760	24.19	72400	2.1						
73	4870	20.44	73000	2.5	**R**	**147**	**DRN**	**225S4**	660	400
82	4290	18.04	73400	2.4	**RF**	**147**	**DRN**	**225S4**	670	401
95	3720	15.64	73700	3.5	**RM**	**147**	**DRN**	**225S4**	840	401
					R	**147**	**DRN**	**225S4**	660	400
107	3310	13.91	73900	3.8	**RF**	**147**	**DRN**	**225S4**	670	401
					RM	**147**	**DRN**	**225S4**	840	401
39	8970	37.65	49600	0.90	**R**	**137**	**DRN**	**225S4**	550	398
45	7840	32.91	53700	1.00	**RF**	**137**	**DRN**	**225S4**	570	399
53	6630	27.83	56000	1.15	**RM**	**137**	**DRN**	**225S4**	680	399
61	5750	24.12	57400	1.40						
67	5240	22.00*	58100	1.55	**R**	**137**	**DRN**	**225S4**	540	398
78	4530	19.04*	57800	1.75	**RF**	**137**	**DRN**	**225S4**	560	399
88	4000	16.80*	57300	2.0	**RM**	**137**	**DRN**	**225S4**	670	399
102	3450	14.51	56500	2.3						
115	3050	12.83	55700	2.6						
137	2570	10.79	54400	3.1	**R**	**137**	**DRN**	**225S4**	540	398
170	2070	8.71	52500	3.8	**RF**	**137**	**DRN**	**225S4**	560	399
195	1800	7.59	51800	2.8	**RM**	**137**	**DRN**	**225S4**	670	399
232	1520	6.38	50000	3.4						
288	1220	5.15	47700	3.7						
71	5000	20.98	43000	1.20						
78	4540	19.04	43000	1.30						
91	3900	16.37*	43000	1.55						
104	3400	14.29	43000	1.75						
122	2880	12.12	43000	2.1	**R**	**127**	**DRN**	**225S4**	500	396
140	2520	10.59	43000	2.3	**RF**	**127**	**DRN**	**225S4**	520	397
165	2130	8.96	43000	2.5	**RM**	**127**	**DRN**	**225S4**	620	397
167	2110	8.85	43000	1.85						
197	1790	7.51	43000	2.2						
226	1560	6.56	43000	2.5						
267	1320	5.55	43000	3.0						
74	4780	20.07	16100	0.90						
81	4340	18.21	16100	1.00						
95	3730	15.65	15900	1.15						
108	3250	13.66	15700	1.30						
128	2760	11.59	15400	1.55	**R**	**107**	**DRN**	**225S4**	455	394
146	2410	10.13	15100	1.80	**RF**	**107**	**DRN**	**225S4**	460	395
173	2040	8.56	14700	2.1	**RM**	**107**	**DRN**	**225S4**	550	395
189	1870	7.86	15000	1.60						
222	1580	6.66	14400	1.85						
254	1380	5.82	14000	2.1						
301	1170	4.92	13400	2.5						

26883198/EN – 04/2022

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
438	800	3.38	4530	1.05						
483	730	3.07	5010	1.15						
561	625	2.64*	5580	1.30						
643	545	2.30	5610	1.50	**RX**	**107**	**DRN**	**225S4**	400	363
758	465	1.95	5480	1.65	**RXF**	**107**	**DRN**	**225S4**	420	364
868	405	1.71	5370	1.75						
1025	340	1.44	5220	1.85						

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	24000	82.91*	120000	0.85						
20	21300	73.70*	120000	0.95	**R**	**167**	**DRN**	**225M4**	920	402
22	19500	67.40	120000	1.00	**RF**	**167**	**DRN**	**225M4**	930	403
25	17000	58.65	120000	1.20	**RM**	**167**	**DRN**	**225M4**	1120	403
29	15000	51.76	120000	1.35						
33	13000	44.87	120000	1.55						
37	11500	39.92	120000	1.75	**R**	**167**	**DRN**	**225M4**	920	402
43	9970	34.41	120000	2.0	**RF**	**167**	**DRN**	**225M4**	930	403
53	8100	27.96	120000	2.5	**RM**	**167**	**DRN**	**225M4**	1120	403
62	6870	23.71	120000	2.7						
48	8900	30.71	120000	1.30						
60	7120	24.57	120000	2.3	**R**	**167**	**DRN**	**225M4**	910	402
68	6330	21.85	120000	3.2	**RF**	**167**	**DRN**	**225M4**	920	403
78	5510	19.03	120000	3.6	**RM**	**167**	**DRN**	**225M4**	1120	403
87	4920	16.98	120000	4.1						
28	15300	52.87	46000	0.85						
32	13500	46.65	61600	0.95						
37	11600	40.29	65100	1.10	**R**	**147**	**DRN**	**225M4**	670	400
42	10300	35.64	67300	1.25	**RF**	**147**	**DRN**	**225M4**	680	401
49	8680	29.95	69500	1.50	**RM**	**147**	**DRN**	**225M4**	850	401
61	7010	24.19	71300	1.70						
73	5920	20.44	72300	2.0						
82	5220	18.04	72800	2.0						
95	4530	15.64	73200	2.9	**R**	**147**	**DRN**	**225M4**	660	400
107	4030	13.91	73500	3.1	**RF**	**147**	**DRN**	**225M4**	670	401
124	3470	11.99	73800	3.7	**RM**	**147**	**DRN**	**225M4**	840	401
204	2100	7.25	74300	4.1						
45	9540	32.91	40100	0.85	**R**	**137**	**DRN**	**225M4**	550	398
53	8060	27.83	51300	0.95	**RF**	**137**	**DRN**	**225M4**	570	399
					RM	**137**	**DRN**	**225M4**	680	399
61	6990	24.12	52500	1.15						
67	6370	22.00*	53000	1.25	**R**	**137**	**DRN**	**225M4**	540	398
78	5520	19.04*	53400	1.45	**RF**	**137**	**DRN**	**225M4**	560	399
88	4870	16.80*	53400	1.65	**RM**	**137**	**DRN**	**225M4**	670	399
102	4200	14.51	53100	1.90						
115	3720	12.83	52700	2.1						
137	3120	10.79	51900	2.6	**R**	**137**	**DRN**	**225M4**	540	398
170	2520	8.71	50500	3.1	**RF**	**137**	**DRN**	**225M4**	560	399
195	2200	7.59	50100	2.3	**RM**	**137**	**DRN**	**225M4**	670	399
232	1840	6.38	48600	2.8						
288	1490	5.15	46600	3.1						
71	6080	20.98	43000	1.00						
78	5520	19.04	43000	1.10						
91	4740	16.37*	43000	1.25						
104	4140	14.29	43000	1.45						
122	3510	12.12	43000	1.70	**R**	**127**	**DRN**	**225M4**	500	396
140	3070	10.59	43000	1.85	**RF**	**127**	**DRN**	**225M4**	520	397
165	2590	8.96	43000	2.1	**RM**	**127**	**DRN**	**225M4**	620	397
167	2560	8.85	43000	1.55						
197	2170	7.51	43000	1.80						
226	1900	6.56	43000	2.1						
267	1600	5.55	43000	2.4						

26883198/EN – 04/2022

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
95	4530	15.65	14600	0.95						
108	3960	13.66	14600	1.10						
128	3350	11.59	14400	1.30						
146	2930	10.13	14300	1.45	**R**	**107**	**DRN**	**225M4**	455	394
173	2480	8.56	14000	1.75	**RF**	**107**	**DRN**	**225M4**	460	395
189	2270	7.86	14400	1.30	**RM**	**107**	**DRN**	**225M4**	550	395
222	1930	6.66	13900	1.55						
254	1680	5.82	13500	1.75						
301	1420	4.92	13000	2.0						
438	980	3.38	1450	0.85						
483	890	3.07	2160	0.95						
561	765	2.64*	3040	1.10						
643	665	2.30	3700	1.25	**RX**	**107**	**DRN**	**225M4**	400	363
758	565	1.95	4250	1.35	**RXF**	**107**	**DRN**	**225M4**	420	364
868	495	1.71	4590	1.40						
1025	415	1.44	4880	1.55						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	20700	58.65	120000	0.95						
29	18300	51.76	120000	1.10						
33	15900	44.87	120000	1.25	**R**	**167**	**DRN**	**250M4**	1070	402
37	14100	39.92	120000	1.40	**RF**	**167**	**DRN**	**250M4**	1080	403
43	12100	34.41	120000	1.65	**RM**	**167**	**DRN**	**250M4**	1270	403
53	9900	27.96	120000	2.0						
62	8400	23.71	120000	2.2						
60	8700	24.57	120000	1.90	**R**	**167**	**DRN**	**250M4**	1070	402
68	7740	21.85	120000	2.6	**RF**	**167**	**DRN**	**250M4**	1070	403
78	6740	19.03	120000	3.0	**RM**	**167**	**DRN**	**250M4**	1270	403
87	6010	16.98	120000	3.3	**R**	**167**	**DRN**	**250M4**	1070	402
102	5120	14.48	120000	3.8	**RF**	**167**	**DRN**	**250M4**	1070	403
124	4250	11.99	120000	4.5	**RM**	**167**	**DRN**	**250M4**	1270	403
32	16500	46.65	28000	0.80						
37	14200	40.29	58900	0.90	**R**	**147**	**DRN**	**250M4**	820	400
42	12600	35.64	63400	1.05	**RF**	**147**	**DRN**	**250M4**	830	401
49	10600	29.95	66900	1.20	**RM**	**147**	**DRN**	**250M4**	1000	401
61	8570	24.19	69700	1.40						
73	7240	20.44	71100	1.65						
82	6390	18.04	71900	1.65	**R**	**147**	**DRN**	**250M4**	810	400
95	5540	15.64	72600	2.4	**RF**	**147**	**DRN**	**250M4**	820	401
107	4930	13.91	73000	2.6	**RM**	**147**	**DRN**	**250M4**	990	401
124	4240	11.99	73400	3.1						
152	3450	9.74	73800	3.8	**R**	**147**	**DRN**	**250M4**	810	400
204	2560	7.25	74200	3.4	**RF**	**147**	**DRN**	**250M4**	820	401
252	2080	5.89	72400	4.2	**RM**	**147**	**DRN**	**250M4**	990	401
78	6740	19.04*	47800	1.20	**R**	**137**	**DRN**	**250M4**	690	398
88	5950	16.80*	48500	1.35	**RF**	**137**	**DRN**	**250M4**	710	399
102	5140	14.51	48900	1.55	**RM**	**137**	**DRN**	**250M4**	820	399
115	4540	12.83	49000	1.75						
137	3820	10.79	48700	2.1						
170	3080	8.71	48000	2.5	**R**	**137**	**DRN**	**250M4**	690	398
195	2690	7.59	48100	1.90	**RF**	**137**	**DRN**	**250M4**	710	399
232	2260	6.38	46900	2.3	**RM**	**137**	**DRN**	**250M4**	820	399
288	1820	5.15	45200	2.5						
91	5800	16.37*	43000	1.05						
104	5060	14.29	43000	1.20						
122	4290	12.12	43000	1.40						
140	3750	10.59	43000	1.50	**R**	**127**	**DRN**	**250M4**	650	396
165	3170	8.96	43000	1.70	**RF**	**127**	**DRN**	**250M4**	670	397
167	3130	8.85	43000	1.25	**RM**	**127**	**DRN**	**250M4**	770	397
197	2660	7.51	43000	1.50						
226	2320	6.56	43000	1.70						
267	1960	5.55	43000	2.0						

26883198/EN – 04/2022

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
29	25000	51.76	120000	0.80							
33	21600	44.87	120000	0.90							
37	19200	39.92	120000	1.05	**R**	**167**	**DRN**	**280S4**		1120	402
43	16600	34.41	120000	1.20	**RF**	**167**	**DRN**	**280S4**		1130	403
53	13500	27.96	120000	1.50	**RM**	**167**	**DRN**	**280S4**		1320	403
62	11400	23.71	120000	1.65							
60	11800	24.57	120000	1.40	**R**	**167**	**DRN**	**280S4**		1110	402
68	10500	21.85	120000	1.90	**RF**	**167**	**DRN**	**280S4**		1120	403
78	9190	19.03	120000	2.2	**RM**	**167**	**DRN**	**280S4**		1320	403
87	8200	16.98	120000	2.4							
102	6990	14.48	120000	2.8	**R**	**167**	**DRN**	**280S4**		1110	402
124	5790	11.99	116600	3.3	**RF**	**167**	**DRN**	**280S4**		1120	403
145	4940	10.24	112700	3.7	**RM**	**167**	**DRN**	**280S4**		1320	403
49	14400	29.95	56700	0.90	**R**	**147**	**DRN**	**280S4**		870	400
61	11600	24.19	65100	1.00	**RF**	**147**	**DRN**	**280S4**		880	401
					RM	**147**	**DRN**	**280S4**		1050	401
73	9870	20.44	68000	1.20	**R**	**147**	**DRN**	**280S4**		860	400
82	8710	18.04	69500	1.20	**RF**	**147**	**DRN**	**280S4**		870	401
95	7550	15.64	70800	1.70	**RM**	**147**	**DRN**	**280S4**		1040	401
107	6720	13.91	71600	1.85							
124	5790	11.99	72400	2.2							
152	4700	9.74	73100	2.8							
179	3990	8.26	73500	3.3	**R**	**147**	**DRN**	**280S4**		860	400
204	3500	7.25	73100	2.5	**RF**	**147**	**DRN**	**280S4**		870	401
252	2840	5.89	70100	3.0	**RM**	**147**	**DRN**	**280S4**		1040	401
297	2410	5.00	67600	3.6							

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
37	23100	39.92	120000	0.85							
43	19900	34.41	120000	1.00	**R**	**167**	**DRN**	**280M4**		1240	402
53	16200	27.96	120000	1.25	**RF**	**167**	**DRN**	**280M4**		1240	403
62	13700	23.71	120000	1.35	**RM**	**167**	**DRN**	**280M4**		1440	403
68	12600	21.85	120000	1.60	**R**	**167**	**DRN**	**280M4**		1230	402
78	11000	19.03	120000	1.80	**RF**	**167**	**DRN**	**280M4**		1240	403
					RM	**167**	**DRN**	**280M4**		1430	403
87	9850	16.98	120000	2.0							
102	8400	14.48	117300	2.4	**R**	**167**	**DRN**	**280M4**		1230	402
123	6960	11.99	113500	2.7	**RF**	**167**	**DRN**	**280M4**		1240	403
145	5940	10.24	110100	3.1	**RM**	**167**	**DRN**	**280M4**		1430	403
95	9070	15.64	69000	1.45	**R**	**147**	**DRN**	**280M4**		970	400
106	8070	13.91	70200	1.55	**RF**	**147**	**DRN**	**280M4**		980	401
					RM	**147**	**DRN**	**280M4**		1150	401
124	6950	11.99	71400	1.85							
152	5650	9.74	72500	2.3							
179	4790	8.26	73000	2.7	**R**	**147**	**DRN**	**280M4**		970	400
204	4200	7.25	70900	2.1	**RF**	**147**	**DRN**	**280M4**		980	401
251	3410	5.89	68300	2.5	**RM**	**147**	**DRN**	**280M4**		1150	401
296	2890	5.00	66100	3.0							

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
43	24200	34.41	115800	0.80	**R**	**167**	**DRN**	**315S4**		1480	402
53	19700	27.96	117100	1.00	**RF**	**167**	**DRN**	**315S4**		1490	403
63	16700	23.71	116900	1.10	**RM**	**167**	**DRN**	**315S4**		1680	403
					R	**167**	**DRN**	**315S4/ERF/NS**		1470	402
78	13400	19.03	115500	1.50	**RF**	**167**	**DRN**	**315S4/ERF/NS**		1480	403
					RM	**167**	**DRN**	**315S4/ERF/NS**		1680	403

26883198/EN – 04/2022

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
88	11900	16.98	114300	1.65	**R**	**167**	**DRN**	**315S4**		1470	402
103	10200	14.48	112200	1.95	**RF**	**167**	**DRN**	**315S4**		1480	403
124	8460	11.99	109200	2.2	**RM**	**167**	**DRN**	**315S4**		1680	403
145	7220	10.24	106400	2.6							

P_m = 132 kW

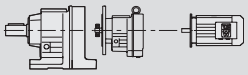
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
53	23600	27.96	106500	0.85	**R**	**167**	**DRN**	**315M4**		1500	402
63	20000	23.71	107900	0.95	**RF**	**167**	**DRN**	**315M4**		1510	403
					RM	**167**	**DRN**	**315M4**		1700	403
78	16100	19.03	108300	1.25	**R**	**167**	**DRN**	**315M4/ERF/NS**		1490	402
88	14300	16.98	107800	1.40	**RF**	**167**	**DRN**	**315M4/ERF/NS**		1500	403
					RM	**167**	**DRN**	**315M4/ERF/NS**		1700	403
103	12200	14.48	106700	1.60	**R**	**167**	**DRN**	**315M4**		1490	402
124	10100	11.99	104700	1.85	**RF**	**167**	**DRN**	**315M4**		1500	403
145	8670	10.24	102600	2.1	**RM**	**167**	**DRN**	**315M4**		1700	403

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
103	14800	14.48	99700	1.30	**R**	**167**	**DRN**	**315L4**		1630	402
124	12300	11.99	98900	1.55	**RF**	**167**	**DRN**	**315L4**		1630	403
145	10500	10.24	97600	1.75	**RM**	**167**	**DRN**	**315L4**		1830	403

26883198/EN – 04/2022

8.4 R..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 130 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.16	8612	3540						
0.19	7425	3540						
0.20	6921	3540						
0.23	6050	3540						
0.26	5217	3540						
0.30	4661	3540						
0.34	4073	3540						
0.39	3516	3540	**R**	**27R17**	**DRN**	**63MS4**	12	404
0.44	3160	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	404
0.50	2763	3540						
0.57	2414	3540						
0.65	2110	3540						
0.74	1862	3540						
0.85	1625	3540						
0.96	1434	3540						
1.1	1254	3540						
0.76	1822	3540						
0.87	1580	3540						
0.94	1464	3540						
1.1	1270	3540						
1.2	1100	3540						
1.4	972	3540	**R**	**27R17**	**DRN**	**63MS4**	12	404
1.6	840	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	404
1.9	741	3540						
2.1	654	3540						
2.4	566	3540						
2.8	499	3540						
1.2	1101	3540						
1.4	962	3540						
1.6	848	3540						
1.9	743	3540						
2.1	649	3540						
2.4	567	3540						
2.7	509	3540	**R**	**27R17**	**DRN**	**63MS4**	12	404
3.2	432	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	404
3.6	387	3540						
4.1	339	3540						
4.7	296	3540						
5.3	259	3540						
6.0	229	3540						
6.9	200	3540						
7.8	177	3540						
8.3	166	3540						
9.1	150	3540	**R**	**27R17**	**DRN**	**63M4**	13	404
9.8	141	3540	**RF**	**27R17**	**DRN**	**63M4**	12	404
11	124	3540						
13	110	3540	**R**	**27R17**	**DRN**	**71MS4**	13	404
15	94	3540	**RF**	**27R17**	**DRN**	**71MS4**	13	404
3.1	440	3540						
3.6	381	3540						
4.2	329	3540						
4.8	290	3540	**R**	**27R17**	**DRN**	**63MS4**	11	404
5.4	256	3540	**RF**	**27R17**	**DRN**	**63MS4**	11	404
6.1	227	3540						
6.8	203	3540						
7.7	179	3540						
8.8	156	3540	**R**	**27R17**	**DRN**	**63M4**	12	404
10	135	3540	**RF**	**27R17**	**DRN**	**63M4**	12	404
12	118	3540						
13	104	3540	**R**	**27R17**	**DRN**	**71MS4**	13	404
16	90	3540	**RF**	**27R17**	**DRN**	**71MS4**	13	404

26883198/EN – 04/2022

$M_{a\ max}$ = 200 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.16	8595	4240							
0.19	7411	4240							
0.20	6907	4240							
0.23	6038	4240							
0.27	5206	4240							
0.30	4651	4240							
0.34	4065	4240							
0.38	3658	4240	**R**	**37R17**	**DRN**	**63MS4**		18	404
0.44	3154	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	404
0.50	2757	4240							
0.57	2409	4240							
0.66	2106	4240							
0.74	1856	4240							
0.85	1622	4240							
0.96	1431	4240							
1.1	1251	4240							
0.76	1818	4240							
0.88	1576	4240							
1.0	1359	4240							
1.1	1267	4240							
1.3	1098	4240							
1.4	970	4240	**R**	**37R17**	**DRN**	**63MS4**		18	404
1.6	839	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	404
1.9	740	4240							
2.1	653	4240							
2.4	577	4240							
2.8	498	4240							
1.3	1099	4240							
1.4	960	4240							
1.6	847	4240							
1.9	741	4240							
2.1	647	4240							
2.4	566	4240	**R**	**37R17**	**DRN**	**63MS4**		18	404
2.7	508	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	404
3.2	431	4240							
3.6	387	4240							
4.1	338	4240							
4.7	296	4240							
5.3	259	4240							
6.0	228	4240	**R**	**37R17**	**DRN**	**63M4**		18	404
6.9	199	4240	**RF**	**37R17**	**DRN**	**63M4**		20	404
8.2	172	4240	**R**	**37R17**	**DRN**	**71MS4**		19	404
9.4	150	4240	**RF**	**37R17**	**DRN**	**71MS4**		20	404
11	130	4240							
11	124	4240	**R**	**37R17**	**DRN**	**71M4**		20	404
13	110	4240	**RF**	**37R17**	**DRN**	**71M4**		22	404
15	94	4240							
3.1	439	4240							
3.6	378	4240	**R**	**37R17**	**DRN**	**63MS4**		17	404
4.2	328	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	404
4.8	289	4240							
5.2	265	4240							
6.1	226	4240	**R**	**37R17**	**DRN**	**63M4**		18	404
6.8	202	4240	**RF**	**37R17**	**DRN**	**63M4**		20	404
7.9	179	4240							
9.0	156	4240	**R**	**37R17**	**DRN**	**71MS4**		19	404
10	135	4240	**RF**	**37R17**	**DRN**	**71MS4**		20	404
11	127	4240							
14	104	4240	**R**	**37R17**	**DRN**	**71M4**		20	404
16	90	4240	**RF**	**37R17**	**DRN**	**71M4**		21	404

26883198/EN – 04/2022

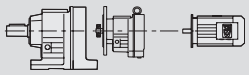
$M_{a\ max}$ = 300 Nm

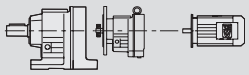
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.10	13598	4990						
0.11	12472	4990						
0.13	10619	4990						
0.15	9155	4990						
0.16	8534	4990						
0.18	7460	4990						
0.20	6993	4990						
0.22	6171	4990	**R**	**47R37**	**DRN**	**63MS4**	29	404
0.25	5624	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	404
0.28	4849	4990						
0.31	4520	4990						
0.35	3951	4990						
0.37	3704	4990						
0.42	3268	4990						
0.48	2898	4990						
0.56	2463	4990						
0.53	2598	4990						
0.58	2383	4990						
0.68	2029	4990						
0.79	1749	4990						
0.85	1630	4990						
0.97	1425	4990						
1.0	1336	4990						
1.2	1179	4990	**R**	**47R37**	**DRN**	**63MS4**	29	404
1.3	1074	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	404
1.5	927	4990						
1.6	863	4990						
1.8	755	4990						
1.9	708	4990						
2.2	624	4990						
2.5	554	4990						
2.9	471	4990						
0.48	2856	4990						
0.53	2625	4990						
0.61	2246	4990						
0.71	1948	4990						
0.76	1821	4990						
0.88	1573	4990						
1.2	1193	4990	**R**	**47R37**	**DRN**	**63MS4**	29	404
1.4	1020	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	404
1.4	955	4990						
1.7	804	4990						
2.0	673	4990						
2.4	572	4990						
2.7	510	4990						
3.1	436	4990						
3.4	408	4990	**R**	**47R37**	**DRN**	**63M4**	29	404
4.0	344	4990	**RF**	**47R37**	**DRN**	**63M4**	29	404
2.5	546	4990						
2.8	502	4990	**R**	**47R37**	**DRN**	**63MS4**	28	404
3.2	429	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	404
3.7	372	4990						
4.0	348	4990	**R**	**47R37**	**DRN**	**63M4**	29	404
4.6	301	4990	**RF**	**47R37**	**DRN**	**63M4**	29	404
5.5	255	4990	**R**	**47R37**	**DRN**	**71MS4**	30	404
6.2	228	4990	**RF**	**47R37**	**DRN**	**71MS4**	30	404
7.3	195	4990						
7.8	182	4990	**R**	**47R37**	**DRN**	**71M4**	31	404
9.2	154	4990	**RF**	**47R37**	**DRN**	**71M4**	31	404
11	129	4990						
13	109	4990	**R**	**47R37**	**DRN**	**80MK4**	33	404
15	98	4990	**RF**	**47R37**	**DRN**	**80MK4**	33	404

26883198/EN – 04/2022

$M_{a\ max}$ = 450 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.10	14369	7100							
0.11	12095	7100							
0.13	10860	7100							
0.15	9445	7100							
0.16	8480	7100							
0.19	7312	7100							
0.21	6521	7100							
0.25	5585	7100	**R**	**57R37**	**DRN**	**63MS4**	35	404	
0.28	4928	7100	**RF**	**57R37**	**DRN**	**63MS4**	38	404	
0.32	4378	7100	**RM**	**57R37**	**DRN**	**63MS4**	50	404	
0.36	3873	7100							
0.41	3344	7100							
0.47	2907	7100							
0.54	2567	7100							
0.61	2244	7100							
0.70	1967	7100							
0.47	2957	7100							
0.55	2508	7100							
0.60	2309	7100							
0.69	1991	7100							
0.78	1768	7100							
0.91	1520	7100	**R**	**57R37**	**DRN**	**63MS4**	34	404	
1.0	1342	7100	**RF**	**57R37**	**DRN**	**63MS4**	37	404	
1.2	1164	7100	**RM**	**57R37**	**DRN**	**63MS4**	49	404	
1.3	1027	7100							
1.5	894	7100							
1.7	805	7100							
2.0	683	7100							
2.3	603	7100	**R**	**57R37**	**DRN**	**63M4**	34	404	
2.6	534	7100	**RF**	**57R37**	**DRN**	**63M4**	38	404	
3.0	454	7100	**RM**	**57R37**	**DRN**	**63M4**	50	404	
			R	**57R37**	**DRN**	**71MS4**	35	404	
3.4	410	7100	**RF**	**57R37**	**DRN**	**71MS4**	38	404	
			RM	**57R37**	**DRN**	**71MS4**	50	404	
0.80	1732	7100							
0.89	1555	7100							
0.99	1399	7100	**R**	**57R37**	**DRN**	**63MS4**	34	404	
1.2	1189	7100	**RF**	**57R37**	**DRN**	**63MS4**	38	404	
1.3	1034	7100	**RM**	**57R37**	**DRN**	**63MS4**	50	404	
1.8	782	7100							
2.0	678	7100							
2.3	604	7100	**R**	**57R37**	**DRN**	**63M4**	35	404	
2.6	537	7100	**RF**	**57R37**	**DRN**	**63M4**	39	404	
2.9	471	7100	**RM**	**57R37**	**DRN**	**63M4**	51	404	
			R	**57R37**	**DRN**	**71MS4**	36	404	
3.9	357	7100	**RF**	**57R37**	**DRN**	**71MS4**	39	404	
4.4	319	7100	**RM**	**57R37**	**DRN**	**71MS4**	51	404	
5.2	273	7100	**R**	**57R37**	**DRN**	**71M4**	37	404	
5.9	241	7100	**RF**	**57R37**	**DRN**	**71M4**	40	404	
6.6	215	7100	**RM**	**57R37**	**DRN**	**71M4**	52	404	
7.7	187	7100	**R**	**57R37**	**DRN**	**80MK4**	39	404	
8.7	164	7100	**RF**	**57R37**	**DRN**	**80MK4**	43	404	
10	142	7100	**RM**	**57R37**	**DRN**	**80MK4**	55	404	
			R	**57R37**	**DRN**	**71MS4**	35	404	
3.9	359	7100	**RF**	**57R37**	**DRN**	**71MS4**	38	404	
4.3	324	7100	**RM**	**57R37**	**DRN**	**71MS4**	50	404	
4.9	290	7100							
5.4	262	7100	**R**	**57R37**	**DRN**	**71M4**	36	404	
5.7	246	7100	**RF**	**57R37**	**DRN**	**71M4**	39	404	
6.4	220	7100	**RM**	**57R37**	**DRN**	**71M4**	51	404	
7.6	188	7100	**R**	**57R37**	**DRN**	**80MK4**	38	404	
9.0	159	7100	**RF**	**57R37**	**DRN**	**80MK4**	42	404	
9.8	146	7100	**RM**	**57R37**	**DRN**	**80MK4**	54	404	

26883198/EN – 04/2022

$M_{a\ max}$ = 450 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			R	57R37	DRN	80M4		42	404
11	134	7100	RF	57R37	DRN	80M4		45	404
			RM	57R37	DRN	80M4		57	404

$M_{a\ max}$ = 600 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.09	15361	7560							
0.11	12931	7560							
0.12	11996	7560							
0.14	10097	7560							
0.15	9066	7560							
0.18	7816	7560							
0.20	6732	7560	R	67R37	DRN	63MS4		41	404
0.23	5970	7560	RF	67R37	DRN	63MS4		44	404
0.26	5268	7560	RM	67R37	DRN	63MS4		60	404
0.29	4680	7560							
0.33	4136	7560							
0.39	3566	7560							
0.44	3125	7560							
0.50	2745	7560							
0.57	2403	7560							
0.51	2682	7560							
0.56	2460	7560							
0.66	2094	7560							
0.76	1805	7560							
0.85	1629	7560	R	67R37	DRN	63MS4		40	404
0.94	1471	7560	RF	67R37	DRN	63MS4		43	404
1.0	1379	7560	RM	67R37	DRN	63MS4		59	404
1.2	1109	7560							
1.4	956	7560							
1.6	891	7560							
1.9	730	7560	R	67R37	DRN	63M4		41	404
2.1	644	7560	RF	67R37	DRN	63M4		44	404
2.4	571	7560	RM	67R37	DRN	63M4		60	404
			R	67R37	DRN	71MS4		42	404
2.9	486	7560	RF	67R37	DRN	71MS4		45	404
			RM	67R37	DRN	71MS4		61	404
0.65	2136	7560							
0.75	1852	7560							
0.84	1652	7560	R	67R37	DRN	63MS4		41	404
0.96	1432	7560	RF	67R37	DRN	63MS4		44	404
1.1	1259	7560	RM	67R37	DRN	63MS4		60	404
1.2	1106	7560							
1.6	836	7560							
1.8	750	7560	R	67R37	DRN	63M4		42	404
2.1	646	7560	RF	67R37	DRN	63M4		45	404
2.4	574	7560	RM	67R37	DRN	63M4		61	404
			R	67R37	DRN	71MS4		42	404
2.8	495	7560	RF	67R37	DRN	71MS4		45	404
3.2	438	7560	RM	67R37	DRN	71MS4		61	404
3.6	388	7560	R	67R37	DRN	71M4		44	404
4.1	344	7560	RF	67R37	DRN	71M4		47	404
4.8	294	7560	RM	67R37	DRN	71M4		62	404
5.5	261	7560	R	67R37	DRN	80MK4		46	404
6.1	234	7560	RF	67R37	DRN	80MK4		49	404
7.2	200	7560	RM	67R37	DRN	80MK4		65	404
			R	67R37	DRN	80M4		49	404
8.2	176	7560	RF	67R37	DRN	80M4		52	404
9.1	158	7560	RM	67R37	DRN	80M4		68	404
			R	67R37	DRN	71MS4		41	404
3.2	443	7560	RF	67R37	DRN	71MS4		45	404
			RM	67R37	DRN	71MS4		60	404

26883198/EN – 04/2022

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.7	384	7560	**R**	**67R37**	**DRN**	**71M4**	43	404
3.9	359	7560	**RF**	**67R37**	**DRN**	**71M4**	46	404
4.6	310	7560	**RM**	**67R37**	**DRN**	**71M4**	62	404
5.4	264	7560						
6.1	235	7560	**R**	**67R37**	**DRN**	**80MK4**	45	404
7.1	201	7560	**RF**	**67R37**	**DRN**	**80MK4**	48	404
7.9	181	7560	**RM**	**67R37**	**DRN**	**80MK4**	64	404
			R	**67R37**	**DRN**	**80M4**	48	404
9.1	159	7560	**RF**	**67R37**	**DRN**	**80M4**	51	404
			RM	**67R37**	**DRN**	**80M4**	67	404

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	16370	9920						
0.09	15015	9920						
0.10	13885	9920						
0.11	12783	9920						
0.13	11021	9920						
0.14	9788	9920						
0.16	8714	9920						
0.18	7617	9920	**R**	**77R37**	**DRN**	**63MS4**	47	404
0.20	6770	9920	**RF**	**77R37**	**DRN**	**63MS4**	52	404
0.24	5838	9920	**RM**	**77R37**	**DRN**	**63MS4**	77	404
0.27	5184	9920						
0.31	4470	9920						
0.35	3999	9920						
0.40	3488	9920						
0.45	3053	9920						
0.52	2671	9920						
0.44	3151	9920						
0.48	2890	9920						
0.56	2460	9920						
0.65	2121	9920	**R**	**77R37**	**DRN**	**63MS4**	45	404
0.70	1977	9920	**RF**	**77R37**	**DRN**	**63MS4**	51	404
0.80	1728	9920	**RM**	**77R37**	**DRN**	**63MS4**	76	404
0.85	1620	9920						
0.97	1430	9920						
1.1	1303	9920						
1.2	1124	9920						
1.3	1047	9920	**R**	**77R37**	**DRN**	**63M4**	46	404
1.5	915	9920	**RF**	**77R37**	**DRN**	**63M4**	52	404
1.6	858	9920	**RM**	**77R37**	**DRN**	**63M4**	77	404
1.9	757	9920	**R**	**77R37**	**DRN**	**71MS4**	47	404
2.1	671	9920	**RF**	**77R37**	**DRN**	**71MS4**	53	404
2.5	571	9920	**RM**	**77R37**	**DRN**	**71MS4**	78	404
0.59	2345	9920						
0.67	2070	9920						
0.76	1822	9920	**R**	**77R37**	**DRN**	**63MS4**	46	404
0.87	1580	9920	**RF**	**77R37**	**DRN**	**63MS4**	52	404
0.99	1394	9920	**RM**	**77R37**	**DRN**	**63MS4**	77	404
1.1	1218	9920						
1.3	1084	9920	**R**	**77R37**	**DRN**	**63M4**	47	404
1.5	940	9920	**RF**	**77R37**	**DRN**	**63M4**	53	404
1.7	821	9920	**RM**	**77R37**	**DRN**	**63M4**	78	404
1.9	731	9920	**R**	**77R37**	**DRN**	**71MS4**	48	404
2.2	646	9920	**RF**	**77R37**	**DRN**	**71MS4**	53	404
2.5	560	9920	**RM**	**77R37**	**DRN**	**71MS4**	78	404
2.9	488	9920	**R**	**77R37**	**DRN**	**71M4**	49	404
3.2	436	9920	**RF**	**77R37**	**DRN**	**71M4**	55	404
3.8	373	9920	**RM**	**77R37**	**DRN**	**71M4**	80	404
4.4	327	9920	**R**	**77R37**	**DRN**	**80MK4**	51	404
5.0	289	9920	**RF**	**77R37**	**DRN**	**80MK4**	57	404
5.5	260	9920	**RM**	**77R37**	**DRN**	**80MK4**	82	404

26883198/EN – 04/2022

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.4	224	9920	**R**	**77R37**	**DRN**	**80M4**	55	404
7.3	197	9920	**RF**	**77R37**	**DRN**	**80M4**	60	404
			RM	**77R37**	**DRN**	**80M4**	85	404
8.6	169	9920	**R**	**77R37**	**DRN**	**90S4**	60	404
9.8	149	9920	**RF**	**77R37**	**DRN**	**90S4**	66	404
			RM	**77R37**	**DRN**	**90S4**	91	404
2.7	520	9920						
3.1	451	9920	**R**	**77R37**	**DRN**	**71M4**	48	404
3.4	422	9920	**RF**	**77R37**	**DRN**	**71M4**	54	404
3.9	365	9920	**RM**	**77R37**	**DRN**	**71M4**	79	404
4.6	310	9920	**R**	**77R37**	**DRN**	**80MK4**	50	404
5.2	276	9920	**RF**	**77R37**	**DRN**	**80MK4**	56	404
			RM	**77R37**	**DRN**	**80MK4**	81	404
6.1	236	9920	**R**	**77R37**	**DRN**	**80M4**	54	404
6.5	221	9920	**RF**	**77R37**	**DRN**	**80M4**	59	404
7.7	186	9920	**RM**	**77R37**	**DRN**	**80M4**	84	404

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	17452	12500						
0.09	15310	12500						
0.10	13813	12500						
0.11	12025	12500						
0.13	10549	12500						
0.15	9244	12500						
0.17	8109	12500	**R**	**87R57**	**DRN**	**63MS4**	86	404
0.20	7038	16900	**RF**	**87R57**	**DRN**	**63MS4**	93	404
0.22	6174	16900	**RM**	**87R57**	**DRN**	**63MS4**	125	404
0.25	5449	16900						
0.29	4831	16900						
0.33	4206	16900						
0.37	3744	16900						
0.43	3233	16900						
0.48	2873	12500						
0.55	2518	12500	**R**	**87R57**	**DRN**	**63M4**	87	404
0.62	2209	12500	**RF**	**87R57**	**DRN**	**63M4**	94	404
0.70	1961	16900	**RM**	**87R57**	**DRN**	**63M4**	125	404
1.4	994	16900	**R**	**87R57**	**DRN**	**71M4**	89	404
1.6	881	16900	**RF**	**87R57**	**DRN**	**71M4**	96	404
			RM	**87R57**	**DRN**	**71M4**	125	404
0.34	4020	16900						
0.37	3703	16900	**R**	**87R57**	**DRN**	**63MS4**	85	404
0.43	3182	16900	**RF**	**87R57**	**DRN**	**63MS4**	92	404
0.50	2770	16900	**RM**	**87R57**	**DRN**	**63MS4**	120	404
0.53	2595	16900						
0.65	2129	16900						
0.71	1930	16900	**R**	**87R57**	**DRN**	**63M4**	86	404
0.79	1733	16900	**RF**	**87R57**	**DRN**	**63M4**	93	404
0.92	1489	16900	**RM**	**87R57**	**DRN**	**63M4**	120	404
1.0	1395	16900	**R**	**87R57**	**DRN**	**71MS4**	86	404
1.1	1232	16900	**RF**	**87R57**	**DRN**	**71MS4**	93	404
1.2	1145	16900	**RM**	**87R57**	**DRN**	**71MS4**	125	404
1.4	1037	16900						
1.5	931	16900	**R**	**87R57**	**DRN**	**71M4**	87	404
1.8	802	16900	**RF**	**87R57**	**DRN**	**71M4**	95	404
1.9	754	16900	**RM**	**87R57**	**DRN**	**71M4**	125	404
2.2	649	16900	**R**	**87R57**	**DRN**	**80MK4**	90	404
2.5	580	16900	**RF**	**87R57**	**DRN**	**80MK4**	97	404
			RM	**87R57**	**DRN**	**80MK4**	125	404
0.79	1737	12500	**R**	**87R57**	**DRN**	**63M4**	86	404
0.90	1524	12500	**RF**	**87R57**	**DRN**	**63M4**	93	404
			RM	**87R57**	**DRN**	**63M4**	125	404

26883198/EN – 04/2022

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.1	1303	12500	**R**	**87R57**	**DRN**	**71MS4**	87	404
1.2	1143	12500	**RF**	**87R57**	**DRN**	**71MS4**	94	404
			RM	**87R57**	**DRN**	**71MS4**	125	404
1.4	1008	12500	**R**	**87R57**	**DRN**	**71M4**	88	404
1.6	885	16900	**RF**	**87R57**	**DRN**	**71M4**	95	404
1.8	776	16900	**RM**	**87R57**	**DRN**	**71M4**	125	404
2.1	685	16900	**R**	**87R57**	**DRN**	**80MK4**	90	404
2.4	599	12500	**RF**	**87R57**	**DRN**	**80MK4**	98	404
2.7	525	12500	**RM**	**87R57**	**DRN**	**80MK4**	125	404
3.2	456	16900	**R**	**87R57**	**DRN**	**80M4**	94	404
3.6	398	16900	**RF**	**87R57**	**DRN**	**80M4**	100	404
4.1	352	16900	**RM**	**87R57**	**DRN**	**80M4**	130	404
4.8	305	16900	**R**	**87R57**	**DRN**	**90S4**	100	404
5.4	268	16900	**RF**	**87R57**	**DRN**	**90S4**	105	404
6.2	236	16900	**RM**	**87R57**	**DRN**	**90S4**	135	404
7.0	209	16900	**R**	**87R57**	**DRN**	**90L4**	105	404
			RF	**87R57**	**DRN**	**90L4**	110	404
			RM	**87R57**	**DRN**	**90L4**	140	404
2.7	538	16900	**R**	**87R57**	**DRN**	**80MK4**	89	404
3.0	472	16900	**RF**	**87R57**	**DRN**	**80MK4**	96	404
			RM	**87R57**	**DRN**	**80MK4**	125	404
3.6	400	16900	**R**	**87R57**	**DRN**	**80M4**	92	404
4.0	361	16900	**RF**	**87R57**	**DRN**	**80M4**	100	404
			RM	**87R57**	**DRN**	**80M4**	130	404
4.8	300	16900	**R**	**87R57**	**DRN**	**90S4**	99	404
5.7	256	16900	**RF**	**87R57**	**DRN**	**90S4**	105	404
6.3	232	16900	**RM**	**87R57**	**DRN**	**90S4**	135	404
7.5	195	16900	**R**	**87R57**	**DRN**	**90L4**	100	404
			RF	**87R57**	**DRN**	**90L4**	110	404
			RM	**87R57**	**DRN**	**90L4**	140	404

$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	21769	13100						
0.07	19332	13100						
0.08	17230	13100						
0.09	14999	13100						
0.10	13320	13100						
0.12	11156	13100	**R**	**97R57**	**DRN**	**63MS4**	130	404
0.14	10030	13100	**RF**	**97R57**	**DRN**	**63MS4**	145	404
0.16	8706	13100	**RM**	**97R57**	**DRN**	**63MS4**	195	404
0.18	7692	13100						
0.21	6708	13100						
0.23	5931	19800						
0.27	5161	19800						
0.30	4559	19800						
0.34	4004	13100	**R**	**97R57**	**DRN**	**63M4**	130	404
0.40	3481	13100	**RF**	**97R57**	**DRN**	**63M4**	145	404
			RM	**97R57**	**DRN**	**63M4**	200	404
0.29	4678	19800	**R**	**97R57**	**DRN**	**63MS4**	125	404
			RF	**97R57**	**DRN**	**63MS4**	145	404
			RM	**97R57**	**DRN**	**63MS4**	195	404
0.32	4309	19800	**R**	**97R57**	**DRN**	**63M4**	125	404
0.37	3702	19800	**RF**	**97R57**	**DRN**	**63M4**	145	404
0.46	3019	19800	**RM**	**97R57**	**DRN**	**63M4**	195	404
0.53	2668	19800	**R**	**97R57**	**DRN**	**71MS4**	125	404
0.63	2245	19800	**RF**	**97R57**	**DRN**	**71MS4**	145	404
			RM	**97R57**	**DRN**	**71MS4**	195	404

26883198/EN – 04/2022

$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.70	2016	19800						
0.82	1733	19800	**R**	**97R57**	**DRN**	**71M4**	130	404
0.87	1623	19800	**RF**	**97R57**	**DRN**	**71M4**	145	404
0.99	1434	19800	**RM**	**97R57**	**DRN**	**71M4**	195	404
1.2	1207	19800	**R**	**97R57**	**DRN**	**80MK4**	130	404
1.3	1084	19800	**RF**	**97R57**	**DRN**	**80MK4**	150	404
1.5	934	19800	**RM**	**97R57**	**DRN**	**80MK4**	200	404
1.6	878	19800	**R**	**97R57**	**DRN**	**80M4**	135	404
1.9	755	19800	**RF**	**97R57**	**DRN**	**80M4**	150	404
			RM	**97R57**	**DRN**	**80M4**	200	404
			R	**97R57**	**DRN**	**63M4**	130	404
0.45	3065	13100	**RF**	**97R57**	**DRN**	**63M4**	145	404
			RM	**97R57**	**DRN**	**63M4**	195	404
0.52	2722	13100	**R**	**97R57**	**DRN**	**71MS4**	130	404
0.61	2311	13100	**RF**	**97R57**	**DRN**	**71MS4**	145	404
0.68	2078	13100	**RM**	**97R57**	**DRN**	**71MS4**	195	404
0.78	1823	13100	**R**	**97R57**	**DRN**	**71M4**	130	404
0.89	1583	13100	**RF**	**97R57**	**DRN**	**71M4**	145	404
1.0	1396	13100	**RM**	**97R57**	**DRN**	**71M4**	200	404
1.2	1228	13100	**R**	**97R57**	**DRN**	**80MK4**	135	404
1.3	1069	19800	**RF**	**97R57**	**DRN**	**80MK4**	150	404
1.5	938	19800	**RM**	**97R57**	**DRN**	**80MK4**	200	404
1.8	824	13100	**R**	**97R57**	**DRN**	**80M4**	135	404
1.9	737	13100	**RF**	**97R57**	**DRN**	**80M4**	155	404
			RM	**97R57**	**DRN**	**80M4**	205	404
2.3	632	19800	**R**	**97R57**	**DRN**	**90S4**	140	404
2.6	560	19800	**RF**	**97R57**	**DRN**	**90S4**	160	404
3.0	484	13100	**RM**	**97R57**	**DRN**	**90S4**	210	404
3.4	431	19800	**R**	**97R57**	**DRN**	**90L4**	145	404
3.9	379	19800	**RF**	**97R57**	**DRN**	**90L4**	165	404
4.3	336	19800	**RM**	**97R57**	**DRN**	**90L4**	215	404
4.9	296	19800	**R**	**97R57**	**DRN**	**100LS4**	150	404
5.8	249	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	404
6.2	234	19800	**RM**	**97R57**	**DRN**	**100LS4**	220	404
			R	**97R57**	**DRN**	**100L4**	155	404
7.0	209	19800	**RF**	**97R57**	**DRN**	**100L4**	175	404
			RM	**97R57**	**DRN**	**100L4**	225	404
2.3	625	19800	**R**	**97R57**	**DRN**	**90S4**	140	404
2.6	549	19800	**RF**	**97R57**	**DRN**	**90S4**	155	404
3.1	466	19800	**RM**	**97R57**	**DRN**	**90S4**	210	404
3.5	420	19800	**R**	**97R57**	**DRN**	**90L4**	140	404
4.0	370	19800	**RF**	**97R57**	**DRN**	**90L4**	160	404
4.2	349	19800	**RM**	**97R57**	**DRN**	**90L4**	210	404
4.9	297	19800	**R**	**97R57**	**DRN**	**100LS4**	145	404
5.4	270	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	404
6.4	227	19800	**RM**	**97R57**	**DRN**	**100LS4**	215	404

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	20018	29500						
0.08	17080	29500						
0.09	14936	29500						
0.11	12829	29500	**R**	**107R77**	**DRN**	**63MS4**	200	404
0.12	11256	29500	**RF**	**107R77**	**DRN**	**63MS4**	210	404
0.14	9547	29500	**RM**	**107R77**	**DRN**	**63MS4**	295	404
0.16	8618	29500						
0.18	7583	29500						
0.20	6743	29500	**R**	**107R77**	**DRN**	**63M4**	205	404
0.23	5914	29500	**RF**	**107R77**	**DRN**	**63M4**	210	404
0.27	5168	29500	**RM**	**107R77**	**DRN**	**63M4**	295	404

26883198/EN – 04/2022

$M_{a\ max}$ = 4300 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.32	4435	29500	**R**	**107R77**	**DRN**	**71MS4**	205	404
0.36	3896	29500	**RF**	**107R77**	**DRN**	**71MS4**	210	404
0.41	3432	29500	**RM**	**107R77**	**DRN**	**71MS4**	300	404
0.46	3039	29500						
0.53	2688	29500	**R**	**107R77**	**DRN**	**71M4**	205	404
			RF	**107R77**	**DRN**	**71M4**	210	404
			RM	**107R77**	**DRN**	**71M4**	300	404
0.62	2339	29500	**R**	**107R77**	**DRN**	**80M4**	210	404
			RF	**107R77**	**DRN**	**80M4**	215	404
			RM	**107R77**	**DRN**	**80M4**	305	404
0.36	3918	29500	**R**	**107R77**	**DRN**	**71MS4**	195	404
0.42	3343	29500	**RF**	**107R77**	**DRN**	**71MS4**	205	404
0.46	3034	29500	**RM**	**107R77**	**DRN**	**71MS4**	290	404
0.53	2653	29500	**R**	**107R77**	**DRN**	**71M4**	200	404
0.62	2280	29500	**RF**	**107R77**	**DRN**	**71M4**	205	404
0.68	2067	29500	**RM**	**107R77**	**DRN**	**71M4**	290	404
0.85	1693	29500	**R**	**107R77**	**DRN**	**80MK4**	200	404
0.93	1550	29500	**RF**	**107R77**	**DRN**	**80MK4**	205	404
1.0	1407	29500	**RM**	**107R77**	**DRN**	**80MK4**	295	404
1.2	1209	29500	**R**	**107R77**	**DRN**	**80M4**	205	404
1.4	1055	29500	**RF**	**107R77**	**DRN**	**80M4**	210	404
			RM	**107R77**	**DRN**	**80M4**	300	404
1.6	919	29500	**R**	**107R77**	**DRN**	**90S4**	210	404
1.8	815	29500	**RF**	**107R77**	**DRN**	**90S4**	215	404
2.0	717	29500	**RM**	**107R77**	**DRN**	**90S4**	305	404
2.3	626	29500	**R**	**107R77**	**DRN**	**90L4**	210	404
2.8	528	29500	**RF**	**107R77**	**DRN**	**90L4**	220	404
			RM	**107R77**	**DRN**	**90L4**	305	404
0.71	1987	29500	**R**	**107R77**	**DRN**	**71M4**	205	404
			RF	**107R77**	**DRN**	**71M4**	210	404
			RM	**107R77**	**DRN**	**71M4**	300	404
0.79	1827	29500	**R**	**107R77**	**DRN**	**80MK4**	205	404
0.90	1599	29500	**RF**	**107R77**	**DRN**	**80MK4**	210	404
1.0	1400	29500	**RM**	**107R77**	**DRN**	**80MK4**	300	404
1.2	1226	29500	**R**	**107R77**	**DRN**	**80M4**	210	404
1.3	1104	29500	**RF**	**107R77**	**DRN**	**80M4**	215	404
			RM	**107R77**	**DRN**	**80M4**	305	404
1.6	939	29500	**R**	**107R77**	**DRN**	**90S4**	215	404
1.8	822	29500	**RF**	**107R77**	**DRN**	**90S4**	220	404
			RM	**107R77**	**DRN**	**90S4**	310	404
2.4	614	29500	**R**	**107R77**	**DRN**	**90L4**	220	404
2.7	544	29500	**RF**	**107R77**	**DRN**	**90L4**	225	404
3.0	492	29500	**RM**	**107R77**	**DRN**	**90L4**	310	404
3.5	417	29500	**R**	**107R77**	**DRN**	**100LS4**	220	404
3.9	369	29500	**RF**	**107R77**	**DRN**	**100LS4**	230	404
4.5	323	29500	**RM**	**107R77**	**DRN**	**100LS4**	315	404
5.1	285	29500	**R**	**107R77**	**DRN**	**100L4**	230	404
5.8	253	29500	**RF**	**107R77**	**DRN**	**100L4**	235	404
			RM	**107R77**	**DRN**	**100L4**	325	404
6.8	214	29500	**R**	**107R77**	**DRN**	**112M4**	240	404
7.8	187	29500	**RF**	**107R77**	**DRN**	**112M4**	245	404
			RM	**107R77**	**DRN**	**112M4**	330	404
3.1	469	29500	**R**	**107R77**	**DRN**	**90L4**	210	404
			RF	**107R77**	**DRN**	**90L4**	215	404
			RM	**107R77**	**DRN**	**90L4**	305	404
3.4	426	29500	**R**	**107R77**	**DRN**	**100LS4**	215	404
3.8	377	29500	**RF**	**107R77**	**DRN**	**100LS4**	220	404
4.5	325	29500	**RM**	**107R77**	**DRN**	**100LS4**	310	404
5.1	284	29500	**R**	**107R77**	**DRN**	**100L4**	225	404
5.7	256	29500	**RF**	**107R77**	**DRN**	**100L4**	230	404
			RM	**107R77**	**DRN**	**100L4**	315	404

26883198/EN – 04/2022

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.7	220	29500	**R**	**107R77**	**DRN**	**112M4**	230	404
7.6	193	29500	**RF**	**107R77**	**DRN**	**112M4**	240	404
			RM	**107R77**	**DRN**	**112M4**	325	404
8.5	172	29500	**R**	**107R77**	**DRN**	**132S4**	245	404
			RF	**107R77**	**DRN**	**132S4**	250	404
			RM	**107R77**	**DRN**	**132S4**	335	404

$M_{a\ max}$ = 6000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	20936	43000						
0.08	17863	43000						
0.09	15620	43000	**R**	**127R77**	**DRN**	**63MS4**	260	404
0.10	14123	43000	**RF**	**127R77**	**DRN**	**63MS4**	270	404
0.10	13417	43000	**RM**	**127R77**	**DRN**	**63MS4**	365	404
0.12	11772	43000						
0.14	9985	43000						
0.15	9013	43000						
0.16	8771	43000						
0.17	8282	43000						
0.18	7639	43000	**R**	**127R77**	**DRN**	**63M4**	260	404
0.19	7053	43000	**RF**	**127R77**	**DRN**	**63M4**	270	404
0.20	6722	43000	**RM**	**127R77**	**DRN**	**63M4**	365	404
0.22	6347	43000						
0.22	6185	43000						
0.25	5592	43000	**R**	**127R77**	**DRN**	**71MS4**	260	404
0.30	4740	43000	**RF**	**127R77**	**DRN**	**71MS4**	270	404
0.32	4441	43000	**RM**	**127R77**	**DRN**	**71MS4**	365	404
0.36	3949	43000						
0.38	3764	43000	**R**	**127R77**	**DRN**	**71M4**	260	404
0.40	3571	43000	**RF**	**127R77**	**DRN**	**71M4**	275	404
0.46	3110	43000	**RM**	**127R77**	**DRN**	**71M4**	370	404
0.51	2812	43000	**R**	**127R77**	**DRN**	**80MK4**	265	404
0.60	2383	43000	**RF**	**127R77**	**DRN**	**80MK4**	275	404
0.74	1934	43000	**RM**	**127R77**	**DRN**	**80MK4**	370	404
0.78	1835	43000	**R**	**127R77**	**DRN**	**80M4**	265	404
0.93	1555	43000	**RF**	**127R77**	**DRN**	**80M4**	280	404
1.0	1444	43000	**RM**	**127R77**	**DRN**	**80M4**	375	404
1.2	1224	43000	**R**	**127R77**	**DRN**	**90S4**	270	404
			RF	**127R77**	**DRN**	**90S4**	285	404
			RM	**127R77**	**DRN**	**90S4**	380	404
0.40	3495	43000	**R**	**127R77**	**DRN**	**71M4**	245	404
0.46	3056	43000	**RF**	**127R77**	**DRN**	**71M4**	265	404
0.49	2903	43000	**RM**	**127R77**	**DRN**	**71M4**	360	404
0.56	2547	43000	**R**	**127R77**	**DRN**	**80MK4**	250	404
0.66	2161	43000	**RF**	**127R77**	**DRN**	**80MK4**	270	404
0.74	1951	43000	**RM**	**127R77**	**DRN**	**80MK4**	365	404
0.84	1716	43000	**R**	**127R77**	**DRN**	**80M4**	250	404
0.89	1620	43000	**RF**	**127R77**	**DRN**	**80M4**	270	404
1.0	1380	43000	**RM**	**127R77**	**DRN**	**80M4**	370	404
1.2	1210	43000	**R**	**127R77**	**DRN**	**90S4**	255	404
1.5	961	43000	**RF**	**127R77**	**DRN**	**90S4**	275	404
			RM	**127R77**	**DRN**	**90S4**	375	404
1.9	773	43000	**R**	**127R77**	**DRN**	**90L4**	260	404
			RF	**127R77**	**DRN**	**90L4**	280	404
			RM	**127R77**	**DRN**	**90L4**	375	404
2.4	608	43000	**R**	**127R77**	**DRN**	**100LS4**	265	404
			RF	**127R77**	**DRN**	**100LS4**	285	404
			RM	**127R77**	**DRN**	**100LS4**	380	404

26883198/EN – 04/2022

$M_{a\ max}$ = 6000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.57	2506	43000						
0.63	2266	43000	**R**	**127R77**	**DRN**	**80MK4**	265	404
0.71	2016	43000	**RF**	**127R77**	**DRN**	**80MK4**	275	404
0.75	1920	43000	**RM**	**127R77**	**DRN**	**80MK4**	370	404
0.79	1823	43000						
0.86	1673	43000	**R**	**127R77**	**DRN**	**80M4**	265	404
0.93	1545	43000	**RF**	**127R77**	**DRN**	**80M4**	275	404
0.95	1512	43000	**RM**	**127R77**	**DRN**	**80M4**	375	404
1.1	1322	43000						
1.1	1282	43000						
1.2	1195	43000						
1.2	1164	43000	**R**	**127R77**	**DRN**	**90S4**	270	404
1.4	1034	43000	**RF**	**127R77**	**DRN**	**90S4**	280	404
1.4	1013	43000	**RM**	**127R77**	**DRN**	**90S4**	380	404
1.5	987	43000						
1.6	936	43000						
1.6	935	43000						
1.8	830	43000						
1.8	794	43000	**R**	**127R77**	**DRN**	**90L4**	275	404
1.8	792	43000	**RF**	**127R77**	**DRN**	**90L4**	285	404
1.9	777	43000	**RM**	**127R77**	**DRN**	**90L4**	380	404
1.9	750	43000						
2.2	659	43000						
2.3	642	43000						
2.3	636	43000						
2.4	614	43000	**R**	**127R77**	**DRN**	**100LS4**	280	404
2.5	581	43000	**RF**	**127R77**	**DRN**	**100LS4**	290	404
2.8	521	43000	**RM**	**127R77**	**DRN**	**100LS4**	385	404
2.9	492	43000						
3.0	480	43000						
3.6	407	43000	**R**	**127R77**	**DRN**	**100L4**	285	404
3.8	386	43000	**RF**	**127R77**	**DRN**	**100L4**	295	404
			RM	**127R77**	**DRN**	**100L4**	395	404
4.9	298	43000	**R**	**127R77**	**DRN**	**112M4**	295	404
5.8	253	43000	**RF**	**127R77**	**DRN**	**112M4**	305	404
			RM	**127R77**	**DRN**	**112M4**	400	404
3.0	490	43000	**R**	**127R77**	**DRN**	**100LS4**	260	404
			RF	**127R77**	**DRN**	**100LS4**	285	404
			RM	**127R77**	**DRN**	**100LS4**	380	404
3.7	394	43000	**R**	**127R77**	**DRN**	**100L4**	270	404
4.5	327	43000	**RF**	**127R77**	**DRN**	**100L4**	290	404
			RM	**127R77**	**DRN**	**100L4**	385	404
5.7	259	43000	**R**	**127R77**	**DRN**	**112M4**	280	404
			RF	**127R77**	**DRN**	**112M4**	300	404
			RM	**127R77**	**DRN**	**112M4**	395	404
7.2	202	43000	**R**	**127R77**	**DRN**	**132S4**	290	404
			RF	**127R77**	**DRN**	**132S4**	310	404
			RM	**127R77**	**DRN**	**132S4**	405	404
9.0	162	43000	**R**	**127R77**	**DRN**	**132M4**	310	404
			RF	**127R77**	**DRN**	**132M4**	330	404
			RM	**127R77**	**DRN**	**132M4**	425	404
12	126	43000	**R**	**127R77**	**DRN**	**132L4**	315	404
			RF	**127R77**	**DRN**	**132L4**	335	404
			RM	**127R77**	**DRN**	**132L4**	435	404

$M_{a\ max}$ = 8000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	22203	53400						
0.07	18945	53400	**R**	**137R77**	**DRN**	**63MS4**	290	404
0.08	16566	53400	**RF**	**137R77**	**DRN**	**63MS4**	310	404
0.09	14777	53400	**RM**	**137R77**	**DRN**	**63MS4**	425	404
0.11	12921	53400						

26883198/EN – 04/2022

$M_{a\ max}$ = 8000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11712	53400	**R**	**137R77**	**DRN**	**63M4**	290	404
0.13	10573	53400	**RF**	**137R77**	**DRN**	**63M4**	315	404
0.16	8784	53400	**RM**	**137R77**	**DRN**	**63M4**	425	404
0.19	7479	53400	**R**	**137R77**	**DRN**	**71MS4**	290	404
0.21	6559	53400	**RF**	**137R77**	**DRN**	**71MS4**	315	404
			RM	**137R77**	**DRN**	**71MS4**	425	404
0.24	5834	53400	**R**	**137R77**	**DRN**	**71M4**	290	404
0.28	5116	53400	**RF**	**137R77**	**DRN**	**71M4**	315	404
0.32	4464	53400	**RM**	**137R77**	**DRN**	**71M4**	425	404
0.36	3928	53400						
0.42	3454	53400	**R**	**137R77**	**DRN**	**80MK4**	295	404
0.48	2993	53400	**RF**	**137R77**	**DRN**	**80MK4**	315	404
			RM	**137R77**	**DRN**	**80MK4**	430	404
0.30	4709	53400	**R**	**137R77**	**DRN**	**71M4**	280	404
0.35	4018	53400	**RF**	**137R77**	**DRN**	**71M4**	305	404
			RM	**137R77**	**DRN**	**71M4**	415	404
0.41	3514	53400	**R**	**137R77**	**DRN**	**80MK4**	285	404
0.43	3338	53400	**RF**	**137R77**	**DRN**	**80MK4**	305	404
0.49	2929	53400	**RM**	**137R77**	**DRN**	**80MK4**	420	404
0.58	2484	53400						
0.64	2242	53400	**R**	**137R77**	**DRN**	**80M4**	285	404
0.77	1863	53400	**RF**	**137R77**	**DRN**	**80M4**	310	404
			RM	**137R77**	**DRN**	**80M4**	420	404
0.92	1586	53400	**R**	**137R77**	**DRN**	**90S4**	290	404
1.1	1391	53400	**RF**	**137R77**	**DRN**	**90S4**	315	404
1.2	1256	53400	**RM**	**137R77**	**DRN**	**90S4**	425	404
1.3	1105	53400	**R**	**137R77**	**DRN**	**90L4**	295	404
1.4	1043	53400	**RF**	**137R77**	**DRN**	**90L4**	320	404
			RM	**137R77**	**DRN**	**90L4**	430	404
1.6	888	53400	**R**	**137R77**	**DRN**	**100LS4**	300	404
2.1	699	53400	**RF**	**137R77**	**DRN**	**100LS4**	325	404
2.4	609	53400	**RM**	**137R77**	**DRN**	**100LS4**	435	404
0.54	2658	53400	**R**	**137R77**	**DRN**	**80MK4**	295	404
			RF	**137R77**	**DRN**	**80MK4**	315	404
			RM	**137R77**	**DRN**	**80MK4**	425	404
0.60	2412	53400	**R**	**137R77**	**DRN**	**80M4**	295	404
0.69	2073	53400	**RF**	**137R77**	**DRN**	**80M4**	320	404
0.78	1839	53400	**RM**	**137R77**	**DRN**	**80M4**	430	404
0.91	1598	53400	**R**	**137R77**	**DRN**	**90S4**	300	404
1.0	1397	53400	**RF**	**137R77**	**DRN**	**90S4**	325	404
1.2	1226	53400	**RM**	**137R77**	**DRN**	**90S4**	435	404
1.3	1090	53400	**R**	**137R77**	**DRN**	**90L4**	305	404
1.5	951	53400	**RF**	**137R77**	**DRN**	**90L4**	325	404
			RM	**137R77**	**DRN**	**90L4**	440	404
1.7	831	53400	**R**	**137R77**	**DRN**	**100LS4**	310	404
2.0	730	53400	**RF**	**137R77**	**DRN**	**100LS4**	330	404
2.3	629	53400	**RM**	**137R77**	**DRN**	**100LS4**	445	404
2.6	560	53400	**R**	**137R77**	**DRN**	**100L4**	315	404
3.0	490	53400	**RF**	**137R77**	**DRN**	**100L4**	340	404
			RM	**137R77**	**DRN**	**100L4**	450	404
3.4	428	53400	**R**	**137R77**	**DRN**	**112M4**	325	404
3.8	381	53400	**RF**	**137R77**	**DRN**	**112M4**	350	404
			RM	**137R77**	**DRN**	**112M4**	460	404
4.5	323	53400	**R**	**137R77**	**DRN**	**132S4**	335	404
5.0	291	53400	**RF**	**137R77**	**DRN**	**132S4**	360	404
5.7	255	53400	**RM**	**137R77**	**DRN**	**132S4**	470	404
6.6	223	53400	**R**	**137R77**	**DRN**	**132M4**	355	404
7.4	197	53400	**RF**	**137R77**	**DRN**	**132M4**	375	404
			RM	**137R77**	**DRN**	**132M4**	490	404
8.4	175	53400	**R**	**137R77**	**DRN**	**132L4**	360	404
			RF	**137R77**	**DRN**	**132L4**	385	404
			RM	**137R77**	**DRN**	**132L4**	495	404

26883198/EN – 04/2022

$M_{a\ max}$ = 8000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.6	564	53400	**R**	**137R77**	**DRN**	**100L4**	305	404
2.8	517	53400	**RF**	**137R77**	**DRN**	**100L4**	330	404
3.2	453	53400	**RM**	**137R77**	**DRN**	**100L4**	440	404
3.9	376	53400	**R**	**137R77**	**DRN**	**112M4**	315	404
4.3	339	53400	**RF**	**137R77**	**DRN**	**112M4**	340	404
			RM	**137R77**	**DRN**	**112M4**	450	404
4.9	297	53400	**R**	**137R77**	**DRN**	**132S4**	325	404
			RF	**137R77**	**DRN**	**132S4**	350	404
			RM	**137R77**	**DRN**	**132S4**	460	404

$M_{a\ max}$ = 13000 Nm

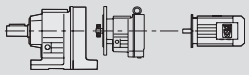
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	23401	62700	**R**	**147R77**	**DRN**	**63MS4**	420	404
0.06	21342	62700	**RF**	**147R77**	**DRN**	**63MS4**	430	404
			RM	**147R77**	**DRN**	**63MS4**	600	404
0.08	18210	62700	**R**	**147R77**	**DRN**	**63M4**	420	404
0.09	15923	62700	**RF**	**147R77**	**DRN**	**63M4**	430	404
0.10	14075	62700	**RM**	**147R77**	**DRN**	**63M4**	600	404
0.11	12344	62700	**R**	**147R77**	**DRN**	**71MS4**	420	404
0.13	11143	62700	**RF**	**147R77**	**DRN**	**71MS4**	430	404
0.14	9743	62700	**RM**	**147R77**	**DRN**	**71MS4**	600	404
0.17	8443	62700	**R**	**147R77**	**DRN**	**71M4**	425	404
0.19	7307	62700	**RF**	**147R77**	**DRN**	**71M4**	430	404
0.22	6447	62700	**RM**	**147R77**	**DRN**	**71M4**	600	404
0.26	5568	62700	**R**	**147R77**	**DRN**	**80MK4**	425	404
0.29	4926	62700	**RF**	**147R77**	**DRN**	**80MK4**	435	404
0.33	4325	62700	**RM**	**147R77**	**DRN**	**80MK4**	600	404
0.38	3754	62700	**R**	**147R77**	**DRN**	**80M4**	430	404
0.44	3302	62700	**RF**	**147R77**	**DRN**	**80M4**	435	404
			RM	**147R77**	**DRN**	**80M4**	600	404
0.50	2898	62700	**R**	**147R77**	**DRN**	**90S4**	435	404
			RF	**147R77**	**DRN**	**90S4**	440	404
			RM	**147R77**	**DRN**	**90S4**	610	404
0.57	2555	62700	**R**	**147R77**	**DRN**	**90S4**	435	404
0.66	2211	62700	**RF**	**147R77**	**DRN**	**90S4**	440	404
			RM	**147R77**	**DRN**	**90S4**	610	404
0.75	1951	62700	**R**	**147R77**	**DRN**	**90L4**	435	404
0.86	1705	62700	**RF**	**147R77**	**DRN**	**90L4**	445	404
0.95	1536	62700	**RM**	**147R77**	**DRN**	**90L4**	610	404
1.1	1329	62700	**R**	**147R77**	**DRN**	**100LS4**	440	404
1.2	1166	62700	**RF**	**147R77**	**DRN**	**100LS4**	450	404
1.4	1029	62700	**RM**	**147R77**	**DRN**	**100LS4**	620	404
1.6	889	62700	**R**	**147R77**	**DRN**	**100L4**	445	404
1.9	784	62700	**RF**	**147R77**	**DRN**	**100L4**	455	404
			RM	**147R77**	**DRN**	**100L4**	620	404
2.1	695	62700	**R**	**147R77**	**DRN**	**112M4**	455	404
2.4	619	62700	**RF**	**147R77**	**DRN**	**112M4**	465	404
2.6	558	62700	**RM**	**147R77**	**DRN**	**112M4**	630	404
3.0	489	62700	**R**	**147R77**	**DRN**	**132S4**	470	404
3.5	415	62700	**RF**	**147R77**	**DRN**	**132S4**	475	404
			RM	**147R77**	**DRN**	**132S4**	640	404
2.7	533	62700	**R**	**147R87**	**DRN**	**132S4**	490	404
3.2	462	62700	**RF**	**147R87**	**DRN**	**132S4**	495	404
3.4	426	62700	**RM**	**147R87**	**DRN**	**132S4**	660	404
4.0	368	62700	**R**	**147R87**	**DRN**	**132M4**	510	404
4.5	326	62700	**RF**	**147R87**	**DRN**	**132M4**	510	404
			RM	**147R87**	**DRN**	**132M4**	680	404
5.2	280	62700	**R**	**147R87**	**DRN**	**132L4**	510	404
6.0	247	62700	**RF**	**147R87**	**DRN**	**132L4**	520	404
			RM	**147R87**	**DRN**	**132L4**	690	404

26883198/EN – 04/2022

$M_{a\,max}$ = 13000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
6.9	214	62700	R	147R87	DRN	160M4		550	404
			RF	147R87	DRN	160M4		560	404
			RM	147R87	DRN	160M4		720	404
7.8	189	62700	R	147R87	DRN	160L4		560	404
9.3	159	62700	RF	147R87	DRN	160L4		570	404
			RM	147R87	DRN	160L4		740	404

$M_{a\,max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.05	27001	120000	R	167R97	DRN	71MS4		750	405
			RF	167R97	DRN	71MS4		760	405
			RM	167R97	DRN	71MS4		950	405
0.06	22482	120000	R	167R97	DRN	71MS4		750	405
0.07	20002	120000	RF	167R97	DRN	71MS4		760	405
0.08	17361	120000	RM	167R97	DRN	71MS4		950	405
0.09	15446	120000	R	167R97	DRN	71M4		750	405
0.10	14051	120000	RF	167R97	DRN	71M4		760	405
0.12	11812	120000	RM	167R97	DRN	71M4		960	405
0.13	10509	120000							
0.15	9631	120000	R	167R97	DRN	80MK4		760	405
			RF	167R97	DRN	80MK4		760	405
			RM	167R97	DRN	80MK4		960	405
0.19	7749	120000	R	167R97	DRN	80M4		760	405
0.21	6894	120000	RF	167R97	DRN	80M4		770	405
0.24	6077	120000	RM	167R97	DRN	80M4		960	405
0.27	5407	120000							
0.31	4650	120000	R	167R97	DRN	90S4		760	405
0.35	4129	120000	RF	167R97	DRN	90S4		770	405
0.39	3692	120000	RM	167R97	DRN	90S4		970	405
0.47	3099	120000	R	167R97	DRN	100LS4		770	405
			RF	167R97	DRN	100LS4		780	405
			RM	167R97	DRN	100LS4		970	405
0.55	2657	120000	R	167R97	DRN	90L4		760	405
0.63	2333	120000	RF	167R97	DRN	90L4		770	405
			RM	167R97	DRN	90L4		970	405
0.70	2085	120000	R	167R97	DRN	100LS4		770	405
0.77	1877	120000	RF	167R97	DRN	100LS4		780	405
0.87	1670	120000	RM	167R97	DRN	100LS4		970	405
1.0	1438	120000	R	167R97	DRN	100L4		780	405
1.1	1279	120000	RF	167R97	DRN	100L4		780	405
1.3	1123	120000	RM	167R97	DRN	100L4		980	405
1.5	999	120000	R	167R97	DRN	112M4		780	405
1.7	861	120000	RF	167R97	DRN	112M4		790	405
			RM	167R97	DRN	112M4		990	405
1.9	760	120000	R	167R97	DRN	132S4		800	405
2.2	656	120000	RF	167R97	DRN	132S4		800	405
			RM	167R97	DRN	132S4		1000	405
2.5	579	120000	R	167R97	DRN	132M4		810	405
2.9	503	120000	RF	167R97	DRN	132M4		820	405
			RM	167R97	DRN	132M4		1020	405
3.4	432	120000	R	167R97	DRN	132L4		820	405
3.9	376	120000	RF	167R97	DRN	132L4		830	405
			RM	167R97	DRN	132L4		1020	405
4.4	335	120000	R	167R97	DRN	160M4		860	405
4.9	303	120000	RF	167R97	DRN	160M4		860	405
			RM	167R97	DRN	160M4		1060	405
5.3	279	120000	R	167R97	DRN	160L4		870	405
			RF	167R97	DRN	160L4		880	405
			RM	167R97	DRN	160L4		1070	405

26883198/EN – 04/2022

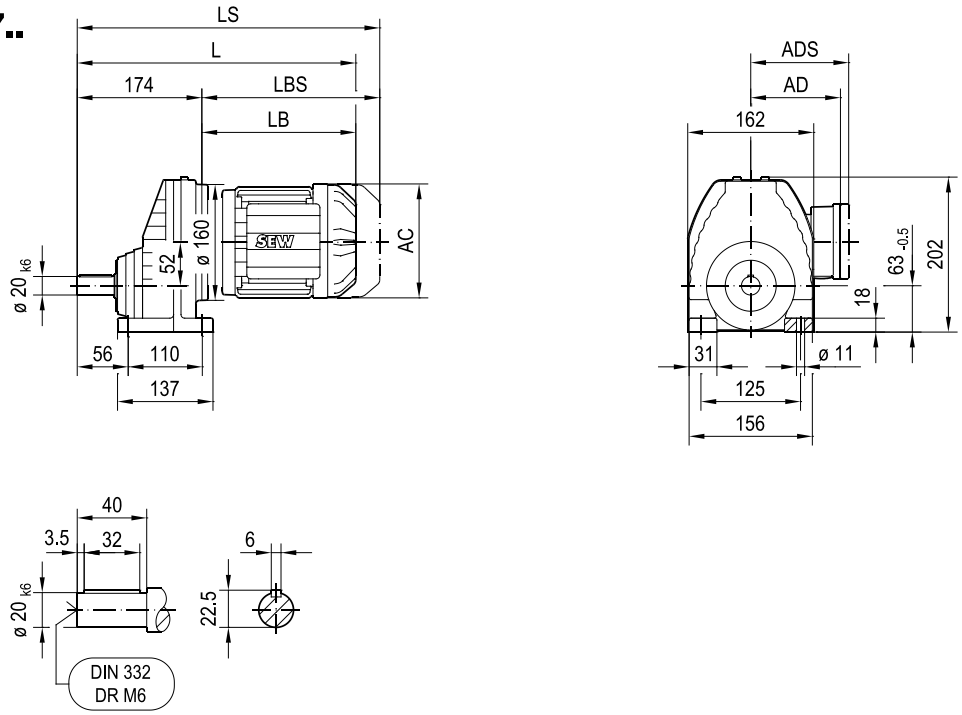
$M_{a\ max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.40	3637	120000							
0.44	3330	120000							
0.53	2757	120000							
0.60	2436	120000	**R**	**167R107**	**DRN**	**100LS4**		820	405
0.63	2298	120000	**RF**	**167R107**	**DRN**	**100LS4**		820	405
0.70	2066	120000	**RM**	**167R107**	**DRN**	**100LS4**		1020	405
0.78	1849	120000							
0.87	1674	120000							
0.98	1485	120000	**R**	**167R107**	**DRN**	**100L4**		820	405
1.1	1342	120000	**RF**	**167R107**	**DRN**	**100L4**		830	405
1.2	1229	120000	**RM**	**167R107**	**DRN**	**100L4**		1030	405
1.3	1111	120000	**R**	**167R107**	**DRN**	**112M4**		830	405
1.5	950	120000	**RF**	**167R107**	**DRN**	**112M4**		840	405
1.7	860	120000	**RM**	**167R107**	**DRN**	**112M4**		1030	405
			R	**167R107**	**DRN**	**132S4**		840	405
1.9	763	120000	**RF**	**167R107**	**DRN**	**132S4**		850	405
2.1	690	120000	**RM**	**167R107**	**DRN**	**132S4**		1040	405
			R	**167R107**	**DRN**	**132M4**		860	405
2.5	585	120000	**RF**	**167R107**	**DRN**	**132M4**		870	405
2.9	511	120000	**RM**	**167R107**	**DRN**	**132M4**		1060	405
			R	**167R107**	**DRN**	**160M4**		900	405
4.2	349	120000	**RF**	**167R107**	**DRN**	**160M4**		910	405
			RM	**167R107**	**DRN**	**160M4**		1100	405
5.0	295	120000	**R**	**167R107**	**DRN**	**160L4**		920	405
5.5	270	120000	**RF**	**167R107**	**DRN**	**160L4**		920	405
6.4	229	120000	**RM**	**167R107**	**DRN**	**160L4**		1120	405
			R	**167R107**	**DRN**	**180M4**		940	405
7.4	200	120000	**RF**	**167R107**	**DRN**	**180M4**		950	405
			RM	**167R107**	**DRN**	**180M4**		1140	405
			R	**167R107**	**DRN**	**180L4**		950	405
8.7	169	120000	**RF**	**167R107**	**DRN**	**180L4**		960	405
			RM	**167R107**	**DRN**	**180L4**		1160	405
			R	**167R107**	**DRN**	**132M4**		850	405
3.3	446	120000	**RF**	**167R107**	**DRN**	**132M4**		860	405
			RM	**167R107**	**DRN**	**132M4**		1060	405
			R	**167R107**	**DRN**	**132L4**		860	405
3.7	399	120000	**RF**	**167R107**	**DRN**	**132L4**		870	405
4.1	361	120000	**RM**	**167R107**	**DRN**	**132L4**		1070	405
			R	**167R107**	**DRN**	**160M4**		900	405
4.5	328	120000	**RF**	**167R107**	**DRN**	**160M4**		900	405
			RM	**167R107**	**DRN**	**160M4**		1100	405
5.1	291	120000	**R**	**167R107**	**DRN**	**160L4**		910	405
5.6	264	120000	**RF**	**167R107**	**DRN**	**160L4**		920	405
6.5	227	120000	**RM**	**167R107**	**DRN**	**160L4**		1110	405
			R	**167R107**	**DRN**	**180M4**		930	405
7.5	198	120000	**RF**	**167R107**	**DRN**	**180M4**		940	405
			RM	**167R107**	**DRN**	**180M4**		1130	405
			R	**167R107**	**DRN**	**180L4**		950	405
8.8	168	120000	**RF**	**167R107**	**DRN**	**180L4**		960	405
			RM	**167R107**	**DRN**	**180L4**		1150	405

26883198/EN – 04/2022

8.5 R..DRN.. dimension sheets in mm

01 004 00 14

RX57..



(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	358	372	373	393	404	421	449	451	483	479	529	560	614	632
LS	414	428	441	461	485	502	530	544	576	573	623	672	726	770
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

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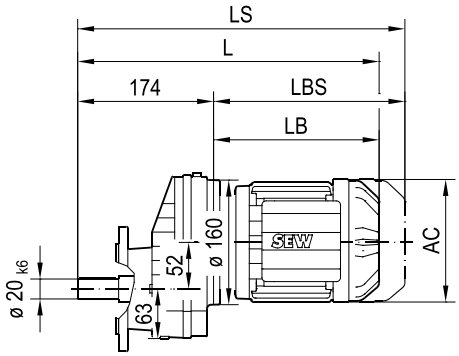
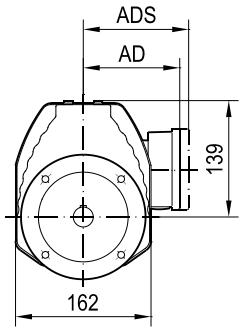
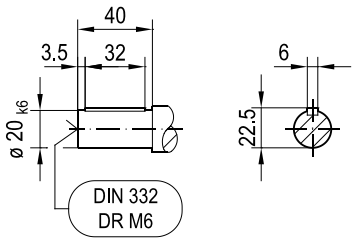
RXF57..







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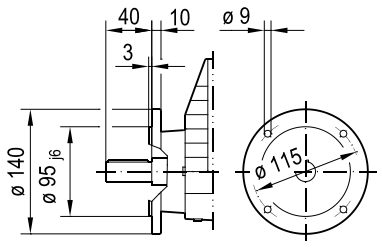

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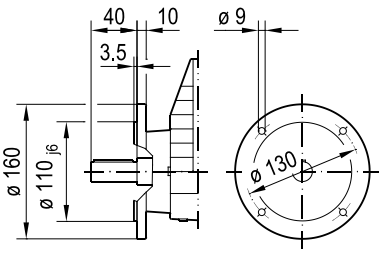

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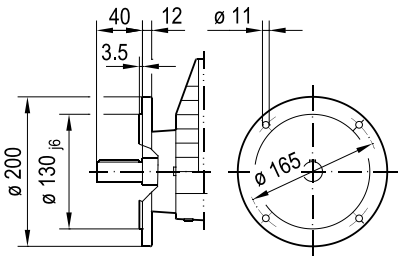

(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	358	372	373	393	404	421	449	451	483	479	529	560	614	632
LS	414	428	441	461	485	502	530	544	576	573	623	672	726	770
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

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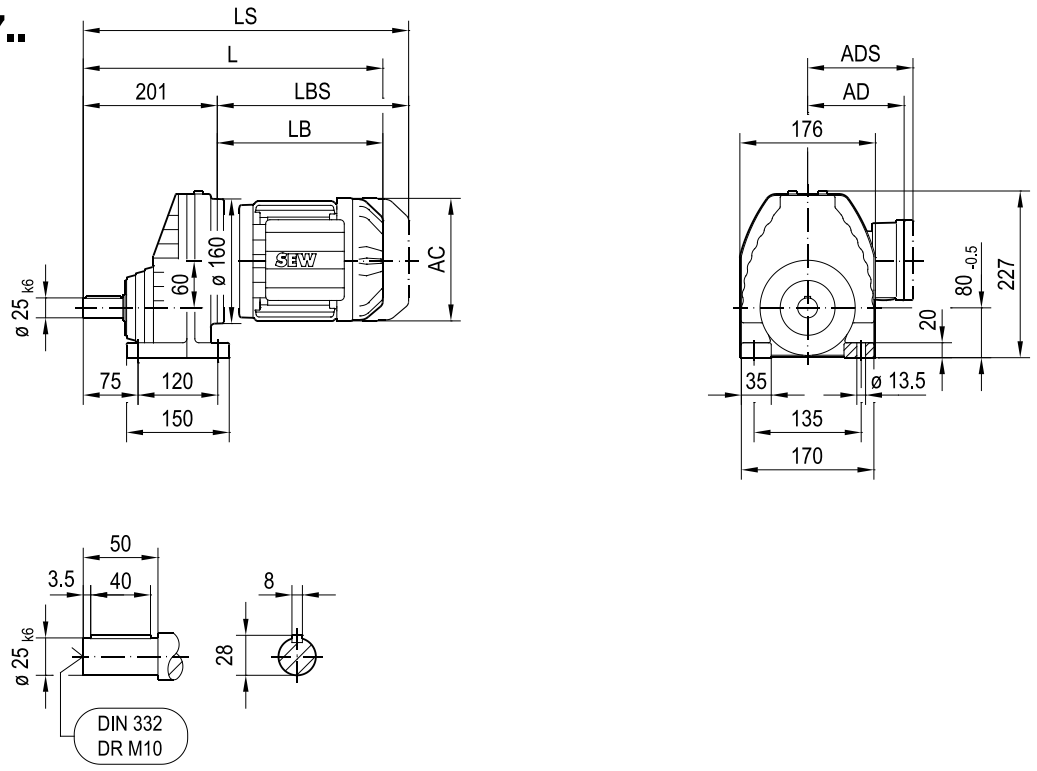
RX67..

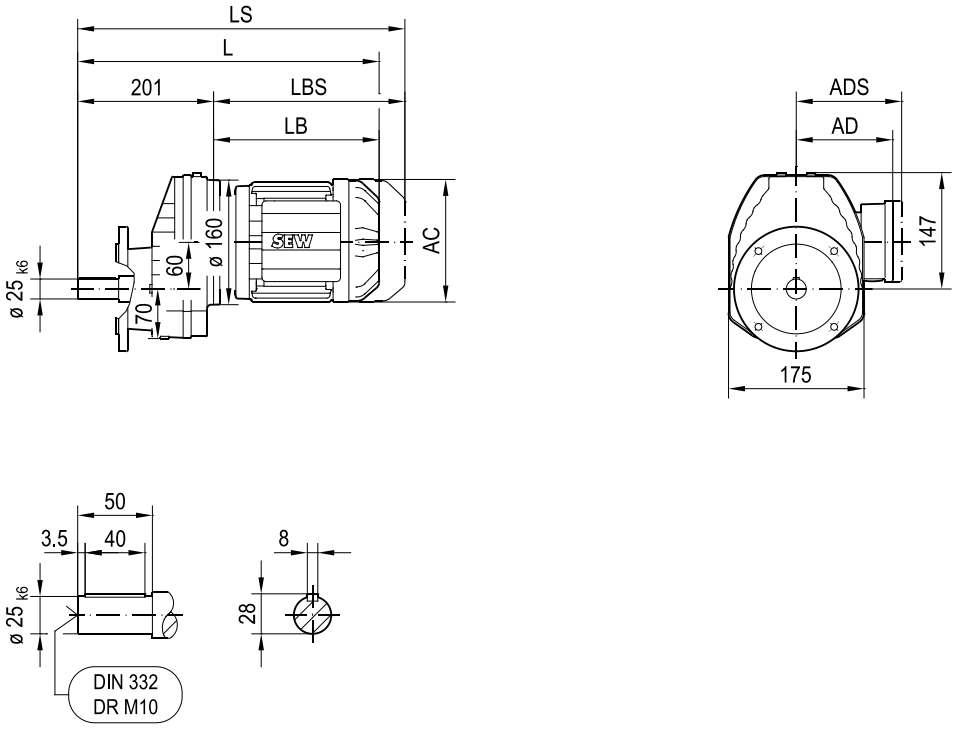


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	385	399	400	420	431	448	476	478	510	506	556	587	641	659
LS	441	455	468	488	512	529	557	571	603	600	650	699	753	797
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

01 007 00 14

RXF67..



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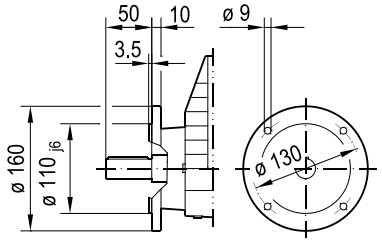

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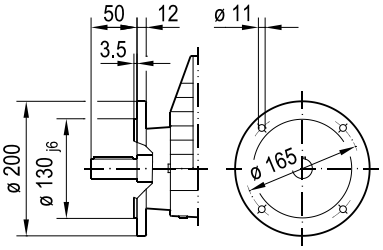

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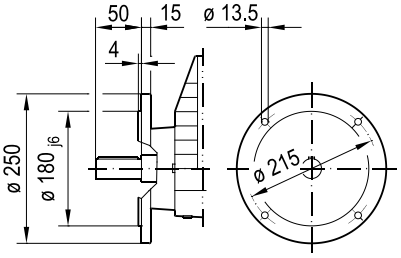
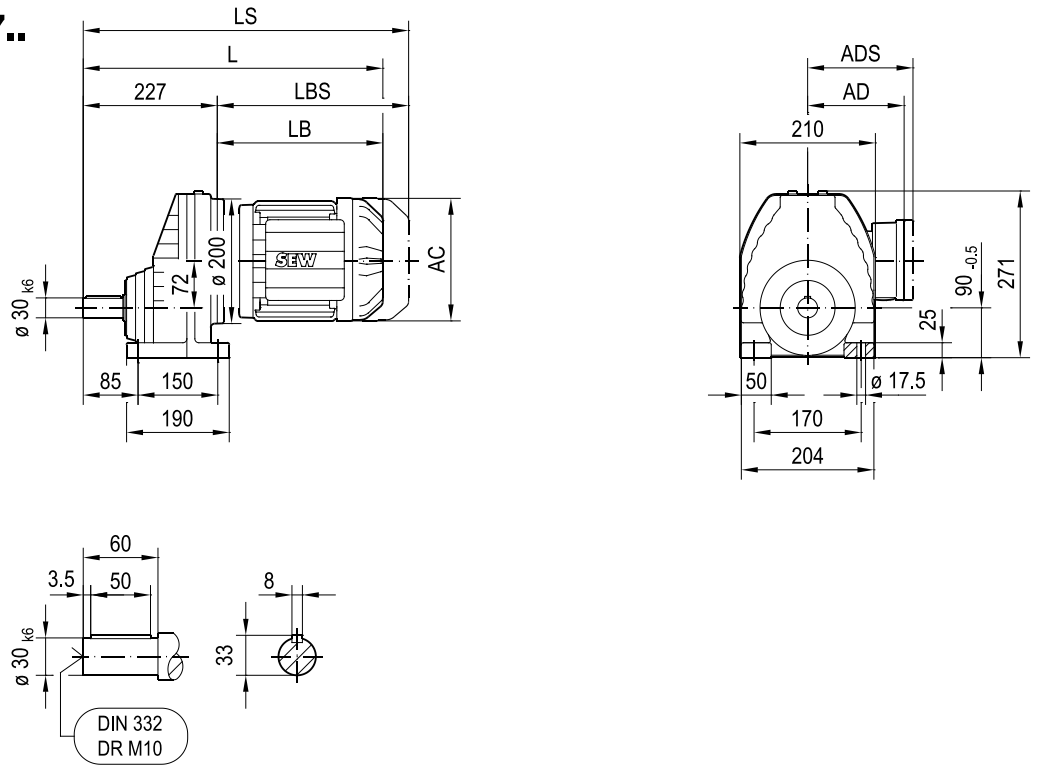


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	385	399	400	420	431	448	476	478	510	506	556	587	641	659
LS	441	455	468	488	512	529	557	571	603	600	650	699	753	797
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

01 008 00 14

RX77..

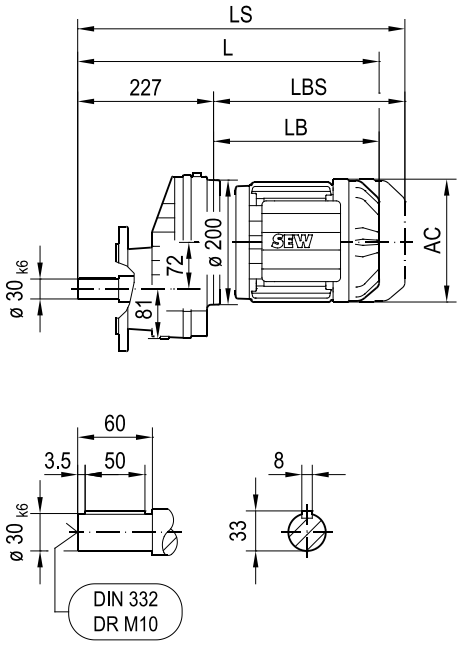


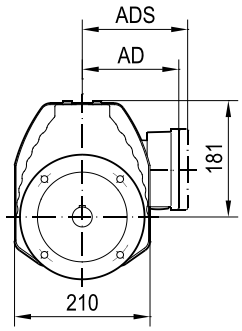
(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	419	439	450	467	495	497	529	525	575	606	656	674	700	766
LS	487	507	531	548	576	590	622	619	669	718	768	812	837	955
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

01 009 01 14

RXF77..





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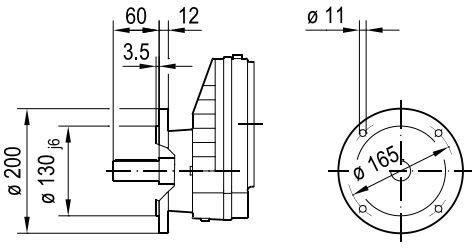
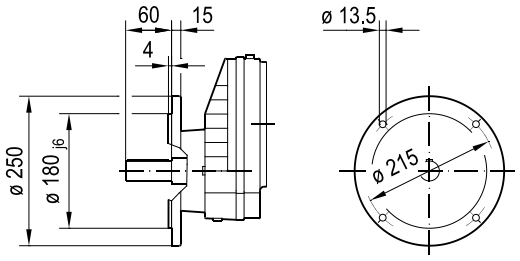


ø 250

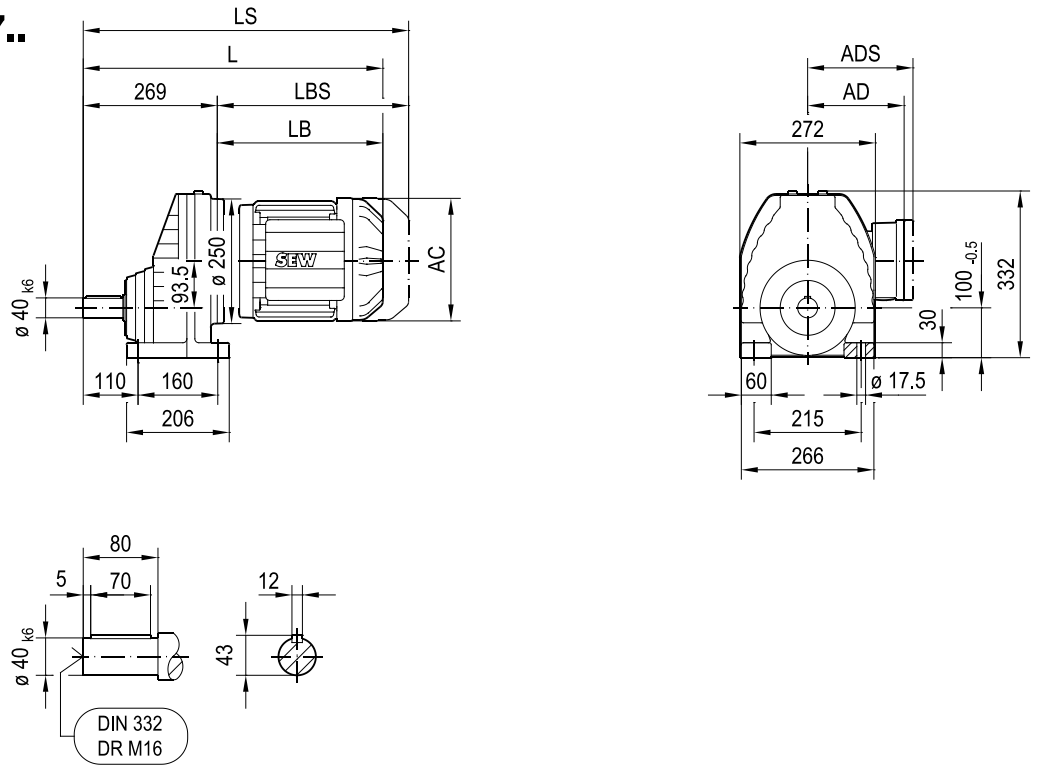


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	419	439	450	467	495	497	529	525	575	606	656	674	700	766
LS	487	507	531	548	576	590	622	619	669	718	768	812	837	955
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

01 010 00 14

RX87..

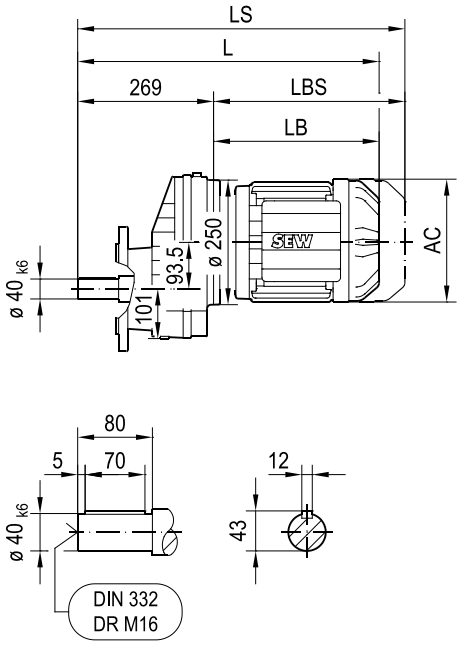


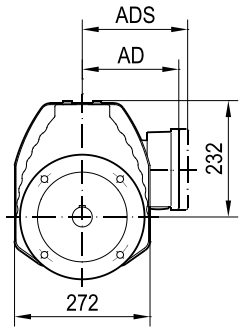
(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	487	532	534	566	562	612	643	693	711	737	803	826	936
LS	568	613	627	659	656	706	755	805	849	874	992	1015	1141
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

01 011 01 14

RXF87..





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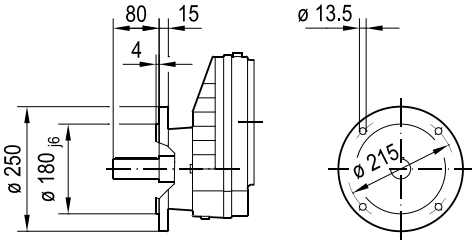

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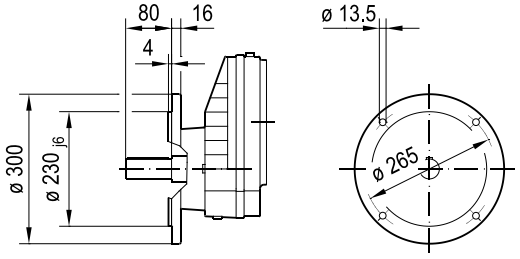
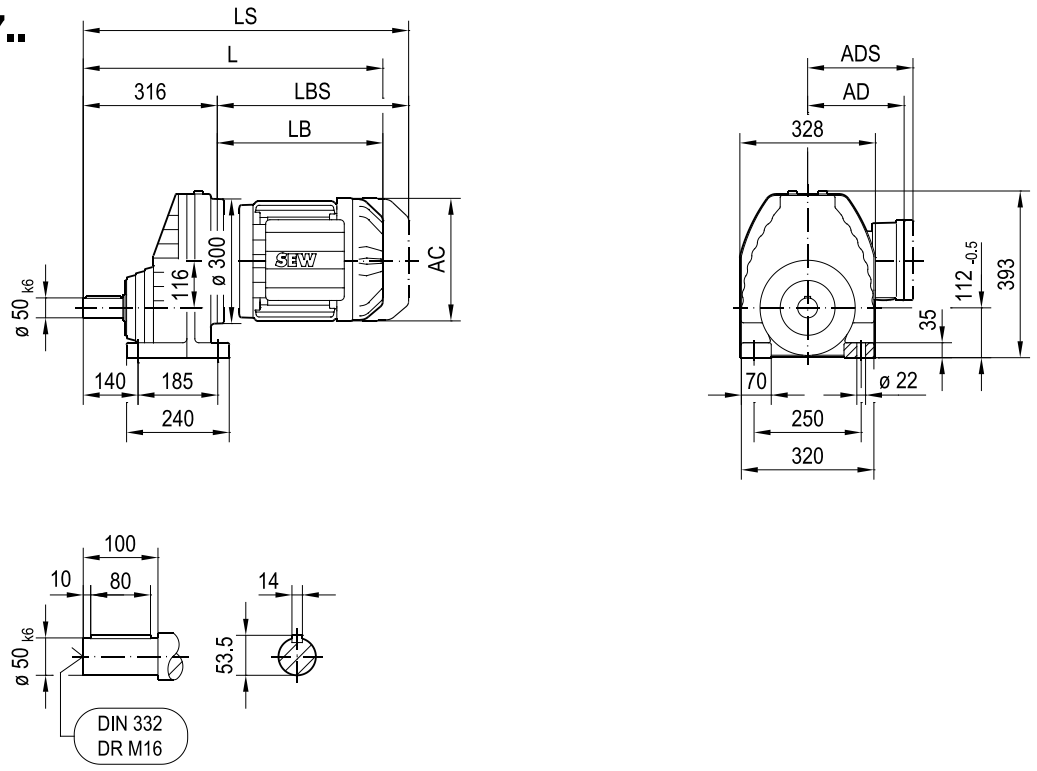


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	487	532	534	566	562	612	643	693	711	737	803	826	936
LS	568	613	627	659	656	706	755	805	849	874	992	1015	1141
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

01 012 00 14

RX97..

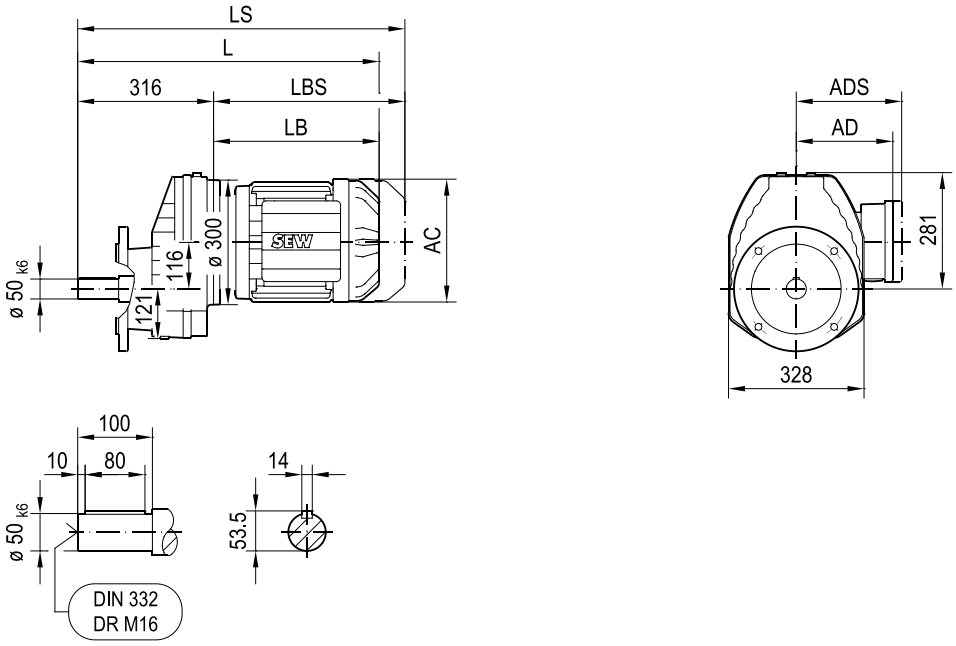


(→ 📖 7.3)	DRN												
	80MK	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	529	576	608	604	654	685	735	753	779	845	868	978	952
LS	610	669	701	698	748	797	847	891	916	1034	1057	1183	1157
LB	213	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

01 013 01 14

RXF97..



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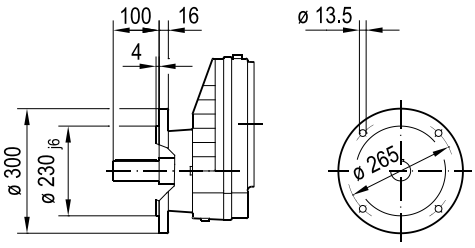

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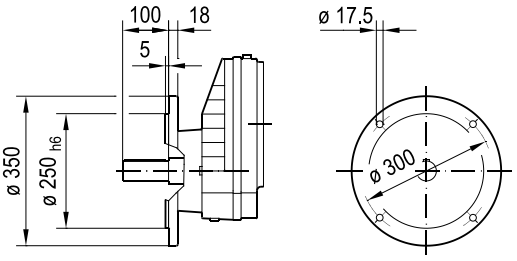
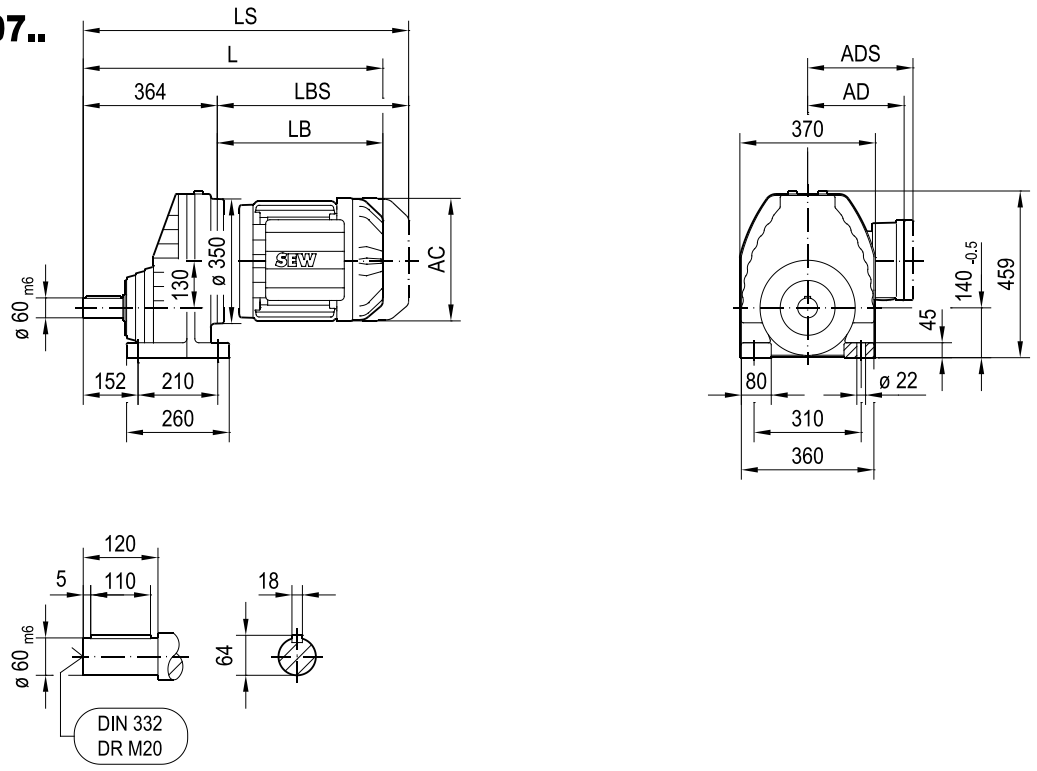


(→ 📖 7.3)	DRN												
	80MK	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	529	576	608	604	654	685	735	753	779	845	868	978	952
LS	610	669	701	698	748	797	847	891	916	1034	1057	1183	1157
LB	213	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

01 014 00 14

RX107..

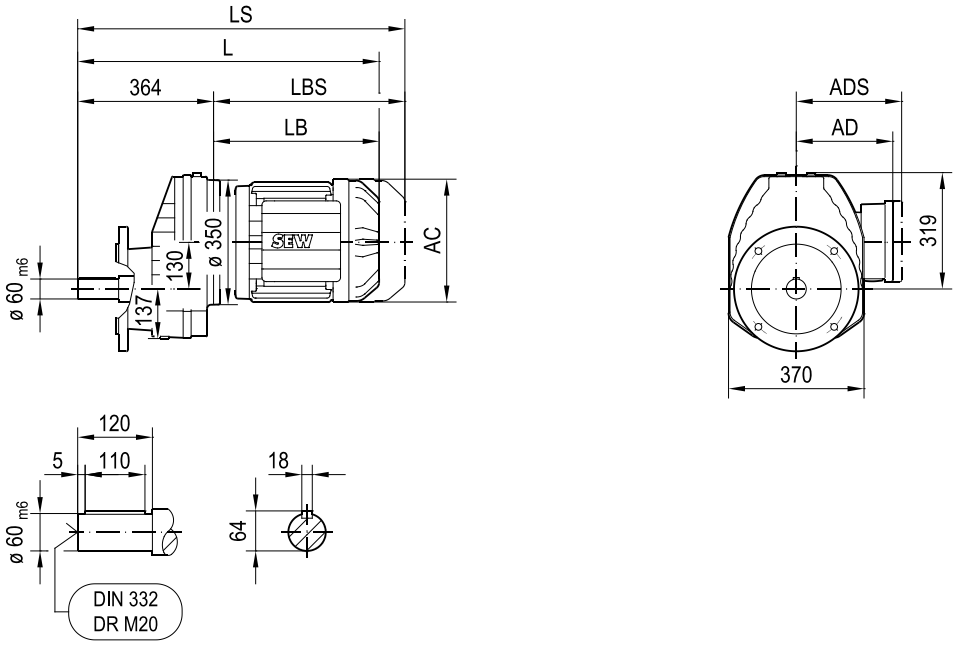


(→ 📖 7.3)	DRN									
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	221	221	261	261	314	357	394	434	495
AD	157	170	170	228	228	253	268	283	305	394
ADS	158	172	172	228	228	253	268	283	305	394
L	696	727	777	795	821	887	910	1020	994	1131
LS	790	839	889	933	958	1076	1099	1225	1199	1371
LB	332	363	413	431	457	523	546	656	630	767
LBS	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

01 015 01 14

RXF107..



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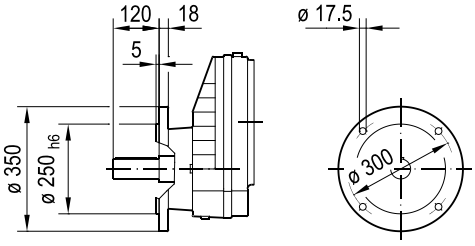

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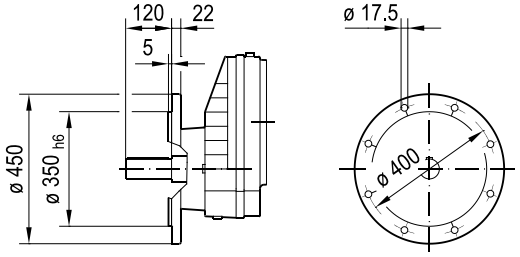
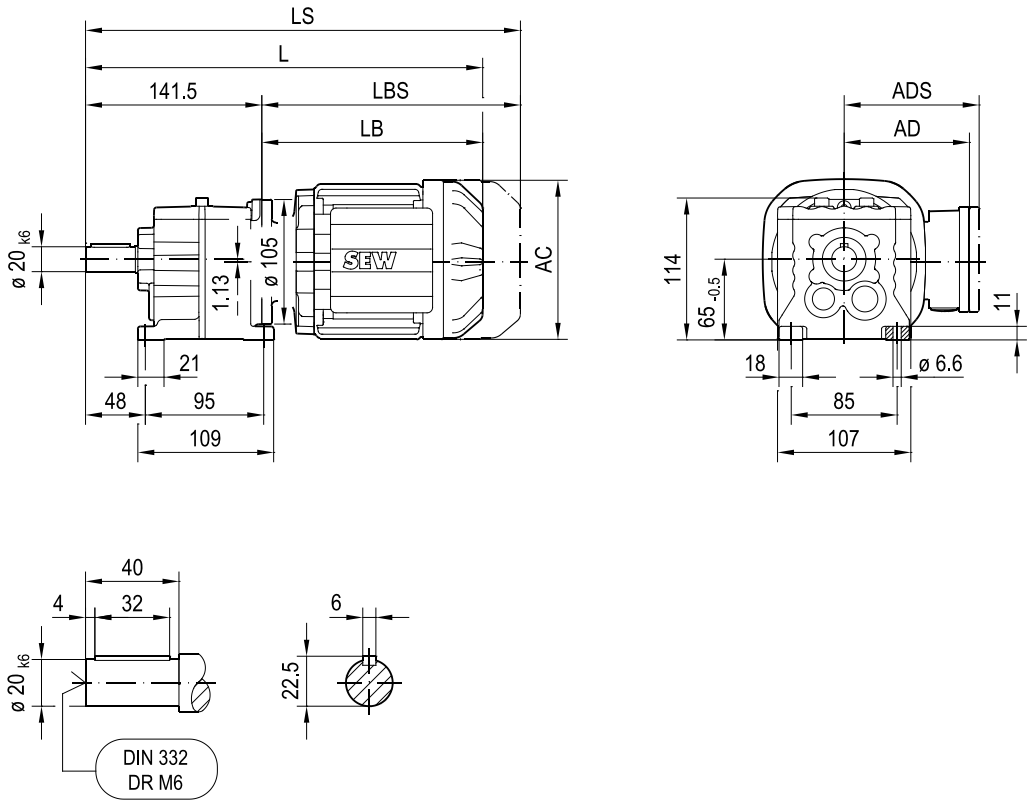


(→ 📖 7.3)	DRN									
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	221	221	261	261	314	357	394	434	495
AD	157	170	170	228	228	253	268	283	305	394
ADS	158	172	172	228	228	253	268	283	305	394
L	696	727	777	795	821	887	910	1020	994	1131
LS	790	839	889	933	958	1076	1099	1225	1199	1371
LB	332	363	413	431	457	523	546	656	630	767
LBS	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

01 561 00 17

R07..



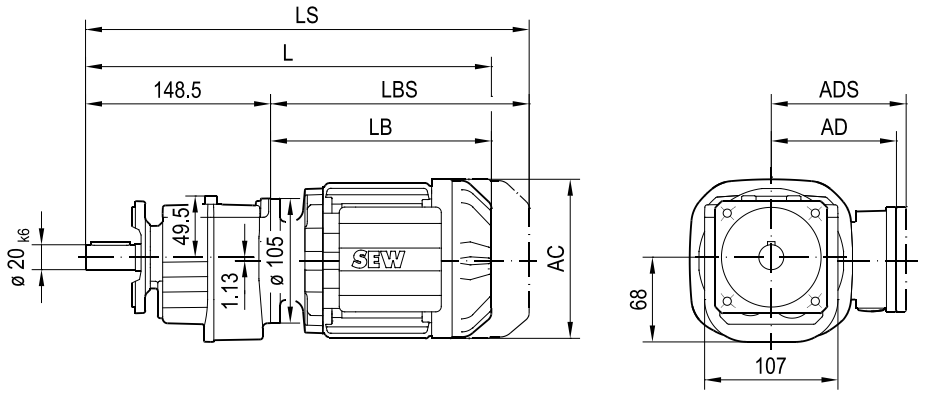
R07F..

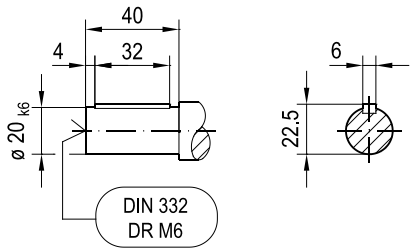
(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	302	332	346	347	367	378	391	425
LS	338	388	402	415	435	459	472	506
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

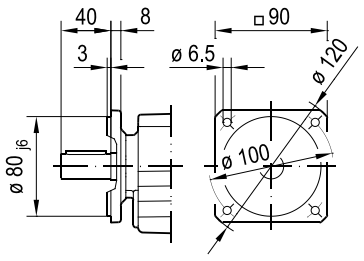
01 562 00 17

RF07..

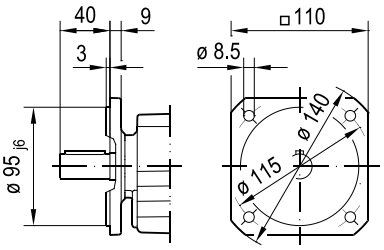




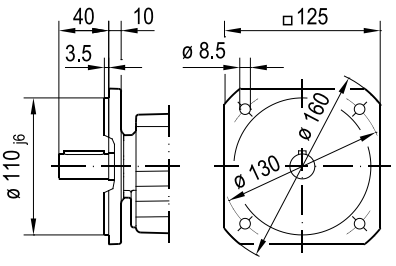
ø 120



ø 140



ø 160

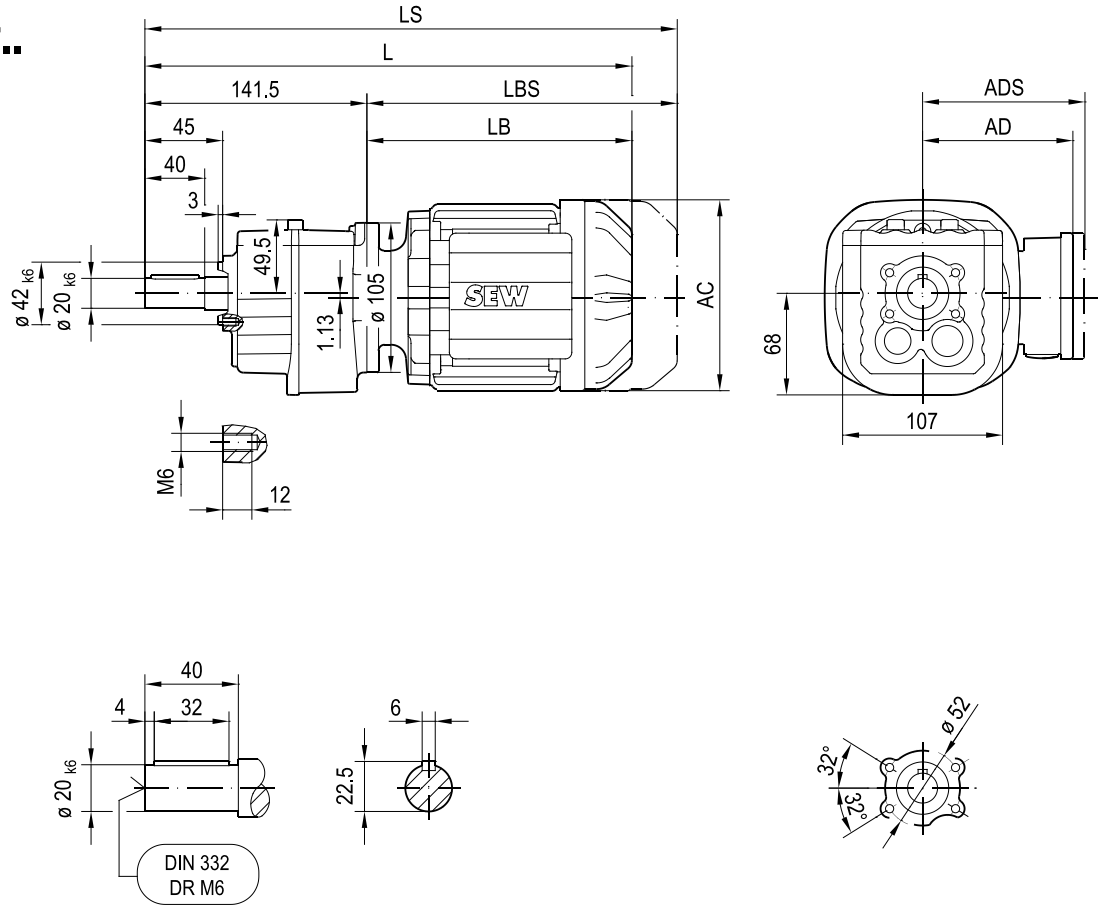


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	309	339	353	354	374	385	398	432
LS	345	395	409	422	442	466	479	513
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

01 563 00 17

RZ07..

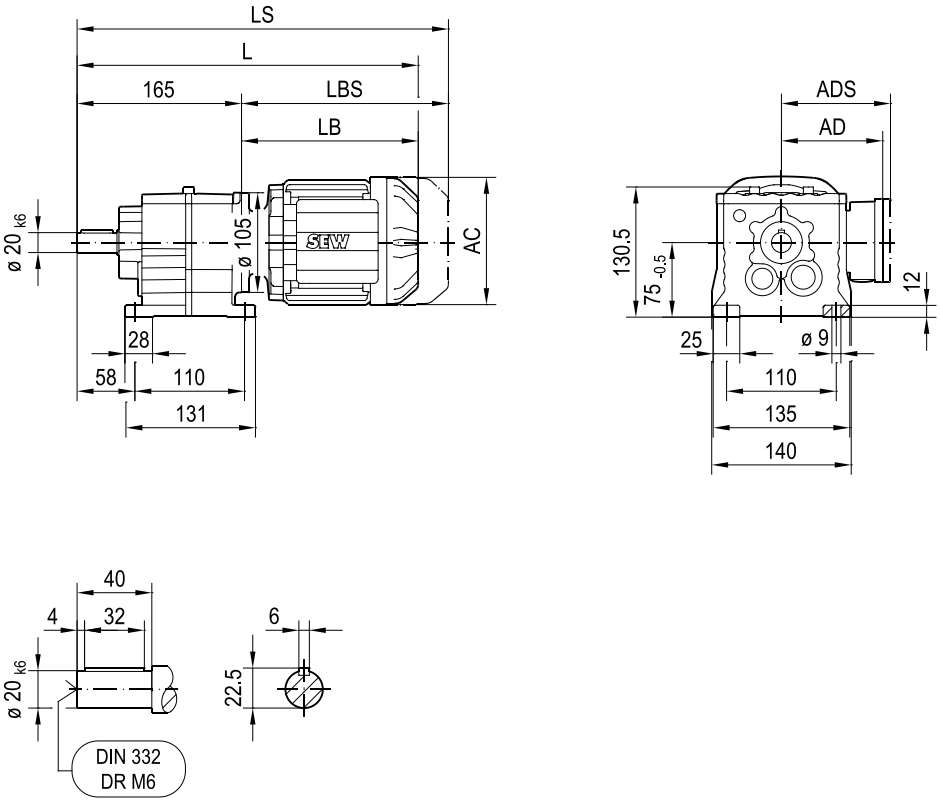


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	302	332	346	347	367	378	391	425
LS	338	388	402	415	435	459	472	506
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

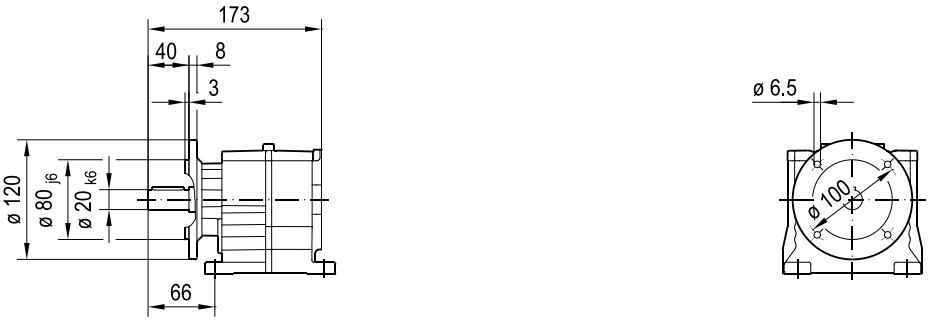
26883198/EN – 04/2022

01 564 01 17

R17..



R17F..

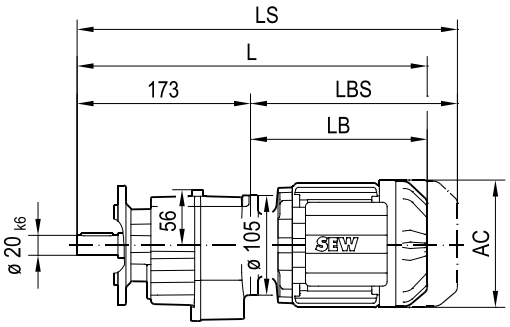


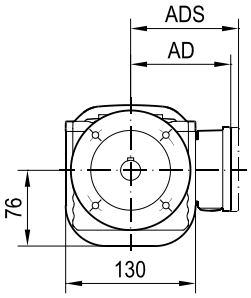
(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	325	355	369	371	391	402	414	448
LS	361	411	425	438	458	483	495	529
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

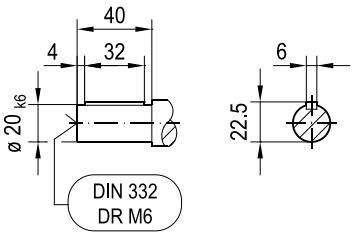
26883198/EN – 04/2022

01 565 01 17

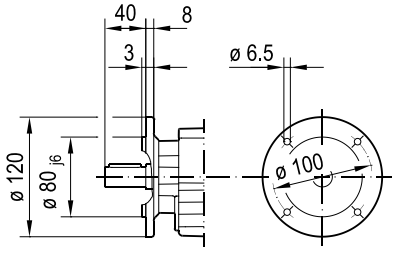
RF17..



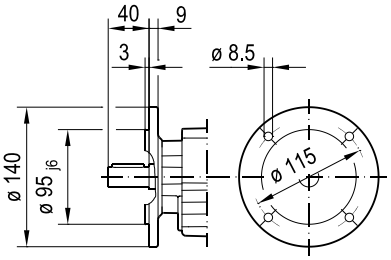




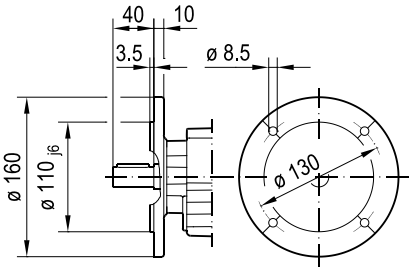
ø 120



ø 140



ø 160



(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	333	363	377	379	399	410	422	456
LS	369	419	433	446	466	491	503	537
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

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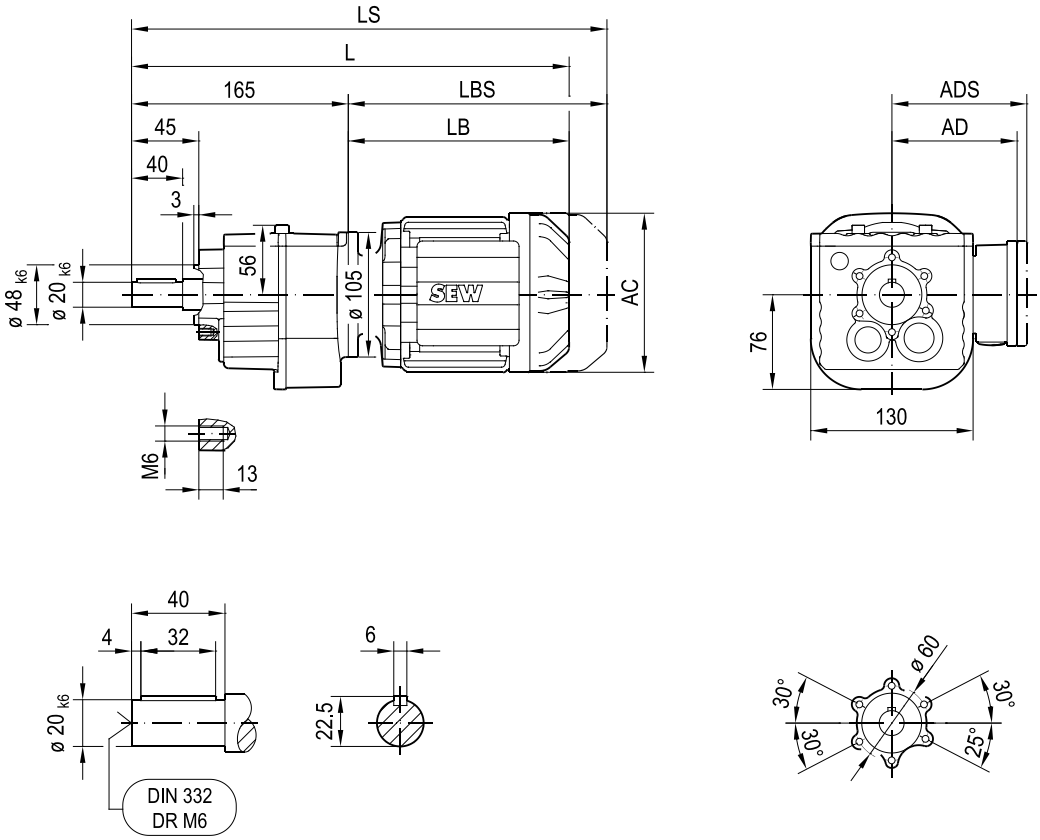
RZ17..



(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	325	355	369	371	391	402	414	448
LS	361	411	425	438	458	483	495	529
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

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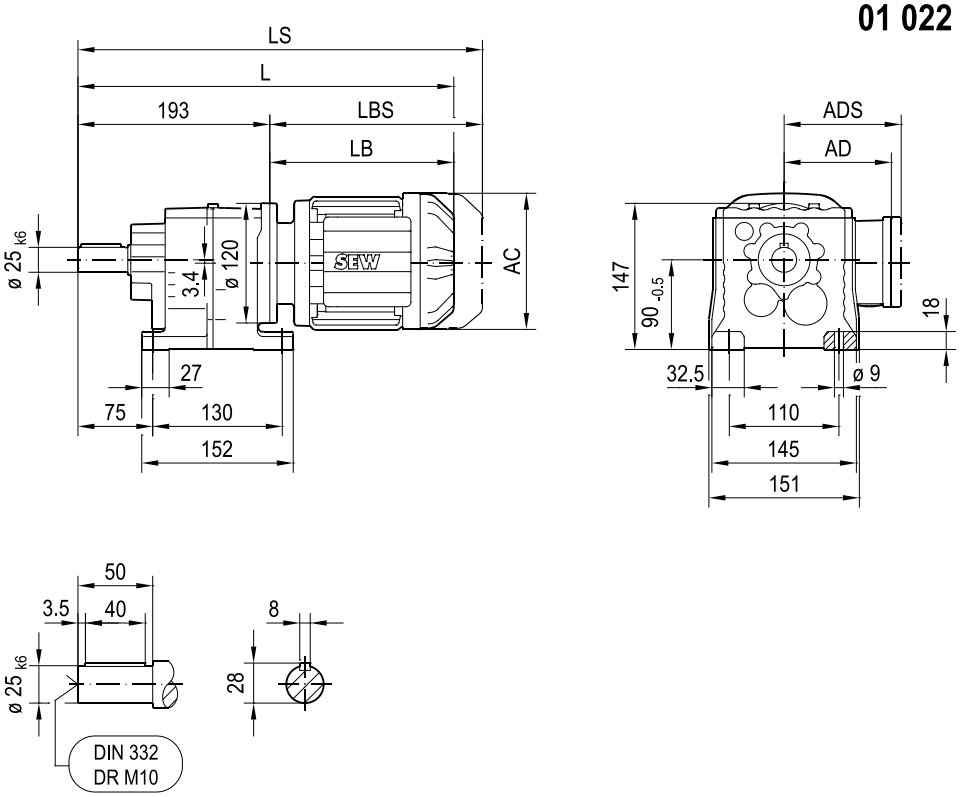
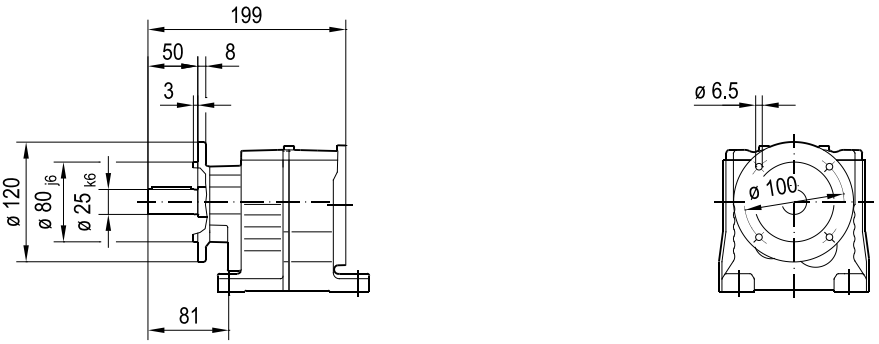
R27..



R27F..

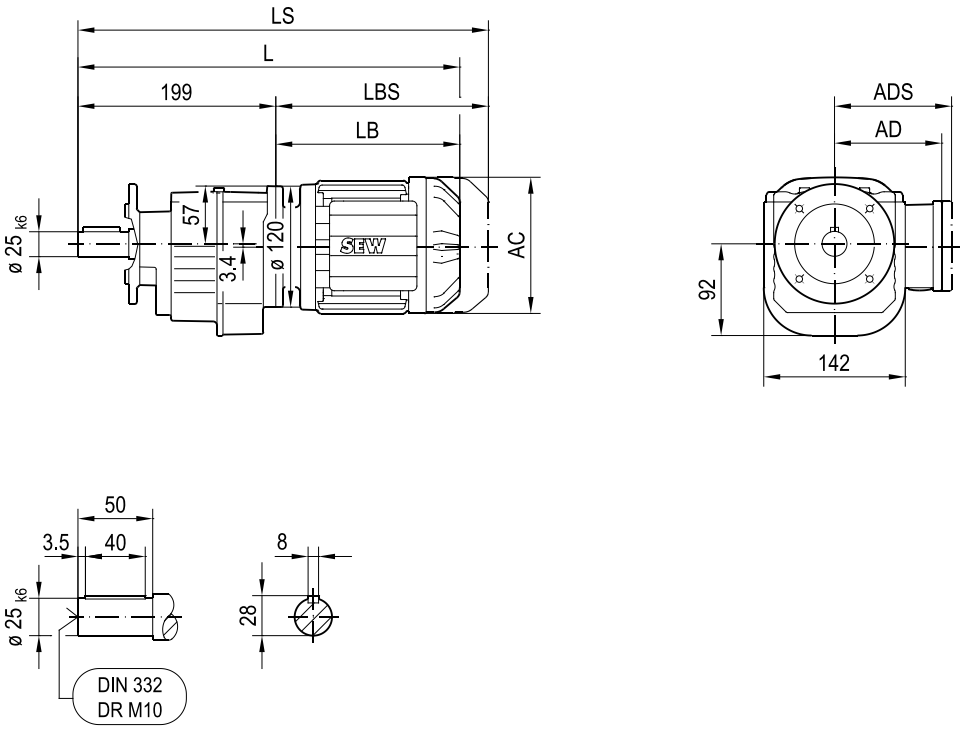


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	383	397	399	419	430	447	475	476	508	507	557
LS	439	453	466	486	511	528	556	570	602	601	651
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

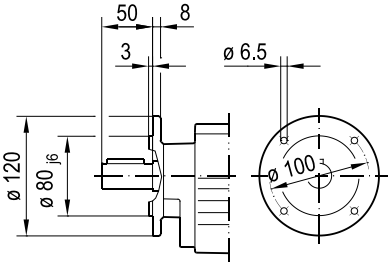
26883198/EN – 04/2022

01 023 01 14

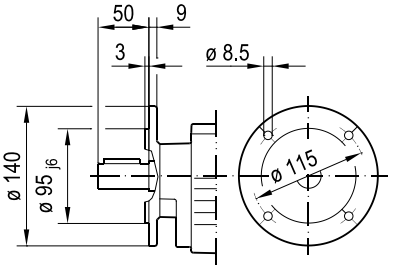
RF27..



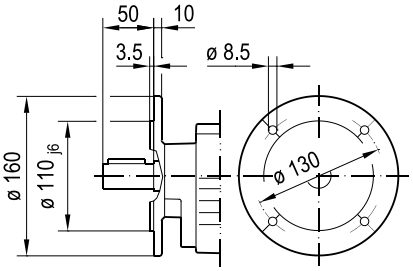
ø 120



ø 140



ø 160

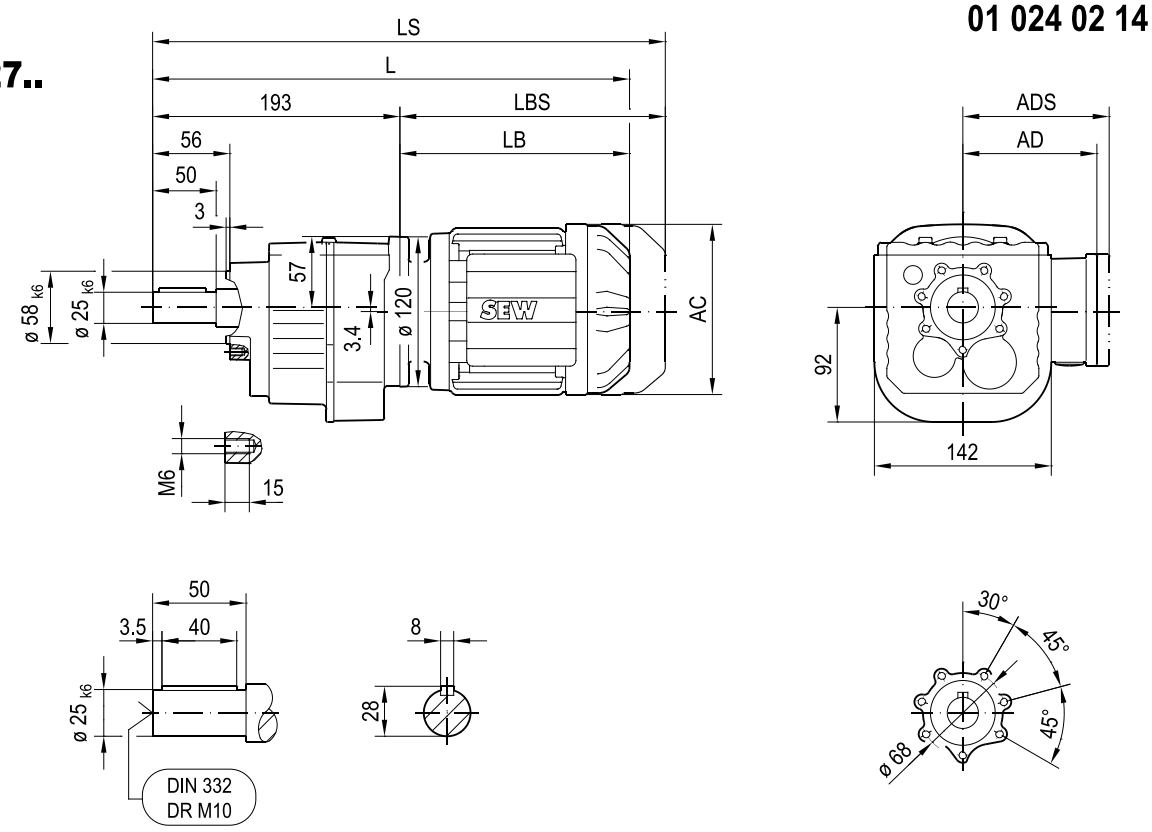


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	389	403	405	425	436	453	481	482	514	513	563
LS	445	459	472	492	517	534	562	576	608	607	657
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

01 024 02 14

RZ27..

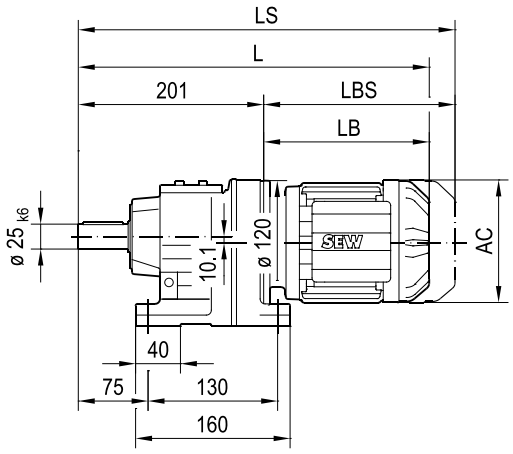


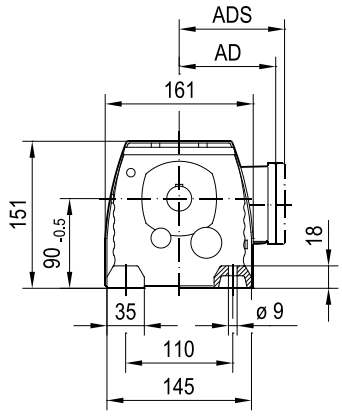
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	383	397	399	419	430	447	475	476	508	507	557
LS	439	453	466	486	511	528	556	570	602	601	651
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

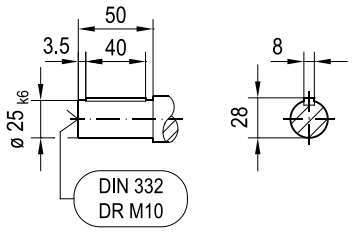
26883198/EN – 04/2022

01 025 01 14

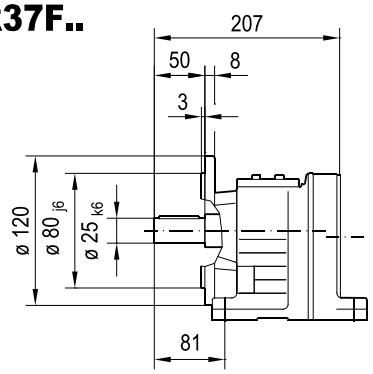
R37..

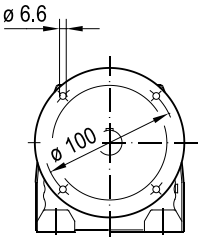






R37F..



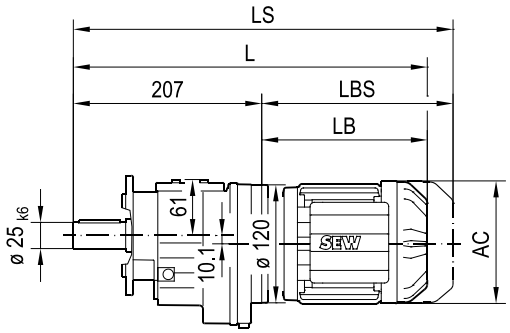


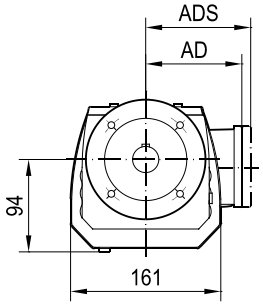
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	391	405	407	427	438	455	483	484	516	515	565
LS	447	461	474	494	519	536	564	578	610	609	659
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

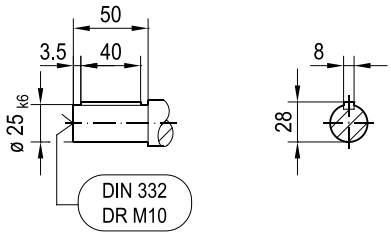
26883198/EN – 04/2022

01 026 01 14

RF37..







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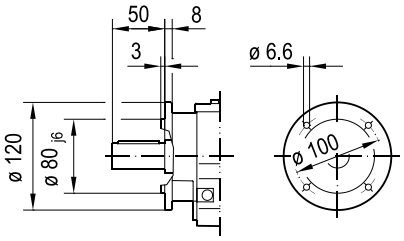

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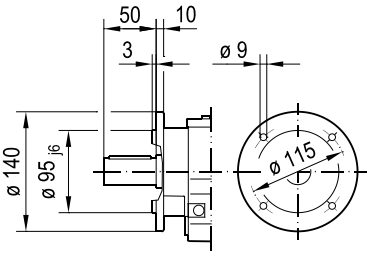

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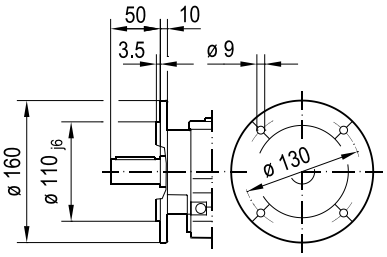

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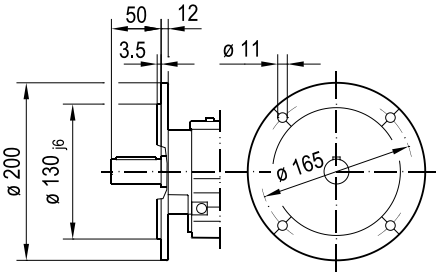
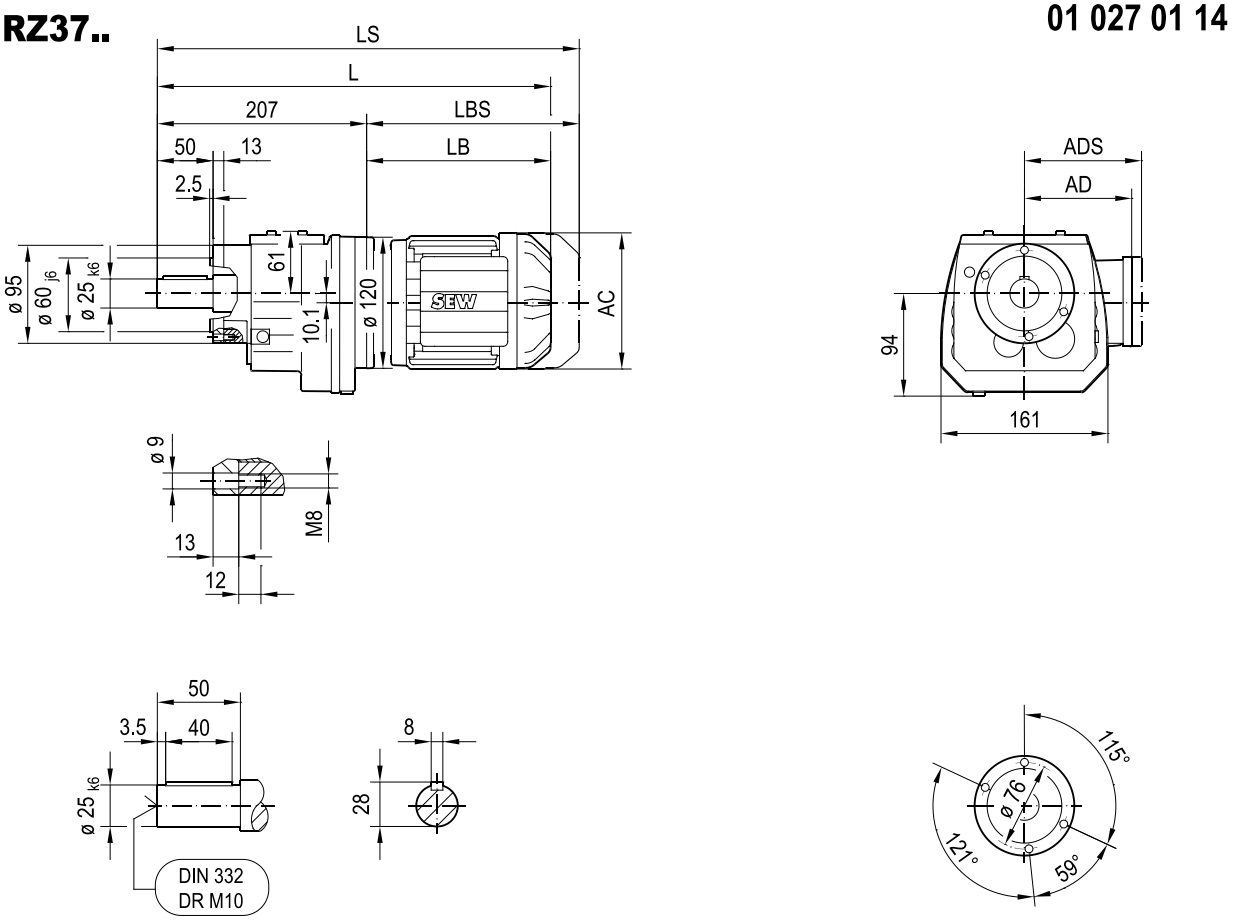


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	397	411	413	433	444	461	489	490	522	521	571
LS	453	467	480	500	525	542	570	584	616	615	665
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

RZ37..

01 027 01 14

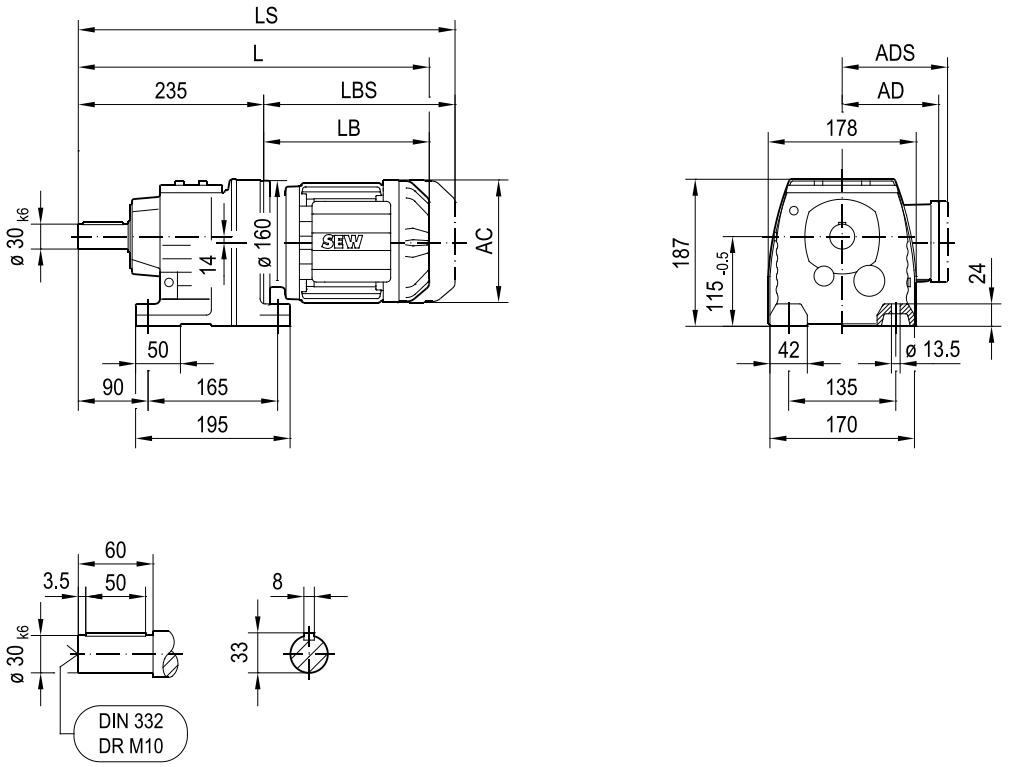


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	397	411	413	433	444	461	489	490	522	521	571
LS	453	467	480	500	525	542	570	584	616	615	665
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

01 028 01 14

R47..



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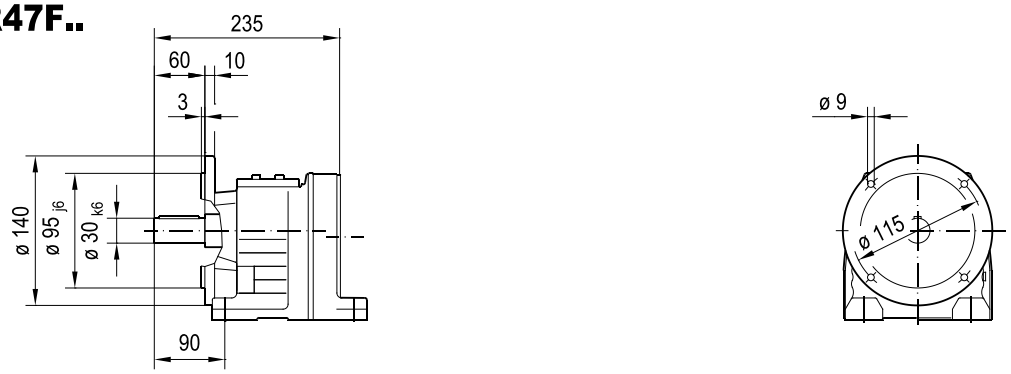
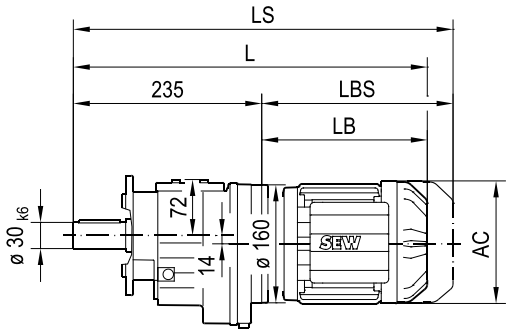


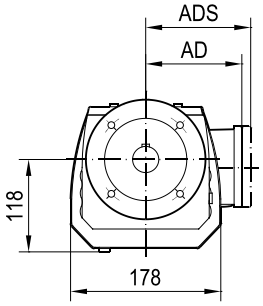
(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172
L	419	433	434	454	465	482	510	512	544	540	590	621	675
LS	475	489	502	522	546	563	591	605	637	634	684	733	787
LB	184	198	199	219	230	247	275	277	309	305	355	386	440
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552

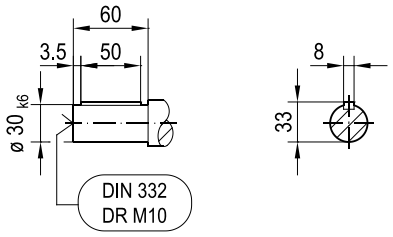
26883198/EN – 04/2022

01 029 01 14

RF47..







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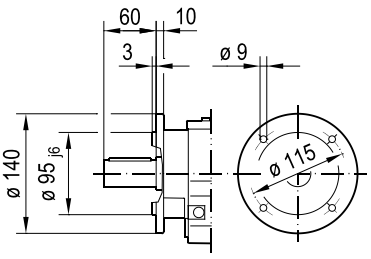

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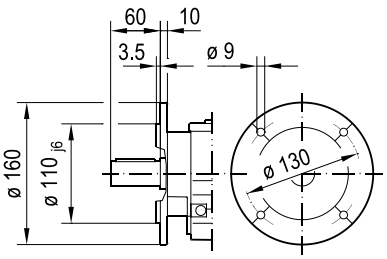

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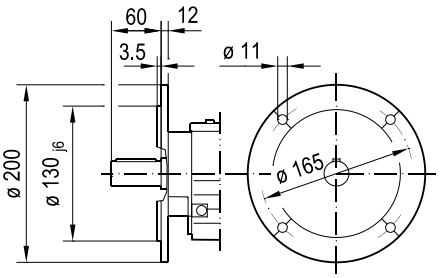
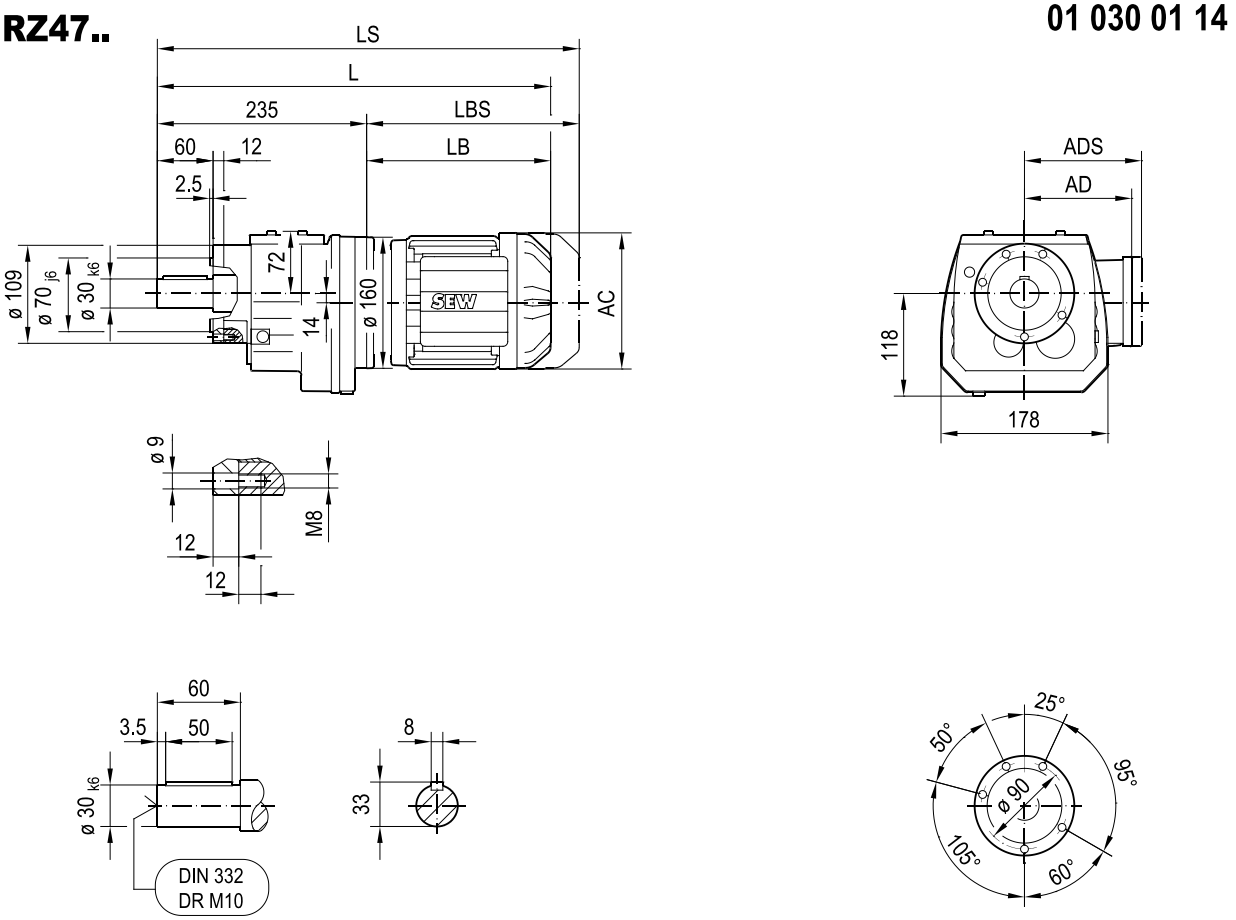


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172
L	419	433	434	454	465	482	510	512	544	540	590	621	675
LS	475	489	502	522	546	563	591	605	637	634	684	733	787
LB	184	198	199	219	230	247	275	277	309	305	355	386	440
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552

26883198/EN – 04/2022

RZ47..

01 030 01 14

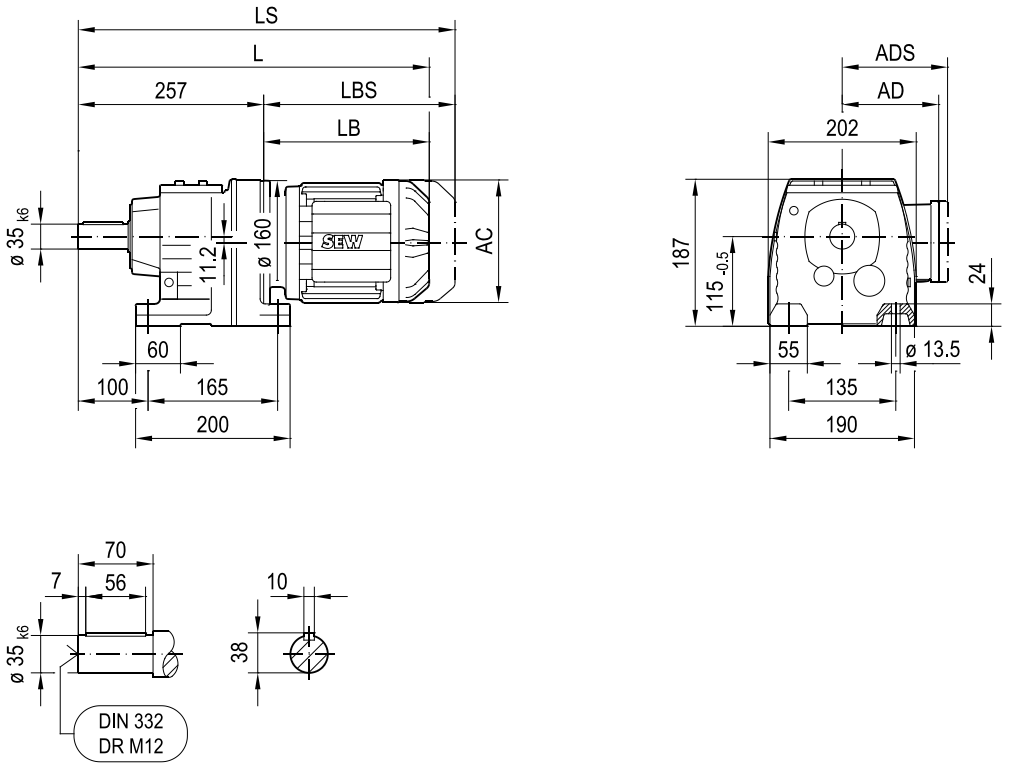


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172
L	419	433	434	454	465	482	510	512	544	540	590	621	675
LS	475	489	502	522	546	563	591	605	637	634	684	733	787
LB	184	198	199	219	230	247	275	277	309	305	355	386	440
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552

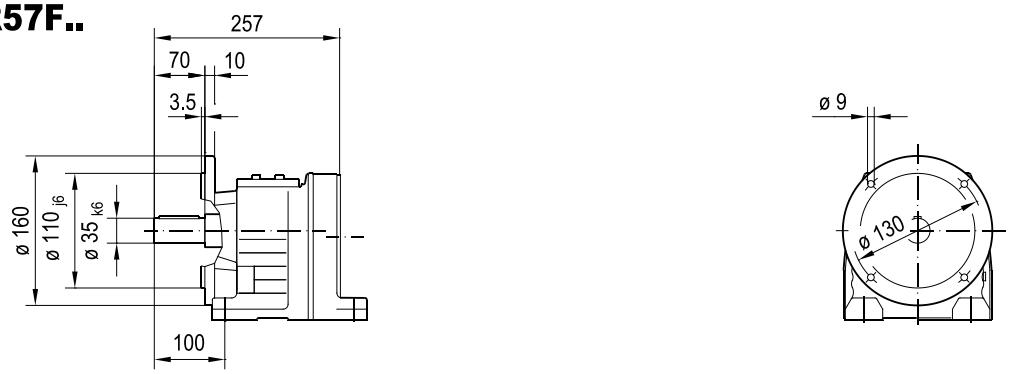
26883198/EN – 04/2022

01 031 01 14

R57..



R57F..

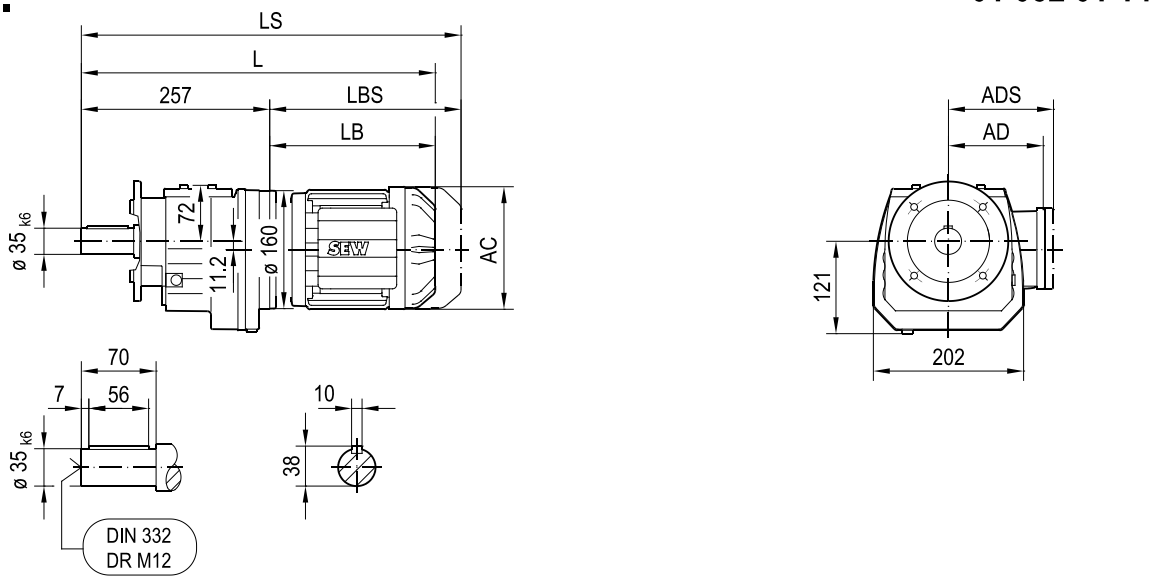


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	504	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	585	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

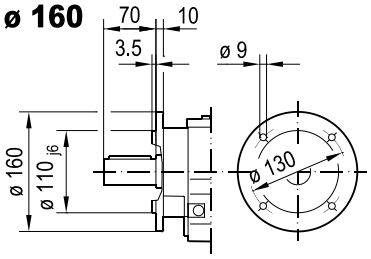
26883198/EN – 04/2022

RF57..

01 032 01 14



ø 160



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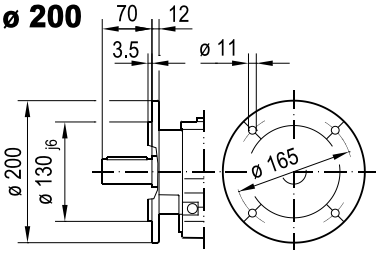

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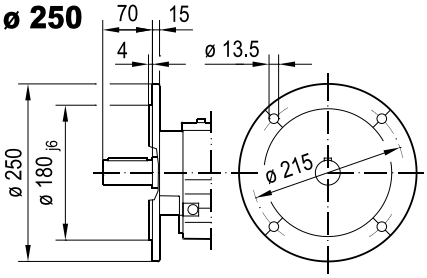
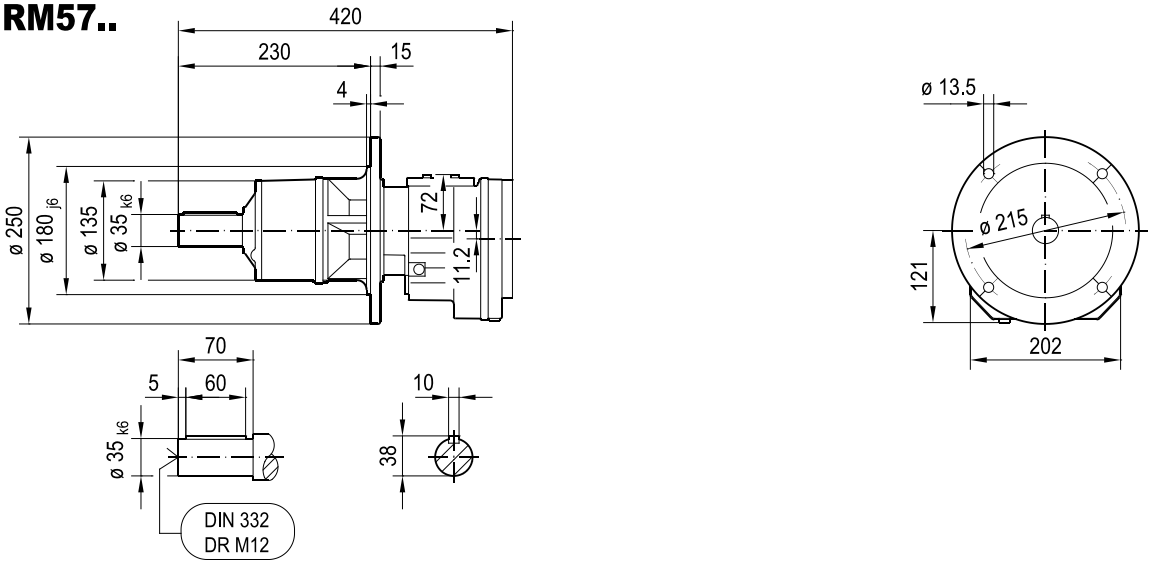


RM57..

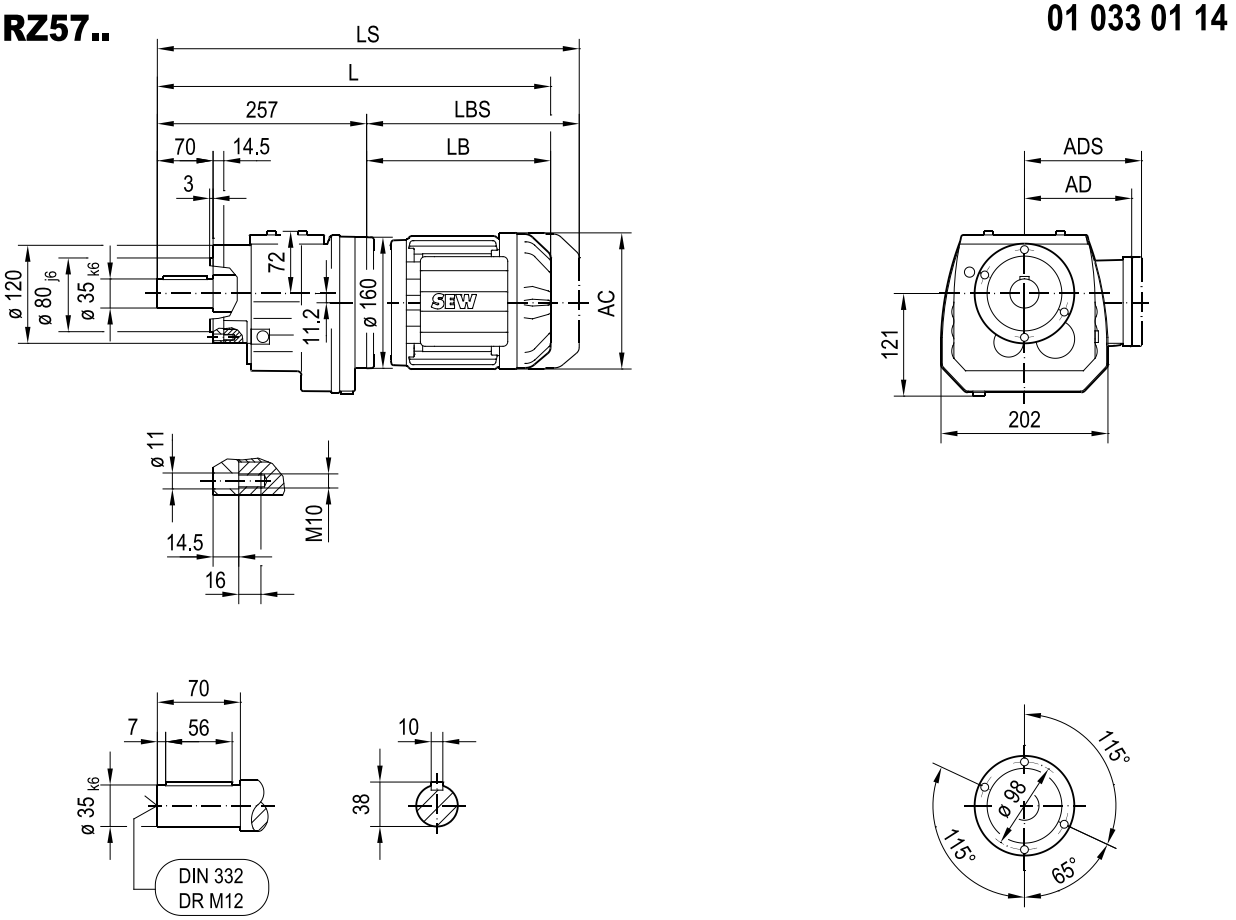


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	504	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	585	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

RZ57..

01 033 01 14

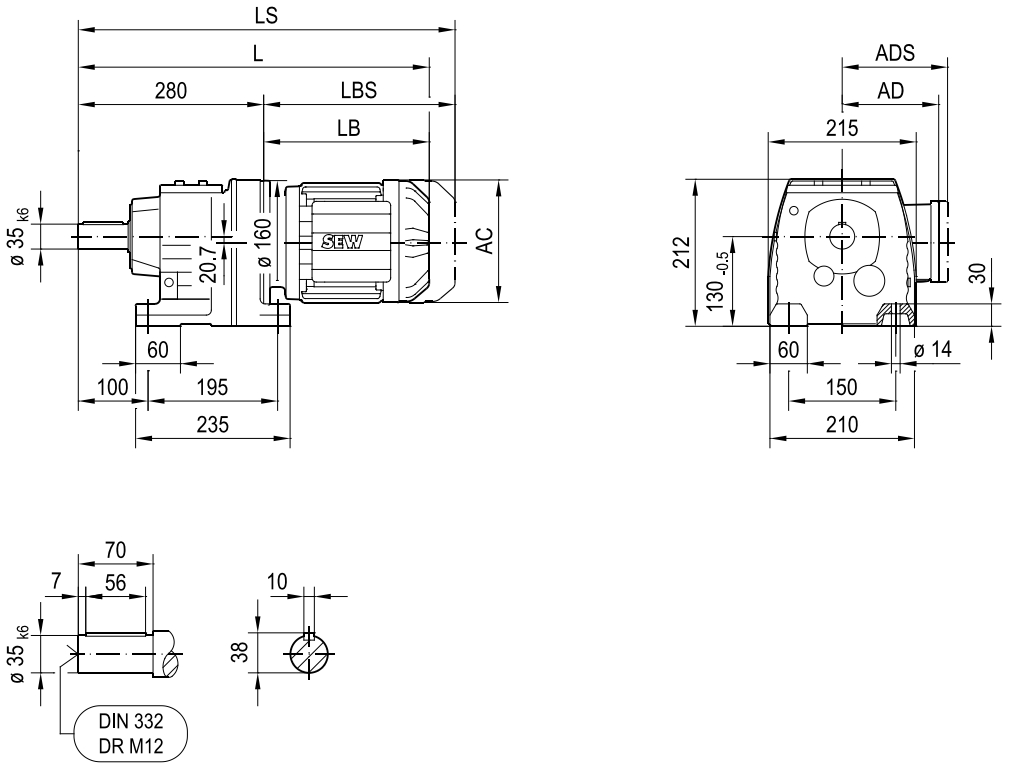


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	504	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	585	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

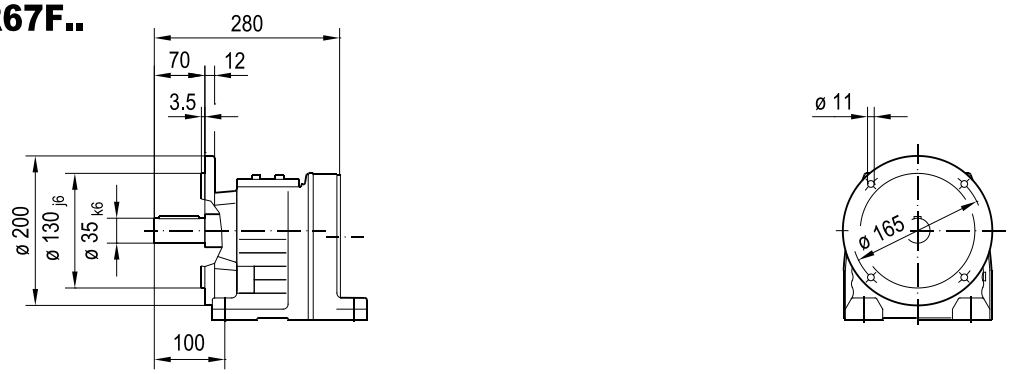
26883198/EN – 04/2022

01 034 01 14

R67..



R67F..

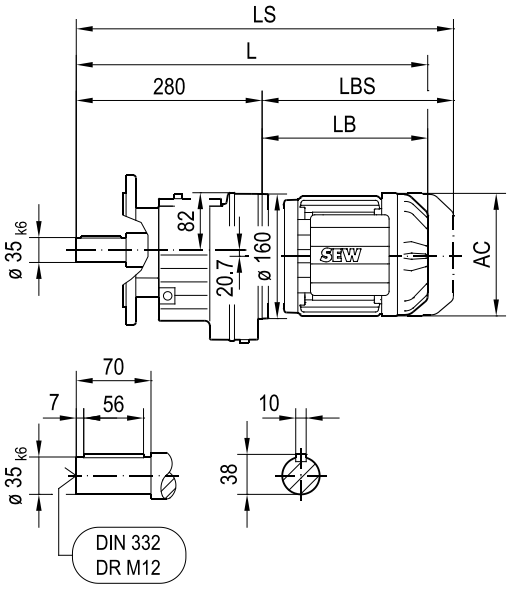


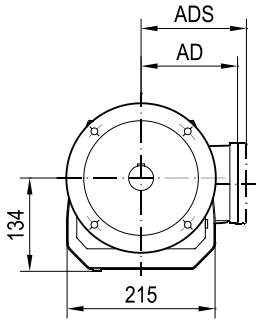
(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	527	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	608	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

01 035 01 14

RF67..





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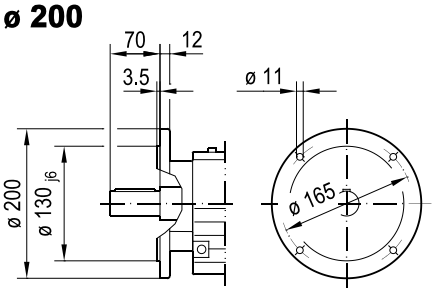

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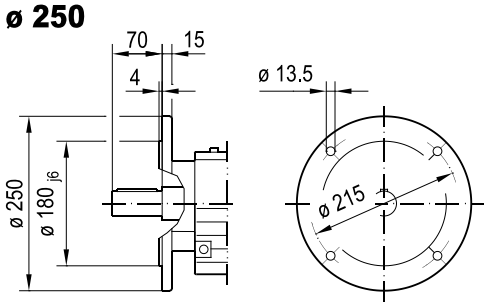
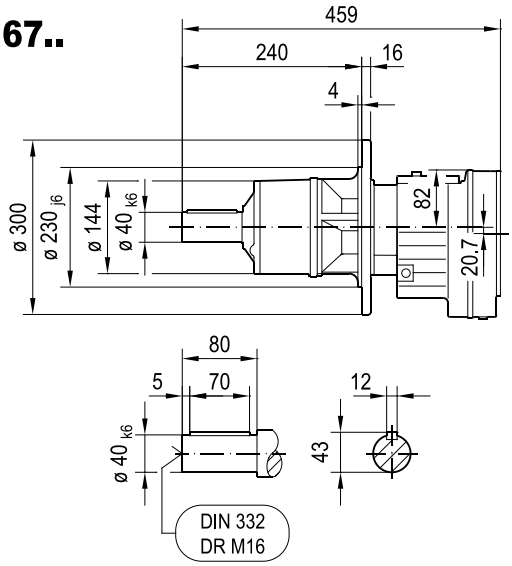
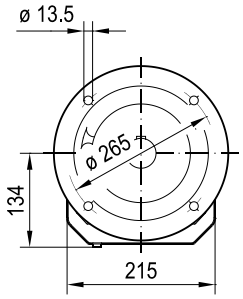


RM67..



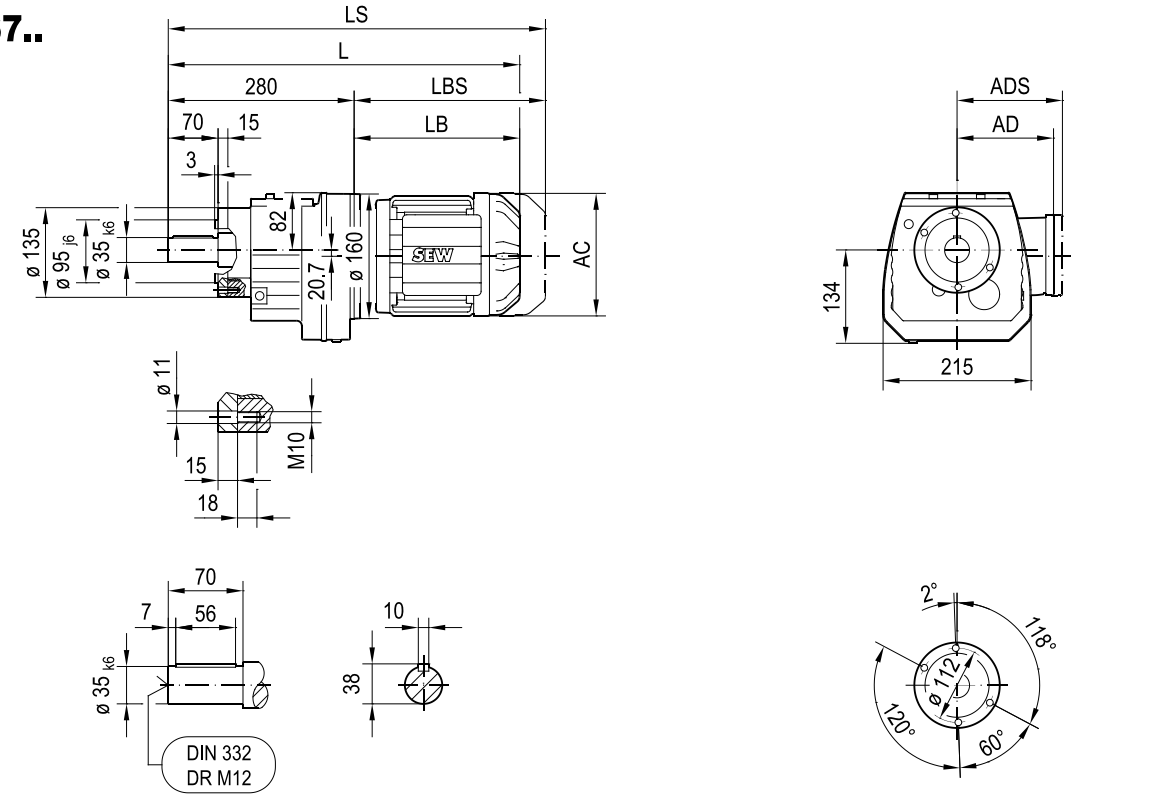


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	527	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	608	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

01 036 01 14

RZ67..

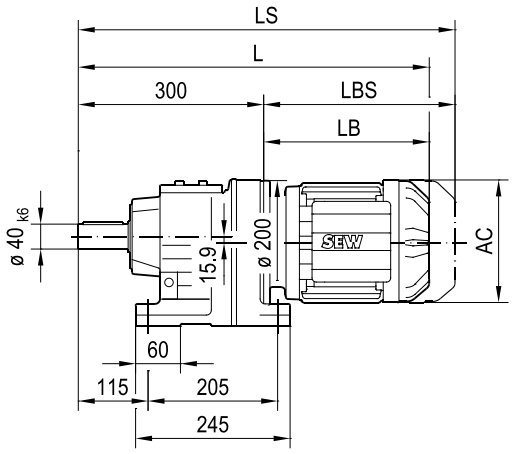


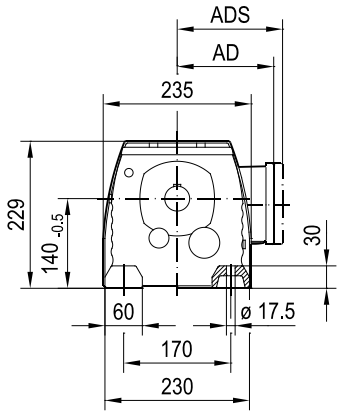
(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	527	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	608	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

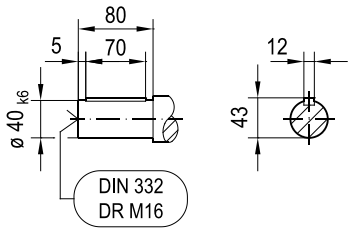
26883198/EN – 04/2022

01 037 01 14

R77..







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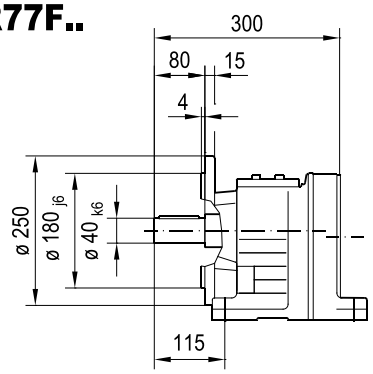
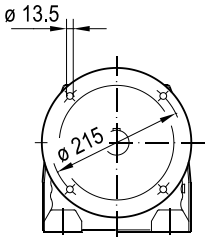


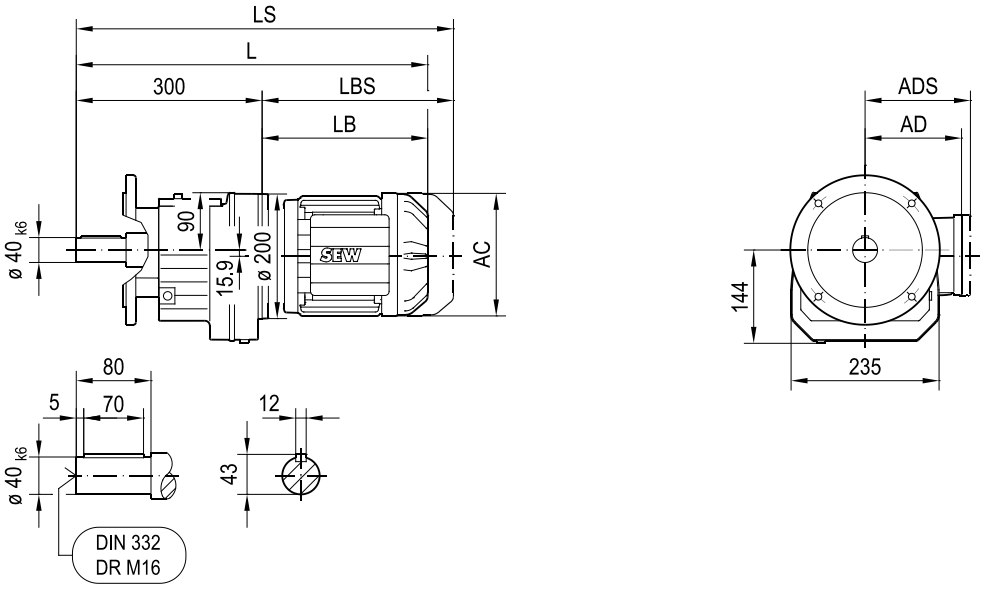


(→ 📖 7.3)	DRN														
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	540	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	621	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

01 038 01 14

RF77..



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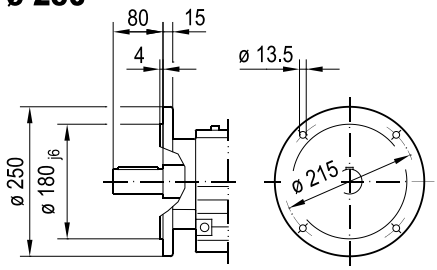

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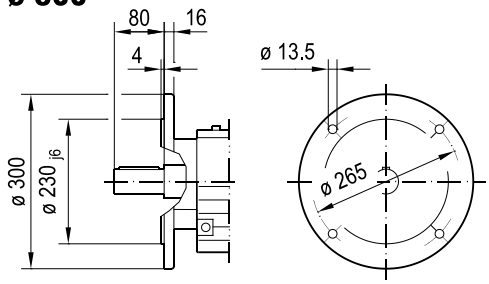
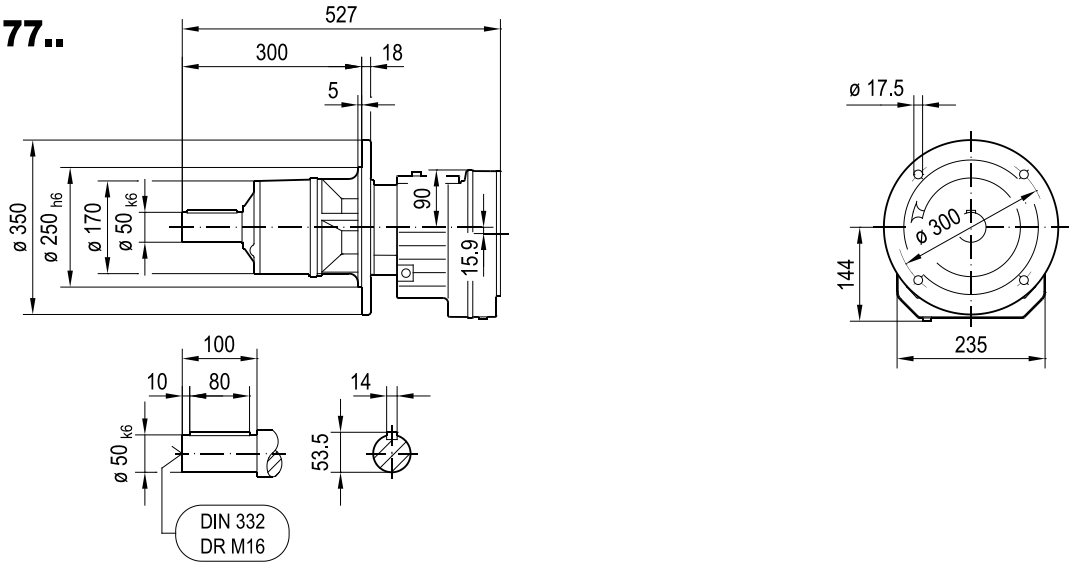


RM77..

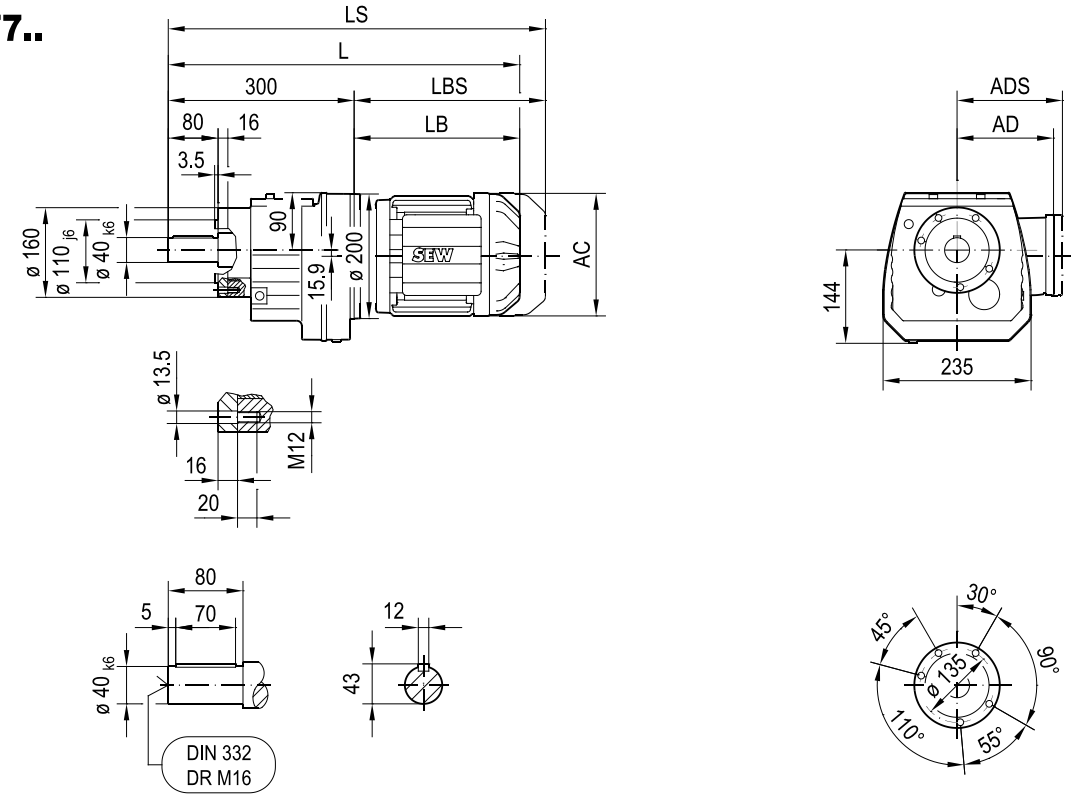


(→ 📖 7.3)	DRN														
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	540	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	621	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

01 039 01 14

RZ77..

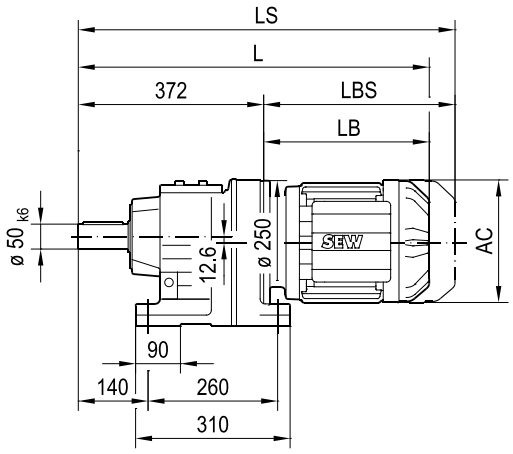


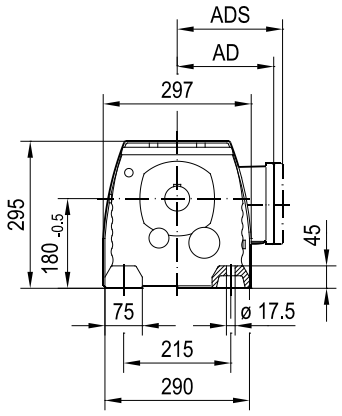
(→ 📖 7.3)	DRN														
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	540	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	621	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	321	349	363	395	392	442	491	541	585	610	728

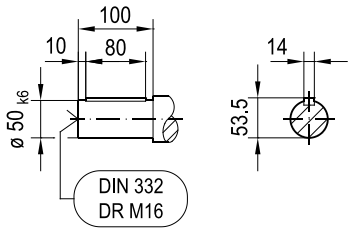
26883198/EN – 04/2022

01 040 01 14

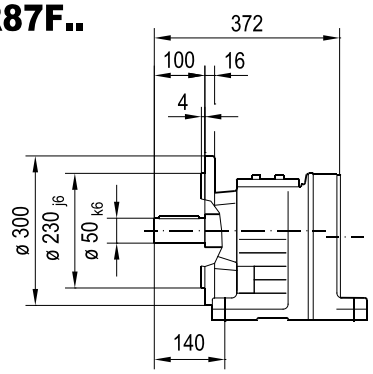
R87..

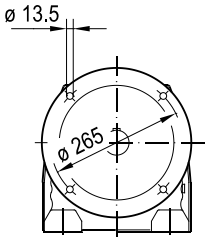






R87F..



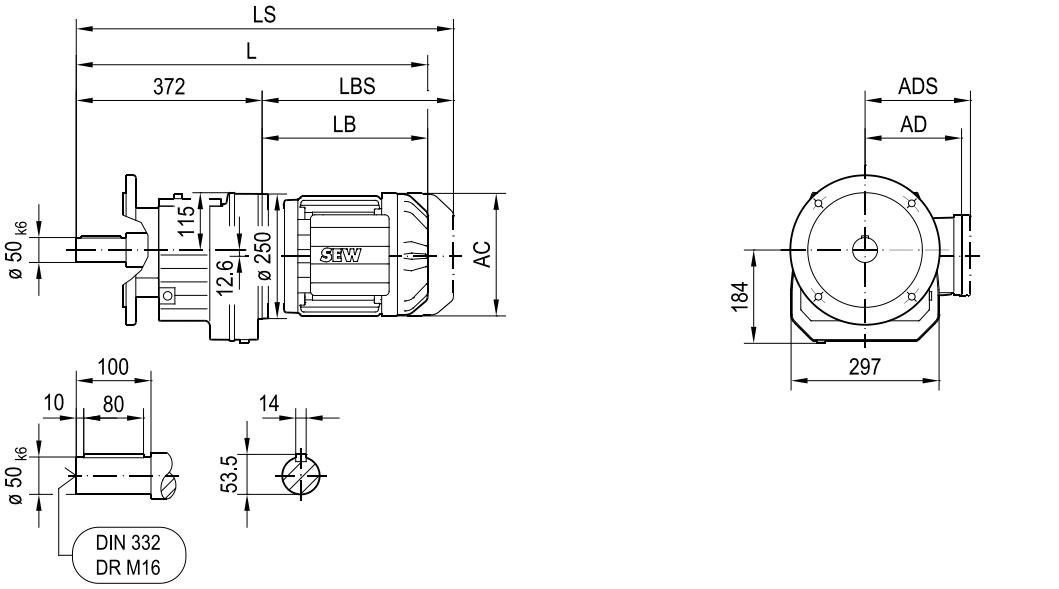


(→ 📖 7.3)	DRN														
	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	139	156	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	118	128	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	129	139	139	139	150	150	158	158	172	172	228	228	253	268	283
L	579	590	607	635	637	669	665	715	746	796	814	840	906	929	1039
LS	647	671	688	716	730	762	759	809	858	908	952	977	1095	1118	1244
LB	207	218	235	263	265	297	293	343	374	424	442	468	534	557	667
LBS	275	299	316	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

01 041 01 14

RF87..



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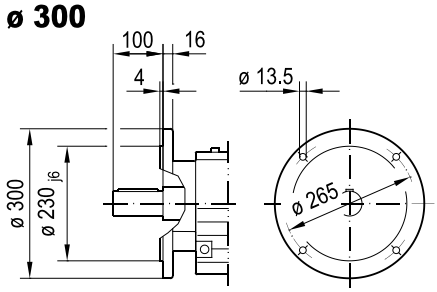

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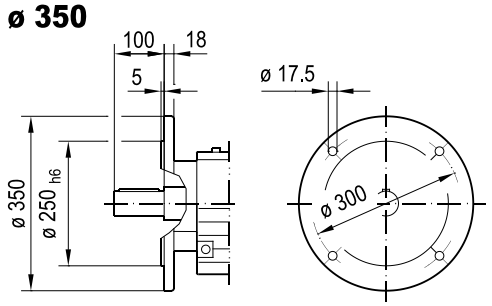
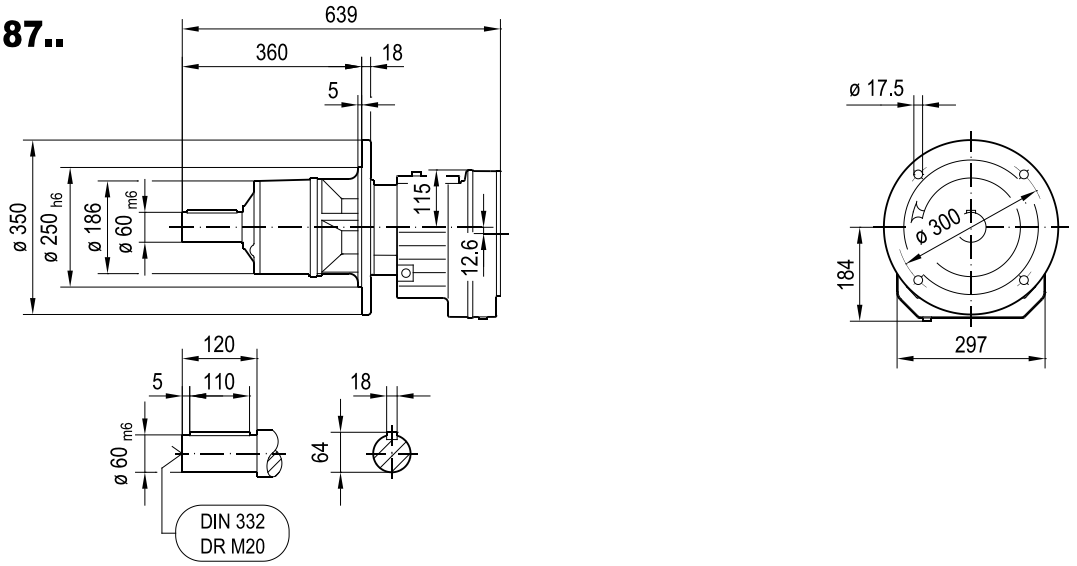


RM87..

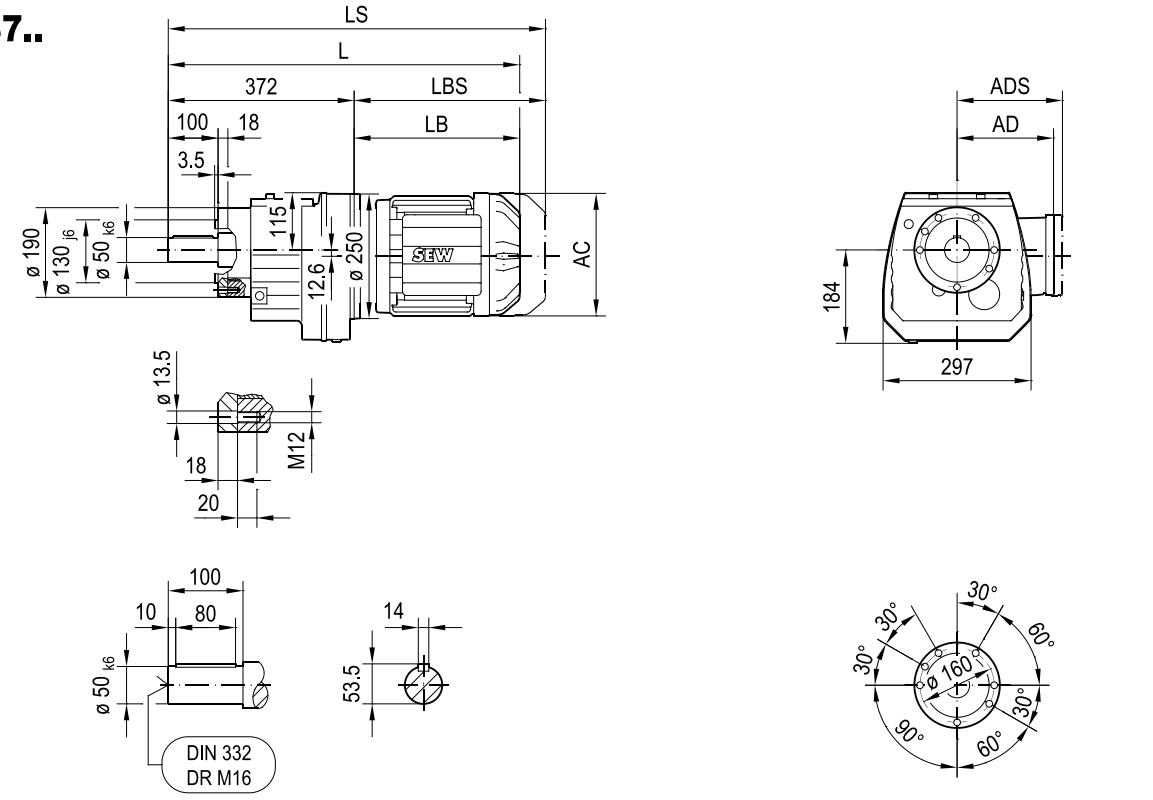


(→ 📖 7.3)	DRN														
	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	139	156	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	118	128	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	129	139	139	139	150	150	158	158	172	172	228	228	253	268	283
L	579	590	607	635	637	669	665	715	746	796	814	840	906	929	1039
LS	647	671	688	716	730	762	759	809	858	908	952	977	1095	1118	1244
LB	207	218	235	263	265	297	293	343	374	424	442	468	534	557	667
LBS	275	299	316	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

01 042 01 14

RZ87..

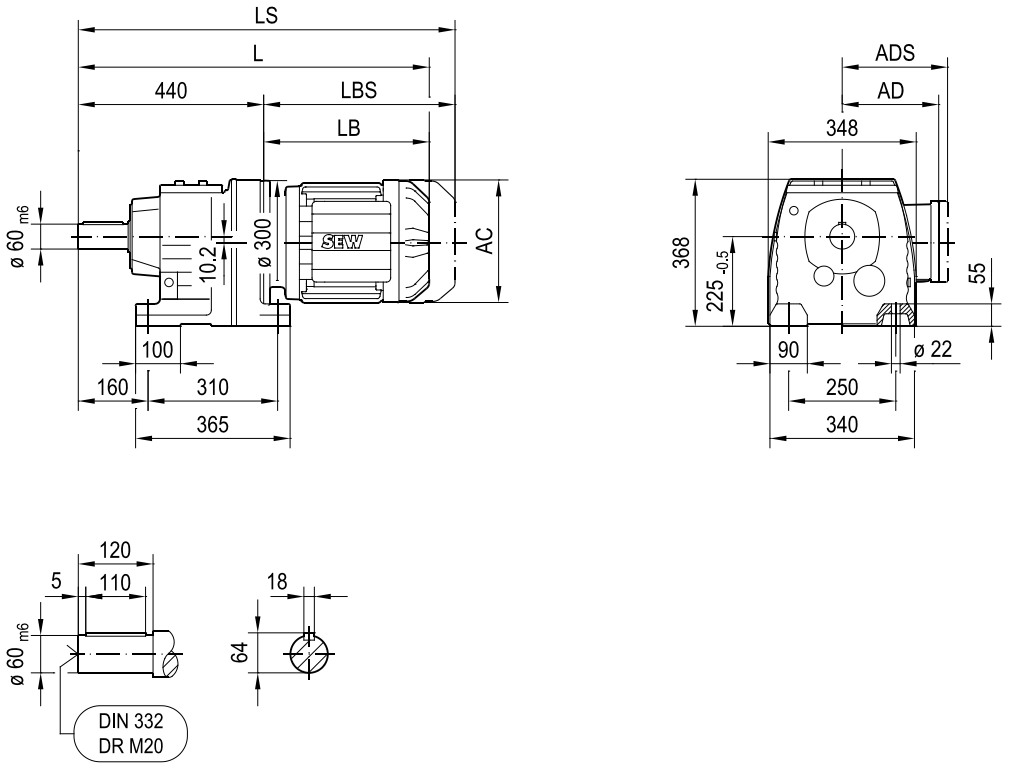


(→ 📖 7.3)	DRN														
	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	139	156	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	118	128	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	129	139	139	139	150	150	158	158	172	172	228	228	253	268	283
L	579	590	607	635	637	669	665	715	746	796	814	840	906	929	1039
LS	647	671	688	716	730	762	759	809	858	908	952	977	1095	1118	1244
LB	207	218	235	263	265	297	293	343	374	424	442	468	534	557	667
LBS	275	299	316	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

01 043 01 14

R97..

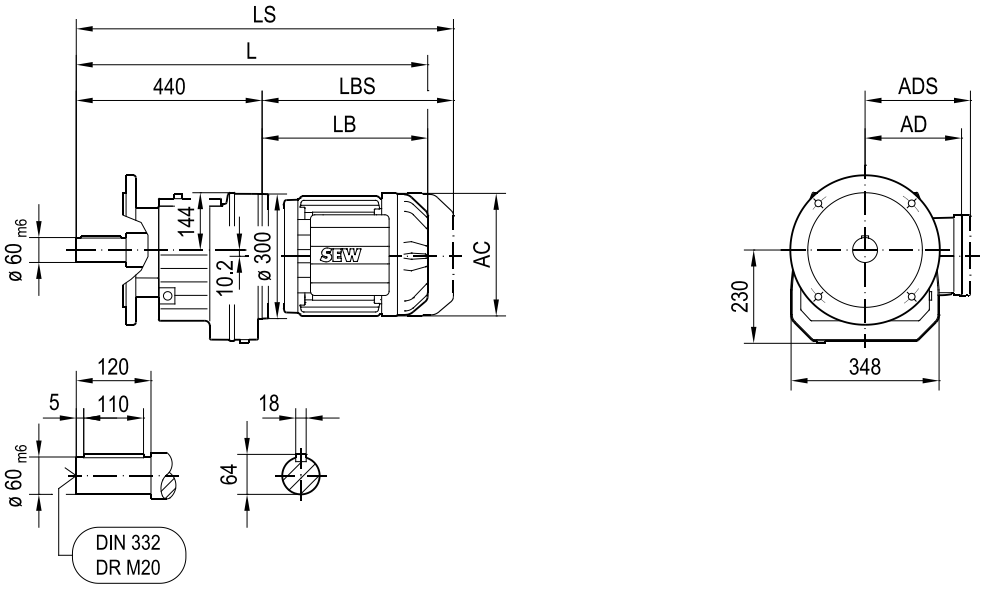


(→ 📖 7.3)	DRN														
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	139	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	118	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	129	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	642	653	698	700	732	728	778	809	859	877	903	969	992	1102	1076
LS	710	734	779	793	825	822	872	921	971	1015	1040	1158	1181	1307	1281
LB	202	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	270	294	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

01 044 01 14

RF97..



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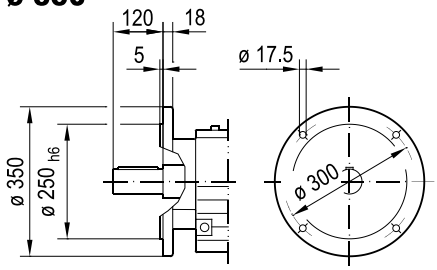
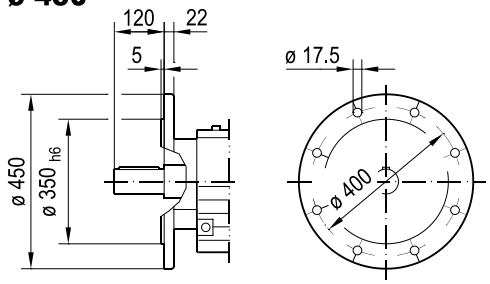
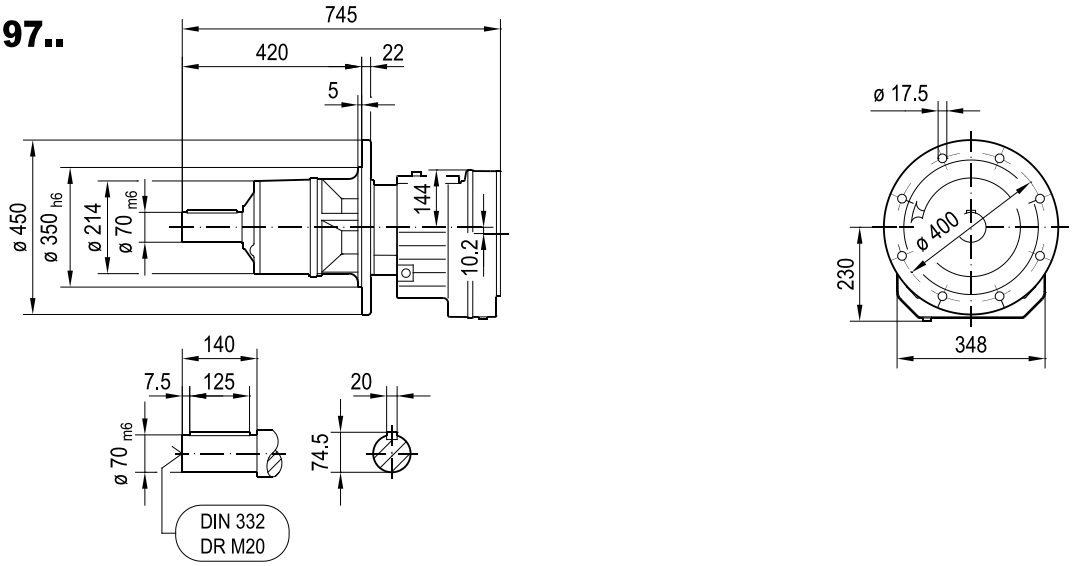


ø 450



RM97..

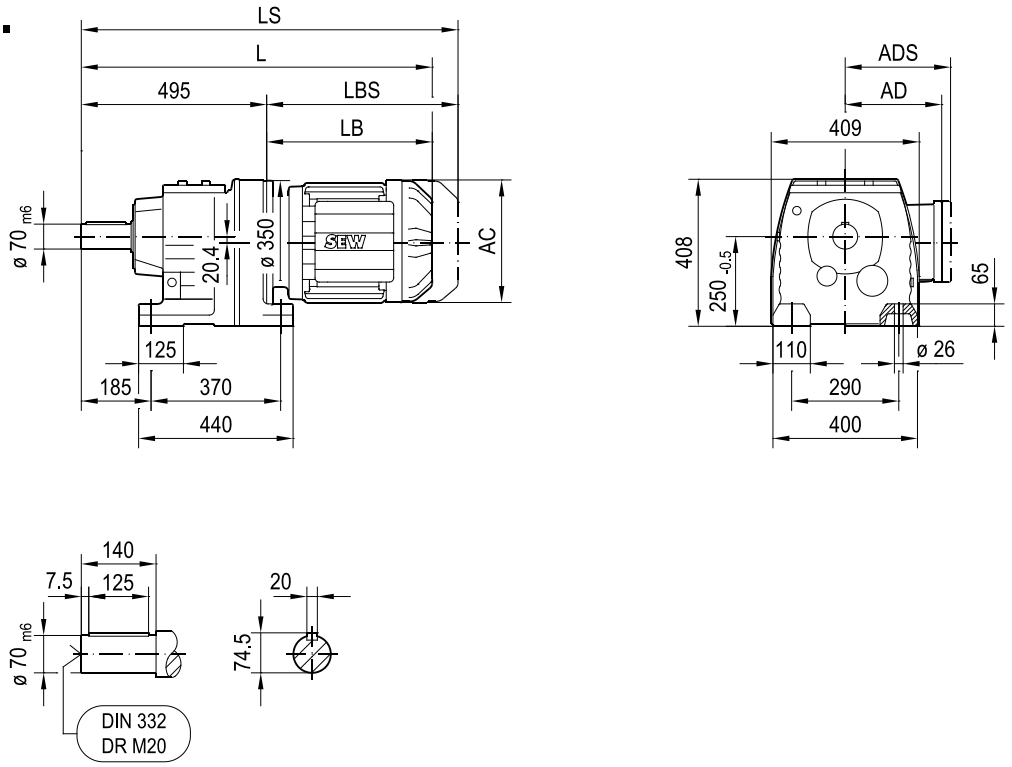


(→ 📖 7.3)	DRN														
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	139	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	118	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	129	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	642	653	698	700	732	728	778	809	859	877	903	969	992	1102	1076
LS	710	734	779	793	825	822	872	921	971	1015	1040	1158	1181	1307	1281
LB	202	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	270	294	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

01 045 01 14

R107..

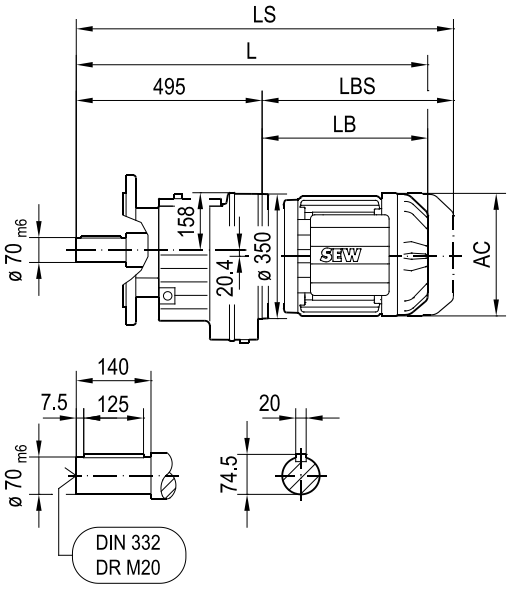


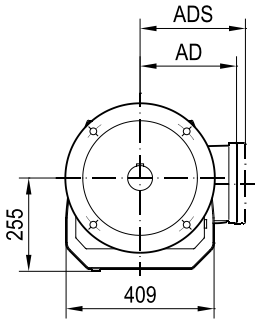
(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	777	827	858	908	926	952	1018	1041	1151	1125
LS	871	921	970	1020	1064	1089	1207	1230	1356	1330
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

26883198/EN – 04/2022

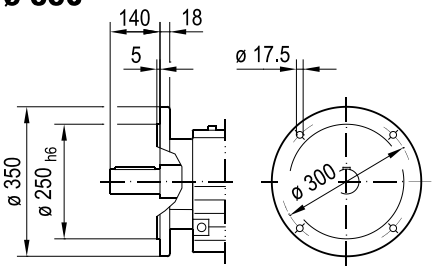
01 046 01 14

RF107..

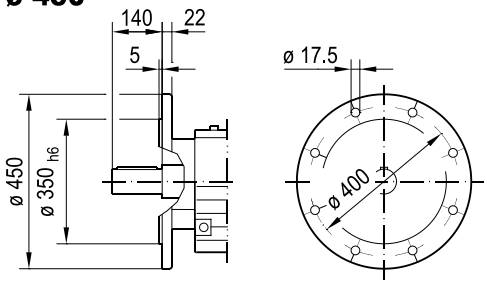




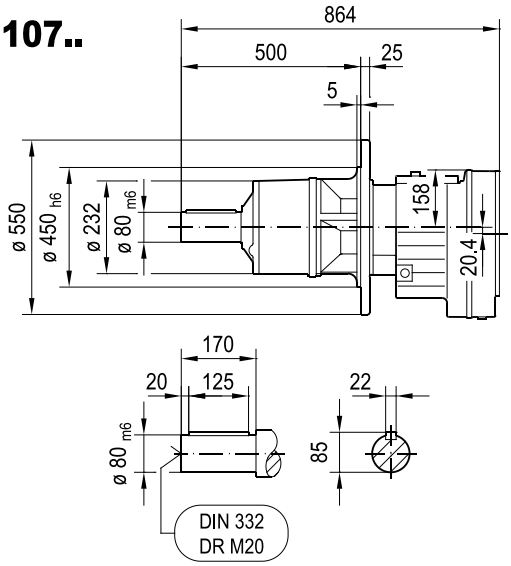
ø 350

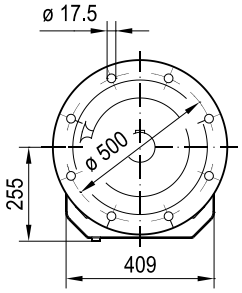


ø 450



RM107..



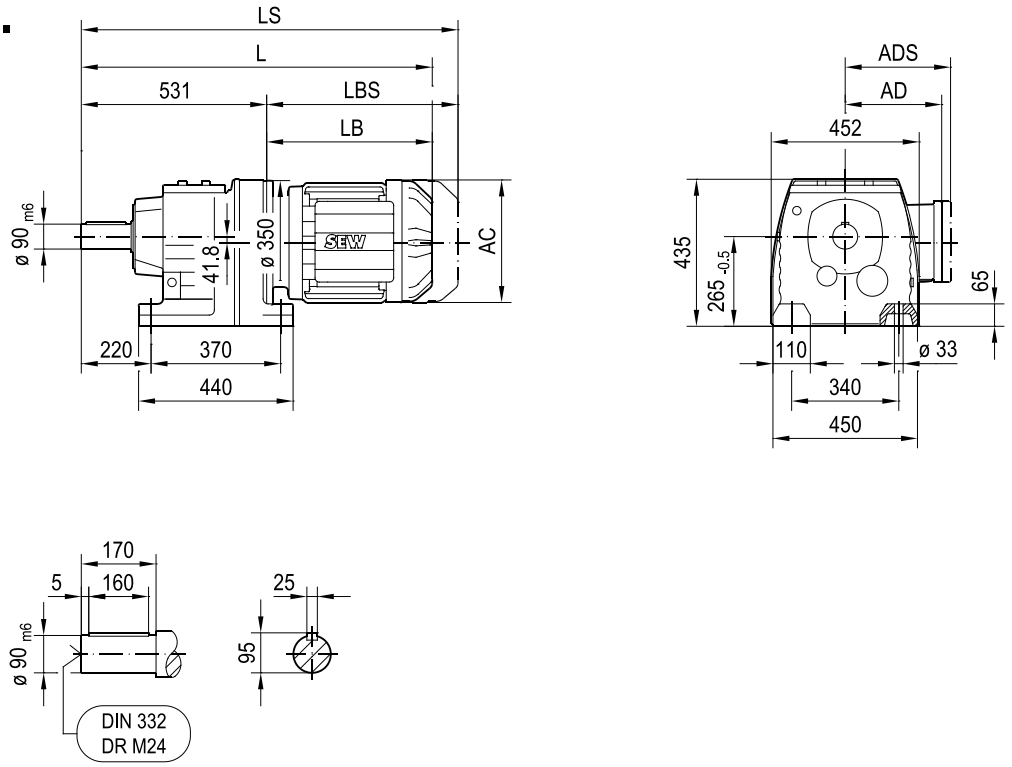


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	777	827	858	908	926	952	1018	1041	1151	1125
LS	871	921	970	1020	1064	1089	1207	1230	1356	1330
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

26883198/EN – 04/2022

01 147 01 15

R127..

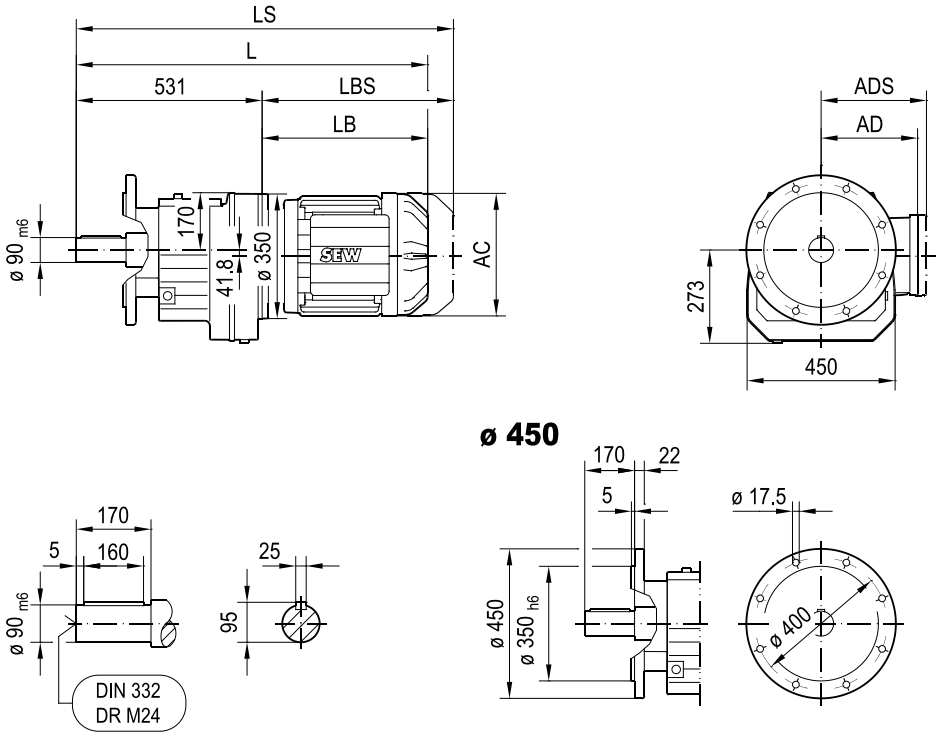


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	813	863	894	944	962	988	1054	1077	1187	1161	1298
LS	907	957	1006	1056	1100	1125	1243	1266	1392	1366	1538
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

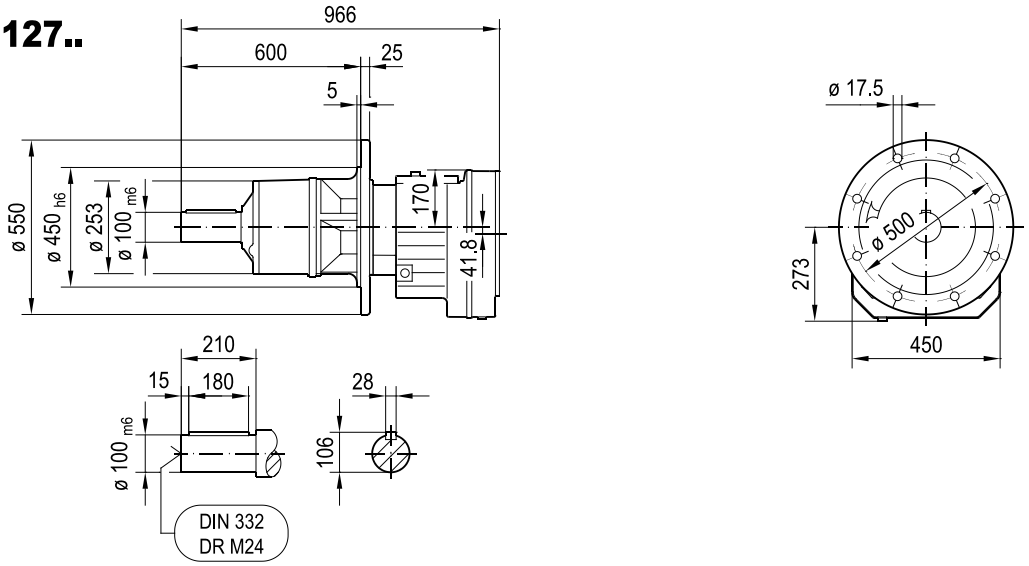
26883198/EN – 04/2022

01 148 01 15

RF127..



RM127..

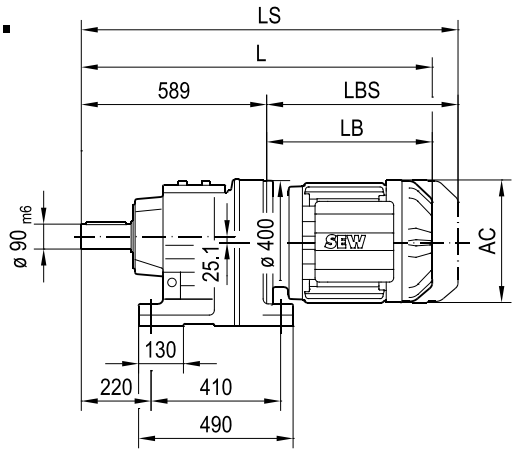


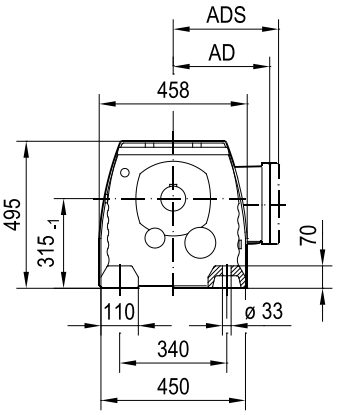
(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	813	863	894	944	962	988	1054	1077	1187	1161	1298
LS	907	957	1006	1056	1100	1125	1243	1266	1392	1366	1538
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

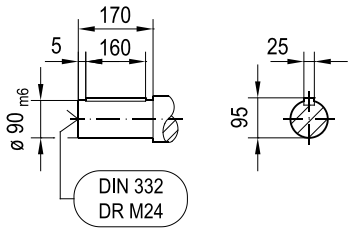
26883198/EN – 04/2022

01 047 01 14

R137..





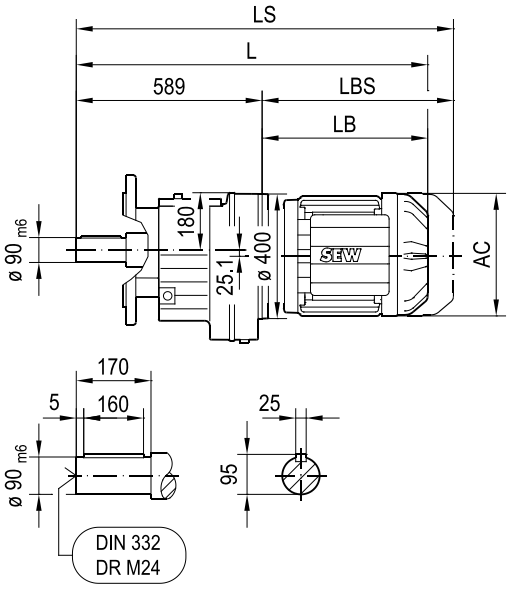


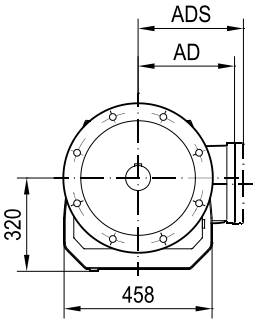
(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	995	1013	1039	1105	1128	1238	1212	1349	1349	1444
LS	1107	1151	1176	1294	1317	1443	1417	1589	1589	1684
LB	406	424	450	516	539	649	623	760	760	855
LBS	518	562	587	705	728	854	828	1000	1000	1095

26883198/EN – 04/2022

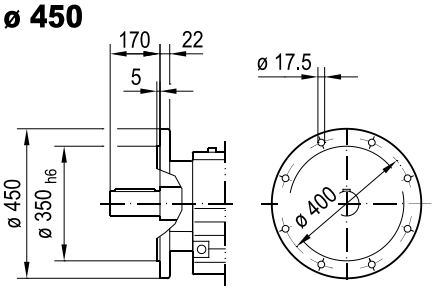
01 048 01 14

RF137..

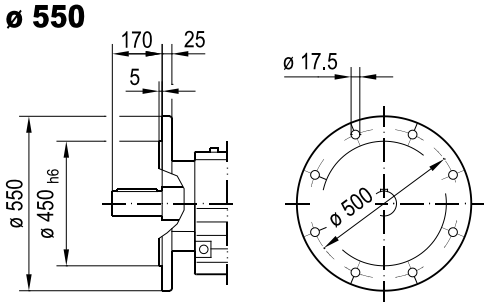




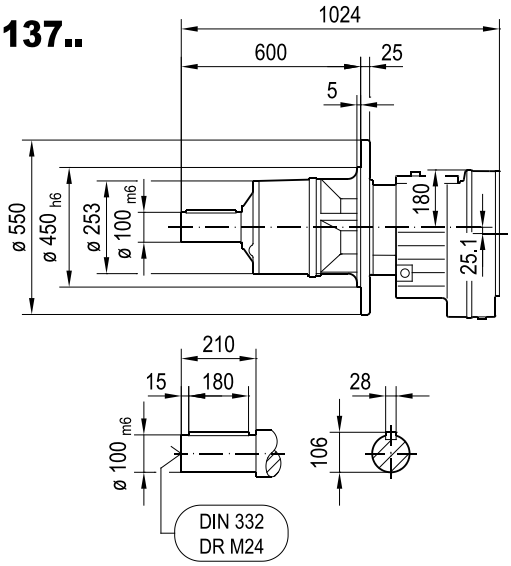
ø 450

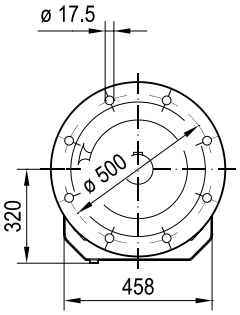


ø 550



RM137..



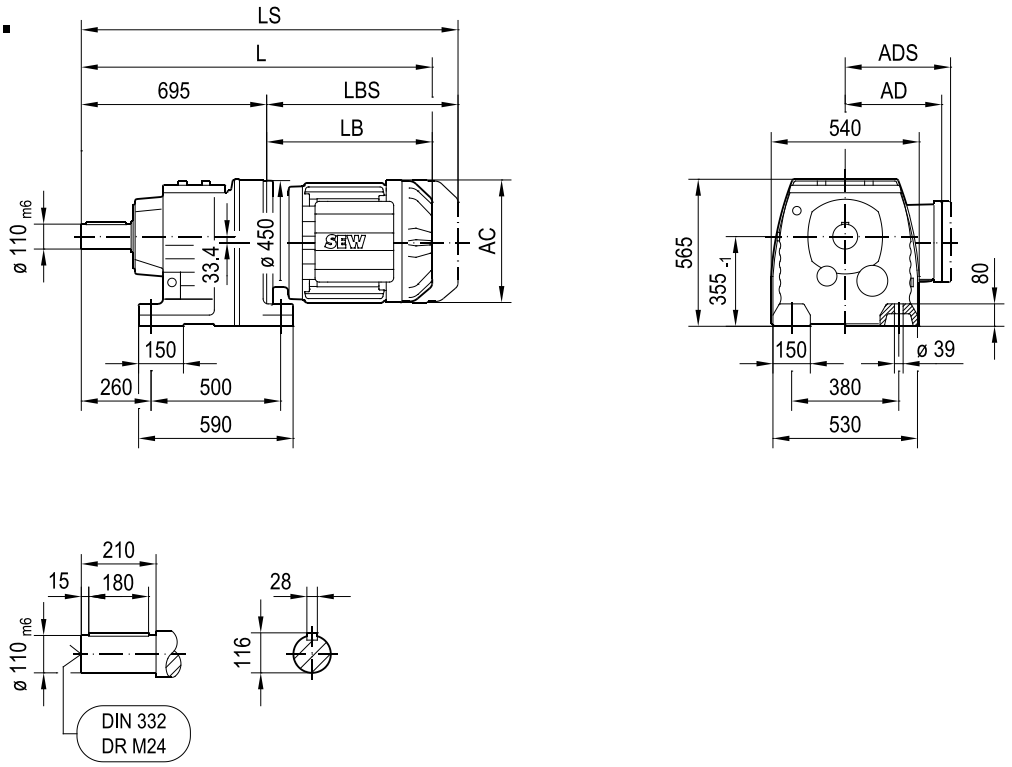


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	995	1013	1039	1105	1128	1238	1212	1349	1349	1444
LS	1107	1151	1176	1294	1317	1443	1417	1589	1589	1684
LB	406	424	450	516	539	649	623	760	760	855
LBS	518	562	587	705	728	854	828	1000	1000	1095

26883198/EN – 04/2022

01 049 01 14

R147..

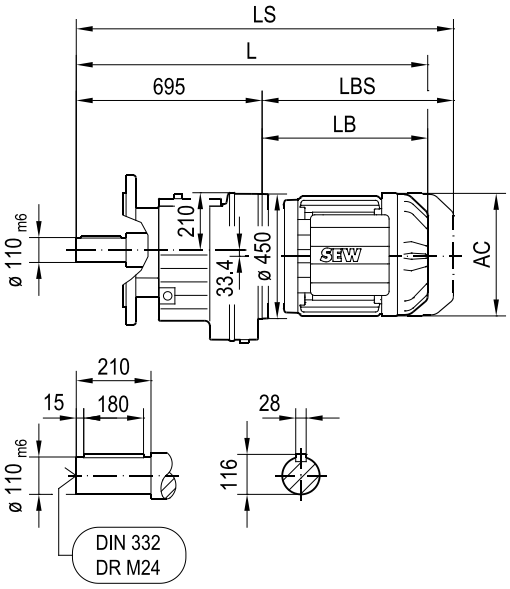


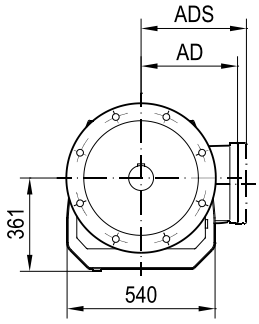
(→ 📖 7.3)	DRN							
	132L	**160..**	**180..**	**200L**	**225..**	**250M**	**280S**	**280M**
AC	261	314	357	394	434	495	495	495
AD	228	253	268	283	305	394	394	394
ADS	228	253	268	283	305	394	394	394
L	1137	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1415	1541	1515	1687	1687	1782
LB	442	508	531	641	615	752	752	847
LBS	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

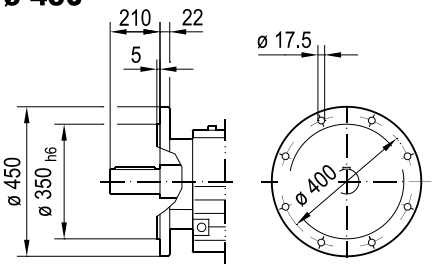
01 050 01 14

RF147..





ø 450



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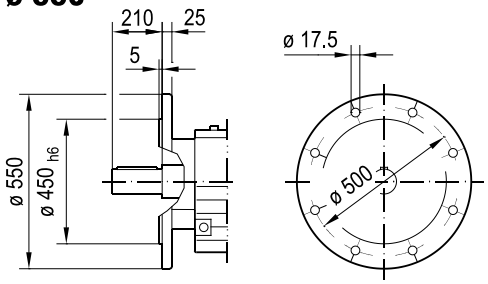
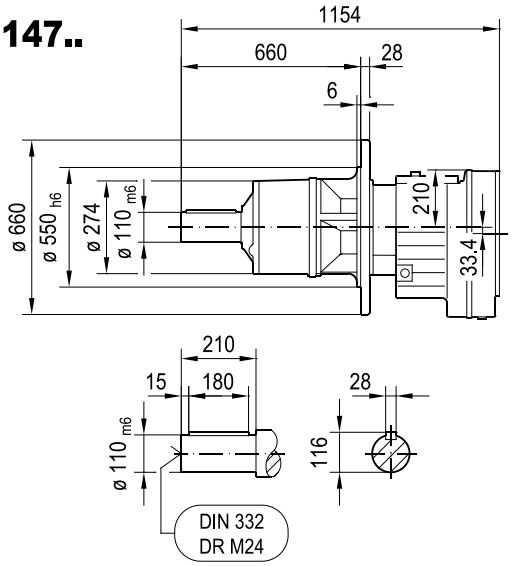
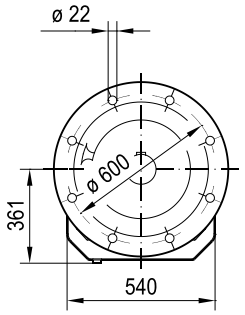


RM147..



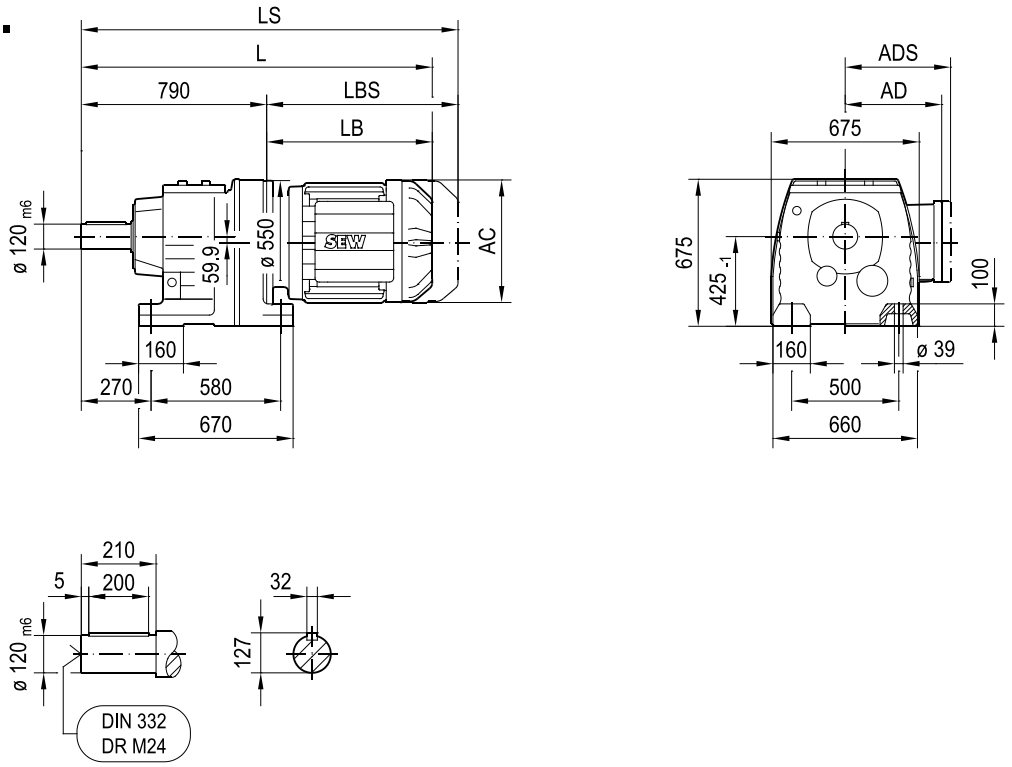


(→ 📖 7.3)	DRN							
	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	314	357	394	434	495	495	495
AD	228	253	268	283	305	394	394	394
ADS	228	253	268	283	305	394	394	394
L	1137	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1415	1541	1515	1687	1687	1782
LB	442	508	531	641	615	752	752	847
LBS	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

01 051 01 14

R167..

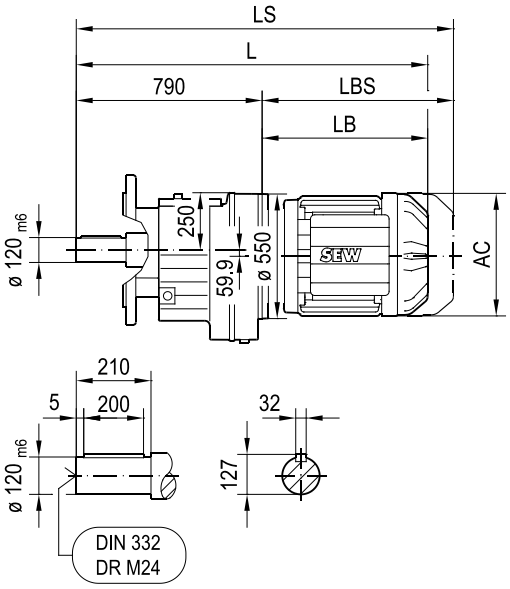


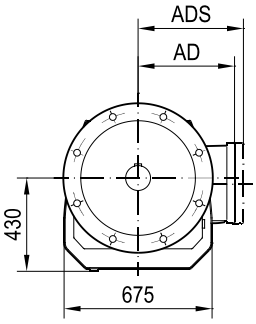
(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1224	1290	1313	1423	1397	1534	1534	1629	1731	1861
LS	1361	1479	1502	1628	1602	1774	1774	1869	1982	2112
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

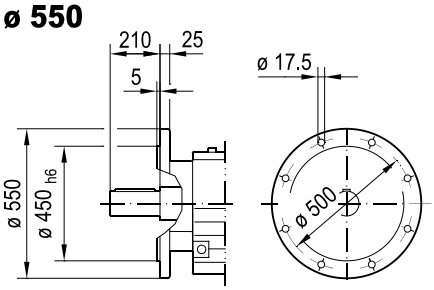
01 052 01 14

RF167..

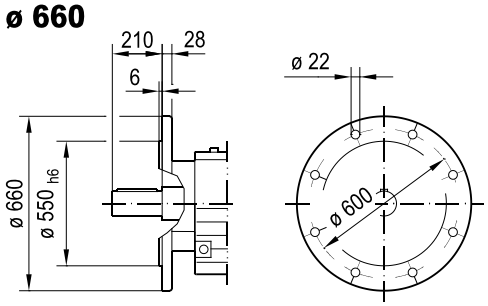




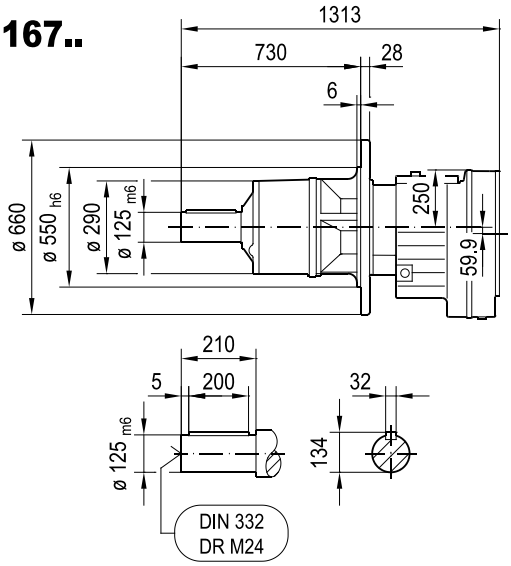
ø 550

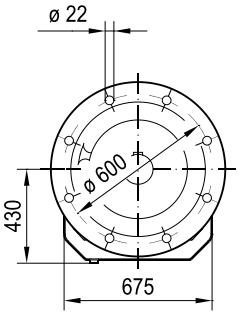


ø 660



RM167..



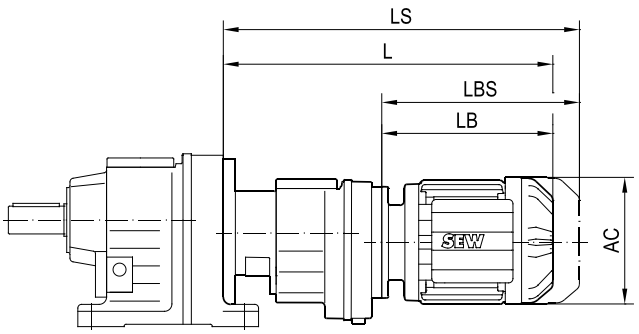


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1224	1290	1313	1423	1397	1534	1534	1629	1731	1861
LS	1361	1479	1502	1628	1602	1774	1774	1869	1982	2112
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

8.6 R..R..DRN.. dimension sheets in mm

01 066 01 21



(→ 📖 7.3)	AC	L	LS	LB	LBS
R..27R17 DR2S56..	109	293	329	160	196
R..27R17 DRN63MS	115	323	379	190	246
R..27R17 DRN63M	115	337	393	204	260
R..27R17 DRN71MS	139	339	406	206	273
R..27R17 DRN71M	139	359	426	226	293
R..37R17 DR2S56..	109	293	329	160	196
R..37R17 DRN63MS	115	323	379	190	246
R..37R17 DRN63M	115	337	393	204	260
R..37R17 DRN71MS	139	339	406	206	273
R..37R17 DRN71M	139	359	426	226	293
R..37R17 DRN80MK	156	370	451	237	318
R..47R37 DRN63MS	115	355	411	190	246
R..47R37 DRN63M	115	369	425	204	260
R..47R37 DRN71MS	139	371	438	206	273
R..47R37 DRN71M	139	391	458	226	293
R..47R37 DRN80MK	156	402	483	237	318
R..47R37 DRN80M	156	447	528	282	363
R..57R37 DRN63MS	115	355	411	190	246
R..57R37 DRN63M	115	369	425	204	260
R..57R37 DRN71MS	139	371	438	206	273
R..57R37 DRN71M	139	391	458	226	293
R..57R37 DRN80MK	156	402	483	237	318
R..57R37 DRN80M	156	447	528	282	363
R..67R37 DRN63MS	115	355	411	190	246
R..67R37 DRN63M	115	369	425	204	260
R..67R37 DRN71MS	139	371	438	206	273
R..67R37 DRN71M	139	391	458	226	293
R..67R37 DRN80MK	156	402	483	237	318
R..67R37 DRN80M	156	447	528	282	363
R..67R37 DRN90S	179	448	542	283	377
R..77R37 DRN63MS	115	347	403	190	246
R..77R37 DRN63M	115	361	417	204	260
R..77R37 DRN71MS	139	363	430	206	273
R..77R37 DRN71M	139	383	450	226	293
R..77R37 DRN80MK	156	394	475	237	318
R..77R37 DRN80M	156	439	520	282	363
R..77R37 DRN90S	179	440	534	283	377
R..77R37 DRN90L	179	472	566	315	409
R..87R57 DRN63MS	115	411	467	184	240
R..87R57 DRN63M	115	425	481	198	254
R..87R57 DRN71MS	139	427	494	199	267
R..87R57 DRN71M	139	447	514	219	287
R..87R57 DRN80MK	156	458	539	230	311
R..87R57 DRN80M	156	503	584	275	356
R..87R57 DRN90S	179	504	598	277	370
R..87R57 DRN90L	179	536	630	309	402
R..87R57 DRN100L/LM	197	583	676	355	449
R..97R57 DRN63MS	115	406	462	184	240
R..97R57 DRN63M	115	420	476	198	254
R..97R57 DRN71MS	139	422	489	199	267
R..97R57 DRN71M	139	442	509	219	287

(→ 📖 7.3)	AC	L	LS	LB	LBS
R..97R57 DRN80MK	156	453	534	230	311
R..97R57 DRN80M	156	498	579	275	356
R..97R57 DRN90S	179	499	593	277	370
R..97R57 DRN90L	179	531	625	309	402
R..97R57 DRN100LS	197	528	621	305	399
R..97R57 DRN100L/LM	197	578	671	355	449
R..107R77 DRN63MS	115	424	480	177	233
R..107R77 DRN63M	115	438	494	191	247
R..107R77 DRN71MS	139	439	507	192	260
R..107R77 DRN71M	139	459	527	212	280
R..107R77 DRN80MK	156	470	551	223	304
R..107R77 DRN80M	156	515	596	268	349
R..107R77 DRN90S	179	517	610	270	363
R..107R77 DRN90L	179	549	642	302	395
R..107R77 DRN100LS	197	545	639	298	392
R..107R77 DRN100L/LM	197	595	689	348	442
R..107R77 DRN112M	221	626	738	379	491
R..107R77 DRN132S	221	676	788	429	541
R..127R77 DRN63MS	115	424	480	177	233
R..127R77 DRN63M	115	438	494	191	247
R..127R77 DRN71MS	139	439	507	192	260
R..127R77 DRN71M	139	459	527	212	280
R..127R77 DRN80MK	156	470	551	223	304
R..127R77 DRN80M	156	515	596	268	349
R..127R77 DRN90S	179	517	610	270	363
R..127R77 DRN90L	179	549	642	302	395
R..127R77 DRN100LS	197	545	639	298	392
R..127R77 DRN100L/LM	197	595	689	348	442
R..127R77 DRN112M	221	626	738	379	491
R..127R77 DRN132S	221	676	788	429	541
R..127R77 DRN132M	261	694	832	447	585
R..127R77 DRN132L	261	720	857	473	610
R..127R77 DRN160..	314	786	975	539	728
R..137R77 DRN63MS	115	417	473	177	233
R..137R77 DRN63M	115	431	487	191	247
R..137R77 DRN71MS	139	432	500	192	260
R..137R77 DRN71M	139	452	520	212	280
R..137R77 DRN80MK	156	463	544	223	304
R..137R77 DRN80M	156	508	589	268	349
R..137R77 DRN90S	179	510	603	270	363
R..137R77 DRN90L	179	542	635	302	395
R..137R77 DRN100LS	197	538	632	298	392
R..137R77 DRN100L/LM	197	588	682	348	442
R..137R77 DRN112M	221	619	731	379	491
R..137R77 DRN132S	221	669	781	429	541
R..137R77 DRN132M	261	687	825	447	585
R..137R77 DRN132L	261	713	850	473	610
R..147R77 DRN63MS	115	409	465	177	233
R..147R77 DRN63M	115	423	479	191	247
R..147R77 DRN71MS	139	424	492	192	260
R..147R77 DRN71M	139	444	512	212	280

26883198/EN – 04/2022

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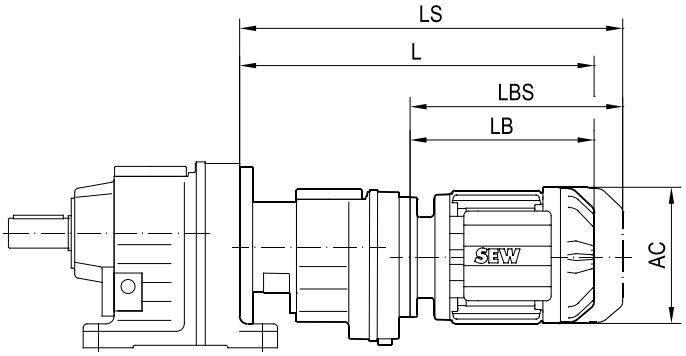
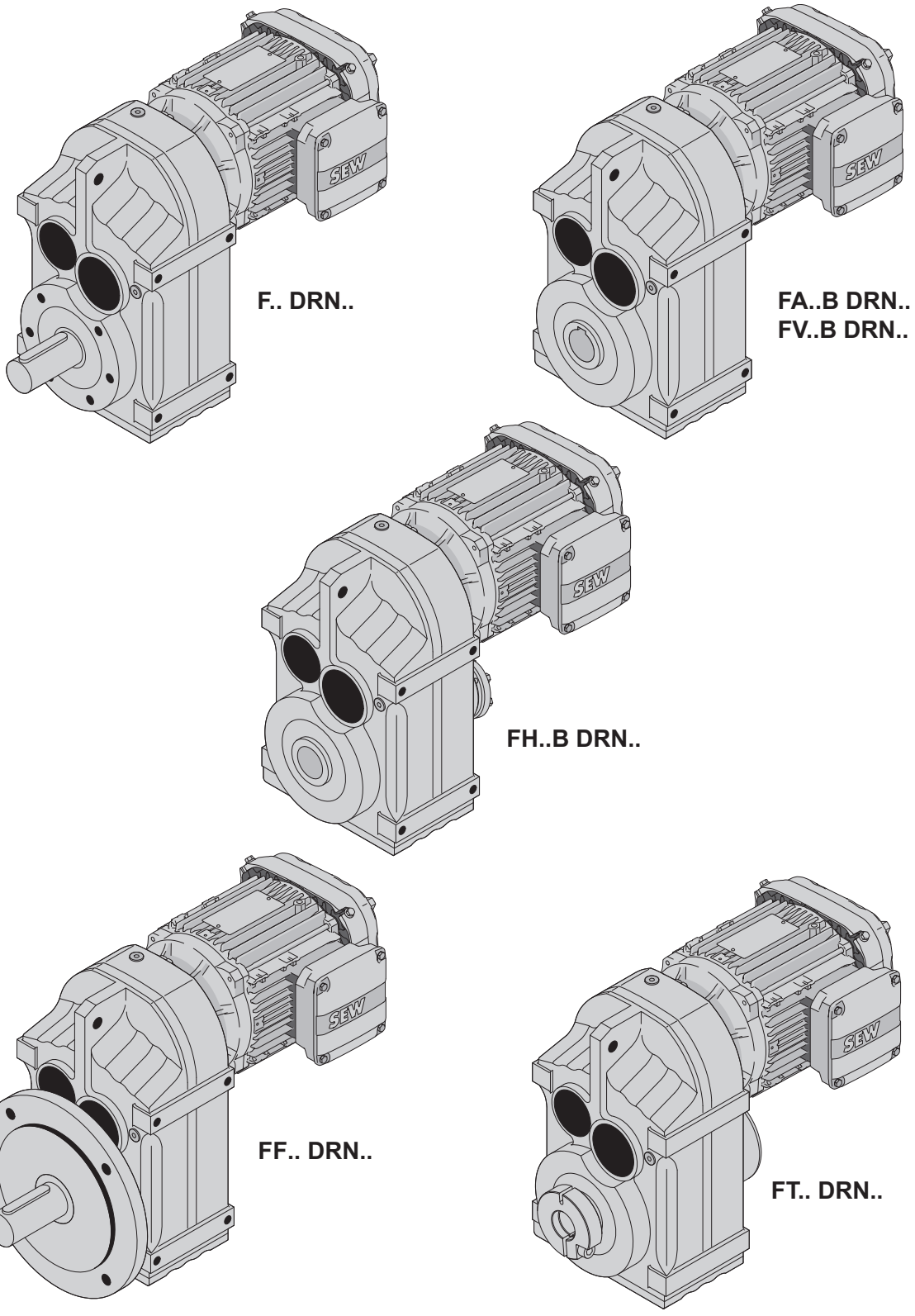


(→ 📖 7.3)	AC	L	LS	LB	LBS
R..147R77 DRN80MK	156	455	536	223	304
R..147R77 DRN80M	156	500	581	268	349
R..147R77 DRN90S	179	502	595	270	363
R..147R77 DRN90L	179	534	627	302	395
R..147R77 DRN100LS	197	530	624	298	392
R..147R77 DRN100L/LM	197	580	674	348	442
R..147R77 DRN112M	221	611	723	379	491
R..147R77 DRN132S	221	661	773	429	541
R..147R77 DRN132M	261	679	817	447	585
R..147R87 DRN90L	179	577	670	297	390
R..147R87 DRN100LS	197	573	667	293	387
R..147R87 DRN100L/LM	197	623	717	343	437
R..147R87 DRN112M	221	654	766	374	486
R..147R87 DRN132S	221	704	816	424	536
R..147R87 DRN132M	261	722	860	442	580
R..147R87 DRN132L	261	748	885	468	605
R..147R87 DRN160..	314	814	1003	534	723
R..147R87 DRN180..	357	837	1026	557	746
R..167R97 DRN71MS	139	507	575	182	250
R..167R97 DRN71M	139	527	595	202	270
R..167R97 DRN80MK	156	538	619	213	294
R..167R97 DRN80M	156	583	664	258	339
R..167R97 DRN90S	179	585	678	260	353
R..167R97 DRN90L	179	617	710	292	385
R..167R97 DRN100LS	197	613	707	288	382
R..167R97 DRN100L/LM	197	663	757	338	432
R..167R97 DRN112M	221	694	806	369	481
R..167R97 DRN132S	221	744	856	419	531
R..167R97 DRN132M	261	762	900	437	575
R..167R97 DRN132L	261	788	925	463	600
R..167R97 DRN160..	314	854	1043	529	718

26883198/EN – 04/2022

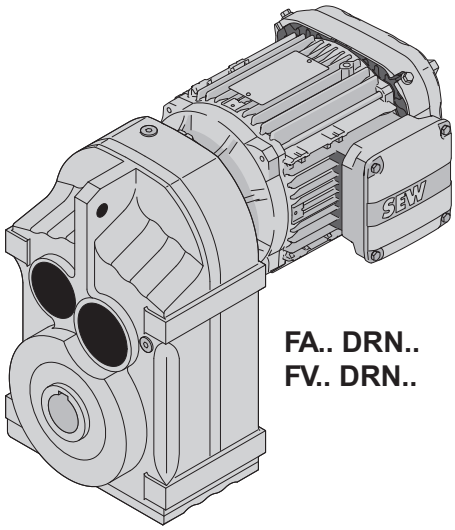
9 Parallel-shaft helical gearmotors

9.1 F..DRN.. designs

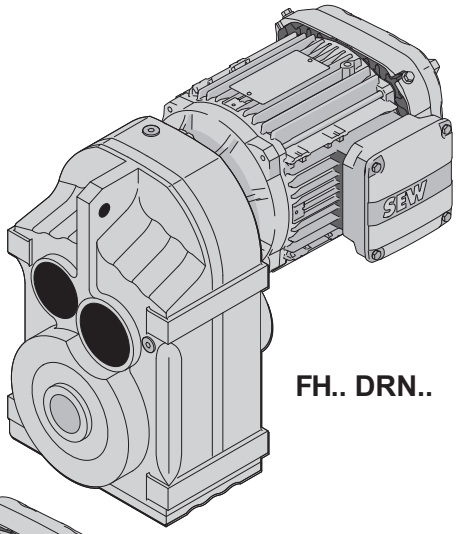


27021611231691019

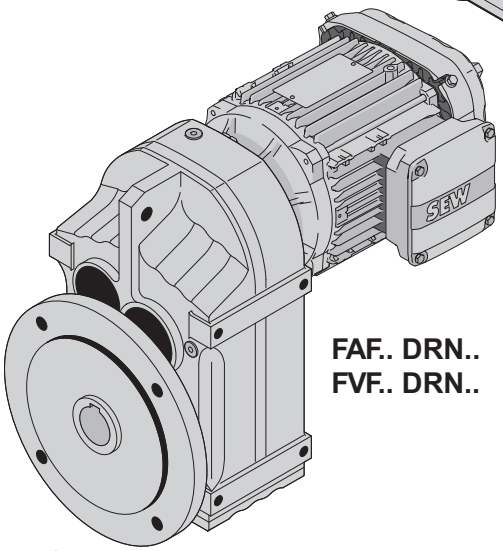
26883198/EN – 04/2022



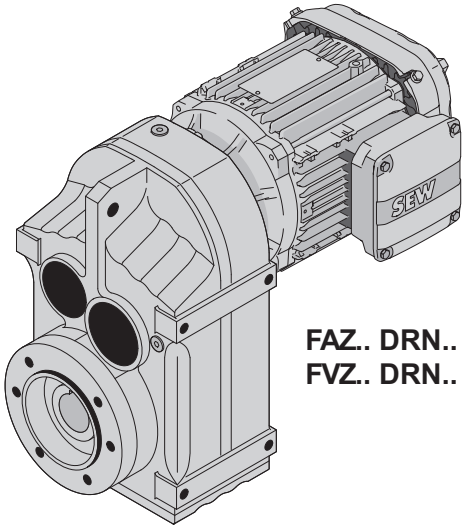
FA.. DRN..
FV.. DRN..



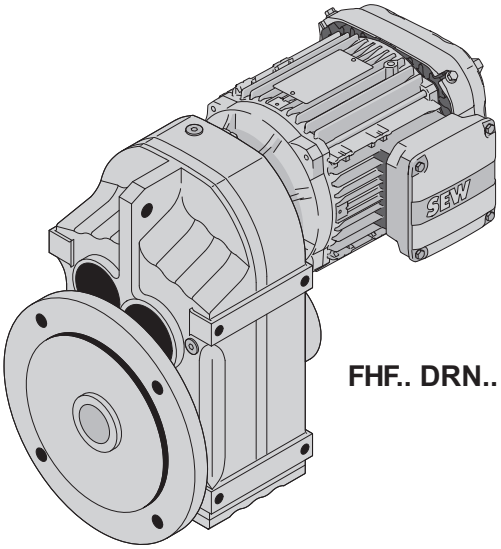
FH.. DRN..



FAF.. DRN..
FVF.. DRN..



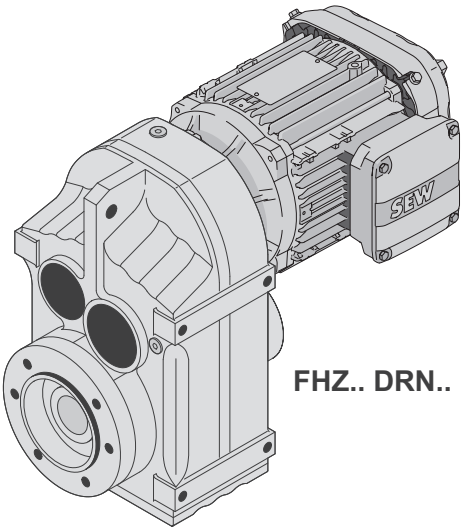
FAZ.. DRN..
FVZ.. DRN..



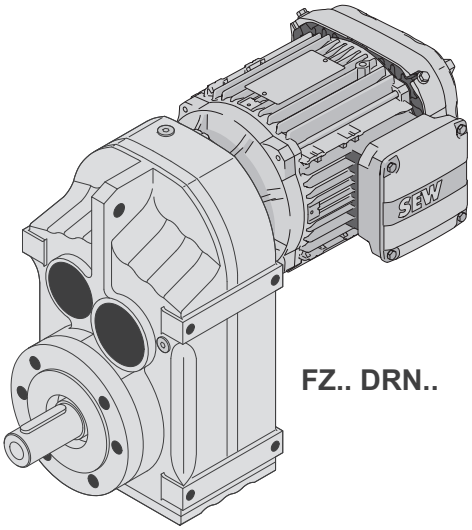
FHF.. DRN..

27021611231693579

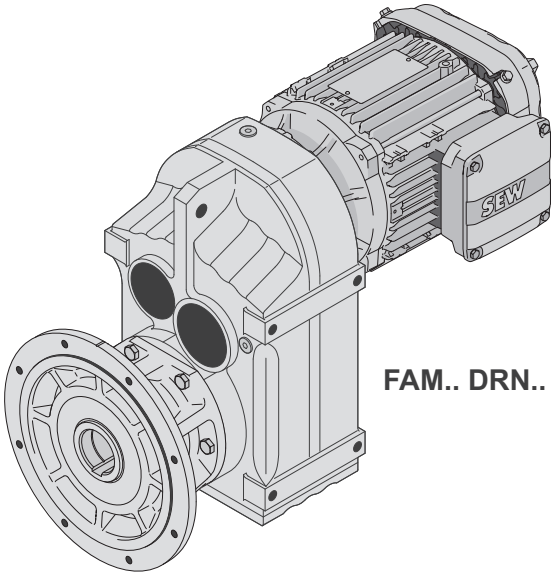
26883198/EN – 04/2022



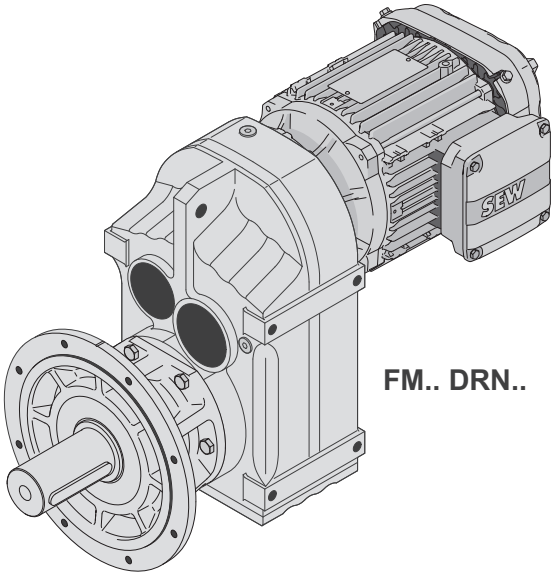
FHZ.. DRN..



FZ.. DRN..



FAM.. DRN..



FM.. DRN..

36028810486643851

26883198/EN – 04/2022

9.2 Possible geometrical combinations of F..DRN..

F27, n_e=1400 min^{-1}								130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
9.9	130	4500	-	140.74				
11	130	4500	-	129.09				
13	130	4500	-	109.90				
15	130	4500	-	94.76				
16	130	4500	-	88.32				
18	130	4500	-	77.21				
19	130	4500	-	72.37				
22	130	4400	-	63.86				
25	130	4180	-	56.62				
28	130	3980	-	50.19				
30	130	3860	-	46.78				
34	130	3640	-	40.89				
37	130	3530	-	38.33				
41	130	3340	-	33.83				
					2			
47	130	3140	-	29.56				
52	130	3030	-	27.18				
60	130	2820	-	23.25				
69	130	2630	-	20.15				
74	130	2550	-	18.84				
86	130	2370	-	16.28				
101	130	2180	-	13.84				
113	130	2060	-	12.35				
133	130	1900	-	10.55				
142	130	1830	-	9.88				
149	130	1660	-	9.40				
172	123	1580	-	8.13				
203	114	1530	-	6.91				
227	109	1480	-	6.17				
266	100	1440	-	5.27				
284	96	1420	-	4.93				
337	87	1380	-	4.16				

F27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.16	130	4500	-	8972			
0.18	130	4500	-	7736			
0.19	130	4500	-	7211			
0.22	130	4500	-	6303			

26883198/EN – 04/2022

F27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.26	130	4500	-	5435			
0.29	130	4500	-	4855			
0.33	130	4500	-	4243			
0.38	130	4500	-	3715			
0.43	130	4500	-	3247			
0.49	130	4500	-	2878			
0.56	130	4500	-	2515			
0.63	130	4500	-	2217			
2 3							
0.74	130	4500	-	1898			
0.85	130	4500	-	1645			
0.92	130	4500	-	1525			
1.1	130	4500	-	1322			
1.2	130	4500	-	1146			
1.4	130	4500	-	1013			
1.6	130	4500	-	890			
1.8	130	4500	-	778			
2.1	130	4500	-	682			
2.3	130	4500	-	602			
2.7	130	4500	-	520			
3 2							
0.72	130	4500	-	1948			
0.77	130	4500	-	1826			
0.87	130	4500	-	1610			
1.0	130	4500	-	1399			
1.1	130	4500	-	1230			
1.5	130	4500	-	948			
1.7	130	4500	-	829			
1.9	130	4500	-	731			
2.2	130	4500	-	633			
2.5	130	4500	-	551*			
2.9	130	4500	-	489			
3.3	130	4500	-	427			
3.7	130	4500	-	379			
4.3	130	4500	-	326			
4.9	130	4500	-	288			
5.6	130	4500	-	251			
6.3	130	4500	-	221			
8.1	130	4500	-	172			
9.2	130	4500	-	153			
11	130	4500	-	130			
2 2							
3.1	130	4500	-	458			
3.5	130	4500	-	397			
4.1	130	4500	-	342			
4.6	130	4500	-	302			
5.3	130	4500	-	266			
5.9	130	4500	-	236			

26883198/EN – 04/2022

F27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
6.6	130	4500	-	211			
7.5	130	4500	-	186			
9.9	130	4500	-	142			
11	130	4500	-	124			
13	130	4500	-	109			
15	130	4500	-	96			

F37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
3								
11	200	4290	7	128.51				
12	200	4290	7	117.88				
14	200	4290	7	100.36				
16	200	4290	7	86.53				
17	200	4290	7	80.65				
20	200	4290	7	70.50				
21	200	4290	7	66.09				
24	200	4290	7	58.32				
26	200	4290	8	54.54				
27	200	4290	7	51.70				
30	200	4290	8	47.02				
32	200	4290	8	43.83				
37	200	4290	8	38.31				
39	200	4290	8	35.91				
44	200	4290	8	31.69				
50	200	4060	8	28.09				
59	200	3760	8	23.88				
2								
59	200	3740	7	23.63				
68	200	3500	7	20.57				
73	200	3390	7	19.27				
82	200	3180	7	17.03				
89	200	3070	7	15.81				
98	200	2910	7	14.33				
109	200	2750	7	12.87				
126	190	2620	7	11.08				
134	185	2580	7	10.42				
156	175	2460	7	8.97				
175	170	2360	8	8.01				
188	145	2350	10	7.44				
208	140	2270	10	6.74				
231	135	2190	11	6.05				
269	125	2120	11	5.21				
286	120	2100	11	4.90				

26883198/EN – 04/2022

F37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
332	110	2030	11	4.22				
371	105	1970	12	3.77				

F37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.17	200	4290	7	8193			
0.20	200	4290	7	7064			
0.21	200	4290	7	6585			
0.24	200	4290	7	5756			
0.28	200	4290	8	4963			
0.32	200	4290	7	4434			
0.36	200	4290	8	3875			
0.41	200	4290	8	3392			
0.47	200	4290	8	2965			
0.54	200	4290	8	2587			
0.61	200	4290	8	2284			
0.70	200	4290	8	1997			
0.80	200	4290	8	1742			
0.91	200	4290	8	1545			
					2 3		
0.73	200	4290	8	1929			
0.83	200	4290	8	1679			
0.90	200	4290	8	1550			
1.0	200	4290	8	1356			
1.2	200	4290	8	1180			
1.3	200	4290	8	1044			
1.5	200	4290	8	914			
1.7	200	4290	8	808			
2.0	200	4290	9	698			
2.3	200	4290	8	616			
2.6	200	4290	8	544			
3.0	200	4290	9	466			
3.4	200	4290	9	411			
3.8	200	4290	9	364			
					3 2		
1.0	200	4290	8	1370			
1.2	200	4290	8	1198			
1.3	200	4290	8	1047			
1.5	200	4290	8	915			
1.7	200	4290	8	807			
2.0	200	4290	8	707			
2.3	200	4290	8	617			
2.6	200	4290	9	538			

26883198/EN – 04/2022

F37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
2.9	200	4290	9	477			
3.4	200	4290	9	412			
3.8	200	4290	9	365			
4.3	200	4290	9	322			
5.0	200	4290	9	278			
5.8	200	4290	9	242			
6.3	200	4290	9	221			
7.2	200	4290	9	195			
8.3	200	4290	10	168			
9.5	200	4290	10	147			
11	200	4290	9	127			
12	200	4290	9	121			
13	200	4290	10	108			
15	200	4290	10	91			
4.3	200	4290	8	326			
4.9	200	4290	8	285			
5.6	200	4290	8	250			
6.4	200	4290	9	219			
7.5	200	4290	9	186			
8.4	200	4290	9	167			
9.7	200	4290	8	145			
11	200	4290	9	129			
12	200	4290	8	118			
14	200	4290	9	98			
16	200	4290	9	87			

F47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
7.3	400	5920	7	190.76				
8.0	400	5920	7	175.38				
9.3	400	5920	7	150.06				
11	400	5920	7	130.07				
12	400	5920	7	121.57				
13	400	5920	7	105.09				
16	400	5920	7	89.29				
18	400	5920	7	79.72				
21	400	5920	7	68.09				
21	400	5920	7	65.36				
25	400	5920	7	56.49				
29	400	5920	7	48.00*				
33	400	5920	7	42.86				
38	400	5920	7	36.61				

26883198/EN – 04/2022

F47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
41	400	5920	7	34.29				
48	400	5790	7	28.88				
2								
45	400	5920	6	30.86				
48	400	5830	6	29.32				
54	400	5460	6	25.72				
64	400	5030	6	21.82				
71	400	4770	6	19.70				
81	400	4450	6	17.33				
86	400	4320	6	16.36				
101	400	3950	7	13.93				
111	400	3740	7	12.66				
128	400	3440	7	10.97				
156	330	3250	8	8.96				
178	380	2630	9	7.88				
188	380	2530	9	7.44*				
221	350	2470	9	6.34				
243	340	2390	9	5.76				
281	320	2310	10	4.99				

F47R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
3 3							
0.11	400	5920	7	12251			
0.13	400	5920	7	10619			
0.14	400	5920	7	9846			
0.16	400	5920	7	8534			
0.19	400	5920	7	7460			
0.21	400	5920	7	6536			
0.24	400	5920	7	5746			
0.28	400	5920	7	5022			
0.32	400	5920	7	4401			
0.36	400	5920	7	3883			
0.41	400	5920	7	3443			
0.47	400	5920	7	2976			
0.53	400	5920	7	2629			
0.61	400	5920	8	2304			
0.69	400	5920	8	2033			
2 3							
0.56	400	5920	7	2519			
0.58	400	5920	7	2394			
0.64	400	5920	7	2172			
0.69	400	5920	7	2025			
0.79	400	5920	7	1770			

26883198/EN – 04/2022

F47R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.89	400	5920	7	1576			
1.0	400	5920	7	1363			
1.2	400	5920	7	1192			
1.3	400	5920	7	1061			
1.5	400	5920	7	931			
1.7	400	5920	7	822			
2.0	400	5920	7	706			
2.3	400	5920	7	619			
3 2							
0.78	400	5920	7	1785			
0.89	400	5920	7	1578			
1.0	400	5920	7	1364			
1.2	400	5920	7	1203			
1.3	400	5920	7	1049			
1.5	400	5920	7	918			
1.7	400	5920	7	809			
2.0	400	5920	7	700			
2.3	400	5920	8	622			
2.6	400	5920	8	543			
2.9	400	5920	8	475			
3.3	400	5920	8	419			
3.8	400	5920	8	370			
4.3	400	5920	8	324			
4.9	400	5920	8	288			
5.6	400	5920	8	249			
6.4	400	5920	8	218			
7.3	400	5920	8	193			
8.0	400	5920	8	175			
9.5	400	5920	9	147			
11	400	5920	9	130			
2 2							
2.7	400	5920	7	524			
2.9	400	5920	7	489			
3.3	400	5920	7	427			
3.7	400	5920	7	381			
4.2	400	5920	7	334			
4.7	400	5920	7	295			
5.5	400	5920	7	253			
6.5	400	5920	7	217			
7.4	400	5920	7	190			
7.9	400	5920	7	178			
9.4	400	5920	7	149			
11	400	5920	8	131			

26883198/EN – 04/2022

F57, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
7.0	600	9200	6	199.70						
7.6	600	9200	7	183.60						
8.9	600	9200	7	157.09						
10	600	9200	7	136.16						
11	600	9200	7	127.27						
13	600	9200	7	110.01						
15	600	9200	7	93.47						
17	600	9200	7	83.46						
19	600	9200	7	72.98						
21	600	9200	7	68.22						
24	600	9200	7	58.97						
28	600	9200	7	50.10						
31	600	9160	7	44.73						
37	600	8510	7	38.21						
39	600	8250	7	35.79						
46	590	7650	7	30.15						
					2					
35	290	10500	6	40.13						
41	500	8670	6	34.24						
47	545	7890	6	29.94						
49	535	7760	6	28.45						
56	575	7060	6	24.96						
66	600	6350	6	21.17						
73	600	6020	6	19.11						
83	600	5620	6	16.81						
88	600	5450	6	15.88						
104	600	4980	7	13.52						
114	600	4710	7	12.29						
132	600	4320	7	10.64						
150	420	4760	8	9.31						
171	420	4450	8	8.19						
181	420	4310	8	7.73						
213	420	3940	8	6.58						
234	420	3730	9	5.98						
270	415	3460	9	5.18						

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.09	600	9200	7	14832				
0.10	600	9200	7	13604				
0.11	600	9200	7	12602				

26883198/EN – 04/2022

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.12	600	9200	7	11252				
0.14	600	9200	7	9986				
0.16	600	9200	7	8787				
0.18	600	9200	7	7908				
0.20	600	9200	7	6913				
0.23	600	9200	7	6030				
0.26	600	9200	7	5289				
0.30	600	9200	7	4654				
0.34	600	9200	7	4060				
0.39	600	9200	7	3564				
0.44	600	9200	7	3161				
0.51	600	9200	7	2737				
0.58	600	9200	7	2409				
0.66	600	9200	8	2131				
0.76	600	9200	7	1840				
0.86	600	9200	7	1623				
0.97	600	9200	7	1439				
1.1	600	9200	8	1238				
0.49	600	9200	7	2854				
0.54	600	9200	7	2576				
0.62	600	9200	8	2266				
0.70	600	9200	7	2012				
0.78	600	9200	7	1791				
0.87	600	9200	7	1617				
0.98	600	9200	8	1422				
1.1	600	9200	8	1243				
1.3	600	9200	7	1066				
1.5	600	9200	7	949				
1.6	600	9200	7	856				
1.9	600	9200	7	749				
2.1	600	9200	8	658				
2.6	600	9200	7	549				
2.9	600	9200	8	483				
1.3	600	9200	7	1106				
1.4	600	9200	7	967				
1.6	600	9200	8	851				
1.9	600	9200	8	738				
2.2	600	9200	8	646				
2.5	600	9200	8	558				
2.8	600	9200	8	506				
3.1	600	9200	7	452				
3.6	600	9200	8	386				
4.1	600	9200	7	338				
5.5	600	9200	7	255				
7.0	600	9200	8	201				
7.7	600	9200	8	181				

26883198/EN – 04/2022

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
9.0	600	9200	8	155				
2 2								
3.3	600	9200	7	426				
3.7	600	9200	7	382				
4.2	600	9200	7	330				
4.7	600	9200	7	298				
5.3	600	9200	7	262				
6.2	600	9200	7	226				
7.0	600	9200	7	200				
8.2	600	9200	8	170				
9.2	600	9200	7	152				
10	600	9200	8	134				

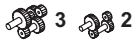
F67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3										
6.1	820	10300	6	228.99						
7.2	820	10300	6	195.39						
8.2	820	10300	6	170.85						
8.6	820	10300	6	162.31						
9.8	820	10300	6	142.40						
12	820	10300	6	120.79						
13	820	10300	6	109.04						
15	820	10300	6	95.94						
15	820	10300	6	90.59						
18	820	10300	7	79.76						
21	820	10300	7	67.65						
23	820	10300	7	61.07						
26	820	10300	7	53.73						
28	820	10300	7	50.74						
32	820	10300	7	43.20						
36	780	10700	7	39.26						
41	740	11000	7	34.01						
2										
39	820	10300	6	36.30						
44	820	10300	6	32.08						
51	820	10300	6	27.41						
56	820	10300	6	25.13						
63	820	10300	6	22.05						
67	820	10300	6	20.90*						
77	820	10300	6	18.29						
85	820	10300	6	16.48						
97	820	10300	6	14.46						

26883198/EN – 04/2022

F67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
110	820	10300	6	12.76						
124	820	10300	6	11.31						
145	820	10300	7	9.66						
154	530	11400	8	9.08						
163	570	10900	9	8.60						
186	610	10100	9	7.53						
206	620	9660	9	6.78						
235	610	9200	9	5.95						
267	590	8850	9	5.25						
300	560	8590	10	4.66						
353	500	8390	10	3.97						

F67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3	3		
0.07	820	10300	6	19199				
0.08	820	10300	6	17610				
0.09	820	10300	6	14992				
0.11	820	10300	6	12926				
0.12	820	10300	6	11480				
0.14	820	10300	6	10220				
0.16	820	10300	6	8933				
0.18	820	10300	6	7940				
0.20	820	10300	6	7096				
0.23	820	10300	6	6080				
0.26	820	10300	7	5341				
0.30	820	10300	7	4690				
0.34	820	10300	6	4091				
0.39	820	10300	7	3574				
0.45	820	10300	6	3133				
0.51	820	10300	6	2756				
0.57	820	10300	7	2439				
					2	3		
0.41	820	10300	6	3377				
0.48	820	10300	6	2912				
0.52	820	10300	6	2714				
0.59	820	10300	6	2372				
0.66	820	10300	7	2126				
0.75	820	10300	7	1859				
0.86	820	10300	7	1631				
0.97	820	10300	6	1437				
1.1	820	10300	6	1256				
1.2	820	10300	7	1126				
1.4	820	10300	7	984				

26883198/EN – 04/2022

F67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
1.6	820	10300	7	864				
1.9	820	10300	7	722				
2.2	820	10300	7	634				
2.6	820	10300	7	539				
								
0.66	820	10300	6	2106				
0.74	820	10300	6	1884				
0.86	820	10300	6	1635				
0.98	820	10300	6	1429				
1.1	820	10300	6	1271				
1.3	820	10300	6	1102				
1.4	820	10300	6	970				
1.6	820	10300	6	858				
1.9	820	10300	7	755				
2.2	820	10300	7	641				
2.4	820	10300	7	572				
2.8	820	10300	7	509				
3.2	820	10300	7	437				
3.6	820	10300	7	384				
4.1	820	10300	7	338				
4.6	820	10300	7	305				
5.4	820	10300	7	257				
6.1	820	10300	7	231				
6.8	820	10300	7	205				
8.0	820	10300	8	175				
2.8	820	10300	6	500				
3.1	820	10300	7	454				
3.6	820	10300	7	392				
4.2	820	10300	7	333				
4.7	820	10300	7	297				
5.4	820	10300	7	261				
5.9	820	10300	7	238				
7.0	820	10300	7	200				
8.0	820	10300	7	176				

F77, n_e=1400 min^{-1}											1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
5.0	1500	15700	6	281.71							
5.3	1500	15700	6	262.93							
6.2	1500	15700	6	225.79							
7.1	1500	15700	6	198.31							
7.4	1500	15700	6	188.40							

26883198/EN – 04/2022

F77, n_e=1400 min^{-1}											1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
8.4	1500	15700	6	166.47							
9.8	1500	15700	6	142.27							
11	1500	15700	6	130.42							
12	1500	15700	6	114.45							
13	1500	15700	6	108.46*							
15	1500	15700	6	94.93							
16	1500	15700	6	85.52							
19	1500	15700	6	75.02							
19	1500	15700	6	72.50							
21	1500	15700	6	66.46							
24	1500	15700	6	58.32							
25	1500	15700	6	55.27							
29	1500	15700	6	48.37							
32	1500	15700	7	43.58							
37	1500	15700	6	38.23							
41	1500	15700	7	33.74							
47	1500	15700	7	29.91							
55	1450	16100	7	25.54							
2											
38	1110	17900	5	36.58							
44	1380	16500	5	31.51							
49	1430	16200	5	28.75							
55	1500	15700	5	25.50*							
65	1500	15700	5	21.43							
71	1500	15700	6	19.70							
80	1500	15700	6	17.49							
90	1500	15700	6	15.64*							
100	1500	15700	6	14.06							
115	1500	14900	6	12.20							
128	1500	14200	6	10.93							
151	1080	13800	8	9.30							
169	1080	13100	8	8.26							
189	1080	12500	8	7.39							
211	1080	12000	8	6.64							
243	1080	11300	8	5.76							
271	1080	10700	8	5.16							
327	1010	10200	9	4.28							

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
3 3								
0.07	1500	15700	6	19180				
0.08	1500	15700	6	17593				
0.09	1500	15700	6	16128				

26883198/EN – 04/2022

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.09	1500	15700	6	14978				
0.10	1500	15700	6	13731				
0.12	1500	15700	6	12049				
0.13	1500	15700	6	11035				
0.14	1500	15700	6	9683				
0.17	1500	15700	6	8464				
0.19	1500	15700	6	7520				
0.21	1500	15700	7	6580				
0.24	1500	15700	6	5808				
0.28	1500	15700	7	5026				
0.32	1500	15700	7	4435				
0.37	1500	15700	7	3832				
0.41	1500	15700	7	3381				
0.47	1500	15700	7	2978				
0.54	1500	15700	7	2613				
0.61	1500	15700	7	2284				
0.69	1500	15700	7	2029				
0.28	1110	17900	6	4931				
0.31	1110	17900	6	4523				
0.36	1110	17900	6	3851				
0.42	1110	17900	6	3320				
0.45	1110	17900	6	3095				
0.52	1110	17900	6	2705				
0.55	1110	17900	6	2536				
0.63	1110	17900	6	2238				
0.69	1110	17900	6	2039				
0.80	1110	17900	6	1759				
0.85	1110	17900	6	1639				
0.98	1110	17900	6	1433				
1.0	1110	17900	6	1343				
1.2	1110	17900	6	1185				
1.3	1110	17900	6	1051				
1.6	1110	17900	6	893				
0.81	1500	15700	6	1728				
0.91	1500	15700	6	1544				
1.0	1500	15700	6	1354				
1.2	1500	15700	7	1200				
1.3	1500	15700	7	1053				
1.5	1500	15700	7	910				
1.7	1500	15700	6	810				
2.0	1500	15700	6	710				
2.3	1500	15700	6	615*				
2.6	1500	15700	6	538				
2.9	1500	15700	6	480				
3.4	1500	15700	7	413				
3.8	1500	15700	7	367				

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
4.3	1500	15700	7	323				
5.0	1500	15700	7	280				
5.7	1500	15700	7	247				
6.3	1500	15700	7	221				
7.0	1500	15700	7	199				
					2 2			
1.7	1110	17900	6	815				
2.0	1110	17900	6	706				
2.1	1110	17900	6	660				
2.5	1110	17900	6	571				
2.9	1110	17900	6	485				
3.2	1110	17900	6	433				
3.8	1110	17900	6	370				
4.0	1110	17900	6	346				
4.8	1110	17900	6	292				

F87, n_e=1400 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							3						
5.2	3000	19800	7	270.68									
5.5	3000	19800	7	255.37									
6.1	3000	19800	7	228.93									
7.1	3000	19800	7	197.20									
7.8	3000	19800	7	179.97									
8.8	3000	19800	7	159.61									
10	3000	19800	7	134.16									
11	3000	19800	7	123.29									
13	3000	19800	8	109.49									
14	3000	19800	8	97.89									
16	3000	19800	8	88.01									
18	3000	19800	8	76.39									
20	3000	19600	8	68.40									
25	3000	17700	8	56.75									
28	2940	16800	8	50.36									
31	2820	16200	8	45.28									
36	2720	15400	8	39.30									
40	2610	14900	8	35.19									
48	2510	13800	8	29.20									
							2						
41	2610	14600	7	33.92									
49	2450	13900	7	28.78									
53	3000	11100	7	26.50									
59	3000	10300	7	23.68									
66	3000	9520	7	21.32*									
73	3000	8840	7	19.31									

26883198/EN – 04/2022

F87, n_e=1400 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
82	3000	8040	7	17.12									
90	3000	7390	7	15.48									
107	3000	6370	7	13.12*									
122	3000	5580	8	11.46									
146	2880	5050	8	9.58									
169	1530	8890	7	8.29									
190	1530	8280	7	7.35									
211	1530	7790	7	6.65									
249	1530	7020	7	5.63									
285	1530	6430	8	4.92									
340	1460	5980	8	4.12									

F87R57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3 3										
0.06	3000	19800	8	23042						
0.07	3000	19800	8	20462						
0.08	3000	19800	8	18238						
0.09	3000	19800	8	15877						
0.10	3000	19800	8	14099						
0.11	3000	19800	8	12205						
0.13	3000	19800	8	10433						
0.15	3000	19800	8	9381						
0.17	3000	19800	8	8142						
0.20	3000	19800	8	7100						
0.22	3000	19800	8	6273						
0.25	3000	19800	8	5510						
0.28	3000	19800	8	4954						
0.33	3000	19800	8	4245						
0.38	3000	19800	8	3721						
2 3										
0.28	3000	19800	8	4952						
0.31	3000	19800	8	4562						
0.36	3000	19800	8	3919						
0.40	3000	19800	8	3503						
0.44	3000	19800	8	3196						
0.49	3000	19800	8	2857						
0.55	3000	19800	8	2524						
0.66	3000	19800	8	2134						
0.73	3000	19800	8	1913*						
0.82	3000	19800	8	1717						
0.95	3000	19800	8	1476						
1.1	3000	19800	8	1278						
1.2	3000	19800	8	1142						
1.4	3000	19800	8	988						
1.6	3000	19800	8	883						

26883198/EN – 04/2022

F87R57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
1.9	3000	19800	8	748						
						3 2				
0.43	3000	19800	8	3244						
0.49	3000	19800	8	2881						
0.54	3000	19800	8	2576						
0.64	3000	19800	8	2199						
0.73	3000	19800	8	1930						
0.82	3000	19800	8	1709						
0.94	3000	19800	8	1493						
1.1	3000	19800	8	1300						
1.2	3000	19800	8	1148						
1.4	3000	19800	8	1010						
1.6	3000	19800	8	887						
1.8	3000	19800	8	780						
2.1	3000	19800	8	674						
2.3	3000	19800	8	609						
2.7	3000	19800	8	515						
3.1	3000	19800	8	452						
4.1	3000	19800	8	345						
4.7	3000	19800	8	300						
5.6	3000	19800	8	249						
						2 2				
2.1	3000	19800	8	662						
2.4	3000	19800	8	592						
2.7	3000	19800	8	519						
3.0	3000	19800	8	468						
3.5	3000	19800	8	398						
4.0	3000	19800	8	350						
4.4	3000	19800	8	315*						
5.0	3000	19800	8	281						
5.8	3000	19800	8	240						
6.6	3000	19800	8	211						
7.3	3000	19800	8	193						

F97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3					
5.1	4300	29900	6	276.77								
5.5	4300	29900	6	253.41								
6.3	4300	29900	6	223.88								
7.4	4300	29900	6	189.92								
8.0	4300	29900	6	174.87								
9.0	4300	29900	6	156.30								
9.9	4300	29900	6	140.71								
11	4300	29900	6	127.42								

26883198/EN – 04/2022

F97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
12	4300	29900	6	112.99								
14	4300	29900	6	102.16								
14	4300	29900	7	97.58								
16	4300	29900	7	89.85								
16	4300	29900	6	86.59								
17	4300	29900	7	80.31								
19	4300	29900	6	75.63								
19	4300	29900	7	72.29								
21	4300	29000	7	65.47								
24	4300	27200	7	58.06								
27	4300	25800	7	52.49								
31	4300	23600	7	44.49								
36	4300	21900	7	38.86								
43	4300	19800	7	32.50								
2												
32	3070	27600	6	43.28								
38	3070	25500	6	36.64								
41	4300	20300	6	33.91								
46	4300	19000	6	30.39								
51	4300	17900	6	27.44*								
56	4300	16800	6	24.92								
63	4300	15600	6	22.11								
70	4300	14600	6	20.07								
81	4300	13200	6	17.25*								
93	4300	11900	6	15.06								
110	4300	10500	6	12.77								
125	4100	10000	6	11.16								
155	2360	13400	9	9.06								
170	2360	12600	9	8.22								
198	2360	11500	9	7.07								
227	2250	11100	9	6.17								
268	2150	10400	9	5.23								
306	2050	9950	9	4.57								
362	1800	9960	9	3.87								

F97R57, n_e=1400 min^{-1}											4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3 3										
0.05	4300	29900	7	29211						
0.05	4300	29900	7	26911						
0.06	4300	29900	7	23814						
0.07	4300	29900	7	20813						
0.08	4300	29900	7	18119*						
0.09	4300	29900	7	15472						
0.10	4300	29900	7	14022						
0.11	4300	29900	7	12324						

26883198/EN – 04/2022

F97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
0.13	4300	29900	7	10838						
0.15	4300	29900	7	9576						
0.17	4300	29900	7	8318						
0.19	4300	29900	7	7328						
0.22	4300	29900	7	6469						
0.25	4300	29900	7	5615						
0.28	4300	29900	7	4961*						
0.32	4300	29900	7	4333*						
0.22	4300	29900	7	6338						
0.25	4300	29900	7	5680						
0.28	4300	29900	7	5016						
0.32	4300	29900	7	4367						
0.36	4300	29900	7	3914						
0.42	4300	29900	7	3357						
0.47	4300	29900	7	3009						
0.57	4300	29900	7	2448						
0.64	4300	29900	7	2199						
0.71	4300	29900	7	1971						
0.80	4300	29900	7	1741*						
0.95	4300	29900	7	1468						
1.1	4300	29900	7	1316						
1.2	4300	29900	7	1189*						
1.4	4300	29900	7	1023						
0.36	4300	29900	7	3906						
0.42	4300	29900	7	3352						
0.48	4300	29900	7	2907						
0.55	4300	29900	7	2553						
0.62	4300	29900	7	2245						
0.71	4300	29900	7	1970						
0.81	4300	29900	7	1722						
0.92	4300	29900	7	1527						
1.1	4300	29900	7	1327						
1.2	4300	29900	7	1171*						
1.4	4300	29900	7	1022						
1.6	4300	29900	7	898						
1.8	4300	29900	7	784						
2.0	4300	29900	7	690						
2.3	4300	29900	7	605						
2.6	4300	29900	7	529						
3.0	4300	29900	7	467						
3.4	4300	29900	7	406						
3.9	4300	29900	7	363						
4.9	4300	29900	7	285						
5.7	4300	29900	7	245						
6.7	4300	29900	7	208						
7.2	4300	29900	7	195						

26883198/EN – 04/2022

F97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					2	2				
1.6	4300	29900	7	892						
1.8	4300	29900	7	760						
2.1	4300	29900	7	667						
2.5	4300	29900	7	569						
2.7	4300	29900	7	510						
3.0	4300	29900	7	473*						
3.5	4300	29900	7	403						
3.9	4300	29900	7	361						
4.4	4300	29900	7	317						
5.1	4300	29900	7	275						
5.8	4300	29900	7	242						

F107, n_e=1400 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
					3						
5.5	7680	49800	6	254.40*							
6.5	7680	49800	6	215.37							
7.0	7680	49800	6	199.31							
7.8	7680	49800	6	178.64							
8.7	7680	49800	6	161.28*							
9.6	7680	49800	6	146.49							
11	7680	49800	6	129.97							
12	7680	49800	6	117.94							
14	7680	49800	6	101.38*							
15	7680	49800	6	92.47*							
16	7680	49800	6	88.49							
17	7680	49800	6	83.99							
19	7680	49800	6	74.52							
21	7680	49800	6	67.62							
24	7680	47800	6	58.12*							
28	7680	45100	6	50.73							
33	7680	42000	6	43.03							
37	7680	39500	6	37.61							
44	7680	36500	6	31.80							
					2						
41	7400	38300	6	33.79*							
51	7840	33300	6	27.57							
56	7840	31500	6	25.14							
64	7840	28800	6	21.76*							
73	7840	26500	6	19.20*							
84	7840	23900	6	16.58							
95	7680	22400	6	14.67							
114	7000	22600	6	12.33							
141	6500	21500	6	9.96							

26883198/EN – 04/2022

F107, n_e=1400 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
144	4910	23500	7	9.69							
167	4800	22000	7	8.37							
189	4600	21300	7	7.40							
225	4600	19000	7	6.22							
278	4600	16400	7	5.03							

F107R77, n_e=1400 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3	3				
0.06	7680	49800	6	25375*							
0.06	7680	49800	6	21652							
0.07	7680	49800	6	18933							
0.08	7680	49800	6	16888							
0.09	7680	49800	6	14767							
0.12	7680	49800	6	11348*							
0.14	7680	49800	6	10039							
0.16	7680	49800	6	8548							
0.18	7680	49800	6	7674							
0.21	7680	49800	6	6767							
0.24	7680	49800	6	5954							
0.27	7680	49800	6	5223							
0.31	7680	49800	7	4567							
0.35	7680	49800	6	3948							
0.40	7680	49800	6	3521							
						2	3				
0.26	7840	49400	6	5383*							
0.30	7840	49400	6	4593							
0.35	7840	49400	6	4016							
0.37	7840	49400	6	3815							
0.42	7840	49400	6	3347							
0.49	7840	49400	6	2839							
0.55	7840	49400	6	2563*							
0.62	7840	49400	6	2255							
0.66	7840	49400	6	2129							
0.77	7840	49400	6	1813							
0.88	7840	49400	6	1590							
0.97	7840	49400	6	1436							
1.1	7840	49400	6	1263							
1.2	7840	49400	6	1193							
1.4	7840	49400	6	1015							
1.5	7840	49400	6	923							
1.8	7840	49400	6	800							
2.0	7840	49400	6	696							
						3	2				
0.46	7680	49800	6	3037							

26883198/EN – 04/2022

F107R77, n_e=1400 min^{-1} — 7840 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
0.51	7680	49800	6	2756							
0.59	7680	49800	6	2369							
0.68	7680	49800	6	2068							
0.77	7680	49800	6	1826							
0.88	7680	49800	6	1597							
1.00	7680	49800	6	1401							
1.1	7680	49800	6	1243							
1.3	7680	49800	6	1087							
1.5	7680	49800	6	950							
1.7	7680	49800	6	834							
1.9	7680	49800	6	736							
2.2	7680	49800	6	640							
2.5	7680	49800	6	560							
2.9	7680	49800	6	489							
3.2	7680	49800	6	436							
3.8	7680	49800	7	370							
4.2	7680	49800	7	333							
4.8	7680	49800	7	291							
5.5	7680	49800	7	255							
6.2	7680	49800	7	225*							
7.4	7680	49800	7	190							
						2	2				
2.2	7840	49400	6	644							
2.4	7840	49400	6	591							
2.7	7840	49400	6	518*							
2.9	7840	49400	6	491							
3.3	7840	49400	6	430							
3.6	7840	49400	6	387							
4.1	7840	49400	6	340							
4.7	7840	49400	6	300							
5.3	7840	49400	6	266							

F127, n_e=1400 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
						3			
8.2	12000	90000	5	170.83					
9.1	12000	90000	5	153.67*					
11	12000	90000	5	125.37					
12	12000	88000	5	114.34					
14	12000	83000	5	98.95					
16	12000	79000	5	87.31*					
19	12000	74300	5	75.41*					
20	12000	72100	6	70.07					
22	12000	69400	6	63.91					
25	12000	65200	6	55.31					

26883198/EN – 04/2022

F127, n_e=1400 min^{-1}									12000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
29	12000	61300	6	48.80					
33	12000	56800	6	42.15					
38	12000	53200	6	37.28					
45	12000	48300	6	31.33					
55	12000	42400	6	25.30					
2									
52	8500	55300	5	26.86					
57	8500	53300	5	24.57					
65	12000	38000	5	21.38					
74	11000	38800	5	18.87					
86	11000	35400	5	16.36					
96	11000	32600	5	14.55					
112	10000	33300	5	12.54					
137	9500	30900	5	10.19					
158	7000	36400	7	8.86					
178	6000	37000	7	7.88					
206	7000	32200	7	6.80					
254	6000	31700	7	5.52					
299	6000	29500	7	4.68					

F127R77, n_e=1400 min^{-1}											12000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
3 3											
0.06	12000	90000	5	24478*							
0.06	12000	90000	5	22323							
0.07	12000	90000	5	19048							
0.08	12000	90000	5	16656							
0.10	12000	90000	6	14722*							
0.11	12000	90000	5	12912							
0.12	12000	90000	5	11656*							
0.14	12000	90000	6	10191							
0.16	12000	90000	5	8831							
0.18	12000	90000	6	7643							
0.21	12000	90000	6	6715							
0.24	12000	90000	6	5925							
0.27	12000	90000	6	5153							
0.31	12000	90000	6	4533							
0.36	12000	90000	6	3926							
0.41	12000	90000	6	3454							
0.46	12000	90000	6	3031							
3 2											
0.52	12000	90000	5	2672							
0.59	12000	90000	5	2357*							
0.69	12000	90000	5	2038							
0.78	12000	90000	5	1784							

26883198/EN – 04/2022

F127R77, n_e=1400 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
0.87	12000	90000	5	1606							
1.0	12000	90000	6	1390							
1.1	12000	90000	6	1220							
1.3	12000	90000	5	1077							
1.5	12000	90000	6	930							
1.7	12000	90000	6	820							
1.9	12000	90000	6	727							
2.2	12000	90000	6	648							
2.6	12000	90000	6	549							
2.8	12000	90000	6	495							
3.3	12000	90000	6	428							
3.7	12000	90000	6	376							

F127R87, n_e=1400 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							3 2					
2.9	12000	90000	6	483								
3.3	12000	90000	6	418								
3.7	12000	90000	6	374								
4.5	12000	90000	6	312								
4.8	12000	90000	6	293								
5.4	12000	90000	6	259								
6.3	12000	90000	6	223								
7.1	12000	90000	6	198								
8.4	12000	90000	6	166								

F157, n_e=1400 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
5.2	20000	93800	5	267.43						
6.4	20000	93800	5	217.62*						
7.9	20000	93800	5	178.20*						
8.6	20000	93800	5	162.96						
9.9	20000	93800	5	141.80*						
11	20000	93800	5	125.14						
13	20000	93800	5	108.49						
15	20000	93800	5	96.53*						
16	20000	91800	5	85.80*						
18	20000	88300	5	78.46						
21	20000	83000	5	68.28*						
23	20000	78500	5	60.25						
27	20000	73600	5	52.24						
30	20000	69600	5	46.48*						

26883198/EN – 04/2022

F157, n_e=1400 min^{-1}											20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H	
35	20000	64900	5	40.06							
43	20000	58500	5	32.55							
51	20000	53800	5	27.60							
2											
26	11000	92400	5	53.55							
32	11900	84000	5	43.94*							
39	13600	74100	5	35.75*							
49	19100	56600	5	28.60*							
55	20000	51500	5	25.43							
63	19900	48000	5	22.16							
71	19400	46100	5	19.77							
83	18700	43500	5	16.85							
100	17900	40700	5	13.96							
117	17300	38300	5	11.92							

F157R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
3 3													
0.04	20000	93800	5	31434									
0.05	20000	93800	5	26173									
0.06	20000	93800	5	23464									
0.07	20000	93800	5	20212									
0.08	20000	93800	5	17984*									
0.09	20000	93800	5	16358									
0.10	20000	93800	5	13751									
0.11	20000	93800	5	12235									
0.14	20000	93800	5	10033									
0.16	20000	93800	5	9021									
0.17	20000	93800	5	8026									
0.20	20000	93800	5	7075									
0.22	20000	93800	5	6295									
0.26	20000	93800	6	5404									
0.29	20000	93800	6	4831									
0.34	20000	93800	5	4130*									
0.39	20000	93800	5	3607									
0.44	20000	93800	5	3210									
0.50	20000	93800	6	2780									
0.97	20000	93800	6	1441									
3 2													
0.58	20000	93800	5	2427									
0.64	20000	93800	5	2185									
0.72	20000	93800	5	1944*									
0.84	20000	93800	5	1674									
1.1	20000	93800	5	1308									
1.2	20000	93800	5	1169									
1.5	20000	93800	6	953									
1.7	20000	93800	6	845									

26883198/EN – 04/2022

F157R97, n_e=1400 min^{-1}													20000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S
1.8	20000	93800	6	764									
2.1	20000	93800	6	680									
2.4	20000	93800	6	576									
2.8	20000	93800	6	503									
3.1	20000	93800	6	446									
4.0	20000	93800	6	353									
4.6	20000	93800	6	302									
5.1	20000	93800	6	273									
6.0	20000	93800	6	232									
6.9	20000	93800	6	202									
7.1	20000	93800	6	197									

26883198/EN – 04/2022

9.3 F..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.06	13900	22323	86700	0.85							
0.07	11800	19048	90000	1.00							
0.08	10300	16656	90000	1.15	**FA**	**127R77**	**DRN**	**63MS4**		425	563
0.09	9180	14722	90000	1.30	**FAF**	**127R77**	**DRN**	**63MS4**		465	563
0.11	7990	12912	90000	1.50	**F**	**127R77**	**DRN**	**63MS4**		460	563
0.12	7040	11656	90000	1.70	**FF**	**127R77**	**DRN**	**63MS4**		510	563
0.14	6310	10191	90000	1.90							
0.09	9200	14767	45500	0.85							
0.12	7070	11348	51400	1.10							
0.14	5740	10039	54600	1.35							
0.16	4670	8548	57000	1.65	**FA**	**107R77**	**DRN**	**63MS4**		275	563
0.18	4750	7674	56800	1.60	**FAF**	**107R77**	**DRN**	**63MS4**		295	563
0.20	4090	6767	58200	1.90	**F**	**107R77**	**DRN**	**63MS4**		290	563
0.23	3460	5954	59500	2.2	**FF**	**107R77**	**DRN**	**63MS4**		320	563
0.26	2990	5223	60400	2.6							
0.30	2840	4567	60700	2.7							
0.39	2120	3521	62000	3.6							
0.21	4140	6469	30300	1.05	**FA**	**97R57**	**DRN**	**63MS4**		185	563
0.25	3820	5615	31300	1.15	**FAF**	**97R57**	**DRN**	**63MS4**		205	563
0.28	3320	4961	32500	1.30	**F**	**97R57**	**DRN**	**63MS4**		190	563
0.32	2900	4333	33500	1.50	**FF**	**97R57**	**DRN**	**63MS4**		225	563
0.35	2690	3906	34000	1.60	**FA**	**97R57**	**DRN**	**63MS4**		185	563
0.41	2320	3352	34800	1.85	**FAF**	**97R57**	**DRN**	**63MS4**		205	563
0.47	1910	2907	35500	2.2	**F**	**97R57**	**DRN**	**63MS4**		190	563
0.54	1750	2553	35800	2.4	**FF**	**97R57**	**DRN**	**63MS4**		225	563
					FA	**87R57**	**DRN**	**63MS4**		120	563
0.33	2760	4245	23800	1.10	**FAF**	**87R57**	**DRN**	**63MS4**		130	563
0.37	2210	3721	25800	1.35	**F**	**87R57**	**DRN**	**63MS4**		125	563
					FF	**87R57**	**DRN**	**63MS4**		140	563
0.43	2240	3244	25700	1.35							
0.48	1990	2881	26500	1.50							
0.54	1780	2576	27100	1.70							
0.63	1510	2199	27800	2.0	**FA**	**87R57**	**DRN**	**63MS4**		115	563
0.72	1300	1930	28300	2.3	**FAF**	**87R57**	**DRN**	**63MS4**		130	563
0.81	1170	1709	28600	2.5	**F**	**87R57**	**DRN**	**63MS4**		125	563
0.92	1030	1493	28900	2.9	**FF**	**87R57**	**DRN**	**63MS4**		140	563
1.1	810	1300	29300	3.7							
1.2	740	1148	29500	4.0							
					FA	**77R37**	**DRN**	**63MS4**		66	563
0.53	1820	2613	13000	0.80	**FAF**	**77R37**	**DRN**	**63MS4**		72	563
0.60	1570	2284	15200	0.95	**F**	**77R37**	**DRN**	**63MS4**		69	563
0.68	1380	2029	16400	1.10	**FF**	**77R37**	**DRN**	**63MS4**		80	563
0.80	1180	1728	17500	1.25							
0.89	1090	1544	17900	1.40							
1.0	950	1354	18500	1.55	**FA**	**77R37**	**DRN**	**63MS4**		65	563
1.1	840	1200	18800	1.75	**FAF**	**77R37**	**DRN**	**63MS4**		72	563
1.3	740	1053	19100	2.0	**F**	**77R37**	**DRN**	**63MS4**		69	563
1.5	630	910	19400	2.4	**FF**	**77R37**	**DRN**	**63MS4**		80	563
1.7	525	810	19600	2.8							
1.9	460	710	19800	3.2							
0.97	960	1429	7070	0.85							
1.1	860	1271	9840	0.95							
1.2	725	1102	11100	1.15							
1.4	635	970	11700	1.30	**FA**	**67R37**	**DRN**	**63MS4**		43	563
1.6	560	858	12100	1.45	**FAF**	**67R37**	**DRN**	**63MS4**		49	563
1.8	490	755	12400	1.65	**F**	**67R37**	**DRN**	**63MS4**		46	563
2.1	415	641	12700	1.95	**FF**	**67R37**	**DRN**	**63MS4**		52	563
2.4	390	572	12800	2.1							
2.7	330	509	13000	2.5							
3.2	285	437	13000	2.9							

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.6	610	851	9100	1.00						
1.9	520	738	9750	1.15	**FA**	**57R37**	**DRN**	**63MS4**	39	563
2.1	455	646	10200	1.30	**FAF**	**57R37**	**DRN**	**63MS4**	45	563
2.5	385	558	10600	1.55	**F**	**57R37**	**DRN**	**63MS4**	39	563
2.7	345	506	10900	1.75	**FF**	**57R37**	**DRN**	**63MS4**	46	563
3.0	295	452	11100	2.0						
3.2	310	426	11100	1.95						
3.6	270	382	11300	2.2	**FA**	**57R37**	**DRN**	**63MS4**	39	563
4.2	230	330	11500	2.6	**FAF**	**57R37**	**DRN**	**63MS4**	44	563
4.6	210	298	11500	2.9	**F**	**57R37**	**DRN**	**63MS4**	39	563
5.3	185	262	11500	3.2	**FF**	**57R37**	**DRN**	**63MS4**	45	563
					FA	**47R17**	**DRN**	**63MS4**	24	563
2.5	385	543	6100	1.05	**FAF**	**47R17**	**DRN**	**63MS4**	27	563
2.9	330	475	6740	1.20	**F**	**47R17**	**DRN**	**63MS4**	25	563
3.3	290	419	7150	1.40	**FF**	**47R17**	**DRN**	**63MS4**	28	563
2.6	380	524	6190	1.05						
2.8	350	489	6530	1.15						
3.2	300	427	7020	1.30	**FA**	**47R17**	**DRN**	**63MS4**	24	563
3.6	265	381	7310	1.50	**FAF**	**47R17**	**DRN**	**63MS4**	26	563
4.1	235	334	7550	1.70	**F**	**47R17**	**DRN**	**63MS4**	24	563
4.7	205	295	7740	1.95	**FF**	**47R17**	**DRN**	**63MS4**	27	563
5.5	171	253	7910	2.3						
4.3	215	322	3990	0.90	**FA**	**37R17**	**DRN**	**63MS4**	19	563
5.0	191	278	4400	1.05	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
5.7	162	242	4750	1.25	**F**	**37R17**	**DRN**	**63MS4**	20	563
6.2	155	221	4820	1.30	**FF**	**37R17**	**DRN**	**63MS4**	22	563
4.2	235	326	3710	0.85						
4.8	200	285	4250	1.00	**FA**	**37R17**	**DRN**	**63MS4**	19	563
5.5	177	250	4590	1.15	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
6.3	156	219	4820	1.30	**F**	**37R17**	**DRN**	**63MS4**	20	563
7.4	131	186	5040	1.50	**FF**	**37R17**	**DRN**	**63MS4**	22	563
8.3	118	167	5140	1.70						
6.2	154	221	4500	0.85	**FA**	**27R17**	**DRN**	**63MS4**	13	563
8.0	119	172	4500	1.10	**FAF**	**27R17**	**DRN**	**63MS4**	14	563
9.1	104	153	4500	1.25	**F**	**27R17**	**DRN**	**63MS4**	14	563
11	86	130	4500	1.50	**FF**	**27R17**	**DRN**	**63MS4**	15	563
6.5	149	211	4500	0.85						
7.4	130	186	4500	1.00	**FA**	**27R17**	**DRN**	**63MS4**	13	563
9.7	102	142	4500	1.25	**FAF**	**27R17**	**DRN**	**63MS4**	14	563
11	88	124	4500	1.45	**F**	**27R17**	**DRN**	**63MS4**	14	563
13	77	109	4500	1.70	**FF**	**27R17**	**DRN**	**63MS4**	14	563
14	67	96	4500	1.95						
3.8	300	228.99	13000	2.7						
4.5	255	195.39	13000	3.2	**FA**	**67**	**DRN**	**63M6**	33	516
5.1	225	170.85	13000	3.6	**FAF**	**67**	**DRN**	**63M6**	39	515
5.4	210	162.31	13000	3.8	**F**	**67**	**DRN**	**63M6**	36	514
6.1	187	142.40	13000	4.4	**FF**	**67**	**DRN**	**63M6**	42	515
4.4	260	199.70	11300	2.3						
4.7	240	183.60	11400	2.5	**FA**	**57**	**DRN**	**63M6**	29	510
5.5	205	157.09	11500	2.9	**FAF**	**57**	**DRN**	**63M6**	34	509
6.4	179	136.16	11500	3.4	**F**	**57**	**DRN**	**63M6**	29	508
6.8	167	127.27	11500	3.6	**FF**	**57**	**DRN**	**63M6**	36	509
6.9	165	199.70	11500	3.6	**FA**	**57**	**DRN**	**63MS4**	28	510
7.5	152	183.60	11500	3.9	**FAF**	**57**	**DRN**	**63MS4**	34	509
8.8	130	157.09	11500	4.6	**F**	**57**	**DRN**	**63MS4**	28	508
10	113	136.16	11500	5.3	**FF**	**57**	**DRN**	**63MS4**	35	509
4.6	250	190.76	7450	1.60						
5.0	230	175.38	7590	1.75						
5.8	197	150.06	7780	2.0	**FA**	**47**	**DRN**	**63M6**	22	504
6.7	171	130.07	7910	2.3	**FAF**	**47**	**DRN**	**63M6**	25	503
7.2	160	121.57	7960	2.5	**F**	**47**	**DRN**	**63M6**	23	502
8.3	138	105.09	8050	2.9	**FF**	**47**	**DRN**	**63M6**	26	503
9.7	117	89.29	8120	3.4						
11	105	79.72	8150	3.8						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	158	190.76	7970	2.5	**FA**	**47**	**DRN**	**63MS4**	21	504
7.9	145	175.38	8020	2.8	**FAF**	**47**	**DRN**	**63MS4**	24	503
9.2	124	150.06	8100	3.2	**F**	**47**	**DRN**	**63MS4**	22	502
11	108	130.07	8150	3.7	**FF**	**47**	**DRN**	**63MS4**	25	503
6.8	169	128.51	4680	1.20						
7.4	155	117.88	4830	1.30	**FA**	**37**	**DRN**	**63M6**	17	498
8.7	132	100.36	5030	1.50	**FAF**	**37**	**DRN**	**63M6**	19	497
10	113	86.53	5170	1.75	**F**	**37**	**DRN**	**63M6**	17	496
11	106	80.65	5220	1.90	**FF**	**37**	**DRN**	**63M6**	19	497
11	106	128.51	5220	1.85						
12	97	117.88	5270	2.0	**FA**	**37**	**DRN**	**63MS4**	16	498
14	83	100.36	5340	2.4	**FAF**	**37**	**DRN**	**63MS4**	18	497
16	71	86.53	5390	2.8	**F**	**37**	**DRN**	**63MS4**	17	496
17	66	80.65	5410	3.0	**FF**	**37**	**DRN**	**63MS4**	19	497
7.9	144	109.90	4500	0.90	**FA**	**27**	**DRN**	**63M6**	11	493
9.2	124	94.76	4500	1.05	**FAF**	**27**	**DRN**	**63M6**	12	492
9.8	116	88.32	4500	1.10	**F**	**27**	**DRN**	**63M6**	11	491
11	101	77.21	4500	1.30	**FF**	**27**	**DRN**	**63M6**	12	492
9.8	116	140.74	4500	1.10						
11	107	129.09	4500	1.20						
13	91	109.90	4500	1.40						
15	78	94.76	4500	1.65						
16	73	88.32	4500	1.75						
18	64	77.21	4500	2.0	**FA**	**27**	**DRN**	**63MS4**	10	493
19	60	72.37	4500	2.2	**FAF**	**27**	**DRN**	**63MS4**	11	492
22	53	63.86	4500	2.5	**F**	**27**	**DRN**	**63MS4**	11	491
24	47	56.62	4500	2.8	**FF**	**27**	**DRN**	**63MS4**	11	492
28	41	50.19	4500	3.1						
30	38	46.78	4500	3.4						
34	33	40.89	4500	3.8						
36	31	38.33	4430	4.1						
41	28	33.83	4270	4.6						
47	24	29.56	4100	5.3						
51	22	27.18	4000	5.8						
59	19	23.25	3820	6.7						
68	16	20.15	3650	7.8						
73	15	18.84	3580	8.3						
85	13	16.28	3420	9.6						
100	11	13.84	3250	11						
112	10	12.35	3140	13	**FA**	**27**	**DRN**	**63MS4**	9.8	493
131	8.0	10.55	2990	15	**FAF**	**27**	**DRN**	**63MS4**	11	492
140	8.0	9.88	2920	16	**F**	**27**	**DRN**	**63MS4**	10	491
147	7.0	9.40	2870	17	**FF**	**27**	**DRN**	**63MS4**	11	492
170	6.0	8.13	2740	18						
200	5.0	6.91	2600	20						
224	5.0	6.17	2510	21						
262	4.0	5.27	2390	23						
280	4.0	4.93	2340	23						
332	3.0	4.16	2210	25						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.11	13000	12912	88400	0.90						
0.12	11600	11656	90000	1.05	**FA**	**127R77**	**DRN**	**63M4**	425	563
0.13	10200	10191	90000	1.15	**FAF**	**127R77**	**DRN**	**63M4**	465	563
0.16	8500	8831	90000	1.40	**F**	**127R77**	**DRN**	**63M4**	465	563
0.18	7360	7643	90000	1.65	**FF**	**127R77**	**DRN**	**63M4**	510	563
0.20	6800	6715	90000	1.75						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.16	8010	8548	48900	0.95						
0.18	7750	7674	49600	1.00						
0.20	6730	6767	52200	1.15	**FA**	**107R77**	**DRN**	**63M4**	275	563
0.23	5790	5954	54500	1.35	**FAF**	**107R77**	**DRN**	**63M4**	295	563
0.26	5030	5223	56200	1.55	**F**	**107R77**	**DRN**	**63M4**	290	563
0.30	4630	4567	57100	1.65	**FF**	**107R77**	**DRN**	**63M4**	320	563
0.39	3500	3521	59400	2.2						
0.45	3100	3037	60200	2.5	**FA**	**107R77**	**DRN**	**63M4**	275	563
0.50	2810	2756	60700	2.7	**FAF**	**107R77**	**DRN**	**63M4**	295	563
0.58	2420	2369	61400	3.2	**F**	**107R77**	**DRN**	**63M4**	290	563
0.66	2110	2068	62000	3.6	**FF**	**107R77**	**DRN**	**63M4**	320	563
					FA	**97R57**	**DRN**	**63M4**	185	563
0.32	4590	4333	29000	0.95	**FAF**	**97R57**	**DRN**	**63M4**	205	563
					F	**97R57**	**DRN**	**63M4**	190	563
					FF	**97R57**	**DRN**	**63M4**	225	563
0.35	4230	3906	30100	1.00						
0.41	3640	3352	31700	1.20						
0.47	3060	2907	33200	1.40						
0.54	2760	2553	33800	1.55	**FA**	**97R57**	**DRN**	**63M4**	185	563
0.61	2430	2245	34500	1.75	**FAF**	**97R57**	**DRN**	**63M4**	205	563
0.70	2110	1970	35200	2.0	**F**	**97R57**	**DRN**	**63M4**	190	563
0.80	1870	1722	35600	2.3	**FF**	**97R57**	**DRN**	**63M4**	225	563
0.90	1660	1527	36000	2.6						
1.0	1360	1327	36500	3.2						
1.2	1270	1171	36600	3.4						
0.53	2800	2576	23700	1.05						
0.63	2380	2199	25200	1.25						
0.71	2070	1930	26200	1.45						
0.80	1850	1709	26900	1.60	**FA**	**87R57**	**DRN**	**63M4**	120	563
0.92	1620	1493	27500	1.85	**FAF**	**87R57**	**DRN**	**63M4**	130	563
1.1	1330	1300	28200	2.2	**F**	**87R57**	**DRN**	**63M4**	125	563
1.2	1190	1148	28500	2.5	**FF**	**87R57**	**DRN**	**63M4**	140	563
1.4	1030	1010	28900	2.9						
1.6	920	887	29100	3.2						
1.8	800	780	29400	3.8						
0.89	1700	1544	14200	0.90						
1.0	1490	1354	15800	1.00						
1.1	1320	1200	16800	1.15	**FA**	**77R37**	**DRN**	**63M4**	66	563
1.3	1150	1053	17600	1.30	**FAF**	**77R37**	**DRN**	**63M4**	73	563
1.5	990	910	18300	1.50	**F**	**77R37**	**DRN**	**63M4**	70	563
1.7	840	810	18800	1.75	**FF**	**77R37**	**DRN**	**63M4**	81	563
1.9	740	710	19100	2.0						
2.2	660	615	19400	2.3						
1.6	890	858	9530	0.90						
1.8	790	755	10600	1.05						
2.1	670	641	11500	1.20	**FA**	**67R37**	**DRN**	**63M4**	44	563
2.4	615	572	11800	1.35	**FAF**	**67R37**	**DRN**	**63M4**	50	563
2.7	530	509	12200	1.55	**F**	**67R37**	**DRN**	**63M4**	47	563
3.1	460	437	12600	1.80	**FF**	**67R37**	**DRN**	**63M4**	53	563
3.6	410	384	12800	2.0						
2.8	550	500	12200	1.50						
3.0	505	454	12400	1.60						
3.5	430	392	12700	1.90	**FA**	**67R37**	**DRN**	**63M4**	43	563
4.1	360	333	12900	2.2	**FAF**	**67R37**	**DRN**	**63M4**	49	563
4.6	320	297	13000	2.5	**F**	**67R37**	**DRN**	**63M4**	46	563
5.3	280	261	13000	2.9	**FF**	**67R37**	**DRN**	**63M4**	52	563
5.8	250	238	13000	3.2						
6.9	205	200	13000	3.9						
2.5	605	558	9120	1.00	**FA**	**57R37**	**DRN**	**63M4**	40	563
2.7	545	506	9600	1.10	**FAF**	**57R37**	**DRN**	**63M4**	46	563
3.0	475	452	10100	1.25	**F**	**57R37**	**DRN**	**63M4**	40	563
3.6	405	386	10500	1.45	**FF**	**57R37**	**DRN**	**63M4**	47	563
4.1	350	338	10800	1.70						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	480	426	10100	1.25						
3.6	425	382	10400	1.40						
4.2	365	330	10800	1.65	**FA**	**57R37**	**DRN**	**63M4**	39	563
4.6	325	298	11000	1.80	**FAF**	**57R37**	**DRN**	**63M4**	45	563
5.2	290	262	11200	2.1	**F**	**57R37**	**DRN**	**63M4**	40	563
6.1	240	226	11400	2.5	**FF**	**57R37**	**DRN**	**63M4**	46	563
6.9	210	200	11500	2.8						
3.7	390	370	6010	1.00	**FA**	**47R17**	**DRN**	**63M4**	25	563
4.2	355	324	6440	1.10	**FAF**	**47R17**	**DRN**	**63M4**	28	563
4.8	310	288	6940	1.30	**F**	**47R17**	**DRN**	**63M4**	26	563
5.5	265	249	7340	1.50	**FF**	**47R17**	**DRN**	**63M4**	29	563
4.1	370	334	6320	1.10						
4.7	320	295	6830	1.25	**FA**	**47R17**	**DRN**	**63M4**	24	563
5.4	270	253	7290	1.45	**FAF**	**47R17**	**DRN**	**63M4**	27	563
6.3	240	217	7500	1.65	**F**	**47R17**	**DRN**	**63M4**	25	563
7.2	210	190	7710	1.90	**FF**	**47R17**	**DRN**	**63M4**	28	563
7.7	197	178	7780	2.0						
7.4	205	186	4200	0.95	**FA**	**37R17**	**DRN**	**63M4**	20	563
8.2	185	167	4490	1.10	**FAF**	**37R17**	**DRN**	**63M4**	22	563
9.4	163	145	4740	1.20	**F**	**37R17**	**DRN**	**63M4**	21	563
11	144	129	4930	1.40	**FF**	**37R17**	**DRN**	**63M4**	22	563
9.7	159	142	4500	0.80	**FA**	**27R17**	**DRN**	**63M4**	14	563
11	137	124	4500	0.95	**FAF**	**27R17**	**DRN**	**63M4**	15	563
13	120	109	4500	1.10	**F**	**27R17**	**DRN**	**63M4**	14	563
14	105	96	4500	1.25	**FF**	**27R17**	**DRN**	**63M4**	15	563
3.2	525	281.71	19600	2.8	**FA**	**77**	**DRN**	**71MS6**	57	524
3.5	490	262.93	19700	3.0	**FAF**	**77**	**DRN**	**71MS6**	64	522
4.0	420	225.79	19800	3.5	**F**	**77**	**DRN**	**71MS6**	61	521
					FF	**77**	**DRN**	**71MS6**	72	522
4.0	430	228.99	12700	1.90	**FA**	**67**	**DRN**	**71MS6**	33	516
4.7	365	195.39	12900	2.2	**FAF**	**67**	**DRN**	**71MS6**	40	515
5.4	320	170.85	13000	2.5	**F**	**67**	**DRN**	**71MS6**	36	514
					FF	**67**	**DRN**	**71MS6**	42	515
6.0	285	228.99	13000	2.9	**FA**	**67**	**DRN**	**63M4**	33	516
7.0	240	195.39	13000	3.4	**FAF**	**67**	**DRN**	**63M4**	39	515
8.1	210	170.85	13000	3.8	**F**	**67**	**DRN**	**63M4**	36	514
					FF	**67**	**DRN**	**63M4**	42	515
4.6	375	199.70	10700	1.60						
5.0	340	183.60	10900	1.75	**FA**	**57**	**DRN**	**71MS6**	30	510
5.8	295	157.09	11200	2.0	**FAF**	**57**	**DRN**	**71MS6**	35	509
6.7	255	136.16	11400	2.4	**F**	**57**	**DRN**	**71MS6**	30	508
7.2	235	127.27	11500	2.5	**FF**	**57**	**DRN**	**71MS6**	36	509
8.3	205	110.01	11500	2.9						
6.9	245	199.70	11400	2.4						
7.5	225	183.60	11500	2.6	**FA**	**57**	**DRN**	**63M4**	29	510
8.8	196	157.09	11500	3.1	**FAF**	**57**	**DRN**	**63M4**	34	509
10	170	136.16	11500	3.5	**F**	**57**	**DRN**	**63M4**	29	508
11	159	127.27	11500	3.8	**FF**	**57**	**DRN**	**63M4**	36	509
4.8	355	190.76	6460	1.10						
5.2	325	175.38	6780	1.20	**FA**	**47**	**DRN**	**71MS6**	22	504
6.1	280	150.06	7220	1.40	**FAF**	**47**	**DRN**	**71MS6**	25	503
7.0	240	130.07	7500	1.65	**F**	**47**	**DRN**	**71MS6**	23	502
7.5	225	121.57	7600	1.75	**FF**	**47**	**DRN**	**71MS6**	26	503
7.2	235	190.76	7540	1.70						
7.8	215	175.38	7660	1.80	**FA**	**47**	**DRN**	**63M4**	22	504
9.2	187	150.06	7840	2.1	**FAF**	**47**	**DRN**	**63M4**	25	503
11	162	130.07	7950	2.5	**F**	**47**	**DRN**	**63M4**	23	502
11	151	121.57	8000	2.6	**FF**	**47**	**DRN**	**63M4**	26	503
7.8	220	117.88	3960	0.90						
9.1	188	100.36	4450	1.05	**FA**	**37**	**DRN**	**71MS6**	18	498
11	162	86.53	4750	1.25	**FAF**	**37**	**DRN**	**71MS6**	19	497
11	151	80.65	4860	1.30	**F**	**37**	**DRN**	**71MS6**	18	496
13	132	70.50	5030	1.50	**FF**	**37**	**DRN**	**71MS6**	20	497

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	160	128.51	4770	1.25						
12	147	117.88	4900	1.35						
14	125	100.36	5080	1.60	**FA**	**37**	**DRN**	**63M4**	17	498
16	108	86.53	5200	1.85	**FAF**	**37**	**DRN**	**63M4**	19	497
17	100	80.65	5250	2.0	**F**	**37**	**DRN**	**63M4**	17	496
20	88	70.50	5320	2.3	**FF**	**37**	**DRN**	**63M4**	19	497
21	82	66.09	5350	2.4						
24	72	58.32	5390	2.7						
13	137	109.90	4500	0.95						
15	118	94.76	4500	1.10						
16	110	88.32	4500	1.20						
18	96	77.21	4500	1.35						
19	90	72.37	4500	1.45	**FA**	**27**	**DRN**	**63M4**	11	493
22	79	63.86	4500	1.65	**FAF**	**27**	**DRN**	**63M4**	12	492
24	70	56.62	4500	1.85	**F**	**27**	**DRN**	**63M4**	11	491
27	62	50.19	4500	2.1	**FF**	**27**	**DRN**	**63M4**	12	492
29	58	46.78	4500	2.2						
34	51	40.89	4360	2.5						
36	47	38.33	4290	2.7						
41	42	33.83	4150	3.1						
47	36	29.56	4000	3.5						
51	33	27.18	3900	3.8						
59	29	23.25	3730	4.5						
68	25	20.15	3580	5.2						
73	23	18.84	3510	5.5						
84	20	16.28	3360	6.4						
99	17	13.84	3200	7.5						
111	15	12.35	3100	8.4	**FA**	**27**	**DRN**	**63M4**	11	493
130	13	10.55	2950	9.9	**FAF**	**27**	**DRN**	**63M4**	11	492
139	12	9.88	2890	11	**F**	**27**	**DRN**	**63M4**	11	491
146	11	9.40	2840	11	**FF**	**27**	**DRN**	**63M4**	12	492
169	10	8.13	2710	12						
199	8.0	6.91	2580	13						
223	7.0	6.17	2490	14						
261	6.0	5.27	2370	15						
279	6.0	4.93	2320	16						
331	5.0	4.16	2200	17						
335	5.0	8.13	2190	24						
395	4.0	6.91	2080	26	**FA**	**27**	**DRN**	**63MS2**	9.8	493
442	3.0	6.17	2000	28	**FAF**	**27**	**DRN**	**63MS2**	11	492
517	3.0	5.27	1900	30	**F**	**27**	**DRN**	**63MS2**	10	491
552	3.0	4.93	1860	31	**FF**	**27**	**DRN**	**63MS2**	11	492
656	2.0	4.16	1760	33						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.04	39400	31434	-	0.50						
0.05	32800	26173	-	0.60	**FA**	**157R97**	**DRN**	**71MS4**	770	563
0.06	29400	23464	-	0.70	**FAF**	**157R97**	**DRN**	**71MS4**	820	563
0.07	25300	20212	-	0.80	**F**	**157R97**	**DRN**	**71MS4**	790	563
0.08	22500	17984	74600	0.90	**FF**	**157R97**	**DRN**	**71MS4**	890	563
0.09	20500	16358	91900	0.95						
0.16	12100	8831	90000	1.00						
0.18	10500	7643	90000	1.15	**FA**	**127R77**	**DRN**	**71MS4**	425	563
0.21	9610	6715	90000	1.25	**FAF**	**127R77**	**DRN**	**71MS4**	465	563
0.24	8480	5925	90000	1.40	**F**	**127R77**	**DRN**	**71MS4**	465	563
0.27	7270	5153	90000	1.65	**FF**	**127R77**	**DRN**	**71MS4**	510	563
0.31	6290	4533	90000	1.90						
0.24	8270	5954	48200	0.95	**FA**	**107R77**	**DRN**	**71MS4**	275	563
0.27	7200	5223	51000	1.05	**FAF**	**107R77**	**DRN**	**71MS4**	295	563
0.31	6530	4567	52700	1.15	**F**	**107R77**	**DRN**	**71MS4**	295	563
0.40	4970	3521	56400	1.55	**FF**	**107R77**	**DRN**	**71MS4**	320	563

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.46	4380	3037	57600	1.75						
0.51	3980	2756	58500	1.95	**FA**	**107R77**	**DRN**	**71MS4**	275	563
0.59	3420	2369	59600	2.2	**FAF**	**107R77**	**DRN**	**71MS4**	295	563
0.68	2980	2068	60400	2.6	**F**	**107R77**	**DRN**	**71MS4**	290	563
0.88	2280	1597	61700	3.4	**FF**	**107R77**	**DRN**	**71MS4**	320	563
1.0	1970	1401	62200	3.9						
0.48	4290	2907	29900	1.00						
0.55	3840	2553	31200	1.10						
0.63	3380	2245	32400	1.25						
0.71	2940	1970	33400	1.45	**FA**	**97R57**	**DRN**	**71MS4**	185	563
0.82	2600	1722	34200	1.65	**FAF**	**97R57**	**DRN**	**71MS4**	205	563
0.92	2300	1527	34800	1.85	**F**	**97R57**	**DRN**	**71MS4**	190	563
1.1	1920	1327	35500	2.2	**FF**	**97R57**	**DRN**	**71MS4**	225	563
1.2	1760	1171	35800	2.4						
1.4	1540	1022	36200	2.8						
0.73	2880	1930	23400	1.05						
0.82	2570	1709	24500	1.15						
0.94	2250	1493	25600	1.35						
1.1	1880	1300	26800	1.60	**FA**	**87R57**	**DRN**	**71MS4**	120	563
1.2	1680	1148	27300	1.80	**FAF**	**87R57**	**DRN**	**71MS4**	130	563
1.4	1460	1010	27900	2.0	**F**	**87R57**	**DRN**	**71MS4**	125	563
1.6	1300	887	28300	2.3	**FF**	**87R57**	**DRN**	**71MS4**	140	563
1.8	1120	780	28700	2.6						
2.1	950	674	29100	3.1						
1.3	1600	1053	15000	0.95						
1.5	1370	910	16500	1.10						
1.7	1190	810	17500	1.25	**FA**	**77R37**	**DRN**	**71MS4**	67	563
2.0	1040	710	18100	1.45	**FAF**	**77R37**	**DRN**	**71MS4**	73	563
2.3	920	615	18600	1.65	**F**	**77R37**	**DRN**	**71MS4**	71	563
2.6	800	538	19000	1.85	**FF**	**77R37**	**DRN**	**71MS4**	81	563
2.9	715	480	19200	2.1						
3.4	605	413	19500	2.5						
					FA	**67R37**	**DRN**	**71MS4**	45	563
2.5	850	572	9940	0.95	**FAF**	**67R37**	**DRN**	**71MS4**	51	563
2.8	745	509	10900	1.10	**F**	**67R37**	**DRN**	**71MS4**	47	563
3.2	640	437	11600	1.25	**FF**	**67R37**	**DRN**	**71MS4**	53	563
2.8	765	500	10800	1.05						
3.1	695	454	11300	1.15						
3.6	600	392	11900	1.35	**FA**	**67R37**	**DRN**	**71MS4**	43	563
4.2	505	333	12400	1.60	**FAF**	**67R37**	**DRN**	**71MS4**	50	563
4.7	445	297	12600	1.85	**F**	**67R37**	**DRN**	**71MS4**	46	563
5.4	390	261	12800	2.1	**FF**	**67R37**	**DRN**	**71MS4**	52	563
5.9	350	238	13000	2.3						
					FA	**57R37**	**DRN**	**71MS4**	41	563
3.6	570	386	9420	1.05	**FAF**	**57R37**	**DRN**	**71MS4**	46	563
4.2	495	338	9940	1.20	**F**	**57R37**	**DRN**	**71MS4**	41	563
5.5	375	255	10700	1.60	**FF**	**57R37**	**DRN**	**71MS4**	47	563
3.7	585	382	9280	1.00						
4.2	505	330	9880	1.20						
4.7	455	298	10200	1.30	**FA**	**57R37**	**DRN**	**71MS4**	40	563
5.4	400	262	10600	1.50	**FAF**	**57R37**	**DRN**	**71MS4**	46	563
6.2	340	226	10900	1.75	**F**	**57R37**	**DRN**	**71MS4**	40	563
7.0	295	200	11100	2.0	**FF**	**57R37**	**DRN**	**71MS4**	47	563
8.3	250	170	11400	2.4						
5.6	370	249	6310	1.10	**FA**	**47R17**	**DRN**	**71MS4**	26	563
6.4	325	218	6780	1.20	**FAF**	**47R17**	**DRN**	**71MS4**	28	563
7.3	290	193	7150	1.40	**F**	**47R17**	**DRN**	**71MS4**	26	563
8.1	260	175	7360	1.50	**FF**	**47R17**	**DRN**	**71MS4**	30	563
5.5	380	253	6180	1.05						
6.5	335	217	6700	1.20	**FA**	**47R17**	**DRN**	**71MS4**	25	563
7.4	290	190	7130	1.35	**FAF**	**47R17**	**DRN**	**71MS4**	28	563
7.9	270	178	7280	1.45	**F**	**47R17**	**DRN**	**71MS4**	26	563
9.4	225	149	7610	1.75	**FF**	**47R17**	**DRN**	**71MS4**	29	563
11	199	131	7770	2.0						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.7	225	145	3880	0.90						
11	199	129	4300	1.00	**FA**	**37R17**	**DRN**	**71MS4**	21	563
12	182	118	4530	1.10	**FAF**	**37R17**	**DRN**	**71MS4**	22	563
14	150	98	4870	1.35	**F**	**37R17**	**DRN**	**71MS4**	21	563
16	132	87	5030	1.50	**FF**	**37R17**	**DRN**	**71MS4**	23	563
3.2	735	281.71	19200	2.0						
3.5	685	262.93	19300	2.2	**FA**	**77**	**DRN**	**71M6**	59	524
4.0	585	225.79	19500	2.5	**FAF**	**77**	**DRN**	**71M6**	65	522
4.6	515	198.31	19700	2.9	**F**	**77**	**DRN**	**71M6**	62	521
4.9	490	188.40	19700	3.0	**FF**	**77**	**DRN**	**71M6**	73	522
4.0	595	228.99	11900	1.35						
4.7	505	195.39	12400	1.60	**FA**	**67**	**DRN**	**71M6**	35	516
5.4	445	170.85	12600	1.85	**FAF**	**67**	**DRN**	**71M6**	41	515
5.6	420	162.31	12700	1.95	**F**	**67**	**DRN**	**71M6**	37	514
6.4	370	142.40	12900	2.2	**FF**	**67**	**DRN**	**71M6**	44	515
6.1	385	228.99	12800	2.1						
7.2	330	195.39	13000	2.5	**FA**	**67**	**DRN**	**71MS4**	33	516
8.2	290	170.85	13000	2.8	**FAF**	**67**	**DRN**	**71MS4**	40	515
8.7	275	162.31	13000	3.0	**F**	**67**	**DRN**	**71MS4**	36	514
9.9	240	142.40	13000	3.4	**FF**	**67**	**DRN**	**71MS4**	42	515
4.6	520	199.70	9780	1.15						
5.0	475	183.60	10100	1.25	**FA**	**57**	**DRN**	**71M6**	31	510
5.8	405	157.09	10500	1.45	**FAF**	**57**	**DRN**	**71M6**	36	509
6.7	355	136.16	10800	1.70	**F**	**57**	**DRN**	**71M6**	31	508
7.2	330	127.27	11000	1.80	**FF**	**57**	**DRN**	**71M6**	37	509
8.3	285	110.01	11200	2.1						
7.0	335	199.70	10900	1.75						
7.7	310	183.60	11100	1.90	**FA**	**57**	**DRN**	**71MS4**	30	510
8.9	265	157.09	11300	2.2	**FAF**	**57**	**DRN**	**71MS4**	35	509
10	230	136.16	11500	2.6	**F**	**57**	**DRN**	**71MS4**	30	508
11	215	127.27	11500	2.8	**FF**	**57**	**DRN**	**71MS4**	36	509
13	186	110.01	11500	3.2						
6.1	390	150.06	6040	1.00	**FA**	**47**	**DRN**	**71M6**	24	504
7.0	335	130.07	6670	1.20	**FAF**	**47**	**DRN**	**71M6**	26	503
7.5	315	121.57	6900	1.25	**F**	**47**	**DRN**	**71M6**	24	502
8.7	270	105.09	7280	1.45	**FF**	**47**	**DRN**	**71M6**	28	503
7.4	320	190.76	6830	1.25						
8.0	295	175.38	7080	1.35						
9.4	250	150.06	7420	1.55	**FA**	**47**	**DRN**	**71MS4**	22	504
11	220	130.07	7650	1.80	**FAF**	**47**	**DRN**	**71MS4**	25	503
12	205	121.57	7730	1.95	**F**	**47**	**DRN**	**71MS4**	23	502
13	178	105.09	7880	2.2	**FF**	**47**	**DRN**	**71MS4**	26	503
16	151	89.29	8000	2.6						
11	215	128.51	4010	0.90						
12	200	117.88	4290	1.00						
14	170	100.36	4670	1.15						
16	147	86.53	4900	1.35						
17	137	80.65	4990	1.45						
20	119	70.50	5130	1.65						
21	112	66.09	5180	1.80	**FA**	**37**	**DRN**	**71MS4**	18	498
24	99	58.32	5260	2.0	**FAF**	**37**	**DRN**	**71MS4**	19	497
26	92	54.54	5300	2.2	**F**	**37**	**DRN**	**71MS4**	18	496
27	87	51.70	5320	2.3	**FF**	**37**	**DRN**	**71MS4**	20	497
30	79	47.02	5360	2.5						
32	74	43.83	5380	2.7						
37	65	38.31	5420	3.1						
39	61	35.91	5440	3.3						
44	53	31.69	5460	3.7						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	131	77.21	4500	1.00						
19	122	72.37	4500	1.05						
22	108	63.86	4500	1.20						
25	96	56.62	4480	1.35	**FA**	**27**	**DRN**	**71MS4**	11	493
28	85	50.19	4370	1.50	**FAF**	**27**	**DRN**	**71MS4**	12	492
30	79	46.78	4300	1.65	**F**	**27**	**DRN**	**71MS4**	12	491
34	69	40.89	4170	1.85	**FF**	**27**	**DRN**	**71MS4**	13	492
37	65	38.33	4100	2.0						
42	57	33.83	3980	2.3						
48	50	29.56	3850	2.6						
52	46	27.18	3760	2.8						
60	39	23.25	3610	3.3						
70	34	20.15	3480	3.8						
75	32	18.84	3410	4.1						
86	27	16.28	3270	4.7						
102	23	13.84	3120	5.5						
114	20	12.35	3020	6.2	**FA**	**27**	**DRN**	**71MS4**	11	493
133	17	10.55	2890	7.2	**FAF**	**27**	**DRN**	**71MS4**	12	492
142	16	9.88	2830	7.7	**F**	**27**	**DRN**	**71MS4**	12	491
149	15	9.40	2770	8.1	**FF**	**27**	**DRN**	**71MS4**	13	492
173	13	8.13	2660	8.9						
203	11	6.91	2530	9.7						
228	10	6.17	2440	10						
267	8.0	5.27	2330	11						
285	8.0	4.93	2280	11						
338	7.0	4.16	2160	12						
339	7.0	8.13	2160	17						
399	5.0	6.91	2050	19	**FA**	**27**	**DRN**	**63M2**	11	493
447	5.0	6.17	1980	20	**FAF**	**27**	**DRN**	**63M2**	11	492
523	4.0	5.27	1890	22	**F**	**27**	**DRN**	**63M2**	11	491
558	4.0	4.93	1850	22	**FF**	**27**	**DRN**	**63M2**	12	492
663	3.0	4.16	1750	24						

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.05	62700	31434	-	0.30						
0.05	52200	26173	-	0.40						
0.06	46800	23464	-	0.45	**FA**	**157R97**	**DRN**	**71M4**	770	563
0.07	40300	20212	-	0.50	**FAF**	**157R97**	**DRN**	**71M4**	830	563
0.08	35900	17984	-	0.55	**F**	**157R97**	**DRN**	**71M4**	790	563
0.09	32600	16358	-	0.60	**FF**	**157R97**	**DRN**	**71M4**	890	563
0.10	27300	13751	-	0.75						
0.12	24300	12235	-	0.80						
0.21	14500	6715	85400	0.80						
0.24	12800	5925	88700	0.95						
0.27	11000	5153	90000	1.10	**FA**	**127R77**	**DRN**	**71M4**	430	563
0.31	9660	4533	90000	1.25	**FAF**	**127R77**	**DRN**	**71M4**	465	563
0.36	8450	3926	90000	1.40	**F**	**127R77**	**DRN**	**71M4**	465	563
0.41	7360	3454	90000	1.65	**FF**	**127R77**	**DRN**	**71M4**	510	563
0.47	6430	3031	90000	1.85						
0.47	6660	3037	52400	1.15						
0.51	6050	2756	53900	1.25	**FA**	**107R77**	**DRN**	**71M4**	275	563
0.60	5200	2369	55900	1.50	**FAF**	**107R77**	**DRN**	**71M4**	295	563
0.68	4540	2068	57300	1.70	**F**	**107R77**	**DRN**	**71M4**	295	563
0.89	3480	1597	59500	2.2	**FF**	**107R77**	**DRN**	**71M4**	320	563
0.72	4420	1970	29500	0.95						
0.82	3890	1722	31100	1.10						
0.93	3450	1527	32200	1.25	**FA**	**97R57**	**DRN**	**71M4**	185	563
1.1	2910	1327	33500	1.45	**FAF**	**97R57**	**DRN**	**71M4**	205	563
1.2	2640	1171	34100	1.60	**F**	**97R57**	**DRN**	**71M4**	195	563
1.4	2310	1022	34800	1.85	**FF**	**97R57**	**DRN**	**71M4**	225	563
1.6	1950	898	35500	2.2						

26883198/EN – 04/2022

P_m = 0.37 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
1.1	2850	1300	23500	1.05							
1.2	2540	1148	24600	1.20							
1.4	2220	1010	25700	1.35							
1.6	1960	887	26500	1.55	**FA**	**87R57**	**DRN**	**71M4**		120	563
1.8	1710	780	27200	1.75	**FAF**	**87R57**	**DRN**	**71M4**		135	563
2.1	1460	674	27900	2.0	**F**	**87R57**	**DRN**	**71M4**		125	563
2.3	1330	609	28200	2.2	**FF**	**87R57**	**DRN**	**71M4**		140	563
2.8	1120	515	28700	2.7							
3.1	990	452	29000	3.0							
1.8	1790	810	13300	0.85							
2.0	1570	710	15200	0.95							
2.3	1380	615	16500	1.10	**FA**	**77R37**	**DRN**	**71M4**		68	563
2.6	1210	538	17400	1.25	**FAF**	**77R37**	**DRN**	**71M4**		75	563
3.0	1070	480	18000	1.40	**F**	**77R37**	**DRN**	**71M4**		72	563
3.4	910	413	18600	1.65	**FF**	**77R37**	**DRN**	**71M4**		82	563
3.9	820	367	18900	1.80							
4.4	730	323	19200	2.0							
3.7	860	384	9900	0.95							
4.2	765	338	10800	1.05	**FA**	**67R37**	**DRN**	**71M4**		46	563
4.7	685	305	11400	1.20	**FAF**	**67R37**	**DRN**	**71M4**		52	563
5.5	575	257	12000	1.40	**F**	**67R37**	**DRN**	**71M4**		49	563
6.1	505	231	12400	1.60	**FF**	**67R37**	**DRN**	**71M4**		55	563
					FA	**57R37**	**DRN**	**71M4**		42	563
5.5	565	255	9440	1.05	**FAF**	**57R37**	**DRN**	**71M4**		47	563
7.0	440	201	10300	1.35	**F**	**57R37**	**DRN**	**71M4**		42	563
7.8	400	181	10600	1.50	**FF**	**57R37**	**DRN**	**71M4**		49	563
5.4	600	262	9190	1.00							
6.3	510	226	9830	1.15	**FA**	**57R37**	**DRN**	**71M4**		41	563
7.1	450	200	10200	1.35	**FAF**	**57R37**	**DRN**	**71M4**		47	563
8.3	380	170	10700	1.55	**F**	**57R37**	**DRN**	**71M4**		41	563
9.3	340	152	10900	1.75	**FF**	**57R37**	**DRN**	**71M4**		48	563
11	295	134	11100	2.0							
					FA	**47R17**	**DRN**	**71M4**		27	563
8.1	390	175	6000	1.00	**FAF**	**47R17**	**DRN**	**71M4**		30	563
9.6	330	147	6750	1.20	**F**	**47R17**	**DRN**	**71M4**		28	563
11	290	130	7120	1.35	**FF**	**47R17**	**DRN**	**71M4**		31	563
					FA	**87**	**DRN**	**80MK6**		100	531
3.5	1020	270.68	28900	2.9	**FAF**	**87**	**DRN**	**80MK6**		115	529
3.7	960	255.37	29000	3.1	**F**	**87**	**DRN**	**80MK6**		105	528
4.1	860	228.93	29200	3.5	**FF**	**87**	**DRN**	**80MK6**		120	529
4.1	850	225.79	18800	1.75							
4.7	745	198.31	19100	2.0	**FA**	**77**	**DRN**	**80MK6**		61	524
5.0	710	188.40	19200	2.1	**FAF**	**77**	**DRN**	**80MK6**		68	522
5.6	625	166.47	19400	2.4	**F**	**77**	**DRN**	**80MK6**		65	521
6.6	535	142.27	19600	2.8	**FF**	**77**	**DRN**	**80MK6**		76	522
5.0	700	281.71	19300	2.1	**FA**	**77**	**DRN**	**71M4**		59	524
5.4	655	262.93	19400	2.3	**FAF**	**77**	**DRN**	**71M4**		65	522
6.3	560	225.79	19600	2.7	**F**	**77**	**DRN**	**71M4**		62	521
7.1	495	198.31	19700	3.0	**FF**	**77**	**DRN**	**71M4**		73	522
4.8	735	195.39	11000	1.10							
5.5	645	170.85	11600	1.25	**FA**	**67**	**DRN**	**80MK6**		37	516
5.8	610	162.31	11800	1.35	**FAF**	**67**	**DRN**	**80MK6**		43	515
6.6	535	142.40	12200	1.50	**F**	**67**	**DRN**	**80MK6**		40	514
7.7	455	120.79	12600	1.80	**FF**	**67**	**DRN**	**80MK6**		46	515
6.2	570	228.99	12100	1.45							
7.2	485	195.39	12500	1.70	**FA**	**67**	**DRN**	**71M4**		35	516
8.3	425	170.85	12700	1.90	**FAF**	**67**	**DRN**	**71M4**		41	515
8.7	405	162.31	12800	2.0	**F**	**67**	**DRN**	**71M4**		37	514
9.9	355	142.40	13000	2.3	**FF**	**67**	**DRN**	**71M4**		44	515
12	300	120.79	13000	2.7							
6.0	590	157.09	9250	1.00	**FA**	**57**	**DRN**	**80MK6**		33	510
6.9	510	136.16	9820	1.15	**FAF**	**57**	**DRN**	**80MK6**		39	509
7.3	480	127.27	10100	1.25	**F**	**57**	**DRN**	**80MK6**		33	508
8.5	415	110.01	10500	1.45	**FF**	**57**	**DRN**	**80MK6**		40	509

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.1	495	199.70	9930	1.20						
7.7	455	183.60	10200	1.30						
9.0	390	157.09	10600	1.55	**FA**	**57**	**DRN**	**71M4**	31	510
10	340	136.16	10900	1.75	**FAF**	**57**	**DRN**	**71M4**	36	509
11	315	127.27	11000	1.90	**F**	**57**	**DRN**	**71M4**	31	508
13	270	110.01	11300	2.2	**FF**	**57**	**DRN**	**71M4**	37	509
15	230	93.47	11500	2.6						
17	205	83.46	11500	2.9						
9.4	370	150.06	6260	1.05						
11	320	130.07	6820	1.25						
13	260	105.09	7370	1.50	**FA**	**47**	**DRN**	**71M4**	24	504
16	220	89.29	7640	1.80	**FAF**	**47**	**DRN**	**71M4**	26	503
18	199	79.72	7780	2.0	**F**	**47**	**DRN**	**71M4**	24	502
21	170	68.09	7920	2.4	**FF**	**47**	**DRN**	**71M4**	28	503
22	163	65.36	7950	2.5						
16	215	86.53	4050	0.95						
18	200	80.65	4270	1.00						
20	176	70.50	4600	1.15						
21	165	66.09	4730	1.20						
24	145	58.32	4920	1.35						
26	136	54.54	5000	1.45	**FA**	**37**	**DRN**	**71M4**	19	498
27	129	51.70	5060	1.55	**FAF**	**37**	**DRN**	**71M4**	20	497
30	117	47.02	5140	1.70	**F**	**37**	**DRN**	**71M4**	19	496
32	109	43.83	5200	1.85	**FF**	**37**	**DRN**	**71M4**	21	497
37	95	38.31	5280	2.1						
39	89	35.91	5310	2.2						
45	79	31.69	5270	2.5						
50	70	28.09	5110	2.9						
59	59	23.88	4900	3.4						
25	141	56.62	4060	0.90						
28	125	50.19	4000	1.05	**FA**	**27**	**DRN**	**71M4**	13	493
30	116	46.78	3960	1.10	**FAF**	**27**	**DRN**	**71M4**	13	492
35	102	40.89	3870	1.25	**F**	**27**	**DRN**	**71M4**	13	491
37	95	38.33	3820	1.35	**FF**	**27**	**DRN**	**71M4**	14	492
42	84	33.83	3730	1.55						
48	73	29.56	3630	1.75						
52	67	27.18	3560	1.90						
61	58	23.25	3440	2.2						
70	50	20.15	3320	2.6						
75	47	18.84	3270	2.8						
87	40	16.28	3150	3.2						
102	34	13.84	3020	3.8						
115	30	12.35	2930	4.2	**FA**	**27**	**DRN**	**71M4**	12	493
134	26	10.55	2800	4.9	**FAF**	**27**	**DRN**	**71M4**	13	492
143	24	9.88	2750	5.3	**F**	**27**	**DRN**	**71M4**	13	491
150	23	9.40	2690	5.5	**FF**	**27**	**DRN**	**71M4**	14	492
174	20	8.13	2590	6.1						
205	17	6.91	2470	6.6						
229	15	6.17	2390	7.1						
269	13	5.27	2280	7.6						
287	12	4.93	2240	7.8						
340	10	4.16	2120	8.4						
346	10	8.13	2120	12						
407	8.0	6.91	2010	13	**FA**	**27**	**DRN**	**71MS2**	11	493
456	7.0	6.17	1940	14	**FAF**	**27**	**DRN**	**71MS2**	12	492
533	6.0	5.27	1850	15	**F**	**27**	**DRN**	**71MS2**	12	491
570	6.0	4.93	1820	15	**FF**	**27**	**DRN**	**71MS2**	13	492
676	5.0	4.16	1720	17						

26883198/EN – 04/2022

P_m = 0.55 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.20	21600	7075	87400	0.90	**FA**	**157R97**	**DRN**	**80MK4**	770	563
0.23	19200	6295	96200	1.05	**FAF**	**157R97**	**DRN**	**80MK4**	830	563
0.27	16000	5404	105500	1.25	**F**	**157R97**	**DRN**	**80MK4**	790	563
0.52	8260	2780	119500	2.4	**FF**	**157R97**	**DRN**	**80MK4**	900	563
0.59	7300	2427	120000	2.7	**FA**	**157R97**	**DRN**	**80MK4**	770	563
0.86	5210	1674	120000	3.8	**FAF**	**157R97**	**DRN**	**80MK4**	820	563
1.1	4010	1308	120000	5.0	**F**	**157R97**	**DRN**	**80MK4**	790	563
1.2	3510	1169	120000	5.7	**FF**	**157R97**	**DRN**	**80MK4**	890	563
0.37	12700	3926	89100	0.95	**FA**	**127R77**	**DRN**	**80MK4**	430	563
0.42	11000	3454	90000	1.10	**FAF**	**127R77**	**DRN**	**80MK4**	470	563
0.47	9700	3031	90000	1.25	**F**	**127R77**	**DRN**	**80MK4**	465	563
					FF	**127R77**	**DRN**	**80MK4**	510	563
0.61	7790	2369	49500	1.00						
0.69	6800	2068	52100	1.15						
0.79	5840	1826	54400	1.30						
0.90	5220	1597	55800	1.45	**FA**	**107R77**	**DRN**	**80MK4**	280	563
1.0	4550	1401	57300	1.70	**FAF**	**107R77**	**DRN**	**80MK4**	300	563
1.1	3970	1243	58500	1.95	**F**	**107R77**	**DRN**	**80MK4**	295	563
1.3	3550	1087	59300	2.2	**FF**	**107R77**	**DRN**	**80MK4**	325	563
1.5	3030	950	60300	2.5						
1.7	2640	834	61000	2.9						
2.2	2050	640	62100	3.7						
1.1	4370	1327	29700	1.00						
1.2	3920	1171	31000	1.10						
1.4	3430	1022	32300	1.25						
1.6	2930	898	33500	1.45						
1.8	2590	784	34200	1.65	**FA**	**97R57**	**DRN**	**80MK4**	190	563
2.1	2250	690	34900	1.90	**FAF**	**97R57**	**DRN**	**80MK4**	210	563
2.4	1980	605	35400	2.2	**F**	**97R57**	**DRN**	**80MK4**	195	563
2.7	1720	529	35900	2.5	**FF**	**97R57**	**DRN**	**80MK4**	230	563
3.1	1520	467	36200	2.8						
3.5	1300	406	36600	3.3						
4.0	1170	363	36800	3.7						
1.6	2930	887	22000	1.00						
1.8	2560	780	24600	1.15						
2.1	2200	674	25800	1.35	**FA**	**87R57**	**DRN**	**80MK4**	120	563
2.4	2000	609	26400	1.50	**FAF**	**87R57**	**DRN**	**80MK4**	135	563
2.8	1690	515	27300	1.75	**F**	**87R57**	**DRN**	**80MK4**	130	563
3.2	1480	452	27800	2.0	**FF**	**87R57**	**DRN**	**80MK4**	145	563
4.2	1110	345	28700	2.7						
3.0	1600	480	15000	0.95	**FA**	**77R37**	**DRN**	**80MK4**	70	563
3.5	1360	413	16500	1.10	**FAF**	**77R37**	**DRN**	**80MK4**	77	563
3.9	1220	367	17300	1.25	**F**	**77R37**	**DRN**	**80MK4**	74	563
4.5	1080	323	18000	1.40	**FF**	**77R37**	**DRN**	**80MK4**	85	563
5.6	850	257	9970	0.95	**FA**	**67R37**	**DRN**	**80MK4**	48	563
6.2	760	231	10800	1.10	**FAF**	**67R37**	**DRN**	**80MK4**	54	563
7.0	680	205	11400	1.20	**F**	**67R37**	**DRN**	**80MK4**	51	563
8.2	575	175	12000	1.40	**FF**	**67R37**	**DRN**	**80MK4**	57	563
3.6	1470	270.68	27900	2.0						
3.8	1380	255.37	28100	2.2	**FA**	**87**	**DRN**	**90SR6**	110	531
4.2	1240	228.93	28400	2.4	**FAF**	**87**	**DRN**	**90SR6**	120	529
4.9	1070	197.20	28800	2.8	**F**	**87**	**DRN**	**90SR6**	115	528
5.4	970	179.97	29000	3.1	**FF**	**87**	**DRN**	**90SR6**	130	529
4.3	1220	225.79	17300	1.20						
4.9	1070	198.31	18000	1.40	**FA**	**77**	**DRN**	**90SR6**	69	524
5.1	1020	188.40	18200	1.45	**FAF**	**77**	**DRN**	**90SR6**	76	522
5.8	900	166.47	18700	1.65	**F**	**77**	**DRN**	**90SR6**	73	521
6.8	770	142.27	19100	1.95	**FF**	**77**	**DRN**	**90SR6**	84	522
7.4	705	130.42	19200	2.1						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.4	820	225.79	18900	1.80						
7.2	725	198.31	19200	2.1						
7.6	685	188.40	19300	2.2						
8.6	605	166.47	19500	2.5	**FA**	**77**	**DRN**	**80MK4**	61	524
10	520	142.27	19700	2.9	**FAF**	**77**	**DRN**	**80MK4**	68	522
11	475	130.42	19700	3.1	**F**	**77**	**DRN**	**80MK4**	65	521
13	415	114.45	19800	3.6	**FF**	**77**	**DRN**	**80MK4**	76	522
13	395	108.46*	19900	3.8						
15	345	94.93	19900	4.3						
7.3	715	195.39	11200	1.15						
8.4	625	170.85	11700	1.30						
8.8	590	162.31	11900	1.40						
10	520	142.40	12300	1.55	**FA**	**67**	**DRN**	**80MK4**	37	516
12	440	120.79	12700	1.85	**FAF**	**67**	**DRN**	**80MK4**	43	515
13	395	109.04	12800	2.0	**F**	**67**	**DRN**	**80MK4**	40	514
15	350	95.94	13000	2.3	**FF**	**67**	**DRN**	**80MK4**	46	515
16	330	90.59	13000	2.5						
18	290	79.76	13000	2.8						
9.1	570	157.09	9390	1.05						
11	495	136.16	9930	1.20						
11	465	127.27	10200	1.30						
13	400	110.01	10600	1.50	**FA**	**57**	**DRN**	**80MK4**	33	510
15	340	93.47	10900	1.75	**FAF**	**57**	**DRN**	**80MK4**	39	509
17	305	83.46	11100	1.95	**F**	**57**	**DRN**	**80MK4**	33	508
20	265	72.98	11300	2.2	**FF**	**57**	**DRN**	**80MK4**	40	509
21	245	68.22	11400	2.4						
24	215	58.97	11500	2.8						
14	380	105.09	6130	1.05						
16	325	89.29	6800	1.20						
18	290	79.72	7130	1.35	**FA**	**47**	**DRN**	**80MK4**	26	504
21	245	68.09	7460	1.60	**FAF**	**47**	**DRN**	**80MK4**	29	503
22	235	65.36	7530	1.65	**F**	**47**	**DRN**	**80MK4**	27	502
25	205	56.49	7730	1.95	**FF**	**47**	**DRN**	**80MK4**	30	503
30	175	48.00*	7890	2.3						
33	156	42.86	7980	2.5						
25	210	58.32	4090	0.95						
26	199	54.54	4300	1.00						
28	189	51.70	4440	1.05						
31	172	47.02	4650	1.15	**FA**	**37**	**DRN**	**80MK4**	21	498
33	160	43.83	4780	1.25	**FAF**	**37**	**DRN**	**80MK4**	23	497
37	140	38.31	4970	1.45	**F**	**37**	**DRN**	**80MK4**	22	496
40	131	35.91	5040	1.50	**FF**	**37**	**DRN**	**80MK4**	23	497
45	115	31.69	4940	1.70						
51	102	28.09	4820	1.95						
60	87	23.88	4640	2.3						
61	86	23.63	4630	2.3						
70	75	20.57	4480	2.7	**FA**	**37**	**DRN**	**80MK4**	21	498
74	70	19.27	4410	2.8	**FAF**	**37**	**DRN**	**80MK4**	22	497
84	62	17.03	4280	3.2	**F**	**37**	**DRN**	**80MK4**	21	496
100	52	14.33	4090	3.8	**FF**	**37**	**DRN**	**80MK4**	23	497
37	143	77.21	3410	0.90						
39	134	72.37	3390	0.95	**FA**	**27**	**DRN**	**71M2**	13	493
44	118	63.86	3340	1.10	**FAF**	**27**	**DRN**	**71M2**	13	492
50	105	56.62	3290	1.25	**F**	**27**	**DRN**	**71M2**	13	491
56	93	50.19	3230	1.40	**FF**	**27**	**DRN**	**71M2**	14	492

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
62	85	23.25	3180	1.55						
71	73	20.15	3100	1.75						
76	68	18.84	3060	1.90						
88	59	16.28	2970	2.2						
104	50	13.84	2860	2.6						
116	45	12.35	2790	2.9						
136	38	10.55	2680	3.4	**FA**	**27**	**DRN**	**80MK4**	15	493
145	36	9.88	2640	3.6	**FAF**	**27**	**DRN**	**80MK4**	15	492
153	34	9.40	2570	3.8	**F**	**27**	**DRN**	**80MK4**	15	491
177	29	8.13	2480	4.1	**FF**	**27**	**DRN**	**80MK4**	16	492
208	25	6.91	2380	4.5						
233	22	6.17	2310	4.8						
272	19	5.27	2210	5.2						
291	18	4.93	2170	5.3						
345	15	4.16	2070	5.7						
348	15	8.13	2060	8.1						
409	12	6.91	1970	8.9	**FA**	**27**	**DRN**	**71M2**	12	493
458	11	6.17	1900	9.5	**FAF**	**27**	**DRN**	**71M2**	13	492
536	9.0	5.27	1820	10	**F**	**27**	**DRN**	**71M2**	13	491
573	9.0	4.93	1780	10	**FF**	**27**	**DRN**	**71M2**	14	492
680	7.0	4.16	1690	11						

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.14	41400	10033	-	0.50						
0.16	36700	9021	-	0.55						
0.18	32600	8026	-	0.60	**FA**	**157R97**	**DRN**	**80M4**	770	563
0.23	26900	6295	-	0.75	**FAF**	**157R97**	**DRN**	**80M4**	830	563
0.27	22600	5404	72400	0.90	**F**	**157R97**	**DRN**	**80M4**	790	563
0.30	19900	4831	93900	1.00	**FF**	**157R97**	**DRN**	**80M4**	900	563
0.35	16800	4130	103600	1.20						
0.52	11600	2780	114700	1.70						
0.59	10300	2427	116800	1.95						
0.66	9140	2185	118400	2.2						
0.74	8130	1944	119600	2.5						
0.86	7280	1674	120000	2.7	**FA**	**157R97**	**DRN**	**80M4**	770	563
1.1	5620	1308	120000	3.5	**FAF**	**157R97**	**DRN**	**80M4**	830	563
1.2	4960	1169	120000	4.0	**F**	**157R97**	**DRN**	**80M4**	790	563
1.5	3920	953	120000	5.1	**FF**	**157R97**	**DRN**	**80M4**	900	563
1.7	3400	845	120000	5.9						
3.2	1790	446	120000	11						
4.8	1210	302	120000	16						
					FA	**127R77**	**DRN**	**80M4**	435	563
0.48	13400	3031	87700	0.90	**FAF**	**127R77**	**DRN**	**80M4**	470	563
					F	**127R77**	**DRN**	**80M4**	470	563
					FF	**127R77**	**DRN**	**80M4**	520	563
0.54	12000	2672	90000	1.00						
0.61	10500	2357	90000	1.15	**FA**	**127R77**	**DRN**	**80M4**	435	563
0.71	9120	2038	90000	1.30	**FAF**	**127R77**	**DRN**	**80M4**	470	563
0.81	7940	1784	90000	1.50	**F**	**127R77**	**DRN**	**80M4**	470	563
0.90	7120	1606	90000	1.70	**FF**	**127R77**	**DRN**	**80M4**	510	563
0.79	8090	1826	48700	0.95						
0.90	7200	1597	51100	1.05						
1.0	6280	1401	53300	1.20						
1.2	5510	1243	55200	1.40	**FA**	**107R77**	**DRN**	**80M4**	280	563
1.3	4900	1087	56500	1.55	**FAF**	**107R77**	**DRN**	**80M4**	305	563
1.5	4210	950	58000	1.80	**F**	**107R77**	**DRN**	**80M4**	300	563
1.7	3670	834	59100	2.1	**FF**	**107R77**	**DRN**	**80M4**	325	563
2.2	2850	640	60700	2.7						
3.3	1940	436	62300	4.0						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	4690	1022	26900	0.90						
1.6	4040	898	30600	1.05						
1.8	3560	784	31900	1.20						
2.1	3100	690	33100	1.40	**FA**	**97R57**	**DRN**	**80M4**	190	563
2.4	2730	605	33900	1.55	**FAF**	**97R57**	**DRN**	**80M4**	215	563
2.7	2370	529	34700	1.80	**F**	**97R57**	**DRN**	**80M4**	200	563
3.1	2090	467	35200	2.0	**FF**	**97R57**	**DRN**	**80M4**	230	563
3.5	1800	406	35700	2.4						
4.0	1620	363	36100	2.6						
2.1	3030	674	18400	1.00						
2.4	2750	609	23900	1.10	**FA**	**87R57**	**DRN**	**80M4**	125	563
2.8	2320	515	25400	1.30	**FAF**	**87R57**	**DRN**	**80M4**	140	563
3.2	2040	452	26300	1.45	**F**	**87R57**	**DRN**	**80M4**	130	563
4.2	1540	345	27700	1.95	**FF**	**87R57**	**DRN**	**80M4**	145	563
					FA	**77R37**	**DRN**	**80M4**	74	563
3.9	1670	367	14400	0.90	**FAF**	**77R37**	**DRN**	**80M4**	80	563
4.5	1480	323	15800	1.00	**F**	**77R37**	**DRN**	**80M4**	77	563
5.2	1270	280	17000	1.15	**FF**	**77R37**	**DRN**	**80M4**	88	563
					FA	**97**	**DRN**	**90S6**	175	538
3.5	2070	276.77	35300	2.1	**FAF**	**97**	**DRN**	**90S6**	195	536
3.8	1890	253.41	35600	2.3	**F**	**97**	**DRN**	**90S6**	180	535
4.3	1670	223.88	36000	2.6	**FF**	**97**	**DRN**	**90S6**	215	536
3.5	2020	270.68	26400	1.50	**FA**	**87**	**DRN**	**90S6**	110	531
3.8	1910	255.37	26700	1.55	**FAF**	**87**	**DRN**	**90S6**	120	529
4.2	1710	228.93	27300	1.75	**F**	**87**	**DRN**	**90S6**	115	528
4.8	1470	197.20	27900	2.0	**FF**	**87**	**DRN**	**90S6**	130	529
					FA	**87**	**DRN**	**90S6**	110	531
5.3	1340	179.97	28200	2.2	**FAF**	**87**	**DRN**	**90S6**	120	529
6.0	1190	159.61	28600	2.5	**F**	**87**	**DRN**	**90S6**	115	528
					FF	**87**	**DRN**	**90S6**	130	529
					FA	**87**	**DRN**	**80M4**	105	531
5.3	1340	270.68	28200	2.2	**FAF**	**87**	**DRN**	**80M4**	115	529
5.6	1270	255.37	28400	2.4	**F**	**87**	**DRN**	**80M4**	110	528
6.3	1130	228.93	28700	2.6	**FF**	**87**	**DRN**	**80M4**	125	529
4.8	1480	198.31	15800	1.00	**FA**	**77**	**DRN**	**90S6**	69	524
5.1	1400	188.40	16300	1.05	**FAF**	**77**	**DRN**	**90S6**	76	522
5.8	1240	166.47	17200	1.20	**F**	**77**	**DRN**	**90S6**	73	521
6.7	1060	142.27	18000	1.40	**FF**	**77**	**DRN**	**90S6**	84	522
					FA	**77**	**DRN**	**90S6**	69	524
7.3	970	130.42	18400	1.55	**FAF**	**77**	**DRN**	**90S6**	76	522
					F	**77**	**DRN**	**90S6**	73	521
					FF	**77**	**DRN**	**90S6**	84	522
6.4	1120	225.79	17800	1.35	**FA**	**77**	**DRN**	**80M4**	65	524
7.3	980	198.31	18400	1.50	**FAF**	**77**	**DRN**	**80M4**	71	522
7.6	930	188.40	18500	1.60	**F**	**77**	**DRN**	**80M4**	68	521
					FF	**77**	**DRN**	**80M4**	79	522
8.7	820	166.47	18900	1.80						
10	705	142.27	19200	2.1	**FA**	**77**	**DRN**	**80M4**	65	524
11	645	130.42	19400	2.3	**FAF**	**77**	**DRN**	**80M4**	71	522
13	565	114.45	19600	2.6	**F**	**77**	**DRN**	**80M4**	68	521
13	535	108.46*	19600	2.8	**FF**	**77**	**DRN**	**80M4**	79	522
8.4	840	170.85	10000	0.95	**FA**	**67**	**DRN**	**80M4**	41	516
8.9	800	162.31	10400	1.00	**FAF**	**67**	**DRN**	**80M4**	47	515
10	705	142.40	11200	1.15	**F**	**67**	**DRN**	**80M4**	43	514
12	600	120.79	11900	1.35	**FF**	**67**	**DRN**	**80M4**	49	515
13	540	109.04	12200	1.50						
15	475	95.94	12500	1.70	**FA**	**67**	**DRN**	**80M4**	41	516
16	450	90.59	12600	1.80	**FAF**	**67**	**DRN**	**80M4**	47	515
18	395	79.76	12800	2.1	**F**	**67**	**DRN**	**80M4**	43	514
21	335	67.65	13000	2.4	**FF**	**67**	**DRN**	**80M4**	49	515
24	300	61.07	13000	2.7						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	630	127.27	7950	0.95						
13	545	110.01	9590	1.10						
15	460	93.47	10200	1.30						
17	415	83.46	10500	1.45	**FA**	**57**	**DRN**	**80M4**	37	510
20	360	72.98	10800	1.65	**FAF**	**57**	**DRN**	**80M4**	42	509
21	335	68.22	10900	1.75	**F**	**57**	**DRN**	**80M4**	37	508
24	290	58.97	11200	2.0	**FF**	**57**	**DRN**	**80M4**	43	509
29	245	50.10	11400	2.4						
32	220	44.73	11300	2.7						
18	395	79.72	5970	1.00	**FA**	**47**	**DRN**	**80M4**	29	504
21	335	68.09	6680	1.20	**FAF**	**47**	**DRN**	**80M4**	32	503
22	325	65.36	6820	1.25	**F**	**47**	**DRN**	**80M4**	30	502
					FF	**47**	**DRN**	**80M4**	33	503
25	280	56.49	7220	1.40						
30	235	48.00*	7540	1.70	**FA**	**47**	**DRN**	**80M4**	29	504
34	210	42.86	7700	1.90	**FAF**	**47**	**DRN**	**80M4**	32	503
39	182	36.61	7860	2.2	**F**	**47**	**DRN**	**80M4**	30	502
42	170	34.29	7770	2.4	**FF**	**47**	**DRN**	**80M4**	33	503
50	143	28.88	7460	2.8						
31	230	47.02	3730	0.85						
33	215	43.83	4020	0.90	**FA**	**37**	**DRN**	**80M4**	24	498
38	190	38.31	4420	1.05	**FAF**	**37**	**DRN**	**80M4**	26	497
40	178	35.91	4570	1.10	**F**	**37**	**DRN**	**80M4**	25	496
45	157	31.69	4590	1.25	**FF**	**37**	**DRN**	**80M4**	27	497
51	139	28.09	4500	1.45						
61	117	23.63	4370	1.70						
70	102	20.57	4250	1.95	**FA**	**37**	**DRN**	**80M4**	24	498
75	95	19.27	4200	2.1	**FAF**	**37**	**DRN**	**80M4**	26	497
85	84	17.03	4090	2.4	**F**	**37**	**DRN**	**80M4**	25	496
100	71	14.33	3930	2.8	**FF**	**37**	**DRN**	**80M4**	27	497
112	64	12.87	3830	3.1						
62	115	23.25	2900	1.10						
71	100	20.15	2860	1.30						
76	93	18.84	2830	1.40						
88	80	16.28	2770	1.60						
104	68	13.84	2700	1.90						
117	61	12.35	2640	2.1						
136	52	10.55	2560	2.5	**FA**	**27**	**DRN**	**80M4**	18	493
146	49	9.88	2520	2.6	**FAF**	**27**	**DRN**	**80M4**	19	492
153	46	9.40	2450	2.8	**F**	**27**	**DRN**	**80M4**	19	491
177	40	8.13	2370	3.0	**FF**	**27**	**DRN**	**80M4**	19	492
208	34	6.91	2280	3.3						
234	30	6.17	2220	3.5						
273	26	5.27	2140	3.8						
292	24	4.93	2100	3.9						
346	20	4.16	2010	4.2						
351	20	8.13	2000	6.0						
413	17	6.91	1920	6.6	**FA**	**27**	**DRN**	**80MS2**	18	493
463	15	6.17	1860	7.0	**FAF**	**27**	**DRN**	**80MS2**	19	492
542	13	5.27	1780	7.6	**F**	**27**	**DRN**	**80MS2**	19	491
579	12	4.93	1740	7.8	**FF**	**27**	**DRN**	**80MS2**	19	492
687	10	4.16	1660	8.3						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.30	30000	4831	-	0.65	**FA**	**157R97**	**DRN**	**90S4**	780	563
0.35	25400	4130	-	0.80	**FAF**	**157R97**	**DRN**	**90S4**	840	563
0.52	17400	2780	101800	1.15	**F**	**157R97**	**DRN**	**90S4**	800	563
					FF	**157R97**	**DRN**	**90S4**	900	563

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.60	15400	2427	107100	1.30						
0.67	13700	2185	110800	1.45						
0.75	12200	1944	113700	1.65						
0.87	10800	1674	116000	1.85	**FA**	**157R97**	**DRN**	**90S4**	770	563
1.1	8380	1308	119300	2.4	**FAF**	**157R97**	**DRN**	**90S4**	830	563
1.2	7420	1169	120000	2.7	**F**	**157R97**	**DRN**	**90S4**	790	563
1.5	5930	953	120000	3.4	**FF**	**157R97**	**DRN**	**90S4**	900	563
1.7	5180	845	120000	3.9						
3.3	2740	446	120000	7.3						
4.8	1850	302	120000	11						
0.71	13400	2038	87700	0.90						
0.82	11700	1784	90000	1.00	**FA**	**127R77**	**DRN**	**90S4**	440	563
0.91	10500	1606	90000	1.15	**FAF**	**127R77**	**DRN**	**90S4**	475	563
1.1	9100	1390	90000	1.30	**F**	**127R77**	**DRN**	**90S4**	475	563
1.2	7950	1220	90000	1.50	**FF**	**127R77**	**DRN**	**90S4**	520	563
1.4	7070	1077	90000	1.70						
1.2	8140	1243	48600	0.95						
1.3	7200	1087	51100	1.05	**FA**	**107R77**	**DRN**	**90S4**	285	563
1.5	6220	950	53500	1.25	**FAF**	**107R77**	**DRN**	**90S4**	310	563
1.8	5430	834	55300	1.40	**F**	**107R77**	**DRN**	**90S4**	305	563
2.0	4770	736	56800	1.60	**FF**	**107R77**	**DRN**	**90S4**	330	563
2.3	4200	640	58000	1.85						
2.1	4560	690	29100	0.95						
2.4	4010	605	30700	1.05	**FA**	**97R57**	**DRN**	**90S4**	195	563
2.8	3490	529	32100	1.25	**FAF**	**97R57**	**DRN**	**90S4**	220	563
3.1	3080	467	33100	1.40	**F**	**97R57**	**DRN**	**90S4**	205	563
3.6	2660	406	34100	1.60	**FF**	**97R57**	**DRN**	**90S4**	240	563
4.0	2390	363	34600	1.80						
3.2	3000	452	19600	1.00	**FA**	**87R57**	**DRN**	**90S4**	130	563
4.2	2270	345	25600	1.30	**FAF**	**87R57**	**DRN**	**90S4**	145	563
4.8	1960	300	26500	1.50	**F**	**87R57**	**DRN**	**90S4**	140	563
5.8	1630	249	27500	1.85	**FF**	**87R57**	**DRN**	**90S4**	155	563
3.5	3030	276.77	33200	1.40						
3.8	2780	253.41	33800	1.55	**FA**	**97**	**DRN**	**90L6**	175	538
4.3	2450	223.88	34500	1.75	**FAF**	**97**	**DRN**	**90L6**	200	536
5.0	2080	189.92	35200	2.1	**F**	**97**	**DRN**	**90L6**	185	535
5.5	1910	174.87	35500	2.2	**FF**	**97**	**DRN**	**90L6**	215	536
					FA	**97**	**DRN**	**90S4**	175	538
5.3	1990	276.77	35400	2.1	**FAF**	**97**	**DRN**	**90S4**	195	536
5.7	1820	253.41	35700	2.4	**F**	**97**	**DRN**	**90S4**	180	535
6.5	1610	223.88	36100	2.7	**FF**	**97**	**DRN**	**90S4**	215	536
4.2	2510	228.93	24800	1.20	**FA**	**87**	**DRN**	**90L6**	110	531
4.8	2160	197.20	25900	1.40	**FAF**	**87**	**DRN**	**90L6**	125	529
5.3	1970	179.97	26500	1.50	**F**	**87**	**DRN**	**90L6**	120	528
6.0	1750	159.61	27200	1.70	**FF**	**87**	**DRN**	**90L6**	135	529
5.4	1950	270.68	26600	1.55	**FA**	**87**	**DRN**	**90S4**	110	531
5.7	1840	255.37	26900	1.65	**FAF**	**87**	**DRN**	**90S4**	120	529
6.4	1650	228.93	27400	1.80	**F**	**87**	**DRN**	**90S4**	115	528
7.4	1420	197.20	28000	2.1	**FF**	**87**	**DRN**	**90S4**	130	529
8.1	1290	179.97	28300	2.3	**FA**	**87**	**DRN**	**90S4**	110	531
9.1	1150	159.61	28600	2.6	**FAF**	**87**	**DRN**	**90S4**	120	529
11	960	134.16	29000	3.1	**F**	**87**	**DRN**	**90S4**	115	528
12	890	123.29	29200	3.4	**FF**	**87**	**DRN**	**90S4**	130	529
7.3	1430	198.31	16200	1.05	**FA**	**77**	**DRN**	**90S4**	69	524
7.7	1360	188.40	16600	1.10	**FAF**	**77**	**DRN**	**90S4**	76	522
8.7	1200	166.47	17400	1.25	**F**	**77**	**DRN**	**90S4**	73	521
10	1020	142.27	18200	1.45	**FF**	**77**	**DRN**	**90S4**	84	522
11	940	130.42	18500	1.60						
13	820	114.45	18900	1.80	**FA**	**77**	**DRN**	**90S4**	69	524
13	780	108.46*	19000	1.90	**FAF**	**77**	**DRN**	**90S4**	76	522
15	685	94.93	19300	2.2	**F**	**77**	**DRN**	**90S4**	73	521
17	615	85.52	19500	2.4	**FF**	**77**	**DRN**	**90S4**	84	522
19	540	75.02	19600	2.8						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	870	120.79	9820	0.95	**FA** **FAF** **F** **FF**	**67** **67** **67** **67**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	47 53 50 56	516 515 514 515
13	785	109.04	10600	1.05						
15	690	95.94	11300	1.20						
16	650	90.59	11600	1.25						
18	575	79.76	12000	1.40						
22	485	67.65	12500	1.70	**FA** **FAF** **F** **FF**	**67** **67** **67** **67**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	47 53 50 56	516 515 514 515
24	440	61.07	12700	1.85						
27	385	53.73	12900	2.1						
29	365	50.74	12900	2.2						
34	310	43.20	13000	2.6						
37	280	39.26	13000	2.8						
43	245	34.01	13000	3.0						
17	600	83.46	9180	1.00						
20	525	72.98	9740	1.15						
21	490	68.22	9980	1.20						
25	425	58.97	10400	1.40	**FA** **FAF** **F** **FF**	**57** **57** **57** **57**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	43 48 43 50	510 509 508 509
29	360	50.10	10800	1.65						
33	320	44.73	10600	1.85						
38	275	38.21	10300	2.2						
41	255	35.79	10100	2.3						
48	215	30.15	9720	2.7						
26	405	56.49	5680	1.00	**FA** **FAF** **F** **FF**	**47** **47** **47** **47**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	35 38 36 39	504 503 502 503
30	345	48.00*	6600	1.15						
34	305	42.86	6970	1.30	**FA** **FAF** **F** **FF**	**47** **47** **47** **47**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	35 38 36 39	504 503 502 503
40	260	36.61	7300	1.50						
42	245	34.29	7210	1.60						
50	205	28.88	6990	1.90						
47	220	30.86	7080	1.80						
50	210	29.32	7010	1.90	**FA** **FAF** **F** **FF**	**47** **47** **47** **47**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	34 37 35 38	504 503 502 503
57	185	25.72	6820	2.1						
67	157	21.82	6580	2.5						
74	142	19.70	6430	2.8						
46	225	31.69	3830	0.85	**FA** **FAF** **F** **FF**	**37** **37** **37** **37**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	30 32 31 33	498 497 496 497
52	200	28.09	3960	1.00						
61	172	23.88	3920	1.15						
71	148	20.57	3860	1.35						
76	139	19.27	3820	1.45						
85	122	17.03	3760	1.65	**FA** **FAF** **F** **FF**	**37** **37** **37** **37**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	30 32 31 32	498 497 496 497
102	103	14.33	3650	1.95						
113	92	12.87	3580	2.1						
131	80	11.08	3470	2.4						
140	75	10.42	3430	2.5						
162	64	8.97	3320	2.7						
72	145	20.15	2440	0.90						
77	136	18.84	2440	0.95						
89	117	16.28	2440	1.10						
105	99	13.84	2410	1.30						
118	89	12.35	2380	1.45						
138	76	10.55	2330	1.70	**FA** **FAF** **F** **FF**	**27** **27** **27** **27**	**DRN** **DRN** **DRN** **DRN**	**90S4** **90S4** **90S4** **90S4**	24 25 24 25	493 492 491 492
147	71	9.88	2310	1.80						
155	67	9.40	2230	1.90						
179	58	8.13	2180	2.1						
211	49	6.91	2120	2.3						
236	44	6.17	2080	2.5						
276	38	5.27	2010	2.6						
295	35	4.93	1990	2.7						
350	30	4.16	1910	2.9						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
352	29	8.13	1910	4.1						
414	25	6.91	1840	4.5	**FA**	**27**	**DRN**	**80M2**	18	493
464	22	6.17	1790	4.8	**FAF**	**27**	**DRN**	**80M2**	19	492
543	19	5.27	1720	5.2	**F**	**27**	**DRN**	**80M2**	19	491
580	18	4.93	1690	5.3	**FF**	**27**	**DRN**	**80M2**	19	492
688	15	4.16	1610	5.7						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**90L4**	780	563
0.53	24100	2780	10800	0.85	**FAF**	**157R97**	**DRN**	**90L4**	840	563
					F	**157R97**	**DRN**	**90L4**	800	563
					FF	**157R97**	**DRN**	**90L4**	910	563
0.60	21300	2427	88800	0.95						
0.67	19000	2185	96900	1.05						
0.75	16900	1944	103200	1.20						
0.87	14800	1674	108300	1.35	**FA**	**157R97**	**DRN**	**90L4**	780	563
1.1	11500	1308	114800	1.75	**FAF**	**157R97**	**DRN**	**90L4**	840	563
1.2	10200	1169	116900	1.95	**F**	**157R97**	**DRN**	**90L4**	800	563
1.5	8250	953	119500	2.4	**FF**	**157R97**	**DRN**	**90L4**	900	563
1.7	7240	845	120000	2.8						
3.3	3820	446	120000	5.2						
4.8	2590	302	120000	7.7						
0.91	14400	1606	85700	0.85						
1.1	12400	1390	89500	0.95						
1.2	10900	1220	90000	1.10	**FA**	**127R77**	**DRN**	**90L4**	440	563
1.4	9690	1077	90000	1.25	**FAF**	**127R77**	**DRN**	**90L4**	480	563
1.6	8320	930	90000	1.45	**F**	**127R77**	**DRN**	**90L4**	480	563
1.8	7310	820	90000	1.65	**FF**	**127R77**	**DRN**	**90L4**	520	563
2.0	6460	727	90000	1.85						
2.2	5830	648	90000	2.1						
1.5	8530	950	47500	0.90						
1.8	7460	834	50400	1.05						
2.0	6560	736	52700	1.15	**FA**	**107R77**	**DRN**	**90L4**	290	563
2.3	5760	640	54600	1.35	**FAF**	**107R77**	**DRN**	**90L4**	310	563
2.6	4980	560	56300	1.55	**F**	**107R77**	**DRN**	**90L4**	305	563
3.0	4350	489	57700	1.75	**FF**	**107R77**	**DRN**	**90L4**	335	563
3.4	3920	436	58600	1.95						
4.0	3320	370	59800	2.3						
2.8	4780	529	23800	0.90	**FA**	**97R57**	**DRN**	**90L4**	200	563
3.1	4220	467	30100	1.00	**FAF**	**97R57**	**DRN**	**90L4**	220	563
3.6	3650	406	31700	1.20	**F**	**97R57**	**DRN**	**90L4**	210	563
4.0	3270	363	32700	1.30	**FF**	**97R57**	**DRN**	**90L4**	240	563
					FA	**87R57**	**DRN**	**90L4**	135	563
4.9	2700	300	24100	1.10	**FAF**	**87R57**	**DRN**	**90L4**	150	563
5.9	2240	249	25700	1.35	**F**	**87R57**	**DRN**	**90L4**	140	563
					FF	**87R57**	**DRN**	**90L4**	155	563
3.8	3790	254.40*	58800	2.0	**FA**	**107**	**DRN**	**100L6**	265	545
4.5	3210	215.37	60000	2.4	**FAF**	**107**	**DRN**	**100L6**	285	543
4.8	2970	199.31	60400	2.6	**F**	**107**	**DRN**	**100L6**	280	542
5.4	2660	178.64	61000	2.9	**FF**	**107**	**DRN**	**100L6**	305	543
3.5	4120	276.77	30400	1.05						
3.8	3770	253.41	31400	1.15	**FA**	**97**	**DRN**	**100L6**	190	538
4.3	3330	223.88	32500	1.30	**FAF**	**97**	**DRN**	**100L6**	210	536
5.1	2830	189.92	33700	1.50	**F**	**97**	**DRN**	**100L6**	195	535
5.5	2600	174.87	34200	1.65	**FF**	**97**	**DRN**	**100L6**	230	536
5.3	2710	276.77	34000	1.60						
5.8	2480	253.41	34400	1.75	**FA**	**97**	**DRN**	**90L4**	175	538
6.5	2190	223.88	35000	1.95	**FAF**	**97**	**DRN**	**90L4**	200	536
7.7	1860	189.92	35600	2.3	**F**	**97**	**DRN**	**90L4**	185	535
8.3	1710	174.87	35900	2.5	**FF**	**97**	**DRN**	**90L4**	215	536

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.4	2650	270.68	24300	1.15	**FA**	**87**	**DRN**	**90L4**	110	531
5.7	2500	255.37	24800	1.20	**FAF**	**87**	**DRN**	**90L4**	125	529
6.4	2240	228.93	25700	1.35	**F**	**87**	**DRN**	**90L4**	120	528
7.4	1930	197.20	26600	1.55	**FF**	**87**	**DRN**	**90L4**	135	529
8.1	1760	179.97	27100	1.70						
9.2	1560	159.61	27700	1.90	**FA**	**87**	**DRN**	**90L4**	110	531
11	1310	134.16	28300	2.3	**FAF**	**87**	**DRN**	**90L4**	125	529
13	1070	109.49	28800	2.8	**F**	**87**	**DRN**	**90L4**	120	528
15	950	97.89	29100	3.1	**FF**	**87**	**DRN**	**90L4**	135	529
8.8	1630	166.47	14800	0.90	**FA**	**77**	**DRN**	**90L4**	73	524
10	1390	142.27	16400	1.10	**FAF**	**77**	**DRN**	**90L4**	79	522
11	1270	130.42	17000	1.15	**F**	**77**	**DRN**	**90L4**	76	521
13	1120	114.45	17800	1.35	**FF**	**77**	**DRN**	**90L4**	87	522
13	1060	108.46*	18100	1.40						
15	930	94.93	18600	1.60						
17	830	85.52	18900	1.80						
19	735	75.02	19200	2.0						
20	710	72.50	19200	2.1	**FA**	**77**	**DRN**	**90L4**	73	524
22	650	66.46	19400	2.3	**FAF**	**77**	**DRN**	**90L4**	79	522
25	570	58.32	19600	2.6	**F**	**77**	**DRN**	**90L4**	76	521
26	540	55.27	19600	2.8	**FF**	**77**	**DRN**	**90L4**	87	522
30	470	48.37	19700	3.2						
34	425	43.58	19800	3.5						
38	370	38.23	19900	4.0						
					FA	**77**	**DRN**	**90L4**	71	524
40	355	36.58	19900	3.1	**FAF**	**77**	**DRN**	**90L4**	78	522
46	305	31.51	20000	4.5	**F**	**77**	**DRN**	**90L4**	75	521
					FF	**77**	**DRN**	**90L4**	86	522
16	880	90.59	9650	0.90						
18	780	79.76	10600	1.05						
22	660	67.65	11500	1.25	**FA**	**67**	**DRN**	**90L4**	50	516
24	595	61.07	11900	1.35	**FAF**	**67**	**DRN**	**90L4**	56	515
27	525	53.73	12300	1.55	**F**	**67**	**DRN**	**90L4**	53	514
29	495	50.74	12400	1.65	**FF**	**67**	**DRN**	**90L4**	59	515
34	420	43.20	12700	1.95						
37	380	39.26	12900	2.0						
40	355	36.30	13000	2.3	**FA**	**67**	**DRN**	**90L4**	49	516
46	310	32.08	13000	2.6	**FAF**	**67**	**DRN**	**90L4**	55	515
53	265	27.41	13000	3.0	**F**	**67**	**DRN**	**90L4**	52	514
58	245	25.13	13000	3.3	**FF**	**67**	**DRN**	**90L4**	58	515
25	575	58.97	9370	1.05						
29	490	50.10	9980	1.20	**FA**	**57**	**DRN**	**90L4**	46	510
33	435	44.73	9940	1.35	**FAF**	**57**	**DRN**	**90L4**	52	509
38	370	38.21	9680	1.60	**F**	**57**	**DRN**	**90L4**	46	508
41	350	35.79	9560	1.70	**FF**	**57**	**DRN**	**90L4**	53	509
48	295	30.15	9240	2.0						
					FA	**47**	**DRN**	**90L4**	38	504
40	355	36.61	6460	1.10	**FAF**	**47**	**DRN**	**90L4**	41	503
43	335	34.29	6600	1.20	**F**	**47**	**DRN**	**90L4**	39	502
51	280	28.88	6460	1.40	**FF**	**47**	**DRN**	**90L4**	42	503
47	300	30.86	6520	1.30						
50	285	29.32	6480	1.40						
57	250	25.72	6360	1.60	**FA**	**47**	**DRN**	**90L4**	38	504
67	210	21.82	6190	1.85	**FAF**	**47**	**DRN**	**90L4**	40	503
74	193	19.70	6070	2.1	**F**	**47**	**DRN**	**90L4**	38	502
84	169	17.33	5920	2.4	**FF**	**47**	**DRN**	**90L4**	42	503
89	160	16.36	5850	2.5						
105	136	13.93	5650	2.9						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
71	200	20.57	3410	1.00						
76	188	19.27	3410	1.05						
86	166	17.03	3390	1.20						
102	140	14.33	3340	1.40	**FA**	**37**	**DRN**	**90L4**	33	498
114	126	12.87	3300	1.60	**FAF**	**37**	**DRN**	**90L4**	35	497
132	108	11.08	3230	1.75	**F**	**37**	**DRN**	**90L4**	34	496
140	102	10.42	3200	1.80	**FF**	**37**	**DRN**	**90L4**	36	497
163	87	8.97	3120	2.0						
182	78	8.01	3060	2.2						
106	135	13.84	2090	0.95						
118	121	12.35	2090	1.05						
138	103	10.55	2090	1.25						
148	96	9.88	2080	1.35						
155	92	9.40	1990	1.40	**FA**	**27**	**DRN**	**90L4**	27	493
180	79	8.13	1970	1.55	**FAF**	**27**	**DRN**	**90L4**	28	492
212	67	6.91	1940	1.70	**F**	**27**	**DRN**	**90L4**	28	491
237	60	6.17	1920	1.80	**FF**	**27**	**DRN**	**90L4**	28	492
277	51	5.27	1880	1.95						
296	48	4.93	1860	2.0						
352	40	4.16	1800	2.1						
355	40	8.13	1800	3.0						
418	34	6.91	1740	3.3	**FA**	**27**	**DRN**	**90S2**	24	493
468	30	6.17	1700	3.6	**FAF**	**27**	**DRN**	**90S2**	25	492
548	26	5.27	1640	3.8	**F**	**27**	**DRN**	**90S2**	24	491
585	24	4.93	1620	3.9	**FF**	**27**	**DRN**	**90S2**	25	492
694	20	4.16	1550	4.2						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.40	45900	3607	-	0.45	**FA**	**157R97**	**DRN**	**100LS4**	780	563
0.45	40900	3210	-	0.50	**FAF**	**157R97**	**DRN**	**100LS4**	840	563
1.0	18100	1441	99700	1.10	**F**	**157R97**	**DRN**	**100LS4**	810	563
					FF	**157R97**	**DRN**	**100LS4**	910	563
0.66	28700	2185	-	0.70						
0.75	25500	1944	-	0.80						
0.87	22200	1674	80700	0.90						
1.1	17300	1308	102200	1.15						
1.2	15400	1169	107100	1.30						
1.5	12400	953	113300	1.60						
1.7	10900	845	115800	1.80	**FA**	**157R97**	**DRN**	**100LS4**	780	563
1.9	9850	764	117400	2.0	**FAF**	**157R97**	**DRN**	**100LS4**	840	563
2.1	8760	680	118900	2.3	**F**	**157R97**	**DRN**	**100LS4**	800	563
2.5	7350	576	120000	2.7	**FF**	**157R97**	**DRN**	**100LS4**	910	563
3.2	5790	446	120000	3.5						
4.8	3920	302	120000	5.1						
5.3	3520	273	120000	5.7						
6.3	2950	232	120000	6.8						
7.4	2500	197	120000	8.0						
1.4	14400	1077	85700	0.85						
1.6	12400	930	89600	0.95						
1.8	10900	820	90000	1.10	**FA**	**127R77**	**DRN**	**100LS4**	445	563
2.0	9670	727	90000	1.25	**FAF**	**127R77**	**DRN**	**100LS4**	485	563
2.2	8680	648	90000	1.40	**F**	**127R77**	**DRN**	**100LS4**	480	563
2.6	7360	549	90000	1.65	**FF**	**127R77**	**DRN**	**100LS4**	530	563
2.9	6620	495	90000	1.80						
3.4	5730	428	90000	2.1						
2.3	8580	640	47300	0.90						
2.6	7450	560	50400	1.05	**FA**	**107R77**	**DRN**	**100LS4**	295	563
3.0	6500	489	52800	1.20	**FAF**	**107R77**	**DRN**	**100LS4**	315	563
3.3	5840	436	54400	1.30	**F**	**107R77**	**DRN**	**100LS4**	310	563
3.9	4950	370	56400	1.55	**FF**	**107R77**	**DRN**	**100LS4**	340	563
4.3	4460	333	57500	1.70						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**97R57**	**DRN**	**100LS4**	205	563
5.1	3830	285	31200	1.10	**FAF**	**97R57**	**DRN**	**100LS4**	225	563
5.9	3290	245	32600	1.30	**F**	**97R57**	**DRN**	**100LS4**	210	563
					FF	**97R57**	**DRN**	**100LS4**	245	563
3.8	5490	254.40*	55200	1.40	**FA**	**107**	**DRN**	**112M6**	270	545
4.5	4650	215.37	57100	1.65	**FAF**	**107**	**DRN**	**112M6**	290	543
4.9	4300	199.31	57800	1.80	**F**	**107**	**DRN**	**112M6**	290	542
5.5	3850	178.64	58700	2.0	**FF**	**107**	**DRN**	**112M6**	315	543
5.7	3680	254.40*	59100	2.1	**FA**	**107**	**DRN**	**100LS4**	255	545
6.7	3120	215.37	60200	2.5	**FAF**	**107**	**DRN**	**100LS4**	275	543
7.3	2880	199.31	60600	2.7	**F**	**107**	**DRN**	**100LS4**	275	542
8.1	2580	178.64	61100	3.0	**FF**	**107**	**DRN**	**100LS4**	300	543
4.3	4830	223.88	21700	0.90	**FA**	**97**	**DRN**	**112M6**	195	538
5.1	4100	189.92	30500	1.05	**FAF**	**97**	**DRN**	**112M6**	220	536
5.6	3770	174.87	31400	1.15	**F**	**97**	**DRN**	**112M6**	205	535
6.2	3370	156.30	32400	1.25	**FF**	**97**	**DRN**	**112M6**	235	536
5.2	4010	276.77	30700	1.05						
5.7	3670	253.41	31700	1.15						
6.5	3240	223.88	32700	1.35	**FA**	**97**	**DRN**	**100LS4**	180	538
7.6	2750	189.92	33900	1.55	**FAF**	**97**	**DRN**	**100LS4**	200	536
8.3	2530	174.87	34300	1.70	**F**	**97**	**DRN**	**100LS4**	190	535
9.3	2260	156.30	34900	1.90	**FF**	**97**	**DRN**	**100LS4**	220	536
10	2030	140.71	35300	2.1						
11	1840	127.42	35700	2.3						
7.3	2850	197.20	23500	1.05	**FA**	**87**	**DRN**	**100LS4**	115	531
8.1	2600	179.97	24400	1.15	**FAF**	**87**	**DRN**	**100LS4**	130	529
9.1	2310	159.61	25500	1.30	**F**	**87**	**DRN**	**100LS4**	120	528
11	1940	134.16	26600	1.55	**FF**	**87**	**DRN**	**100LS4**	140	529
12	1780	123.29	27100	1.70						
13	1580	109.49	27600	1.90						
15	1410	97.89	28000	2.1						
16	1270	88.01	28400	2.4	**FA**	**87**	**DRN**	**100LS4**	115	531
19	1100	76.39	27700	2.7	**FAF**	**87**	**DRN**	**100LS4**	130	529
21	990	68.40	27000	3.0	**F**	**87**	**DRN**	**100LS4**	120	528
26	820	56.75	25700	3.6	**FF**	**87**	**DRN**	**100LS4**	140	529
29	725	50.36	25000	4.0						
32	655	45.28	24300	4.3						
13	1650	114.45	14600	0.90	**FA**	**77**	**DRN**	**100LS4**	77	524
13	1570	108.46*	15200	0.95	**FAF**	**77**	**DRN**	**100LS4**	83	522
15	1370	94.93	16500	1.10	**F**	**77**	**DRN**	**100LS4**	81	521
17	1230	85.52	17200	1.20	**FF**	**77**	**DRN**	**100LS4**	91	522
19	1080	75.02	18000	1.40						
22	960	66.46	18400	1.55	**FA**	**77**	**DRN**	**100LS4**	77	524
25	840	58.32	18800	1.80	**FAF**	**77**	**DRN**	**100LS4**	83	522
26	800	55.27	19000	1.85	**F**	**77**	**DRN**	**100LS4**	81	521
30	700	48.37	19300	2.1	**FF**	**77**	**DRN**	**100LS4**	91	522
33	630	43.58	19400	2.4						
40	525	36.58	19600	2.1	**FA**	**77**	**DRN**	**100LS4**	75	524
46	455	31.51	19800	3.0	**FAF**	**77**	**DRN**	**100LS4**	82	522
50	415	28.75	19800	3.4	**F**	**77**	**DRN**	**100LS4**	79	521
57	365	25.50*	19900	4.1	**FF**	**77**	**DRN**	**100LS4**	90	522
24	880	61.07	9680	0.95						
27	775	53.73	10700	1.05	**FA**	**67**	**DRN**	**100LS4**	54	516
29	735	50.74	11000	1.10	**FAF**	**67**	**DRN**	**100LS4**	60	515
34	625	43.20	11700	1.30	**F**	**67**	**DRN**	**100LS4**	57	514
37	565	39.26	12100	1.35	**FF**	**67**	**DRN**	**100LS4**	63	515
43	490	34.01	12400	1.50						
45	460	32.08	12600	1.75						
53	395	27.41	12800	2.1	**FA**	**67**	**DRN**	**100LS4**	53	516
58	360	25.13	12900	2.2	**FAF**	**67**	**DRN**	**100LS4**	59	515
66	315	22.05	13000	2.6	**F**	**67**	**DRN**	**100LS4**	55	514
69	300	20.90*	13000	2.7	**FF**	**67**	**DRN**	**100LS4**	62	515
79	265	18.29	13000	3.1						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	645	44.73	6640	0.95	**FA**	**57**	**DRN**	**100LS4**	50	510
38	550	38.21	8640	1.10	**FAF**	**57**	**DRN**	**100LS4**	55	509
41	515	35.79	8590	1.15	**F**	**57**	**DRN**	**100LS4**	50	508
48	435	30.15	8430	1.35	**FF**	**57**	**DRN**	**100LS4**	57	509
58	360	24.96	8200	1.60						
68	305	21.17	7980	1.95	**FA**	**57**	**DRN**	**100LS4**	49	510
76	275	19.11	7820	2.2	**FAF**	**57**	**DRN**	**100LS4**	55	509
86	240	16.81	7630	2.5	**F**	**57**	**DRN**	**100LS4**	50	508
91	230	15.88	7540	2.6	**FF**	**57**	**DRN**	**100LS4**	56	509
56	370	25.72	5560	1.05						
66	315	21.82	5510	1.25						
74	285	19.70	5460	1.40						
84	250	17.33	5390	1.60	**FA**	**47**	**DRN**	**100LS4**	42	504
89	235	16.36	5350	1.70	**FAF**	**47**	**DRN**	**100LS4**	44	503
104	200	13.93	5220	2.0	**F**	**47**	**DRN**	**100LS4**	42	502
115	183	12.66	5140	2.2	**FF**	**47**	**DRN**	**100LS4**	46	503
132	158	10.97	5010	2.5						
162	129	8.96	4710	2.5						
101	205	14.33	2800	0.95						
113	186	12.87	2810	1.05						
131	160	11.08	2820	1.20						
139	151	10.42	2810	1.25						
162	129	8.97	2790	1.35	**FA**	**37**	**DRN**	**100LS4**	37	498
181	116	8.01	2760	1.45	**FAF**	**37**	**DRN**	**100LS4**	39	497
215	97	6.74	2620	1.45	**F**	**37**	**DRN**	**100LS4**	38	496
240	87	6.05	2580	1.55	**FF**	**37**	**DRN**	**100LS4**	40	497
278	75	5.21	2530	1.65						
296	71	4.90	2510	1.70						
344	61	4.22	2440	1.80						
385	54	3.77	2390	1.90						
178	117	16.28	1720	1.10						
210	100	13.84	1730	1.30						
235	89	12.35	1730	1.45						
275	76	10.55	1710	1.70						
294	71	9.88	1700	1.80	**FA**	**27**	**DRN**	**90L2**	27	493
357	58	8.13	1610	2.1	**FAF**	**27**	**DRN**	**90L2**	28	492
421	49	6.91	1580	2.3	**F**	**27**	**DRN**	**90L2**	28	491
471	44	6.17	1560	2.4	**FF**	**27**	**DRN**	**90L2**	28	492
552	38	5.27	1520	2.6						
589	35	4.93	1500	2.7						
699	30	4.16	1460	2.9						

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**100L4**	790	563
1.0	25100	1441	-	0.80	**FAF**	**157R97**	**DRN**	**100L4**	850	563
					F	**157R97**	**DRN**	**100L4**	810	563
					FF	**157R97**	**DRN**	**100L4**	920	563
1.1	23700	1308	39900	0.85						
1.2	21100	1169	89600	0.95						
1.5	17100	953	102800	1.15						
1.7	15000	845	107900	1.30						
1.9	13500	764	111100	1.45	**FA**	**157R97**	**DRN**	**100L4**	790	563
2.1	12000	680	114000	1.65	**FAF**	**157R97**	**DRN**	**100L4**	850	563
2.5	10100	576	117000	1.95	**F**	**157R97**	**DRN**	**100L4**	810	563
3.3	7970	446	119800	2.5	**FF**	**157R97**	**DRN**	**100L4**	920	563
4.8	5390	302	120000	3.7						
5.3	4850	273	120000	4.1						
6.3	4080	232	120000	4.9						
7.4	3460	197	120000	5.8						
2.0	13200	727	88100	0.90	**FA**	**127R77**	**DRN**	**100L4**	455	563
2.2	11800	648	90000	1.00	**FAF**	**127R77**	**DRN**	**100L4**	490	563
2.6	10000	549	90000	1.20	**F**	**127R77**	**DRN**	**100L4**	490	563
2.9	9040	495	90000	1.35	**FF**	**127R77**	**DRN**	**100L4**	530	563

26883198/EN – 04/2022

P_m = 3.0 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.3	7970	436	49000	0.95	**FA**	**107R77**	**DRN**	**100L4**	300	563
3.9	6760	370	52200	1.15	**FAF**	**107R77**	**DRN**	**100L4**	325	563
4.4	6080	333	53800	1.25	**F**	**107R77**	**DRN**	**100L4**	320	563
5.0	5320	291	55600	1.45	**FF**	**107R77**	**DRN**	**100L4**	345	563
3.8	7480	254.40*	50300	1.05	**FA**	**107**	**DRN**	**132S6**	285	545
4.5	6330	215.37	53200	1.20	**FAF**	**107**	**DRN**	**132S6**	305	543
4.9	5860	199.31	54300	1.30	**F**	**107**	**DRN**	**132S6**	300	542
5.5	5250	178.64	55700	1.45	**FF**	**107**	**DRN**	**132S6**	325	543
5.7	5000	254.40*	56300	1.55						
6.8	4230	215.37	57900	1.80	**FA**	**107**	**DRN**	**100L4**	265	545
7.3	3920	199.31	58600	1.95	**FAF**	**107**	**DRN**	**100L4**	285	543
8.2	3510	178.64	59400	2.2	**F**	**107**	**DRN**	**100L4**	280	542
9.0	3170	161.28*	60100	2.4	**FF**	**107**	**DRN**	**100L4**	305	543
6.5	4400	223.88	29600	1.00	**FA**	**97**	**DRN**	**100L4**	190	538
7.7	3730	189.92	31500	1.15	**FAF**	**97**	**DRN**	**100L4**	210	536
8.3	3440	174.87	32300	1.25	**F**	**97**	**DRN**	**100L4**	195	535
9.3	3070	156.30	33100	1.40	**FF**	**97**	**DRN**	**100L4**	230	536
10	2760	140.71	33800	1.55	**FA**	**97**	**DRN**	**100L4**	190	538
11	2500	127.42	34400	1.70	**FAF**	**97**	**DRN**	**100L4**	210	536
13	2220	112.99	35000	1.95	**F**	**97**	**DRN**	**100L4**	195	535
14	2010	102.16	35400	2.1	**FF**	**97**	**DRN**	**100L4**	230	536
16	1760	89.85	35800	2.4						
11	2630	134.16	24300	1.15	**FA**	**87**	**DRN**	**100L4**	125	531
12	2420	123.29	25100	1.25	**FAF**	**87**	**DRN**	**100L4**	135	529
13	2150	109.49	26000	1.40	**F**	**87**	**DRN**	**100L4**	130	528
15	1920	97.89	26700	1.55	**FF**	**87**	**DRN**	**100L4**	145	529
17	1730	88.01	26700	1.75	**FA**	**87**	**DRN**	**100L4**	125	531
19	1500	76.39	26100	2.0	**FAF**	**87**	**DRN**	**100L4**	135	529
21	1340	68.40	25500	2.2	**F**	**87**	**DRN**	**100L4**	130	528
26	1110	56.75	24600	2.7	**FF**	**87**	**DRN**	**100L4**	145	529
29	990	50.36	23900	3.0						
17	1680	85.52	14400	0.90	**FA**	**77**	**DRN**	**100L4**	84	524
19	1470	75.02	15900	1.00	**FAF**	**77**	**DRN**	**100L4**	91	522
22	1300	66.46	16900	1.15	**F**	**77**	**DRN**	**100L4**	88	521
25	1140	58.32	17700	1.30	**FF**	**77**	**DRN**	**100L4**	98	522
26	1080	55.27	18000	1.40	**FA**	**77**	**DRN**	**100L4**	84	524
30	950	48.37	18500	1.60	**FAF**	**77**	**DRN**	**100L4**	91	522
33	850	43.58	18800	1.75	**F**	**77**	**DRN**	**100L4**	88	521
38	750	38.23	19100	2.0	**FF**	**77**	**DRN**	**100L4**	98	522
40	715	36.58	19200	1.55	**FA**	**77**	**DRN**	**100L4**	83	524
46	615	31.51	19500	2.2	**FAF**	**77**	**DRN**	**100L4**	89	522
51	565	28.75	19600	2.5	**F**	**77**	**DRN**	**100L4**	86	521
57	500	25.50*	19700	3.0	**FF**	**77**	**DRN**	**100L4**	97	522
68	420	21.43	19800	3.6						
34	840	43.20	10000	0.95	**FA**	**67**	**DRN**	**100L4**	61	516
37	770	39.26	10700	1.00	**FAF**	**67**	**DRN**	**100L4**	67	515
43	665	34.01	11500	1.10	**F**	**67**	**DRN**	**100L4**	64	514
45	630	32.08	11700	1.30	**FF**	**67**	**DRN**	**100L4**	70	515
53	535	27.41	12200	1.50						
58	490	25.13	12400	1.65	**FA**	**67**	**DRN**	**100L4**	60	516
66	430	22.05	12700	1.90	**FAF**	**67**	**DRN**	**100L4**	66	515
70	410	20.90*	12800	2.0	**F**	**67**	**DRN**	**100L4**	63	514
80	355	18.29	12900	2.3	**FF**	**67**	**DRN**	**100L4**	69	515
88	320	16.48	13000	2.5						
101	280	14.46	13000	2.9						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
58	490	24.96	7420	1.15						
69	415	21.17	7310	1.45						
76	375	19.11	7220	1.60	**FA**	**57**	**DRN**	**100L4**	56	510
87	330	16.81	7100	1.80	**FAF**	**57**	**DRN**	**100L4**	62	509
92	310	15.88	7040	1.90	**F**	**57**	**DRN**	**100L4**	57	508
108	265	13.52	6850	2.3	**FF**	**57**	**DRN**	**100L4**	63	509
119	240	12.29	6730	2.5						
137	205	10.64	6540	2.9						
74	385	19.70	4760	1.05						
84	340	17.33	4760	1.15						
89	320	16.36	4760	1.25	**FA**	**47**	**DRN**	**100L4**	49	504
104	270	13.93	4720	1.45	**FAF**	**47**	**DRN**	**100L4**	51	503
115	245	12.66	4690	1.60	**F**	**47**	**DRN**	**100L4**	50	502
133	215	10.97	4620	1.85	**FF**	**47**	**DRN**	**100L4**	53	503
163	176	8.96	4350	1.85						
131	215	11.08	2340	0.85						
140	205	10.42	2360	0.90						
162	176	8.97	2400	1.00						
182	157	8.01	2410	1.10	**FA**	**37**	**DRN**	**100L4**	44	498
216	132	6.74	2290	1.05	**FAF**	**37**	**DRN**	**100L4**	46	497
241	119	6.05	2290	1.15	**F**	**37**	**DRN**	**100L4**	45	496
279	102	5.21	2280	1.20	**FF**	**37**	**DRN**	**100L4**	47	497
297	96	4.90	2270	1.25						
345	82	4.22	2240	1.35						
386	74	3.77	2210	1.40						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.47	72600	6295	-	0.30						
0.55	61600	5404	-	0.30	**FA**	**157R97**	**DRN**	**112M2**	800	563
0.61	54600	4831	-	0.35	**FAF**	**157R97**	**DRN**	**112M2**	860	563
0.71	46300	4130	-	0.45	**F**	**157R97**	**DRN**	**112M2**	820	563
1.1	31600	2780	-	0.65	**FF**	**157R97**	**DRN**	**112M2**	930	563
1.5	22800	953	67600	0.85						
1.7	20100	845	93100	1.00						
1.9	18100	764	99700	1.10						
2.1	16100	680	105200	1.25	**FA**	**157R97**	**DRN**	**112M4**	800	563
2.5	13600	576	111000	1.45	**FAF**	**157R97**	**DRN**	**112M4**	860	563
3.3	10600	446	116300	1.85	**F**	**157R97**	**DRN**	**112M4**	820	563
4.8	7220	302	120000	2.8	**FF**	**157R97**	**DRN**	**112M4**	920	563
5.4	6500	273	120000	3.1						
6.3	5480	232	120000	3.6						
7.5	4650	197	120000	4.3						
1.2	28000	2427	-	0.70						
1.4	25000	2185	-	0.80						
1.5	22200	1944	81200	0.90						
1.8	19700	1674	94700	1.00	**FA**	**157R97**	**DRN**	**112M2**	800	563
2.2	15200	1308	107600	1.30	**FAF**	**157R97**	**DRN**	**112M2**	860	563
2.5	13400	1169	111300	1.50	**F**	**157R97**	**DRN**	**112M2**	820	563
3.1	10800	953	116000	1.85	**FF**	**157R97**	**DRN**	**112M2**	920	563
3.5	9470	845	118000	2.1						
6.6	5000	446	120000	4.0						
9.8	3380	302	120000	5.9						
2.7	13300	549	87800	0.90	**FA**	**127R77**	**DRN**	**112M4**	460	563
3.0	12000	495	90000	1.00	**FAF**	**127R77**	**DRN**	**112M4**	500	563
3.4	10400	428	90000	1.15	**F**	**127R77**	**DRN**	**112M4**	500	563
3.9	9120	376	90000	1.30	**FF**	**127R77**	**DRN**	**112M4**	540	563
4.4	8090	333	48700	0.95	**FA**	**107R77**	**DRN**	**112M4**	310	563
5.0	7070	291	51400	1.10	**FAF**	**107R77**	**DRN**	**112M4**	330	563
5.7	6200	255	53500	1.25	**F**	**107R77**	**DRN**	**112M4**	325	563
					FF	**107R77**	**DRN**	**112M4**	355	563

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.8	6630	254.40*	52500	1.15						
6.8	5610	215.37	54900	1.35						
7.3	5200	199.31	55900	1.50						
8.2	4660	178.64	57000	1.65	**FA**	**107**	**DRN**	**112M4**	270	545
9.1	4200	161.28*	58000	1.85	**FAF**	**107**	**DRN**	**112M4**	290	543
10.0	3820	146.49	58800	2.0	**F**	**107**	**DRN**	**112M4**	290	542
11	3390	129.97	59600	2.3	**FF**	**107**	**DRN**	**112M4**	315	543
12	3070	117.94	60200	2.5						
14	2640	101.38*	61000	2.9						
8.4	4560	174.87	29100	0.95	**FA**	**97**	**DRN**	**112M4**	195	538
9.4	4070	156.30	30500	1.05	**FAF**	**97**	**DRN**	**112M4**	220	536
10	3670	140.71	31700	1.15	**F**	**97**	**DRN**	**112M4**	205	535
11	3320	127.42	32500	1.30	**FF**	**97**	**DRN**	**112M4**	235	536
13	2940	112.99	33400	1.45						
14	2660	102.16	34100	1.60						
15	2540	97.58	34300	1.70	**FA**	**97**	**DRN**	**112M4**	195	538
16	2340	89.85	34700	1.85	**FAF**	**97**	**DRN**	**112M4**	220	536
18	2090	80.31	35200	2.0	**F**	**97**	**DRN**	**112M4**	205	535
20	1880	72.29	35600	2.3	**FF**	**97**	**DRN**	**112M4**	235	536
22	1700	65.47	35900	2.5						
13	2850	109.49	23500	1.05	**FA**	**87**	**DRN**	**112M4**	135	531
15	2550	97.89	24600	1.15	**FAF**	**87**	**DRN**	**112M4**	145	529
17	2290	88.01	24500	1.30	**F**	**87**	**DRN**	**112M4**	140	528
					FF	**87**	**DRN**	**112M4**	155	529
19	1990	76.39	24100	1.50						
21	1780	68.40	23800	1.70	**FA**	**87**	**DRN**	**112M4**	135	531
26	1480	56.75	23100	2.0	**FAF**	**87**	**DRN**	**112M4**	145	529
29	1310	50.36	22600	2.2	**F**	**87**	**DRN**	**112M4**	140	528
32	1180	45.28	22200	2.4	**FF**	**87**	**DRN**	**112M4**	155	529
22	1730	66.46	13900	0.85	**FA**	**77**	**DRN**	**112M4**	93	524
25	1520	58.32	15600	1.00	**FAF**	**77**	**DRN**	**112M4**	100	522
26	1440	55.27	16100	1.05	**F**	**77**	**DRN**	**112M4**	97	521
30	1260	48.37	17100	1.20	**FF**	**77**	**DRN**	**112M4**	110	522
34	1130	43.58	17700	1.30						
38	990	38.23	18300	1.50	**FA**	**77**	**DRN**	**112M4**	93	524
43	880	33.74	18700	1.70	**FAF**	**77**	**DRN**	**112M4**	100	522
49	780	29.91	19000	1.90	**F**	**77**	**DRN**	**112M4**	97	521
57	665	25.54	19300	2.2	**FF**	**77**	**DRN**	**112M4**	110	522
46	820	31.51	18900	1.70						
51	750	28.75	19100	1.90	**FA**	**77**	**DRN**	**112M4**	92	524
57	665	25.50*	19300	2.2	**FAF**	**77**	**DRN**	**112M4**	98	522
68	555	21.43	19600	2.7	**F**	**77**	**DRN**	**112M4**	96	521
74	510	19.70	19700	2.9	**FF**	**77**	**DRN**	**112M4**	105	522
53	715	27.41	11200	1.15						
58	655	25.13	11600	1.25						
66	575	22.05	12000	1.45						
70	545	20.90*	12200	1.50						
80	475	18.29	12500	1.70						
89	425	16.48	12700	1.90						
101	375	14.46	12900	2.2						
115	330	12.76	13000	2.5	**FA**	**67**	**DRN**	**112M4**	69	516
129	295	11.31	13000	2.8	**FAF**	**67**	**DRN**	**112M4**	76	515
152	250	9.66	13000	3.2	**F**	**67**	**DRN**	**112M4**	72	514
161	235	9.08	12900	2.2	**FF**	**67**	**DRN**	**112M4**	78	515
170	220	8.60	12700	2.5						
194	196	7.53	12300	3.1						
216	176	6.78	12000	3.5						
246	155	5.95	11600	3.9						
279	137	5.25	11300	4.3						
314	121	4.66	10900	4.6						
368	103	3.97	10500	4.8						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
69	550	21.17	6490	1.10						
77	495	19.11	6480	1.20						
87	435	16.81	6440	1.35						
92	410	15.88	6420	1.45						
108	350	13.52	6320	1.70						
119	320	12.29	6240	1.85	**FA**	**57**	**DRN**	**112M4**	66	510
138	275	10.64	6120	2.2	**FAF**	**57**	**DRN**	**112M4**	71	509
157	240	9.31	5820	1.75	**F**	**57**	**DRN**	**112M4**	66	508
179	210	8.19	5700	1.95	**FF**	**57**	**DRN**	**112M4**	73	509
189	200	7.73	5650	2.1						
222	171	6.58	5480	2.4						
245	156	5.98	5380	2.7						
282	135	5.18	5220	3.1						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.9	25200	764	-	0.80						
2.1	22400	680	76100	0.90						
2.5	18900	576	97200	1.05						
2.9	16500	503	104400	1.20						
3.3	14800	446	108500	1.35	**FA**	**157R97**	**DRN**	**132S4**	810	563
4.2	11500	353	114900	1.75	**FAF**	**157R97**	**DRN**	**132S4**	870	563
4.8	10000	302	117200	2.0	**F**	**157R97**	**DRN**	**132S4**	830	563
5.3	9040	273	118500	2.2	**FF**	**157R97**	**DRN**	**132S4**	940	563
6.3	7630	232	120000	2.6						
7.2	6630	202	120000	3.0						
7.4	6470	197	120000	3.1						
3.5	13900	418	86700	0.85						
3.9	12400	374	89600	0.95	**FA**	**127R87**	**DRN**	**132S4**	495	563
4.7	10300	312	90000	1.15	**FAF**	**127R87**	**DRN**	**132S4**	530	563
5.0	9730	293	90000	1.25	**F**	**127R87**	**DRN**	**132S4**	530	563
5.7	8590	259	90000	1.40	**FF**	**127R87**	**DRN**	**132S4**	570	563
6.5	7410	223	90000	1.60						
					FA	**127R77**	**DRN**	**132S4**	475	563
3.4	14300	428	85800	0.85	**FAF**	**127R77**	**DRN**	**132S4**	510	563
3.9	12600	376	89300	0.95	**F**	**127R77**	**DRN**	**132S4**	510	563
					FF	**127R77**	**DRN**	**132S4**	550	563
6.8	7740	215.37	49600	1.00	**FA**	**107**	**DRN**	**132S4**	285	545
7.3	7160	199.31	51200	1.05	**FAF**	**107**	**DRN**	**132S4**	305	543
8.2	6420	178.64	53000	1.20	**F**	**107**	**DRN**	**132S4**	300	542
9.1	5790	161.28*	54500	1.30	**FF**	**107**	**DRN**	**132S4**	325	543
10.0	5260	146.49	55700	1.45						
11	4670	129.97	57000	1.65						
12	4230	117.94	57900	1.80	**FA**	**107**	**DRN**	**132S4**	285	545
14	3640	101.38*	59100	2.1	**FAF**	**107**	**DRN**	**132S4**	305	543
16	3320	92.47*	59800	2.3	**F**	**107**	**DRN**	**132S4**	300	542
17	3180	88.49	60000	2.4	**FF**	**107**	**DRN**	**132S4**	325	543
17	3010	83.99	60400	2.5						
					FA	**97**	**DRN**	**132S4**	210	538
11	4580	127.42	29000	0.95	**FAF**	**97**	**DRN**	**132S4**	230	536
13	4060	112.99	30600	1.05	**F**	**97**	**DRN**	**132S4**	215	535
14	3670	102.16	31700	1.15	**FF**	**97**	**DRN**	**132S4**	250	536
15	3500	97.58	32100	1.25						
16	3220	89.85	32800	1.35						
17	3110	86.59	33100	1.40						
18	2880	80.31	33600	1.50	**FA**	**97**	**DRN**	**132S4**	210	538
19	2710	75.63	33900	1.60	**FAF**	**97**	**DRN**	**132S4**	230	536
20	2590	72.29	34200	1.65	**F**	**97**	**DRN**	**132S4**	215	535
22	2350	65.47	34700	1.85	**FF**	**97**	**DRN**	**132S4**	250	536
25	2080	58.06	34400	2.1						
28	1880	52.49	33700	2.3						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	3160	88.01	11900	0.95	**FA**	**87**	**DRN**	**132S4**	145	531
19	2740	76.39	21200	1.10	**FAF**	**87**	**DRN**	**132S4**	155	529
21	2450	68.40	21200	1.20	**F**	**87**	**DRN**	**132S4**	150	528
26	2040	56.75	21000	1.45	**FF**	**87**	**DRN**	**132S4**	165	529
29	1810	50.36	20700	1.60						
32	1620	45.28	20500	1.75	**FA**	**87**	**DRN**	**132S4**	145	531
37	1410	39.30	20100	1.95	**FAF**	**87**	**DRN**	**132S4**	155	529
42	1260	35.19	19700	2.1	**F**	**87**	**DRN**	**132S4**	150	528
50	1040	29.20	19100	2.4	**FF**	**87**	**DRN**	**132S4**	165	529
43	1210	33.92	19600	2.1	**FA**	**87**	**DRN**	**132S4**	140	531
51	1030	28.78	19000	2.4	**FAF**	**87**	**DRN**	**132S4**	155	529
55	950	26.50	18700	3.1	**F**	**87**	**DRN**	**132S4**	145	528
62	850	23.68	18300	3.5	**FF**	**87**	**DRN**	**132S4**	160	529
30	1730	48.37	13900	0.85						
34	1560	43.58	15300	0.95	**FA**	**77**	**DRN**	**132S4**	105	524
38	1370	38.23	16500	1.10	**FAF**	**77**	**DRN**	**132S4**	110	522
43	1210	33.74	17400	1.25	**F**	**77**	**DRN**	**132S4**	110	521
49	1070	29.91	18000	1.40	**FF**	**77**	**DRN**	**132S4**	120	522
57	910	25.54	18600	1.60						
57	910	25.50*	18600	1.65						
68	770	21.43	19100	1.95						
74	705	19.70	19200	2.1	**FA**	**77**	**DRN**	**132S4**	105	524
84	625	17.49	19400	2.4	**FAF**	**77**	**DRN**	**132S4**	110	522
93	560	15.64*	19600	2.7	**F**	**77**	**DRN**	**132S4**	105	521
104	505	14.06	19200	3.0	**FF**	**77**	**DRN**	**132S4**	120	522
120	435	12.20	18500	3.4						
66	790	22.05	10500	1.05						
70	750	20.90*	10900	1.10						
80	655	18.29	11600	1.25						
89	590	16.48	11900	1.40						
101	515	14.46	12300	1.60						
115	455	12.76	12600	1.80						
129	405	11.31	12800	2.0	**FA**	**67**	**DRN**	**132S4**	81	516
151	345	9.66	12900	2.4	**FAF**	**67**	**DRN**	**132S4**	87	515
161	325	9.08	12400	1.60	**F**	**67**	**DRN**	**132S4**	84	514
170	305	8.60	12200	1.85	**FF**	**67**	**DRN**	**132S4**	90	515
194	270	7.53	11900	2.2						
215	240	6.78	11600	2.5						
246	210	5.95	11300	2.9						
278	188	5.25	11000	3.1						
314	167	4.66	10700	3.4						
368	142	3.97	10300	3.5						
87	600	16.81	5460	1.00						
92	570	15.88	5490	1.05						
108	485	13.52	5530	1.25						
119	440	12.29	5530	1.35	**FA**	**57**	**DRN**	**132S4**	77	510
137	380	10.64	5500	1.55	**FAF**	**57**	**DRN**	**132S4**	83	509
178	290	8.19	5180	1.45	**F**	**57**	**DRN**	**132S4**	78	508
189	275	7.73	5150	1.50	**FF**	**57**	**DRN**	**132S4**	84	509
222	235	6.58	5060	1.75						
244	215	5.98	4990	1.95						
282	186	5.18	4880	2.2						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.5	25900	576	-	0.75						
2.9	22500	503	74000	0.90						
3.3	20200	446	93000	1.00						
4.2	15800	353	106100	1.25	**FA**	**157R97**	**DRN**	**132M4**	830	563
4.9	13600	302	110900	1.45	**FAF**	**157R97**	**DRN**	**132M4**	890	563
5.4	12300	273	113500	1.60	**F**	**157R97**	**DRN**	**132M4**	850	563
6.3	10400	232	116600	1.90	**FF**	**157R97**	**DRN**	**132M4**	950	563
7.3	9080	202	118500	2.2						
7.5	8840	197	118800	2.3						

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.7	14100	312	86300	0.85						
5.0	13200	293	88000	0.90	**FA**	**127R87**	**DRN**	**132M4**	510	563
5.7	11700	259	90000	1.00	**FAF**	**127R87**	**DRN**	**132M4**	550	563
6.6	10100	223	90000	1.20	**F**	**127R87**	**DRN**	**132M4**	550	563
7.4	8950	198	90000	1.35	**FF**	**127R87**	**DRN**	**132M4**	590	563
3.7	19500	267.43	95300	1.00						
4.5	15900	217.62*	105900	1.25						
5.5	13000	178.20*	112200	1.55						
6.0	11900	162.96	114200	1.70						
6.9	10300	141.80*	116700	1.95						
7.8	9150	125.14	118400	2.2	**FA**	**157**	**DRN**	**160M6**	740	559
9.0	7930	108.49	119800	2.5	**FAF**	**157**	**DRN**	**160M6**	800	557
10	7060	96.53*	120000	2.8	**F**	**157**	**DRN**	**160M6**	760	556
11	6270	85.80*	120000	3.2	**FF**	**157**	**DRN**	**160M6**	870	557
12	5740	78.46	120000	3.5						
14	4990	68.28*	120000	4.0						
16	4400	60.25	120000	4.5						
19	3820	52.24	118700	5.2						
5.7	12400	170.83	89500	0.95	**FA**	**127**	**DRN**	**160M6**	485	552
6.4	11200	153.67*	90000	1.05	**FAF**	**127**	**DRN**	**160M6**	520	550
7.8	9170	125.37	90000	1.30	**F**	**127**	**DRN**	**160M6**	520	549
8.6	8360	114.34	90000	1.45	**FF**	**127**	**DRN**	**160M6**	570	550
					FA	**127**	**DRN**	**132M4**	445	552
8.6	8330	170.83	90000	1.45	**FAF**	**127**	**DRN**	**132M4**	485	550
9.6	7490	153.67*	90000	1.60	**F**	**127**	**DRN**	**132M4**	480	549
12	6110	125.37	90000	1.95	**FF**	**127**	**DRN**	**132M4**	530	550
8.2	8710	178.64	47000	0.90	**FA**	**107**	**DRN**	**132M4**	300	545
9.1	7860	161.28*	49300	1.00	**FAF**	**107**	**DRN**	**132M4**	320	543
10	7140	146.49	51200	1.05	**F**	**107**	**DRN**	**132M4**	320	542
11	6340	129.97	53200	1.20	**FF**	**107**	**DRN**	**132M4**	345	543
12	5750	117.94	54600	1.35						
14	4940	101.38*	56400	1.55						
16	4510	92.47*	57400	1.70	**FA**	**107**	**DRN**	**132M4**	300	545
17	4310	88.49	57800	1.80	**FAF**	**107**	**DRN**	**132M4**	320	543
17	4090	83.99	58200	1.85	**F**	**107**	**DRN**	**132M4**	320	542
20	3630	74.52	59200	2.1	**FF**	**107**	**DRN**	**132M4**	345	543
22	3290	67.62	59800	2.3						
15	4760	97.58	24600	0.90						
16	4380	89.85	29600	1.00	**FA**	**97**	**DRN**	**132M4**	225	538
17	4220	86.59	30100	1.00	**FAF**	**97**	**DRN**	**132M4**	245	536
18	3910	80.31	31000	1.10	**F**	**97**	**DRN**	**132M4**	235	535
19	3680	75.63	31600	1.15	**FF**	**97**	**DRN**	**132M4**	265	536
20	3520	72.29	32000	1.20						
22	3190	65.47	32200	1.35						
25	2830	58.06	31700	1.50	**FA**	**97**	**DRN**	**132M4**	225	538
28	2560	52.49	31300	1.70	**FAF**	**97**	**DRN**	**132M4**	245	536
33	2170	44.49	30500	2.0	**F**	**97**	**DRN**	**132M4**	235	535
38	1890	38.86	29800	2.3	**FF**	**97**	**DRN**	**132M4**	265	536
45	1580	32.50	28800	2.7						
34	2110	43.28	30400	1.45	**FA**	**97**	**DRN**	**132M4**	220	538
40	1780	36.64	29500	1.70	**FAF**	**97**	**DRN**	**132M4**	240	536
43	1650	33.91	29000	2.6	**F**	**97**	**DRN**	**132M4**	225	535
48	1480	30.39	28400	2.9	**FF**	**97**	**DRN**	**132M4**	260	536
26	2760	56.75	18100	1.10						
29	2450	50.36	18200	1.20	**FA**	**87**	**DRN**	**132M4**	160	531
32	2200	45.28	18200	1.30	**FAF**	**87**	**DRN**	**132M4**	175	529
37	1910	39.30	18100	1.40	**F**	**87**	**DRN**	**132M4**	165	528
42	1710	35.19	17900	1.50	**FF**	**87**	**DRN**	**132M4**	185	529
50	1420	29.20	17600	1.75						

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
51	1400	28.78	17500	1.75						
55	1290	26.50	17400	2.3						
62	1150	23.68	17100	2.6	**FA**	**87**	**DRN**	**132M4**	160	531
69	1040	21.32*	16800	2.9	**FAF**	**87**	**DRN**	**132M4**	170	529
76	940	19.31	16500	3.2	**F**	**87**	**DRN**	**132M4**	165	528
86	830	17.12	16100	3.6	**FF**	**87**	**DRN**	**132M4**	180	529
95	755	15.48	15800	4.0						
44	1640	33.74	14700	0.90	**FA**	**77**	**DRN**	**132M4**	125	524
49	1450	29.91	16000	1.05	**FAF**	**77**	**DRN**	**132M4**	130	522
57	1240	25.54	17200	1.15	**F**	**77**	**DRN**	**132M4**	125	521
					FF	**77**	**DRN**	**132M4**	135	522
58	1240	25.50*	17200	1.20						
68	1040	21.43	18100	1.45						
75	960	19.70	18500	1.55						
84	850	17.49	18800	1.75						
94	760	15.64*	18900	1.95						
104	685	14.06	18500	2.2						
120	595	12.20	17900	2.5	**FA**	**77**	**DRN**	**132M4**	120	524
134	530	10.93	17500	2.8	**FAF**	**77**	**DRN**	**132M4**	130	522
158	450	9.30	16400	2.4	**F**	**77**	**DRN**	**132M4**	125	521
178	400	8.26	16000	2.7	**FF**	**77**	**DRN**	**132M4**	135	522
199	360	7.39	15600	3.0						
221	320	6.64	15300	3.3						
255	280	5.76	14800	3.8						
284	250	5.16	14400	4.3						
343	205	4.28	13700	4.8						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	19400	353	95600	1.05						
4.9	16800	302	103600	1.20	**FA**	**157R97**	**DRN**	**132L4**	840	563
5.4	15100	273	107700	1.30	**FAF**	**157R97**	**DRN**	**132L4**	890	563
6.3	12800	232	112600	1.55	**F**	**157R97**	**DRN**	**132L4**	860	563
7.3	11100	202	115500	1.80	**FF**	**157R97**	**DRN**	**132L4**	960	563
7.5	10800	197	116000	1.85						
5.7	14300	259	85800	0.85	**FA**	**127R87**	**DRN**	**132L4**	520	563
6.6	12400	223	89600	0.95	**FAF**	**127R87**	**DRN**	**132L4**	560	563
7.4	10900	198	90000	1.10	**F**	**127R87**	**DRN**	**132L4**	560	563
					FF	**127R87**	**DRN**	**132L4**	600	563
8.6	10200	170.83	90000	1.20						
9.6	9180	153.67*	90000	1.30	**FA**	**127**	**DRN**	**132L4**	455	552
12	7490	125.37	90000	1.60	**FAF**	**127**	**DRN**	**132L4**	490	550
13	6830	114.34	90000	1.75	**F**	**127**	**DRN**	**132L4**	490	549
15	5910	98.95	90000	2.0	**FF**	**127**	**DRN**	**132L4**	540	550
10	8750	146.49	46800	0.90	**FA**	**107**	**DRN**	**132L4**	310	545
11	7760	129.97	49600	1.00	**FAF**	**107**	**DRN**	**132L4**	330	543
12	7040	117.94	51500	1.10	**F**	**107**	**DRN**	**132L4**	325	542
14	6050	101.38*	53900	1.25	**FF**	**107**	**DRN**	**132L4**	355	543
16	5520	92.47*	55100	1.40						
18	5010	83.99	56300	1.55	**FA**	**107**	**DRN**	**132L4**	310	545
20	4450	74.52	57500	1.70	**FAF**	**107**	**DRN**	**132L4**	330	543
22	4040	67.62	58300	1.90	**F**	**107**	**DRN**	**132L4**	325	542
25	3470	58.12*	58000	2.2	**FF**	**107**	**DRN**	**132L4**	355	543
29	3030	50.73	56500	2.5						
18	4790	80.31	23100	0.90	**FA**	**97**	**DRN**	**132L4**	235	538
19	4520	75.63	29200	0.95	**FAF**	**97**	**DRN**	**132L4**	255	536
20	4320	72.29	29600	1.00	**F**	**97**	**DRN**	**132L4**	240	535
22	3910	65.47	29600	1.10	**FF**	**97**	**DRN**	**132L4**	275	536
25	3460	58.06	29500	1.25						
28	3130	52.49	29300	1.35	**FA**	**97**	**DRN**	**132L4**	235	538
33	2650	44.49	28800	1.60	**FAF**	**97**	**DRN**	**132L4**	255	536
38	2320	38.86	28300	1.85	**F**	**97**	**DRN**	**132L4**	240	535
45	1940	32.50	27500	2.2	**FF**	**97**	**DRN**	**132L4**	275	536

26883198/EN – 04/2022

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
43	2020	33.91	27700	2.1	**FA**	**97**	**DRN**	**132L4**	230	538
48	1810	30.39	27200	2.4	**FAF**	**97**	**DRN**	**132L4**	250	536
54	1630	27.44*	26700	2.6	**F**	**97**	**DRN**	**132L4**	235	535
59	1480	24.92	26200	2.9	**FF**	**97**	**DRN**	**132L4**	270	536
29	3000	50.36	16000	1.00						
32	2700	45.28	16300	1.05	**FA**	**87**	**DRN**	**132L4**	170	531
37	2340	39.30	16400	1.15	**FAF**	**87**	**DRN**	**132L4**	185	529
42	2100	35.19	16400	1.25	**F**	**87**	**DRN**	**132L4**	175	528
50	1740	29.20	16300	1.45	**FF**	**87**	**DRN**	**132L4**	190	529
55	1580	26.50	16200	1.90						
62	1410	23.68	16000	2.1						
69	1270	21.32*	15900	2.4	**FA**	**87**	**DRN**	**132L4**	165	531
76	1150	19.31	15600	2.6	**FAF**	**87**	**DRN**	**132L4**	180	529
86	1020	17.12	15400	2.9	**F**	**87**	**DRN**	**132L4**	175	528
95	920	15.48	15100	3.2	**FF**	**87**	**DRN**	**132L4**	190	529
112	780	13.12*	14600	3.8						
75	1170	19.70	17600	1.25						
84	1040	17.49	18100	1.45						
94	930	15.64*	18200	1.60						
105	840	14.06	17900	1.80						
120	725	12.20	17400	2.1						
135	650	10.93	17100	2.3	**FA**	**77**	**DRN**	**132L4**	130	524
158	555	9.30	15900	1.95	**FAF**	**77**	**DRN**	**132L4**	135	522
178	490	8.26	15600	2.2	**F**	**77**	**DRN**	**132L4**	135	521
199	440	7.39	15200	2.5	**FF**	**77**	**DRN**	**132L4**	145	522
221	395	6.64	14900	2.7						
255	340	5.76	14500	3.1						
285	305	5.16	14100	3.5						
343	255	4.28	13500	4.0						

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	23200	353	55600	0.85						
4.9	20000	302	93500	1.00	**FA**	**157R97**	**DRN**	**160M4**	870	563
5.4	18100	273	99800	1.10	**FAF**	**157R97**	**DRN**	**160M4**	930	563
6.4	15300	232	107300	1.30	**F**	**157R97**	**DRN**	**160M4**	890	563
7.3	13300	202	111600	1.50	**FF**	**157R97**	**DRN**	**160M4**	1000	563
7.5	13000	197	112300	1.55						
6.6	14800	223	84800	0.80	**FA**	**127R87**	**DRN**	**160M4**	550	563
7.5	13100	198	88300	0.90	**FAF**	**127R87**	**DRN**	**160M4**	590	563
8.9	11000	166	90000	1.10	**F**	**127R87**	**DRN**	**160M4**	590	563
					FF	**127R87**	**DRN**	**160M4**	630	563
5.5	19000	267.43	96900	1.05						
6.8	15500	217.62*	106900	1.30						
8.3	12700	178.20*	112800	1.55						
9.0	11600	162.96	114800	1.70						
10	10100	141.80*	117100	2.0	**FA**	**157**	**DRN**	**160M4**	740	559
12	8920	125.14	118700	2.2	**FAF**	**157**	**DRN**	**160M4**	800	557
14	7730	108.49	120000	2.6	**F**	**157**	**DRN**	**160M4**	760	556
15	6880	96.53*	120000	2.9	**FF**	**157**	**DRN**	**160M4**	870	557
17	6110	85.80*	117500	3.3						
19	5590	78.46	115100	3.6						
22	4860	68.28*	111400	4.1						
8.6	12100	170.83	90000	1.00						
9.6	10900	153.67*	90000	1.10						
12	8940	125.37	90000	1.35	**FA**	**127**	**DRN**	**160M4**	485	552
13	8150	114.34	90000	1.45	**FAF**	**127**	**DRN**	**160M4**	520	550
15	7050	98.95	90000	1.70	**F**	**127**	**DRN**	**160M4**	520	549
17	6220	87.31*	90000	1.95	**FF**	**127**	**DRN**	**160M4**	570	550
20	5370	75.41*	88300	2.2						
12	8410	117.94	47800	0.90	**FA**	**107**	**DRN**	**160M4**	340	545
15	7220	101.38*	51000	1.05	**FAF**	**107**	**DRN**	**160M4**	365	543
16	6590	92.47*	52600	1.15	**F**	**107**	**DRN**	**160M4**	360	542
					FF	**107**	**DRN**	**160M4**	385	543

26883198/EN – 04/2022

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	5980	83.99	54100	1.30						
20	5310	74.52	55600	1.45	**FA**	**107**	**DRN**	**160M4**	340	545
22	4820	67.62	56700	1.60	**FAF**	**107**	**DRN**	**160M4**	365	543
25	4140	58.12*	56200	1.85	**F**	**107**	**DRN**	**160M4**	360	542
29	3610	50.73	54900	2.1	**FF**	**107**	**DRN**	**160M4**	385	543
34	3060	43.03	53300	2.5						
44	2400	33.79*	50700	3.1	**FA**	**107**	**DRN**	**160M4**	330	545
53	1960	27.57	48500	4.0	**FAF**	**107**	**DRN**	**160M4**	355	543
59	1790	25.14	47500	4.4	**F**	**107**	**DRN**	**160M4**	350	542
					FF	**107**	**DRN**	**160M4**	375	543
22	4660	65.47	26900	0.90	**FA**	**97**	**DRN**	**160M4**	265	538
25	4140	58.06	27100	1.05	**FAF**	**97**	**DRN**	**160M4**	290	536
28	3740	52.49	27100	1.15	**F**	**97**	**DRN**	**160M4**	275	535
					FF	**97**	**DRN**	**160M4**	305	536
33	3170	44.49	26900	1.35	**FA**	**97**	**DRN**	**160M4**	265	538
38	2770	38.86	26700	1.55	**FAF**	**97**	**DRN**	**160M4**	290	536
45	2310	32.50	26200	1.85	**F**	**97**	**DRN**	**160M4**	275	535
					FF	**97**	**DRN**	**160M4**	305	536
43	2410	33.91	26300	1.80						
48	2160	30.39	25900	2.0	**FA**	**97**	**DRN**	**160M4**	260	538
54	1950	27.44*	25500	2.2	**FAF**	**97**	**DRN**	**160M4**	285	536
59	1770	24.92	25200	2.4	**F**	**97**	**DRN**	**160M4**	270	535
67	1570	22.11	24600	2.7	**FF**	**97**	**DRN**	**160M4**	300	536
37	2800	39.30	14600	0.95	**FA**	**87**	**DRN**	**160M4**	200	531
42	2500	35.19	14800	1.05	**FAF**	**87**	**DRN**	**160M4**	215	529
50	2080	29.20	15000	1.20	**F**	**87**	**DRN**	**160M4**	210	528
					FF	**87**	**DRN**	**160M4**	225	529
56	1880	26.50	15000	1.60						
62	1680	23.68	15000	1.80						
69	1520	21.32*	14900	1.95	**FA**	**87**	**DRN**	**160M4**	200	531
76	1370	19.31	14800	2.2	**FAF**	**87**	**DRN**	**160M4**	210	529
86	1220	17.12	14600	2.5	**F**	**87**	**DRN**	**160M4**	205	528
95	1100	15.48	14400	2.7	**FF**	**87**	**DRN**	**160M4**	220	529
112	930	13.12*	14000	3.2						
75	1400	19.70	16300	1.05						
84	1240	17.49	17200	1.20						
94	1110	15.64*	17600	1.35						
105	1000	14.06	17300	1.50						
121	870	12.20	16900	1.70						
135	775	10.93	16600	1.90	**FA**	**77**	**DRN**	**160M4**	160	524
158	660	9.30	15400	1.65	**FAF**	**77**	**DRN**	**160M4**	170	522
178	585	8.26	15100	1.85	**F**	**77**	**DRN**	**160M4**	165	521
199	525	7.39	14800	2.0	**FF**	**77**	**DRN**	**160M4**	175	522
222	470	6.64	14500	2.3						
256	410	5.76	14100	2.6						
285	365	5.16	13800	2.9						
344	305	4.28	13300	3.3						

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.4	24700	273	-	0.80	**FA**	**157R97**	**DRN**	**160L4**	880	563
6.4	20900	232	90200	0.95	**FAF**	**157R97**	**DRN**	**160L4**	940	563
7.3	18200	202	99400	1.10	**F**	**157R97**	**DRN**	**160L4**	900	563
7.5	17700	197	100900	1.10	**FF**	**157R97**	**DRN**	**160L4**	1010	563

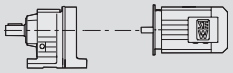
26883198/EN – 04/2022

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.8	21100	217.62*	89500	0.95						
8.3	17300	178.20*	102200	1.15						
9.0	15800	162.96	106100	1.25						
10	13700	141.80*	110700	1.45						
12	12100	125.14	113800	1.65	**FA**	**157**	**DRN**	**160L4**	760	559
14	10500	108.49	116500	1.90	**FAF**	**157**	**DRN**	**160L4**	810	557
15	9380	96.53*	115600	2.1	**F**	**157**	**DRN**	**160L4**	780	556
17	8330	85.80*	113000	2.4	**FF**	**157**	**DRN**	**160L4**	880	557
19	7620	78.46	111000	2.6						
22	6630	68.28*	107800	3.0						
24	5850	60.25	104900	3.4						
12	12100	125.37	88900	1.00						
13	11100	114.34	88300	1.10	**FA**	**127**	**DRN**	**160L4**	500	552
15	9610	98.95	86900	1.25	**FAF**	**127**	**DRN**	**160L4**	540	550
17	8480	87.31*	85500	1.40	**F**	**127**	**DRN**	**160L4**	540	549
20	7320	75.41*	83700	1.65	**FF**	**127**	**DRN**	**160L4**	580	550
21	6800	70.07	82700	1.75						
16	8980	92.47*	46200	0.85						
17	8590	88.49	47300	0.90	**FA**	**107**	**DRN**	**160L4**	360	545
18	8160	83.99	48500	0.95	**FAF**	**107**	**DRN**	**160L4**	380	543
20	7240	74.52	51000	1.05	**F**	**107**	**DRN**	**160L4**	375	542
22	6570	67.62	52700	1.15	**FF**	**107**	**DRN**	**160L4**	400	543
25	5640	58.12*	52200	1.35						
29	4930	50.73	51400	1.55	**FA**	**107**	**DRN**	**160L4**	360	545
34	4180	43.03	50300	1.85	**FAF**	**107**	**DRN**	**160L4**	380	543
39	3650	37.61	49300	2.1	**F**	**107**	**DRN**	**160L4**	375	542
46	3090	31.80	47900	2.5	**FF**	**107**	**DRN**	**160L4**	400	543
44	3280	33.79*	48400	2.2	**FA**	**107**	**DRN**	**160L4**	350	545
53	2670	27.57	46600	2.9	**FAF**	**107**	**DRN**	**160L4**	370	543
59	2440	25.14	45800	3.2	**F**	**107**	**DRN**	**160L4**	365	542
68	2110	21.76*	44400	3.7	**FF**	**107**	**DRN**	**160L4**	390	543
					FA	**97**	**DRN**	**160L4**	285	538
33	4320	44.49	22900	1.00	**FAF**	**97**	**DRN**	**160L4**	305	536
38	3770	38.86	23100	1.15	**F**	**97**	**DRN**	**160L4**	290	535
45	3150	32.50	23200	1.35	**FF**	**97**	**DRN**	**160L4**	325	536
43	3290	33.91	23200	1.30						
48	2950	30.39	23200	1.45						
54	2660	27.44*	23000	1.60						
59	2420	24.92	22900	1.80	**FA**	**97**	**DRN**	**160L4**	275	538
67	2140	22.11	22600	2.0	**FAF**	**97**	**DRN**	**160L4**	300	536
73	1950	20.07	22400	2.2	**F**	**97**	**DRN**	**160L4**	285	535
85	1670	17.25*	21900	2.6	**FF**	**97**	**DRN**	**160L4**	315	536
98	1460	15.06	21400	2.9						
115	1240	12.77	20800	3.5						
132	1080	11.16	20200	3.8						
56	2570	26.50	12400	1.15						
62	2300	23.68	12600	1.30						
69	2070	21.32*	12800	1.45						
76	1870	19.31	12800	1.60						
86	1660	17.12	12900	1.80						
95	1500	15.48	12800	2.0						
112	1270	13.12*	12700	2.4	**FA**	**87**	**DRN**	**160L4**	215	531
129	1110	11.46	12600	2.7	**FAF**	**87**	**DRN**	**160L4**	230	529
154	930	9.58	12300	3.1	**F**	**87**	**DRN**	**160L4**	220	528
178	800	8.29	11700	1.90	**FF**	**87**	**DRN**	**160L4**	235	529
200	710	7.35	11500	2.1						
222	645	6.65	11300	2.4						
262	545	5.63	11000	2.8						
300	475	4.92	10700	3.2						
358	395	4.12	10300	3.6						

26883198/EN – 04/2022

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**180M4**	910	563
7.3	22500	202	74900	0.90	**FAF**	**157R97**	**DRN**	**180M4**	960	563
7.5	21900	197	86400	0.90	**F**	**157R97**	**DRN**	**180M4**	930	563
					FF	**157R97**	**DRN**	**180M4**	1030	563
8.3	21200	178.20*	88900	0.95						
9.1	19400	162.96	95600	1.05						
10	16900	141.80*	103200	1.20						
12	14900	125.14	108200	1.35						
14	12900	108.49	112300	1.55	**FA**	**157**	**DRN**	**180M4**	780	559
15	11500	96.53*	111200	1.75	**FAF**	**157**	**DRN**	**180M4**	840	557
17	10200	85.80*	109100	1.95	**F**	**157**	**DRN**	**180M4**	800	556
19	9370	78.46	107400	2.1	**FF**	**157**	**DRN**	**180M4**	910	557
22	8160	68.28*	104700	2.5						
25	7200	60.25	102100	2.8						
28	6240	52.24	99200	3.2						
45	3890	32.55	89100	5.1						
13	13600	114.34	82200	0.90						
15	11800	98.95	81600	1.00						
17	10400	87.31*	80900	1.15	**FA**	**127**	**DRN**	**180M4**	520	552
20	9010	75.41*	79700	1.35	**FAF**	**127**	**DRN**	**180M4**	560	550
21	8370	70.07	79000	1.45	**F**	**127**	**DRN**	**180M4**	560	549
23	7630	63.91	78000	1.55	**FF**	**127**	**DRN**	**180M4**	600	550
27	6610	55.31	76300	1.80						
30	5830	48.80	74800	2.1						
20	8900	74.52	46400	0.85	**FA**	**107**	**DRN**	**180M4**	380	545
22	8080	67.62	48700	0.95	**FAF**	**107**	**DRN**	**180M4**	400	543
25	6940	58.12*	48700	1.10	**F**	**107**	**DRN**	**180M4**	395	542
29	6060	50.73	48400	1.25	**FF**	**107**	**DRN**	**180M4**	425	543
					FA	**107**	**DRN**	**180M4**	380	545
34	5140	43.03	47700	1.50	**FAF**	**107**	**DRN**	**180M4**	400	543
39	4490	37.61	47000	1.70	**F**	**107**	**DRN**	**180M4**	395	542
46	3800	31.80	45900	2.0	**FF**	**107**	**DRN**	**180M4**	425	543
44	4030	33.79*	46300	1.85	**FA**	**107**	**DRN**	**180M4**	370	545
54	3290	27.57	44900	2.4	**FAF**	**107**	**DRN**	**180M4**	390	543
59	3000	25.14	44200	2.6	**F**	**107**	**DRN**	**180M4**	385	542
68	2600	21.76*	43100	3.0	**FF**	**107**	**DRN**	**180M4**	415	543
					FA	**97**	**DRN**	**180M4**	305	538
38	4640	38.86	20100	0.95	**FAF**	**97**	**DRN**	**180M4**	325	536
45	3880	32.50	20600	1.10	**F**	**97**	**DRN**	**180M4**	310	535
					FF	**97**	**DRN**	**180M4**	345	536
54	3270	27.44*	20900	1.30						
59	2970	24.92	20900	1.45						
67	2640	22.11	20900	1.65	**FA**	**97**	**DRN**	**180M4**	300	538
74	2390	20.07	20800	1.80	**FAF**	**97**	**DRN**	**180M4**	320	536
86	2060	17.25*	20500	2.1	**F**	**97**	**DRN**	**180M4**	305	535
98	1790	15.06	20200	2.4	**FF**	**97**	**DRN**	**180M4**	340	536
116	1520	12.77	19700	2.8						
132	1330	11.16	19300	3.1						
69	2540	21.32*	10900	1.20						
77	2300	19.31	11100	1.30						
86	2040	17.12	11400	1.45						
95	1850	15.48	11500	1.60						
113	1560	13.12*	11600	1.90						
129	1360	11.46	11600	2.2	**FA**	**87**	**DRN**	**180M4**	235	531
154	1140	9.58	11500	2.5	**FAF**	**87**	**DRN**	**180M4**	250	529
178	990	8.29	10900	1.55	**F**	**87**	**DRN**	**180M4**	245	528
201	870	7.35	10800	1.75	**FF**	**87**	**DRN**	**180M4**	260	529
222	790	6.65	10700	1.95						
262	670	5.63	10400	2.3						
300	585	4.92	10200	2.6						
359	490	4.12	9890	3.0						

26883198/EN – 04/2022

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.1	23100	162.96	59000	0.85						
10	20100	141.80*	93200	1.00						
12	17700	125.14	100800	1.10						
14	15400	108.49	107100	1.30						
15	13700	96.53*	106800	1.45						
17	12200	85.80*	105200	1.65	**FA**	**157**	**DRN**	**180L4**	790	559
19	11100	78.46	103900	1.80	**FAF**	**157**	**DRN**	**180L4**	850	557
22	9710	68.28*	101600	2.1	**F**	**157**	**DRN**	**180L4**	820	556
25	8570	60.25	99400	2.3	**FF**	**157**	**DRN**	**180L4**	920	557
28	7420	52.24	96800	2.7						
32	6610	46.48*	94600	3.0						
37	5690	40.06	91700	3.5						
45	4620	32.55	87600	4.3						
15	14000	98.95	76400	0.85						
17	12400	87.31*	76300	0.95						
20	10700	75.41*	75700	1.10	**FA**	**127**	**DRN**	**180L4**	540	552
21	9960	70.07	75300	1.20	**FAF**	**127**	**DRN**	**180L4**	580	550
23	9080	63.91	74600	1.30	**F**	**127**	**DRN**	**180L4**	580	549
27	7860	55.31	73400	1.55	**FF**	**127**	**DRN**	**180L4**	620	550
30	6940	48.80	72200	1.75						
35	5990	42.15	70600	2.0						
					FA	**107**	**DRN**	**180L4**	395	545
25	8260	58.12*	45200	0.95	**FAF**	**107**	**DRN**	**180L4**	415	543
29	7210	50.73	45300	1.05	**F**	**107**	**DRN**	**180L4**	410	542
34	6120	43.03	45100	1.25	**FF**	**107**	**DRN**	**180L4**	440	543
					FA	**107**	**DRN**	**180L4**	395	545
39	5340	37.61	44700	1.45	**FAF**	**107**	**DRN**	**180L4**	415	543
46	4520	31.80	44000	1.70	**F**	**107**	**DRN**	**180L4**	410	542
					FF	**107**	**DRN**	**180L4**	440	543
44	4800	33.79*	44300	1.55	**FA**	**107**	**DRN**	**180L4**	385	545
54	3920	27.57	43300	2.0	**FAF**	**107**	**DRN**	**180L4**	405	543
59	3570	25.14	42700	2.2	**F**	**107**	**DRN**	**180L4**	400	542
68	3090	21.76*	41800	2.5	**FF**	**107**	**DRN**	**180L4**	430	543
77	2730	19.20*	40900	2.9						
54	3900	27.44*	18700	1.10						
59	3540	24.92	18900	1.20						
67	3140	22.11	19100	1.35	**FA**	**97**	**DRN**	**180L4**	315	538
74	2850	20.07	19200	1.50	**FAF**	**97**	**DRN**	**180L4**	335	536
86	2450	17.25*	19100	1.75	**F**	**97**	**DRN**	**180L4**	320	535
98	2140	15.06	19000	2.0	**FF**	**97**	**DRN**	**180L4**	355	536
116	1810	12.77	18700	2.4						
132	1580	11.16	18400	2.6						
69	3030	21.32*	9030	1.00						
76	2740	19.31	9460	1.10						
86	2430	17.12	9870	1.25						
95	2200	15.48	10100	1.35						
113	1860	13.12*	10400	1.60						
129	1620	11.46	10600	1.85	**FA**	**87**	**DRN**	**180L4**	255	531
154	1360	9.58	10600	2.1	**FAF**	**87**	**DRN**	**180L4**	265	529
178	1170	8.29	10100	1.30	**F**	**87**	**DRN**	**180L4**	260	528
201	1040	7.35	10100	1.45	**FF**	**87**	**DRN**	**180L4**	275	529
222	940	6.65	10000	1.60						
262	800	5.63	9890	1.90						
300	695	4.92	9740	2.2						
359	585	4.12	9490	2.5						

26883198/EN – 04/2022

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	21000	108.49	90100	0.95						
15	18600	96.53*	96900	1.05						
17	16600	85.80*	96400	1.20						
19	15100	78.46	95800	1.30						
22	13200	68.28*	94500	1.50	**FA**	**157**	**DRN**	**200L4**	900	559
25	11600	60.25	93200	1.70	**FAF**	**157**	**DRN**	**200L4**	960	557
28	10100	52.24	91400	2.0	**F**	**157**	**DRN**	**200L4**	920	556
32	8990	46.48*	89800	2.2	**FF**	**157**	**DRN**	**200L4**	1030	557
37	7750	40.06	87600	2.6						
45	6300	32.55	84200	3.2						
54	5340	27.60	81500	3.7						
20	14500	75.41*	64600	0.80						
21	13500	70.07	65700	0.90						
23	12300	63.91	66800	0.95						
27	10700	55.31	66700	1.10	**FA**	**127**	**DRN**	**200L4**	650	552
30	9440	48.80	66300	1.25	**FAF**	**127**	**DRN**	**200L4**	690	550
35	8150	42.15	65500	1.45	**F**	**127**	**DRN**	**200L4**	680	549
40	7210	37.28	64600	1.65	**FF**	**127**	**DRN**	**200L4**	730	550
47	6060	31.33	63200	2.0						
58	4890	25.30	61100	2.5						
55	5200	26.86	61700	1.65	**FA**	**127**	**DRN**	**200L4**	640	552
60	4750	24.57	60800	1.80	**FAF**	**127**	**DRN**	**200L4**	670	550
69	4130	21.38	59300	2.9	**F**	**127**	**DRN**	**200L4**	670	549
78	3650	18.87	57900	3.0	**FF**	**127**	**DRN**	**200L4**	720	550
					FA	**107**	**DRN**	**200L4**	500	545
34	8320	43.03	39200	0.90	**FAF**	**107**	**DRN**	**200L4**	530	543
39	7280	37.61	39600	1.05	**F**	**107**	**DRN**	**200L4**	520	542
47	6150	31.80	39700	1.25	**FF**	**107**	**DRN**	**200L4**	550	543
54	5330	27.57	39500	1.45						
59	4860	25.14	39300	1.60						
68	4210	21.76*	38800	1.85	**FA**	**107**	**DRN**	**200L4**	495	545
77	3710	19.20*	38300	2.1	**FAF**	**107**	**DRN**	**200L4**	520	543
89	3200	16.58	37500	2.4	**F**	**107**	**DRN**	**200L4**	510	542
101	2830	14.67	36900	2.7	**FF**	**107**	**DRN**	**200L4**	540	543
120	2380	12.33	35800	2.9						
149	1920	9.96	34400	3.4						
67	4280	22.11	15100	1.00						
74	3880	20.07	15500	1.10						
86	3330	17.25*	16000	1.30						
98	2910	15.06	16300	1.50						
116	2470	12.77	16400	1.75	**FA**	**97**	**DRN**	**200L4**	425	538
133	2160	11.16	16400	1.90	**FAF**	**97**	**DRN**	**200L4**	445	536
163	1750	9.06	15400	1.35	**F**	**97**	**DRN**	**200L4**	430	535
180	1590	8.22	15300	1.50	**FF**	**97**	**DRN**	**200L4**	465	536
209	1360	7.07	15100	1.70						
240	1190	6.17	14900	1.90						
283	1010	5.23	14600	2.1						
324	880	4.57	14300	2.3						

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
15	23000	96.53*	63700	0.85						
17	20400	85.80*	88600	1.00						
19	18700	78.46	88700	1.05						
22	16200	68.28*	88400	1.25	**FA**	**157**	**DRN**	**225S4**	930	559
25	14300	60.25	87800	1.40	**FAF**	**157**	**DRN**	**225S4**	990	557
28	12400	52.24	86700	1.60	**F**	**157**	**DRN**	**225S4**	950	556
32	11000	46.48*	85600	1.80	**FF**	**157**	**DRN**	**225S4**	1060	557
37	9550	40.06	83900	2.1						
46	7750	32.55	81300	2.6						
54	6580	27.60	79000	3.0						

26883198/EN – 04/2022

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
27	13100	55.31	59200	0.90						
30	11600	48.80	60800	1.05	**FA**	**127**	**DRN**	**225S4**	680	552
35	10000	42.15	61100	1.20	**FAF**	**127**	**DRN**	**225S4**	720	550
40	8880	37.28	60700	1.35	**F**	**127**	**DRN**	**225S4**	720	549
47	7460	31.33	59900	1.60	**FF**	**127**	**DRN**	**225S4**	760	550
59	6030	25.30	58400	2.0						
55	6400	26.86	58900	1.35						
60	5850	24.57	58200	1.45						
69	5090	21.38	57000	2.4						
79	4490	18.87	55900	2.5	**FA**	**127**	**DRN**	**225S4**	670	552
91	3890	16.36	54500	2.8	**FAF**	**127**	**DRN**	**225S4**	710	550
102	3460	14.55	53300	3.2	**F**	**127**	**DRN**	**225S4**	700	549
118	2990	12.54	51800	3.3	**FF**	**127**	**DRN**	**225S4**	750	550
145	2420	10.19	49500	3.9						
167	2110	8.86	47700	3.3						
188	1870	7.88	46400	3.2						
54	6570	27.57	36200	1.20						
59	5990	25.14	36300	1.30						
68	5180	21.76*	36200	1.50						
77	4570	19.20*	36000	1.70						
89	3950	16.58	35600	2.0	**FA**	**107**	**DRN**	**225S4**	530	545
101	3490	14.67	35100	2.2	**FAF**	**107**	**DRN**	**225S4**	550	543
120	2930	12.33	34300	2.4	**F**	**107**	**DRN**	**225S4**	540	542
149	2370	9.96	33200	2.7	**FF**	**107**	**DRN**	**225S4**	570	543
153	2310	9.69	32400	2.1						
177	1990	8.37	31600	2.4						
200	1760	7.40	31000	2.6						
238	1480	6.22	30000	3.1						

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	22700	78.46	70300	0.90						
22	19700	68.28*	81400	1.00						
25	17400	60.25	81600	1.15	**FA**	**157**	**DRN**	**225M4**	930	559
28	15100	52.24	81300	1.30	**FAF**	**157**	**DRN**	**225M4**	990	557
32	13400	46.48*	80800	1.50	**F**	**157**	**DRN**	**225M4**	950	556
37	11600	40.06	79800	1.70	**FF**	**157**	**DRN**	**225M4**	1060	557
46	9430	32.55	78000	2.1						
54	8000	27.60	76100	2.5						
30	14100	48.80	51600	0.85						
35	12200	42.15	54300	1.00	**FA**	**127**	**DRN**	**225M4**	680	552
40	10800	37.28	55800	1.10	**FAF**	**127**	**DRN**	**225M4**	720	550
47	9080	31.33	56100	1.30	**F**	**127**	**DRN**	**225M4**	720	549
59	7330	25.30	55400	1.65	**FF**	**127**	**DRN**	**225M4**	760	550
55	7780	26.86	55600	1.10						
60	7120	24.57	55200	1.20						
69	6190	21.38	54500	1.95						
79	5470	18.87	53600	2.0						
91	4740	16.36	52500	2.3	**FA**	**127**	**DRN**	**225M4**	670	552
102	4210	14.55	51600	2.6	**FAF**	**127**	**DRN**	**225M4**	710	550
118	3630	12.54	50300	2.8	**F**	**127**	**DRN**	**225M4**	700	549
145	2950	10.19	48300	3.2	**FF**	**127**	**DRN**	**225M4**	750	550
167	2560	8.86	46500	2.7						
188	2280	7.88	45400	2.6						
218	1970	6.80	44000	3.5						
268	1600	5.52	41900	3.8						

26883198/EN – 04/2022

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
54	7990	27.57	31500	1.00						
59	7290	25.14	32600	1.10						
68	6300	21.76*	33200	1.25						
77	5560	19.20*	33300	1.40						
89	4800	16.58	33300	1.65	**FA**	**107**	**DRN**	**225M4**	530	545
101	4250	14.67	33100	1.80	**FAF**	**107**	**DRN**	**225M4**	550	543
120	3570	12.33	32600	1.95	**F**	**107**	**DRN**	**225M4**	540	542
149	2880	9.96	31900	2.2	**FF**	**107**	**DRN**	**225M4**	570	543
153	2810	9.69	30900	1.75						
177	2420	8.37	30400	2.0						
200	2140	7.40	29800	2.1						
238	1800	6.22	29000	2.5						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	21300	60.25	73800	0.95						
28	18500	52.24	74600	1.10	**FA**	**157**	**DRN**	**250M4**	1080	559
32	16400	46.48*	74800	1.20	**FAF**	**157**	**DRN**	**250M4**	1140	557
37	14100	40.06	74700	1.40	**F**	**157**	**DRN**	**250M4**	1110	556
46	11500	32.55	73800	1.75	**FF**	**157**	**DRN**	**250M4**	1210	557
54	9780	27.60	72600	2.0						
52	10100	28.60*	72900	1.90						
58	9010	25.43	71900	2.2	**FA**	**157**	**DRN**	**250M4**	1080	559
67	7850	22.16	70600	2.5	**FAF**	**157**	**DRN**	**250M4**	1140	557
75	7000	19.77	69400	2.8	**F**	**157**	**DRN**	**250M4**	1100	556
88	5970	16.85	67500	3.1	**FF**	**157**	**DRN**	**250M4**	1210	557
40	13200	37.28	47000	0.90	**FA**	**127**	**DRN**	**250M4**	830	552
47	11100	31.33	50000	1.10	**FAF**	**127**	**DRN**	**250M4**	870	550
59	8960	25.30	51600	1.35	**F**	**127**	**DRN**	**250M4**	870	549
					FF	**127**	**DRN**	**250M4**	910	550
69	7570	21.38	51300	1.60						
79	6680	18.87	50800	1.65						
91	5790	16.36	50100	1.90						
102	5150	14.55	49400	2.1						
118	4440	12.54	48400	2.2	**FA**	**127**	**DRN**	**250M4**	820	552
145	3610	10.19	46800	2.6	**FAF**	**127**	**DRN**	**250M4**	850	550
167	3140	8.86	45100	2.2	**F**	**127**	**DRN**	**250M4**	850	549
188	2790	7.88	44100	2.1	**FF**	**127**	**DRN**	**250M4**	900	550
218	2400	6.80	42900	2.9						
268	1950	5.52	41000	3.1						
317	1650	4.68	39600	3.6						

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	22400	46.48*	62900	0.90	**FA**	**157**	**DRN**	**280S4**	1130	559
37	19300	40.06	64400	1.05	**FAF**	**157**	**DRN**	**280S4**	1190	557
46	15700	32.55	65400	1.25	**F**	**157**	**DRN**	**280S4**	1150	556
54	13300	27.60	65500	1.50	**FF**	**157**	**DRN**	**280S4**	1260	557
52	13800	28.60*	65500	1.40						
58	12200	25.43	65400	1.65						
67	10700	22.16	64900	1.85	**FA**	**157**	**DRN**	**280S4**	1130	559
75	9550	19.77	64300	2.0	**FAF**	**157**	**DRN**	**280S4**	1190	557
88	8140	16.85	63200	2.3	**F**	**157**	**DRN**	**280S4**	1150	556
106	6740	13.96	61600	2.6	**FF**	**157**	**DRN**	**280S4**	1260	557
124	5750	11.92	60100	3.0						
					FA	**127**	**DRN**	**280S4**	880	552
59	12200	25.30	40000	1.00	**FAF**	**127**	**DRN**	**280S4**	920	550
					F	**127**	**DRN**	**280S4**	910	549
					FF	**127**	**DRN**	**280S4**	960	550

26883198/EN – 04/2022

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
69	10300	21.38	43000	1.15						
79	9110	18.87	44400	1.20						
91	7900	16.36	45200	1.40						
102	7030	14.55	45000	1.55	**FA**	**127**	**DRN**	**280S4**	870	552
118	6060	12.54	44600	1.65	**FAF**	**127**	**DRN**	**280S4**	900	550
145	4920	10.19	43700	1.95	**F**	**127**	**DRN**	**280S4**	900	549
167	4280	8.86	42200	1.65	**FF**	**127**	**DRN**	**280S4**	950	550
188	3800	7.88	41600	1.55						
218	3280	6.80	40700	2.1						
268	2660	5.52	39300	2.2						
317	2260	4.68	38100	2.6						

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
37	23200	40.06	56600	0.85	**FA**	**157**	**DRN**	**280M4**	1250	559
46	18800	32.55	59100	1.05	**FAF**	**157**	**DRN**	**280M4**	1310	557
54	16000	27.60	60200	1.25	**F**	**157**	**DRN**	**280M4**	1270	556
					FF	**157**	**DRN**	**280M4**	1380	557
67	12800	22.16	60600	1.55						
75	11400	19.77	60500	1.70	**FA**	**157**	**DRN**	**280M4**	1240	559
88	9770	16.85	59900	1.90	**FAF**	**157**	**DRN**	**280M4**	1300	557
106	8100	13.96	58900	2.2	**F**	**157**	**DRN**	**280M4**	1260	556
124	6910	11.92	57800	2.5	**FF**	**157**	**DRN**	**280M4**	1370	557
					FA	**127**	**DRN**	**280M4**	990	552
59	14600	25.30	29600	0.80	**FAF**	**127**	**DRN**	**280M4**	1030	550
					F	**127**	**DRN**	**280M4**	1030	549
					FF	**127**	**DRN**	**280M4**	1070	550
91	9490	16.36	39900	1.15						
102	8440	14.55	41100	1.30						
118	7270	12.54	41800	1.35	**FA**	**127**	**DRN**	**280M4**	980	552
145	5910	10.19	41400	1.60	**FAF**	**127**	**DRN**	**280M4**	1020	550
167	5140	8.86	40100	1.35	**F**	**127**	**DRN**	**280M4**	1020	549
188	4570	7.88	39700	1.30	**FF**	**127**	**DRN**	**280M4**	1060	550
218	3940	6.80	39000	1.80						
268	3200	5.52	37900	1.85						
316	2710	4.68	36900	2.2						

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315S4**	1490	559
46	22900	32.55	50800	0.85	**FAF**	**157**	**DRN**	**315S4**	1550	557
54	19400	27.60	53100	1.05	**F**	**157**	**DRN**	**315S4**	1510	556
					FF	**157**	**DRN**	**315S4**	1620	557
					FA	**157**	**DRN**	**315S4/ERF/NS**	1490	559
67	15600	22.16	54900	1.25	**FAF**	**157**	**DRN**	**315S4/ERF/NS**	1550	557
					F	**157**	**DRN**	**315S4/ERF/NS**	1510	556
					FF	**157**	**DRN**	**315S4/ERF/NS**	1610	557
75	13900	19.77	55400	1.40	**FA**	**157**	**DRN**	**315S4**	1490	559
88	11800	16.85	55600	1.55	**FAF**	**157**	**DRN**	**315S4**	1550	557
107	9850	13.96	55300	1.80	**F**	**157**	**DRN**	**315S4**	1510	556
125	8410	11.92	54700	2.1	**FF**	**157**	**DRN**	**315S4**	1610	557

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315M4/ERF/NS**	1510	559
67	18700	22.16	48700	1.05	**FAF**	**157**	**DRN**	**315M4/ERF/NS**	1570	557
75	16700	19.77	49800	1.15	**F**	**157**	**DRN**	**315M4/ERF/NS**	1530	556
					FF	**157**	**DRN**	**315M4/ERF/NS**	1630	557

26883198/EN – 04/2022

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
88	14200	16.85	50900	1.30	**FA**	**157**	**DRN**	**315M4**		1510	559
107	11800	13.96	51400	1.50	**FAF**	**157**	**DRN**	**315M4**		1570	557
125	10000	11.92	51400	1.70	**F**	**157**	**DRN**	**315M4**		1530	556
					FF	**157**	**DRN**	**315M4**		1630	557

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
88	17300	16.85	44800	1.10	**FA**	**157**	**DRN**	**315L4**		1640	559
106	14300	13.96	46400	1.25	**FAF**	**157**	**DRN**	**315L4**		1700	557
125	12200	11.92	47100	1.40	**F**	**157**	**DRN**	**315L4**		1660	556
					FF	**157**	**DRN**	**315L4**		1770	557

P_m = 200 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
88	21600	16.85	36200	0.85	**FA**	**157**	**DRN**	**315H4/ERF/NS**		1760	559
					FAF	**157**	**DRN**	**315H4/ERF/NS**		1820	557
					F	**157**	**DRN**	**315H4/ERF/NS**		1780	556
					FF	**157**	**DRN**	**315H4/ERF/NS**		1880	557
107	17900	13.96	39200	1.00	**FA**	**157**	**DRN**	**315H4**		1760	559
125	15200	11.92	41000	1.15	**FAF**	**157**	**DRN**	**315H4**		1820	557
					F	**157**	**DRN**	**315H4**		1780	556
					FF	**157**	**DRN**	**315H4**		1880	557

26883198/EN – 04/2022

9.4 F..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 130 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.15	8972	4500							
0.18	7736	4500							
0.19	7211	4500							
0.22	6303	4500							
0.25	5435	4500	**FA**	**27R17**	**DRN**	**63MS4**		14	563
0.28	4855	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	563
0.33	4243	4500	**F**	**27R17**	**DRN**	**63MS4**		14	563
0.37	3715	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	563
0.43	3247	4500							
0.48	2878	4500							
0.55	2515	4500							
0.62	2217	4500							
0.73	1898	4500							
0.84	1645	4500							
0.90	1525	4500							
1.0	1322	4500							
1.2	1146	4500	**FA**	**27R17**	**DRN**	**63MS4**		13	563
1.4	1013	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	563
1.6	890	4500	**F**	**27R17**	**DRN**	**63MS4**		14	563
1.8	778	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	563
2.0	682	4500							
2.3	602	4500							
2.6	520	4500							
0.71	1948	4500							
0.76	1826	4500							
0.86	1610	4500							
0.99	1399	4500							
1.1	1230	4500							
1.5	948	4500							
1.7	829	4500							
1.9	731	4500	**FA**	**27R17**	**DRN**	**63MS4**		13	563
2.2	633	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	563
2.5	551	4500	**F**	**27R17**	**DRN**	**63MS4**		14	563
2.8	489	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	563
3.2	427	4500							
3.6	379	4500							
4.2	326	4500							
4.8	288	4500							
5.5	251	4500							
6.2	221	4500							
			FA	**27R17**	**DRN**	**63M4**		14	563
8.0	172	4500	**FAF**	**27R17**	**DRN**	**63M4**		15	563
9.0	153	4500	**F**	**27R17**	**DRN**	**63M4**		15	563
11	130	4500	**FF**	**27R17**	**DRN**	**63M4**		15	563
3.0	458	4500							
3.5	397	4500							
4.0	342	4500	**FA**	**27R17**	**DRN**	**63MS4**		13	563
4.6	302	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	563
5.2	266	4500	**F**	**27R17**	**DRN**	**63MS4**		14	563
5.8	236	4500	**FF**	**27R17**	**DRN**	**63MS4**		14	563
6.5	211	4500							
7.4	186	4500							
			FA	**27R17**	**DRN**	**63M4**		14	563
9.7	142	4500	**FAF**	**27R17**	**DRN**	**63M4**		15	563
11	124	4500	**F**	**27R17**	**DRN**	**63M4**		14	563
			FF	**27R17**	**DRN**	**63M4**		15	563
			FA	**27R17**	**DRN**	**71MS4**		14	563
13	109	4500	**FAF**	**27R17**	**DRN**	**71MS4**		15	563
15	96	4500	**F**	**27R17**	**DRN**	**71MS4**		15	563
			FF	**27R17**	**DRN**	**71MS4**		16	563

26883198/EN – 04/2022

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.17	8193	4290						
0.20	7064	4290						
0.21	6585	4290						
0.24	5756	4290						
0.28	4963	4290						
0.31	4434	4290	**FA**	**37R17**	**DRN**	**63MS4**	20	563
0.36	3875	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
0.41	3392	4290	**F**	**37R17**	**DRN**	**63MS4**	20	563
0.47	2965	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	563
0.53	2587	4290						
0.60	2284	4290						
0.69	1997	4290						
0.79	1742	4290						
0.89	1545	4290						
0.72	1929	4290						
0.82	1679	4290						
0.89	1550	4290						
1.0	1356	4290						
1.2	1180	4290						
1.3	1044	4290	**FA**	**37R17**	**DRN**	**63MS4**	20	563
1.5	914	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
1.7	808	4290	**F**	**37R17**	**DRN**	**63MS4**	20	563
2.0	698	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	563
2.2	616	4290						
2.5	544	4290						
3.0	466	4290						
3.4	411	4290						
3.8	364	4290						
1.0	1370	4290						
1.1	1198	4290						
1.3	1047	4290						
1.5	915	4290						
1.7	807	4290	**FA**	**37R17**	**DRN**	**63MS4**	19	563
1.9	707	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
2.2	617	4290	**F**	**37R17**	**DRN**	**63MS4**	20	563
2.6	538	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	563
2.9	477	4290						
3.4	412	4290						
3.8	365	4290						
4.3	322	4290						
5.0	278	4290	**FA**	**37R17**	**DRN**	**63M4**	20	563
5.7	242	4290	**FAF**	**37R17**	**DRN**	**63M4**	22	563
6.2	221	4290	**F**	**37R17**	**DRN**	**63M4**	21	563
7.1	195	4290	**FF**	**37R17**	**DRN**	**63M4**	23	563
			FA	**37R17**	**DRN**	**71MS4**	21	563
8.4	168	4290	**FAF**	**37R17**	**DRN**	**71MS4**	22	563
9.6	147	4290	**F**	**37R17**	**DRN**	**71MS4**	21	563
			FF	**37R17**	**DRN**	**71MS4**	23	563
11	127	4290	**FA**	**37R17**	**DRN**	**71M4**	22	563
12	121	4290	**FAF**	**37R17**	**DRN**	**71M4**	24	563
13	108	4290	**F**	**37R17**	**DRN**	**71M4**	23	563
15	91	4290	**FF**	**37R17**	**DRN**	**71M4**	24	563
			FA	**37R17**	**DRN**	**63MS4**	19	563
4.2	326	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	563
4.8	285	4290	**F**	**37R17**	**DRN**	**63MS4**	20	563
			FF	**37R17**	**DRN**	**63MS4**	22	563
			FA	**37R17**	**DRN**	**63M4**	20	563
5.5	250	4290	**FAF**	**37R17**	**DRN**	**63M4**	22	563
6.3	219	4290	**F**	**37R17**	**DRN**	**63M4**	21	563
7.4	186	4290	**FF**	**37R17**	**DRN**	**63M4**	22	563
			FA	**37R17**	**DRN**	**71MS4**	21	563
8.4	167	4290	**FAF**	**37R17**	**DRN**	**71MS4**	22	563
9.7	145	4290	**F**	**37R17**	**DRN**	**71MS4**	21	563
			FF	**37R17**	**DRN**	**71MS4**	23	563

26883198/EN – 04/2022

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
11	129	4290	**FA**	**37R17**	**DRN**	**71M4**	22	563
12	118	4290	**FAF**	**37R17**	**DRN**	**71M4**	23	563
14	98	4290	**F**	**37R17**	**DRN**	**71M4**	22	563
			FF	**37R17**	**DRN**	**71M4**	24	563
17	87	4290	**FA**	**37R17**	**DRN**	**80MK4**	24	563
			FAF	**37R17**	**DRN**	**80MK4**	26	563
			F	**37R17**	**DRN**	**80MK4**	25	563
			FF	**37R17**	**DRN**	**80MK4**	26	563

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12251	5920						
0.13	10619	5920						
0.14	9846	5920						
0.16	8534	5920						
0.19	7460	5920						
0.21	6536	5920						
0.24	5746	5920	**FA**	**47R17**	**DRN**	**63MS4**	25	563
0.27	5022	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	563
0.31	4401	5920	**F**	**47R17**	**DRN**	**63MS4**	25	563
0.36	3883	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	563
0.40	3443	5920						
0.46	2976	5920						
0.52	2629	5920						
0.60	2304	5920						
0.68	2033	5920						
0.55	2519	5920						
0.58	2394	5920						
0.64	2172	5920						
0.68	2025	5920						
0.78	1770	5920						
0.88	1576	5920	**FA**	**47R17**	**DRN**	**63MS4**	24	563
1.0	1363	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	563
1.2	1192	5920	**F**	**47R17**	**DRN**	**63MS4**	25	563
1.3	1061	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	563
1.5	931	5920						
1.7	822	5920						
2.0	706	5920						
2.2	619	5920						
0.77	1785	5920						
0.87	1578	5920						
1.0	1364	5920						
1.1	1203	5920	**FA**	**47R17**	**DRN**	**63MS4**	24	563
1.3	1049	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	563
1.5	918	5920	**F**	**47R17**	**DRN**	**63MS4**	25	563
1.7	809	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	563
2.0	700	5920						
2.2	622	5920						
2.5	543	5920	**FA**	**47R17**	**DRN**	**63M4**	25	563
2.9	475	5920	**FAF**	**47R17**	**DRN**	**63M4**	28	563
3.3	419	5920	**F**	**47R17**	**DRN**	**63M4**	26	563
			FF	**47R17**	**DRN**	**63M4**	29	563
3.8	370	5920	**FA**	**47R17**	**DRN**	**71MS4**	26	563
4.3	324	5920	**FAF**	**47R17**	**DRN**	**71MS4**	28	563
4.9	288	5920	**F**	**47R17**	**DRN**	**71MS4**	26	563
			FF	**47R17**	**DRN**	**71MS4**	30	563
5.7	249	5920	**FA**	**47R17**	**DRN**	**71M4**	27	563
6.5	218	5920	**FAF**	**47R17**	**DRN**	**71M4**	30	563
7.3	193	5920	**F**	**47R17**	**DRN**	**71M4**	28	563
			FF	**47R17**	**DRN**	**71M4**	31	563
8.2	175	5920	**FA**	**47R17**	**DRN**	**80MK4**	29	563
9.8	147	5920	**FAF**	**47R17**	**DRN**	**80MK4**	32	563
11	130	5920	**F**	**47R17**	**DRN**	**80MK4**	30	563
			FF	**47R17**	**DRN**	**80MK4**	33	563

26883198/EN – 04/2022

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.6	524	5920	**FA**	**47R17**	**DRN**	**63M4**	24	563
2.8	489	5920	**FAF**	**47R17**	**DRN**	**63M4**	27	563
3.2	427	5920	**F**	**47R17**	**DRN**	**63M4**	25	563
3.6	381	5920	**FF**	**47R17**	**DRN**	**63M4**	28	563
			FA	**47R17**	**DRN**	**71MS4**	25	563
4.2	334	5920	**FAF**	**47R17**	**DRN**	**71MS4**	28	563
4.8	295	5920	**F**	**47R17**	**DRN**	**71MS4**	26	563
			FF	**47R17**	**DRN**	**71MS4**	29	563
5.6	253	5920	**FA**	**47R17**	**DRN**	**71M4**	26	563
6.5	217	5920	**FAF**	**47R17**	**DRN**	**71M4**	29	563
7.5	190	5920	**F**	**47R17**	**DRN**	**71M4**	27	563
8.0	178	5920	**FF**	**47R17**	**DRN**	**71M4**	30	563
			FA	**47R17**	**DRN**	**80MK4**	28	563
9.6	149	5920	**FAF**	**47R17**	**DRN**	**80MK4**	31	563
11	131	5920	**F**	**47R17**	**DRN**	**80MK4**	29	563
			FF	**47R17**	**DRN**	**80MK4**	32	563

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.09	14832	9200						
0.10	13604	9200						
0.11	12602	9200						
0.12	11252	9200						
0.14	9986	9200						
0.16	8787	9200						
0.17	7908	9200						
0.20	6913	9200						
0.23	6030	9200						
0.26	5289	9200	**FA**	**57R37**	**DRN**	**63MS4**	39	563
0.30	4654	9200	**FAF**	**57R37**	**DRN**	**63MS4**	45	563
0.34	4060	9200	**F**	**57R37**	**DRN**	**63MS4**	40	563
0.39	3564	9200	**FF**	**57R37**	**DRN**	**63MS4**	46	563
0.44	3161	9200						
0.50	2737	9200						
0.57	2409	9200						
0.65	2131	9200						
0.75	1840	9200						
0.85	1623	9200						
0.96	1439	9200						
1.1	1238	9200						
0.48	2854	9200						
0.54	2576	9200						
0.61	2266	9200						
0.69	2012	9200						
0.77	1791	9200	**FA**	**57R37**	**DRN**	**63MS4**	39	563
0.85	1617	9200	**FAF**	**57R37**	**DRN**	**63MS4**	44	563
0.97	1422	9200	**F**	**57R37**	**DRN**	**63MS4**	39	563
1.1	1243	9200	**FF**	**57R37**	**DRN**	**63MS4**	45	563
1.3	1066	9200						
1.4	949	9200						
1.6	856	9200						
			FA	**57R37**	**DRN**	**63M4**	40	563
1.8	749	9200	**FAF**	**57R37**	**DRN**	**63M4**	45	563
2.1	658	9200	**F**	**57R37**	**DRN**	**63M4**	40	563
			FF	**57R37**	**DRN**	**63M4**	46	563
			FA	**57R37**	**DRN**	**71MS4**	40	563
2.6	549	9200	**FAF**	**57R37**	**DRN**	**71MS4**	46	563
2.9	483	9200	**F**	**57R37**	**DRN**	**71MS4**	40	563
			FF	**57R37**	**DRN**	**71MS4**	47	563
			FA	**57R37**	**DRN**	**63MS4**	39	563
1.2	1106	9200	**FAF**	**57R37**	**DRN**	**63MS4**	45	563
1.4	967	9200	**F**	**57R37**	**DRN**	**63MS4**	39	563
1.6	851	9200	**FF**	**57R37**	**DRN**	**63MS4**	46	563

26883198/EN – 04/2022

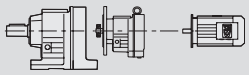
$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.9	738	9200	**FA**	**57R37**	**DRN**	**63M4**	40	563
2.1	646	9200	**FAF**	**57R37**	**DRN**	**63M4**	46	563
2.5	558	9200	**F**	**57R37**	**DRN**	**63M4**	40	563
			FF	**57R37**	**DRN**	**63M4**	47	563
2.8	506	9200	**FA**	**57R37**	**DRN**	**71MS4**	41	563
3.1	452	9200	**FAF**	**57R37**	**DRN**	**71MS4**	46	563
			F	**57R37**	**DRN**	**71MS4**	41	563
			FF	**57R37**	**DRN**	**71MS4**	47	563
3.7	386	9200	**FA**	**57R37**	**DRN**	**71M4**	42	563
4.2	338	9200	**FAF**	**57R37**	**DRN**	**71M4**	47	563
			F	**57R37**	**DRN**	**71M4**	42	563
			FF	**57R37**	**DRN**	**71M4**	49	563
5.6	255	9200	**FA**	**57R37**	**DRN**	**80MK4**	44	563
7.1	201	9200	**FAF**	**57R37**	**DRN**	**80MK4**	50	563
7.9	181	9200	**F**	**57R37**	**DRN**	**80MK4**	44	563
			FF	**57R37**	**DRN**	**80MK4**	51	563
9.3	155	9200	**FA**	**57R37**	**DRN**	**80M4**	48	563
			FAF	**57R37**	**DRN**	**80M4**	53	563
			F	**57R37**	**DRN**	**80M4**	48	563
			FF	**57R37**	**DRN**	**80M4**	54	563
3.3	426	9200	**FA**	**57R37**	**DRN**	**71MS4**	40	563
			FAF	**57R37**	**DRN**	**71MS4**	46	563
			F	**57R37**	**DRN**	**71MS4**	40	563
			FF	**57R37**	**DRN**	**71MS4**	47	563
3.7	382	9200	**FA**	**57R37**	**DRN**	**71M4**	41	563
4.3	330	9200	**FAF**	**57R37**	**DRN**	**71M4**	47	563
4.8	298	9200	**F**	**57R37**	**DRN**	**71M4**	41	563
5.4	262	9200	**FF**	**57R37**	**DRN**	**71M4**	48	563
6.3	226	9200	**FA**	**57R37**	**DRN**	**80MK4**	43	563
7.2	200	9200	**FAF**	**57R37**	**DRN**	**80MK4**	49	563
			F	**57R37**	**DRN**	**80MK4**	44	563
			FF	**57R37**	**DRN**	**80MK4**	50	563
8.5	170	9200	**FA**	**57R37**	**DRN**	**80M4**	47	563
9.4	152	9200	**FAF**	**57R37**	**DRN**	**80M4**	52	563
11	134	9200	**F**	**57R37**	**DRN**	**80M4**	47	563
			FF	**57R37**	**DRN**	**80M4**	54	563

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	19199	10300						
0.08	17610	10300						
0.09	14992	10300						
0.11	12926	10300						
0.12	11480	10300						
0.14	10220	10300						
0.15	8933	10300						
0.17	7940	10300	**FA**	**67R37**	**DRN**	**63MS4**	43	563
0.19	7096	10300	**FAF**	**67R37**	**DRN**	**63MS4**	50	563
0.23	6080	10300	**F**	**67R37**	**DRN**	**63MS4**	46	563
0.26	5341	10300	**FF**	**67R37**	**DRN**	**63MS4**	52	563
0.29	4690	10300						
0.34	4091	10300						
0.39	3574	10300						
0.44	3133	10300						
0.50	2756	10300						
0.57	2439	10300						

26883198/EN – 04/2022

$M_{a\ max}$ = 820 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.41	3377	10300						
0.47	2912	10300						
0.51	2714	10300						
0.58	2372	10300	**FA**	**67R37**	**DRN**	**63MS4**	42	563
0.65	2126	10300	**FAF**	**67R37**	**DRN**	**63MS4**	48	563
0.74	1859	10300	**F**	**67R37**	**DRN**	**63MS4**	45	563
0.85	1631	10300	**FF**	**67R37**	**DRN**	**63MS4**	51	563
0.96	1437	10300						
1.1	1256	10300						
			FA	**67R37**	**DRN**	**63M4**	43	563
1.2	1126	10300	**FAF**	**67R37**	**DRN**	**63M4**	49	563
1.4	984	10300	**F**	**67R37**	**DRN**	**63M4**	46	563
1.6	864	10300	**FF**	**67R37**	**DRN**	**63M4**	52	563
			FA	**67R37**	**DRN**	**71MS4**	44	563
1.9	722	10300	**FAF**	**67R37**	**DRN**	**71MS4**	50	563
2.2	634	10300	**F**	**67R37**	**DRN**	**71MS4**	46	563
			FF	**67R37**	**DRN**	**71MS4**	52	563
			FA	**67R37**	**DRN**	**71M4**	45	563
2.6	539	10300	**FAF**	**67R37**	**DRN**	**71M4**	51	563
			F	**67R37**	**DRN**	**71M4**	48	563
			FF	**67R37**	**DRN**	**71M4**	54	563
0.66	2106	10300						
0.73	1884	10300	**FA**	**67R37**	**DRN**	**63MS4**	43	563
0.84	1635	10300	**FAF**	**67R37**	**DRN**	**63MS4**	49	563
0.97	1429	10300	**F**	**67R37**	**DRN**	**63MS4**	46	563
1.1	1271	10300	**FF**	**67R37**	**DRN**	**63MS4**	52	563
			FA	**67R37**	**DRN**	**63M4**	44	563
1.2	1102	10300	**FAF**	**67R37**	**DRN**	**63M4**	50	563
1.4	970	10300	**F**	**67R37**	**DRN**	**63M4**	47	563
1.6	858	10300	**FF**	**67R37**	**DRN**	**63M4**	53	563
			FA	**67R37**	**DRN**	**71MS4**	45	563
1.9	755	10300	**FAF**	**67R37**	**DRN**	**71MS4**	51	563
2.2	641	10300	**F**	**67R37**	**DRN**	**71MS4**	47	563
2.5	572	10300	**FF**	**67R37**	**DRN**	**71MS4**	53	563
			FA	**67R37**	**DRN**	**71M4**	46	563
2.8	509	10300	**FAF**	**67R37**	**DRN**	**71M4**	52	563
3.2	437	10300	**F**	**67R37**	**DRN**	**71M4**	49	563
3.7	384	10300	**FF**	**67R37**	**DRN**	**71M4**	55	563
			FA	**67R37**	**DRN**	**80MK4**	48	563
4.2	338	10300	**FAF**	**67R37**	**DRN**	**80MK4**	54	563
4.7	305	10300	**F**	**67R37**	**DRN**	**80MK4**	51	563
5.6	257	10300	**FF**	**67R37**	**DRN**	**80MK4**	57	563
			FA	**67R37**	**DRN**	**80M4**	51	563
6.2	231	10300	**FAF**	**67R37**	**DRN**	**80M4**	58	563
7.0	205	10300	**F**	**67R37**	**DRN**	**80M4**	54	563
			FF	**67R37**	**DRN**	**80M4**	60	563
			FA	**67R37**	**DRN**	**90S4**	57	563
8.3	175	10300	**FAF**	**67R37**	**DRN**	**90S4**	64	563
			F	**67R37**	**DRN**	**90S4**	60	563
			FF	**67R37**	**DRN**	**90S4**	66	563
			FA	**67R37**	**DRN**	**71M4**	45	563
2.8	500	10300	**FAF**	**67R37**	**DRN**	**71M4**	51	563
3.1	454	10300	**F**	**67R37**	**DRN**	**71M4**	47	563
3.6	392	10300	**FF**	**67R37**	**DRN**	**71M4**	53	563
			FA	**67R37**	**DRN**	**80MK4**	47	563
4.3	333	10300	**FAF**	**67R37**	**DRN**	**80MK4**	53	563
4.8	297	10300	**F**	**67R37**	**DRN**	**80MK4**	50	563
5.5	261	10300	**FF**	**67R37**	**DRN**	**80MK4**	56	563
			FA	**67R37**	**DRN**	**80M4**	50	563
6.0	238	10300	**FAF**	**67R37**	**DRN**	**80M4**	57	563
7.2	200	10300	**F**	**67R37**	**DRN**	**80M4**	53	563
			FF	**67R37**	**DRN**	**80M4**	59	563

26883198/EN – 04/2022

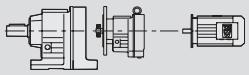
$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
8.3	176	10300	**FA**	**67R37**	**DRN**	**90S4**		56	563
			FAF	**67R37**	**DRN**	**90S4**		62	563
			F	**67R37**	**DRN**	**90S4**		59	563
			FF	**67R37**	**DRN**	**90S4**		65	563

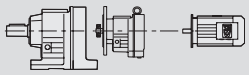
$M_{a\ max}$ = 1110 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.28	4931	17900							
0.31	4523	17900							
0.36	3851	17900							
0.42	3320	17900							
0.45	3095	17900	**FA**	**77R37**	**DRN**	**63MS4**		64	563
0.51	2705	17900	**FAF**	**77R37**	**DRN**	**63MS4**		71	563
0.54	2536	17900	**F**	**77R37**	**DRN**	**63MS4**		68	563
0.62	2238	17900	**FF**	**77R37**	**DRN**	**63MS4**		79	563
0.68	2039	17900							
0.78	1759	17900							
0.84	1639	17900							
0.96	1433	17900	**FA**	**77R37**	**DRN**	**63M4**		65	563
1.0	1343	17900	**FAF**	**77R37**	**DRN**	**63M4**		72	563
1.2	1185	17900	**F**	**77R37**	**DRN**	**63M4**		69	563
1.3	1051	17900	**FF**	**77R37**	**DRN**	**63M4**		80	563
1.6	893	17900	**FA**	**77R37**	**DRN**	**71MS4**		66	563
			FAF	**77R37**	**DRN**	**71MS4**		72	563
			F	**77R37**	**DRN**	**71MS4**		69	563
			FF	**77R37**	**DRN**	**71MS4**		80	563
1.7	815	17900	**FA**	**77R37**	**DRN**	**71MS4**		65	563
			FAF	**77R37**	**DRN**	**71MS4**		72	563
			F	**77R37**	**DRN**	**71MS4**		69	563
			FF	**77R37**	**DRN**	**71MS4**		80	563
2.0	706	17900	**FA**	**77R37**	**DRN**	**71M4**		67	563
2.1	660	17900	**FAF**	**77R37**	**DRN**	**71M4**		73	563
2.5	571	17900	**F**	**77R37**	**DRN**	**71M4**		70	563
			FF	**77R37**	**DRN**	**71M4**		81	563
3.0	485	17900	**FA**	**77R37**	**DRN**	**80MK4**		69	563
3.3	433	17900	**FAF**	**77R37**	**DRN**	**80MK4**		75	563
3.9	370	17900	**F**	**77R37**	**DRN**	**80MK4**		73	563
4.1	346	17900	**FF**	**77R37**	**DRN**	**80MK4**		83	563
4.9	292	17900	**FA**	**77R37**	**DRN**	**80M4**		72	563
			FAF	**77R37**	**DRN**	**80M4**		79	563
			F	**77R37**	**DRN**	**80M4**		76	563
			FF	**77R37**	**DRN**	**80M4**		87	563

26883198/EN – 04/2022

$M_{a\ max}$ = 1500 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	19180	15700						
0.08	17593	15700						
0.09	16128	15700						
0.09	14978	15700						
0.10	13731	15700						
0.11	12049	15700						
0.13	11035	15700						
0.14	9683	15700						
0.16	8464	15700	**FA**	**77R37**	**DRN**	**63MS4**	66	563
0.18	7520	15700	**FAF**	**77R37**	**DRN**	**63MS4**	72	563
0.21	6580	15700	**F**	**77R37**	**DRN**	**63MS4**	69	563
0.24	5808	15700	**FF**	**77R37**	**DRN**	**63MS4**	80	563
0.27	5026	15700						
0.31	4435	15700						
0.36	3832	15700						
0.41	3381	15700						
0.46	2978	15700						
0.53	2613	15700						
0.60	2284	15700						
0.68	2029	15700	**FA**	**77R37**	**DRN**	**63M4**	66	563
			FAF	**77R37**	**DRN**	**63M4**	73	563
			F	**77R37**	**DRN**	**63M4**	70	563
			FF	**77R37**	**DRN**	**63M4**	81	563
0.80	1728	15700	**FA**	**77R37**	**DRN**	**63M4**	66	563
0.89	1544	15700	**FAF**	**77R37**	**DRN**	**63M4**	73	563
			F	**77R37**	**DRN**	**63M4**	70	563
			FF	**77R37**	**DRN**	**63M4**	81	563
1.0	1354	15700	**FA**	**77R37**	**DRN**	**71MS4**	67	563
1.2	1200	15700	**FAF**	**77R37**	**DRN**	**71MS4**	73	563
1.3	1053	15700	**F**	**77R37**	**DRN**	**71MS4**	71	563
			FF	**77R37**	**DRN**	**71MS4**	81	563
1.6	910	15700	**FA**	**77R37**	**DRN**	**71M4**	68	563
1.8	810	15700	**FAF**	**77R37**	**DRN**	**71M4**	75	563
2.0	710	15700	**F**	**77R37**	**DRN**	**71M4**	72	563
			FF	**77R37**	**DRN**	**71M4**	82	563
2.3	615	15700	**FA**	**77R37**	**DRN**	**80MK4**	70	563
2.7	538	15700	**FAF**	**77R37**	**DRN**	**80MK4**	77	563
3.0	480	15700	**F**	**77R37**	**DRN**	**80MK4**	74	563
			FF	**77R37**	**DRN**	**80MK4**	85	563
3.5	413	15700	**FA**	**77R37**	**DRN**	**80M4**	74	563
3.9	367	15700	**FAF**	**77R37**	**DRN**	**80M4**	80	563
			F	**77R37**	**DRN**	**80M4**	77	563
			FF	**77R37**	**DRN**	**80M4**	88	563
4.5	323	15700	**FA**	**77R37**	**DRN**	**90S4**	80	563
5.2	280	15700	**FAF**	**77R37**	**DRN**	**90S4**	86	563
5.9	247	15700	**F**	**77R37**	**DRN**	**90S4**	83	563
			FF	**77R37**	**DRN**	**90S4**	94	563
6.6	221	15700	**FA**	**77R37**	**DRN**	**90L4**	83	563
7.3	199	15700	**FAF**	**77R37**	**DRN**	**90L4**	89	563
			F	**77R37**	**DRN**	**90L4**	86	563
			FF	**77R37**	**DRN**	**90L4**	97	563

26883198/EN – 04/2022

$M_{a\ max}$ = 3000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg		
0.06	23042	19800							
0.07	20462	19800							
0.08	18238	19800							
0.09	15877	19800							
0.10	14099	19800	**FA**	**87R57**	**DRN**	**63MS4**	120	563	
0.11	12205	19800	**FAF**	**87R57**	**DRN**	**63MS4**	130	563	
0.13	10433	19800	**F**	**87R57**	**DRN**	**63MS4**	125	563	
0.15	9381	19800	**FF**	**87R57**	**DRN**	**63MS4**	140	563	
0.17	8142	19800							
0.19	7100	19800							
0.22	6273	19800							
0.25	5510	19800							
0.28	4954	19800							
			FA	**87R57**	**DRN**	**63M4**	120	563	
0.32	4245	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	563	
0.37	3721	19800	**F**	**87R57**	**DRN**	**63M4**	125	563	
			FF	**87R57**	**DRN**	**63M4**	140	563	
			FA	**87R57**	**DRN**	**63MS4**	115	563	
0.28	4952	19800	**FAF**	**87R57**	**DRN**	**63MS4**	130	563	
0.30	4562	19800	**F**	**87R57**	**DRN**	**63MS4**	120	563	
			FF	**87R57**	**DRN**	**63MS4**	135	563	
0.35	3919	19800	**FA**	**87R57**	**DRN**	**63M4**	115	563	
0.39	3503	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	563	
0.43	3196	19800	**F**	**87R57**	**DRN**	**63M4**	120	563	
0.48	2857	19800	**FF**	**87R57**	**DRN**	**63M4**	135	563	
			FA	**87R57**	**DRN**	**71MS4**	115	563	
0.56	2524	19800	**FAF**	**87R57**	**DRN**	**71MS4**	130	563	
0.66	2134	19800	**F**	**87R57**	**DRN**	**71MS4**	120	563	
			FF	**87R57**	**DRN**	**71MS4**	140	563	
			FA	**87R57**	**DRN**	**71M4**	120	563	
0.74	1913	19800	**FAF**	**87R57**	**DRN**	**71M4**	130	563	
0.82	1717	19800	**F**	**87R57**	**DRN**	**71M4**	125	563	
0.96	1476	19800	**FF**	**87R57**	**DRN**	**71M4**	140	563	
			FA	**87R57**	**DRN**	**80MK4**	120	563	
1.1	1278	19800	**FAF**	**87R57**	**DRN**	**80MK4**	135	563	
1.3	1142	19800	**F**	**87R57**	**DRN**	**80MK4**	125	563	
1.4	988	19800	**FF**	**87R57**	**DRN**	**80MK4**	140	563	
			FA	**87R57**	**DRN**	**80M4**	125	563	
1.6	883	19800	**FAF**	**87R57**	**DRN**	**80M4**	135	563	
1.9	748	19800	**F**	**87R57**	**DRN**	**80M4**	130	563	
			FF	**87R57**	**DRN**	**80M4**	145	563	
			FA	**87R57**	**DRN**	**63M4**	120	563	
0.42	3244	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	563	
0.48	2881	19800	**F**	**87R57**	**DRN**	**63M4**	125	563	
			FF	**87R57**	**DRN**	**63M4**	140	563	
			FA	**87R57**	**DRN**	**71MS4**	120	563	
0.55	2576	19800	**FAF**	**87R57**	**DRN**	**71MS4**	130	563	
0.64	2199	19800	**F**	**87R57**	**DRN**	**71MS4**	125	563	
			FF	**87R57**	**DRN**	**71MS4**	140	563	
			FA	**87R57**	**DRN**	**71M4**	120	563	
0.73	1930	19800	**FAF**	**87R57**	**DRN**	**71M4**	135	563	
0.83	1709	19800	**F**	**87R57**	**DRN**	**71M4**	125	563	
0.95	1493	19800	**FF**	**87R57**	**DRN**	**71M4**	140	563	
			FA	**87R57**	**DRN**	**80MK4**	120	563	
1.1	1300	19800	**FAF**	**87R57**	**DRN**	**80MK4**	135	563	
1.2	1148	19800	**F**	**87R57**	**DRN**	**80MK4**	130	563	
1.4	1010	19800	**FF**	**87R57**	**DRN**	**80MK4**	145	563	
			FA	**87R57**	**DRN**	**80M4**	125	563	
1.6	887	19800	**FAF**	**87R57**	**DRN**	**80M4**	140	563	
1.9	780	19800	**F**	**87R57**	**DRN**	**80M4**	130	563	
2.1	674	19800	**FF**	**87R57**	**DRN**	**80M4**	145	563	

26883198/EN – 04/2022

$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.4	609	19800	**FA**	**87R57**	**DRN**	**90S4**	130	563
2.8	515	19800	**FAF**	**87R57**	**DRN**	**90S4**	145	563
3.2	452	19800	**F**	**87R57**	**DRN**	**90S4**	140	563
			FF	**87R57**	**DRN**	**90S4**	155	563
4.2	345	19800	**FA**	**87R57**	**DRN**	**90L4**	135	563
			FAF	**87R57**	**DRN**	**90L4**	150	563
			F	**87R57**	**DRN**	**90L4**	140	563
			FF	**87R57**	**DRN**	**90L4**	155	563
4.8	300	19800	**FA**	**87R57**	**DRN**	**100LS4**	140	563
5.8	249	19800	**FAF**	**87R57**	**DRN**	**100LS4**	150	563
			F	**87R57**	**DRN**	**100LS4**	145	563
			FF	**87R57**	**DRN**	**100LS4**	160	563
2.2	662	19800	**FA**	**87R57**	**DRN**	**80M4**	125	563
			FAF	**87R57**	**DRN**	**80M4**	135	563
			F	**87R57**	**DRN**	**80M4**	130	563
			FF	**87R57**	**DRN**	**80M4**	145	563
2.5	592	19800	**FA**	**87R57**	**DRN**	**90S4**	130	563
2.8	519	19800	**FAF**	**87R57**	**DRN**	**90S4**	140	563
3.1	468	19800	**F**	**87R57**	**DRN**	**90S4**	135	563
			FF	**87R57**	**DRN**	**90S4**	150	563
3.7	398	19800	**FA**	**87R57**	**DRN**	**90L4**	130	563
4.2	350	19800	**FAF**	**87R57**	**DRN**	**90L4**	145	563
			F	**87R57**	**DRN**	**90L4**	140	563
			FF	**87R57**	**DRN**	**90L4**	155	563
4.6	315	19800	**FA**	**87R57**	**DRN**	**100LS4**	135	563
5.2	281	19800	**FAF**	**87R57**	**DRN**	**100LS4**	150	563
6.0	240	19800	**F**	**87R57**	**DRN**	**100LS4**	140	563
			FF	**87R57**	**DRN**	**100LS4**	155	563
6.9	211	19800	**FA**	**87R57**	**DRN**	**100L4**	145	563
7.5	193	19800	**FAF**	**87R57**	**DRN**	**100L4**	155	563
			F	**87R57**	**DRN**	**100L4**	150	563
			FF	**87R57**	**DRN**	**100L4**	165	563

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	29211	29900						
0.05	26911	29900						
0.06	23814	29900						
0.07	20813	29900						
0.08	18119	29900	**FA**	**97R57**	**DRN**	**63MS4**	185	563
0.09	15472	29900	**FAF**	**97R57**	**DRN**	**63MS4**	205	563
0.10	14022	29900	**F**	**97R57**	**DRN**	**63MS4**	190	563
0.11	12324	29900	**FF**	**97R57**	**DRN**	**63MS4**	225	563
0.13	10838	29900						
0.14	9576	29900						
0.17	8318	29900						
0.19	7328	29900						
0.21	6469	29900	**FA**	**97R57**	**DRN**	**63M4**	185	563
0.24	5615	29900	**FAF**	**97R57**	**DRN**	**63M4**	205	563
0.28	4961	29900	**F**	**97R57**	**DRN**	**63M4**	190	563
0.32	4333	29900	**FF**	**97R57**	**DRN**	**63M4**	225	563
0.22	6338	29900	**FA**	**97R57**	**DRN**	**63MS4**	180	563
			FAF	**97R57**	**DRN**	**63MS4**	200	563
			F	**97R57**	**DRN**	**63MS4**	185	563
			FF	**97R57**	**DRN**	**63MS4**	220	563
0.24	5680	29900	**FA**	**97R57**	**DRN**	**63M4**	180	563
0.27	5016	29900	**FAF**	**97R57**	**DRN**	**63M4**	200	563
0.31	4367	29900	**F**	**97R57**	**DRN**	**63M4**	185	563
			FF	**97R57**	**DRN**	**63M4**	220	563

26883198/EN – 04/2022

$M_{a\ max}$ = 4300 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.36	3914	29900	**FA**	**97R57**	**DRN**	**71MS4**	180	563
0.42	3357	29900	**FAF**	**97R57**	**DRN**	**71MS4**	200	563
0.47	3009	29900	**F**	**97R57**	**DRN**	**71MS4**	185	563
			FF	**97R57**	**DRN**	**71MS4**	220	563
0.58	2448	29900	**FA**	**97R57**	**DRN**	**71M4**	180	563
0.64	2199	29900	**FAF**	**97R57**	**DRN**	**71M4**	200	563
0.72	1971	29900	**F**	**97R57**	**DRN**	**71M4**	190	563
			FF	**97R57**	**DRN**	**71M4**	220	563
0.82	1741	29900	**FA**	**97R57**	**DRN**	**80MK4**	185	563
0.98	1468	29900	**FAF**	**97R57**	**DRN**	**80MK4**	205	563
1.1	1316	29900	**F**	**97R57**	**DRN**	**80MK4**	190	563
			FF	**97R57**	**DRN**	**80MK4**	225	563
			FA	**97R57**	**DRN**	**80M4**	185	563
1.2	1189	29900	**FAF**	**97R57**	**DRN**	**80M4**	210	563
1.4	1023	29900	**F**	**97R57**	**DRN**	**80M4**	195	563
			FF	**97R57**	**DRN**	**80M4**	225	563
			FA	**97R57**	**DRN**	**71MS4**	185	563
0.36	3906	29900	**FAF**	**97R57**	**DRN**	**71MS4**	205	563
0.42	3352	29900	**F**	**97R57**	**DRN**	**71MS4**	190	563
			FF	**97R57**	**DRN**	**71MS4**	225	563
0.49	2907	29900	**FA**	**97R57**	**DRN**	**71M4**	185	563
0.55	2553	29900	**FAF**	**97R57**	**DRN**	**71M4**	205	563
0.63	2245	29900	**F**	**97R57**	**DRN**	**71M4**	195	563
0.72	1970	29900	**FF**	**97R57**	**DRN**	**71M4**	225	563
0.83	1722	29900	**FA**	**97R57**	**DRN**	**80MK4**	190	563
0.94	1527	29900	**FAF**	**97R57**	**DRN**	**80MK4**	210	563
1.1	1327	29900	**F**	**97R57**	**DRN**	**80MK4**	195	563
			FF	**97R57**	**DRN**	**80MK4**	230	563
			FA	**97R57**	**DRN**	**80M4**	190	563
1.2	1171	29900	**FAF**	**97R57**	**DRN**	**80M4**	215	563
1.4	1022	29900	**F**	**97R57**	**DRN**	**80M4**	200	563
			FF	**97R57**	**DRN**	**80M4**	230	563
1.6	898	29900	**FA**	**97R57**	**DRN**	**90S4**	195	563
1.9	784	29900	**FAF**	**97R57**	**DRN**	**90S4**	220	563
2.1	690	29900	**F**	**97R57**	**DRN**	**90S4**	205	563
			FF	**97R57**	**DRN**	**90S4**	240	563
			FA	**97R57**	**DRN**	**90L4**	200	563
2.4	605	29900	**FAF**	**97R57**	**DRN**	**90L4**	220	563
2.8	529	29900	**F**	**97R57**	**DRN**	**90L4**	210	563
			FF	**97R57**	**DRN**	**90L4**	240	563
3.1	467	29900	**FA**	**97R57**	**DRN**	**100LS4**	205	563
3.6	406	29900	**FAF**	**97R57**	**DRN**	**100LS4**	225	563
4.0	363	29900	**F**	**97R57**	**DRN**	**100LS4**	210	563
			FF	**97R57**	**DRN**	**100LS4**	245	563
			FA	**97R57**	**DRN**	**100L4**	210	563
5.1	285	29900	**FAF**	**97R57**	**DRN**	**100L4**	235	563
6.0	245	29900	**F**	**97R57**	**DRN**	**100L4**	220	563
			FF	**97R57**	**DRN**	**100L4**	250	563
			FA	**97R57**	**DRN**	**112M4**	220	563
7.0	208	29900	**FAF**	**97R57**	**DRN**	**112M4**	245	563
7.5	195	29900	**F**	**97R57**	**DRN**	**112M4**	230	563
			FF	**97R57**	**DRN**	**112M4**	260	563
1.6	892	29900	**FA**	**97R57**	**DRN**	**90S4**	190	563
1.9	760	29900	**FAF**	**97R57**	**DRN**	**90S4**	215	563
2.2	667	29900	**F**	**97R57**	**DRN**	**90S4**	200	563
			FF	**97R57**	**DRN**	**90S4**	230	563
2.6	569	29900	**FA**	**97R57**	**DRN**	**90L4**	195	563
2.9	510	29900	**FAF**	**97R57**	**DRN**	**90L4**	215	563
3.1	473	29900	**F**	**97R57**	**DRN**	**90L4**	200	563
			FF	**97R57**	**DRN**	**90L4**	235	563
3.6	403	29900	**FA**	**97R57**	**DRN**	**100LS4**	200	563
4.0	361	29900	**FAF**	**97R57**	**DRN**	**100LS4**	220	563
4.6	317	29900	**F**	**97R57**	**DRN**	**100LS4**	205	563
			FF	**97R57**	**DRN**	**100LS4**	240	563

26883198/EN – 04/2022

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			FA	**97R57**	**DRN**	**100L4**	205	563
5.3	275	29900	**FAF**	**97R57**	**DRN**	**100L4**	225	563
6.0	242	29900	**F**	**97R57**	**DRN**	**100L4**	215	563
			FF	**97R57**	**DRN**	**100L4**	245	563

$M_{a\ max}$ = 7680 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.05	25375	49800							
0.06	21652	49800	**FA**	**107R77**	**DRN**	**63MS4**	275	563
0.07	18933	49800	**FAF**	**107R77**	**DRN**	**63MS4**	295	563
0.08	16888	49800	**F**	**107R77**	**DRN**	**63MS4**	290	563
0.09	14767	49800	**FF**	**107R77**	**DRN**	**63MS4**	320	563
0.12	11348	49800	**FA**	**107R77**	**DRN**	**63M4**	275	563
0.14	10039	49800	**FAF**	**107R77**	**DRN**	**63M4**	295	563
0.16	8548	49800	**F**	**107R77**	**DRN**	**63M4**	290	563
0.18	7674	49800	**FF**	**107R77**	**DRN**	**63M4**	320	563
			FA	**107R77**	**DRN**	**71MS4**	275	563
0.21	6767	49800	**FAF**	**107R77**	**DRN**	**71MS4**	295	563
0.24	5954	49800	**F**	**107R77**	**DRN**	**71MS4**	295	563
			FF	**107R77**	**DRN**	**71MS4**	320	563
0.27	5223	49800	**FA**	**107R77**	**DRN**	**71M4**	275	563
0.31	4567	49800	**FAF**	**107R77**	**DRN**	**71M4**	300	563
0.36	3948	49800	**F**	**107R77**	**DRN**	**71M4**	295	563
			FF	**107R77**	**DRN**	**71M4**	320	563
			FA	**107R77**	**DRN**	**80MK4**	280	563
0.41	3521	49800	**FAF**	**107R77**	**DRN**	**80MK4**	300	563
			F	**107R77**	**DRN**	**80MK4**	295	563
			FF	**107R77**	**DRN**	**80MK4**	325	563
0.47	3037	49800	**FA**	**107R77**	**DRN**	**80MK4**	280	563
0.52	2756	49800	**FAF**	**107R77**	**DRN**	**80MK4**	300	563
0.61	2369	49800	**F**	**107R77**	**DRN**	**80MK4**	295	563
			FF	**107R77**	**DRN**	**80MK4**	325	563
			FA	**107R77**	**DRN**	**80M4**	280	563
0.70	2068	49800	**FAF**	**107R77**	**DRN**	**80M4**	305	563
0.79	1826	49800	**F**	**107R77**	**DRN**	**80M4**	300	563
			FF	**107R77**	**DRN**	**80M4**	325	563
0.91	1597	49800	**FA**	**107R77**	**DRN**	**90S4**	285	563
1.0	1401	49800	**FAF**	**107R77**	**DRN**	**90S4**	310	563
1.2	1243	49800	**F**	**107R77**	**DRN**	**90S4**	305	563
			FF	**107R77**	**DRN**	**90S4**	330	563
			FA	**107R77**	**DRN**	**90L4**	290	563
1.3	1087	49800	**FAF**	**107R77**	**DRN**	**90L4**	310	563
1.5	950	49800	**F**	**107R77**	**DRN**	**90L4**	305	563
			FF	**107R77**	**DRN**	**90L4**	335	563
1.7	834	49800	**FA**	**107R77**	**DRN**	**100LS4**	295	563
2.0	736	49800	**FAF**	**107R77**	**DRN**	**100LS4**	315	563
2.3	640	49800	**F**	**107R77**	**DRN**	**100LS4**	310	563
			FF	**107R77**	**DRN**	**100LS4**	340	563
2.6	560	49800	**FA**	**107R77**	**DRN**	**100L4**	300	563
3.0	489	49800	**FAF**	**107R77**	**DRN**	**100L4**	325	563
3.3	436	49800	**F**	**107R77**	**DRN**	**100L4**	320	563
			FF	**107R77**	**DRN**	**100L4**	345	563
			FA	**107R77**	**DRN**	**112M4**	310	563
4.0	370	49800	**FAF**	**107R77**	**DRN**	**112M4**	330	563
4.4	333	49800	**F**	**107R77**	**DRN**	**112M4**	325	563
			FF	**107R77**	**DRN**	**112M4**	355	563
			FA	**107R77**	**DRN**	**132S4**	320	563
5.0	291	49800	**FAF**	**107R77**	**DRN**	**132S4**	345	563
5.7	255	49800	**F**	**107R77**	**DRN**	**132S4**	340	563
			FF	**107R77**	**DRN**	**132S4**	365	563

26883198/EN – 04/2022

$M_{a\ max}$ = 7680 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	107R77	DRN	132M4	340	563
6.5	225	49800	FAF	107R77	DRN	132M4	360	563
7.7	190	49800	F	107R77	DRN	132M4	355	563
			FF	107R77	DRN	132M4	385	563

$M_{a\ max}$ = 7840 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.26	5383	49400	FA	107R77	DRN	71M4	265	563
0.31	4593	49400	FAF	107R77	DRN	71M4	290	563
0.35	4016	49400	F	107R77	DRN	71M4	285	563
0.37	3815	49400	FF	107R77	DRN	71M4	310	563
			FA	107R77	DRN	80MK4	270	563
0.43	3347	49400	FAF	107R77	DRN	80MK4	290	563
0.51	2839	49400	F	107R77	DRN	80MK4	285	563
0.56	2563	49400	FF	107R77	DRN	80MK4	315	563
			FA	107R77	DRN	80M4	275	563
0.64	2255	49400	FAF	107R77	DRN	80M4	295	563
0.68	2129	49400	F	107R77	DRN	80M4	290	563
0.79	1813	49400	FF	107R77	DRN	80M4	315	563
0.91	1590	49400	FA	107R77	DRN	90S4	280	563
1.0	1436	49400	FAF	107R77	DRN	90S4	300	563
1.1	1263	49400	F	107R77	DRN	90S4	295	563
1.2	1193	49400	FF	107R77	DRN	90S4	320	563
			FA	107R77	DRN	90L4	280	563
1.4	1015	49400	FAF	107R77	DRN	90L4	300	563
1.6	923	49400	F	107R77	DRN	90L4	300	563
			FF	107R77	DRN	90L4	325	563
			FA	107R77	DRN	100LS4	285	563
1.8	800	49400	FAF	107R77	DRN	100LS4	305	563
2.1	696	49400	F	107R77	DRN	100LS4	300	563
			FF	107R77	DRN	100LS4	330	563
			FA	107R77	DRN	100LS4	285	563
2.2	644	49400	FAF	107R77	DRN	100LS4	305	563
2.5	591	49400	F	107R77	DRN	100LS4	300	563
			FF	107R77	DRN	100LS4	330	563
			FA	107R77	DRN	100L4	290	563
2.8	518	49400	FAF	107R77	DRN	100L4	315	563
3.0	491	49400	F	107R77	DRN	100L4	310	563
3.4	430	49400	FF	107R77	DRN	100L4	335	563
			FA	107R77	DRN	112M4	300	563
3.8	387	49400	FAF	107R77	DRN	112M4	320	563
4.3	340	49400	F	107R77	DRN	112M4	315	563
			FF	107R77	DRN	112M4	345	563
			FA	107R77	DRN	132S4	310	563
4.9	300	49400	FAF	107R77	DRN	132S4	335	563
5.5	266	49400	F	107R77	DRN	132S4	330	563
			FF	107R77	DRN	132S4	355	563

$M_{a\ max}$ = 12000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	127R77	DRN	63MS4	425	563
0.06	24478	90000	FAF	127R77	DRN	63MS4	465	563
0.06	22323	90000	F	127R77	DRN	63MS4	460	563
			FF	127R77	DRN	63MS4	510	563
0.07	19048	90000	FA	127R77	DRN	63M4	425	563
0.08	16656	90000	FAF	127R77	DRN	63M4	465	563
0.09	14722	90000	F	127R77	DRN	63M4	465	563
0.11	12912	90000	FF	127R77	DRN	63M4	510	563

26883198/EN – 04/2022

$M_{a\ max}$ = 12000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11656	90000	**FA**	**127R77**	**DRN**	**71MS4**	425	563
0.14	10191	90000	**FAF**	**127R77**	**DRN**	**71MS4**	465	563
0.16	8831	90000	**F**	**127R77**	**DRN**	**71MS4**	465	563
			FF	**127R77**	**DRN**	**71MS4**	510	563
0.19	7643	90000	**FA**	**127R77**	**DRN**	**71M4**	430	563
0.21	6715	90000	**FAF**	**127R77**	**DRN**	**71M4**	465	563
0.24	5925	90000	**F**	**127R77**	**DRN**	**71M4**	465	563
			FF	**127R77**	**DRN**	**71M4**	510	563
0.28	5153	90000	**FA**	**127R77**	**DRN**	**80MK4**	430	563
0.32	4533	90000	**FAF**	**127R77**	**DRN**	**80MK4**	470	563
0.37	3926	90000	**F**	**127R77**	**DRN**	**80MK4**	465	563
			FF	**127R77**	**DRN**	**80MK4**	510	563
			FA	**127R77**	**DRN**	**80M4**	435	563
0.42	3454	90000	**FAF**	**127R77**	**DRN**	**80M4**	470	563
0.48	3031	90000	**F**	**127R77**	**DRN**	**80M4**	470	563
			FF	**127R77**	**DRN**	**80M4**	520	563
			FA	**127R77**	**DRN**	**80M4**	435	563
0.54	2672	90000	**FAF**	**127R77**	**DRN**	**80M4**	470	563
			F	**127R77**	**DRN**	**80M4**	470	563
			FF	**127R77**	**DRN**	**80M4**	510	563
			FA	**127R77**	**DRN**	**90S4**	440	563
0.62	2357	90000	**FAF**	**127R77**	**DRN**	**90S4**	475	563
0.71	2038	90000	**F**	**127R77**	**DRN**	**90S4**	475	563
			FF	**127R77**	**DRN**	**90S4**	520	563
0.82	1784	90000	**FA**	**127R77**	**DRN**	**90L4**	440	563
0.91	1606	90000	**FAF**	**127R77**	**DRN**	**90L4**	480	563
1.1	1390	90000	**F**	**127R77**	**DRN**	**90L4**	480	563
			FF	**127R77**	**DRN**	**90L4**	520	563
1.2	1220	90000	**FA**	**127R77**	**DRN**	**100LS4**	445	563
1.4	1077	90000	**FAF**	**127R77**	**DRN**	**100LS4**	485	563
1.6	930	90000	**F**	**127R77**	**DRN**	**100LS4**	480	563
			FF	**127R77**	**DRN**	**100LS4**	530	563
			FA	**127R77**	**DRN**	**100L4**	455	563
1.8	820	90000	**FAF**	**127R77**	**DRN**	**100L4**	490	563
2.0	727	90000	**F**	**127R77**	**DRN**	**100L4**	490	563
			FF	**127R77**	**DRN**	**100L4**	530	563
2.3	648	90000	**FA**	**127R77**	**DRN**	**112M4**	460	563
2.7	549	90000	**FAF**	**127R77**	**DRN**	**112M4**	500	563
3.0	495	90000	**F**	**127R77**	**DRN**	**112M4**	500	563
			FF	**127R77**	**DRN**	**112M4**	540	563
			FA	**127R77**	**DRN**	**132S4**	475	563
3.4	428	90000	**FAF**	**127R77**	**DRN**	**132S4**	510	563
3.9	376	90000	**F**	**127R77**	**DRN**	**132S4**	510	563
			FF	**127R77**	**DRN**	**132S4**	550	563
3.0	483	90000	**FA**	**127R87**	**DRN**	**132S4**	495	563
3.5	418	90000	**FAF**	**127R87**	**DRN**	**132S4**	530	563
3.9	374	90000	**F**	**127R87**	**DRN**	**132S4**	530	563
			FF	**127R87**	**DRN**	**132S4**	570	563
			FA	**127R87**	**DRN**	**132M4**	510	563
4.7	312	90000	**FAF**	**127R87**	**DRN**	**132M4**	550	563
5.0	293	90000	**F**	**127R87**	**DRN**	**132M4**	550	563
			FF	**127R87**	**DRN**	**132M4**	590	563
			FA	**127R87**	**DRN**	**132L4**	520	563
5.7	259	90000	**FAF**	**127R87**	**DRN**	**132L4**	560	563
6.6	223	90000	**F**	**127R87**	**DRN**	**132L4**	560	563
			FF	**127R87**	**DRN**	**132L4**	600	563
			FA	**127R87**	**DRN**	**160M4**	550	563
7.5	198	90000	**FAF**	**127R87**	**DRN**	**160M4**	590	563
			F	**127R87**	**DRN**	**160M4**	590	563
			FF	**127R87**	**DRN**	**160M4**	630	563
			FA	**127R87**	**DRN**	**160L4**	570	563
8.9	166	90000	**FAF**	**127R87**	**DRN**	**160L4**	610	563
			F	**127R87**	**DRN**	**160L4**	600	563
			FF	**127R87**	**DRN**	**160L4**	650	563

26883198/EN – 04/2022

$M_{a\ max}$ = 20000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	157R97	DRN	71MS4	770	563
0.05	31434	93800	FAF	157R97	DRN	71MS4	820	563
0.06	26173	93800	F	157R97	DRN	71MS4	790	563
			FF	157R97	DRN	71MS4	890	563
0.06	23464	93800	FA	157R97	DRN	71MS4	770	563
0.07	20212	93800	FAF	157R97	DRN	71MS4	820	563
0.08	17984	93800	F	157R97	DRN	71MS4	790	563
0.09	16358	93800	FF	157R97	DRN	71MS4	890	563
			FA	157R97	DRN	71M4	770	563
0.10	13751	93800	FAF	157R97	DRN	71M4	830	563
0.12	12235	93800	F	157R97	DRN	71M4	790	563
			FF	157R97	DRN	71M4	890	563
			FA	157R97	DRN	80M4	770	563
0.14	10033	93800	FAF	157R97	DRN	80M4	830	563
0.16	9021	93800	F	157R97	DRN	80M4	790	563
0.18	8026	93800	FF	157R97	DRN	80M4	900	563
			FA	157R97	DRN	80MK4	770	563
0.20	7075	93800	FAF	157R97	DRN	80MK4	830	563
			F	157R97	DRN	80MK4	790	563
			FF	157R97	DRN	80MK4	900	563
			FA	157R97	DRN	80M4	770	563
0.23	6295	93800	FAF	157R97	DRN	80M4	830	563
0.27	5404	93800	F	157R97	DRN	80M4	790	563
			FF	157R97	DRN	80M4	900	563
			FA	157R97	DRN	90S4	780	563
0.30	4831	93800	FAF	157R97	DRN	90S4	840	563
0.35	4130	93800	F	157R97	DRN	90S4	800	563
			FF	157R97	DRN	90S4	900	563
			FA	157R97	DRN	100LS4	780	563
0.40	3607	93800	FAF	157R97	DRN	100LS4	840	563
0.45	3210	93800	F	157R97	DRN	100LS4	810	563
			FF	157R97	DRN	100LS4	910	563
			FA	157R97	DRN	90L4	780	563
0.53	2780	93800	FAF	157R97	DRN	90L4	840	563
			F	157R97	DRN	90L4	800	563
			FF	157R97	DRN	90L4	910	563
			FA	157R97	DRN	100L4	790	563
1.0	1441	93800	FAF	157R97	DRN	100L4	850	563
			F	157R97	DRN	100L4	810	563
			FF	157R97	DRN	100L4	920	563
			FA	157R97	DRN	90L4	780	563
0.60	2427	93800	FAF	157R97	DRN	90L4	840	563
			F	157R97	DRN	90L4	800	563
			FF	157R97	DRN	90L4	900	563
			FA	157R97	DRN	100LS4	780	563
0.66	2185	93800	FAF	157R97	DRN	100LS4	840	563
0.75	1944	93800	F	157R97	DRN	100LS4	800	563
0.87	1674	93800	FF	157R97	DRN	100LS4	910	563
			FA	157R97	DRN	100L4	790	563
1.1	1308	93800	FAF	157R97	DRN	100L4	850	563
1.2	1169	93800	F	157R97	DRN	100L4	810	563
			FF	157R97	DRN	100L4	920	563
			FA	157R97	DRN	112M4	800	563
1.5	953	93800	FAF	157R97	DRN	112M4	860	563
1.7	845	93800	F	157R97	DRN	112M4	820	563
			FF	157R97	DRN	112M4	920	563
			FA	157R97	DRN	132S4	810	563
1.9	764	93800	FAF	157R97	DRN	132S4	870	563
2.1	680	93800	F	157R97	DRN	132S4	830	563
			FF	157R97	DRN	132S4	940	563
			FA	157R97	DRN	132M4	830	563
2.5	576	93800	FAF	157R97	DRN	132M4	890	563
2.9	503	93800	F	157R97	DRN	132M4	850	563
3.3	446	93800	FF	157R97	DRN	132M4	950	563

26883198/EN – 04/2022

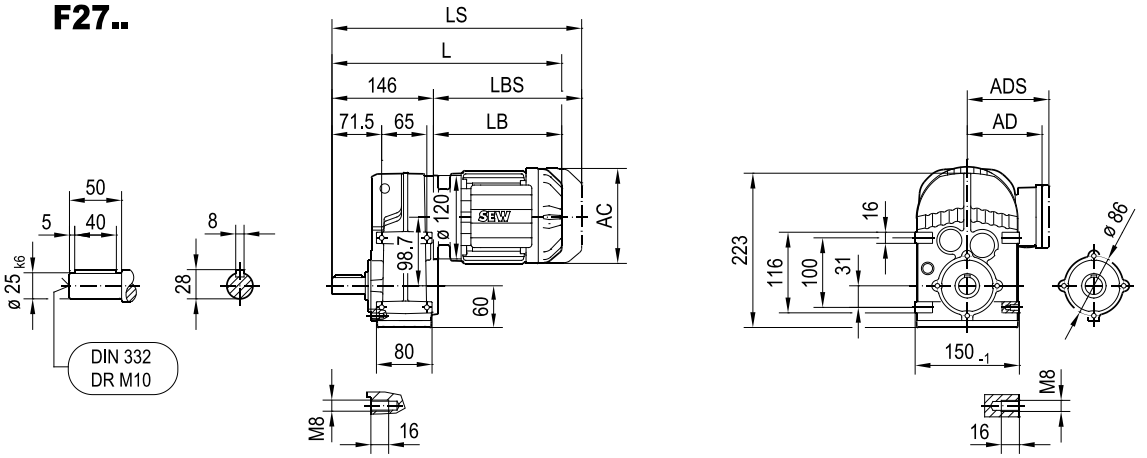
$M_{a\ max}$ = 20000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	**157R97**	**DRN**	**160M4**	870	563
4.2	353	93800	**FAF**	**157R97**	**DRN**	**160M4**	930	563
4.9	302	93800	**F**	**157R97**	**DRN**	**160M4**	890	563
			FF	**157R97**	**DRN**	**160M4**	1000	563
			FA	**157R97**	**DRN**	**160L4**	880	563
5.4	273	93800	**FAF**	**157R97**	**DRN**	**160L4**	940	563
6.4	232	93800	**F**	**157R97**	**DRN**	**160L4**	900	563
			FF	**157R97**	**DRN**	**160L4**	1010	563
			FA	**157R97**	**DRN**	**180M4**	910	563
7.3	202	93800	**FAF**	**157R97**	**DRN**	**180M4**	960	563
7.5	197	93800	**F**	**157R97**	**DRN**	**180M4**	930	563
			FF	**157R97**	**DRN**	**180M4**	1030	563

26883198/EN – 04/2022

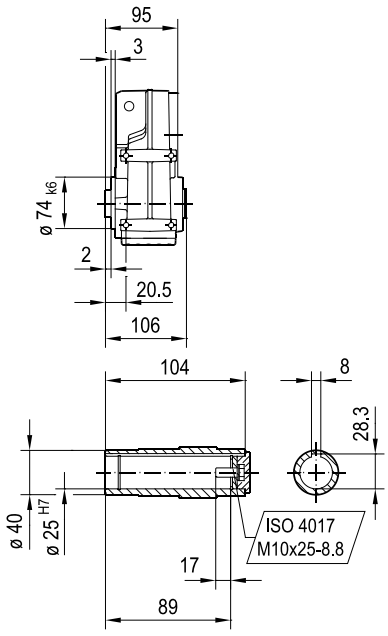
9.5 F..DRN.. dimension sheets in mm

42 020 01 14

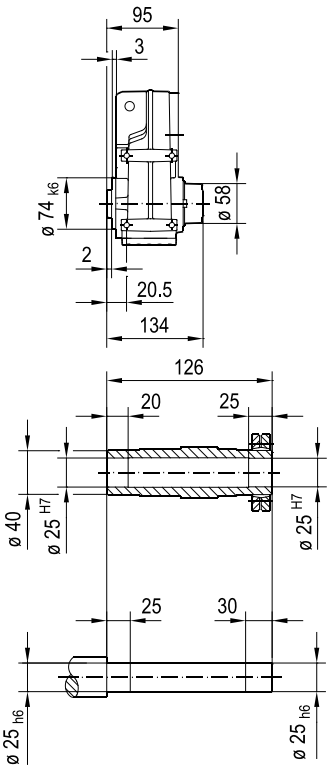
F27..



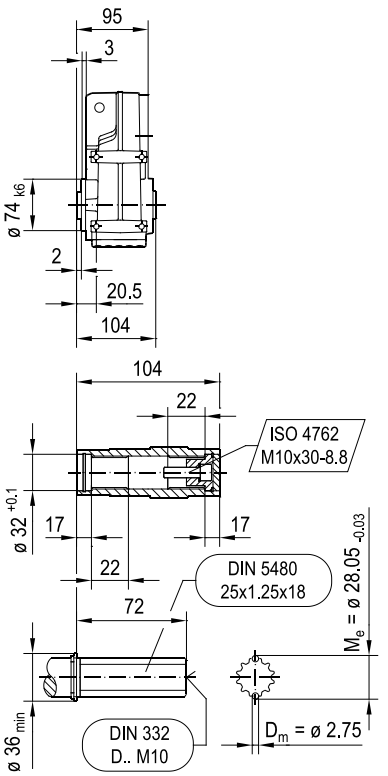
FA27B..



FH27B..
max. DR71..



FV27B..

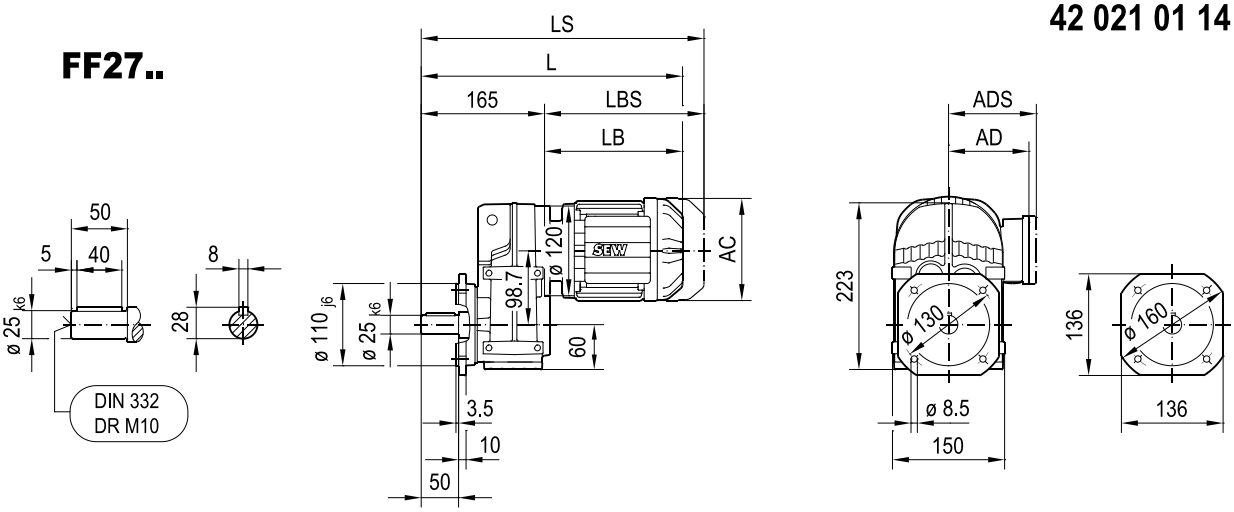


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	336	350	352	372	383	400	428	429	461	460	510
LS	392	406	419	439	464	481	509	523	555	554	604
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

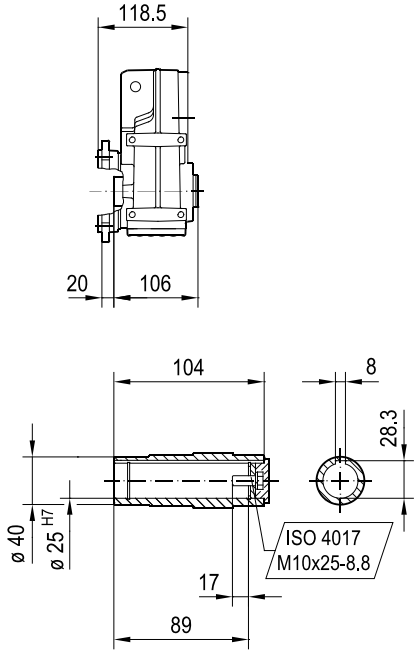
26883198/EN – 04/2022

42 021 01 14

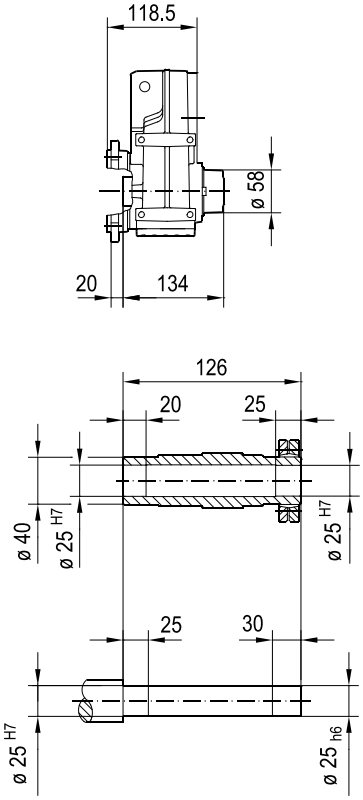
FF27..



FAF27..



FHF27..
max. DR71..



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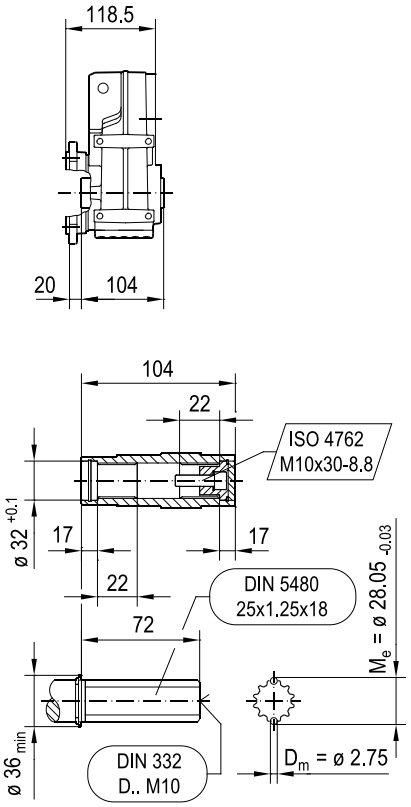
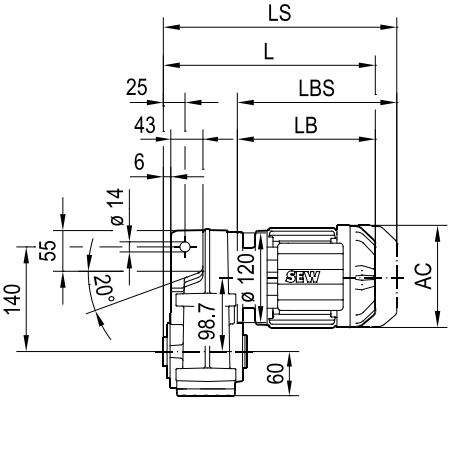


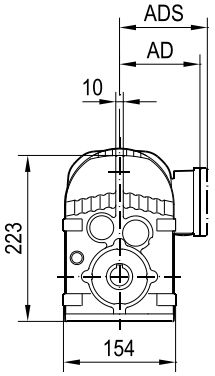
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	355	369	371	391	402	419	447	448	480	479	529
LS	411	425	438	458	483	500	528	542	574	573	623
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

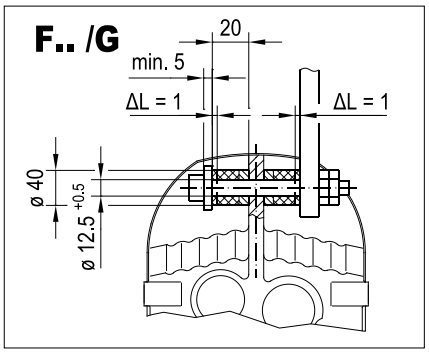
26883198/EN – 04/2022

FA27..

42 022 01 14







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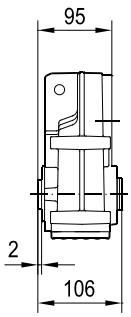
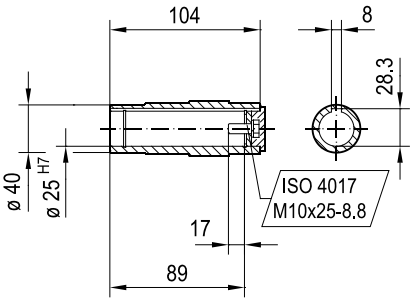
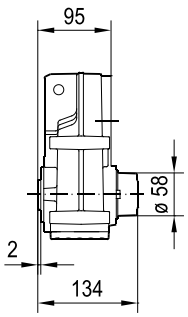
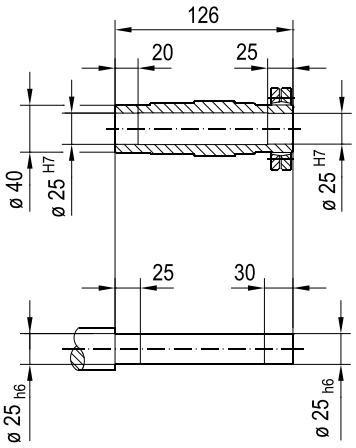




FH27..

max. DR71..





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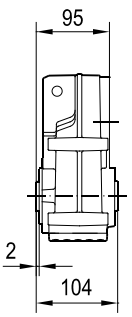
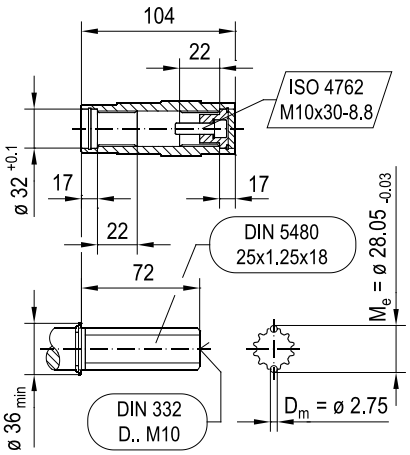


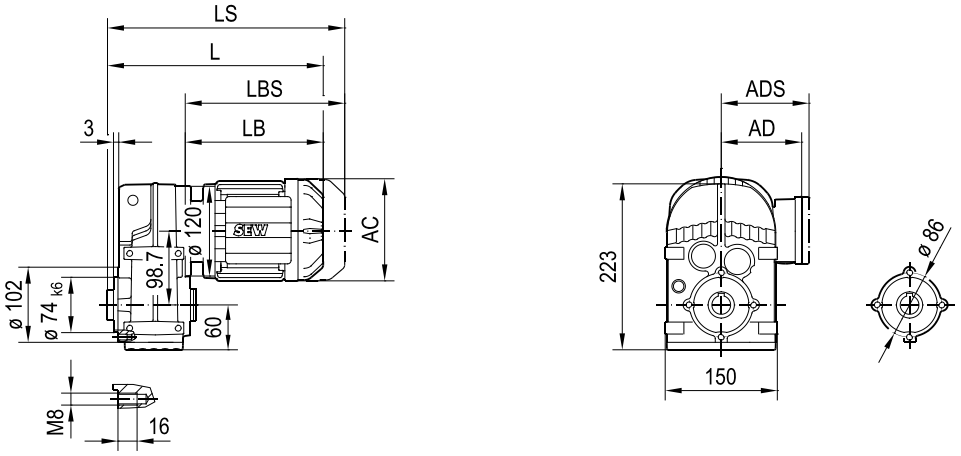


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	285	299	301	321	332	349	377	378	410	409	459
LS	341	355	368	388	413	430	458	472	504	503	553
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

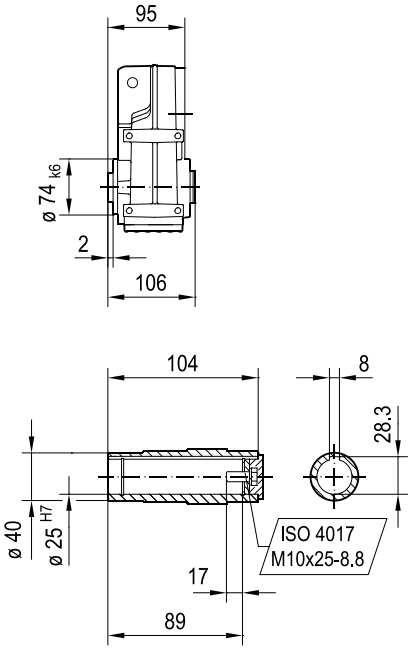
26883198/EN – 04/2022

FAZ27..

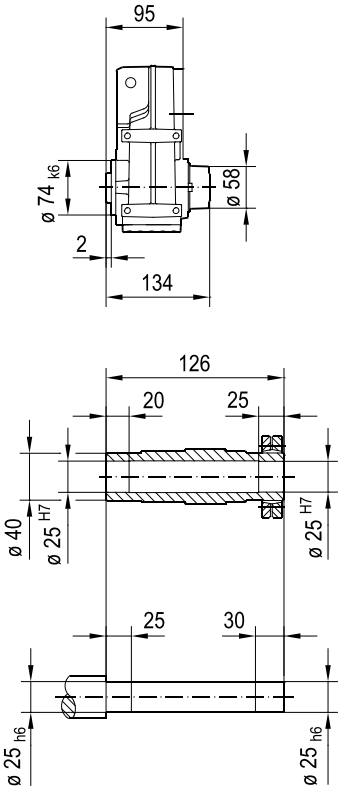
42 023 01 14



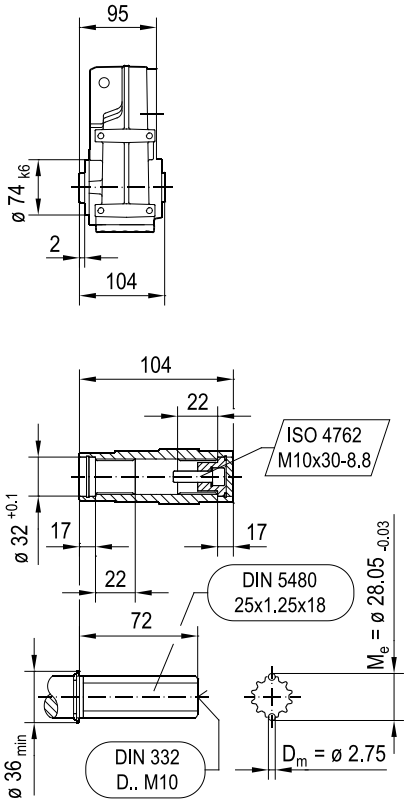
FAZ27..



FHZ27..
max. DR71..



FVZ27..

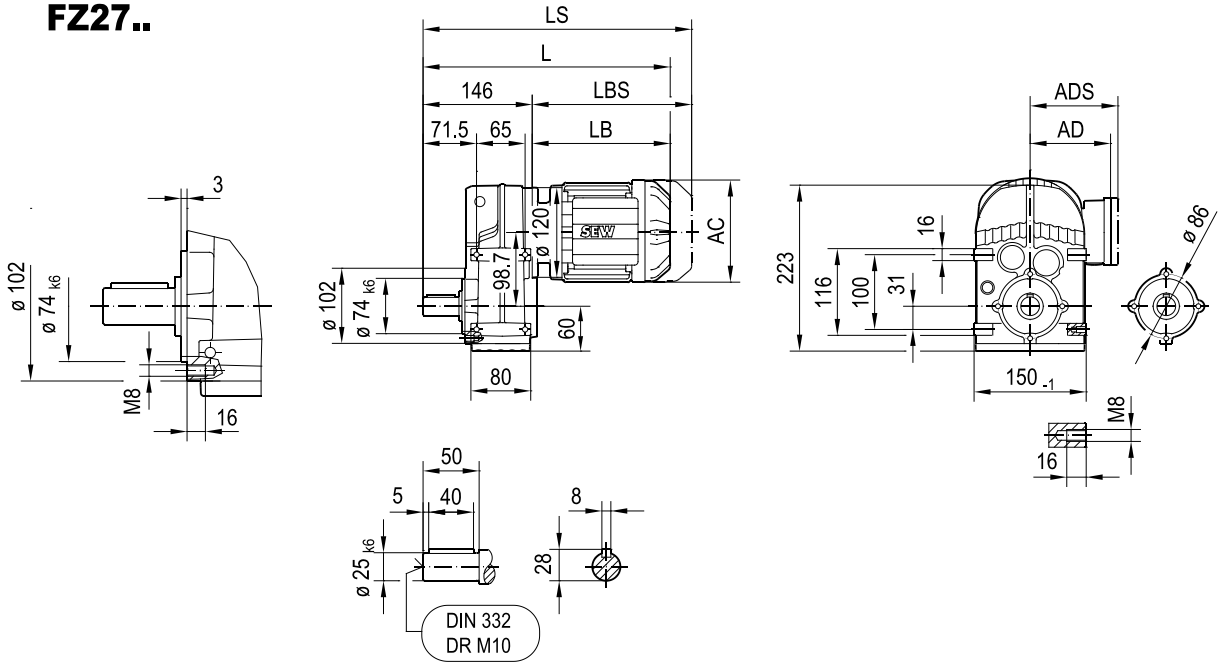


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	285	299	301	321	332	349	377	378	410	409	459
LS	341	355	368	388	413	430	458	472	504	503	553
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

42 071 01 15

FZ27..

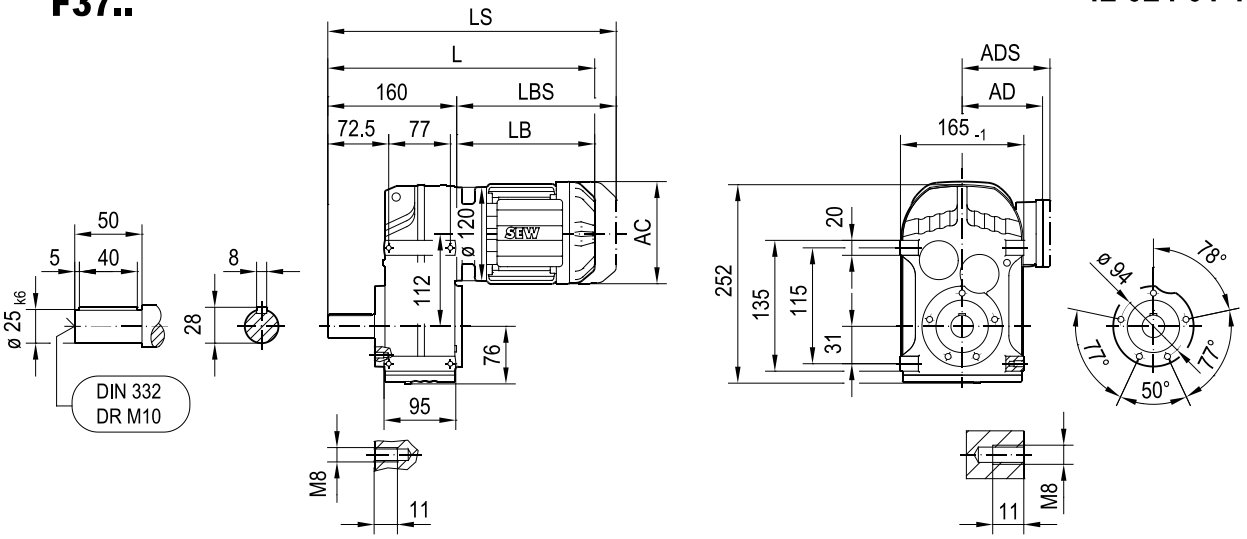


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	336	350	352	372	383	400	428	429	461	460	510
LS	392	406	419	439	464	481	509	523	555	554	604
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

F37..

42 024 01 14



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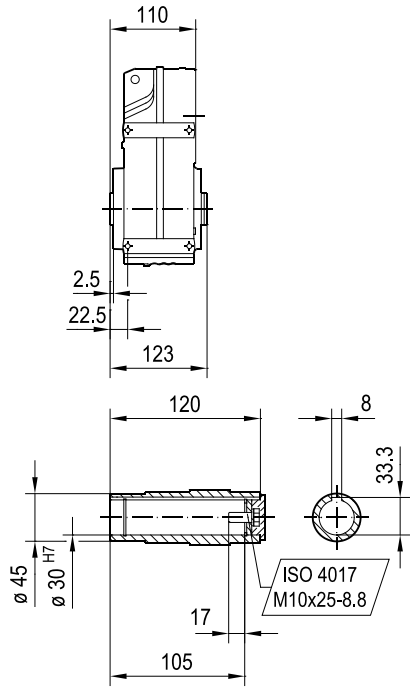

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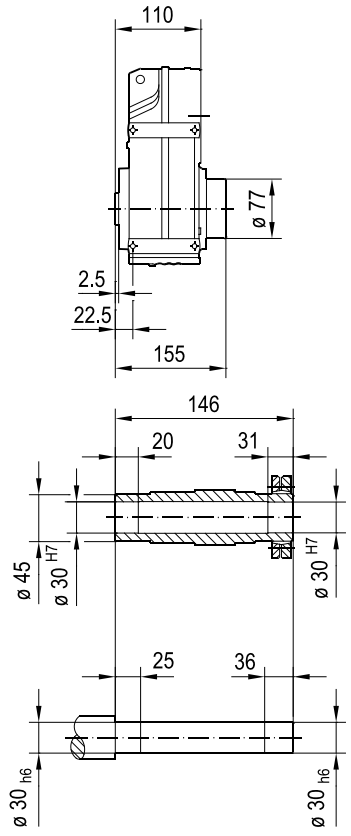
max. DRN80M



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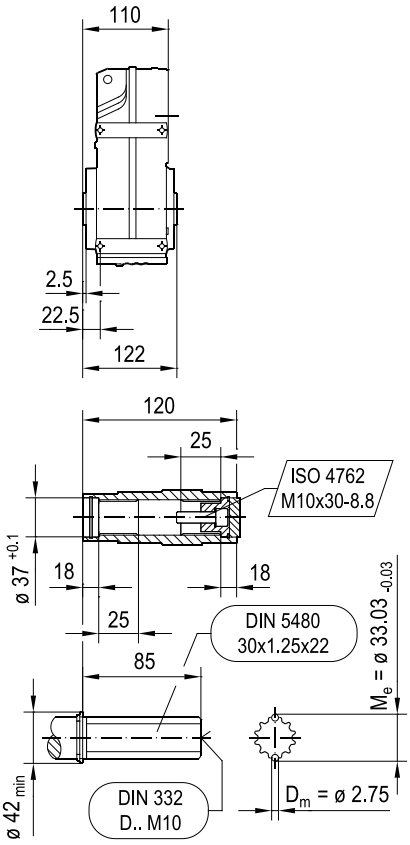
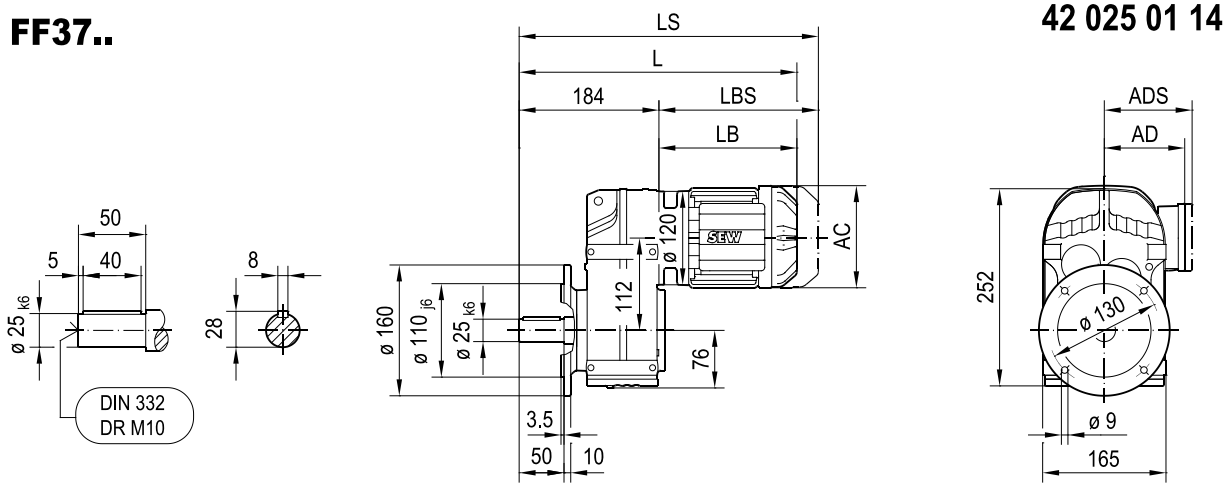


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	350	364	366	386	397	414	442	443	475	474	524
LS	406	420	433	453	478	495	523	537	569	568	618
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FF37..

42 025 01 14



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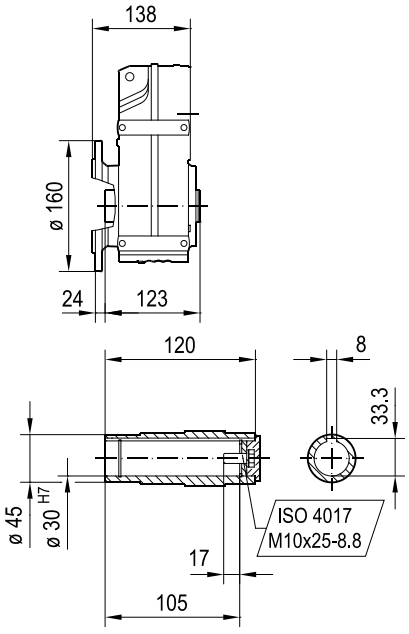

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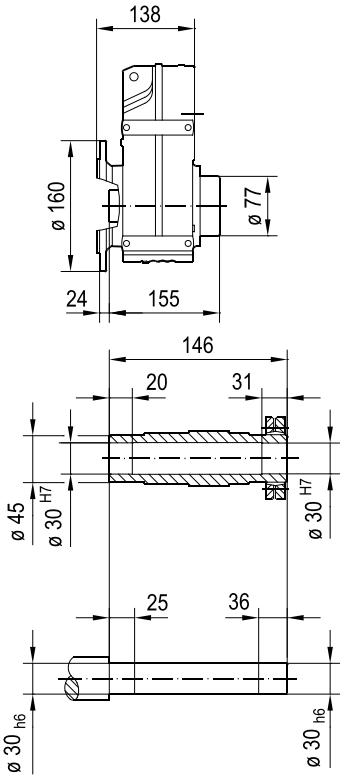
max. DRN80M



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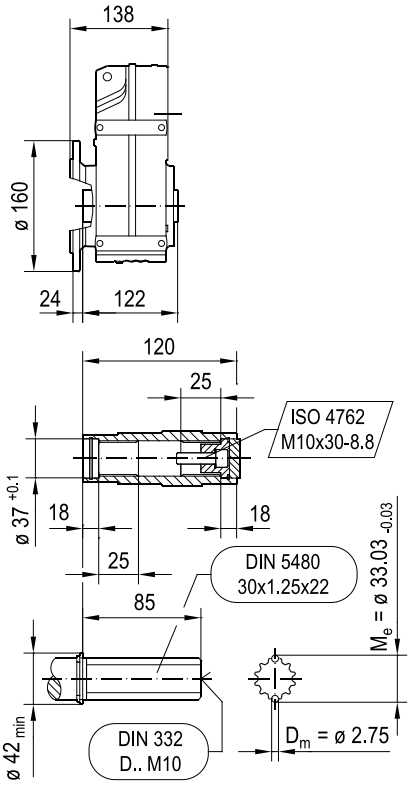
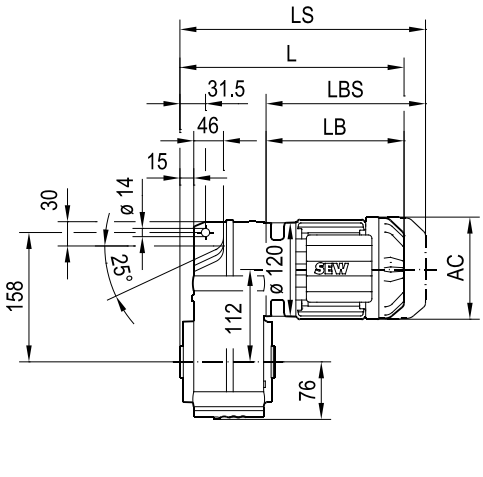


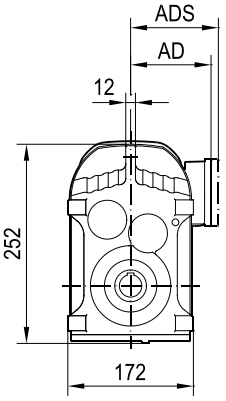
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	374	388	390	410	421	438	466	467	499	498	548
LS	430	444	457	477	502	519	547	561	593	592	642
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

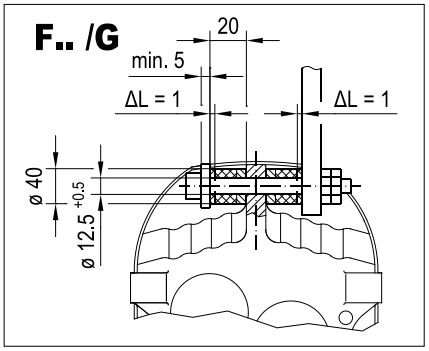
26883198/EN – 04/2022

FA37..

42 026 01 14







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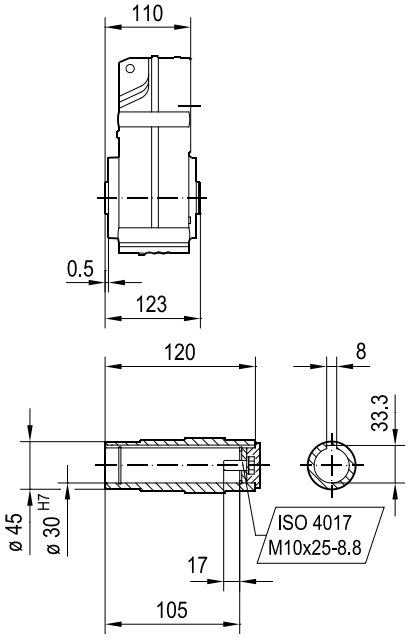

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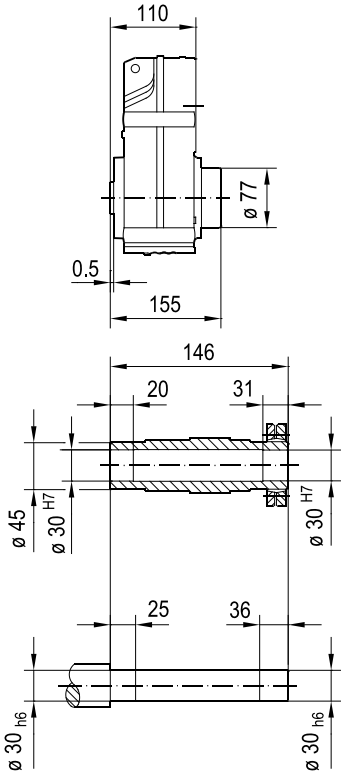
max. DRN80M



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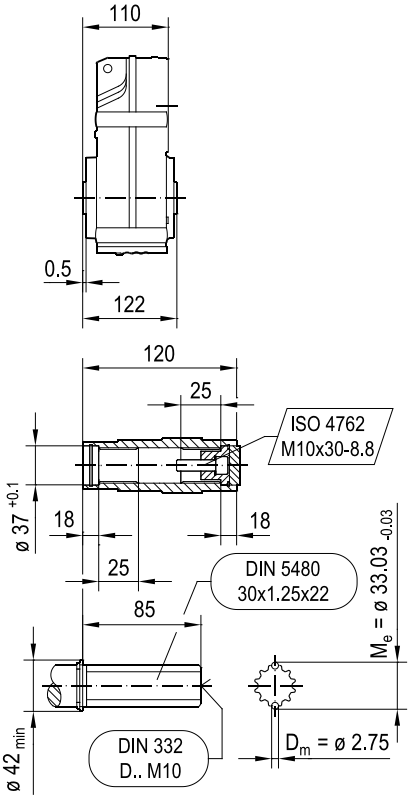
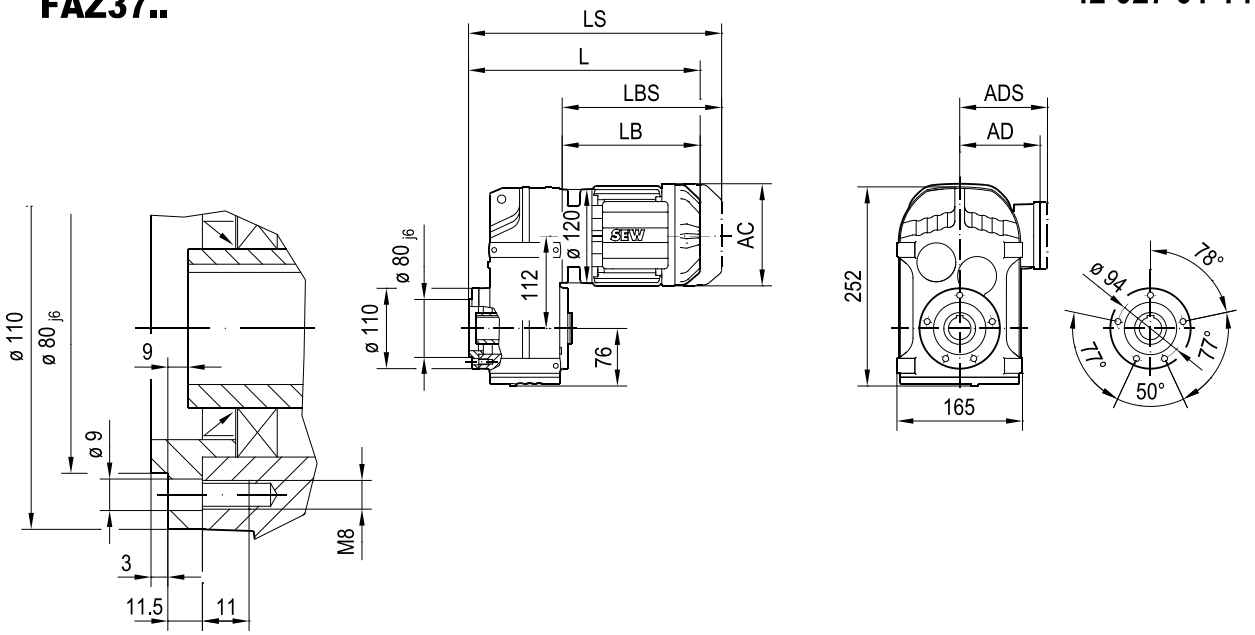


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	300	314	316	336	347	364	392	393	425	424	474
LS	356	370	383	403	428	445	473	487	519	518	568
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FAZ37..

42 027 01 14



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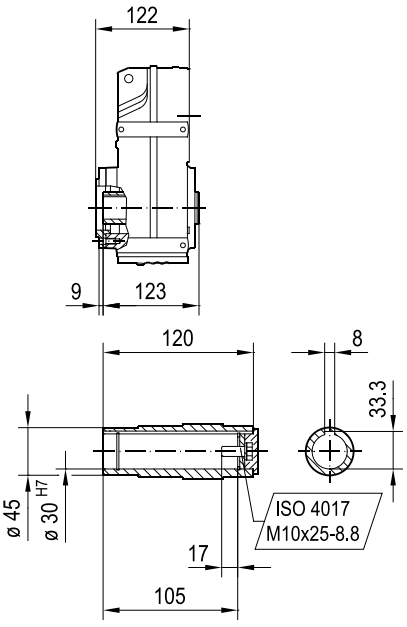

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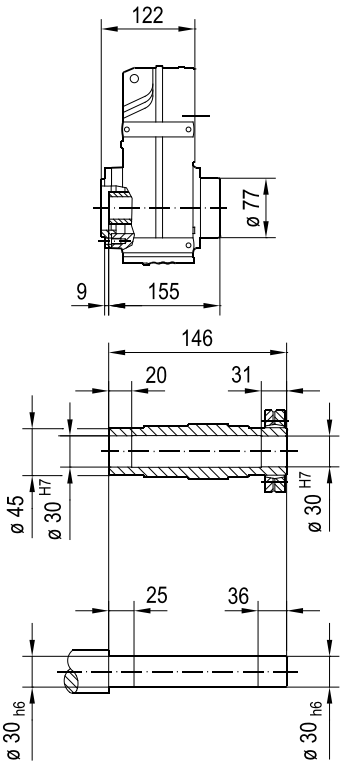
max. DRN80M



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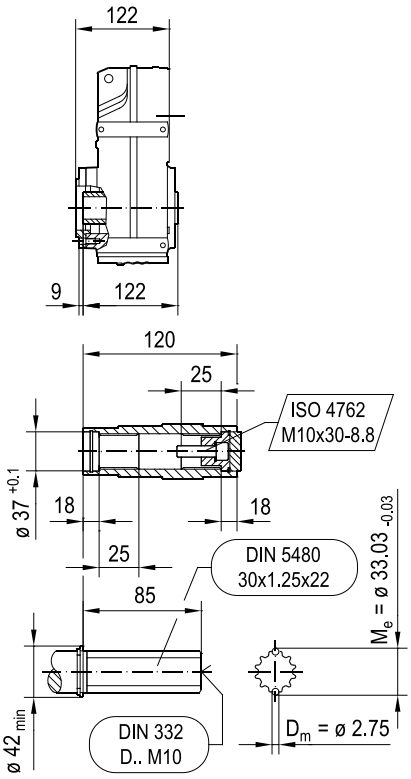
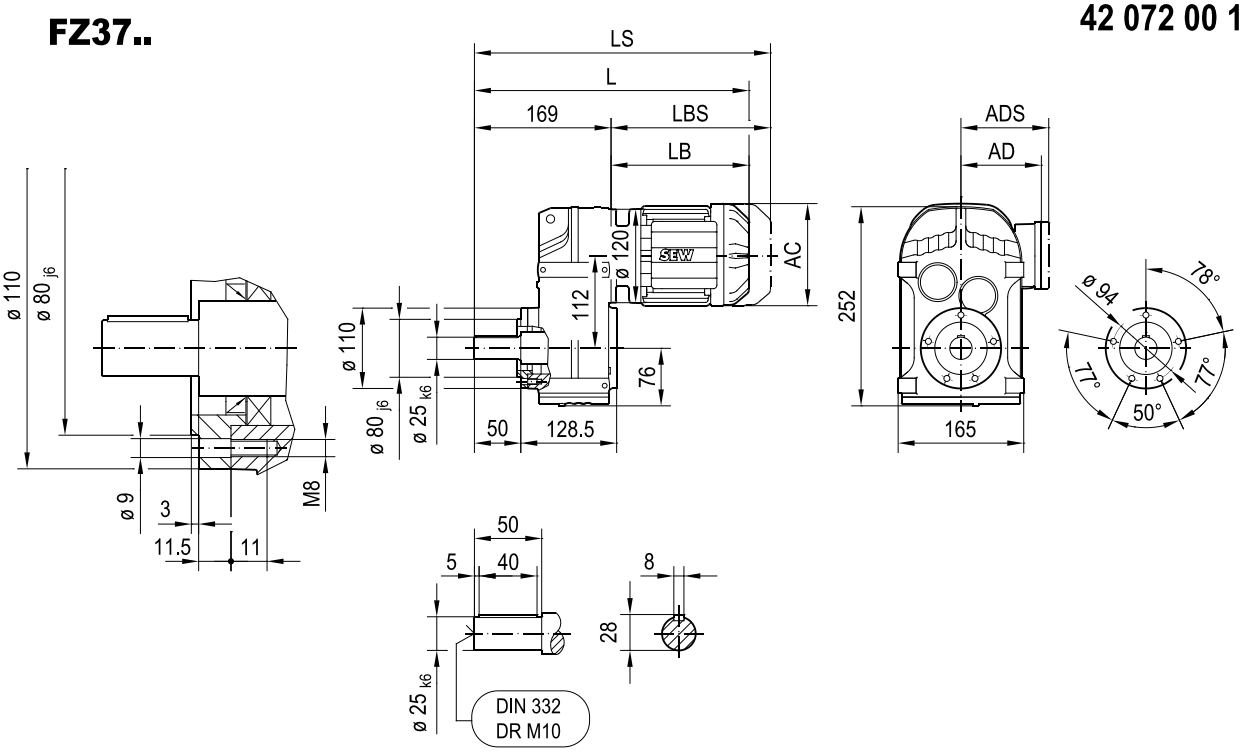


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	312	326	328	348	359	376	404	405	437	436	486
LS	368	382	395	415	440	457	485	499	531	530	580
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FZ37..

42 072 00 15

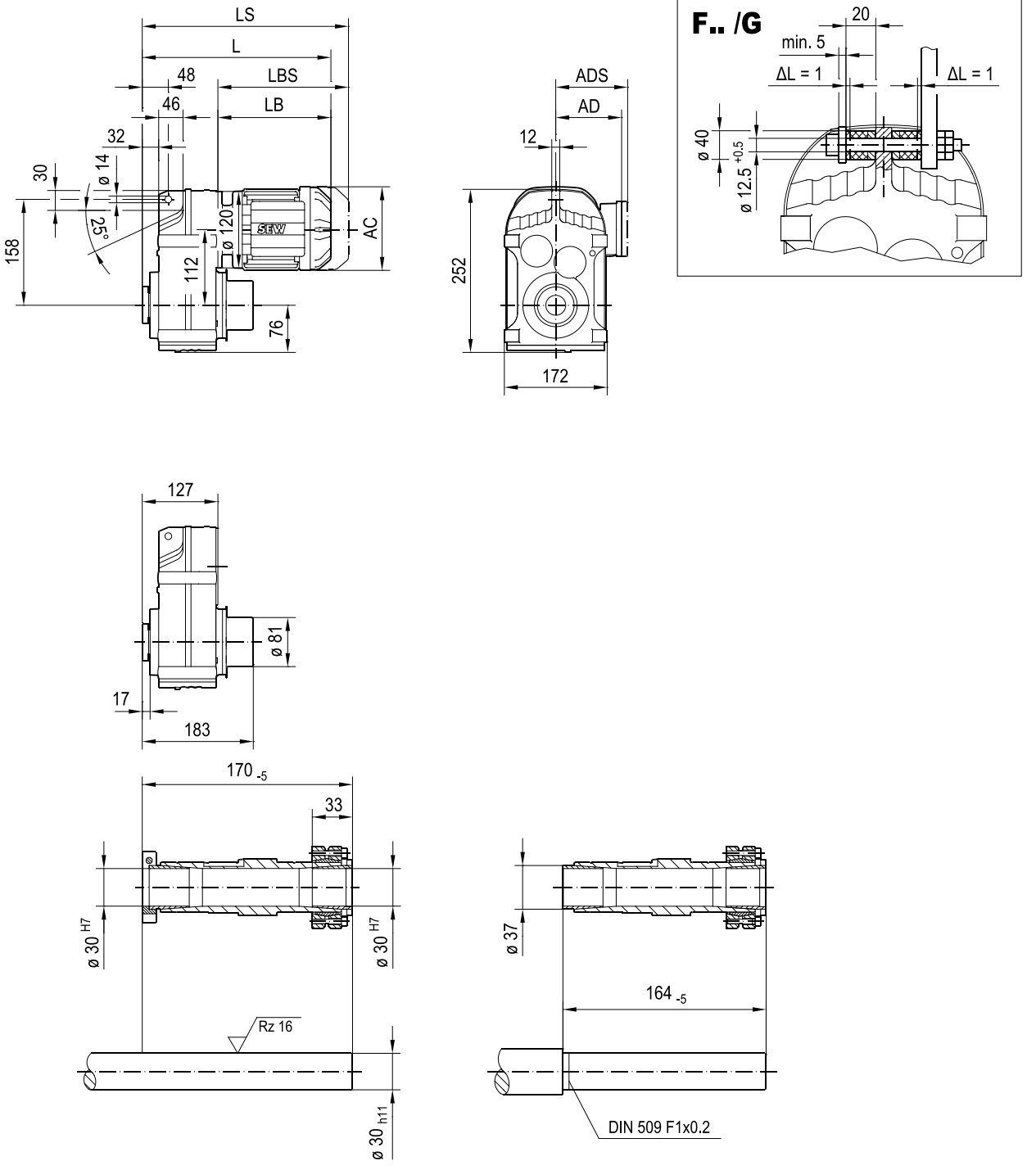


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	359	373	375	395	406	423	451	452	484	483	533
LS	415	429	442	462	487	504	532	546	578	577	627
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FT37..

42 028 01 14

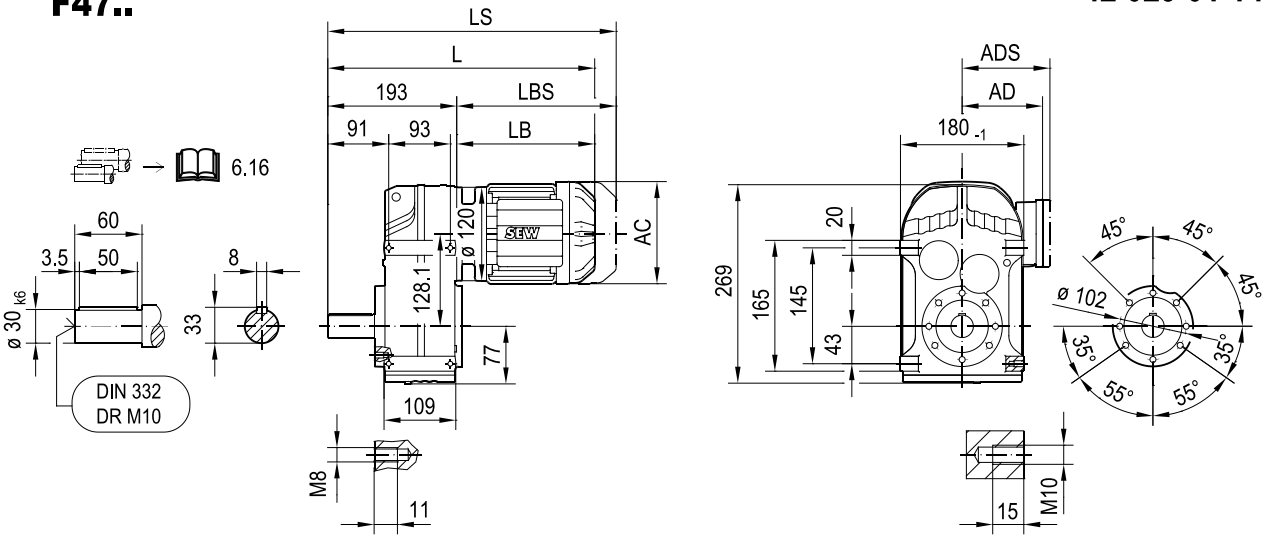


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MS			
AC	115	115	139	139	156			
AD	98	98	118	118	128			
ADS	98	98	129	129	139			
L	317	331	333	353	381			
LS	373	387	400	420	462			
LB	190	204	206	226	254			
LBS	246	260	273	293	335			

26883198/EN – 04/2022

F47..

42 029 01 14



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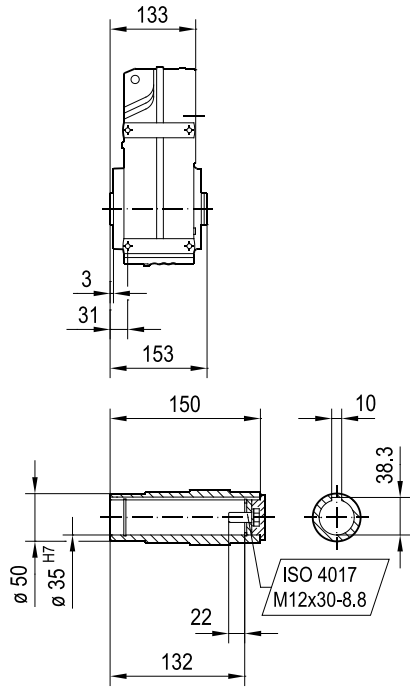

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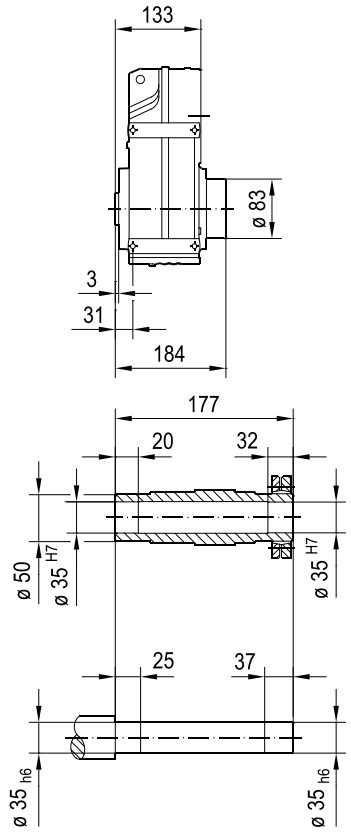

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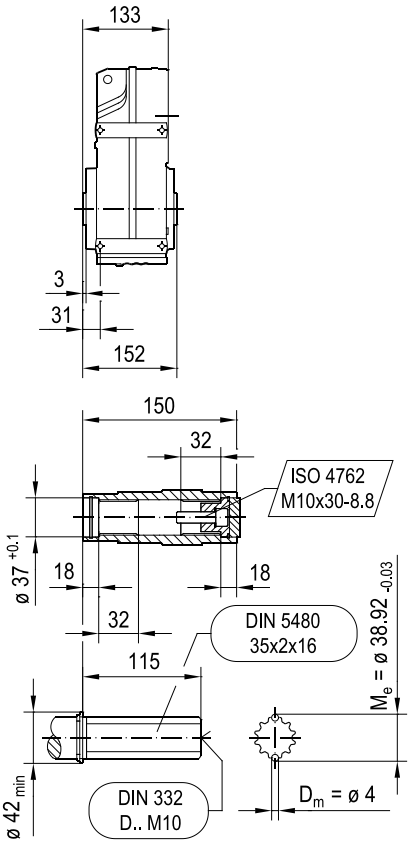
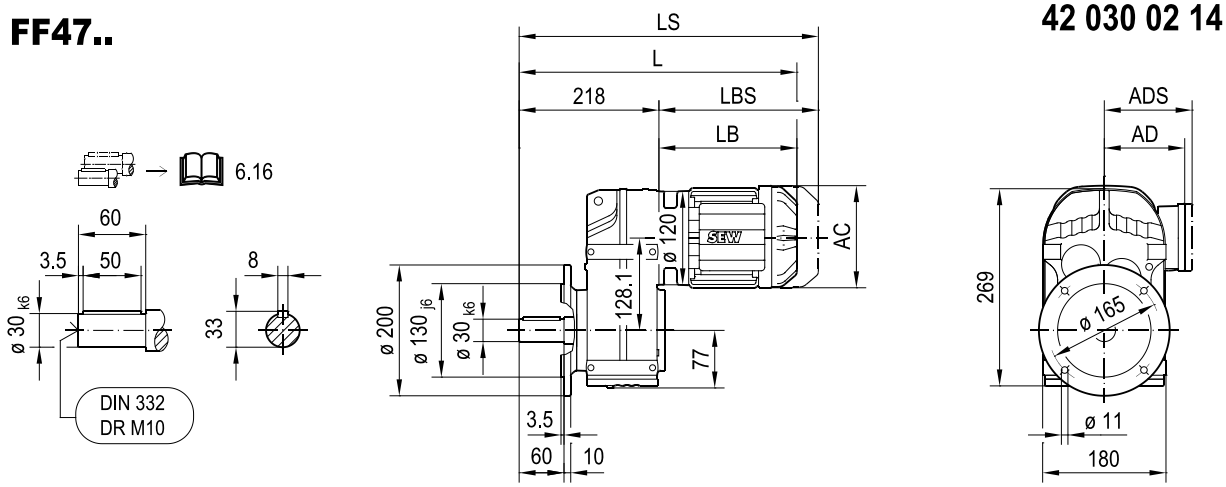


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	383	397	399	419	430	447	475	476	508	507	557
LS	439	453	466	486	511	528	556	570	602	601	651
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FF47..

42 030 02 14



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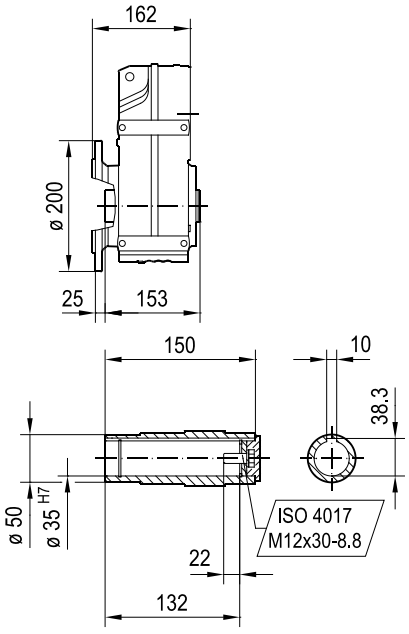
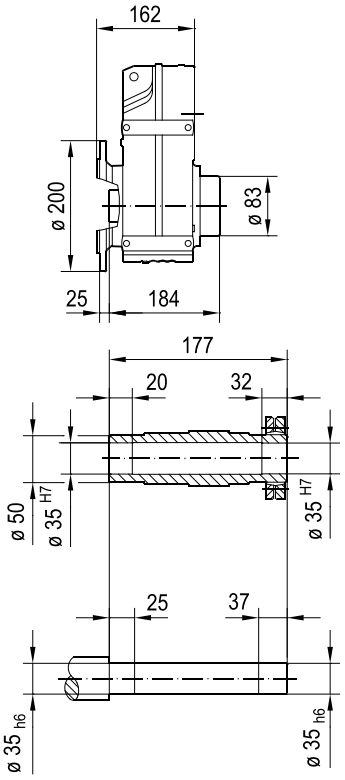


FHF47..



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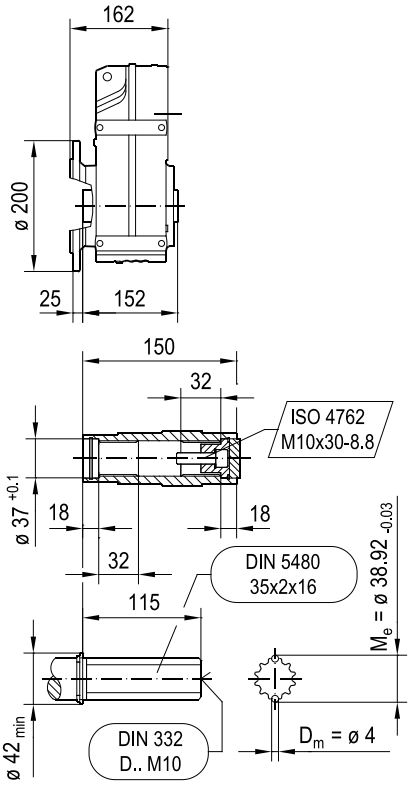
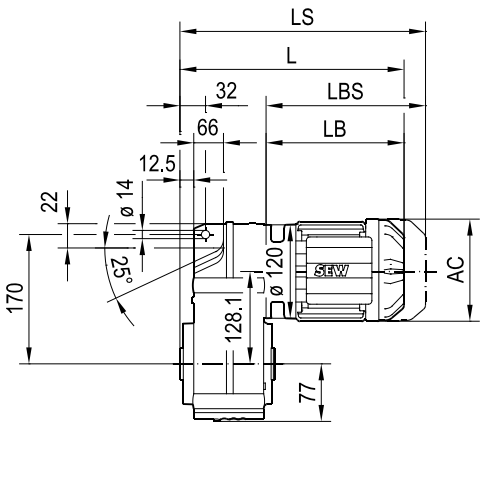


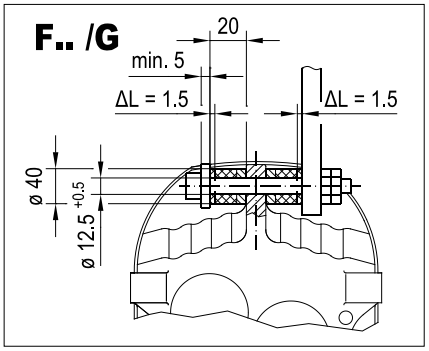
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	408	422	424	444	455	472	500	501	533	532	582
LS	464	478	491	511	536	553	581	595	627	626	676
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FA47..

42 031 00 14





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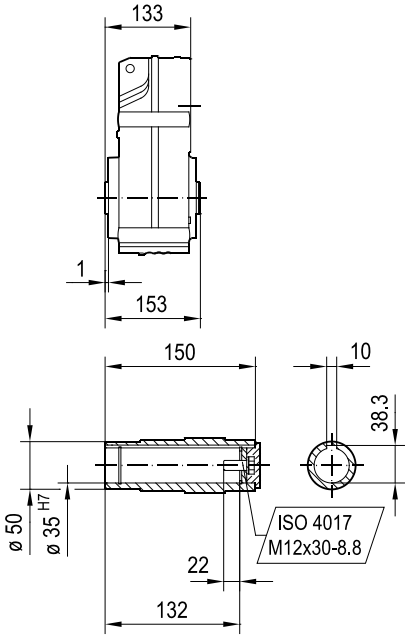

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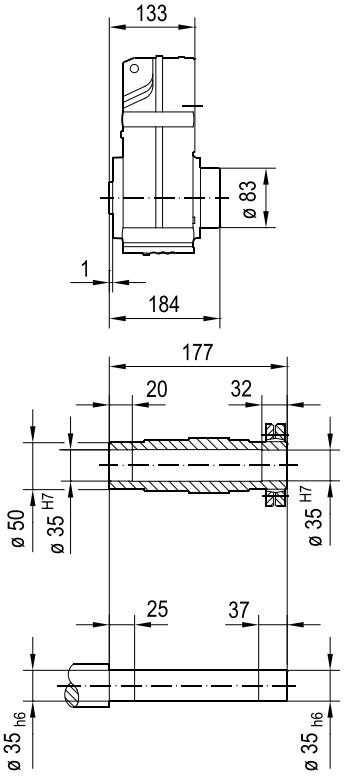

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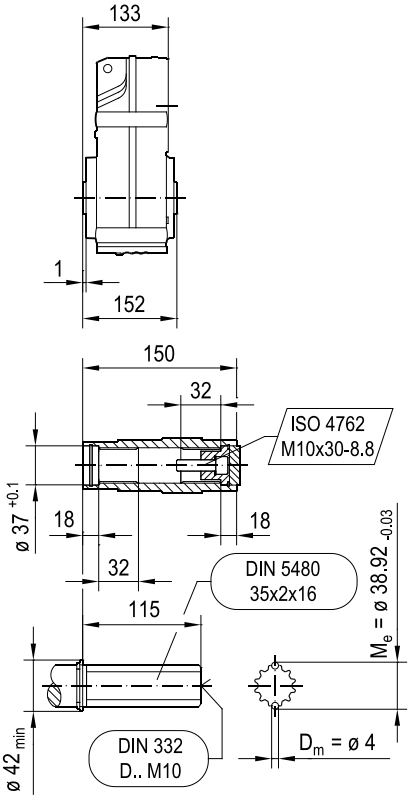
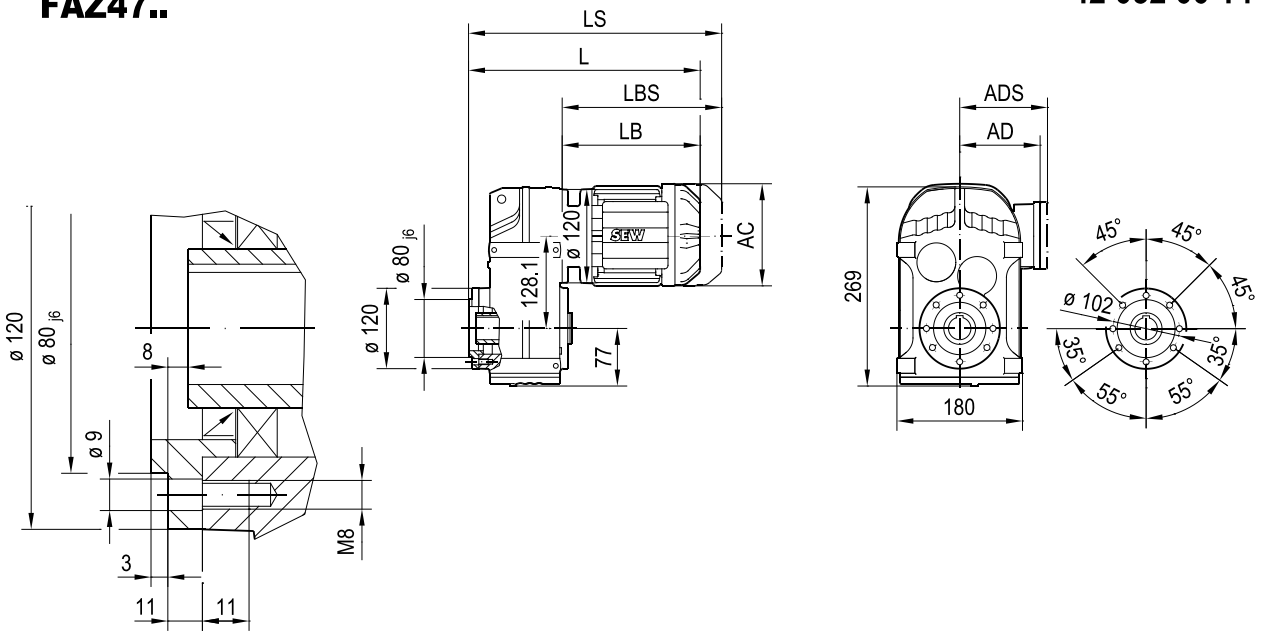


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	323	337	339	359	370	387	415	416	448	447	497
LS	379	393	406	426	451	468	496	510	542	541	591
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FAZ47..

42 032 00 14



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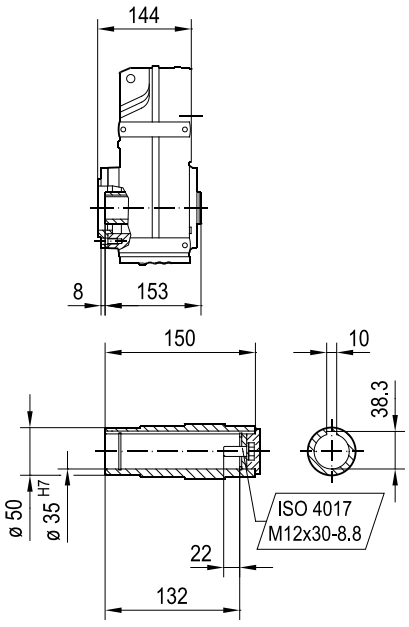

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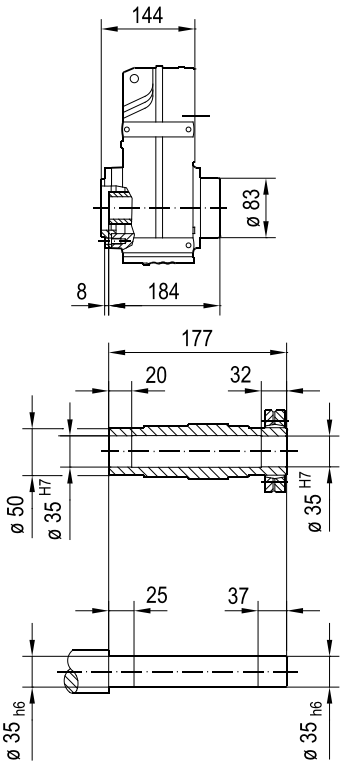

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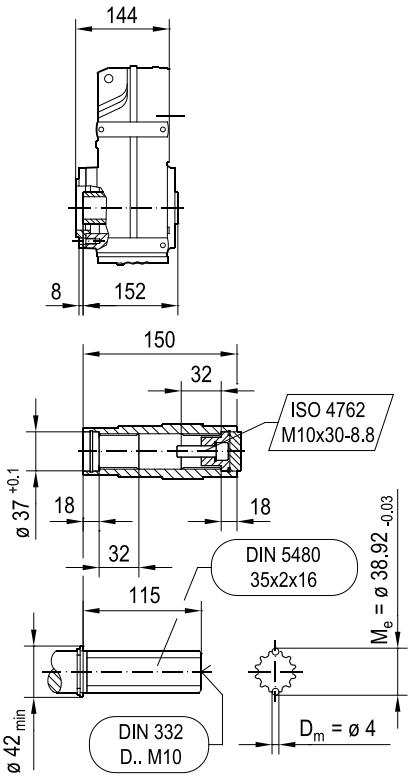
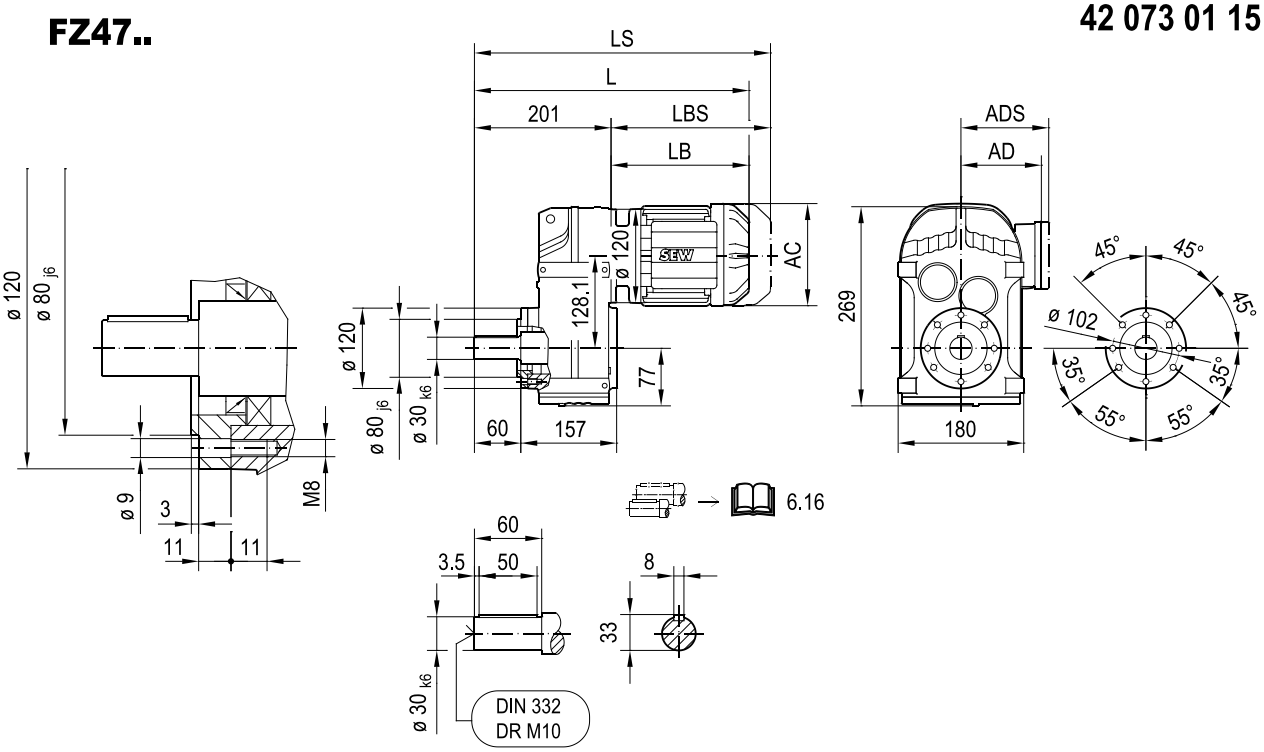


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	334	348	350	370	381	398	426	427	459	458	508
LS	390	404	417	437	462	479	507	521	553	552	602
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

FZ47..

42 073 01 15

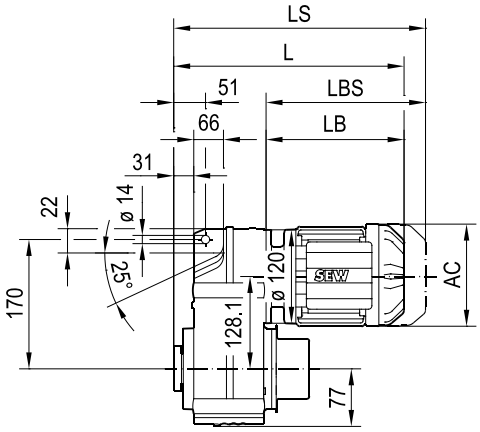


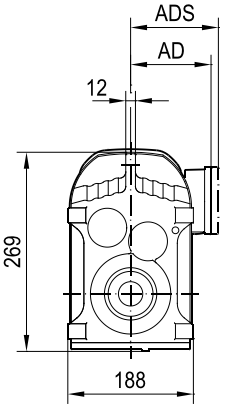
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	391	405	407	427	438	455	483	484	516	515	565
LS	447	461	474	494	519	536	564	578	610	609	659
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

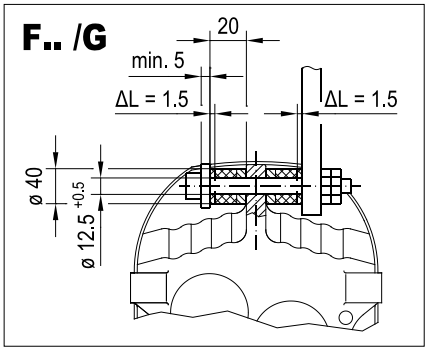
26883198/EN – 04/2022

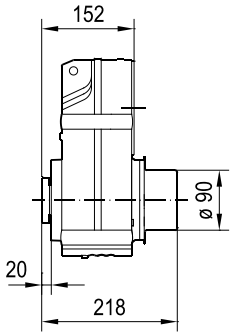
FT47..

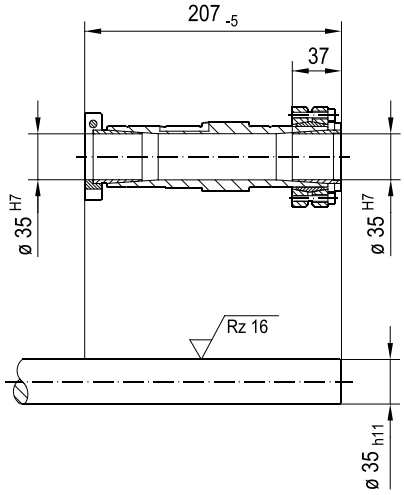
42 033 01 14

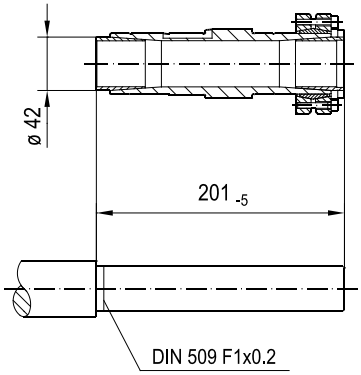










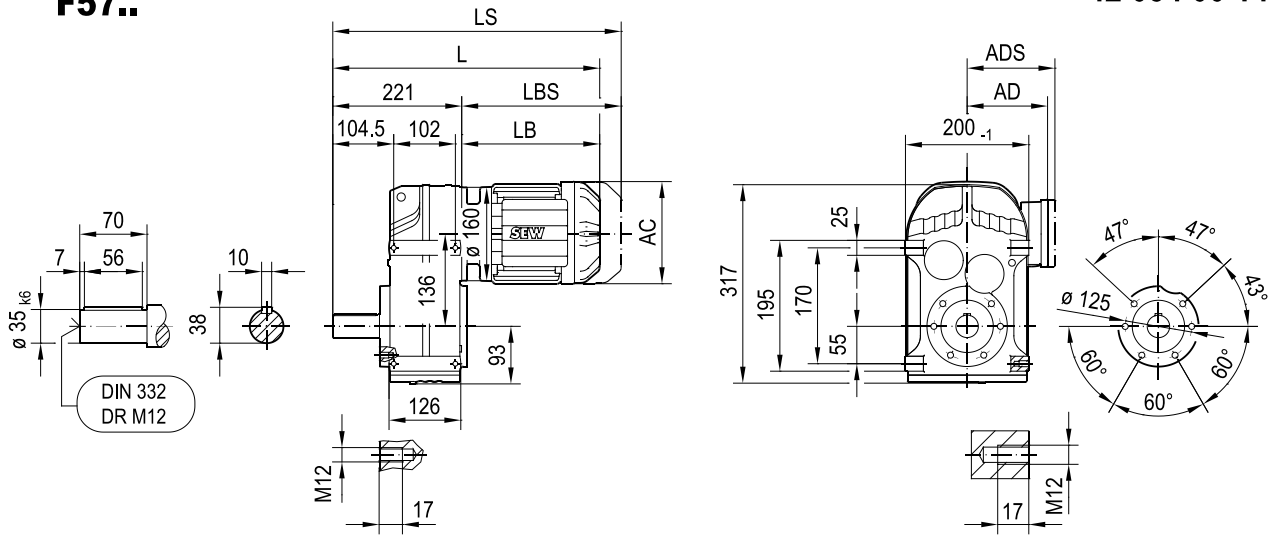


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MS			
AC	115	115	139	139	156			
AD	98	98	118	118	128			
ADS	98	98	129	129	139			
L	342	356	358	378	406			
LS	398	412	425	445	487			
LB	190	204	206	226	254			
LBS	246	260	273	293	335			

26883198/EN – 04/2022

F57..

42 034 00 14



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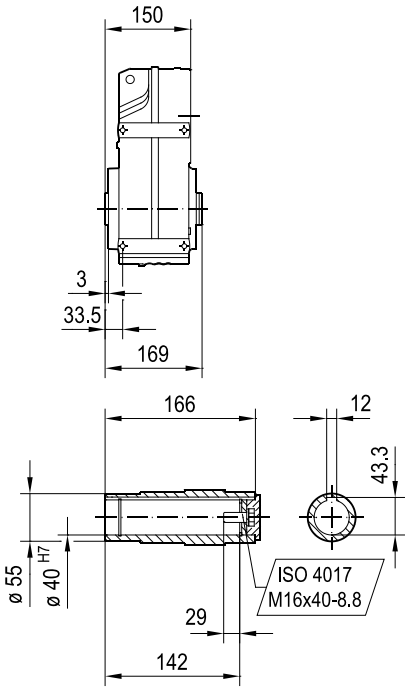

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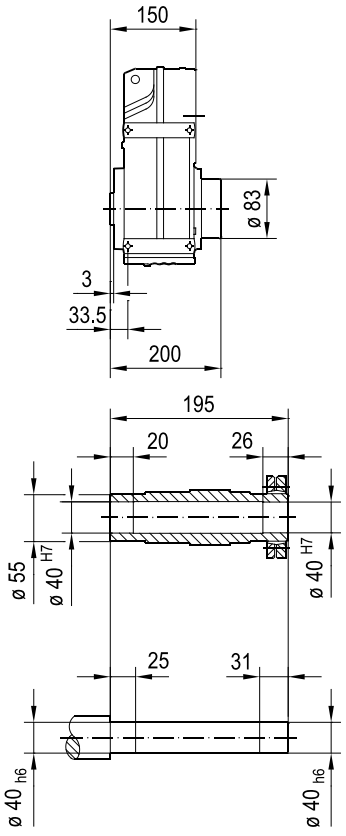
max. DRN100L



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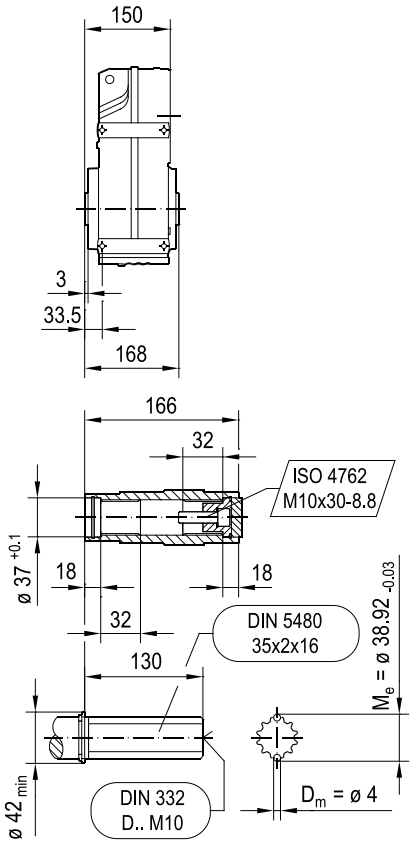
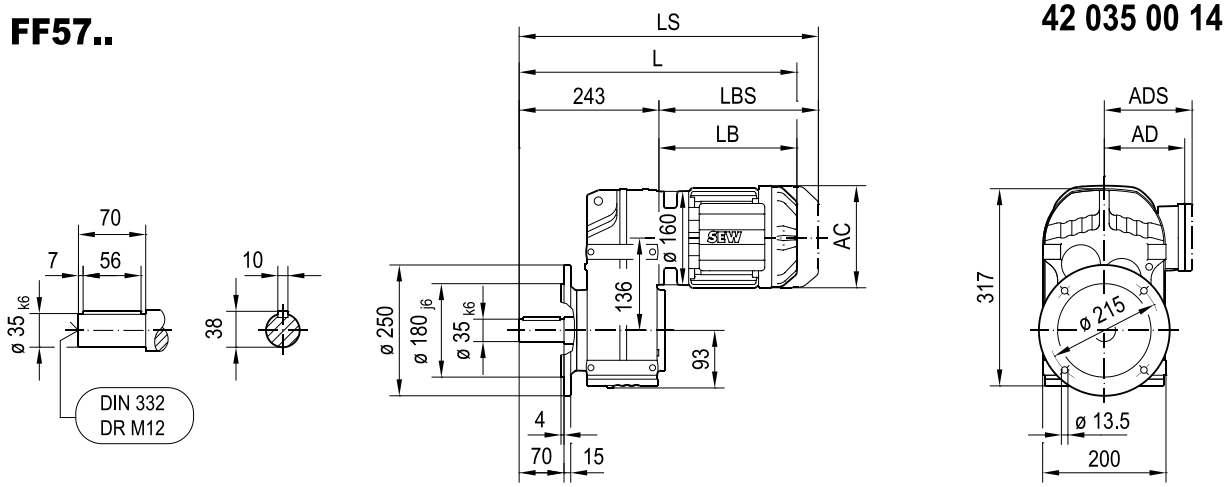


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	405	419	420	440	451	468	496	498	530	526	576	607	661	679
LS	461	475	488	508	532	549	577	591	623	620	670	719	773	817
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FF57..

42 035 00 14



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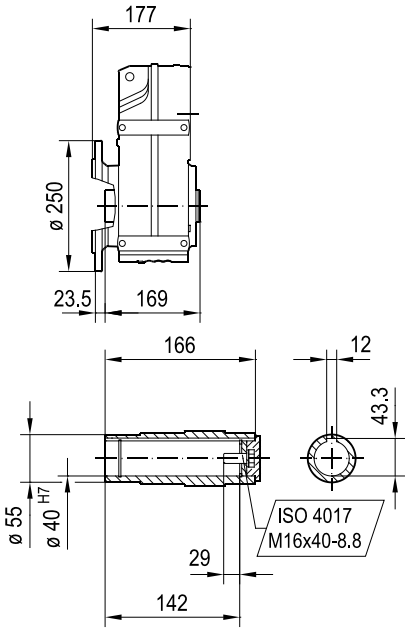

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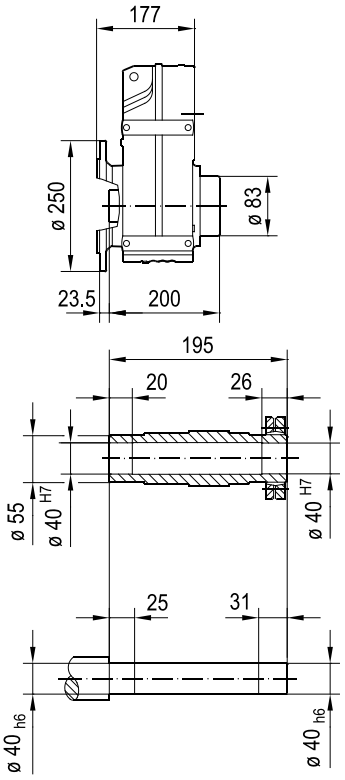
max. DRN100L



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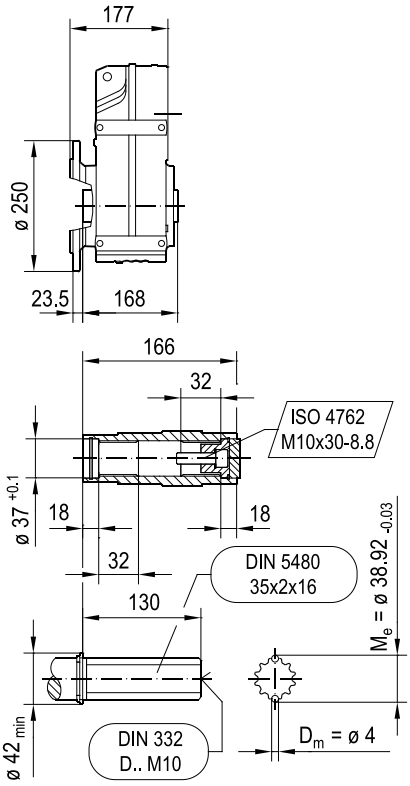
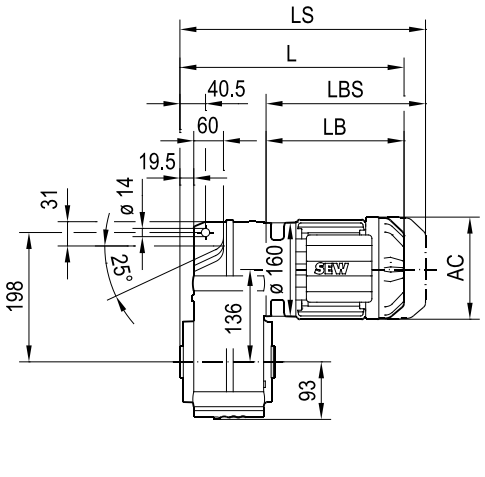


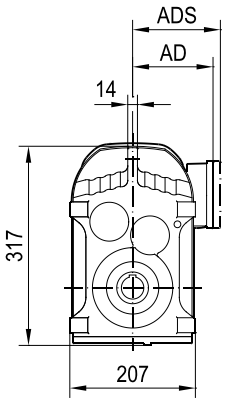
(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	427	441	442	462	473	490	518	520	552	548	598	629	683	701
LS	483	497	510	530	554	571	599	613	645	642	692	741	795	839
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

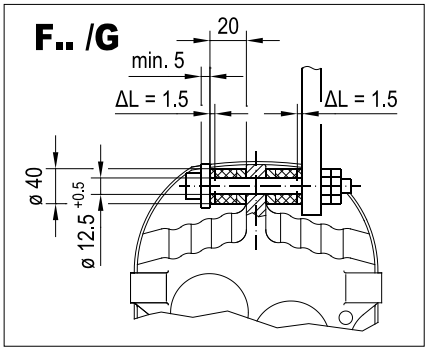
26883198/EN – 04/2022

FA57..

42 036 00 14







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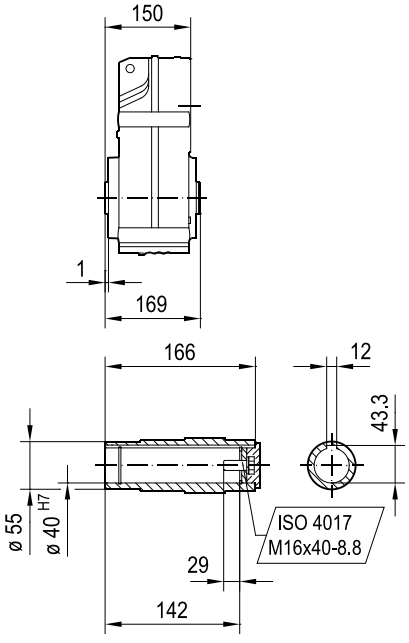

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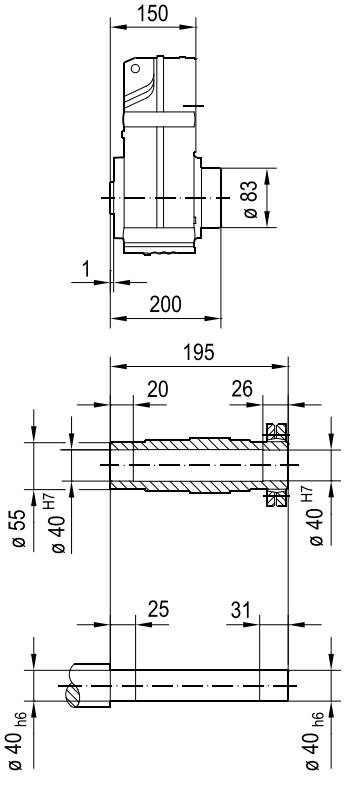
max. DRN100L



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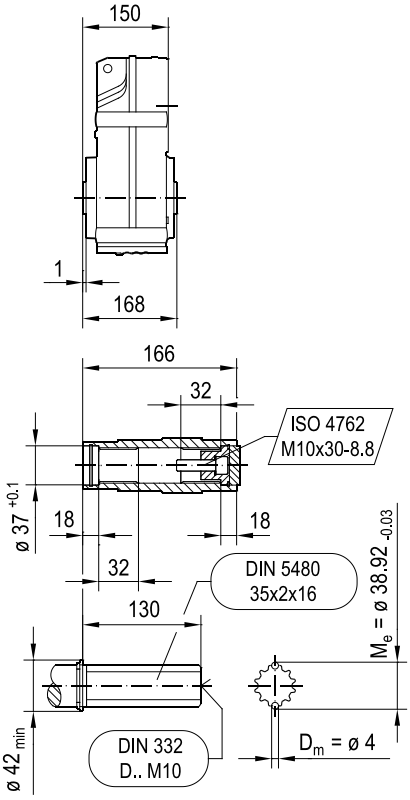
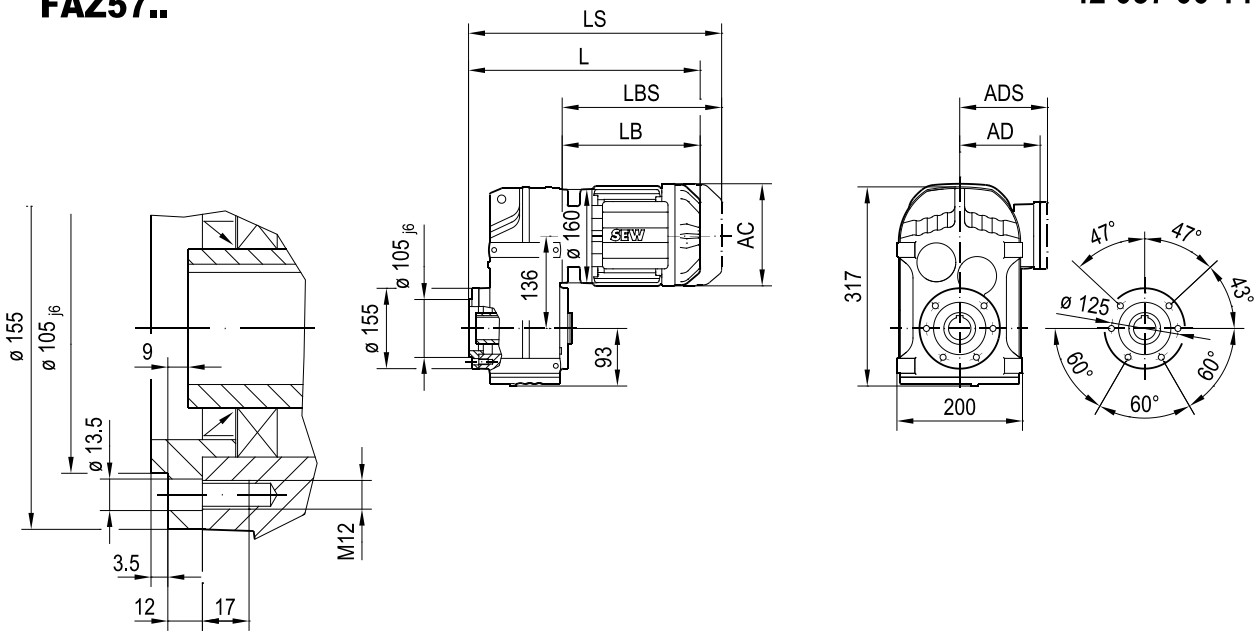


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	334	348	349	369	380	397	425	427	459	455	505	536	590	608
LS	390	404	417	437	461	478	506	520	552	549	599	648	702	746
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FAZ57..

42 037 00 14



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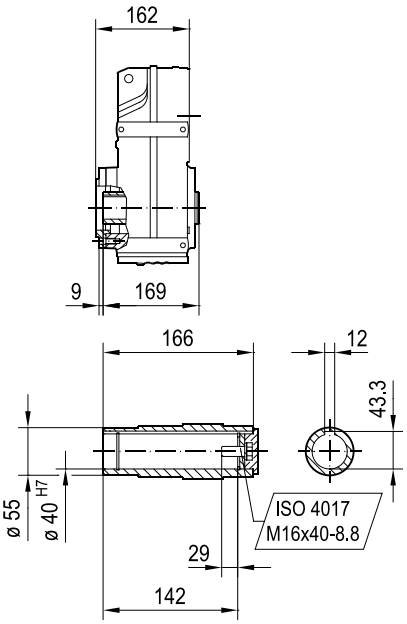

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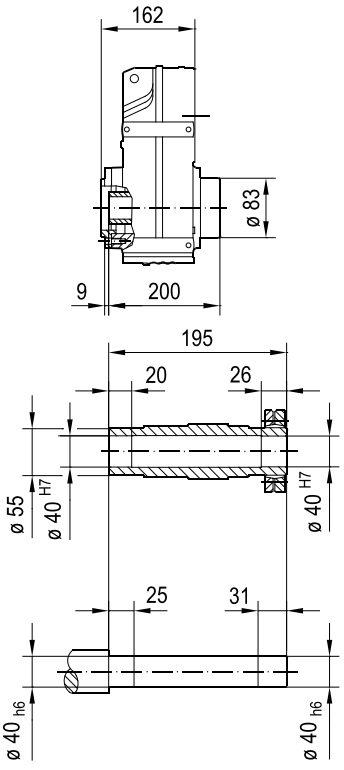
max. DRN100L



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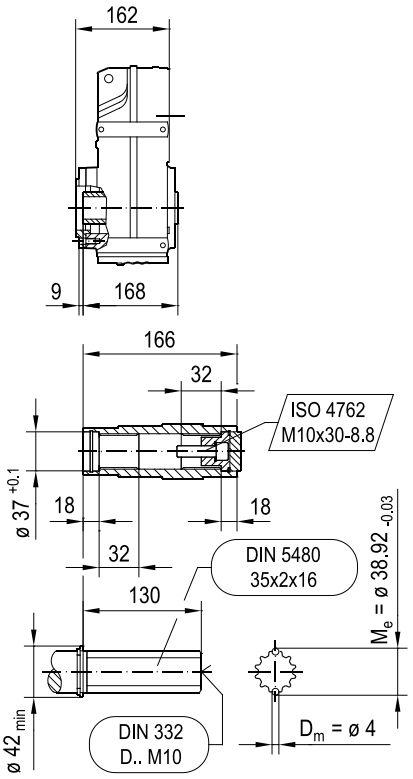
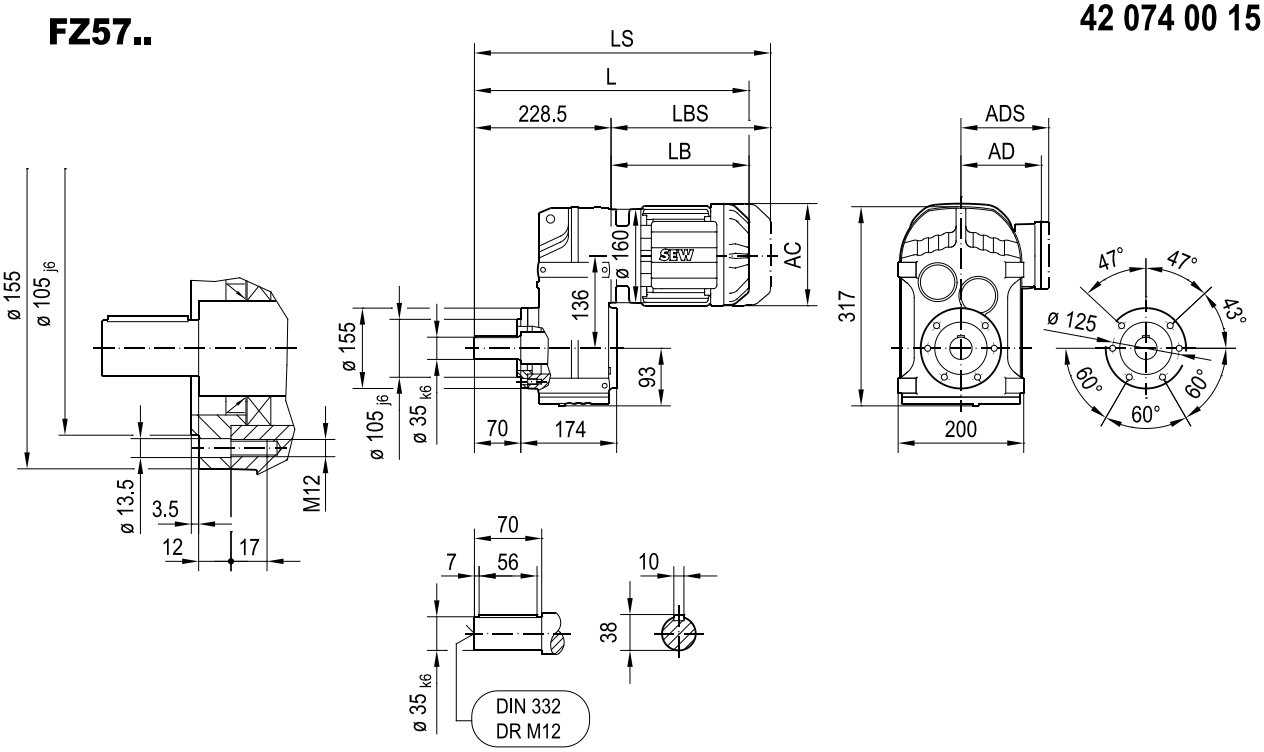


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	346	360	361	381	392	409	437	439	471	467	517	548	602	620
LS	402	416	429	449	473	490	518	532	564	561	611	660	714	758
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FZ57..

42 074 00 15

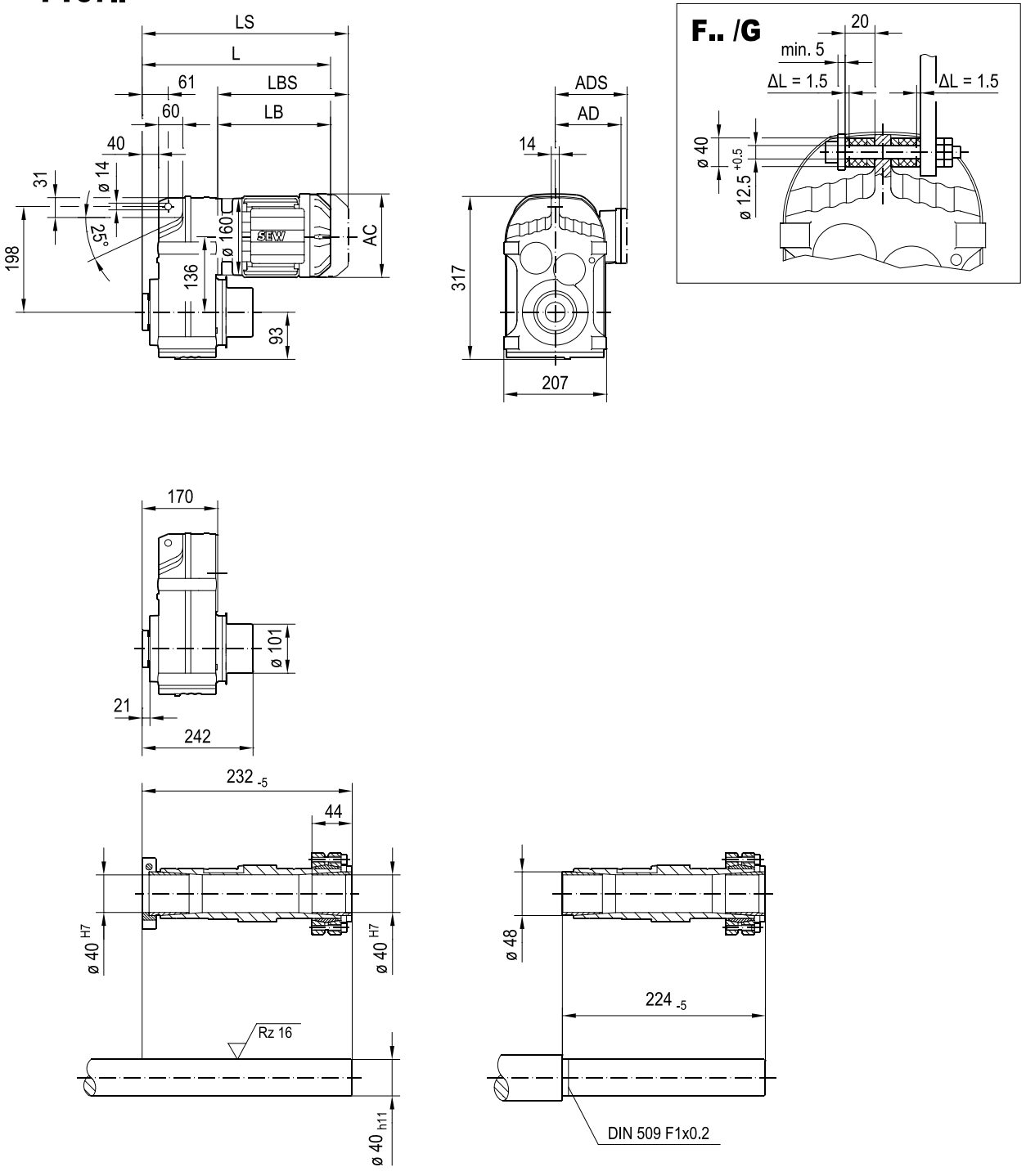


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	412	426	428	448	459	476	504	505	537	534	584	615	669	687
LS	468	482	495	515	540	557	585	599	631	627	677	727	781	824
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FT57..

42 038 01 14

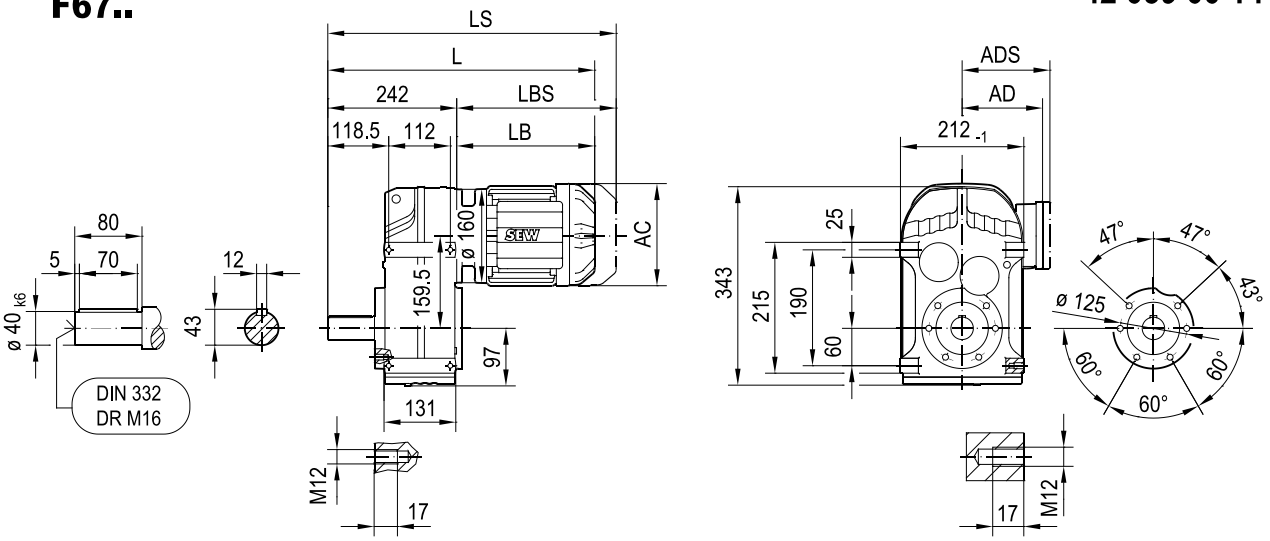


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	354	368	369	389	400	417	445	447
LS	410	424	437	457	481	498	526	540
LB	184	198	199	219	230	247	275	277
LBS	240	254	267	287	311	328	356	370

26883198/EN – 04/2022

F67..

42 039 00 14



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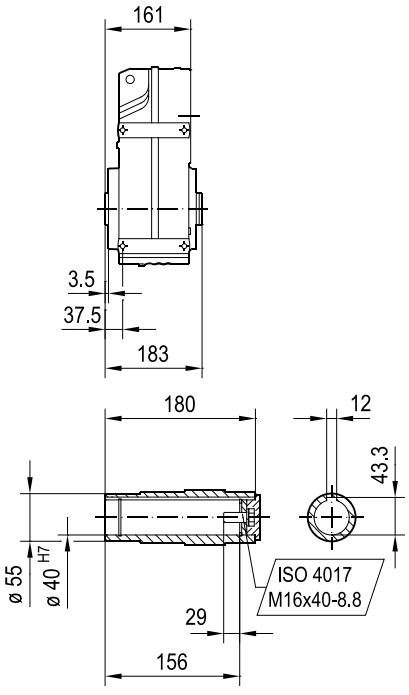
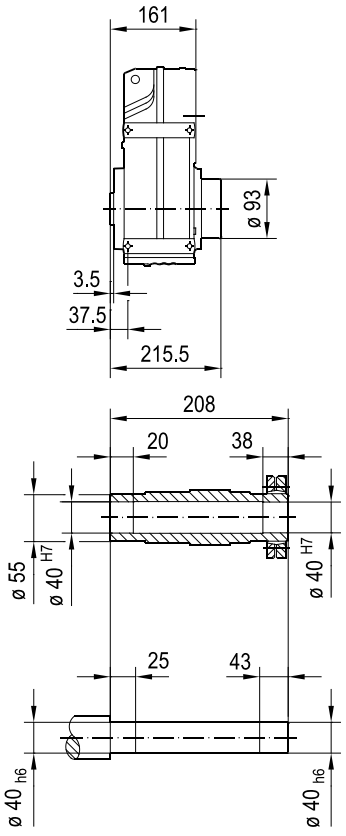


FH67B..

max. DRN132S



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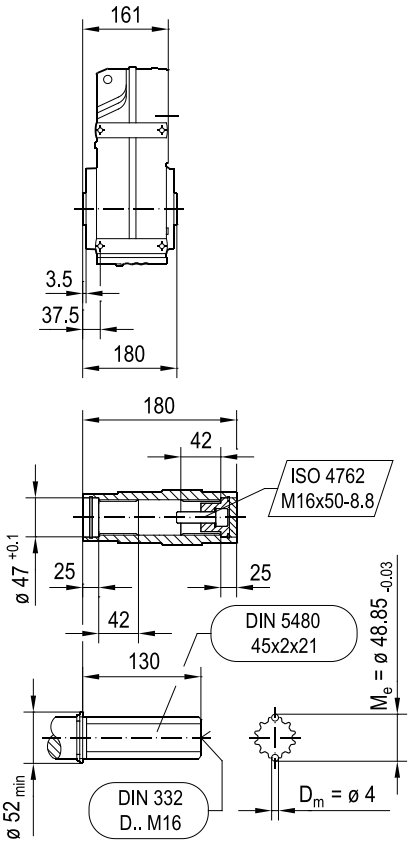
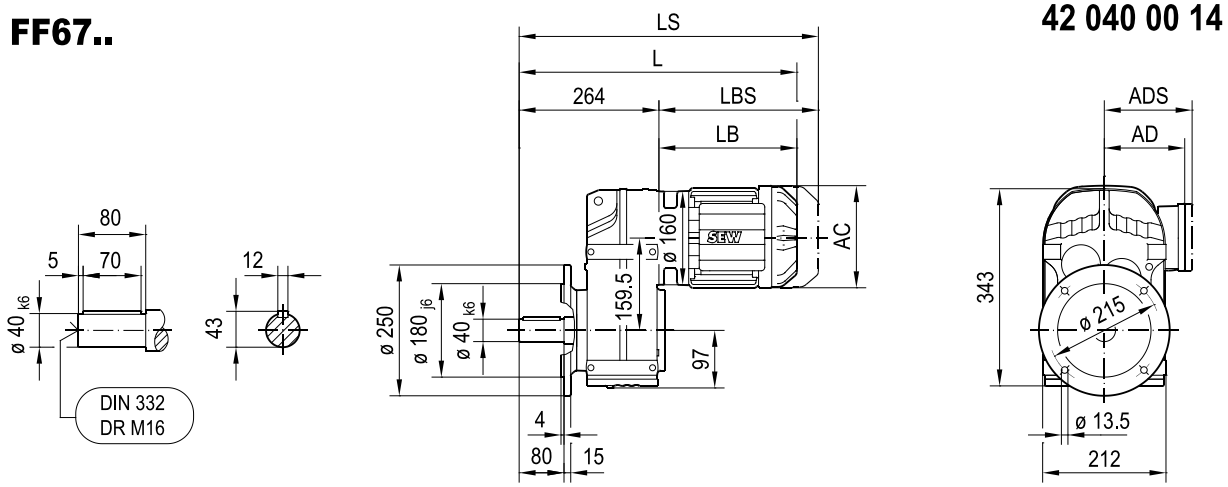


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	440	441	461	472	489	517	519	551	547	597	628	682	700
LS	496	509	529	553	570	598	612	644	641	691	740	794	838
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FF67..

42 040 00 14



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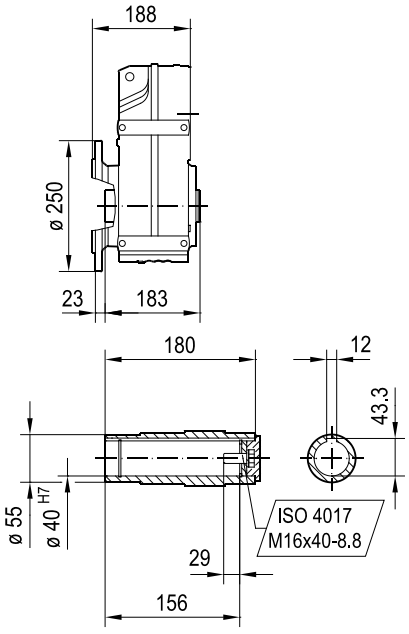

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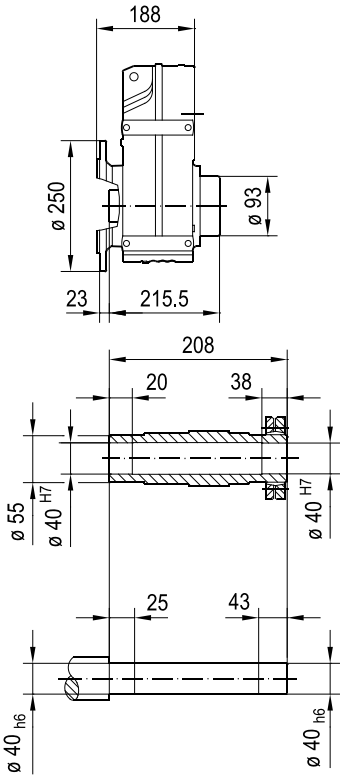

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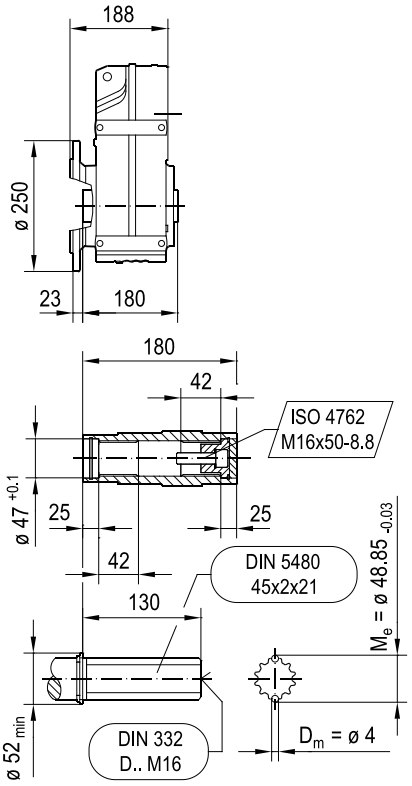
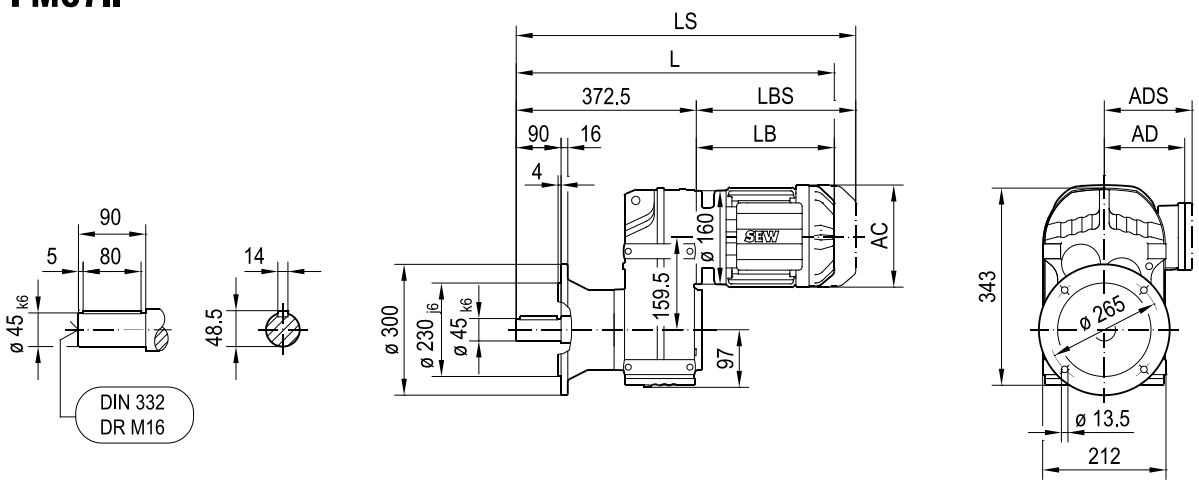


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	462	463	483	494	511	539	541	573	569	619	650	704	722
LS	518	531	551	575	592	620	634	666	663	713	762	816	860
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FM67..

42 112 00 17



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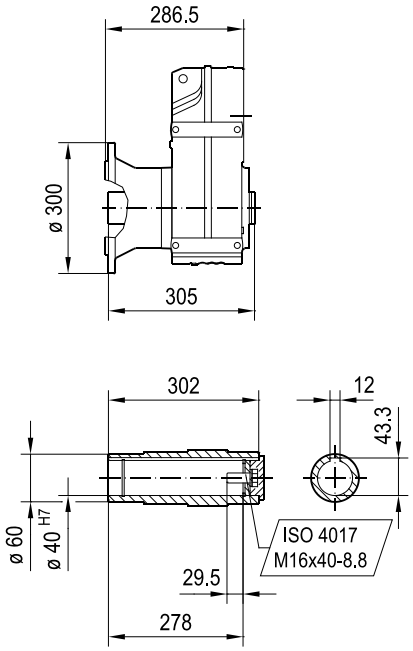
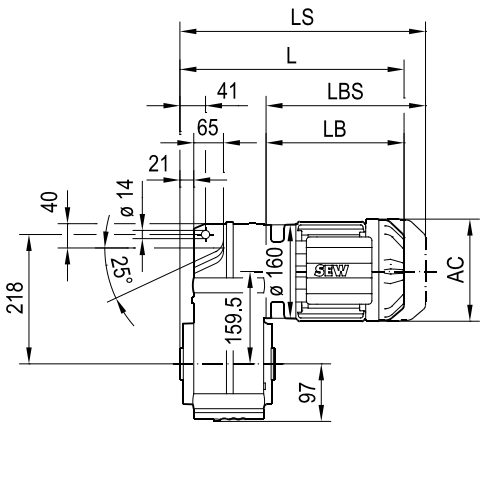


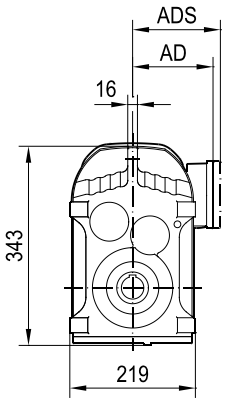
(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	570	572	592	603	620	648	649	681	678	728	759	813	831
LS	626	639	659	684	701	729	743	775	771	821	871	925	968
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

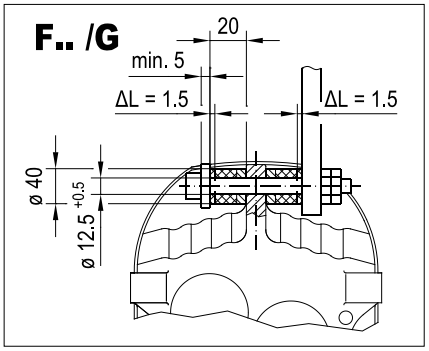
26883198/EN – 04/2022

FA67..

42 041 00 14







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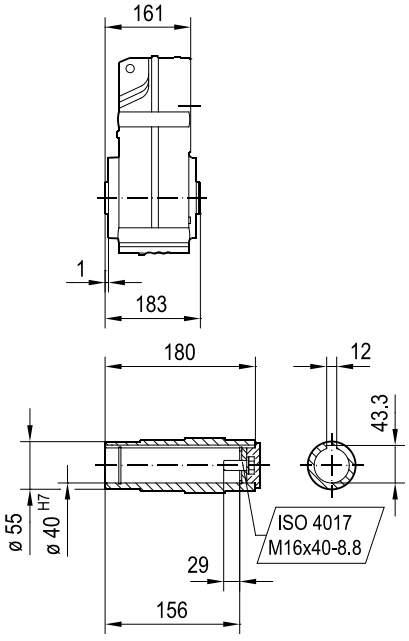

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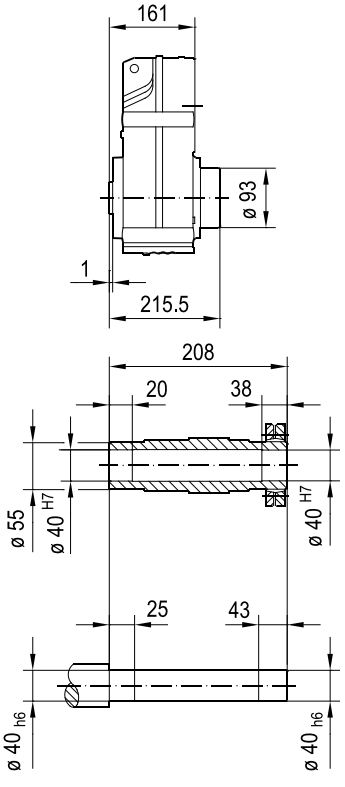
max. DRN132S



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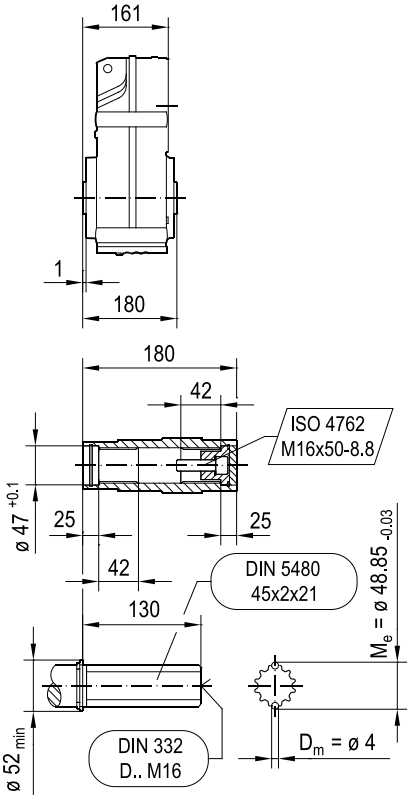
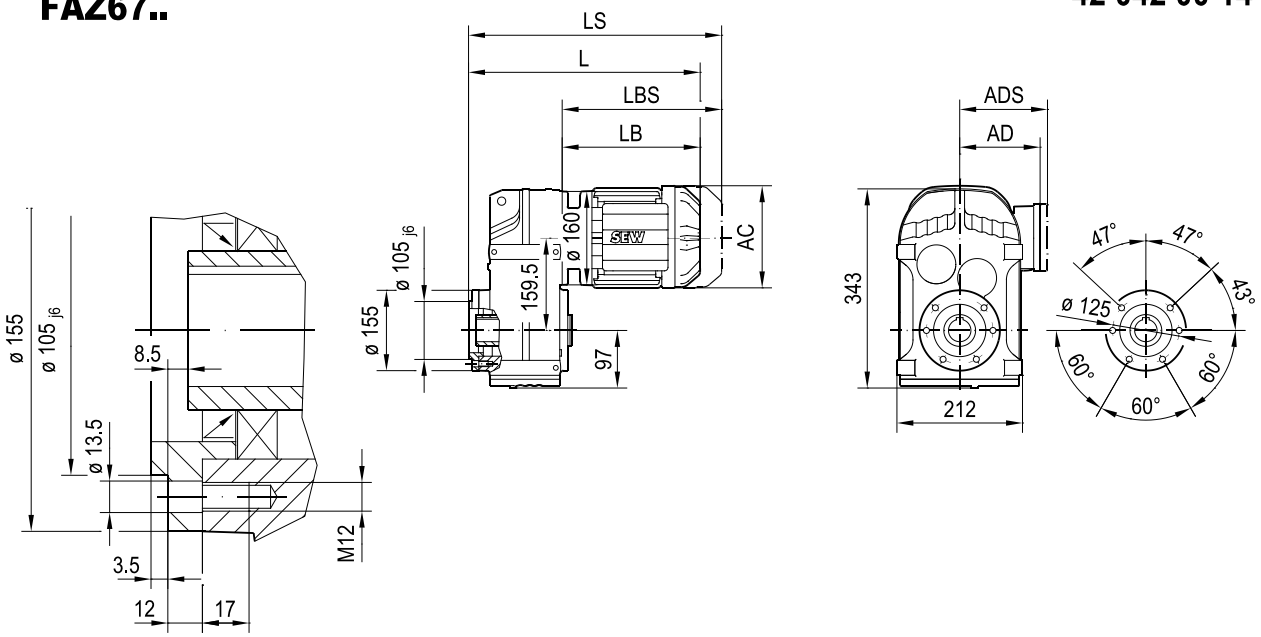


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	359	360	380	391	408	436	438	470	466	516	547	601	619
LS	415	428	448	472	489	517	531	563	560	610	659	713	757
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FAZ67..

42 042 00 14



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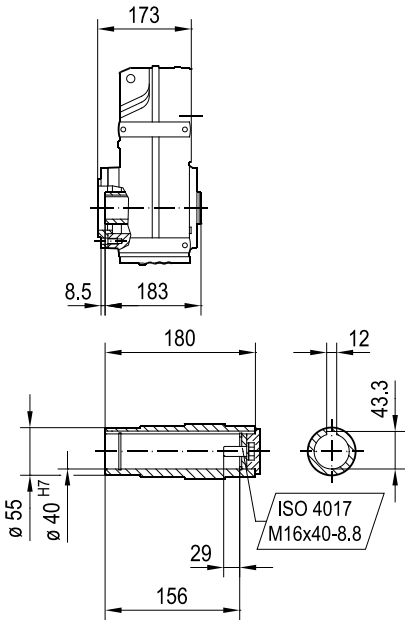

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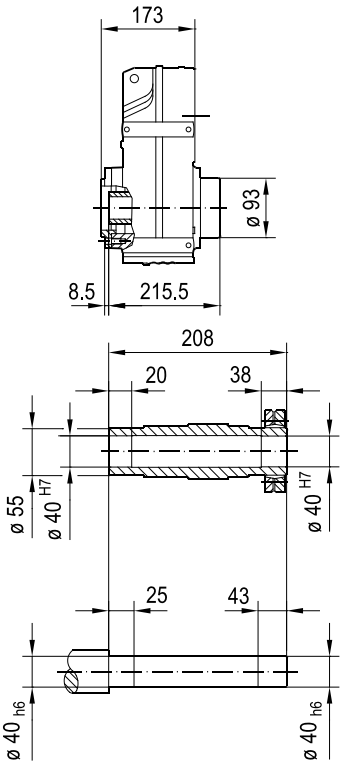
max. DRN132S



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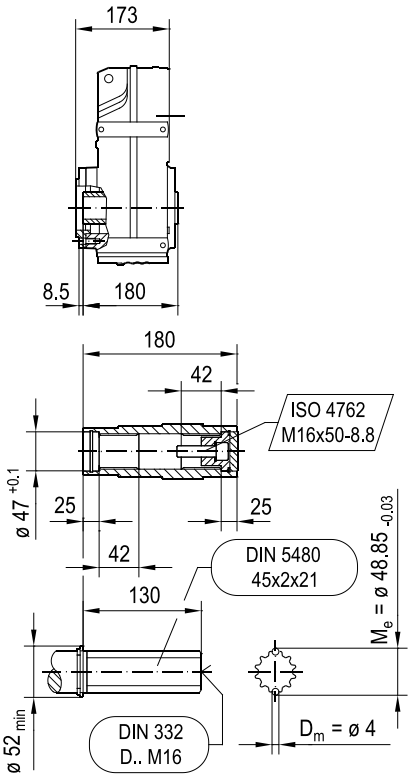
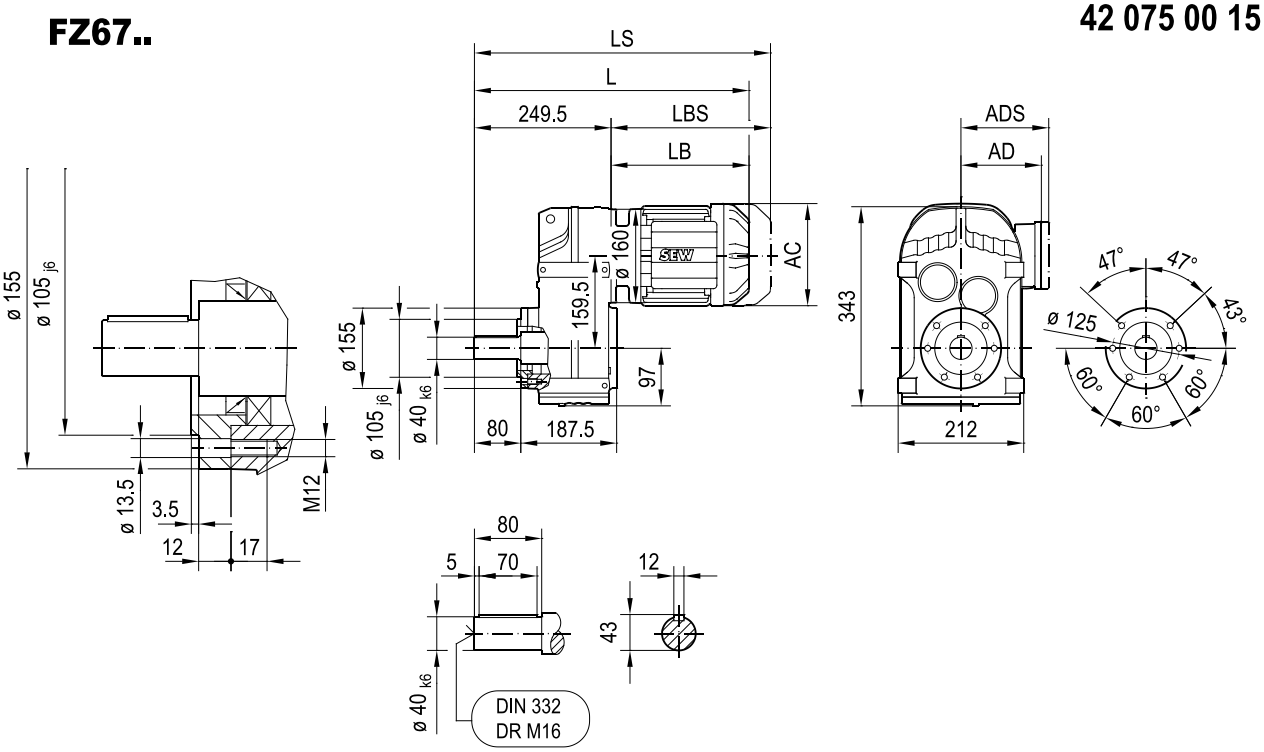


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	371	372	392	403	420	448	450	482	478	528	559	613	631
LS	427	440	460	484	501	529	543	575	572	622	671	725	769
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

FZ67..

42 075 00 15

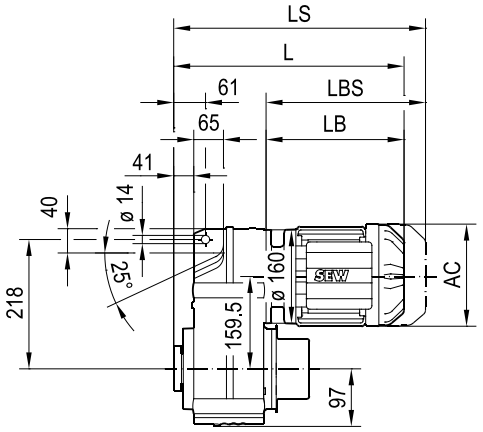


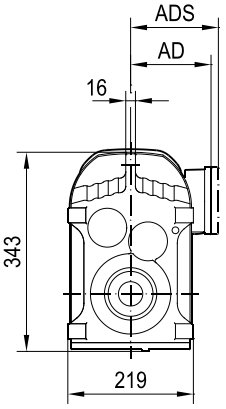
(→ 📖 7.3)	DRN												
	63M	**71MS**	**71M**	**80MK**	**80MS**	**80M**	**90S**	**90L**	**100LS**	**100L/LM**	**112M**	**132S**	**132M**
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	447	449	469	480	497	525	526	558	555	605	636	690	708
LS	503	516	536	561	578	606	620	652	648	698	748	802	845
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

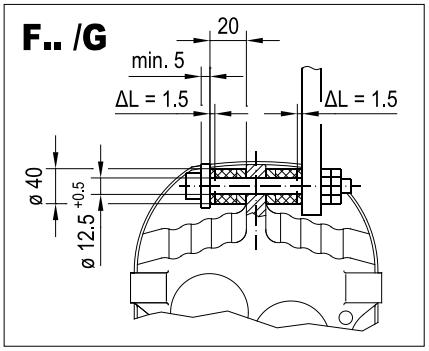
26883198/EN – 04/2022

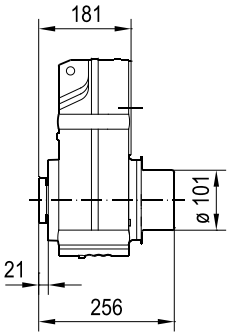
FT67..

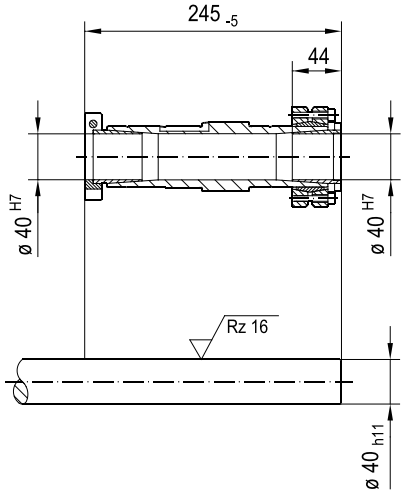
42 043 01 14

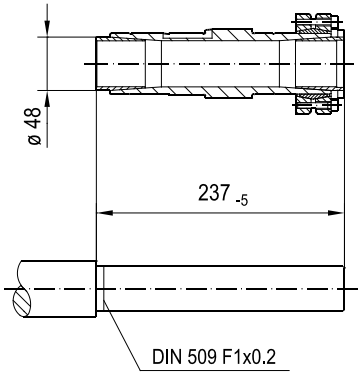










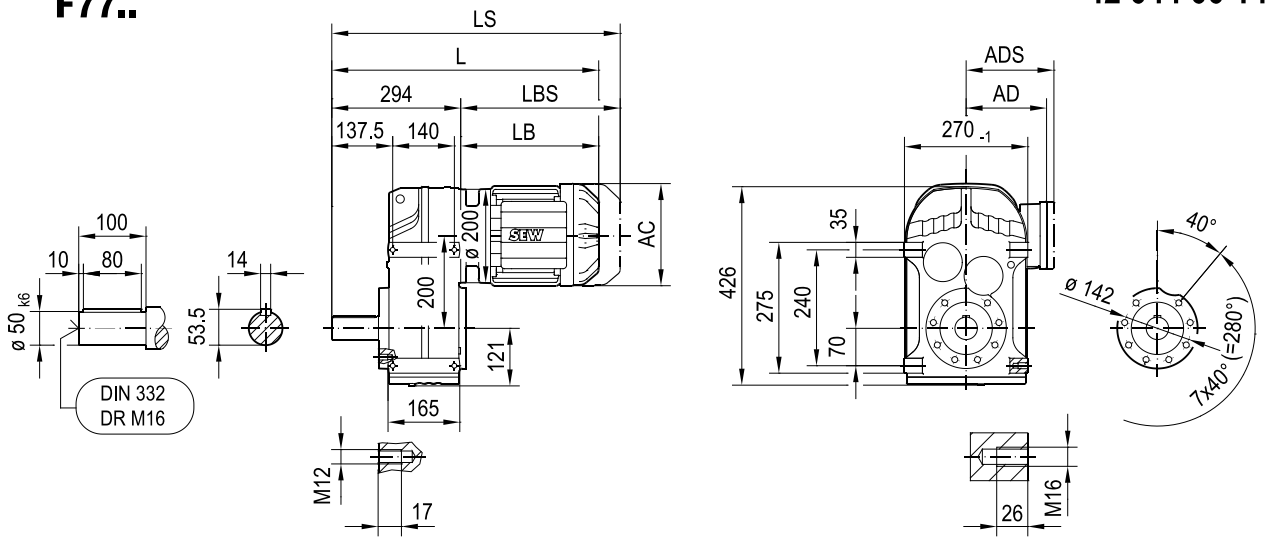


(→ 📖 7.3)	DRN									
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	156	179	179	197	197
AD	98	118	118	128	128	128	140	140	157	157
ADS	98	129	129	139	139	139	150	150	158	158
L	379	380	400	411	428	456	458	490	486	536
LS	435	448	468	492	509	537	551	583	580	630
LB	198	199	219	230	247	275	277	309	305	355
LBS	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

F77..

42 044 00 14



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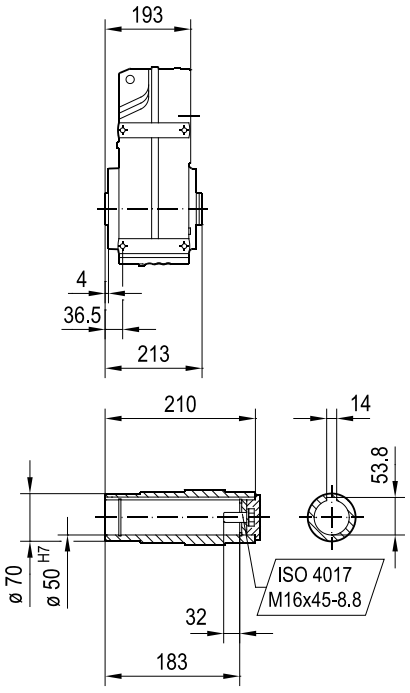
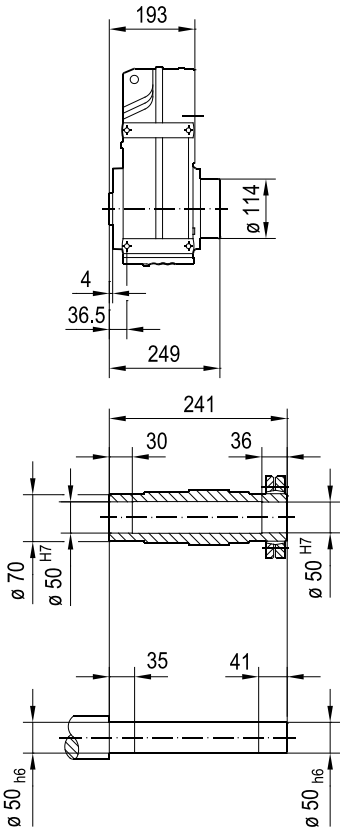


FH77B..

max. DRN132L



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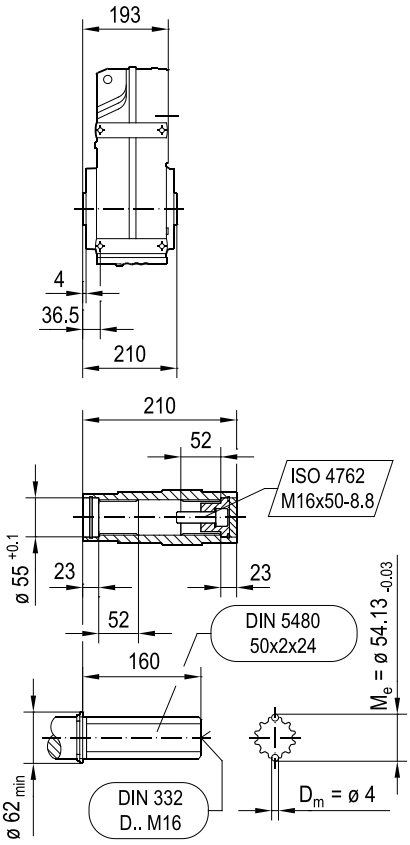
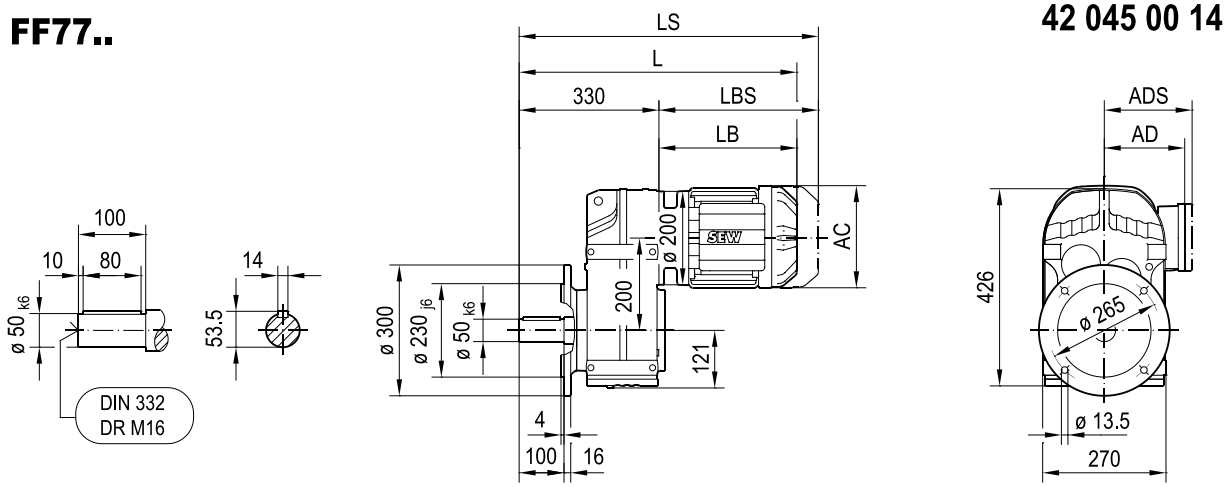


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	486	506	517	534	562	564	596	592	642	673	723	741	767	833
LS	554	574	598	615	643	657	689	686	736	785	835	879	904	1022
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

FF77..

42 045 00 14



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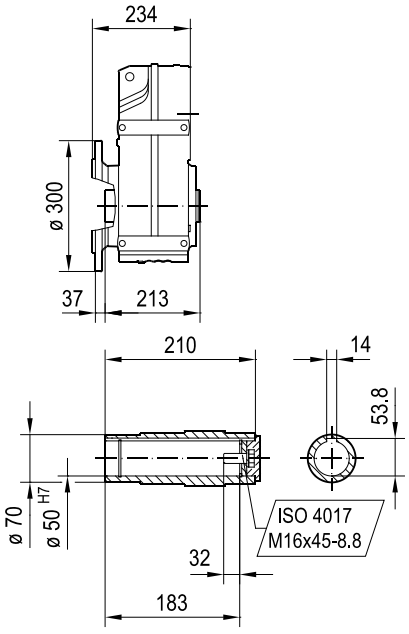

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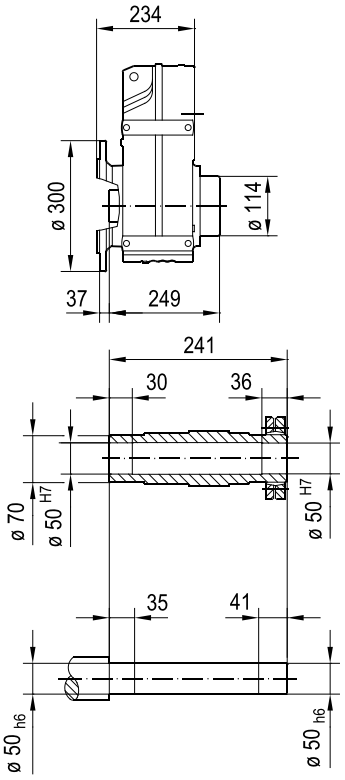
max. DRN132L



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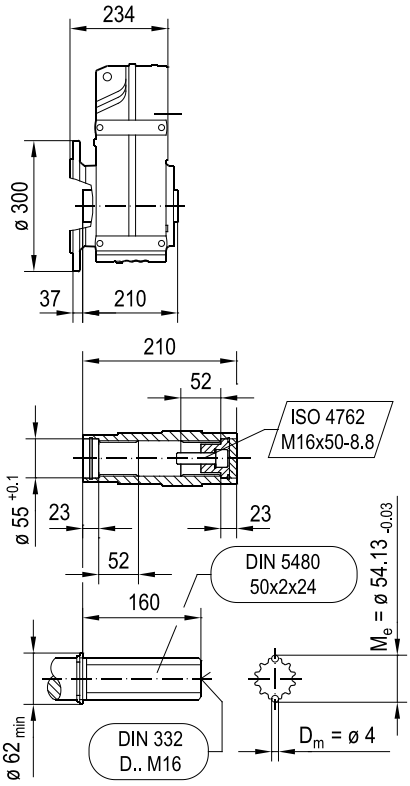
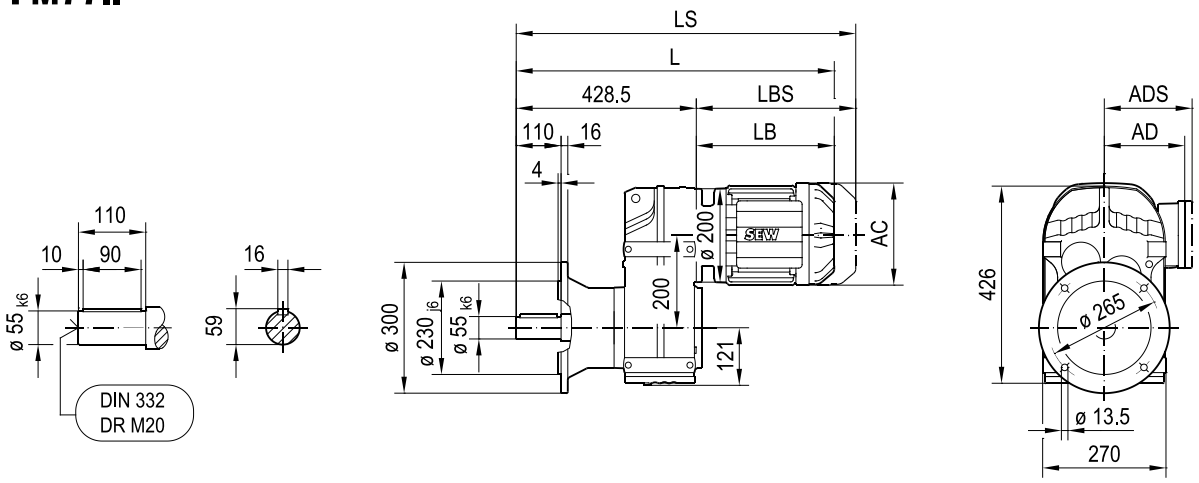


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	522	542	553	570	598	600	632	628	678	709	759	777	803	869
LS	590	610	634	651	679	693	725	722	772	821	871	915	940	1058
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

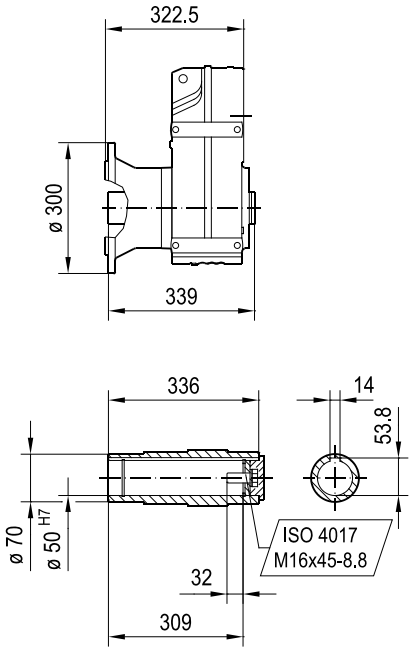
26883198/EN – 04/2022

FM77..

42 113 01 17



FAM77..

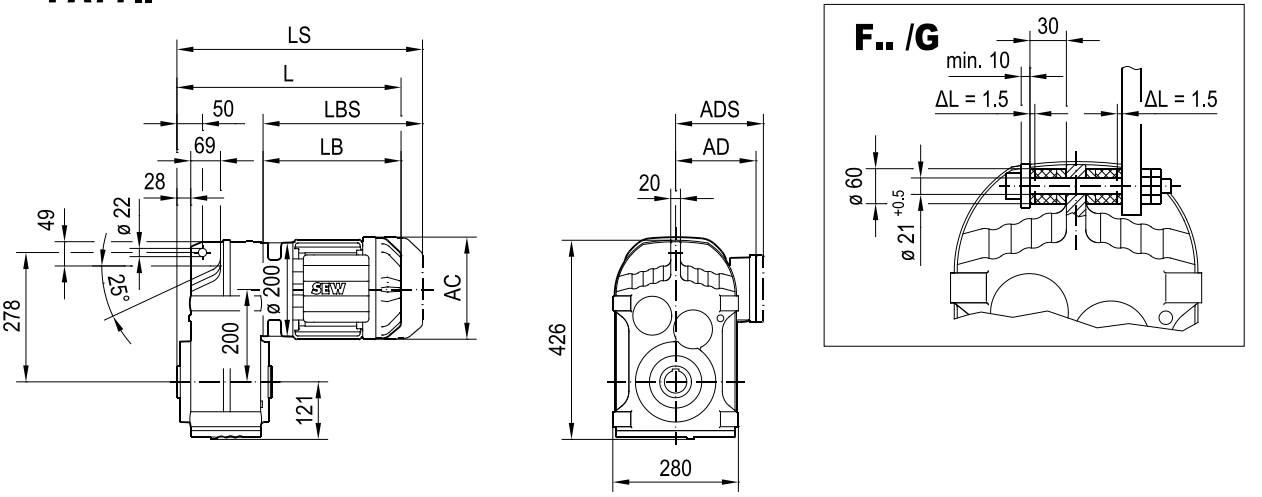


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	621	641	652	669	697	698	730	727	777	808	858	876	901	968
LS	688	708	733	750	778	792	824	820	870	920	970	1013	1038	1157
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

FA77..

42 046 00 14



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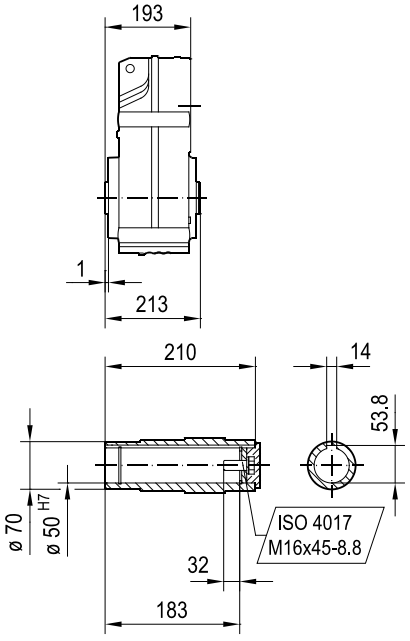
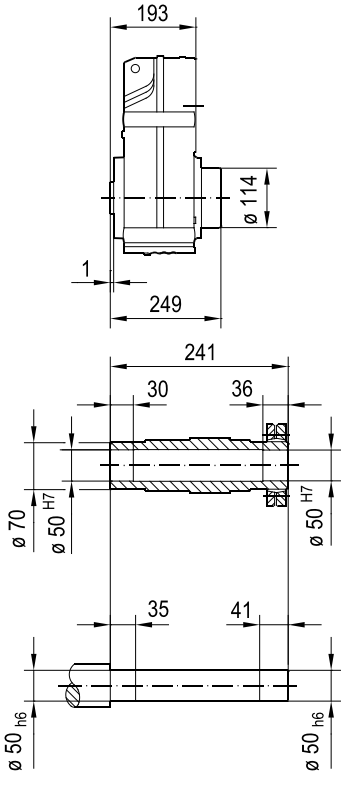


FH77..
max. DRN132L



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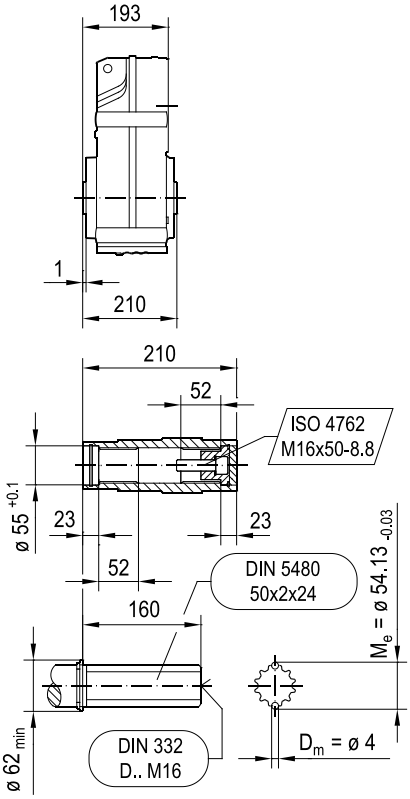
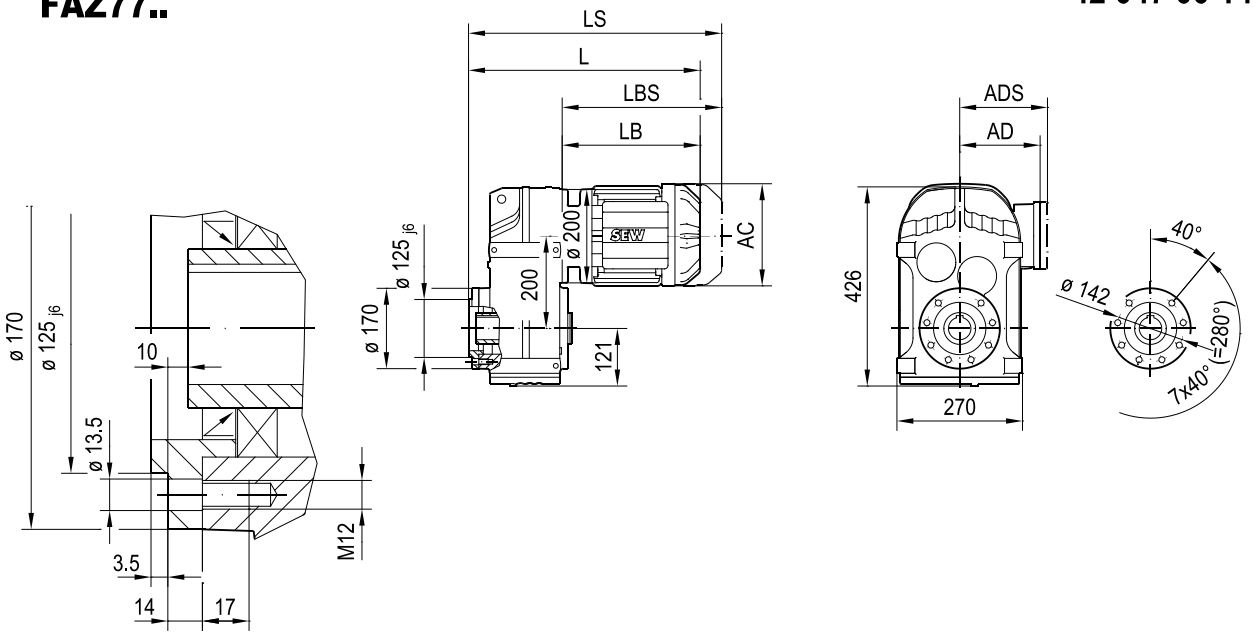


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	385	405	416	433	461	463	495	491	541	572	622	640	666	732
LS	453	473	497	514	542	556	588	585	635	684	734	778	803	921
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

FAZ77..

42 047 00 14



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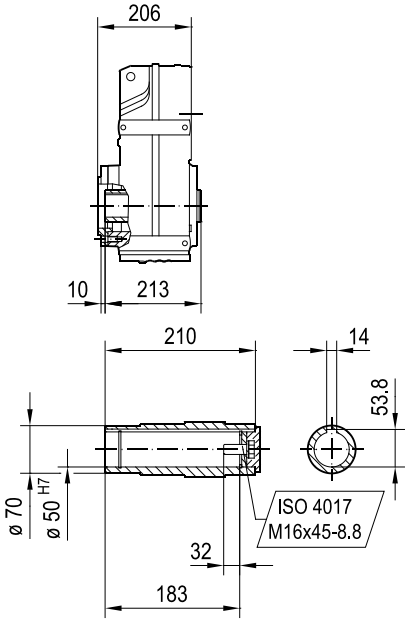

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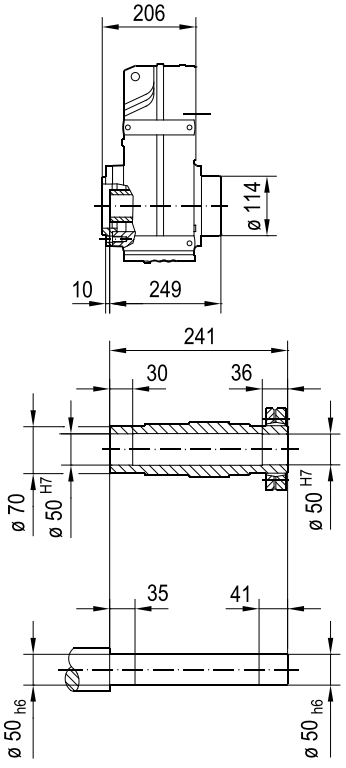
max. DRN132L



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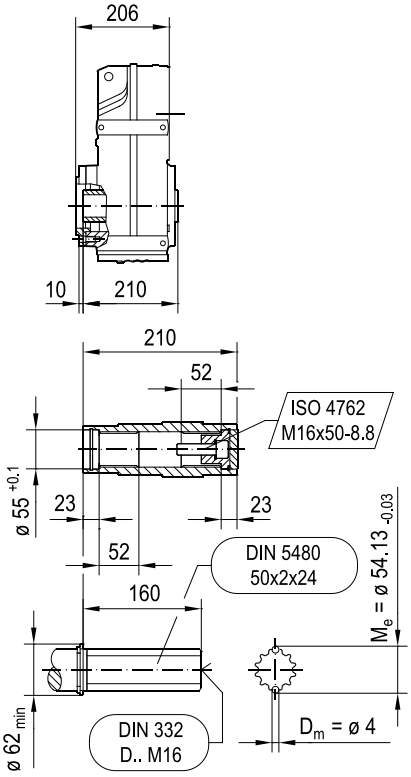
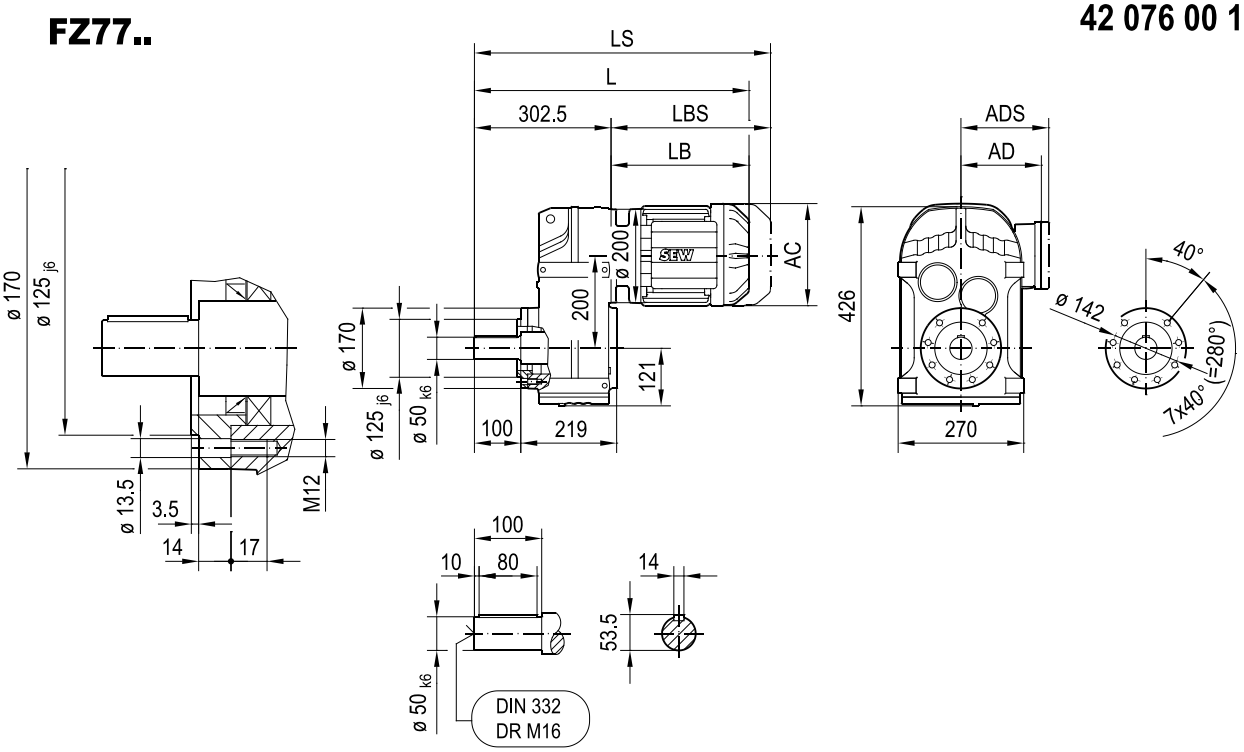


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	398	418	429	446	474	476	508	504	554	585	635	653	679	745
LS	466	486	510	527	555	569	601	598	648	697	747	791	816	934
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

FZ77..

42 076 00 15

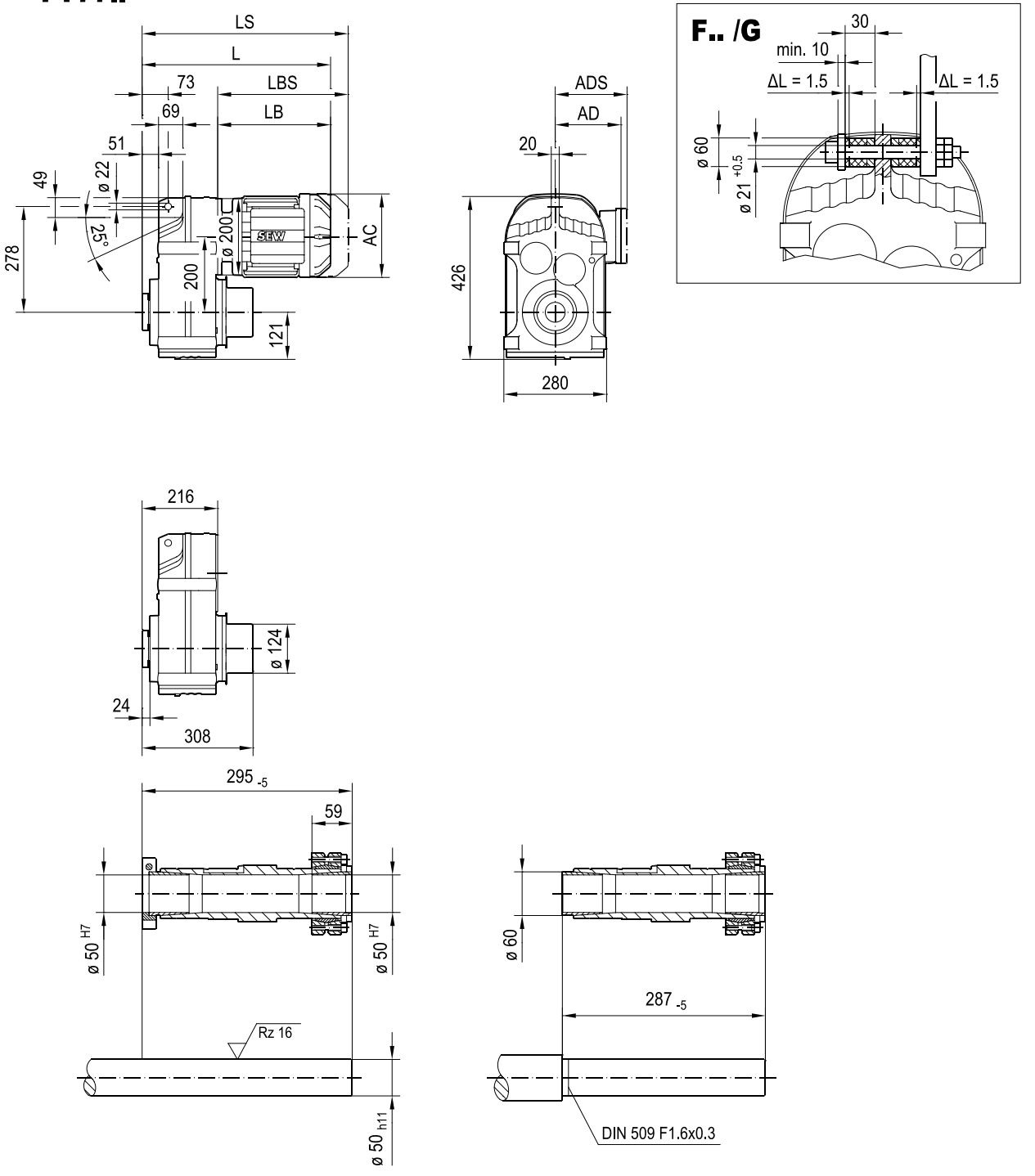


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	495	515	526	543	571	572	604	601	651	682	732	750	775	842
LS	562	582	607	624	652	666	698	694	744	794	844	887	912	1031
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

FT77..

42 048 01 14

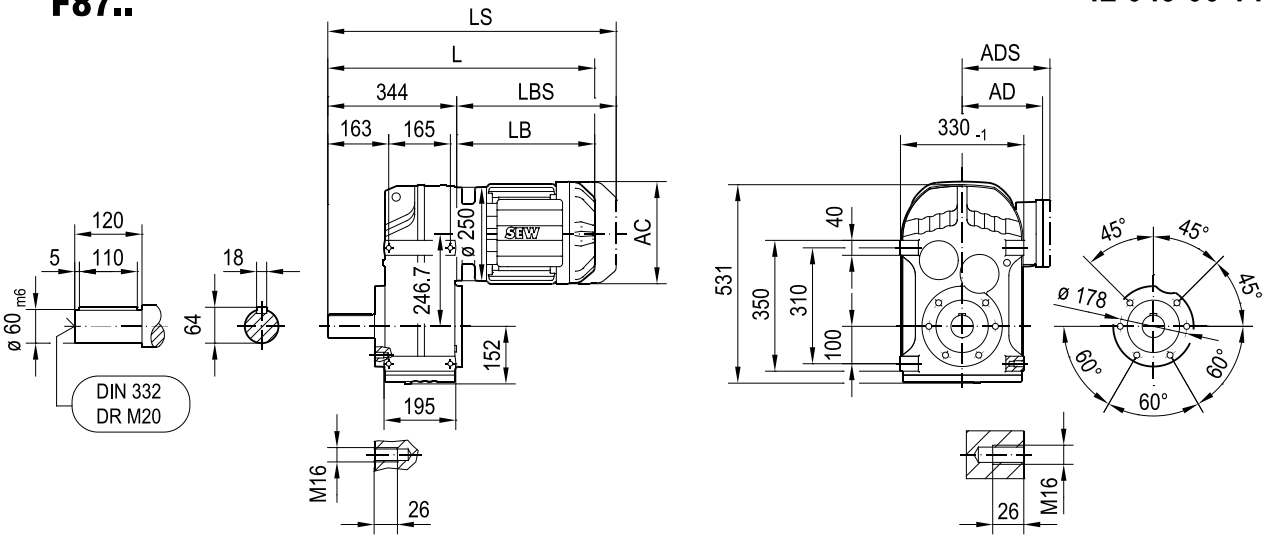


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	139	139	156	156	156	179	179	197	197	221	221	261	261
AD	118	118	128	128	128	140	140	157	157	170	170	228	228
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228
L	408	428	439	456	484	486	518	514	564	595	645	663	689
LS	476	496	520	537	565	579	611	608	658	707	757	801	826
LB	192	212	223	240	268	270	302	298	348	379	429	447	473
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610

26883198/EN – 04/2022

F87..

42 049 00 14



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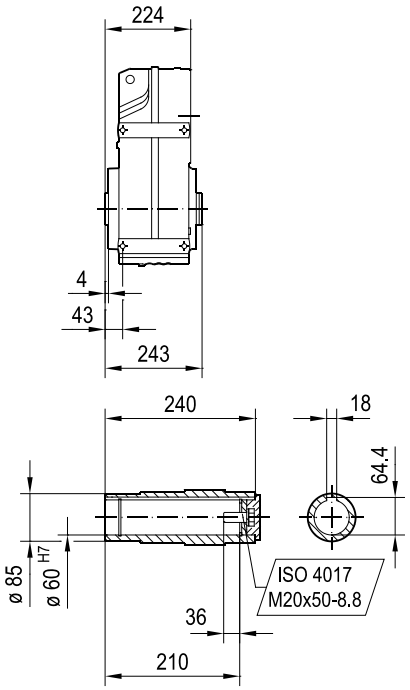
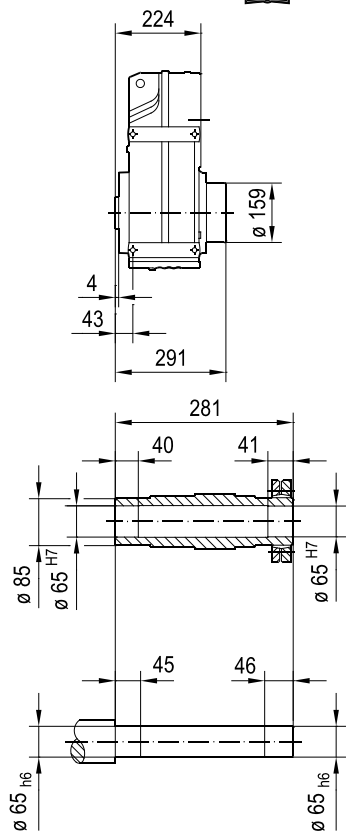


FH87B..

FH87B/R.. → 6.3



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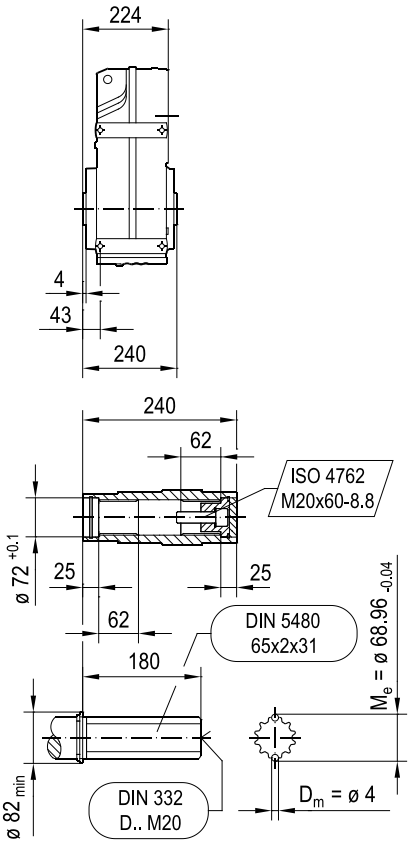
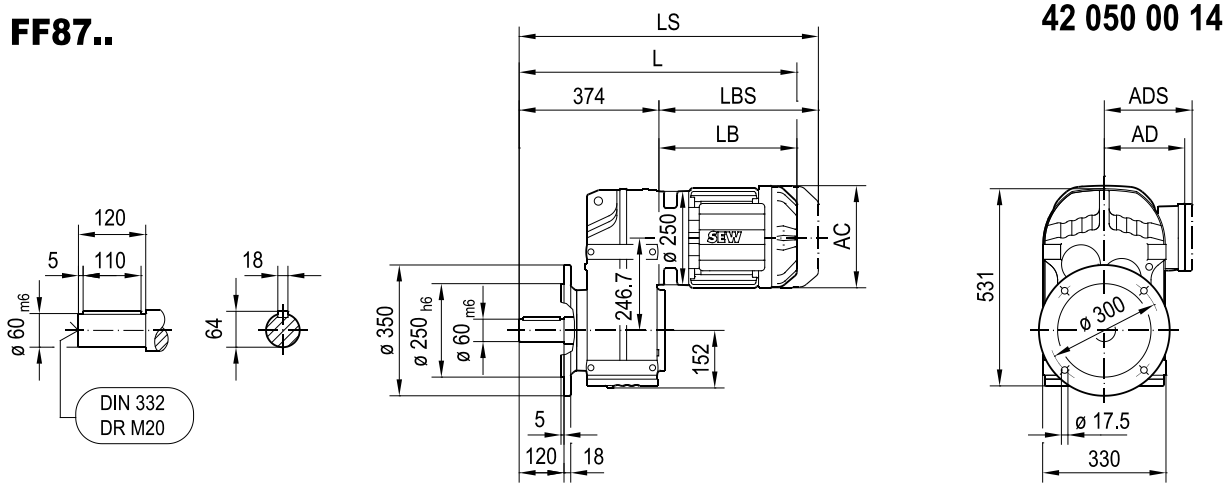


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	562	607	609	641	637	687	718	768	786	812	878	901	1011
LS	643	688	702	734	731	781	830	880	924	949	1067	1090	1216
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

FF87..

42 050 00 14



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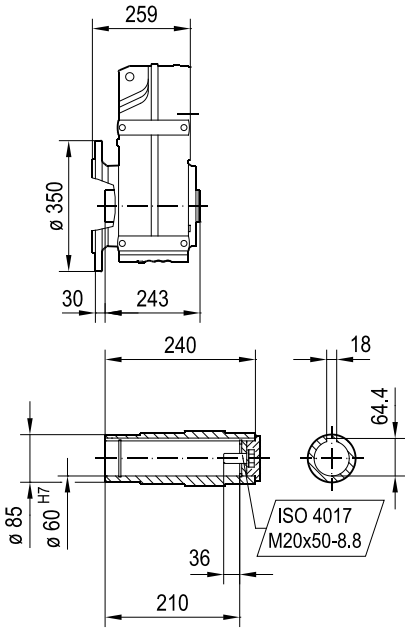
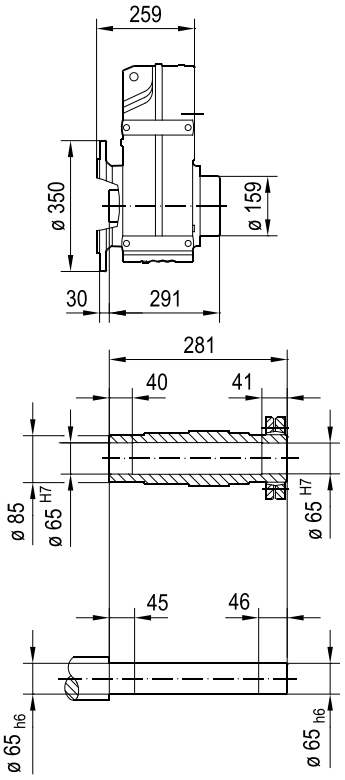


FHF87..

FHF87/R.. → 6.3



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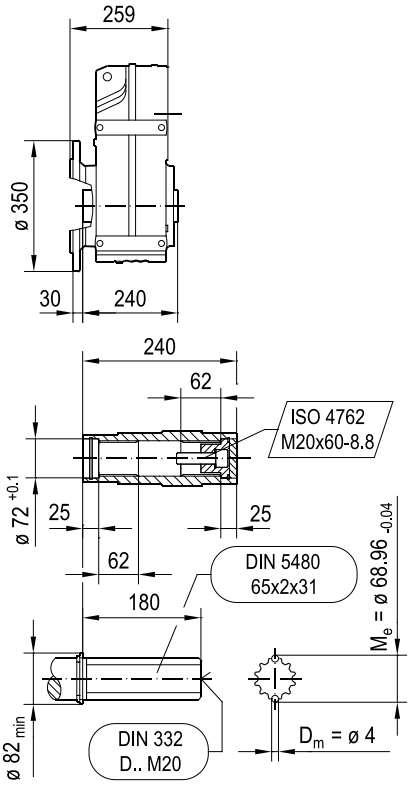
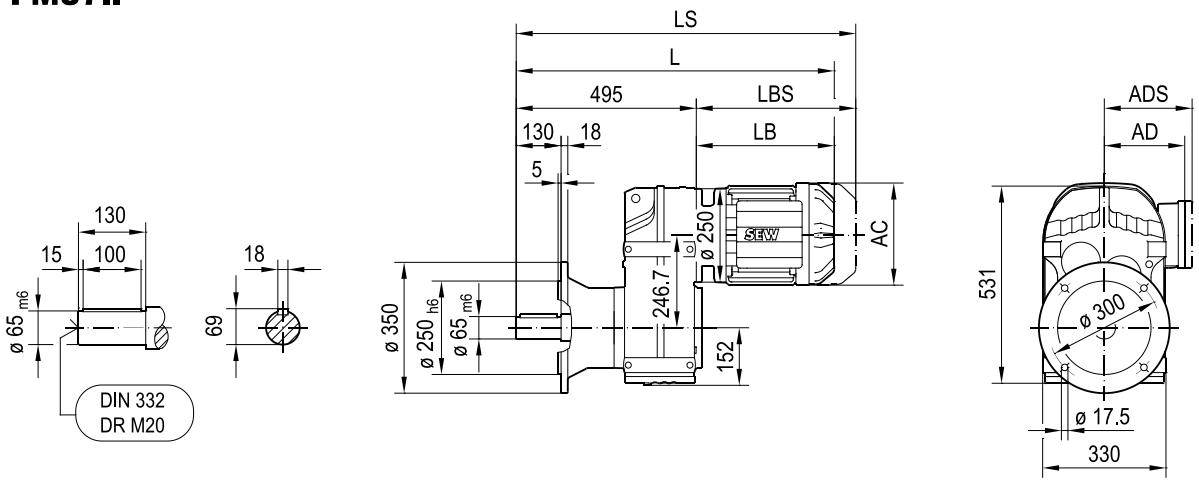


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	592	637	639	671	667	717	748	798	816	842	908	931	1041
LS	673	718	732	764	761	811	860	910	954	979	1097	1120	1246
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

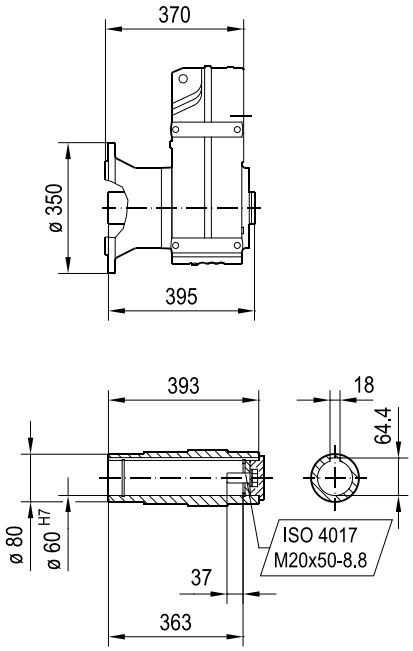
26883198/EN – 04/2022

FM87..

42 114 01 17



FAM87..

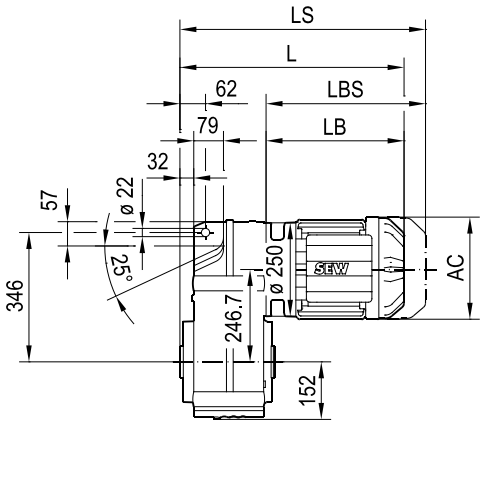


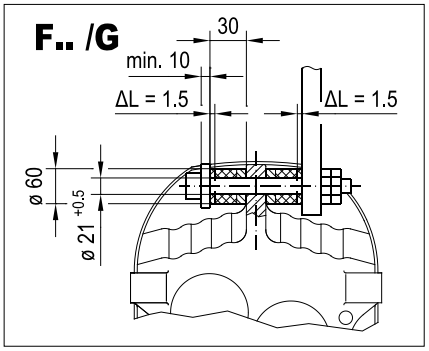
(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	713	758	760	792	788	838	869	919	937	963	1029	1052	1162
LS	794	839	853	885	882	932	981	1031	1075	1100	1218	1241	1367
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

FA87..

42 051 00 14





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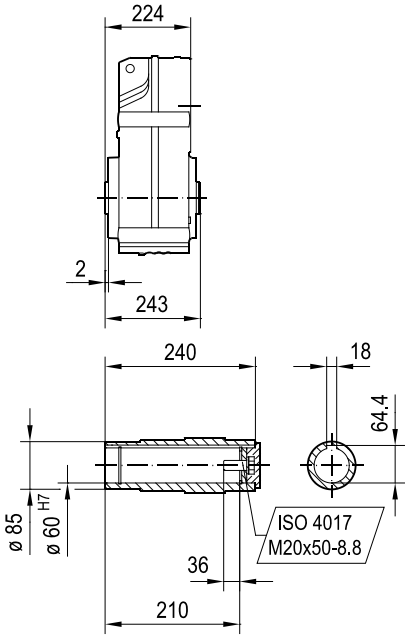
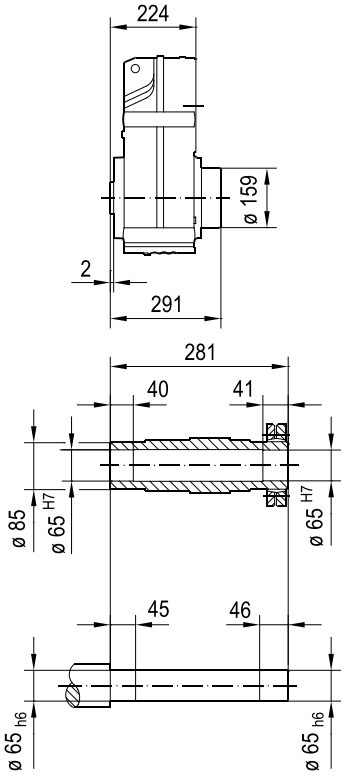


FH87..

FH87/R.. → 📖 6.3



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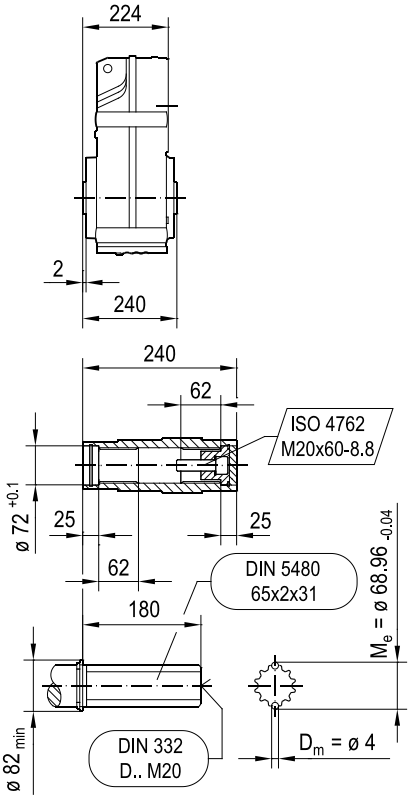
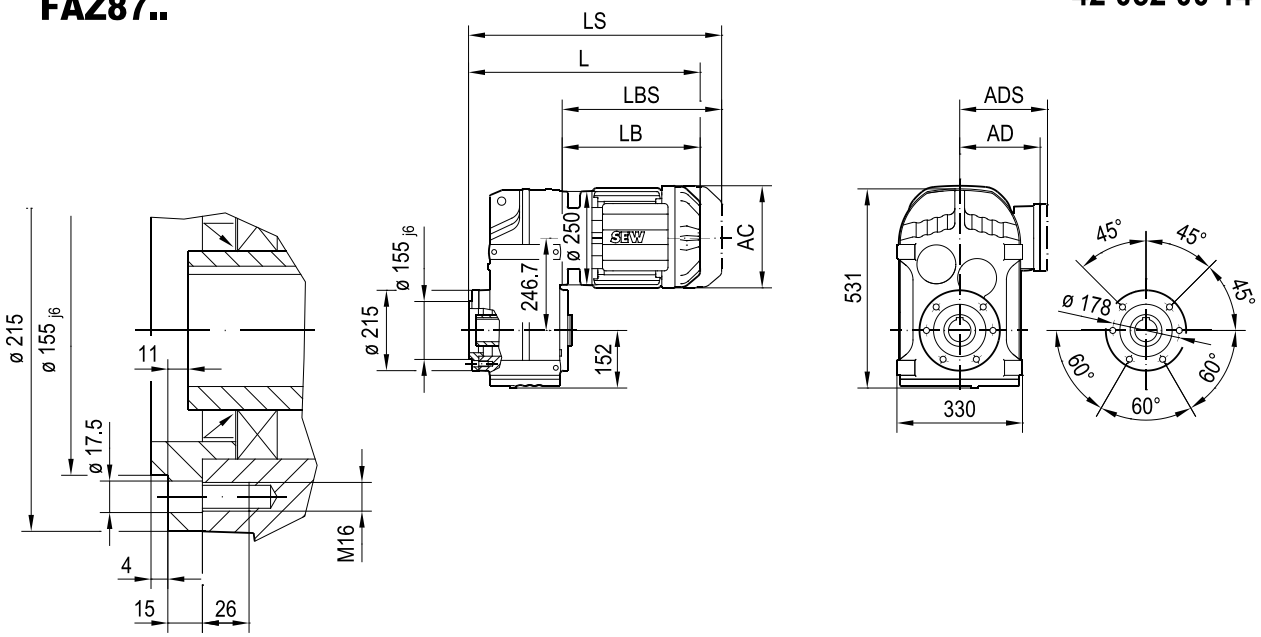


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	442	487	489	521	517	567	598	648	666	692	758	781	891
LS	523	568	582	614	611	661	710	760	804	829	947	970	1096
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

FAZ87..

42 052 00 14



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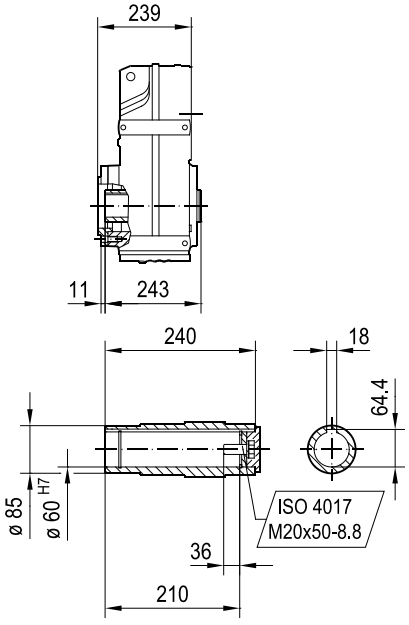
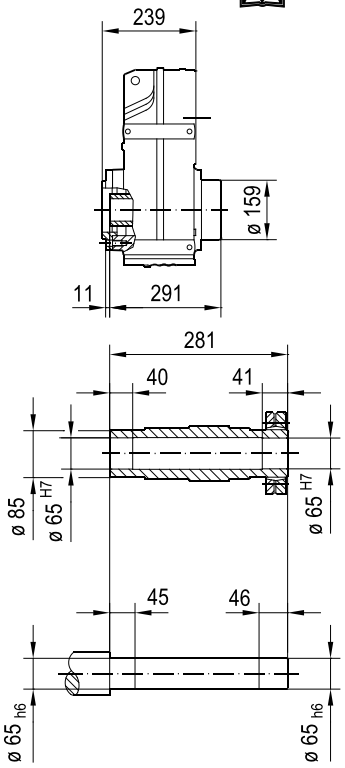


FHZ87..

FHZ87/R.. → 6.3



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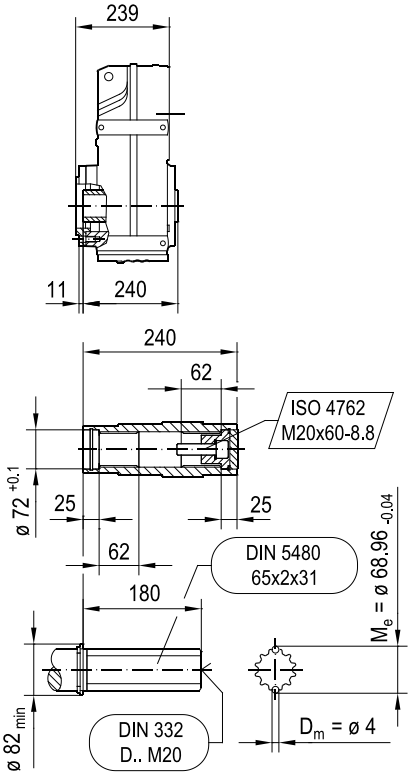
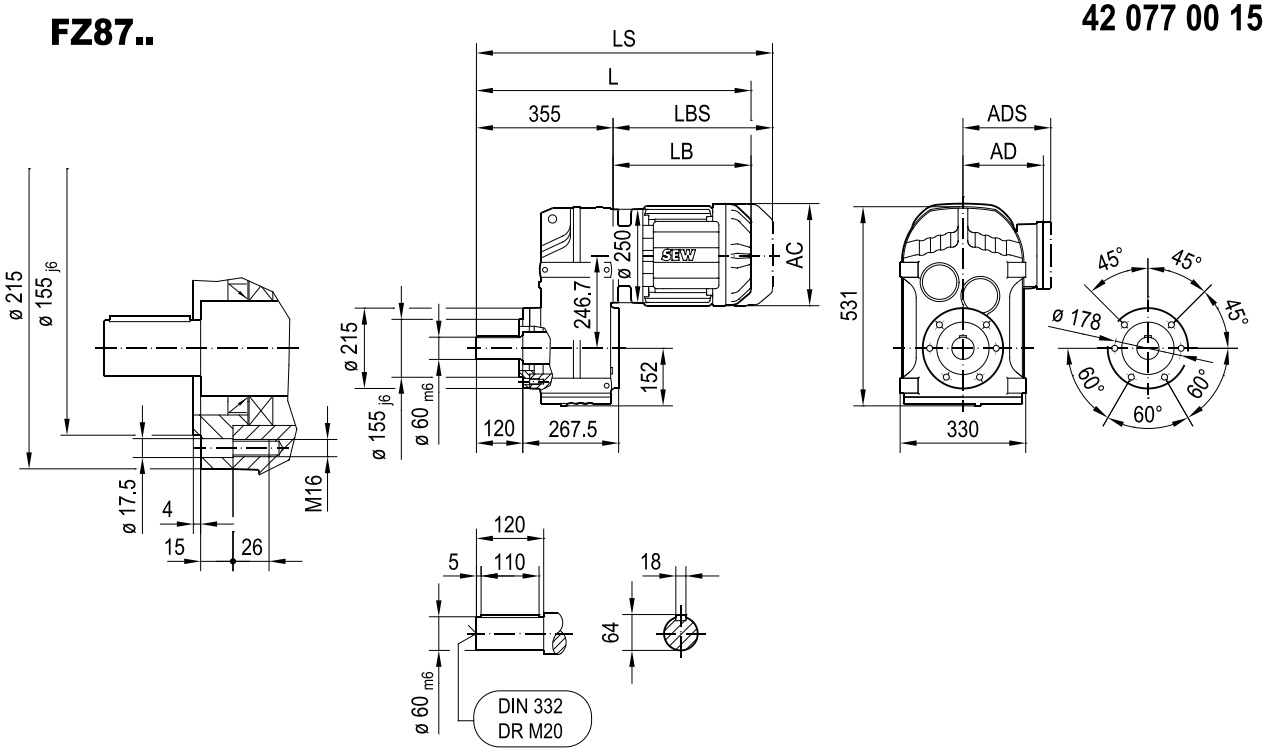


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	457	502	504	536	532	582	613	663	681	707	773	796	906
LS	538	583	597	629	626	676	725	775	819	844	962	985	1111
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

FZ87..

42 077 00 15

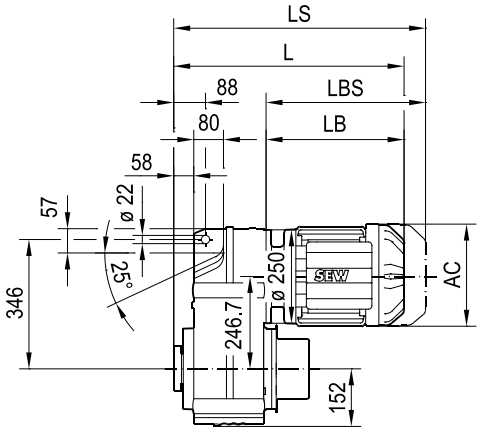


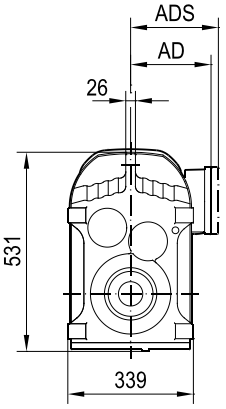
(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	573	618	620	652	648	698	729	779	797	823	889	912	1022
LS	654	699	713	745	742	792	841	891	935	960	1078	1101	1227
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

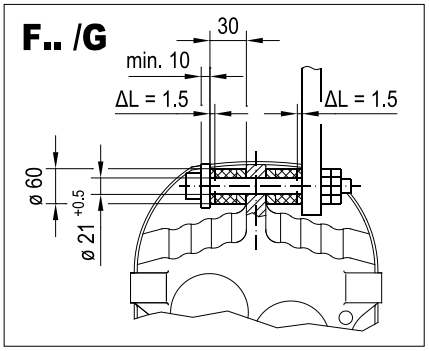
26883198/EN – 04/2022

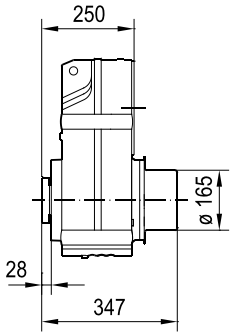
FT87..

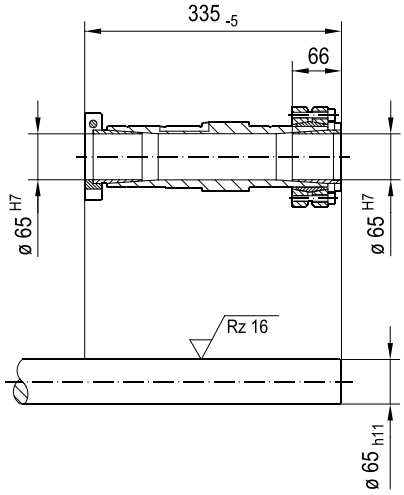
42 053 01 14

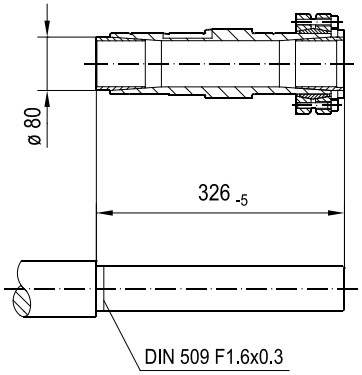












(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	468	513	515	547	543	593	624	674	692	718	784	807	917
LS	549	594	608	640	637	687	736	786	830	855	973	996	1122
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

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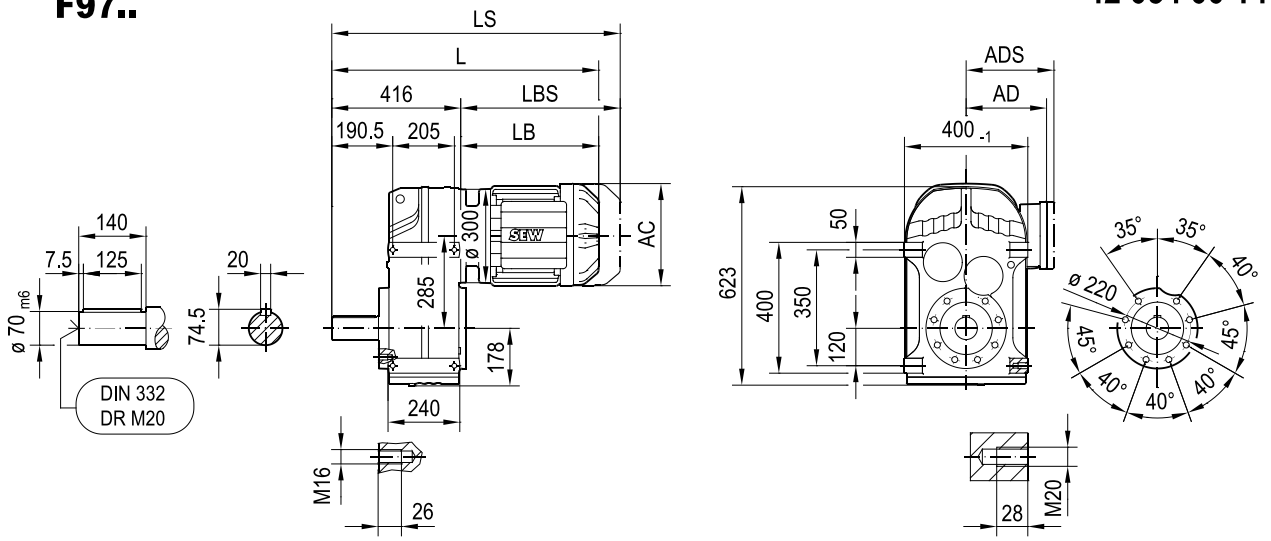
42 054 00 14



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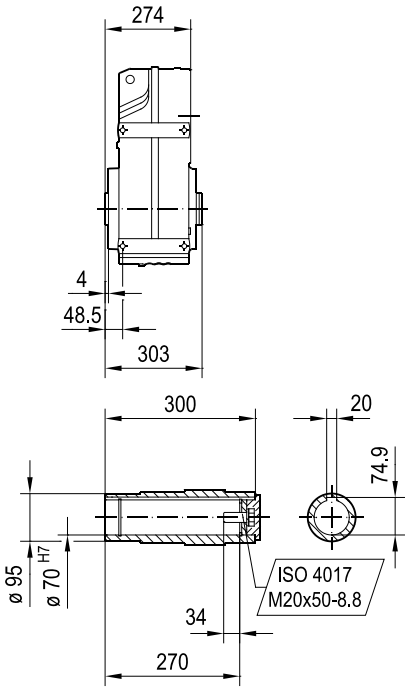

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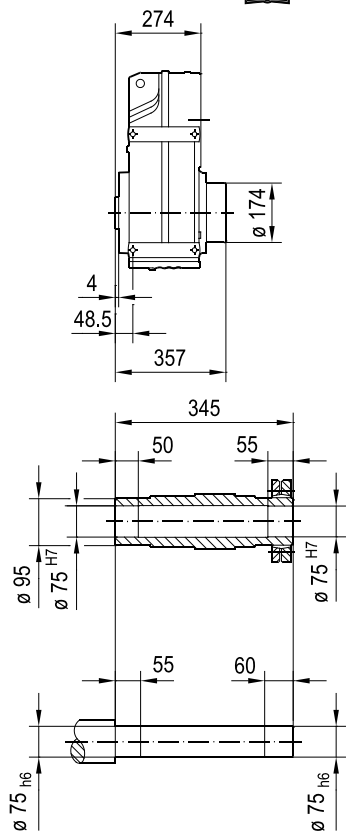
FH97B/R.. → 6.3



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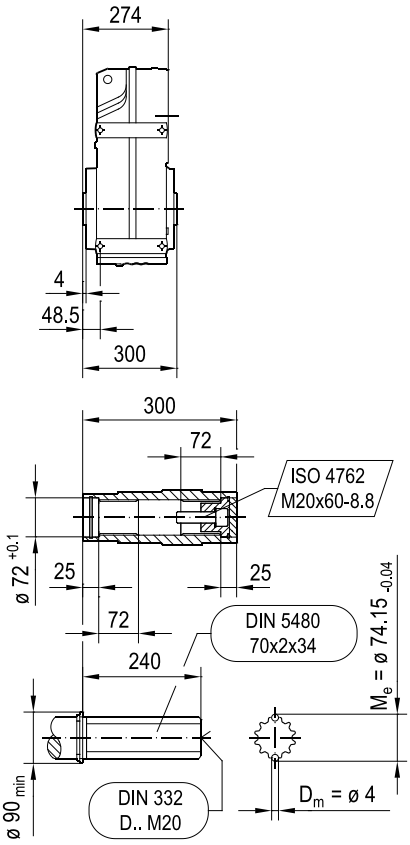
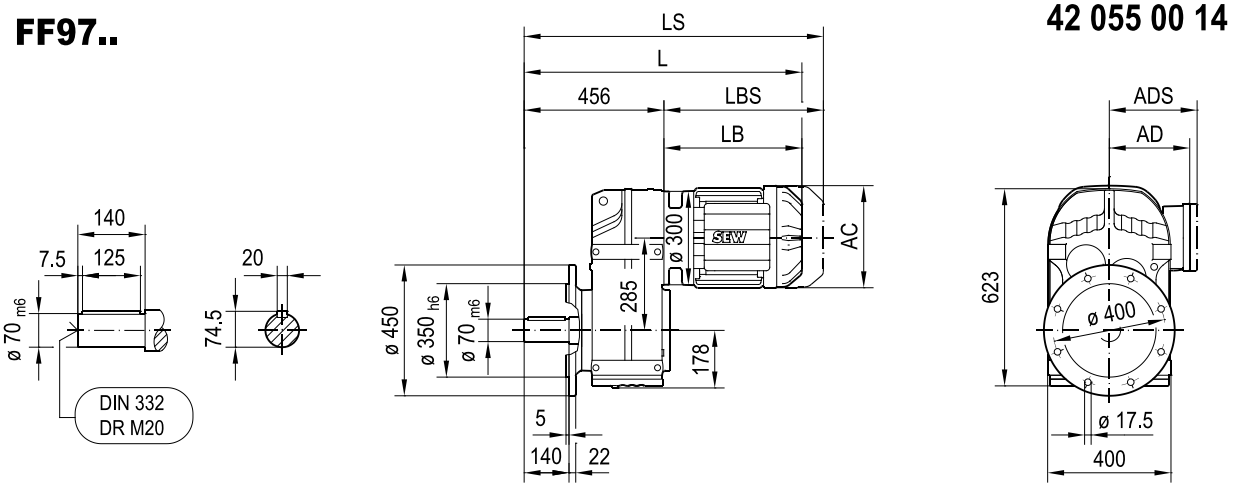


(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	674	676	708	704	754	785	835	853	879	945	968	1078	1052
LS	755	769	801	798	848	897	947	991	1016	1134	1157	1283	1257
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

FF97..

42 055 00 14



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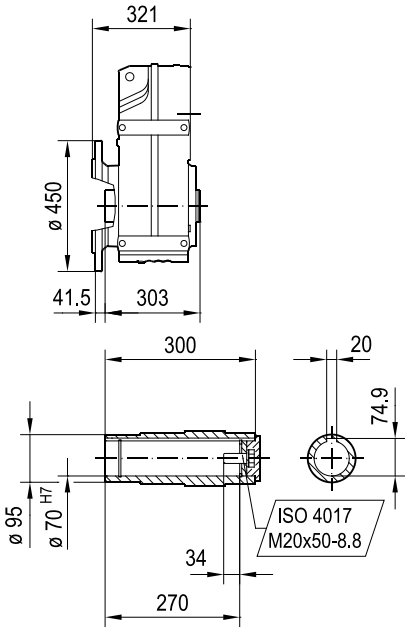

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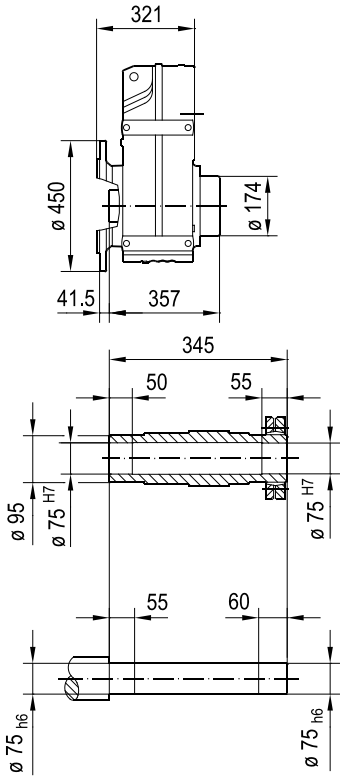
FHF97/R.. → 6.3



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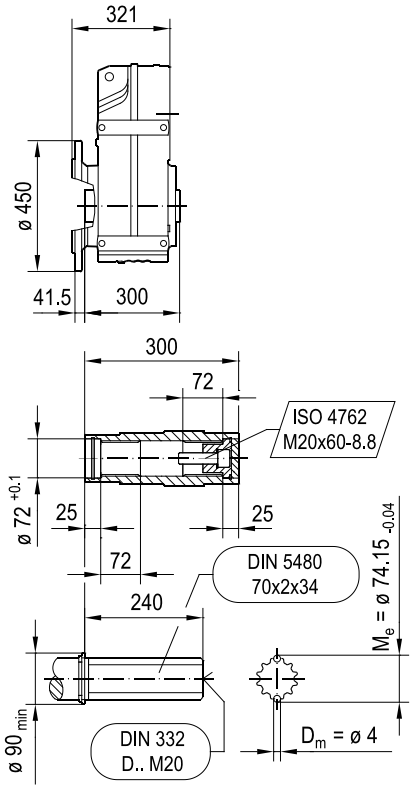
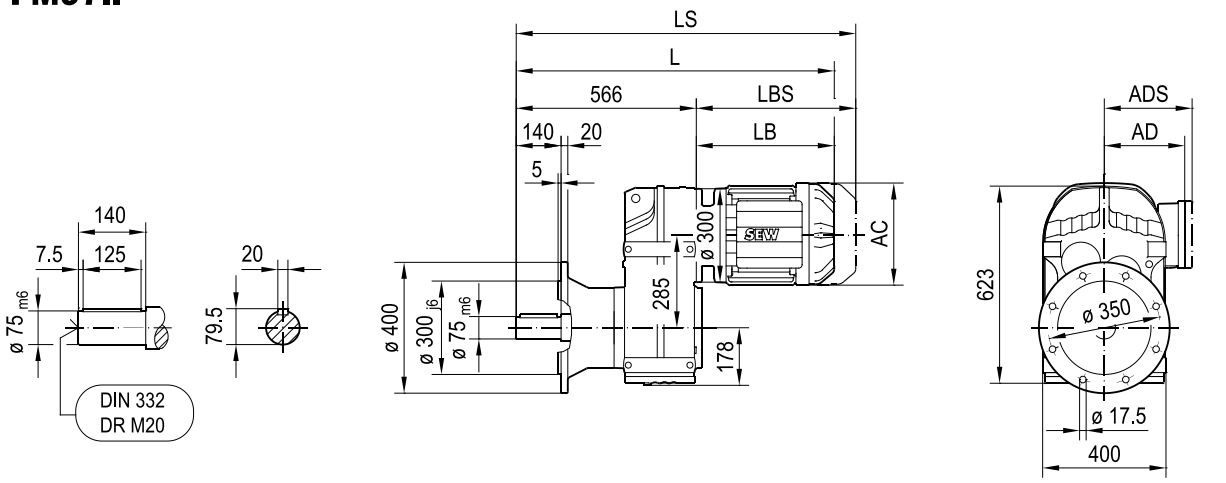


(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	714	716	748	744	794	825	875	893	919	985	1008	1118	1092
LS	795	809	841	838	888	937	987	1031	1056	1174	1197	1323	1297
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

FM97..

42 115 00 17



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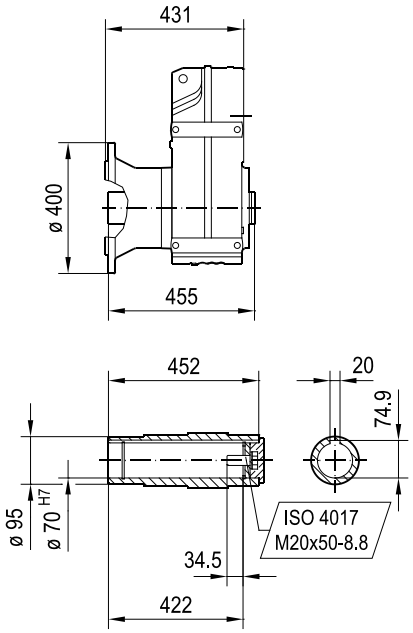
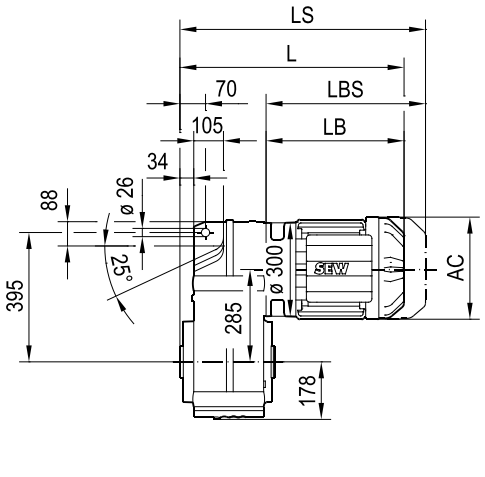


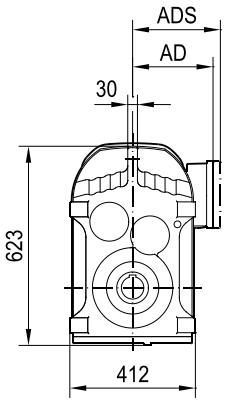
(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	824	826	858	854	904	935	985	1003	1029	1095	1118	1228	1202
LS	905	919	951	948	998	1047	1097	1141	1166	1284	1307	1433	1407
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

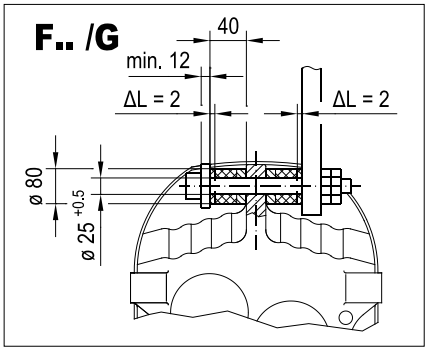
26883198/EN – 04/2022

FA97..

42 056 00 14







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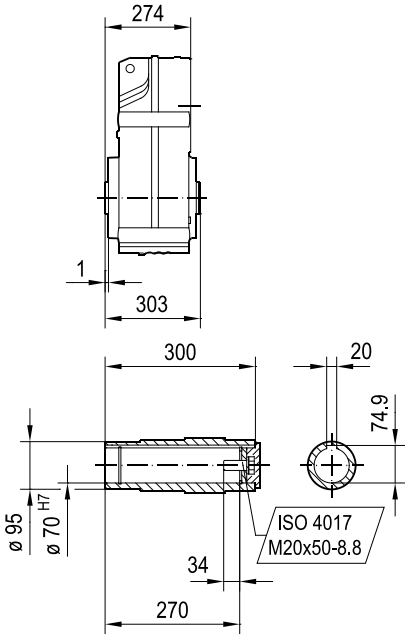

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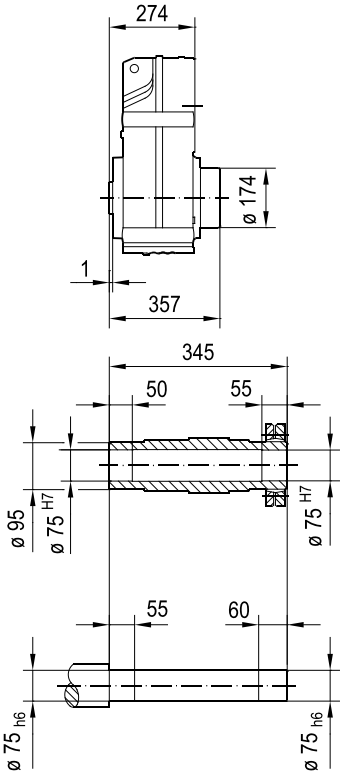
FH97/R.. → 📖 6.3



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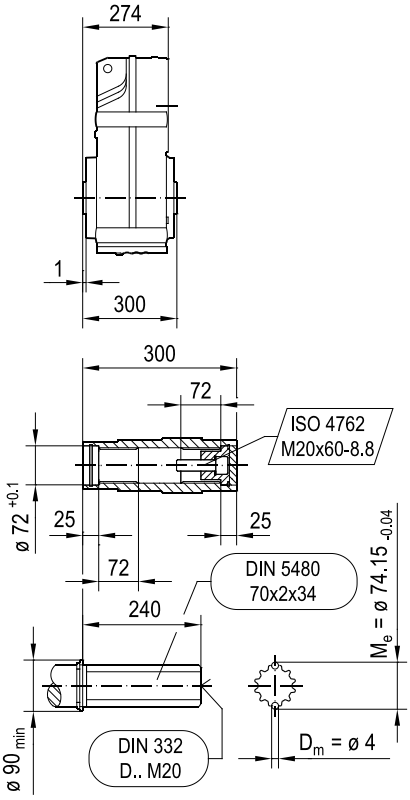

(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	532	534	566	562	612	643	693	711	737	803	826	936	910
LS	613	627	659	656	706	755	805	849	874	992	1015	1141	1115
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

FAZ97..

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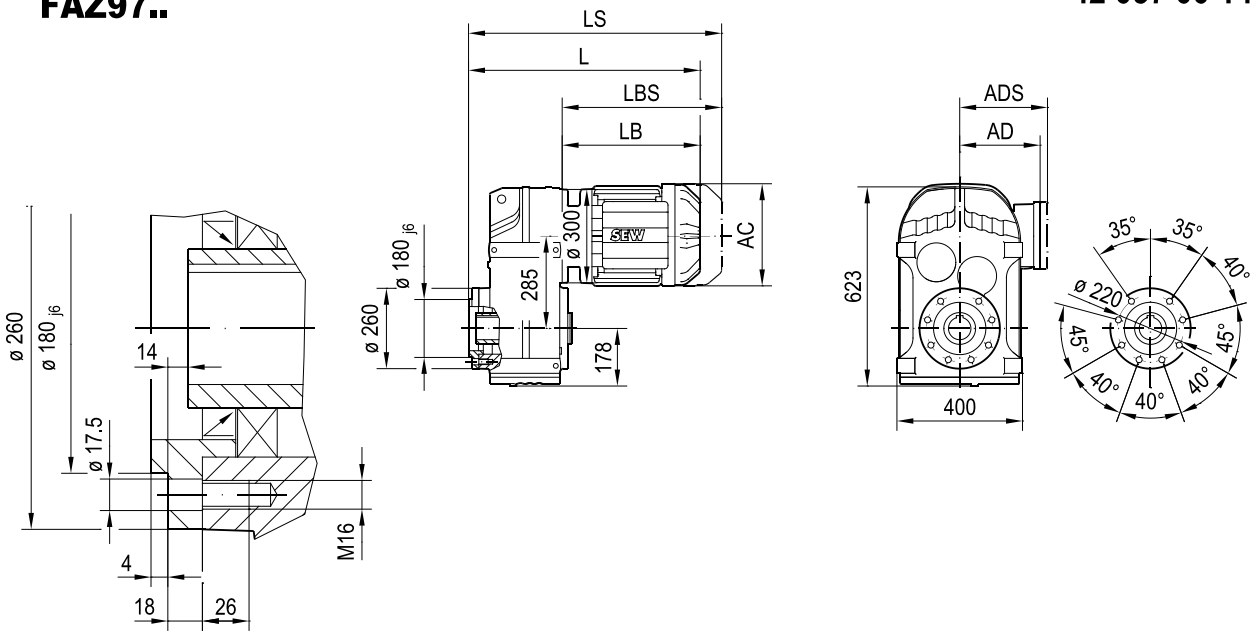

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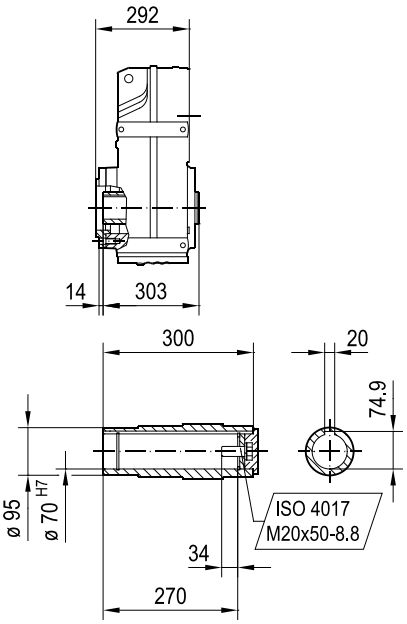

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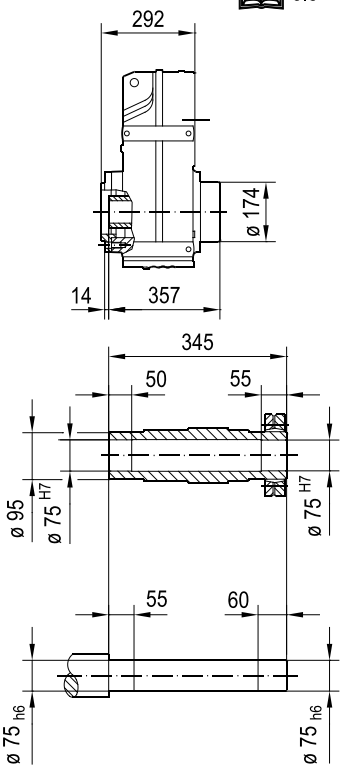

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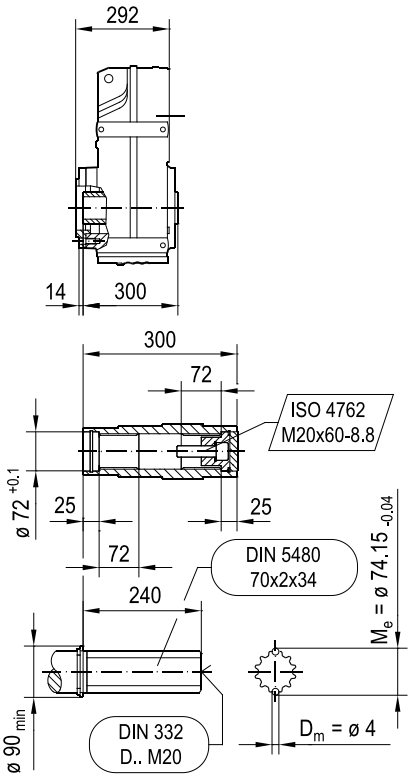

(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	550	552	584	580	630	661	711	729	755	821	844	954	928
LS	631	645	677	674	724	773	823	867	892	1010	1033	1159	1133
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

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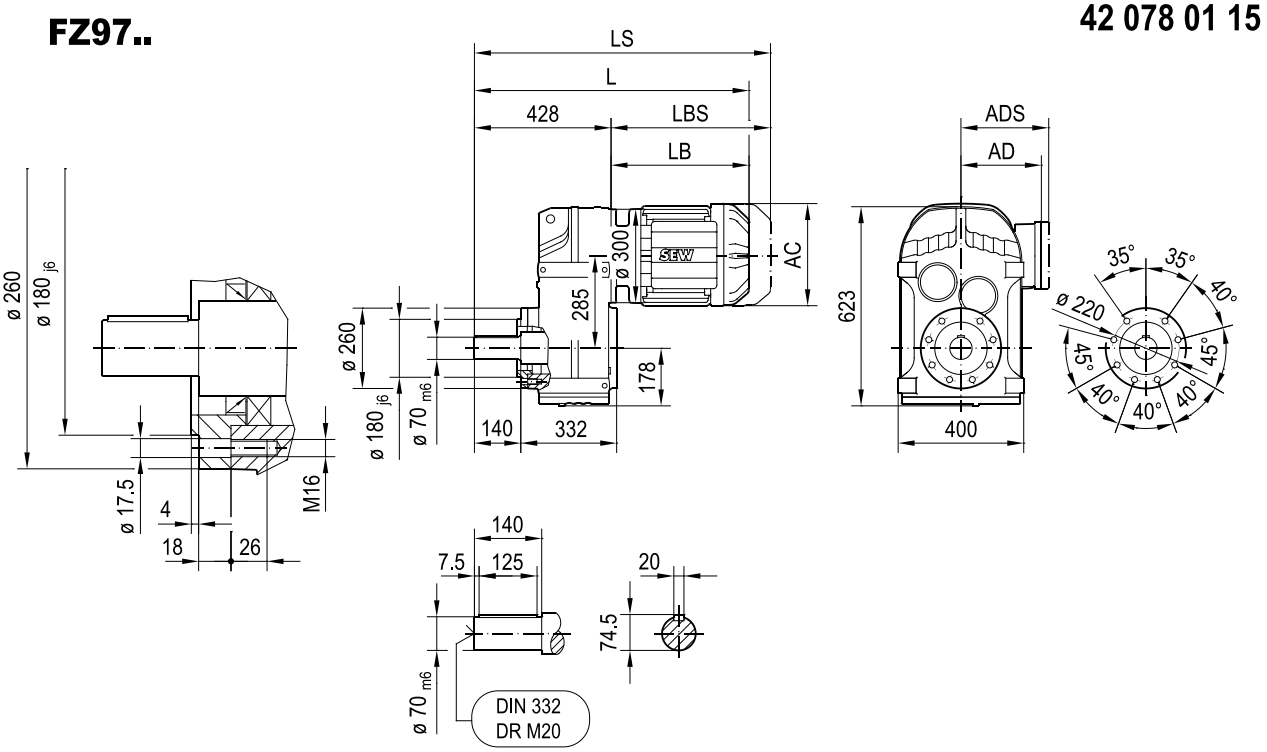
42 078 01 15



(→ 📖 7.3)	DRN												
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	150	150	158	158	172	172	228	228	253	268	283	305
L	686	688	720	716	766	797	847	865	891	957	980	1090	1064
LS	767	781	813	810	860	909	959	1003	1028	1146	1169	1295	1269
LB	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

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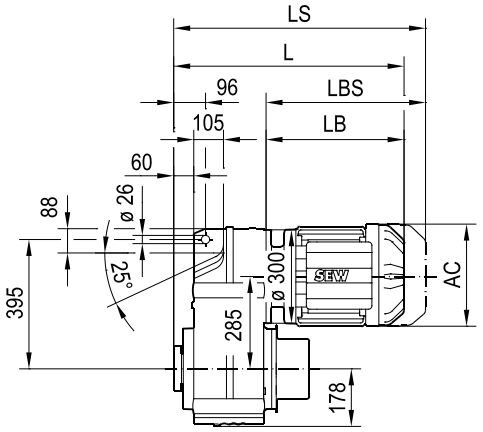
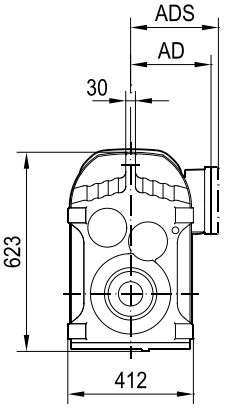
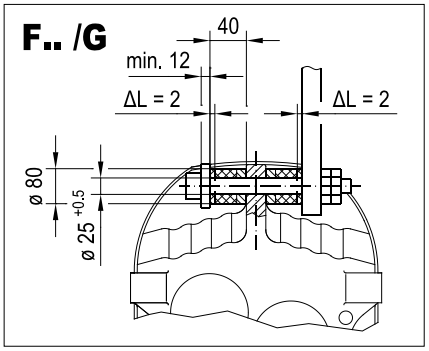
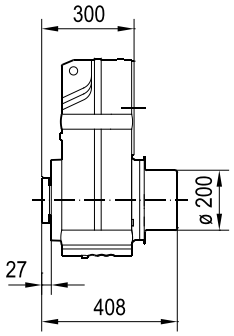
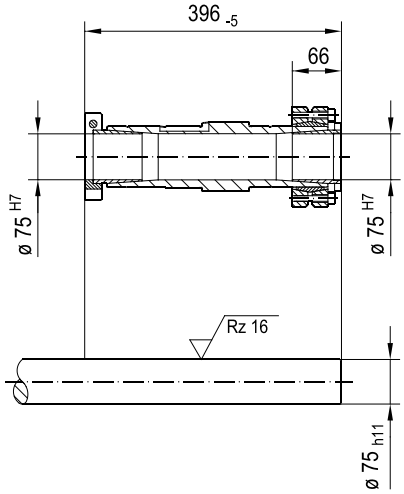
42 058 01 14

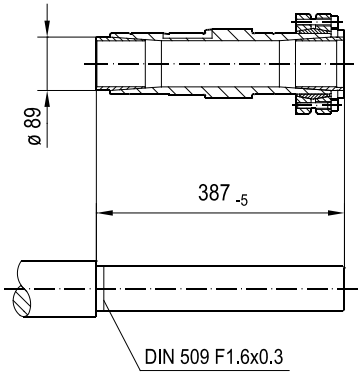










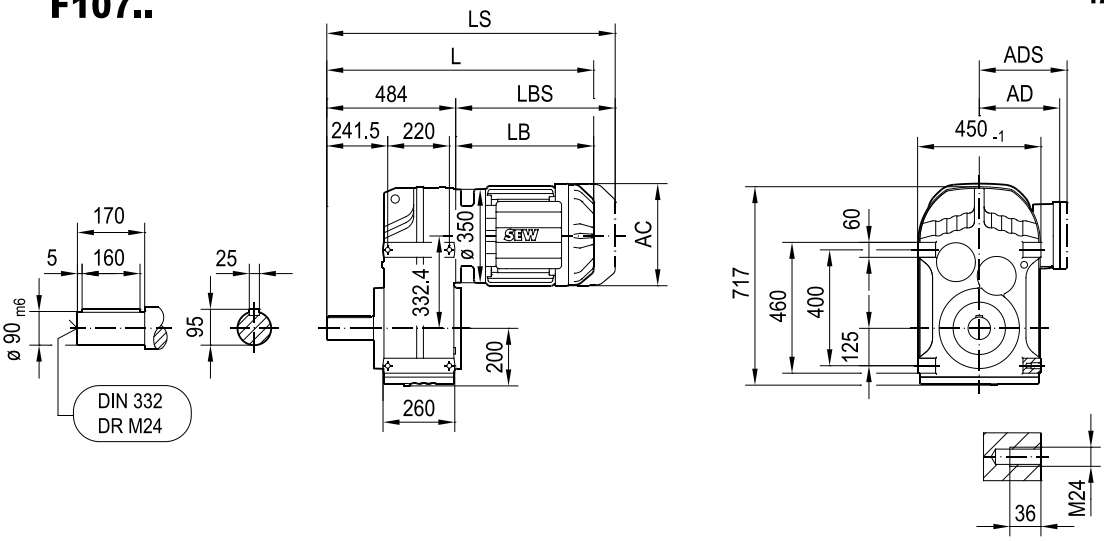


(→ 📖 7.3)	DRN										
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	179	179	197	197	221	221	261	261	314	357
AD	128	140	140	157	157	170	170	228	228	253	268
ADS	139	150	150	158	158	172	172	228	228	253	268
L	558	560	592	588	638	669	719	737	763	829	852
LS	639	653	685	682	732	781	831	875	900	1018	1041
LB	258	260	292	288	338	369	419	437	463	529	552
LBS	339	353	385	382	432	481	531	575	600	718	741

26883198/EN – 04/2022

F107..

42 059 00 14



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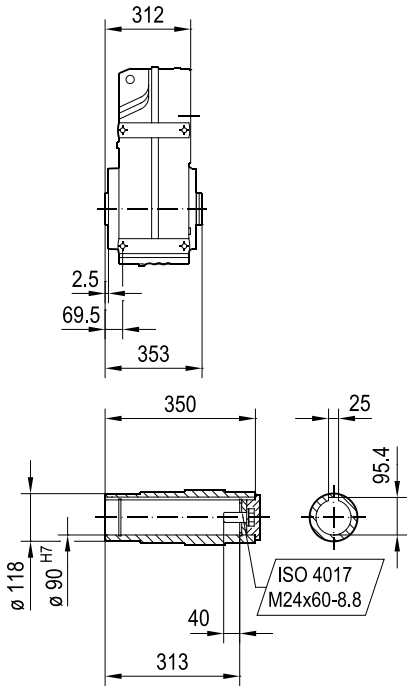

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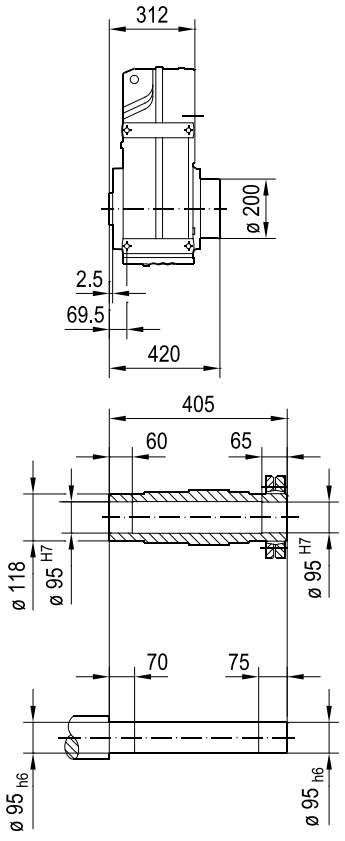

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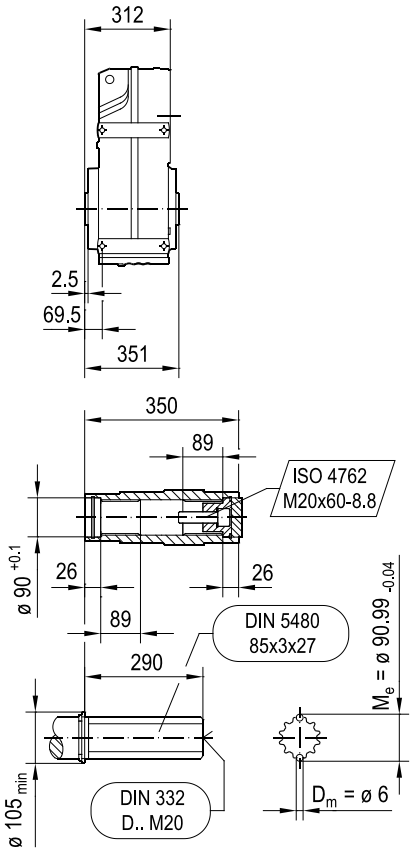
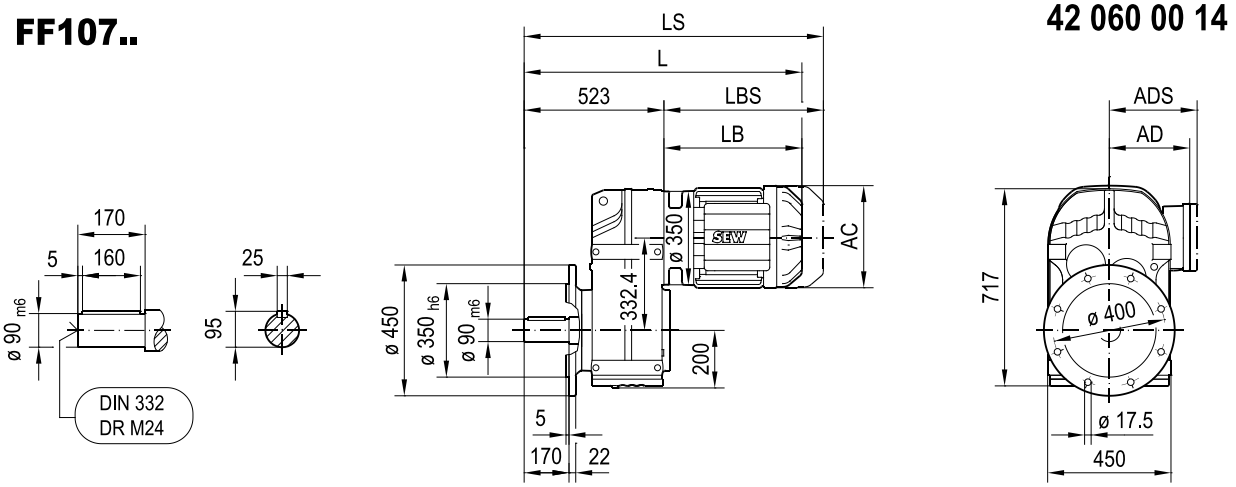


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	766	816	847	897	915	941	1007	1030	1140	1114	1251
LS	860	910	959	1009	1053	1078	1196	1219	1345	1319	1491
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

FF107..

42 060 00 14



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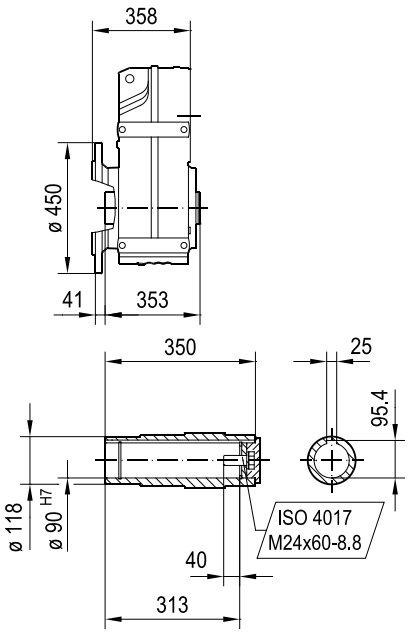

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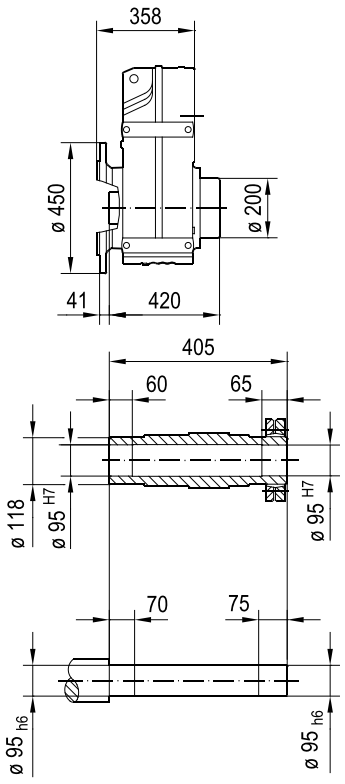

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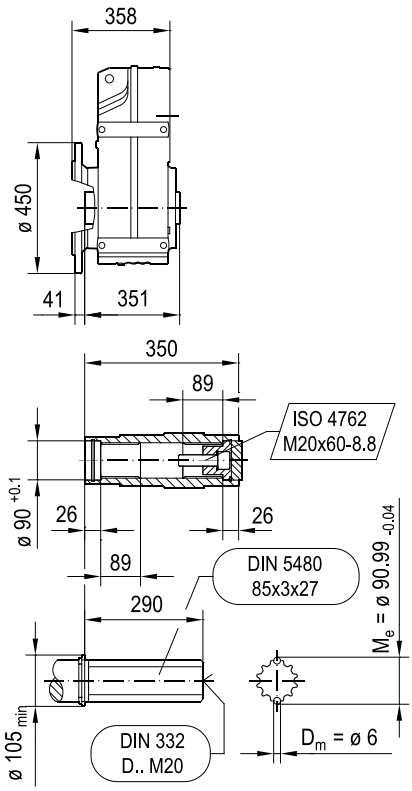
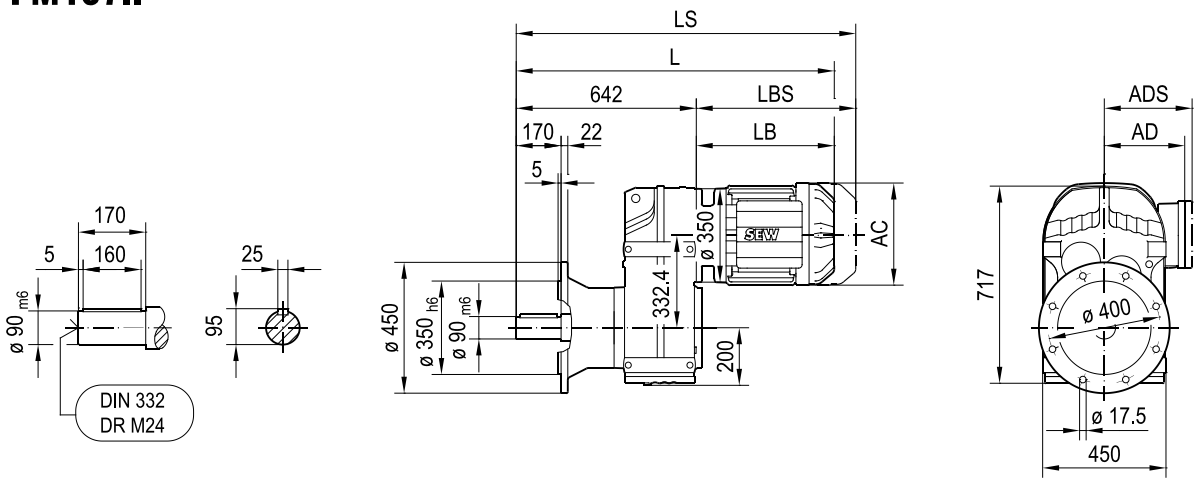


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	805	855	886	936	954	980	1046	1069	1179	1153	1290
LS	899	949	998	1048	1092	1117	1235	1258	1384	1358	1530
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

FM107..

42 116 00 17



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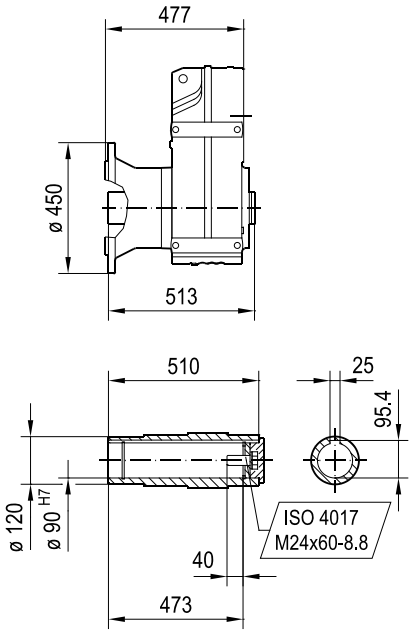
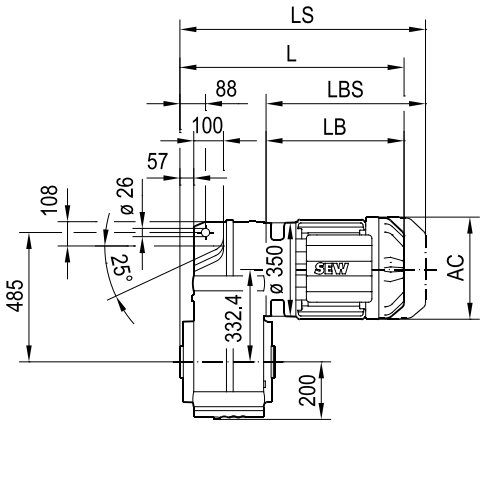


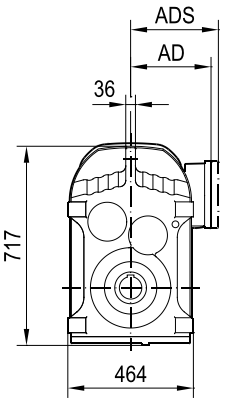
(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	924	974	1005	1055	1073	1099	1165	1188	1298	1272	1409
LS	1018	1068	1117	1167	1211	1236	1354	1377	1503	1477	1649
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

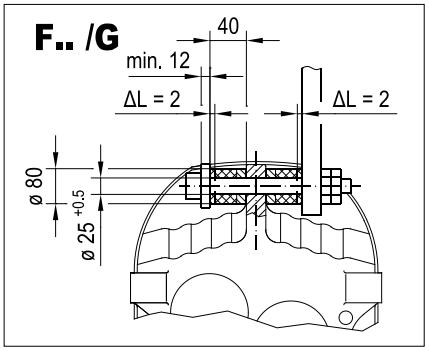
26883198/EN – 04/2022

FA107..

42 061 00 14







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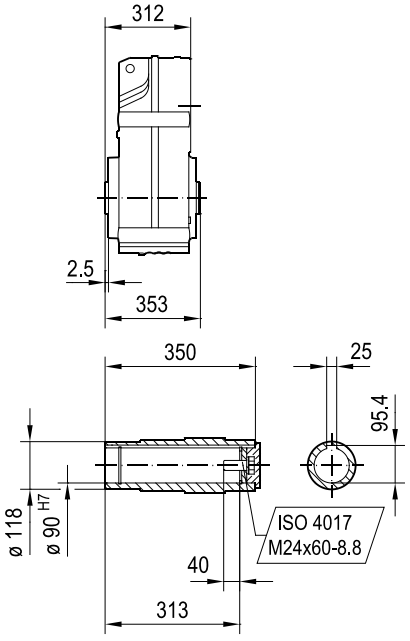

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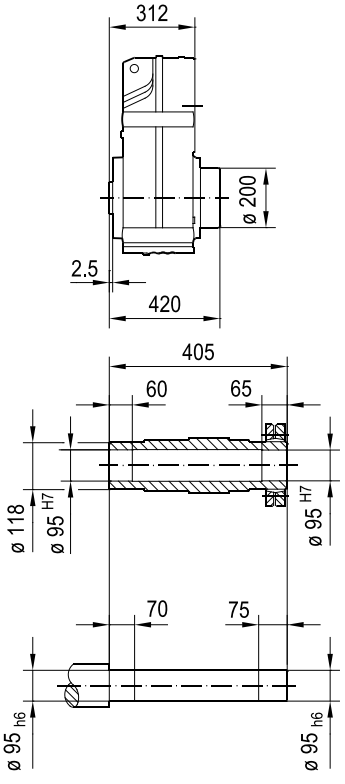

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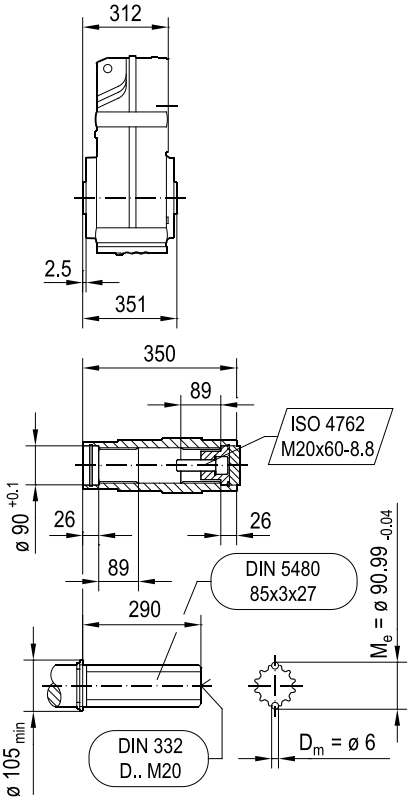
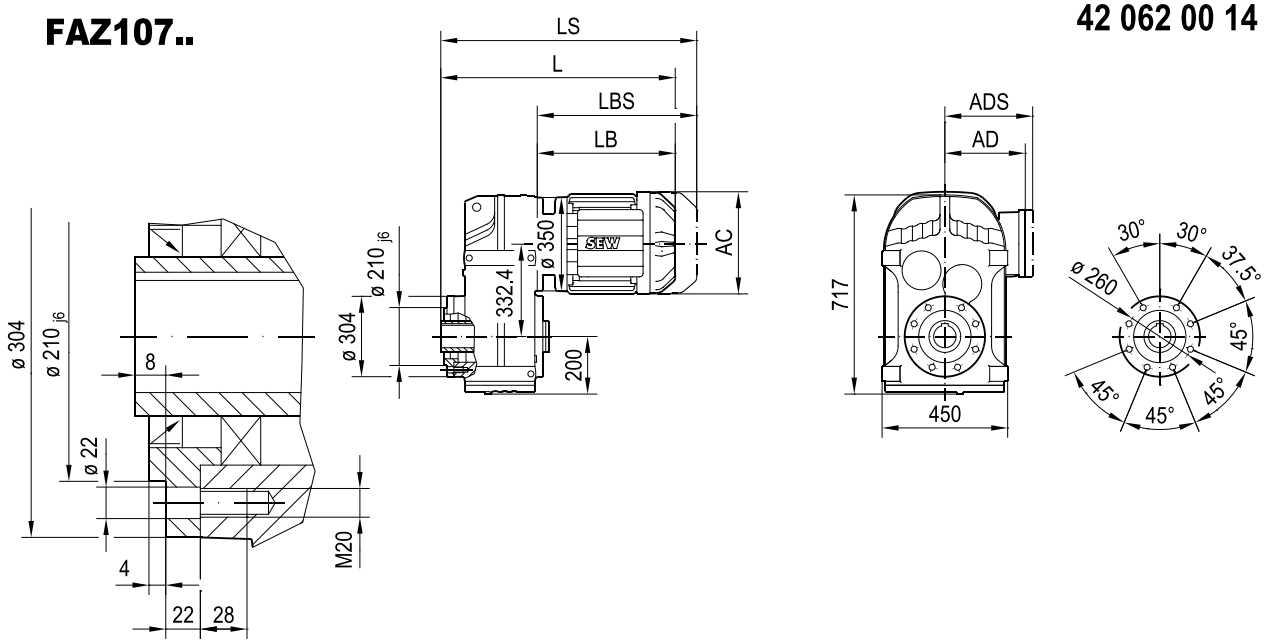


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	594	644	675	725	743	769	835	858	968	942	1079
LS	688	738	787	837	881	906	1024	1047	1173	1147	1319
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

FAZ107..

42 062 00 14



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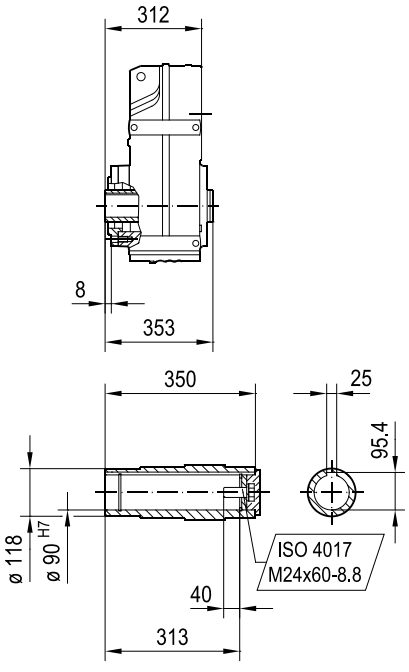

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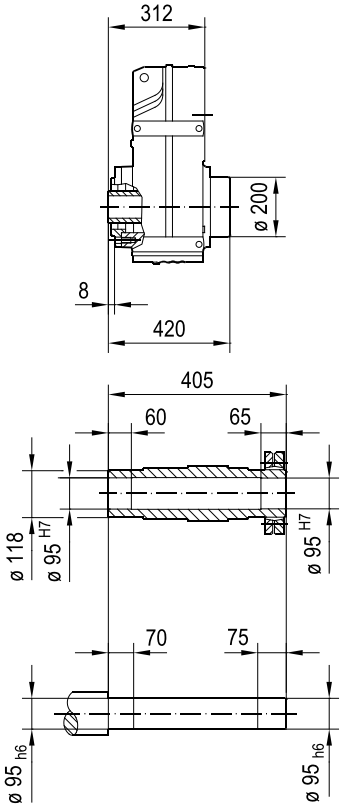

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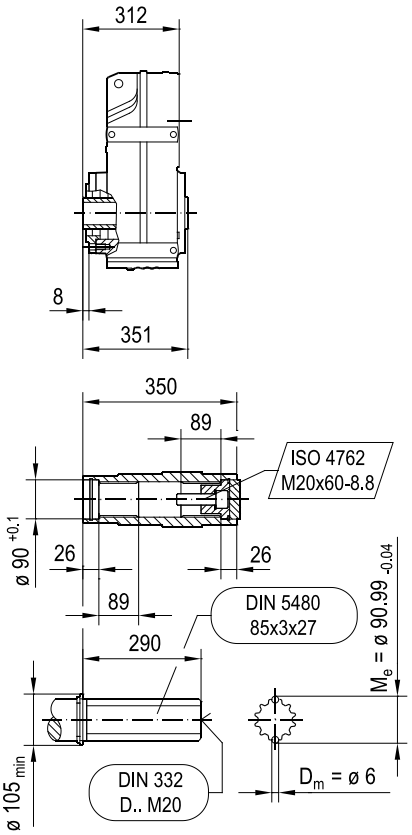
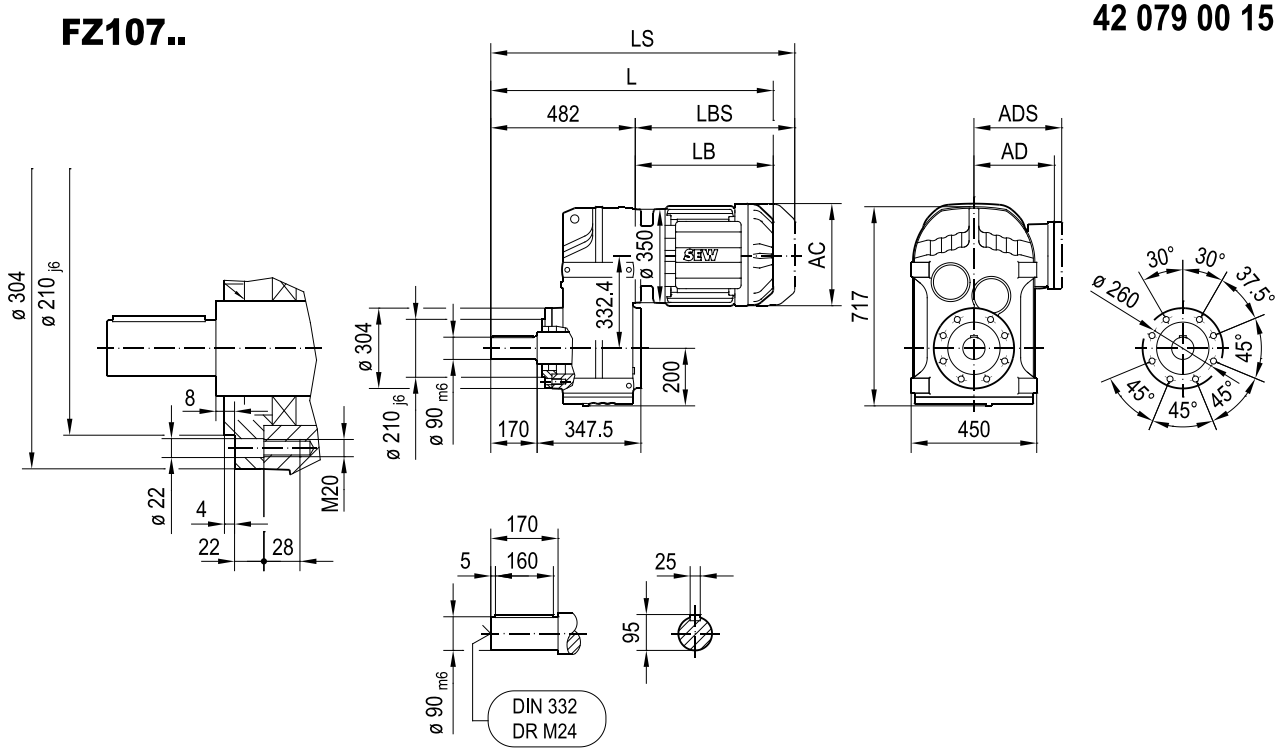


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	594	644	675	725	743	769	835	858	968	942	1079
LS	688	738	787	837	881	906	1024	1047	1173	1147	1319
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

FZ107..

42 079 00 15

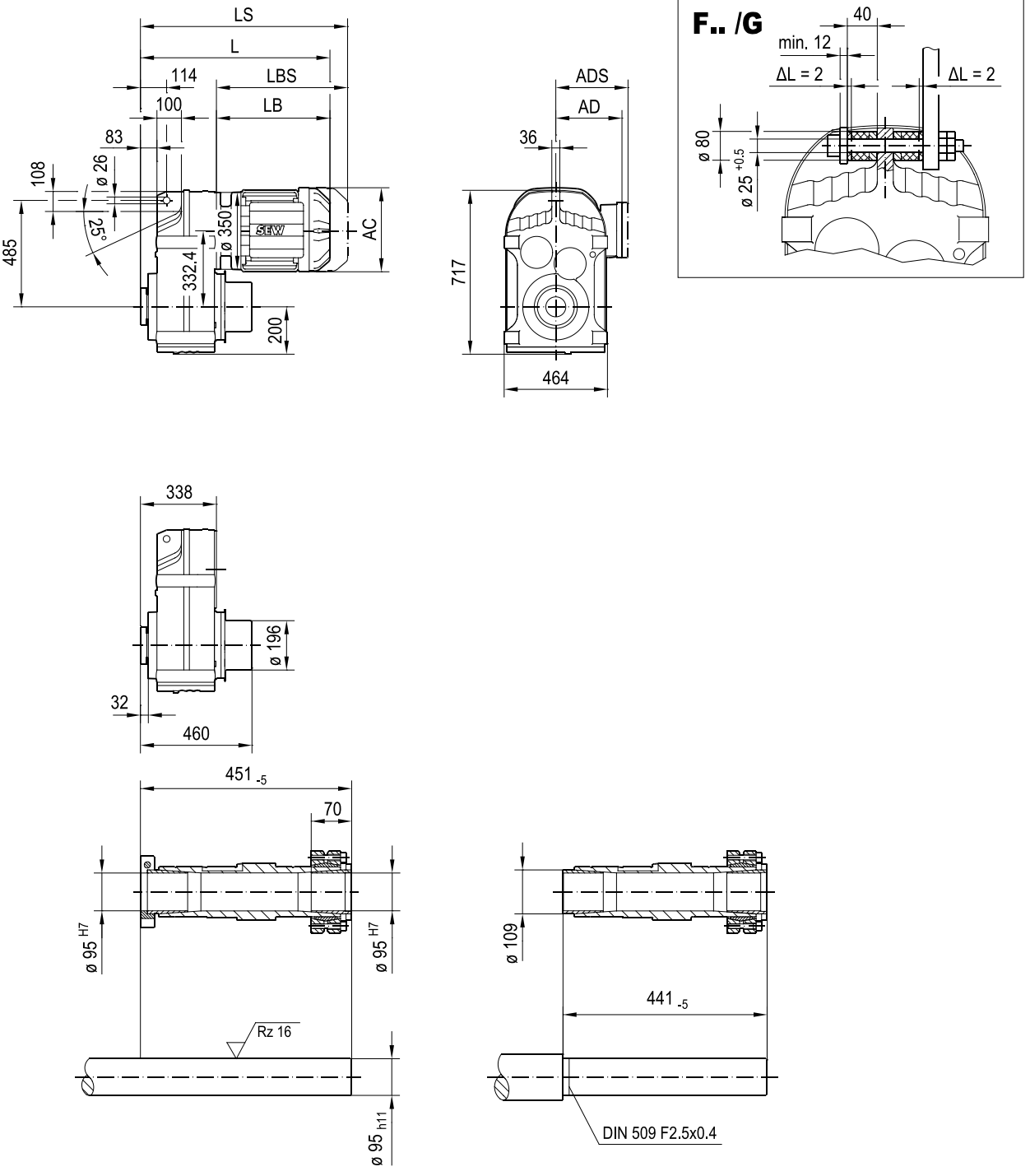


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	764	814	845	895	913	939	1005	1028	1138	1112	1249
LS	858	908	957	1007	1051	1076	1194	1217	1343	1317	1489
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

FT107..

42 063 01 14

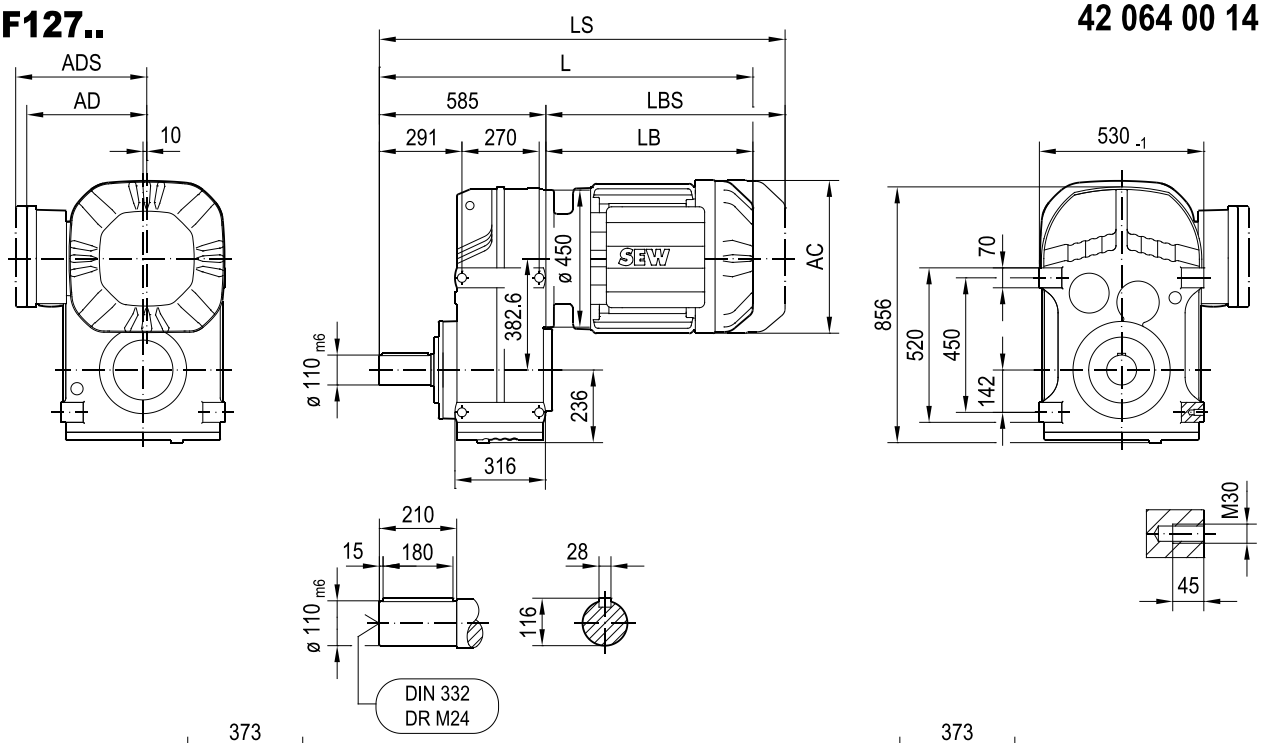


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	620	670	701	751	769	795	861	884	994	968	1105
LS	714	764	813	863	907	932	1050	1073	1199	1173	1345
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

F127..

42 064 00 14



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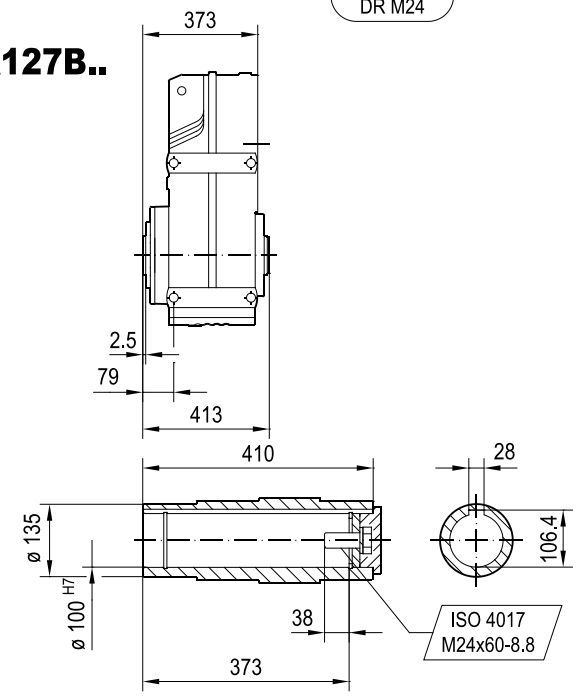

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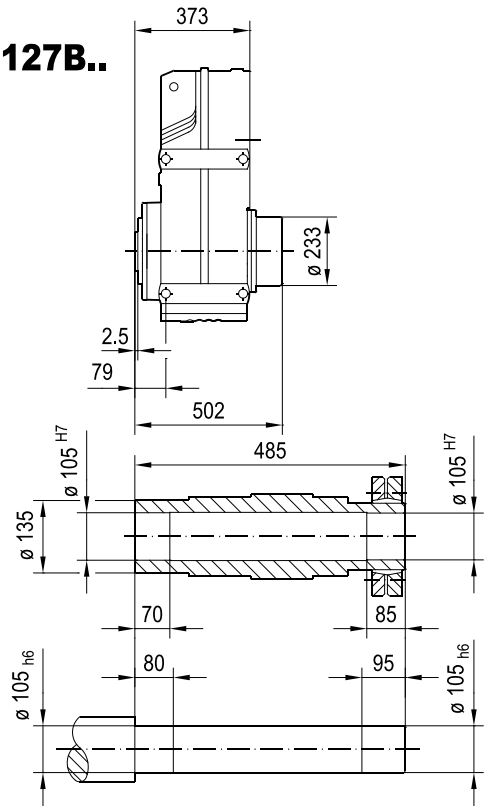
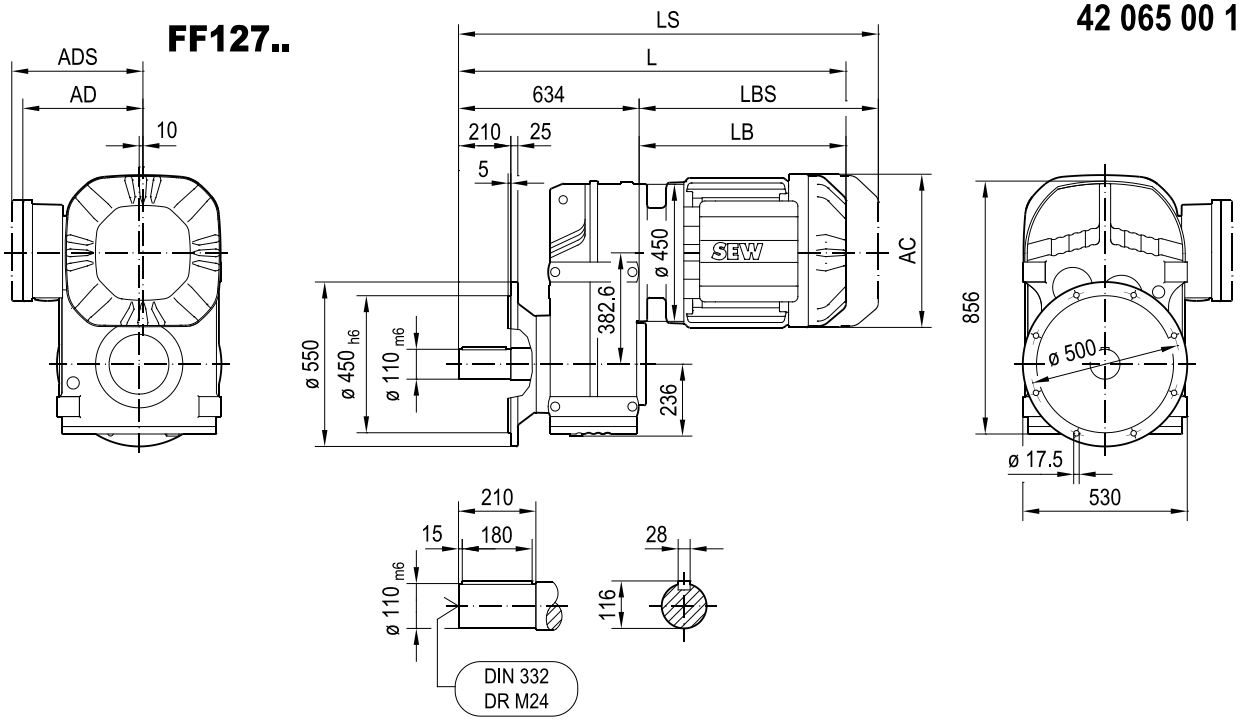


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	983	1001	1027	1093	1116	1226	1200	1337	1337	1432
LS	1095	1139	1164	1282	1305	1431	1405	1577	1577	1672
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FF127..

42 065 00 14



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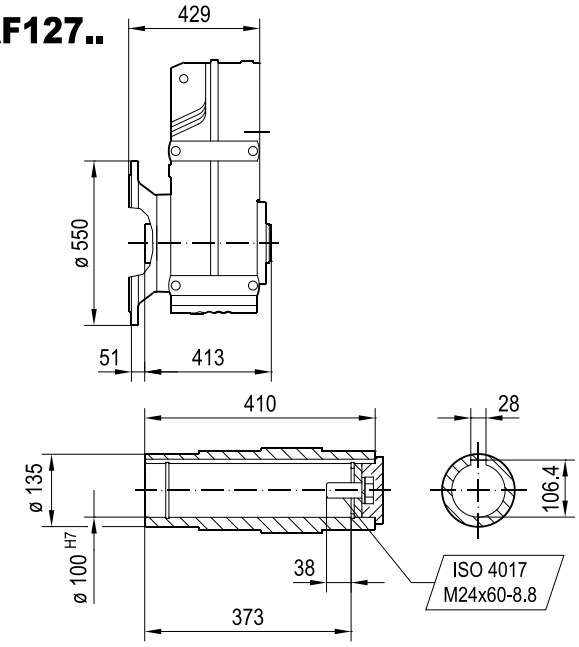

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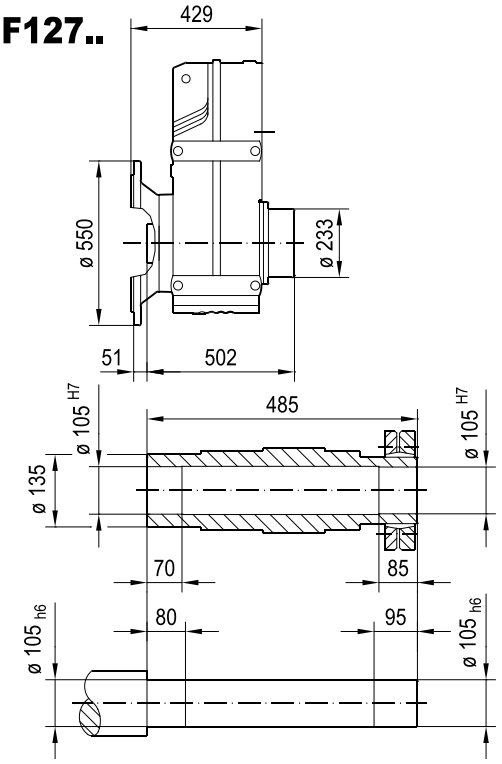
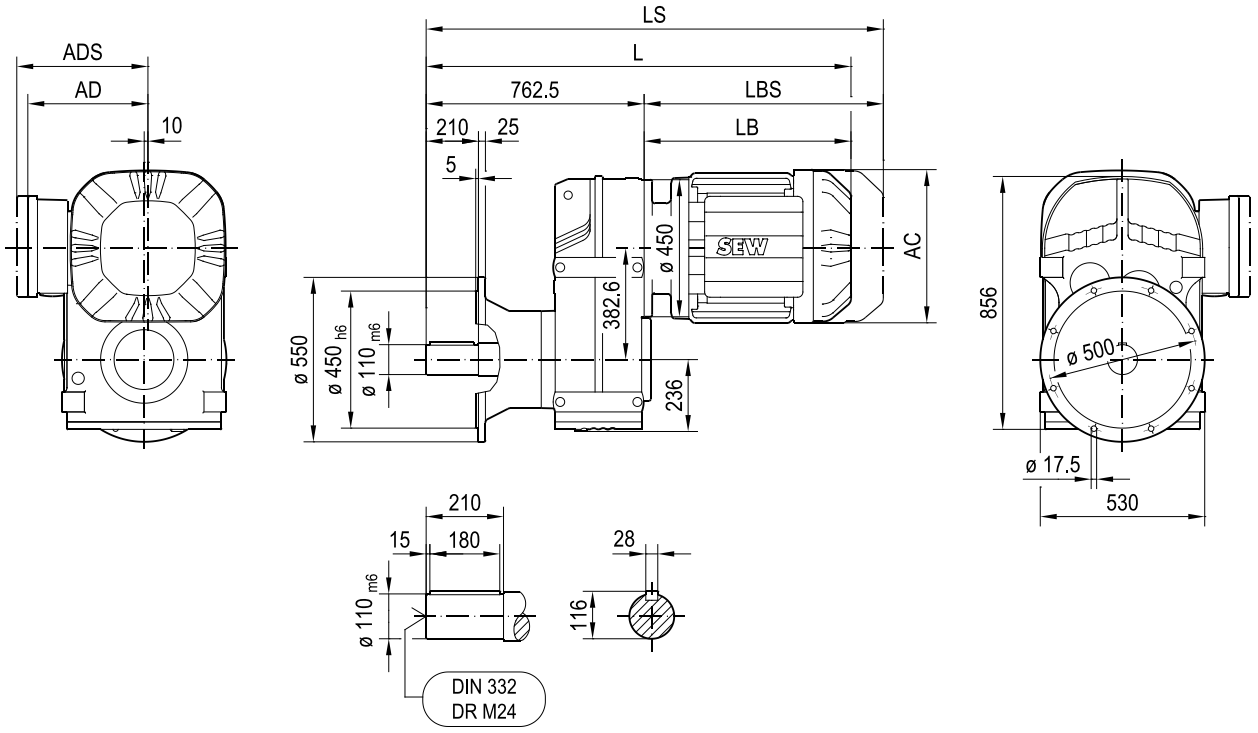


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1032	1050	1076	1142	1165	1275	1249	1386	1386	1481
LS	1144	1188	1213	1331	1354	1480	1454	1626	1626	1721
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FM127..

42 011 01 17



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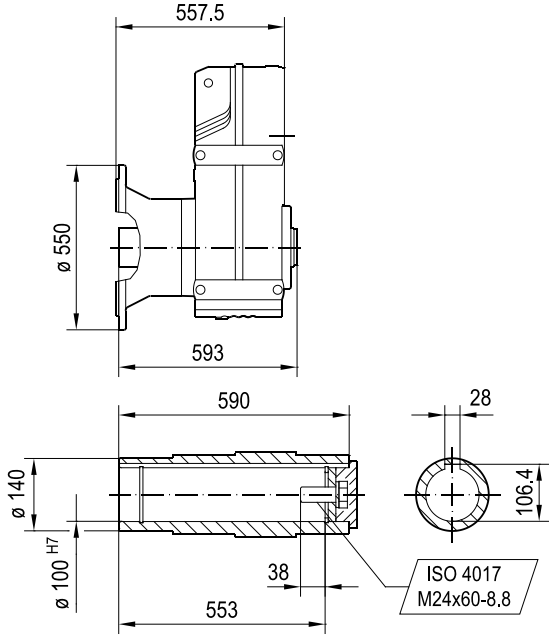
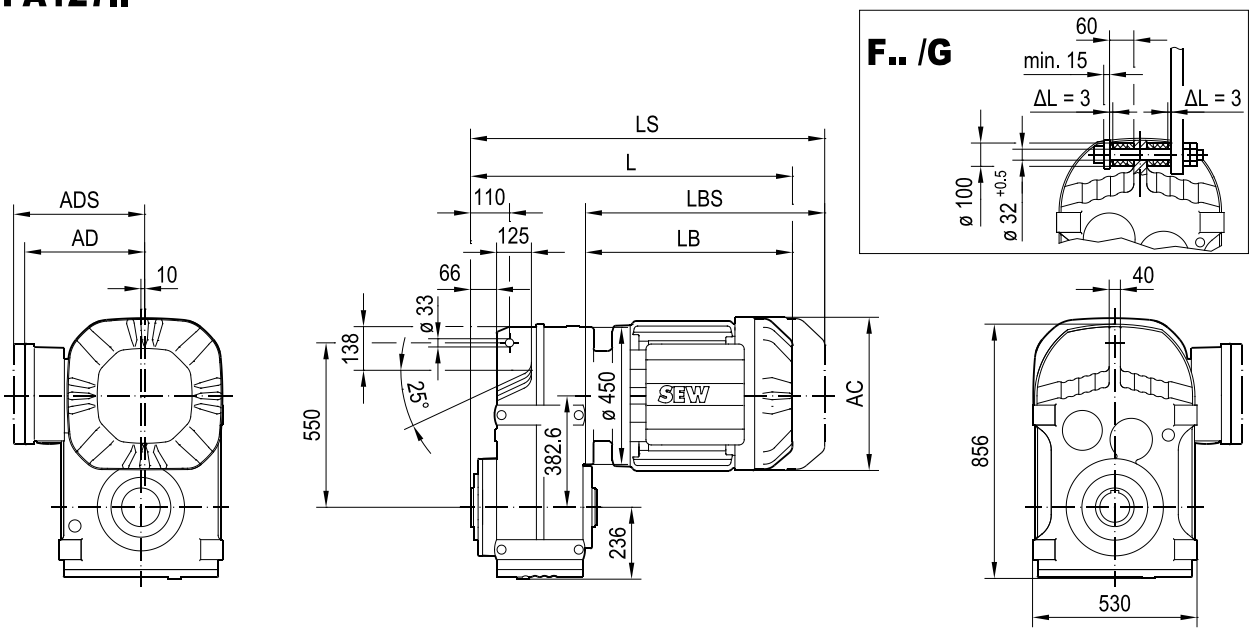


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1161	1179	1204	1271	1294	1403	1378	1515	1515	1610
LS	1273	1316	1341	1460	1483	1608	1583	1755	1755	1850
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FA127..

42 066 00 14



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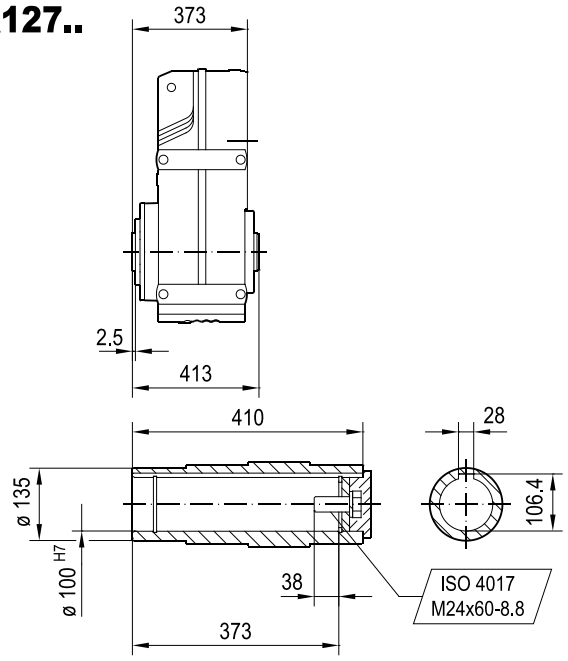

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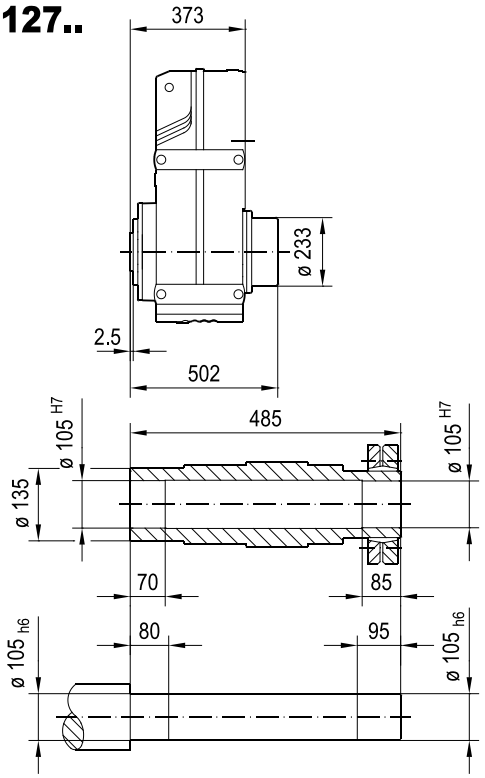
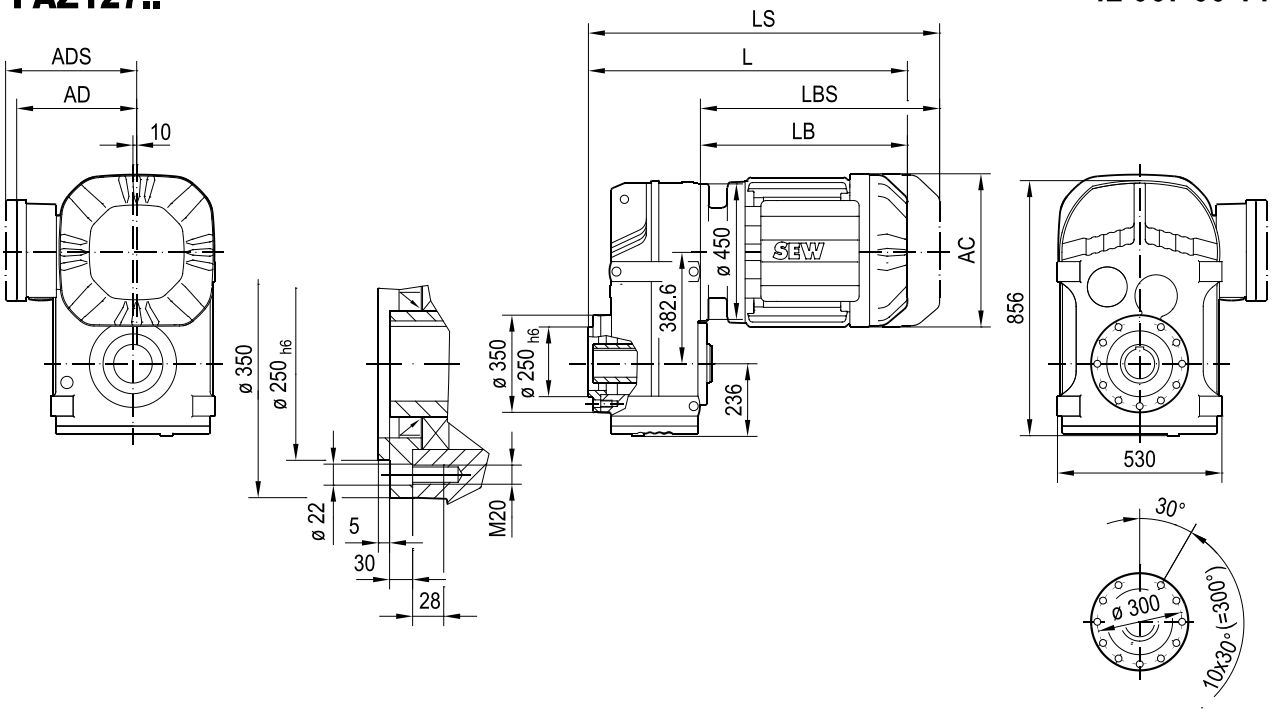


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	771	789	815	881	904	1014	988	1125	1125	1220
LS	883	927	952	1070	1093	1219	1193	1365	1365	1460
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FAZ127..

42 067 00 14



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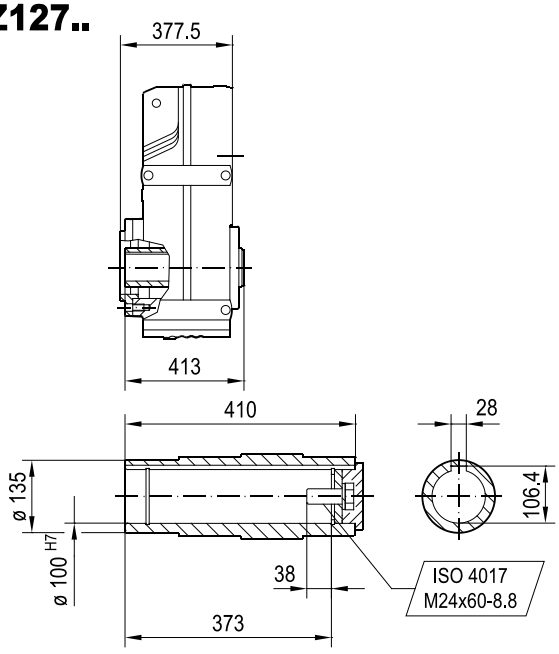

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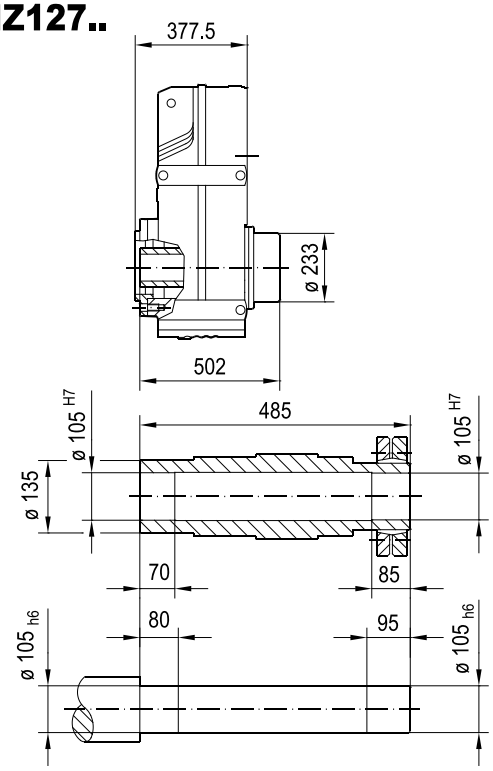
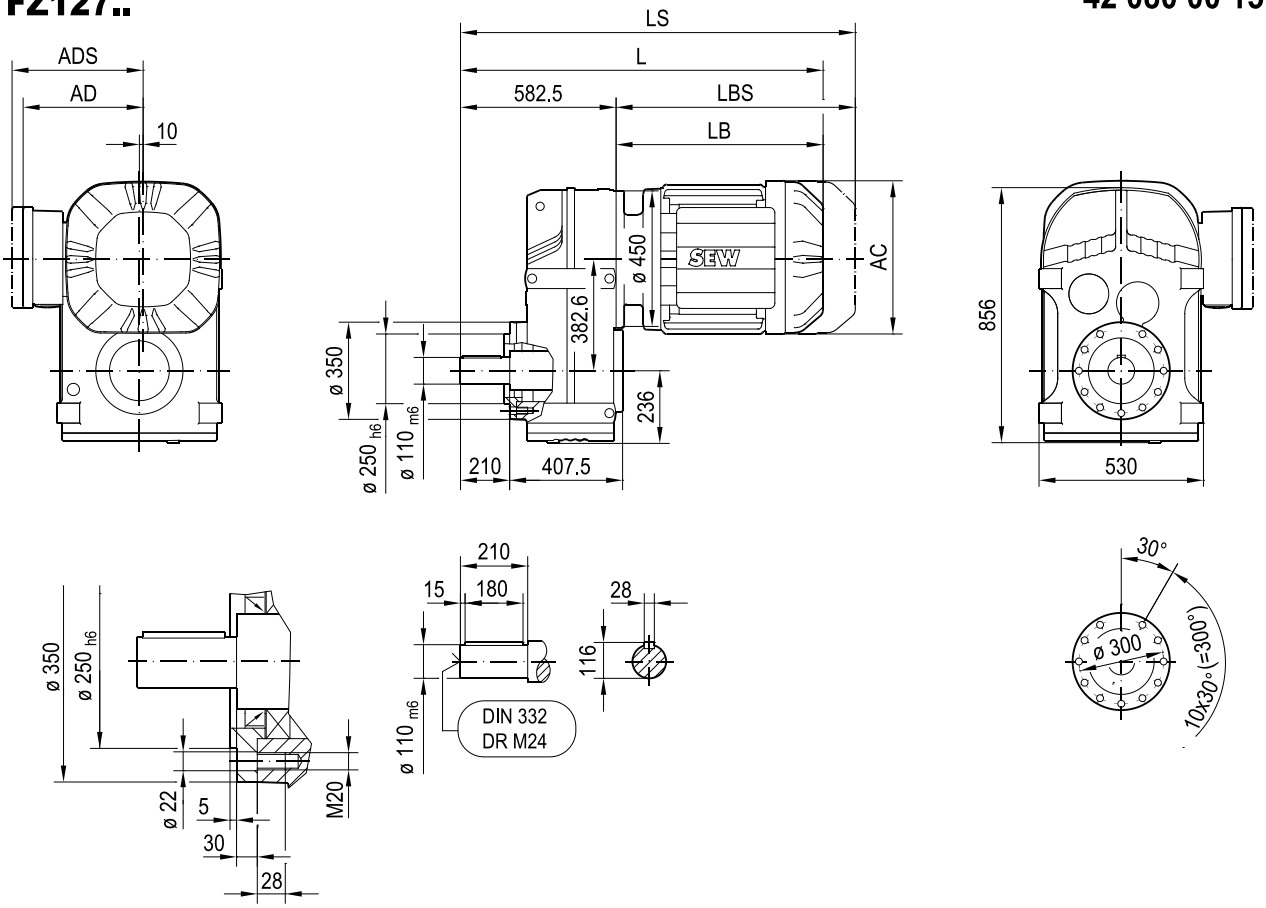


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	776	794	819	886	909	1018	993	1130	1130	1225
LS	888	931	956	1075	1098	1223	1198	1370	1370	1465
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FZ127..

42 080 00 15

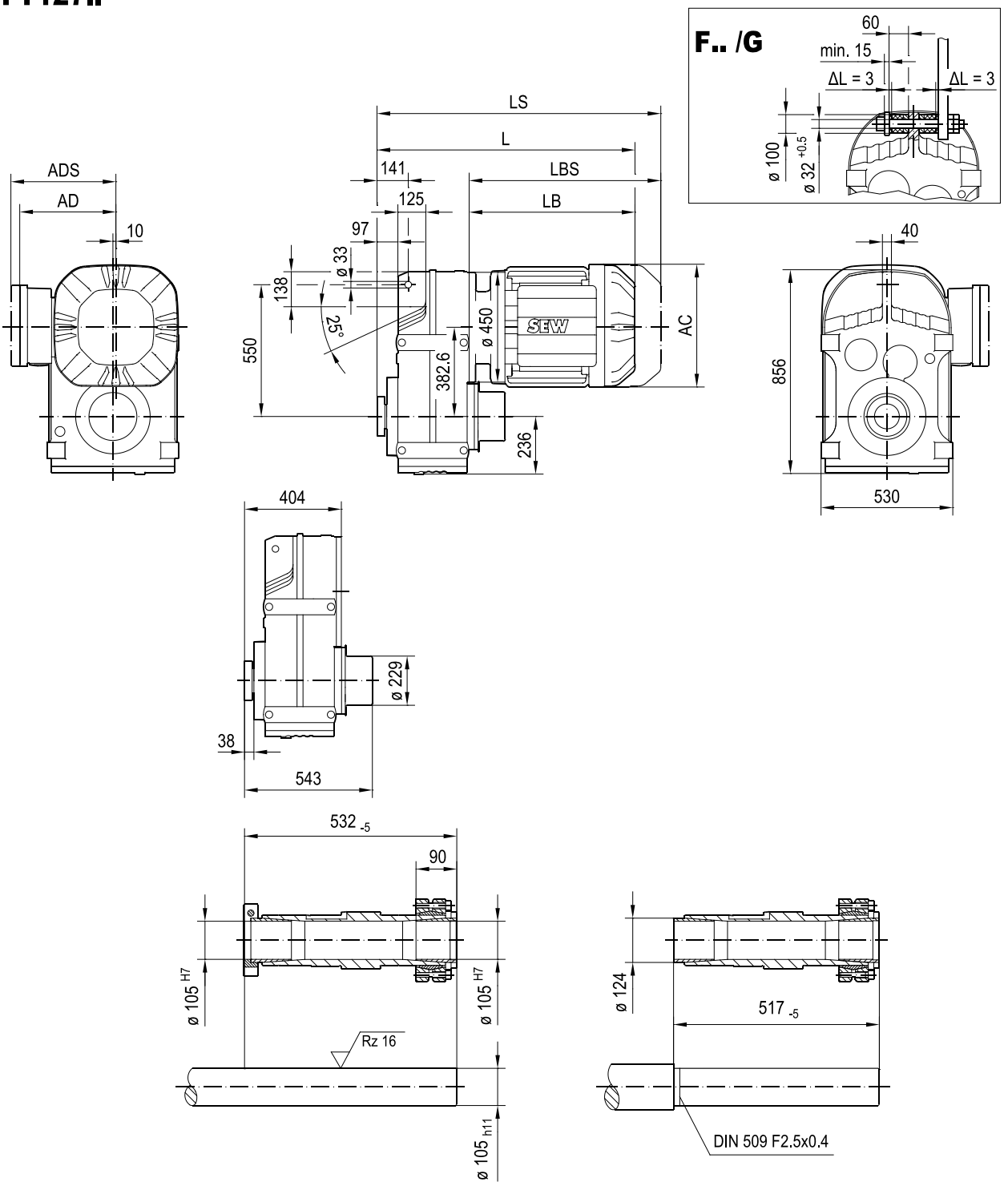


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	981	999	1024	1091	1114	1223	1198	1335	1335	1430
LS	1093	1136	1161	1280	1303	1428	1403	1575	1575	1670
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

FT127..

42 068 01 14

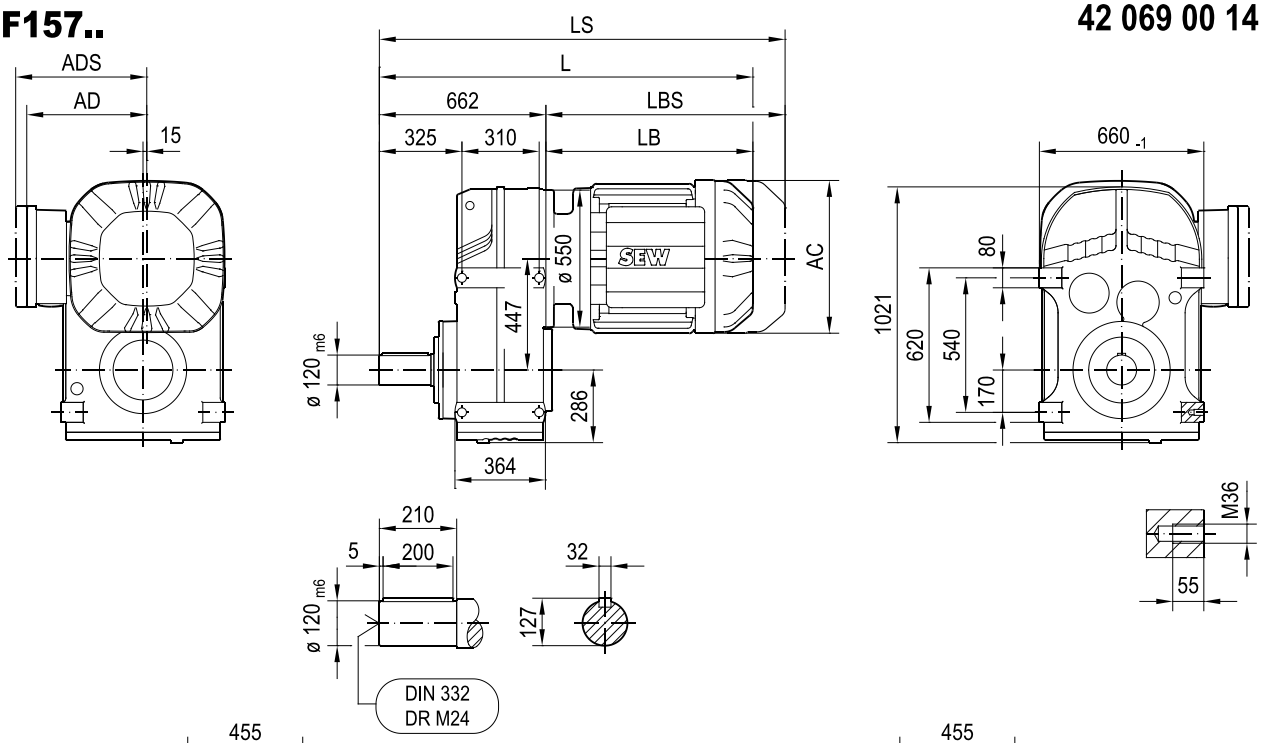


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	802	820	846	912	935	1045	1019	1156	1156	1251
LS	914	958	983	1101	1124	1250	1224	1396	1396	1491
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

F157..

42 069 00 14



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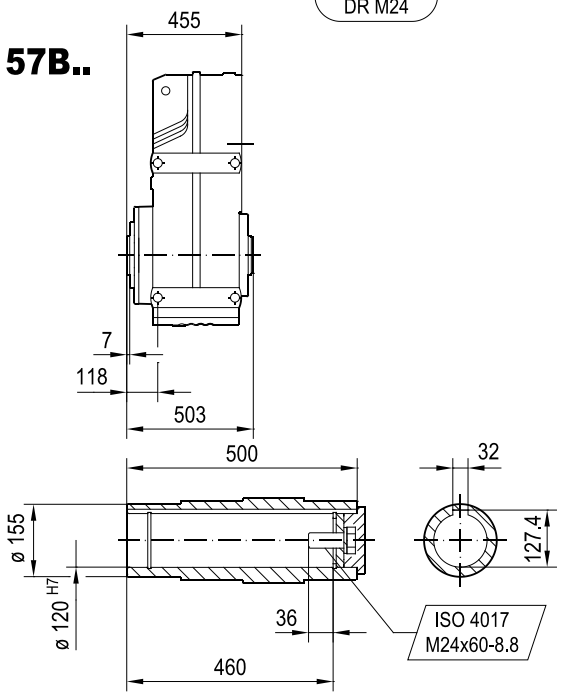

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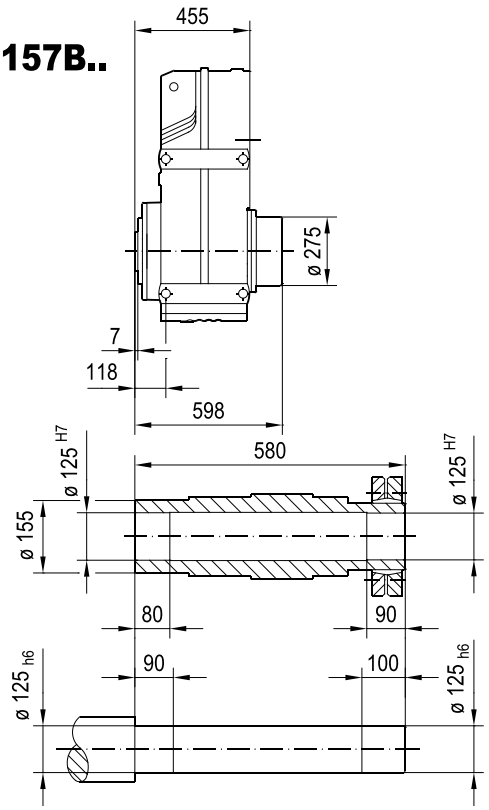
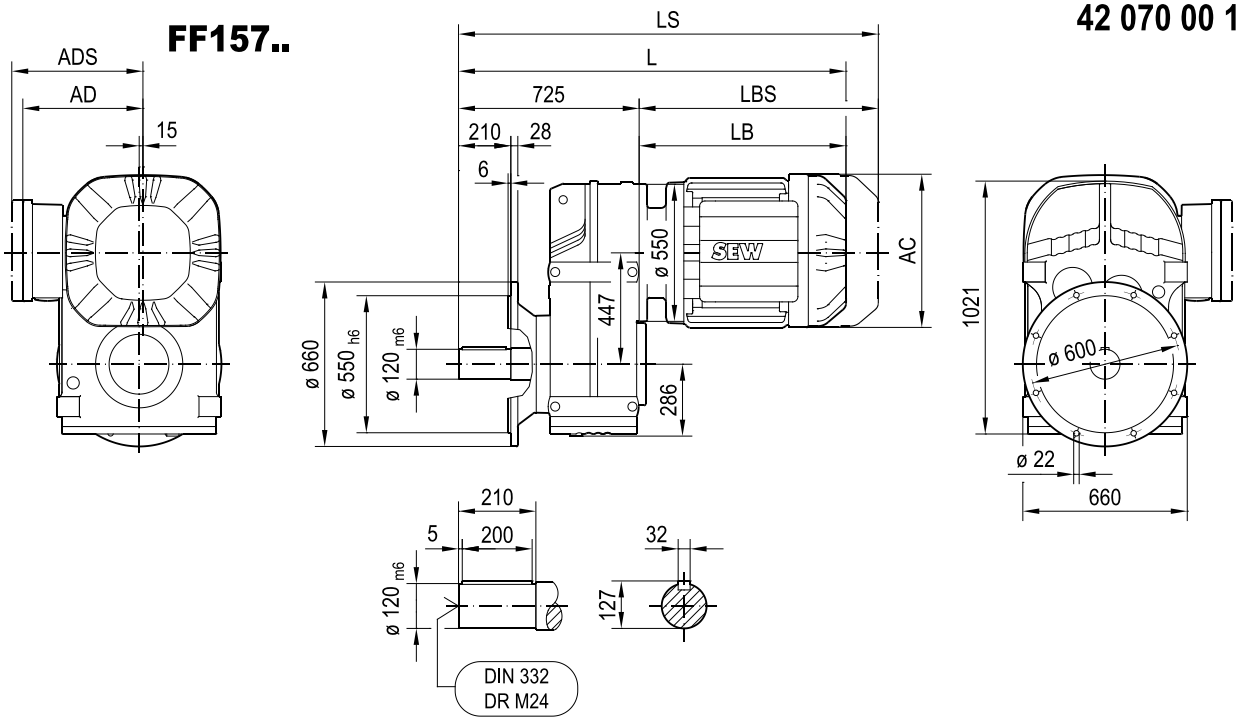


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1096	1162	1185	1295	1269	1406	1406	1501	1603	1733
LS	1233	1351	1374	1500	1474	1646	1646	1741	1854	1984
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FF157..

42 070 00 14



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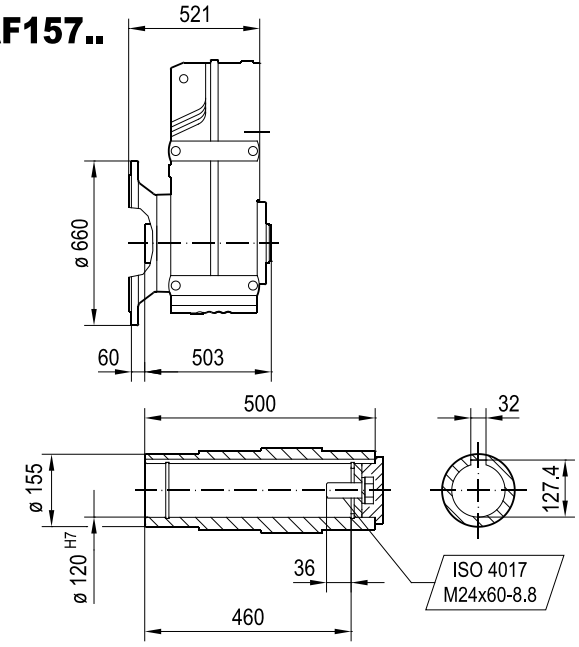

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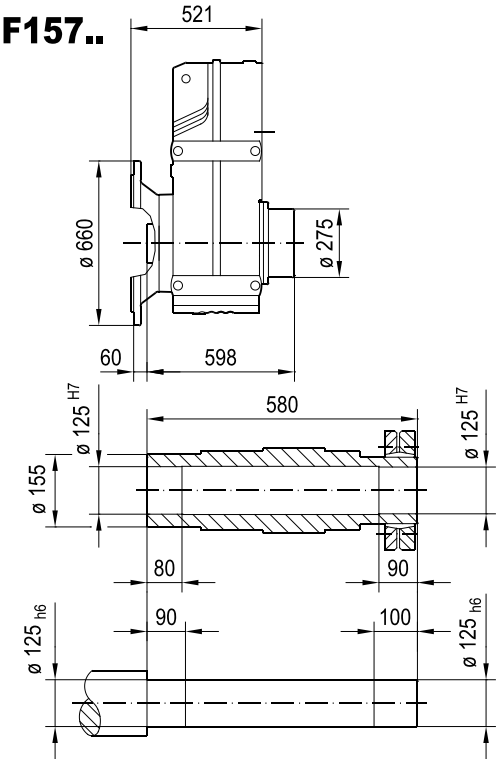
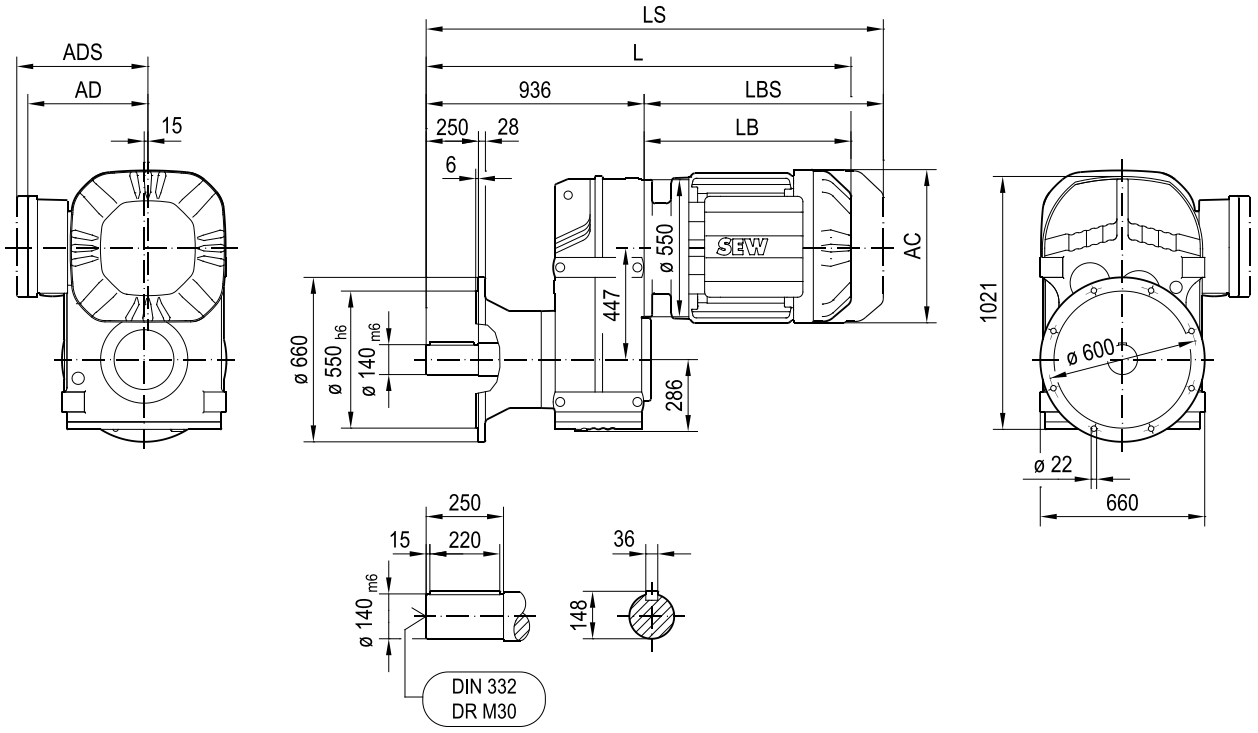


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1159	1225	1248	1358	1332	1469	1469	1564	1666	1796
LS	1296	1414	1437	1563	1537	1709	1709	1804	1917	2047
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FM157..

42 117 00 17



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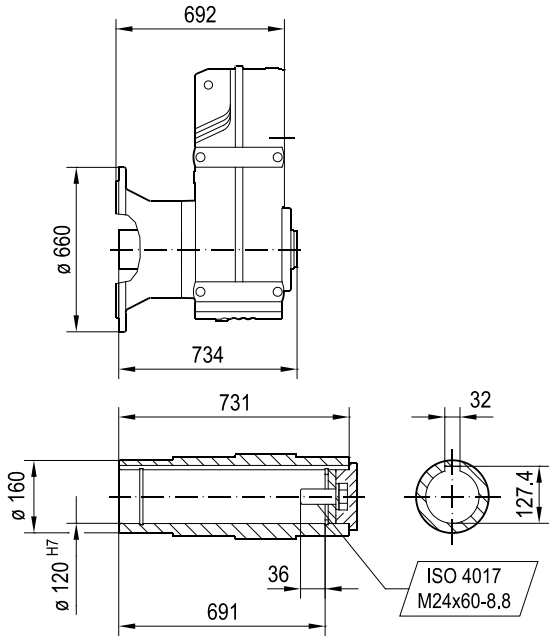
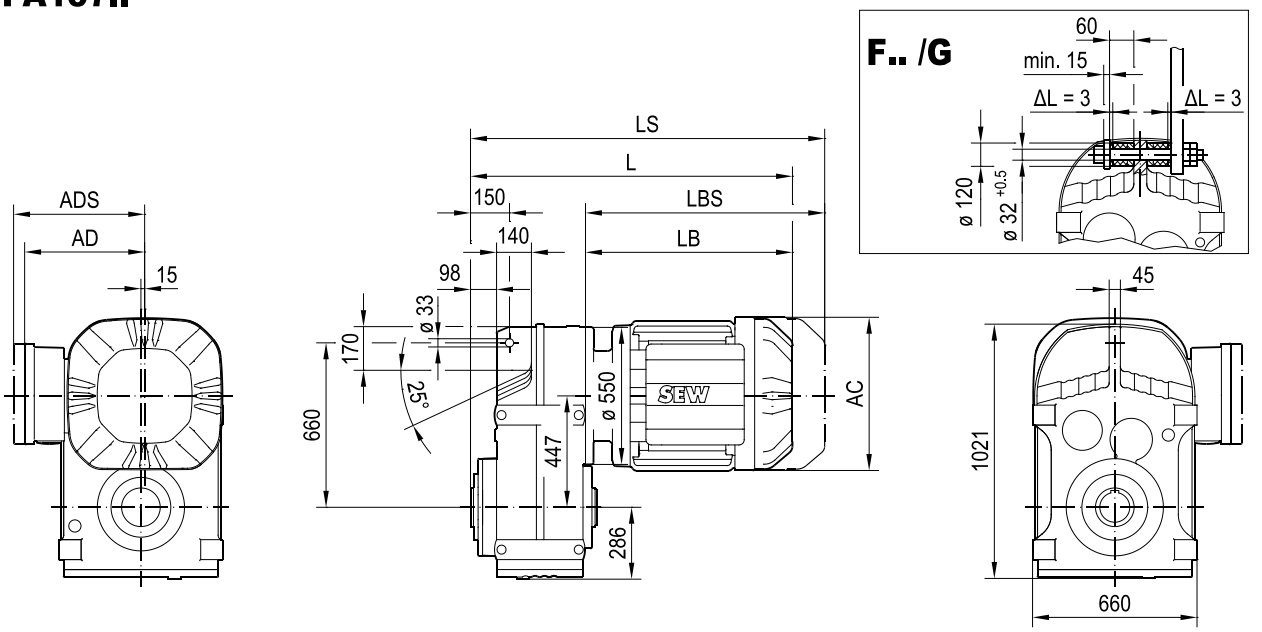


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1370	1436	1459	1569	1543	1680	1680	1775	1877	2007
LS	1507	1625	1648	1774	1748	1920	1920	2015	2128	2258
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FA157..

42 071 00 14



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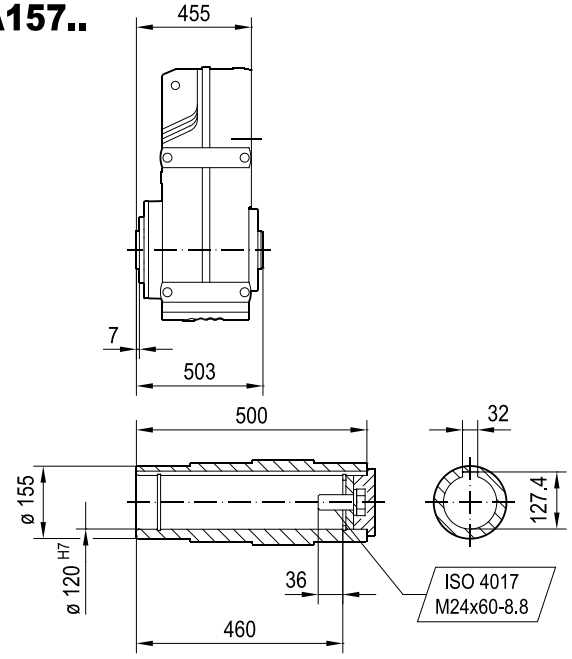

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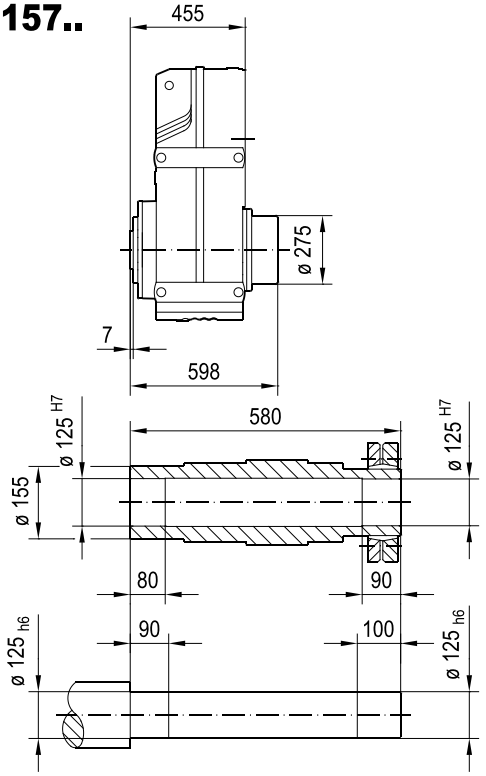
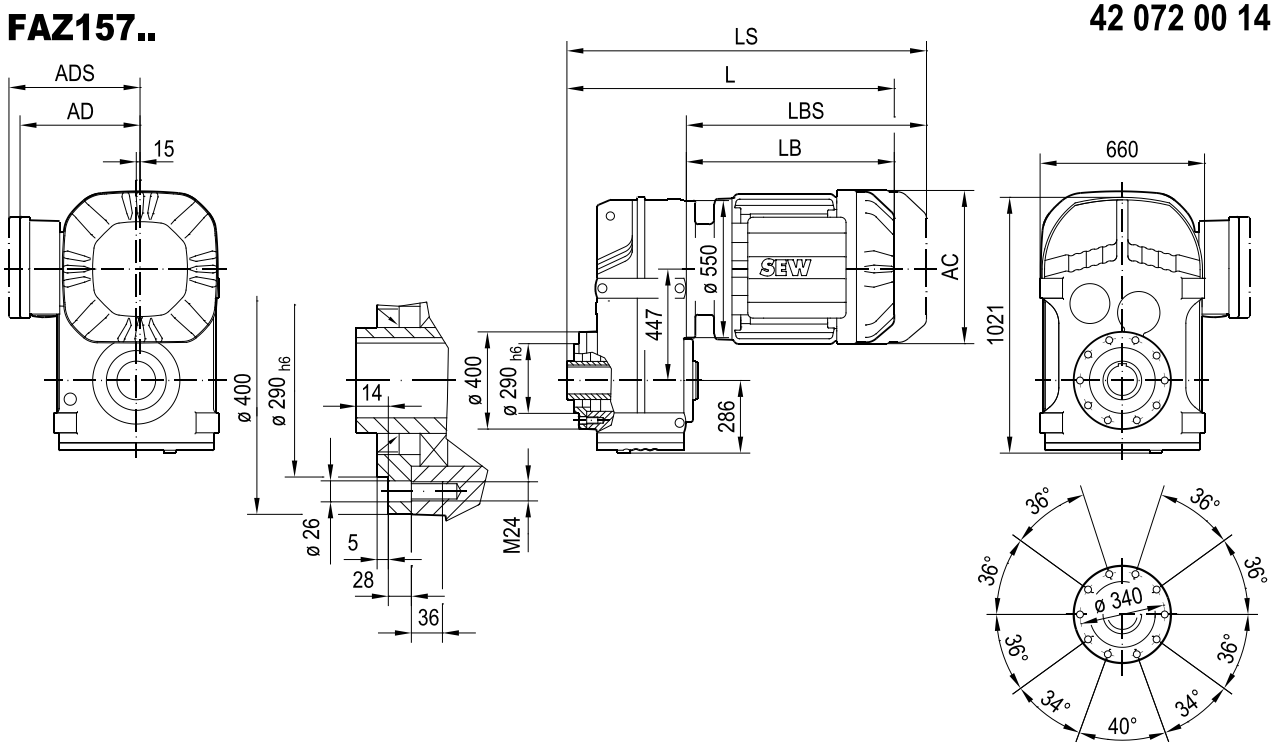


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	889	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1026	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FAZ157..

42 072 00 14



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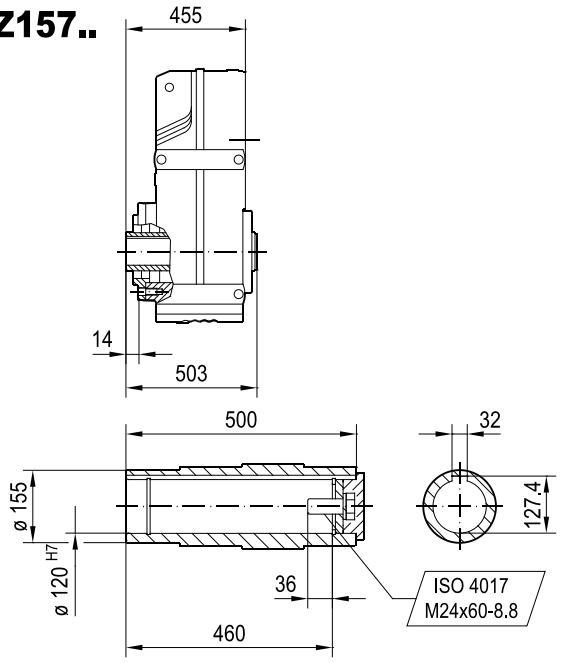

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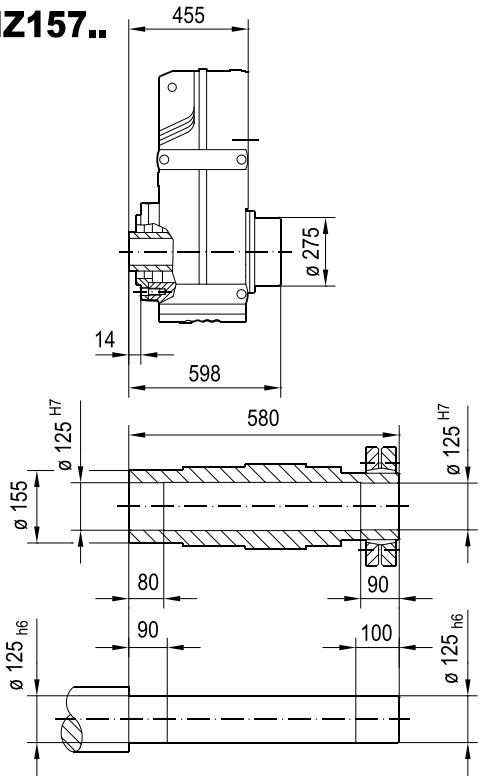
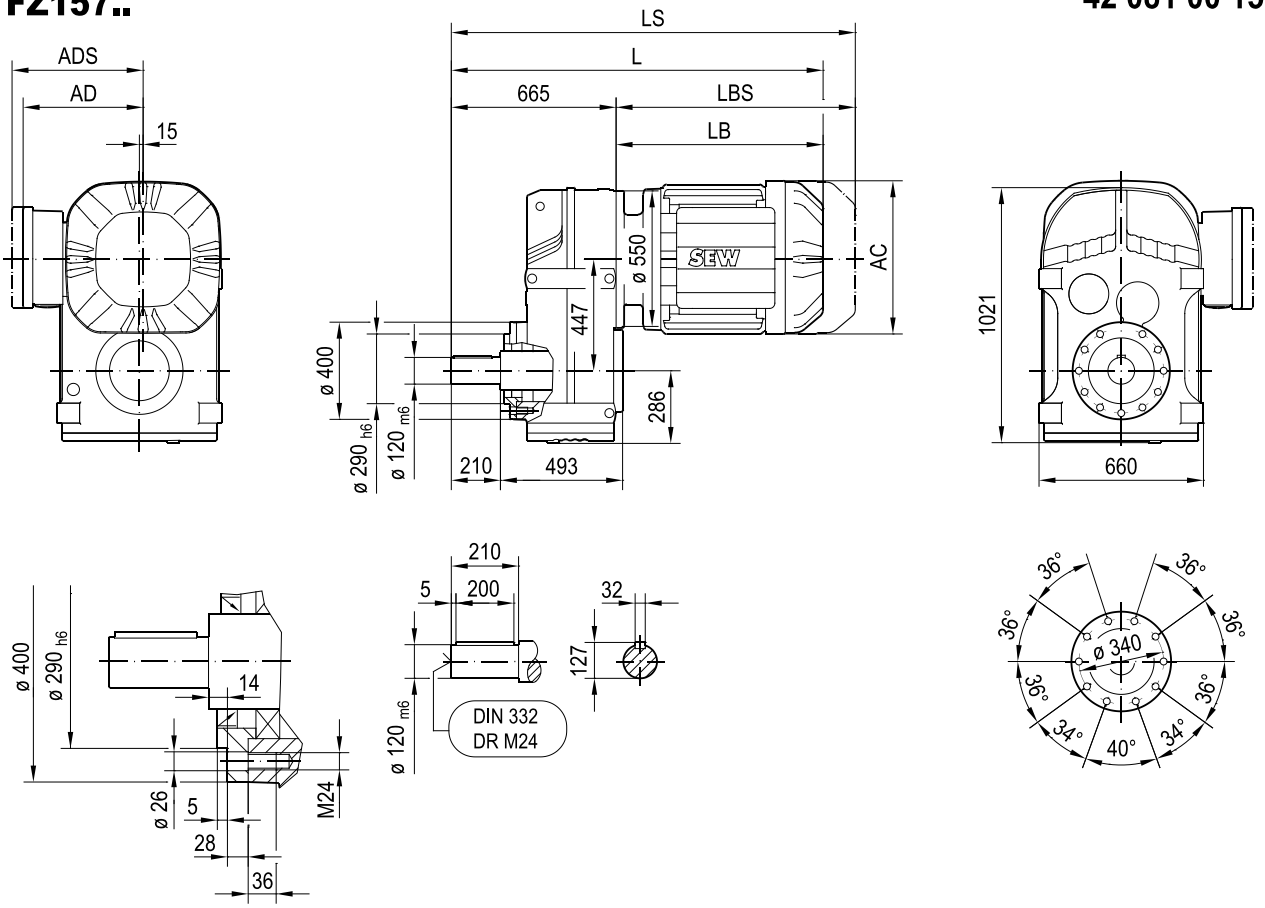


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	889	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1026	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FZ157..

42 081 00 15

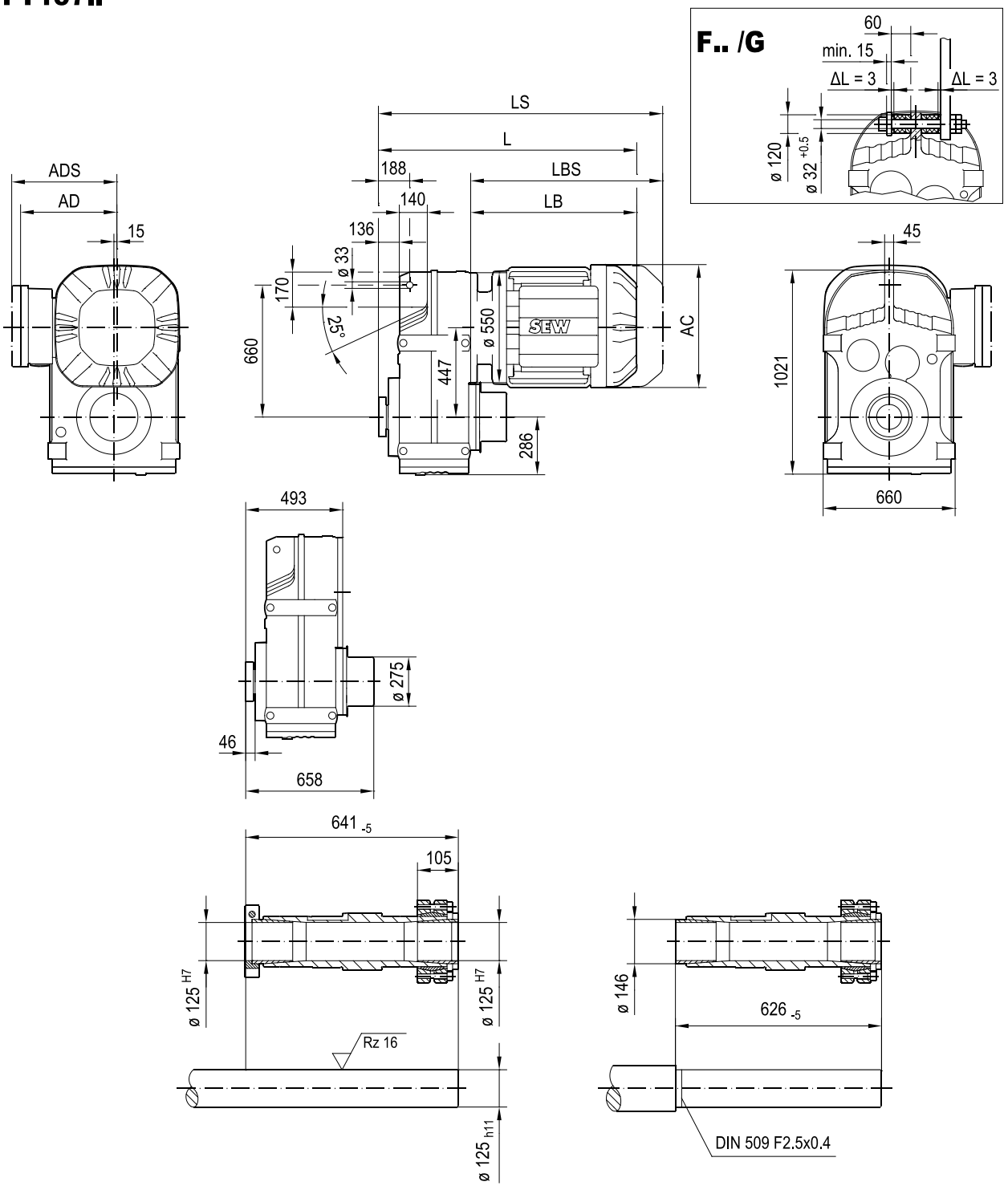


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1099	1165	1188	1298	1272	1409	1409	1504	1606	1736
LS	1236	1354	1377	1503	1477	1649	1649	1744	1857	1987
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

FT157..

42 073 01 14

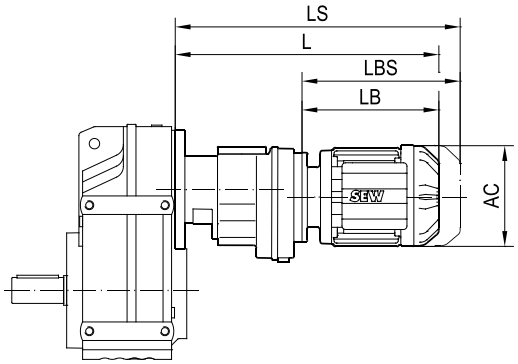


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	927	993	1016	1126	1100	1237	1237	1332	1434	1564
LS	1064	1182	1205	1331	1305	1477	1477	1572	1685	1815
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

9.6 F..R..DRN.. dimension sheets in mm

42 084 01 21

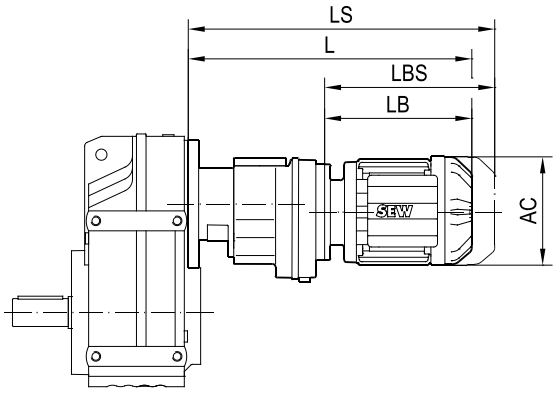


(→ 📖 7.3)	AC	L	LS	LB	LBS
F..27R17 DR2S56..	109	293	329	160	196
F..27R17 DRN63MS	115	323	379	190	246
F..27R17 DRN63M	115	337	393	204	260
F..27R17 DRN71MS	139	339	406	206	273
F..27R17 DRN71M	139	359	426	226	293
F..37R17 DR2S56..	109	293	329	160	196
F..37R17 DRN63MS	115	323	379	190	246
F..37R17 DRN63M	115	337	393	204	260
F..37R17 DRN71MS	139	339	406	206	273
F..37R17 DRN71M	139	359	426	226	293
F..37R17 DRN80MK	156	370	451	237	318
F..47R17 DR2S56..	109	293	329	160	196
F..47R17 DRN63MS	115	323	379	190	246
F..47R17 DRN63M	115	337	393	204	260
F..47R17 DRN71MS	139	339	406	206	273
F..47R17 DRN71M	139	359	426	226	293
F..47R17 DRN80MK	156	370	451	237	318
F..47R17 DRN80M	156	416	497	283	364
F..57R37 DRN63MS	115	355	411	190	246
F..57R37 DRN63M	115	369	425	204	260
F..57R37 DRN71MS	139	371	438	206	273
F..57R37 DRN71M	139	391	458	226	293
F..57R37 DRN80MK	156	402	483	237	318
F..57R37 DRN80M	156	447	528	282	363
F..57R37 DRN90S	179	448	542	283	377
F..67R37 DRN63MS	115	355	411	190	246
F..67R37 DRN63M	115	369	425	204	260
F..67R37 DRN71MS	139	371	438	206	273
F..67R37 DRN71M	139	391	458	226	293
F..67R37 DRN80MK	156	402	483	237	318
F..67R37 DRN80M	156	447	528	282	363
F..67R37 DRN90S	179	448	542	283	377
F..77R37 DRN63MS	115	347	403	190	246
F..77R37 DRN63M	115	361	417	204	260
F..77R37 DRN71MS	139	363	430	206	273
F..77R37 DRN71M	139	383	450	226	293
F..77R37 DRN80MK	156	394	475	237	318
F..77R37 DRN80M	156	439	520	282	363
F..77R37 DRN90S	179	440	534	283	377
F..77R37 DRN90L	179	472	566	315	409
F..77R37 DRN100L/LM	197	521	615	364	458
F..87R57 DRN63MS	115	411	467	184	240
F..87R57 DRN63M	115	425	481	198	254
F..87R57 DRN71MS	139	427	494	199	267
F..87R57 DRN71M	139	447	514	219	287
F..87R57 DRN80MK	156	458	539	230	311
F..87R57 DRN80M	156	503	584	275	356
F..87R57 DRN90S	179	504	598	277	370
F..87R57 DRN90L	179	536	630	309	402
F..87R57 DRN100LS	197	533	626	305	399
F..87R57 DRN100L/LM	197	583	676	355	449

(→ 📖 7.3)	AC	L	LS	LB	LBS
F..97R57 DRN63MS	115	406	462	184	240
F..97R57 DRN63M	115	420	476	198	254
F..97R57 DRN71MS	139	422	489	199	267
F..97R57 DRN71M	139	442	509	219	287
F..97R57 DRN80MK	156	453	534	230	311
F..97R57 DRN80M	156	498	579	275	356
F..97R57 DRN90S	179	499	593	277	370
F..97R57 DRN90L	179	531	625	309	402
F..97R57 DRN100LS	197	528	621	305	399
F..97R57 DRN100L/LM	197	578	671	355	449
F..97R57 DRN112M	221	609	721	386	498
F..97R57 DRN132S	221	663	775	440	552
F..107R77 DRN63MS	115	424	480	177	233
F..107R77 DRN63M	115	438	494	191	247
F..107R77 DRN71MS	139	439	507	192	260
F..107R77 DRN71M	139	459	527	212	280
F..107R77 DRN80MK	156	470	551	223	304
F..107R77 DRN80M	156	515	596	268	349
F..107R77 DRN90S	179	517	610	270	363
F..107R77 DRN90L	179	549	642	302	395
F..107R77 DRN100LS	197	545	639	298	392
F..107R77 DRN100L/LM	197	595	689	348	442
F..107R77 DRN112M	221	626	738	379	491
F..107R77 DRN132S	221	676	788	429	541
F..107R77 DRN132M	261	694	832	447	585
F..107R77 DRN132L	261	720	857	473	610
F..127R77 DRN63MS	115	409	465	177	233
F..127R77 DRN63M	115	423	479	191	247
F..127R77 DRN71MS	139	424	492	192	260
F..127R77 DRN71M	139	444	512	212	280
F..127R77 DRN80MK	156	455	536	223	304
F..127R77 DRN80M	156	500	581	268	349
F..127R77 DRN90S	179	502	595	270	363
F..127R77 DRN90L	179	534	627	302	395
F..127R77 DRN100LS	197	530	624	298	392
F..127R77 DRN100L/LM	197	580	674	348	442
F..127R77 DRN112M	221	611	723	379	491
F..127R77 DRN132S	221	661	773	429	541
F..127R77 DRN132M	261	679	817	447	585
F..127R87 DRN100L/LM	197	623	717	343	437
F..127R87 DRN112M	221	654	766	374	486
F..127R87 DRN132S	221	704	816	424	536
F..127R87 DRN132M	261	722	860	442	580
F..127R87 DRN132L	261	748	885	468	605
F..127R87 DRN160..	314	814	1003	534	723
F..157R97 DRN71MS	139	507	575	182	250
F..157R97 DRN71M	139	527	595	202	270
F..157R97 DRN80MK	156	538	619	213	294
F..157R97 DRN80M	156	583	664	258	339
F..157R97 DRN90S	179	585	678	260	353
F..157R97 DRN90L	179	617	710	292	385

26883198/EN – 04/2022

42 084 01 21

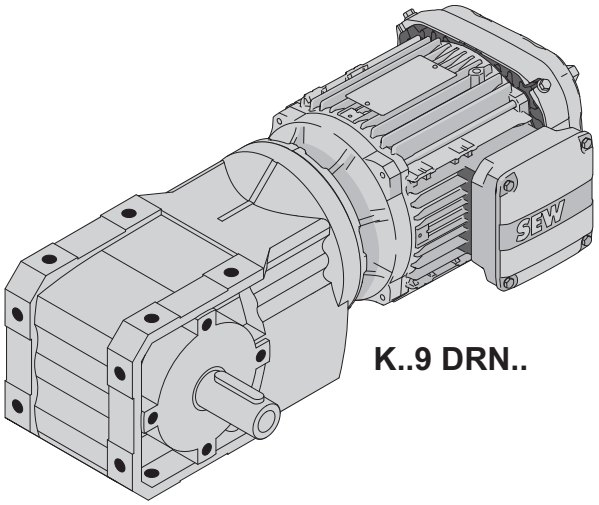


(→ 📖 7.3)	AC	L	LS	LB	LBS
F..157R97 DRN100LS	197	613	707	288	382
F..157R97 DRN100L/LM	197	663	757	338	432
F..157R97 DRN112M	221	694	806	369	481
F..157R97 DRN132S	221	744	856	419	531
F..157R97 DRN132M	261	762	900	437	575
F..157R97 DRN132L	261	788	925	463	600
F..157R97 DRN160..	314	854	1043	529	718
F..157R97 DRN180..	357	877	1066	552	741

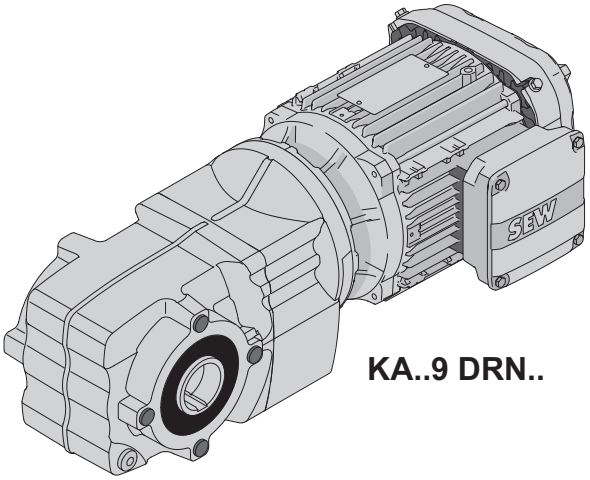
26883198/EN – 04/2022

10 Helical-bevel gearmotors

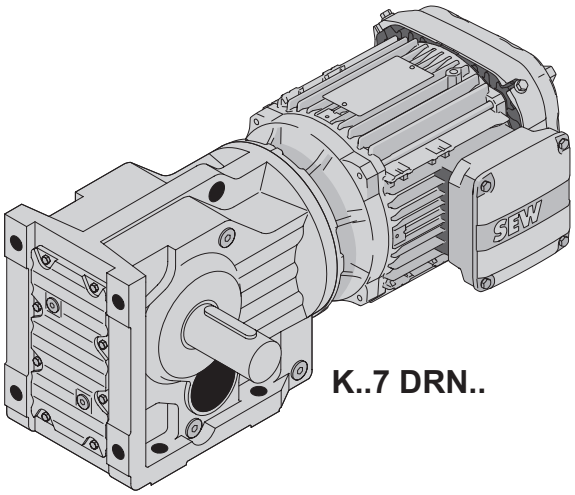
10.1 K..DRN.. variant



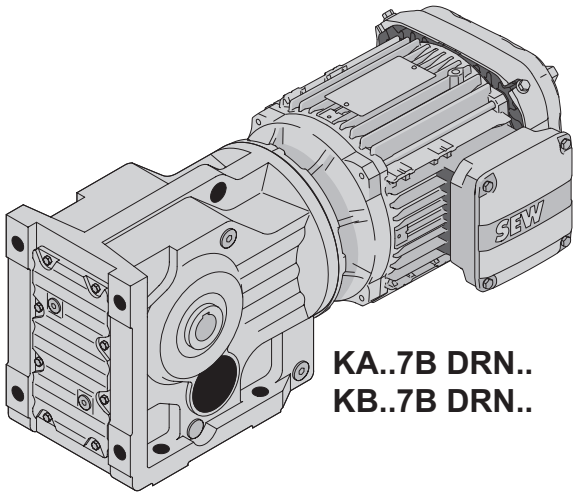
K..9 DRN..



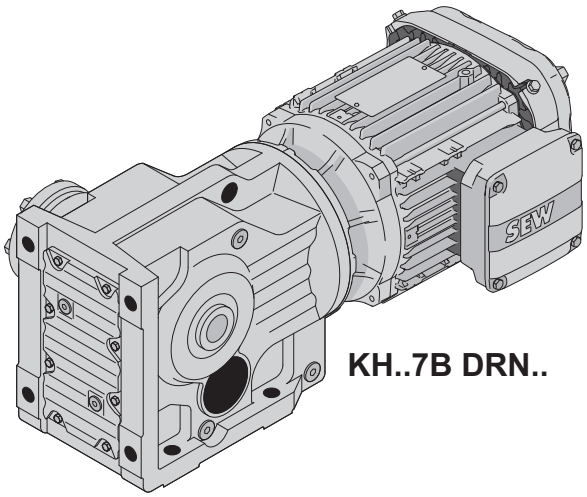
KA..9 DRN..



K..7 DRN..



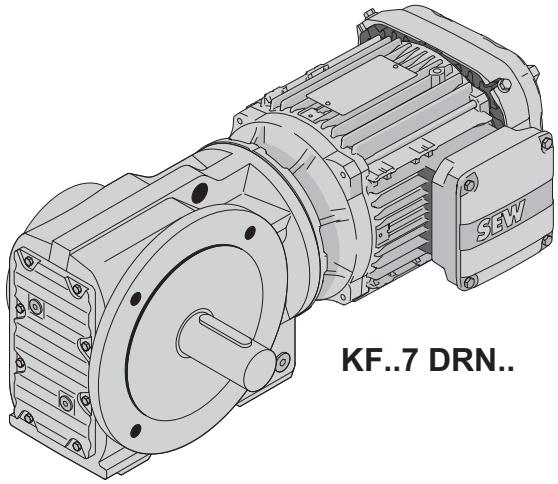
KA..7B DRN..
KB..7B DRN..



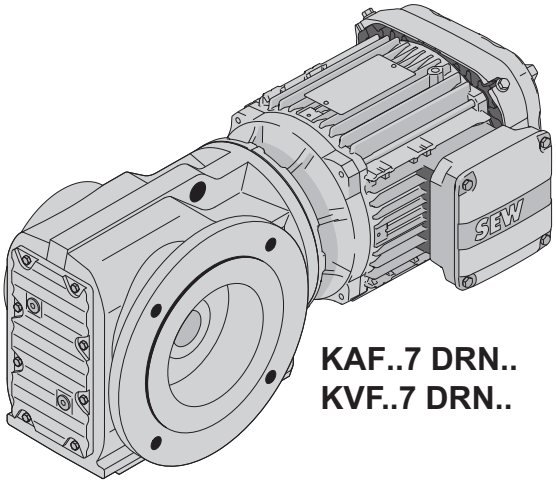
KH..7B DRN..

45036004938459275

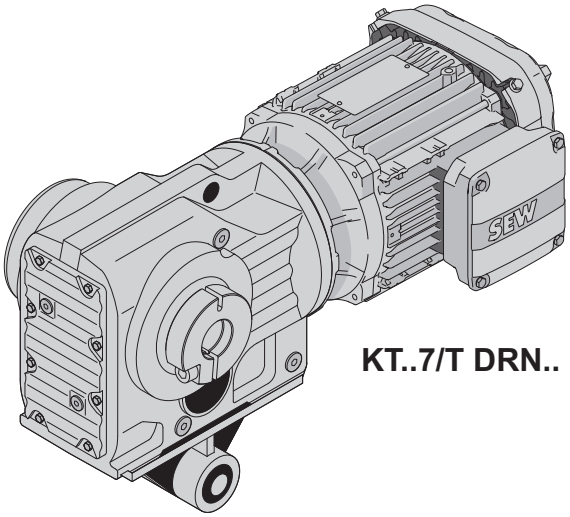
26883198/EN – 04/2022



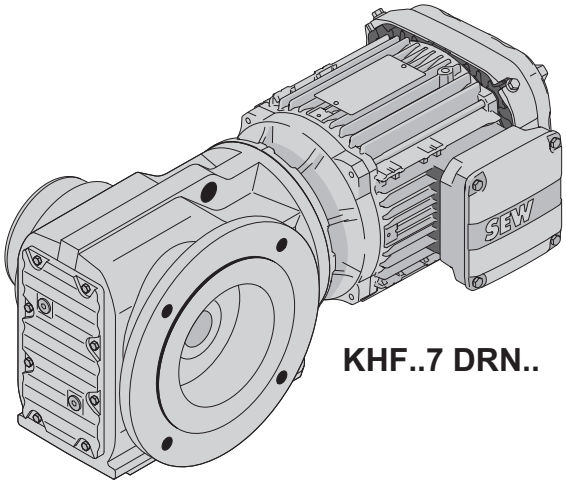
KF..7 DRN..



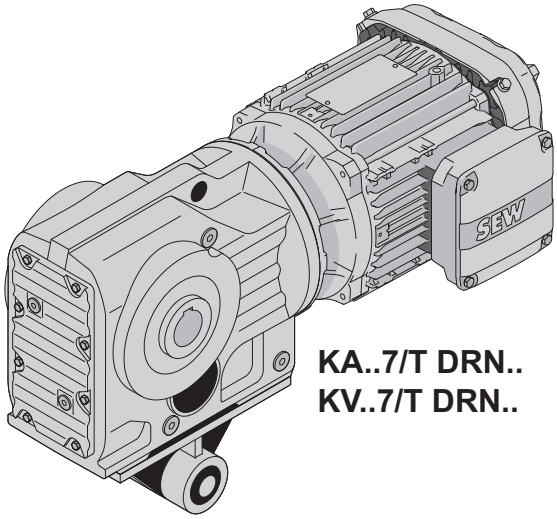
KAF..7 DRN..
KVF..7 DRN..



KT..7/T DRN..



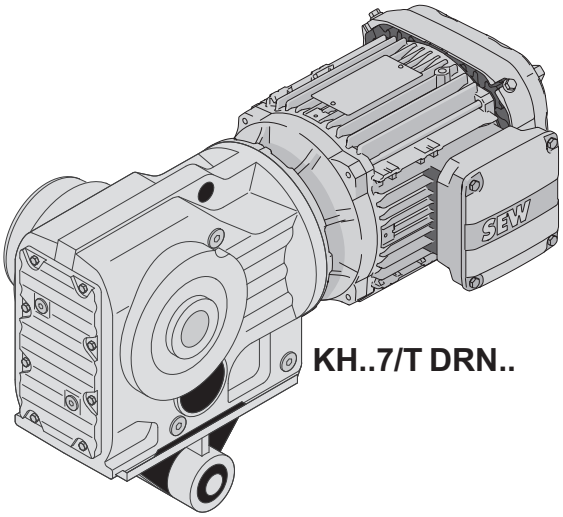
KHF..7 DRN..



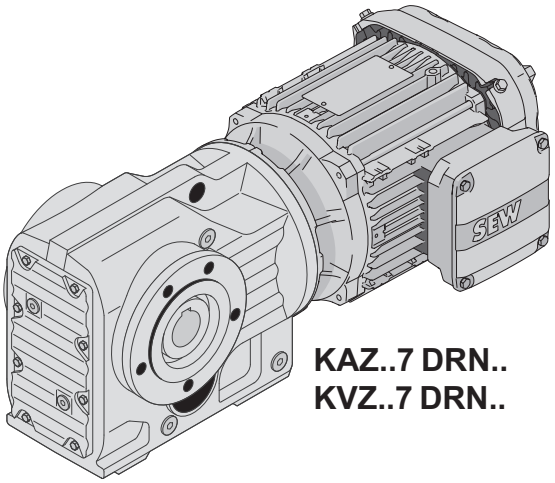
KA..7/T DRN..
KV..7/T DRN..

36028805683720203

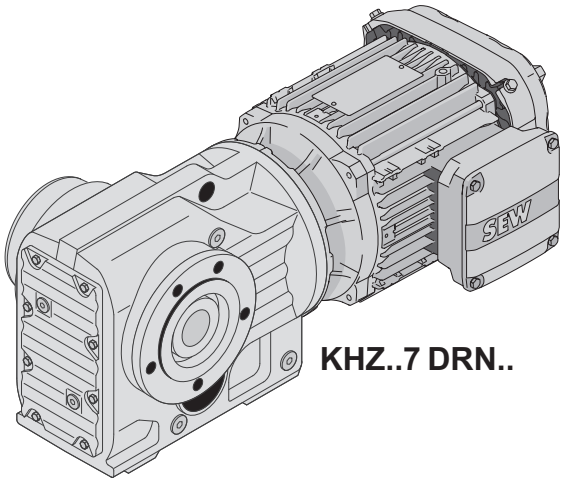
26883198/EN – 04/2022



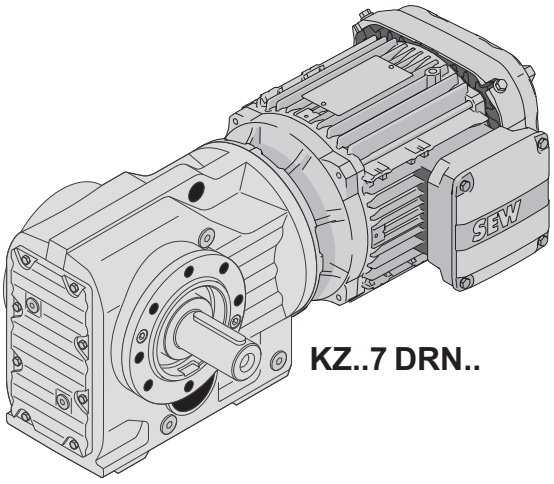
KH..7/T DRN..



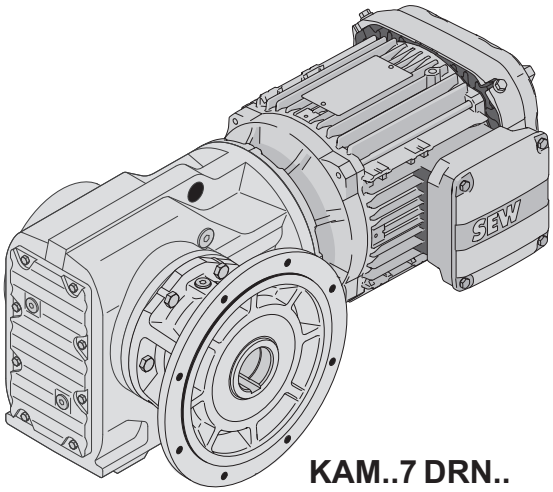
KAZ..7 DRN..
KVZ..7 DRN..



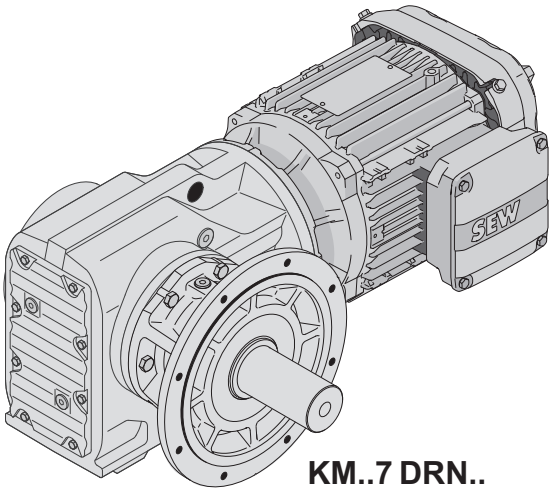
KHZ..7 DRN..



KZ..7 DRN..



KAM..7 DRN..



KM..7 DRN..

63050403901142923

26883198/EN – 04/2022

10.2 K..DRN.. possible geometrical combinations

K19, n_e=1400 min^{-1}							80 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S
					2		
24	70	4330	-	58.68			
26	70	4330	-	53.88			
28	70	4330	-	49.69*			
31	69	4340	-	44.48			
34	67	4350	-	40.63			
41	64	4370	-	34.29			
44	80	4260	-	31.74			
48	61	4200	-	29.29			
48	80	4120	-	29.14			
52	60	4090	-	27.16*			
52	80	3990	-	26.88*			
58	80	3820	-	24.06			
64	80	3680	-	21.98			
75	80	3430	-	18.55			
88	80	3210	-	15.84			
95	80	3110	-	14.69			
110	80	2930	-	12.70			
118	79	2850	-	11.84			
136	76	2720	-	10.32*			
146	63	2910	-	9.58			
173	80	2590	-	8.09			
203	80	2420	-	6.91			
218	80	2340	-	6.41*			
253	80	2200	-	5.54			
271	80	2140	-	5.16			
311	80	2010	-	4.50*			

K29, n_e=1400 min^{-1}									130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS
						2			
19	130	4980	-	71.93					
21	130	4980	-	66.25*					
23	130	4980	-	61.28*					
26	130	4980	-	54.89					
28	130	4980	-	50.35*					
33	128	4790	-	42.87					
36	130	4720	-	38.90					
38	122	4560	-	36.96					
39	130	4560	-	35.83					
42	130	4410	-	33.15					

26883198/EN – 04/2022

K29, n_e=1400 min^{-1}									130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS
46	115	4250	-	30.11					
47	130	4210	-	29.69					
51	130	4060	-	27.23					
56	109	3980	-	24.91*					
60	130	3790	-	23.19					
63	105	3820	-	22.08					
70	130	3550	-	19.99					
86	130	3240	-	16.29					
104	130	2970	-	13.47					
117	130	2810	-	11.94					
141	110	3000	-	9.90					
153	130	2470	-	9.17					
164	122	2740	-	8.53					
187	123	2300	-	7.48					
201	112	2580	-	6.95					
243	112	2370	-	5.75					
275	110	2260	-	5.10					
357	126	1910	-	3.92					
439	110	1830	-	3.19					

K37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
13	200	5640	7	106.38				
14	200	5640	7	97.81				
17	200	5640	7	83.69				
19	200	5520	7	72.54				
21	200	5360	7	67.80				
24	200	5020	7	58.60				
28	200	4660	7	49.79				
31	200	4420	7	44.46				
37	200	4100	7	37.97				
39	200	3970	8	35.57				
47	200	3650	8	29.96				
49	200	3580	9	28.83				
56	200	3330	9	24.99				
60	195	3260	9	23.36				
69	185	3110	9	20.19				
82	180	2900	9	17.15				
91	175	2780	9	15.31				
107	165	2650	9	13.08				
115	160	2600	12	12.14				
133	160	2410	13	10.49				
157	160	2200	13	8.91				

26883198/EN – 04/2022

K37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
176	155	2110	13	7.96				
206	150	1980	13	6.80				
220	145	1950	13	6.37				
261	140	1810	14	5.36				
352	125	1660	13	3.98				

K37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.20	200	5640	8	6832			
0.24	200	5640	8	5922			
0.25	200	5640	8	5491			
0.29	200	5640	8	4759			
0.34	200	5640	8	4160			
0.38	200	5640	8	3645			
0.44	200	5640	8	3205			
0.50	200	5640	8	2801			
0.57	200	5640	8	2454			
0.65	200	5640	8	2166			
0.74	200	5640	9	1891			
0.84	200	5640	8	1660			
0.95	200	5640	8	1466			
1.1	200	5640	8	1288			
1.2	200	5640	8	1136			
					3 2		
1.4	200	5640	8	996			
1.6	200	5640	8	876			
1.8	200	5640	8	761			
2.1	200	5640	8	671			
2.4	200	5640	8	585			
2.7	200	5640	8	512			
3.1	200	5640	8	451			
3.5	200	5640	10	396			
4.0	200	5640	10	346			
4.6	200	5640	8	304			
5.2	200	5640	8	267			
6.0	200	5640	8	234			
6.8	200	5640	8	205			
7.7	200	5640	8	181			
8.8	200	5640	8	160			
10	200	5640	8	136			
11	200	5640	10	127			
13	200	5640	10	110			
15	200	5640	10	96			

26883198/EN – 04/2022

K39, n_e=1400 min^{-1} — 300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M
					2				
24	300	7500	-	58.24*					
28	300	7440	-	49.69					
32	300	7000	-	43.45					
34	300	6840	-	41.28*					
39	300	6440	-	36.22					
46	300	5960	-	30.72*					
50	300	5670	-	27.73					
57	300	5330	-	24.40*					
61	300	5180	-	23.04*					
71	295	4820	-	19.62					
79	290	4630	-	17.83					
91	280	4380	-	15.44					
104	270	4160	-	13.44*					
110	250	4930	-	12.73					
116	255	4790	-	12.09*					
132	285	4360	-	10.61					
156	300	3950	-	9.00*					
172	300	3760	-	8.12*					
196	300	3530	-	7.15*					
207	300	3430	-	6.75*					
243	275	3300	-	5.75					
268	260	3240	-	5.22					
310	240	3130	-	4.52					
355	215	3070	-	3.94*					
498	170	2870	-	2.81*					

K39R17, n_e=1400 min^{-1} — 300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.35	300	7500	-	4057			
0.42	300	7500	-	3370			
0.48	300	7500	-	2906			
0.56	300	7500	-	2508			
0.59	300	7500	-	2367			
0.65	300	7500	-	2162			
0.74	300	7500	-	1881			
0.79	300	7500	-	1762			
0.86	300	7500	-	1622			
0.94	300	7500	-	1494			
1.1	300	7500	-	1321			
1.2	300	7500	-	1169			
1.3	300	7500	-	1093			

26883198/EN – 04/2022

K39R17, n_e=1400 min^{-1}							300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 2		
1.5	300	7500	-	956			
1.7	300	7500	-	814			
2.0	300	7500	-	711			
2.3	300	7500	-	605			
2.8	300	7500	-	504			
3.1	300	7500	-	454			
3.5	300	7500	-	399			
3.8	300	7500	-	365			
4.5	300	7500	-	312			
4.7	300	7500	-	299			
5.5	300	7500	-	254			
6.0	300	7500	-	234			
6.7	300	7500	-	210			
7.4	300	7500	-	189			
8.0	300	7500	-	174			
9.0	300	7500	-	156			
9.9	300	7500	-	142			
12	300	7500	-	117			
19	295	7500	-	75			

K47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
11	400	5920	7	131.87*				
12	400	5920	7	121.48*				
13	400	5920	7	104.37				
15	400	5920	7	90.86				
16	400	5920	7	85.12*				
19	400	5920	7	75.20*				
20	400	5920	7	69.84				
22	400	5920	7	63.30*				
25	400	5920	7	56.83				
29	400	5920	7	48.95*				
30	400	5920	7	46.03*				
35	400	5920	7	39.61				
40	400	5920	7	35.39				
45	400	5700	8	31.30				
48	400	5520	8	29.32				
54	400	5170	8	25.91				
58	400	4970	8	24.06				
64	400	4710	8	21.81				
72	400	4440	8	19.58				
83	380	4220	8	16.86				

26883198/EN – 04/2022

K47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
88	380	4080	8	15.86				
103	360	3890	8	13.65				
115	350	3720	9	12.19				
119	280	4060	11	11.77				
133	280	3830	11	10.56				
154	280	3540	11	9.10				
164	270	3500	11	8.56				
190	250	3380	11	7.36				
213	240	3270	12	6.58				
241	230	3140	12	5.81				
302	205	2980	12	4.64				

K47R37, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3	3		
0.14	400	5920	7	10138				
0.16	400	5920	7	8534				
0.18	400	5920	7	7662				
0.21	400	5920	7	6826				
0.23	400	5920	7	5983				
0.27	400	5920	7	5159				
0.30	400	5920	7	4601*				
0.36	400	5920	7	3940				
0.40	400	5920	7	3477				
0.46	400	5920	7	3043				
0.51	400	5920	7	2733				
0.59	400	5920	7	2354				
0.68	400	5920	7	2063				
0.77	400	5920	7	1819				
0.88	400	5920	7	1586				
1.0	400	5920	7	1388				
					3	2		
1.1	400	5920	7	1222				
1.3	400	5920	7	1097				
1.5	400	5920	7	945				
1.7	400	5920	7	831*				
1.9	400	5920	7	718*				
2.2	400	5920	8	639				
2.5	400	5920	8	552				
2.8	400	5920	7	495				
3.3	400	5920	7	426				
3.7	400	5920	8	375				
4.3	400	5920	8	327				
4.8	400	5920	9	289				

26883198/EN – 04/2022

K47R37, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
5.5	400	5920	7	256				
6.2	400	5920	8	225				
7.1	400	5920	8	198				
8.2	400	5920	8	171				
9.2	400	5920	8	153				
11	400	5920	9	131				
12	400	5920	9	112				
14	400	5920	10	99				
15	400	5920	10	94				

K49, n_e=1400 min^{-1}										500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						2				
19	475	9000	-	75.20*						
20	445	9000	-	70.19						
23	500	9000	-	60.27						
26	500	8590	-	52.94						
28	500	8380	-	50.29*						
32	500	7900	-	44.44						
37	500	7310	-	37.98*						
40	500	7000	-	34.81						
46	500	6550	-	30.55*						
48	500	6370	-	28.95*						
55	500	5940	-	25.34						
61	500	5610	-	22.83						
70	500	5220	-	20.03						
79	500	4860	-	17.67*						
89	490	4590	-	15.67						
105	470	4320	-	13.38						
123	495	5000	-	11.37*						
134	480	4860	-	10.42						
153	500	4460	-	9.14*						
162	500	4340	-	8.66*						
185	500	4050	-	7.58						
205	500	3840	-	6.83						
234	500	3570	-	5.99						
265	485	3400	-	5.29*						
299	465	3270	-	4.69*						
350	440	3110	-	4.00						

26883198/EN – 04/2022

K49R37, n_e=1400 min^{-1}								500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2	3		
0.20	500	9000	-	7137				
0.23	500	9000	-	5991				
0.27	500	9000	-	5120				
0.35	500	9000	-	4034				
0.39	500	9000	-	3580				
0.45	500	9000	-	3081				
0.50	500	9000	-	2773				
0.55	500	9000	-	2545				
0.59	500	9000	-	2372				
0.66	500	9000	-	2118				
0.72	500	9000	-	1941				
0.80	500	9000	-	1741				
0.86	500	9000	-	1632				
0.92	500	9000	-	1521				
1.1	500	9000	-	1228				
1.4	500	9000	-	1000				
					2	2		
0.98	500	9000	-	1424				
1.1	500	9000	-	1309				
1.2	500	9000	-	1120				
1.5	500	9000	-	908				
1.7	500	9000	-	802				
2.0	500	9000	-	701				
2.2	500	9000	-	645				
2.4	500	9000	-	595				
2.6	500	9000	-	543				
2.8	500	9000	-	501				
3.1	500	9000	-	449				
3.5	500	9000	-	401				
3.9	500	9000	-	360				
4.2	500	9000	-	330				
4.7	500	9000	-	300				
5.1	500	9000	-	274				
5.8	500	9000	-	243				
6.5	500	9000	-	217				
7.3	500	9000	-	193				
8.0	500	9000	-	176				
9.2	500	9000	-	152				
11	500	9000	-	125				
14	500	9000	-	99				

26883198/EN – 04/2022

K57, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
9.6	600	7630	6	145.14*						
11	600	7630	6	123.85						
13	600	7630	6	108.29						
14	600	7630	6	102.88*						
16	600	7630	6	90.26*						
18	600	7630	6	76.56*						
20	600	7630	6	69.12						
23	600	7630	6	60.81*						
24	600	7630	6	57.42*						
29	600	7630	6	48.89						
32	600	7630	7	44.43						
36	600	7630	7	38.49						
39	600	7630	7	35.70						
46	600	7300	7	30.28						
51	600	6930	7	27.34						
58	600	6480	7	24.05						
62	600	6280	7	22.71						
72	575	5910	7	19.34						
80	555	5740	8	17.57						
92	535	5430	8	15.22						
106	510	5190	8	13.25						
117	415	5150	10	11.92						
124	415	4990	10	11.26						
146	405	4650	10	9.59						
161	390	4520	10	8.71						
185	365	4360	11	7.55						
213	345	4180	11	6.57						
299	300	3800	11	4.69						

K57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.12	600	7630	7	12169				
0.13	600	7630	7	11162*				
0.15	600	7630	7	9503				
0.16	600	7630	7	8547				
0.19	600	7630	7	7277				
0.22	600	7630	7	6478*				
0.25	600	7630	7	5662*				
0.28	600	7630	7	5033				
0.32	600	7630	7	4340				
0.36	600	7630	7	3854				
0.41	600	7630	7	3390				

26883198/EN – 04/2022

K57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.48	600	7630	7	2924				
0.54	600	7630	7	2593				
0.62	600	7630	7	2249				
0.70	600	7630	7	1986				
3 2								
0.80	600	7630	7	1743				
0.91	600	7630	7	1539				
1.0	600	7630	7	1354				
1.2	600	7630	7	1174				
1.4	600	7630	7	1036*				
1.5	600	7630	7	906*				
1.7	600	7630	7	806				
2.0	600	7630	7	699				
2.3	600	7630	7	615				
2.6	600	7630	7	544*				
3.0	600	7630	8	473				
3.3	600	7630	7	421				
3.9	600	7630	8	362				
4.4	600	7630	8	319				
5.0	600	7630	7	280				
5.7	600	7630	7	246				
6.5	600	7630	8	215				
7.3	600	7630	7	192				
8.4	600	7630	7	166				
9.7	600	7630	8	145				
11	600	7630	9	129				
13	600	7630	8	111				
14	600	7630	9	97				

K67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3										
9.7	820	10300	7	144.79*						
11	820	10300	7	123.54						
13	820	10300	7	108.03						
14	820	10300	7	102.62						
16	820	10300	7	90.04						
18	820	10300	7	76.37						
20	820	10300	7	68.95						
23	820	10300	7	60.66						
24	820	10300	7	57.28						
29	820	10300	7	48.77						
32	820	10300	7	44.32						
36	800	10500	7	38.39						

26883198/EN – 04/2022

K67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
39	820	10300	8	35.62						
46	820	10300	8	30.22						
51	820	10300	8	27.28						
58	800	10500	8	24.00						
62	780	10700	8	22.66						
73	760	10800	8	19.30						
80	740	11000	8	17.54						
92	700	11300	8	15.19						
106	670	11500	8	13.22						
112	530	12300	9	12.48						
132	500	11800	9	10.63						
145	480	11500	10	9.66						
167	440	11100	10	8.37						
192	420	10700	10	7.28						
269	350	9860	10	5.20						

K67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.12	820	10300	7	12139				
0.13	820	10300	7	11134				
0.15	820	10300	7	9479				
0.17	820	10300	7	8173				
0.19	820	10300	7	7259				
0.22	820	10300	7	6462				
0.25	820	10300	7	5648				
0.29	820	10300	7	4846				
0.32	820	10300	7	4329				
0.37	820	10300	7	3750				
0.42	820	10300	7	3315				
0.48	820	10300	7	2917				
0.55	820	10300	7	2532				
0.62	820	10300	7	2244				
0.71	820	10300	7	1981				
					3 2			
0.81	820	10300	7	1739				
0.91	820	10300	7	1535				
1.0	820	10300	7	1351				
1.2	820	10300	7	1171				
1.4	820	10300	7	1034				
1.6	820	10300	7	903				
1.8	820	10300	8	793				
2.0	820	10300	7	697				
2.3	820	10300	7	613				

26883198/EN – 04/2022

K67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
2.6	820	10300	7	542				
3.0	820	10300	8	471				
3.3	820	10300	7	420				
3.9	820	10300	8	361				
4.3	820	10300	8	323				
5.0	820	10300	7	279				
5.7	820	10300	7	246				
6.5	820	10300	8	217				
7.3	820	10300	7	191				
8.4	820	10300	7	166				
9.7	820	10300	8	144				
11	820	10300	9	122				

K77, n_e=1400 min^{-1}											1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3					
7.3	1450	16100	6	192.18							
7.8	1450	16100	6	179.37							
9.1	1550	15400	6	154.02							
10	1550	15400	6	135.28							
11	1550	15400	6	128.52							
12	1550	15400	6	113.56							
14	1550	15400	6	97.05							
16	1550	15400	6	88.97							
18	1550	15400	6	78.07							
19	1550	15400	6	73.99							
22	1550	15400	6	64.75							
24	1550	15400	6	58.34							
27	1550	15400	6	51.18							
31	1550	15400	6	45.16							
35	1550	15400	6	40.04							
36	1500	15700	6	38.39							
40	1550	15400	6	35.20							
45	1550	15400	7	30.89							
48	1550	15400	7	29.27							
55	1550	15400	7	25.62							
61	1550	15400	7	23.08							
69	1500	15700	7	20.25							
78	1450	16100	7	17.87							
88	1400	15500	7	15.84							
104	1340	14800	7	13.52							
113	1000	15100	8	12.36							
129	990	14400	8	10.84							
146	940	13900	8	9.56							

26883198/EN – 04/2022

K77, n_e=1400 min^{-1}											1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
165	890	13500	9	8.48							
193	820	13100	9	7.24							

K77R37, n_e=1400 min^{-1}								1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.09	1550	15400	6	15310				
0.10	1550	15400	6	14043				
0.12	1550	15400	6	11955				
0.14	1550	15400	6	10217				
0.16	1550	15400	6	8809				
0.19	1550	15400	6	7528				
0.21	1550	15400	6	6606				
0.24	1550	15400	6	5774				
0.28	1550	15400	6	5089				
0.31	1550	15400	6	4489				
0.35	1550	15400	6	3961				
0.40	1550	15400	6	3485				
0.48	1550	15400	6	2901				
0.52	1550	15400	6	2717				
0.59	1550	15400	6	2370				
					3 2			
0.68	1550	15400	6	2050				
0.79	1550	15400	6	1772				
0.92	1550	15400	6	1514				
1.0	1550	15400	6	1388				
1.1	1550	15400	6	1218				
1.3	1550	15400	6	1053				
1.5	1550	15400	6	924				
1.7	1550	15400	6	815				
2.0	1550	15400	6	709				
2.3	1550	15400	6	622				
2.5	1550	15400	6	552				
2.9	1550	15400	6	485				
3.3	1550	15400	6	428				
3.8	1550	15400	6	367				
4.3	1550	15400	6	328				
4.8	1550	15400	7	290				
5.6	1550	15400	6	252				
6.3	1550	15400	7	221				
7.2	1550	15400	7	195				
8.0	1550	15400	7	175				
9.1	1550	15400	7	154				

26883198/EN – 04/2022

K87, n_e=1400 min^{-1}													2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							3						
7.1	2700	27300	6	197.37									
8.0	2700	27300	6	174.19									
8.5	2700	27300	6	164.34*									
9.5	2700	27300	6	147.32*									
11	2700	27300	6	126.91*									
12	2700	27300	6	115.82									
14	2700	27300	6	102.71*									
16	2700	27300	6	86.34									
18	2700	27300	6	79.34									
20	2700	27300	6	70.46									
22	2700	26200	6	63.00*									
25	2700	25000	6	56.64									
28	2700	23500	6	49.16									
32	2600	22800	6	44.02									
38	2500	21400	6	36.52*									
45	2700	19200	7	31.39									
50	2600	18500	7	27.88									
56	2500	18000	7	24.92									
62	2300	17900	7	22.41									
72	2300	16800	7	19.45									
80	2200	16300	7	17.42									
88	1800	16000	7	16.00									
97	2100	15300	7	14.45									
111	2000	14800	7	12.56									
125	1500	14900	7	11.17									
140	1500	14200	7	10.00									
169	1400	13500	7	8.29									
194	1300	13200	8	7.21									

K87R57, n_e=1400 min^{-1}										2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						3 3				
0.09	2700	27300	6	14829						
0.11	2700	27300	6	13168						
0.12	2700	27300	6	11737						
0.14	2700	27300	6	10217						
0.15	2700	27300	6	9073						
0.18	2700	27300	6	7854						
0.20	2700	27300	6	6832						
0.24	2700	27300	6	5930						
0.27	2700	27300	6	5240						
0.31	2700	27300	6	4562						
0.35	2700	27300	6	4037						
0.39	2700	27300	6	3609						

26883198/EN – 04/2022

K87R57, n_e=1400 min^{-1}										2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
0.45	2700	27300	7	3107						
0.51	2700	27300	6	2728						
0.59	2700	27300	6	2371						
					3	2				
0.67	2700	27300	6	2088						
0.76	2700	27300	6	1854						
0.84	2700	27300	6	1657						
0.99	2700	27300	6	1415						
1.1	2700	27300	6	1229						
1.3	2700	27300	6	1078						
1.5	2700	27300	6	951						
1.7	2700	27300	6	837						
1.9	2700	27300	6	726						
2.2	2700	27300	6	638						
2.5	2700	27300	6	562*						
3.0	2700	27300	6	474*						
3.3	2700	27300	6	426						
3.8	2700	27300	7	373						
4.2	2700	27300	6	330						
4.8	2700	27300	7	294						
5.6	2700	27300	7	250						
5.9	2700	27300	7	236						
7.0	2700	27300	7	201						
7.7	2700	27300	7	183						
8.8	2700	27300	7	159						
9.9	2600	27400	7	141						

K97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3					
8.0	4300	40000	7	176.05*								
9.1	4300	40000	7	153.21*								
10.0	4300	40000	7	140.28								
11	4300	40000	7	123.93*								
13	4300	40000	7	105.13								
14	4300	40000	7	96.80								
16	4300	38800	7	86.52								
18	4300	37100	7	77.89*								
20	4300	35600	7	70.54								
22	4300	33800	7	62.55								
25	4300	32300	7	56.55								
29	4300	30000	7	47.93*								
33	4300	28300	7	41.87								
37	4300	27100	8	38.30								
41	4300	25700	8	34.23								

26883198/EN – 04/2022

K97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
45	4300	24500	8	30.82								
50	4300	23300	8	27.91								
57	4300	22000	8	24.75								
63	4300	20900	8	22.37								
74	4300	19100	8	18.96								
85	4300	17800	8	16.56								
101	4300	16100	8	13.85								
117	3890	16200	8	11.99								
134	2870	16400	10	10.41								
161	2660	15800	10	8.71								
186	2400	15700	10	7.54								

K97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3	3				
0.08	4300	40000	7	18091						
0.08	4300	40000	7	16666						
0.09	4300	40000	7	14897						
0.11	4300	40000	8	13182						
0.12	4300	40000	7	11677						
0.14	4300	40000	7	10317						
0.15	4300	40000	8	9083						
0.17	4300	40000	8	8054						
0.20	4300	40000	7	6970						
0.23	4300	40000	8	6027						
0.26	4300	40000	8	5391						
0.30	4300	40000	7	4669						
0.34	4300	40000	8	4082						
0.39	4300	40000	8	3583						
0.45	4300	40000	8	3108*						
0.51	4300	40000	8	2757						
					3	2				
0.58	4300	40000	7	2419						
0.66	4300	40000	7	2123						
0.75	4300	40000	8	1856						
0.86	4300	40000	7	1625						
0.98	4300	40000	7	1430						
1.1	4300	40000	8	1261						
1.3	4300	40000	8	1102						
1.5	4300	40000	8	957						
1.6	4300	40000	8	855						
1.9	4300	40000	8	743						
2.1	4300	40000	8	652*						
2.4	4300	40000	8	573						
2.8	4300	40000	8	504						
3.2	4300	40000	8	437						

26883198/EN – 04/2022

K97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3.7	4300	40000	8	382*						
4.1	4300	40000	8	342*						
4.6	4300	40000	8	305						
5.4	4300	40000	8	258						
6.0	4300	40000	9	232						
7.0	4300	40000	9	199						

K107, n_e=1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
						3					
9.8	8000	65000	6	143.47*							
12	8000	61500	6	121.46							
12	8000	59300	6	112.41*							
14	8000	56200	6	100.75							
15	8000	53500	6	90.96*							
17	8000	50900	6	82.61							
19	8000	47900	6	73.30							
21	8000	45400	6	66.52*							
24	8000	41700	6	57.17*							
28	7840	39300	6	49.90							
33	7360	37900	6	42.33*							
38	7200	35800	6	37.00*							
43	7200	33200	7	32.69							
45	6800	34200	6	31.28*							
48	7200	30700	7	29.00							
53	7200	28800	7	26.32							
62	7200	25800	7	22.62							
71	7200	23200	7	19.74							
84	7050	21000	7	16.75							
96	6890	19500	7	14.64							
104	4300	29200	9	13.43							
119	4300	27500	9	11.73							
141	4190	25800	9	9.94							
161	4070	24600	9	8.69							
190	3600	24400	9	7.35							

K107R77, n_e=1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3	3				
0.10	8000	65000	6	14311*							
0.11	8000	65000	6	12211							
0.13	8000	65000	6	10677							

26883198/EN – 04/2022

K107R77, n_e=1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
0.15	8000	65000	6	9524							
0.17	8000	65000	6	8328							
0.19	8000	65000	7	7270							
0.23	8000	65000	6	6184							
0.25	8000	65000	6	5662							
0.27	8000	65000	6	5138							
0.32	8000	65000	7	4359*							
0.37	8000	65000	7	3810*							
0.42	8000	65000	6	3358							
0.47	8000	65000	7	2977*							
0.54	8000	65000	7	2599							
0.61	8000	65000	7	2286							
0.72	8000	65000	7	1939							
						3 2					
0.82	8000	65000	6	1713							
0.90	8000	65000	6	1554							
1.0	8000	65000	6	1336*							
1.2	8000	65000	7	1166							
1.4	8000	65000	6	1030							
1.5	8000	65000	6	904							
1.8	8000	65000	7	793*							
2.0	8000	65000	7	696*							
2.3	8000	65000	7	615							
2.7	8000	65000	7	522							
3.0	8000	65000	7	461*							
3.4	8000	65000	7	408*							
3.8	8000	65000	7	364							
4.4	8000	65000	7	318							
4.9	8000	65000	7	286*							
5.6	8000	65000	7	251							
6.3	8000	65000	7	222*							
7.1	8000	65000	7	196*							
8.0	7200	65000	8	174							
9.1	7200	65000	8	154							
10	7200	65000	8	140							

K127, n_e=1400 min^{-1}									13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
						3			
9.6	13000	79200	6	146.07					
10	13000	79200	6	136.14					
11	13000	79200	6	122.48					
13	13000	79200	6	110.18					
16	13000	75100	6	89.89					
17	13000	72100	6	81.98					

26883198/EN – 04/2022

K127, n_e=1400 min^{-1}									13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
20	13000	67700	6	70.95*					
22	13000	64000	6	62.60					
26	13000	59800	6	54.07					
29	13000	56500	6	47.82					
35	13000	52000	6	40.19					
39	13000	49400	6	36.25					
45	13000	45900	6	31.37					
51	13000	43000	6	27.68					
59	13000	39800	6	23.91					
66	13000	37200	6	21.15					
79	13000	32600	6	17.77					
98	12100	31000	6	14.35					
109	8530	35400	8	12.79					
130	8000	33900	9	10.74					
161	7230	32500	9	8.68					

K127R77, n_e=1400 min^{-1}											13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					3	3					
0.08	13000	79200	6	17550							
0.09	13000	79200	6	16006							
0.09	13000	79200	6	14975							
0.11	13000	79200	6	12440							
0.13	13000	79200	6	10915							
0.14	13000	79200	6	9819							
0.17	13000	79200	6	8443							
0.19	13000	79200	6	7482							
0.21	13000	79200	6	6565							
0.24	13000	79200	6	5804							
0.28	13000	79200	6	5027							
0.32	13000	79200	6	4423							
0.36	13000	79200	6	3889							
0.42	13000	79200	6	3311							
0.47	13000	79200	6	3009							
0.54	13000	79200	6	2607							
0.62	13000	79200	6	2268							
					3	2					
0.73	13000	79200	6	1926							
0.80	13000	79200	6	1757							
0.91	13000	79200	6	1541							
1.0	13000	79200	6	1342							
1.2	13000	79200	6	1177							
1.4	13000	79200	6	1025							
1.6	13000	79200	6	899							
1.8	13000	79200	6	790							
2.0	13000	79200	6	704							

26883198/EN – 04/2022

K127R77, n_e=1400 min^{-1}											13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
2.3	13000	79200	6	610							
2.6	13000	79200	6	549							
2.9	13000	79200	6	477							
3.3	13000	79200	6	418							

K127R87, n_e=1400 min^{-1}												13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
					3		2					
2.6	13000	79200	6	536								
3.0	13000	79200	6	473								
3.3	13000	79200	6	418								
3.8	13000	79200	6	367								
4.2	13000	79200	6	330								
4.9	13000	79200	6	287								
5.5	13000	79200	6	253								
6.6	13000	79200	6	213								
7.0	12000	79700	7	200								
8.4	12000	79700	7	166								
9.5	12000	79700	7	147								

K157, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
9.3	20000	111100	6	150.41						
11	20000	102100	6	122.39						
14	20000	93700	6	100.22						
15	20000	90000	6	91.65						
18	20000	84500	6	79.75						
20	20000	79800	6	70.38						
23	20000	74600	6	61.02						
26	20000	70600	6	54.29						
30	20000	65600	6	46.79						
37	20000	59000	6	38.02						
45	19000	55300	6	31.30						
51	20000	49600	6	27.62						
58	20000	45700	6	23.95						
66	20000	42600	6	21.31						
76	20000	38800	6	18.37						
94	20000	33800	6	14.92						
111	18700	32900	6	12.65						

26883198/EN – 04/2022

K157R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3 3								
0.08	20000	111100	6	17679									
0.09	20000	111100	6	15729									
0.10	20000	111100	6	14721									
0.11	20000	111100	6	13097									
0.12	20000	111100	6	11368									
0.14	20000	111100	6	10114									
0.16	20000	111100	6	8718									
0.18	20000	111100	6	7734									
0.20	20000	111100	6	6881									
0.24	20000	111100	6	5931									
0.28	20000	111100	6	5074									
0.31	20000	111100	6	4514									
0.35	20000	111100	6	3979									
0.40	20000	111100	6	3516									
0.46	20000	111100	6	3051									
0.54	20000	111100	6	2610									
0.60	20000	111100	6	2322									
0.69	20000	111100	6	2029									
0.78	20000	111100	6	1805									
					3 2								
0.84	20000	111100	6	1659									
1.0	20000	111100	6	1365									
1.1	20000	111100	6	1229*									
1.3	20000	111100	6	1093*									
1.5	20000	111100	6	942									
1.6	20000	111100	6	854									
1.9	20000	111100	6	756*									
2.1	20000	111100	6	661									
2.5	20000	111100	6	567									
2.8	20000	111100	6	504									
3.2	20000	111100	6	434*									
3.7	20000	111100	6	379									
4.2	20000	111100	6	333									
4.8	20000	111100	6	291									

K157R107, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					3 2					
3.6	20000	111100	6	385						
4.3	20000	111100	6	325						
4.7	20000	111100	6	299						
5.5	20000	111100	6	253						
6.1	20000	111100	6	230						
6.6	20000	111100	7	213						
7.5	20000	111100	6	187						
8.9	20000	111100	7	157						

26883198/EN – 04/2022

K157R107, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
11	20000	102100	7	122						
13	20000	96400	7	107						

K167, n_e=1400 min^{-1}										35000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
					3					
8.5	33800	150000	5	164.50						
10	35000	150000	5	134.99						
13	35000	150000	5	109.83						
16	35000	141700	5	87.86						
18	35000	134600	5	78.14						
21	35000	126500	5	68.07						
23	35000	120100	5	60.74						
27	35000	111500	5	51.77						
33	35000	101900	5	42.89						
38	35000	94200	5	36.61						
43	35000	88200	5	32.25						
49	35000	83100	5	28.77						
57	35000	76200	5	24.52						
69	35000	68500	5	20.32						
81	35000	62400	5	17.34						

K167R97, n_e=1400 min^{-1}													35000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3		3						
0.07	35000	150000	5	19723									
0.08	35000	150000	5	17406									
0.09	35000	150000	5	15000									
0.11	35000	150000	5	13238									
0.12	35000	150000	5	11573									
0.14	35000	150000	5	10264									
0.16	35000	150000	5	8628									
0.21	35000	150000	5	6562									
0.26	35000	150000	5	5355									
0.29	35000	150000	5	4788									
0.34	35000	150000	5	4079									
0.41	35000	150000	5	3376									
0.51	35000	150000	5	2755									
0.62	35000	150000	5	2263									
					3		2						
0.64	35000	150000	5	2182									
0.82	35000	150000	5	1704									
0.99	35000	150000	5	1408									
1.1	35000	150000	5	1296									

26883198/EN – 04/2022

K167R97, n_e=1400 min^{-1} — 35000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
1.3	35000	150000	5	1101									
1.5	35000	150000	5	944									
1.7	35000	150000	5	843									
1.8	35000	150000	5	757									
2.2	35000	150000	5	632									
2.5	35000	150000	5	561									
2.9	35000	150000	5	481									
3.3	35000	150000	5	423									
3.8	35000	150000	5	369									

K167R107, n_e=1400 min^{-1} — 35000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
						3 2				
4.4	35000	150000	6	318						
5.0	35000	150000	6	278						
5.7	35000	150000	5	244						
6.6	35000	150000	5	213						
6.8	35000	150000	6	206						
7.8	35000	150000	5	180						
8.8	35000	150000	6	160						
10	35000	150000	6	135						
12	35000	150000	6	118						

K187, n_e=1400 min^{-1} — 53000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
7.8	53000	190000	4	179.86						
8.5	53000	190000	4	165.21						
9.7	53000	181500	4	144.59						
11	53000	173100	4	129.69						
12	53000	162500	4	112.60						
14	53000	155400	4	102.16						
16	53000	145000	4	88.00						
19	53000	133500	4	73.96						
22	53000	124400	4	64.04						
26	53000	113400	4	53.36						
31	53000	104300	4	45.50*						
33	53000	100500	5	42.51						
36	53000	95300	5	38.57						
42	53000	87500	5	33.23						
50	53000	78900	5	27.92						
58	53000	72100	5	24.18						
69	49700	69000	5	20.15						
81	46400	67300	5	17.18						

26883198/EN – 04/2022

K187R97, n_e=1400 min^{-1}													53000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3		3						
0.04	53000	190000	4	32625									
0.05	53000	190000	4	27165									
0.06	53000	190000	4	24353									
0.07	53000	190000	4	19144									
0.08	53000	190000	4	16978									
0.10	53000	190000	4	14272									
0.11	53000	190000	4	13116									
0.12	53000	190000	4	11647									
0.13	53000	190000	4	10413									
0.15	53000	190000	4	9363									
0.17	53000	190000	4	8126									
0.19	53000	190000	4	7343									
0.21	53000	190000	4	6747									
0.23	53000	190000	4	5991									
0.26	53000	190000	4	5358									
0.29	53000	190000	4	4817									
0.32	53000	190000	4	4370									
0.50	53000	190000	4	2818*									
					3		2						
0.39	53000	190000	4	3609									
0.46	53000	190000	4	3062									
0.56	53000	190000	4	2519									
0.62	53000	190000	4	2268									
0.68	53000	190000	4	2054									
0.77	53000	190000	4	1821									
0.87	53000	190000	4	1605									
1.0	53000	190000	4	1395									
1.2	53000	190000	4	1196									
1.3	53000	190000	4	1046									
1.5	53000	190000	4	945									
1.9	53000	190000	4	738									
2.3	53000	190000	4	621									
2.7	53000	190000	4	527									

K187R107, n_e=1400 min^{-1}										53000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					3	2				
1.7	53000	190000	4	835						
1.9	53000	190000	4	729						
2.3	53000	190000	5	622						
2.7	53000	190000	5	520						
3.1	53000	190000	5	454						
3.9	53000	190000	5	355						
5.4	53000	190000	5	261						
6.3	53000	190000	5	221						
7.3	53000	190000	5	193						

26883198/EN – 04/2022

K187R107, n_e=1400 min^{-1}										53000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M
8.6	53000	190000	5	163						

26883198/EN – 04/2022

10.3 K..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.08	10800	17550	80300	1.20							
0.09	9890	16006	80700	1.30							
0.09	9260	14975	81000	1.40	**K**	**127R77**	**DRN**	**63MS4**		470	756
0.11	7690	12440	81600	1.70	**KF**	**127R77**	**DRN**	**63MS4**		510	756
0.13	6750	10915	81800	1.95	**KA**	**127R77**	**DRN**	**63MS4**		440	756
0.14	6070	9819	82000	2.1	**KAF**	**127R77**	**DRN**	**63MS4**		480	756
0.16	5180	8443	82200	2.5							
0.18	4620	7482	82400	2.8							
0.10	8850	14311	65000	0.90							
0.11	7550	12211	65000	1.05							
0.13	6600	10677	65000	1.20							
0.14	5890	9524	65000	1.35	**K**	**107R77**	**DRN**	**63MS4**		310	756
0.17	5150	8328	65000	1.55	**KF**	**107R77**	**DRN**	**63MS4**		320	756
0.19	4490	7270	65000	1.80	**KA**	**107R77**	**DRN**	**63MS4**		280	756
0.22	3700	6184	65000	2.2	**KAF**	**107R77**	**DRN**	**63MS4**		305	756
0.24	3210	5662	65000	2.5							
0.27	2910	5138	65000	2.7							
0.32	2670	4359	65000	3.0							
0.20	4420	6970	40000	0.95							
0.23	4000	6027	40000	1.05							
0.26	3650	5391	40000	1.20	**K**	**97R57**	**DRN**	**63MS4**		180	756
0.30	3020	4669	40000	1.40	**KF**	**97R57**	**DRN**	**63MS4**		200	756
0.34	2730	4082	40000	1.55	**KA**	**97R57**	**DRN**	**63MS4**		160	756
0.39	2370	3583	40000	1.80	**KAF**	**97R57**	**DRN**	**63MS4**		185	756
0.44	2090	3108	40000	2.0							
0.50	1760	2757	40000	2.4							
0.57	1650	2419	40000	2.6							
0.65	1420	2123	40000	3.0	**K**	**97R57**	**DRN**	**63MS4**		180	756
0.74	1270	1856	40000	3.4	**KF**	**97R57**	**DRN**	**63MS4**		200	756
0.85	1040	1625	40000	4.1	**KA**	**97R57**	**DRN**	**63MS4**		160	756
0.96	890	1430	40000	4.8	**KAF**	**97R57**	**DRN**	**63MS4**		185	756
1.1	860	1261	40000	5.0							
1.2	755	1102	40000	5.7							
0.30	2890	4562	27000	0.95							
0.34	2680	4037	27300	1.00	**K**	**87R57**	**DRN**	**63MS4**		120	756
0.38	2390	3609	27600	1.15	**KF**	**87R57**	**DRN**	**63MS4**		130	756
0.44	2060	3107	28000	1.30	**KA**	**87R57**	**DRN**	**63MS4**		105	756
0.51	1730	2728	28300	1.55	**KAF**	**87R57**	**DRN**	**63MS4**		120	756
0.58	1530	2371	28400	1.75							
0.66	1430	2088	28500	1.90							
0.74	1270	1854	28600	2.1							
0.83	1130	1657	28700	2.4							
0.97	960	1415	28800	2.8	**K**	**87R57**	**DRN**	**63MS4**		120	756
1.1	830	1229	28900	3.2	**KF**	**87R57**	**DRN**	**63MS4**		125	756
1.3	720	1078	28900	3.7	**KA**	**87R57**	**DRN**	**63MS4**		105	756
1.4	610	951	29000	4.4	**KAF**	**87R57**	**DRN**	**63MS4**		120	756
1.6	520	837	29000	5.2							
1.9	450	726	29000	5.9							
					K	**77R37**	**DRN**	**63MS4**		70	756
0.51	1840	2717	11500	0.85	**KF**	**77R37**	**DRN**	**63MS4**		78	756
0.58	1530	2370	15500	1.00	**KA**	**77R37**	**DRN**	**63MS4**		62	756
					KAF	**77R37**	**DRN**	**63MS4**		70	756
0.67	1430	2050	16100	1.10							
0.78	1220	1772	17300	1.25							
0.91	1040	1514	18100	1.50							
0.99	960	1388	18500	1.60	**K**	**77R37**	**DRN**	**63MS4**		69	756
1.1	840	1218	18900	1.85	**KF**	**77R37**	**DRN**	**63MS4**		78	756
1.3	735	1053	19200	2.1	**KA**	**77R37**	**DRN**	**63MS4**		62	756
1.5	645	924	19400	2.4	**KAF**	**77R37**	**DRN**	**63MS4**		70	756
1.7	570	815	19600	2.7							
1.9	445	709	19800	3.5							
2.2	390	622	19900	3.9							

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	960	1351	6940	0.85						
1.2	820	1171	10300	1.00						
1.3	720	1034	11100	1.15						
1.5	600	903	11900	1.35						
1.7	570	793	12100	1.45						
2.0	455	697	12600	1.80	**K**	**67R37**	**DRN**	**63MS4**	45	756
2.2	400	613	12800	2.0	**KF**	**67R37**	**DRN**	**63MS4**	51	756
2.5	350	542	13000	2.3	**KA**	**67R37**	**DRN**	**63MS4**	42	756
2.9	325	471	13000	2.5	**KAF**	**67R37**	**DRN**	**63MS4**	48	756
3.3	270	420	13000	3.0						
3.8	245	361	13000	3.3						
4.3	215	323	13000	3.8						
5.0	180	279	13000	4.5						
5.6	159	246	13000	5.2						
6.3	138	217	13000	5.9						
1.5	605	906	7580	1.00						
1.7	545	806	8060	1.10						
2.0	455	699	8620	1.30						
2.2	400	615	8870	1.50						
2.5	350	544	9080	1.70						
2.9	320	473	9190	1.85	**K**	**57R37**	**DRN**	**63MS4**	39	756
3.3	270	421	9390	2.2	**KF**	**57R37**	**DRN**	**63MS4**	44	756
3.8	245	362	9470	2.4	**KA**	**57R37**	**DRN**	**63MS4**	37	756
4.3	215	319	9570	2.8	**KAF**	**57R37**	**DRN**	**63MS4**	43	756
4.9	181	280	9690	3.3						
5.6	159	246	9760	3.8						
6.4	140	215	9810	4.3						
7.2	125	192	9850	4.8						
1.5	615	908	9000	0.80						
1.7	545	802	9000	0.90						
2.0	460	701	9000	1.10						
2.1	445	645	9000	1.10						
2.3	385	595	9000	1.30						
2.5	360	543	9000	1.35						
2.8	315	501	9000	1.60	**K**	**49R37**	**DRN**	**63MS4**	43	756
3.1	285	449	9000	1.75	**KF**	**49R37**	**DRN**	**63MS4**	45	756
3.4	245	401	9000	2.0	**KA**	**49R37**	**DRN**	**63MS4**	40	756
3.8	225	360	9000	2.2	**KAF**	**49R37**	**DRN**	**63MS4**	45	756
4.2	205	330	9000	2.4						
4.6	197	300	9000	2.5						
5.0	172	274	9000	2.9						
5.7	149	243	9000	3.3						
6.3	138	217	9000	3.6						
7.2	129	193	9000	3.9						
2.5	380	552	6170	1.05						
2.8	320	495	6840	1.25	**K**	**47R37**	**DRN**	**63MS4**	33	756
3.2	285	426	7160	1.40	**KF**	**47R37**	**DRN**	**63MS4**	37	756
3.7	240	375	7510	1.65	**KA**	**47R37**	**DRN**	**63MS4**	33	756
4.2	225	327	7620	1.75	**KAF**	**47R37**	**DRN**	**63MS4**	35	756
4.8	197	289	7780	2.0						
2.7	330	504	7500	0.90						
3.0	315	454	7500	0.95						
3.5	265	399	7500	1.10						
3.8	250	365	7500	1.20						
4.4	205	312	7500	1.45						
4.6	200	299	7500	1.50	**K**	**39R17**	**DRN**	**63MS4**	24	756
5.4	172	254	7500	1.75	**KF**	**39R17**	**DRN**	**63MS4**	26	756
5.9	153	234	7500	1.95	**KA**	**39R17**	**DRN**	**63MS4**	23	756
6.6	139	210	7500	2.1	**KAF**	**39R17**	**DRN**	**63MS4**	25	756
7.3	128	189	7500	2.3						
7.9	120	174	7500	2.5						
8.8	104	156	7500	2.9						
9.7	96	142	7500	3.1						
12	78	117	7500	3.8						

26883198/EN – 04/2022

P_m = 0.12 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
4.0	240	346	3540	0.80							
4.5	205	304	5150	0.95							
5.2	188	267	5310	1.05	**K**	**37R17**	**DRN**	**63MS4**		19	756
5.9	163	234	5540	1.25	**KF**	**37R17**	**DRN**	**63MS4**		22	756
6.7	142	205	5730	1.40	**KA**	**37R17**	**DRN**	**63MS4**		19	756
7.6	124	181	5900	1.60	**KAF**	**37R17**	**DRN**	**63MS4**		21	756
8.6	108	160	6040	1.85							
10	90	136	6200	2.2							
					K	**67**	**DRN**	**63M6**		35	703
6.0	190	144.79*	13000	4.3	**KF**	**67**	**DRN**	**63M6**		40	704
					KA	**67**	**DRN**	**63M6**		32	706
					KAF	**67**	**DRN**	**63M6**		38	704
6.0	191	145.14*	9660	3.1							
7.0	163	123.85	9740	3.7	**K**	**57**	**DRN**	**63M6**		29	697
8.0	142	108.29	9800	4.2	**KF**	**57**	**DRN**	**63M6**		34	698
8.5	135	102.88*	9820	4.4	**KA**	**57**	**DRN**	**63M6**		27	699
9.6	118	90.26*	9870	5.0	**KAF**	**57**	**DRN**	**63M6**		33	698
11	100	76.56*	9920	6.0							
9.5	120	145.14*	9870	5.0							
11	102	123.85	9910	5.8	**K**	**57**	**DRN**	**63MS4**		28	697
13	89	108.29	9950	6.7	**KF**	**57**	**DRN**	**63MS4**		33	698
13	85	102.88*	9960	7.0	**KA**	**57**	**DRN**	**63MS4**		26	699
15	74	90.26*	9990	8.0	**KAF**	**57**	**DRN**	**63MS4**		32	698
6.6	173	131.87*	7900	2.3	**K**	**47**	**DRN**	**63M6**		23	687
7.2	160	121.48*	7960	2.5	**KF**	**47**	**DRN**	**63M6**		26	688
8.3	137	104.37	8050	2.9	**KA**	**47**	**DRN**	**63M6**		22	689
					KAF	**47**	**DRN**	**63M6**		25	688
					K	**47**	**DRN**	**63MS4**		22	687
10	109	131.87*	8140	3.6	**KF**	**47**	**DRN**	**63MS4**		26	688
11	100	121.48*	8160	4.0	**KA**	**47**	**DRN**	**63MS4**		21	689
					KAF	**47**	**DRN**	**63MS4**		24	688
8.2	140	106.38	5750	1.45	**K**	**37**	**DRN**	**63M6**		17	677
8.9	128	97.81	5860	1.55	**KF**	**37**	**DRN**	**63M6**		19	678
10	110	83.69	6030	1.80	**KA**	**37**	**DRN**	**63M6**		17	679
12	95	72.54	6160	2.1	**KAF**	**37**	**DRN**	**63M6**		18	678
13	88	106.38	6220	2.3							
14	81	97.81	6290	2.5	**K**	**37**	**DRN**	**63MS4**		16	677
16	69	83.69	6400	2.9	**KF**	**37**	**DRN**	**63MS4**		18	678
19	60	72.54	6480	3.3	**KA**	**37**	**DRN**	**63MS4**		16	679
20	56	67.80	6520	3.5	**KAF**	**37**	**DRN**	**63MS4**		18	678
25	45	54.89	5230	2.9	**K**	**29**	**DRN**	**63MS4**		10	669
27	41	50.35*	5240	3.1	**KF**	**29**	**DRN**	**63MS4**		11	673
32	35	42.87	5260	3.6	**KA**	**29**	**DRN**	**63MS4**		10.0	675
					KAF	**29**	**DRN**	**63MS4**		11	673
31	36	44.48	4500	1.85							
34	33	40.63	4500	2.0							
40	28	34.29	4500	2.2							
47	24	29.29	4500	2.5							
51	22	27.16*	4500	2.7							
57	19	24.06	4460	4.0	**K**	**19**	**DRN**	**63MS4**		8.6	662
63	18	21.98	4340	4.4	**KF**	**19**	**DRN**	**63MS4**		9.0	665
74	15	18.55	4120	5.2	**KA**	**19**	**DRN**	**63MS4**		8.2	667
87	13	15.84	3920	6.1	**KAF**	**19**	**DRN**	**63MS4**		8.6	665
94	12	14.69	3830	6.6							
109	10	12.70	3660	7.6							
117	9.0	11.84	3580	8.0							
134	8.0	10.32*	3430	8.9							
144	7.0	9.58	3370	7.9							

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.09	15000	14975	75800	0.85						
0.11	12500	12440	79400	1.05						
0.13	10900	10915	80200	1.20						
0.14	9870	9819	80700	1.30						
0.16	8450	8443	81300	1.55	**K**	**127R77**	**DRN**	**63M4**	470	756
0.18	7520	7482	81600	1.75	**KF**	**127R77**	**DRN**	**63M4**	510	756
0.21	6600	6565	81900	1.95	**KA**	**127R77**	**DRN**	**63M4**	445	756
0.24	5590	5804	82200	2.3	**KAF**	**127R77**	**DRN**	**63M4**	480	756
0.27	4960	5027	82300	2.6						
0.31	4260	4423	82400	3.0						
0.35	3710	3889	82500	3.5						
0.42	3080	3311	82600	4.2						
0.17	8370	8328	65000	0.95						
0.19	7310	7270	65000	1.10						
0.22	6100	6184	65000	1.30						
0.24	5400	5662	65000	1.50						
0.27	4900	5138	65000	1.65	**K**	**107R77**	**DRN**	**63M4**	310	756
0.32	4360	4359	65000	1.85	**KF**	**107R77**	**DRN**	**63M4**	320	756
0.36	3810	3810	65000	2.1	**KA**	**107R77**	**DRN**	**63M4**	285	756
0.41	3230	3358	65000	2.5	**KAF**	**107R77**	**DRN**	**63M4**	305	756
0.46	2930	2977	65000	2.7						
0.53	2560	2599	65000	3.1						
0.60	2200	2286	65000	3.6						
0.29	4820	4669	40000	0.90						
0.34	4330	4082	40000	1.00	**K**	**97R57**	**DRN**	**63M4**	180	756
0.38	3760	3583	40000	1.15	**KF**	**97R57**	**DRN**	**63M4**	200	756
0.44	3300	3108	40000	1.30	**KA**	**97R57**	**DRN**	**63M4**	160	756
0.50	2840	2757	40000	1.50	**KAF**	**97R57**	**DRN**	**63M4**	185	756
0.57	2600	2419	40000	1.65						
0.65	2250	2123	40000	1.90						
0.74	2000	1856	40000	2.1						
0.85	1680	1625	40000	2.6						
0.96	1450	1430	40000	3.0	**K**	**97R57**	**DRN**	**63M4**	180	756
1.1	1360	1261	40000	3.2	**KF**	**97R57**	**DRN**	**63M4**	200	756
1.2	1180	1102	40000	3.6	**KA**	**97R57**	**DRN**	**63M4**	160	756
1.4	1030	957	40000	4.1	**KAF**	**97R57**	**DRN**	**63M4**	185	756
1.6	920	855	40000	4.6						
1.9	735	743	40000	5.8						
2.1	655	652	40000	6.5						
0.44	3280	3107	26500	0.80	**K**	**87R57**	**DRN**	**63M4**	120	756
0.50	2790	2728	27200	0.95	**KF**	**87R57**	**DRN**	**63M4**	130	756
0.58	2450	2371	27600	1.10	**KA**	**87R57**	**DRN**	**63M4**	105	756
					KAF	**87R57**	**DRN**	**63M4**	120	756
0.66	2250	2088	27800	1.20						
0.74	1990	1854	28100	1.35						
0.83	1780	1657	28200	1.50						
0.97	1520	1415	28500	1.75	**K**	**87R57**	**DRN**	**63M4**	120	756
1.1	1320	1229	28600	2.0	**KF**	**87R57**	**DRN**	**63M4**	130	756
1.3	1140	1078	28700	2.4	**KA**	**87R57**	**DRN**	**63M4**	105	756
1.4	980	951	28800	2.7	**KAF**	**87R57**	**DRN**	**63M4**	120	756
1.6	850	837	28900	3.2						
1.9	735	726	28900	3.6						
0.91	1640	1514	14700	0.95						
0.99	1500	1388	15700	1.05						
1.1	1310	1218	16800	1.15						
1.3	1150	1053	17700	1.35						
1.5	1000	924	18300	1.55	**K**	**77R37**	**DRN**	**63M4**	70	756
1.7	890	815	18700	1.75	**KF**	**77R37**	**DRN**	**63M4**	78	756
1.9	725	709	19200	2.1	**KA**	**77R37**	**DRN**	**63M4**	63	756
2.2	635	622	19400	2.4	**KAF**	**77R37**	**DRN**	**63M4**	71	756
2.5	570	552	19600	2.7						
2.8	500	485	19700	3.1						
3.2	440	428	19800	3.5						
3.8	390	367	19900	4.0						

26883198/EN – 04/2022

P_m = 0.18 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
1.7	880	793	9670	0.95							
2.0	725	697	11100	1.10							
2.2	640	613	11600	1.30							
2.5	560	542	12100	1.45	**K**	**67R37**	**DRN**	**63M4**		46	756
2.9	515	471	12300	1.60	**KF**	**67R37**	**DRN**	**63M4**		52	756
3.3	435	420	12700	1.90	**KA**	**67R37**	**DRN**	**63M4**		43	756
3.8	390	361	12800	2.1	**KAF**	**67R37**	**DRN**	**63M4**		49	756
4.3	345	323	13000	2.4							
4.9	290	279	13000	2.8							
2.5	565	544	7910	1.05							
2.9	510	473	8330	1.15							
3.3	435	421	8720	1.35							
3.8	390	362	8920	1.55	**K**	**57R37**	**DRN**	**63M4**		40	756
4.3	340	319	9110	1.75	**KF**	**57R37**	**DRN**	**63M4**		45	756
4.9	290	280	9320	2.1	**KA**	**57R37**	**DRN**	**63M4**		38	756
5.6	255	246	9440	2.3	**KAF**	**57R37**	**DRN**	**63M4**		44	756
6.4	225	215	9550	2.7							
7.2	200	192	9630	3.0							
8.3	173	166	9710	3.5							
2.5	570	543	9000	0.90							
2.7	505	501	9000	1.00							
3.1	455	449	9000	1.10							
3.4	395	401	9000	1.25							
3.8	360	360	9000	1.40							
4.2	330	330	9000	1.50	**K**	**49R37**	**DRN**	**63M4**		44	756
4.6	310	300	9000	1.60	**KF**	**49R37**	**DRN**	**63M4**		46	756
5.0	275	274	9000	1.80	**KA**	**49R37**	**DRN**	**63M4**		41	756
5.6	240	243	9000	2.1	**KAF**	**49R37**	**DRN**	**63M4**		46	756
6.3	220	217	9000	2.3							
7.1	200	193	9000	2.5							
7.8	181	176	9000	2.8							
9.1	150	152	9000	3.3							
11	127	125	9000	3.9							
3.7	390	375	6060	1.05							
4.2	350	327	6510	1.15							
4.8	310	289	6950	1.30							
5.4	265	256	7340	1.50	**K**	**47R37**	**DRN**	**63M4**		34	756
6.1	240	225	7530	1.65	**KF**	**47R37**	**DRN**	**63M4**		37	756
6.9	205	198	7740	1.95	**KA**	**47R37**	**DRN**	**63M4**		33	756
8.0	179	171	7880	2.2	**KAF**	**47R37**	**DRN**	**63M4**		36	756
9.0	160	153	7960	2.5							
10	140	131	8040	2.9							
4.4	320	312	7500	0.95							
4.6	315	299	7500	0.95							
5.4	265	254	7500	1.10							
5.9	240	234	7500	1.25							
6.5	215	210	7500	1.35	**K**	**39R17**	**DRN**	**63M4**		25	756
7.3	200	189	7500	1.50	**KF**	**39R17**	**DRN**	**63M4**		27	756
7.9	186	174	7500	1.60	**KA**	**39R17**	**DRN**	**63M4**		24	756
8.8	163	156	7500	1.85	**KAF**	**39R17**	**DRN**	**63M4**		26	756
9.7	150	142	7500	2.0							
12	122	117	7500	2.4							
18	77	75	7500	3.8							
6.7	220	205	5000	0.90							
7.6	195	181	5250	1.05	**K**	**37R17**	**DRN**	**63M4**		20	756
8.6	171	160	5470	1.15	**KF**	**37R17**	**DRN**	**63M4**		23	756
10	144	136	5720	1.40	**KA**	**37R17**	**DRN**	**63M4**		20	756
11	138	127	5770	1.45	**KAF**	**37R17**	**DRN**	**63M4**		22	756
6.3	270	144.79*	13000	3.0	**K**	**67**	**DRN**	**71MS6**		35	703
7.4	230	123.54	13000	3.5	**KF**	**67**	**DRN**	**71MS6**		41	704
8.5	200	108.03	13000	4.0	**KA**	**67**	**DRN**	**71MS6**		33	706
8.9	192	102.62	13000	4.2	**KAF**	**67**	**DRN**	**71MS6**		38	704
9.5	181	144.79*	13000	4.5	**K**	**67**	**DRN**	**63M4**		35	703
11	154	123.54	13000	5.3	**KF**	**67**	**DRN**	**63M4**		40	704
13	135	108.03	13000	6.1	**KA**	**67**	**DRN**	**63M4**		32	706
					KAF	**67**	**DRN**	**63M4**		38	704

26883198/EN – 04/2022

P_m = 0.18 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
6.3	270	145.14*	9380	2.2							
7.4	230	123.85	9520	2.6	**K**	**57**	**DRN**	**71MS6**		30	697
8.4	200	108.29	9620	3.0	**KF**	**57**	**DRN**	**71MS6**		34	698
8.9	193	102.88*	9650	3.1	**KA**	**57**	**DRN**	**71MS6**		28	699
10	169	90.26*	9720	3.5	**KAF**	**57**	**DRN**	**71MS6**		33	698
9.5	181	145.14*	9690	3.3							
11	154	123.85	9770	3.9	**K**	**57**	**DRN**	**63M4**		29	697
13	135	108.29	9820	4.4	**KF**	**57**	**DRN**	**63M4**		34	698
13	128	102.88*	9840	4.7	**KA**	**57**	**DRN**	**63M4**		27	699
15	112	90.26*	9890	5.3	**KAF**	**57**	**DRN**	**63M4**		33	698
18	95	76.56*	9930	6.3							
6.9	245	131.87*	7480	1.60							
7.5	225	121.48*	7600	1.75	**K**	**47**	**DRN**	**71MS6**		24	687
8.8	196	104.37	7790	2.0	**KF**	**47**	**DRN**	**71MS6**		27	688
10	170	90.86	7920	2.3	**KA**	**47**	**DRN**	**71MS6**		23	689
11	159	85.12*	7960	2.5	**KAF**	**47**	**DRN**	**71MS6**		26	688
10	164	131.87*	7940	2.4							
11	151	121.48*	8000	2.6	**K**	**47**	**DRN**	**63M4**		23	687
13	130	104.37	8080	3.1	**KF**	**47**	**DRN**	**63M4**		26	688
15	113	90.86	8130	3.5	**KA**	**47**	**DRN**	**63M4**		22	689
16	106	85.12*	8150	3.8	**KAF**	**47**	**DRN**	**63M4**		25	688
8.6	199	106.38	5210	1.00	**K**	**37**	**DRN**	**71MS6**		18	677
9.4	183	97.81	5360	1.10	**KF**	**37**	**DRN**	**71MS6**		20	678
11	157	83.69	5600	1.25	**KA**	**37**	**DRN**	**71MS6**		17	679
13	136	72.54	5790	1.45	**KAF**	**37**	**DRN**	**71MS6**		19	678
13	132	106.38	5820	1.50							
14	122	97.81	5920	1.65							
16	104	83.69	6080	1.90							
19	90	72.54	6200	2.2	**K**	**37**	**DRN**	**63M4**		17	677
20	84	67.80	6260	2.4	**KF**	**37**	**DRN**	**63M4**		19	678
23	73	58.60	6210	2.7	**KA**	**37**	**DRN**	**63M4**		17	679
28	62	49.79	5950	3.2	**KAF**	**37**	**DRN**	**63M4**		18	678
31	55	44.46	5770	3.6							
36	47	37.97	5520	4.2							
25	68	54.89	5160	1.90							
27	62	50.35*	5180	2.1							
32	53	42.87	5210	2.4	**K**	**29**	**DRN**	**63M4**		11	669
37	46	36.96	5230	2.6	**KF**	**29**	**DRN**	**63M4**		12	673
46	37	30.11	5050	3.0	**KA**	**29**	**DRN**	**63M4**		11	675
46	37	29.69	5070	3.5	**KAF**	**29**	**DRN**	**63M4**		12	673
50	34	27.23	4950	3.8							
55	31	24.91*	4790	3.5							
31	55	44.48	4420	1.25							
34	50	40.63	4450	1.30							
40	42	34.29	4490	1.50							
47	36	29.29	4500	1.65							
51	33	27.16*	4440	1.75							
57	30	24.06	4360	2.7							
63	27	21.98	4240	2.9	**K**	**19**	**DRN**	**63M4**		9.5	662
74	23	18.55	4040	3.5	**KF**	**19**	**DRN**	**63M4**		9.8	665
87	19	15.84	3860	4.0	**KA**	**19**	**DRN**	**63M4**		9.0	667
94	18	14.69	3770	4.4	**KAF**	**19**	**DRN**	**63M4**		9.4	665
108	15	12.70	3610	5.0							
116	14	11.84	3530	5.3							
133	12	10.32*	3390	5.9							
143	11	9.58	3340	5.3							
170	10	8.09	3160	7.9							
199	8.0	6.91	3010	9.3							

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.08	22000	17679	109900	0.90	**K**	**157R97**	**DRN**	**71MS4**	790	756
					KF	**157R97**	**DRN**	**71MS4**	870	756
					KA	**157R97**	**DRN**	**71MS4**	750	756
					KAF	**157R97**	**DRN**	**71MS4**	810	756
0.14	13900	9819	78100	0.95						
0.17	11900	8443	79700	1.10						
0.19	10600	7482	80400	1.20						
0.21	9320	6565	81000	1.40	**K**	**127R77**	**DRN**	**71MS4**	470	756
0.24	7990	5804	81400	1.65	**KF**	**127R77**	**DRN**	**71MS4**	510	756
0.28	7040	5027	81800	1.85	**KA**	**127R77**	**DRN**	**71MS4**	445	756
0.32	6090	4423	82000	2.1	**KAF**	**127R77**	**DRN**	**71MS4**	480	756
0.36	5320	3889	82200	2.4						
0.42	4440	3311	82400	2.9						
0.23	8660	6184	65000	0.90						
0.25	7740	5662	65000	1.05						
0.27	7030	5138	65000	1.15						
0.32	6170	4359	65000	1.30	**K**	**107R77**	**DRN**	**71MS4**	310	756
0.37	5390	3810	65000	1.50	**KF**	**107R77**	**DRN**	**71MS4**	325	756
0.42	4620	3358	65000	1.75	**KA**	**107R77**	**DRN**	**71MS4**	285	756
0.47	4170	2977	65000	1.90	**KAF**	**107R77**	**DRN**	**71MS4**	310	756
0.54	3640	2599	65000	2.2						
0.61	3150	2286	65000	2.5						
0.72	2670	1939	65000	3.0						
0.82	2450	1713	65000	3.3	**K**	**107R77**	**DRN**	**71MS4**	310	756
0.90	2220	1554	65000	3.6	**KF**	**107R77**	**DRN**	**71MS4**	320	756
1.1	1910	1336	65000	4.2	**KA**	**107R77**	**DRN**	**71MS4**	280	756
					KAF	**107R77**	**DRN**	**71MS4**	305	756
					K	**97R57**	**DRN**	**71MS4**	180	756
0.45	4580	3108	40000	0.95	**KF**	**97R57**	**DRN**	**71MS4**	200	756
0.51	4000	2757	40000	1.05	**KA**	**97R57**	**DRN**	**71MS4**	160	756
					KAF	**97R57**	**DRN**	**71MS4**	185	756
0.58	3610	2419	40000	1.20						
0.66	3140	2123	40000	1.35						
0.76	2770	1856	40000	1.55						
0.86	2360	1625	40000	1.80	**K**	**97R57**	**DRN**	**71MS4**	180	756
0.98	2050	1430	40000	2.1	**KF**	**97R57**	**DRN**	**71MS4**	200	756
1.1	1880	1261	40000	2.3	**KA**	**97R57**	**DRN**	**71MS4**	160	756
1.3	1640	1102	40000	2.6	**KAF**	**97R57**	**DRN**	**71MS4**	185	756
1.5	1440	957	40000	3.0						
1.6	1290	855	40000	3.3						
0.67	3120	2088	26700	0.85						
0.76	2770	1854	27200	0.95						
0.85	2480	1657	27500	1.10						
0.99	2110	1415	27900	1.30	**K**	**87R57**	**DRN**	**71MS4**	120	756
1.1	1830	1229	28200	1.45	**KF**	**87R57**	**DRN**	**71MS4**	130	756
1.3	1590	1078	28400	1.70	**KA**	**87R57**	**DRN**	**71MS4**	105	756
1.5	1380	951	28600	1.95	**KAF**	**87R57**	**DRN**	**71MS4**	120	756
1.7	1200	837	28700	2.2						
1.9	1040	726	28800	2.6						
2.2	920	638	28800	2.9						
1.3	1590	1053	15100	0.95						
1.5	1390	924	16400	1.10						
1.7	1230	815	17300	1.25						
2.0	1020	709	18200	1.50						
2.3	890	622	18700	1.75						
2.5	800	552	19000	1.90						
2.9	705	485	19200	2.2	**K**	**77R37**	**DRN**	**71MS4**	71	756
3.3	620	428	19400	2.5	**KF**	**77R37**	**DRN**	**71MS4**	79	756
3.8	545	367	19600	2.8	**KA**	**77R37**	**DRN**	**71MS4**	63	756
4.3	480	328	19700	3.2	**KAF**	**77R37**	**DRN**	**71MS4**	71	756
4.8	430	290	19800	3.6						
5.6	365	252	19900	4.2						
6.3	320	221	20000	4.8						
7.2	285	195	20000	5.4						
8.1	250	175	20000	6.2						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.3	890	613	9540	0.90						
2.6	790	542	10600	1.05						
3.0	715	471	11200	1.15						
3.4	610	420	11800	1.35	**K**	**67R37**	**DRN**	**71MS4**	47	756
3.9	540	361	12200	1.50	**KF**	**67R37**	**DRN**	**71MS4**	52	756
4.3	480	323	12500	1.70	**KA**	**67R37**	**DRN**	**71MS4**	44	756
5.0	405	279	12800	2.0	**KAF**	**67R37**	**DRN**	**71MS4**	50	756
5.7	355	246	13000	2.3						
6.5	315	217	13000	2.6						
3.3	610	421	7520	1.00						
3.9	540	362	8070	1.10						
4.4	475	319	8520	1.25						
5.0	405	280	8850	1.45						
5.7	355	246	9050	1.65	**K**	**57R37**	**DRN**	**71MS4**	41	756
6.5	315	215	9220	1.90	**KF**	**57R37**	**DRN**	**71MS4**	45	756
7.3	280	192	9350	2.1	**KA**	**57R37**	**DRN**	**71MS4**	39	756
8.4	240	166	9490	2.5	**KAF**	**57R37**	**DRN**	**71MS4**	44	756
9.7	210	145	9590	2.8						
11	193	129	9650	3.1						
13	163	111	9740	3.7						
14	143	97	9800	4.2						
3.5	560	401	9000	0.90						
3.9	505	360	9000	1.00						
4.3	465	330	9000	1.05						
4.7	430	300	9000	1.15						
5.1	385	274	9000	1.30	**K**	**49R37**	**DRN**	**71MS4**	44	756
5.8	340	243	9000	1.45	**KF**	**49R37**	**DRN**	**71MS4**	46	756
6.5	305	217	9000	1.60	**KA**	**49R37**	**DRN**	**71MS4**	42	756
7.3	280	193	9000	1.80	**KAF**	**49R37**	**DRN**	**71MS4**	46	756
8.0	250	176	9000	2.0						
9.3	210	152	9000	2.4						
11	177	125	9000	2.8						
14	138	99	9000	3.6						
6.0	335	234	7500	0.90						
6.7	305	210	7500	1.00						
7.4	275	189	7500	1.10	**K**	**39R17**	**DRN**	**71MS4**	26	756
8.1	255	174	7500	1.15	**KF**	**39R17**	**DRN**	**71MS4**	27	756
9.0	225	156	7500	1.30	**KA**	**39R17**	**DRN**	**71MS4**	25	756
9.9	205	142	7500	1.45	**KAF**	**39R17**	**DRN**	**71MS4**	26	756
12	170	117	7500	1.75						
19	107	75	7500	2.7						
4.8	500	192.18	19700	2.9	**K**	**77**	**DRN**	**71M6**	63	710
5.1	465	179.37	19800	3.1	**KF**	**77**	**DRN**	**71M6**	71	711
5.9	400	154.02	19900	3.9	**KA**	**77**	**DRN**	**71M6**	55	713
6.8	350	135.28	19900	4.4	**KAF**	**77**	**DRN**	**71M6**	63	711
6.3	375	144.79*	12900	2.2	**K**	**67**	**DRN**	**71M6**	37	703
7.4	320	123.54	13000	2.5	**KF**	**67**	**DRN**	**71M6**	42	704
8.5	280	108.03	13000	2.9	**KA**	**67**	**DRN**	**71M6**	34	706
8.9	265	102.62	13000	3.1	**KAF**	**67**	**DRN**	**71M6**	40	704
9.7	245	144.79*	13000	3.3	**K**	**67**	**DRN**	**71MS4**	35	703
11	205	123.54	13000	3.9	**KF**	**67**	**DRN**	**71MS4**	41	704
13	183	108.03	13000	4.5	**KA**	**67**	**DRN**	**71MS4**	33	706
14	174	102.62	13000	4.7	**KAF**	**67**	**DRN**	**71MS4**	38	704
6.3	375	145.14*	8970	1.60						
7.4	320	123.85	9200	1.85	**K**	**57**	**DRN**	**71M6**	31	697
8.4	280	108.29	9350	2.1	**KF**	**57**	**DRN**	**71M6**	36	698
8.9	265	102.88*	9400	2.2	**KA**	**57**	**DRN**	**71M6**	29	699
10	235	90.26*	9520	2.5	**KAF**	**57**	**DRN**	**71M6**	34	698
12	199	76.56*	9630	3.0						
9.7	245	145.14*	9480	2.4						
11	210	123.85	9600	2.9	**K**	**57**	**DRN**	**71MS4**	30	697
13	184	108.29	9680	3.3	**KF**	**57**	**DRN**	**71MS4**	34	698
14	174	102.88*	9710	3.4	**KA**	**57**	**DRN**	**71MS4**	28	699
16	153	90.26*	9770	3.9	**KAF**	**57**	**DRN**	**71MS4**	33	698
18	130	76.56*	9840	4.6						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**49**	**DRN**	**71MS4**	36	693
19	127	75.20*	9000	3.7	**KF**	**49**	**DRN**	**71MS4**	38	694
20	119	70.19	9000	3.7	**KA**	**49**	**DRN**	**71MS4**	33	695
					KAF	**49**	**DRN**	**71MS4**	38	694
6.9	340	131.87*	6620	1.15						
7.5	315	121.48*	6900	1.25	**K**	**47**	**DRN**	**71M6**	25	687
8.8	270	104.37	7290	1.45	**KF**	**47**	**DRN**	**71M6**	28	688
10	235	90.86	7550	1.70	**KA**	**47**	**DRN**	**71M6**	24	689
11	220	85.12*	7640	1.80	**KAF**	**47**	**DRN**	**71M6**	27	688
11	220	131.87*	7630	1.80						
12	205	121.48*	7740	1.95	**K**	**47**	**DRN**	**71MS4**	24	687
13	177	104.37	7890	2.3	**KF**	**47**	**DRN**	**71MS4**	27	688
15	154	90.86	7990	2.6	**KA**	**47**	**DRN**	**71MS4**	23	689
17	144	85.12*	8020	2.8	**KAF**	**47**	**DRN**	**71MS4**	26	688
					K	**39**	**DRN**	**71MS4**	23	683
24	98	58.24*	7500	3.0	**KF**	**39**	**DRN**	**71MS4**	24	684
28	84	49.69	7500	3.5	**KA**	**39**	**DRN**	**71MS4**	22	685
					KAF	**39**	**DRN**	**71MS4**	23	684
11	215	83.69	5040	0.90						
13	189	72.54	5310	1.05	**K**	**37**	**DRN**	**71M6**	19	677
14	176	67.80	5420	1.15	**KF**	**37**	**DRN**	**71M6**	21	678
16	152	58.60	5640	1.30	**KA**	**37**	**DRN**	**71M6**	19	679
18	129	49.79	5850	1.55	**KAF**	**37**	**DRN**	**71M6**	20	678
13	180	106.38	5380	1.10						
14	166	97.81	5520	1.20						
17	142	83.69	5740	1.40						
19	123	72.54	5910	1.60						
21	115	67.80	5980	1.75	**K**	**37**	**DRN**	**71MS4**	18	677
24	99	58.60	5920	2.0	**KF**	**37**	**DRN**	**71MS4**	20	678
28	84	49.79	5700	2.4	**KA**	**37**	**DRN**	**71MS4**	17	679
32	75	44.46	5540	2.6	**KAF**	**37**	**DRN**	**71MS4**	19	678
37	64	37.97	5320	3.1						
40	60	35.57	5230	3.3						
47	50	29.96	5000	3.9						
49	48	28.83	4940	4.1						
20	122	71.93	5000	1.05						
21	112	66.25*	5030	1.15						
23	104	61.28*	5060	1.25						
26	93	54.89	5090	1.40						
28	85	50.35*	5110	1.50						
33	72	42.87	5150	1.75						
36	66	38.90	5180	1.95						
38	62	36.96	5140	1.95	**K**	**29**	**DRN**	**71MS4**	12	669
39	60	35.83	5170	2.1	**KF**	**29**	**DRN**	**71MS4**	13	673
42	56	33.15	5060	2.3	**KA**	**29**	**DRN**	**71MS4**	11	675
47	51	30.11	4880	2.2	**KAF**	**29**	**DRN**	**71MS4**	12	673
47	50	29.69	4920	2.6						
52	46	27.23	4800	2.8						
56	42	24.91*	4640	2.6						
61	39	23.19	4590	3.3						
64	37	22.08	4490	2.8						
70	33	19.99	4400	3.8						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	75	44.48	4290	0.90						
35	69	40.63	4330	0.95						
41	58	34.29	4400	1.10						
44	53	31.74	4430	1.50						
48	49	29.29	4330	1.25						
48	49	29.14	4430	1.60						
52	46	27.16*	4250	1.30						
52	45	26.88*	4340	1.75						
58	40	24.06	4210	1.95						
64	37	21.98	4110	2.1	**K**	**19**	**DRN**	**71MS4**	10	662
76	31	18.55	3920	2.5	**KF**	**19**	**DRN**	**71MS4**	10	665
89	26	15.84	3750	3.0	**KA**	**19**	**DRN**	**71MS4**	9.6	667
96	24	14.69	3670	3.2	**KAF**	**19**	**DRN**	**71MS4**	10.0	665
111	21	12.70	3520	3.7						
119	20	11.84	3450	3.9						
136	17	10.32*	3310	4.3						
147	16	9.58	3280	3.9						
174	13	8.09	3110	5.8						
203	11	6.91	2960	6.8						
219	10	6.41*	2890	7.3						
254	9.0	5.54	2760	8.5						
272	8.0	5.16	2700	9.1						

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.04	64600	32625	190000	0.80	**K**	**187R97**	**DRN**	**71M4**	1770	756
0.05	53800	27165	190000	1.00	**KH**	**187R97**	**DRN**	**71M4**	1700	756
0.07	39000	19723	150000	0.90	**K**	**167R97**	**DRN**	**71M4**	1180	756
0.08	34400	17406	150000	1.00	**KH**	**167R97**	**DRN**	**71M4**	1150	756
0.08	35000	17679	98700	0.55						
0.09	31100	15729	102700	0.65	**K**	**157R97**	**DRN**	**71M4**	790	756
0.10	29100	14721	104500	0.70	**KF**	**157R97**	**DRN**	**71M4**	870	756
0.11	25900	13097	107200	0.75	**KA**	**157R97**	**DRN**	**71M4**	750	756
0.12	22500	11368	109600	0.90	**KAF**	**157R97**	**DRN**	**71M4**	810	756
0.14	20000	10114	111100	1.00						
0.19	16100	7482	73600	0.80						
0.22	14100	6565	77700	0.90						
0.24	12200	5804	79600	1.05	**K**	**127R77**	**DRN**	**71M4**	475	756
0.28	10700	5027	80300	1.20	**KF**	**127R77**	**DRN**	**71M4**	510	756
0.32	9340	4423	80900	1.40	**KA**	**127R77**	**DRN**	**71M4**	445	756
0.36	8180	3889	81400	1.60	**KAF**	**127R77**	**DRN**	**71M4**	480	756
0.43	6880	3311	81800	1.90						
0.73	4160	1926	82500	3.1	**K**	**127R77**	**DRN**	**71M4**	470	756
0.81	3790	1757	82500	3.4	**KF**	**127R77**	**DRN**	**71M4**	510	756
0.92	3290	1541	82600	3.9	**KA**	**127R77**	**DRN**	**71M4**	445	756
					KAF	**127R77**	**DRN**	**71M4**	480	756
0.37	8190	3810	65000	1.00						
0.42	7090	3358	65000	1.15	**K**	**107R77**	**DRN**	**71M4**	310	756
0.48	6360	2977	65000	1.25	**KF**	**107R77**	**DRN**	**71M4**	325	756
0.54	5550	2599	65000	1.45	**KA**	**107R77**	**DRN**	**71M4**	285	756
0.62	4830	2286	65000	1.65	**KAF**	**107R77**	**DRN**	**71M4**	310	756
0.73	4090	1939	65000	1.95						
0.83	3730	1713	65000	2.1	**K**	**107R77**	**DRN**	**71M4**	310	756
0.91	3380	1554	65000	2.4	**KF**	**107R77**	**DRN**	**71M4**	325	756
1.1	2900	1336	65000	2.8	**KA**	**107R77**	**DRN**	**71M4**	285	756
1.2	2530	1166	65000	3.1	**KAF**	**107R77**	**DRN**	**71M4**	310	756

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B					m kg	
0.67	4720	2123	40000	0.90						
0.76	4160	1856	40000	1.05						
0.87	3570	1625	40000	1.20						
0.99	3110	1430	40000	1.40						
1.1	2820	1261	40000	1.50	**K**	**97R57**	**DRN**	**71M4**	180	756
1.3	2470	1102	40000	1.75	**KF**	**97R57**	**DRN**	**71M4**	200	756
1.5	2160	957	40000	2.0	**KA**	**97R57**	**DRN**	**71M4**	165	756
1.6	1930	855	40000	2.2	**KAF**	**97R57**	**DRN**	**71M4**	190	756
1.9	1590	743	40000	2.7						
2.2	1410	652	40000	3.0						
2.5	1270	573	40000	3.4						
1.0	3160	1415	26600	0.85						
1.1	2750	1229	27200	1.00						
1.3	2400	1078	27600	1.10						
1.5	2090	951	28000	1.30						
1.7	1820	837	28200	1.50	**K**	**87R57**	**DRN**	**71M4**	120	756
1.9	1580	726	28400	1.70	**KF**	**87R57**	**DRN**	**71M4**	130	756
2.2	1400	638	28500	1.90	**KA**	**87R57**	**DRN**	**71M4**	110	756
2.5	1220	562	28700	2.2	**KAF**	**87R57**	**DRN**	**71M4**	120	756
3.0	1030	474	28800	2.6						
3.3	920	426	28800	2.9						
3.8	810	373	28900	3.3						
1.7	1830	815	11900	0.85						
2.0	1550	709	15400	1.00						
2.3	1360	622	16600	1.15						
2.6	1210	552	17400	1.25						
2.9	1060	485	18000	1.45						
3.3	940	428	18500	1.65	**K**	**77R37**	**DRN**	**71M4**	72	756
3.9	810	367	18900	1.90	**KF**	**77R37**	**DRN**	**71M4**	80	756
4.3	725	328	19200	2.1	**KA**	**77R37**	**DRN**	**71M4**	64	756
4.9	645	290	19400	2.4	**KAF**	**77R37**	**DRN**	**71M4**	72	756
5.6	555	252	19600	2.8						
6.4	485	221	19700	3.2						
7.2	430	195	19800	3.6						
8.1	380	175	19900	4.1						
9.2	335	154	19900	4.6						
3.4	920	420	9250	0.90						
3.9	810	361	10300	1.00						
4.4	725	323	11100	1.15						
5.1	610	279	11800	1.35	**K**	**67R37**	**DRN**	**71M4**	48	756
5.8	540	246	12200	1.50	**KF**	**67R37**	**DRN**	**71M4**	53	756
6.5	480	217	12500	1.70	**KA**	**67R37**	**DRN**	**71M4**	45	756
7.4	420	191	12700	1.95	**KAF**	**67R37**	**DRN**	**71M4**	51	756
8.5	360	166	12900	2.2						
9.8	320	144	13000	2.6						
12	270	122	13000	3.0						
5.1	615	280	7490	0.95						
5.8	540	246	8090	1.10						
6.6	475	215	8520	1.25						
7.4	420	192	8770	1.40	**K**	**57R37**	**DRN**	**71M4**	42	756
8.5	365	166	9020	1.65	**KF**	**57R37**	**DRN**	**71M4**	47	756
9.8	320	145	9200	1.85	**KA**	**57R37**	**DRN**	**71M4**	40	756
11	290	129	9320	2.1	**KAF**	**57R37**	**DRN**	**71M4**	46	756
13	245	111	9480	2.4						
15	215	97	9580	2.8						
5.2	585	274	9000	0.85						
5.8	515	243	9000	0.95						
6.5	465	217	9000	1.05	**K**	**49R37**	**DRN**	**71M4**	46	756
7.3	420	193	9000	1.20	**KF**	**49R37**	**DRN**	**71M4**	47	756
8.0	380	176	9000	1.30	**KA**	**49R37**	**DRN**	**71M4**	43	756
9.3	320	152	9000	1.55	**KAF**	**49R37**	**DRN**	**71M4**	48	756
11	265	125	9000	1.85						
14	205	99	9000	2.4						
9.1	340	156	7500	0.90	**K**	**39R17**	**DRN**	**71M4**	27	756
10.0	310	142	7500	0.95	**KF**	**39R17**	**DRN**	**71M4**	29	756
12	255	117	7500	1.20	**KA**	**39R17**	**DRN**	**71M4**	26	756
19	162	75	7500	1.80	**KAF**	**39R17**	**DRN**	**71M4**	28	756

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**87**	**DRN**	**80MK6**	100	717
4.7	745	197.37	28900	3.6	**KF**	**87**	**DRN**	**80MK6**	110	718
5.4	655	174.19	28900	4.1	**KA**	**87**	**DRN**	**80MK6**	89	720
					KAF	**87**	**DRN**	**80MK6**	100	718
6.1	580	154.02	19500	2.7	**K**	**77**	**DRN**	**80MK6**	65	710
6.9	510	135.28	19700	3.0	**KF**	**77**	**DRN**	**80MK6**	73	711
7.3	485	128.52	19700	3.2	**KA**	**77**	**DRN**	**80MK6**	58	713
8.2	425	113.56	19800	3.6	**KAF**	**77**	**DRN**	**80MK6**	65	711
					K	**77**	**DRN**	**71M4**	63	710
7.4	475	192.18	19700	3.0	**KF**	**77**	**DRN**	**71M4**	71	711
7.9	445	179.37	19800	3.2	**KA**	**77**	**DRN**	**71M4**	55	713
9.2	380	154.02	19900	4.0	**KAF**	**77**	**DRN**	**71M4**	63	711
7.6	465	123.54	12600	1.75	**K**	**67**	**DRN**	**80MK6**	39	703
8.7	405	108.03	12800	2.0	**KF**	**67**	**DRN**	**80MK6**	45	704
9.1	385	102.62	12900	2.1	**KA**	**67**	**DRN**	**80MK6**	36	706
10	340	90.04	13000	2.4	**KAF**	**67**	**DRN**	**80MK6**	42	704
9.8	360	144.79*	12900	2.3						
11	305	123.54	13000	2.7	**K**	**67**	**DRN**	**71M4**	37	703
13	265	108.03	13000	3.0	**KF**	**67**	**DRN**	**71M4**	42	704
16	220	90.04	13000	3.6	**KA**	**67**	**DRN**	**71M4**	34	706
19	190	76.37	13000	4.3	**KAF**	**67**	**DRN**	**71M4**	40	704
7.5	465	123.85	8570	1.30						
8.6	405	108.29	8840	1.45	**K**	**57**	**DRN**	**80MK6**	33	697
9.1	385	102.88*	8930	1.55	**KF**	**57**	**DRN**	**80MK6**	38	698
10	340	90.26*	9130	1.75	**KA**	**57**	**DRN**	**80MK6**	31	699
12	285	76.56*	9320	2.1	**KAF**	**57**	**DRN**	**80MK6**	37	698
14	260	69.12	9430	2.3						
9.8	360	145.14*	9040	1.65						
11	305	123.85	9250	1.95						
13	270	108.29	9390	2.2	**K**	**57**	**DRN**	**71M4**	31	697
14	255	102.88*	9440	2.3	**KF**	**57**	**DRN**	**71M4**	36	698
16	225	90.26*	9550	2.7	**KA**	**57**	**DRN**	**71M4**	29	699
18	191	76.56*	9660	3.1	**KAF**	**57**	**DRN**	**71M4**	34	698
20	172	69.12	9720	3.5						
					K	**49**	**DRN**	**71M4**	37	693
19	187	75.20*	9000	2.5	**KF**	**49**	**DRN**	**71M4**	39	694
20	175	70.19	9000	2.5	**KA**	**49**	**DRN**	**71M4**	35	695
23	150	60.27	9000	3.3	**KAF**	**49**	**DRN**	**71M4**	39	694
9.0	390	104.37	6000	1.00	**K**	**47**	**DRN**	**80MK6**	27	687
10	340	90.86	6630	1.15	**KF**	**47**	**DRN**	**80MK6**	31	688
11	320	85.12*	6860	1.25	**KA**	**47**	**DRN**	**80MK6**	27	689
12	280	75.20*	7200	1.40	**KAF**	**47**	**DRN**	**80MK6**	29	688
11	325	131.87*	6780	1.20						
12	300	121.48*	7030	1.30						
14	260	104.37	7380	1.55	**K**	**47**	**DRN**	**71M4**	25	687
16	225	90.86	7610	1.75	**KF**	**47**	**DRN**	**71M4**	28	688
17	210	85.12*	7700	1.90	**KA**	**47**	**DRN**	**71M4**	24	689
19	187	75.20*	7840	2.1	**KAF**	**47**	**DRN**	**71M4**	27	688
20	174	69.84	7900	2.3						
22	158	63.30*	7970	2.5						
24	145	58.24*	7500	2.1						
28	124	49.69	7500	2.4	**K**	**39**	**DRN**	**71M4**	24	683
33	108	43.45	7500	2.8	**KF**	**39**	**DRN**	**71M4**	25	684
34	103	41.28*	7500	2.9	**KA**	**39**	**DRN**	**71M4**	23	685
39	90	36.22	7500	3.3	**KAF**	**39**	**DRN**	**71M4**	24	684

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	240	97.81	3550	0.80						
17	205	83.69	5130	0.95						
20	181	72.54	5380	1.10						
21	169	67.80	5490	1.20						
24	146	58.60	5480	1.35						
28	124	49.79	5320	1.60	**K**	**37**	**DRN**	**71M4**	19	677
32	111	44.46	5200	1.80	**KF**	**37**	**DRN**	**71M4**	21	678
37	94	37.97	5030	2.1	**KA**	**37**	**DRN**	**71M4**	19	679
40	88	35.57	4960	2.2	**KAF**	**37**	**DRN**	**71M4**	20	678
47	74	29.96	4770	2.7						
49	71	28.83	4720	2.8						
57	62	24.99	4560	3.2						
61	58	23.36	4480	3.3						
70	50	20.19	4320	3.7						
82	42	17.15	4130	4.2						
26	137	54.89	4950	0.95						
28	125	50.35*	4990	1.05						
33	107	42.87	4980	1.20						
38	92	36.96	4840	1.30						
47	75	30.11	4630	1.55	**K**	**29**	**DRN**	**71M4**	13	669
48	74	29.69	4690	1.75	**KF**	**29**	**DRN**	**71M4**	14	673
52	68	27.23	4590	1.90	**KA**	**29**	**DRN**	**71M4**	13	675
57	62	24.91*	4430	1.75	**KAF**	**29**	**DRN**	**71M4**	13	673
61	57	23.19	4410	2.2						
64	55	22.08	4300	1.90						
71	49	19.99	4250	2.6						
87	40	16.29	4020	3.2						
48	73	29.29	4030	0.85						
52	67	27.16*	3980	0.90						
59	60	24.06	4000	1.35						
64	54	21.98	3920	1.45						
76	46	18.55	3760	1.75						
89	39	15.84	3610	2.0						
96	36	14.69	3540	2.2	**K**	**19**	**DRN**	**71M4**	11	662
111	31	12.70	3410	2.5	**KF**	**19**	**DRN**	**71M4**	12	665
120	29	11.84	3340	2.7	**KA**	**19**	**DRN**	**71M4**	11	667
137	25	10.32*	3220	3.0	**KAF**	**19**	**DRN**	**71M4**	11	665
148	23	9.58	3210	2.6						
175	20	8.09	3050	4.0						
205	17	6.91	2910	4.6						
221	16	6.41*	2850	5.0						
255	13	5.54	2720	5.8						
274	12	5.16	2660	6.2						
314	11	4.50*	2550	7.1						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.06	74300	24353	174100	0.70						
0.07	58400	19144	190000	0.90						
0.08	51800	16978	190000	1.00						
0.10	43400	14272	190000	1.20	**K**	**187R97**	**DRN**	**80MK4**	1770	756
0.11	39400	13116	190000	1.35	**KH**	**187R97**	**DRN**	**80MK4**	1700	756
0.12	34300	11647	190000	1.55						
0.20	22300	7343	190000	2.4						
0.21	20200	6747	190000	2.6						
0.24	17600	5991	190000	3.0						
0.40	11100	3609	190000	4.8	**K**	**187R97**	**DRN**	**80MK4**	1760	756
0.47	9420	3062	190000	5.6	**KH**	**187R97**	**DRN**	**80MK4**	1700	756
0.57	7520	2519	190000	7.0						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.08	53100	17406	127300	0.65						
0.10	45800	15000	150000	0.75						
0.11	40400	13238	150000	0.85						
0.12	35300	11573	150000	1.00						
0.14	31300	10264	150000	1.10	**K**	**167R97**	**DRN**	**80MK4**	1190	756
0.17	26200	8628	150000	1.35	**KH**	**167R97**	**DRN**	**80MK4**	1150	756
0.22	19900	6562	150000	1.75						
0.27	15700	5355	150000	2.2						
0.35	12200	4079	150000	2.9						
0.43	10200	3376	150000	3.4						
0.52	8120	2755	150000	4.3						
0.66	6740	2182	150000	5.2						
0.84	5180	1704	150000	6.8	**K**	**167R97**	**DRN**	**80MK4**	1180	756
1.0	4330	1408	150000	8.1	**KH**	**167R97**	**DRN**	**80MK4**	1140	756
1.1	3940	1296	150000	8.9						
0.16	26600	8718	106600	0.75						
0.19	23500	7734	108900	0.85	**K**	**157R97**	**DRN**	**80MK4**	790	756
0.21	20900	6881	110600	0.95	**KF**	**157R97**	**DRN**	**80MK4**	870	756
0.24	18000	5931	112200	1.10	**KA**	**157R97**	**DRN**	**80MK4**	750	756
0.36	12100	3979	114600	1.65	**KAF**	**157R97**	**DRN**	**80MK4**	810	756
0.47	9270	3051	115500	2.2						
					K	**157R97**	**DRN**	**80MK4**	790	756
0.87	5100	1659	116300	3.9	**KF**	**157R97**	**DRN**	**80MK4**	870	756
1.1	4070	1365	116400	4.9	**KA**	**157R97**	**DRN**	**80MK4**	750	756
					KAF	**157R97**	**DRN**	**80MK4**	810	756
0.32	14000	4423	77800	0.90						
0.37	12300	3889	79500	1.05	**K**	**127R77**	**DRN**	**80MK4**	475	756
0.43	10400	3311	80500	1.25	**KF**	**127R77**	**DRN**	**80MK4**	520	756
0.48	9430	3009	80900	1.40	**KA**	**127R77**	**DRN**	**80MK4**	445	756
0.55	8090	2607	81400	1.60	**KAF**	**127R77**	**DRN**	**80MK4**	485	756
0.74	6250	1926	82000	2.1						
0.82	5700	1757	82100	2.3	**K**	**127R77**	**DRN**	**80MK4**	475	756
0.93	4970	1541	82300	2.6	**KF**	**127R77**	**DRN**	**80MK4**	520	756
1.1	4350	1342	82400	3.0	**KA**	**127R77**	**DRN**	**80MK4**	445	756
1.2	3790	1177	82500	3.4	**KAF**	**127R77**	**DRN**	**80MK4**	485	756
1.4	3320	1025	82600	3.9						
0.48	9550	2977	65000	0.85	**K**	**107R77**	**DRN**	**80MK4**	315	756
0.55	8330	2599	65000	0.95	**KF**	**107R77**	**DRN**	**80MK4**	325	756
0.63	7280	2286	65000	1.10	**KA**	**107R77**	**DRN**	**80MK4**	285	756
0.74	6170	1939	65000	1.30	**KAF**	**107R77**	**DRN**	**80MK4**	310	756
0.84	5590	1713	65000	1.45						
0.92	5070	1554	65000	1.60						
1.1	4360	1336	65000	1.85						
1.2	3800	1166	65000	2.1	**K**	**107R77**	**DRN**	**80MK4**	315	756
1.4	3260	1030	65000	2.5	**KF**	**107R77**	**DRN**	**80MK4**	325	756
1.6	2840	904	65000	2.8	**KA**	**107R77**	**DRN**	**80MK4**	285	756
1.8	2570	793	65000	3.1	**KAF**	**107R77**	**DRN**	**80MK4**	310	756
2.1	2240	696	65000	3.6						
2.3	1930	615	65000	4.1						
1.0	4670	1430	40000	0.90						
1.1	4190	1261	40000	1.00						
1.3	3660	1102	40000	1.15						
1.5	3210	957	40000	1.35						
1.7	2870	855	40000	1.50	**K**	**97R57**	**DRN**	**80MK4**	185	756
1.9	2400	743	40000	1.80	**KF**	**97R57**	**DRN**	**80MK4**	205	756
2.2	2120	652	40000	2.0	**KA**	**97R57**	**DRN**	**80MK4**	165	756
2.5	1900	573	40000	2.2	**KAF**	**97R57**	**DRN**	**80MK4**	190	756
2.9	1620	504	40000	2.6						
3.3	1390	437	40000	3.1						
3.8	1240	382	40000	3.4						
4.7	1000	305	40000	4.3						

26883198/EN – 04/2022

P_m = 0.55 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B						m kg	
1.5	3120	951	26700	0.85							
1.7	2730	837	27200	1.00							
2.0	2370	726	27700	1.15							
2.2	2090	638	28000	1.30							
2.5	1830	562	28200	1.45							
3.0	1540	474	28400	1.75	**K**	**87R57**	**DRN**	**80MK4**		125	756
3.4	1380	426	28500	1.95	**KF**	**87R57**	**DRN**	**80MK4**		130	756
3.9	1210	373	28700	2.2	**KA**	**87R57**	**DRN**	**80MK4**		110	756
4.3	1060	330	28700	2.5	**KAF**	**87R57**	**DRN**	**80MK4**		125	756
4.9	940	294	28800	2.8							
5.7	820	250	28900	3.3							
6.1	775	236	28900	3.5							
7.1	655	201	28900	4.1							
3.0	1590	485	15100	0.95							
3.4	1400	428	16300	1.10							
3.9	1210	367	17400	1.25							
4.4	1080	328	18000	1.45	**K**	**77R37**	**DRN**	**80MK4**		74	756
5.0	960	290	18400	1.60	**KF**	**77R37**	**DRN**	**80MK4**		82	756
5.7	830	252	18900	1.85	**KA**	**77R37**	**DRN**	**80MK4**		67	756
6.5	725	221	19200	2.1	**KAF**	**77R37**	**DRN**	**80MK4**		75	756
7.3	640	195	19400	2.4							
8.2	570	175	19600	2.7							
9.3	500	154	19700	3.1							
5.1	910	279	9330	0.90							
5.8	800	246	10400	1.00							
6.6	715	217	11100	1.15	**K**	**67R37**	**DRN**	**80MK4**		50	756
7.5	630	191	11700	1.30	**KF**	**67R37**	**DRN**	**80MK4**		56	756
8.6	540	166	12200	1.50	**KA**	**67R37**	**DRN**	**80MK4**		47	756
10.0	475	144	12500	1.70	**KAF**	**67R37**	**DRN**	**80MK4**		53	756
12	405	122	12800	2.0							
7.5	630	192	7360	0.95							
8.6	545	166	8050	1.10	**K**	**57R37**	**DRN**	**80MK4**		44	756
9.9	480	145	8510	1.25	**KF**	**57R37**	**DRN**	**80MK4**		49	756
11	430	129	8740	1.40	**KA**	**57R37**	**DRN**	**80MK4**		42	756
13	365	111	9020	1.65	**KAF**	**57R37**	**DRN**	**80MK4**		48	756
15	320	97	9200	1.85							
8.2	565	176	9000	0.90	**K**	**49R37**	**DRN**	**80MK4**		48	756
9.5	480	152	9000	1.05	**KF**	**49R37**	**DRN**	**80MK4**		50	756
11	400	125	9000	1.25	**KA**	**49R37**	**DRN**	**80MK4**		45	756
15	310	99	9000	1.60	**KAF**	**49R37**	**DRN**	**80MK4**		50	756
4.9	1070	197.37	28700	2.5	**K**	**87**	**DRN**	**90SR6**		110	717
5.5	940	174.19	28800	2.9	**KF**	**87**	**DRN**	**90SR6**		120	718
5.9	890	164.34*	28800	3.0	**KA**	**87**	**DRN**	**90SR6**		97	720
6.6	800	147.32*	28900	3.4	**KAF**	**87**	**DRN**	**90SR6**		110	718
6.3	830	154.02	18900	1.85	**K**	**77**	**DRN**	**90SR6**		73	710
7.1	735	135.28	19200	2.1	**KF**	**77**	**DRN**	**90SR6**		82	711
7.5	695	128.52	19300	2.2	**KA**	**77**	**DRN**	**90SR6**		66	713
8.5	615	113.56	19500	2.5	**KAF**	**77**	**DRN**	**90SR6**		74	711
9.3	560	154.02	19600	2.8							
11	495	135.28	19700	3.1	**K**	**77**	**DRN**	**80MK4**		65	710
11	470	128.52	19700	3.3	**KF**	**77**	**DRN**	**80MK4**		73	711
13	415	113.56	19800	3.7	**KA**	**77**	**DRN**	**80MK4**		58	713
15	355	97.05	19900	4.4	**KAF**	**77**	**DRN**	**80MK4**		65	711
7.8	670	123.54	11500	1.20							
8.9	585	108.03	12000	1.40	**K**	**67**	**DRN**	**90SR6**		47	703
9.4	555	102.62	12100	1.45	**KF**	**67**	**DRN**	**90SR6**		53	704
11	485	90.04	12500	1.70	**KA**	**67**	**DRN**	**90SR6**		44	706
13	415	76.37	12800	1.95	**KAF**	**67**	**DRN**	**90SR6**		50	704
12	450	123.54	12600	1.80	**K**	**67**	**DRN**	**80MK4**		39	703
13	395	108.03	12800	2.1	**KF**	**67**	**DRN**	**80MK4**		45	704
16	325	90.04	13000	2.5	**KA**	**67**	**DRN**	**80MK4**		36	706
19	275	76.37	13000	2.9	**KAF**	**67**	**DRN**	**80MK4**		42	704

26883198/EN – 04/2022

P_m = 0.55 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
8.9	585	108.29	7720	1.00							
9.4	555	102.88*	7960	1.05							
11	490	90.26*	8460	1.20	**K**	**57**	**DRN**	**90SR6**		41	697
13	415	76.56*	8810	1.45	**KF**	**57**	**DRN**	**90SR6**		46	698
14	375	69.12	8980	1.60	**KA**	**57**	**DRN**	**90SR6**		39	699
16	330	60.81*	9170	1.80	**KAF**	**57**	**DRN**	**90SR6**		45	698
17	310	57.42*	9240	1.90							
12	450	123.85	8640	1.30							
13	395	108.29	8900	1.50							
14	375	102.88*	8980	1.60	**K**	**57**	**DRN**	**80MK4**		33	697
16	330	90.26*	9170	1.80	**KF**	**57**	**DRN**	**80MK4**		38	698
19	280	76.56*	9360	2.1	**KA**	**57**	**DRN**	**80MK4**		31	699
21	250	69.12	9460	2.4	**KAF**	**57**	**DRN**	**80MK4**		37	698
24	220	60.81*	9560	2.7							
25	210	57.42*	9600	2.9							
19	275	75.20*	9000	1.75							
20	255	70.19	9000	1.75							
24	220	60.27	9000	2.3	**K**	**49**	**DRN**	**80MK4**		40	693
27	193	52.94	9000	2.6	**KF**	**49**	**DRN**	**80MK4**		41	694
29	184	50.29*	9000	2.7	**KA**	**49**	**DRN**	**80MK4**		37	695
32	162	44.44	9000	3.1	**KAF**	**49**	**DRN**	**80MK4**		42	694
38	138	37.98*	9000	3.6							
14	380	104.37	6170	1.05							
16	330	90.86	6750	1.20							
17	310	85.12*	6950	1.30							
19	275	75.20*	7270	1.45	**K**	**47**	**DRN**	**80MK4**		27	687
21	255	69.84	7420	1.55	**KF**	**47**	**DRN**	**80MK4**		31	688
23	230	63.30*	7580	1.75	**KA**	**47**	**DRN**	**80MK4**		27	689
25	205	56.83	7730	1.90	**KAF**	**47**	**DRN**	**80MK4**		29	688
29	179	48.95*	7880	2.2							
31	168	46.03*	7930	2.4							
25	210	58.24*	7500	1.40							
29	181	49.69	7500	1.65							
33	159	43.45	7500	1.90							
35	151	41.28*	7500	2.0	**K**	**39**	**DRN**	**80MK4**		26	683
40	132	36.22	7500	2.3	**KF**	**39**	**DRN**	**80MK4**		28	684
47	112	30.72*	7500	2.7	**KA**	**39**	**DRN**	**80MK4**		25	685
52	101	27.73	7310	3.0	**KAF**	**39**	**DRN**	**80MK4**		27	684
59	89	24.40*	7070	3.4							
62	84	23.04*	6970	3.6							
24	210	58.60	4830	0.95							
29	182	49.79	4760	1.10							
32	162	44.46	4700	1.25							
38	138	37.97	4600	1.45							
40	130	35.57	4560	1.55							
48	109	29.96	4420	1.80							
50	105	28.83	4390	1.90	**K**	**37**	**DRN**	**80MK4**		21	677
57	91	24.99	4270	2.2	**KF**	**37**	**DRN**	**80MK4**		23	678
61	85	23.36	4210	2.3	**KA**	**37**	**DRN**	**80MK4**		21	679
71	73	20.19	4080	2.5	**KAF**	**37**	**DRN**	**80MK4**		23	678
84	62	17.15	3930	2.9							
94	56	15.31	3830	3.1							
110	47	13.08	3680	3.5							
118	44	12.14	3610	3.6							
137	38	10.49	3470	4.2							

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
39	135	36.96	4380	0.90						
48	110	30.11	4250	1.05						
48	108	29.69	4360	1.20						
53	99	27.23	4290	1.30						
58	91	24.91*	4120	1.20	**K**	**29**	**DRN**	**80MK4**	15	669
62	84	23.19	4150	1.55	**KF**	**29**	**DRN**	**80MK4**	16	673
65	80	22.08	4020	1.30	**KA**	**29**	**DRN**	**80MK4**	15	675
72	73	19.99	4020	1.80	**KAF**	**29**	**DRN**	**80MK4**	16	673
88	59	16.29	3830	2.2						
107	49	13.47	3650	2.6						
120	43	11.94	3540	3.0						
145	36	9.90	3460	3.0						
168	31	8.53	3310	3.9						
60	88	24.06	3700	0.90						
65	80	21.98	3640	1.00						
77	67	18.55	3520	1.20						
91	57	15.84	3410	1.40						
98	53	14.69	3350	1.50						
113	46	12.70	3240	1.70						
121	43	11.84	3190	1.80	**K**	**19**	**DRN**	**80MK4**	14	662
139	37	10.32*	3080	2.0	**KF**	**19**	**DRN**	**80MK4**	14	665
150	35	9.58	3100	1.80	**KA**	**19**	**DRN**	**80MK4**	13	667
177	29	8.09	2960	2.7	**KAF**	**19**	**DRN**	**80MK4**	13	665
208	25	6.91	2830	3.2						
224	23	6.41*	2770	3.4						
259	20	5.54	2660	4.0						
278	18	5.16	2600	4.2						
319	16	4.50*	2500	4.9						
295	17	9.58	2560	3.5	**K**	**19**	**DRN**	**71M2**	11	662
349	15	8.09	2430	5.3	**KF**	**19**	**DRN**	**71M2**	12	665
409	12	6.91	2320	6.2	**KA**	**19**	**DRN**	**71M2**	11	667
441	11	6.41*	2270	6.7	**KAF**	**19**	**DRN**	**71M2**	11	665

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.08	72400	16978	181900	0.75						
0.10	60600	14272	190000	0.85						
0.11	55300	13116	190000	0.95						
0.12	48400	11647	190000	1.10						
0.14	42700	10413	190000	1.25						
0.15	37800	9363	190000	1.40						
0.18	32000	8126	190000	1.65	**K**	**187R97**	**DRN**	**80M4**	1770	756
0.20	31200	7343	190000	1.70	**KH**	**187R97**	**DRN**	**80M4**	1700	756
0.21	28400	6747	190000	1.85						
0.24	24900	5991	190000	2.1						
0.27	21900	5358	190000	2.4						
0.30	19400	4817	190000	2.7						
0.33	17600	4370	190000	3.0						
0.40	15500	3609	190000	3.4						
0.47	13100	3062	190000	4.0						
0.57	10600	2519	190000	5.0						
0.63	9410	2268	190000	5.6						
0.70	8390	2054	190000	6.3	**K**	**187R97**	**DRN**	**80M4**	1770	756
0.79	7270	1821	190000	7.3	**KH**	**187R97**	**DRN**	**80M4**	1700	756
0.90	6560	1605	190000	8.1						
1.2	4780	1196	190000	11						
1.4	4170	1046	190000	13						
0.14	43700	10264	150000	0.80						
0.17	36600	8628	150000	0.95						
0.22	27900	6562	150000	1.25						
0.27	22200	5355	150000	1.55	**K**	**167R97**	**DRN**	**80M4**	1190	756
0.30	19600	4788	150000	1.80	**KH**	**167R97**	**DRN**	**80M4**	1150	756
0.35	17200	4079	150000	2.0						
0.43	14300	3376	150000	2.4						
0.52	11400	2755	150000	3.0						

26883198/EN – 04/2022

P_m = 0.75 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.66	9410	2182	150000	3.7							
0.85	7270	1704	150000	4.8							
1.0	6050	1408	150000	5.8							
1.1	5530	1296	150000	6.3	**K**	**167R97**	**DRN**	**80M4**		1190	756
1.3	4400	1101	150000	8.0	**KH**	**167R97**	**DRN**	**80M4**		1150	756
1.5	3850	944	150000	9.1							
2.3	2520	632	150000	14							
3.0	1920	481	150000	18							
0.24	25200	5931	107700	0.80							
0.28	20400	5074	110800	1.00							
0.32	18200	4514	112100	1.10	**K**	**157R97**	**DRN**	**80M4**		800	756
0.36	16900	3979	112700	1.20	**KF**	**157R97**	**DRN**	**80M4**		870	756
0.41	14400	3516	113800	1.40	**KA**	**157R97**	**DRN**	**80M4**		760	756
0.47	12900	3051	114300	1.55	**KAF**	**157R97**	**DRN**	**80M4**		820	756
0.55	10500	2610	115100	1.90							
0.62	9370	2322	115400	2.1							
0.87	7130	1659	115900	2.8							
1.1	5740	1365	116200	3.5							
1.2	5100	1229	116300	3.9	**K**	**157R97**	**DRN**	**80M4**		790	756
1.3	4530	1093	116400	4.4	**KF**	**157R97**	**DRN**	**80M4**		870	756
1.5	3910	942	116400	5.1	**KA**	**157R97**	**DRN**	**80M4**		760	756
1.7	3480	854	116500	5.7	**KAF**	**157R97**	**DRN**	**80M4**		810	756
2.5	2260	567	116600	8.8							
2.9	2010	504	116600	9.9							
0.43	14400	3311	77100	0.90	**K**	**127R77**	**DRN**	**80M4**		480	756
0.48	13000	3009	79100	1.00	**KF**	**127R77**	**DRN**	**80M4**		520	756
0.55	11200	2607	80100	1.15	**KA**	**127R77**	**DRN**	**80M4**		450	756
					KAF	**127R77**	**DRN**	**80M4**		490	756
0.75	8610	1926	81200	1.50							
0.82	7860	1757	81500	1.65							
0.93	6860	1541	81800	1.90	**K**	**127R77**	**DRN**	**80M4**		475	756
1.1	6000	1342	82100	2.2	**KF**	**127R77**	**DRN**	**80M4**		520	756
1.2	5240	1177	82200	2.5	**KA**	**127R77**	**DRN**	**80M4**		450	756
1.4	4580	1025	82400	2.8	**KAF**	**127R77**	**DRN**	**80M4**		485	756
1.6	4000	899	82500	3.2							
0.84	7690	1713	65000	1.05							
0.93	6980	1554	65000	1.15							
1.1	5990	1336	65000	1.35							
1.2	5230	1166	65000	1.55	**K**	**107R77**	**DRN**	**80M4**		315	756
1.4	4530	1030	65000	1.75	**KF**	**107R77**	**DRN**	**80M4**		330	756
1.6	3940	904	65000	2.0	**KA**	**107R77**	**DRN**	**80M4**		290	756
1.8	3540	793	65000	2.3	**KAF**	**107R77**	**DRN**	**80M4**		315	756
2.1	3090	696	65000	2.6							
2.3	2680	615	65000	3.0							
1.3	5010	1102	39900	0.85							
1.5	4400	957	40000	1.00							
1.7	3930	855	40000	1.10							
1.9	3310	743	40000	1.30							
2.2	2920	652	40000	1.45							
2.5	2610	573	40000	1.65	**K**	**97R57**	**DRN**	**80M4**		185	756
2.9	2240	504	40000	1.90	**KF**	**97R57**	**DRN**	**80M4**		205	756
3.3	1930	437	40000	2.2	**KA**	**97R57**	**DRN**	**80M4**		170	756
3.8	1710	382	40000	2.5	**KAF**	**97R57**	**DRN**	**80M4**		195	756
4.7	1380	305	40000	3.1							
5.6	1160	258	40000	3.7							
6.2	1050	232	40000	4.1							
7.2	890	199	40000	4.8							

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	3260	726	26500	0.85						
2.3	2870	638	27100	0.95						
2.6	2520	562	27500	1.05						
3.0	2120	474	27900	1.25						
3.4	1910	426	28100	1.40	**K**	**87R57**	**DRN**	**80M4**	125	756
3.9	1680	373	28300	1.60	**KF**	**87R57**	**DRN**	**80M4**	135	756
4.4	1460	330	28500	1.85	**KA**	**87R57**	**DRN**	**80M4**	115	756
4.9	1310	294	28600	2.1	**KAF**	**87R57**	**DRN**	**80M4**	125	756
5.8	1130	250	28700	2.4						
6.1	1070	236	28700	2.5						
7.2	900	201	28800	3.0						
3.9	1660	367	14500	0.95						
4.4	1480	328	15800	1.05	**K**	**77R37**	**DRN**	**80M4**	78	756
5.0	1310	290	16800	1.20	**KF**	**77R37**	**DRN**	**80M4**	86	756
5.7	1130	252	17700	1.35	**KA**	**77R37**	**DRN**	**80M4**	70	756
6.5	1000	221	18300	1.55	**KAF**	**77R37**	**DRN**	**80M4**	78	756
					K	**49R37**	**DRN**	**80M4**	51	756
12	545	125	9000	0.90	**KF**	**49R37**	**DRN**	**80M4**	53	756
15	430	99	9000	1.15	**KA**	**49R37**	**DRN**	**80M4**	48	756
					KAF	**49R37**	**DRN**	**80M4**	53	756
					K	**39R17**	**DRN**	**80M4**	32	756
19	330	75	7500	0.90	**KF**	**39R17**	**DRN**	**80M4**	34	756
					KA	**39R17**	**DRN**	**80M4**	31	756
					KAF	**39R17**	**DRN**	**80M4**	33	756
5.5	1300	174.19	28600	2.1	**K**	**87**	**DRN**	**90S6**	110	717
5.8	1220	164.34*	28700	2.2	**KF**	**87**	**DRN**	**90S6**	120	718
6.5	1100	147.32*	28700	2.5	**KA**	**87**	**DRN**	**90S6**	97	720
7.5	940	126.91*	28800	2.8	**KAF**	**87**	**DRN**	**90S6**	110	718
7.3	980	197.37	28800	2.8	**K**	**87**	**DRN**	**80M4**	105	717
8.3	860	174.19	28800	3.1	**KF**	**87**	**DRN**	**80M4**	115	718
8.8	810	164.34*	28900	3.3	**KA**	**87**	**DRN**	**80M4**	92	720
9.8	730	147.32*	28900	3.7	**KAF**	**87**	**DRN**	**80M4**	105	718
7.1	1010	135.28	18300	1.55	**K**	**77**	**DRN**	**90S6**	73	710
7.5	960	128.52	18400	1.60	**KF**	**77**	**DRN**	**90S6**	82	711
8.4	840	113.56	18800	1.80	**KA**	**77**	**DRN**	**90S6**	66	713
					KAF	**77**	**DRN**	**90S6**	74	711
					K	**77**	**DRN**	**90S6**	73	710
9.9	725	97.05	19200	2.1	**KF**	**77**	**DRN**	**90S6**	82	711
11	665	88.97	19300	2.3	**KA**	**77**	**DRN**	**90S6**	66	713
					KAF	**77**	**DRN**	**90S6**	74	711
9.3	765	154.02	19100	2.0						
11	670	135.28	19300	2.3	**K**	**77**	**DRN**	**80M4**	68	710
11	635	128.52	19400	2.4	**KF**	**77**	**DRN**	**80M4**	77	711
13	560	113.56	19600	2.7	**KA**	**77**	**DRN**	**80M4**	61	713
15	480	97.05	19700	3.2	**KAF**	**77**	**DRN**	**80M4**	69	711
12	610	123.54	11800	1.35	**K**	**67**	**DRN**	**80M4**	43	703
13	535	108.03	12200	1.55	**KF**	**67**	**DRN**	**80M4**	48	704
16	445	90.04	12600	1.85	**KA**	**67**	**DRN**	**80M4**	40	706
					KAF	**67**	**DRN**	**80M4**	46	704
19	375	76.37	12900	2.2	**K**	**67**	**DRN**	**80M4**	43	703
21	340	68.95	13000	2.4	**KF**	**67**	**DRN**	**80M4**	48	704
24	300	60.66	13000	2.7	**KA**	**67**	**DRN**	**80M4**	40	706
25	280	57.28	13000	2.9	**KAF**	**67**	**DRN**	**80M4**	46	704
12	615	123.85	7500	0.95						
13	535	108.29	8120	1.10						
14	510	102.88*	8330	1.15						
16	445	90.26*	8660	1.35	**K**	**57**	**DRN**	**80M4**	37	697
19	380	76.56*	8960	1.60	**KF**	**57**	**DRN**	**80M4**	41	698
21	340	69.12	9120	1.75	**KA**	**57**	**DRN**	**80M4**	35	699
24	300	60.81*	9280	2.0	**KAF**	**57**	**DRN**	**80M4**	40	698
25	285	57.42*	9340	2.1						
29	240	48.89	9490	2.5						
32	220	44.43	9560	2.7						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	295	60.27	9000	1.65						
27	260	52.94	9000	1.90						
29	250	50.29*	9000	2.0	**K**	**49**	**DRN**	**80M4**	43	693
32	220	44.44	9000	2.3	**KF**	**49**	**DRN**	**80M4**	45	694
38	188	37.98*	9000	2.6	**KA**	**49**	**DRN**	**80M4**	40	695
41	173	34.81	9000	2.9	**KAF**	**49**	**DRN**	**80M4**	45	694
47	151	30.55*	8960	3.3						
50	144	28.95*	8840	3.5						
19	370	75.20*	6270	1.05	**K**	**47**	**DRN**	**80M4**	31	687
21	345	69.84	6590	1.15	**KF**	**47**	**DRN**	**80M4**	34	688
23	310	63.30*	6920	1.25	**KA**	**47**	**DRN**	**80M4**	30	689
					KAF	**47**	**DRN**	**80M4**	33	688
25	280	56.83	7210	1.40						
29	240	48.95*	7500	1.65	**K**	**47**	**DRN**	**80M4**	31	687
31	225	46.03*	7600	1.75	**KF**	**47**	**DRN**	**80M4**	34	688
36	197	39.61	7790	2.0	**KA**	**47**	**DRN**	**80M4**	30	689
41	176	35.39	7690	2.3	**KAF**	**47**	**DRN**	**80M4**	33	688
46	155	31.30	7480	2.6						
29	245	49.69	7500	1.20						
33	215	43.45	7500	1.40						
35	205	41.28*	7500	1.45						
40	180	36.22	7390	1.65	**K**	**39**	**DRN**	**80M4**	30	683
47	152	30.72*	7140	1.95	**KF**	**39**	**DRN**	**80M4**	31	684
52	137	27.73	6990	2.2	**KA**	**39**	**DRN**	**80M4**	29	685
59	121	24.40*	6790	2.5	**KAF**	**39**	**DRN**	**80M4**	30	684
62	114	23.04*	6700	2.6						
73	97	19.62	6440	3.0						
81	88	17.83	6290	3.3						
93	76	15.44	6060	3.6						
32	220	44.46	4170	0.90						
38	188	37.97	4140	1.05						
40	176	35.57	4130	1.15						
48	149	29.96	4060	1.35						
50	143	28.83	4040	1.40						
58	124	24.99	3970	1.60						
62	116	23.36	3930	1.70	**K**	**37**	**DRN**	**80M4**	24	677
71	100	20.19	3840	1.85	**KF**	**37**	**DRN**	**80M4**	27	678
84	85	17.15	3720	2.1	**KA**	**37**	**DRN**	**80M4**	24	679
94	76	15.31	3640	2.3	**KAF**	**37**	**DRN**	**80M4**	26	678
110	65	13.08	3520	2.5						
119	60	12.14	3460	2.6						
137	52	10.49	3340	3.1						
162	44	8.91	3210	3.6						
181	39	7.96	3120	3.9						
58	123	24.91*	3780	0.90						
62	115	23.19	3870	1.15						
65	109	22.08	3720	0.95						
72	99	19.99	3780	1.30						
88	81	16.29	3630	1.60	**K**	**29**	**DRN**	**80M4**	19	669
107	67	13.47	3490	1.95	**KF**	**29**	**DRN**	**80M4**	20	673
121	59	11.94	3400	2.2	**KA**	**29**	**DRN**	**80M4**	18	675
146	49	9.90	3370	2.2	**KAF**	**29**	**DRN**	**80M4**	19	673
157	45	9.17	3190	2.9						
169	42	8.53	3230	2.9						
193	37	7.48	3030	3.3						
207	34	6.95	3050	3.2						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
78	92	18.55	3260	0.85						
91	78	15.84	3190	1.00						
98	73	14.69	3150	1.10						
113	63	12.70	3060	1.25						
122	58	11.84	3020	1.35	**K**	**19**	**DRN**	**80M4**	17	662
140	51	10.32*	2940	1.50	**KF**	**19**	**DRN**	**80M4**	17	665
178	40	8.09	2870	2.0	**KA**	**19**	**DRN**	**80M4**	16	667
208	34	6.91	2760	2.3	**KAF**	**19**	**DRN**	**80M4**	17	665
225	31	6.41*	2700	2.5						
260	27	5.54	2600	2.9						
279	25	5.16	2550	3.1						
320	22	4.50*	2450	3.6						
298	24	9.58	2500	2.6	**K**	**19**	**DRN**	**80MS2**	17	662
353	20	8.09	2380	3.9	**KF**	**19**	**DRN**	**80MS2**	17	665
413	17	6.91	2280	4.6	**KA**	**19**	**DRN**	**80MS2**	16	667
446	16	6.41*	2220	5.0	**KAF**	**19**	**DRN**	**80MS2**	17	665

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.12	72500	11647	181400	0.75						
0.14	64200	10413	190000	0.80						
0.16	57100	9363	190000	0.95						
0.18	48800	8126	190000	1.10						
0.20	46400	7343	190000	1.15	**K**	**187R97**	**DRN**	**90S4**	1780	756
0.22	42400	6747	190000	1.25	**KH**	**187R97**	**DRN**	**90S4**	1710	756
0.24	37300	5991	190000	1.40						
0.27	33000	5358	190000	1.60						
0.30	29400	4817	190000	1.80						
0.33	26600	4370	190000	2.0						
0.40	23100	3609	190000	2.3						
0.48	19500	3062	190000	2.7						
0.58	15800	2519	190000	3.3						
0.64	14100	2268	190000	3.7						
0.71	12600	2054	190000	4.2	**K**	**187R97**	**DRN**	**90S4**	1770	756
0.80	11000	1821	190000	4.8	**KH**	**187R97**	**DRN**	**90S4**	1710	756
0.91	9920	1605	190000	5.3						
1.2	7280	1196	190000	7.3						
1.4	6360	1046	190000	8.3						
0.22	41400	6562	150000	0.85						
0.27	33300	5355	150000	1.05						
0.30	29500	4788	150000	1.20	**K**	**167R97**	**DRN**	**90S4**	1190	756
0.36	25600	4079	150000	1.35	**KH**	**167R97**	**DRN**	**90S4**	1160	756
0.43	21300	3376	150000	1.65						
0.53	17100	2755	150000	2.0						
0.67	13900	2182	150000	2.5						
0.85	10800	1704	150000	3.2						
1.0	9000	1408	150000	3.9						
1.1	8240	1296	150000	4.2	**K**	**167R97**	**DRN**	**90S4**	1190	756
1.3	6700	1101	150000	5.2	**KH**	**167R97**	**DRN**	**90S4**	1150	756
1.5	5830	944	150000	6.0						
2.3	3840	632	150000	9.1						
3.0	2920	481	150000	12						
0.32	27500	4514	105900	0.75						
0.37	25100	3979	107800	0.80	**K**	**157R97**	**DRN**	**90S4**	800	756
0.41	21600	3516	110100	0.90	**KF**	**157R97**	**DRN**	**90S4**	880	756
0.48	19200	3051	111500	1.05	**KA**	**157R97**	**DRN**	**90S4**	760	756
0.56	15900	2610	113200	1.25	**KAF**	**157R97**	**DRN**	**90S4**	820	756
0.63	14100	2322	113900	1.40						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.88	10600	1659	115100	1.90						
1.1	8600	1365	115600	2.3						
1.2	7670	1229	115800	2.6	**K**	**157R97**	**DRN**	**90S4**	800	756
1.3	6820	1093	116000	2.9	**KF**	**157R97**	**DRN**	**90S4**	880	756
1.5	5880	942	116200	3.4	**KA**	**157R97**	**DRN**	**90S4**	760	756
1.7	5270	854	116300	3.8	**KAF**	**157R97**	**DRN**	**90S4**	820	756
2.6	3450	567	116500	5.8						
2.9	3060	504	116500	6.5						
0.76	12600	1926	79400	1.05						
0.83	11500	1757	80000	1.15						
0.94	10000	1541	80600	1.30						
1.1	8810	1342	81200	1.45						
1.2	7700	1177	81600	1.70	**K**	**127R77**	**DRN**	**90S4**	480	756
1.4	6730	1025	81900	1.95	**KF**	**127R77**	**DRN**	**90S4**	520	756
1.6	5880	899	82100	2.2	**KA**	**127R77**	**DRN**	**90S4**	455	756
1.8	5060	790	82300	2.6	**KAF**	**127R77**	**DRN**	**90S4**	490	756
2.1	4580	704	82400	2.8						
2.4	3940	610	82500	3.3						
2.6	3560	549	82600	3.6						
3.0	3060	477	82600	4.2						
1.2	7680	1166	65000	1.05						
1.4	6680	1030	65000	1.20						
1.6	5840	904	65000	1.35						
1.8	5200	793	65000	1.55						
2.1	4550	696	65000	1.75	**K**	**107R77**	**DRN**	**90S4**	320	756
2.4	3970	615	65000	2.0	**KF**	**107R77**	**DRN**	**90S4**	335	756
2.8	3370	522	65000	2.4	**KA**	**107R77**	**DRN**	**90S4**	295	756
3.2	2960	461	65000	2.7	**KAF**	**107R77**	**DRN**	**90S4**	320	756
3.6	2610	408	65000	3.1						
4.0	2360	364	65000	3.4						
4.6	2070	318	65000	3.9						
2.0	4870	743	40000	0.90						
2.2	4280	652	40000	1.00						
2.5	3830	573	40000	1.10	**K**	**97R57**	**DRN**	**90S4**	195	756
2.9	3300	504	40000	1.30	**KF**	**97R57**	**DRN**	**90S4**	215	756
3.3	2840	437	40000	1.50	**KA**	**97R57**	**DRN**	**90S4**	175	756
3.8	2510	382	40000	1.70	**KAF**	**97R57**	**DRN**	**90S4**	200	756
4.2	2220	342	40000	1.95						
3.1	3120	474	26700	0.85						
3.4	2800	426	27200	0.95						
3.9	2470	373	27600	1.10	**K**	**87R57**	**DRN**	**90S4**	130	756
4.4	2160	330	27900	1.25	**KF**	**87R57**	**DRN**	**90S4**	140	756
5.0	1930	294	28100	1.40	**KA**	**87R57**	**DRN**	**90S4**	120	756
5.8	1660	250	28300	1.60	**KAF**	**87R57**	**DRN**	**90S4**	135	756
6.2	1570	236	28400	1.70						
7.2	1330	201	28600	2.0						
5.4	1930	176.05*	40000	2.2	**K**	**97**	**DRN**	**90L6**	170	724
6.2	1680	153.21*	40000	2.6	**KF**	**97**	**DRN**	**90L6**	190	725
6.8	1530	140.28	40000	2.8	**KA**	**97**	**DRN**	**90L6**	155	727
7.7	1360	123.93*	40000	3.2	**KAF**	**97**	**DRN**	**90L6**	180	725
					K	**97**	**DRN**	**90S4**	170	724
8.3	1270	176.05*	40000	3.4	**KF**	**97**	**DRN**	**90S4**	190	725
9.5	1100	153.21*	40000	3.9	**KA**	**97**	**DRN**	**90S4**	150	727
10	1010	140.28	40000	4.2	**KAF**	**97**	**DRN**	**90S4**	175	725
					K	**87**	**DRN**	**90L6**	110	717
6.5	1610	147.32*	28400	1.65	**KF**	**87**	**DRN**	**90L6**	120	718
7.5	1390	126.91*	28500	1.95	**KA**	**87**	**DRN**	**90L6**	100	720
					KAF	**87**	**DRN**	**90L6**	115	718
8.3	1250	174.19	28600	2.1	**K**	**87**	**DRN**	**90S4**	110	717
8.8	1180	164.34*	28700	2.3	**KF**	**87**	**DRN**	**90S4**	120	718
9.9	1060	147.32*	28800	2.5	**KA**	**87**	**DRN**	**90S4**	97	720
11	910	126.91*	28800	3.0	**KAF**	**87**	**DRN**	**90S4**	110	718
13	830	115.82	28900	3.2						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**77**	**DRN**	**90L6**	77	710
8.4	1240	113.56	17200	1.25	**KF**	**77**	**DRN**	**90L6**	85	711
9.9	1060	97.05	18000	1.45	**KA**	**77**	**DRN**	**90L6**	69	713
					KAF	**77**	**DRN**	**90L6**	77	711
					K	**77**	**DRN**	**90S4**	73	710
11	970	135.28	18400	1.60	**KF**	**77**	**DRN**	**90S4**	82	711
11	920	128.52	18600	1.65	**KA**	**77**	**DRN**	**90S4**	66	713
13	810	113.56	18900	1.90	**KAF**	**77**	**DRN**	**90S4**	74	711
15	700	97.05	19300	2.2	**K**	**77**	**DRN**	**90S4**	73	710
16	640	88.97	19400	2.4	**KF**	**77**	**DRN**	**90S4**	82	711
19	560	78.07	19600	2.8	**KA**	**77**	**DRN**	**90S4**	66	713
20	530	73.99	19600	2.9	**KAF**	**77**	**DRN**	**90S4**	74	711
13	775	108.03	10700	1.05						
14	740	102.62	11000	1.10	**K**	**67**	**DRN**	**90S4**	49	703
16	650	90.04	11600	1.25	**KF**	**67**	**DRN**	**90S4**	54	704
19	550	76.37	12200	1.50	**KA**	**67**	**DRN**	**90S4**	46	706
21	495	68.95	12400	1.65	**KAF**	**67**	**DRN**	**90S4**	52	704
24	435	60.66	12700	1.85						
25	410	57.28	12800	2.0	**K**	**67**	**DRN**	**90S4**	49	703
30	350	48.77	13000	2.3	**KF**	**67**	**DRN**	**90S4**	54	704
33	315	44.32	13000	2.6	**KA**	**67**	**DRN**	**90S4**	46	706
38	275	38.39	13000	2.9	**KAF**	**67**	**DRN**	**90S4**	52	704
16	650	90.26*	6280	0.90						
19	550	76.56*	8010	1.10						
21	495	69.12	8420	1.20	**K**	**57**	**DRN**	**90S4**	43	697
24	435	60.81*	8710	1.35	**KF**	**57**	**DRN**	**90S4**	48	698
25	410	57.42*	8820	1.45	**KA**	**57**	**DRN**	**90S4**	41	699
30	350	48.89	9080	1.70	**KAF**	**57**	**DRN**	**90S4**	47	698
33	320	44.43	9210	1.85						
38	275	38.49	9370	2.2						
41	255	35.70	9440	2.3						
48	215	30.28	9570	2.7						
53	197	27.34	9430	3.0						
60	173	24.05	9130	3.5						
64	163	22.71	9000	3.7						
75	139	19.34	8640	4.1						
83	126	17.57	8420	4.4	**K**	**57**	**DRN**	**90S4**	43	697
96	109	15.22	8100	4.9	**KF**	**57**	**DRN**	**90S4**	48	698
110	95	13.25	7790	5.3	**KA**	**57**	**DRN**	**90S4**	41	699
122	86	11.92	7490	4.8	**KAF**	**57**	**DRN**	**90S4**	47	698
129	81	11.26	7370	5.1						
152	69	9.59	7040	5.8						
167	62	8.71	6850	6.2						
193	54	7.55	6570	6.7						
222	47	6.57	6310	7.3						
310	33	4.69	5700	8.9						
24	435	60.27	9000	1.15						
27	380	52.94	9000	1.30						
29	360	50.29*	9000	1.40						
33	320	44.44	9000	1.55						
38	270	37.98*	8800	1.80	**K**	**49**	**DRN**	**90S4**	48	693
42	250	34.81	8660	2.0	**KF**	**49**	**DRN**	**90S4**	50	694
48	220	30.55*	8430	2.3	**KA**	**49**	**DRN**	**90S4**	45	695
50	205	28.95*	8340	2.4	**KAF**	**49**	**DRN**	**90S4**	50	694
57	182	25.34	8100	2.7						
64	164	22.83	7900	3.0						
73	144	20.03	7660	3.5						
26	410	56.83	5430	0.95	**K**	**47**	**DRN**	**90S4**	37	687
30	350	48.95*	6520	1.15	**KF**	**47**	**DRN**	**90S4**	40	688
32	330	46.03*	6750	1.20	**KA**	**47**	**DRN**	**90S4**	36	689
					KAF	**47**	**DRN**	**90S4**	39	688

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
37	285	39.61	7160	1.40						
41	255	35.39	7050	1.55						
46	225	31.30	6920	1.75	**K**	**47**	**DRN**	**90S4**	37	687
50	210	29.32	6840	1.90	**KF**	**47**	**DRN**	**90S4**	40	688
56	187	25.91	6690	2.1	**KA**	**47**	**DRN**	**90S4**	36	689
67	157	21.81	6460	2.5	**KAF**	**47**	**DRN**	**90S4**	39	688
74	141	19.58	6310	2.8						
29	355	49.69	6810	0.85						
33	310	43.45	6760	0.95						
35	295	41.28*	6740	1.00						
40	260	36.22	6660	1.15						
47	220	30.72*	6520	1.35						
52	200	27.73	6420	1.50						
60	176	24.40*	6290	1.70	**K**	**39**	**DRN**	**90S4**	36	683
63	166	23.04*	6230	1.80	**KF**	**39**	**DRN**	**90S4**	38	684
74	141	19.62	6040	2.1	**KA**	**39**	**DRN**	**90S4**	35	685
82	128	17.83	5920	2.2	**KAF**	**39**	**DRN**	**90S4**	37	684
94	111	15.44	5740	2.5						
108	97	13.44*	5560	2.8						
114	91	12.73	5760	2.7						
120	87	12.09*	5680	2.9						
137	76	10.61	5480	3.7						
49	215	29.96	3430	0.90						
58	180	24.99	3440	1.10						
62	168	23.36	3430	1.15						
72	145	20.19	3410	1.25						
85	123	17.15	3360	1.45						
95	110	15.31	3310	1.60						
111	94	13.08	3240	1.75	**K**	**37**	**DRN**	**90S4**	30	677
120	87	12.14	3200	1.85	**KF**	**37**	**DRN**	**90S4**	33	678
139	75	10.49	3120	2.1	**KA**	**37**	**DRN**	**90S4**	30	679
163	64	8.91	3020	2.5	**KAF**	**37**	**DRN**	**90S4**	32	678
183	57	7.96	2950	2.7						
214	49	6.80	2850	3.1						
229	45	6.37	2800	3.1						
271	38	5.36	2690	3.6						
366	28	3.98	2490	4.3						
73	144	19.99	3360	0.90						
89	117	16.29	3290	1.10						
108	97	13.47	3210	1.35						
122	86	11.94	3150	1.50						
147	71	9.90	3210	1.55	**K**	**29**	**DRN**	**90S4**	25	669
159	66	9.17	2990	1.95	**KF**	**29**	**DRN**	**90S4**	26	673
171	61	8.53	3100	2.0	**KA**	**29**	**DRN**	**90S4**	24	675
195	53	7.48	2870	2.3	**KAF**	**29**	**DRN**	**90S4**	25	673
209	50	6.95	2940	2.2						
253	41	5.75	2800	2.7						
285	36	5.10	2710	3.0						
115	91	12.70	2760	0.85						
123	85	11.84	2740	0.90						
141	74	10.32*	2690	1.00						
180	58	8.09	2720	1.35	**K**	**19**	**DRN**	**90S4**	23	662
211	49	6.91	2620	1.60	**KF**	**19**	**DRN**	**90S4**	23	665
227	46	6.41*	2580	1.75	**KA**	**19**	**DRN**	**90S4**	22	667
263	39	5.54	2490	2.0	**KAF**	**19**	**DRN**	**90S4**	23	665
282	37	5.16	2440	2.1						
323	32	4.50*	2360	2.5						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.18	68200	8126	190000	0.80						
0.20	63900	7343	190000	0.85						
0.22	58500	6747	190000	0.90						
0.24	51600	5991	190000	1.05	**K**	**187R97**	**DRN**	**90L4**	1780	756
0.27	45800	5358	190000	1.15	**KH**	**187R97**	**DRN**	**90L4**	1710	756
0.30	40800	4817	190000	1.30						
0.33	37100	4370	190000	1.45						
0.40	31800	3609	190000	1.65						
0.48	26900	3062	190000	1.95						
0.58	21900	2519	190000	2.4						
0.64	19600	2268	190000	2.7						
0.71	17600	2054	190000	3.0	**K**	**187R97**	**DRN**	**90L4**	1780	756
0.80	15400	1821	190000	3.4	**KH**	**187R97**	**DRN**	**90L4**	1710	756
0.91	13700	1605	190000	3.8						
1.2	10100	1196	190000	5.2						
1.4	8880	1046	190000	6.0						
0.27	46100	5355	150000	0.75						
0.31	40900	4788	150000	0.85						
0.36	35300	4079	150000	1.00	**K**	**167R97**	**DRN**	**90L4**	1200	756
0.43	29300	3376	150000	1.20	**KH**	**167R97**	**DRN**	**90L4**	1160	756
0.53	23700	2755	150000	1.45						
0.67	19200	2182	150000	1.80						
0.86	14900	1704	150000	2.3						
1.0	12400	1408	150000	2.8						
1.1	11300	1296	150000	3.1	**K**	**167R97**	**DRN**	**90L4**	1190	756
1.3	9360	1101	150000	3.7	**KH**	**167R97**	**DRN**	**90L4**	1160	756
1.6	8110	944	150000	4.3						
2.3	5370	632	150000	6.5						
3.0	4080	481	150000	8.6						
0.48	26500	3051	106700	0.75	**K**	**157R97**	**DRN**	**90L4**	800	756
0.56	22100	2610	109800	0.90	**KF**	**157R97**	**DRN**	**90L4**	880	756
0.63	19700	2322	111300	1.00	**KA**	**157R97**	**DRN**	**90L4**	770	756
					KAF	**157R97**	**DRN**	**90L4**	830	756
0.88	14600	1659	113700	1.35						
1.1	11900	1365	114700	1.70						
1.2	10600	1229	115100	1.90	**K**	**157R97**	**DRN**	**90L4**	800	756
1.3	9460	1093	115400	2.1	**KF**	**157R97**	**DRN**	**90L4**	880	756
1.6	8150	942	115700	2.5	**KA**	**157R97**	**DRN**	**90L4**	760	756
1.7	7330	854	115900	2.7	**KAF**	**157R97**	**DRN**	**90L4**	820	756
2.6	4810	567	116300	4.2						
2.9	4280	504	116400	4.7						
2.7	4640	536	82400	2.8	**K**	**127R87**	**DRN**	**90L4**	510	756
3.5	3660	418	82600	3.5	**KF**	**127R87**	**DRN**	**90L4**	550	756
4.0	3220	367	82600	4.0	**KA**	**127R87**	**DRN**	**90L4**	480	756
					KAF	**127R87**	**DRN**	**90L4**	520	756
0.83	15700	1757	74400	0.80						
0.95	13800	1541	78300	0.95						
1.1	12000	1342	79700	1.10						
1.2	10500	1177	80400	1.25						
1.4	9200	1025	81000	1.40	**K**	**127R77**	**DRN**	**90L4**	485	756
1.6	8050	899	81400	1.60	**KF**	**127R77**	**DRN**	**90L4**	530	756
1.9	6970	790	81800	1.85	**KA**	**127R77**	**DRN**	**90L4**	455	756
2.1	6280	704	82000	2.1	**KAF**	**127R77**	**DRN**	**90L4**	495	756
2.4	5420	610	82200	2.4						
2.7	4890	549	82300	2.7						
3.1	4210	477	82500	3.1						
3.5	3720	418	82500	3.5						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	9170	1030	65000	0.85						
1.6	8020	904	65000	1.00						
1.8	7120	793	65000	1.10						
2.1	6230	696	65000	1.30	**K**	**107R77**	**DRN**	**90L4**	325	756
2.4	5460	615	65000	1.45	**KF**	**107R77**	**DRN**	**90L4**	335	756
2.8	4630	522	65000	1.75	**KA**	**107R77**	**DRN**	**90L4**	300	756
3.2	4070	461	65000	1.95	**KAF**	**107R77**	**DRN**	**90L4**	320	756
3.6	3600	408	65000	2.2						
4.0	3240	364	65000	2.5						
4.6	2830	318	65000	2.8						
2.5	5220	573	39600	0.80						
2.9	4510	504	40000	0.95						
3.4	3900	437	40000	1.10						
3.8	3440	382	40000	1.25	**K**	**97R57**	**DRN**	**90L4**	195	756
4.3	3040	342	40000	1.40	**KF**	**97R57**	**DRN**	**90L4**	215	756
4.8	2770	305	40000	1.55	**KA**	**97R57**	**DRN**	**90L4**	180	756
5.7	2340	258	40000	1.85	**KAF**	**97R57**	**DRN**	**90L4**	205	756
6.3	2100	232	40000	2.0						
7.3	1800	199	40000	2.4						
4.4	2950	330	27000	0.90						
5.0	2650	294	27400	1.00	**K**	**87R57**	**DRN**	**90L4**	135	756
5.8	2270	250	27800	1.20	**KF**	**87R57**	**DRN**	**90L4**	145	756
6.2	2140	236	27900	1.25	**KA**	**87R57**	**DRN**	**90L4**	125	756
7.3	1820	201	28200	1.50	**KAF**	**87R57**	**DRN**	**90L4**	135	756
8.0	1650	183	28400	1.65						
5.5	2620	176.05*	40000	1.65	**K**	**97**	**DRN**	**100L6**	185	724
6.3	2280	153.21*	40000	1.90	**KF**	**97**	**DRN**	**100L6**	205	725
6.8	2090	140.28	40000	2.1	**KA**	**97**	**DRN**	**100L6**	165	727
7.8	1840	123.93*	40000	2.3	**KAF**	**97**	**DRN**	**100L6**	190	725
8.3	1720	176.05*	40000	2.5	**K**	**97**	**DRN**	**90L4**	170	724
9.5	1500	153.21*	40000	2.9	**KF**	**97**	**DRN**	**90L4**	190	725
10	1370	140.28	40000	3.1	**KA**	**97**	**DRN**	**90L4**	155	727
12	1210	123.93*	40000	3.5	**KAF**	**97**	**DRN**	**90L4**	180	725
6.5	2190	147.32*	27900	1.25	**K**	**87**	**DRN**	**100L6**	125	717
7.6	1890	126.91*	28200	1.45	**KF**	**87**	**DRN**	**100L6**	135	718
8.3	1720	115.82	28300	1.55	**KA**	**87**	**DRN**	**100L6**	110	720
9.4	1530	102.71*	28400	1.75	**KAF**	**87**	**DRN**	**100L6**	125	718
8.4	1700	174.19	28300	1.60						
8.9	1610	164.34*	28400	1.70						
9.9	1440	147.32*	28500	1.85	**K**	**87**	**DRN**	**90L4**	110	717
12	1240	126.91*	28600	2.2	**KF**	**87**	**DRN**	**90L4**	120	718
13	1130	115.82	28700	2.4	**KA**	**87**	**DRN**	**90L4**	100	720
14	1000	102.71*	28800	2.7	**KAF**	**87**	**DRN**	**90L4**	115	718
17	840	86.34	28900	3.2						
8.5	1690	113.56	14300	0.90	**K**	**77**	**DRN**	**100L6**	88	710
9.9	1440	97.05	16100	1.05	**KF**	**77**	**DRN**	**100L6**	96	711
11	1320	88.97	16800	1.15	**KA**	**77**	**DRN**	**100L6**	80	713
12	1160	78.07	17600	1.35	**KAF**	**77**	**DRN**	**100L6**	88	711
11	1320	135.28	16800	1.15						
11	1260	128.52	17100	1.25	**K**	**77**	**DRN**	**90L4**	77	710
13	1110	113.56	17800	1.40	**KF**	**77**	**DRN**	**90L4**	85	711
15	950	97.05	18500	1.65	**KA**	**77**	**DRN**	**90L4**	69	713
16	870	88.97	18800	1.80	**KAF**	**77**	**DRN**	**90L4**	77	711
19	765	78.07	19100	2.0						
20	725	73.99	19200	2.1						
23	630	64.75	19400	2.4	**K**	**77**	**DRN**	**90L4**	77	710
25	570	58.34	19600	2.7	**KF**	**77**	**DRN**	**90L4**	85	711
29	500	51.18	19700	3.1	**KA**	**77**	**DRN**	**90L4**	69	713
32	440	45.16	19800	3.5	**KAF**	**77**	**DRN**	**90L4**	77	711
36	390	40.04	19900	4.0						

26883198/EN – 04/2022

P_m = 1.5 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	880	90.04	9710	0.95						
19	745	76.37	10900	1.10	**K**	**67**	**DRN**	**90L4**	52	703
21	675	68.95	11400	1.20	**KF**	**67**	**DRN**	**90L4**	58	704
24	590	60.66	11900	1.40	**KA**	**67**	**DRN**	**90L4**	49	706
26	560	57.28	12100	1.45	**KAF**	**67**	**DRN**	**90L4**	55	704
30	475	48.77	12500	1.70						
33	430	44.32	12700	1.90						
38	375	38.39	12900	2.1	**K**	**67**	**DRN**	**90L4**	52	703
41	345	35.62	13000	2.4	**KF**	**67**	**DRN**	**90L4**	58	704
48	295	30.22	13000	2.8	**KA**	**67**	**DRN**	**90L4**	49	706
54	265	27.28	13000	3.1	**KAF**	**67**	**DRN**	**90L4**	55	704
61	235	24.00	13000	3.4						
24	595	60.81*	7660	1.00	**K**	**57**	**DRN**	**90L4**	46	697
25	560	57.42*	7930	1.05	**KF**	**57**	**DRN**	**90L4**	51	698
30	475	48.89	8520	1.25	**KA**	**57**	**DRN**	**90L4**	44	699
33	435	44.43	8720	1.40	**KAF**	**57**	**DRN**	**90L4**	50	698
38	375	38.49	8980	1.60						
41	350	35.70	9090	1.70						
48	295	30.28	9130	2.0	**K**	**57**	**DRN**	**90L4**	46	697
53	265	27.34	8950	2.2	**KF**	**57**	**DRN**	**90L4**	51	698
61	235	24.05	8710	2.5	**KA**	**57**	**DRN**	**90L4**	44	699
64	220	22.71	8600	2.7	**KAF**	**57**	**DRN**	**90L4**	50	698
76	189	19.34	8300	3.0						
28	515	52.94	8280	0.95						
29	490	50.29*	8260	1.00						
33	435	44.44	8200	1.15						
38	370	37.98*	8080	1.35						
42	340	34.81	7990	1.45						
48	295	30.55*	7850	1.65	**K**	**49**	**DRN**	**90L4**	51	693
50	280	28.95*	7780	1.75	**KF**	**49**	**DRN**	**90L4**	53	694
58	245	25.34	7610	2.0	**KA**	**49**	**DRN**	**90L4**	48	695
64	220	22.83	7470	2.2	**KAF**	**49**	**DRN**	**90L4**	53	694
73	196	20.03	7280	2.5						
83	173	17.67*	7090	2.9						
93	153	15.67	6900	3.2						
109	131	13.38	6650	3.6						
37	385	39.61	6080	1.05	**K**	**47**	**DRN**	**90L4**	40	687
41	345	35.39	6340	1.15	**KF**	**47**	**DRN**	**90L4**	44	688
47	305	31.30	6290	1.30	**KA**	**47**	**DRN**	**90L4**	39	689
					KAF	**47**	**DRN**	**90L4**	42	688
50	285	29.32	6250	1.40						
56	250	25.91	6160	1.55						
67	210	21.81	6020	1.85						
75	191	19.58	5920	2.1	**K**	**47**	**DRN**	**90L4**	40	687
87	165	16.86	5760	2.3	**KF**	**47**	**DRN**	**90L4**	44	688
92	155	15.86	5690	2.4	**KA**	**47**	**DRN**	**90L4**	39	689
107	133	13.65	5520	2.7	**KAF**	**47**	**DRN**	**90L4**	42	688
120	119	12.19	5390	2.9						
124	115	11.77	5300	2.4						
40	355	36.22	5840	0.85						
48	300	30.72*	5830	1.00						
53	270	27.73	5800	1.10						
60	235	24.40*	5740	1.25						
63	225	23.04*	5700	1.35						
74	192	19.62	5600	1.55	**K**	**39**	**DRN**	**90L4**	39	683
82	174	17.83	5520	1.65	**KF**	**39**	**DRN**	**90L4**	41	684
95	151	15.44	5390	1.85	**KA**	**39**	**DRN**	**90L4**	38	685
109	131	13.44*	5260	2.0	**KAF**	**39**	**DRN**	**90L4**	40	684
115	124	12.73	5560	2.0						
121	118	12.09*	5490	2.1						
138	104	10.61	5310	2.7						
162	88	9.00*	5080	3.4						
180	79	8.12*	4950	3.8						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
63	225	23.36	2880	0.85						
72	197	20.19	2920	0.95						
85	168	17.15	2950	1.05						
95	150	15.31	2940	1.15						
112	128	13.08	2920	1.30						
120	118	12.14	2910	1.35	**K**	**37**	**DRN**	**90L4**	33	677
139	102	10.49	2870	1.55	**KF**	**37**	**DRN**	**90L4**	36	678
164	87	8.91	2810	1.85	**KA**	**37**	**DRN**	**90L4**	33	679
184	78	7.96	2760	2.0	**KAF**	**37**	**DRN**	**90L4**	35	678
215	66	6.80	2680	2.2						
229	62	6.37	2650	2.3						
272	52	5.36	2560	2.7						
367	39	3.98	2400	3.2						
90	159	16.29	2910	0.80						
108	132	13.47	2890	1.00						
122	117	11.94	2860	1.10						
159	89	9.17	2780	1.45						
171	83	8.53	2940	1.45	**K**	**29**	**DRN**	**90L4**	28	669
195	73	7.48	2690	1.70	**KF**	**29**	**DRN**	**90L4**	29	673
210	68	6.95	2820	1.65	**KA**	**29**	**DRN**	**90L4**	27	675
254	56	5.75	2690	2.0	**KAF**	**29**	**DRN**	**90L4**	28	673
287	49	5.10	2620	2.2						
373	38	3.92	2440	3.3						
458	31	3.19	2310	3.5						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.24	77500	5991	160700	0.70						
0.27	68900	5358	190000	0.75						
0.30	61700	4817	190000	0.85	**K**	**187R97**	**DRN**	**100LS4**	1780	756
0.33	56000	4370	190000	0.95	**KH**	**187R97**	**DRN**	**100LS4**	1720	756
0.51	35200	2818	190000	1.50						
0.40	47600	3609	190000	1.10						
0.47	40300	3062	190000	1.30						
0.58	32900	2519	190000	1.60						
0.64	29500	2268	190000	1.80	**K**	**187R97**	**DRN**	**100LS4**	1780	756
0.71	26600	2054	190000	2.0	**KH**	**187R97**	**DRN**	**100LS4**	1710	756
0.80	23400	1821	190000	2.3						
0.90	20800	1605	190000	2.5						
0.43	43900	3376	150000	0.80						
0.53	35600	2755	150000	1.00	**K**	**167R97**	**DRN**	**100LS4**	1200	756
0.64	28600	2263	150000	1.20	**KH**	**167R97**	**DRN**	**100LS4**	1160	756
0.66	28800	2182	150000	1.20						
0.85	22400	1704	150000	1.55						
1.0	18500	1408	150000	1.90	**K**	**167R97**	**DRN**	**100LS4**	1200	756
1.1	17000	1296	150000	2.0	**KH**	**167R97**	**DRN**	**100LS4**	1160	756
1.3	14100	1101	150000	2.5						
1.5	12200	944	150000	2.9						
0.62	29700	2322	104000	0.65	**K**	**157R97**	**DRN**	**100LS4**	810	756
0.71	25600	2029	107400	0.80	**KF**	**157R97**	**DRN**	**100LS4**	890	756
0.80	22800	1805	109400	0.90	**KA**	**157R97**	**DRN**	**100LS4**	770	756
					KAF	**157R97**	**DRN**	**100LS4**	830	756
0.87	21800	1659	110000	0.90						
1.1	17800	1365	112200	1.10						
1.2	16000	1229	113100	1.25	**K**	**157R97**	**DRN**	**100LS4**	800	756
1.3	14200	1093	113900	1.40	**KF**	**157R97**	**DRN**	**100LS4**	880	756
1.5	12200	942	114600	1.65	**KA**	**157R97**	**DRN**	**100LS4**	770	756
1.7	11000	854	115000	1.80	**KAF**	**157R97**	**DRN**	**100LS4**	830	756
1.9	9570	756	115400	2.1						
2.7	6980	536	81800	1.85	**K**	**127R87**	**DRN**	**100LS4**	510	756
3.1	6110	473	82000	2.1	**KF**	**127R87**	**DRN**	**100LS4**	550	756
3.5	5500	418	82200	2.4	**KA**	**127R87**	**DRN**	**100LS4**	480	756
4.0	4830	367	82300	2.7	**KAF**	**127R87**	**DRN**	**100LS4**	520	756
4.4	4320	330	82400	3.0						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	13600	1025	78600	0.95						
1.6	11900	899	79700	1.10						
1.8	10400	790	80500	1.25	**K**	**127R77**	**DRN**	**100LS4**	490	756
2.1	9360	704	80900	1.40	**KF**	**127R77**	**DRN**	**100LS4**	530	756
2.4	8090	610	81400	1.60	**KA**	**127R77**	**DRN**	**100LS4**	460	756
2.6	7290	549	81700	1.80	**KAF**	**127R77**	**DRN**	**100LS4**	500	756
3.0	6300	477	82000	2.1						
3.5	5550	418	82200	2.3						
2.4	8150	615	65000	1.00						
2.8	6910	522	65000	1.15						
3.1	6080	461	65000	1.30	**K**	**107R77**	**DRN**	**100LS4**	330	756
3.5	5380	408	65000	1.50	**KF**	**107R77**	**DRN**	**100LS4**	340	756
4.0	4830	364	65000	1.65	**KA**	**107R77**	**DRN**	**100LS4**	300	756
4.6	4220	318	65000	1.90	**KAF**	**107R77**	**DRN**	**100LS4**	325	756
5.1	3800	286	65000	2.1						
5.8	3330	251	65000	2.4						
3.8	5110	382	39800	0.85						
4.2	4540	342	40000	0.95	**K**	**97R57**	**DRN**	**100LS4**	200	756
4.8	4120	305	40000	1.05	**KF**	**97R57**	**DRN**	**100LS4**	220	756
5.6	3470	258	40000	1.25	**KA**	**97R57**	**DRN**	**100LS4**	180	756
6.2	3130	232	40000	1.35	**KAF**	**97R57**	**DRN**	**100LS4**	205	756
7.3	2680	199	40000	1.60						
6.3	3300	153.21*	40000	1.30	**K**	**97**	**DRN**	**112M6**	190	724
6.9	3020	140.28	40000	1.40	**KF**	**97**	**DRN**	**112M6**	210	725
7.8	2670	123.93*	40000	1.60	**KA**	**97**	**DRN**	**112M6**	175	727
					KAF	**97**	**DRN**	**112M6**	200	725
9.3	2260	105.13	40000	1.90	**K**	**97**	**DRN**	**112M6**	190	724
					KF	**97**	**DRN**	**112M6**	210	725
					KA	**97**	**DRN**	**112M6**	175	727
					KAF	**97**	**DRN**	**112M6**	200	725
8.2	2550	176.05*	40000	1.70	**K**	**97**	**DRN**	**100LS4**	175	724
9.5	2210	153.21*	40000	1.95	**KF**	**97**	**DRN**	**100LS4**	195	725
10	2030	140.28	40000	2.1	**KA**	**97**	**DRN**	**100LS4**	160	727
12	1790	123.93*	40000	2.4	**KAF**	**97**	**DRN**	**100LS4**	185	725
14	1520	105.13	40000	2.8	**K**	**97**	**DRN**	**100LS4**	175	724
15	1400	96.80	40000	3.1	**KF**	**97**	**DRN**	**100LS4**	195	725
					KA	**97**	**DRN**	**100LS4**	160	727
					KAF	**97**	**DRN**	**100LS4**	185	725
9.8	2130	147.32*	27900	1.25	**K**	**87**	**DRN**	**100LS4**	115	717
11	1830	126.91*	28200	1.45	**KF**	**87**	**DRN**	**100LS4**	125	718
13	1670	115.82	28300	1.60	**KA**	**87**	**DRN**	**100LS4**	105	720
					KAF	**87**	**DRN**	**100LS4**	120	718
14	1480	102.71*	28500	1.80	**K**	**87**	**DRN**	**100LS4**	115	717
17	1250	86.34	28600	2.2	**KF**	**87**	**DRN**	**100LS4**	125	718
18	1140	79.34	28700	2.4	**KA**	**87**	**DRN**	**100LS4**	105	720
21	1020	70.46	28800	2.6	**KAF**	**87**	**DRN**	**100LS4**	120	718
23	910	63.00*	28800	3.0						
13	1640	113.56	14700	0.95						
15	1400	97.05	16300	1.10	**K**	**77**	**DRN**	**100LS4**	81	710
16	1280	88.97	17000	1.20	**KF**	**77**	**DRN**	**100LS4**	89	711
19	1130	78.07	17800	1.35	**KA**	**77**	**DRN**	**100LS4**	73	713
20	1070	73.99	18000	1.45	**KAF**	**77**	**DRN**	**100LS4**	81	711
22	930	64.75	18500	1.65						
25	840	58.34	18800	1.85						
28	740	51.18	19200	2.1						
32	650	45.16	19400	2.4	**K**	**77**	**DRN**	**100LS4**	81	710
36	580	40.04	19500	2.7	**KF**	**77**	**DRN**	**100LS4**	89	711
41	505	35.20	19700	3.0	**KA**	**77**	**DRN**	**100LS4**	73	713
47	445	30.89	19800	3.5	**KAF**	**77**	**DRN**	**100LS4**	81	711
50	420	29.27	19800	3.7						
57	370	25.62	19900	4.2						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	870	60.66	9750	0.95						
25	820	57.28	10200	1.00						
30	705	48.77	11200	1.15	**K**	**67**	**DRN**	**100LS4**	56	703
33	640	44.32	11600	1.30	**KF**	**67**	**DRN**	**100LS4**	61	704
38	555	38.39	12100	1.45	**KA**	**67**	**DRN**	**100LS4**	53	706
41	515	35.62	12300	1.60	**KAF**	**67**	**DRN**	**100LS4**	59	704
48	435	30.22	12700	1.85						
53	395	27.28	12800	2.1						
60	345	24.00	13000	2.3						
64	325	22.66	13000	2.4						
75	275	19.30	13000	2.7						
83	250	17.54	13000	2.9						
95	220	15.19	13000	3.2	**K**	**67**	**DRN**	**100LS4**	56	703
110	191	13.22	13000	3.5	**KF**	**67**	**DRN**	**100LS4**	61	704
116	180	12.48	13000	2.9	**KA**	**67**	**DRN**	**100LS4**	53	706
136	153	10.63	13000	3.2	**KAF**	**67**	**DRN**	**100LS4**	59	704
150	139	9.66	13000	3.4						
173	121	8.37	13000	3.6						
199	105	7.28	12700	4.0						
279	75	5.20	11600	4.6						
33	640	44.43	7040	0.95	**K**	**57**	**DRN**	**100LS4**	50	697
38	555	38.49	7970	1.10	**KF**	**57**	**DRN**	**100LS4**	55	698
41	515	35.70	8290	1.15	**KA**	**57**	**DRN**	**100LS4**	48	699
48	435	30.28	8230	1.35	**KAF**	**57**	**DRN**	**100LS4**	54	698
53	395	27.34	8140	1.50						
60	345	24.05	8000	1.70						
64	325	22.71	7930	1.80						
75	280	19.34	7730	2.0	**K**	**57**	**DRN**	**100LS4**	50	697
83	250	17.57	7590	2.2	**KF**	**57**	**DRN**	**100LS4**	55	698
95	220	15.22	7380	2.4	**KA**	**57**	**DRN**	**100LS4**	48	699
109	191	13.25	7170	2.7	**KAF**	**57**	**DRN**	**100LS4**	54	698
122	172	11.92	6850	2.4						
129	163	11.26	6770	2.5						
38	550	37.98*	6820	0.90						
42	500	34.81	6840	1.00						
47	440	30.55*	6840	1.15						
50	415	28.95*	6830	1.20						
57	365	25.34	6780	1.35						
64	330	22.83	6720	1.50	**K**	**49**	**DRN**	**100LS4**	55	693
72	290	20.03	6620	1.70	**KF**	**49**	**DRN**	**100LS4**	57	694
82	255	17.67*	6510	1.95	**KA**	**49**	**DRN**	**100LS4**	53	695
93	225	15.67	6400	2.2	**KAF**	**49**	**DRN**	**100LS4**	58	694
108	193	13.38	6220	2.4						
128	164	11.37*	6450	3.0						
139	150	10.42	6310	3.2						
159	132	9.14*	6090	3.8						
56	375	25.91	5260	1.05	**K**	**47**	**DRN**	**100LS4**	44	687
66	315	21.81	5260	1.25	**KF**	**47**	**DRN**	**100LS4**	47	688
74	280	19.58	5240	1.40	**KA**	**47**	**DRN**	**100LS4**	43	689
					KAF	**47**	**DRN**	**100LS4**	46	688
86	240	16.86	5180	1.55						
91	225	15.86	5140	1.65						
106	197	13.65	5050	1.80	**K**	**47**	**DRN**	**100LS4**	44	687
119	176	12.19	4970	2.0	**KF**	**47**	**DRN**	**100LS4**	47	688
123	170	11.77	4870	1.65	**KA**	**47**	**DRN**	**100LS4**	43	689
137	153	10.56	4790	1.85	**KAF**	**47**	**DRN**	**100LS4**	46	688
159	131	9.10	4660	2.1						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
59	350	24.40*	4770	0.85						
63	330	23.04*	4800	0.90						
74	280	19.62	4820	1.05						
81	255	17.83	4820	1.10						
94	220	15.44	4790	1.25						
108	194	13.44*	4730	1.40	**K**	**39**	**DRN**	**100LS4**	43	683
137	153	10.61	5040	1.85	**KF**	**39**	**DRN**	**100LS4**	45	684
161	130	9.00*	4860	2.3	**KA**	**39**	**DRN**	**100LS4**	42	685
178	117	8.12*	4740	2.5	**KAF**	**39**	**DRN**	**100LS4**	44	684
203	103	7.15*	4600	2.9						
215	97	6.75*	4530	3.1						
252	83	5.75	4350	3.3						
278	75	5.22	4240	3.4						
320	65	4.52	4080	3.7						
368	57	3.94*	3930	3.8						
111	189	13.08	2380	0.85						
138	151	10.49	2430	1.05						
163	129	8.91	2440	1.25	**K**	**37**	**DRN**	**100LS4**	37	677
182	115	7.96	2430	1.35	**KF**	**37**	**DRN**	**100LS4**	40	678
213	98	6.80	2400	1.50	**KA**	**37**	**DRN**	**100LS4**	37	679
228	92	6.37	2390	1.55	**KAF**	**37**	**DRN**	**100LS4**	39	678
270	77	5.36	2340	1.80						
364	57	3.98	2240	2.2						

P_m = 3.0 kW

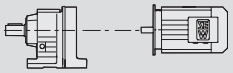
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.52	48700	2818	190000	1.10	**K**	**187R97**	**DRN**	**100L4**	1790	756
					KH	**187R97**	**DRN**	**100L4**	1720	756
0.40	65100	3609	190000	0.80						
0.48	55100	3062	190000	0.95						
0.58	45100	2519	190000	1.15						
0.64	40500	2268	190000	1.30						
0.71	36500	2054	190000	1.45	**K**	**187R97**	**DRN**	**100L4**	1790	756
0.80	32200	1821	190000	1.65	**KH**	**187R97**	**DRN**	**100L4**	1720	756
0.91	28500	1605	190000	1.85						
1.0	24400	1395	190000	2.2						
1.2	21100	1196	190000	2.5						
0.64	39400	2263	150000	0.90	**K**	**167R97**	**DRN**	**100L4**	1210	756
					KH	**167R97**	**DRN**	**100L4**	1170	756
0.67	39300	2182	150000	0.90						
0.85	30600	1704	150000	1.15						
1.0	25300	1408	150000	1.40						
1.1	23300	1296	150000	1.50	**K**	**167R97**	**DRN**	**100L4**	1210	756
1.3	19500	1101	150000	1.80	**KH**	**167R97**	**DRN**	**100L4**	1170	756
1.5	16800	944	150000	2.1						
1.7	14700	843	150000	2.4						
1.9	13300	757	150000	2.6						
1.1	24400	1365	108200	0.80						
1.2	21900	1229	109900	0.90						
1.3	19500	1093	111400	1.00	**K**	**157R97**	**DRN**	**100L4**	810	756
1.5	16800	942	112700	1.20	**KF**	**157R97**	**DRN**	**100L4**	890	756
1.7	15200	854	113500	1.30	**KA**	**157R97**	**DRN**	**100L4**	780	756
1.9	13200	756	114200	1.50	**KAF**	**157R97**	**DRN**	**100L4**	830	756
2.6	10000	567	115300	2.0						
2.9	8930	504	115600	2.2						
2.7	9580	536	80900	1.35						
3.1	8400	473	81300	1.55	**K**	**127R87**	**DRN**	**100L4**	520	756
3.5	7550	418	81600	1.70	**KF**	**127R87**	**DRN**	**100L4**	560	756
4.0	6610	367	81900	1.95	**KA**	**127R87**	**DRN**	**100L4**	490	756
4.4	5920	330	82100	2.2	**KAF**	**127R87**	**DRN**	**100L4**	530	756
5.1	5080	287	82300	2.6						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	14200	790	77400	0.90						
2.1	12700	704	79300	1.00	**K**	**127R77**	**DRN**	**100L4**	495	756
2.4	11000	610	80200	1.20	**KF**	**127R77**	**DRN**	**100L4**	540	756
2.6	9950	549	80700	1.30	**KA**	**127R77**	**DRN**	**100L4**	470	756
3.0	8610	477	81200	1.50	**KAF**	**127R77**	**DRN**	**100L4**	510	756
3.5	7580	418	81600	1.70						
3.2	8310	461	65000	0.95						
3.6	7360	408	65000	1.10						
4.0	6590	364	65000	1.20						
4.6	5760	318	65000	1.40						
5.1	5190	286	65000	1.55	**K**	**107R77**	**DRN**	**100L4**	335	756
5.8	4540	251	65000	1.75	**KF**	**107R77**	**DRN**	**100L4**	350	756
6.6	4000	222	65000	2.0	**KA**	**107R77**	**DRN**	**100L4**	310	756
7.4	3540	196	65000	2.3	**KAF**	**107R77**	**DRN**	**100L4**	335	756
8.4	3170	174	65000	2.3						
9.4	2800	154	65000	2.6						
10	2540	140	65000	2.8						
5.7	4730	258	40000	0.90	**K**	**97R57**	**DRN**	**100L4**	205	756
6.3	4260	232	40000	1.00	**KF**	**97R57**	**DRN**	**100L4**	225	756
7.3	3660	199	40000	1.15	**KA**	**97R57**	**DRN**	**100L4**	190	756
					KAF	**97R57**	**DRN**	**100L4**	215	756
6.8	4210	143.47*	65000	1.90	**K**	**107**	**DRN**	**132S6**	315	731
8.0	3570	121.46	65000	2.2	**KF**	**107**	**DRN**	**132S6**	330	732
8.7	3300	112.41*	65000	2.4	**KA**	**107**	**DRN**	**132S6**	290	734
9.7	2960	100.75	65000	2.7	**KAF**	**107**	**DRN**	**132S6**	315	732
					K	**107**	**DRN**	**100L4**	300	731
10	2820	143.47*	65000	2.8	**KF**	**107**	**DRN**	**100L4**	310	732
12	2380	121.46	65000	3.4	**KA**	**107**	**DRN**	**100L4**	270	734
					KAF	**107**	**DRN**	**100L4**	295	732
					K	**97**	**DRN**	**132S6**	205	724
7.9	3640	123.93*	40000	1.20	**KF**	**97**	**DRN**	**132S6**	225	725
					KA	**97**	**DRN**	**132S6**	185	727
					KAF	**97**	**DRN**	**132S6**	210	725
9.3	3090	105.13	40000	1.40	**K**	**97**	**DRN**	**132S6**	205	724
10	2840	96.80	40000	1.50	**KF**	**97**	**DRN**	**132S6**	225	725
11	2540	86.52	40000	1.70	**KA**	**97**	**DRN**	**132S6**	185	727
					KAF	**97**	**DRN**	**132S6**	210	725
8.3	3460	176.05*	40000	1.25	**K**	**97**	**DRN**	**100L4**	185	724
9.5	3010	153.21*	40000	1.45	**KF**	**97**	**DRN**	**100L4**	205	725
10	2760	140.28	40000	1.55	**KA**	**97**	**DRN**	**100L4**	165	727
12	2430	123.93*	40000	1.75	**KAF**	**97**	**DRN**	**100L4**	190	725
14	2060	105.13	40000	2.1						
15	1900	96.80	40000	2.3						
17	1700	86.52	40000	2.5	**K**	**97**	**DRN**	**100L4**	185	724
19	1530	77.89*	40000	2.8	**KF**	**97**	**DRN**	**100L4**	205	725
21	1380	70.54	40000	3.1	**KA**	**97**	**DRN**	**100L4**	165	727
23	1230	62.55	40000	3.5	**KAF**	**97**	**DRN**	**100L4**	190	725
26	1110	56.55	40000	3.9						
9.9	2890	147.32*	27000	0.95	**K**	**87**	**DRN**	**100L4**	125	717
11	2490	126.91*	27500	1.10	**KF**	**87**	**DRN**	**100L4**	135	718
13	2270	115.82	27800	1.20	**KA**	**87**	**DRN**	**100L4**	110	720
14	2020	102.71*	28000	1.35	**KAF**	**87**	**DRN**	**100L4**	125	718
17	1690	86.34	28300	1.60						
18	1560	79.34	28400	1.75						
21	1380	70.46	28600	1.95	**K**	**87**	**DRN**	**100L4**	125	717
23	1230	63.00*	28600	2.2	**KF**	**87**	**DRN**	**100L4**	135	718
26	1110	56.64	28700	2.4	**KA**	**87**	**DRN**	**100L4**	110	720
30	960	49.16	28800	2.8	**KAF**	**87**	**DRN**	**100L4**	125	718
33	860	44.02	28800	3.0						
40	715	36.52*	28200	3.5						

26883198/EN – 04/2022

P_m = 3.0 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	1750	88.97	13800	0.90						
19	1530	78.07	15500	1.00	**K**	**77**	**DRN**	**100L4**	88	710
20	1450	73.99	16000	1.05	**KF**	**77**	**DRN**	**100L4**	96	711
22	1270	64.75	17100	1.20	**KA**	**77**	**DRN**	**100L4**	80	713
25	1140	58.34	17700	1.35	**KAF**	**77**	**DRN**	**100L4**	88	711
28	1000	51.18	18300	1.55						
32	880	45.16	18700	1.75	**K**	**77**	**DRN**	**100L4**	88	710
36	785	40.04	19000	1.95	**KF**	**77**	**DRN**	**100L4**	96	711
41	690	35.20	19300	2.2	**KA**	**77**	**DRN**	**100L4**	80	713
47	605	30.89	19500	2.5	**KAF**	**77**	**DRN**	**100L4**	88	711
33	870	44.32	9820	0.95						
38	755	38.39	10900	1.05	**K**	**67**	**DRN**	**100L4**	63	703
41	700	35.62	11300	1.15	**KF**	**67**	**DRN**	**100L4**	69	704
48	590	30.22	11900	1.40	**KA**	**67**	**DRN**	**100L4**	60	706
53	535	27.28	12200	1.55	**KAF**	**67**	**DRN**	**100L4**	66	704
61	470	24.00	12500	1.70						
64	445	22.66	12600	1.75						
75	375	19.30	12900	2.0						
83	340	17.54	13000	2.1	**K**	**67**	**DRN**	**100L4**	63	703
96	295	15.19	13000	2.3	**KF**	**67**	**DRN**	**100L4**	69	704
110	260	13.22	13000	2.6	**KA**	**67**	**DRN**	**100L4**	60	706
117	245	12.48	13000	2.2	**KAF**	**67**	**DRN**	**100L4**	66	704
137	205	10.63	13000	2.4						
151	190	9.66	13000	2.5						
48	595	30.28	7190	1.00	**K**	**57**	**DRN**	**100L4**	57	697
53	535	27.34	7190	1.10	**KF**	**57**	**DRN**	**100L4**	62	698
61	470	24.05	7170	1.25	**KA**	**57**	**DRN**	**100L4**	55	699
					KAF	**57**	**DRN**	**100L4**	61	698
64	445	22.71	7150	1.35						
75	380	19.34	7060	1.50						
83	345	17.57	6980	1.60						
96	295	15.22	6860	1.80						
110	260	13.25	6710	1.95	**K**	**57**	**DRN**	**100L4**	57	697
122	230	11.92	6380	1.75	**KF**	**57**	**DRN**	**100L4**	62	698
129	220	11.26	6330	1.85	**KA**	**57**	**DRN**	**100L4**	55	699
152	188	9.59	6160	2.1	**KAF**	**57**	**DRN**	**100L4**	61	698
167	171	8.71	6040	2.3						
193	148	7.55	5870	2.5						
222	129	6.57	5700	2.7						
310	92	4.69	5270	3.2						
48	600	30.55*	5690	0.85						
50	565	28.95*	5740	0.90						
57	495	25.34	5820	1.00						
64	445	22.83	5860	1.10						
73	390	20.03	5860	1.25						
82	345	17.67*	5840	1.45	**K**	**49**	**DRN**	**100L4**	63	693
93	305	15.67	5800	1.60	**KF**	**49**	**DRN**	**100L4**	64	694
109	260	13.38	5710	1.80	**KA**	**49**	**DRN**	**100L4**	60	695
128	220	11.37*	6160	2.2	**KAF**	**49**	**DRN**	**100L4**	65	694
140	200	10.42	6050	2.3						
159	179	9.14*	5860	2.8						
168	170	8.66*	5790	2.9						
192	149	7.58	5600	3.4						
213	134	6.83	5460	3.7						
74	385	19.58	4450	1.05	**K**	**47**	**DRN**	**100L4**	51	687
86	330	16.86	4500	1.15	**KF**	**47**	**DRN**	**100L4**	55	688
92	310	15.86	4510	1.20	**KA**	**47**	**DRN**	**100L4**	50	689
					KAF	**47**	**DRN**	**100L4**	53	688

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
107	265	13.65	4500	1.35						
119	235	12.19	4480	1.45						
124	230	11.77	4360	1.20						
138	205	10.56	4340	1.35	**K**	**47**	**DRN**	**100L4**	51	687
160	179	9.10	4280	1.55	**KF**	**47**	**DRN**	**100L4**	55	688
170	168	8.56	4250	1.60	**KA**	**47**	**DRN**	**100L4**	50	689
198	144	7.36	4160	1.75	**KAF**	**47**	**DRN**	**100L4**	53	688
221	129	6.58	4090	1.85						
250	114	5.81	4000	2.0						
314	91	4.64	3830	2.2						
82	350	17.83	4010	0.85						
94	300	15.44	4090	0.90						
108	260	13.44*	4120	1.00						
137	205	10.61	4720	1.35						
162	177	9.00*	4580	1.70						
179	159	8.12*	4490	1.90	**K**	**39**	**DRN**	**100L4**	50	683
204	140	7.15*	4380	2.1	**KF**	**39**	**DRN**	**100L4**	52	684
216	132	6.75*	4320	2.3	**KA**	**39**	**DRN**	**100L4**	49	685
253	113	5.75	4170	2.4	**KAF**	**39**	**DRN**	**100L4**	51	684
279	102	5.22	4080	2.5						
322	89	4.52	3940	2.7						
370	77	3.94*	3800	2.8						
518	55	2.81*	3480	3.1						
163	175	8.91	2020	0.90						
183	156	7.96	2050	1.00	**K**	**37**	**DRN**	**100L4**	45	677
214	133	6.80	2080	1.10	**KF**	**37**	**DRN**	**100L4**	47	678
229	125	6.37	2090	1.15	**KA**	**37**	**DRN**	**100L4**	44	679
271	105	5.36	2090	1.35	**KAF**	**37**	**DRN**	**100L4**	46	678
366	78	3.98	2040	1.60						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	19400	835	190000	2.7	**K**	**187R107**	**DRN**	**112M4**	1840	756
2.8	12200	520	190000	4.3	**KH**	**187R107**	**DRN**	**112M4**	1780	756
0.52	65300	2818	190000	0.80	**K**	**187R97**	**DRN**	**112M4**	1800	756
					KH	**187R97**	**DRN**	**112M4**	1730	756
0.17	196000	16978	-	0.25						
0.21	163300	14272	-	0.30						
0.22	149400	13116	-	0.35						
0.25	131700	11647	-	0.40						
0.28	116800	10413	-	0.45						
0.31	104100	9363	-	0.50						
0.36	89300	8126	100500	0.60	**K**	**187R97**	**DRN**	**112M2**	1800	756
0.40	84000	7343	129700	0.65	**KH**	**187R97**	**DRN**	**112M2**	1730	756
0.44	76800	6747	163500	0.70						
0.49	67700	5991	190000	0.80						
0.55	60100	5358	190000	0.90						
0.61	53500	4817	190000	1.00						
0.67	48600	4370	190000	1.10						
0.58	60200	2519	190000	0.90						
0.65	54100	2268	190000	1.00						
0.71	48800	2054	190000	1.10						
0.80	43100	1821	190000	1.25						
0.91	38200	1605	190000	1.40	**K**	**187R97**	**DRN**	**112M4**	1800	756
1.1	32700	1395	190000	1.60	**KH**	**187R97**	**DRN**	**112M4**	1730	756
1.2	28300	1196	190000	1.85						
1.4	24700	1046	190000	2.1						
1.6	22300	945	190000	2.4						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.82	42100	3609	190000	1.25						
0.96	35400	3062	190000	1.50						
1.2	28800	2519	190000	1.85						
1.3	25700	2268	190000	2.1						
1.4	23100	2054	190000	2.3	**K**	**187R97**	**DRN**	**112M2**	1800	756
1.6	20200	1821	190000	2.6	**KH**	**187R97**	**DRN**	**112M2**	1730	756
1.8	18000	1605	190000	2.9						
2.5	13300	1196	190000	4.0						
2.8	11600	1046	190000	4.6						
0.25	134300	11573	-	0.25						
0.29	118500	10264	-	0.30						
0.34	98700	8628	-	0.35						
0.45	75100	6562	-	0.45						
0.55	60500	5355	-	0.60	**K**	**167R97**	**DRN**	**112M2**	1220	756
0.62	53700	4788	111200	0.65	**KH**	**167R97**	**DRN**	**112M2**	1180	756
0.72	46400	4079	150000	0.75						
0.87	38600	3376	150000	0.90						
1.1	31100	2755	150000	1.10						
0.86	40800	1704	150000	0.85						
1.0	33800	1408	150000	1.05						
1.1	31000	1296	150000	1.15						
1.3	26100	1101	150000	1.35	**K**	**167R97**	**DRN**	**112M4**	1210	756
1.6	22400	944	150000	1.55	**KH**	**167R97**	**DRN**	**112M4**	1180	756
1.7	19800	843	150000	1.75						
1.9	17800	757	150000	1.95						
2.3	14900	632	150000	2.3						
1.4	25400	2182	150000	1.35						
1.7	19600	1704	150000	1.80						
2.1	16300	1408	150000	2.1						
2.3	14900	1296	150000	2.3	**K**	**167R97**	**DRN**	**112M2**	1210	756
2.7	12200	1101	150000	2.9	**KH**	**167R97**	**DRN**	**112M2**	1180	756
3.1	10600	944	150000	3.3						
4.7	7030	632	150000	5.0						
6.1	5340	481	150000	6.5						
0.50	67800	5931	-	0.30						
0.58	56400	5074	-	0.35						
0.65	50200	4514	-	0.40	**K**	**157R97**	**DRN**	**112M2**	820	756
0.74	45500	3979	-	0.45	**KF**	**157R97**	**DRN**	**112M2**	900	756
0.84	39400	3516	70800	0.50	**KA**	**157R97**	**DRN**	**112M2**	790	756
0.97	34900	3051	98800	0.55	**KAF**	**157R97**	**DRN**	**112M2**	850	756
1.1	29000	2610	104600	0.70						
1.3	25800	2322	107200	0.75						
1.3	26000	1093	107000	0.75						
1.6	22400	942	109600	0.90						
1.7	20300	854	110900	1.00	**K**	**157R97**	**DRN**	**112M4**	820	756
1.9	17700	756	112300	1.15	**KF**	**157R97**	**DRN**	**112M4**	900	756
2.6	13400	567	114200	1.50	**KA**	**157R97**	**DRN**	**112M4**	780	756
2.9	11900	504	114700	1.65	**KAF**	**157R97**	**DRN**	**112M4**	840	756
3.4	10100	434	115200	1.95						
1.8	19200	1659	111500	1.05						
2.2	15600	1365	113300	1.30						
2.4	13900	1229	114000	1.45	**K**	**157R97**	**DRN**	**112M2**	820	756
2.7	12400	1093	114500	1.60	**KF**	**157R97**	**DRN**	**112M2**	900	756
3.1	10700	942	115100	1.85	**KA**	**157R97**	**DRN**	**112M2**	780	756
3.5	9610	854	115400	2.1	**KAF**	**157R97**	**DRN**	**112M2**	840	756
5.2	6300	567	116100	3.2						
5.8	5600	504	116200	3.6						
2.7	12700	536	79300	1.00						
3.1	11200	473	80100	1.15						
3.5	10000	418	80600	1.30	**K**	**127R87**	**DRN**	**112M4**	530	756
4.0	8810	367	81200	1.50	**KF**	**127R87**	**DRN**	**112M4**	570	756
4.4	7900	330	81500	1.65	**KA**	**127R87**	**DRN**	**112M4**	500	756
5.1	6800	287	81800	1.90	**KAF**	**127R87**	**DRN**	**112M4**	540	756
5.8	6010	253	82100	2.2						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.4	14700	610	76600	0.90	**K**	**127R77**	**DRN**	**112M4**	510	756
2.7	13200	549	79000	1.00	**KF**	**127R77**	**DRN**	**112M4**	550	756
3.1	11400	477	80000	1.15	**KA**	**127R77**	**DRN**	**112M4**	480	756
3.5	10000	418	80600	1.30	**KAF**	**127R77**	**DRN**	**112M4**	520	756
4.0	8770	364	65000	0.90						
4.6	7670	318	65000	1.05						
5.1	6900	286	65000	1.15						
5.8	6050	251	65000	1.30	**K**	**107R77**	**DRN**	**112M4**	345	756
6.6	5330	222	65000	1.50	**KF**	**107R77**	**DRN**	**112M4**	360	756
7.5	4720	196	65000	1.70	**KA**	**107R77**	**DRN**	**112M4**	320	756
8.4	4220	174	65000	1.70	**KAF**	**107R77**	**DRN**	**112M4**	340	756
9.5	3730	154	65000	1.95						
10	3390	140	65000	2.1						
6.6	5760	146.07	82100	2.3	**K**	**127**	**DRN**	**132S6**	480	738
7.1	5370	136.14	82200	2.4	**KF**	**127**	**DRN**	**132S6**	520	739
7.9	4830	122.48	82300	2.7	**KA**	**127**	**DRN**	**132S6**	450	741
8.8	4340	110.18	82400	3.0	**KAF**	**127**	**DRN**	**132S6**	485	739
6.8	5660	143.47*	65000	1.40						
8.0	4790	121.46	65000	1.65	**K**	**107**	**DRN**	**132S6**	315	731
8.6	4430	112.41*	65000	1.80	**KF**	**107**	**DRN**	**132S6**	330	732
9.6	3970	100.75	65000	2.0	**KA**	**107**	**DRN**	**132S6**	290	734
11	3580	90.96*	65000	2.2	**KAF**	**107**	**DRN**	**132S6**	315	732
10	3740	143.47*	65000	2.1						
12	3160	121.46	65000	2.5						
13	2930	112.41*	65000	2.7	**K**	**107**	**DRN**	**112M4**	305	731
15	2620	100.75	65000	3.0	**KF**	**107**	**DRN**	**112M4**	320	732
16	2370	90.96*	65000	3.4	**KA**	**107**	**DRN**	**112M4**	280	734
18	2150	82.61	65000	3.7	**KAF**	**107**	**DRN**	**112M4**	305	732
20	1910	73.30	65000	4.2						
9.6	3990	153.21*	40000	1.10	**K**	**97**	**DRN**	**112M4**	190	724
10	3660	140.28	40000	1.15	**KF**	**97**	**DRN**	**112M4**	210	725
12	3230	123.93*	40000	1.35	**KA**	**97**	**DRN**	**112M4**	175	727
					KAF	**97**	**DRN**	**112M4**	200	725
14	2740	105.13	40000	1.55						
15	2520	96.80	40000	1.70	**K**	**97**	**DRN**	**112M4**	190	724
17	2250	86.52	40000	1.90	**KF**	**97**	**DRN**	**112M4**	210	725
19	2030	77.89*	40000	2.1	**KA**	**97**	**DRN**	**112M4**	175	727
21	1840	70.54	40000	2.3	**KAF**	**97**	**DRN**	**112M4**	200	725
13	3020	115.82	26900	0.90	**K**	**87**	**DRN**	**112M4**	135	717
14	2670	102.71*	27300	1.00	**KF**	**87**	**DRN**	**112M4**	140	718
17	2250	86.34	27800	1.20	**KA**	**87**	**DRN**	**112M4**	120	720
18	2070	79.34	28000	1.30	**KAF**	**87**	**DRN**	**112M4**	135	718
21	1830	70.46	28200	1.45						
23	1640	63.00*	28400	1.65	**K**	**87**	**DRN**	**112M4**	135	717
26	1470	56.64	28500	1.85	**KF**	**87**	**DRN**	**112M4**	140	718
30	1280	49.16	28600	2.1	**KA**	**87**	**DRN**	**112M4**	120	720
33	1140	44.02	28200	2.3	**KAF**	**87**	**DRN**	**112M4**	135	718
40	950	36.52*	27200	2.6						
23	1680	64.75	14300	0.90						
25	1520	58.34	15600	1.00	**K**	**77**	**DRN**	**112M4**	97	710
29	1330	51.18	16700	1.15	**KF**	**77**	**DRN**	**112M4**	105	711
32	1170	45.16	17500	1.30	**KA**	**77**	**DRN**	**112M4**	90	713
37	1040	40.04	18100	1.50	**KAF**	**77**	**DRN**	**112M4**	98	711
38	1000	38.39	18300	1.50						
42	910	35.20	18600	1.70						
47	800	30.89	19000	1.90	**K**	**77**	**DRN**	**112M4**	97	710
50	760	29.27	19100	2.0	**KF**	**77**	**DRN**	**112M4**	105	711
57	665	25.62	19300	2.3	**KA**	**77**	**DRN**	**112M4**	90	713
63	600	23.08	19500	2.6	**KAF**	**77**	**DRN**	**112M4**	98	711
72	525	20.25	19600	2.8						
48	785	30.22	10600	1.05	**K**	**67**	**DRN**	**112M4**	72	703
54	710	27.28	11200	1.15	**KF**	**67**	**DRN**	**112M4**	78	704
61	625	24.00	11700	1.30	**KA**	**67**	**DRN**	**112M4**	70	706
65	590	22.66	11900	1.30	**KAF**	**67**	**DRN**	**112M4**	76	704

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
76	500	19.30	12400	1.50						
84	455	17.54	12600	1.60						
96	395	15.19	12800	1.75						
111	340	13.22	13000	1.95	**K**	**67**	**DRN**	**112M4**	72	703
117	325	12.48	13000	1.65	**KF**	**67**	**DRN**	**112M4**	78	704
138	275	10.63	13000	1.80	**KA**	**67**	**DRN**	**112M4**	70	706
152	250	9.66	12800	1.90	**KAF**	**67**	**DRN**	**112M4**	76	704
175	215	8.37	12400	2.0						
201	189	7.28	12000	2.2						
282	135	5.20	11100	2.6						
61	625	24.05	6140	0.95						
64	590	22.71	6180	1.00						
76	500	19.34	6230	1.15						
83	455	17.57	6230	1.20						
96	395	15.22	6200	1.35						
110	345	13.25	6140	1.50	**K**	**57**	**DRN**	**112M4**	67	697
123	310	11.92	5800	1.35	**KF**	**57**	**DRN**	**112M4**	71	698
130	290	11.26	5780	1.40	**KA**	**57**	**DRN**	**112M4**	65	699
153	250	9.59	5680	1.60	**KAF**	**57**	**DRN**	**112M4**	70	698
168	225	8.71	5620	1.70						
194	196	7.55	5500	1.85						
223	171	6.57	5380	2.0						
312	122	4.69	5030	2.5						
64	595	22.83	4780	0.85						
73	520	20.03	4920	0.95						
83	460	17.67*	5010	1.10						
93	405	15.67	5060	1.20						
109	345	13.38	5080	1.35						
129	295	11.37*	5810	1.65	**K**	**49**	**DRN**	**112M4**	72	693
141	270	10.42	5720	1.75	**KF**	**49**	**DRN**	**112M4**	73	694
160	235	9.14*	5580	2.1	**KA**	**49**	**DRN**	**112M4**	69	695
169	225	8.66*	5520	2.2	**KAF**	**49**	**DRN**	**112M4**	74	694
193	197	7.58	5360	2.5						
214	178	6.83	5240	2.8						
244	156	5.99	5080	3.2						
277	137	5.29*	4930	3.5						
312	122	4.69*	4780	3.8						
163	230	9.00*	4240	1.30						
180	210	8.12*	4180	1.40						
205	186	7.15*	4100	1.60						
217	176	6.75*	4060	1.70	**K**	**39**	**DRN**	**112M4**	60	683
255	149	5.75	3950	1.85	**KF**	**39**	**DRN**	**112M4**	61	684
280	136	5.22	3880	1.90	**KA**	**39**	**DRN**	**112M4**	59	685
324	118	4.52	3760	2.0	**KAF**	**39**	**DRN**	**112M4**	60	684
372	102	3.94*	3650	2.1						
521	73	2.81*	3370	2.3						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.71	67700	2054	190000	0.80						
0.80	59900	1821	190000	0.90						
0.91	52900	1605	190000	1.00						
1.1	45600	1395	190000	1.15						
1.2	39300	1196	190000	1.35	**K**	**187R97**	**DRN**	**132S4**	1810	756
1.4	34400	1046	190000	1.55	**KH**	**187R97**	**DRN**	**132S4**	1740	756
1.6	31000	945	190000	1.70						
2.0	24200	738	190000	2.2						
2.4	20300	621	190000	2.6						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	46700	1408	150000	0.75						
1.1	43000	1296	150000	0.80						
1.3	36200	1101	150000	0.95						
1.6	31100	944	150000	1.10						
1.7	27500	843	150000	1.25	**K**	**167R97**	**DRN**	**132S4**	1230	756
1.9	24800	757	150000	1.40	**KH**	**167R97**	**DRN**	**132S4**	1190	756
2.3	20800	632	150000	1.70						
2.6	18200	561	150000	1.90						
3.0	15800	481	150000	2.2						
3.5	13700	423	150000	2.5						
1.9	24700	756	108100	0.80						
2.2	21500	661	110200	0.95						
2.6	18600	567	111800	1.05	**K**	**157R97**	**DRN**	**132S4**	830	756
2.9	16500	504	112900	1.20	**KF**	**157R97**	**DRN**	**132S4**	910	756
3.4	14100	434	113900	1.40	**KA**	**157R97**	**DRN**	**132S4**	800	756
3.9	12300	379	114600	1.60	**KAF**	**157R97**	**DRN**	**132S4**	850	756
4.4	10800	333	115000	1.85						
3.5	13900	418	78000	0.95						
4.0	12100	367	79600	1.05						
4.4	10900	330	80200	1.20						
5.1	9440	287	80900	1.40	**K**	**127R87**	**DRN**	**132S4**	540	756
5.8	8350	253	81300	1.55	**KF**	**127R87**	**DRN**	**132S4**	580	756
6.9	7010	213	81800	1.85	**KA**	**127R87**	**DRN**	**132S4**	510	756
7.3	6680	200	81900	1.80	**KAF**	**127R87**	**DRN**	**132S4**	550	756
8.8	5530	166	82200	2.2						
10.0	4880	147	82300	2.5						
6.6	7370	222	65000	1.10						
7.4	6530	196	65000	1.20	**K**	**107R77**	**DRN**	**132S4**	355	756
8.4	5830	174	65000	1.25	**KF**	**107R77**	**DRN**	**132S4**	370	756
9.5	5170	154	65000	1.40	**KA**	**107R77**	**DRN**	**132S4**	330	756
10	4690	140	65000	1.55	**KAF**	**107R77**	**DRN**	**132S4**	355	756
7.2	7330	136.14	81700	1.75	**K**	**127**	**DRN**	**132L6**	500	738
8.0	6590	122.48	81900	1.95	**KF**	**127**	**DRN**	**132L6**	540	739
8.8	5930	110.18	82100	2.2	**KA**	**127**	**DRN**	**132L6**	470	741
11	4840	89.89	82300	2.7	**KAF**	**127**	**DRN**	**132L6**	510	739
					K	**107**	**DRN**	**132L6**	345	731
8.7	6050	112.41*	65000	1.30	**KF**	**107**	**DRN**	**132L6**	355	732
9.7	5420	100.75	65000	1.45	**KA**	**107**	**DRN**	**132L6**	315	734
11	4890	90.96*	65000	1.65	**KAF**	**107**	**DRN**	**132L6**	340	732
					K	**107**	**DRN**	**132L6**	345	731
12	4450	82.61	65000	1.80	**KF**	**107**	**DRN**	**132L6**	355	732
					KA	**107**	**DRN**	**132L6**	315	734
					KAF	**107**	**DRN**	**132L6**	340	732
10	5150	143.47*	65000	1.55						
12	4360	121.46	65000	1.85	**K**	**107**	**DRN**	**132S4**	315	731
13	4040	112.41*	65000	2.0	**KF**	**107**	**DRN**	**132S4**	330	732
14	3620	100.75	65000	2.2	**KA**	**107**	**DRN**	**132S4**	290	734
16	3260	90.96*	65000	2.5	**KAF**	**107**	**DRN**	**132S4**	315	732
18	2960	82.61	65000	2.7						
12	4450	123.93*	40000	0.95	**K**	**97**	**DRN**	**132S4**	205	724
14	3770	105.13	40000	1.15	**KF**	**97**	**DRN**	**132S4**	225	725
15	3470	96.80	40000	1.25	**KA**	**97**	**DRN**	**132S4**	185	727
17	3110	86.52	40000	1.40	**KAF**	**97**	**DRN**	**132S4**	210	725
19	2800	77.89*	40000	1.55						
21	2530	70.54	40000	1.70	**K**	**97**	**DRN**	**132S4**	205	724
23	2240	62.55	40000	1.90	**KF**	**97**	**DRN**	**132S4**	225	725
26	2030	56.55	39600	2.1	**KA**	**97**	**DRN**	**132S4**	185	727
30	1720	47.93*	38400	2.5	**KAF**	**97**	**DRN**	**132S4**	210	725
17	3100	86.34	26700	0.85						
18	2850	79.34	27100	0.95	**K**	**87**	**DRN**	**132S4**	145	717
21	2530	70.46	27500	1.05	**KF**	**87**	**DRN**	**132S4**	155	718
23	2260	63.00*	27400	1.20	**KA**	**87**	**DRN**	**132S4**	130	720
26	2030	56.64	27200	1.35	**KAF**	**87**	**DRN**	**132S4**	145	718

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
30	1760	49.16	26800	1.55	**K**	**87**	**DRN**	**132S4**	145	717
33	1580	44.02	26400	1.65	**KF**	**87**	**DRN**	**132S4**	155	718
40	1310	36.52*	25700	1.90	**KA**	**87**	**DRN**	**132S4**	130	720
47	1120	31.39	25100	2.4	**KAF**	**87**	**DRN**	**132S4**	145	718
52	1000	27.88	24600	2.6						
32	1620	45.16	14800	0.95						
36	1430	40.04	16100	1.10	**K**	**77**	**DRN**	**132S4**	110	710
47	1110	30.89	17900	1.40	**KF**	**77**	**DRN**	**132S4**	115	711
50	1050	29.27	18100	1.45	**KA**	**77**	**DRN**	**132S4**	100	713
57	920	25.62	18600	1.70	**KAF**	**77**	**DRN**	**132S4**	110	711
63	820	23.08	18900	1.85						
72	725	20.25	19200	2.1						
82	640	17.87	19400	2.3	**K**	**77**	**DRN**	**132S4**	110	710
92	565	15.84	19100	2.5	**KF**	**77**	**DRN**	**132S4**	115	711
108	485	13.52	18500	2.8	**KA**	**77**	**DRN**	**132S4**	100	713
118	440	12.36	17800	2.2	**KAF**	**77**	**DRN**	**132S4**	110	711
135	385	10.84	17400	2.5						
61	860	24.00	9910	0.95						
64	810	22.66	10400	0.95	**K**	**67**	**DRN**	**132S4**	84	703
76	690	19.30	11300	1.10	**KF**	**67**	**DRN**	**132S4**	90	704
83	630	17.54	11700	1.15	**KA**	**67**	**DRN**	**132S4**	81	706
96	545	15.19	12200	1.30	**KAF**	**67**	**DRN**	**132S4**	87	704
111	475	13.22	12500	1.40						
117	445	12.48	12600	1.20						
137	380	10.63	12400	1.30	**K**	**67**	**DRN**	**132S4**	84	703
151	345	9.66	12200	1.40	**KF**	**67**	**DRN**	**132S4**	90	704
175	300	8.37	11900	1.45	**KA**	**67**	**DRN**	**132S4**	81	706
201	260	7.28	11600	1.60	**KAF**	**67**	**DRN**	**132S4**	87	704
281	186	5.20	10800	1.85						
93	560	15.67	3950	0.85						
109	480	13.38	4130	1.00						
160	325	9.14*	5160	1.50						
169	310	8.66*	5130	1.60	**K**	**49**	**DRN**	**132S4**	83	693
193	270	7.58	5020	1.85	**KF**	**49**	**DRN**	**132S4**	85	694
214	245	6.83	4930	2.0	**KA**	**49**	**DRN**	**132S4**	80	695
244	215	5.99	4810	2.3	**KAF**	**49**	**DRN**	**132S4**	85	694
276	190	5.29*	4690	2.5						
312	168	4.69*	4570	2.8						
365	143	4.00	4410	3.1						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	37100	835	190000	1.45	**K**	**187R107**	**DRN**	**132M4**	1870	756
2.0	32200	729	190000	1.65	**KH**	**187R107**	**DRN**	**132M4**	1810	756
2.4	27500	622	190000	1.95						
0.91	72200	1605	182700	0.75						
1.1	62300	1395	190000	0.85						
1.2	53700	1196	190000	1.00						
1.4	46900	1046	190000	1.15	**K**	**187R97**	**DRN**	**132M4**	1830	756
1.6	42300	945	190000	1.25	**KH**	**187R97**	**DRN**	**132M4**	1760	756
2.0	33100	738	190000	1.60						
2.4	27800	621	190000	1.90						
2.8	23500	527	190000	2.2						
1.6	42400	944	150000	0.80						
1.7	37700	843	150000	0.95						
1.9	33900	757	150000	1.05						
2.3	28300	632	150000	1.25	**K**	**167R97**	**DRN**	**132M4**	1240	756
2.6	24900	561	150000	1.40	**KH**	**167R97**	**DRN**	**132M4**	1210	756
3.0	21500	481	150000	1.60						
3.5	18800	423	150000	1.85						
4.0	16400	369	150000	2.1						

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.6	25400	567	107500	0.80						
2.9	22600	504	109500	0.90	**K**	**157R97**	**DRN**	**132M4**	850	756
3.4	19300	434	111400	1.05	**KF**	**157R97**	**DRN**	**132M4**	930	756
3.9	16800	379	112700	1.20	**KA**	**157R97**	**DRN**	**132M4**	810	756
4.4	14800	333	113600	1.35	**KAF**	**157R97**	**DRN**	**132M4**	870	756
5.0	12900	291	114400	1.55						
4.4	14900	330	76200	0.85						
5.1	12800	287	79300	1.00						
5.8	11300	253	80000	1.15	**K**	**127R87**	**DRN**	**132M4**	560	756
6.9	9570	213	80900	1.35	**KF**	**127R87**	**DRN**	**132M4**	600	756
7.3	9110	200	81000	1.30	**KA**	**127R87**	**DRN**	**132M4**	530	756
8.8	7540	166	81600	1.60	**KAF**	**127R87**	**DRN**	**132M4**	560	756
10	6650	147	81900	1.80						
6.0	12000	164.50	150000	2.8	**K**	**167**	**DRN**	**160M6**	1160	752
7.2	9870	134.99	150000	3.5	**KH**	**167**	**DRN**	**160M6**	1120	753
6.5	11000	150.41	115000	1.80						
8.0	8950	122.39	115600	2.2	**K**	**157**	**DRN**	**160M6**	760	745
9.8	7330	100.22	115900	2.7	**KF**	**157**	**DRN**	**160M6**	840	746
11	6700	91.65	116000	3.0	**KA**	**157**	**DRN**	**160M6**	730	748
12	5830	79.75	116200	3.4	**KAF**	**157**	**DRN**	**160M6**	780	746
7.2	9950	136.14	80700	1.30	**K**	**127**	**DRN**	**160M6**	530	738
8.0	8960	122.48	81100	1.45	**KF**	**127**	**DRN**	**160M6**	570	739
8.9	8060	110.18	81400	1.60	**KA**	**127**	**DRN**	**160M6**	500	741
11	6570	89.89	81900	2.0	**KAF**	**127**	**DRN**	**160M6**	540	739
10	7120	146.07	81700	1.80						
11	6640	136.14	81900	1.95						
12	5970	122.48	82100	2.2	**K**	**127**	**DRN**	**132M4**	490	738
13	5370	110.18	82200	2.4	**KF**	**127**	**DRN**	**132M4**	530	739
16	4380	89.89	82400	3.0	**KA**	**127**	**DRN**	**132M4**	460	741
18	3990	81.98	82500	3.2	**KAF**	**127**	**DRN**	**132M4**	500	739
21	3460	70.95*	82600	3.8						
10	6990	143.47*	65000	1.15	**K**	**107**	**DRN**	**132M4**	335	731
12	5920	121.46	65000	1.35	**KF**	**107**	**DRN**	**132M4**	350	732
13	5480	112.41*	65000	1.45	**KA**	**107**	**DRN**	**132M4**	310	734
					KAF	**107**	**DRN**	**132M4**	330	732
15	4910	100.75	65000	1.65						
16	4430	90.96*	64000	1.80						
18	4030	82.61	63000	2.0						
20	3570	73.30	61700	2.2	**K**	**107**	**DRN**	**132M4**	335	731
22	3240	66.52*	60600	2.5	**KF**	**107**	**DRN**	**132M4**	350	732
26	2780	57.17*	58800	2.9	**KA**	**107**	**DRN**	**132M4**	310	734
29	2430	49.90	57100	3.2	**KAF**	**107**	**DRN**	**132M4**	330	732
35	2060	42.33*	55100	3.6						
40	1800	37.00*	53500	4.0						
15	4720	96.80	38400	0.90						
17	4220	86.52	38300	1.00	**K**	**97**	**DRN**	**132M4**	220	724
19	3800	77.89*	38100	1.15	**KF**	**97**	**DRN**	**132M4**	240	725
21	3440	70.54	37800	1.25	**KA**	**97**	**DRN**	**132M4**	205	727
23	3050	62.55	37400	1.40	**KAF**	**97**	**DRN**	**132M4**	230	725
26	2750	56.55	37000	1.55						
31	2330	47.93*	36200	1.85	**K**	**97**	**DRN**	**132M4**	220	724
35	2040	41.87	35500	2.1	**KF**	**97**	**DRN**	**132M4**	240	725
38	1860	38.30	35000	2.3	**KA**	**97**	**DRN**	**132M4**	205	727
43	1660	34.23	34300	2.6	**KAF**	**97**	**DRN**	**132M4**	230	725
23	3070	63.00*	24100	0.90						
26	2760	56.64	24200	1.00	**K**	**87**	**DRN**	**132M4**	160	717
30	2390	49.16	24200	1.15	**KF**	**87**	**DRN**	**132M4**	170	718
33	2140	44.02	24100	1.20	**KA**	**87**	**DRN**	**132M4**	150	720
40	1780	36.52*	23800	1.40	**KAF**	**87**	**DRN**	**132M4**	165	718

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
47	1530	31.39	23400	1.75						
53	1350	27.88	23100	1.90						
59	1210	24.92	22700	2.1	**K**	**87**	**DRN**	**132M4**	160	717
66	1090	22.41	22400	2.1	**KF**	**87**	**DRN**	**132M4**	170	718
75	940	19.45	21800	2.4	**KA**	**87**	**DRN**	**132M4**	150	720
84	840	17.42	21400	2.6	**KAF**	**87**	**DRN**	**132M4**	165	718
92	780	16.00	20500	2.3						
102	700	14.45	20600	3.0						
48	1500	30.89	15700	1.05						
50	1420	29.27	16200	1.10	**K**	**77**	**DRN**	**132M4**	125	710
57	1240	25.62	17200	1.25	**KF**	**77**	**DRN**	**132M4**	135	711
64	1120	23.08	17800	1.40	**KA**	**77**	**DRN**	**132M4**	120	713
73	980	20.25	18400	1.50	**KAF**	**77**	**DRN**	**132M4**	125	711
82	870	17.87	18500	1.65						
93	770	15.84	18200	1.80						
109	655	13.52	17700	2.0	**K**	**77**	**DRN**	**132M4**	125	710
119	600	12.36	17000	1.65	**KF**	**77**	**DRN**	**132M4**	135	711
135	525	10.84	16600	1.85	**KA**	**77**	**DRN**	**132M4**	120	713
154	465	9.56	16200	2.0	**KAF**	**77**	**DRN**	**132M4**	125	711
173	410	8.48	15800	2.1						
203	350	7.24	15300	2.3						
161	445	9.14*	4610	1.10						
169	420	8.66*	4600	1.20						
194	365	7.58	4560	1.35	**K**	**49**	**DRN**	**132M4**	100	693
215	330	6.83	4510	1.50	**KF**	**49**	**DRN**	**132M4**	105	694
245	290	5.99	4440	1.70	**KA**	**49**	**DRN**	**132M4**	98	695
278	255	5.29*	4370	1.90	**KAF**	**49**	**DRN**	**132M4**	105	694
313	225	4.69*	4280	2.0						
367	195	4.00	4170	2.2						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	45700	835	190000	1.15						
2.0	39700	729	190000	1.35	**K**	**187R107**	**DRN**	**132L4**	1880	756
2.4	33900	622	190000	1.55	**KH**	**187R107**	**DRN**	**132L4**	1810	756
2.8	28700	520	190000	1.85						
3.2	25000	454	190000	2.1						
1.2	65900	1196	190000	0.80						
1.4	57600	1046	190000	0.90						
1.6	52000	945	190000	1.00	**K**	**187R97**	**DRN**	**132L4**	1830	756
2.0	40600	738	190000	1.30	**KH**	**187R97**	**DRN**	**132L4**	1770	756
2.4	34100	621	190000	1.55						
2.8	28900	527	190000	1.85						
4.6	17500	318	150000	2.0						
5.3	15200	278	150000	2.3	**K**	**167R107**	**DRN**	**132L4**	1300	756
6.0	13200	244	150000	2.6	**KH**	**167R107**	**DRN**	**132L4**	1260	756
6.9	11500	213	150000	3.0						
7.1	11200	206	150000	3.1						
1.9	41600	757	150000	0.85						
2.3	34800	632	150000	1.00						
2.6	30700	561	150000	1.15	**K**	**167R97**	**DRN**	**132L4**	1250	756
3.1	26500	481	150000	1.30	**KH**	**167R97**	**DRN**	**132L4**	1210	756
3.5	23100	423	150000	1.50						
4.0	20200	369	150000	1.75						
3.8	20800	385	110600	0.95						
4.5	17400	325	112400	1.15	**K**	**157R107**	**DRN**	**132L4**	910	756
4.9	16200	299	113000	1.25	**KF**	**157R107**	**DRN**	**132L4**	980	756
5.8	13700	253	114100	1.45	**KA**	**157R107**	**DRN**	**132L4**	870	756
6.4	12300	230	114600	1.60	**KAF**	**157R107**	**DRN**	**132L4**	930	756
3.4	23800	434	108700	0.85	**K**	**157R97**	**DRN**	**132L4**	860	756
3.9	20700	379	110700	0.95	**KF**	**157R97**	**DRN**	**132L4**	940	756
4.4	18200	333	112000	1.10	**KA**	**157R97**	**DRN**	**132L4**	820	756
5.0	15900	291	113200	1.25	**KAF**	**157R97**	**DRN**	**132L4**	880	756

26883198/EN – 04/2022

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.8	13900	253	78000	0.95						
6.9	11700	213	79900	1.10	**K**	**127R87**	**DRN**	**132L4**	560	756
7.3	11100	200	80100	1.05	**KF**	**127R87**	**DRN**	**132L4**	610	756
8.8	9260	166	81000	1.30	**KA**	**127R87**	**DRN**	**132L4**	540	756
10	8170	147	81400	1.45	**KAF**	**127R87**	**DRN**	**132L4**	570	756
11	8130	136.14	81400	1.60						
12	7320	122.48	81700	1.80	**K**	**127**	**DRN**	**132L4**	500	738
13	6580	110.18	81900	1.95	**KF**	**127**	**DRN**	**132L4**	540	739
16	5370	89.89	82200	2.4	**KA**	**127**	**DRN**	**132L4**	470	741
18	4890	81.98	82300	2.6	**KAF**	**127**	**DRN**	**132L4**	510	739
13	6710	112.41*	62300	1.20	**K**	**107**	**DRN**	**132L4**	345	731
15	6020	100.75	61700	1.35	**KF**	**107**	**DRN**	**132L4**	355	732
16	5430	90.96*	61000	1.45	**KA**	**107**	**DRN**	**132L4**	315	734
					KAF	**107**	**DRN**	**132L4**	340	732
18	4930	82.61	60300	1.60						
20	4380	73.30	59300	1.85	**K**	**107**	**DRN**	**132L4**	345	731
22	3970	66.52*	58400	2.0	**KF**	**107**	**DRN**	**132L4**	355	732
26	3410	57.17*	56900	2.3	**KA**	**107**	**DRN**	**132L4**	315	734
29	2980	49.90	55500	2.6	**KAF**	**107**	**DRN**	**132L4**	340	732
35	2520	42.33*	53700	2.9						
19	4650	77.89*	35100	0.90	**K**	**97**	**DRN**	**132L4**	230	724
21	4210	70.54	35100	1.00	**KF**	**97**	**DRN**	**132L4**	250	725
24	3730	62.55	35000	1.15	**KA**	**97**	**DRN**	**132L4**	210	727
26	3370	56.55	34800	1.25	**KAF**	**97**	**DRN**	**132L4**	235	725
31	2860	47.93*	34400	1.50						
35	2500	41.87	33900	1.70						
38	2280	38.30	33500	1.90	**K**	**97**	**DRN**	**132L4**	230	724
43	2040	34.23	33000	2.1	**KF**	**97**	**DRN**	**132L4**	250	725
48	1840	30.82	32400	2.3	**KA**	**97**	**DRN**	**132L4**	210	727
53	1660	27.91	31900	2.6	**KAF**	**97**	**DRN**	**132L4**	235	725
59	1470	24.75	31200	2.9						
30	2930	49.16	22000	0.90	**K**	**87**	**DRN**	**132L4**	170	717
33	2630	44.02	22200	1.00	**KF**	**87**	**DRN**	**132L4**	180	718
40	2180	36.52*	22200	1.15	**KA**	**87**	**DRN**	**132L4**	160	720
47	1870	31.39	22000	1.45	**KAF**	**87**	**DRN**	**132L4**	170	718
53	1660	27.88	21900	1.55						
59	1480	24.92	21600	1.70						
66	1330	22.41	21400	1.70						
76	1160	19.45	21000	2.0	**K**	**87**	**DRN**	**132L4**	170	717
84	1040	17.42	20600	2.1	**KF**	**87**	**DRN**	**132L4**	180	718
92	950	16.00	19700	1.90	**KA**	**87**	**DRN**	**132L4**	160	720
102	860	14.45	20000	2.4	**KAF**	**87**	**DRN**	**132L4**	170	718
117	750	12.56	19500	2.7						
132	665	11.17	18500	2.2						
147	595	10.00	18200	2.5						
64	1370	23.08	16500	1.10	**K**	**77**	**DRN**	**132L4**	135	710
73	1200	20.25	17400	1.25	**KF**	**77**	**DRN**	**132L4**	145	711
82	1060	17.87	17600	1.35	**KA**	**77**	**DRN**	**132L4**	125	713
93	940	15.84	17300	1.50	**KAF**	**77**	**DRN**	**132L4**	135	711
109	800	13.52	17000	1.65						
119	735	12.36	16200	1.35	**K**	**77**	**DRN**	**132L4**	135	710
136	645	10.84	15900	1.55	**KF**	**77**	**DRN**	**132L4**	145	711
154	570	9.56	15600	1.65	**KA**	**77**	**DRN**	**132L4**	125	713
173	505	8.48	15300	1.75	**KAF**	**77**	**DRN**	**132L4**	135	711
203	430	7.24	14900	1.90						

26883198/EN – 04/2022

P_m = 11.0 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B						m kg	
1.8	54700	835	190000	0.95							
2.0	47600	729	190000	1.10							
2.4	40600	622	190000	1.30	**K**	**187R107**	**DRN**	**160M4**		1910	756
2.8	34400	520	190000	1.55	**KH**	**187R107**	**DRN**	**160M4**		1850	756
3.2	29900	454	190000	1.75							
4.1	23100	355	190000	2.3							
1.6	62200	945	190000	0.85							
2.0	48600	738	190000	1.10	**K**	**187R97**	**DRN**	**160M4**		1870	756
2.4	40800	621	190000	1.30	**KH**	**187R97**	**DRN**	**160M4**		1800	756
2.8	34500	527	190000	1.55							
4.6	21000	318	150000	1.65							
5.3	18300	278	150000	1.90							
6.0	15800	244	150000	2.2	**K**	**167R107**	**DRN**	**160M4**		1330	756
6.9	13800	213	150000	2.5	**KH**	**167R107**	**DRN**	**160M4**		1290	756
7.2	13400	206	150000	2.6							
2.3	41600	632	150000	0.85							
2.6	36700	561	150000	0.95							
3.1	31600	481	150000	1.10	**K**	**167R97**	**DRN**	**160M4**		1280	756
3.5	27700	423	150000	1.25	**KH**	**167R97**	**DRN**	**160M4**		1250	756
4.0	24200	369	150000	1.45							
					K	**157R107**	**DRN**	**160M4**		940	756
					KF	**157R107**	**DRN**	**160M4**		1020	756
4.5	20900	325	110500	0.95	**KA**	**157R107**	**DRN**	**160M4**		900	756
					KAF	**157R107**	**DRN**	**160M4**		960	756
					K	**157R97**	**DRN**	**160M4**		890	756
3.9	24800	379	108000	0.80	**KF**	**157R97**	**DRN**	**160M4**		970	756
4.4	21800	333	110000	0.90	**KA**	**157R97**	**DRN**	**160M4**		850	756
5.1	19000	291	111600	1.05	**KAF**	**157R97**	**DRN**	**160M4**		910	756
6.9	14000	213	77900	0.95	**K**	**127R87**	**DRN**	**160M4**		600	756
7.3	13300	200	79000	0.90	**KF**	**127R87**	**DRN**	**160M4**		640	756
8.9	11000	166	80200	1.10	**KA**	**127R87**	**DRN**	**160M4**		570	756
10	9770	147	80800	1.25	**KAF**	**127R87**	**DRN**	**160M4**		610	756
8.9	11700	164.50	150000	2.9	**K**	**167**	**DRN**	**160M4**		1160	752
11	9620	134.99	150000	3.6	**KH**	**167**	**DRN**	**160M4**		1120	753
9.8	10700	150.41	115100	1.85	**K**	**157**	**DRN**	**160M4**		760	745
12	8720	122.39	115600	2.3	**KF**	**157**	**DRN**	**160M4**		840	746
15	7140	100.22	115900	2.8	**KA**	**157**	**DRN**	**160M4**		730	748
16	6530	91.65	116100	3.1	**KAF**	**157**	**DRN**	**160M4**		780	746
11	9700	136.14	80800	1.35							
12	8730	122.48	81200	1.50	**K**	**127**	**DRN**	**160M4**		530	738
13	7850	110.18	81500	1.65	**KF**	**127**	**DRN**	**160M4**		570	739
16	6410	89.89	82000	2.0	**KA**	**127**	**DRN**	**160M4**		500	741
18	5840	81.98	82100	2.2	**KAF**	**127**	**DRN**	**160M4**		540	739
21	5050	70.95*	82300	2.6							
13	8010	112.41*	57800	1.00	**K**	**107**	**DRN**	**160M4**		375	731
15	7180	100.75	58200	1.10	**KF**	**107**	**DRN**	**160M4**		390	732
16	6480	90.96*	57900	1.25	**KA**	**107**	**DRN**	**160M4**		350	734
18	5890	82.61	57400	1.35	**KAF**	**107**	**DRN**	**160M4**		375	732
20	5220	73.30	56700	1.55							
22	4740	66.52*	56100	1.70	**K**	**107**	**DRN**	**160M4**		375	731
26	4070	57.17*	54900	1.95	**KF**	**107**	**DRN**	**160M4**		390	732
30	3550	49.90	53800	2.2	**KA**	**107**	**DRN**	**160M4**		350	734
35	3010	42.33*	52300	2.4	**KAF**	**107**	**DRN**	**160M4**		375	732
40	2630	37.00*	51000	2.7							
21	5030	70.54	32300	0.85	**K**	**97**	**DRN**	**160M4**		265	724
24	4460	62.55	32500	0.95	**KF**	**97**	**DRN**	**160M4**		285	725
26	4030	56.55	32500	1.05	**KA**	**97**	**DRN**	**160M4**		245	727
31	3410	47.93*	32400	1.25	**KAF**	**97**	**DRN**	**160M4**		270	725

26883198/EN – 04/2022

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
35	2980	41.87	32200	1.45						
38	2730	38.30	31900	1.55						
43	2440	34.23	31600	1.75	**K**	**97**	**DRN**	**160M4**	265	724
48	2190	30.82	31200	1.95	**KF**	**97**	**DRN**	**160M4**	285	725
53	1980	27.91	30700	2.2	**KA**	**97**	**DRN**	**160M4**	245	727
60	1760	24.75	30200	2.4	**KAF**	**97**	**DRN**	**160M4**	270	725
66	1590	22.37	29700	2.7						
33	3130	44.02	20100	0.85						
40	2600	36.52*	20500	0.95	**K**	**87**	**DRN**	**160M4**	205	717
47	2230	31.39	20600	1.20	**KF**	**87**	**DRN**	**160M4**	210	718
53	1980	27.88	20500	1.30	**KA**	**87**	**DRN**	**160M4**	190	720
59	1770	24.92	20400	1.40	**KAF**	**87**	**DRN**	**160M4**	205	718
66	1590	22.41	20300	1.45						
76	1380	19.45	20000	1.65						
85	1240	17.42	19800	1.75						
92	1140	16.00	18800	1.60	**K**	**87**	**DRN**	**160M4**	205	717
102	1030	14.45	19300	2.0	**KF**	**87**	**DRN**	**160M4**	210	718
117	890	12.56	18900	2.2	**KA**	**87**	**DRN**	**160M4**	190	720
132	795	11.17	17900	1.90	**KAF**	**87**	**DRN**	**160M4**	205	718
147	710	10.00	17600	2.1						
178	590	8.29	17000	2.4						
204	510	7.21	16600	2.5						
64	1640	23.08	14700	0.95						
73	1440	20.25	16100	1.05						
82	1270	17.87	16600	1.15						
93	1120	15.84	16500	1.25	**K**	**77**	**DRN**	**160M4**	165	710
109	960	13.52	16200	1.40	**KF**	**77**	**DRN**	**160M4**	175	711
119	880	12.36	15500	1.15	**KA**	**77**	**DRN**	**160M4**	160	713
136	770	10.84	15300	1.30	**KAF**	**77**	**DRN**	**160M4**	165	711
154	680	9.56	15000	1.40						
174	600	8.48	14800	1.45						
203	515	7.24	14400	1.60						

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	65200	729	190000	0.80						
2.4	55600	622	190000	0.95						
2.8	47100	520	190000	1.15	**K**	**187R107**	**DRN**	**160L4**	1930	756
3.2	41000	454	190000	1.30	**KH**	**187R107**	**DRN**	**160L4**	1860	756
4.2	31700	355	190000	1.65						
5.7	23500	261	190000	2.2						
2.0	66400	738	190000	0.80	**K**	**187R97**	**DRN**	**160L4**	1880	756
2.4	55800	621	190000	0.95	**KH**	**187R97**	**DRN**	**160L4**	1820	756
4.6	28800	318	150000	1.20						
5.3	25000	278	150000	1.40						
6.0	21700	244	150000	1.60	**K**	**167R107**	**DRN**	**160L4**	1350	756
6.9	18900	213	150000	1.85	**KH**	**167R107**	**DRN**	**160L4**	1310	756
7.2	18400	206	150000	1.90						
8.2	15900	180	150000	2.2						
9.2	14400	160	150000	2.4						
3.1	43300	481	150000	0.80	**K**	**167R97**	**DRN**	**160L4**	1300	756
3.5	37900	423	150000	0.90	**KH**	**167R97**	**DRN**	**160L4**	1260	756
4.9	26700	299	106600	0.75						
5.8	22600	253	109500	0.90						
6.4	20400	230	110900	1.00	**K**	**157R107**	**DRN**	**160L4**	950	756
6.9	19100	213	111600	1.05	**KF**	**157R107**	**DRN**	**160L4**	1030	756
7.9	16500	187	112900	1.20	**KA**	**157R107**	**DRN**	**160L4**	920	756
9.4	14000	157	113900	1.40	**KAF**	**157R107**	**DRN**	**160L4**	980	756
12	11000	122	115000	1.80						
14	9610	107	115400	2.1						

26883198/EN – 04/2022

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	26000	291	107100	0.75	**K** **KF** **KA** **KAF**	**157R97** **157R97** **157R97** **157R97**	**DRN** **DRN** **DRN** **DRN**	**160L4** **160L4** **160L4** **160L4**	910 990 870 930	756 756 756 756
9.0	15900	164.50	150000	2.1	**K**	**167**	**DRN**	**160L4**	1170	752
11	13100	134.99	150000	2.7	**KH**	**167**	**DRN**	**160L4**	1130	753
9.8	14600	150.41	113700	1.35						
12	11800	122.39	114700	1.70	**K**	**157**	**DRN**	**160L4**	780	745
15	9730	100.22	114000	2.0	**KF**	**157**	**DRN**	**160L4**	860	746
16	8900	91.65	112300	2.2	**KA**	**157**	**DRN**	**160L4**	740	748
18	7750	79.75	109400	2.6	**KAF**	**157**	**DRN**	**160L4**	800	746
11	13200	136.14	79000	1.00	**K**	**127**	**DRN**	**160L4**	550	738
12	11900	122.48	79800	1.10	**KF**	**127**	**DRN**	**160L4**	590	739
13	10700	110.18	80400	1.20	**KA**	**127**	**DRN**	**160L4**	520	741
					KAF	**127**	**DRN**	**160L4**	560	739
16	8730	89.89	81200	1.50						
18	7960	81.98	81500	1.65	**K**	**127**	**DRN**	**160L4**	550	738
21	6890	70.95*	81400	1.90	**KF**	**127**	**DRN**	**160L4**	590	739
24	6080	62.60	79800	2.1	**KA**	**127**	**DRN**	**160L4**	520	741
27	5250	54.07	77800	2.5	**KAF**	**127**	**DRN**	**160L4**	560	739
31	4640	47.82	76100	2.8						
16	8830	90.96*	48300	0.90	**K**	**107**	**DRN**	**160L4**	395	731
18	8020	82.61	49500	1.00	**KF**	**107**	**DRN**	**160L4**	405	732
20	7120	73.30	50500	1.10	**KA**	**107**	**DRN**	**160L4**	365	734
22	6460	66.52*	51000	1.25	**KAF**	**107**	**DRN**	**160L4**	390	732
26	5550	57.17*	50600	1.45						
30	4840	49.90	50000	1.60						
35	4110	42.33*	49000	1.80	**K**	**107**	**DRN**	**160L4**	395	731
40	3590	37.00*	48100	2.0	**KF**	**107**	**DRN**	**160L4**	405	732
45	3170	32.69	47200	2.3	**KA**	**107**	**DRN**	**160L4**	365	734
47	3030	31.28*	46900	2.2	**KAF**	**107**	**DRN**	**160L4**	390	732
51	2810	29.00	46300	2.6						
31	4650	47.93*	28100	0.90						
35	4060	41.87	28400	1.05	**K**	**97**	**DRN**	**160L4**	280	724
38	3720	38.30	28500	1.15	**KF**	**97**	**DRN**	**160L4**	300	725
43	3320	34.23	28500	1.30	**KA**	**97**	**DRN**	**160L4**	260	727
48	2990	30.82	28400	1.45	**KAF**	**97**	**DRN**	**160L4**	285	725
53	2710	27.91	28200	1.60						
60	2400	24.75	28000	1.80	**K**	**97**	**DRN**	**160L4**	280	724
66	2170	22.37	27700	2.0	**KF**	**97**	**DRN**	**160L4**	300	725
78	1840	18.96	27100	2.3	**KA**	**97**	**DRN**	**160L4**	260	727
89	1600	16.56	26600	2.7	**KAF**	**97**	**DRN**	**160L4**	285	725
47	3040	31.39	17300	0.90						
53	2700	27.88	17600	0.95	**K**	**87**	**DRN**	**160L4**	220	717
59	2420	24.92	17900	1.05	**KF**	**87**	**DRN**	**160L4**	230	718
66	2170	22.41	18000	1.05	**KA**	**87**	**DRN**	**160L4**	205	720
76	1880	19.45	18000	1.20	**KAF**	**87**	**DRN**	**160L4**	220	718
85	1690	17.42	18000	1.30						
92	1550	16.00	16800	1.15						
102	1400	14.45	17800	1.50						
117	1220	12.56	17600	1.65	**K**	**87**	**DRN**	**160L4**	220	717
132	1080	11.17	16600	1.40	**KF**	**87**	**DRN**	**160L4**	230	718
147	970	10.00	16400	1.55	**KA**	**87**	**DRN**	**160L4**	205	720
178	800	8.29	16000	1.75	**KAF**	**87**	**DRN**	**160L4**	220	718
204	700	7.21	15700	1.85						

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.8	58000	520	190000	0.90						
3.3	50500	454	190000	1.05						
4.2	39100	355	190000	1.35	**K**	**187R107**	**DRN**	**180M4**	1950	756
5.7	29000	261	190000	1.80	**KH**	**187R107**	**DRN**	**180M4**	1880	756
6.7	24600	221	190000	2.1						

26883198/EN – 04/2022

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.8	58200	527	190000	0.90	**K**	**187R97**	**DRN**	**180M4**	1900	756
					KH	**187R97**	**DRN**	**180M4**	1840	756
4.7	35500	318	150000	1.00						
5.3	30900	278	150000	1.15						
6.1	26800	244	150000	1.30						
6.9	23400	213	150000	1.50						
7.2	22800	206	150000	1.55	**K**	**167R107**	**DRN**	**180M4**	1370	756
8.2	19700	180	150000	1.75	**KH**	**167R107**	**DRN**	**180M4**	1330	756
9.3	17700	160	150000	1.95						
11	15000	135	150000	2.3						
12	13100	118	150000	2.7						
4.0	40700	369	150000	0.85	**K**	**167R97**	**DRN**	**180M4**	1320	756
					KH	**167R97**	**DRN**	**180M4**	1280	756
6.9	23600	213	108800	0.85						
7.9	20400	187	110800	1.00	**K**	**157R107**	**DRN**	**180M4**	980	756
9.4	17300	157	112500	1.15	**KF**	**157R107**	**DRN**	**180M4**	1050	756
12	13600	122	113800	1.45	**KA**	**157R107**	**DRN**	**180M4**	940	756
14	11800	107	111900	1.70	**KAF**	**157R107**	**DRN**	**180M4**	1000	756
8.2	21400	179.86	190000	2.5						
8.9	19700	165.21	190000	2.7	**K**	**187**	**DRN**	**180M4**	1780	754
10	17200	144.59	190000	3.1	**KH**	**187**	**DRN**	**180M4**	1710	755
11	15500	129.69	190000	3.4						
11	16100	134.99	150000	2.2						
13	13100	109.83	150000	2.7	**K**	**167**	**DRN**	**180M4**	1200	752
17	10500	87.86	150000	3.3	**KH**	**167**	**DRN**	**180M4**	1160	753
12	14600	122.39	111600	1.35						
15	11900	100.22	109000	1.65						
16	10900	91.65	107700	1.85						
19	9530	79.75	105400	2.1	**K**	**157**	**DRN**	**180M4**	800	745
21	8410	70.38	103200	2.4	**KF**	**157**	**DRN**	**180M4**	880	746
24	7290	61.02	100600	2.7	**KA**	**157**	**DRN**	**180M4**	770	748
27	6480	54.29	98300	3.1	**KAF**	**157**	**DRN**	**180M4**	820	746
32	5590	46.79	95400	3.6						
39	4540	38.02	91200	4.4						
13	13100	110.18	79100	1.00	**K**	**127**	**DRN**	**180M4**	570	738
16	10700	89.89	79000	1.20	**KF**	**127**	**DRN**	**180M4**	610	739
18	9790	81.98	78500	1.35	**KA**	**127**	**DRN**	**180M4**	540	741
					KAF	**127**	**DRN**	**180M4**	580	739
21	8480	70.95*	77400	1.55						
24	7480	62.60	76300	1.75						
27	6460	54.07	74700	2.0	**K**	**127**	**DRN**	**180M4**	570	738
31	5710	47.82	73300	2.3	**KF**	**127**	**DRN**	**180M4**	610	739
37	4800	40.19	71100	2.7	**KA**	**127**	**DRN**	**180M4**	540	741
41	4330	36.25	69800	3.0	**KAF**	**127**	**DRN**	**180M4**	580	739
47	3740	31.37	67800	3.5						
53	3300	27.68	66100	3.9						
20	8760	73.30	42900	0.90	**K**	**107**	**DRN**	**180M4**	415	731
22	7950	66.52*	44300	1.00	**KF**	**107**	**DRN**	**180M4**	425	732
26	6830	57.17*	45800	1.15	**KA**	**107**	**DRN**	**180M4**	385	734
30	5960	49.90	46600	1.30	**KAF**	**107**	**DRN**	**180M4**	410	732
35	5050	42.33*	46200	1.45						
40	4420	37.00*	45700	1.65						
45	3900	32.69	45000	1.85						
47	3730	31.28*	44800	1.80	**K**	**107**	**DRN**	**180M4**	415	731
51	3460	29.00	44300	2.1	**KF**	**107**	**DRN**	**180M4**	425	732
56	3140	26.32	43700	2.3	**KA**	**107**	**DRN**	**180M4**	385	734
65	2700	22.62	42700	2.7	**KAF**	**107**	**DRN**	**180M4**	410	732
75	2350	19.74	41700	3.0						
88	2000	16.75	40400	3.5						
35	5000	41.87	25100	0.85	**K**	**97**	**DRN**	**180M4**	300	724
48	3680	30.82	26000	1.15	**KF**	**97**	**DRN**	**180M4**	320	725
53	3330	27.91	26000	1.30	**KA**	**97**	**DRN**	**180M4**	280	727
60	2950	24.75	26000	1.45	**KAF**	**97**	**DRN**	**180M4**	305	725

26883198/EN – 04/2022

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
66	2670	22.37	25900	1.60						
78	2260	18.96	25600	1.90	**K**	**97**	**DRN**	**180M4**	300	724
89	1970	16.56	25300	2.2	**KF**	**97**	**DRN**	**180M4**	320	725
107	1650	13.85	24700	2.6	**KA**	**97**	**DRN**	**180M4**	280	727
123	1430	11.99	24200	2.7	**KAF**	**97**	**DRN**	**180M4**	305	725
59	2970	24.92	15600	0.85						
66	2670	22.41	15900	0.85						
76	2320	19.45	16200	1.00						
85	2080	17.42	16400	1.05	**K**	**87**	**DRN**	**180M4**	240	717
102	1720	14.45	16500	1.20	**KF**	**87**	**DRN**	**180M4**	250	718
118	1500	12.56	16400	1.35	**KA**	**87**	**DRN**	**180M4**	230	720
132	1330	11.17	15400	1.10	**KAF**	**87**	**DRN**	**180M4**	240	718
148	1190	10.00	15300	1.25						
178	990	8.29	15100	1.40						
205	860	7.21	14900	1.50						

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	60300	454	190000	0.90						
4.2	46600	355	190000	1.15						
5.7	34600	261	190000	1.55	**K**	**187R107**	**DRN**	**180L4**	1970	756
6.7	29300	221	190000	1.80	**KH**	**187R107**	**DRN**	**180L4**	1900	756
7.6	25600	193	190000	2.1						
9.0	21500	163	190000	2.5						
4.6	42300	318	150000	0.85						
5.3	36800	278	150000	0.95						
6.1	32000	244	150000	1.10						
6.9	27900	213	150000	1.25						
7.2	27200	206	150000	1.30	**K**	**167R107**	**DRN**	**180L4**	1380	756
8.2	23500	180	150000	1.50	**KH**	**167R107**	**DRN**	**180L4**	1350	756
9.2	21200	160	150000	1.65						
11	17900	135	150000	1.95						
12	15600	118	150000	2.2						
7.9	24400	187	108300	0.80	**K**	**157R107**	**DRN**	**180L4**	990	756
9.4	20700	157	109400	0.95	**KF**	**157R107**	**DRN**	**180L4**	1070	756
12	16200	122	108100	1.25	**KA**	**157R107**	**DRN**	**180L4**	950	756
14	14100	107	106900	1.40	**KAF**	**157R107**	**DRN**	**180L4**	1010	756
8.2	25500	179.86	190000	2.1						
8.9	23400	165.21	190000	2.3	**K**	**187**	**DRN**	**180L4**	1790	754
10	20500	144.59	190000	2.6	**KH**	**187**	**DRN**	**180L4**	1730	755
11	18400	129.69	190000	2.9						
11	19100	134.99	150000	1.80						
13	15600	109.83	150000	2.2	**K**	**167**	**DRN**	**180L4**	1210	752
17	12400	87.86	150000	2.8	**KH**	**167**	**DRN**	**180L4**	1170	753
19	11100	78.14	150000	3.1						
12	17400	122.39	105500	1.15						
15	14200	100.22	104000	1.40						
16	13000	91.65	103100	1.55						
19	11300	79.75	101500	1.75	**K**	**157**	**DRN**	**180L4**	820	745
21	10000	70.38	99700	2.0	**KF**	**157**	**DRN**	**180L4**	900	746
24	8670	61.02	97600	2.3	**KA**	**157**	**DRN**	**180L4**	780	748
27	7720	54.29	95600	2.6	**KAF**	**157**	**DRN**	**180L4**	840	746
32	6650	46.79	93100	3.0						
39	5400	38.02	89300	3.7						
16	12700	89.89	73900	1.00	**K**	**127**	**DRN**	**180L4**	580	738
18	11600	81.98	73800	1.10	**KF**	**127**	**DRN**	**180L4**	630	739
21	10000	70.95*	73400	1.30	**KA**	**127**	**DRN**	**180L4**	560	741
24	8900	62.60	72700	1.45	**KAF**	**127**	**DRN**	**180L4**	590	739

26883198/EN – 04/2022

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
27	7690	54.07	71700	1.70						
31	6800	47.82	70600	1.90						
37	5710	40.19	68900	2.3	**K**	**127**	**DRN**	**180L4**	580	738
41	5150	36.25	67700	2.5	**KF**	**127**	**DRN**	**180L4**	630	739
47	4460	31.37	66100	2.9	**KA**	**127**	**DRN**	**180L4**	560	741
53	3930	27.68	64500	3.3	**KAF**	**127**	**DRN**	**180L4**	590	739
62	3390	23.91	62700	3.8						
70	3000	21.15	61100	4.3						
					K	**107**	**DRN**	**180L4**	430	731
26	8130	57.17*	39800	1.00	**KF**	**107**	**DRN**	**180L4**	440	732
30	7090	49.90	41600	1.10	**KA**	**107**	**DRN**	**180L4**	400	734
35	6020	42.33*	42900	1.20	**KAF**	**107**	**DRN**	**180L4**	425	732
40	5260	37.00*	43200	1.35						
45	4640	32.69	42900	1.55						
47	4440	31.28*	42700	1.55						
51	4120	29.00	42400	1.75						
56	3740	26.32	42000	1.90	**K**	**107**	**DRN**	**180L4**	430	731
65	3210	22.62	41200	2.2	**KF**	**107**	**DRN**	**180L4**	440	732
75	2800	19.74	40300	2.6	**KA**	**107**	**DRN**	**180L4**	400	734
88	2380	16.75	39300	3.0	**KAF**	**107**	**DRN**	**180L4**	425	732
101	2080	14.64	38300	3.3						
110	1910	13.43	36700	2.2						
126	1660	11.73	35800	2.6						
149	1410	9.94	34700	3.0						
48	4380	30.82	23500	1.00	**K**	**97**	**DRN**	**180L4**	315	724
53	3960	27.91	23800	1.10	**KF**	**97**	**DRN**	**180L4**	335	725
60	3510	24.75	24100	1.20	**KA**	**97**	**DRN**	**180L4**	300	727
66	3180	22.37	24200	1.35	**KAF**	**97**	**DRN**	**180L4**	325	725
78	2690	18.96	24100	1.60						
89	2350	16.56	24000	1.85	**K**	**97**	**DRN**	**180L4**	315	724
107	1960	13.85	23700	2.2	**KF**	**97**	**DRN**	**180L4**	335	725
123	1700	11.99	23300	2.3	**KA**	**97**	**DRN**	**180L4**	300	727
142	1480	10.41	21800	1.95	**KAF**	**97**	**DRN**	**180L4**	325	725
170	1230	8.71	21300	2.1						
76	2760	19.45	14500	0.85						
85	2470	17.42	14800	0.90						
102	2050	14.45	15200	1.00	**K**	**87**	**DRN**	**180L4**	255	717
118	1780	12.56	15300	1.10	**KF**	**87**	**DRN**	**180L4**	265	718
132	1580	11.17	14200	0.95	**KA**	**87**	**DRN**	**180L4**	245	720
148	1420	10.00	14300	1.05	**KAF**	**87**	**DRN**	**180L4**	255	718
178	1170	8.29	14300	1.20						
205	1020	7.21	14200	1.25						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	63700	355	190000	0.85						
5.7	47300	261	190000	1.10						
6.7	40000	221	190000	1.30	**K**	**187R107**	**DRN**	**200L4**	2080	756
7.7	34900	193	190000	1.50	**KH**	**187R107**	**DRN**	**200L4**	2010	756
9.1	29500	163	190000	1.80						
6.1	43700	244	150000	0.80						
6.9	38100	213	150000	0.90						
7.2	37200	206	150000	0.95						
8.2	32100	180	150000	1.10	**K**	**167R107**	**DRN**	**200L4**	1490	756
9.3	28900	160	150000	1.20	**KH**	**167R107**	**DRN**	**200L4**	1460	756
11	24500	135	150000	1.45						
13	21300	118	150000	1.65						
					K	**157R107**	**DRN**	**200L4**	1100	756
12	22100	122	95000	0.90	**KF**	**157R107**	**DRN**	**200L4**	1180	756
					KA	**157R107**	**DRN**	**200L4**	1060	756
					KAF	**157R107**	**DRN**	**200L4**	1120	756

26883198/EN – 04/2022

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.2	34800	179.86	190000	1.50						
9.0	31900	165.21	190000	1.65						
10	27900	144.59	190000	1.90						
11	25100	129.69	190000	2.1	**K**	**187**	**DRN**	**200L4**	1900	754
13	21700	112.60	190000	2.4	**KH**	**187**	**DRN**	**200L4**	1830	755
14	19700	102.16	190000	2.7						
17	17000	88.00	190000	3.1						
13	21200	109.83	150000	1.65						
17	17000	87.86	150000	2.1						
19	15100	78.14	150000	2.3	**K**	**167**	**DRN**	**200L4**	1320	752
22	13100	68.07	150000	2.7	**KH**	**167**	**DRN**	**200L4**	1280	753
24	11700	60.74	150000	3.0						
15	19400	100.22	92700	1.05						
16	17700	91.65	92800	1.15						
19	15400	79.75	92400	1.30						
21	13600	70.38	91700	1.45	**K**	**157**	**DRN**	**200L4**	930	745
24	11800	61.02	90600	1.70	**KF**	**157**	**DRN**	**200L4**	1000	746
27	10500	54.29	89500	1.90	**KA**	**157**	**DRN**	**200L4**	890	748
32	9050	46.79	87700	2.2	**KAF**	**157**	**DRN**	**200L4**	950	746
39	7350	38.02	85000	2.7						
47	6050	31.30	82100	3.1						
21	13700	70.95*	64200	0.95						
24	12100	62.60	64600	1.05						
27	10400	54.07	64700	1.25						
31	9250	47.82	64400	1.40	**K**	**127**	**DRN**	**200L4**	690	738
37	7770	40.19	63700	1.65	**KF**	**127**	**DRN**	**200L4**	730	739
41	7010	36.25	63000	1.85	**KA**	**127**	**DRN**	**200L4**	660	741
47	6070	31.37	62000	2.1	**KAF**	**127**	**DRN**	**200L4**	700	739
53	5350	27.68	60900	2.4						
62	4620	23.91	59600	2.8						
35	8190	42.33*	32500	0.90	**K**	**107**	**DRN**	**200L4**	540	731
40	7160	37.00*	34800	1.00	**KF**	**107**	**DRN**	**200L4**	550	732
47	6050	31.28*	36600	1.10	**KA**	**107**	**DRN**	**200L4**	510	734
					KAF	**107**	**DRN**	**200L4**	540	732
51	5610	29.00	37200	1.30						
56	5090	26.32	37700	1.40						
65	4370	22.62	37700	1.65						
75	3820	19.74	37300	1.90	**K**	**107**	**DRN**	**200L4**	540	731
88	3240	16.75	36700	2.2	**KF**	**107**	**DRN**	**200L4**	550	732
101	2830	14.64	36100	2.4	**KA**	**107**	**DRN**	**200L4**	510	734
110	2590	13.43	34300	1.65	**KAF**	**107**	**DRN**	**200L4**	540	732
126	2260	11.73	33700	1.90						
149	1920	9.94	32900	2.2						
170	1680	8.69	32200	2.4						
60	4780	24.75	19600	0.90						
66	4320	22.37	20200	1.00						
78	3660	18.96	20700	1.15	**K**	**97**	**DRN**	**200L4**	425	724
89	3200	16.56	21000	1.35	**KF**	**97**	**DRN**	**200L4**	445	725
107	2680	13.85	21200	1.60	**KA**	**97**	**DRN**	**200L4**	405	727
123	2320	11.99	21100	1.70	**KAF**	**97**	**DRN**	**200L4**	430	725
142	2010	10.41	19500	1.40						
170	1680	8.71	19400	1.60						

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.7	58300	261	190000	0.90						
6.7	49400	221	190000	1.05	**K**	**187R107**	**DRN**	**225S4**	2110	756
7.7	43100	193	190000	1.25	**KH**	**187R107**	**DRN**	**225S4**	2040	756
9.1	36400	163	190000	1.45						
8.2	39700	180	150000	0.90						
9.3	35600	160	150000	1.00	**K**	**167R107**	**DRN**	**225S4**	1530	756
11	30200	135	150000	1.15	**KH**	**167R107**	**DRN**	**225S4**	1490	756
13	26400	118	150000	1.35						

26883198/EN – 04/2022

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	23800	107	85500	0.85	**K** **KF** **KA** **KAF**	**157R107** **157R107** **157R107** **157R107**	**DRN** **DRN** **DRN** **DRN**	**225S4** **225S4** **225S4** **225S4**	1130 1210 1090 1150	756 756 756 756
8.2	42800	179.86	190000	1.25						
9.0	39300	165.21	190000	1.35						
10	34400	144.59	190000	1.55						
11	30900	129.69	190000	1.70	**K** **KH**	**187** **187**	**DRN** **DRN**	**225S4** **225S4**	1930 1870	754 755
13	26800	112.60	190000	1.95						
15	24300	102.16	190000	2.2						
17	20900	88.00	190000	2.5						
13	26100	109.83	150000	1.35						
17	20900	87.86	150000	1.65						
19	18600	78.14	150000	1.90	**K**	**167**	**DRN**	**225S4**	1350	752
22	16200	68.07	150000	2.2	**KH**	**167**	**DRN**	**225S4**	1310	753
24	14400	60.74	150000	2.4						
29	12300	51.77	150000	2.8						
15	23800	100.22	82800	0.85	**K**	**157**	**DRN**	**225S4**	960	745
16	21800	91.65	83700	0.90	**KF**	**157**	**DRN**	**225S4**	1040	746
19	19000	79.75	84500	1.05	**KA**	**157**	**DRN**	**225S4**	920	748
					KAF	**157**	**DRN**	**225S4**	980	746
21	16700	70.38	84800	1.20						
24	14500	61.02	84600	1.35	**K**	**157**	**DRN**	**225S4**	960	745
27	12900	54.29	84100	1.55	**KF**	**157**	**DRN**	**225S4**	1040	746
32	11100	46.79	83100	1.80	**KA**	**157**	**DRN**	**225S4**	920	748
39	9060	38.02	81200	2.2	**KAF**	**157**	**DRN**	**225S4**	980	746
47	7460	31.30	79000	2.5						
24	14900	62.60	57500	0.85	**K**	**127**	**DRN**	**225S4**	720	738
27	12800	54.07	58600	1.00	**KF**	**127**	**DRN**	**225S4**	770	739
31	11400	47.82	59000	1.15	**KA**	**127**	**DRN**	**225S4**	700	741
37	9580	40.19	59100	1.35	**KAF**	**127**	**DRN**	**225S4**	730	739
41	8640	36.25	58900	1.50						
47	7470	31.37	58400	1.75						
54	6590	27.68	57800	1.95						
62	5690	23.91	56800	2.3	**K**	**127**	**DRN**	**225S4**	720	738
70	5040	21.15	55900	2.6	**KF**	**127**	**DRN**	**225S4**	770	739
83	4230	17.77	54500	3.1	**KA**	**127**	**DRN**	**225S4**	700	741
103	3420	14.35	52500	3.5	**KAF**	**127**	**DRN**	**225S4**	730	739
116	3040	12.79	50200	2.8						
138	2560	10.74	48600	3.1						
171	2060	8.68	46500	3.5						
40	8820	37.00*	26000	0.80						
47	7450	31.28*	29800	0.90						
51	6910	29.00	31100	1.05						
56	6270	26.32	32300	1.15						
66	5390	22.62	33700	1.35	**K**	**107**	**DRN**	**225S4**	570	731
75	4700	19.74	34400	1.55	**KF**	**107**	**DRN**	**225S4**	580	732
89	3990	16.75	34500	1.75	**KA**	**107**	**DRN**	**225S4**	540	734
101	3480	14.64	34100	1.95	**KAF**	**107**	**DRN**	**225S4**	570	732
110	3200	13.43	32300	1.35						
126	2790	11.73	31900	1.55						
149	2370	9.94	31400	1.75						
171	2070	8.69	30800	1.95						

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.7	60200	221	190000	0.90	**K**	**187R107**	**DRN**	**225M4**	2110	756
7.7	52500	193	190000	1.00	**KH**	**187R107**	**DRN**	**225M4**	2040	756
9.1	44300	163	190000	1.20						
9.3	43400	160	150000	0.80	**K**	**167R107**	**DRN**	**225M4**	1530	756
11	36800	135	150000	0.95	**KH**	**167R107**	**DRN**	**225M4**	1490	756
13	32100	118	150000	1.10						

26883198/EN – 04/2022

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.2	52100	179.86	190000	1.00						
9.0	47900	165.21	190000	1.10						
10	41900	144.59	190000	1.25						
11	37600	129.69	190000	1.40	**K**	**187**	**DRN**	**225M4**	1930	754
13	32600	112.60	189800	1.60	**KH**	**187**	**DRN**	**225M4**	1870	755
15	29600	102.16	187600	1.80						
17	25500	88.00	183700	2.1						
20	21400	73.96	178700	2.5						
13	31800	109.83	150000	1.10						
17	25400	87.86	150000	1.35						
19	22600	78.14	150000	1.55						
22	19700	68.07	150000	1.75	**K**	**167**	**DRN**	**225M4**	1350	752
24	17600	60.74	148900	2.0	**KH**	**167**	**DRN**	**225M4**	1310	753
29	15000	51.77	145100	2.3						
35	12400	42.89	140400	2.8						
19	23100	79.75	75500	0.85						
21	20400	70.38	76800	1.00						
24	17600	61.02	77700	1.15						
27	15700	54.29	78000	1.25						
32	13500	46.79	77800	1.45	**K**	**157**	**DRN**	**225M4**	960	745
39	11000	38.02	76900	1.80	**KF**	**157**	**DRN**	**225M4**	1040	746
47	9070	31.30	75400	2.1	**KA**	**157**	**DRN**	**225M4**	920	748
54	8000	27.62	74300	2.5	**KAF**	**157**	**DRN**	**225M4**	980	746
62	6940	23.95	72700	2.9						
70	6170	21.31	71400	3.2						
81	5320	18.37	69600	3.8						
31	13800	47.82	52800	0.95	**K**	**127**	**DRN**	**225M4**	720	738
37	11600	40.19	53900	1.10	**KF**	**127**	**DRN**	**225M4**	770	739
41	10500	36.25	54300	1.25	**KA**	**127**	**DRN**	**225M4**	700	741
					KAF	**127**	**DRN**	**225M4**	730	739
47	9090	31.37	54400	1.45						
54	8020	27.68	54200	1.60						
62	6930	23.91	53800	1.90						
70	6120	21.15	53200	2.1	**K**	**127**	**DRN**	**225M4**	720	738
83	5150	17.77	52200	2.5	**KF**	**127**	**DRN**	**225M4**	770	739
103	4160	14.35	50600	2.9	**KA**	**127**	**DRN**	**225M4**	700	741
116	3700	12.79	48300	2.3	**KAF**	**127**	**DRN**	**225M4**	730	739
138	3110	10.74	47000	2.6						
171	2510	8.68	45200	2.9						
51	8400	29.00	23000	0.85	**K**	**107**	**DRN**	**225M4**	570	731
56	7620	26.32	25400	0.95	**KF**	**107**	**DRN**	**225M4**	580	732
66	6550	22.62	28100	1.10	**KA**	**107**	**DRN**	**225M4**	540	734
75	5720	19.74	29800	1.25	**KAF**	**107**	**DRN**	**225M4**	570	732
89	4850	16.75	31100	1.45						
101	4240	14.64	31700	1.60	**K**	**107**	**DRN**	**225M4**	570	731
110	3890	13.43	29900	1.10	**KF**	**107**	**DRN**	**225M4**	580	732
126	3390	11.73	29900	1.25	**KA**	**107**	**DRN**	**225M4**	540	734
149	2880	9.94	29600	1.45	**KAF**	**107**	**DRN**	**225M4**	570	732
171	2510	8.69	29300	1.60						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	51200	144.59	179800	1.05						
11	45900	129.69	179600	1.15						
13	39900	112.60	178600	1.35						
15	36200	102.16	177400	1.45	**K**	**187**	**DRN**	**250M4**	2080	754
17	31100	88.00	174900	1.70	**KH**	**187**	**DRN**	**250M4**	2020	755
20	26200	73.96	171300	2.0						
23	22600	64.04	167800	2.3						

26883198/EN – 04/2022

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	31100	87.86	145300	1.10						
19	27600	78.14	144600	1.25						
22	24100	68.07	143200	1.45						
24	21500	60.74	141700	1.65	**K**	**167**	**DRN**	**250M4**	1500	752
29	18300	51.77	139000	1.90	**KH**	**167**	**DRN**	**250M4**	1460	753
35	15200	42.89	135300	2.3						
40	12900	36.61	131800	2.7						
21	24900	70.38	66900	0.80						
24	21600	61.02	69100	0.90						
27	19200	54.29	70300	1.05						
32	16500	46.79	71200	1.20						
39	13400	38.02	71500	1.50	**K**	**157**	**DRN**	**250M4**	1110	745
47	11000	31.30	71000	1.70	**KF**	**157**	**DRN**	**250M4**	1190	746
54	9780	27.62	70400	2.0	**KA**	**157**	**DRN**	**250M4**	1070	748
62	8480	23.95	69400	2.4	**KAF**	**157**	**DRN**	**250M4**	1130	746
70	7550	21.31	68400	2.6						
81	6500	18.37	67000	3.1						
99	5280	14.92	64700	3.8						
117	4480	12.65	62800	4.2						
37	14200	40.19	47400	0.90	**K**	**127**	**DRN**	**250M4**	870	738
47	11100	31.37	49300	1.15	**KF**	**127**	**DRN**	**250M4**	920	739
54	9800	27.68	49700	1.35	**KA**	**127**	**DRN**	**250M4**	850	741
					KAF	**127**	**DRN**	**250M4**	880	739
62	8470	23.91	49900	1.55						
70	7490	21.15	49800	1.75						
83	6290	17.77	49300	2.1	**K**	**127**	**DRN**	**250M4**	870	738
103	5080	14.35	48300	2.4	**KF**	**127**	**DRN**	**250M4**	920	739
116	4530	12.79	45900	1.90	**KA**	**127**	**DRN**	**250M4**	850	741
138	3800	10.74	45000	2.1	**KAF**	**127**	**DRN**	**250M4**	880	739
171	3070	8.68	43600	2.4						

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	62600	129.69	153800	0.85						
13	54400	112.60	156100	0.95						
15	49300	102.16	157000	1.05						
17	42500	88.00	157400	1.25	**K**	**187**	**DRN**	**280S4**	2130	754
20	35700	73.96	156600	1.50	**KH**	**187**	**DRN**	**280S4**	2070	755
23	30900	64.04	155000	1.70						
28	25700	53.36	152200	2.1						
33	21900	45.50*	149100	2.4						
17	42400	87.86	124500	0.80						
19	37700	78.14	126200	0.95						
22	32800	68.07	127200	1.05						
24	29300	60.74	127300	1.20						
29	25000	51.77	126800	1.40	**K**	**167**	**DRN**	**280S4**	1550	752
35	20700	42.89	125200	1.70	**KH**	**167**	**DRN**	**280S4**	1510	753
40	17600	36.61	123200	2.0						
46	15500	32.25	121200	2.2						
52	13900	28.77	119300	2.5						
60	11800	24.52	116300	3.0						
32	22600	46.79	58000	0.90						
39	18300	38.02	60800	1.10						
47	15100	31.30	62200	1.25						
54	13300	27.62	62600	1.50	**K**	**157**	**DRN**	**280S4**	1160	745
62	11500	23.95	62600	1.75	**KF**	**157**	**DRN**	**280S4**	1240	746
70	10200	21.31	62400	1.95	**KA**	**157**	**DRN**	**280S4**	1120	748
81	8870	18.37	61800	2.2	**KAF**	**157**	**DRN**	**280S4**	1180	746
99	7210	14.92	60500	2.8						
117	6110	12.65	59200	3.1						

26883198/EN – 04/2022

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
47	15100	31.37	38000	0.85						
54	13300	27.68	40800	0.95						
62	11500	23.91	42200	1.15						
70	10200	21.15	43000	1.25	**K**	**127**	**DRN**	**280S4**	920	738
83	8580	17.77	43600	1.50	**KF**	**127**	**DRN**	**280S4**	960	739
103	6930	14.35	43700	1.75	**KA**	**127**	**DRN**	**280S4**	890	741
116	6170	12.79	41100	1.40	**KAF**	**127**	**DRN**	**280S4**	930	739
138	5190	10.74	41000	1.55						
171	4190	8.68	40400	1.70						

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	65300	112.60	139300	0.80						
14	59200	102.16	141700	0.90						
17	51000	88.00	144200	1.05						
20	42900	73.96	145500	1.25						
23	37100	64.04	145400	1.45	**K**	**187**	**DRN**	**280M4**	2250	754
28	30900	53.36	144200	1.70	**KH**	**187**	**DRN**	**280M4**	2180	755
33	26400	45.50*	142300	2.0						
35	24600	42.51	141300	2.1						
38	22300	38.57	139700	2.4						
22	39500	68.07	115100	0.90						
24	35200	60.74	116600	1.00						
29	30000	51.77	117600	1.15						
35	24800	42.89	117600	1.40						
40	21200	36.61	116700	1.65	**K**	**167**	**DRN**	**280M4**	1670	752
46	18700	32.25	115500	1.85	**KH**	**167**	**DRN**	**280M4**	1630	753
51	16600	28.77	114200	2.1						
60	14200	24.52	111900	2.5						
73	11700	20.32	108800	3.0						
85	10000	17.34	105900	3.5						
39	22000	38.02	52700	0.90						
54	16000	27.62	56700	1.25						
62	13800	23.95	57500	1.45	**K**	**157**	**DRN**	**280M4**	1270	745
70	12300	21.31	57900	1.60	**KF**	**157**	**DRN**	**280M4**	1350	746
81	10600	18.37	57900	1.90	**KA**	**157**	**DRN**	**280M4**	1230	748
99	8650	14.92	57400	2.3	**KAF**	**157**	**DRN**	**280M4**	1290	746
117	7340	12.65	56600	2.5						
62	13800	23.91	35500	0.95						
70	12200	21.15	37800	1.05						
83	10300	17.77	39200	1.25	**K**	**127**	**DRN**	**280M4**	1040	738
103	8320	14.35	40200	1.45	**KF**	**127**	**DRN**	**280M4**	1080	739
116	7410	12.79	37600	1.15	**KA**	**127**	**DRN**	**280M4**	1010	741
138	6230	10.74	38000	1.30	**KAF**	**127**	**DRN**	**280M4**	1050	739
171	5030	8.68	38000	1.45						

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	62100	88.00	126800	0.85						
20	52200	73.96	130800	1.00						
23	45200	64.04	132700	1.15	**K**	**187**	**DRN**	**315S4**	2490	754
28	37600	53.36	133600	1.40	**KH**	**187**	**DRN**	**315S4**	2420	755
33	32100	45.50*	133200	1.65						
35	30000	42.51	132800	1.75	**K**	**187**	**DRN**	**315S4/ERF/NS**	2490	754
					KH	**187**	**DRN**	**315S4/ERF/NS**	2420	755
39	27200	38.57	131900	1.95						
45	23400	33.23	130100	2.3	**K**	**187**	**DRN**	**315S4**	2490	754
53	19700	27.92	127500	2.7	**KH**	**187**	**DRN**	**315S4**	2420	755

26883198/EN – 04/2022

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	42800	60.74	102400	0.80						
29	36500	51.77	105500	0.95	**K**	**167**	**DRN**	**315S4**	1910	752
35	30200	42.89	107500	1.15	**KH**	**167**	**DRN**	**315S4**	1870	753
41	25800	36.61	108100	1.35						
46	22700	32.25	107900	1.55	**K**	**167**	**DRN**	**315S4/ERF/NS**	1910	752
					KH	**167**	**DRN**	**315S4/ERF/NS**	1870	753
52	20300	28.77	107400	1.70						
61	17300	24.52	106100	2.0	**K**	**167**	**DRN**	**315S4**	1910	752
73	14300	20.32	104000	2.4	**KH**	**167**	**DRN**	**315S4**	1870	753
86	12200	17.34	101800	2.9						
62	16900	23.95	50800	1.20	**K**	**157**	**DRN**	**315S4/ERF/NS**	1520	745
					KF	**157**	**DRN**	**315S4/ERF/NS**	1590	746
					KA	**157**	**DRN**	**315S4/ERF/NS**	1480	748
					KAF	**157**	**DRN**	**315S4/ERF/NS**	1540	746
70	15000	21.31	51900	1.35	**K**	**157**	**DRN**	**315S4**	1520	745
81	12900	18.37	52700	1.55	**KF**	**157**	**DRN**	**315S4**	1590	746
100	10500	14.92	53200	1.90	**KA**	**157**	**DRN**	**315S4**	1480	748
118	8930	12.65	53000	2.1	**KAF**	**157**	**DRN**	**315S4**	1540	746

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	62600	73.96	114700	0.85						
23	54200	64.04	118700	1.00	**K**	**187**	**DRN**	**315M4**	2510	754
28	45200	53.36	121900	1.15	**KH**	**187**	**DRN**	**315M4**	2450	755
33	38500	45.50*	123300	1.40						
35	36000	42.51	123500	1.45	**K**	**187**	**DRN**	**315M4/ERF/NS**	2510	754
39	32600	38.57	123500	1.60	**KH**	**187**	**DRN**	**315M4/ERF/NS**	2450	755
45	28100	33.23	122900	1.90						
53	23600	27.92	121400	2.2	**K**	**187**	**DRN**	**315M4**	2510	754
62	20400	24.18	119600	2.6	**KH**	**187**	**DRN**	**315M4**	2450	755
74	17000	20.15	116800	2.9						
87	14500	17.18	114000	3.2						
29	43800	51.77	92100	0.80						
35	36300	42.89	96400	0.95	**K**	**167**	**DRN**	**315M4**	1930	752
41	31000	36.61	98600	1.15	**KH**	**167**	**DRN**	**315M4**	1890	753
46	27300	32.25	99600	1.30	**K**	**167**	**DRN**	**315M4/ERF/NS**	1930	752
52	24300	28.77	99900	1.45	**KH**	**167**	**DRN**	**315M4/ERF/NS**	1890	753
61	20700	24.52	99800	1.70						
73	17200	20.32	98700	2.0	**K**	**167**	**DRN**	**315M4**	1930	752
86	14600	17.34	97300	2.4	**KH**	**167**	**DRN**	**315M4**	1890	753
62	20200	23.95	43400	1.00	**K**	**157**	**DRN**	**315M4/ERF/NS**	1540	745
70	18000	21.31	45300	1.10	**KF**	**157**	**DRN**	**315M4/ERF/NS**	1610	746
					KA	**157**	**DRN**	**315M4/ERF/NS**	1500	748
					KAF	**157**	**DRN**	**315M4/ERF/NS**	1560	746
81	15500	18.37	47000	1.30	**K**	**157**	**DRN**	**315M4**	1540	745
100	12600	14.92	48500	1.60	**KF**	**157**	**DRN**	**315M4**	1610	746
118	10700	12.65	49100	1.75	**KA**	**157**	**DRN**	**315M4**	1500	748
					KAF	**157**	**DRN**	**315M4**	1560	746

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
23	65800	64.04	100900	0.80						
28	54800	53.36	107100	0.95						
33	46700	45.50*	110600	1.15						
45	34100	33.23	113700	1.55	**K**	**187**	**DRN**	**315L4**	2640	754
53	28700	27.92	113600	1.85	**KH**	**187**	**DRN**	**315L4**	2580	755
61	24800	24.18	112900	2.1						
74	20700	20.15	111300	2.4						
86	17600	17.18	109300	2.6						

26883198/EN – 04/2022

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	37600	36.61	86500	0.95						
61	25200	24.52	91700	1.40	**K**	**167**	**DRN**	**315L4**	2060	752
73	20800	20.32	92000	1.70	**KH**	**167**	**DRN**	**315L4**	2020	753
86	17800	17.34	91600	1.95						
					K	**157**	**DRN**	**315L4**	1670	745
81	18800	18.37	39800	1.05	**KF**	**157**	**DRN**	**315L4**	1750	746
100	15300	14.92	42600	1.30	**KA**	**157**	**DRN**	**315L4**	1630	748
117	13000	12.65	44100	1.45	**KAF**	**157**	**DRN**	**315L4**	1690	746

P_m = 200 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
33	58300	45.50*	92600	0.90	**K**	**187**	**DRN**	**315H4**	2760	754
					KH	**187**	**DRN**	**315H4**	2700	755
45	42600	33.23	100500	1.25	**K**	**187**	**DRN**	**315H4/ERF/NS**	2760	754
					KH	**187**	**DRN**	**315H4/ERF/NS**	2700	755
53	35800	27.92	102500	1.50						
62	31000	24.18	103300	1.70	**K**	**187**	**DRN**	**315H4**	2760	754
74	25800	20.15	103200	1.90	**KH**	**187**	**DRN**	**315H4**	2700	755
87	22000	17.18	102400	2.1						
61	31400	24.52	80200	1.10	**K**	**167**	**DRN**	**315H4/ERF/NS**	2180	752
					KH	**167**	**DRN**	**315H4/ERF/NS**	2140	753
73	26000	20.32	82500	1.35	**K**	**167**	**DRN**	**315H4**	2180	752
86	22200	17.34	83400	1.55	**KH**	**167**	**DRN**	**315H4**	2140	753
81	23500	18.37	23200	0.85	**K**	**157**	**DRN**	**315H4**	1790	745
100	19100	14.92	34300	1.05	**KF**	**157**	**DRN**	**315H4**	1860	746
118	16200	12.65	37000	1.15	**KA**	**157**	**DRN**	**315H4**	1750	748
					KAF	**157**	**DRN**	**315H4**	1810	746

26883198/EN – 04/2022

10.4 K..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.20	6832	5210						
0.23	5922	5210						
0.25	5491	5210						
0.29	4759	5210						
0.33	4160	5210						
0.38	3645	5210						
0.43	3205	5210	**K**	**37R17**	**DRN**	**63MS4**	20	756
0.49	2801	5210	**KF**	**37R17**	**DRN**	**63MS4**	22	756
0.56	2454	5210	**KA**	**37R17**	**DRN**	**63MS4**	19	756
0.64	2166	5210	**KAF**	**37R17**	**DRN**	**63MS4**	21	756
0.73	1891	5210						
0.83	1660	5210						
0.94	1466	5210						
1.1	1288	5210						
1.2	1136	5210						
1.4	996	5210						
1.6	876	5210						
1.8	761	5210						
2.1	671	5210	**K**	**37R17**	**DRN**	**63MS4**	19	756
2.4	585	5210	**KF**	**37R17**	**DRN**	**63MS4**	22	756
2.7	512	5210	**KA**	**37R17**	**DRN**	**63MS4**	19	756
3.1	451	5210	**KAF**	**37R17**	**DRN**	**63MS4**	21	756
3.5	396	5210						
4.0	346	5210						
4.5	304	5210						
5.2	267	5210	**K**	**37R17**	**DRN**	**63M4**	20	756
5.9	234	5210	**KF**	**37R17**	**DRN**	**63M4**	23	756
6.7	205	5210	**KA**	**37R17**	**DRN**	**63M4**	20	756
			KAF	**37R17**	**DRN**	**63M4**	22	756
7.8	181	5210	**K**	**37R17**	**DRN**	**71MS4**	21	756
8.8	160	5210	**KF**	**37R17**	**DRN**	**71MS4**	23	756
10	136	5210	**KA**	**37R17**	**DRN**	**71MS4**	21	756
			KAF	**37R17**	**DRN**	**71MS4**	22	756
11	127	5210	**K**	**37R17**	**DRN**	**71M4**	22	756
13	110	5210	**KF**	**37R17**	**DRN**	**71M4**	24	756
15	96	5210	**KA**	**37R17**	**DRN**	**71M4**	22	756
			KAF	**37R17**	**DRN**	**71M4**	24	756

$M_{a\ max}$ = 295 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
19	75	7500	**K**	**39R17**	**DRN**	**80M4**	32	756
			KF	**39R17**	**DRN**	**80M4**	34	756
			KA	**39R17**	**DRN**	**80M4**	31	756
			KAF	**39R17**	**DRN**	**80M4**	33	756

26883198/EN – 04/2022

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.34	4057	7500						
0.41	3370	7500						
0.47	2906	7500						
0.55	2508	7500						
0.58	2367	7500						
0.64	2162	7500	**K**	**39R17**	**DRN**	**63MS4**	25	756
0.73	1881	7500	**KF**	**39R17**	**DRN**	**63MS4**	26	756
0.78	1762	7500	**KA**	**39R17**	**DRN**	**63MS4**	24	756
0.85	1622	7500	**KAF**	**39R17**	**DRN**	**63MS4**	25	756
0.92	1494	7500						
1.0	1321	7500						
1.2	1169	7500						
1.3	1093	7500						
1.4	956	7500						
1.7	814	7500	**K**	**39R17**	**DRN**	**63MS4**	24	756
1.9	711	7500	**KF**	**39R17**	**DRN**	**63MS4**	26	756
2.3	605	7500	**KA**	**39R17**	**DRN**	**63MS4**	23	756
2.7	504	7500	**KAF**	**39R17**	**DRN**	**63MS4**	25	756
3.0	454	7500						
3.5	399	7500	**K**	**39R17**	**DRN**	**63M4**	25	756
3.8	365	7500	**KF**	**39R17**	**DRN**	**63M4**	27	756
4.4	312	7500	**KA**	**39R17**	**DRN**	**63M4**	24	756
4.6	299	7500	**KAF**	**39R17**	**DRN**	**63M4**	26	756
			K	**39R17**	**DRN**	**71MS4**	26	756
5.5	254	7500	**KF**	**39R17**	**DRN**	**71MS4**	27	756
6.0	234	7500	**KA**	**39R17**	**DRN**	**71MS4**	25	756
6.7	210	7500	**KAF**	**39R17**	**DRN**	**71MS4**	26	756
7.5	189	7500	**K**	**39R17**	**DRN**	**71M4**	27	756
8.1	174	7500	**KF**	**39R17**	**DRN**	**71M4**	29	756
9.1	156	7500	**KA**	**39R17**	**DRN**	**71M4**	26	756
10.0	142	7500	**KAF**	**39R17**	**DRN**	**71M4**	28	756
			K	**39R17**	**DRN**	**80MK4**	29	756
12	117	7500	**KF**	**39R17**	**DRN**	**80MK4**	31	756
			KA	**39R17**	**DRN**	**80MK4**	28	756
			KAF	**39R17**	**DRN**	**80MK4**	30	756

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.14	10138	5920						
0.16	8534	5920						
0.18	7662	5920						
0.20	6826	5920						
0.23	5983	5920						
0.27	5159	5920						
0.30	4601	5920	**K**	**47R37**	**DRN**	**63MS4**	34	756
0.35	3940	5920	**KF**	**47R37**	**DRN**	**63MS4**	37	756
0.40	3477	5920	**KA**	**47R37**	**DRN**	**63MS4**	33	756
0.45	3043	5920	**KAF**	**47R37**	**DRN**	**63MS4**	36	756
0.51	2733	5920						
0.59	2354	5920						
0.67	2063	5920						
0.76	1819	5920						
0.87	1586	5920						
0.99	1388	5920						
1.1	1222	5920						
1.3	1097	5920	**K**	**47R37**	**DRN**	**63MS4**	33	756
1.5	945	5920	**KF**	**47R37**	**DRN**	**63MS4**	37	756
1.7	831	5920	**KA**	**47R37**	**DRN**	**63MS4**	33	756
1.9	718	5920	**KAF**	**47R37**	**DRN**	**63MS4**	35	756
2.2	639	5920						
			K	**47R37**	**DRN**	**63M4**	34	756
2.5	552	5920	**KF**	**47R37**	**DRN**	**63M4**	37	756
2.8	495	5920	**KA**	**47R37**	**DRN**	**63M4**	33	756
3.2	426	5920	**KAF**	**47R37**	**DRN**	**63M4**	36	756

26883198/EN – 04/2022

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.8	375	5920	**K**	**47R37**	**DRN**	**71MS4**	35	756
4.3	327	5920	**KF**	**47R37**	**DRN**	**71MS4**	38	756
4.9	289	5920	**KA**	**47R37**	**DRN**	**71MS4**	34	756
			KAF	**47R37**	**DRN**	**71MS4**	37	756
5.5	256	5920	**K**	**47R37**	**DRN**	**71M4**	36	756
6.3	225	5920	**KF**	**47R37**	**DRN**	**71M4**	39	756
7.1	198	5920	**KA**	**47R37**	**DRN**	**71M4**	35	756
			KAF	**47R37**	**DRN**	**71M4**	38	756
8.4	171	5920	**K**	**47R37**	**DRN**	**80MK4**	38	756
9.4	153	5920	**KF**	**47R37**	**DRN**	**80MK4**	42	756
11	131	5920	**KA**	**47R37**	**DRN**	**80MK4**	37	756
			KAF	**47R37**	**DRN**	**80MK4**	40	756
13	112	5920	**K**	**47R37**	**DRN**	**80M4**	42	756
15	99	5920	**KF**	**47R37**	**DRN**	**80M4**	45	756
15	94	5920	**KA**	**47R37**	**DRN**	**80M4**	41	756
			KAF	**47R37**	**DRN**	**80M4**	44	756

$M_{a\ max}$ = 500 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.19	7137	9000						
0.23	5991	9000						
0.27	5120	9000						
0.34	4034	9000						
0.39	3580	9000						
0.45	3081	9000						
0.50	2773	9000	**K**	**49R37**	**DRN**	**63MS4**	43	756
0.54	2545	9000	**KF**	**49R37**	**DRN**	**63MS4**	45	756
0.58	2372	9000	**KA**	**49R37**	**DRN**	**63MS4**	40	756
0.65	2118	9000	**KAF**	**49R37**	**DRN**	**63MS4**	45	756
0.71	1941	9000						
0.79	1741	9000						
0.85	1632	9000						
0.91	1521	9000						
1.1	1228	9000						
1.4	1000	9000						
0.97	1424	9000						
1.1	1309	9000	**K**	**49R37**	**DRN**	**63MS4**	43	756
1.2	1120	9000	**KF**	**49R37**	**DRN**	**63MS4**	45	756
1.5	908	9000	**KA**	**49R37**	**DRN**	**63MS4**	40	756
1.7	802	9000	**KAF**	**49R37**	**DRN**	**63MS4**	45	756
2.0	701	9000						
2.1	645	9000	**K**	**49R37**	**DRN**	**63M4**	44	756
2.3	595	9000	**KF**	**49R37**	**DRN**	**63M4**	46	756
2.5	543	9000	**KA**	**49R37**	**DRN**	**63M4**	41	756
2.7	501	9000	**KAF**	**49R37**	**DRN**	**63M4**	46	756
3.1	449	9000	**K**	**49R37**	**DRN**	**71MS4**	44	756
3.5	401	9000	**KF**	**49R37**	**DRN**	**71MS4**	46	756
3.9	360	9000	**KA**	**49R37**	**DRN**	**71MS4**	42	756
			KAF	**49R37**	**DRN**	**71MS4**	46	756
4.3	330	9000	**K**	**49R37**	**DRN**	**71M4**	46	756
4.7	300	9000	**KF**	**49R37**	**DRN**	**71M4**	47	756
5.2	274	9000	**KA**	**49R37**	**DRN**	**71M4**	43	756
5.8	243	9000	**KAF**	**49R37**	**DRN**	**71M4**	48	756
6.6	217	9000	**K**	**49R37**	**DRN**	**80MK4**	48	756
7.4	193	9000	**KF**	**49R37**	**DRN**	**80MK4**	50	756
8.2	176	9000	**KA**	**49R37**	**DRN**	**80MK4**	45	756
			KAF	**49R37**	**DRN**	**80MK4**	50	756
			K	**49R37**	**DRN**	**80M4**	51	756
9.5	152	9000	**KF**	**49R37**	**DRN**	**80M4**	53	756
12	125	9000	**KA**	**49R37**	**DRN**	**80M4**	48	756
			KAF	**49R37**	**DRN**	**80M4**	53	756

26883198/EN – 04/2022

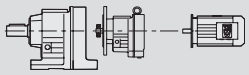
$M_{a\ max}$ = 500 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
15	99	9000	**K**	**49R37**	**DRN**	**90S4**	57	756
			KF	**49R37**	**DRN**	**90S4**	59	756
			KA	**49R37**	**DRN**	**90S4**	54	756
			KAF	**49R37**	**DRN**	**90S4**	59	756

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.11	12169	7630							
0.12	11162	7630							
0.15	9503	7630							
0.16	8547	7630							
0.19	7277	7630							
0.21	6478	7630							
0.24	5662	7630	**K**	**57R37**	**DRN**	**63MS4**	40	756
0.27	5033	7630	**KF**	**57R37**	**DRN**	**63MS4**	44	756
0.32	4340	7630	**KA**	**57R37**	**DRN**	**63MS4**	37	756
0.36	3854	7630	**KAF**	**57R37**	**DRN**	**63MS4**	43	756
0.41	3390	7630							
0.47	2924	7630							
0.53	2593	7630							
0.61	2249	7630							
0.70	1986	7630							
0.79	1743	7630							
0.90	1539	7630	**K**	**57R37**	**DRN**	**63MS4**	39	756
1.0	1354	7630	**KF**	**57R37**	**DRN**	**63MS4**	44	756
1.2	1174	7630	**KA**	**57R37**	**DRN**	**63MS4**	37	756
1.3	1036	7630	**KAF**	**57R37**	**DRN**	**63MS4**	43	756
1.5	906	7630							
1.7	806	7630	**K**	**57R37**	**DRN**	**63M4**	40	756
2.0	699	7630	**KF**	**57R37**	**DRN**	**63M4**	45	756
2.2	615	7630	**KA**	**57R37**	**DRN**	**63M4**	38	756
			KAF	**57R37**	**DRN**	**63M4**	44	756
2.6	544	7630	**K**	**57R37**	**DRN**	**71MS4**	41	756
3.0	473	7630	**KF**	**57R37**	**DRN**	**71MS4**	45	756
3.3	421	7630	**KA**	**57R37**	**DRN**	**71MS4**	39	756
			KAF	**57R37**	**DRN**	**71MS4**	44	756
3.9	362	7630	**K**	**57R37**	**DRN**	**71M4**	42	756
4.4	319	7630	**KF**	**57R37**	**DRN**	**71M4**	47	756
5.1	280	7630	**KA**	**57R37**	**DRN**	**71M4**	40	756
			KAF	**57R37**	**DRN**	**71M4**	46	756
5.8	246	7630	**K**	**57R37**	**DRN**	**80MK4**	44	756
6.7	215	7630	**KF**	**57R37**	**DRN**	**80MK4**	49	756
7.5	192	7630	**KA**	**57R37**	**DRN**	**80MK4**	42	756
			KAF	**57R37**	**DRN**	**80MK4**	48	756
8.7	166	7630	**K**	**57R37**	**DRN**	**80M4**	48	756
10.0	145	7630	**KF**	**57R37**	**DRN**	**80M4**	52	756
			KA	**57R37**	**DRN**	**80M4**	45	756
			KAF	**57R37**	**DRN**	**80M4**	51	756
11	129	7630	**K**	**57R37**	**DRN**	**90S4**	53	756
13	111	7630	**KF**	**57R37**	**DRN**	**90S4**	58	756
15	97	7630	**KA**	**57R37**	**DRN**	**90S4**	51	756
			KAF	**57R37**	**DRN**	**90S4**	57	756

26883198/EN – 04/2022

$M_{a\ max}$ = 820 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12139	10300						
0.12	11134	10300						
0.15	9479	10300						
0.17	8173	10300						
0.19	7259	10300						
0.21	6462	10300	**K**	**67R37**	**DRN**	**63MS4**	45	756
0.24	5648	10300	**KF**	**67R37**	**DRN**	**63MS4**	51	756
0.28	4846	10300	**KA**	**67R37**	**DRN**	**63MS4**	43	756
0.32	4329	10300	**KAF**	**67R37**	**DRN**	**63MS4**	48	756
0.37	3750	10300						
0.42	3315	10300						
0.47	2917	10300						
0.55	2532	10300						
0.62	2244	10300						
0.70	1981	10300						
0.79	1739	10300	**K**	**67R37**	**DRN**	**63MS4**	45	756
0.90	1535	10300	**KF**	**67R37**	**DRN**	**63MS4**	51	756
1.0	1351	10300	**KA**	**67R37**	**DRN**	**63MS4**	42	756
1.2	1171	10300	**KAF**	**67R37**	**DRN**	**63MS4**	48	756
1.3	1034	10300	**K**	**67R37**	**DRN**	**63M4**	46	756
1.5	903	10300	**KF**	**67R37**	**DRN**	**63M4**	52	756
1.7	793	10300	**KA**	**67R37**	**DRN**	**63M4**	43	756
			KAF	**67R37**	**DRN**	**63M4**	49	756
			K	**67R37**	**DRN**	**71MS4**	47	756
2.0	697	10300	**KF**	**67R37**	**DRN**	**71MS4**	52	756
2.3	613	10300	**KA**	**67R37**	**DRN**	**71MS4**	44	756
			KAF	**67R37**	**DRN**	**71MS4**	50	756
2.6	542	10300	**K**	**67R37**	**DRN**	**71M4**	48	756
3.0	471	10300	**KF**	**67R37**	**DRN**	**71M4**	53	756
3.4	420	10300	**KA**	**67R37**	**DRN**	**71M4**	45	756
			KAF	**67R37**	**DRN**	**71M4**	51	756
4.0	361	10300	**K**	**67R37**	**DRN**	**80MK4**	50	756
4.5	323	10300	**KF**	**67R37**	**DRN**	**80MK4**	56	756
5.1	279	10300	**KA**	**67R37**	**DRN**	**80MK4**	47	756
			KAF	**67R37**	**DRN**	**80MK4**	53	756
5.9	246	10300	**K**	**67R37**	**DRN**	**80M4**	53	756
6.6	217	10300	**KF**	**67R37**	**DRN**	**80M4**	59	756
7.5	191	10300	**KA**	**67R37**	**DRN**	**80M4**	51	756
			KAF	**67R37**	**DRN**	**80M4**	56	756
8.8	166	10300	**K**	**67R37**	**DRN**	**90S4**	59	756
10	144	10300	**KF**	**67R37**	**DRN**	**90S4**	65	756
			KA	**67R37**	**DRN**	**90S4**	57	756
			KAF	**67R37**	**DRN**	**90S4**	62	756
12	122	10300	**K**	**67R37**	**DRN**	**90L4**	62	756
			KF	**67R37**	**DRN**	**90L4**	68	756
			KA	**67R37**	**DRN**	**90L4**	60	756
			KAF	**67R37**	**DRN**	**90L4**	65	756

26883198/EN – 04/2022

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.09	15310	15400						
0.10	14043	15400						
0.12	11955	15400						
0.14	10217	15400						
0.16	8809	15400						
0.18	7528	15400	**K**	**77R37**	**DRN**	**63MS4**	70	756
0.21	6606	15400	**KF**	**77R37**	**DRN**	**63MS4**	78	756
0.24	5774	15400	**KA**	**77R37**	**DRN**	**63MS4**	62	756
0.27	5089	15400	**KAF**	**77R37**	**DRN**	**63MS4**	70	756
0.31	4489	15400						
0.35	3961	15400						
0.40	3485	15400						
0.48	2901	15400						
0.51	2717	15400						
0.58	2370	15400	**K**	**77R37**	**DRN**	**63M4**	70	756
			KF	**77R37**	**DRN**	**63M4**	79	756
			KA	**77R37**	**DRN**	**63M4**	63	756
			KAF	**77R37**	**DRN**	**63M4**	71	756
0.67	2050	15400	**K**	**77R37**	**DRN**	**63M4**	70	756
0.78	1772	15400	**KF**	**77R37**	**DRN**	**63M4**	78	756
0.91	1514	15400	**KA**	**77R37**	**DRN**	**63M4**	63	756
			KAF	**77R37**	**DRN**	**63M4**	71	756
1.0	1388	15400	**K**	**77R37**	**DRN**	**71MS4**	71	756
1.1	1218	15400	**KF**	**77R37**	**DRN**	**71MS4**	79	756
1.3	1053	15400	**KA**	**77R37**	**DRN**	**71MS4**	63	756
			KAF	**77R37**	**DRN**	**71MS4**	71	756
1.5	924	15400	**K**	**77R37**	**DRN**	**71M4**	72	756
1.7	815	15400	**KF**	**77R37**	**DRN**	**71M4**	80	756
2.0	709	15400	**KA**	**77R37**	**DRN**	**71M4**	64	756
			KAF	**77R37**	**DRN**	**71M4**	72	756
2.3	622	15400	**K**	**77R37**	**DRN**	**80MK4**	74	756
2.6	552	15400	**KF**	**77R37**	**DRN**	**80MK4**	82	756
3.0	485	15400	**KA**	**77R37**	**DRN**	**80MK4**	67	756
			KAF	**77R37**	**DRN**	**80MK4**	75	756
3.4	428	15400	**K**	**77R37**	**DRN**	**80M4**	78	756
3.9	367	15400	**KF**	**77R37**	**DRN**	**80M4**	86	756
			KA	**77R37**	**DRN**	**80M4**	70	756
			KAF	**77R37**	**DRN**	**80M4**	78	756
4.4	328	15400	**K**	**77R37**	**DRN**	**90S4**	83	756
5.0	290	15400	**KF**	**77R37**	**DRN**	**90S4**	92	756
5.8	252	15400	**KA**	**77R37**	**DRN**	**90S4**	76	756
			KAF	**77R37**	**DRN**	**90S4**	84	756
6.6	221	15400	**K**	**77R37**	**DRN**	**90L4**	87	756
7.5	195	15400	**KF**	**77R37**	**DRN**	**90L4**	95	756
8.4	175	15400	**KA**	**77R37**	**DRN**	**90L4**	79	756
			KAF	**77R37**	**DRN**	**90L4**	87	756
9.4	154	15400	**K**	**77R37**	**DRN**	**100LS4**	91	756
			KF	**77R37**	**DRN**	**100LS4**	99	756
			KA	**77R37**	**DRN**	**100LS4**	83	756
			KAF	**77R37**	**DRN**	**100LS4**	91	756

$M_{a\ max}$ = 2600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
10	141	27400	**K**	**87R57**	**DRN**	**112M4**	155	756
			KF	**87R57**	**DRN**	**112M4**	165	756
			KA	**87R57**	**DRN**	**112M4**	145	756
			KAF	**87R57**	**DRN**	**112M4**	155	756

26883198/EN – 04/2022

$M_{a\ max}$ = 2700 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.09	14829	27300						
0.10	13168	27300						
0.12	11737	27300						
0.14	10217	27300	**K**	**87R57**	**DRN**	**63MS4**	120	756
0.15	9073	27300	**KF**	**87R57**	**DRN**	**63MS4**	130	756
0.18	7854	27300	**KA**	**87R57**	**DRN**	**63MS4**	105	756
0.20	6832	27300	**KAF**	**87R57**	**DRN**	**63MS4**	120	756
0.23	5930	27300						
0.26	5240	27300						
0.30	4562	27300						
0.34	4037	27300	**K**	**87R57**	**DRN**	**63M4**	120	756
0.38	3609	27300	**KF**	**87R57**	**DRN**	**63M4**	130	756
0.44	3107	27300	**KA**	**87R57**	**DRN**	**63M4**	105	756
0.50	2728	27300	**KAF**	**87R57**	**DRN**	**63M4**	120	756
			K	**87R57**	**DRN**	**71MS4**	120	756
			KF	**87R57**	**DRN**	**71MS4**	130	756
0.59	2371	27300	**KA**	**87R57**	**DRN**	**71MS4**	110	756
			KAF	**87R57**	**DRN**	**71MS4**	120	756
			K	**87R57**	**DRN**	**71MS4**	120	756
0.67	2088	27300	**KF**	**87R57**	**DRN**	**71MS4**	130	756
0.76	1854	27300	**KA**	**87R57**	**DRN**	**71MS4**	105	756
			KAF	**87R57**	**DRN**	**71MS4**	120	756
			K	**87R57**	**DRN**	**71M4**	120	756
0.85	1657	27300	**KF**	**87R57**	**DRN**	**71M4**	130	756
1.0	1415	27300	**KA**	**87R57**	**DRN**	**71M4**	110	756
1.1	1229	27300	**KAF**	**87R57**	**DRN**	**71M4**	120	756
			K	**87R57**	**DRN**	**80MK4**	125	756
1.3	1078	27300	**KF**	**87R57**	**DRN**	**80MK4**	130	756
1.5	951	27300	**KA**	**87R57**	**DRN**	**80MK4**	110	756
1.7	837	27300	**KAF**	**87R57**	**DRN**	**80MK4**	125	756
			K	**87R57**	**DRN**	**80M4**	125	756
2.0	726	27300	**KF**	**87R57**	**DRN**	**80M4**	135	756
2.3	638	27300	**KA**	**87R57**	**DRN**	**80M4**	115	756
			KAF	**87R57**	**DRN**	**80M4**	125	756
			K	**87R57**	**DRN**	**90S4**	130	756
2.6	562	27300	**KF**	**87R57**	**DRN**	**90S4**	140	756
3.1	474	27300	**KA**	**87R57**	**DRN**	**90S4**	120	756
3.4	426	27300	**KAF**	**87R57**	**DRN**	**90S4**	135	756
			K	**87R57**	**DRN**	**90L4**	135	756
3.9	373	27300	**KF**	**87R57**	**DRN**	**90L4**	145	756
4.4	330	27300	**KA**	**87R57**	**DRN**	**90L4**	125	756
			KAF	**87R57**	**DRN**	**90L4**	135	756
4.9	294	27300	**K**	**87R57**	**DRN**	**100LS4**	140	756
5.8	250	27300	**KF**	**87R57**	**DRN**	**100LS4**	150	756
6.1	236	27300	**KA**	**87R57**	**DRN**	**100LS4**	125	756
7.2	201	27300	**KAF**	**87R57**	**DRN**	**100LS4**	140	756
			K	**87R57**	**DRN**	**100L4**	145	756
8.0	183	27300	**KF**	**87R57**	**DRN**	**100L4**	155	756
9.2	159	27300	**KA**	**87R57**	**DRN**	**100L4**	135	756
			KAF	**87R57**	**DRN**	**100L4**	150	756

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	18091	40000						
0.08	16666	40000						
0.09	14897	40000						
0.10	13182	40000	**K**	**97R57**	**DRN**	**63MS4**	180	756
0.12	11677	40000	**KF**	**97R57**	**DRN**	**63MS4**	200	756
0.13	10317	40000	**KA**	**97R57**	**DRN**	**63MS4**	160	756
0.15	9083	40000	**KAF**	**97R57**	**DRN**	**63MS4**	185	756
0.17	8054	40000						
0.20	6970	40000						

26883198/EN – 04/2022

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.23	6027	40000	**K**	**97R57**	**DRN**	**63M4**	180	756
0.26	5391	40000	**KF**	**97R57**	**DRN**	**63M4**	200	756
0.29	4669	40000	**KA**	**97R57**	**DRN**	**63M4**	160	756
0.34	4082	40000	**KAF**	**97R57**	**DRN**	**63M4**	185	756
			K	**97R57**	**DRN**	**71MS4**	180	756
0.39	3583	40000	**KF**	**97R57**	**DRN**	**71MS4**	200	756
0.45	3108	40000	**KA**	**97R57**	**DRN**	**71MS4**	160	756
			KAF	**97R57**	**DRN**	**71MS4**	185	756
			K	**97R57**	**DRN**	**71M4**	180	756
0.51	2757	40000	**KF**	**97R57**	**DRN**	**71M4**	200	756
			KA	**97R57**	**DRN**	**71M4**	165	756
			KAF	**97R57**	**DRN**	**71M4**	190	756
			K	**97R57**	**DRN**	**71M4**	180	756
0.58	2419	40000	**KF**	**97R57**	**DRN**	**71M4**	200	756
0.67	2123	40000	**KA**	**97R57**	**DRN**	**71M4**	165	756
			KAF	**97R57**	**DRN**	**71M4**	190	756
			K	**97R57**	**DRN**	**80MK4**	185	756
0.77	1856	40000	**KF**	**97R57**	**DRN**	**80MK4**	205	756
0.88	1625	40000	**KA**	**97R57**	**DRN**	**80MK4**	165	756
1.0	1430	40000	**KAF**	**97R57**	**DRN**	**80MK4**	190	756
			K	**97R57**	**DRN**	**80M4**	185	756
1.1	1261	40000	**KF**	**97R57**	**DRN**	**80M4**	205	756
1.3	1102	40000	**KA**	**97R57**	**DRN**	**80M4**	170	756
1.5	957	40000	**KAF**	**97R57**	**DRN**	**80M4**	195	756
			K	**97R57**	**DRN**	**90S4**	195	756
1.7	855	40000	**KF**	**97R57**	**DRN**	**90S4**	215	756
2.0	743	40000	**KA**	**97R57**	**DRN**	**90S4**	175	756
			KAF	**97R57**	**DRN**	**90S4**	200	756
			K	**97R57**	**DRN**	**90L4**	195	756
2.2	652	40000	**KF**	**97R57**	**DRN**	**90L4**	215	756
2.5	573	40000	**KA**	**97R57**	**DRN**	**90L4**	180	756
2.9	504	40000	**KAF**	**97R57**	**DRN**	**90L4**	205	756
			K	**97R57**	**DRN**	**100LS4**	200	756
3.3	437	40000	**KF**	**97R57**	**DRN**	**100LS4**	220	756
3.8	382	40000	**KA**	**97R57**	**DRN**	**100LS4**	180	756
4.2	342	40000	**KAF**	**97R57**	**DRN**	**100LS4**	205	756
			K	**97R57**	**DRN**	**100L4**	205	756
4.8	305	40000	**KF**	**97R57**	**DRN**	**100L4**	225	756
5.7	258	40000	**KA**	**97R57**	**DRN**	**100L4**	190	756
			KAF	**97R57**	**DRN**	**100L4**	215	756
			K	**97R57**	**DRN**	**112M4**	215	756
6.3	232	40000	**KF**	**97R57**	**DRN**	**112M4**	235	756
7.3	199	40000	**KA**	**97R57**	**DRN**	**112M4**	200	756
			KAF	**97R57**	**DRN**	**112M4**	225	756

$M_{a\ max}$ = 7200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	**107R77**	**DRN**	**132M4**	375	756
8.4	174	65000	**KF**	**107R77**	**DRN**	**132M4**	385	756
			KA	**107R77**	**DRN**	**132M4**	350	756
			KAF	**107R77**	**DRN**	**132M4**	370	756
			K	**107R77**	**DRN**	**132L4**	385	756
9.5	154	65000	**KF**	**107R77**	**DRN**	**132L4**	395	756
11	140	65000	**KA**	**107R77**	**DRN**	**132L4**	355	756
			KAF	**107R77**	**DRN**	**132L4**	380	756

26883198/EN – 04/2022

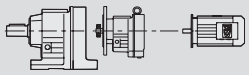
$M_{a\ max}$ = 8000 Nm

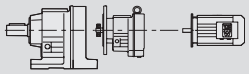
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	**107R77**	**DRN**	**63MS4**	310	756
			KF	**107R77**	**DRN**	**63MS4**	320	756
0.10	14311	65000	**KA**	**107R77**	**DRN**	**63MS4**	280	756
			KAF	**107R77**	**DRN**	**63MS4**	305	756
0.11	12211	65000	**K**	**107R77**	**DRN**	**63M4**	310	756
0.13	10677	65000	**KF**	**107R77**	**DRN**	**63M4**	320	756
0.14	9524	65000	**KA**	**107R77**	**DRN**	**63M4**	285	756
0.17	8328	65000	**KAF**	**107R77**	**DRN**	**63M4**	305	756
			K	**107R77**	**DRN**	**71MS4**	310	756
0.19	7270	65000	**KF**	**107R77**	**DRN**	**71MS4**	325	756
0.23	6184	65000	**KA**	**107R77**	**DRN**	**71MS4**	285	756
			KAF	**107R77**	**DRN**	**71MS4**	310	756
0.25	5662	65000	**K**	**107R77**	**DRN**	**71M4**	310	756
0.28	5138	65000	**KF**	**107R77**	**DRN**	**71M4**	325	756
0.32	4359	65000	**KA**	**107R77**	**DRN**	**71M4**	285	756
0.37	3810	65000	**KAF**	**107R77**	**DRN**	**71M4**	310	756
			K	**107R77**	**DRN**	**80MK4**	315	756
0.43	3358	65000	**KF**	**107R77**	**DRN**	**80MK4**	325	756
0.48	2977	65000	**KA**	**107R77**	**DRN**	**80MK4**	285	756
0.55	2599	65000	**KAF**	**107R77**	**DRN**	**80MK4**	310	756
			K	**107R77**	**DRN**	**80M4**	320	756
0.63	2286	65000	**KF**	**107R77**	**DRN**	**80M4**	330	756
0.74	1939	65000	**KA**	**107R77**	**DRN**	**80M4**	290	756
			KAF	**107R77**	**DRN**	**80M4**	315	756
0.85	1713	65000	**K**	**107R77**	**DRN**	**90S4**	320	756
0.94	1554	65000	**KF**	**107R77**	**DRN**	**90S4**	335	756
1.1	1336	65000	**KA**	**107R77**	**DRN**	**90S4**	295	756
			KAF	**107R77**	**DRN**	**90S4**	320	756
1.2	1166	65000	**K**	**107R77**	**DRN**	**90L4**	325	756
1.4	1030	65000	**KF**	**107R77**	**DRN**	**90L4**	335	756
1.6	904	65000	**KA**	**107R77**	**DRN**	**90L4**	300	756
			KAF	**107R77**	**DRN**	**90L4**	320	756
1.8	793	65000	**K**	**107R77**	**DRN**	**100LS4**	330	756
2.1	696	65000	**KF**	**107R77**	**DRN**	**100LS4**	340	756
2.4	615	65000	**KA**	**107R77**	**DRN**	**100LS4**	300	756
			KAF	**107R77**	**DRN**	**100LS4**	325	756
			K	**107R77**	**DRN**	**100L4**	335	756
2.8	522	65000	**KF**	**107R77**	**DRN**	**100L4**	350	756
3.2	461	65000	**KA**	**107R77**	**DRN**	**100L4**	310	756
			KAF	**107R77**	**DRN**	**100L4**	335	756
			K	**107R77**	**DRN**	**112M4**	345	756
3.6	408	65000	**KF**	**107R77**	**DRN**	**112M4**	360	756
4.0	364	65000	**KA**	**107R77**	**DRN**	**112M4**	320	756
			KAF	**107R77**	**DRN**	**112M4**	340	756
4.6	318	65000	**K**	**107R77**	**DRN**	**132S4**	355	756
5.1	286	65000	**KF**	**107R77**	**DRN**	**132S4**	370	756
5.8	251	65000	**KA**	**107R77**	**DRN**	**132S4**	330	756
			KAF	**107R77**	**DRN**	**132S4**	355	756
			K	**107R77**	**DRN**	**132M4**	375	756
6.6	222	65000	**KF**	**107R77**	**DRN**	**132M4**	385	756
7.5	196	65000	**KA**	**107R77**	**DRN**	**132M4**	350	756
			KAF	**107R77**	**DRN**	**132M4**	370	756

$M_{a\ max}$ = 12000 Nm

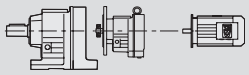
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	**127R87**	**DRN**	**160M4**	600	756
			KF	**127R87**	**DRN**	**160M4**	640	756
7.3	200	79700	**KA**	**127R87**	**DRN**	**160M4**	570	756
			KAF	**127R87**	**DRN**	**160M4**	610	756

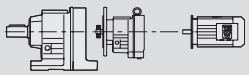
26883198/EN – 04/2022

$M_{a\,max}$ = 12000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			K	127R87	DRN	160L4		610	756
8.9	166	79700	KF	127R87	DRN	160L4		650	756
10	147	79700	KA	127R87	DRN	160L4		580	756
			KAF	127R87	DRN	160L4		620	756

$M_{a\,max}$ = 13000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			K	127R77	DRN	63M4		470	756
0.08	17550	79200	KF	127R77	DRN	63M4		510	756
0.09	16006	79200	KA	127R77	DRN	63M4		445	756
0.09	14975	79200	KAF	127R77	DRN	63M4		480	756
			K	127R77	DRN	71MS4		470	756
0.11	12440	79200	KF	127R77	DRN	71MS4		510	756
0.13	10915	79200	KA	127R77	DRN	71MS4		445	756
0.14	9819	79200	KAF	127R77	DRN	71MS4		480	756
			K	127R77	DRN	71M4		475	756
0.17	8443	79200	KF	127R77	DRN	71M4		510	756
0.19	7482	79200	KA	127R77	DRN	71M4		445	756
0.22	6565	79200	KAF	127R77	DRN	71M4		480	756
			K	127R77	DRN	80MK4		475	756
0.25	5804	79200	KF	127R77	DRN	80MK4		520	756
0.29	5027	79200	KA	127R77	DRN	80MK4		445	756
0.32	4423	79200	KAF	127R77	DRN	80MK4		485	756
			K	127R77	DRN	80M4		480	756
0.37	3889	79200	KF	127R77	DRN	80M4		520	756
0.43	3311	79200	KA	127R77	DRN	80M4		450	756
0.48	3009	79200	KAF	127R77	DRN	80M4		490	756
			K	127R77	DRN	90S4		485	756
0.56	2607	79200	KF	127R77	DRN	90S4		530	756
0.64	2268	79200	KA	127R77	DRN	90S4		455	756
			KAF	127R77	DRN	90S4		495	756
			K	127R77	DRN	90L4		485	756
0.76	1926	79200	KF	127R77	DRN	90L4		530	756
0.83	1757	79200	KA	127R77	DRN	90L4		455	756
0.95	1541	79200	KAF	127R77	DRN	90L4		495	756
			K	127R77	DRN	100LS4		490	756
1.1	1342	79200	KF	127R77	DRN	100LS4		530	756
1.2	1177	79200	KA	127R77	DRN	100LS4		460	756
1.4	1025	79200	KAF	127R77	DRN	100LS4		500	756
			K	127R77	DRN	100L4		495	756
1.6	899	79200	KF	127R77	DRN	100L4		540	756
1.8	790	79200	KA	127R77	DRN	100L4		470	756
			KAF	127R77	DRN	100L4		510	756
			K	127R77	DRN	112M4		510	756
2.1	704	79200	KF	127R77	DRN	112M4		550	756
2.4	610	79200	KA	127R77	DRN	112M4		480	756
2.7	549	79200	KAF	127R77	DRN	112M4		520	756
			K	127R77	DRN	132S4		520	756
3.1	477	79200	KF	127R77	DRN	132S4		560	756
3.5	418	79200	KA	127R77	DRN	132S4		490	756
			KAF	127R77	DRN	132S4		530	756
			K	127R87	DRN	132S4		540	756
2.7	536	79200	KF	127R87	DRN	132S4		580	756
3.1	473	79200	KA	127R87	DRN	132S4		510	756
3.5	418	79200	KAF	127R87	DRN	132S4		550	756
			K	127R87	DRN	132M4		560	756
4.0	367	79200	KF	127R87	DRN	132M4		600	756
4.4	330	79200	KA	127R87	DRN	132M4		530	756
			KAF	127R87	DRN	132M4		560	756

26883198/EN – 04/2022

$M_{a\ max}$ = 13000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
5.1 5.8	287 253	79200 79200	K KF KA KAF	127R87 127R87 127R87 127R87	DRN DRN DRN DRN	132L4 132L4 132L4 132L4	560 610 540 570	756 756 756 756
6.9	213	79200	K KF KA KAF	127R87 127R87 127R87 127R87	DRN DRN DRN DRN	160M4 160M4 160M4 160M4	600 640 570 610	756 756 756 756

$M_{a\ max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.08	17679	111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	71MS4 71MS4 71MS4 71MS4	790 870 750 810	756 756 756 756
0.09 0.10 0.11 0.12 0.14	15729 14721 13097 11368 10114	111100 111100 111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	71M4 71M4 71M4 71M4	790 870 750 810	756 756 756 756
0.16 0.19 0.21	8718 7734 6881	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	80MK4 80MK4 80MK4 80MK4	790 870 750 810	756 756 756 756
0.24 0.28	5931 5074	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	80M4 80M4 80M4 80M4	800 870 760 820	756 756 756 756
0.32 0.37 0.41	4514 3979 3516	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	90S4 90S4 90S4 90S4	800 880 760 820	756 756 756 756
0.48 0.56	3051 2610	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	90L4 90L4 90L4 90L4	800 880 770 830	756 756 756 756
0.62 0.71 0.80	2322 2029 1805	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100LS4 100LS4 100LS4 100LS4	810 890 770 830	756 756 756 756
0.87	1659	111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100LS4 100LS4 100LS4 100LS4	800 880 770 830	756 756 756 756
1.1 1.2	1365 1229	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100L4 100L4 100L4 100L4	810 890 780 830	756 756 756 756
1.3 1.6 1.7	1093 942 854	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	112M4 112M4 112M4 112M4	820 900 780 840	756 756 756 756
1.9 2.2	756 661	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	132S4 132S4 132S4 132S4	830 910 800 850	756 756 756 756
2.6 2.9	567 504	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	132M4 132M4 132M4 132M4	850 930 810 870	756 756 756 756

26883198/EN – 04/2022

$M_{a\ max}$ = 20000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	**157R97**	**DRN**	**132L4**	860	756
3.4	434	111100	**KF**	**157R97**	**DRN**	**132L4**	940	756
3.9	379	111100	**KA**	**157R97**	**DRN**	**132L4**	820	756
			KAF	**157R97**	**DRN**	**132L4**	880	756
			K	**157R97**	**DRN**	**160M4**	890	756
4.4	333	111100	**KF**	**157R97**	**DRN**	**160M4**	970	756
			KA	**157R97**	**DRN**	**160M4**	850	756
			KAF	**157R97**	**DRN**	**160M4**	910	756
			K	**157R97**	**DRN**	**160L4**	910	756
5.1	291	111100	**KF**	**157R97**	**DRN**	**160L4**	990	756
			KA	**157R97**	**DRN**	**160L4**	870	756
			KAF	**157R97**	**DRN**	**160L4**	930	756
			K	**157R107**	**DRN**	**132L4**	910	756
3.8	385	111100	**KF**	**157R107**	**DRN**	**132L4**	980	756
			KA	**157R107**	**DRN**	**132L4**	870	756
			KAF	**157R107**	**DRN**	**132L4**	930	756
			K	**157R107**	**DRN**	**160M4**	940	756
4.5	325	111100	**KF**	**157R107**	**DRN**	**160M4**	1020	756
			KA	**157R107**	**DRN**	**160M4**	900	756
			KAF	**157R107**	**DRN**	**160M4**	960	756
			K	**157R107**	**DRN**	**160L4**	950	756
4.9	299	111100	**KF**	**157R107**	**DRN**	**160L4**	1030	756
5.8	253	111100	**KA**	**157R107**	**DRN**	**160L4**	920	756
6.4	230	111100	**KAF**	**157R107**	**DRN**	**160L4**	980	756
			K	**157R107**	**DRN**	**180M4**	980	756
6.9	213	111100	**KF**	**157R107**	**DRN**	**180M4**	1050	756
7.9	187	111100	**KA**	**157R107**	**DRN**	**180M4**	940	756
			KAF	**157R107**	**DRN**	**180M4**	1000	756
			K	**157R107**	**DRN**	**180L4**	990	756
9.4	157	111000	**KF**	**157R107**	**DRN**	**180L4**	1070	756
			KA	**157R107**	**DRN**	**180L4**	950	756
			KAF	**157R107**	**DRN**	**180L4**	1010	756
			K	**157R107**	**DRN**	**200L4**	1100	756
12	122	99700	**KF**	**157R107**	**DRN**	**200L4**	1180	756
			KA	**157R107**	**DRN**	**200L4**	1060	756
			KAF	**157R107**	**DRN**	**200L4**	1120	756
			K	**157R107**	**DRN**	**225S4**	1130	756
14	107	94000	**KF**	**157R107**	**DRN**	**225S4**	1210	756
			KA	**157R107**	**DRN**	**225S4**	1090	756
			KAF	**157R107**	**DRN**	**225S4**	1150	756

$M_{a\ max}$ = 35000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	19723	150000	**K**	**167R97**	**DRN**	**71M4**	1180	756
			KH	**167R97**	**DRN**	**71M4**	1150	756
0.08	17406	150000						
0.10	15000	150000	**K**	**167R97**	**DRN**	**80MK4**	1190	756
0.11	13238	150000	**KH**	**167R97**	**DRN**	**80MK4**	1150	756
0.12	11573	150000						
0.14	10264	150000	**K**	**167R97**	**DRN**	**80M4**	1190	756
0.17	8628	150000	**KH**	**167R97**	**DRN**	**80M4**	1150	756
0.22	6562	150000	**K**	**167R97**	**DRN**	**90S4**	1190	756
			KH	**167R97**	**DRN**	**90S4**	1160	756
0.27	5355	150000						
0.31	4788	150000	**K**	**167R97**	**DRN**	**90L4**	1200	756
0.36	4079	150000	**KH**	**167R97**	**DRN**	**90L4**	1160	756
0.43	3376	150000	**K**	**167R97**	**DRN**	**100LS4**	1200	756
0.53	2755	150000	**KH**	**167R97**	**DRN**	**100LS4**	1160	756
0.64	2263	150000	**K**	**167R97**	**DRN**	**100L4**	1210	756
			KH	**167R97**	**DRN**	**100L4**	1170	756

26883198/EN – 04/2022

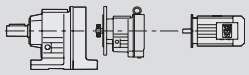
$M_{a\ max}$ = 35000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.67	2182	150000	**K**	**167R97**	**DRN**	**100L4**		1210	756
			KH	**167R97**	**DRN**	**100L4**		1170	756
0.86	1704	150000	**K**	**167R97**	**DRN**	**112M4**		1210	756
			KH	**167R97**	**DRN**	**112M4**		1180	756
1.0	1408	150000							
1.1	1296	150000	**K**	**167R97**	**DRN**	**132S4**		1230	756
1.3	1101	150000	**KH**	**167R97**	**DRN**	**132S4**		1190	756
1.6	944	150000	**K**	**167R97**	**DRN**	**132M4**		1240	756
1.7	843	150000	**KH**	**167R97**	**DRN**	**132M4**		1210	756
1.9	757	150000	**K**	**167R97**	**DRN**	**132L4**		1250	756
			KH	**167R97**	**DRN**	**132L4**		1210	756
2.3	632	150000	**K**	**167R97**	**DRN**	**160M4**		1280	756
2.6	561	150000	**KH**	**167R97**	**DRN**	**160M4**		1250	756
3.1	481	150000	**K**	**167R97**	**DRN**	**160L4**		1300	756
3.5	423	150000	**KH**	**167R97**	**DRN**	**160L4**		1260	756
4.0	369	150000	**K**	**167R97**	**DRN**	**180M4**		1320	756
			KH	**167R97**	**DRN**	**180M4**		1280	756
4.7	318	150000	**K**	**167R107**	**DRN**	**180M4**		1370	756
			KH	**167R107**	**DRN**	**180M4**		1330	756
5.3	278	150000	**K**	**167R107**	**DRN**	**180L4**		1380	756
			KH	**167R107**	**DRN**	**180L4**		1350	756
6.1	244	150000							
6.9	213	150000	**K**	**167R107**	**DRN**	**200L4**		1490	756
7.2	206	150000	**KH**	**167R107**	**DRN**	**200L4**		1460	756
8.2	180	150000	**K**	**167R107**	**DRN**	**225S4**		1530	756
9.3	160	150000	**KH**	**167R107**	**DRN**	**225S4**		1490	756
11	135	150000	**K**	**167R107**	**DRN**	**225M4**		1530	756
			KH	**167R107**	**DRN**	**225M4**		1490	756

$M_{a\ max}$ = 53000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.04	32625	190000	**K**	**187R97**	**DRN**	**71M4**		1770	756
0.05	27165	190000	**KH**	**187R97**	**DRN**	**71M4**		1700	756
0.06	24353	190000	**K**	**187R97**	**DRN**	**80MK4**		1770	756
0.07	19144	190000	**KH**	**187R97**	**DRN**	**80MK4**		1700	756
0.08	16978	190000							
0.10	14272	190000	**K**	**187R97**	**DRN**	**80M4**		1770	756
0.11	13116	190000	**KH**	**187R97**	**DRN**	**80M4**		1700	756
0.12	11647	190000							
0.14	10413	190000	**K**	**187R97**	**DRN**	**90S4**		1780	756
0.16	9363	190000	**KH**	**187R97**	**DRN**	**90S4**		1710	756
0.18	8126	190000							
0.20	7343	190000	**K**	**187R97**	**DRN**	**90L4**		1780	756
0.22	6747	190000	**KH**	**187R97**	**DRN**	**90L4**		1710	756
0.24	5991	190000							
0.27	5358	190000	**K**	**187R97**	**DRN**	**100LS4**		1780	756
0.30	4817	190000	**KH**	**187R97**	**DRN**	**100LS4**		1720	756
0.33	4370	190000							
0.52	2818	190000	**K**	**187R97**	**DRN**	**112M4**		1800	756
			KH	**187R97**	**DRN**	**112M4**		1730	756
0.40	3609	190000	**K**	**187R97**	**DRN**	**100L4**		1790	756
0.48	3062	190000	**KH**	**187R97**	**DRN**	**100L4**		1720	756
0.58	2519	190000	**K**	**187R97**	**DRN**	**112M4**		1800	756
0.65	2268	190000	**KH**	**187R97**	**DRN**	**112M4**		1730	756
0.71	2054	190000	**K**	**187R97**	**DRN**	**132S4**		1810	756
0.80	1821	190000	**KH**	**187R97**	**DRN**	**132S4**		1740	756
0.91	1605	190000							
1.1	1395	190000	**K**	**187R97**	**DRN**	**132M4**		1830	756
1.2	1196	190000	**KH**	**187R97**	**DRN**	**132M4**		1760	756

26883198/EN – 04/2022

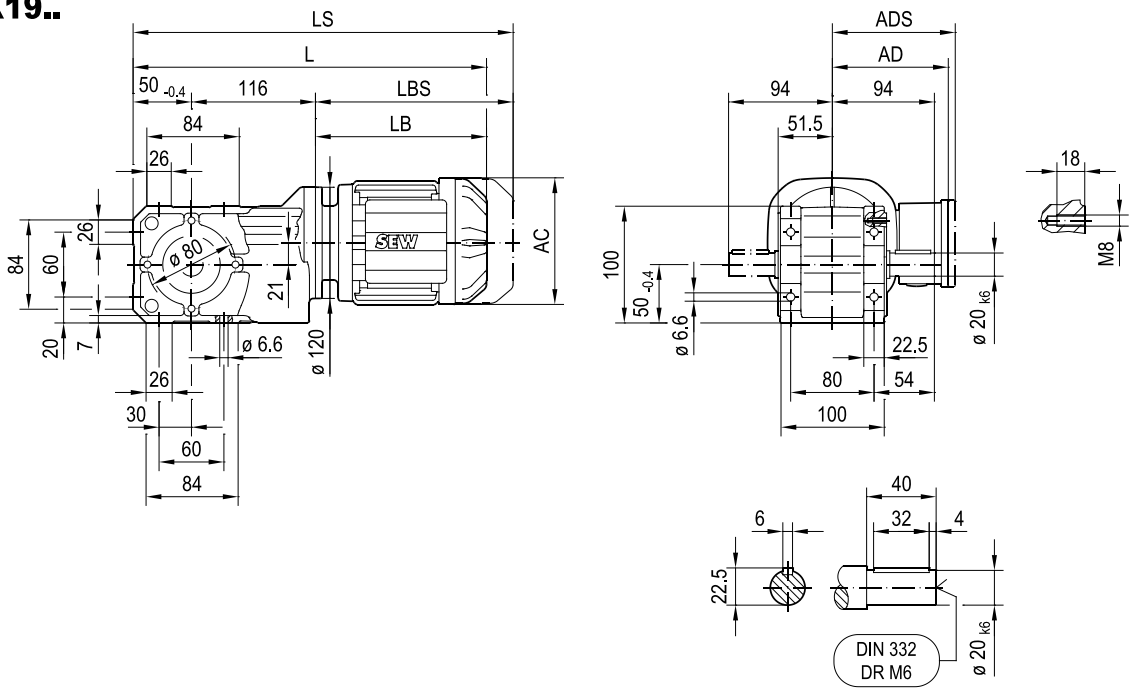
$M_{a\ max}$ = 53000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
1.4	1046	190000	**K**	**187R97**	**DRN**	**132L4**		1830	756
			KH	**187R97**	**DRN**	**132L4**		1770	756
1.6	945	190000	**K**	**187R97**	**DRN**	**160M4**		1870	756
			KH	**187R97**	**DRN**	**160M4**		1800	756
2.0	738	190000	**K**	**187R97**	**DRN**	**160L4**		1880	756
2.4	621	190000	**KH**	**187R97**	**DRN**	**160L4**		1820	756
2.8	527	190000	**K**	**187R97**	**DRN**	**180M4**		1900	756
			KH	**187R97**	**DRN**	**180M4**		1840	756
1.8	835	190000	**K**	**187R107**	**DRN**	**160M4**		1910	756
			KH	**187R107**	**DRN**	**160M4**		1850	756
2.0	729	190000	**K**	**187R107**	**DRN**	**160L4**		1930	756
2.4	622	190000	**KH**	**187R107**	**DRN**	**160L4**		1860	756
2.8	520	190000	**K**	**187R107**	**DRN**	**180M4**		1950	756
			KH	**187R107**	**DRN**	**180M4**		1880	756
3.2	454	190000	**K**	**187R107**	**DRN**	**180L4**		1970	756
			KH	**187R107**	**DRN**	**180L4**		1900	756
4.2	355	190000	**K**	**187R107**	**DRN**	**200L4**		2080	756
			KH	**187R107**	**DRN**	**200L4**		2010	756
5.7	261	190000	**K**	**187R107**	**DRN**	**225S4**		2110	756
			KH	**187R107**	**DRN**	**225S4**		2040	756
6.7	221	190000	**K**	**187R107**	**DRN**	**225M4**		2110	756
			KH	**187R107**	**DRN**	**225M4**		2040	756

26883198/EN – 04/2022

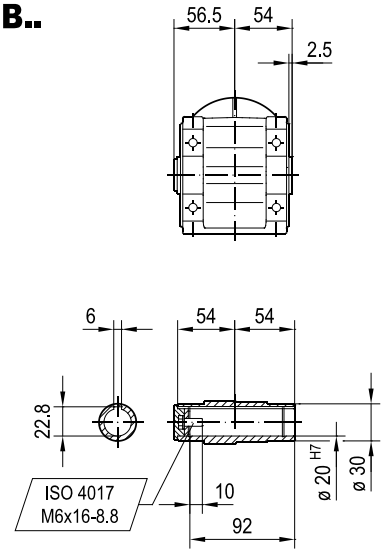
10.5 K..DRN.. dimension sheets in mm

33 008 01 15

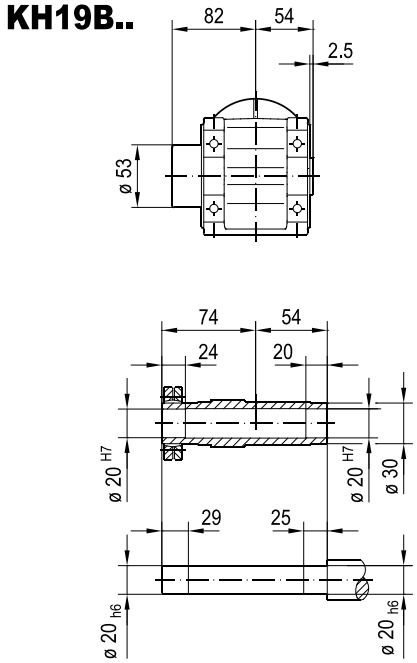
K19..



KA19B..



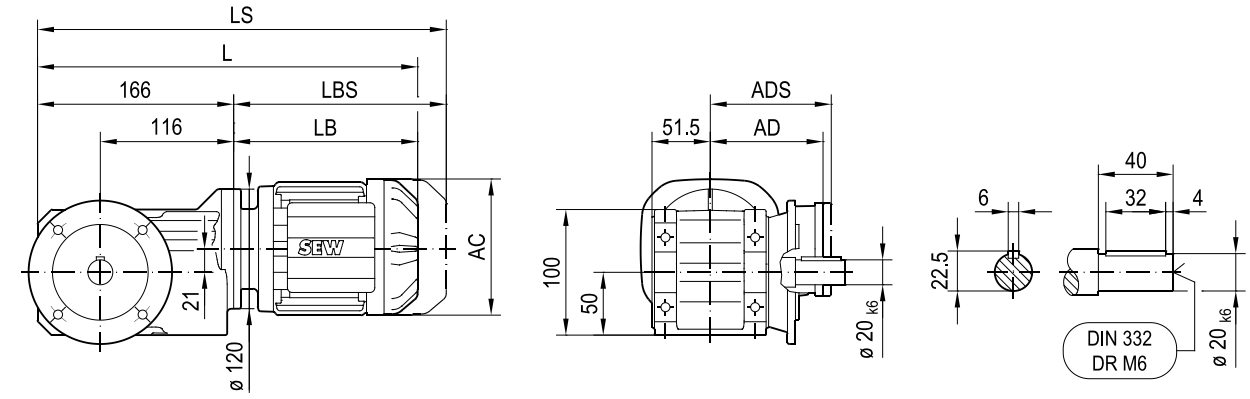
KH19B..



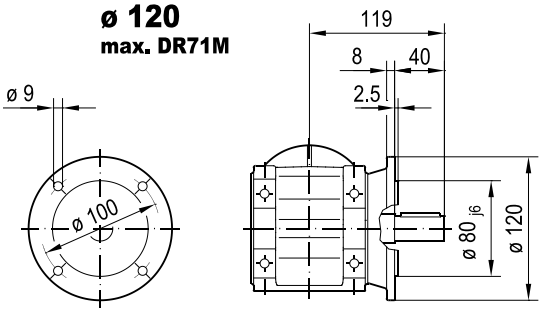
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

33 009 00 15

KF19B..



ø 120
max. DR71M



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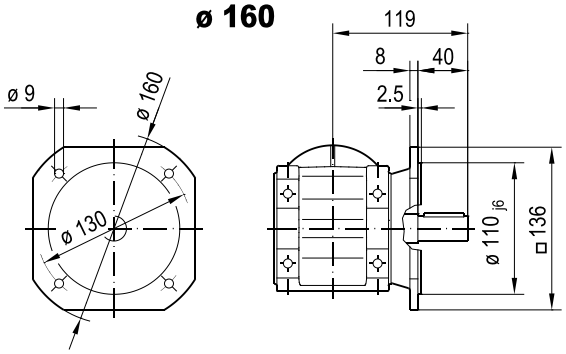

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ø 120
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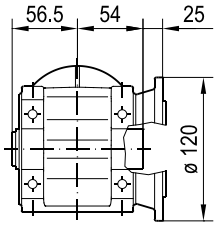

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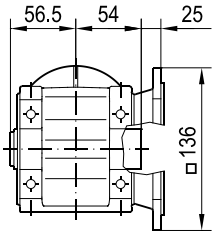
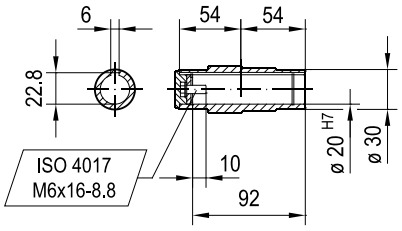


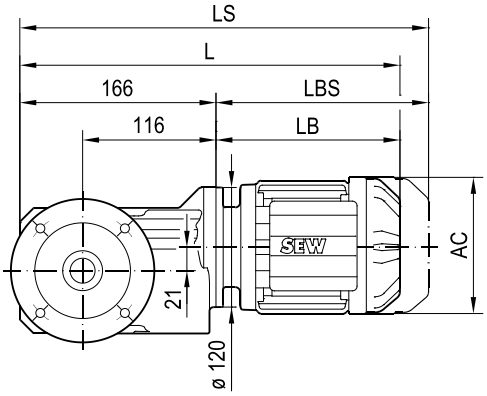


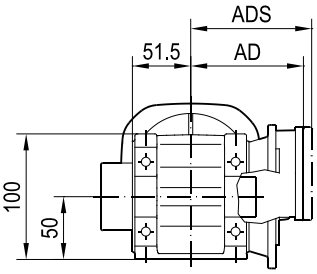
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

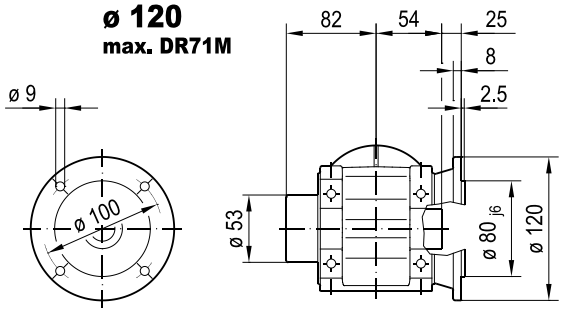
33 010 01 15

KHF19B..





ø 120
max. DR71M



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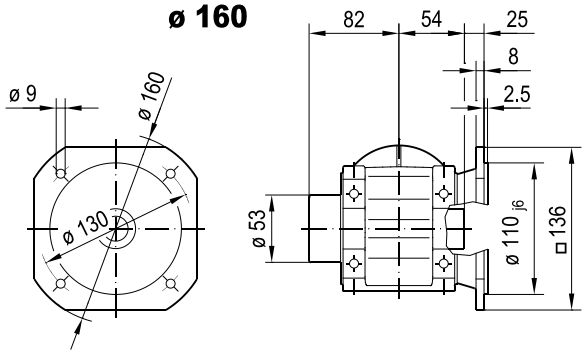
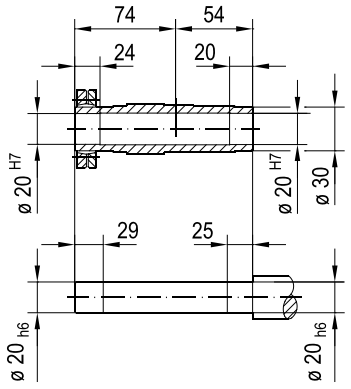


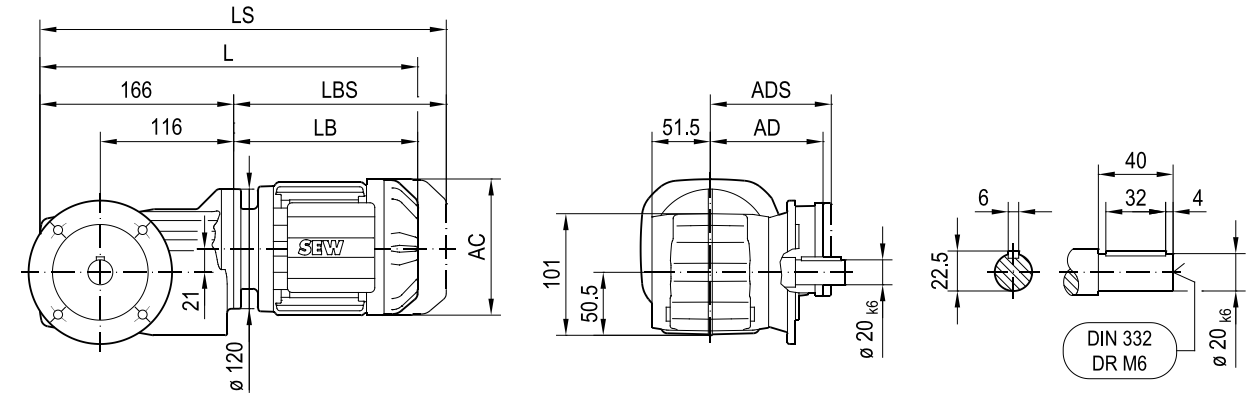


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

33 011 00 15

KF19..



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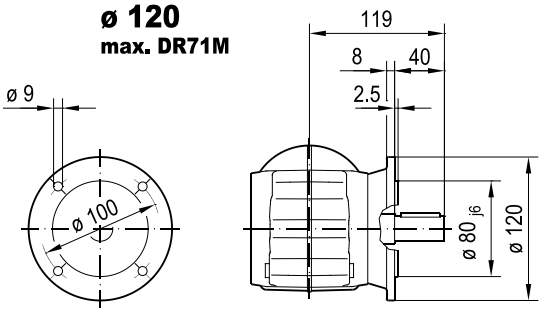
max. DR71M



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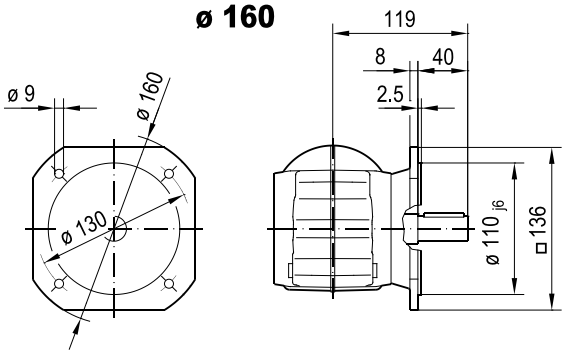

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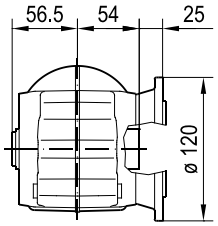
ø 120
max. DR71M



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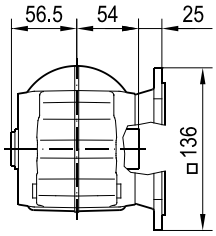

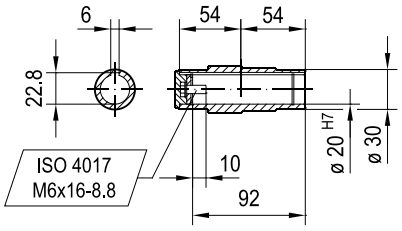

(→ 📖 7.3)	DRN							
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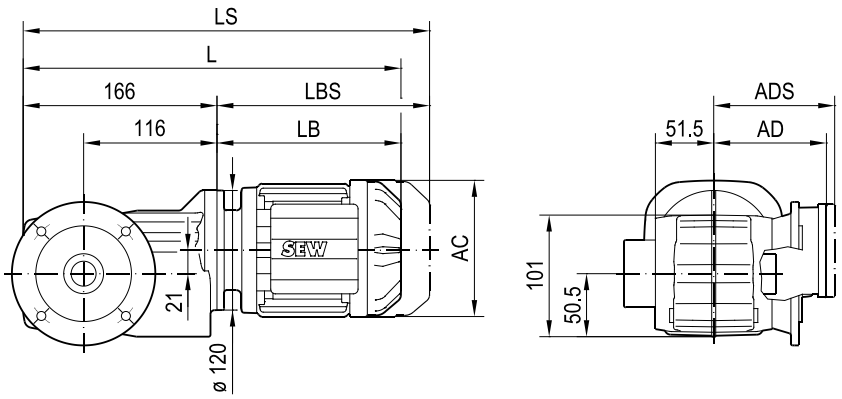
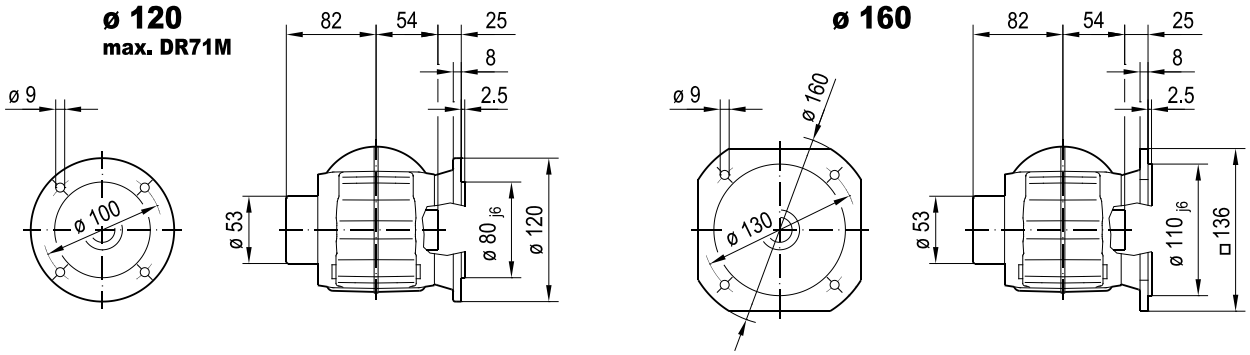
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

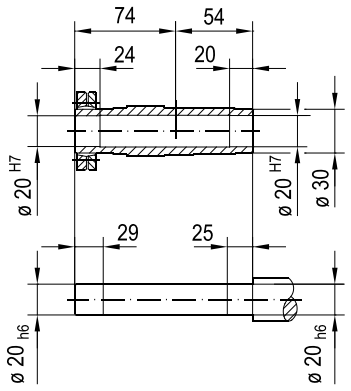
26883198/EN – 04/2022

33 013 01 15

KHF19..





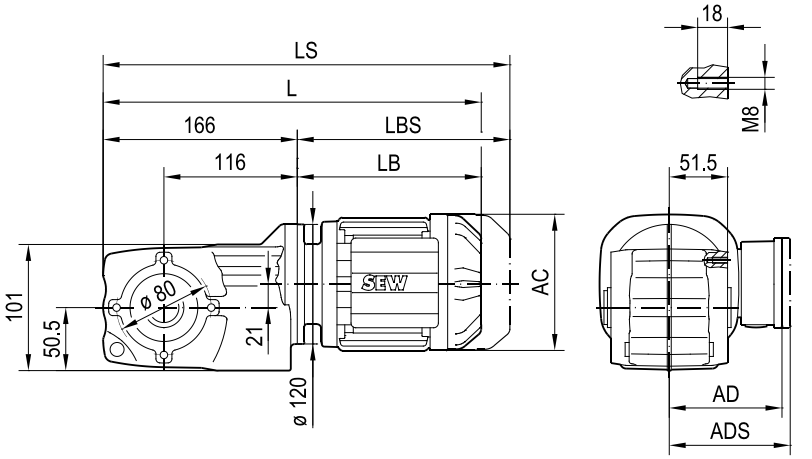


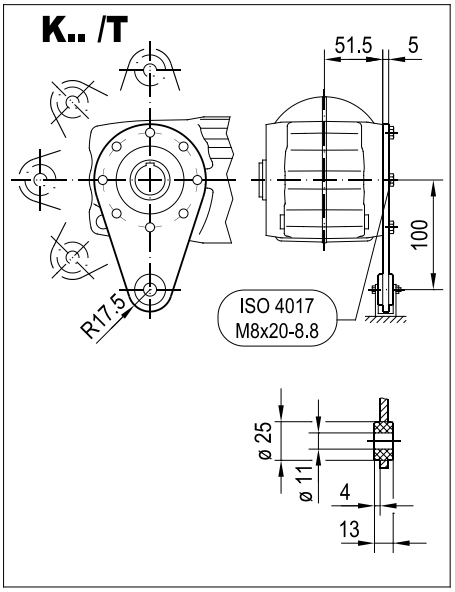
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

33 014 01 15

KA19..





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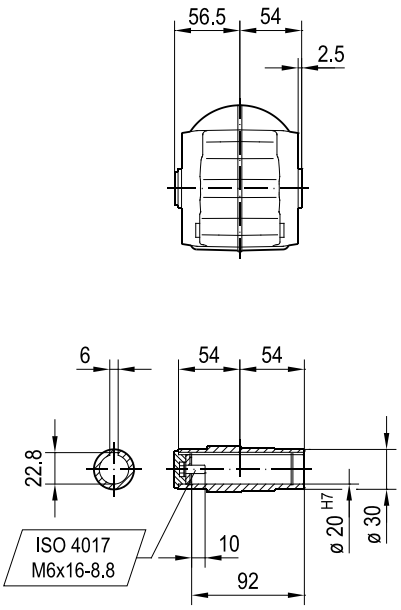

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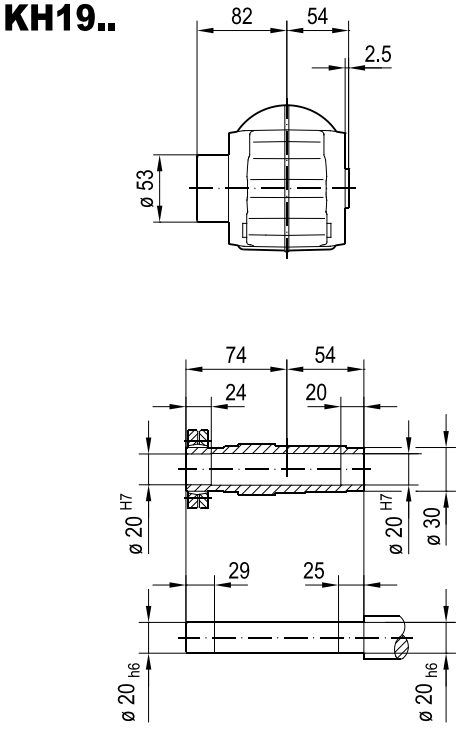
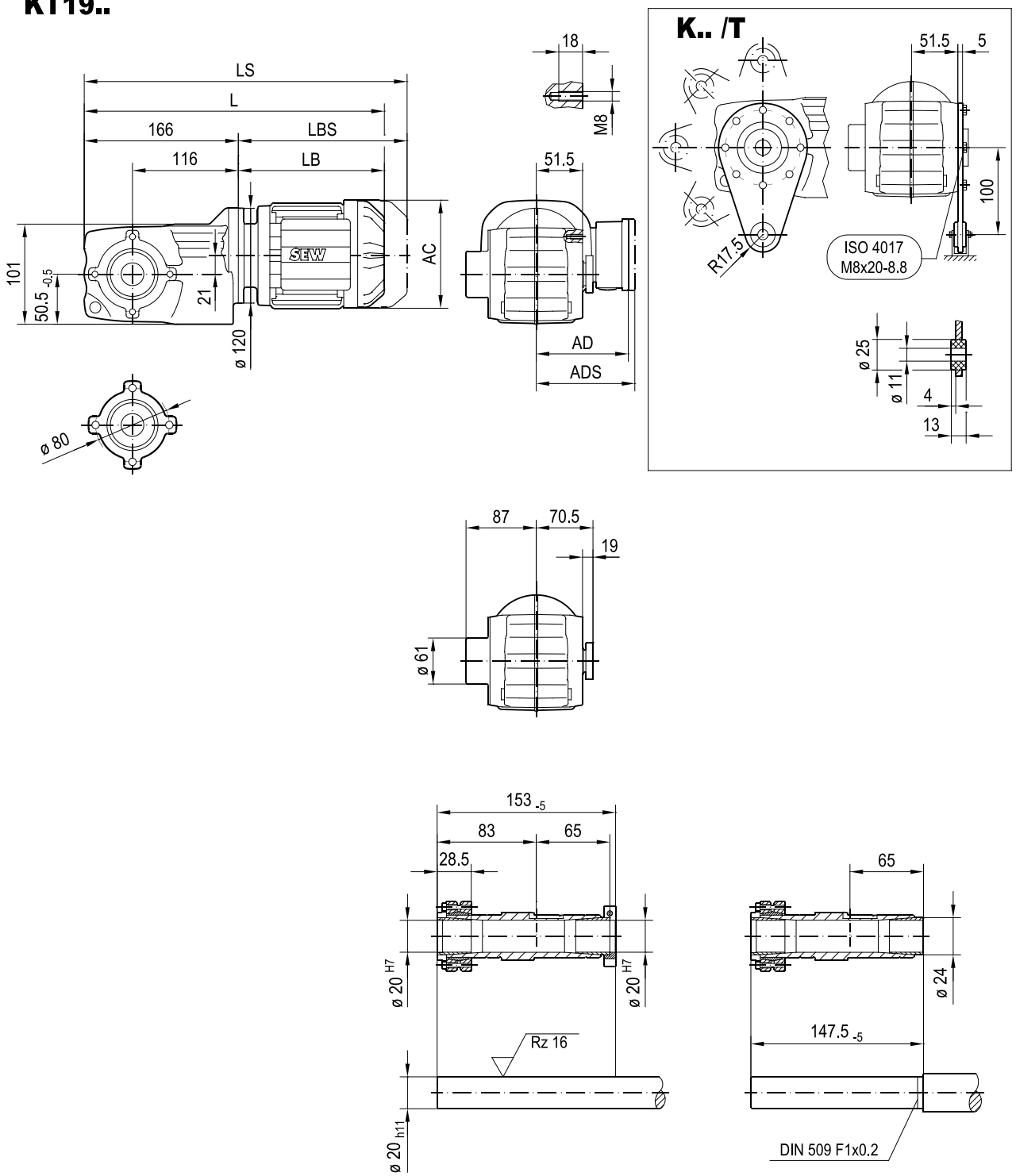


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

33 104 00 21

KT19..

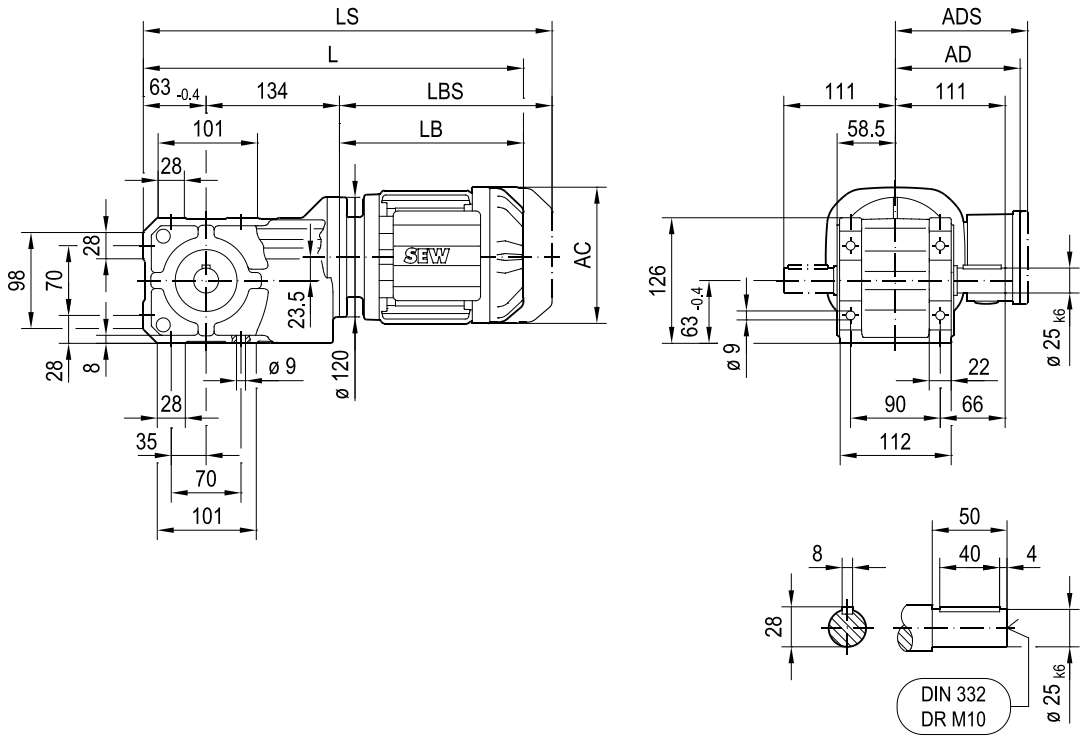


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	356	370	372	392	403	420	448	449
LS	412	426	439	459	484	501	529	543
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

33 015 01 15

K29..

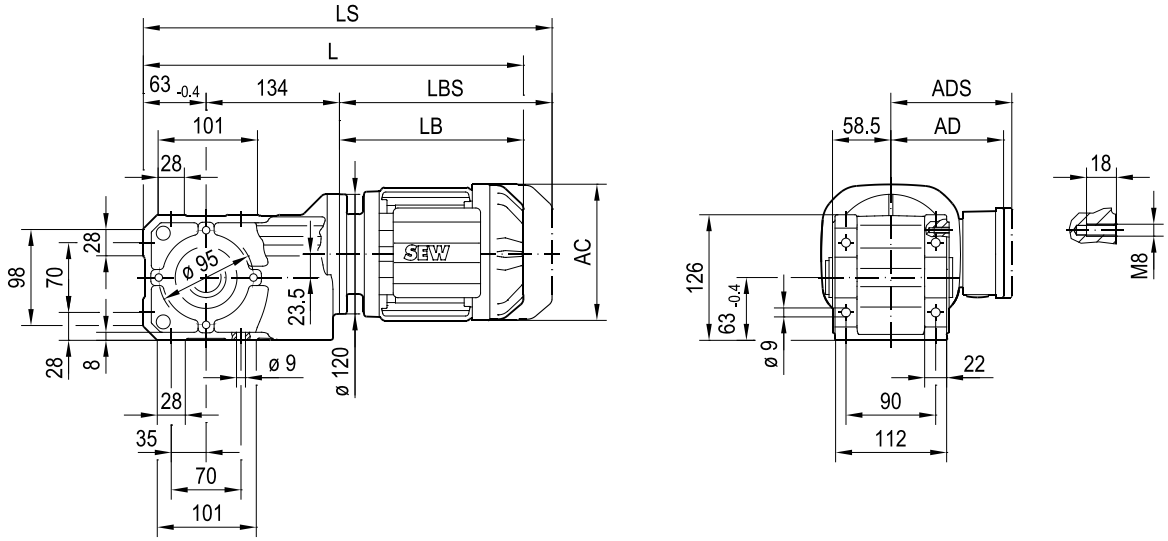


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	387	401	403	423	434	451	479	480	512	511	561
LS	443	457	470	490	515	532	560	574	606	605	655
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

33 364 01 15

KA29B..



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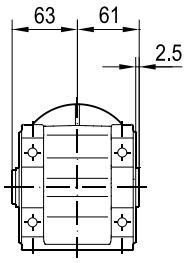
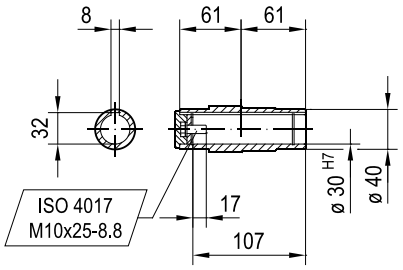
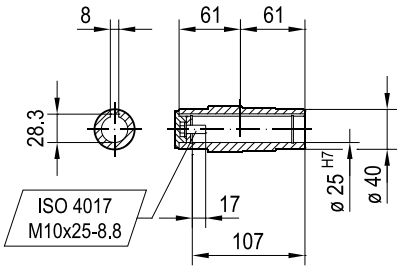


ø 30 H7
DIN 6885-3



ø 25 H7



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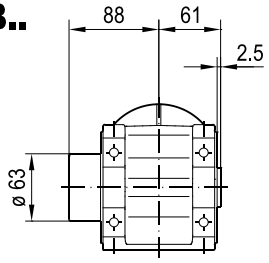
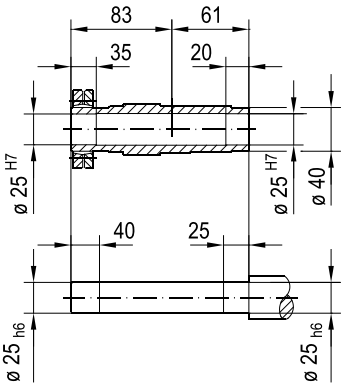


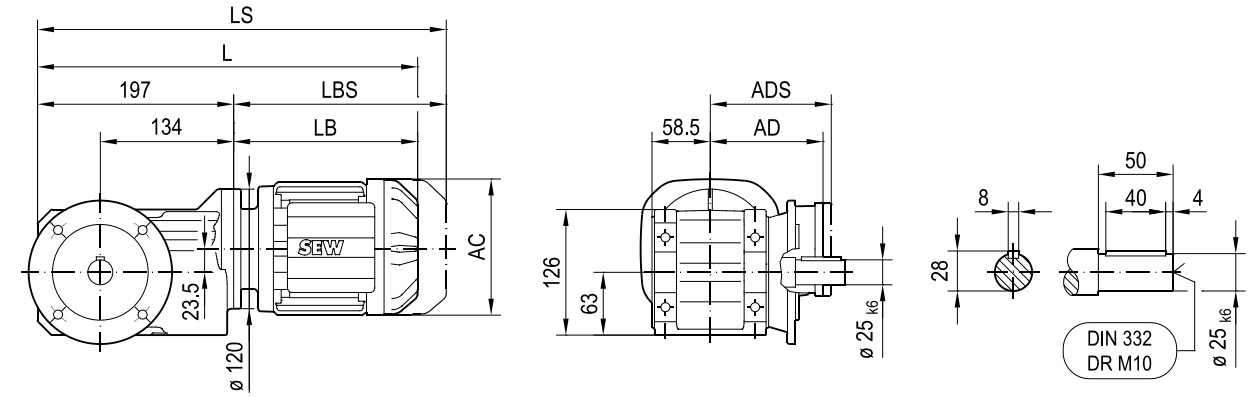


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	387	401	403	423	434	451	479	480	512	511	561
LS	443	457	470	490	515	532	560	574	606	605	655
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

33 016 00 15

KF29B..



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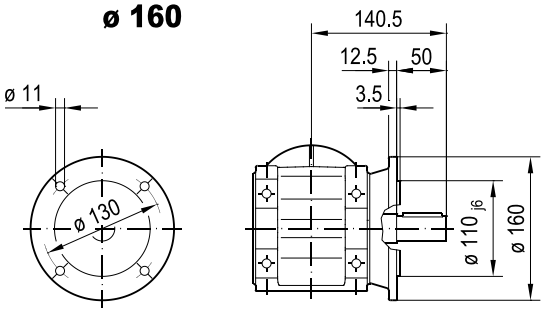

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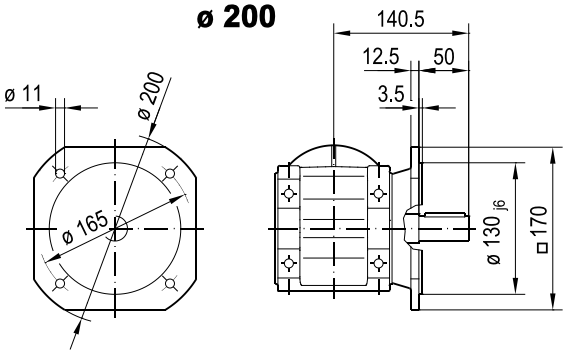

KAF29B..

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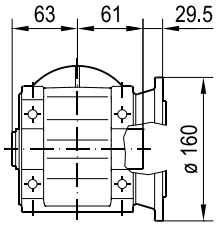

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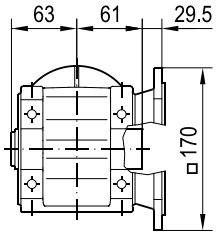
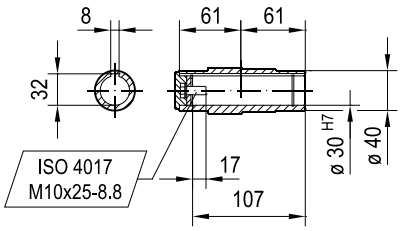
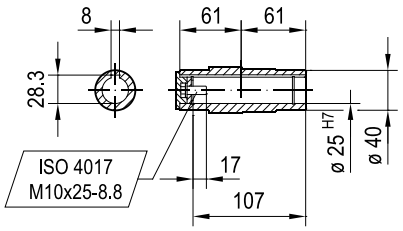


ø 30 H7
DIN 6885-3



ø 25 H7

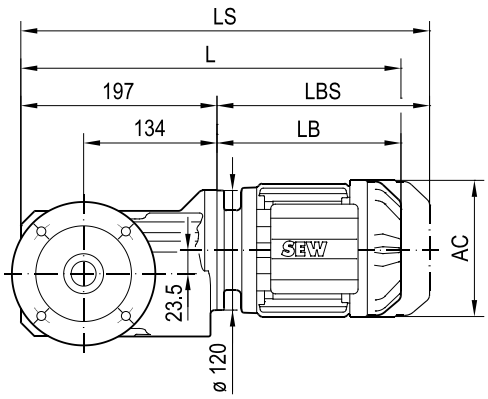


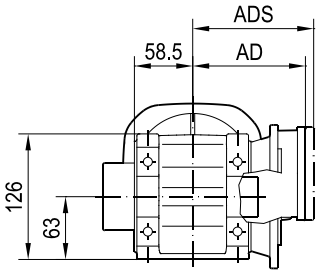
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	387	401	403	423	434	451	479	480	512	511	561
LS	443	457	470	490	515	532	560	574	606	605	655
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

33 017 01 15

KHF29B..





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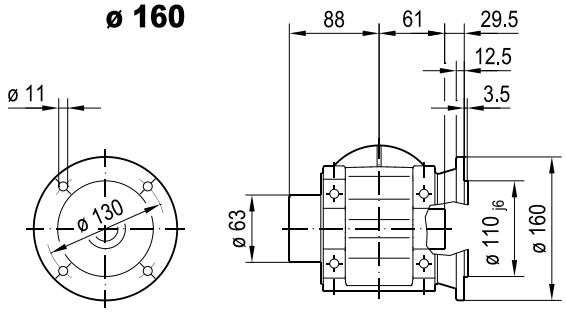

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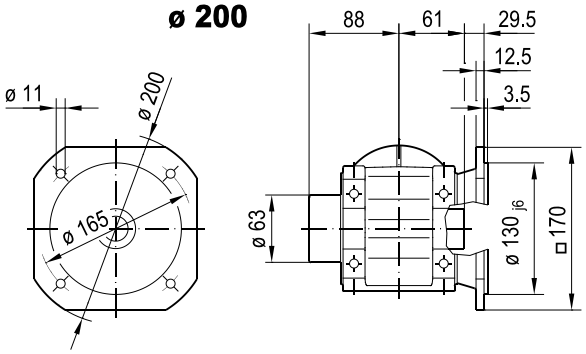

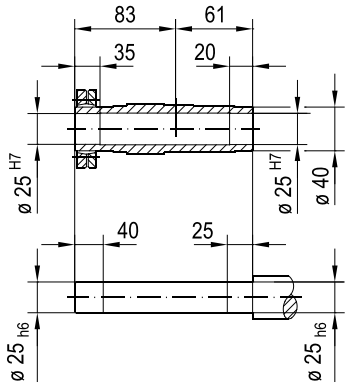

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	387	401	403	423	434	451	479	480	512	511	561
LS	443	457	470	490	515	532	560	574	606	605	655
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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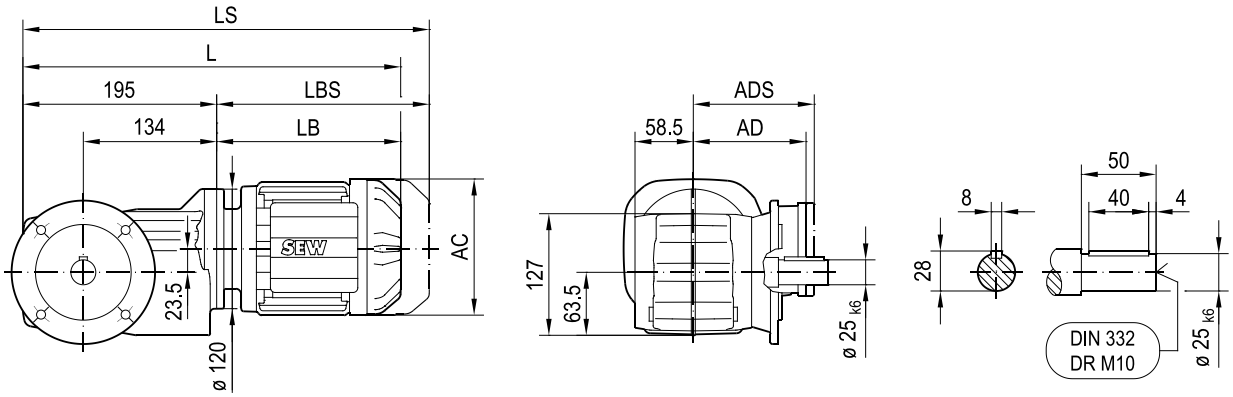

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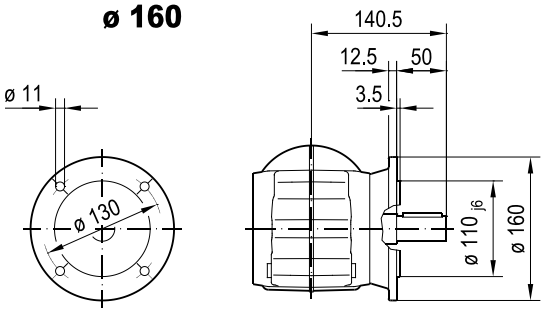

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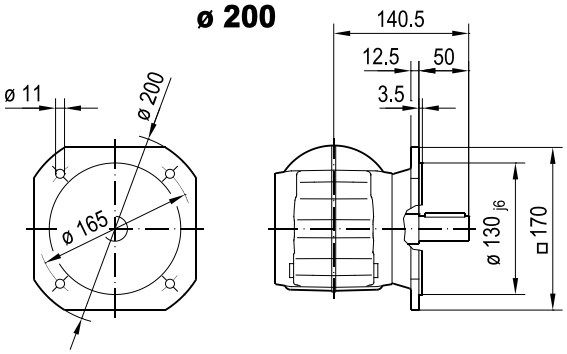

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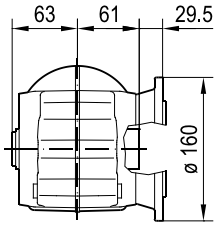

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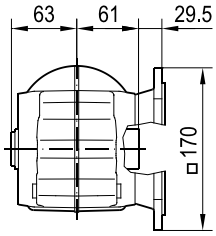
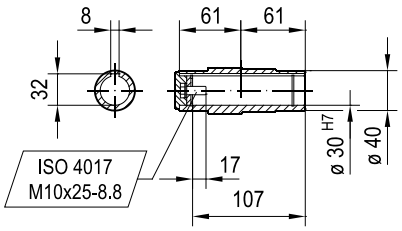


ø 30 H7
DIN 6885-3



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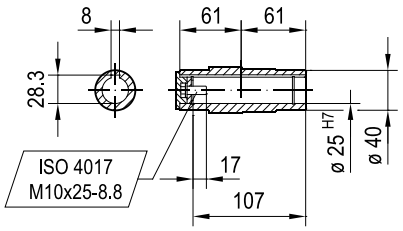

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	385	399	401	421	432	449	477	478	510	509	559
LS	441	455	468	488	513	530	558	572	604	603	653
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

33 019 01 15

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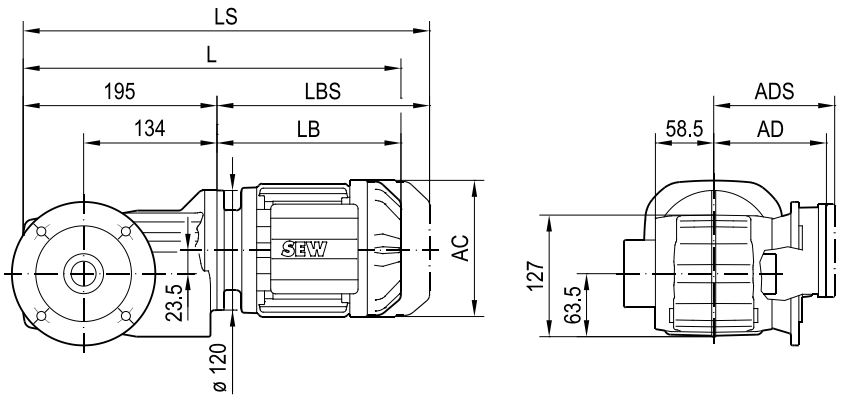

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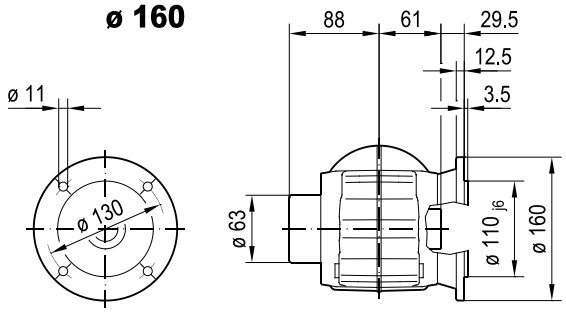

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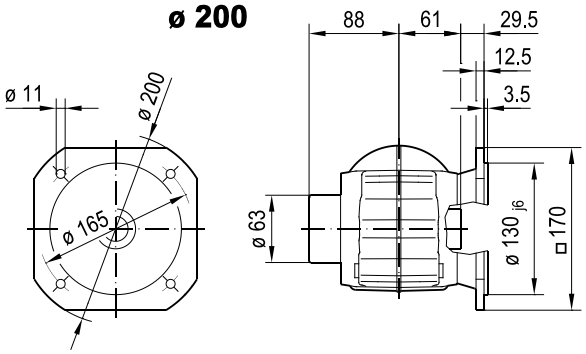

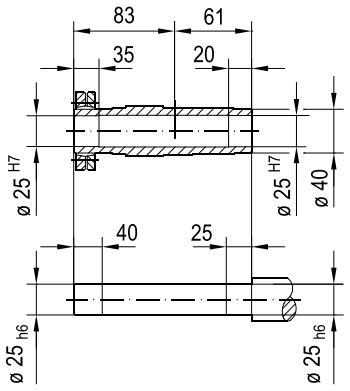

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	385	399	401	421	432	449	477	478	510	509	559
LS	441	455	468	488	513	530	558	572	604	603	653
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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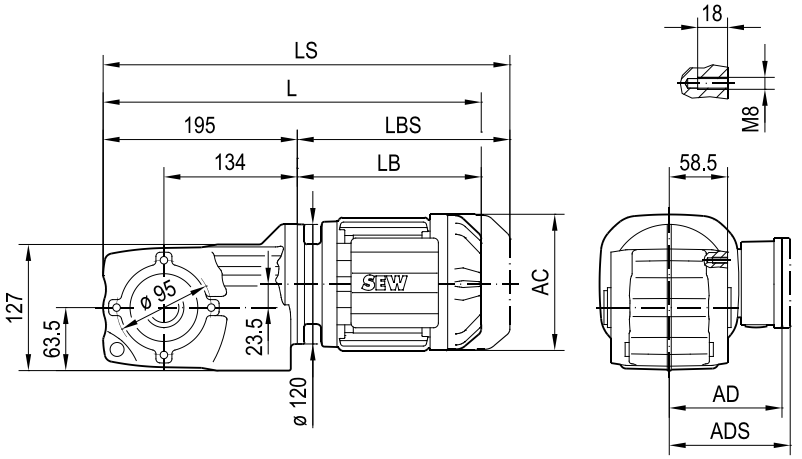

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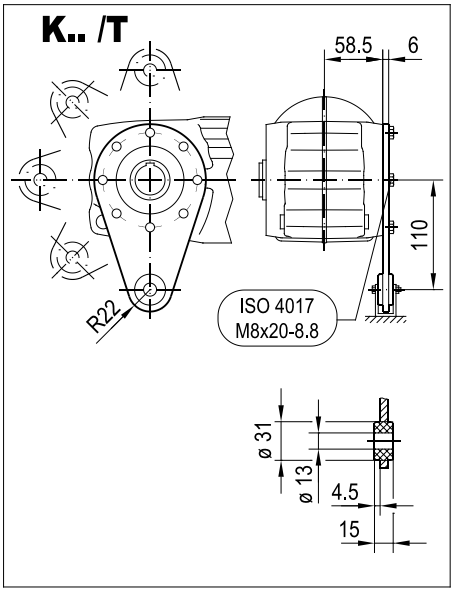

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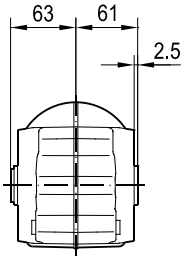
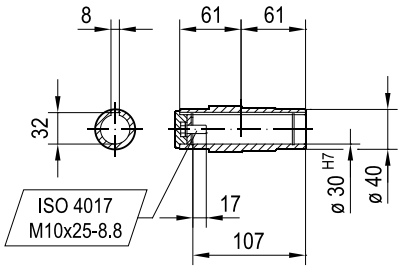


ø 30 H7
DIN 6885-3



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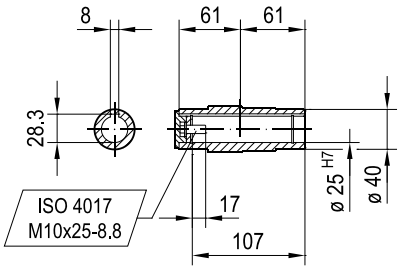

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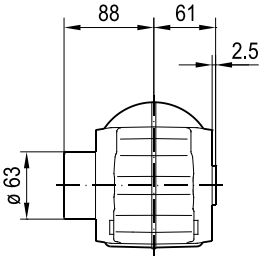

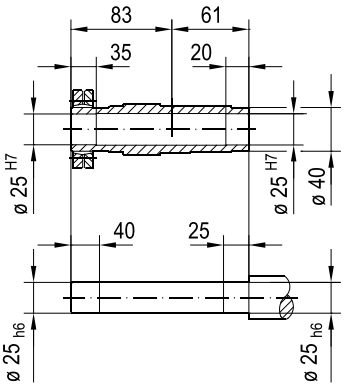

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	385	399	401	421	432	449	477	478	510	509	559
LS	441	455	468	488	513	530	558	572	604	603	653
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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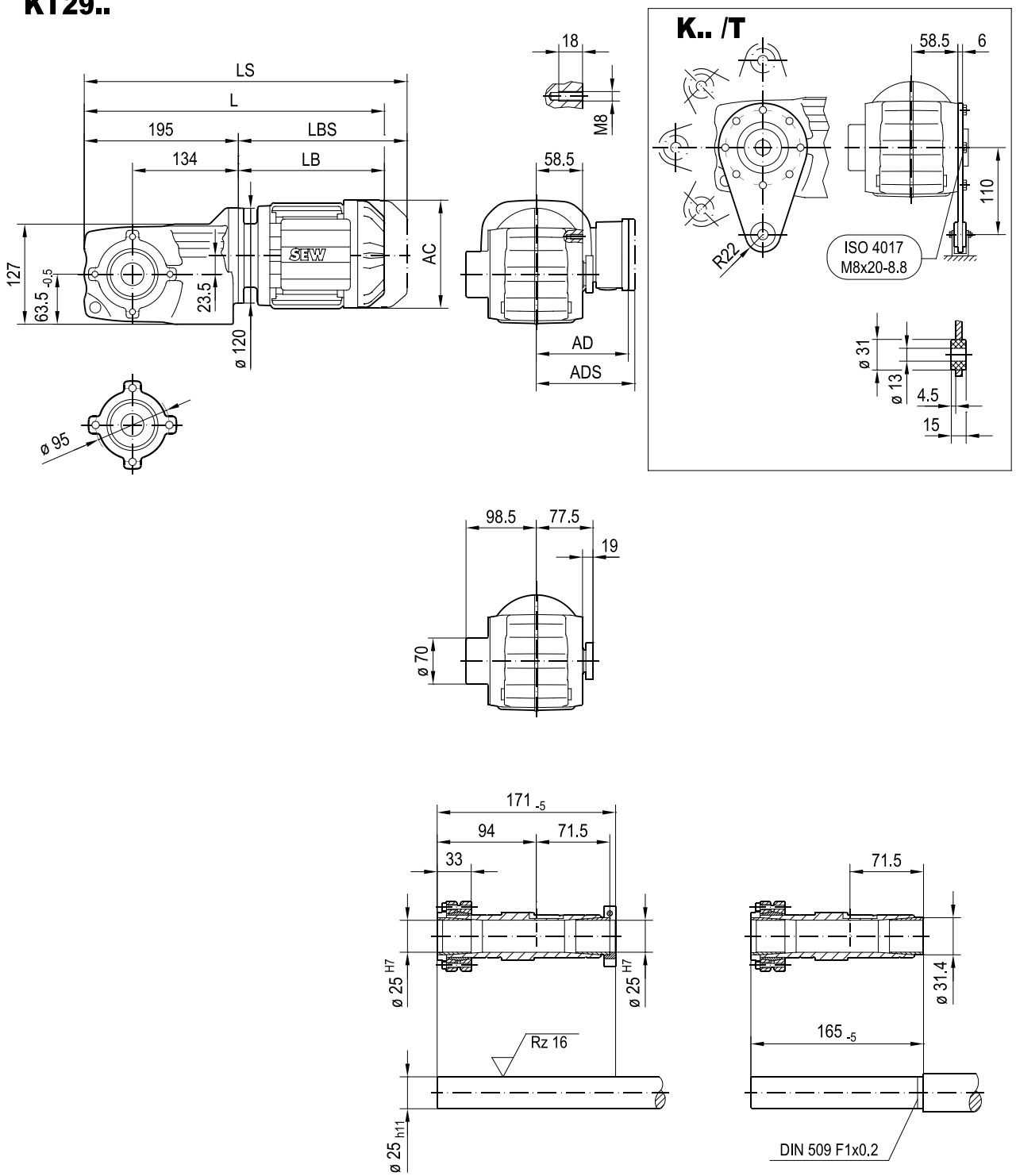

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	385	399	401	421	432	449	477	478	510	509	559
LS	441	455	468	488	513	530	558	572	604	603	653
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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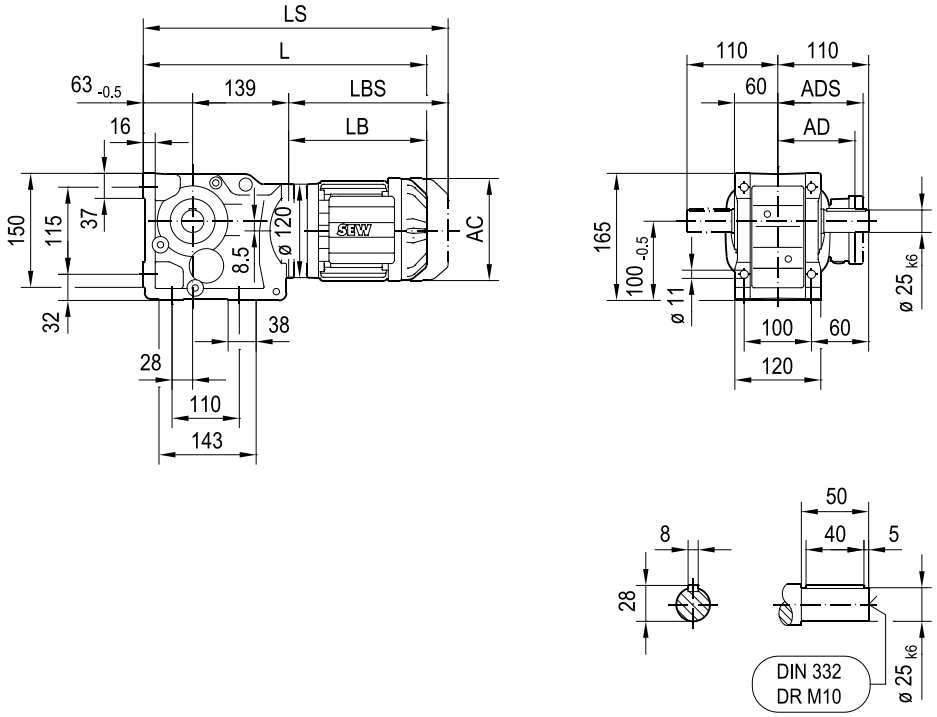

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	392	406	408	428	439	456	484	485	517	516	566
LS	448	462	475	495	520	537	565	579	611	610	660
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

33 038 00 14

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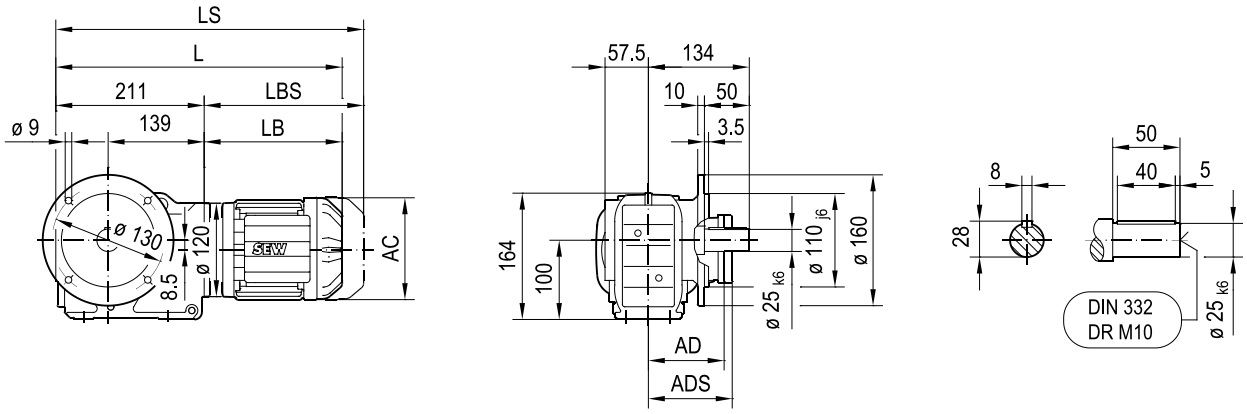

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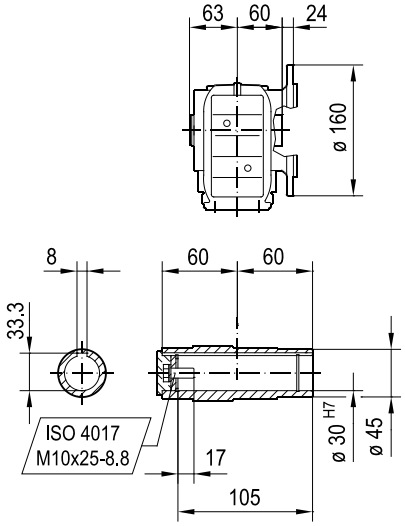

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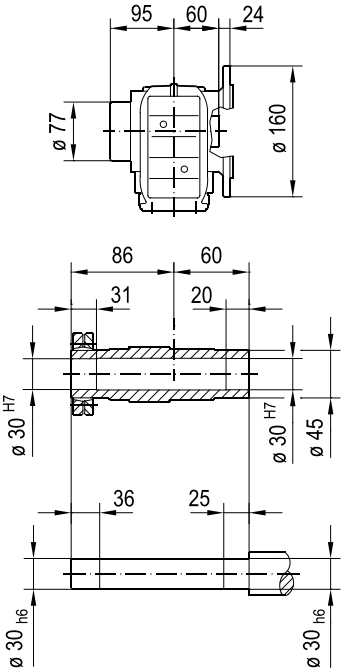

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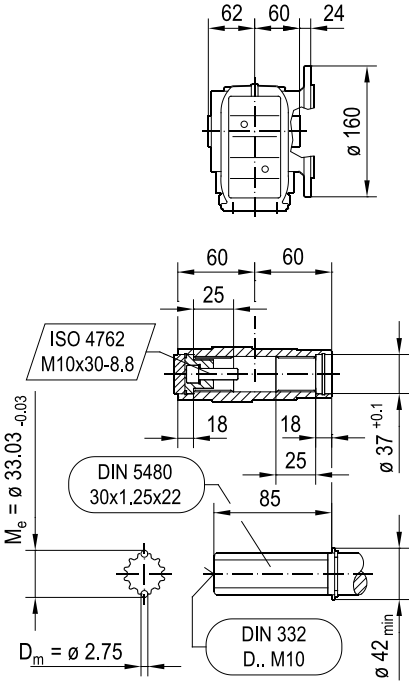

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	401	415	417	437	448	465	493	494	526	525	575
LS	457	471	484	504	529	546	574	588	620	619	669
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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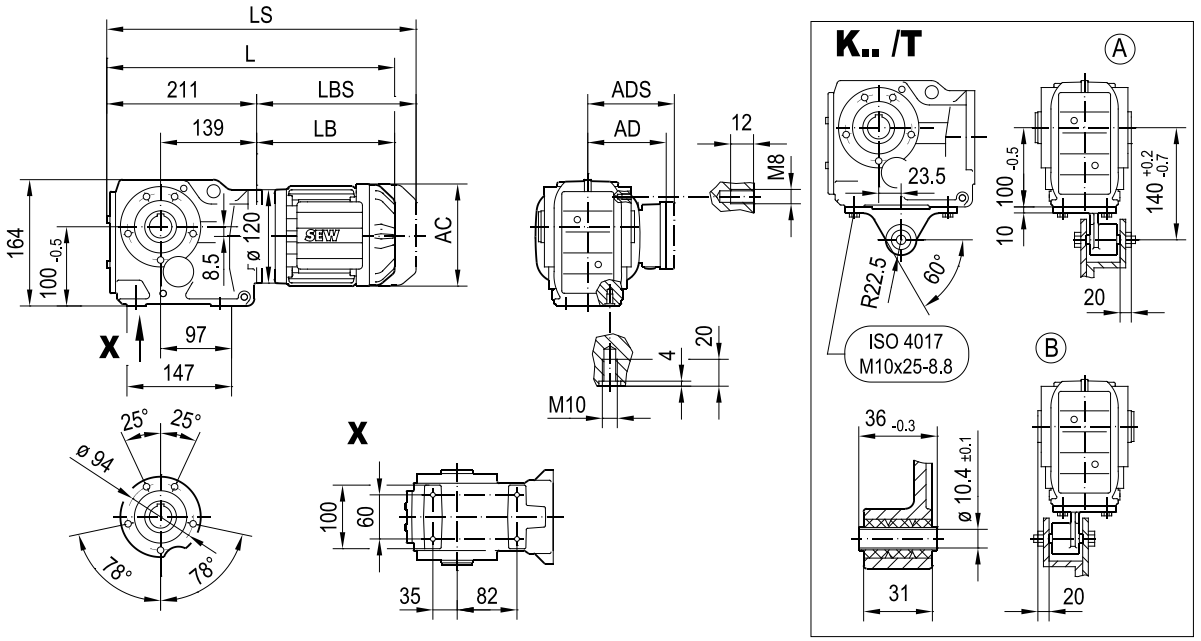

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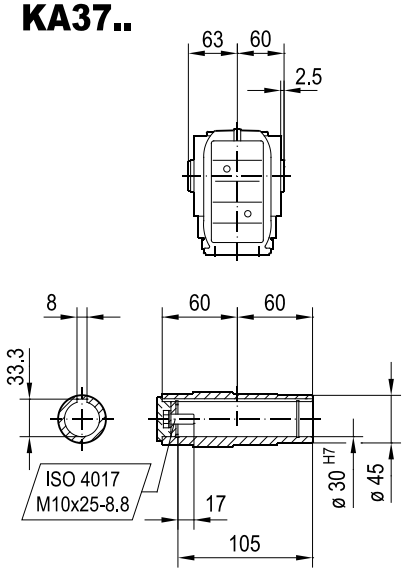

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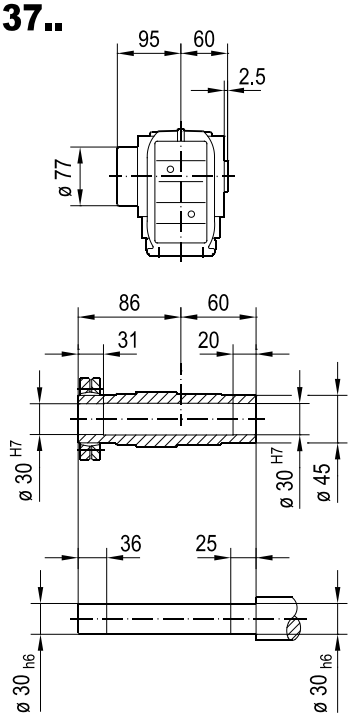

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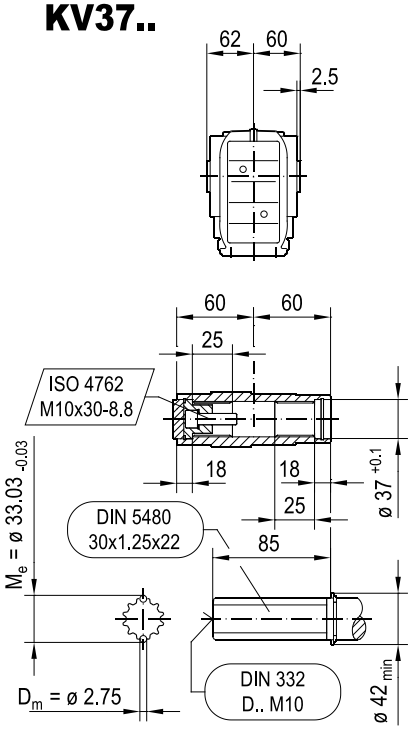

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	401	415	417	437	448	465	493	494	526	525	575
LS	457	471	484	504	529	546	574	588	620	619	669
LB	190	204	206	226	237	254	282	283	315	314	364
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26883198/EN – 04/2022

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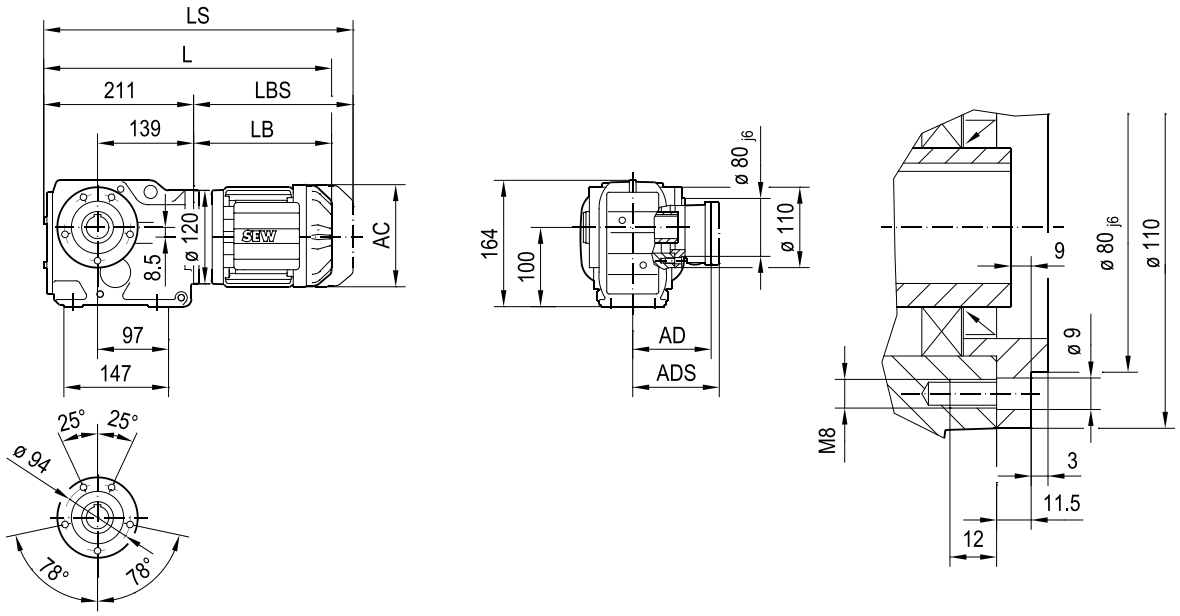

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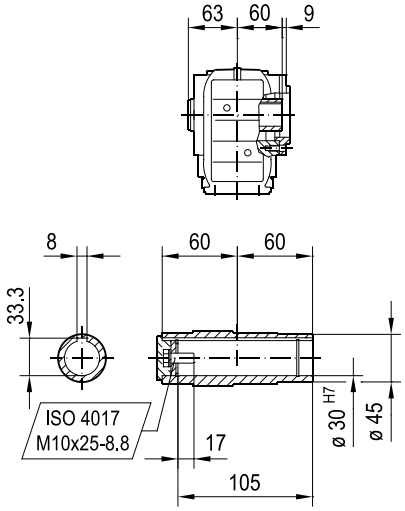

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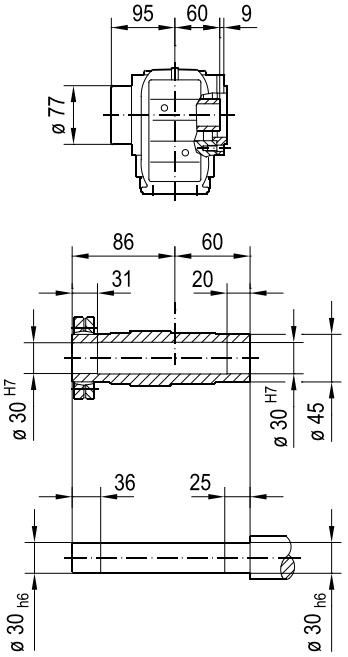

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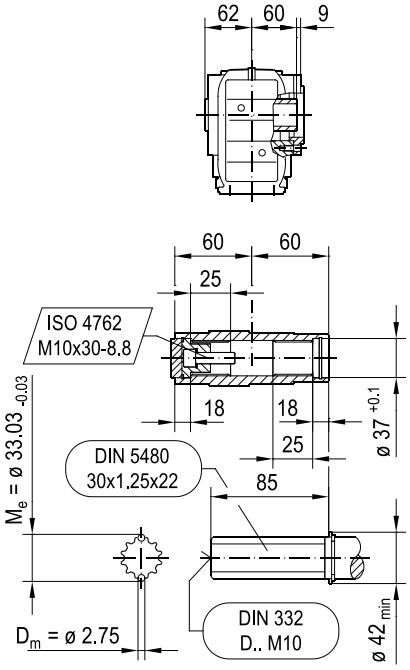

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	401	415	417	437	448	465	493	494	526	525	575
LS	457	471	484	504	529	546	574	588	620	619	669
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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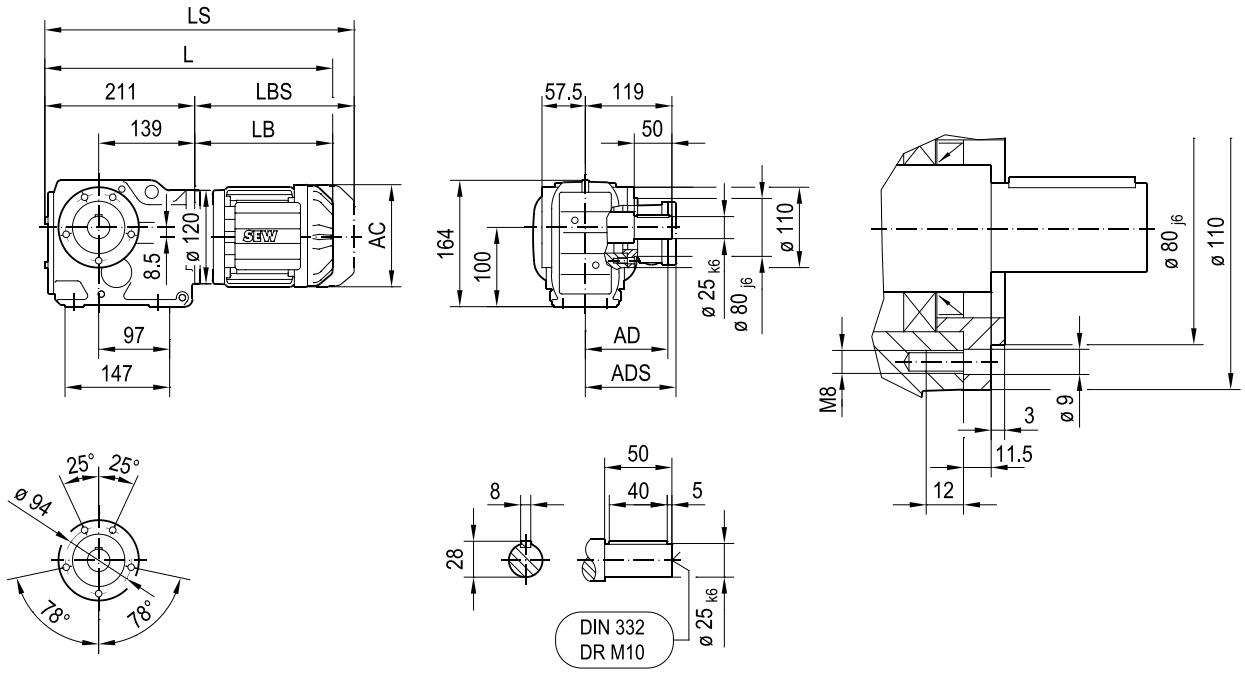

(→ 📖 7.3)	DRN										
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AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	401	415	417	437	448	465	493	494	526	525	575
LS	457	471	484	504	529	546	574	588	620	619	669
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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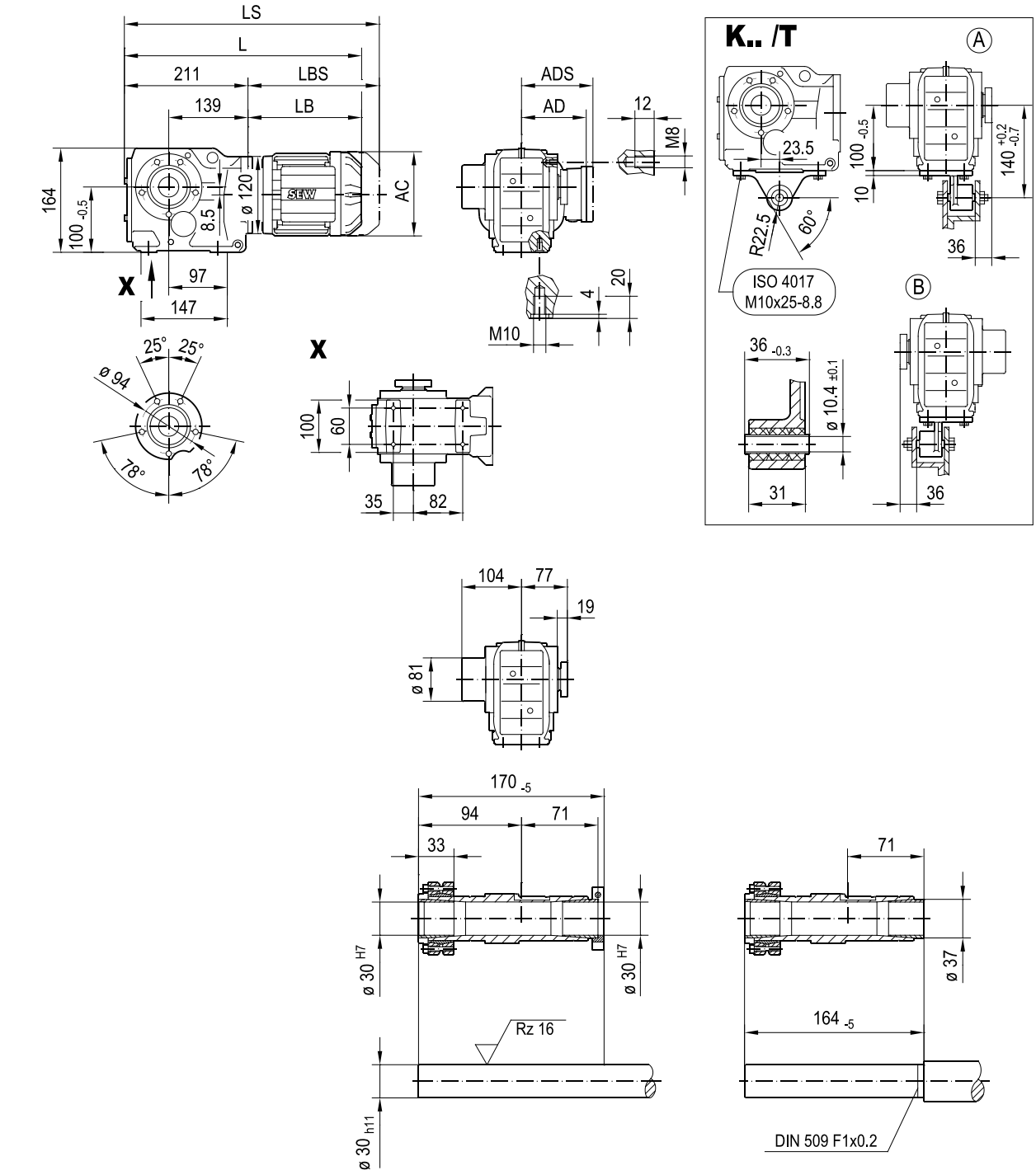
33 041 01 14



(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	401	415	417	437	448	465	493	494	526	525	575
LS	457	471	484	504	529	546	574	588	620	619	669
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

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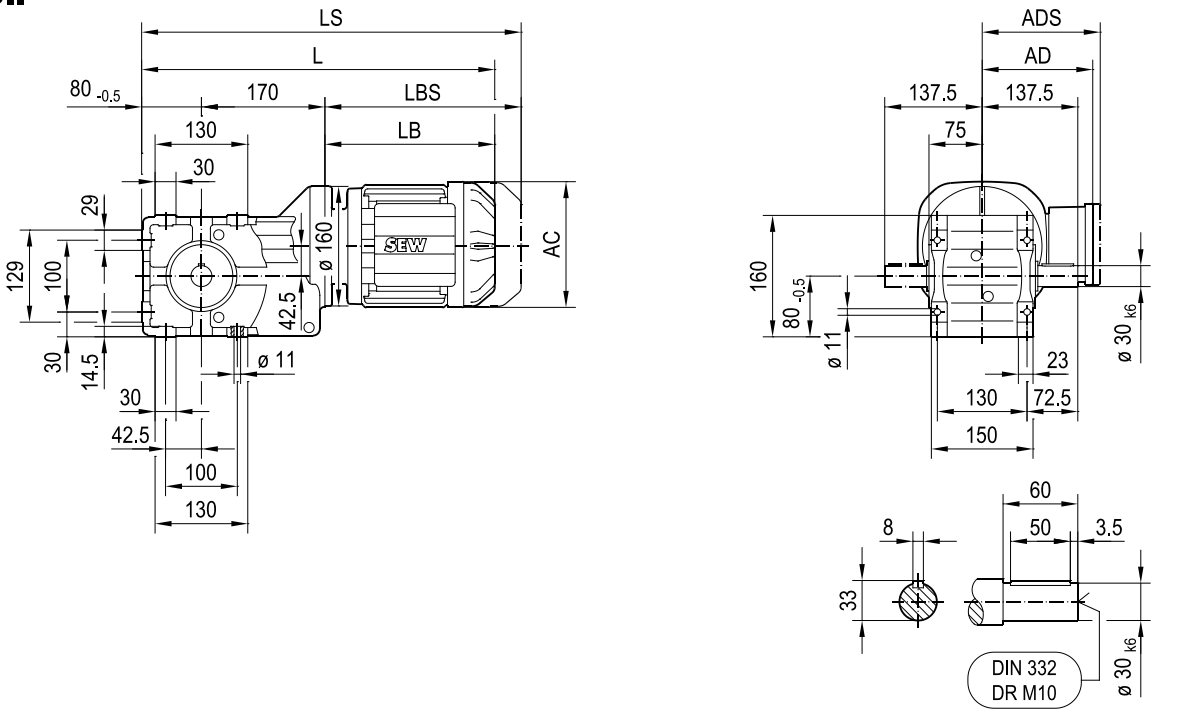

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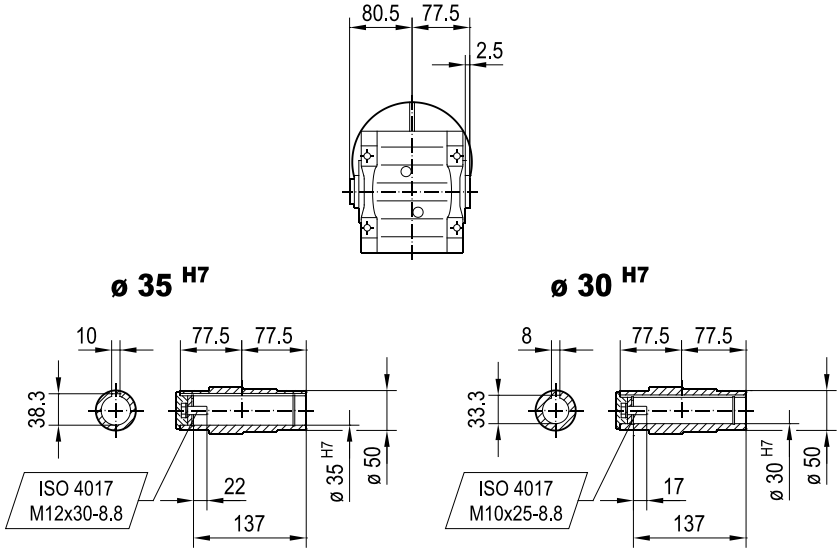
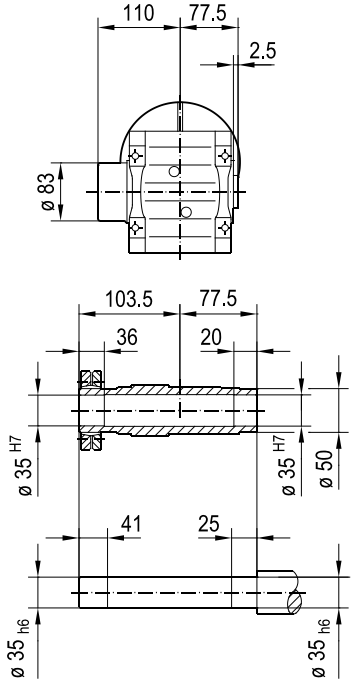


KH39B..

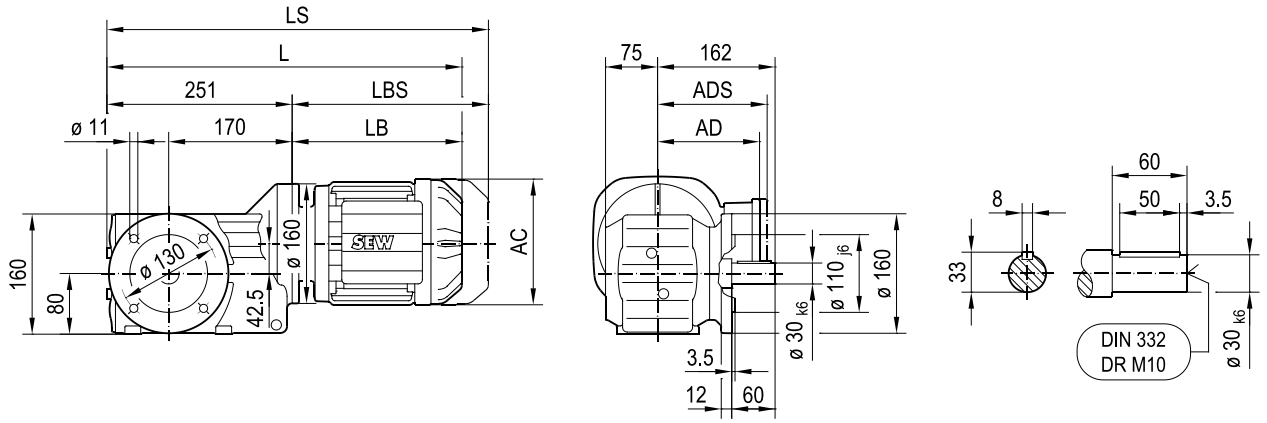


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	156	179	179	197	197	221
AD	98	118	118	128	128	128	140	140	157	157	170
ADS	98	129	129	139	139	139	150	150	158	158	172
L	448	449	469	480	497	525	527	559	555	605	636
LS	504	517	537	561	578	606	620	652	649	699	748
LB	198	199	219	230	247	275	277	309	305	355	386
LBS	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

33 022 01 14

KF39..



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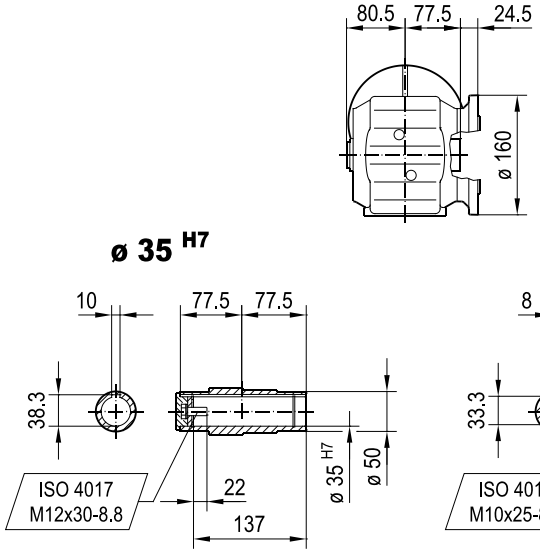

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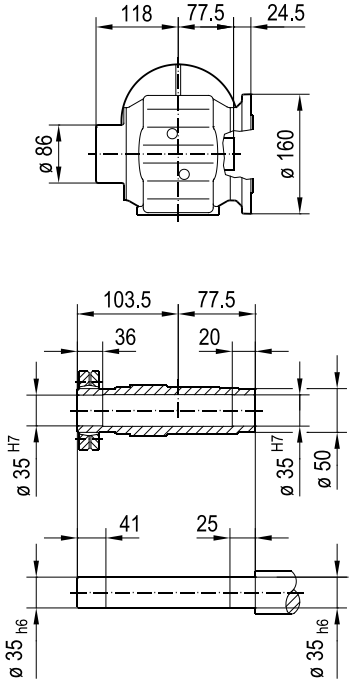
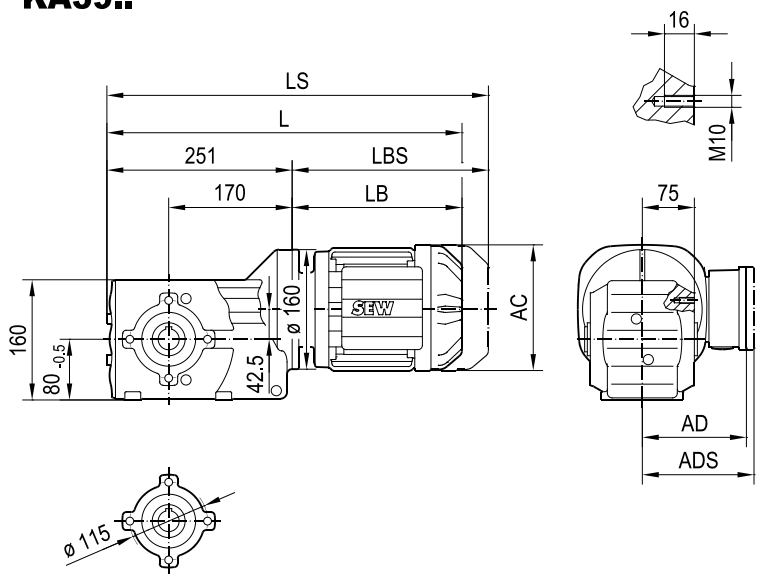


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	156	179	179	197	197	221
AD	98	118	118	128	128	128	140	140	157	157	170
ADS	98	129	129	139	139	139	150	150	158	158	172
L	449	450	470	481	498	526	528	560	556	606	637
LS	505	518	538	562	579	607	621	653	650	700	749
LB	198	199	219	230	247	275	277	309	305	355	386
LBS	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

33 023 01 14

KA39..



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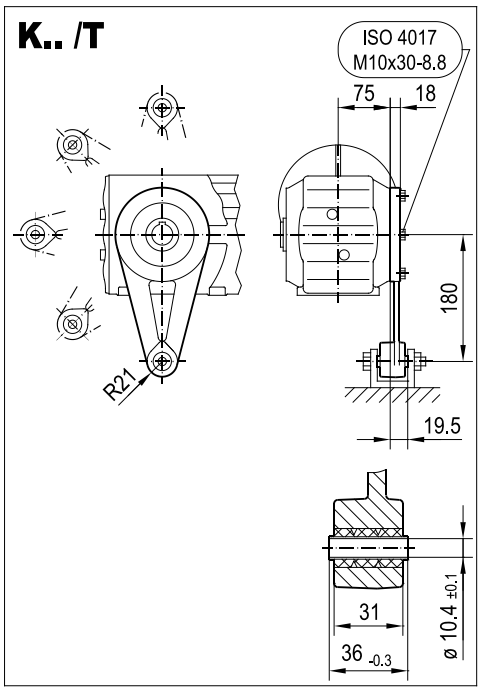

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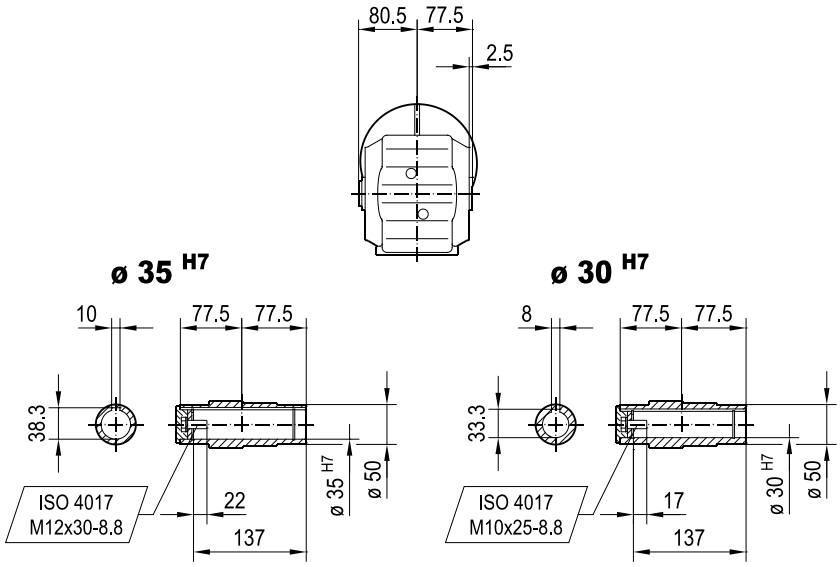

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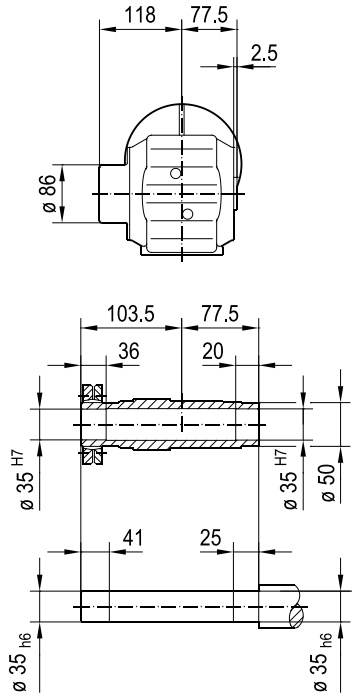
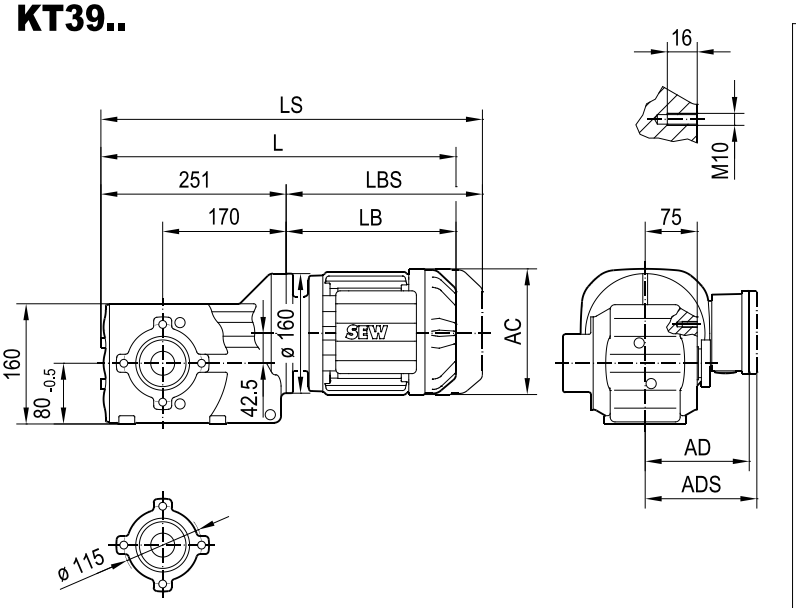


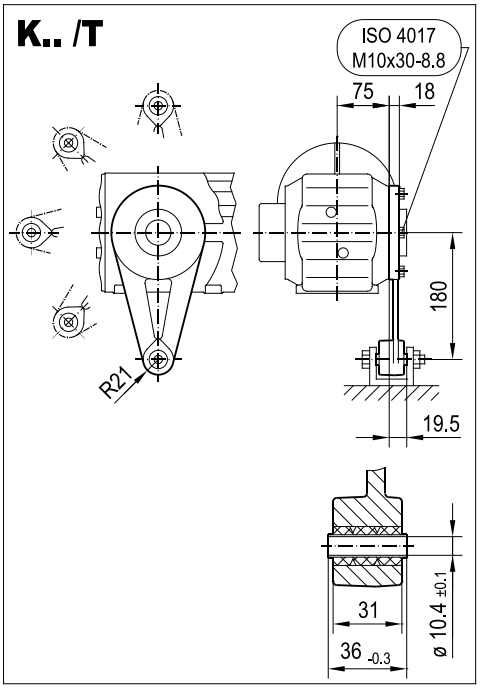
(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	156	179	179	197	197	221
AD	98	118	118	128	128	128	140	140	157	157	170
ADS	98	129	129	139	139	139	150	150	158	158	172
L	449	450	470	481	498	526	528	560	556	606	637
LS	505	518	538	562	579	607	621	653	650	700	749
LB	198	199	219	230	247	275	277	309	305	355	386
LBS	254	267	287	311	328	356	370	402	399	449	498

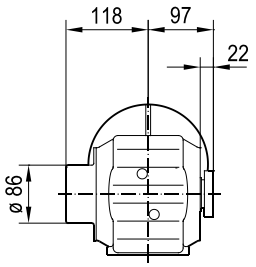
26883198/EN – 04/2022

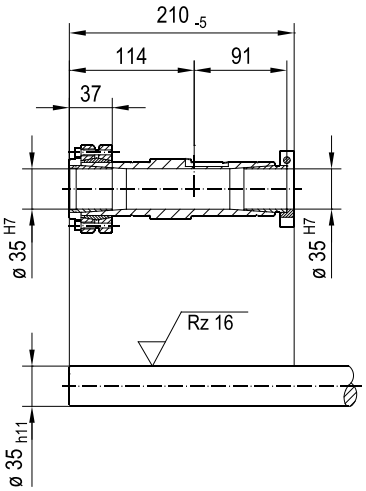
33 024 02 14

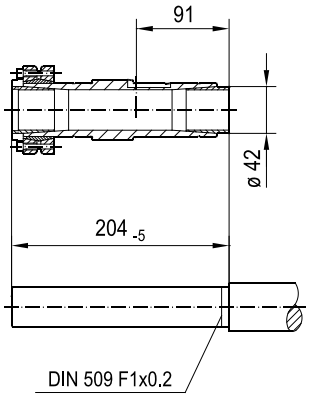
KT39..









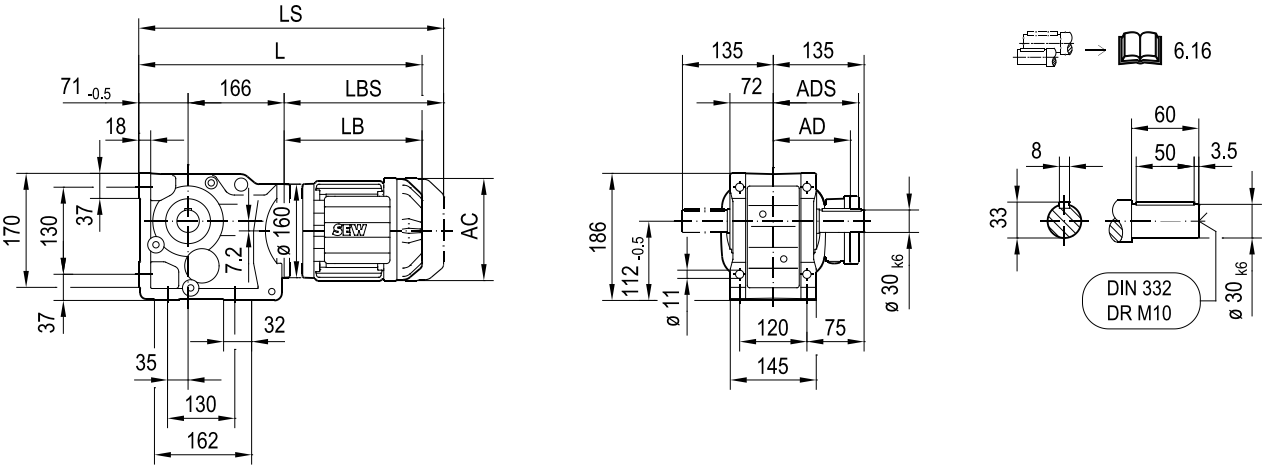


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	156	179	179	197	197	221
AD	98	118	118	128	128	128	140	140	157	157	170
ADS	98	129	129	139	139	139	150	150	158	158	172
L	449	450	470	481	498	526	528	560	556	606	637
LS	505	518	538	562	579	607	621	653	650	700	749
LB	198	199	219	230	247	275	277	309	305	355	386
LBS	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

33 042 01 14

K47..



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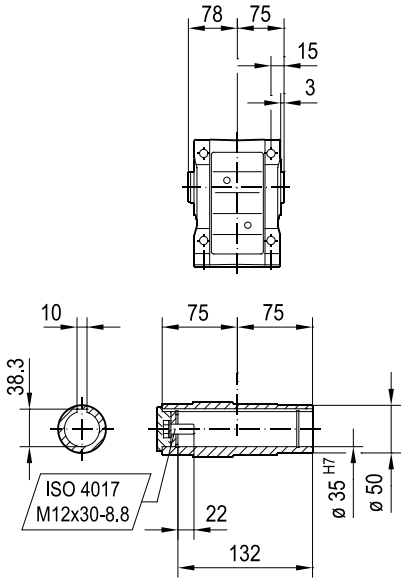

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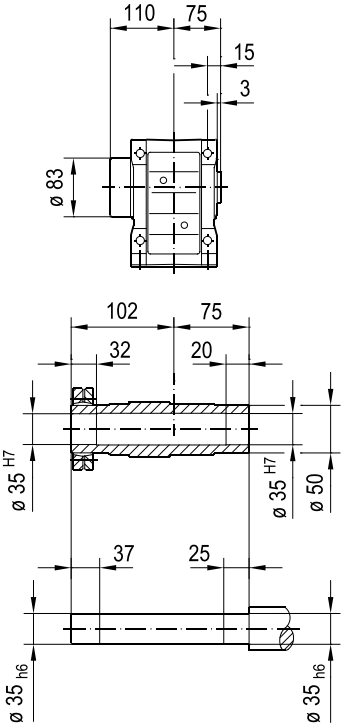

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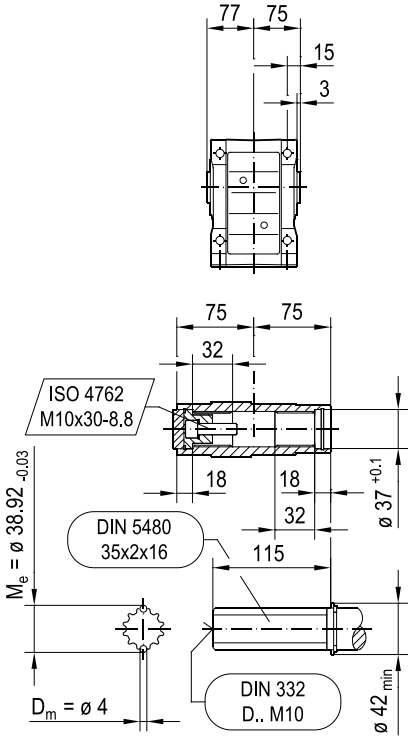

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	421	435	436	456	467	484	512	514	546	542	592
LS	477	491	504	524	548	565	593	607	639	636	686
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

33 043 01 14

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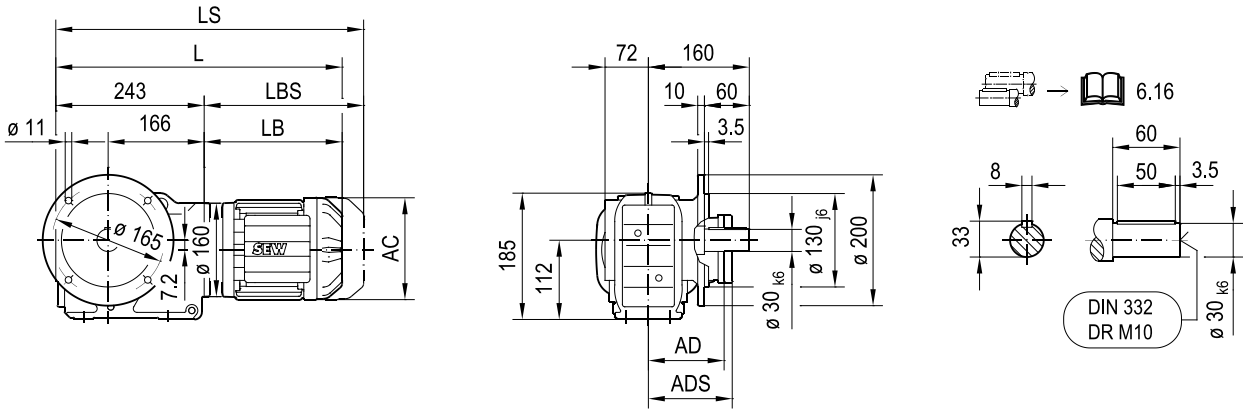

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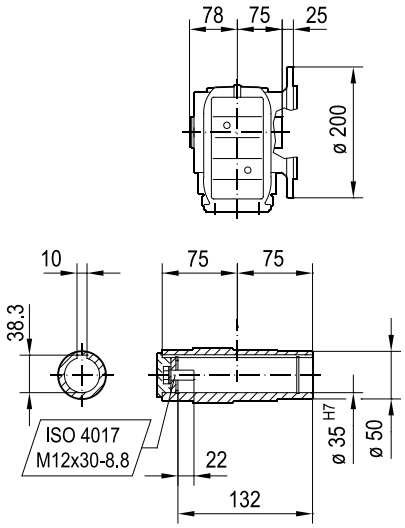

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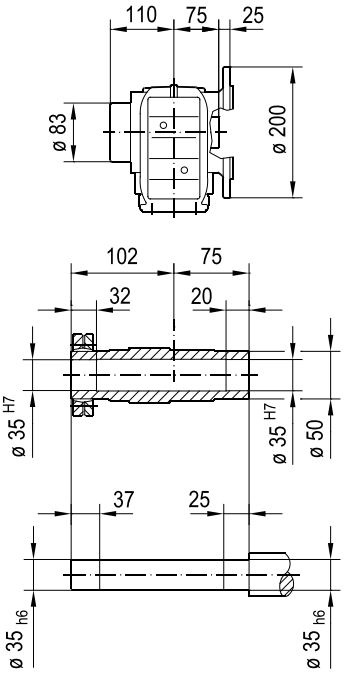

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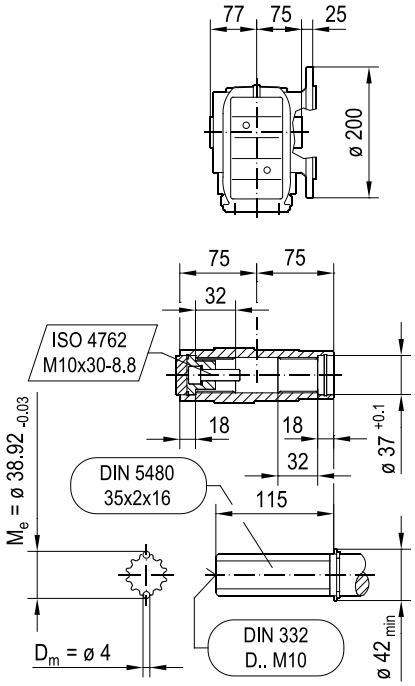

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	427	441	442	462	473	490	518	520	552	548	598
LS	483	497	510	530	554	571	599	613	645	642	692
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

33 044 00 14

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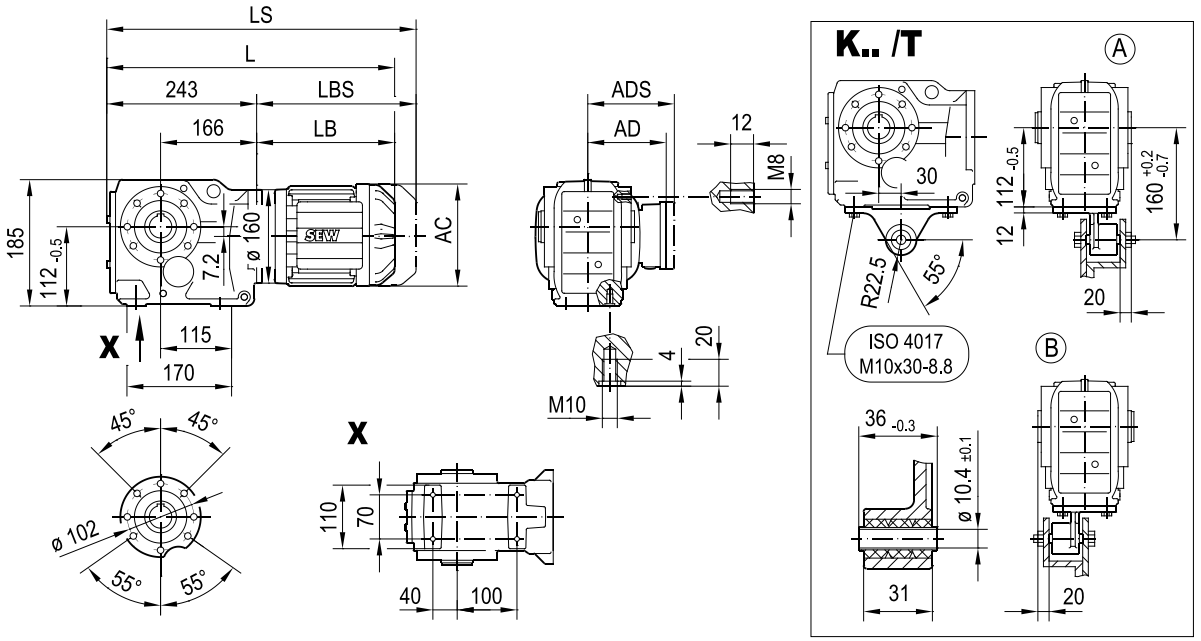

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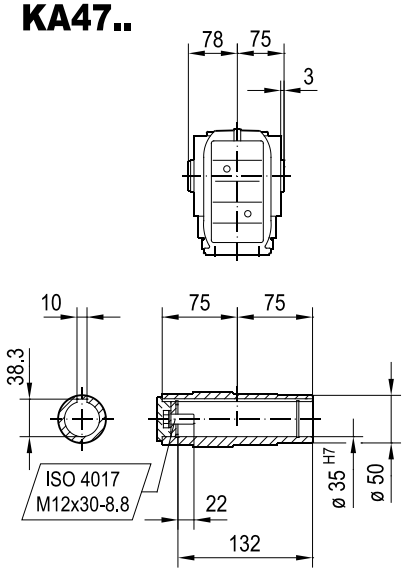

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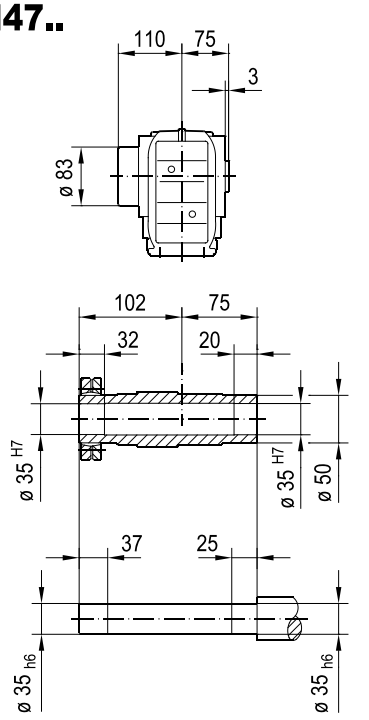

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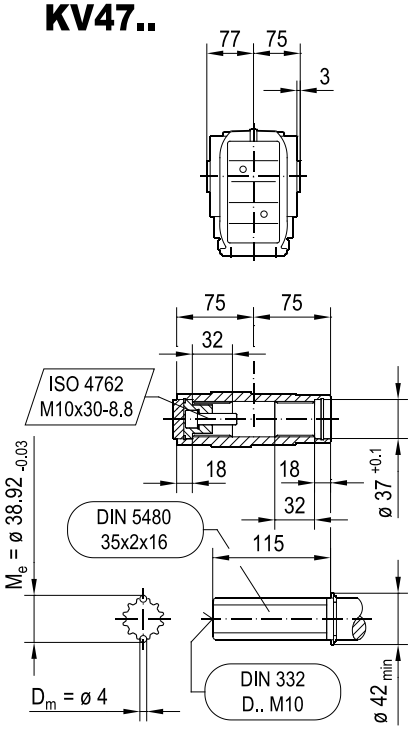

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	427	441	442	462	473	490	518	520	552	548	598
LS	483	497	510	530	554	571	599	613	645	642	692
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

33 045 00 14

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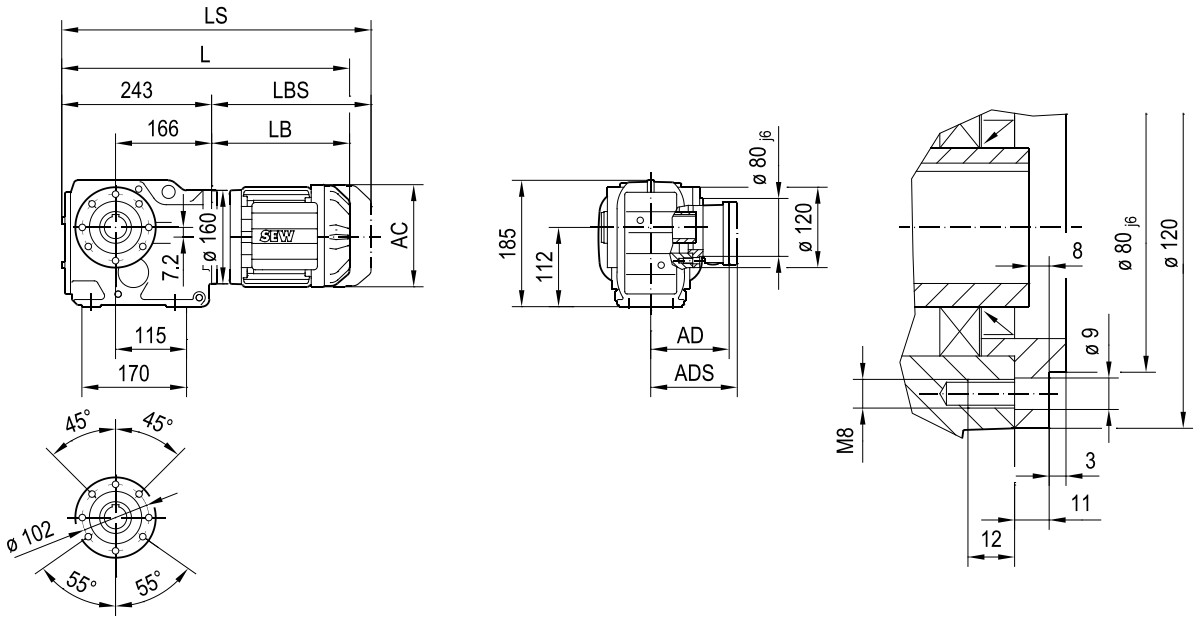

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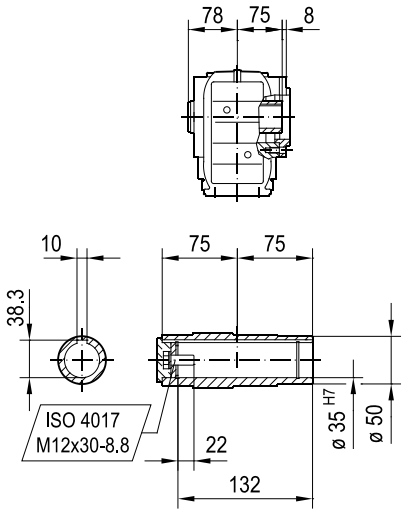

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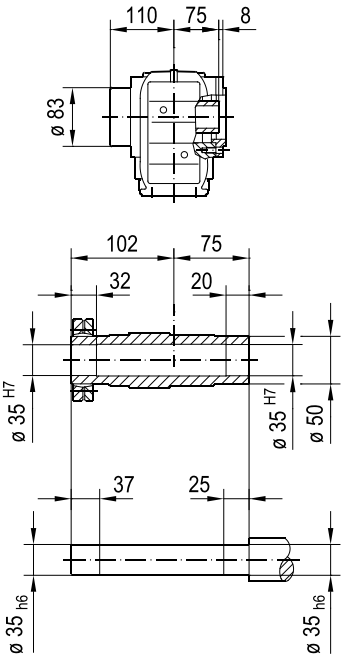

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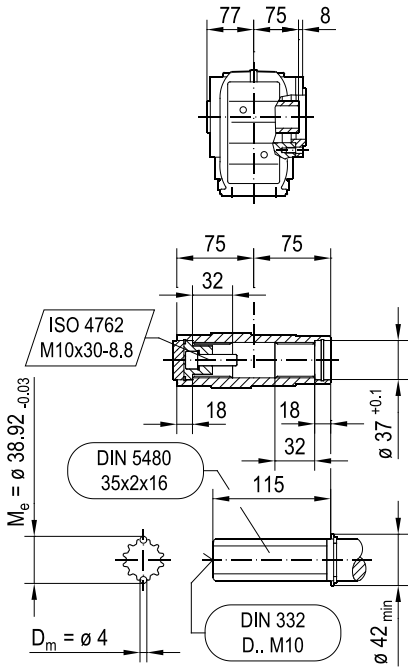
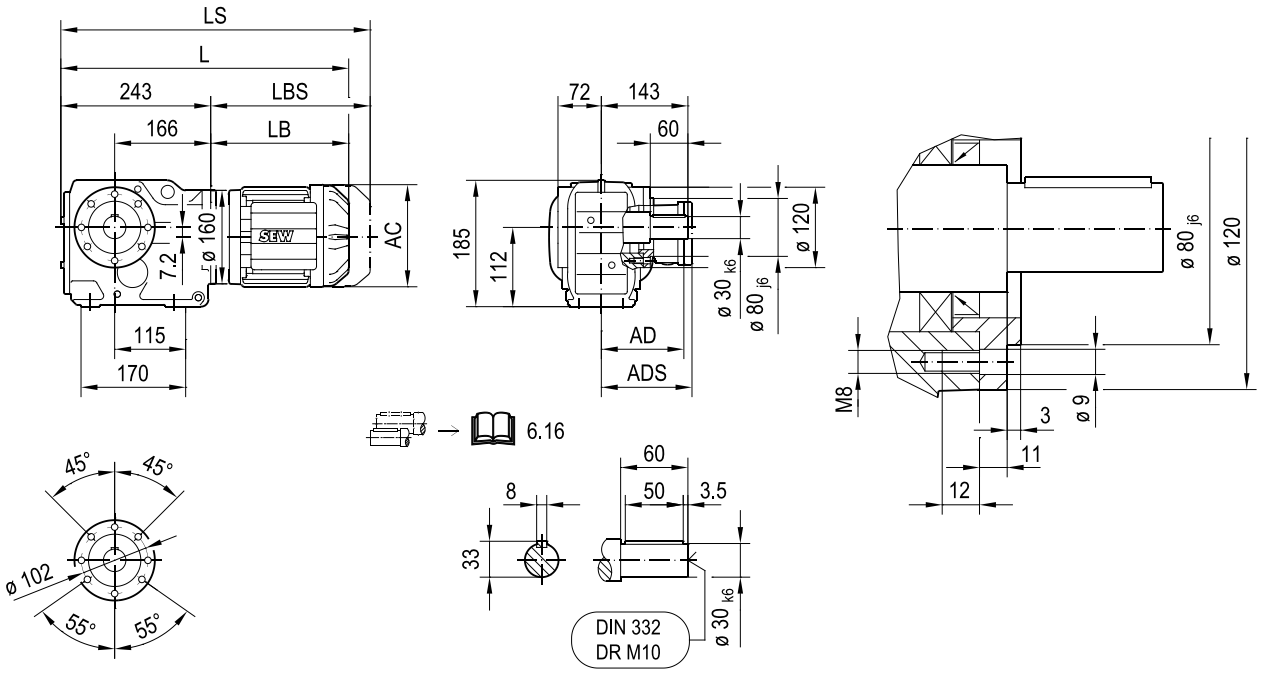


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	427	441	442	462	473	490	518	520	552	548	598
LS	483	497	510	530	554	571	599	613	645	642	692
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

KZ47..

33 233 01 15

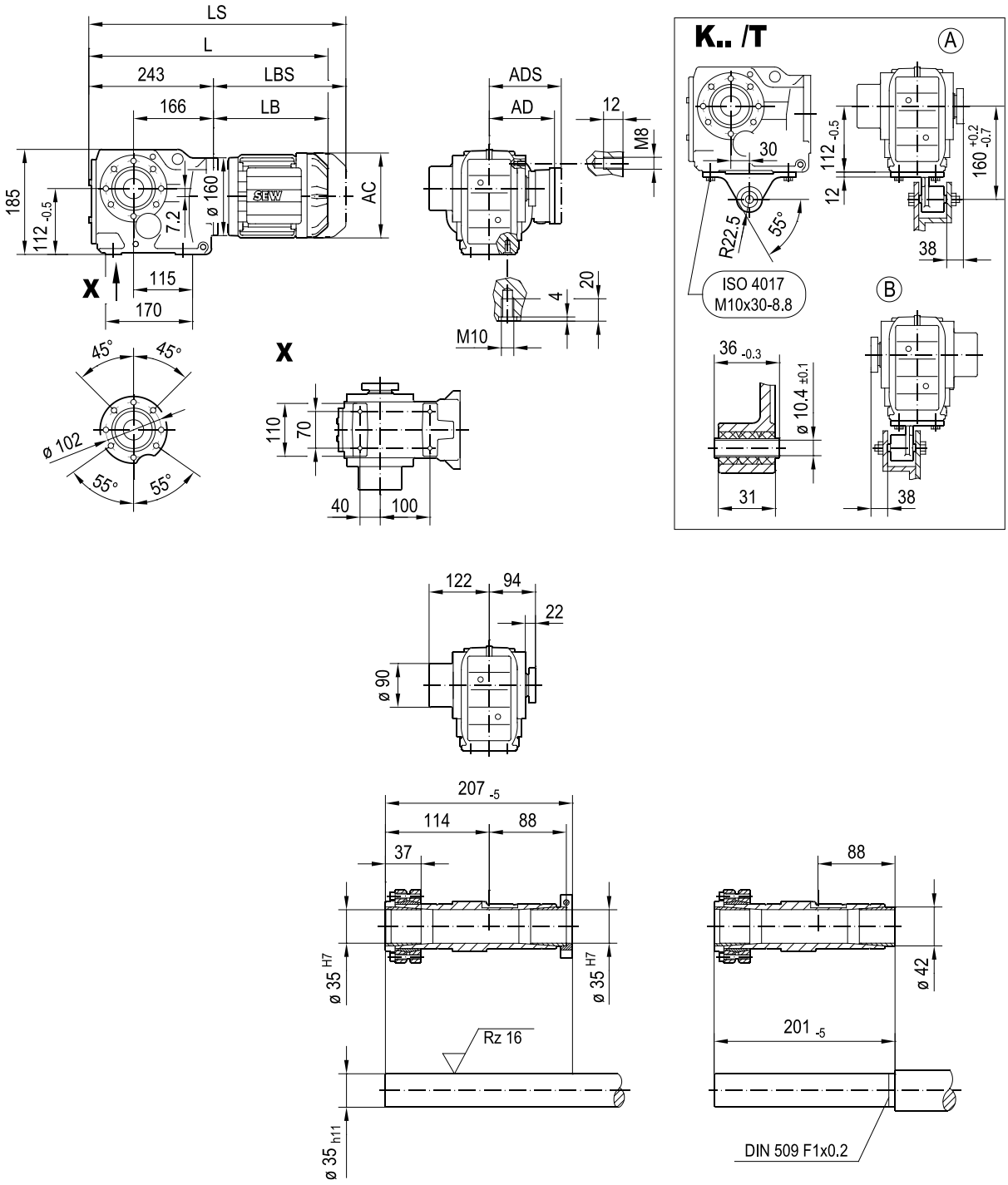


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	427	441	442	462	473	490	518	520	552	548	598
LS	483	497	510	530	554	571	599	613	645	642	692
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

KT47..

33 046 01 14

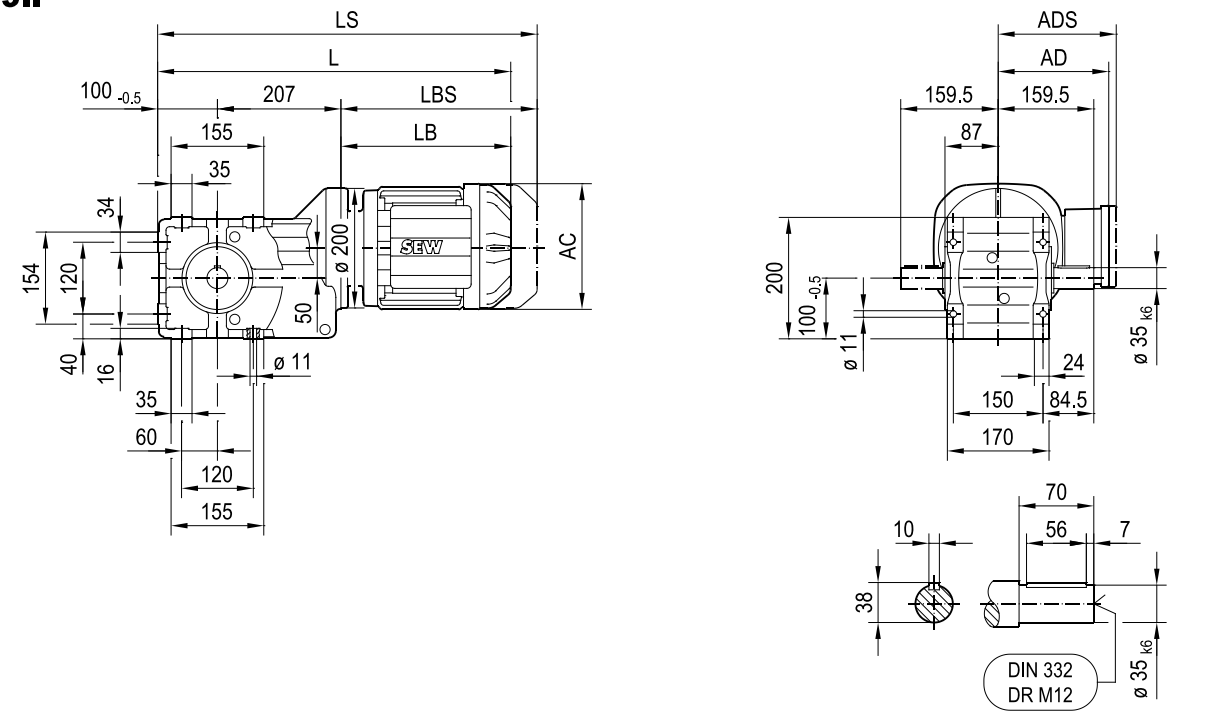


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	427	441	442	462	473	490	518	520	552	548	598
LS	483	497	510	530	554	571	599	613	645	642	692
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

33 025 02 14

K49..



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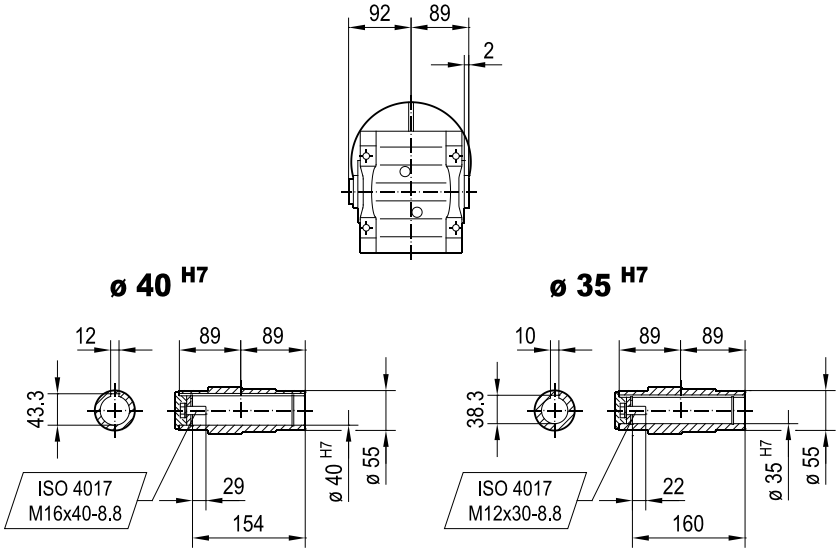

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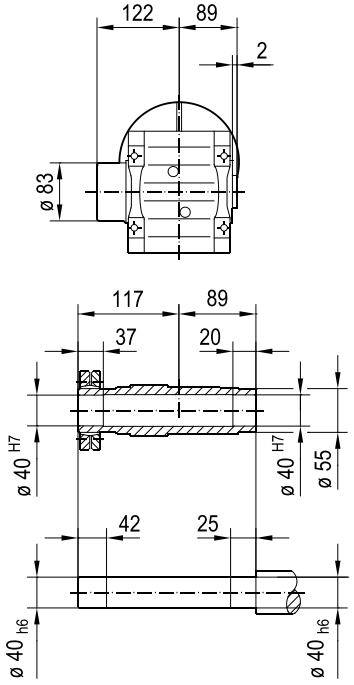
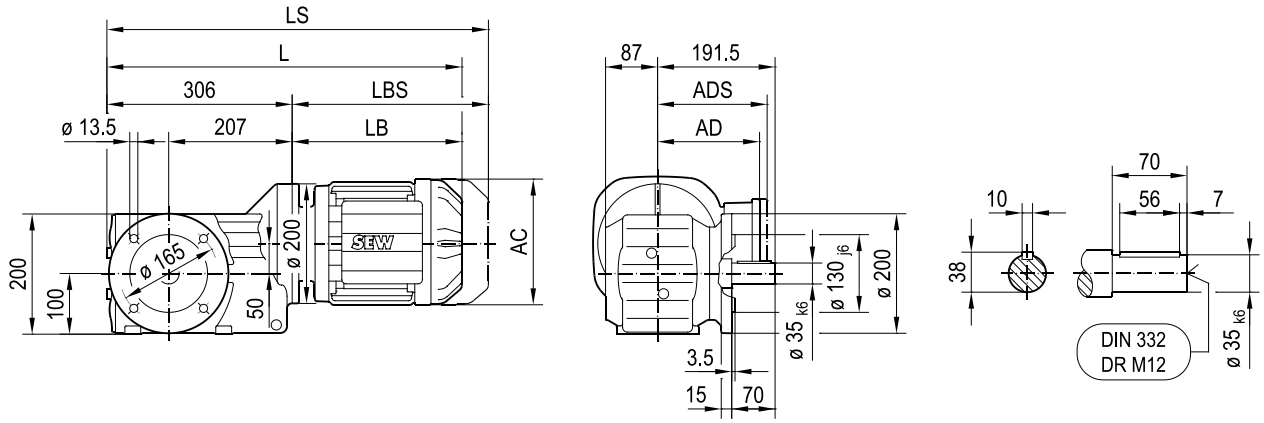


(→ 📖 7.3)	DRN											
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	139	150	150	158	158	172	172	228
L	499	519	530	547	575	577	609	605	655	686	736	754
LS	567	587	611	628	656	670	702	699	749	798	848	892
LB	192	212	223	240	268	270	302	298	348	379	429	447
LBS	260	280	304	321	349	363	395	392	442	491	541	585

26883198/EN – 04/2022

33 026 02 14

KF49..



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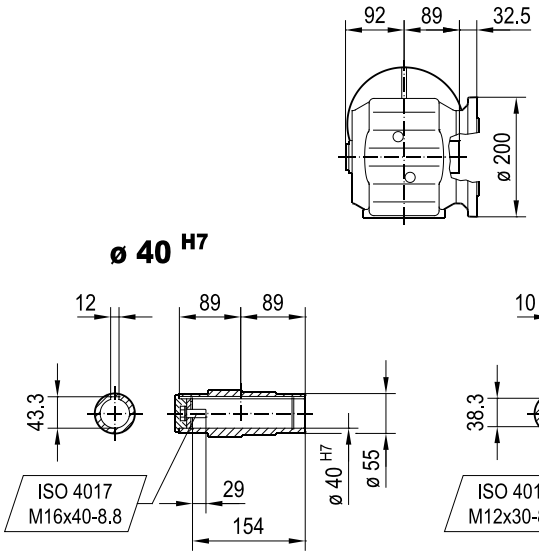

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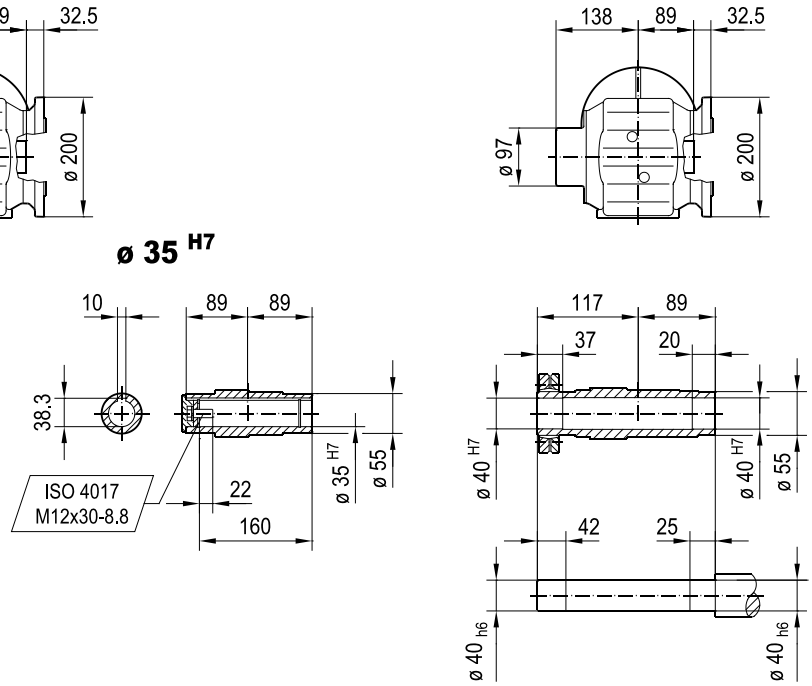
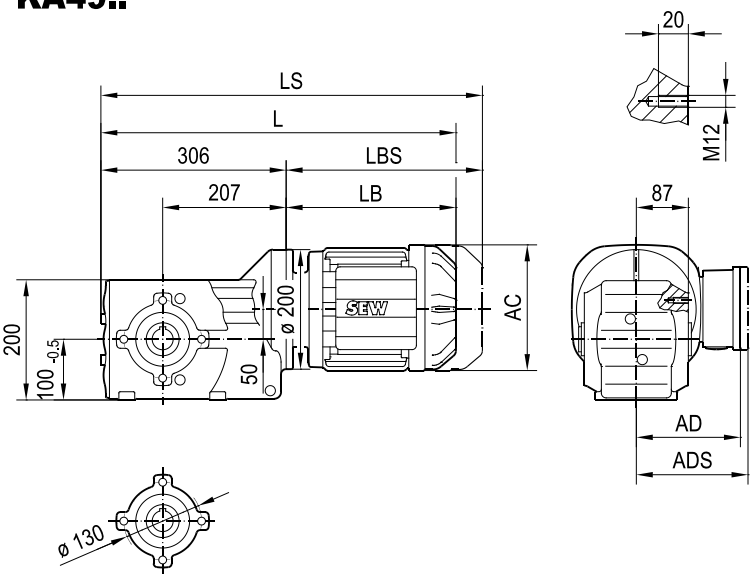


(→ 📖 7.3)	DRN											
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	139	150	150	158	158	172	172	228
L	498	518	529	546	574	576	608	604	654	685	735	753
LS	566	586	610	627	655	669	701	698	748	797	847	891
LB	192	212	223	240	268	270	302	298	348	379	429	447
LBS	260	280	304	321	349	363	395	392	442	491	541	585

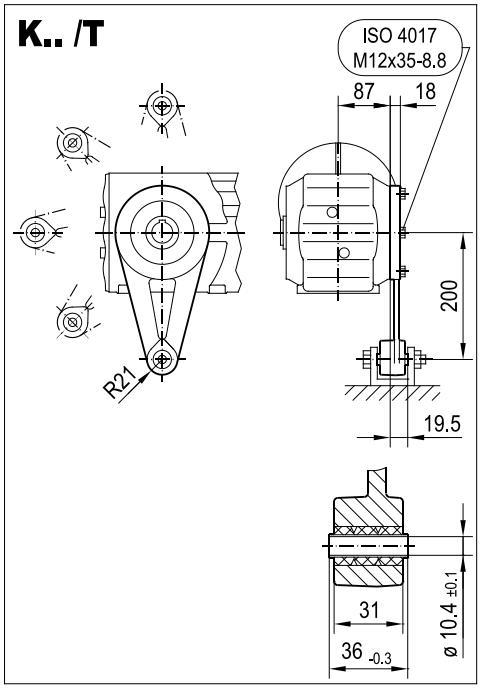
26883198/EN – 04/2022

33 027 02 14

KA49..



K.. /T



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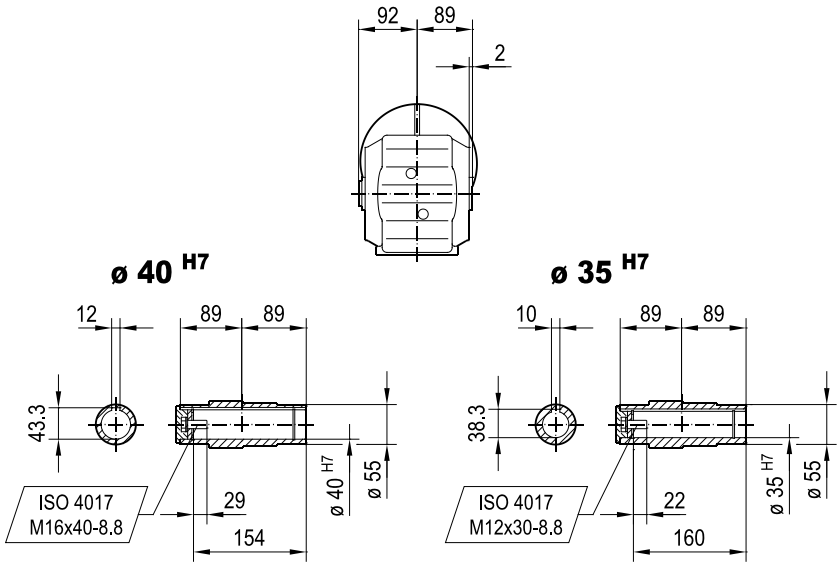

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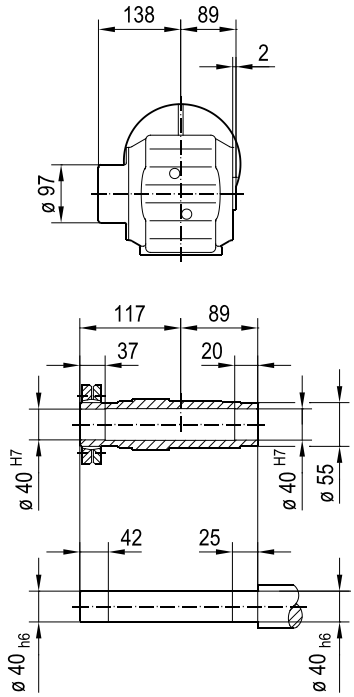
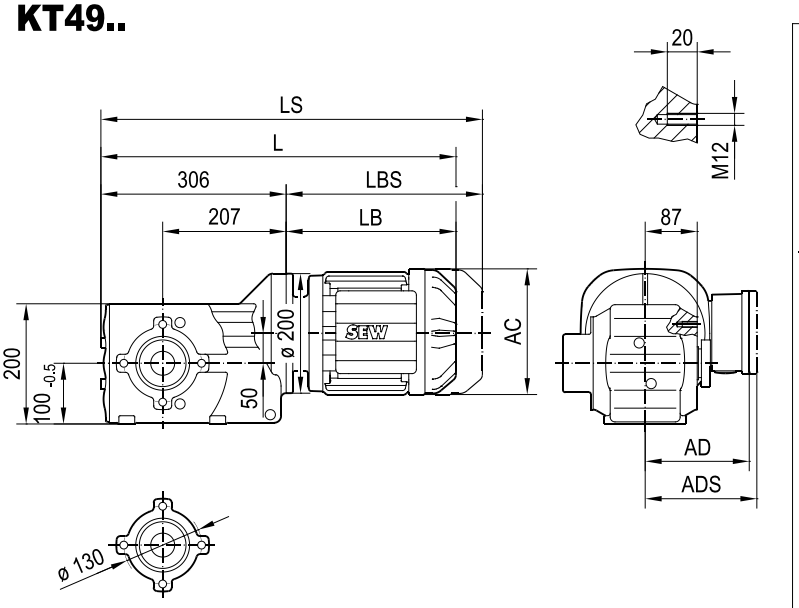


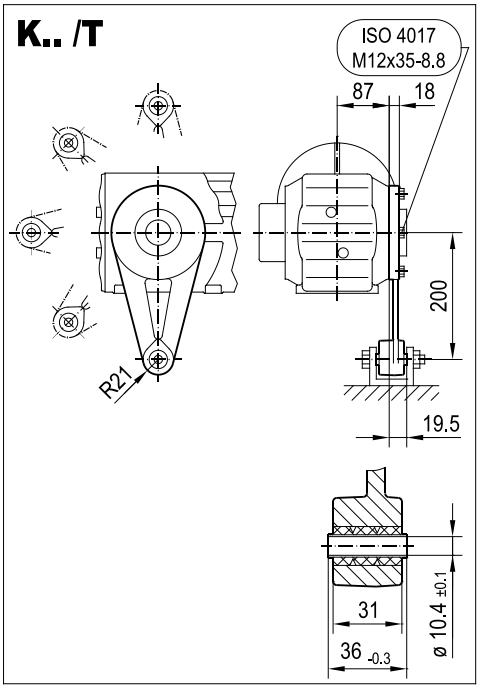
(→ 📖 7.3)	DRN											
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	139	150	150	158	158	172	172	228
L	498	518	529	546	574	576	608	604	654	685	735	753
LS	566	586	610	627	655	669	701	698	748	797	847	891
LB	192	212	223	240	268	270	302	298	348	379	429	447
LBS	260	280	304	321	349	363	395	392	442	491	541	585

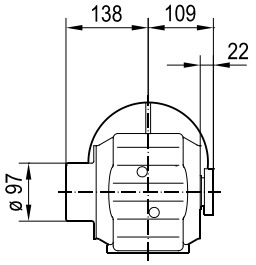
26883198/EN – 04/2022

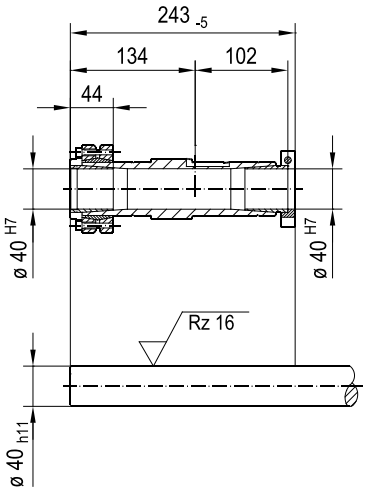
33 028 02 14

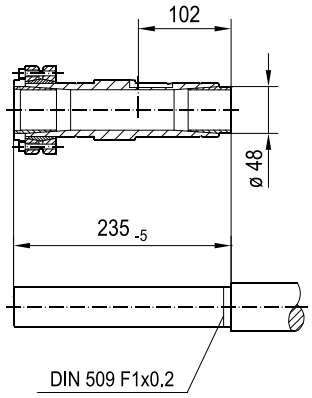
KT49..









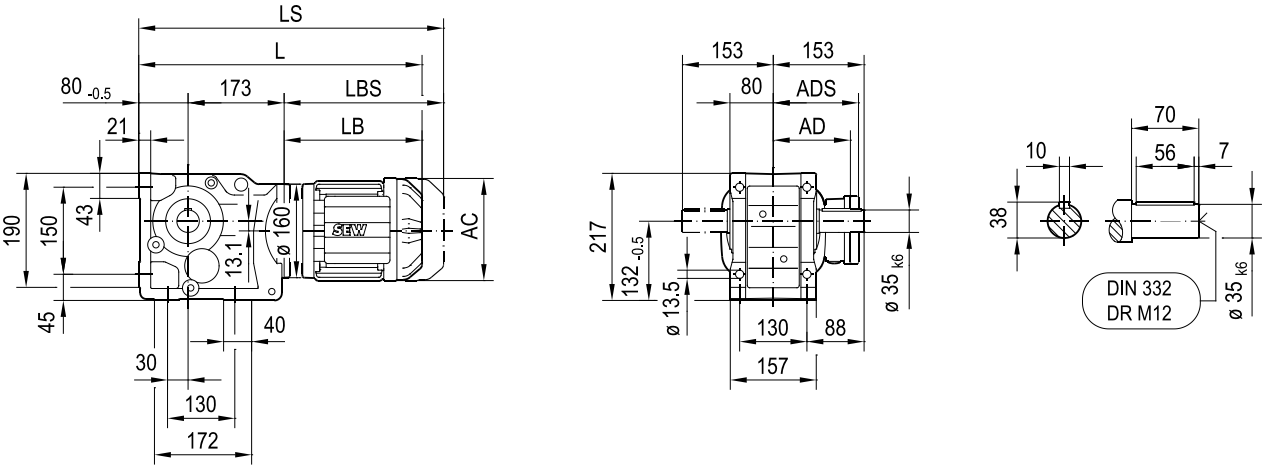


(→ 📖 7.3)	DRN											
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	139	150	150	158	158	172	172	228
L	498	518	529	546	574	576	608	604	654	685	735	753
LS	566	586	610	627	655	669	701	698	748	797	847	891
LB	192	212	223	240	268	270	302	298	348	379	429	447
LBS	260	280	304	321	349	363	395	392	442	491	541	585

26883198/EN – 04/2022

33 047 00 14

K57..



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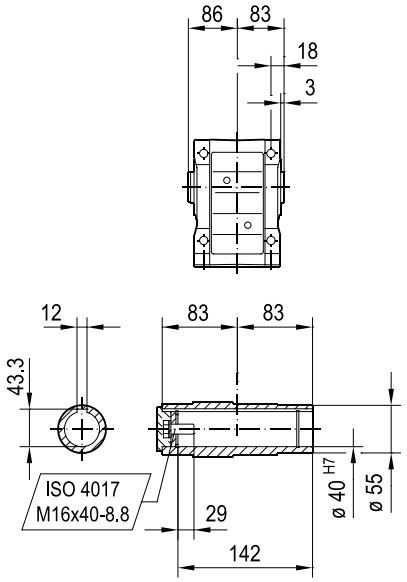

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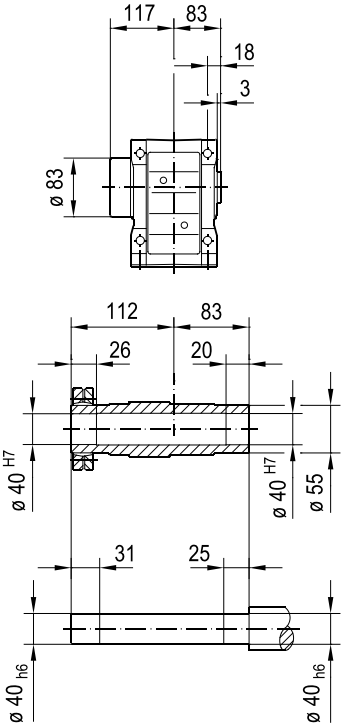

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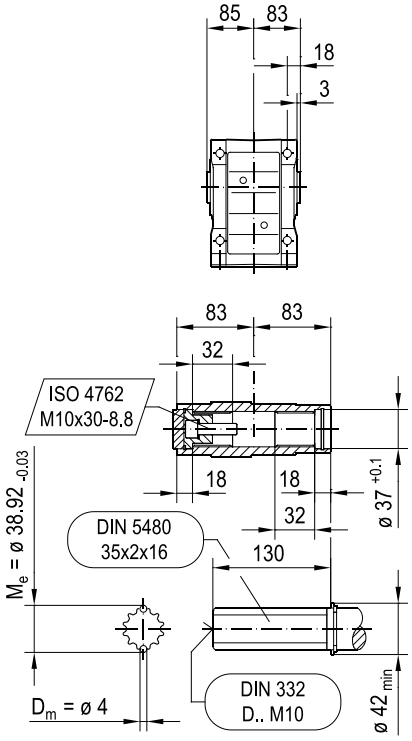

(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	437	451	452	472	483	500	528	530	562	558	608	639	693	711
LS	493	507	520	540	564	581	609	623	655	652	702	751	805	849
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

33 048 00 14

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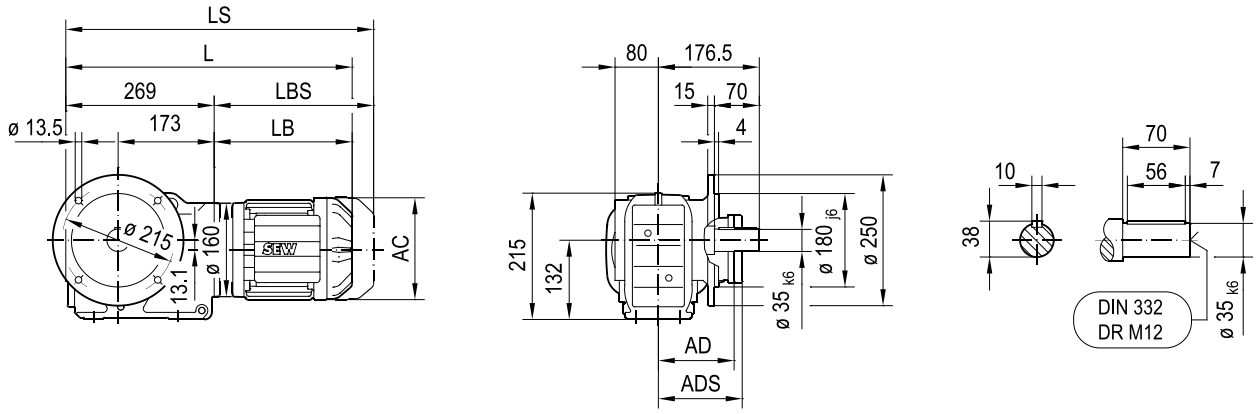

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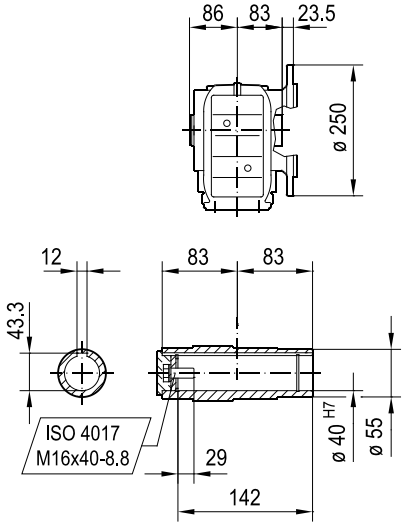

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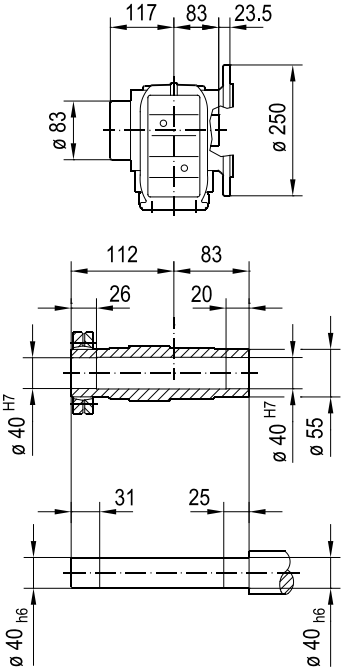

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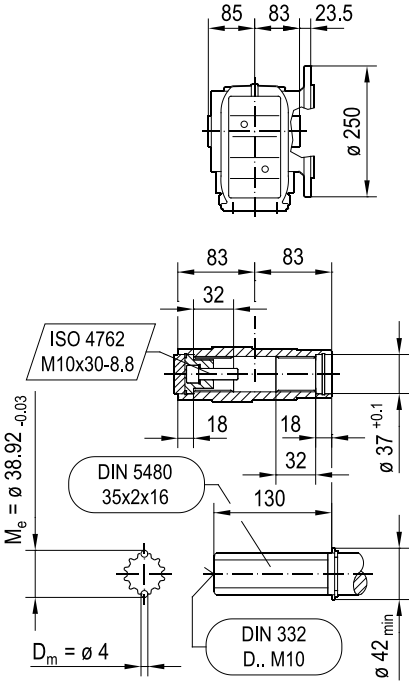
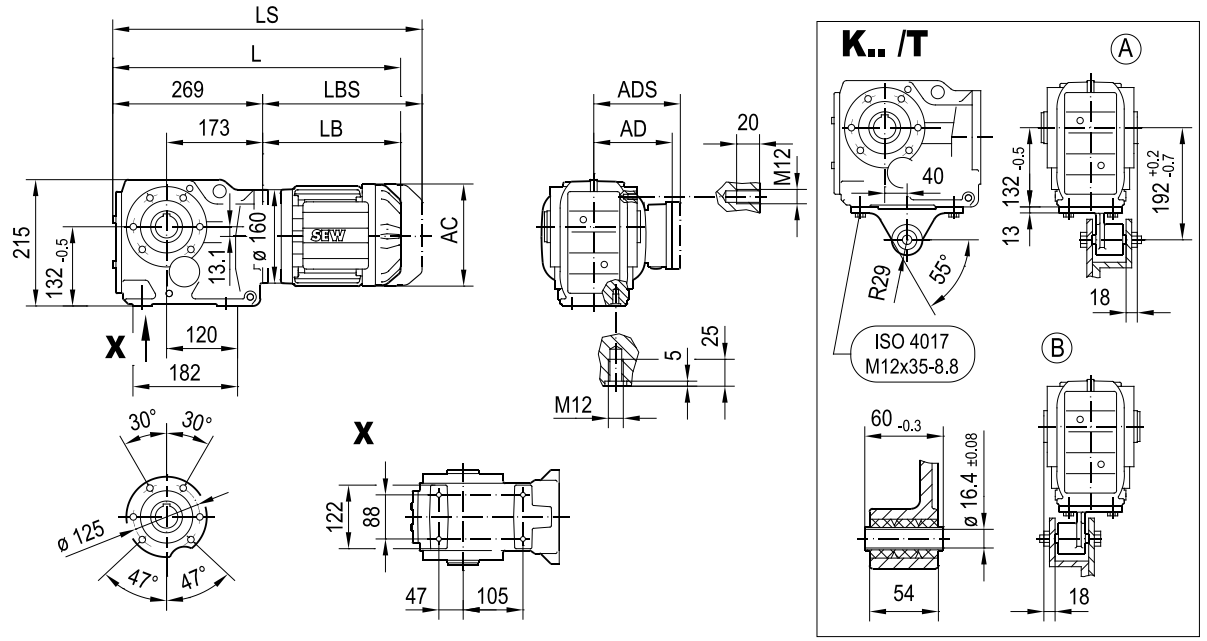


(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	453	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	509	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

KA57..

33 049 00 14



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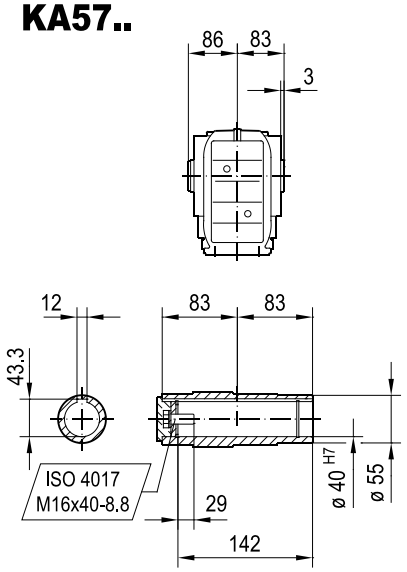

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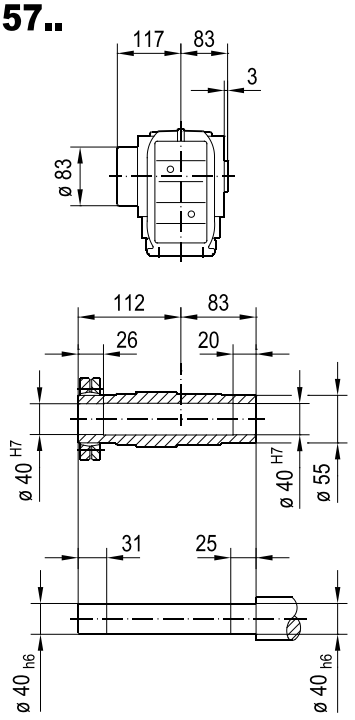

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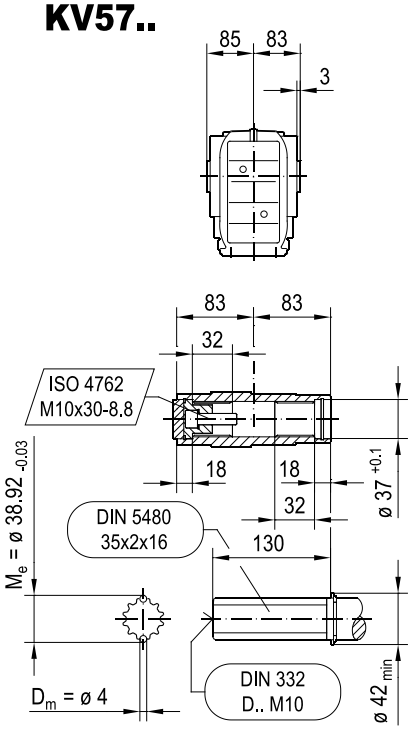

(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	453	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	509	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
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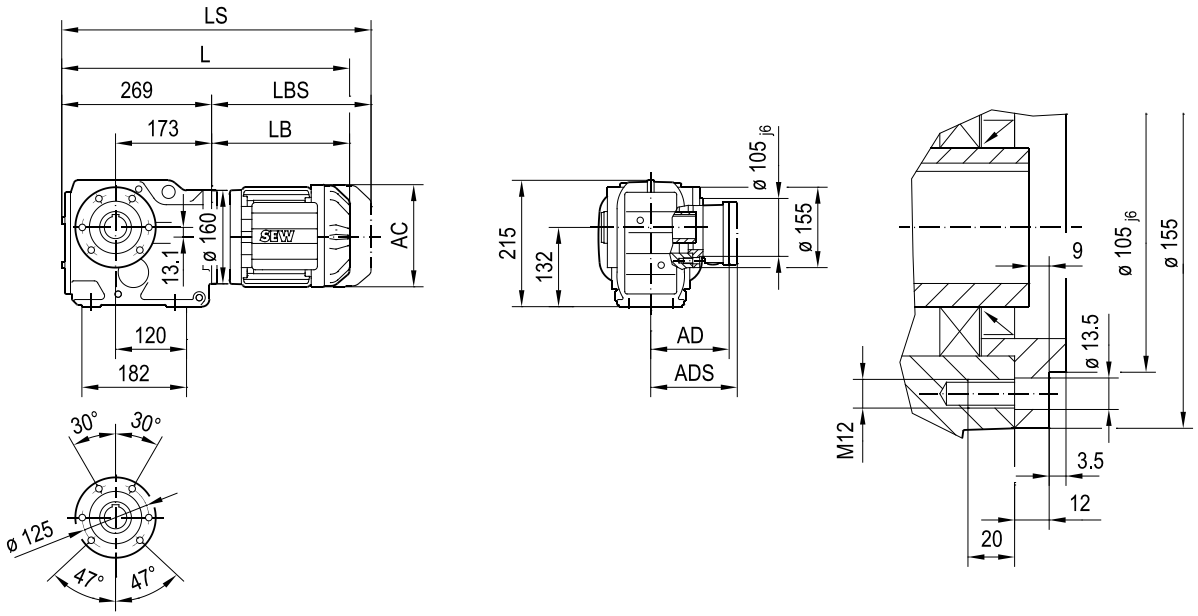
26883198/EN – 04/2022

33 050 00 14

KAZ57..



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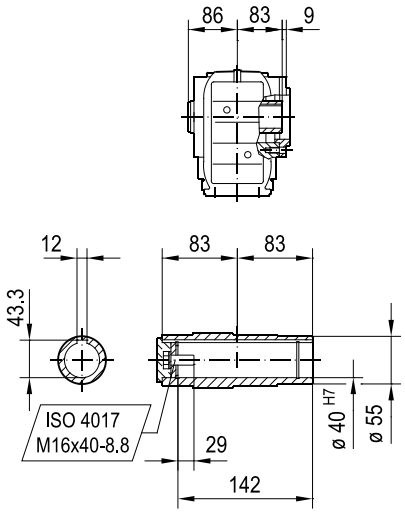

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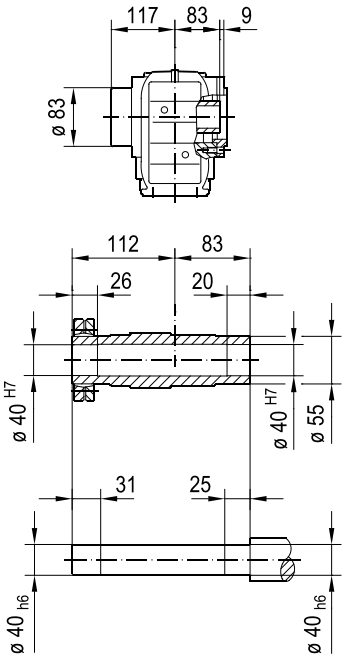

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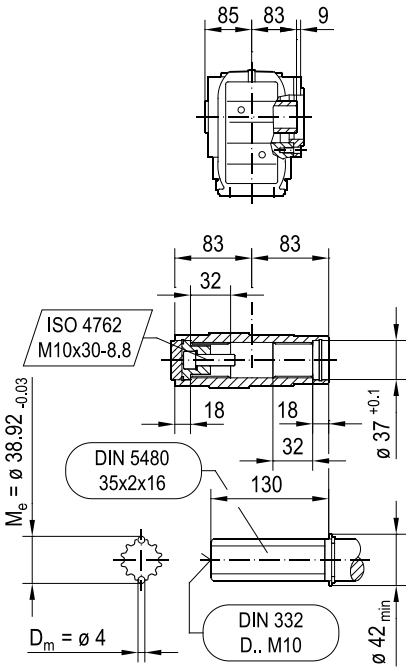

(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	453	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	509	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
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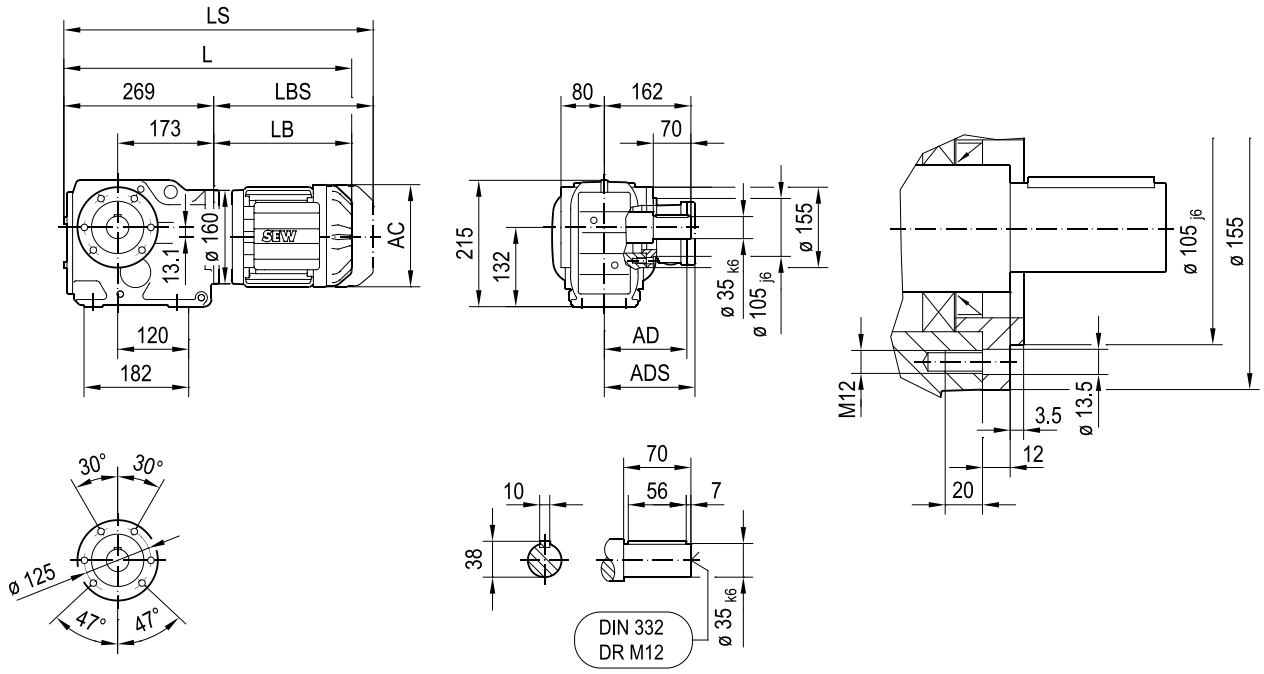
26883198/EN – 04/2022

KZ57..

33 234 01 15



(→ 📖 7.3)	DRN													
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	453	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	509	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
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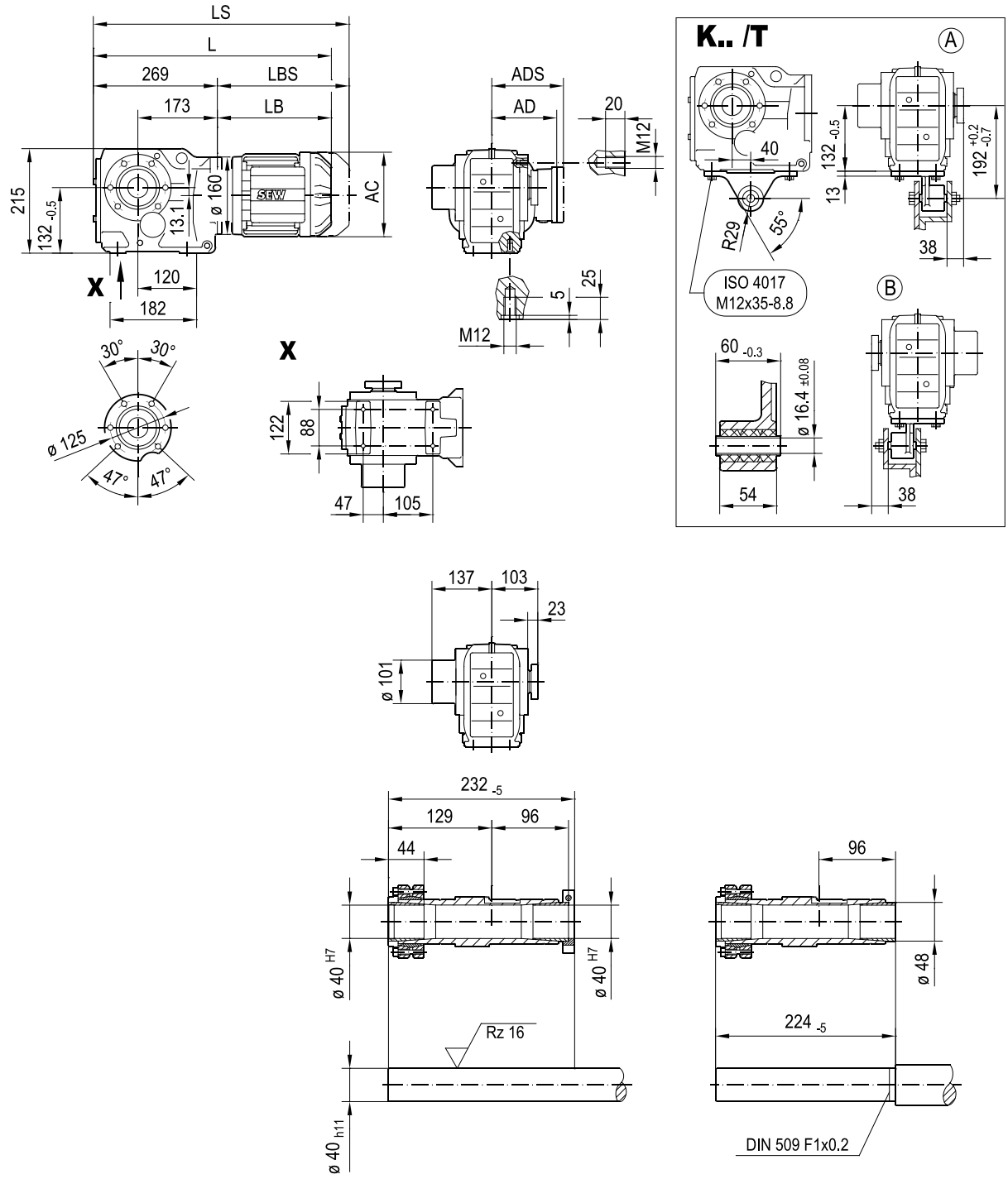
26883198/EN – 04/2022

KT57..

33 051 01 14



(→ 📖 7.3)	DRN													
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AC	115	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	139	150	150	158	158	172	172	228
L	453	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	509	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	184	198	199	219	230	247	275	277	309	305	355	386	440	458
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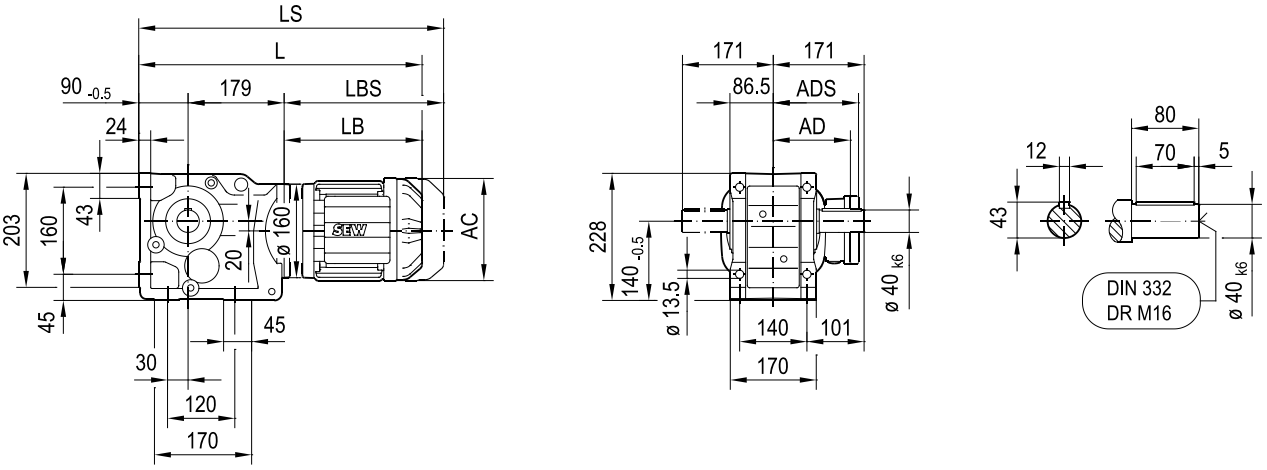
26883198/EN – 04/2022

K67..

33 052 00 14



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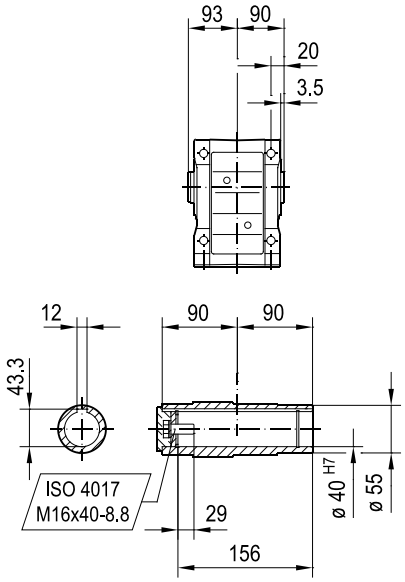

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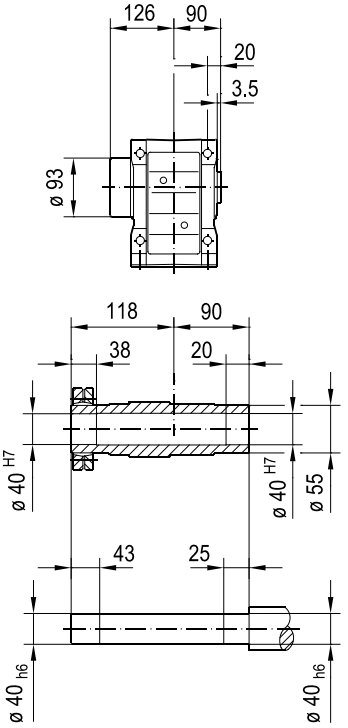

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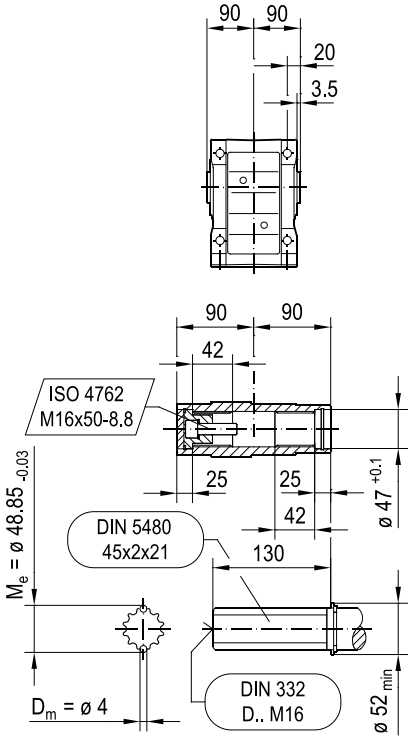
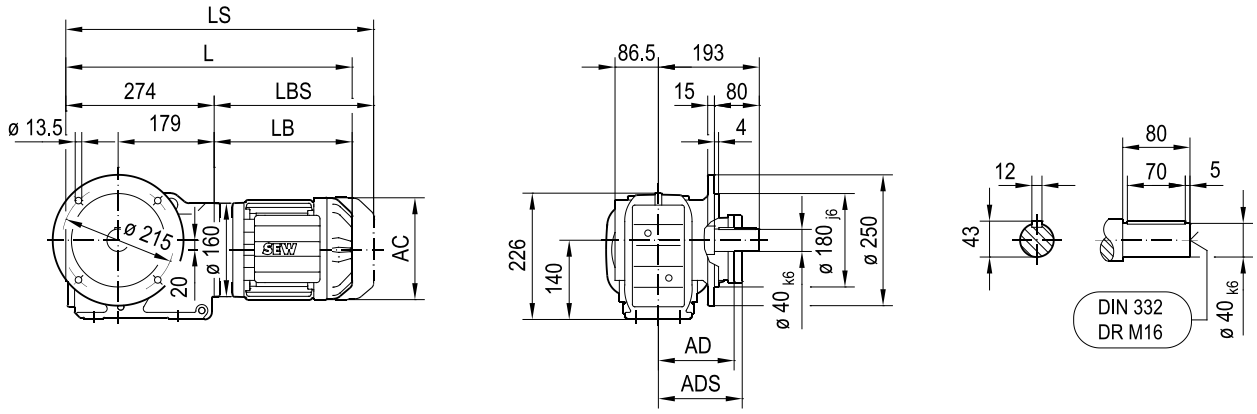


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	467	468	488	499	516	544	546	578	574	624	655	709	727
LS	523	536	556	580	597	625	639	671	668	718	767	821	865
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

33 053 00 14

KF67..



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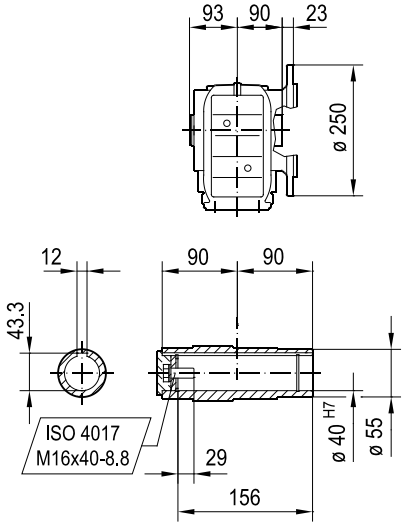

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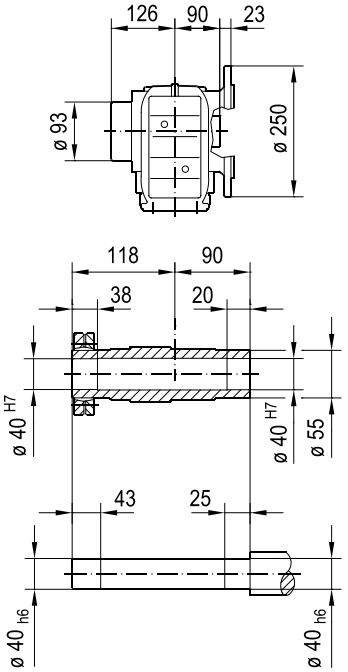

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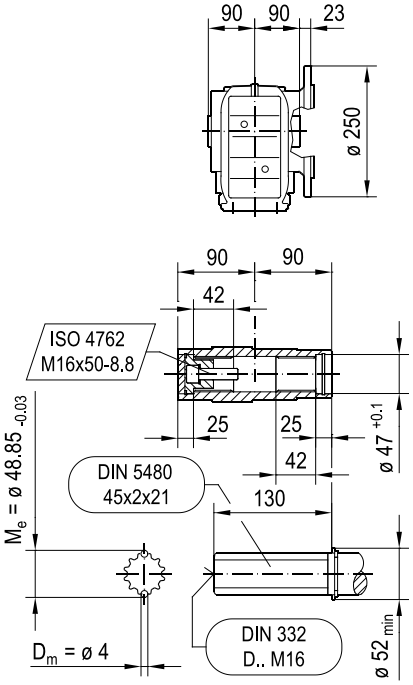
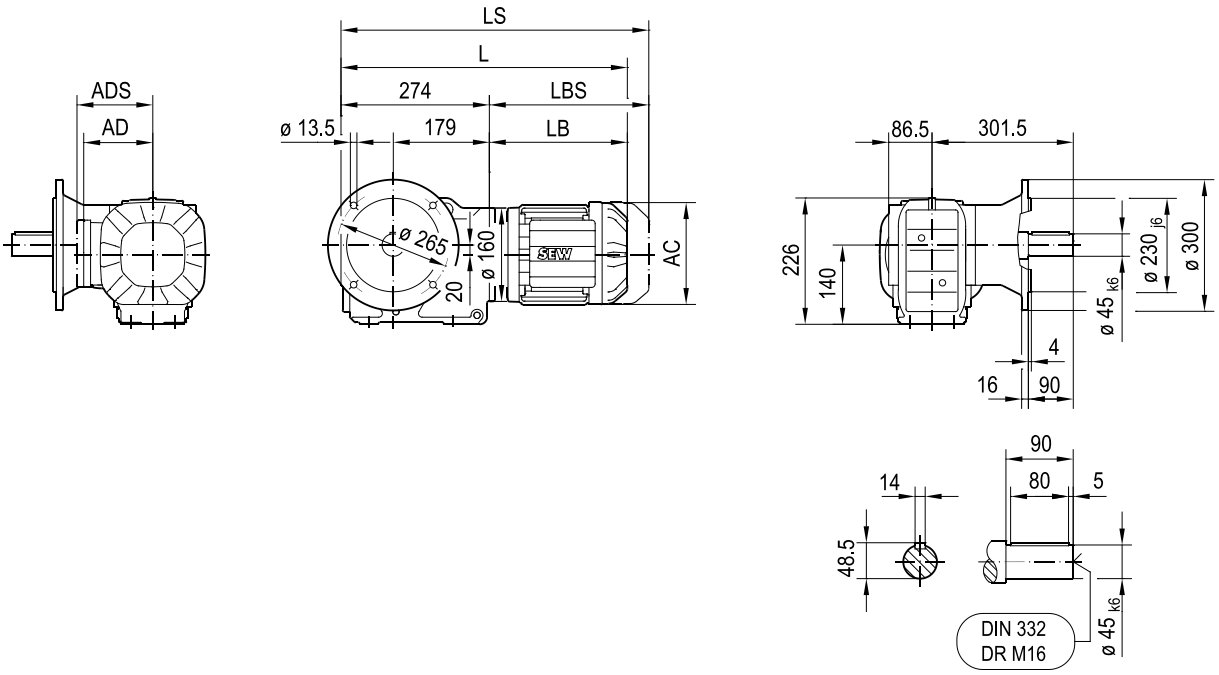


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

KM67..

33 270 00 17



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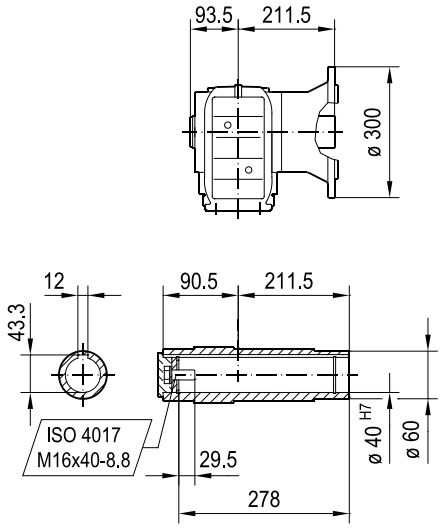

(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

33 054 00 14

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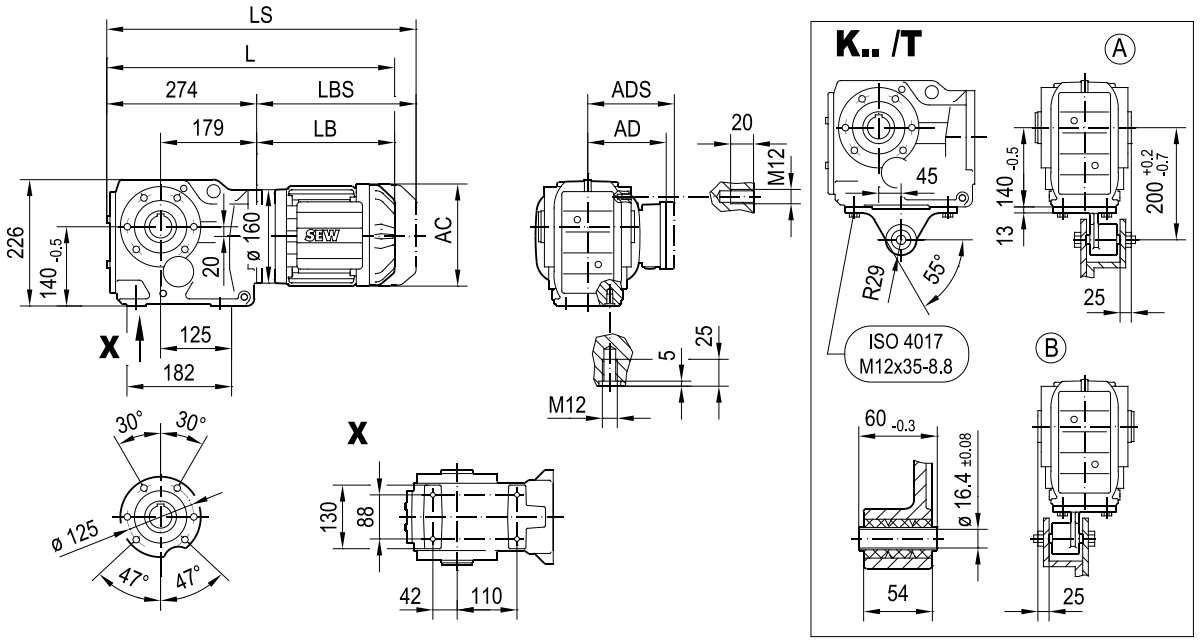

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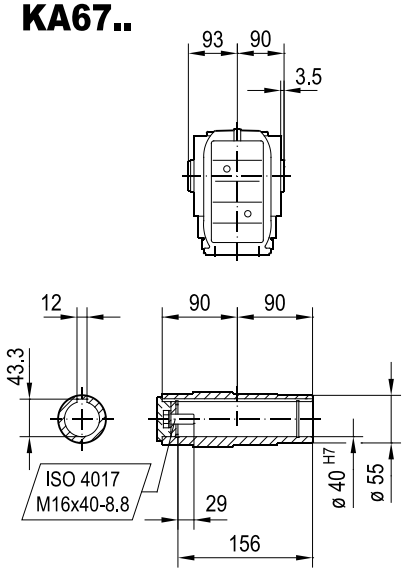

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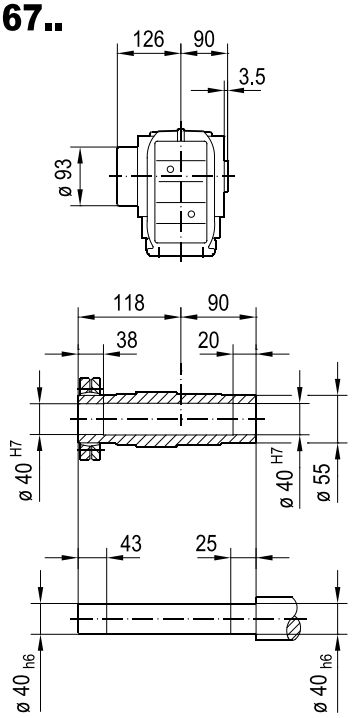

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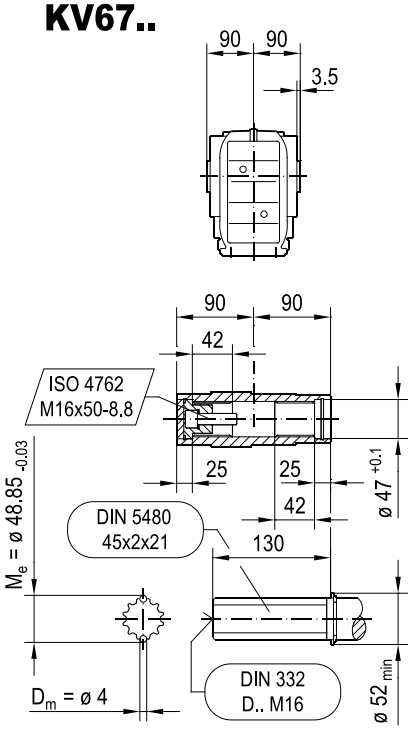

(→ 📖 7.3)	DRN												
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AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
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26883198/EN – 04/2022

33 055 00 14

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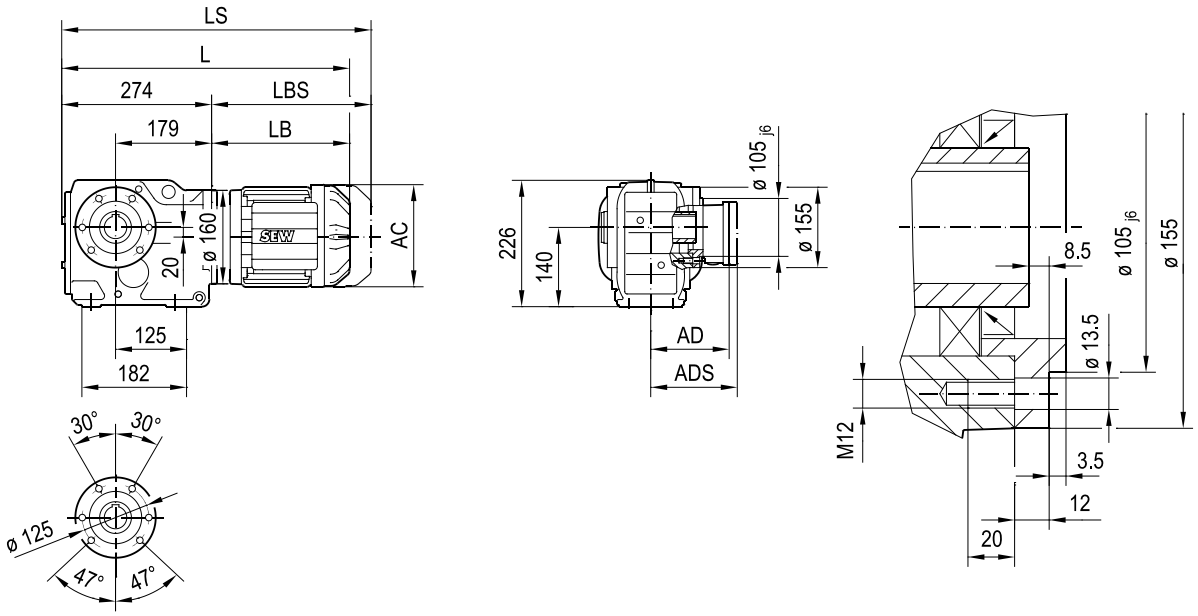

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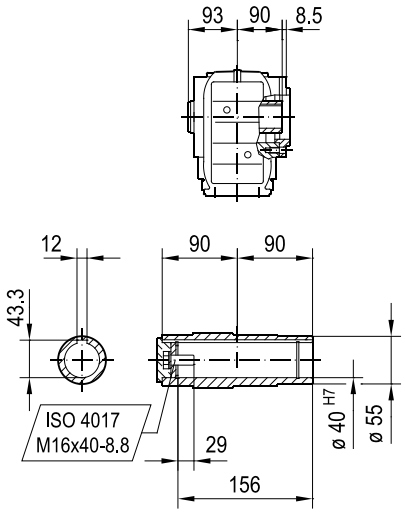

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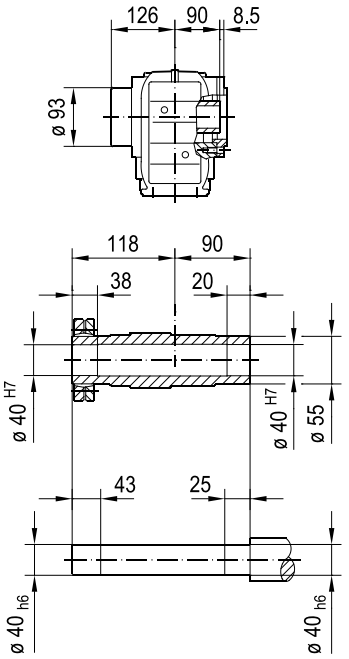

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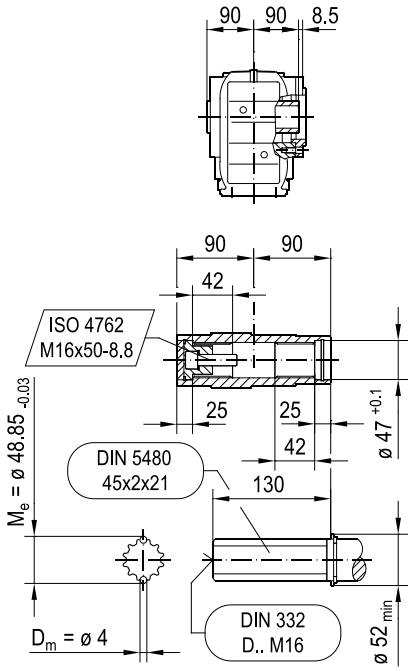

(→ 📖 7.3)	DRN												
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AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

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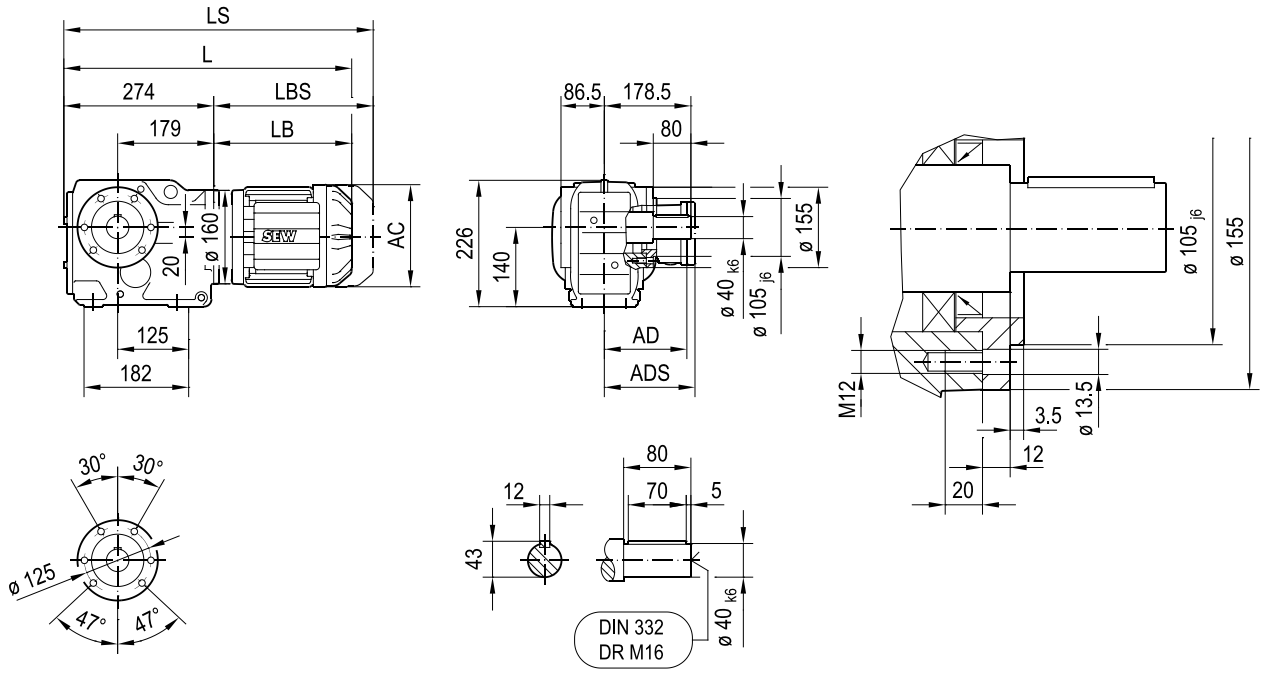
33 235 00 15



(→ 📖 7.3)	DRN												
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AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
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26883198/EN – 04/2022

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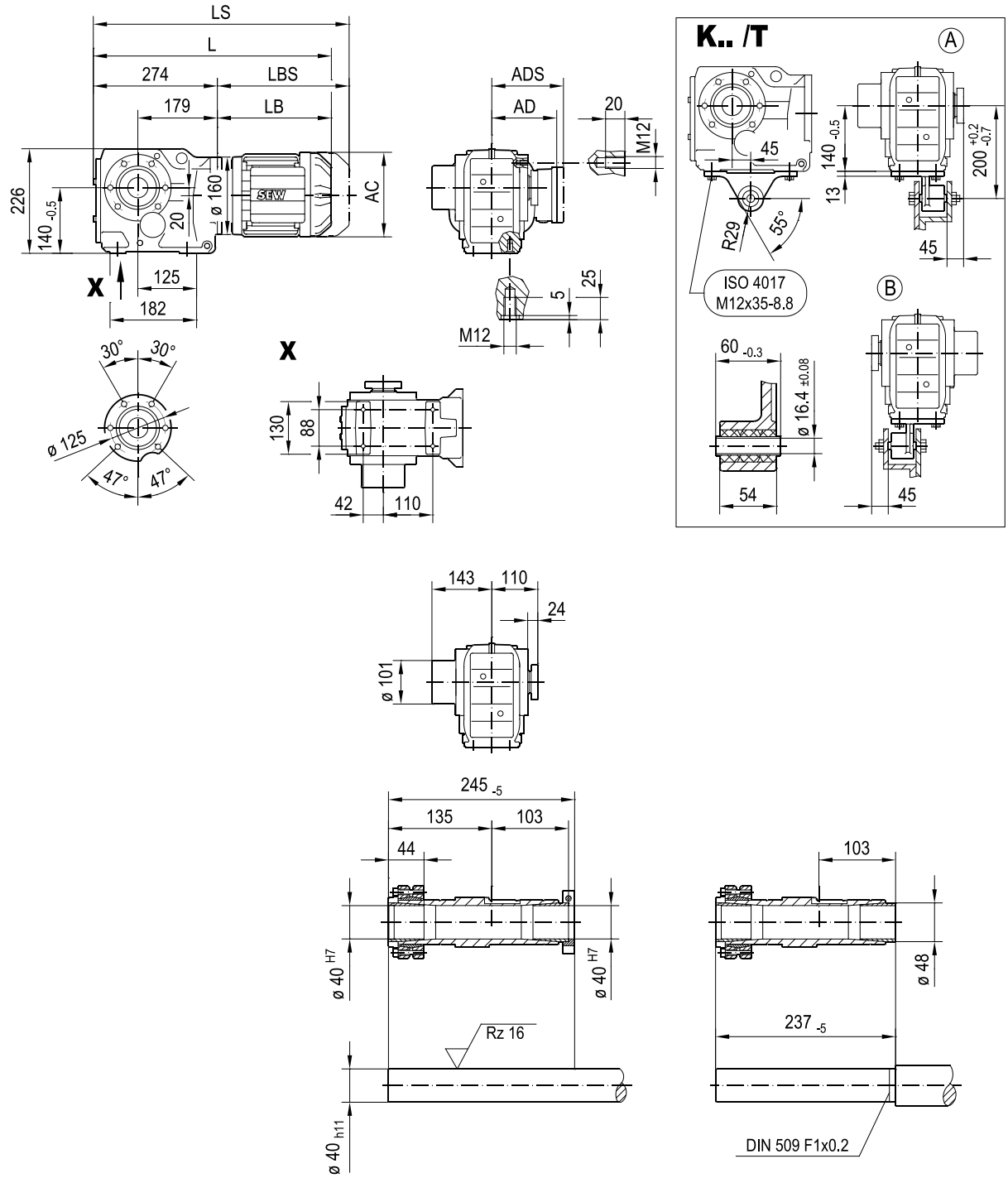
33 056 01 14



(→ 📖 7.3)	DRN												
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AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	472	473	493	504	521	549	551	583	579	629	660	714	732
LS	528	541	561	585	602	630	644	676	673	723	772	826	870
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
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26883198/EN – 04/2022

33 057 00 14

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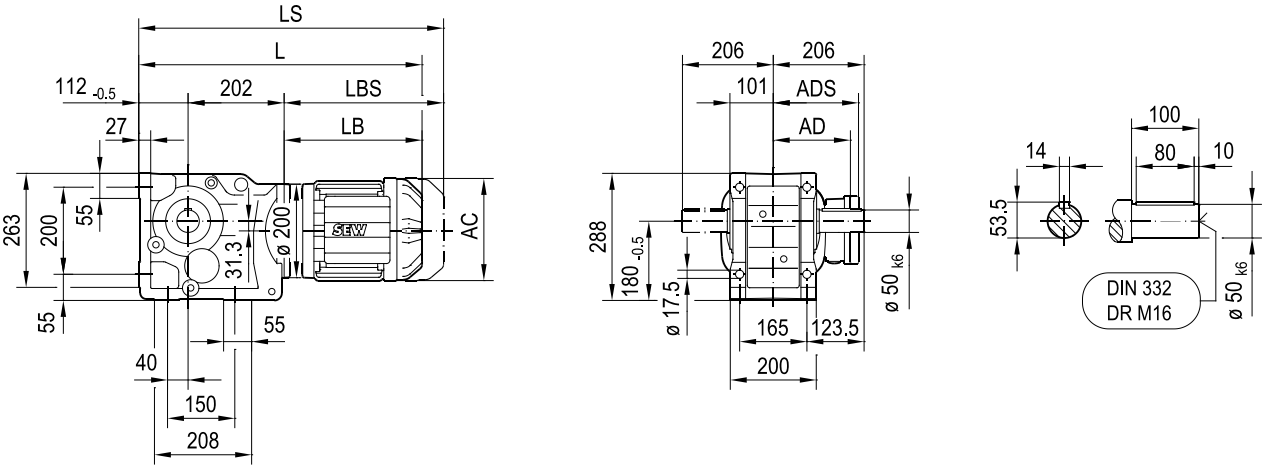

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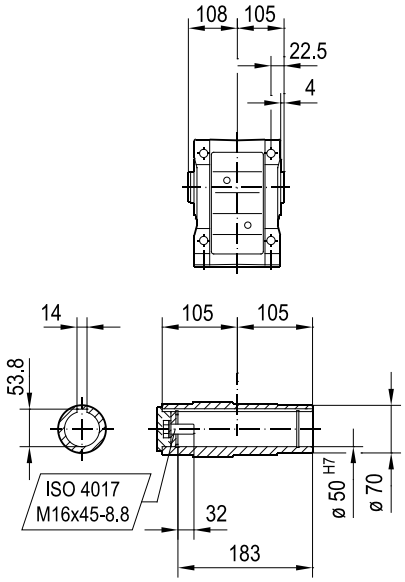

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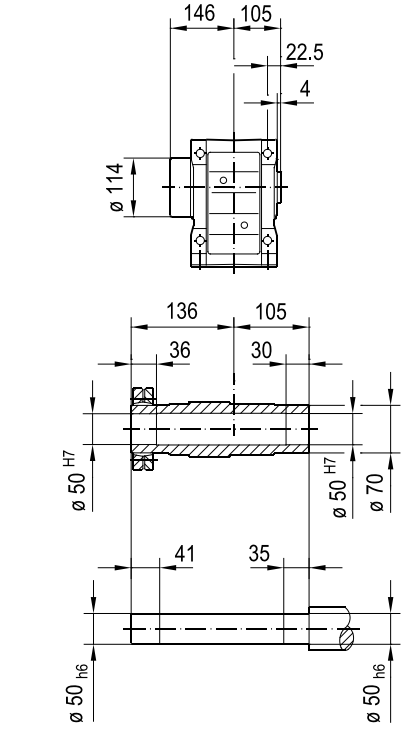

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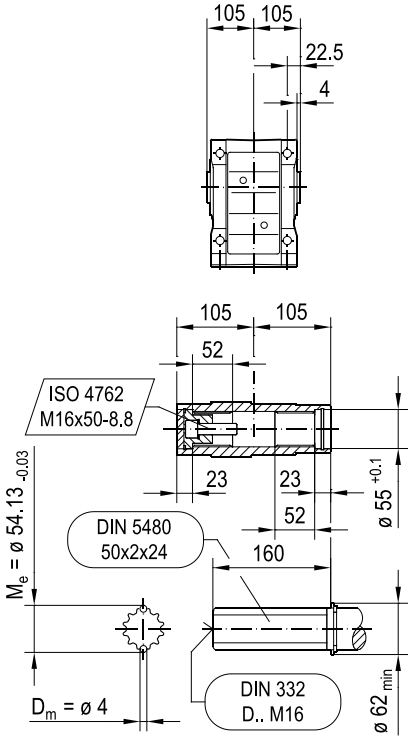

(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	506	526	537	554	582	584	616	612	662	693	743	761	787	853
LS	574	594	618	635	663	677	709	706	756	805	855	899	924	1042
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

33 058 00 14

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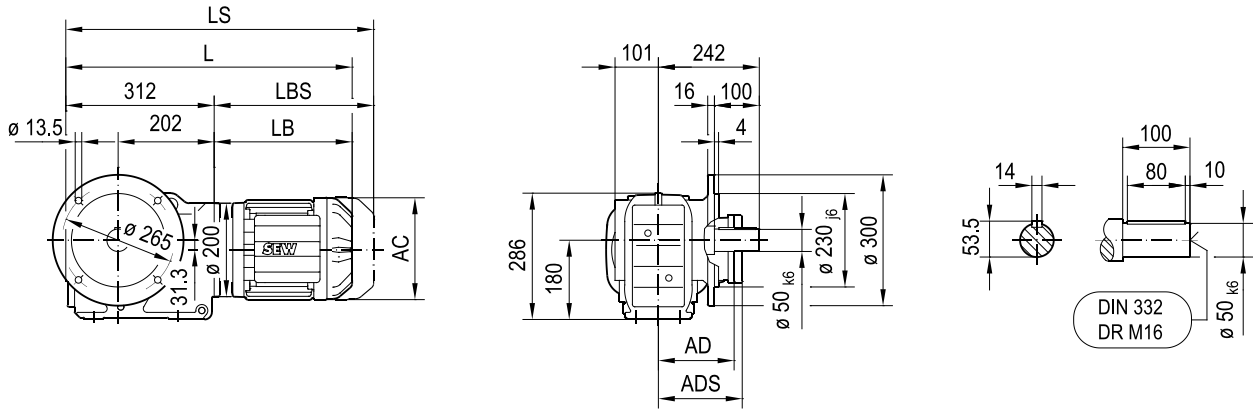

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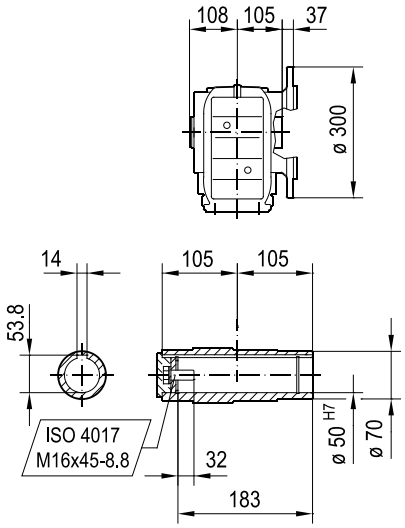

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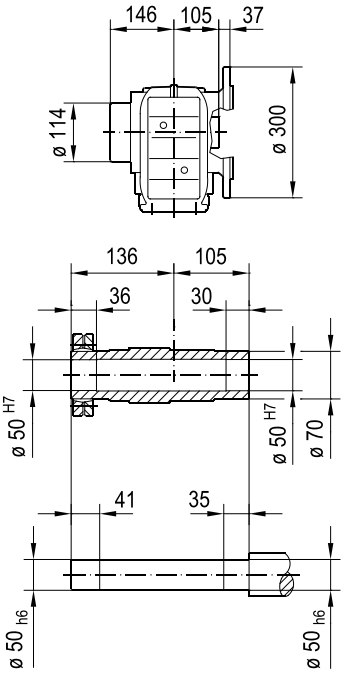

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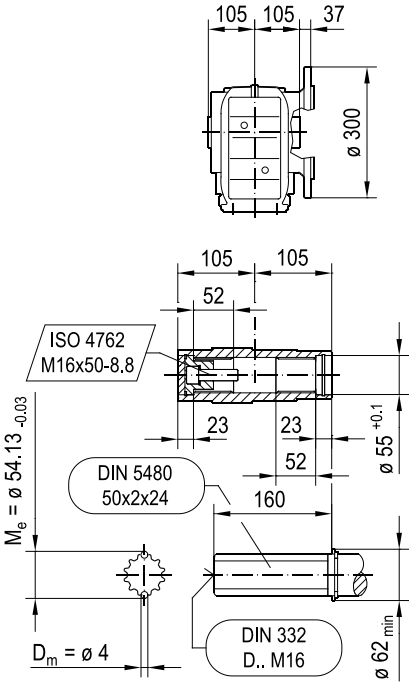

(→ 📖 7.3)	DRN													
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AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

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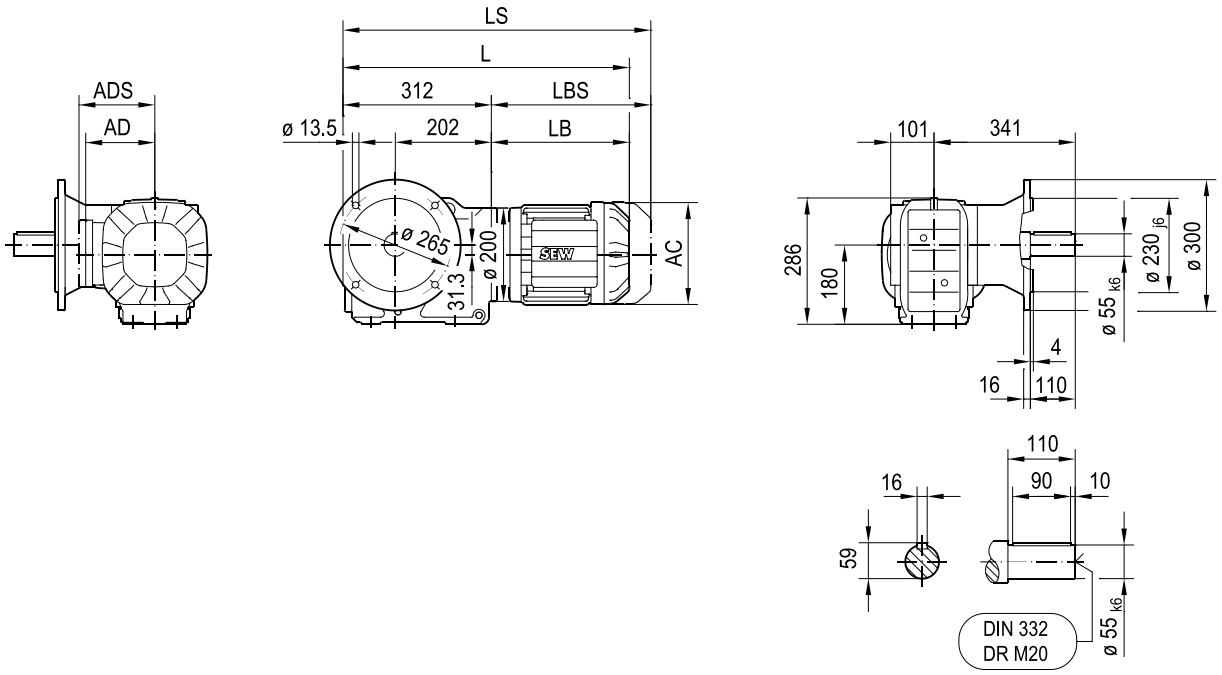

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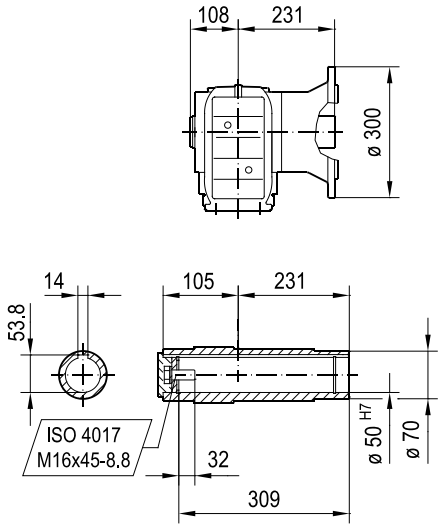

(→ 📖 7.3)	DRN													
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AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
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26883198/EN – 04/2022

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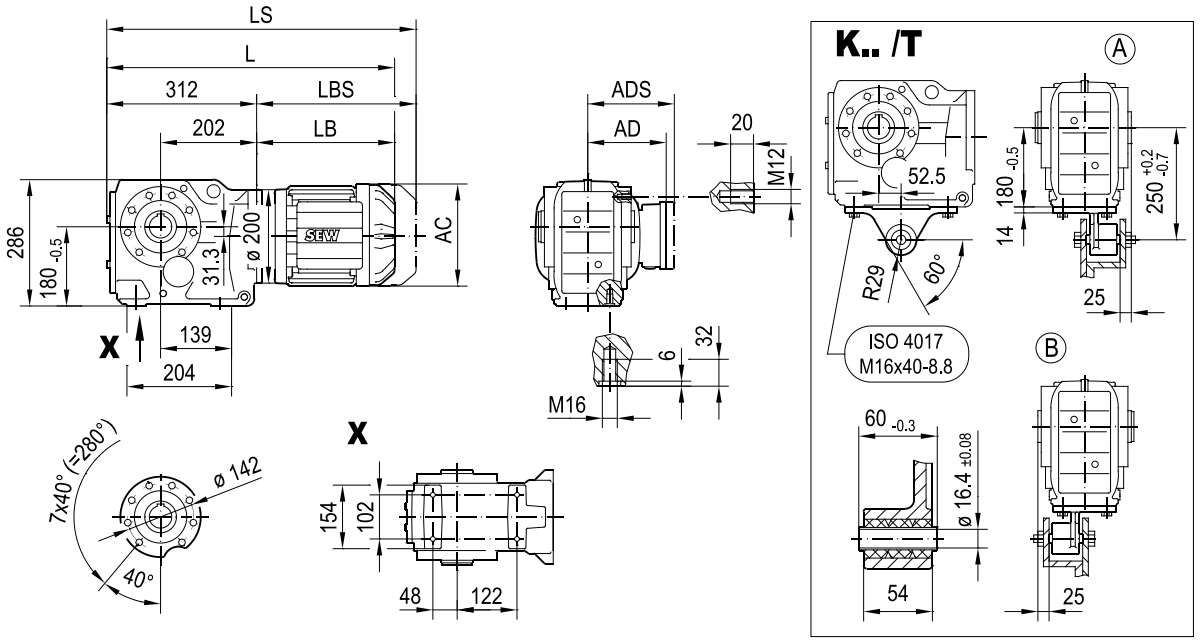

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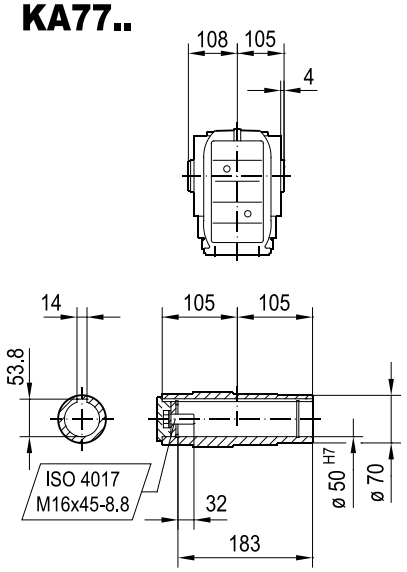

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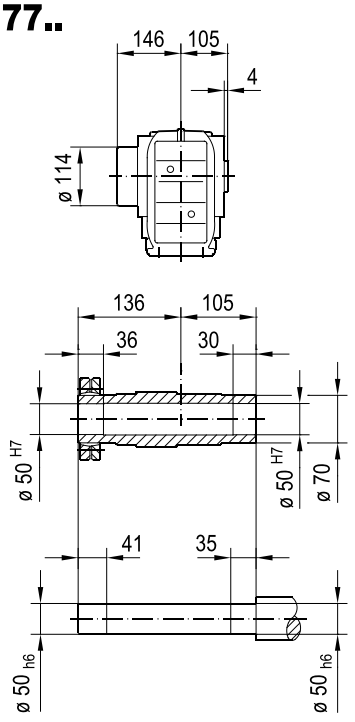

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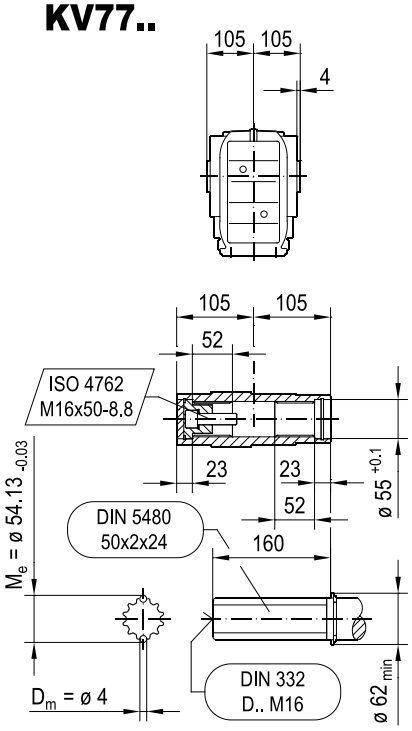

(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
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26883198/EN – 04/2022

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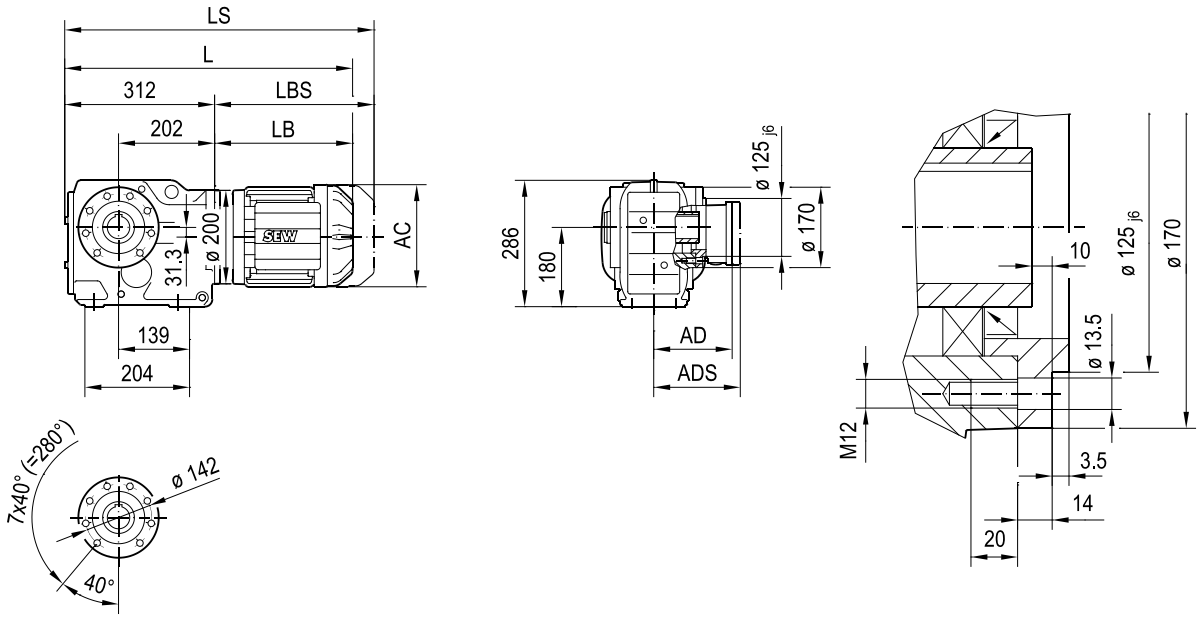

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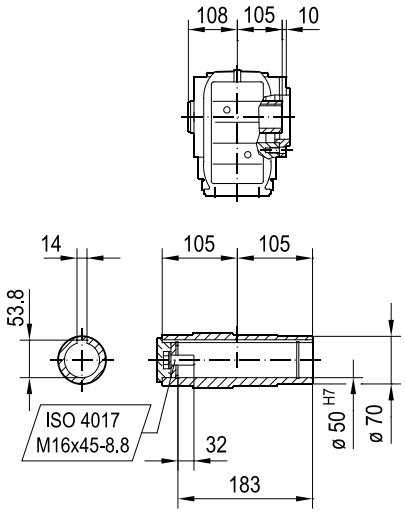

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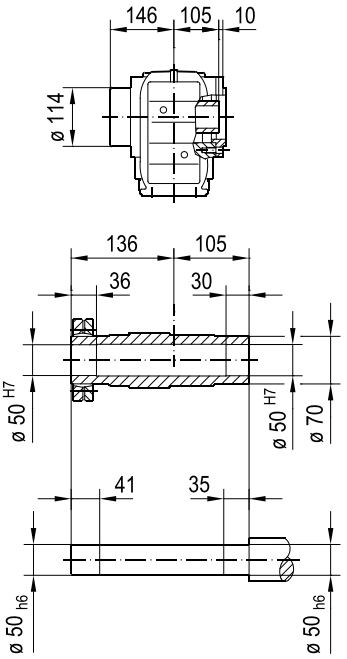

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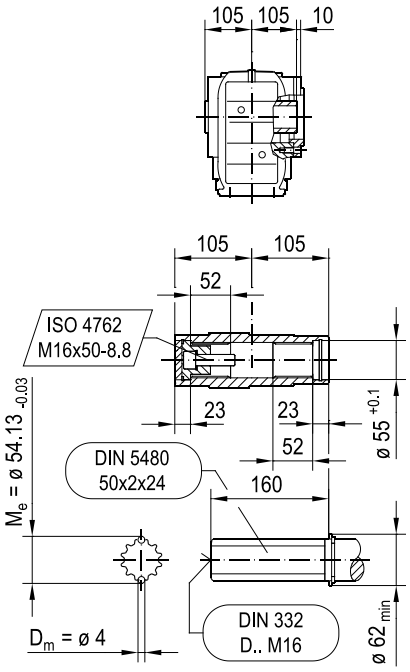

(→ 📖 7.3)	DRN													
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AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
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26883198/EN – 04/2022

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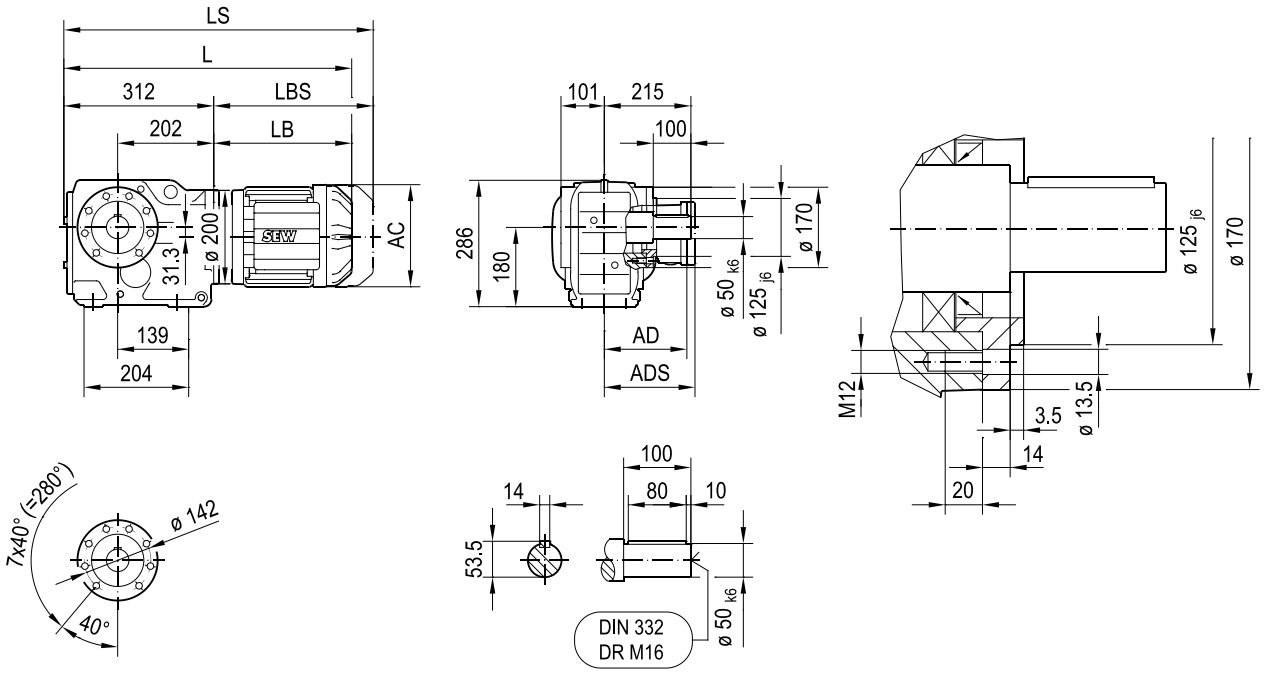

(→ 📖 7.3)	DRN													
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AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
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26883198/EN – 04/2022

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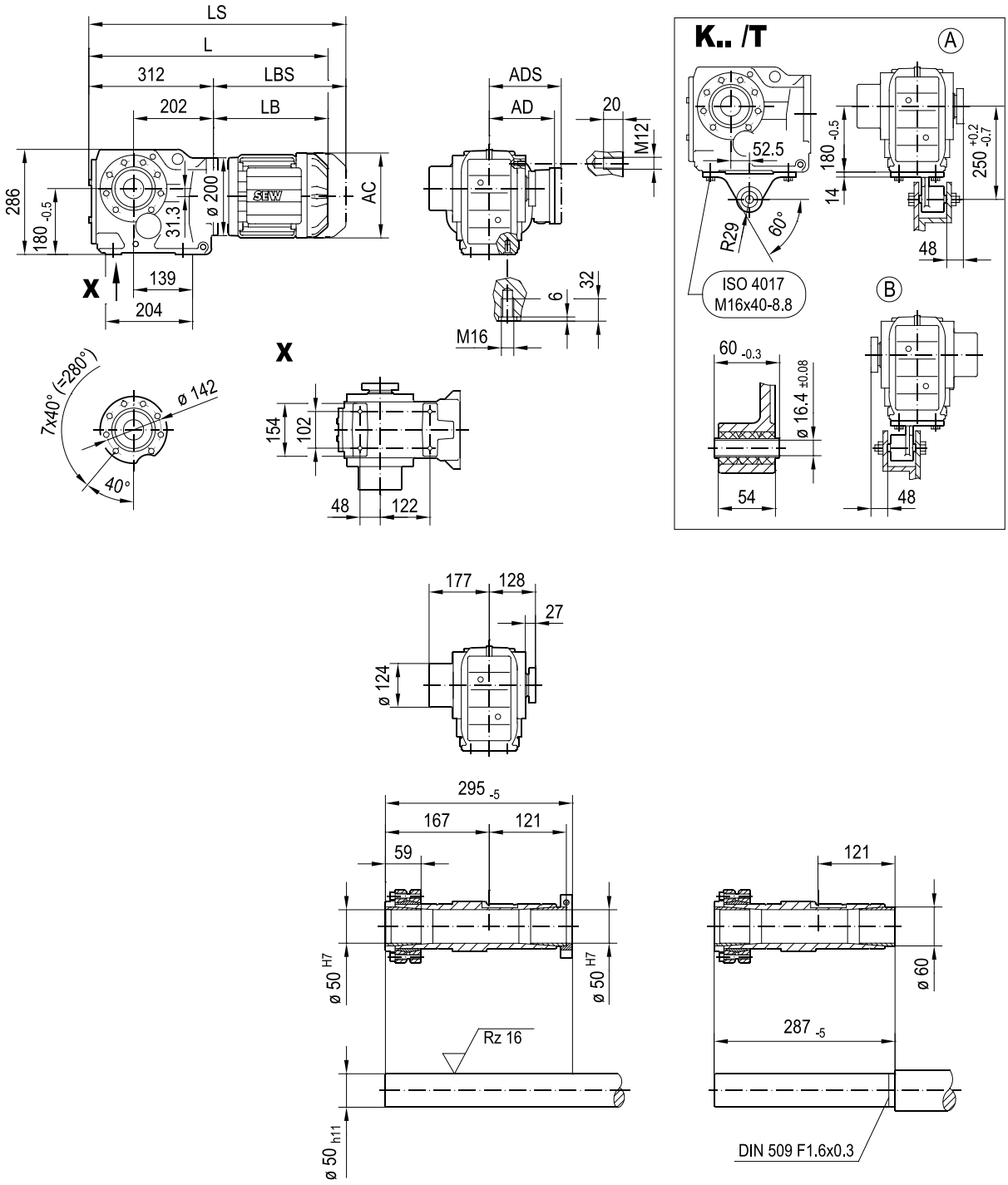

(→ 📖 7.3)	DRN													
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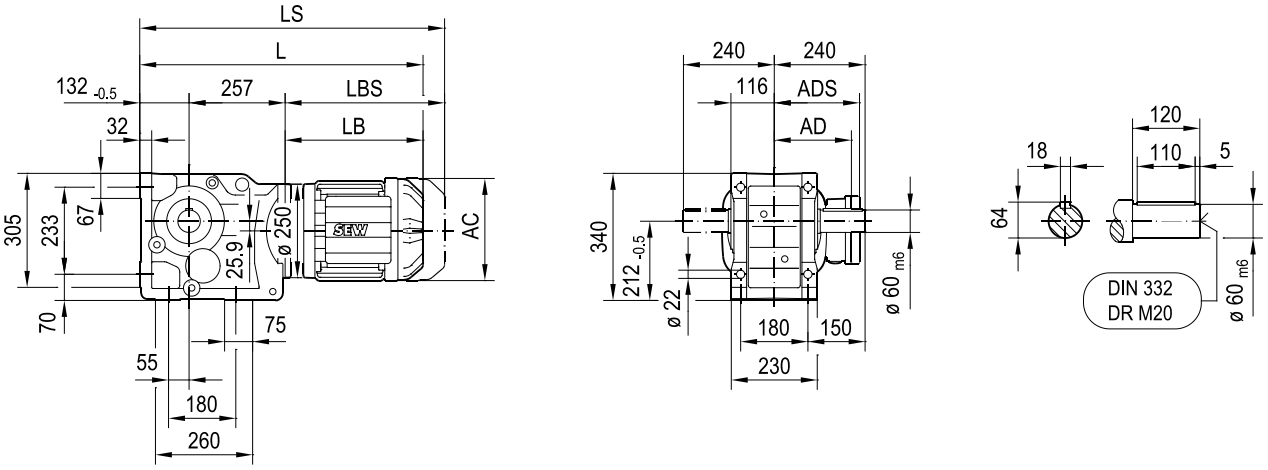
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	504	524	535	552	580	582	614	610	660	691	741	759	785	851
LS	572	592	616	633	661	675	707	704	754	803	853	897	922	1040
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

K87..

33 062 00 14



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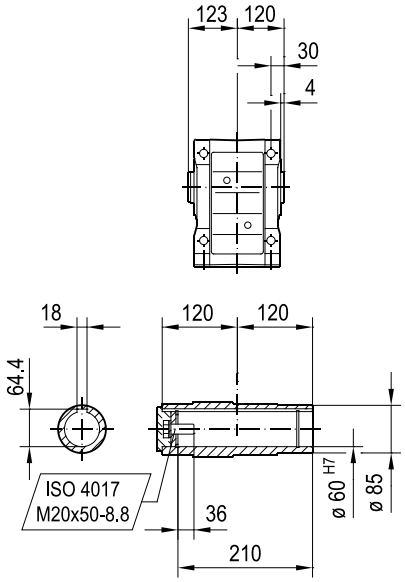

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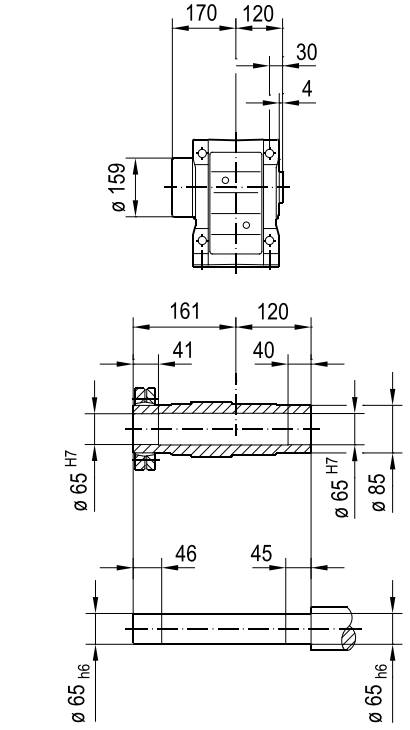

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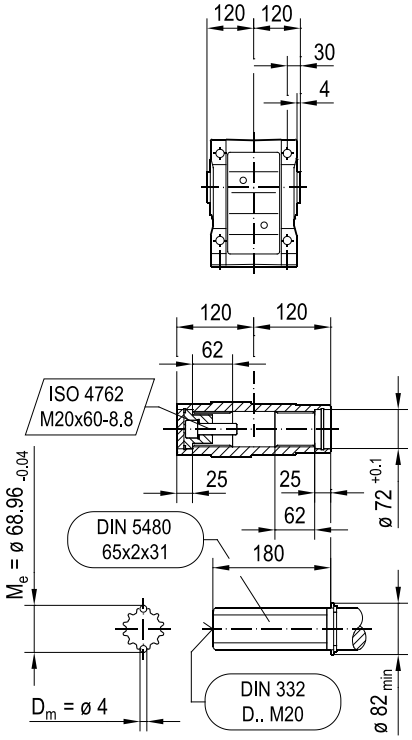

(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	607	652	654	686	682	732	763	813	831	857	923	946	1056
LS	688	733	747	779	776	826	875	925	969	994	1112	1135	1261
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

33 063 00 14

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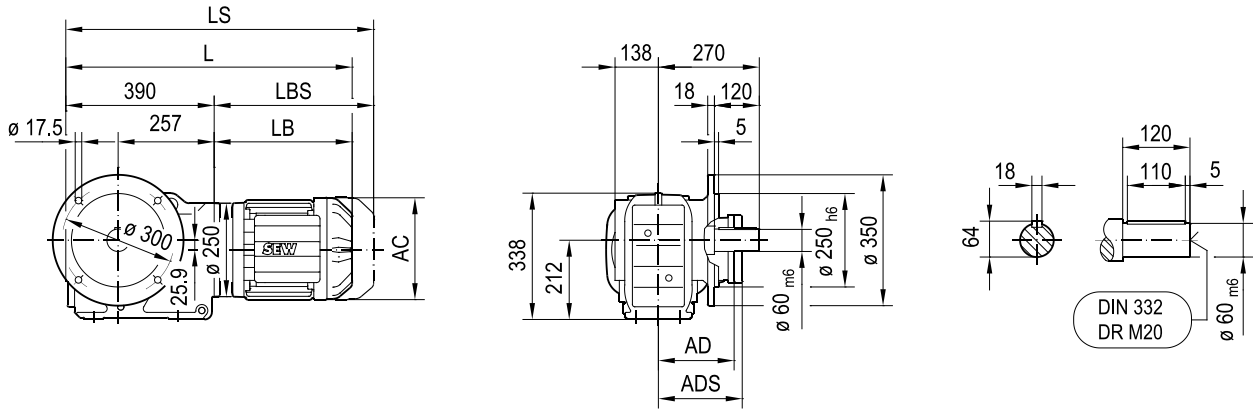

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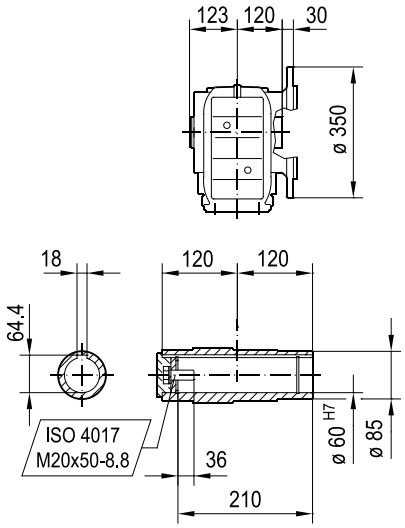

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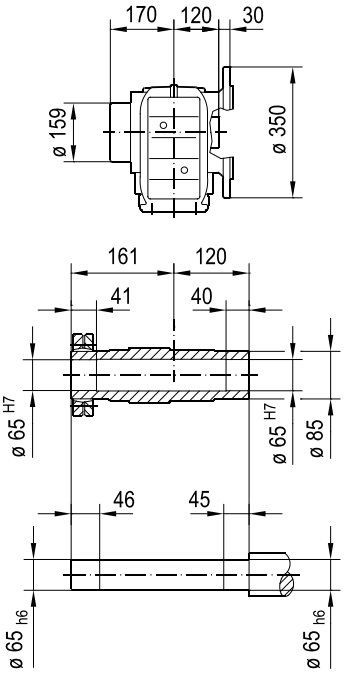

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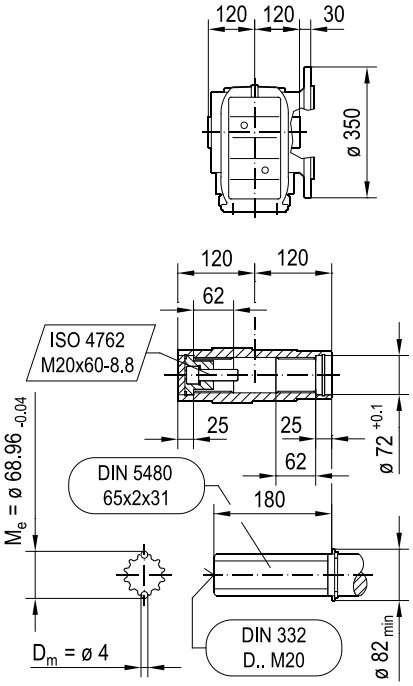
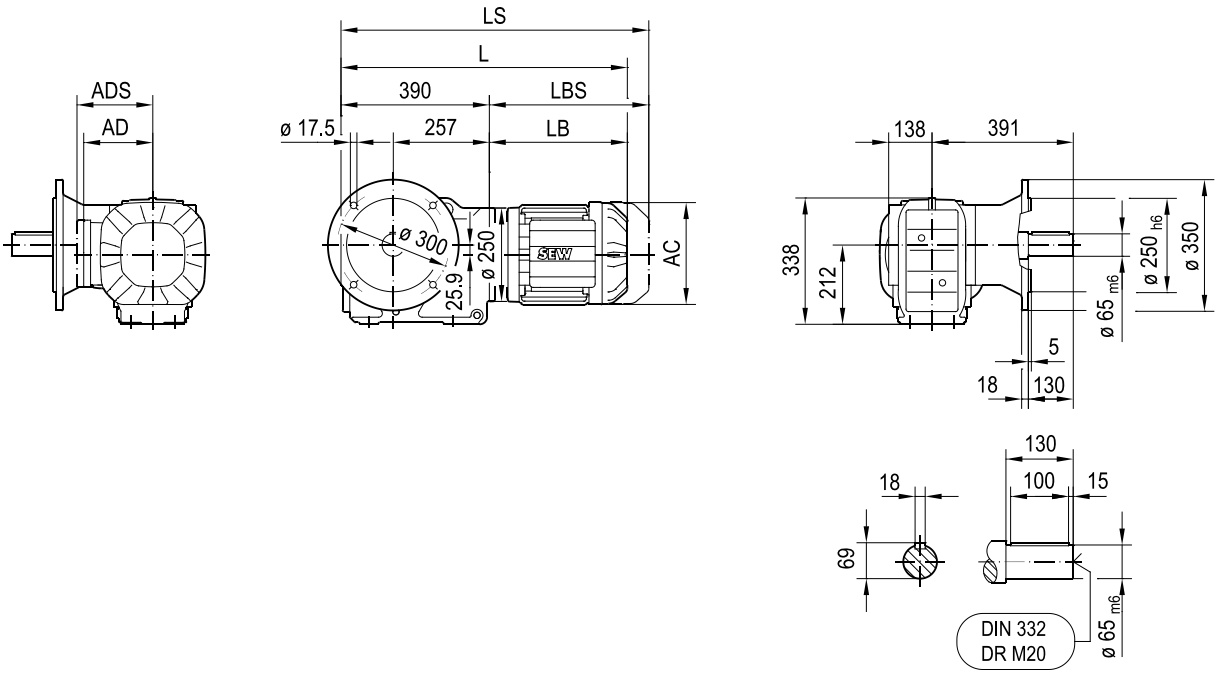


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

KM87..

33 272 01 17



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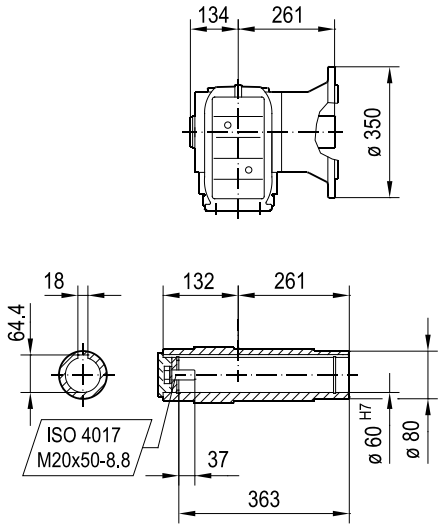

(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

33 064 00 14

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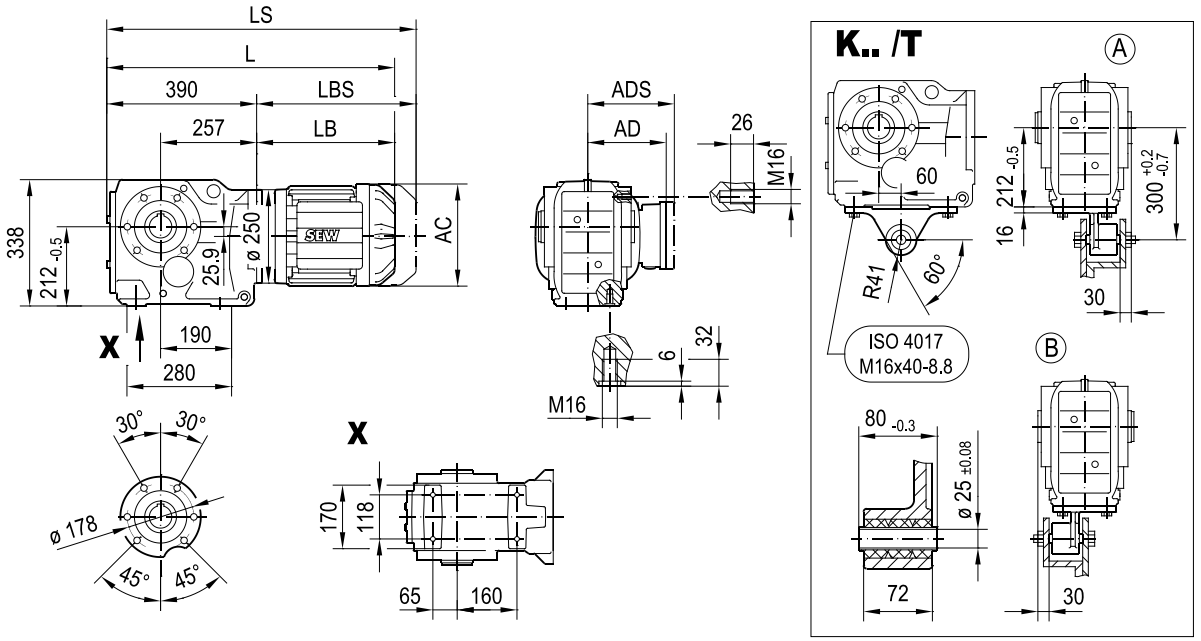

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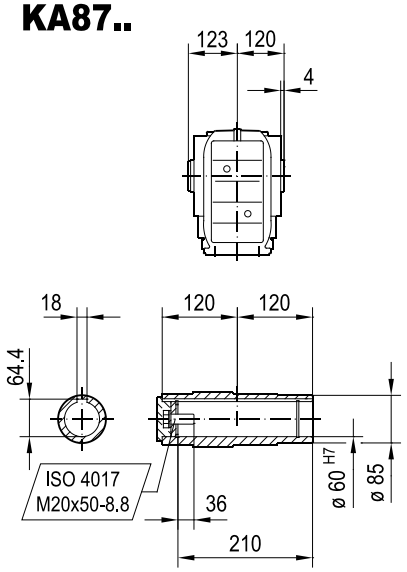

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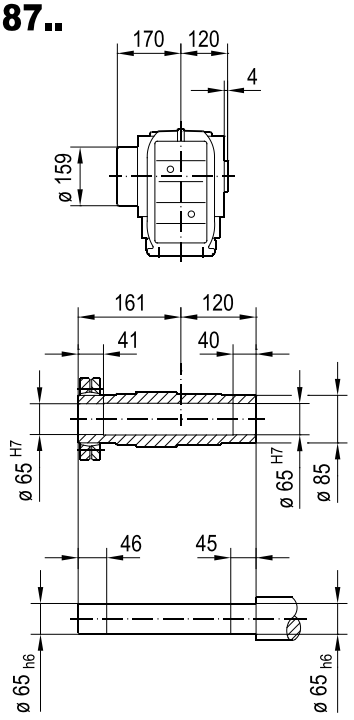

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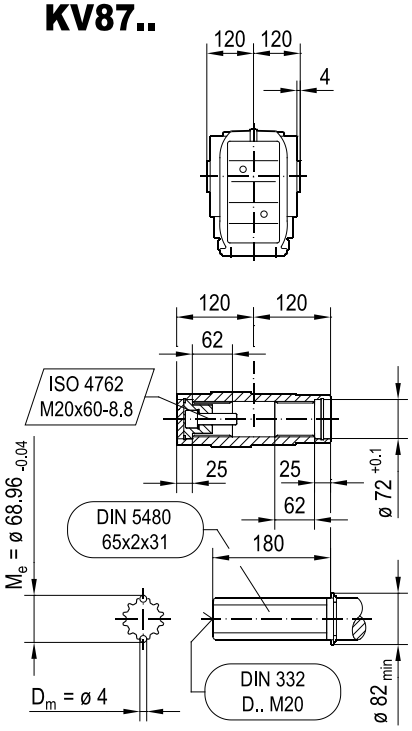
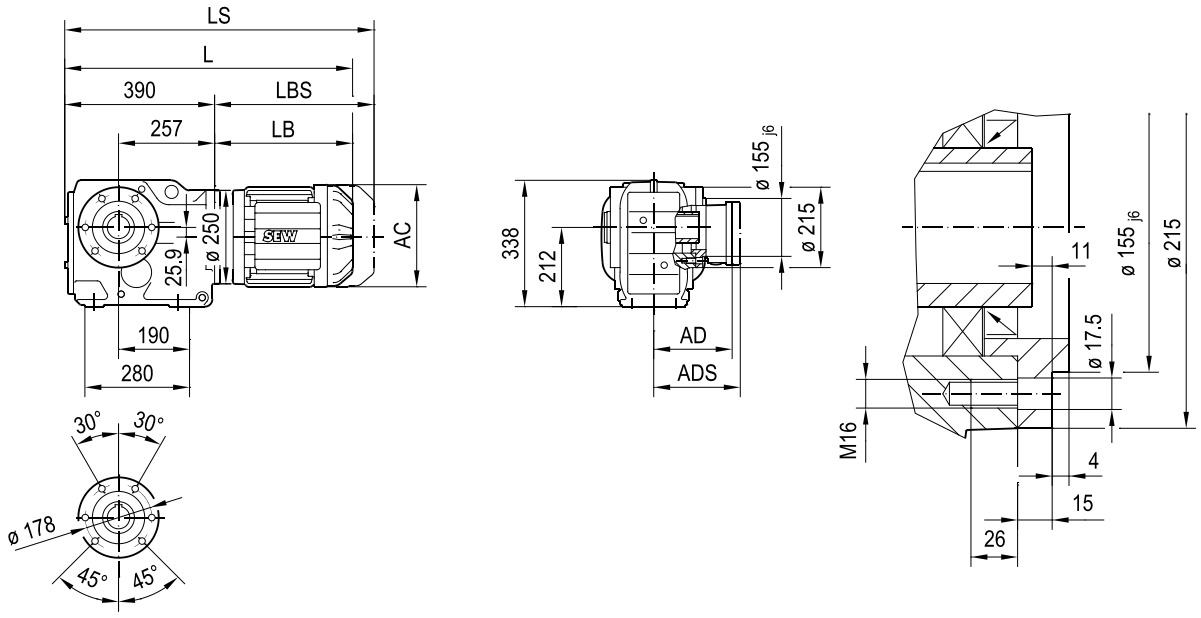


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

33 065 00 14

KAZ87..



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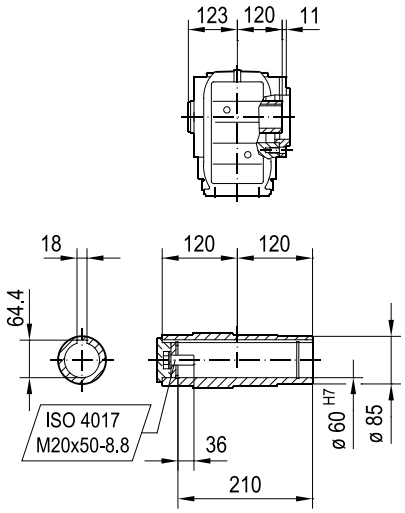

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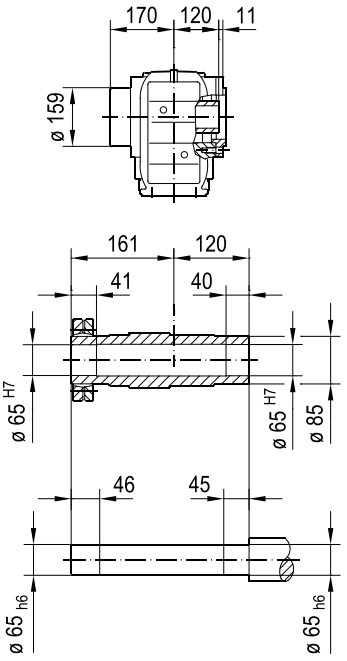

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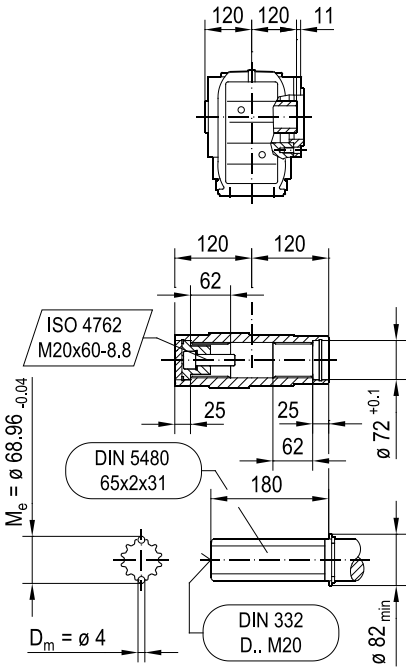
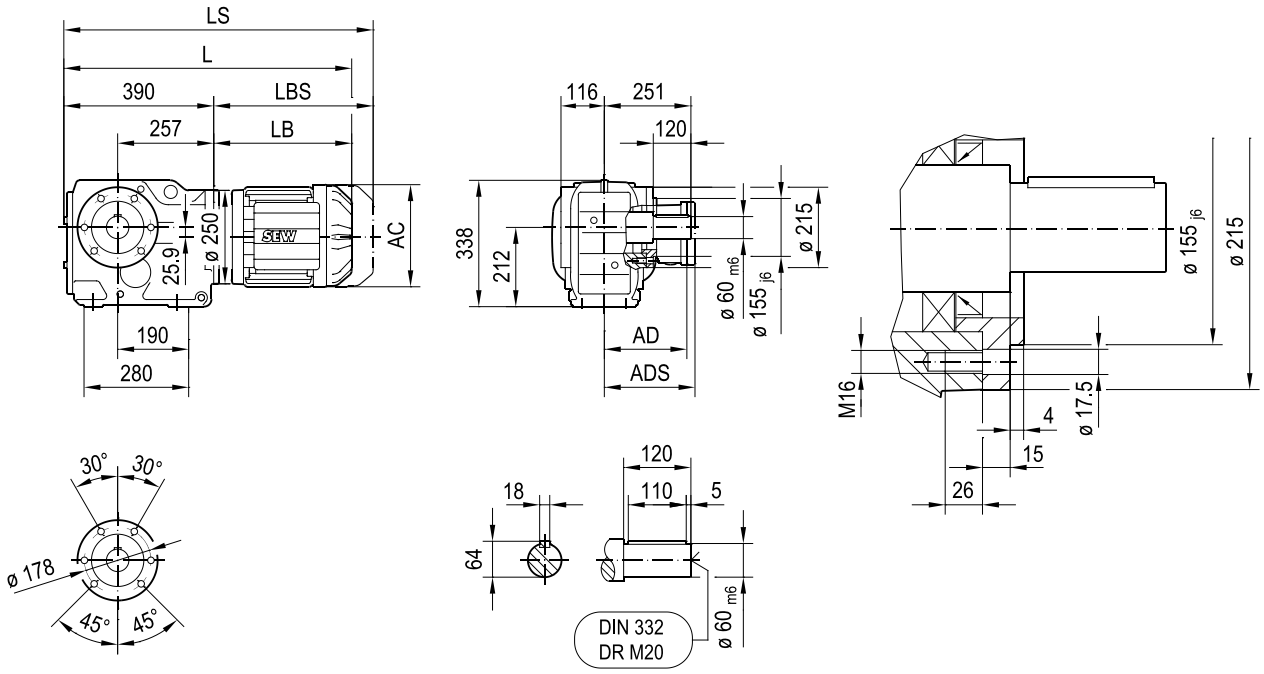


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

KZ87..

33 237 00 15

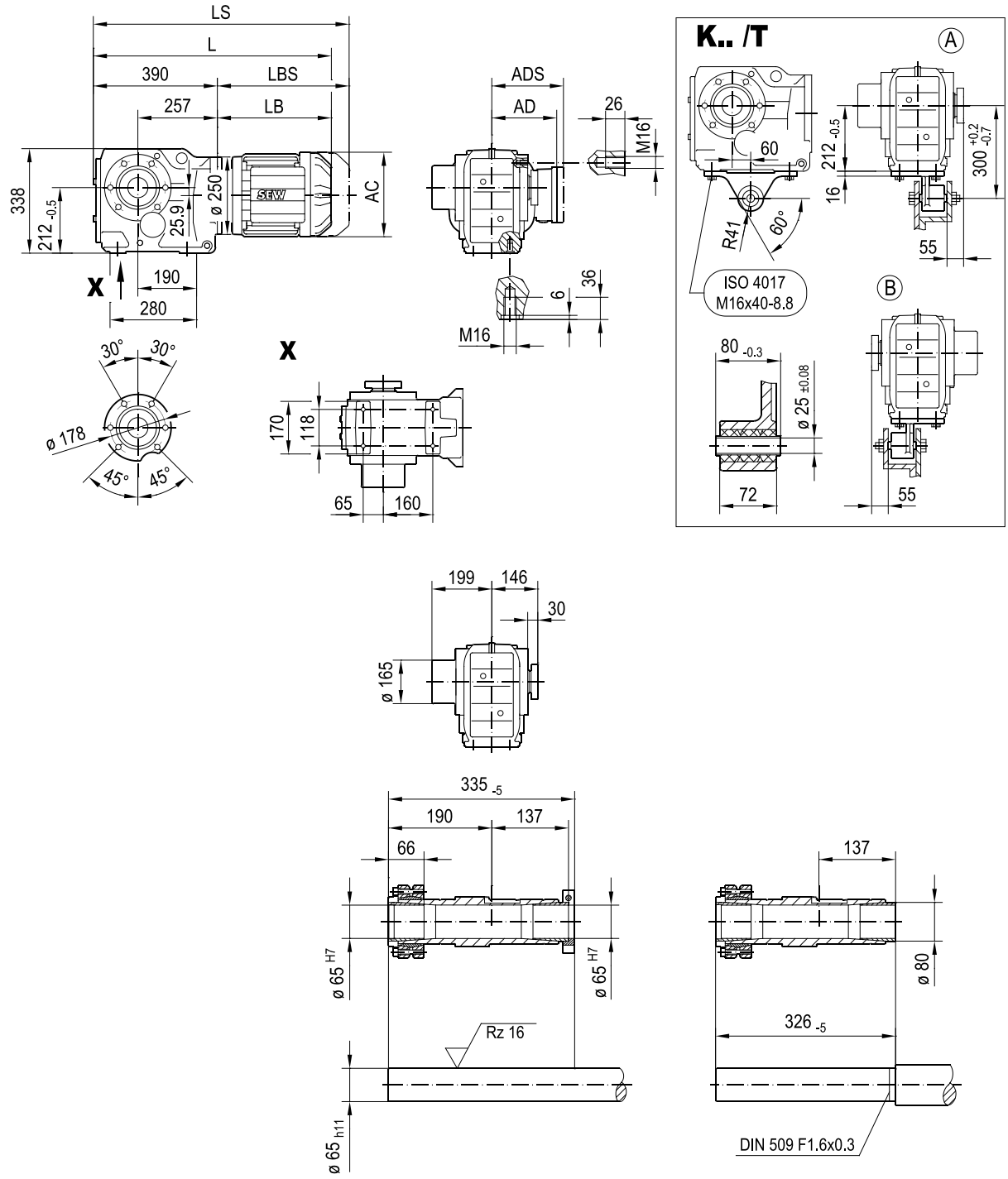


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

KT87..

33 066 01 14

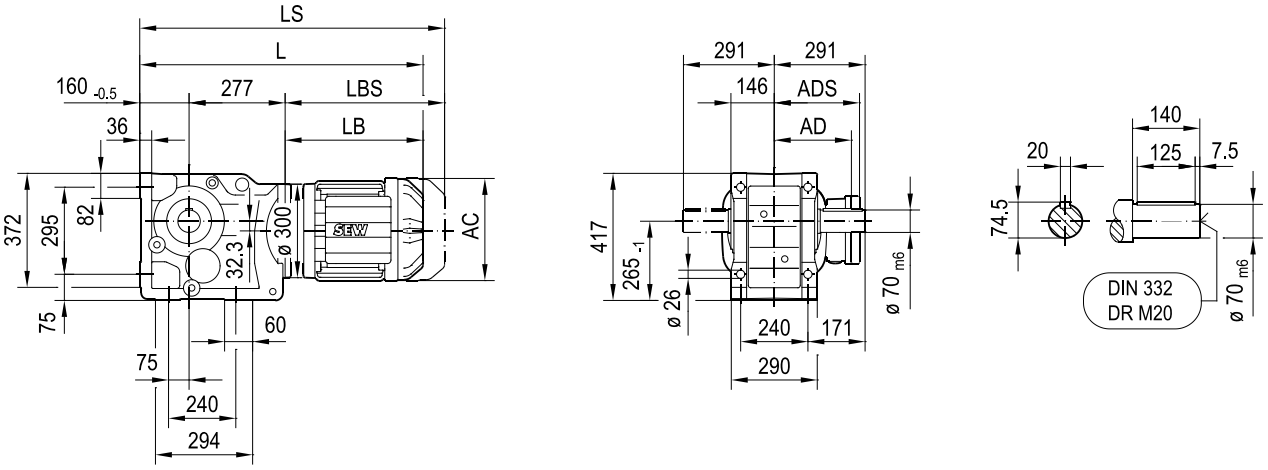


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	608	653	655	687	683	733	764	814	832	858	924	947	1057
LS	689	734	748	780	777	827	876	926	970	995	1113	1136	1262
LB	218	263	265	297	293	343	374	424	442	468	534	557	667
LBS	299	344	358	390	387	437	486	536	580	605	723	746	872

26883198/EN – 04/2022

33 067 00 14

K97..



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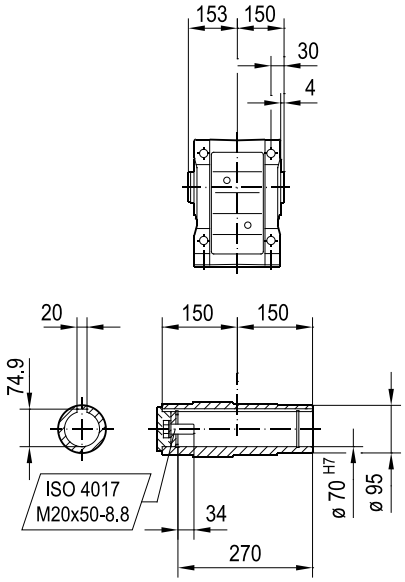

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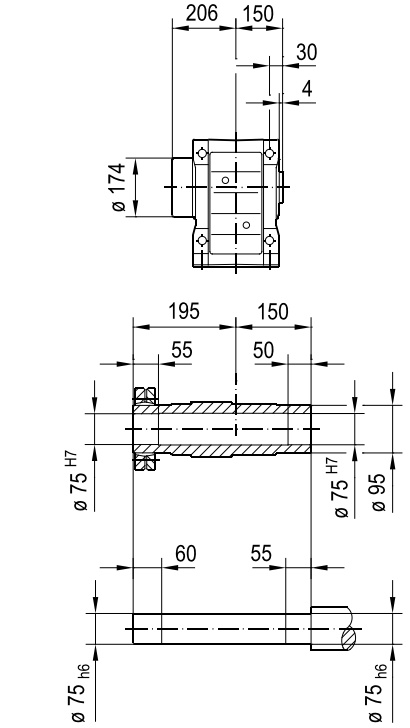

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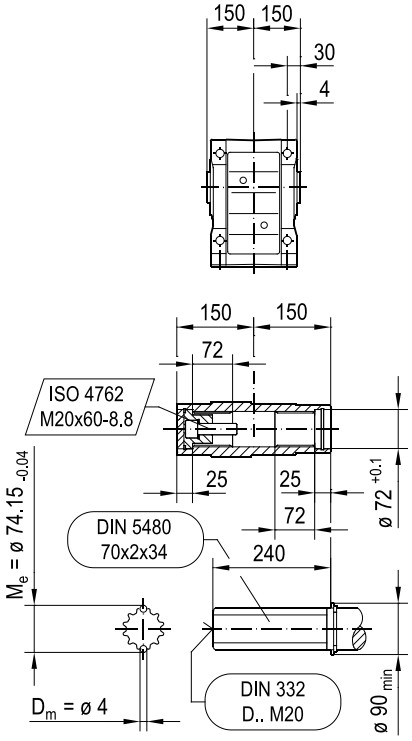
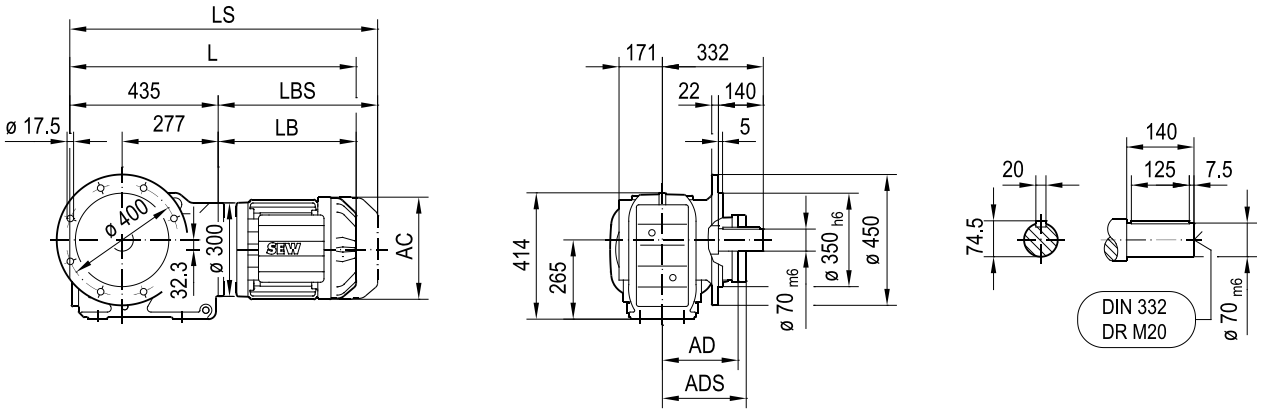


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	697	729	725	775	806	856	874	900	966	989	1099	1073
LS	790	822	819	869	918	968	1012	1037	1155	1178	1304	1278
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

KF97..

33 068 00 14



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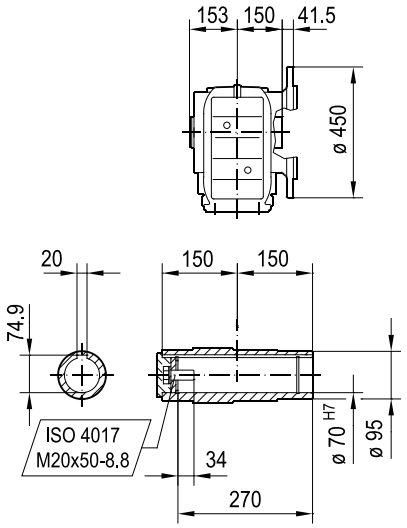

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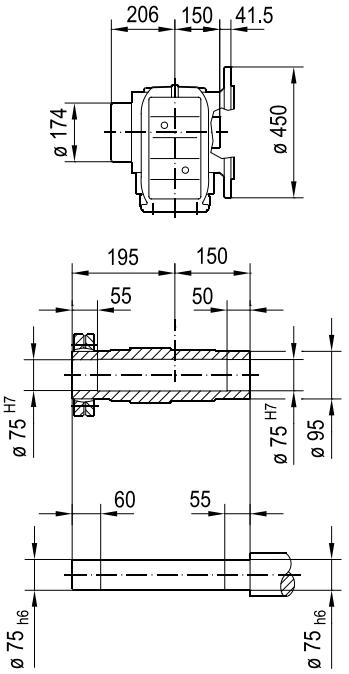

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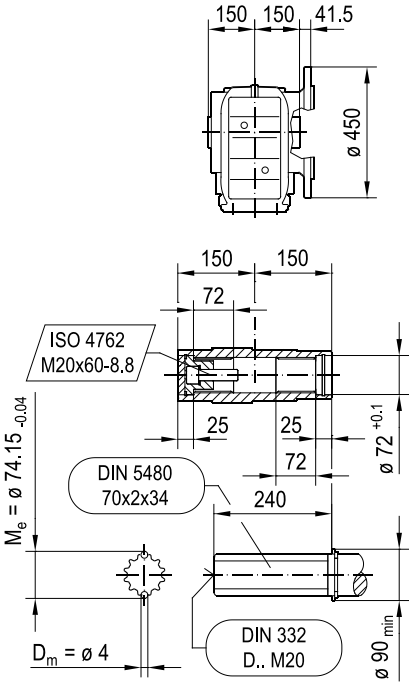
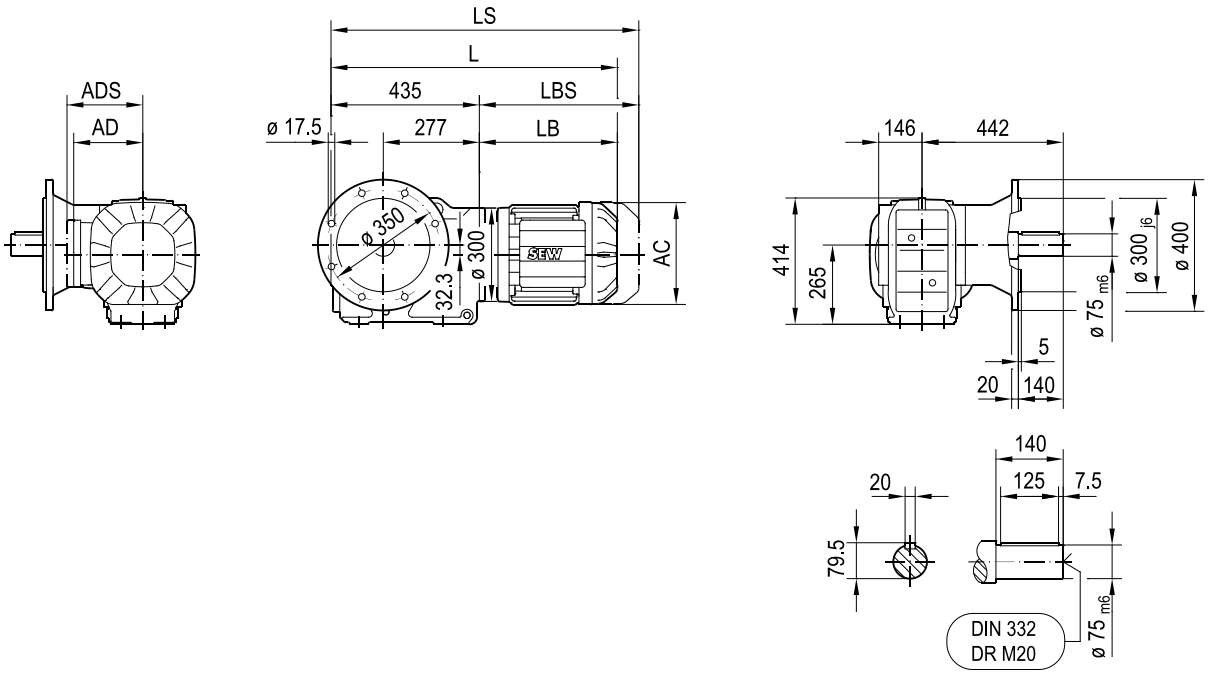


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

KM97..

33 273 00 17



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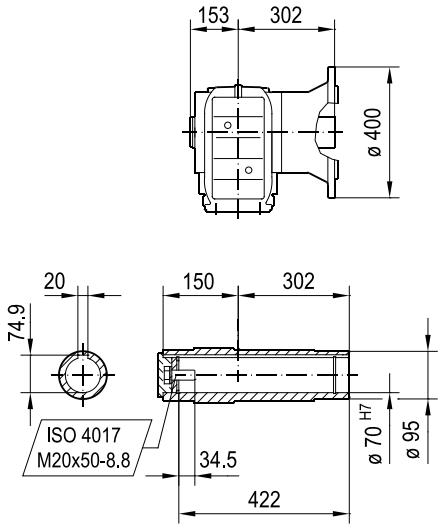
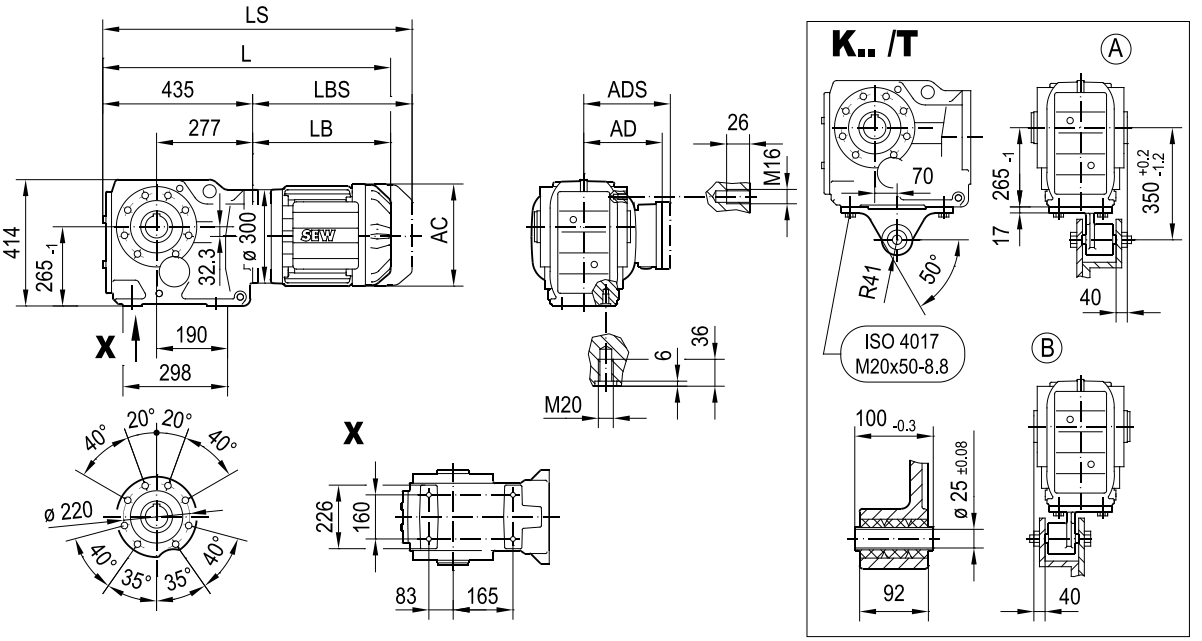


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

33 069 00 14

KA97..



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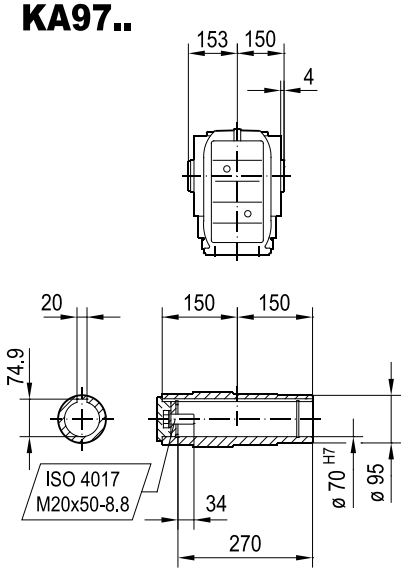

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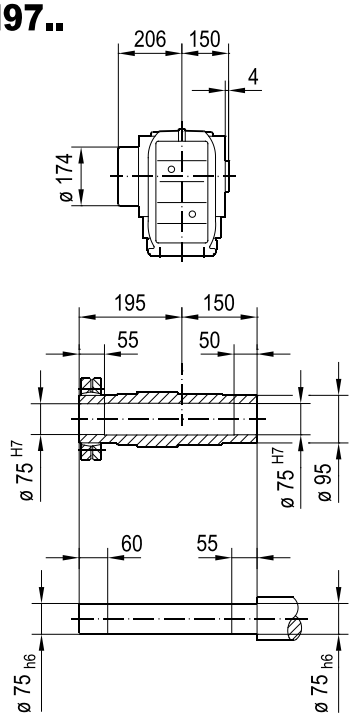

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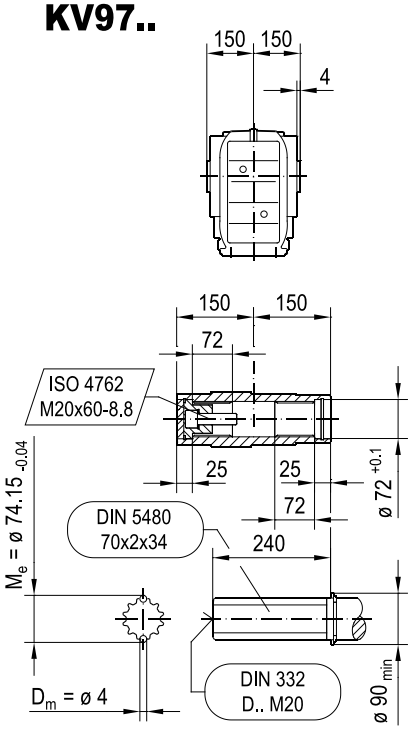

(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

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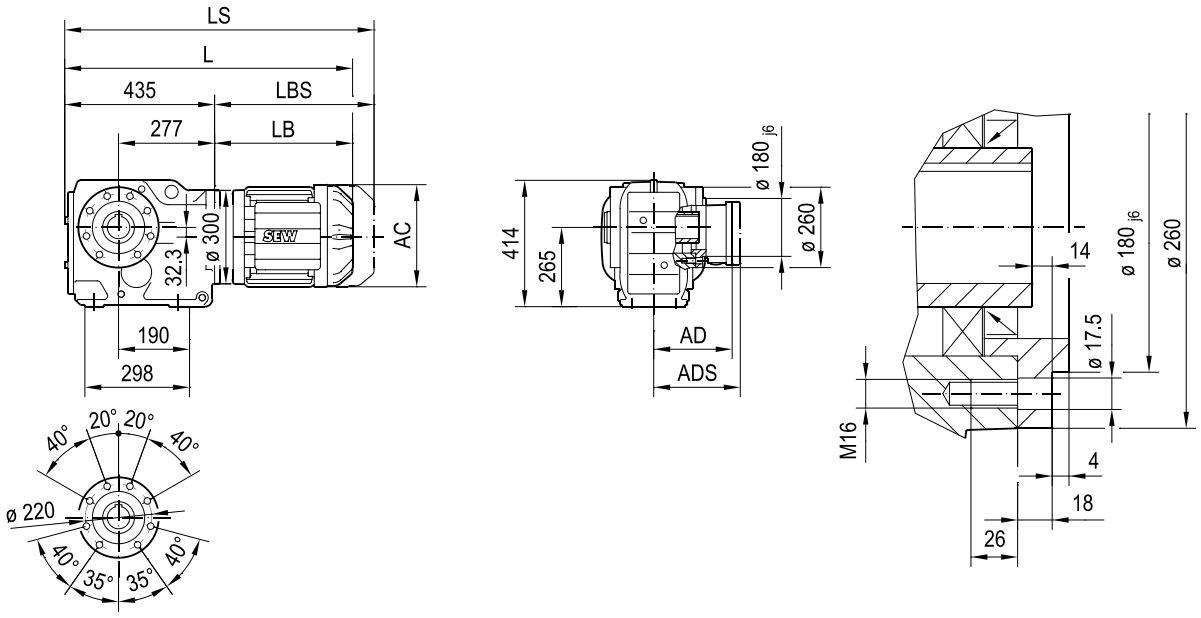
KAZ97..



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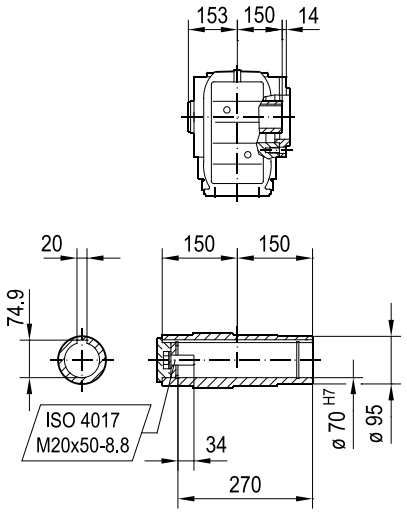

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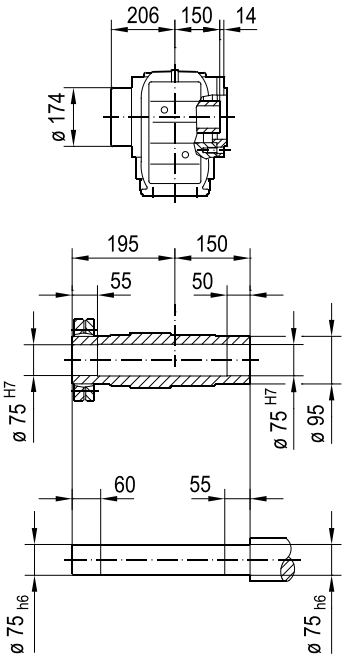

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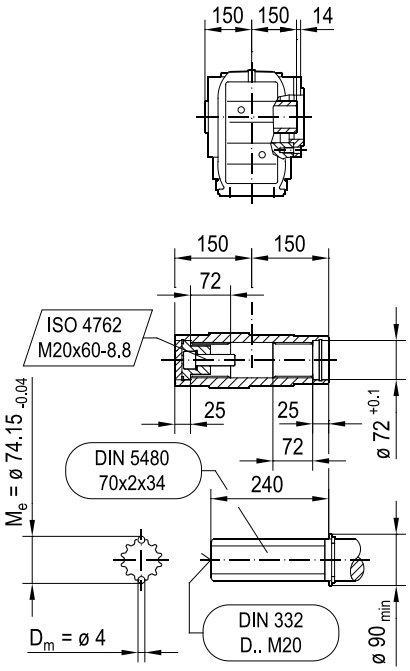
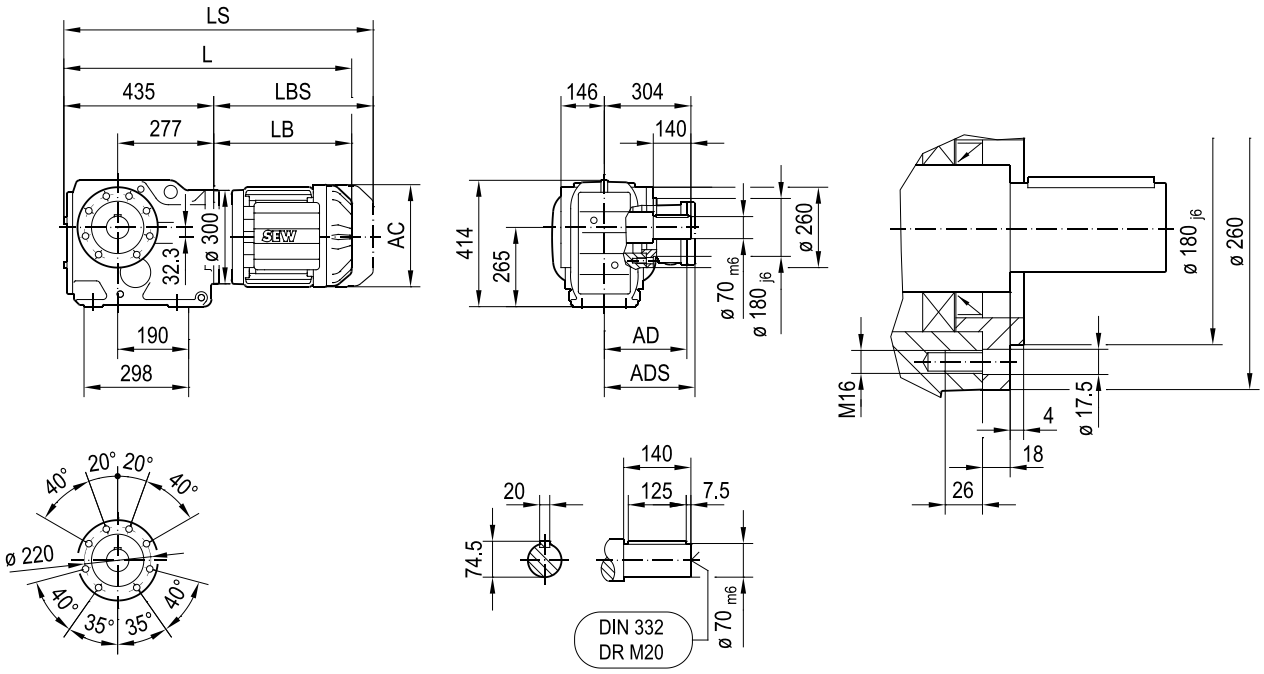


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

KZ97..

33 238 00 15

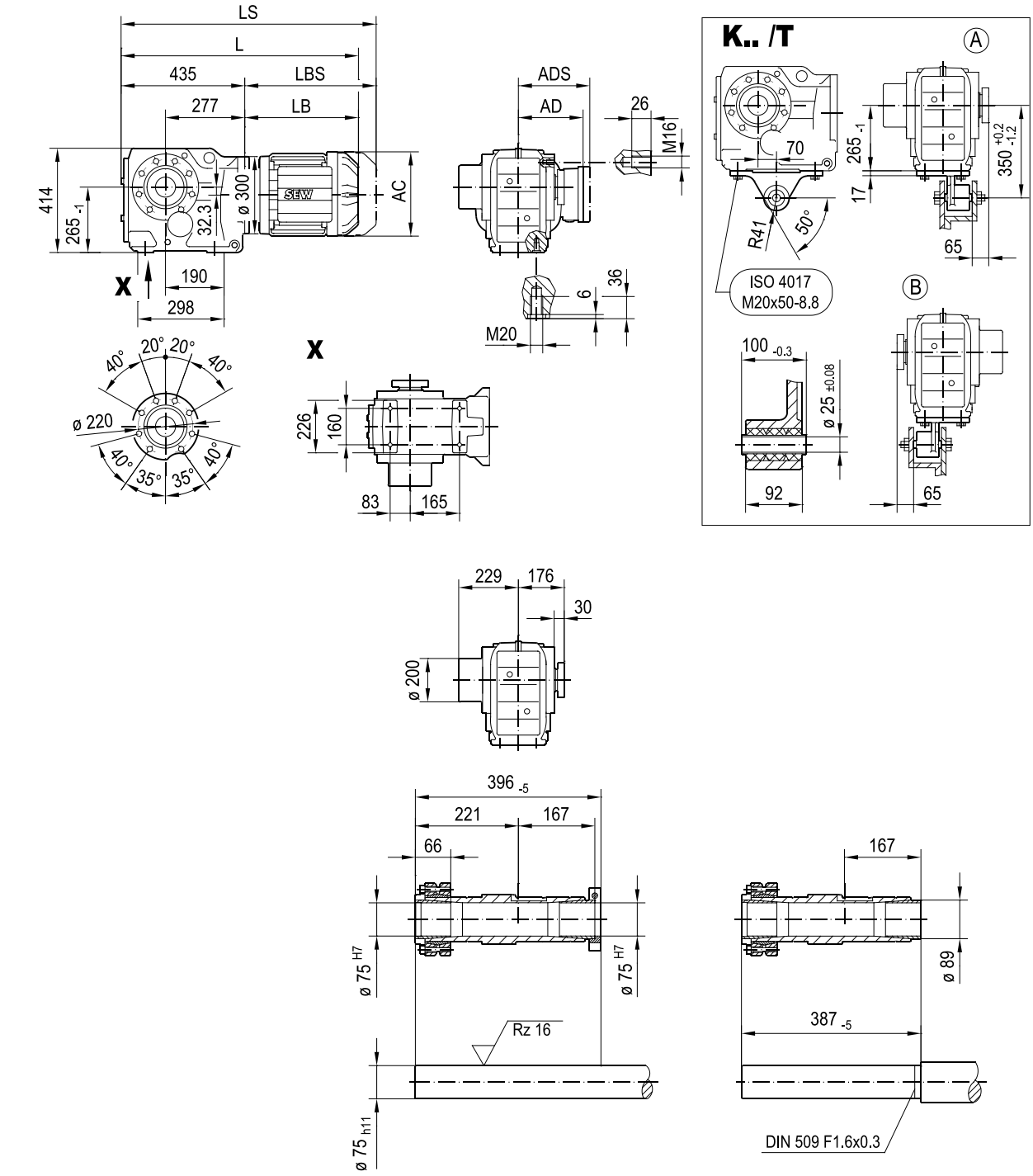


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

KT97..

33 071 01 14

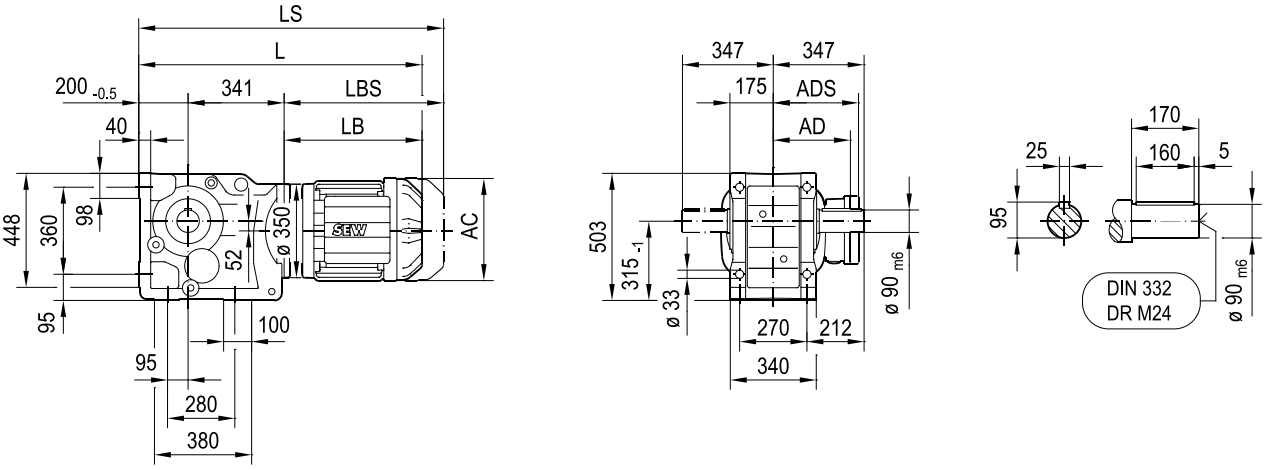


(→ 📖 7.3)	DRN											
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	179	179	197	197	221	221	261	261	314	357	394	434
AD	140	140	157	157	170	170	228	228	253	268	283	305
ADS	150	150	158	158	172	172	228	228	253	268	283	305
L	695	727	723	773	804	854	872	898	964	987	1097	1071
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302	1276
LB	260	292	288	338	369	419	437	463	529	552	662	636
LBS	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

33 072 00 14

K107..



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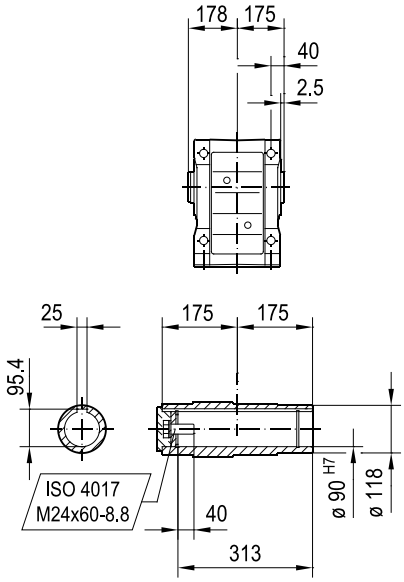

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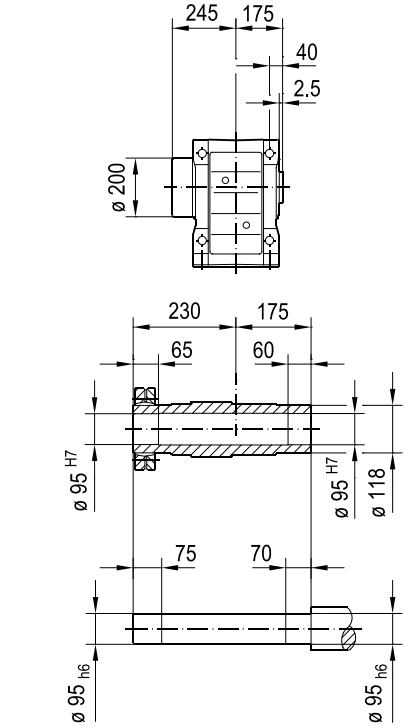

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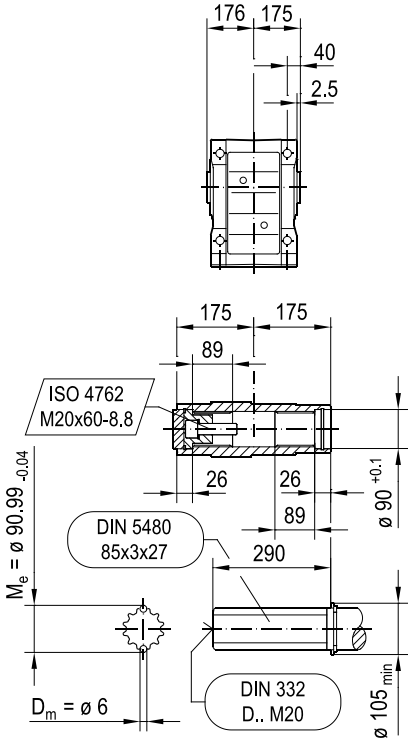
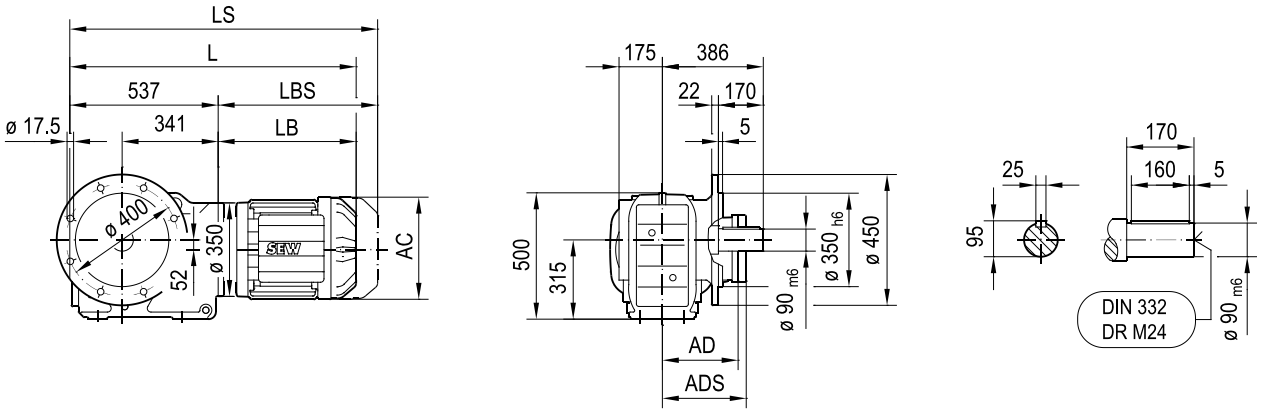


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	823	873	904	954	972	998	1064	1087	1197	1171	1308
LS	917	967	1016	1066	1110	1135	1253	1276	1402	1376	1548
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

KF107..

33 073 00 14



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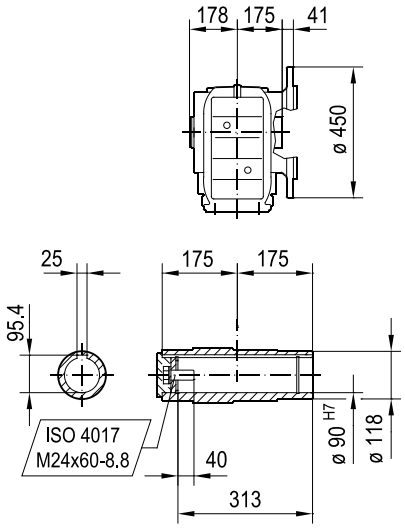

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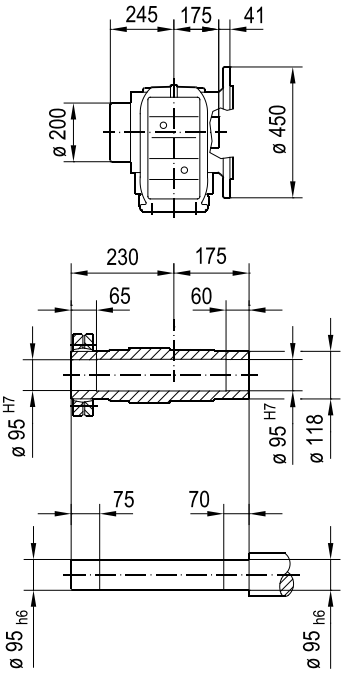

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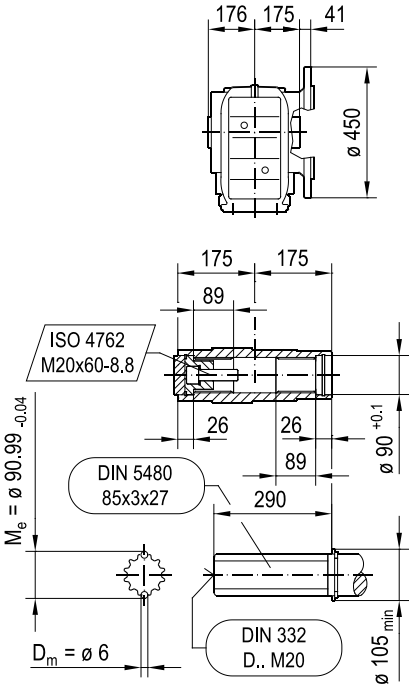

(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

KM107..

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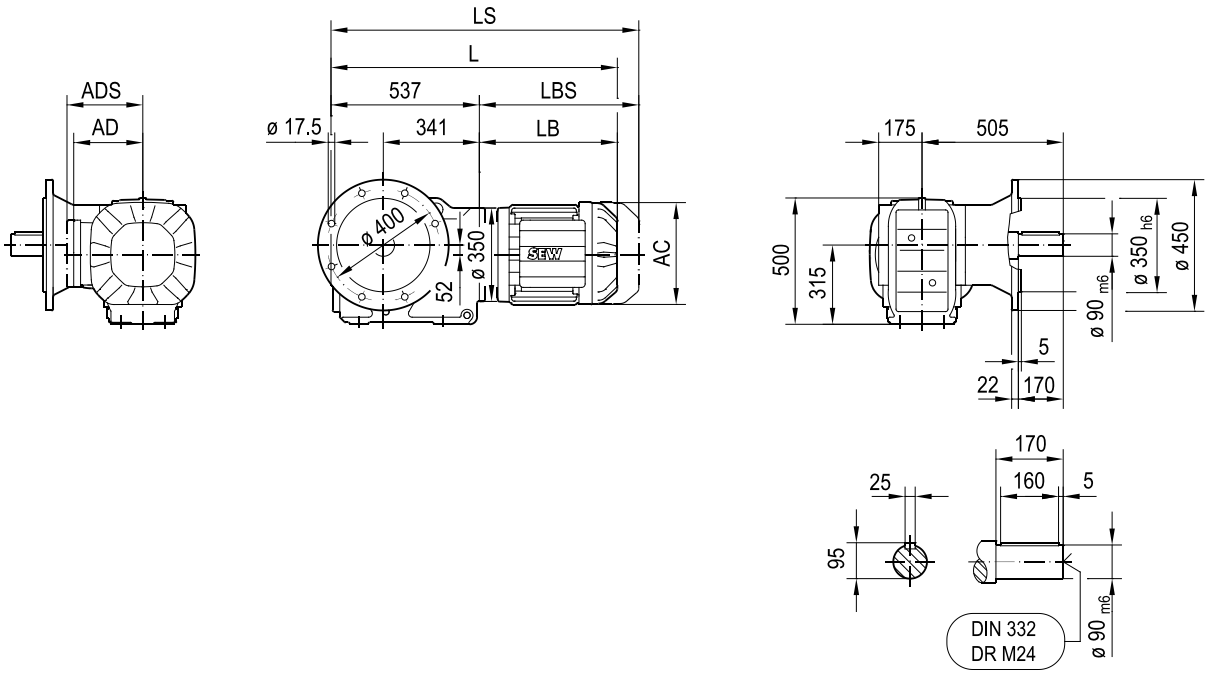

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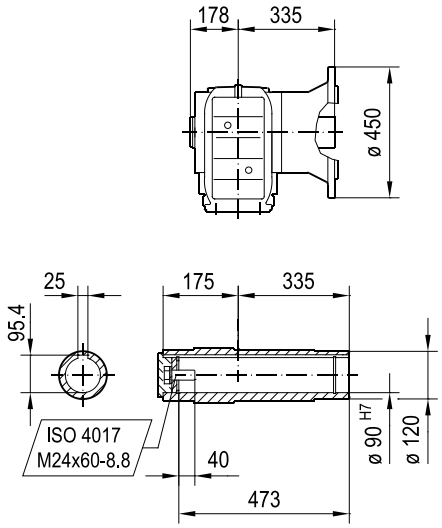
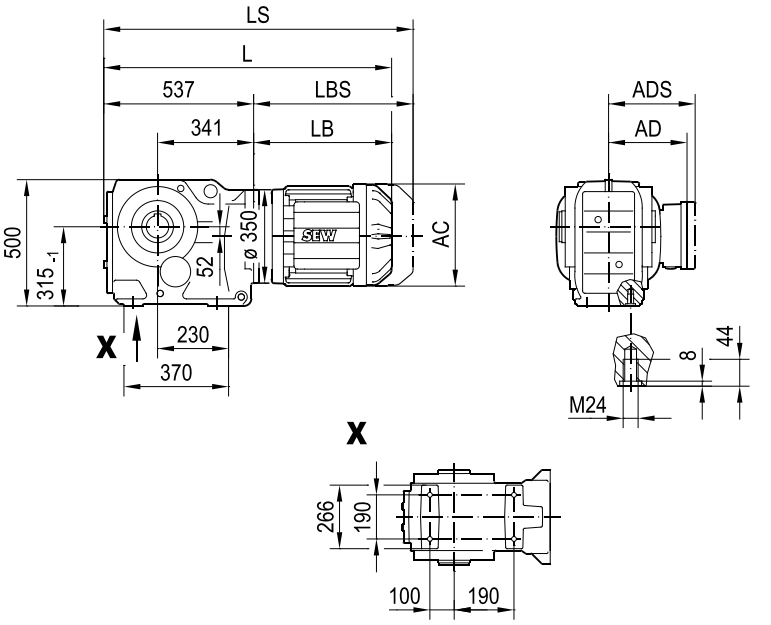


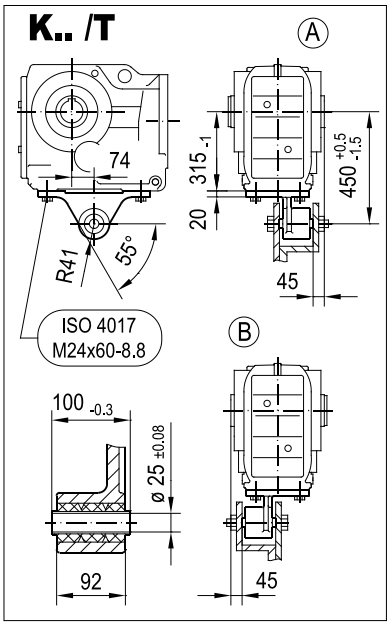
(→ 📖 7.3)	DRN										
	100LS	**100L/LM**	**112M**	**132S**	**132M**	**132L**	**160..**	**180..**	**200L**	**225..**	**250M**
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

33 074 00 14

KA107..





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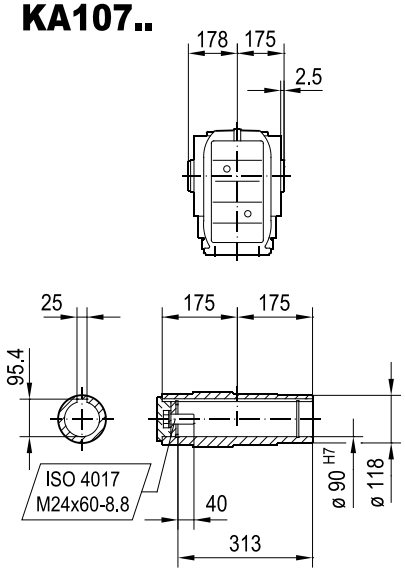

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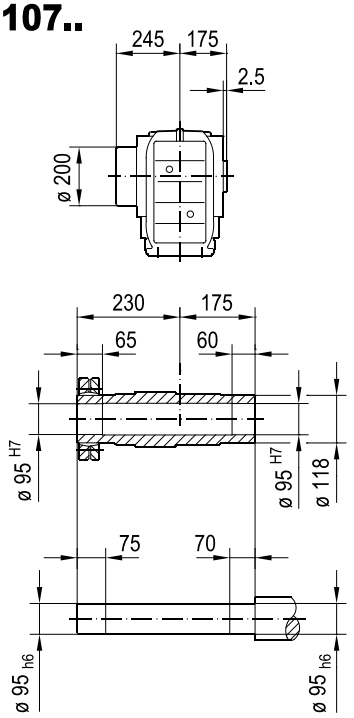

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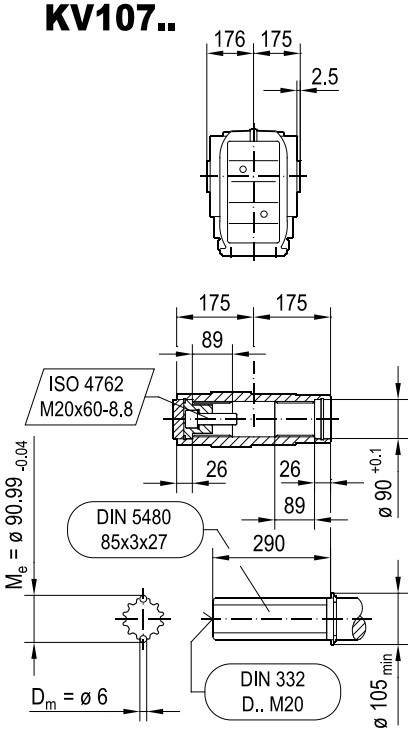

(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

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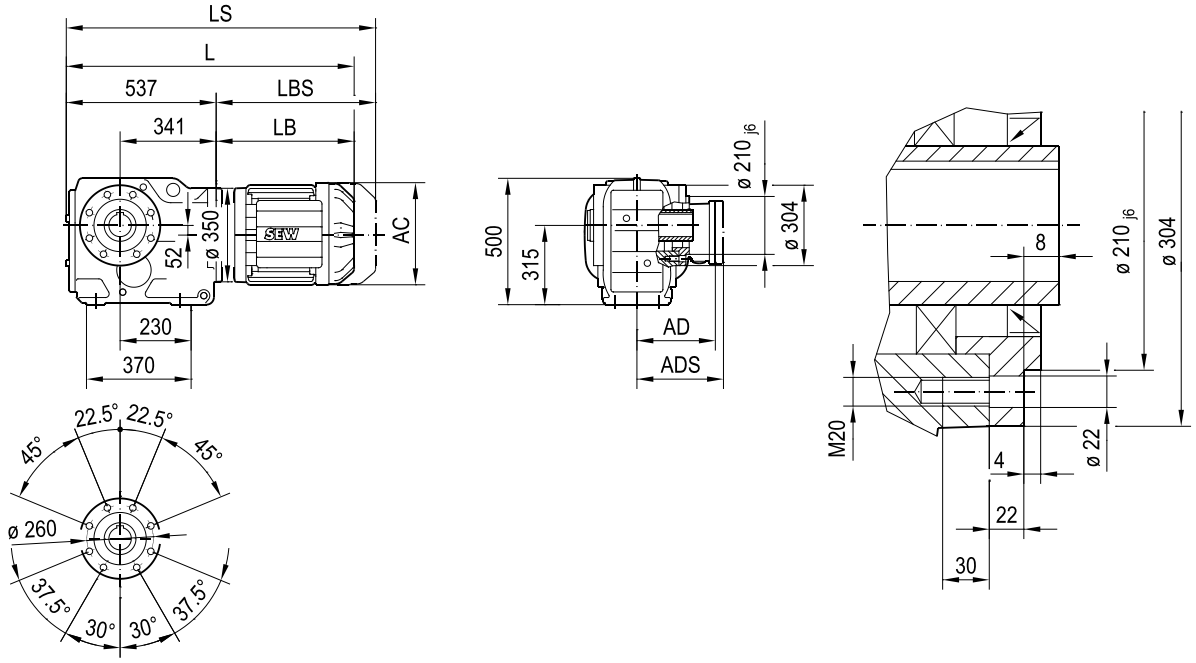
KAZ107..



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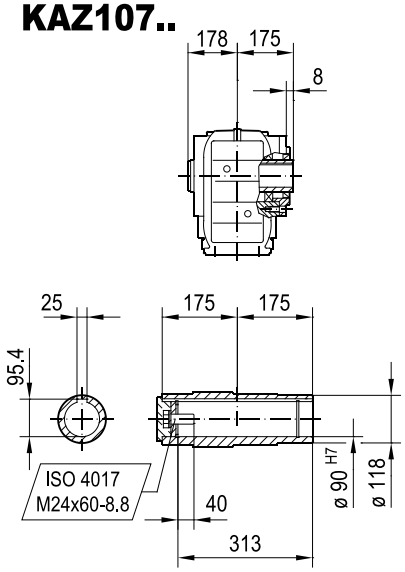

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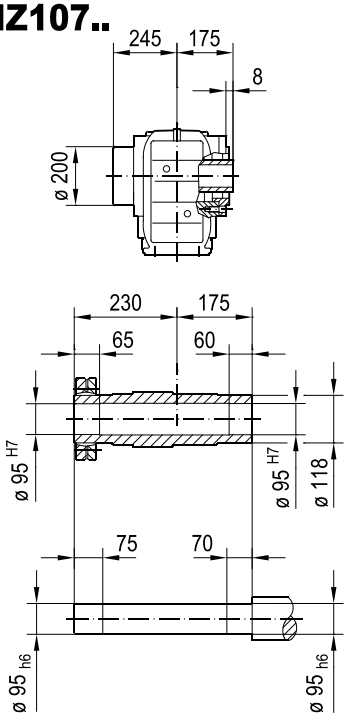

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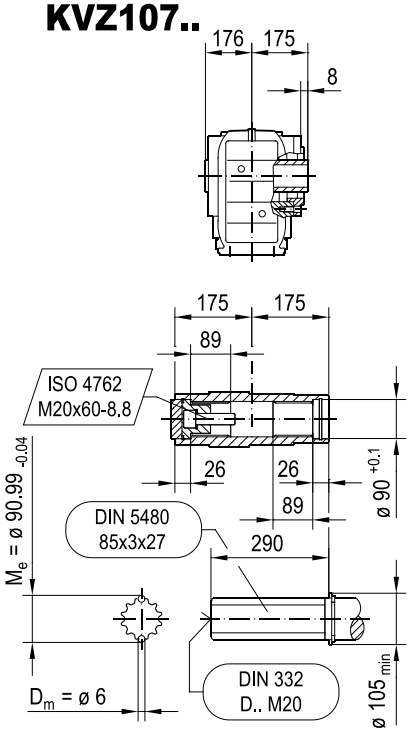
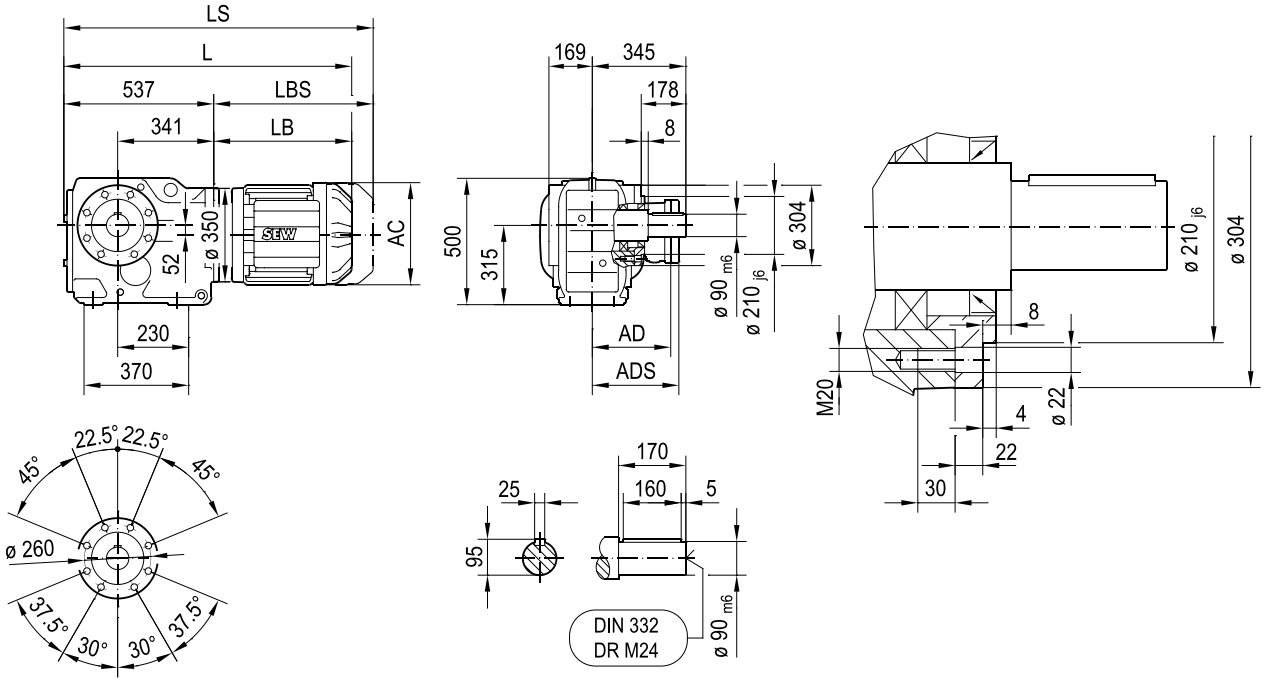


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

KZ107..

33 239 01 15

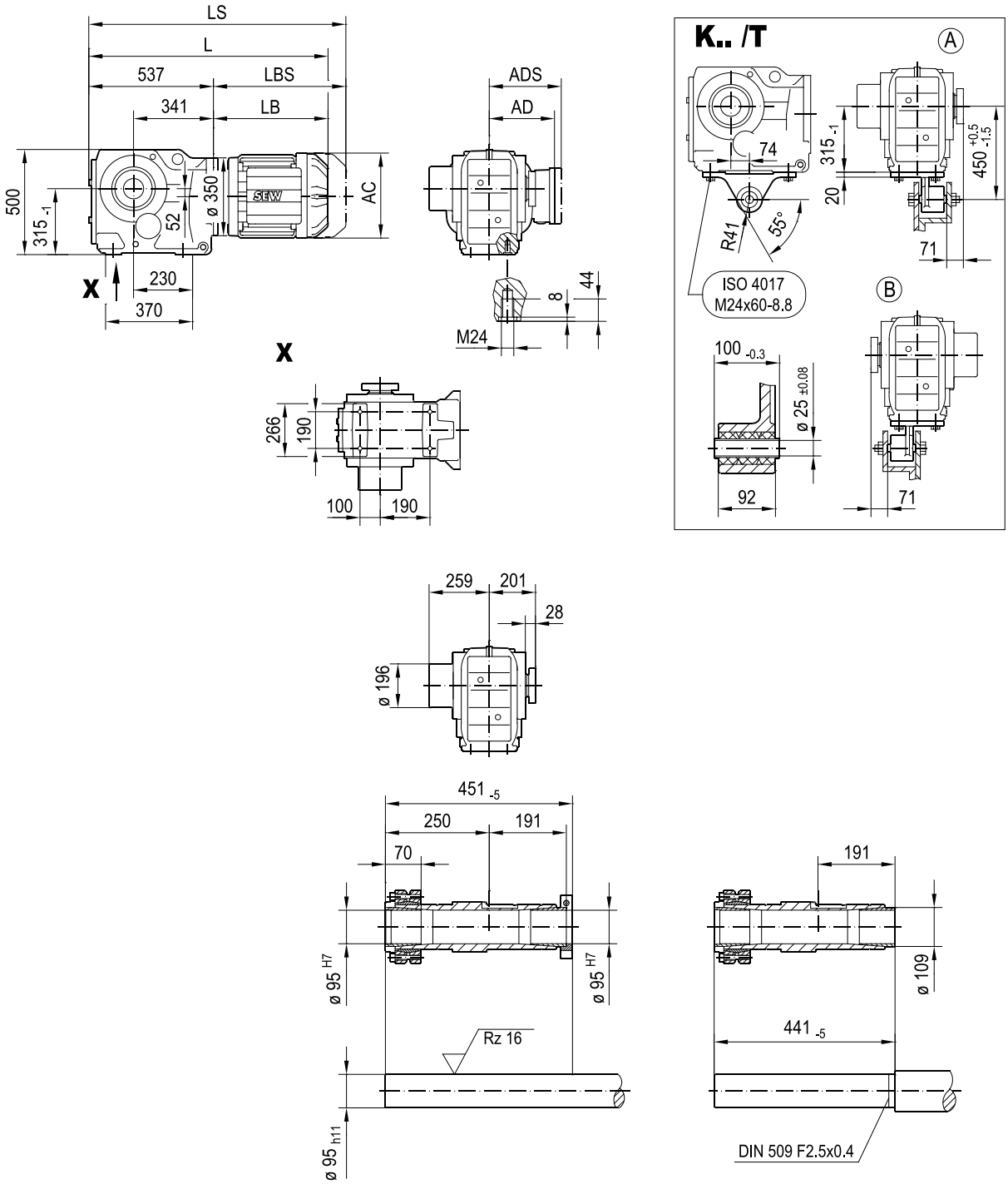


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

KT107..

33 076 01 14

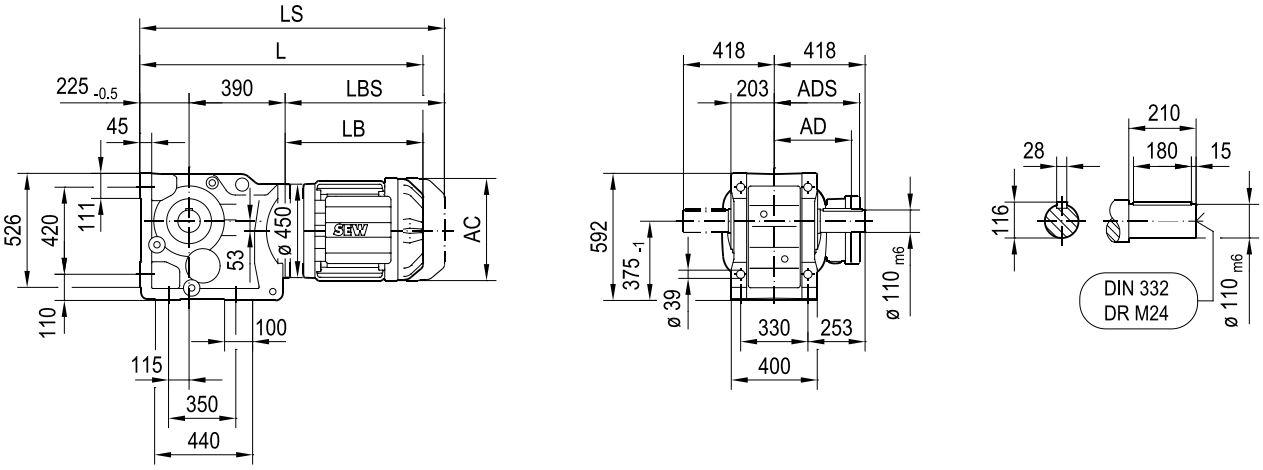


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	819	869	900	950	968	994	1060	1083	1193	1167	1304
LS	913	963	1012	1062	1106	1131	1249	1272	1398	1372	1544
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

26883198/EN – 04/2022

33 077 00 14

K127..



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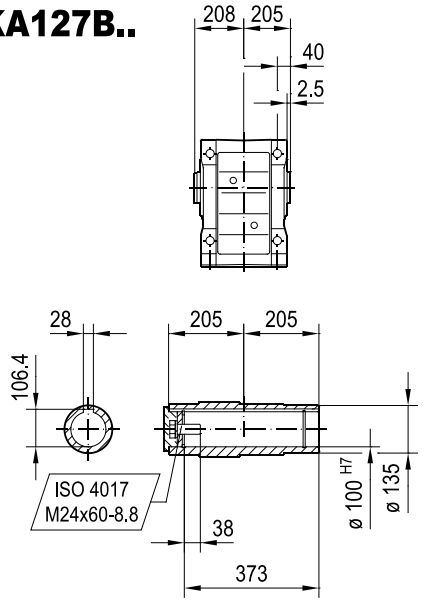

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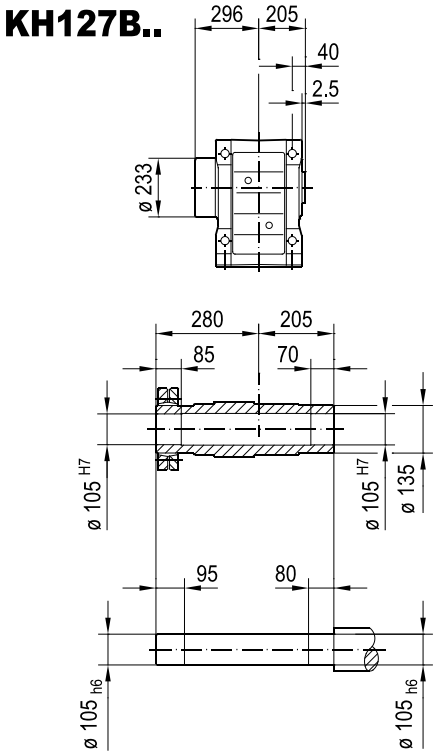
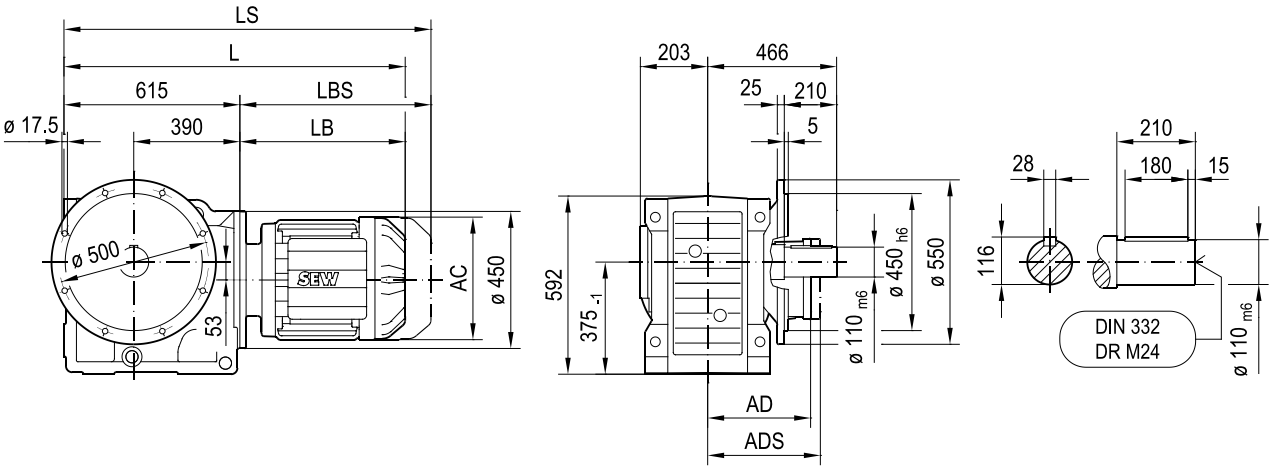


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 078 00 14

KF127..



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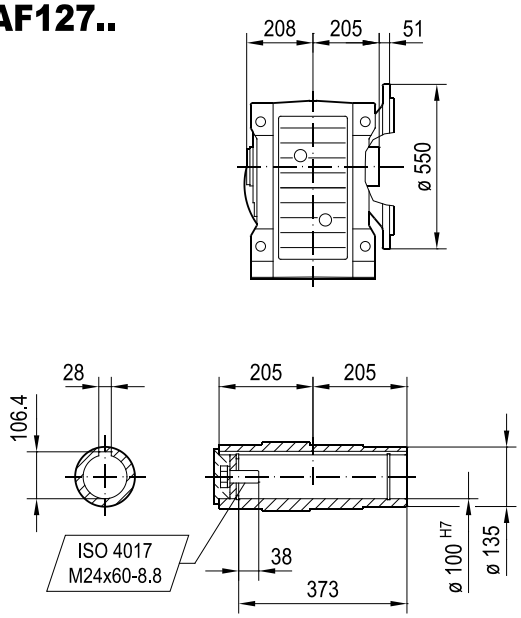

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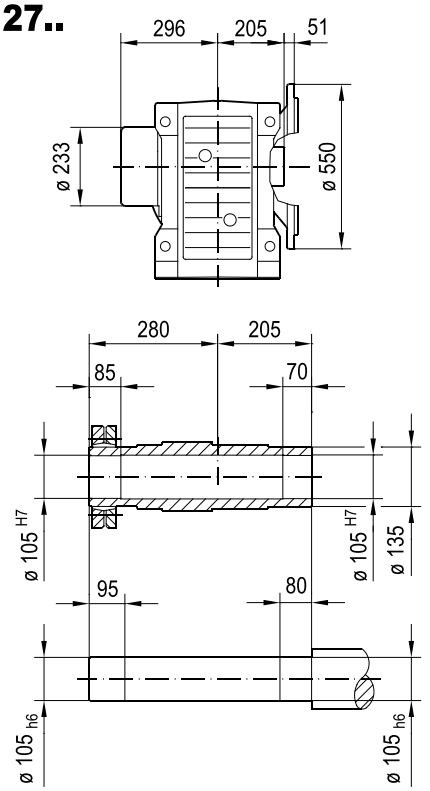
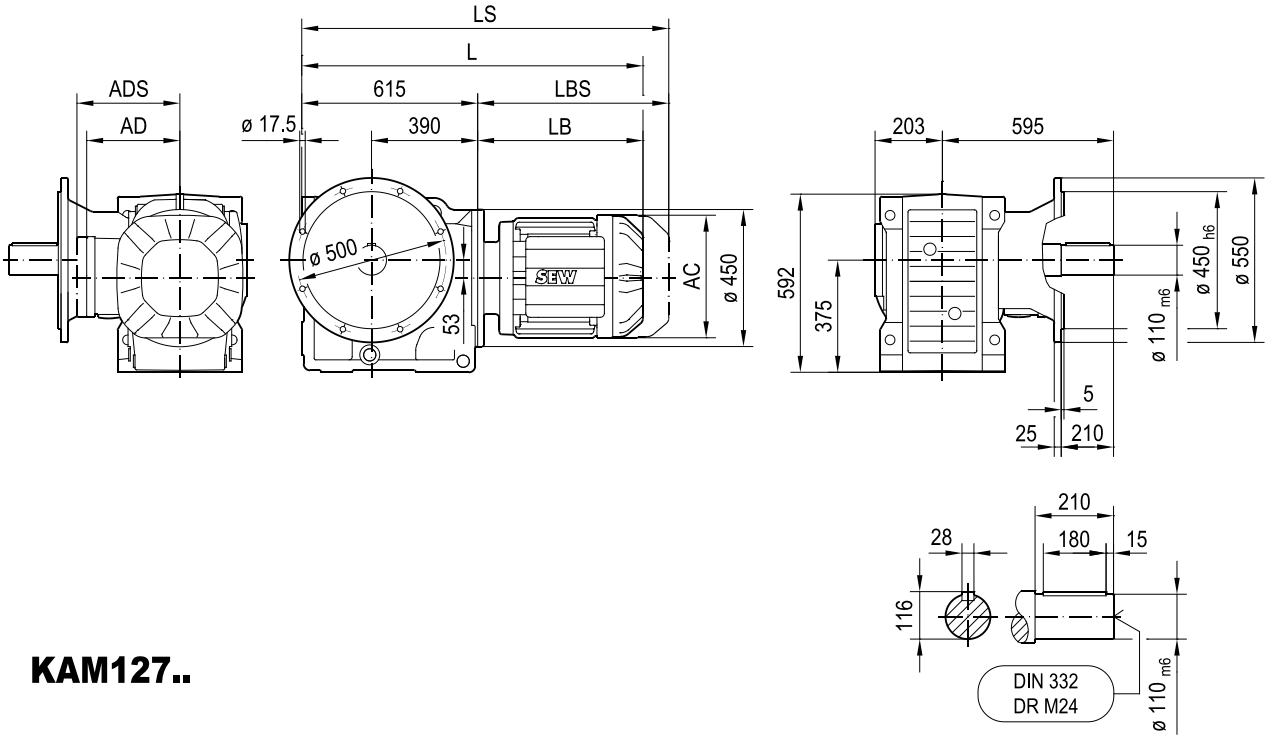


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 275 00 17

KM127..



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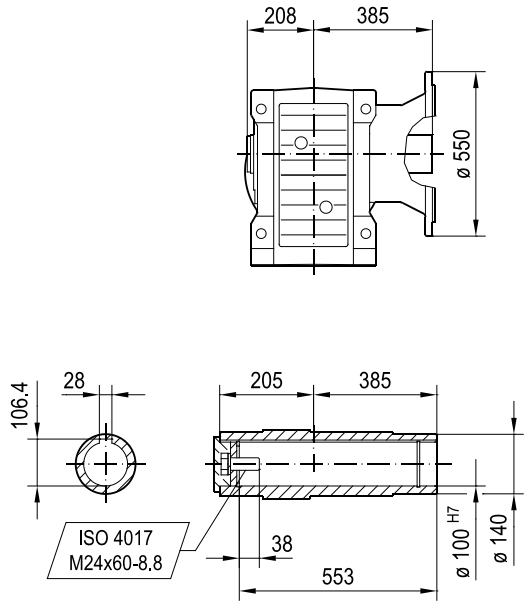

(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 079 02 14

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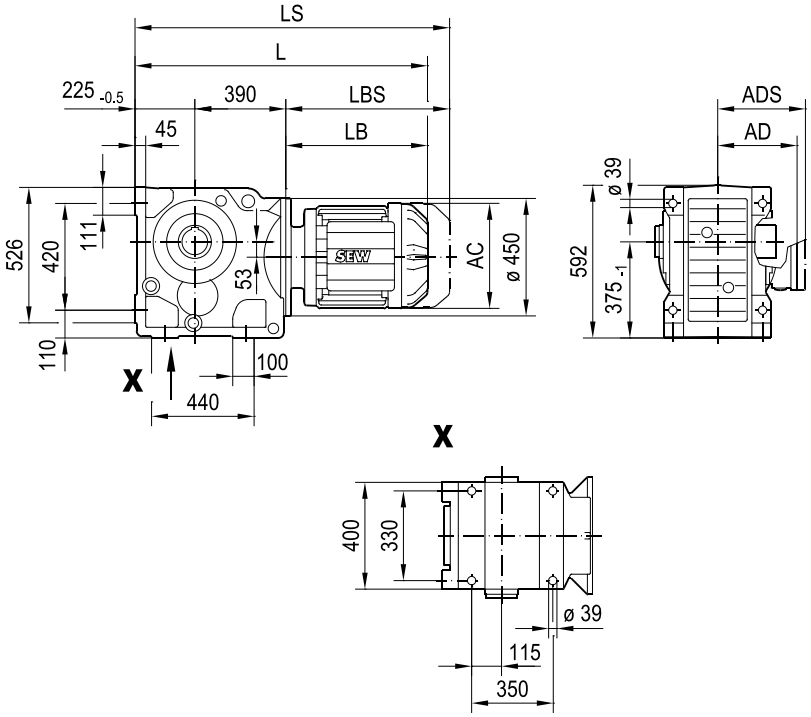

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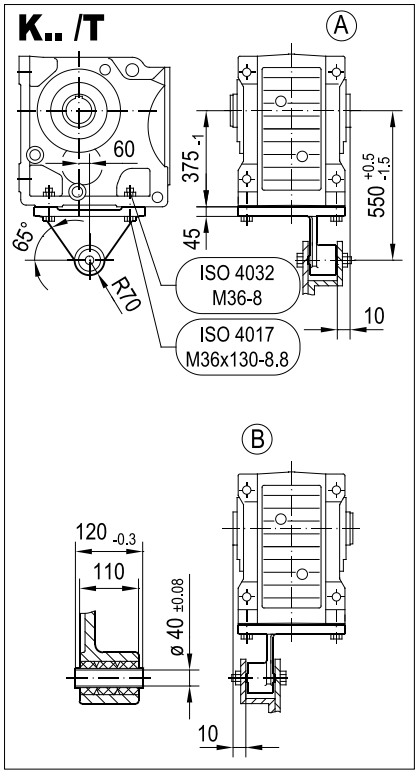

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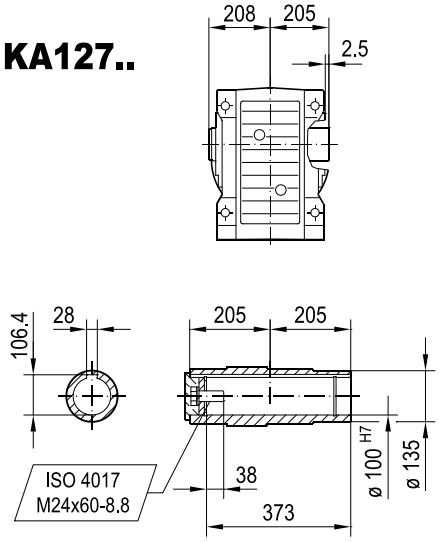

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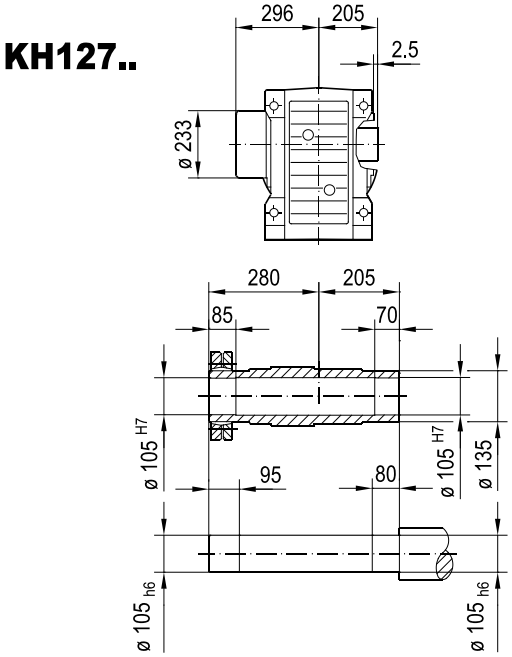

(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 080 00 14

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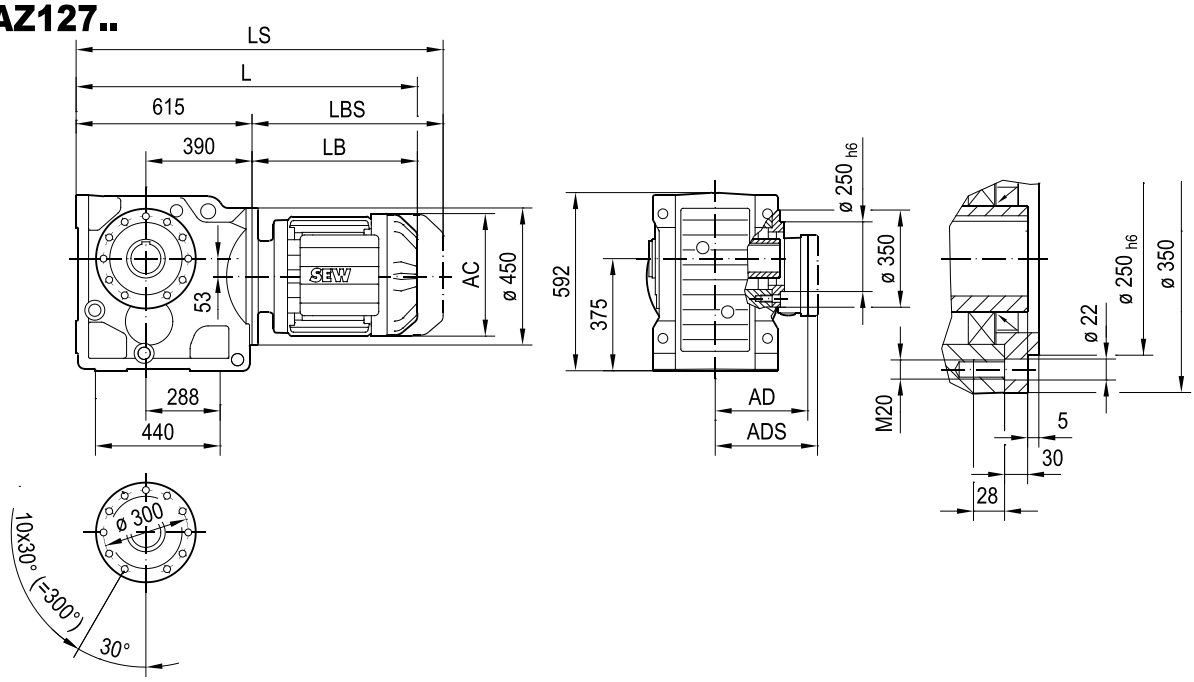

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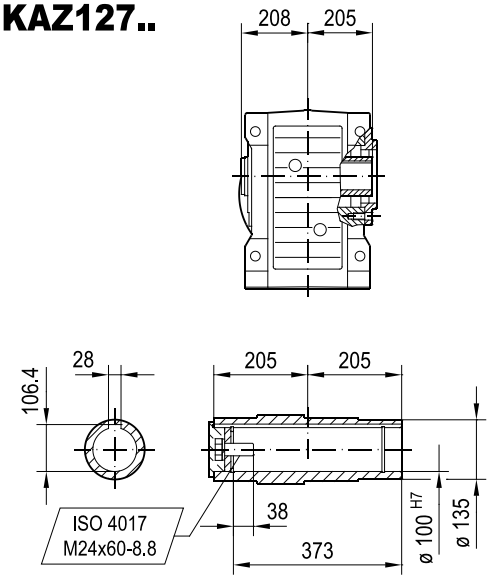

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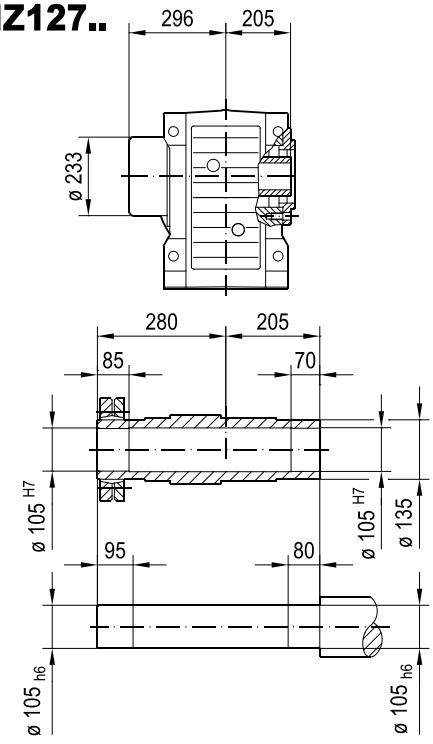

(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

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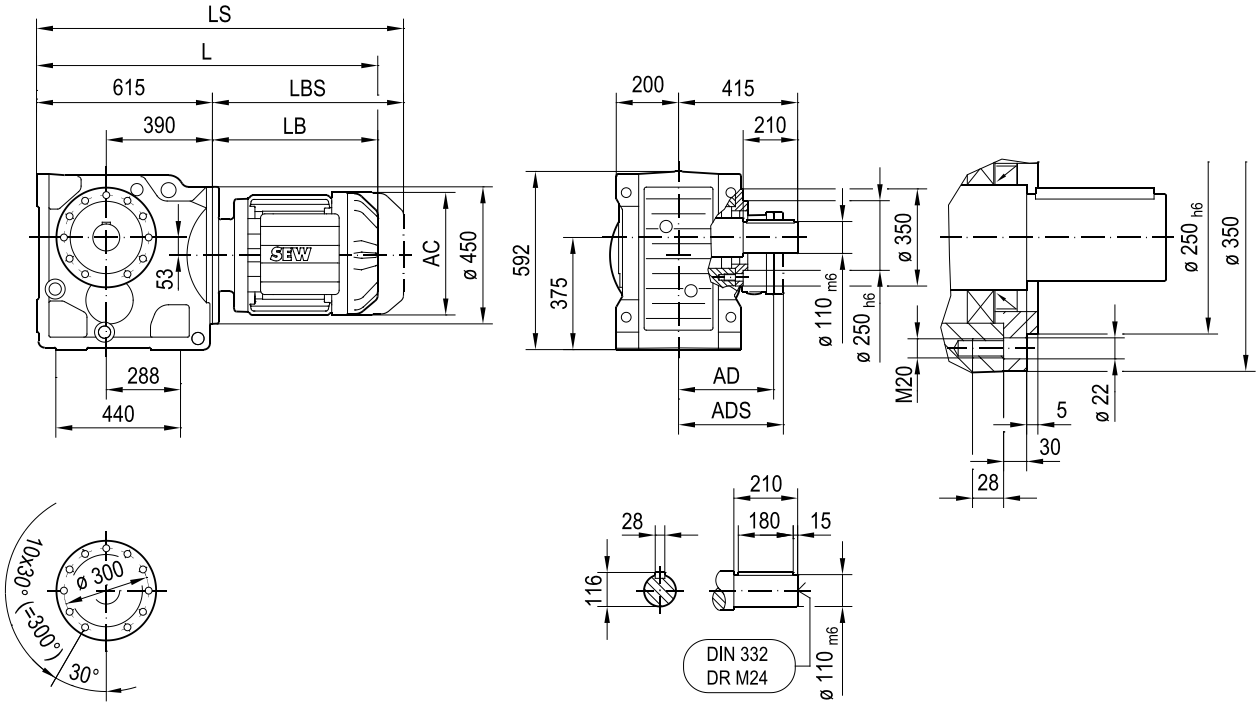
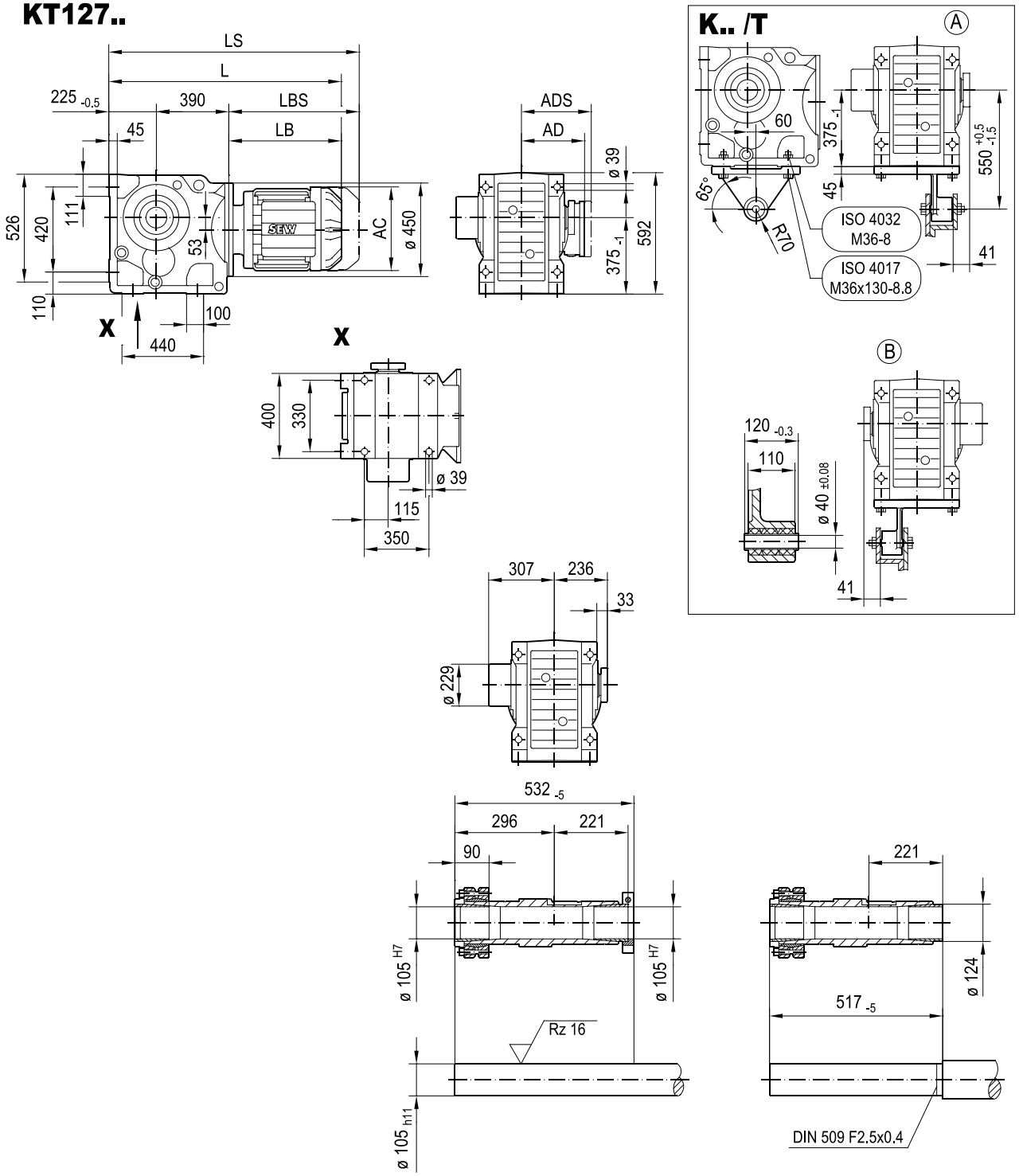
KZ127..



(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 081 03 14

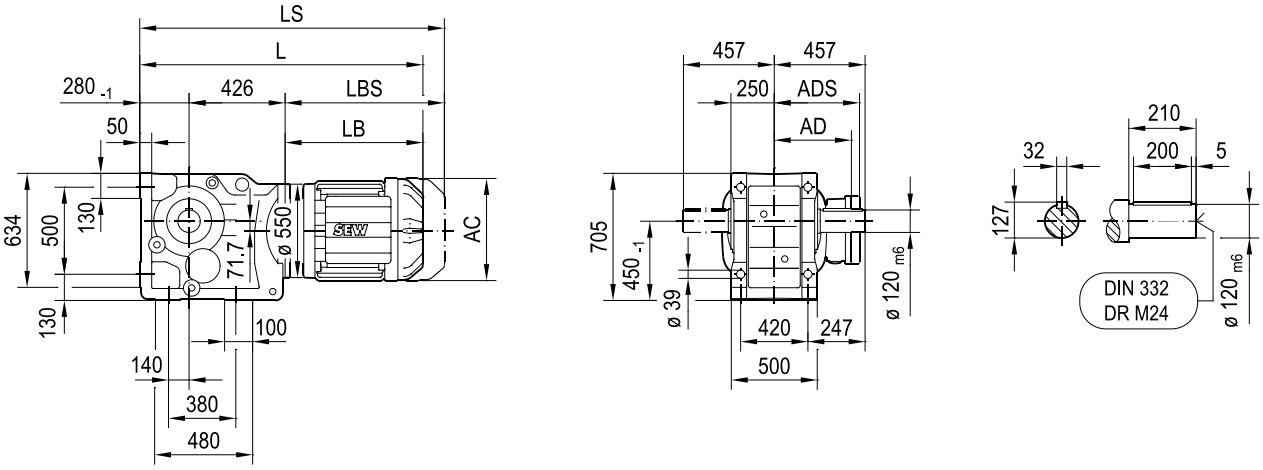


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

26883198/EN – 04/2022

33 082 00 14

K157..



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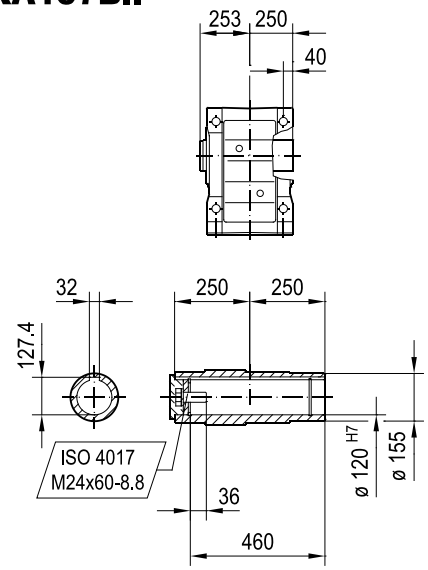

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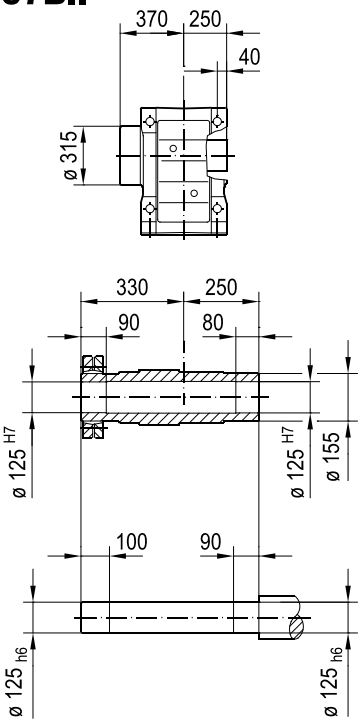

(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

33 083 00 14

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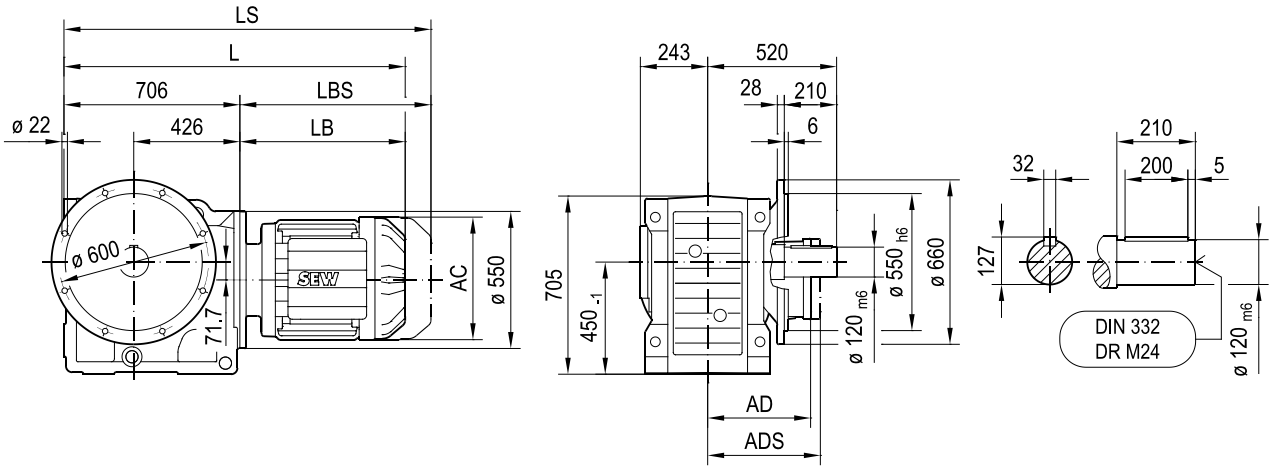

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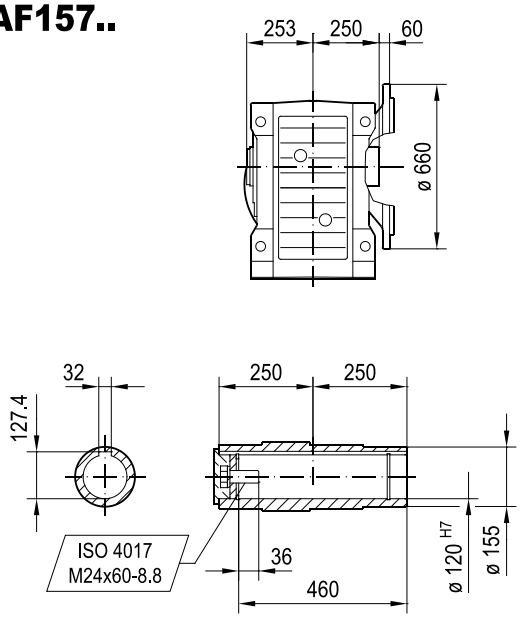

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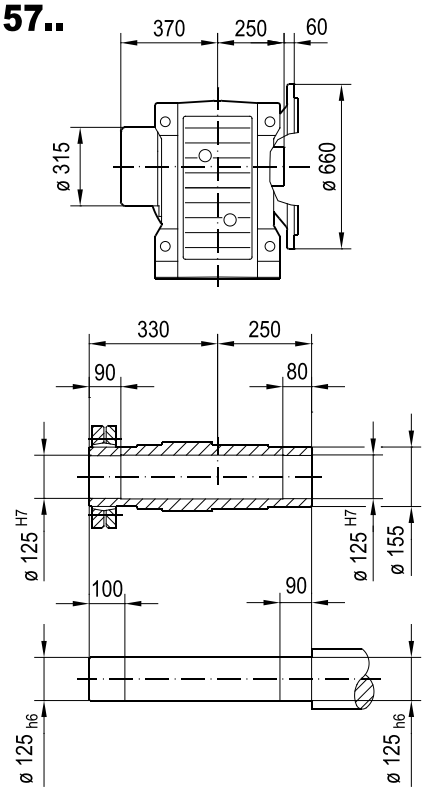

(→ 📖 7.3)	DRN									
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AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

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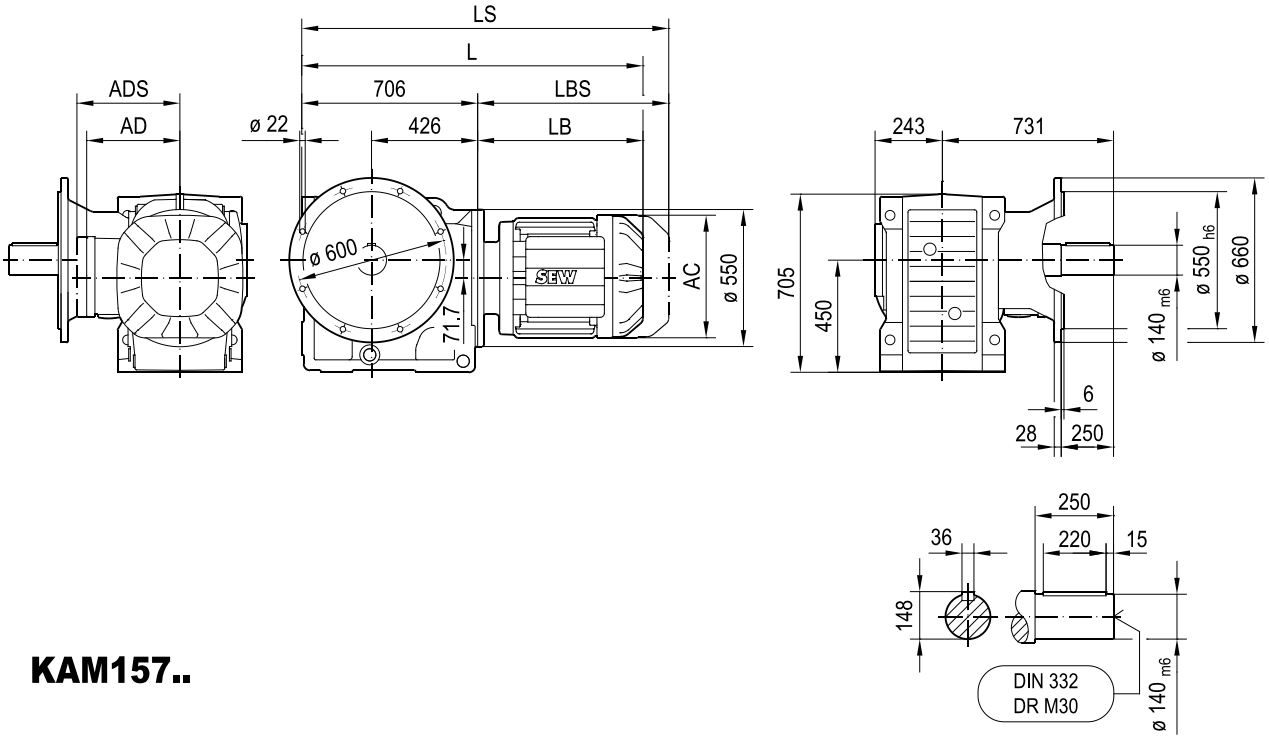

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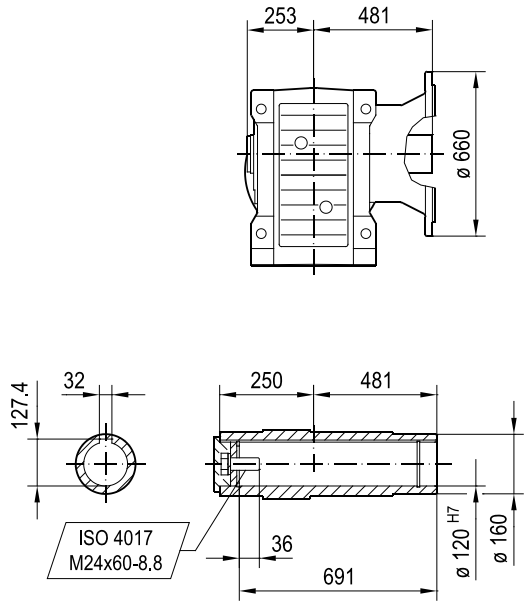

(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

33 084 02 14

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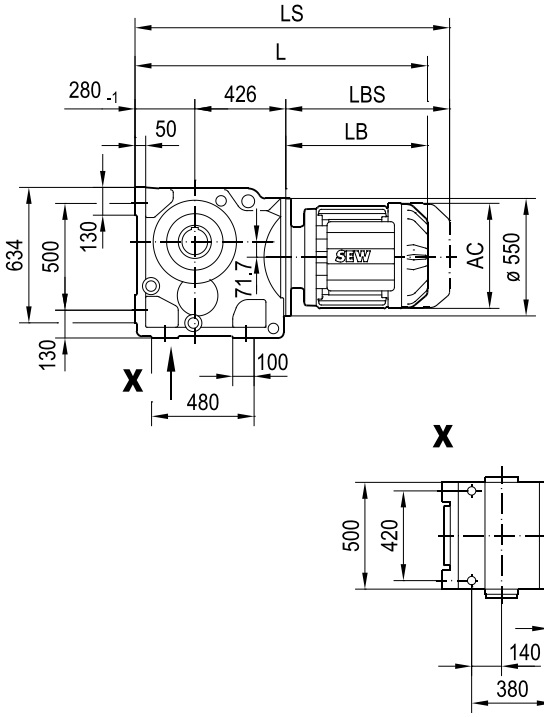

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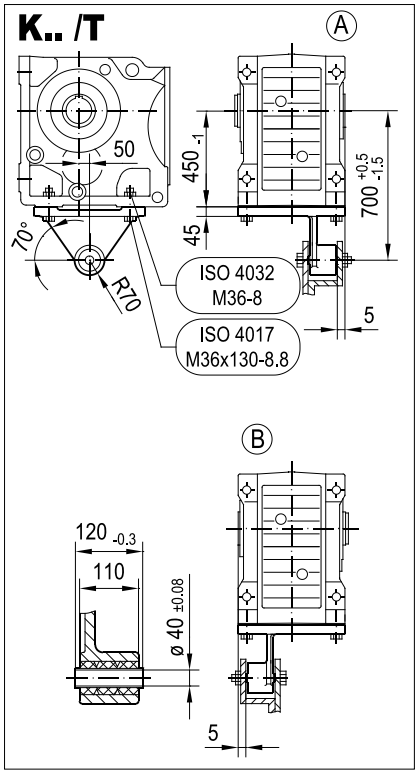

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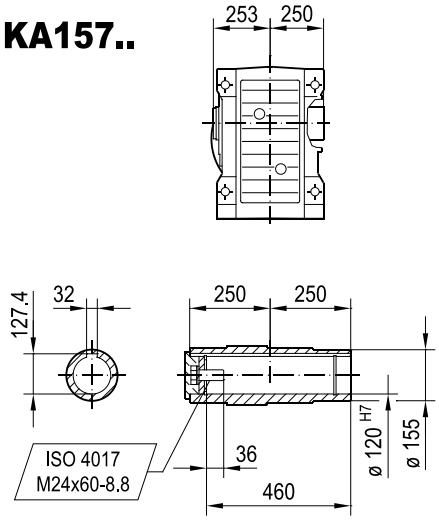

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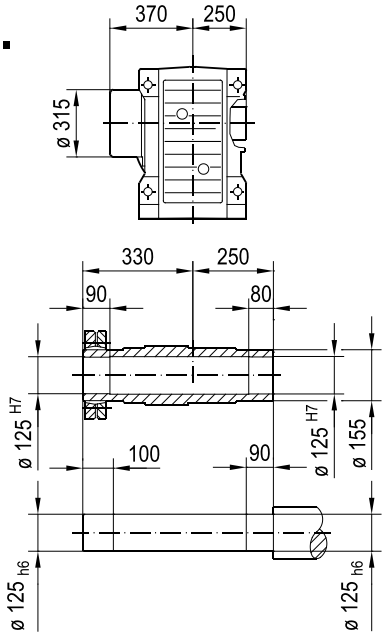
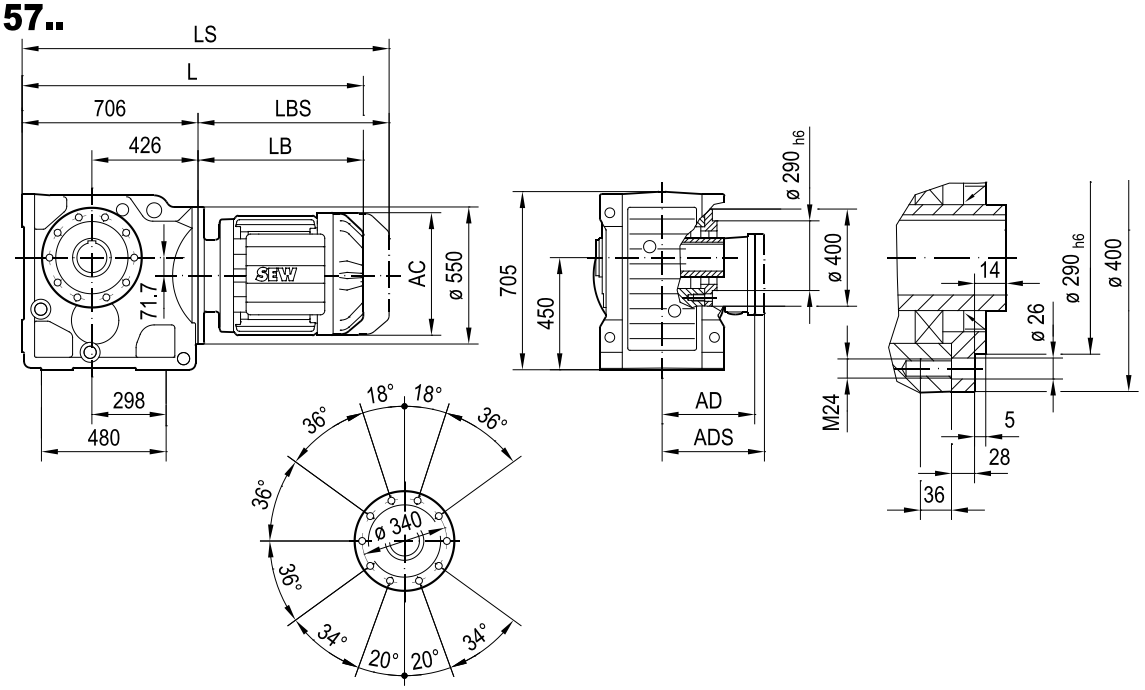


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

33 085 00 14

KAZ157..



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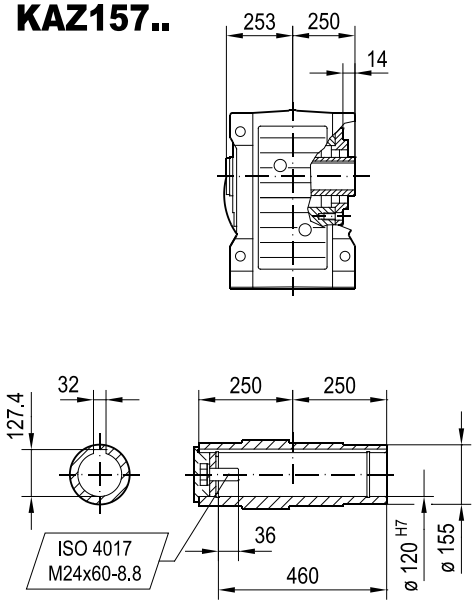

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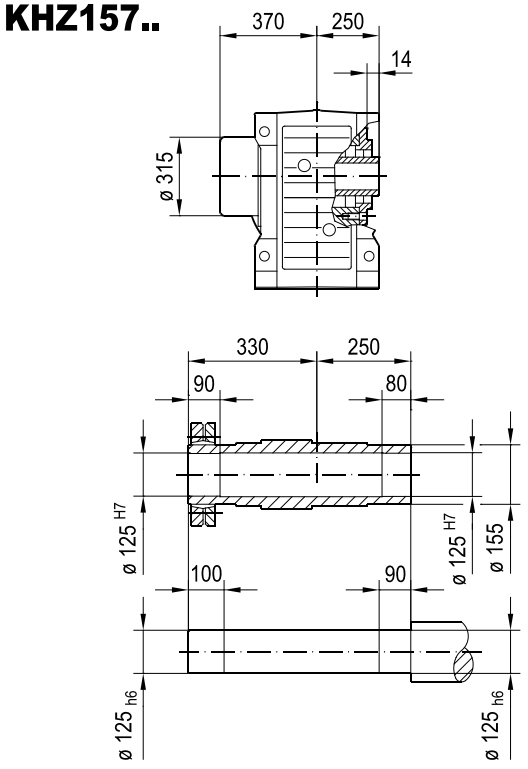

(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

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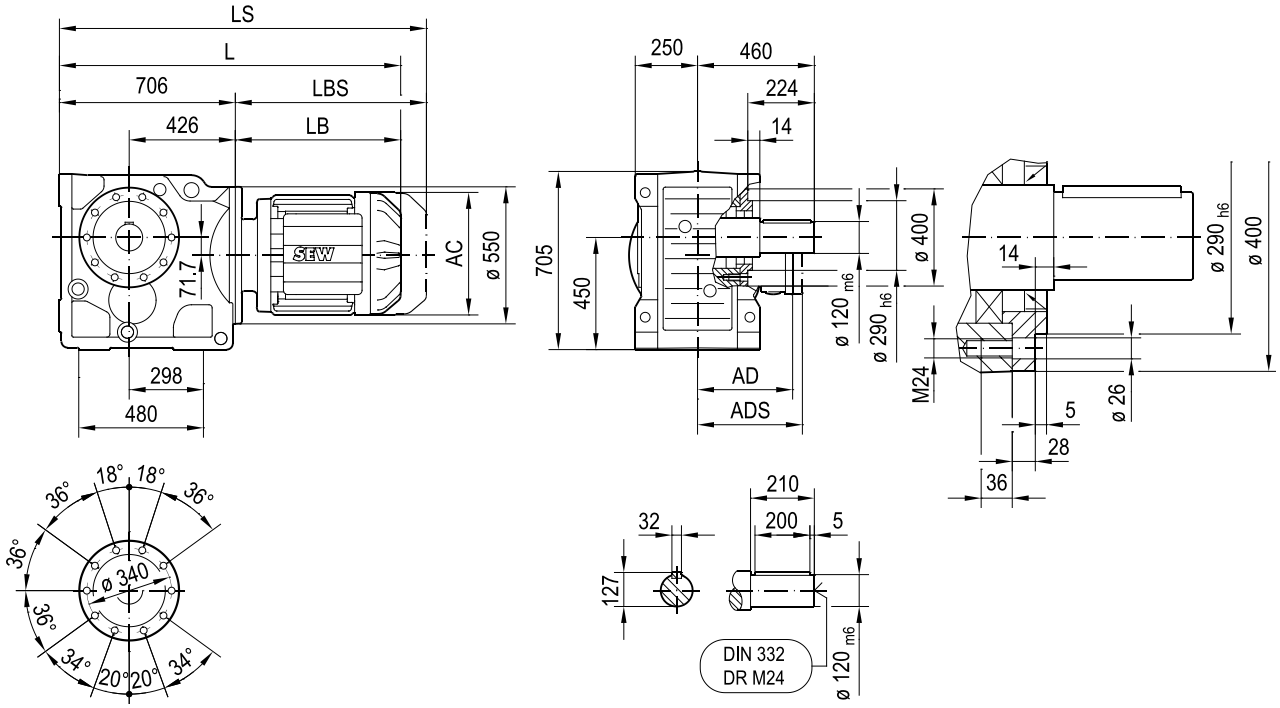
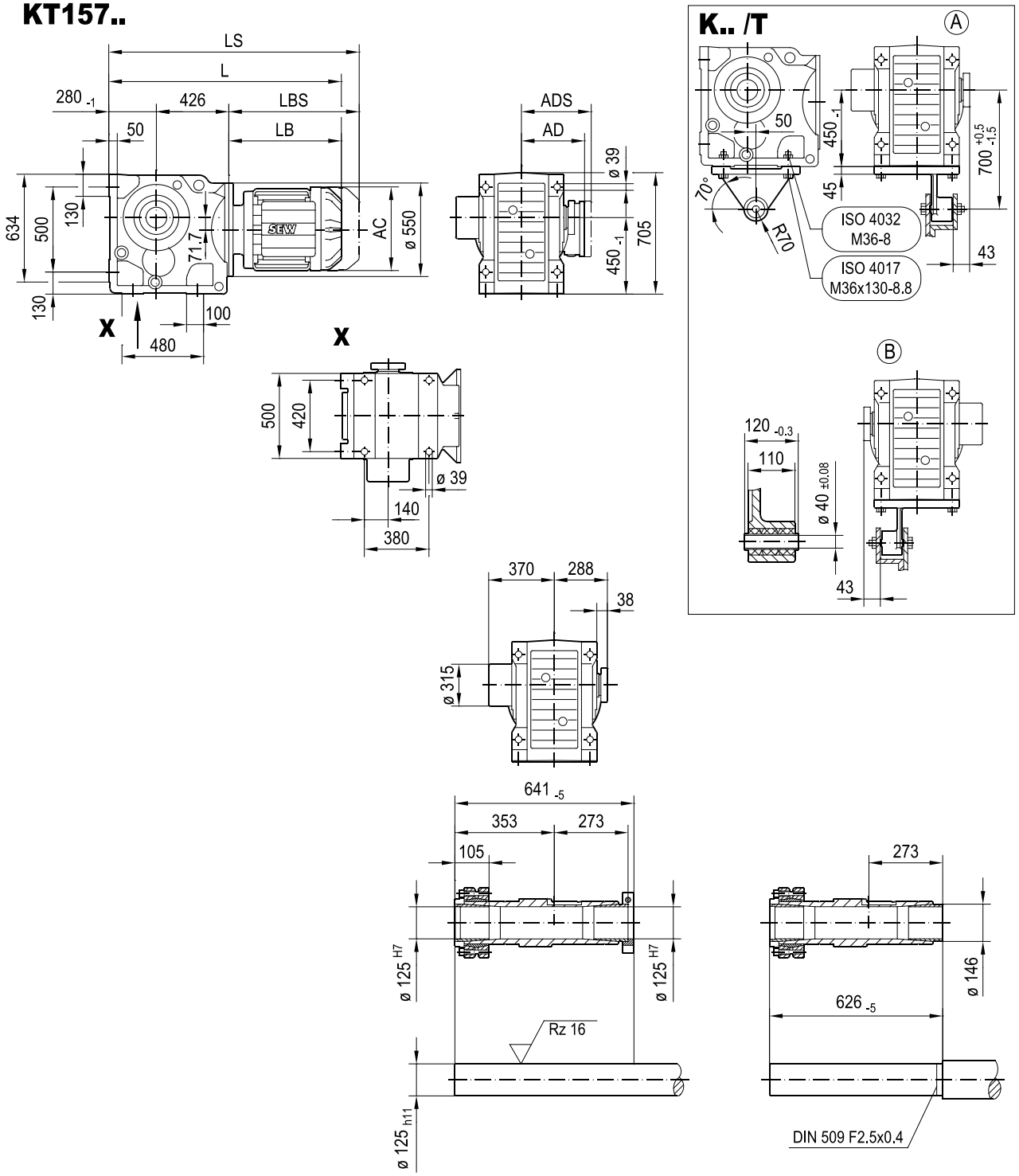
KZ157..



(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

33 086 03 14



(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1140	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1277	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	434	500	523	633	607	744	744	839	941	1071
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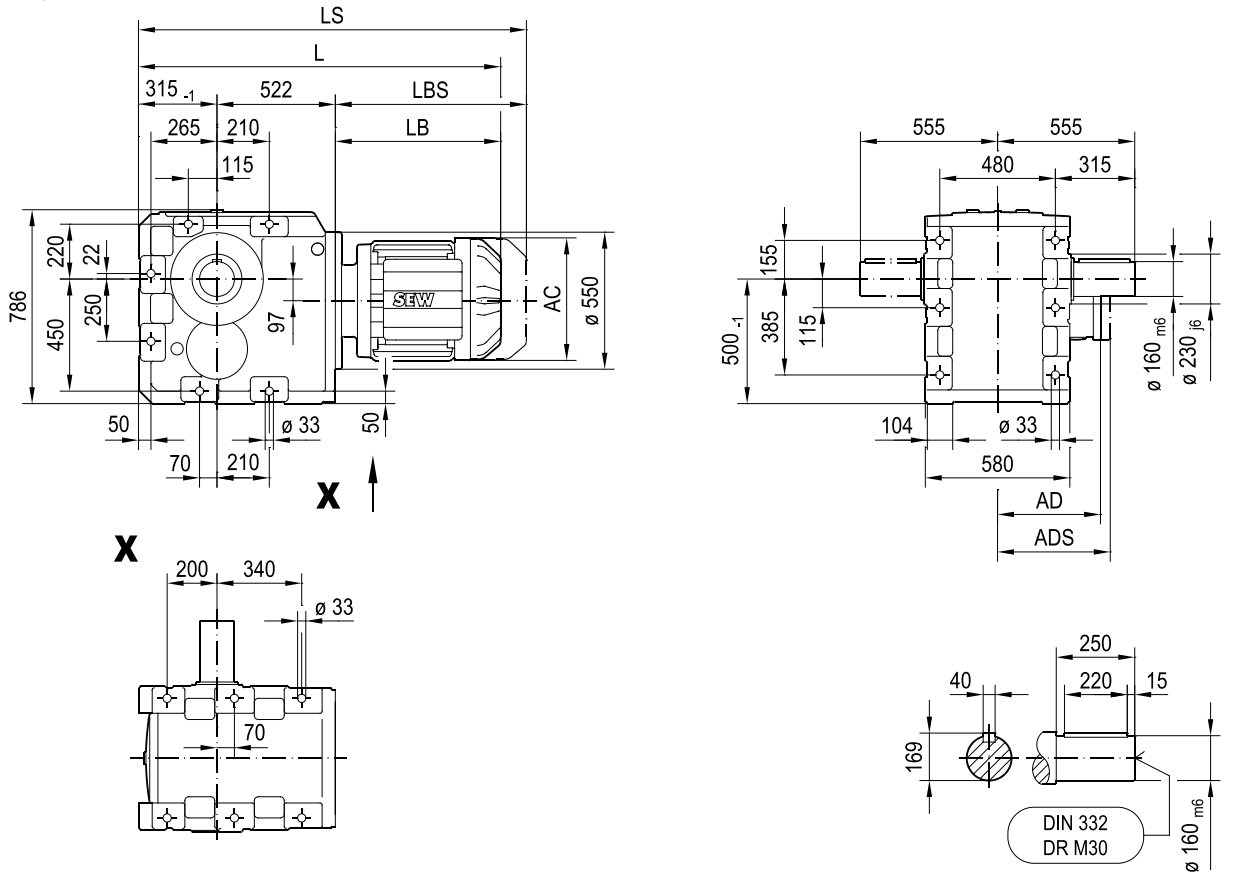
26883198/EN – 04/2022

33 087 00 14

K167..



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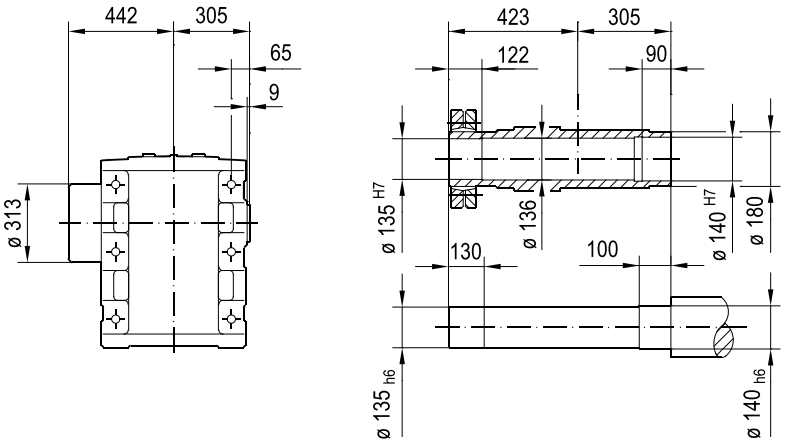
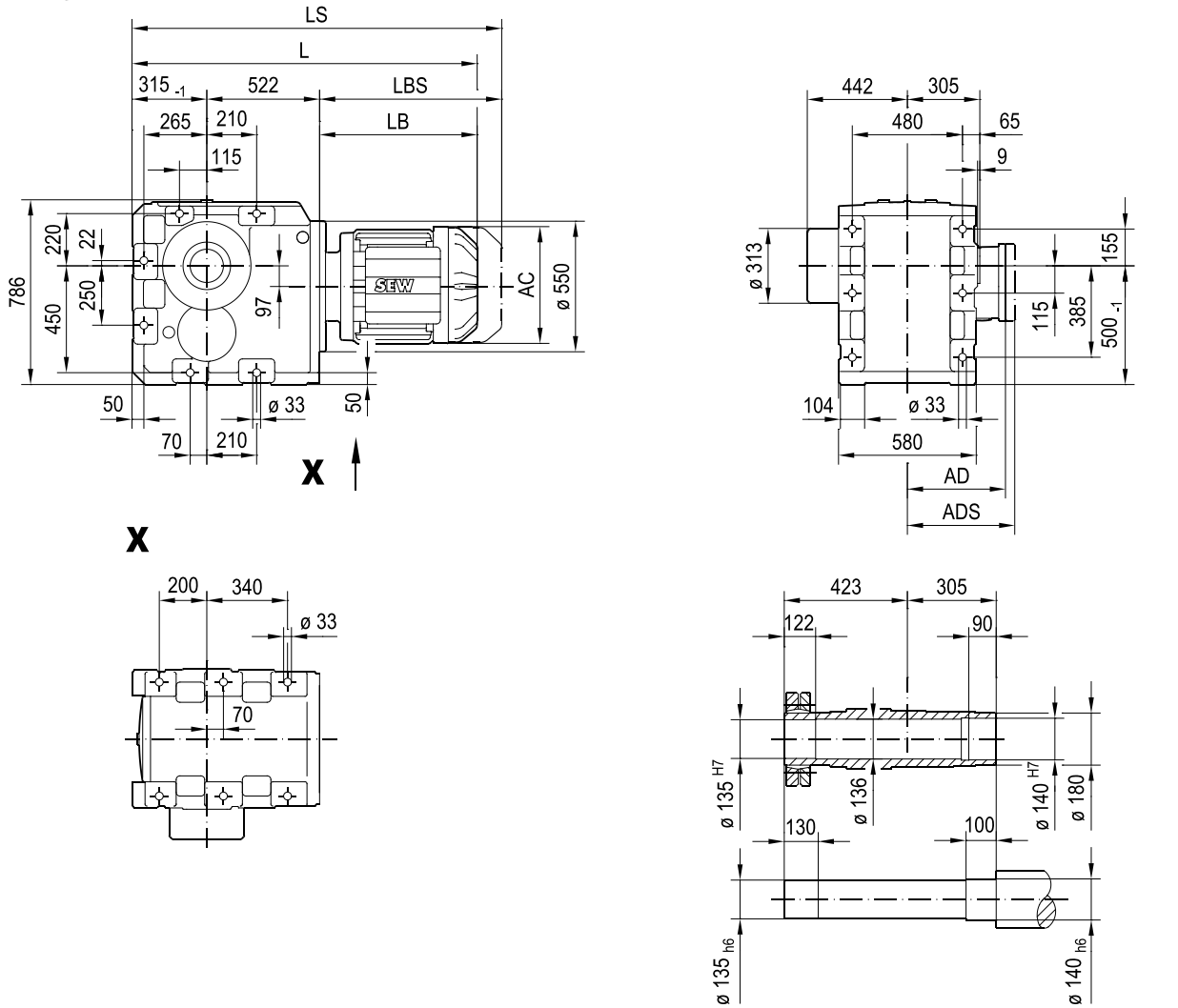


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1271	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1408	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

33 088 00 14

KH167..

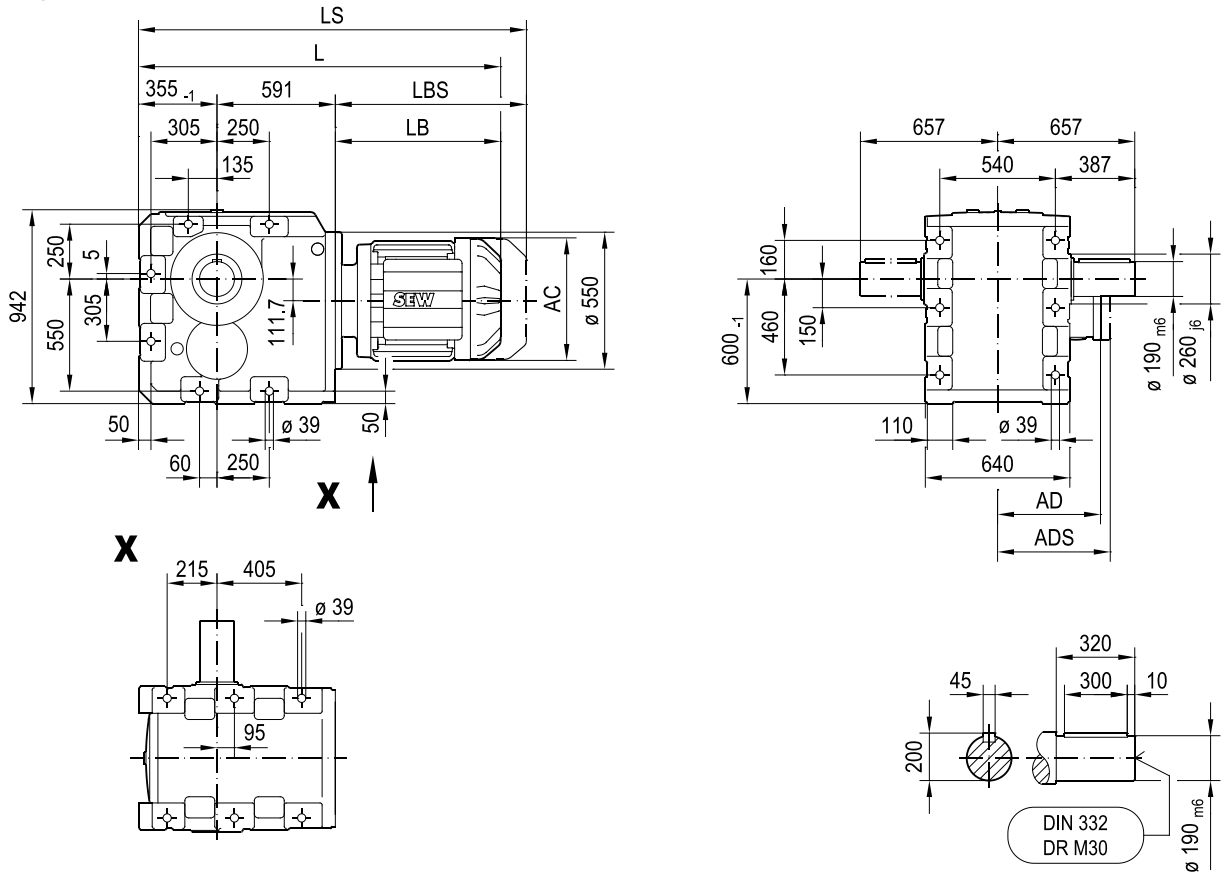


(→ 📖 7.3)	DRN									
	132L	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	261	314	357	394	434	495	495	495	624	624
AD	228	253	268	283	305	394	394	394	506	506
ADS	228	253	268	283	305	394	394	394	506	506
L	1271	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1408	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	434	500	523	633	607	744	744	839	941	1071
LBS	571	689	712	838	812	984	984	1079	1192	1322

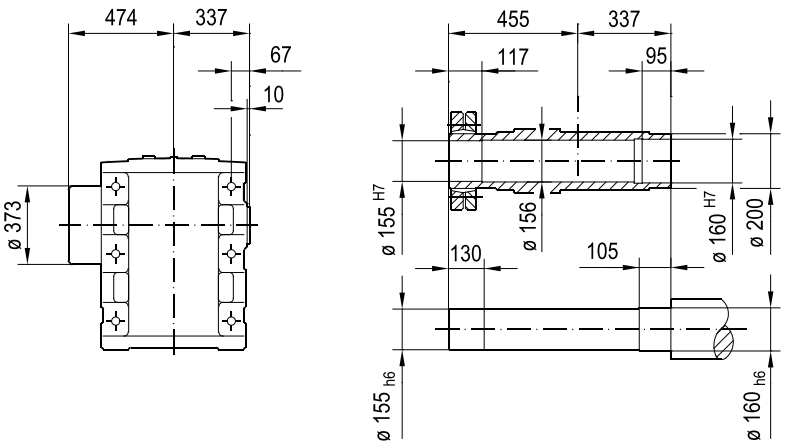
26883198/EN – 04/2022

33 089 00 14

K187..



KH187B..



(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1446	1469	1579	1553	1690	1690	1785	1887	2017
LS	1635	1658	1784	1758	1930	1930	2025	2138	2268
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

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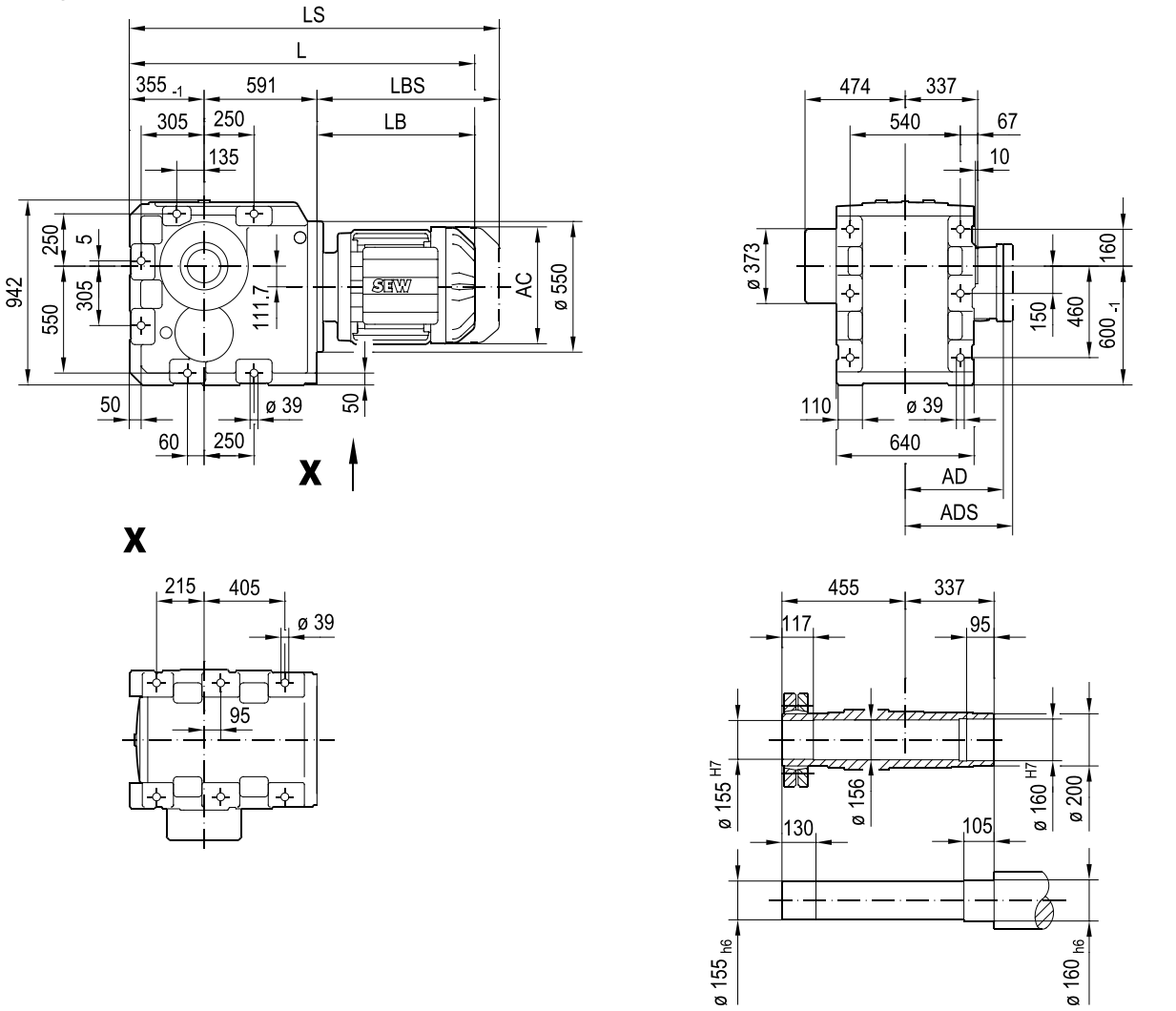
KH187..

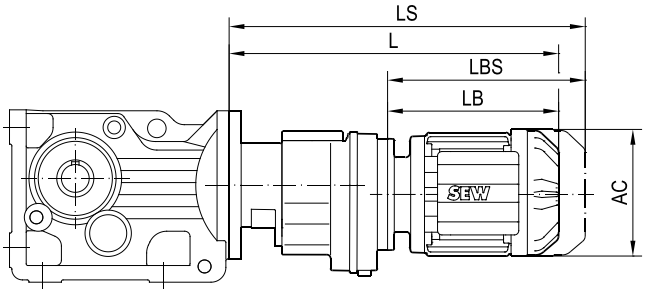


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1446	1469	1579	1553	1690	1690	1785	1887	2017
LS	1635	1658	1784	1758	1930	1930	2025	2138	2268
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

26883198/EN – 04/2022

10.6 K..R..DRN.. dimension sheets in mm

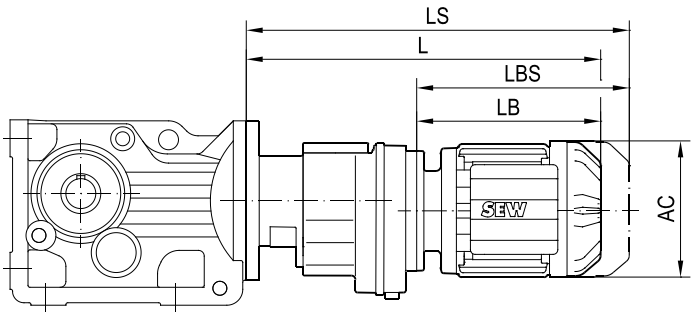
33 121 01 21



(→ 📖 7.3)	AC	L	LS	LB	LBS
K..37R17 DR2S56..	109	293	329	160	196
K..37R17 DRN63MS	115	323	379	190	246
K..37R17 DRN63M	115	337	393	204	260
K..37R17 DRN71MS	139	339	406	206	273
K..37R17 DRN71M	139	359	426	226	293
K..37R17 DRN80MK	156	370	451	237	318
K..39R17 DR2S56..	109	293	329	160	196
K..39R17 DRN63MS	115	323	379	190	246
K..39R17 DRN63M	115	337	393	204	260
K..39R17 DRN71MS	139	339	406	206	273
K..39R17 DRN71M	139	359	426	226	293
K..39R17 DRN80MK	156	370	451	237	318
K..39R17 DRN80M	156	416	497	283	364
K..47R37 DRN63MS	115	355	411	190	246
K..47R37 DRN63M	115	369	425	204	260
K..47R37 DRN71MS	139	371	438	206	273
K..47R37 DRN71M	139	391	458	226	293
K..47R37 DRN80MK	156	402	483	237	318
K..47R37 DRN80M	156	447	528	282	363
K..47R37 DRN90S	179	448	542	283	377
K..49R37 DRN63MS	115	347	403	190	246
K..49R37 DRN63M	115	361	417	204	260
K..49R37 DRN71MS	139	363	430	206	273
K..49R37 DRN71M	139	383	450	226	293
K..49R37 DRN80MK	156	394	475	237	318
K..49R37 DRN80M	156	439	520	282	363
K..49R37 DRN90S	179	440	534	283	377
K..57R37 DRN63MS	115	355	411	190	246
K..57R37 DRN63M	115	369	425	204	260
K..57R37 DRN71MS	139	371	438	206	273
K..57R37 DRN71M	139	391	458	226	293
K..57R37 DRN80MK	156	402	483	237	318
K..57R37 DRN80M	156	447	528	282	363
K..57R37 DRN90S	179	448	542	283	377
K..57R37 DRN90L	179	480	574	315	409
K..67R37 DRN63MS	115	355	411	190	246
K..67R37 DRN63M	115	369	425	204	260
K..67R37 DRN71MS	139	371	438	206	273
K..67R37 DRN71M	139	391	458	226	293
K..67R37 DRN80MK	156	402	483	237	318
K..67R37 DRN80M	156	447	528	282	363
K..67R37 DRN90S	179	448	542	283	377
K..67R37 DRN90L	179	480	574	315	409
K..77R37 DRN63MS	115	347	403	190	246
K..77R37 DRN63M	115	361	417	204	260
K..77R37 DRN71MS	139	363	430	206	273
K..77R37 DRN71M	139	383	450	226	293
K..77R37 DRN80MK	156	394	475	237	318
K..77R37 DRN80M	156	439	520	282	363
K..77R37 DRN90S	179	440	534	283	377
K..77R37 DRN90L	179	472	566	315	409
K..77R37 DRN100LS	197	471	565	314	408

(→ 📖 7.3)	AC	L	LS	LB	LBS
K..77R37 DRN100L/LM	197	521	615	364	458
K..87R57 DRN63MS	115	411	467	184	240
K..87R57 DRN63M	115	425	481	198	254
K..87R57 DRN71MS	139	427	494	199	267
K..87R57 DRN71M	139	447	514	219	287
K..87R57 DRN80MK	156	458	539	230	311
K..87R57 DRN80M	156	503	584	275	356
K..87R57 DRN90S	179	504	598	277	370
K..87R57 DRN90L	179	536	630	309	402
K..87R57 DRN100LS	197	533	626	305	399
K..87R57 DRN100L/LM	197	583	676	355	449
K..87R57 DRN112M	221	614	726	386	498
K..97R57 DRN63MS	115	406	462	184	240
K..97R57 DRN63M	115	420	476	198	254
K..97R57 DRN71MS	139	422	489	199	267
K..97R57 DRN71M	139	442	509	219	287
K..97R57 DRN80MK	156	453	534	230	311
K..97R57 DRN80M	156	498	579	275	356
K..97R57 DRN90S	179	499	593	277	370
K..97R57 DRN90L	179	531	625	309	402
K..97R57 DRN100LS	197	528	621	305	399
K..97R57 DRN100L/LM	197	578	671	355	449
K..97R57 DRN112M	221	609	721	386	498
K..97R57 DRN132S	221	663	775	440	552
K..107R77 DRN63MS	115	424	480	177	233
K..107R77 DRN63M	115	438	494	191	247
K..107R77 DRN71MS	139	439	507	192	260
K..107R77 DRN71M	139	459	527	212	280
K..107R77 DRN80MK	156	470	551	223	304
K..107R77 DRN80M	156	515	596	268	349
K..107R77 DRN90S	179	517	610	270	363
K..107R77 DRN90L	179	549	642	302	395
K..107R77 DRN100LS	197	545	639	298	392
K..107R77 DRN100L/LM	197	595	689	348	442
K..107R77 DRN112M	221	626	738	379	491
K..107R77 DRN132S	221	676	788	429	541
K..107R77 DRN132M	261	694	832	447	585
K..107R77 DRN132L	261	720	857	473	610
K..107R77 DRN160..	314	786	975	539	728
K..127R77 DRN63MS	115	409	465	177	233
K..127R77 DRN63M	115	423	479	191	247
K..127R77 DRN71MS	139	424	492	192	260
K..127R77 DRN71M	139	444	512	212	280
K..37R17 DR2S56..	109	293	329	160	196
K..127R87 DRN90L	179	577	670	297	390
K..127R87 DRN100LS	197	573	667	293	387
K..127R87 DRN100L/LM	197	623	717	343	437
K..127R87 DRN112M	221	654	766	374	486
K..127R87 DRN132S	221	704	816	424	536
K..127R87 DRN132M	261	722	860	442	580
K..127R87 DRN132L	261	748	885	468	605
K..127R87 DRN160..	314	814	1003	534	723

26883198/EN – 04/2022



33 121 01 21

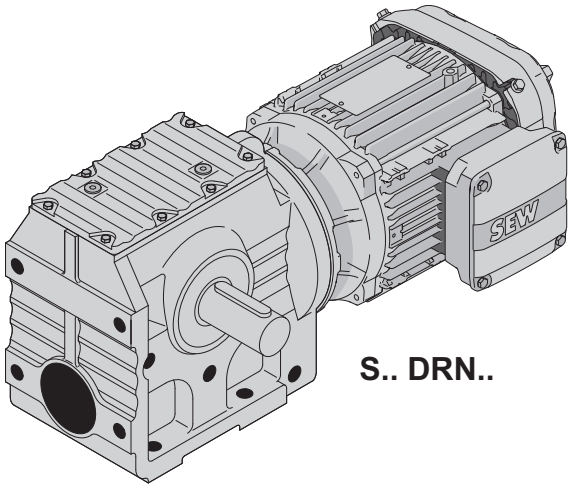
(⇨ 📖 7.3)	AC	L	LS	LB	LBS
K..127R87 DRN180..	357	837	1026	557	746
K..157R97 DRN71MS	139	507	575	182	250
K..157R97 DRN71M	139	527	595	202	270
K..157R97 DRN80MK	156	538	619	213	294
K..157R97 DRN80M	156	583	664	258	339
K..157R97 DRN90S	179	585	678	260	353
K..157R97 DRN90L	179	617	710	292	385
K..157R97 DRN100LS	197	613	707	288	382
K..157R97 DRN100L/LM	197	663	757	338	432
K..157R97 DRN112M	221	694	806	369	481
K..157R97 DRN132S	221	744	856	419	531
K..157R97 DRN132M	261	762	900	437	575
K..157R97 DRN132L	261	788	925	463	600
K..157R97 DRN160..	314	854	1043	529	718
K..157R107 DRN132S	221	795	907	413	525
K..157R107 DRN132M	261	813	951	431	569
K..157R107 DRN132L	261	839	976	457	594
K..157R107 DRN160..	314	905	1094	523	712
K..157R107 DRN180..	357	928	1117	546	735
K..157R107 DRN200L	394	1038	1243	656	861
K..157R107 DRN225..	434	1012	1217	630	835
K..167R97 DRN71M	139	527	595	202	270
K..167R97 DRN80MK	156	538	619	213	294
K..167R97 DRN80M	156	583	664	258	339
K..167R97 DRN90S	179	585	678	260	353
K..167R97 DRN90L	179	617	710	292	385
K..167R97 DRN100LS	197	613	707	288	382
K..77R37 DRN63MS	115	347	403	190	246
K..167R97 DRN100L/LM	197	663	757	338	432
K..167R97 DRN112M	221	694	806	369	481
K..167R97 DRN132S	221	744	856	419	531
K..167R97 DRN132M	261	762	900	437	575
K..167R97 DRN132L	261	788	925	463	600
K..167R97 DRN160..	314	854	1043	529	718
K..167R97 DRN180..	357	877	1066	552	741
K..167R107 DRN132M	261	813	951	431	569
K..167R107 DRN132L	261	839	976	457	594
K..167R107 DRN160..	314	905	1094	523	712
K..167R107 DRN180..	357	928	1117	546	735
K..167R107 DRN200L	394	1038	1243	656	861
K..167R107 DRN225..	434	1012	1217	630	835
K..167R107 DRN250M	495	1149	1389	767	1007
K..187R97 DRN71M	139	527	595	202	270
K..187R97 DRN80MK	156	538	619	213	294
K..187R97 DRN80M	156	583	664	258	339
K..187R97 DRN90S	179	585	678	260	353
K..187R97 DRN90L	179	617	710	292	385

(⇨ 📖 7.3)	AC	L	LS	LB	LBS
K..187R97 DRN100LS	197	613	707	288	382
K..187R97 DRN100L/LM	197	663	757	338	432
K..187R97 DRN112M	221	694	806	369	481
K..187R97 DRN132S	221	744	856	419	531
K..187R97 DRN132M	261	762	900	437	575
K..187R97 DRN132L	261	788	925	463	600
K..187R97 DRN160..	314	854	1043	529	718
K..187R97 DRN180..	357	877	1066	552	741
K..187R107 DRN112M	221	745	857	363	475
K..187R107 DRN132S	221	795	907	413	525
K..187R107 DRN132M	261	813	951	431	569
K..187R107 DRN132L	261	839	976	457	594
K..187R107 DRN160..	314	905	1094	523	712
K..187R107 DRN180..	357	928	1117	546	735
K..187R107 DRN200L	394	1038	1243	656	861
K..187R107 DRN225..	434	1012	1217	630	835

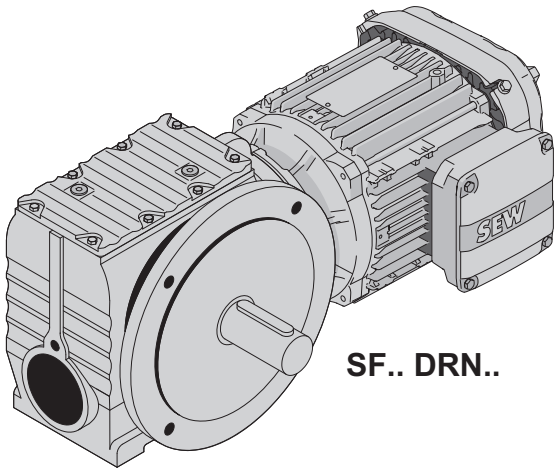
26883198/EN – 04/2022

11 Helical-worm gearmotors

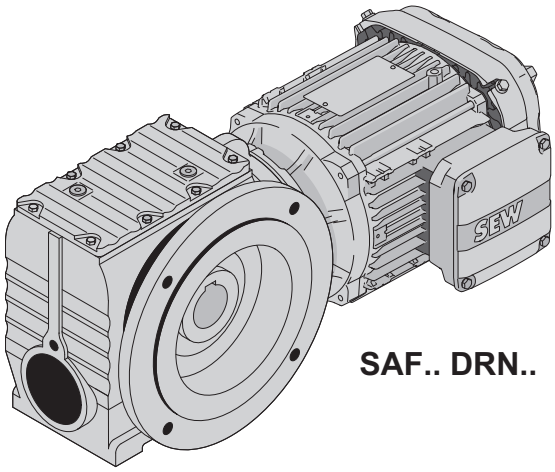
11.1 S..DRN.. designs



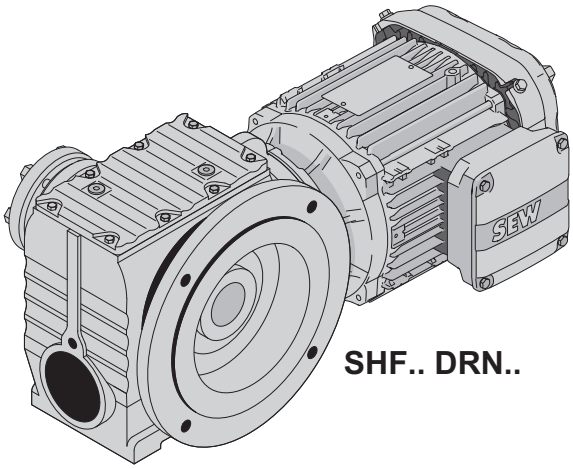
S.. DRN..



SF.. DRN..



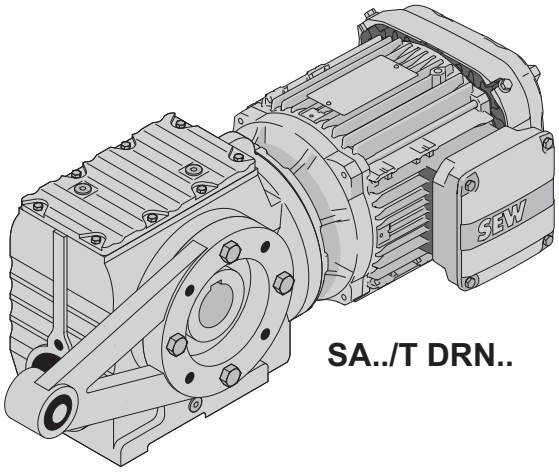
SAF.. DRN..



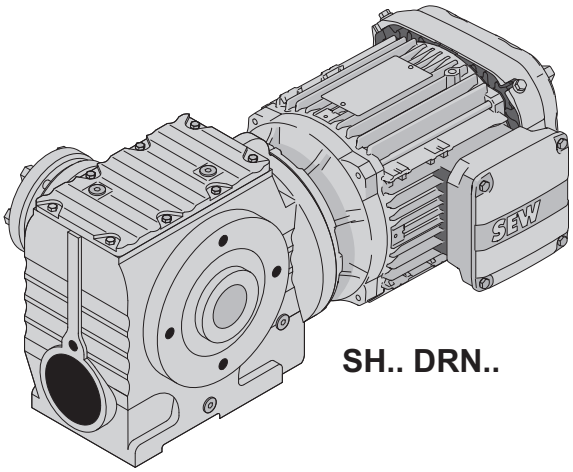
SHF.. DRN..

18014407174355595

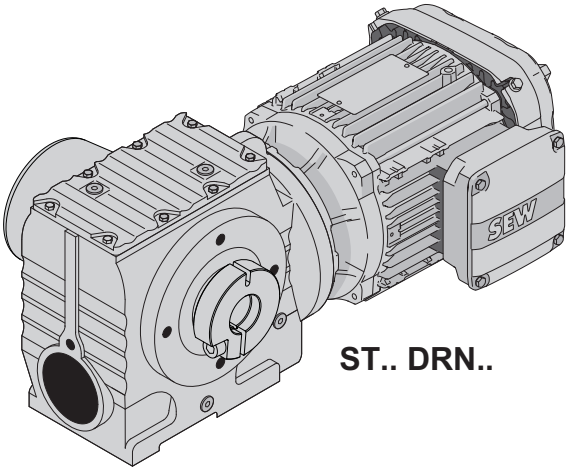
26883198/EN – 04/2022



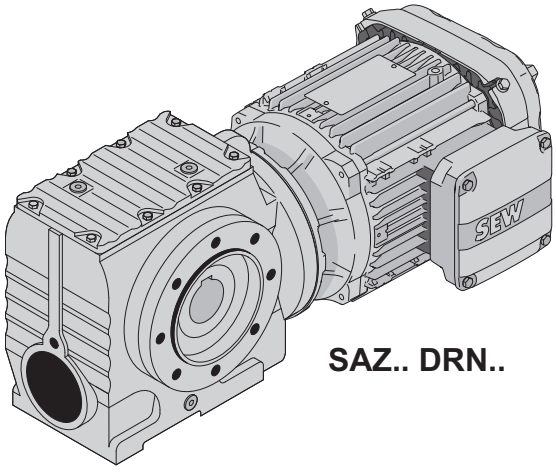
SA../T DRN..



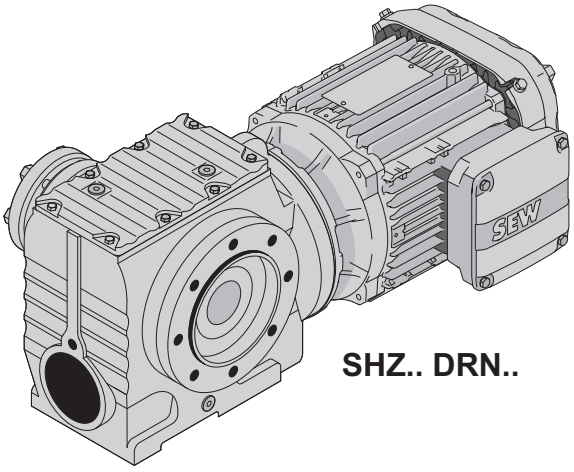
SH.. DRN..



ST.. DRN..



SAZ.. DRN..



SHZ.. DRN..

18014407174357515

26883198/EN – 04/2022

11.2 Possible geometrical combinations of S..DRN..

S37, n_e=1400 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
					2		
8.9	92	3000	-	157.43			
9.7	92	3000	-	144.40*			
11	91	3000	-	122.94			
13	88	3000	-	106.00*			
14	87	3000	-	98.80*			
16	86	3000	-	86.36			
17	85	3000	-	80.96			
20	84	3000	-	71.44*			
22	82	3000	-	63.33			
25	81	3000	-	55.93			
26	80	3000	-	53.83			
27	81	3000	-	51.30*			
32	81	3000	-	43.68			
37	79	3000	-	37.66			
40	78	3000	-	35.10*			
46	76	2860	-	30.68			
49	75	2800	-	28.76			
55	74	2660	-	25.38*			
62	73	2530	-	22.50*			
70	52	2470	-	19.89			
73	71	2380	-	19.13*			
77	52	2380	-	18.24*			
90	50	2240	-	15.53			
105	49	2110	-	13.39			
112	48	2060	-	12.48*			
128	48	1940	-	10.91			
137	47	1900	-	10.23			
155	46	1810	-	9.02*			
175	45	1730	-	8.00*			
206	43	1630	-	6.80*			
221	35	1670	-	6.33			
260	34	1570	-	5.38			
288	33	1520	-	4.86*			
353	32	1400	-	3.97			

S37R17, n_e=1400 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.14	92	3000	-	10037			
0.16	92	3000	-	8654			
0.17	92	3000	-	8066			

26883198/EN – 04/2022

S37R17, n_e=1400 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.20	92	3000	-	7051			
0.23	92	3000	-	6079			
0.26	92	3000	-	5431			
0.29	92	3000	-	4747			
0.34	92	3000	-	4155			
0.39	92	3000	-	3632			
0.49	92	3000	-	2866			
0.57	92	3000	-	2471			
0.65	92	3000	-	2160			
0.74	92	3000	-	1887			
0.84	92	3000	-	1665			
0.96	92	3000	-	1456			
1.1	92	3000	-	1271			
1.2	92	3000	-	1121			
1.4	92	3000	-	994			
1.6	92	3000	-	869			
2 2							
1.8	92	3000	-	774			
2.1	92	3000	-	666			
2.3	92	3000	-	596			
2.7	92	3000	-	521			
3.1	92	3000	-	456			
3.5	92	3000	-	398			
4.0	92	3000	-	351			
4.6	92	3000	-	303			
5.3	92	3000	-	265			
6.0	92	3000	-	232			
6.9	92	3000	-	202			
7.8	92	3000	-	179			
8.9	92	3000	-	158			
9.7	92	3000	-	144			
12	92	3000	-	118			
13	92	3000	-	110*			

S37p, n_e=1400 min^{-1}							105 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
2							
8.9	94	3000	-	157.43			
9.7	95	3000	-	144.40*			
11	96	3000	-	122.94			
13	97	3000	-	106.00*			
14	97	3000	-	98.80*			
16	98	3000	-	86.36			
17	99	3000	-	80.96			

26883198/EN – 04/2022

S37p, n_e=1400 min^{-1} — 105 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
20	100	3000	-	71.44*			
22	98	3000	-	63.33			
25	104	3000	-	55.93			
26	92	3000	-	53.83			
27	104	3000	-	51.30*			
32	105	3000	-	43.68			
37	105	2800	-	37.66			
40	105	2700	-	35.10*			
46	105	2530	-	30.68			
49	105	2450	-	28.76			
55	100	2360	-	25.38*			
62	95	2280	-	22.50*			
70	78	2130	-	19.89			
73	89	2170	-	19.13*			
77	78	2040	-	18.24*			
90	76	1860	-	15.53			
105	75	1640	-	13.39			
112	74	1560	-	12.48*			
128	73	1380	-	10.91			
137	73	1280	-	10.23			
155	70	1210	-	9.02*			
175	66	1200	-	8.00*			
206	60	1210	-	6.80*			
221	56	1120	-	6.33			
260	51	1130	-	5.38			
288	48	1140	-	4.86*			
353	44	1070	-	3.97			

S37pR17, n_e=1400 min^{-1} — 105 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.14	99	3000	-	10037			
0.16	100	3000	-	8654			
0.17	99	3000	-	8066			
0.20	99	3000	-	7051			
0.23	101	3000	-	6079			
0.26	99	3000	-	5431			
0.29	99	3000	-	4747			
0.34	102	3000	-	4155			
0.39	102	3000	-	3632			
0.49	105	3000	-	2866			
0.57	105	3000	-	2471			
0.65	105	3000	-	2160			
0.74	105	3000	-	1887			
0.84	105	3000	-	1665			

26883198/EN – 04/2022

S37pR17, n_e=1400 min^{-1}							105 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.96	105	3000	-	1456			
1.1	105	3000	-	1271			
1.2	105	3000	-	1121			
1.4	105	3000	-	994			
1.6	105	3000	-	869			
2 2							
1.8	105	3000	-	774			
2.1	105	3000	-	666			
2.3	105	3000	-	596			
2.7	105	3000	-	521			
3.1	105	3000	-	456			
3.5	105	3000	-	398			
4.0	105	3000	-	351			
4.6	105	3000	-	303			
5.3	105	3000	-	265			
6.0	105	3000	-	232			
6.9	105	3000	-	202			
7.8	105	3000	-	179			
8.9	105	3000	-	158			
9.7	105	3000	-	144			
12	105	3000	-	118			
13	105	3000	-	110*			

S47, n_e=1400 min^{-1}								170 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
2								
7.0	170	5340	-	201.00*				
7.6	170	5340	-	184.80*				
8.9	170	5340	-	158.12				
10	168	5350	-	137.05				
11	168	5350	-	128.10*				
13	168	5350	-	110.73				
15	168	5350	-	94.08*				
17	167	5360	-	84.00*				
20	167	5360	-	71.75*				
20	155	5370	-	69.39				
21	167	5360	-	67.20*				
22	155	5370	-	63.80*				
25	165	5320	-	56.61				
26	155	5150	-	54.59				
30	155	4850	-	47.32				
32	155	4710	-	44.22*				
37	155	4420	-	38.23				
43	155	4120	-	32.48*				

26883198/EN – 04/2022

S47, n_e=1400 min^{-1} — 170 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
48	155	3920	-	29.00*				
57	155	3650	-	24.77				
60	152	3570	-	23.20*				
69	110	3370	-	20.33				
72	144	3370	-	19.54				
79	110	3160	-	17.62				
85	110	3060	-	16.47*				
98	110	2850	-	14.24				
116	109	2650	-	12.10*				
130	109	2500	-	10.80*				
152	109	2310	-	9.23*				
162	109	2230	-	8.64*				
192	103	2110	-	7.28				
205	78	2300	-	6.83				
219	76	2260	-	6.40*				
260	74	2110	-	5.39				
294	72	2010	-	4.76				
350	61	1980	-	4.00*				

S47R17, n_e=1400 min^{-1} — 185 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.11	185	5250	-	12909			
0.13	185	5250	-	11189			
0.13	185	5250	-	10374			
0.16	185	5250	-	8992			
0.18	185	5250	-	7860			
0.20	185	5250	-	6887			
0.23	185	5250	-	6055			
0.26	185	5250	-	5292			
0.30	185	5250	-	4637			
0.34	185	5250	-	4092			
0.39	185	5200	-	3582			
0.45	185	5200	-	3131			
0.52	185	5200	-	2714			
0.58	185	5200	-	2412			
0.66	185	5200	-	2131			
0.75	185	5200	-	1863			
0.84	185	5200	-	1663			
0.98	185	5200	-	1435			
1.1	185	5200	-	1254			
1.2	185	5200	-	1120			
1.3	185	5200	-	1083			
1.5	183	5210	-	956			

26883198/EN – 04/2022

S47R17, n_e=1400 min^{-1}							185 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 2		
1.5	185	5200	-	965			
1.6	185	5200	-	865			
1.9	185	5200	-	750			
2.1	185	5200	-	655			
2.4	185	5200	-	574			
2.8	185	5200	-	506			
3.2	185	5200	-	438			
3.6	185	5200	-	388			
4.2	185	5200	-	336			
4.8	185	5200	-	294			
5.4	185	5260	-	257*			
6.1	185	5200	-	229			
7.0	185	5200	-	200			
7.5	185	5200	-	187			
8.5	185	5200	-	165			
9.5	185	5200	-	148			
11	185	5200	-	131			

S47p, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2			
7.0	192	5230	-	201.00*				
7.6	193	5220	-	184.80*				
8.9	194	5220	-	158.12				
10	195	5210	-	137.05				
11	196	5210	-	128.10*				
13	197	5200	-	110.73				
15	198	5200	-	94.08*				
17	199	5190	-	84.00*				
20	194	5220	-	71.75*				
20	200	5130	-	69.39				
21	189	5250	-	67.20*				
22	200	5130	-	63.80*				
25	179	5220	-	56.61				
26	200	4790	-	54.59				
30	200	4480	-	47.32				
32	200	4350	-	44.22*				
37	196	4090	-	38.23				
43	186	3880	-	32.48*				
48	179	3730	-	29.00*				
57	169	3550	-	24.77				
60	165	3480	-	23.20*				
69	160	2890	-	20.33				

26883198/EN – 04/2022

S47p, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
72	156	3280	-	19.54				
79	156	2720	-	17.62				
85	155	2630	-	16.47*				
98	152	2350	-	14.24				
116	146	2130	-	12.10*				
130	142	1990	-	10.80*				
152	134	1870	-	9.23*				
162	131	1820	-	8.64*				
192	109	2110	-	7.28				
205	120	1490	-	6.83				
219	118	1420	-	6.40*				
260	104	1540	-	5.39				
294	91	1740	-	4.76				
350	75	1860	-	4.00*				

S47pR17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.11	194	5200	-	12909			
0.13	195	5200	-	11189			
0.13	194	5200	-	10374			
0.16	195	5200	-	8992			
0.18	195	5200	-	7860			
0.20	196	5190	-	6887			
0.23	195	5200	-	6055			
0.26	195	5200	-	5292			
0.30	196	5190	-	4637			
0.34	196	5190	-	4092			
0.39	200	5070	-	3582			
0.45	200	5070	-	3131			
0.52	200	5070	-	2714			
0.58	200	5070	-	2412			
0.66	200	5070	-	2131			
0.75	200	5070	-	1863			
0.84	200	5070	-	1663			
0.98	200	5070	-	1435			
1.1	200	5070	-	1254			
1.2	200	5070	-	1120			
1.3	200	5070	-	1083			
1.5	200	5070	-	956			
					2 2		
1.5	200	5070	-	965			
1.6	200	5070	-	865			
1.9	200	5070	-	750			

26883198/EN – 04/2022

S47pR17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
2.1	200	5070	-	655			
2.4	200	5070	-	574			
2.8	200	5070	-	506			
3.2	200	5070	-	438			
3.6	200	5070	-	388			
4.2	200	5080	-	336			
4.8	200	5080	-	294			
5.4	200	5180	-	257*			
6.1	200	5100	-	229			
7.0	200	5100	-	200			
7.5	200	5100	-	187			
8.5	200	5110	-	165			
9.5	200	5110	-	148			
11	200	5120	-	131			

S57, n_e=1400 min^{-1}								295 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2			
7.0	295	7130	-	201.00*				
7.6	295	7130	-	184.80*				
8.9	295	7130	-	158.12				
10	295	7130	-	137.05				
11	295	7130	-	128.10*				
13	295	7130	-	110.73				
15	295	7130	-	94.08*				
17	295	7130	-	84.00*				
20	290	7170	-	71.75*				
20	245	7520	-	69.39				
21	285	7220	-	67.20*				
22	245	7520	-	63.80*				
25	265	7370	-	56.61				
26	245	7520	-	54.59				
30	245	7520	-	47.32				
32	245	7520	-	44.22*				
37	245	7320	-	38.23				
43	245	6840	-	32.48*				
48	245	6520	-	29.00*				
57	245	6100	-	24.77				
60	245	5930	-	23.20*				
69	168	5690	-	20.33				
72	215	5720	-	19.54				
79	168	5350	-	17.62				
85	168	5200	-	16.47*				
98	169	4860	-	14.24				

26883198/EN – 04/2022

S57, n_e=1400 min^{-1}								295 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
116	169	4520	-	12.10*				
130	169	4290	-	10.80*				
152	169	3990	-	9.23*				
162	166	3900	-	8.64*				
192	146	3790	-	7.28				
205	100	4100	-	6.83				
219	98	4010	-	6.40*				
260	95	3760	-	5.39				
294	93	3590	-	4.76				
350	88	3380	-	4.00*				

S57R17, n_e=1400 min^{-1}							330 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.11	330	6800	-	12909			
0.13	330	6800	-	11189			
0.13	330	6800	-	10374			
0.16	330	6800	-	8992			
0.18	330	6800	-	7860			
0.20	330	6800	-	6887			
0.23	330	6800	-	6055			
0.26	330	6800	-	5292			
0.30	330	6800	-	4637			
0.34	330	6800	-	4092			
0.39	330	6800	-	3628			
0.45	300	7080	-	3131			
0.52	300	7080	-	2714			
0.58	300	7080	-	2412			
0.66	300	7080	-	2131			
0.75	300	7080	-	1863			
0.84	300	7080	-	1663			
0.98	300	7080	-	1435			
1.1	300	7080	-	1254			
1.3	300	7080	-	1083			
					2 2		
1.5	300	7080	-	965			
1.6	300	7080	-	865			
1.9	300	7080	-	750			
2.1	300	7080	-	655			
2.4	300	7080	-	574			
2.8	300	7080	-	506			
3.2	300	7080	-	438			
3.6	300	7080	-	388			
4.2	300	7080	-	336			

26883198/EN – 04/2022

S57R17, n_e=1400 min^{-1}							330 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
4.8	300	7080	-	294			
5.2	300	7080	-	269			
6.1	300	7080	-	229			
6.9	300	7080	-	204			
7.5	300	7080	-	187			
8.5	300	7080	-	165			
11	300	7080	-	131			

S57p, n_e=1400 min^{-1}								370 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2			
7.0	355	6530	-	201.00*				
7.6	355	6530	-	184.80*				
8.9	360	6470	-	158.12				
10	360	6470	-	137.05				
11	365	6410	-	128.10*				
13	365	6410	-	110.73				
15	350	6580	-	94.08*				
17	335	6740	-	84.00*				
20	320	6900	-	71.75*				
20	370	6350	-	69.39				
21	310	6990	-	67.20*				
22	370	6350	-	63.80*				
25	295	7130	-	56.61				
26	360	6470	-	54.59				
30	345	6640	-	47.32				
32	335	6740	-	44.22*				
37	320	6820	-	38.23				
43	300	6480	-	32.48*				
48	290	6230	-	29.00*				
57	275	5910	-	24.77				
60	270	5780	-	23.20*				
69	225	5260	-	20.33				
72	250	5500	-	19.54				
79	225	4920	-	17.62				
85	225	4760	-	16.47*				
98	225	4440	-	14.24				
116	225	4090	-	12.10*				
130	225	3860	-	10.80*				
152	199	3800	-	9.23*				
162	187	3800	-	8.64*				
192	155	3790	-	7.28				
205	162	3550	-	6.83				
219	156	3490	-	6.40*				

26883198/EN – 04/2022

S57p, n_e=1400 min^{-1}								370 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
260	147	3300	-	5.39				
294	129	3290	-	4.76				
350	108	3240	-	4.00*				

S57pR17, n_e=1400 min^{-1}							370 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.11	360	6470	-	12909			
0.13	365	6410	-	11189			
0.13	360	6470	-	10374			
0.16	365	6410	-	8992			
0.18	365	6410	-	7860			
0.20	365	6410	-	6887			
0.23	365	6410	-	6055			
0.26	365	6410	-	5292			
0.30	365	6410	-	4637			
0.34	365	6410	-	4092			
0.39	365	6410	-	3628			
0.45	370	6350	-	3131			
0.52	370	6350	-	2714			
0.58	370	6350	-	2412			
0.66	370	6350	-	2131			
0.75	370	6350	-	1863			
0.84	370	6350	-	1663			
0.98	370	6350	-	1435			
1.1	370	6350	-	1254			
1.3	370	6350	-	1083			
					2 2		
1.5	370	6350	-	965			
1.6	370	6350	-	865			
1.9	370	6350	-	750			
2.1	370	6350	-	655			
2.4	370	6350	-	574			
2.8	370	6350	-	506			
3.2	370	6350	-	438			
3.6	370	6350	-	388			
4.2	370	6350	-	336			
4.8	370	6350	-	294			
5.2	370	6350	-	269			
6.1	370	6350	-	229			
6.9	370	6350	-	204			
7.5	370	6350	-	187			
8.5	370	6350	-	165			
11	370	6350	-	131			

26883198/EN – 04/2022

S67, n_e=1400 min^{-1} — 520 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					2					
6.4	520	8680	-	217.41						
7.4	520	8680	-	190.11						
7.8	520	8680	-	180.60*						
8.8	520	8680	-	158.45						
10	520	8680	-	134.40*						
12	520	8680	-	121.33						
13	520	8680	-	106.75*						
14	520	8680	-	100.80*						
16	520	8680	-	85.83						
18	520	8680	-	78.00*						
19	480	9020	-	75.06						
21	520	8680	-	67.57						
21	480	9020	-	65.63						
22	480	9020	-	62.35*						
24	500	8850	-	58.80*						
26	480	8670	-	54.70						
30	480	8060	-	46.40*						
33	480	7690	-	41.89						
38	480	7250	-	36.85						
40	480	7060	-	34.80*						
47	480	6540	-	29.63						
52	480	6240	-	26.93						
57	340	6040	-	24.44						
60	480	5810	-	23.33						
60	340	5890	-	23.22*						
69	340	5520	-	20.37						
69	425	5760	-	20.30*						
81	340	5080	-	17.28*						
90	340	4820	-	15.60*						
102	340	4510	-	13.73*						
108	340	4310	-	12.96*						
127	340	3660	-	11.03						
140	340	3290	-	10.03						
161	335	2860	-	8.69						
185	295	3220	-	7.56*						

S67R37, n_e=1400 min^{-1} — 570 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2 3			
0.07	570	8190	-	21362*				
0.07	570	8190	-	19594*				
0.08	570	8190	-	18120*				
0.08	570	8190	-	16682				

26883198/EN – 04/2022

S67R37, n_e=1400 min^{-1}								570 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.10	570	8190	-	14383				
0.11	570	8190	-	12774				
0.13	570	8190	-	11013				
0.14	570	8190	-	9694*				
0.16	570	8190	-	8529*				
0.19	570	8190	-	7455*				
0.21	570	8190	-	6531				
0.24	570	8190	-	5759				
0.28	570	8190	-	4965				
0.32	570	8190	-	4410				
0.36	570	8190	-	3880				
0.41	570	8190	-	3432				
0.48	570	8190	-	2944*				
0.53	570	8190	-	2630				
0.61	570	8190	-	2279				
0.70	570	8190	-	2014				
0.79	570	8190	-	1772				
0.90	570	8190	-	1559				
1.0	570	8190	-	1363				
1.2	570	8190	-	1194				
1.3	570	8190	-	1045				
1.5	570	8190	-	914				
1.7	570	8190	-	809				
2.0	570	8190	-	712				
2.3	570	8190	-	615				
2.6	570	8190	-	543				
3.0	570	8190	-	469				
3.3	570	8190	-	424				
3.8	570	8190	-	365				
4.4	570	8190	-	319				
5.0	570	8190	-	281				
5.7	570	8190	-	246				
6.3	570	8190	-	221				
7.1	570	8190	-	198				
8.3	570	8190	-	168				
9.0	570	8190	-	156				

S67p, n_e=1400 min^{-1}										720 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
6.4	640	10100	-	217.41						
7.4	640	10100	-	190.11						
7.8	645	10100	-	180.60*						

26883198/EN – 04/2022

S67p, n_e=1400 min^{-1}										720 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
8.8	645	10100	-	158.45						
10	645	10100	-	134.40*						
12	645	10100	-	121.33						
13	645	10100	-	106.75*						
14	645	10100	-	100.80*						
16	660	9700	-	85.83						
18	660	9280	-	78.00*						
19	720	8340	-	75.06						
21	650	8740	-	67.57						
21	720	7790	-	65.63						
22	720	7580	-	62.35*						
24	625	8320	-	58.80*						
26	705	7170	-	54.70						
30	680	6720	-	46.40*						
33	670	6420	-	41.89						
38	655	6070	-	36.85						
40	640	5970	-	34.80*						
47	620	5580	-	29.63						
52	600	5410	-	26.93						
57	415	5480	-	24.44						
60	525	5440	-	23.33						
60	420	5300	-	23.22*						
69	435	4700	-	20.37						
69	450	5490	-	20.30*						
81	415	4320	-	17.28*						
90	410	3960	-	15.60*						
102	395	3690	-	13.73*						
108	390	3550	-	12.96*						
127	375	3190	-	11.03						
140	365	3020	-	10.03						
161	350	2780	-	8.69						
185	330	2680	-	7.56*						

S67pR37, n_e=1400 min^{-1}								720 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2	3		
0.07	645	10000	-	21362*				
0.07	645	10000	-	19594*				
0.08	645	10000	-	18120*				
0.08	645	10000	-	16682				
0.10	645	10000	-	14383				
0.11	645	10000	-	12774				
0.13	645	10000	-	11013				
0.14	645	10000	-	9694*				
0.16	645	10000	-	8529*				

26883198/EN – 04/2022

S67pR37, n_e=1400 min^{-1}								720 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.19	645	10000	-	7455*				
0.21	645	10000	-	6531				
0.24	720	9100	-	5759				
0.28	720	9100	-	4965				
0.32	720	9100	-	4410				
0.36	720	9100	-	3880				
0.41	720	9100	-	3432				
0.48	700	9220	-	2944*				
0.53	720	9100	-	2630				
0.61	660	9460	-	2279				
0.70	720	9100	-	2014				
0.79	720	9100	-	1772				
0.90	700	9220	-	1559				
1.0	700	9220	-	1363				
1.2	720	9100	-	1194				
1.3	640	9580	-	1045				
1.5	640	9580	-	914				
2 2								
1.7	720	9100	-	809				
2.0	720	9100	-	712				
2.3	720	9100	-	615				
2.6	700	9230	-	543				
3.0	720	9130	-	469				
3.3	720	9140	-	424				
3.8	720	9150	-	365				
4.4	660	9530	-	319				
5.0	680	9420	-	281				
5.7	720	9190	-	246				
6.3	640	9670	-	221				
7.1	680	9440	-	198				
8.3	680	9450	-	168				
9.0	640	9690	-	156				

S77, n_e=1400 min^{-1}											1270 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
2											
5.5	1270	11700	-	256.47							
6.2	1270	11700	-	225.26							
6.5	1270	11700	-	214.00*							
7.4	1270	11700	-	189.09							
8.7	1260	11800	-	161.60*							
9.4	1240	12000	-	148.15							
11	1210	12200	-	130.00*							
11	1200	12300	-	123.20*							

26883198/EN – 04/2022

S77, n_e=1400 min^{-1}											1270 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
13	1170	12600	-	107.83							
14	1140	12800	-	97.14							
16	1100	13100	-	85.22							
19	1070	12800	-	75.20*							
19	1100	11900	-	75.09							
20	1100	11600	-	71.33							
21	1040	12300	-	66.67							
22	1100	10900	-	63.03							
25	990	11600	-	56.92							
26	1100	10100	-	53.87							
28	1100	9650	-	49.38							
32	1100	9010	-	43.33							
34	1100	8750	-	41.07							
39	1100	8140	-	35.94							
43	1090	7720	-	32.38							
49	1050	7370	-	28.41							
56	1020	7010	-	25.07							
61	705	5960	-	22.89							
63	980	6740	-	22.22							
67	705	5380	-	20.99							
74	930	6390	-	18.97							
76	705	4550	-	18.42							
80	710	4120	-	17.45							
92	710	3320	-	15.28							
102	710	2710	-	13.76							
116	720	1800	-	12.07							
131	720	1130	-	10.65							
148	725	415	-	9.44							
174	680	440	-	8.06							

S77R37, n_e=1400 min^{-1}								1270 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
					2 3			
0.05	1270	11700	-	25493				
0.06	1270	11700	-	21787				
0.07	1270	11700	-	19907				
0.08	1270	11700	-	17013				
0.10	1270	11700	-	14668				
0.11	1270	11700	-	13110				
0.12	1270	11700	-	11569				
0.14	1270	11700	-	9887				
0.16	1270	11700	-	8817				
0.18	1270	11700	-	7735				
0.21	1270	11700	-	6735				
0.24	1270	11700	-	5943				

26883198/EN – 04/2022

S77R37, n_e=1400 min^{-1}								1270 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.27	1270	11700	-	5214				
0.30	1270	11700	-	4618				
0.35	1270	11700	-	3992				
0.40	1270	11700	-	3540				
0.45	1270	11700	-	3098				
0.51	1240	12000	-	2753				
0.59	1240	12000	-	2374				
0.67	1240	12000	-	2083				
0.77	1240	12000	-	1813				
0.80	1240	12000	-	1745				
0.88	1240	12000	-	1600				
1.00	1240	12000	-	1404				
1.1	1240	12000	-	1245				
2 2								
1.3	1240	12000	-	1100				
1.5	1240	12000	-	954				
1.7	1240	12000	-	837				
2.0	1240	12000	-	714				
2.2	1240	12000	-	637				
2.4	1240	12000	-	574				
2.8	1240	12000	-	499				
3.2	1240	12000	-	438				
3.6	1240	12000	-	389				
4.3	1240	12000	-	327				
4.8	1240	12000	-	289				
5.6	1240	12000	-	250				
6.4	1240	12000	-	219				

S77p, n_e=1400 min^{-1}											1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
2											
5.5	1500	12400	-	256.47							
6.2	1500	12400	-	225.26							
6.5	1500	12400	-	214.00*							
7.4	1500	12400	-	189.09							
8.7	1500	12400	-	161.60*							
9.4	1500	12400	-	148.15							
11	1500	12400	-	130.00*							
11	1500	12400	-	123.20*							
13	1470	12500	-	107.83							
14	1440	12600	-	97.14							
16	1390	12000	-	85.22							
19	1340	11500	-	75.20*							
19	1360	10500	-	75.09							

26883198/EN – 04/2022

S77p, n_e=1400 min^{-1}											1500 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
20	1350	10300	-	71.33							
21	1290	11000	-	66.67							
22	1320	9770	-	63.03							
25	1230	10400	-	56.92							
26	1300	9050	-	53.87							
28	1280	8710	-	49.38							
32	1250	8220	-	43.33							
34	1240	8020	-	41.07							
39	1210	7560	-	35.94							
43	1180	7250	-	32.38							
49	1140	6890	-	28.41							
56	1100	6580	-	25.07							
61	840	4260	-	22.89							
63	1070	6260	-	22.22							
67	820	4010	-	20.99							
74	1010	5960	-	18.97							
76	800	3490	-	18.42							
80	795	3240	-	17.45							
92	765	2930	-	15.28							
102	745	2650	-	13.76							
116	720	2330	-	12.07							
131	720	1650	-	10.65							
148	725	940	-	9.44							
174	680	920	-	8.06							

S77pR37, n_e=1400 min^{-1}								1500 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L
					2 3			
0.05	1500	12200	-	25493				
0.06	1500	12200	-	21787				
0.07	1500	12200	-	19907				
0.08	1500	12200	-	17013				
0.10	1500	12200	-	14668				
0.11	1500	12200	-	13110				
0.12	1500	12200	-	11569				
0.14	1500	12200	-	9887				
0.16	1500	12200	-	8817				
0.18	1500	12200	-	7735				
0.21	1500	12200	-	6735				
0.24	1500	12200	-	5943				
0.27	1500	12200	-	5214				
0.30	1500	12200	-	4618				
0.35	1500	12200	-	3992				
0.40	1500	12200	-	3540				
0.45	1500	12200	-	3098				

26883198/EN – 04/2022

S77pR37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.51	1440	11500	-	2753				
0.59	1440	11500	-	2374				
0.67	1440	11500	-	2083				
0.77	1440	11500	-	1813				
0.80	1450	11500	-	1745				
0.88	1440	11500	-	1600				
1.00	1440	11500	-	1404				
1.1	1440	11500	-	1245				
						2 2		
1.3	1440	11500	-	1100				
1.5	1440	11500	-	954				
1.7	1440	11500	-	837				
2.0	1450	11500	-	714				
2.2	1450	11500	-	637				
2.4	1440	11500	-	574				
2.8	1440	11600	-	499				
3.2	1440	11600	-	438				
3.6	1400	11800	-	389				
4.3	1400	11800	-	327				
4.8	1440	11700	-	289				
5.6	1440	11700	-	250				
6.4	1440	11700	-	219				

S87, n_e=1400 min^{-1}												2280 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
							2					
4.9	2280	27900	-	288.00*								
5.4	2280	27900	-	258.18								
6.3	2280	27900	-	222.40*								
6.9	2260	28000	-	202.96								
7.8	2210	28100	-	180.00*								
9.3	2150	28200	-	151.30								
10	2100	28300	-	139.05								
11	2060	28300	-	123.48								
13	2000	28400	-	110.40*								
14	1960	28500	-	99.26								
15	1510	29100	-	91.20*								
16	1880	28600	-	86.15								
17	1600	29000	-	81.76								
18	1820	28700	-	77.14								
20	1600	29000	-	70.43								
22	1600	29000	-	64.27								
22	1700	28900	-	64.00*								
25	1600	29000	-	57.00*								
29	1600	29000	-	47.91								
32	1600	29000	-	44.03								

26883198/EN – 04/2022

S87, n_e=1400 min^{-1}												2280 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
36	1600	28200	-	39.10								
40	1600	27100	-	34.96*								
45	1600	26000	-	31.43								
51	1600	24700	-	27.28								
55	1240	23400	-	25.50*								
57	1600	23700	-	24.43								
65	1240	21800	-	21.43								
69	1600	22100	-	20.27								
71	1240	21100	-	19.70								
80	1240	20200	-	17.49								
90	1240	19300	-	15.64*								
100	1240	18500	-	14.06								
115	1240	17400	-	12.21								
128	1240	16400	-	10.93								
154	1140	15900	-	9.07								
178	1010	15700	-	7.88								

S87R57, n_e=1400 min^{-1}										2500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					2 3					
0.05	2500	27500	-	25987						
0.06	2500	27500	-	23940						
0.07	2500	27500	-	20568						
0.08	2500	27500	-	18265						
0.08	2500	27500	-	16774						
0.09	2500	27500	-	14820						
0.11	2500	27500	-	13160						
0.12	2500	27500	-	11200						
0.14	2500	27500	-	9904						
0.16	2500	27500	-	8549						
0.18	2500	27500	-	7643						
0.21	2500	27500	-	6706						
0.24	2500	27500	-	5875						
0.27	2500	27500	-	5187						
0.30	2500	27500	-	4606						
0.36	2500	27500	-	3872						
					2 2					
0.40	2500	27500	-	3475						
0.48	2500	27500	-	2905						
0.54	2500	27500	-	2586						
0.60	2500	27500	-	2335						
0.68	2500	27500	-	2054						
0.77	2500	27500	-	1824						
0.86	2500	27500	-	1631*						
1.1	2500	27500	-	1332						
1.2	2500	27500	-	1191						

26883198/EN – 04/2022

S87R57, n_e=1400 min^{-1}										2500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
1.4	2500	27500	-	1032*						
1.5	2500	27500	-	930						
1.7	2500	27500	-	831						
1.9	2500	27500	-	719						
2.2	2500	27500	-	624						
2.5	2500	27500	-	558						
2.9	2500	27500	-	485						
3.2	2450	27600	-	435						
3.7	2450	27600	-	378						
4.3	2400	27700	-	323						
5.0	2400	27700	-	281						
5.5	1980	28400	-	255						
6.3	1980	28400	-	222						
6.8	1980	28400	-	205						

S87p, n_e=1400 min^{-1}												3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
							2					
4.9	3000	19800	-	288.00*								
5.4	2920	22600	-	258.18								
6.3	2860	24400	-	222.40*								
6.9	2820	25500	-	202.96								
7.8	2780	26200	-	180.00*								
9.3	2680	27100	-	151.30								
10	2670	27100	-	139.05								
11	2580	27300	-	123.48								
13	2510	27500	-	110.40*								
14	2440	27600	-	99.26								
15	2490	27500	-	91.20*								
16	2360	27800	-	86.15								
17	2460	27500	-	81.76								
18	2280	27900	-	77.14								
20	2400	27700	-	70.43								
22	2380	27700	-	64.27								
22	2160	28200	-	64.00*								
25	2330	27800	-	57.00*								
29	2260	28000	-	47.91								
32	2210	27300	-	44.03								
36	2160	26200	-	39.10								
40	2090	25400	-	34.96*								
45	2040	24500	-	31.43								
51	1970	23400	-	27.28								
55	1440	22800	-	25.50*								
57	1890	22700	-	24.43								
65	1420	21400	-	21.43								
69	1760	21600	-	20.27								

26883198/EN – 04/2022

S87p, n_e=1400 min^{-1}												3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
71	1370	20900	-	19.70								
80	1310	20200	-	17.49								
90	1260	19600	-	15.64*								
100	1240	18900	-	14.06								
115	1240	17800	-	12.21								
128	1240	16800	-	10.93								
154	1140	16300	-	9.07								
178	1010	16100	-	7.88								

S87pR57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					2 3					
0.05	3000	19800	-	25987						
0.06	3000	19800	-	23940						
0.07	3000	19800	-	20568						
0.08	3000	19800	-	18265						
0.08	3000	19800	-	16774						
0.09	3000	19800	-	14820						
0.11	3000	19800	-	13160						
0.12	3000	19800	-	11200						
0.14	2900	23200	-	9904						
0.16	3000	19800	-	8549						
0.18	2950	21600	-	7643						
0.21	3000	19800	-	6706						
0.24	2950	21600	-	5875						
0.27	3000	19800	-	5187						
0.30	3000	19800	-	4606						
0.36	2950	21600	-	3872						
					2 2					
0.40	3000	19800	-	3475						
0.48	2950	21600	-	2905						
0.54	3000	19800	-	2586						
0.60	3000	19800	-	2335						
0.68	3000	19800	-	2054						
0.77	3000	19800	-	1824						
0.86	2950	21600	-	1631*						
1.1	3000	19800	-	1332						
1.2	2950	21600	-	1191						
1.4	2950	21600	-	1032*						
1.5	3000	19800	-	930						
1.7	2950	21600	-	831						
1.9	3000	19800	-	719						
2.2	3000	19800	-	624						
2.5	2950	21600	-	558						
2.9	2950	21600	-	485						
3.2	2900	23200	-	435						

26883198/EN – 04/2022

S87pR57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
3.7	2900	23200	-	378						
4.3	2900	23200	-	323						
5.0	2900	23200	-	281						
5.5	2590	27000	-	255						
6.3	2660	26000	-	222						
6.8	2590	27100	-	205						

S97, n_e=1400 min^{-1}													4000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							2						
4.9	4000	33200	-	286.40*									
5.3	4000	33200	-	262.22									
6.0	4000	33200	-	231.67									
7.1	4000	33200	-	196.52									
7.7	3920	33400	-	180.95									
8.7	3840	33500	-	161.74									
9.6	3730	33700	-	145.60*									
11	3650	33900	-	131.85									
12	3510	34100	-	116.92									
13	3440	34300	-	105.71									
16	3240	34600	-	89.60*									
17	3230	34600	-	80.85									
18	3080	34800	-	78.26									
20	3300	34500	-	71.43									
21	2900	35100	-	65.45									
23	3300	34500	-	60.59									
25	3300	34500	-	55.79									
28	3300	34500	-	49.87									
31	3300	34100	-	44.89									
34	3300	32800	-	40.65									
39	3300	31300	-	36.05									
43	3200	30400	-	32.60									
51	3010	29000	-	27.63									
53	2600	26100	-	26.39									
58	2870	28000	-	24.13									
59	2600	24500	-	23.59									
66	2600	22800	-	21.23									
73	2600	21200	-	19.23									
82	2570	19700	-	17.05									
91	2470	19400	-	15.42									
107	2330	18800	-	13.07									
123	2210	18400	-	11.41									
147	2040	18200	-	9.55									
169	1770	18800	-	8.26									

26883198/EN – 04/2022

S97R57, n_e=1400 min^{-1}										4200 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
					2 3					
0.04	4200	32800	-	33818						
0.04	4200	32800	-	31154						
0.05	4200	32800	-	27847						
0.06	4200	32800	-	24641						
0.07	4200	32800	-	21537						
0.07	4200	32800	-	18749*						
0.09	4200	32800	-	16233						
0.10	4200	32800	-	14576						
0.11	4200	32800	-	12752						
0.12	4200	32800	-	11267						
0.14	4200	32800	-	10078						
0.16	4200	32800	-	8608						
0.19	4200	32800	-	7554						
0.21	4200	31300	-	6640						
0.24	4200	31300	-	5780*						
0.28	4200	31300	-	4937						
0.32	4200	31300	-	4444						
0.35	4200	31300	-	4017						
0.41	4200	31300	-	3453						
0.45	4200	31300	-	3108						
0.53	4200	31300	-	2654						
0.60	4200	31300	-	2329						
0.67	4200	31300	-	2081						
0.75	4200	31300	-	1860						
0.89	4200	31300	-	1574*						
					2 2					
1.0	4200	31300	-	1394						
1.1	4200	31300	-	1223						
1.3	4200	31300	-	1070						
1.5	4200	31300	-	928						
1.7	4200	31300	-	824						
2.0	4200	32800	-	714						
2.2	4200	31300	-	626*						
2.6	4200	31300	-	538						
2.9	4200	31400	-	484*						
3.3	4200	31400	-	420						
3.7	4200	31400	-	376						
4.3	4200	31500	-	327						
4.9	4200	31500	-	287						
5.6	4200	31500	-	252						
6.4	4200	31600	-	219						
6.8	4200	31600	-	205						

26883198/EN – 04/2022

S97p, n_e=1400 min^{-1}													4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					2								
4.9	4300	32500	-	286.40*									
5.3	4300	32500	-	262.22									
6.0	4300	32500	-	231.67									
7.1	4300	32500	-	196.52									
7.7	4300	32500	-	180.95									
8.7	4300	32500	-	161.74									
9.6	4300	32500	-	145.60*									
11	4300	32500	-	131.85									
12	4300	32500	-	116.92									
13	4290	32600	-	105.71									
16	4070	33000	-	89.60*									
17	3700	33800	-	80.85									
18	3910	33400	-	78.26									
20	4100	33000	-	71.43									
21	3520	34100	-	65.45									
23	3980	33200	-	60.59									
25	3910	33400	-	55.79									
28	3810	33600	-	49.87									
31	3710	33100	-	44.89									
34	3600	32200	-	40.65									
39	3500	30900	-	36.05									
43	3390	30000	-	32.60									
51	3230	28600	-	27.63									
53	2600	26800	-	26.39									
58	3080	27500	-	24.13									
59	2600	25300	-	23.59									
66	2600	23500	-	21.23									
73	2600	21900	-	19.23									
82	2570	20300	-	17.05									
91	2470	20000	-	15.42									
107	2330	19300	-	13.07									
123	2210	18900	-	11.41									
147	2040	18600	-	9.55									
169	1770	19200	-	8.26									

S97pR57, n_e=1400 min^{-1}											4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					2 3					
0.04	4300	32500	-	33818						
0.04	4300	32500	-	31154						
0.05	4300	32500	-	27847						
0.06	4300	32500	-	24641						
0.07	4300	32500	-	21537						
0.07	4300	32500	-	18749*						
0.09	4300	32500	-	16233						

26883198/EN – 04/2022

S97pR57, n_e=1400 min^{-1}										4300 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M
0.10	4300	32500	-	14576						
0.11	4300	32500	-	12752						
0.12	4300	32500	-	11267						
0.14	4300	32500	-	10078						
0.16	4300	32500	-	8608						
0.19	4300	32500	-	7554						
0.21	4300	30200	-	6640						
0.24	4300	30200	-	5780*						
0.28	4300	30200	-	4937						
0.32	4300	30200	-	4444						
0.35	4300	30200	-	4017						
0.41	4300	30200	-	3453						
0.45	4300	30200	-	3108						
0.53	4300	30200	-	2654						
0.60	4300	30200	-	2329						
0.67	4300	30200	-	2081						
0.75	4300	30200	-	1860						
0.89	4300	30200	-	1574*						
						2	2			
1.0	4300	30200	-	1394						
1.1	4300	30200	-	1223						
1.3	4300	30200	-	1070						
1.5	4300	30200	-	928						
1.7	4300	30200	-	824						
2.0	4300	32500	-	714						
2.2	4300	30300	-	626*						
2.6	4300	30400	-	538						
2.9	4300	30500	-	484*						
3.3	4300	30500	-	420						
3.7	4300	30600	-	376						
4.3	4300	30600	-	327						
4.9	4300	30700	-	287						
5.6	4300	30700	-	252						
6.4	4300	30700	-	219						
6.8	4300	30700	-	205						

26883198/EN – 04/2022

11.3 S..DRN.. selection tables in kW

P_m = 0.09 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.8	97	157.43	3000	1.00	**S**	**37p**	**DRN**	**63MR6**	12	845
6.4	90	144.40*	3000	1.05	**SF**	**37p**	**DRN**	**63MR6**	13	846
7.5	79	122.94	3000	1.20	**SA**	**37p**	**DRN**	**63MR6**	11	847
8.7	70	106.00*	3000	1.40	**SAF**	**37p**	**DRN**	**63MR6**	13	846
9.3	66	98.80*	3000	1.50						

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.12	4850	11267	20600	0.90						
0.14	4440	10078	31200	0.95	**S**	**97pR57**	**DRN**	**63MS4**	170	879
0.16	3680	8608	33800	1.15	**SF**	**97pR57**	**DRN**	**63MS4**	200	879
0.18	3250	7554	34600	1.30	**SA**	**97pR57**	**DRN**	**63MS4**	165	879
0.21	3850	6640	33500	1.10	**SAF**	**97pR57**	**DRN**	**63MS4**	190	879
0.24	3350	5780	34400	1.30						
0.12	4740	11267	25100	0.90	**S**	**97R57**	**DRN**	**63MS4**	170	879
0.14	4330	10078	32500	0.95	**SF**	**97R57**	**DRN**	**63MS4**	200	879
0.16	3590	8608	34000	1.15	**SA**	**97R57**	**DRN**	**63MS4**	165	879
0.18	3180	7554	34700	1.30	**SAF**	**97R57**	**DRN**	**63MS4**	190	879
0.16	3680	8549	-	0.80						
0.18	3290	7643	-	0.90						
0.21	2750	6706	26200	1.10	**S**	**87pR57**	**DRN**	**63MS4**	110	879
0.23	2460	5875	27600	1.20	**SF**	**87pR57**	**DRN**	**63MS4**	130	879
0.27	2030	5187	28400	1.45	**SA**	**87pR57**	**DRN**	**63MS4**	105	879
0.30	1810	4606	28700	1.65	**SAF**	**87pR57**	**DRN**	**63MS4**	120	879
0.36	1500	3872	29200	1.95						
0.21	2690	6706	27100	0.95	**S**	**87R57**	**DRN**	**63MS4**	110	879
0.23	2400	5875	27700	1.05	**SF**	**87R57**	**DRN**	**63MS4**	130	879
0.27	1980	5187	28500	1.25	**SA**	**87R57**	**DRN**	**63MS4**	105	879
0.30	1760	4606	28800	1.40	**SAF**	**87R57**	**DRN**	**63MS4**	120	879
0.36	1460	3872	29200	1.70						
0.30	1800	4618	10900	0.85						
0.35	1610	3992	11700	0.95						
0.39	1410	3540	12600	1.05						
0.45	1230	3098	13400	1.20						
0.50	1580	2753	10800	0.90	**S**	**77pR37**	**DRN**	**63MS4**	59	879
0.58	1340	2374	12000	1.05	**SF**	**77pR37**	**DRN**	**63MS4**	68	879
0.66	1180	2083	12800	1.20	**SA**	**77pR37**	**DRN**	**63MS4**	58	879
0.76	1000	1813	13700	1.45	**SAF**	**77pR37**	**DRN**	**63MS4**	65	879
0.79	950	1745	14000	1.50						
0.86	870	1600	14400	1.65						
0.98	765	1404	14900	1.90						
1.1	665	1245	15400	2.1						
0.39	1370	3540	7230	0.90						
0.45	1200	3098	12300	1.05						
0.58	1320	2374	10600	0.95	**S**	**77R37**	**DRN**	**63MS4**	59	879
0.66	1160	2083	12600	1.05	**SF**	**77R37**	**DRN**	**63MS4**	68	879
0.76	980	1813	13900	1.25	**SA**	**77R37**	**DRN**	**63MS4**	58	879
0.79	930	1745	14200	1.30	**SAF**	**77R37**	**DRN**	**63MS4**	65	879
0.86	860	1600	14600	1.45						
0.98	755	1404	15100	1.65						
1.1	660	1245	15500	1.90						
0.88	800	1559	8560	0.85	**S**	**67pR37**	**DRN**	**63MS4**	40	879
1.0	695	1363	9230	1.00	**SF**	**67pR37**	**DRN**	**63MS4**	46	879
1.2	595	1194	9840	1.20	**SA**	**67pR37**	**DRN**	**63MS4**	41	879
1.3	540	1045	10200	1.20	**SAF**	**67pR37**	**DRN**	**63MS4**	45	879
1.5	465	914	10600	1.35						
1.7	425	809	10900	1.70	**S**	**67pR37**	**DRN**	**63MS4**	39	879
1.9	375	712	11200	1.90	**SF**	**67pR37**	**DRN**	**63MS4**	46	879
2.2	310	615	11400	2.3	**SA**	**67pR37**	**DRN**	**63MS4**	40	879
2.5	285	543	11400	2.5	**SAF**	**67pR37**	**DRN**	**63MS4**	45	879

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	585	1194	7990	0.95	**S**	**67R37**	**DRN**	**63MS4**	40	879
1.3	530	1045	8560	1.05	**SF**	**67R37**	**DRN**	**63MS4**	46	879
1.5	455	914	9180	1.25	**SA**	**67R37**	**DRN**	**63MS4**	41	879
					SAF	**67R37**	**DRN**	**63MS4**	45	879
1.7	415	809	9460	1.35						
1.9	365	712	9770	1.55						
2.2	305	615	10100	1.85	**S**	**67R37**	**DRN**	**63MS4**	39	879
2.5	275	543	10200	2.1	**SF**	**67R37**	**DRN**	**63MS4**	46	879
2.9	225	469	10400	2.5	**SA**	**67R37**	**DRN**	**63MS4**	40	879
3.3	200	424	10500	2.8	**SAF**	**67R37**	**DRN**	**63MS4**	45	879
3.8	187	365	10500	3.0						
1.6	445	865	-	0.85						
1.8	385	750	6110	0.95						
2.1	335	655	6740	1.10						
2.4	290	574	7150	1.25	**S**	**57pR17**	**DRN**	**63MS4**	21	879
2.7	250	506	7450	1.45	**SF**	**57pR17**	**DRN**	**63MS4**	25	879
3.1	220	438	7660	1.65	**SA**	**57pR17**	**DRN**	**63MS4**	21	879
3.6	199	388	7800	1.85	**SAF**	**57pR17**	**DRN**	**63MS4**	23	879
4.1	181	336	7890	2.0						
4.7	157	294	8000	2.4						
5.1	151	269	8020	2.4						
2.1	325	655	6800	0.90						
2.4	285	574	7200	1.05						
2.7	250	506	7480	1.20	**S**	**57R17**	**DRN**	**63MS4**	21	879
3.1	215	438	7700	1.40	**SF**	**57R17**	**DRN**	**63MS4**	25	879
3.6	189	388	7850	1.60	**SA**	**57R17**	**DRN**	**63MS4**	21	879
4.1	169	336	7950	1.75	**SAF**	**57R17**	**DRN**	**63MS4**	23	879
4.7	144	294	8050	2.1						
5.1	138	269	8070	2.2						
3.1	215	438	4890	0.90						
3.6	193	388	5130	1.05						
4.1	176	336	5250	1.15	**S**	**47pR17**	**DRN**	**63MS4**	17	879
4.7	152	294	5380	1.30	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
5.4	121	257	5570	1.65	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
6.0	128	229	5500	1.55	**SAF**	**47pR17**	**DRN**	**63MS4**	20	879
6.9	112	200	5580	1.75						
7.4	106	187	5600	1.90						
3.1	215	438	4920	0.85						
3.6	188	388	5160	1.00						
4.1	168	336	5290	1.10	**S**	**47R17**	**DRN**	**63MS4**	17	879
4.7	143	294	5420	1.30	**SF**	**47R17**	**DRN**	**63MS4**	21	879
5.4	97	257	5660	1.90	**SA**	**47R17**	**DRN**	**63MS4**	18	879
6.0	117	229	5550	1.55	**SAF**	**47R17**	**DRN**	**63MS4**	20	879
6.9	102	200	5620	1.80						
7.4	95	187	5640	1.95						
6.0	125	232	2670	0.85						
6.8	110	202	3000	0.95						
7.7	99	179	3000	1.05	**S**	**37pR17**	**DRN**	**63MS4**	14	879
8.7	89	158	3000	1.15	**SF**	**37pR17**	**DRN**	**63MS4**	15	879
9.6	83	144	3000	1.25	**SA**	**37pR17**	**DRN**	**63MS4**	14	879
12	68	118	3000	1.55	**SAF**	**37pR17**	**DRN**	**63MS4**	15	879
13	64	110	3000	1.65						
6.8	102	202	3000	0.90						
7.7	91	179	3000	1.00	**S**	**37R17**	**DRN**	**63MS4**	14	879
8.7	81	158	3000	1.15	**SF**	**37R17**	**DRN**	**63MS4**	15	879
9.6	75	144	3000	1.20	**SA**	**37R17**	**DRN**	**63MS4**	14	879
12	61	118	3000	1.50	**SAF**	**37R17**	**DRN**	**63MS4**	15	879
13	57	110	3000	1.60						
4.3	182	201.00*	7880	1.95	**S**	**57p**	**DRN**	**63M6**	18	854
4.7	170	184.80*	7940	2.1	**SF**	**57p**	**DRN**	**63M6**	22	855
5.5	149	158.12	8030	2.4	**SA**	**57p**	**DRN**	**63M6**	18	856
6.3	132	137.05	8090	2.8	**SAF**	**57p**	**DRN**	**63M6**	21	855
4.3	147	201.00*	8040	2.0	**S**	**57**	**DRN**	**63M6**	18	854
4.7	137	184.80*	8080	2.2	**SF**	**57**	**DRN**	**63M6**	22	855
5.5	119	158.12	8130	2.5	**SA**	**57**	**DRN**	**63M6**	18	856
6.3	105	137.05	8170	2.8	**SAF**	**57**	**DRN**	**63M6**	21	855

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.3	175	201.00*	5320	1.10						
4.7	163	184.80*	5380	1.20	**S**	**47p**	**DRN**	**63M6**	15	849
5.5	144	158.12	5470	1.35	**SF**	**47p**	**DRN**	**63M6**	18	850
6.3	127	137.05	5540	1.55	**SA**	**47p**	**DRN**	**63M6**	16	851
6.8	120	128.10*	5580	1.60	**SAF**	**47p**	**DRN**	**63M6**	17	850
6.9	119	201.00*	5580	1.60						
7.5	111	184.80*	5620	1.75	**S**	**47p**	**DRN**	**63MS4**	14	849
8.7	96	158.12	5670	2.0	**SF**	**47p**	**DRN**	**63MS4**	17	850
10	85	137.05	5720	2.3	**SA**	**47p**	**DRN**	**63MS4**	15	851
11	80	128.10*	5740	2.4	**SAF**	**47p**	**DRN**	**63MS4**	17	850
12	70	110.73	5770	2.8						
4.3	142	201.00*	5470	1.25						
4.7	132	184.80*	5520	1.35	**S**	**47**	**DRN**	**63M6**	15	849
5.5	115	158.12	5590	1.50	**SF**	**47**	**DRN**	**63M6**	18	850
6.3	102	137.05	5650	1.70	**SA**	**47**	**DRN**	**63M6**	16	851
6.8	96	128.10*	5670	1.80	**SAF**	**47**	**DRN**	**63M6**	17	850
6.9	95	201.00*	5680	1.80						
7.5	88	184.80*	5700	1.90	**S**	**47**	**DRN**	**63MS4**	14	849
8.7	77	158.12	5740	2.2	**SF**	**47**	**DRN**	**63MS4**	17	850
10	68	137.05	5770	2.5	**SA**	**47**	**DRN**	**63MS4**	15	851
11	64	128.10*	5790	2.6	**SAF**	**47**	**DRN**	**63MS4**	17	850
12	56	110.73	5810	3.0						
7.1	111	122.94	3000	0.85						
8.2	98	106.00*	3000	1.00	**S**	**37p**	**DRN**	**63M6**	12	845
8.8	92	98.80*	3000	1.05	**SF**	**37p**	**DRN**	**63M6**	13	846
10	82	86.36	3000	1.20	**SA**	**37p**	**DRN**	**63M6**	11	847
11	77	80.96	3000	1.25	**SAF**	**37p**	**DRN**	**63M6**	13	846
12	69	71.44*	3000	1.45						
8.8	92	157.43	3000	1.00						
9.6	86	144.40*	3000	1.10						
11	74	122.94	3000	1.30						
13	65	106.00*	3000	1.50						
14	61	98.80*	3000	1.60	**S**	**37p**	**DRN**	**63MS4**	11	845
16	54	86.36	3000	1.80	**SF**	**37p**	**DRN**	**63MS4**	12	846
17	51	80.96	3000	1.95	**SA**	**37p**	**DRN**	**63MS4**	10	847
19	45	71.44*	3000	2.2	**SAF**	**37p**	**DRN**	**63MS4**	12	846
22	40	63.33	3000	2.4						
25	40	55.93	3000	2.6						
27	36	51.30*	3000	2.8						
5.5	110	157.43	3000	0.85						
6.0	102	144.40*	3000	0.90	**S**	**37**	**DRN**	**63M6**	12	845
7.1	88	122.94	3000	1.05	**SF**	**37**	**DRN**	**63M6**	13	846
8.2	78	106.00*	3000	1.20	**SA**	**37**	**DRN**	**63M6**	11	847
8.8	73	98.80*	3000	1.25	**SAF**	**37**	**DRN**	**63M6**	13	846
10	65	86.36	3000	1.40						
8.8	73	157.43	3000	1.25						
9.6	68	144.40*	3000	1.35						
11	59	122.94	3000	1.55						
13	52	106.00*	3000	1.70						
14	49	98.80*	3000	1.75						
16	43	86.36	3000	1.95						
17	41	80.96	3000	2.1						
19	37	71.44*	3000	2.3						
22	33	63.33	3000	2.5						
25	35	55.93	3000	2.3	**S**	**37**	**DRN**	**63MS4**	11	845
27	32	51.30*	3000	2.5	**SF**	**37**	**DRN**	**63MS4**	12	846
32	28	43.68	3000	2.9	**SA**	**37**	**DRN**	**63MS4**	10	847
37	24	37.66	3000	3.2	**SAF**	**37**	**DRN**	**63MS4**	12	846
39	22	35.10*	3000	3.4						
45	20	30.68	3000	3.8						
48	19	28.76	3000	3.9						
54	16	25.38*	3000	4.4						
61	15	22.50*	3000	4.8						
69	14	19.89	3000	3.6						
76	13	18.24*	3000	4.0						
89	11	15.53	2870	4.4						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.27	3310	5187	-	0.90	**S**	**87pR57**	**DRN**	**63M4**	110	879
0.30	2940	4606	21800	1.00	**SF**	**87pR57**	**DRN**	**63M4**	130	879
0.36	2450	3872	27600	1.20	**SA**	**87pR57**	**DRN**	**63M4**	105	879
					SAF	**87pR57**	**DRN**	**63M4**	125	879
0.40	2370	3475	27700	1.25						
0.47	1990	2905	28500	1.50						
0.53	1720	2586	28900	1.75	**S**	**87pR57**	**DRN**	**63M4**	110	879
0.59	1530	2335	29100	1.95	**SF**	**87pR57**	**DRN**	**63M4**	130	879
0.67	1330	2054	29400	2.2	**SA**	**87pR57**	**DRN**	**63M4**	105	879
0.75	1210	1824	29500	2.5	**SAF**	**87pR57**	**DRN**	**63M4**	120	879
0.84	1100	1631	29600	2.7						
					S	**87R57**	**DRN**	**63M4**	110	879
0.30	2870	4606	24000	0.85	**SF**	**87R57**	**DRN**	**63M4**	130	879
0.36	2390	3872	27700	1.05	**SA**	**87R57**	**DRN**	**63M4**	105	879
					SAF	**87R57**	**DRN**	**63M4**	125	879
0.40	2310	3475	27900	1.10						
0.47	1940	2905	28500	1.30						
0.53	1680	2586	28900	1.50	**S**	**87R57**	**DRN**	**63M4**	110	879
0.59	1500	2335	29200	1.65	**SF**	**87R57**	**DRN**	**63M4**	130	879
0.67	1290	2054	29400	1.95	**SA**	**87R57**	**DRN**	**63M4**	105	879
0.75	1150	1824	29500	2.2	**SAF**	**87R57**	**DRN**	**63M4**	120	879
0.84	1030	1631	29700	2.4						
0.76	1570	1813	10800	0.90						
0.79	1500	1745	11200	0.95	**S**	**77pR37**	**DRN**	**63M4**	60	879
0.86	1370	1600	11800	1.05	**SF**	**77pR37**	**DRN**	**63M4**	69	879
0.98	1200	1404	12700	1.20	**SA**	**77pR37**	**DRN**	**63M4**	59	879
1.1	1060	1245	13400	1.35	**SAF**	**77pR37**	**DRN**	**63M4**	66	879
1.2	990	1100	13800	1.45						
1.4	850	954	14500	1.70	**S**	**77pR37**	**DRN**	**63M4**	59	879
1.6	745	837	15000	1.95	**SF**	**77pR37**	**DRN**	**63M4**	69	879
1.9	620	714	15600	2.3	**SA**	**77pR37**	**DRN**	**63M4**	59	879
2.2	550	637	15700	2.6	**SAF**	**77pR37**	**DRN**	**63M4**	66	879
2.4	500	574	15700	2.9						
					S	**77R37**	**DRN**	**63M4**	60	879
0.98	1190	1404	12400	1.05	**SF**	**77R37**	**DRN**	**63M4**	69	879
1.1	1040	1245	13500	1.20	**SA**	**77R37**	**DRN**	**63M4**	59	879
					SAF	**77R37**	**DRN**	**63M4**	66	879
1.2	970	1100	14000	1.25						
1.4	830	954	14700	1.50	**S**	**77R37**	**DRN**	**63M4**	59	879
1.6	735	837	15200	1.70	**SF**	**77R37**	**DRN**	**63M4**	69	879
1.9	610	714	15700	2.0	**SA**	**77R37**	**DRN**	**63M4**	59	879
2.2	540	637	15900	2.3	**SAF**	**77R37**	**DRN**	**63M4**	66	879
2.4	490	574	16000	2.5						
1.7	660	809	9440	1.10						
1.9	580	712	9920	1.25						
2.2	490	615	10500	1.45	**S**	**67pR37**	**DRN**	**63M4**	40	879
2.5	445	543	10800	1.55	**SF**	**67pR37**	**DRN**	**63M4**	47	879
2.9	380	469	11200	1.90	**SA**	**67pR37**	**DRN**	**63M4**	41	879
3.2	345	424	11300	2.1	**SAF**	**67pR37**	**DRN**	**63M4**	46	879
3.8	315	365	11400	2.3						
1.9	570	712	8140	1.00						
2.2	480	615	8990	1.20	**S**	**67R37**	**DRN**	**63M4**	40	879
2.5	430	543	9370	1.30	**SF**	**67R37**	**DRN**	**63M4**	47	879
2.9	360	469	9820	1.60	**SA**	**67R37**	**DRN**	**63M4**	41	879
3.2	325	424	10000	1.75	**SAF**	**67R37**	**DRN**	**63M4**	46	879
3.8	290	365	10200	1.95						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.4	455	574	-	0.80						
2.7	400	506	5940	0.90						
3.1	350	438	6570	1.05						
3.5	310	388	6950	1.20	**S**	**57pR17**	**DRN**	**63M4**	22	879
4.1	280	336	7230	1.30	**SF**	**57pR17**	**DRN**	**63M4**	25	879
4.7	245	294	7490	1.50	**SA**	**57pR17**	**DRN**	**63M4**	21	879
5.1	235	269	7580	1.55	**SAF**	**57pR17**	**DRN**	**63M4**	24	879
6.0	200	229	7770	1.80						
6.7	185	204	7870	2.0						
7.3	170	187	7940	2.2						
3.1	335	438	6700	0.90						
3.5	295	388	7100	1.00						
4.1	260	336	7380	1.15	**S**	**57R17**	**DRN**	**63M4**	22	879
4.7	225	294	7620	1.30	**SF**	**57R17**	**DRN**	**63M4**	25	879
5.1	215	269	7700	1.40	**SA**	**57R17**	**DRN**	**63M4**	21	879
6.0	185	229	7870	1.60	**SAF**	**57R17**	**DRN**	**63M4**	24	879
6.7	166	204	7960	1.80						
7.3	152	187	8020	1.95						
4.7	240	294	3990	0.85						
5.3	193	257	5220	1.05						
6.0	199	229	5100	1.00	**S**	**47pR17**	**DRN**	**63M4**	18	879
6.9	176	200	5260	1.15	**SF**	**47pR17**	**DRN**	**63M4**	21	879
7.3	165	187	5320	1.20	**SA**	**47pR17**	**DRN**	**63M4**	19	879
8.3	147	165	5410	1.35	**SAF**	**47pR17**	**DRN**	**63M4**	21	879
9.3	133	148	5480	1.50						
11	118	131	5550	1.70						
4.7	225	294	4820	0.80						
5.3	155	257	5410	1.20						
6.0	182	229	5210	1.00	**S**	**47R17**	**DRN**	**63M4**	18	879
6.9	159	200	5340	1.15	**SF**	**47R17**	**DRN**	**63M4**	21	879
7.3	149	187	5390	1.25	**SA**	**47R17**	**DRN**	**63M4**	19	879
8.3	132	165	5480	1.40	**SAF**	**47R17**	**DRN**	**63M4**	21	879
9.3	119	148	5540	1.55						
11	105	131	5600	1.75						
4.2	295	217.41	11500	2.1	**S**	**67p**	**DRN**	**71MS6**	30	859
4.8	265	190.11	11500	2.4	**SF**	**67p**	**DRN**	**71MS6**	36	860
5.1	250	180.60*	11600	2.5	**SA**	**67p**	**DRN**	**71MS6**	31	861
					SAF	**67p**	**DRN**	**71MS6**	35	860
4.2	240	217.41	10400	2.3	**S**	**67**	**DRN**	**71MS6**	30	859
4.8	215	190.11	10400	2.6	**SF**	**67**	**DRN**	**71MS6**	36	860
5.1	205	180.60*	10500	2.7	**SA**	**67**	**DRN**	**71MS6**	31	861
					SAF	**67**	**DRN**	**71MS6**	35	860
6.8	185	201.00*	7870	1.90	**S**	**57p**	**DRN**	**63M4**	18	854
7.4	172	184.80*	7930	2.1	**SF**	**57p**	**DRN**	**63M4**	22	855
8.7	149	158.12	8030	2.4	**SA**	**57p**	**DRN**	**63M4**	18	856
10	131	137.05	8100	2.7	**SAF**	**57p**	**DRN**	**63M4**	21	855
4.5	210	201.00*	7730	1.40	**S**	**57**	**DRN**	**71MS6**	19	854
5.0	196	184.80*	7810	1.50	**SF**	**57**	**DRN**	**71MS6**	23	855
5.8	171	158.12	7930	1.70	**SA**	**57**	**DRN**	**71MS6**	19	856
6.7	151	137.05	8020	1.95	**SAF**	**57**	**DRN**	**71MS6**	22	855
6.8	148	201.00*	8030	2.0	**S**	**57**	**DRN**	**63M4**	18	854
7.4	138	184.80*	8070	2.1	**SF**	**57**	**DRN**	**63M4**	22	855
8.7	120	158.12	8130	2.5	**SA**	**57**	**DRN**	**63M4**	18	856
10	106	137.05	8170	2.8	**SAF**	**57**	**DRN**	**63M4**	21	855
6.8	179	201.00*	5290	1.05						
7.4	167	184.80*	5360	1.15						
8.7	145	158.12	5460	1.35						
10	128	137.05	5540	1.50	**S**	**47p**	**DRN**	**63M4**	15	849
11	120	128.10*	5580	1.60	**SF**	**47p**	**DRN**	**63M4**	18	850
12	105	110.73	5640	1.85	**SA**	**47p**	**DRN**	**63M4**	16	851
15	90	94.08*	5700	2.2	**SAF**	**47p**	**DRN**	**63M4**	17	850
16	81	84.00*	5730	2.4						
19	70	71.75*	5770	2.8						
20	75	69.39	5730	2.7						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.5	200	201.00*	5140	0.90						
5.0	190	184.80*	5230	0.95	**S**	**47**	**DRN**	**71MS6**	15	849
5.8	165	158.12	5360	1.05	**SF**	**47**	**DRN**	**71MS6**	19	850
6.7	146	137.05	5450	1.15	**SA**	**47**	**DRN**	**71MS6**	16	851
7.1	138	128.10*	5490	1.25	**SAF**	**47**	**DRN**	**71MS6**	18	850
6.8	143	201.00*	5470	1.20						
7.4	133	184.80*	5520	1.25						
8.7	116	158.12	5590	1.45						
10	102	137.05	5650	1.65	**S**	**47**	**DRN**	**63M4**	15	849
11	96	128.10*	5670	1.75	**SF**	**47**	**DRN**	**63M4**	18	850
12	85	110.73	5710	1.95	**SA**	**47**	**DRN**	**63M4**	16	851
15	73	94.08*	5760	2.3	**SAF**	**47**	**DRN**	**63M4**	17	850
16	66	84.00*	5780	2.5						
19	58	71.75*	5810	2.9						
20	66	69.39	5760	2.3						
11	112	122.94	3000	0.85						
13	98	106.00*	3000	1.00						
14	92	98.80*	3000	1.05						
16	81	86.36	3000	1.20						
17	77	80.96	3000	1.30	**S**	**37p**	**DRN**	**63M4**	12	845
19	68	71.44*	3000	1.45	**SF**	**37p**	**DRN**	**63M4**	13	846
22	61	63.33	3000	1.60	**SA**	**37p**	**DRN**	**63M4**	11	847
25	60	55.93	3000	1.75	**SAF**	**37p**	**DRN**	**63M4**	13	846
27	55	51.30*	3000	1.85						
31	47	43.68	3000	2.2						
37	41	37.66	3000	2.5						
39	38	35.10*	3000	2.7						
8.7	110	157.43	3000	0.85						
9.5	102	144.40*	3000	0.90						
11	89	122.94	3000	1.00						
13	78	106.00*	3000	1.10						
14	74	98.80*	3000	1.20						
16	65	86.36	3000	1.30						
17	62	80.96	3000	1.35						
19	55	71.44*	3000	1.50						
22	50	63.33	3000	1.65						
25	53	55.93	3000	1.50						
27	49	51.30*	3000	1.65	**S**	**37**	**DRN**	**63M4**	12	845
31	42	43.68	3000	1.90	**SF**	**37**	**DRN**	**63M4**	13	846
37	36	37.66	3000	2.1	**SA**	**37**	**DRN**	**63M4**	11	847
39	34	35.10*	3000	2.3	**SAF**	**37**	**DRN**	**63M4**	13	846
45	30	30.68	3000	2.5						
48	28	28.76	3000	2.6						
54	25	25.38*	3000	2.9						
61	22	22.50*	3000	3.2						
69	21	19.89	2980	2.4						
75	19	18.24*	2920	2.6						
89	17	15.53	2790	2.9						
103	14	13.39	2680	3.3						
110	13	12.48*	2630	3.5						
126	12	10.91	2530	4.0						
134	11	10.23	2480	4.1						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.40	3300	3475	-	0.90						
0.48	2760	2905	26100	1.05	**S**	**87pR57**	**DRN**	**71MS4**	110	879
0.54	2410	2586	27700	1.25	**SF**	**87pR57**	**DRN**	**71MS4**	130	879
0.60	2150	2335	28200	1.40	**SA**	**87pR57**	**DRN**	**71MS4**	105	879
0.68	1890	2054	28600	1.60	**SAF**	**87pR57**	**DRN**	**71MS4**	120	879
0.77	1720	1824	28900	1.75						
0.86	1570	1631	29100	1.90						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.48	2700	2905	27000	0.95						
0.54	2350	2586	27800	1.05						
0.60	2100	2335	28300	1.20	**S**	**87R57**	**DRN**	**71MS4**	110	879
0.68	1830	2054	28700	1.35	**SF**	**87R57**	**DRN**	**71MS4**	130	879
0.77	1620	1824	29000	1.55	**SA**	**87R57**	**DRN**	**71MS4**	105	879
0.86	1450	1631	29200	1.70	**SAF**	**87R57**	**DRN**	**71MS4**	120	879
1.5	850	930	29800	2.9						
1.3	1360	1100	11900	1.05						
1.5	1170	954	12800	1.20						
1.7	1030	837	13600	1.40	**S**	**77pR37**	**DRN**	**71MS4**	60	879
2.0	860	714	14400	1.70	**SF**	**77pR37**	**DRN**	**71MS4**	70	879
2.2	765	637	14900	1.90	**SA**	**77pR37**	**DRN**	**71MS4**	59	879
2.5	700	574	15200	2.1	**SAF**	**77pR37**	**DRN**	**71MS4**	66	879
2.8	605	499	15700	2.4						
1.5	1160	954	12700	1.05						
1.7	1010	837	13700	1.20	**S**	**77R37**	**DRN**	**71MS4**	60	879
2.0	850	714	14600	1.45	**SF**	**77R37**	**DRN**	**71MS4**	70	879
2.2	755	637	15100	1.65	**SA**	**77R37**	**DRN**	**71MS4**	59	879
2.5	685	574	15400	1.80	**SAF**	**77R37**	**DRN**	**71MS4**	66	879
2.8	585	499	15800	2.1						
2.0	800	712	8560	0.90						
2.3	685	615	9300	1.05						
2.6	620	543	9710	1.15	**S**	**67pR37**	**DRN**	**71MS4**	41	879
3.0	530	469	10200	1.35	**SF**	**67pR37**	**DRN**	**71MS4**	47	879
3.3	485	424	10500	1.45	**SA**	**67pR37**	**DRN**	**71MS4**	42	879
3.9	440	365	10800	1.65	**SAF**	**67pR37**	**DRN**	**71MS4**	46	879
4.4	385	319	11200	1.70						
5.0	340	281	11300	2.0						
2.6	600	543	7860	0.95						
3.0	505	469	8810	1.15	**S**	**67R37**	**DRN**	**71MS4**	41	879
3.3	455	424	9200	1.25	**SF**	**67R37**	**DRN**	**71MS4**	47	879
3.9	405	365	9540	1.40	**SA**	**67R37**	**DRN**	**71MS4**	42	879
4.4	350	319	9860	1.60	**SAF**	**67R37**	**DRN**	**71MS4**	46	879
5.0	305	281	10100	1.85						
3.6	435	388	-	0.85						
4.2	390	336	6040	0.95						
4.8	345	294	6620	1.05						
5.2	325	269	6830	1.15	**S**	**57pR17**	**DRN**	**71MS4**	22	879
6.2	280	229	7220	1.30	**SF**	**57pR17**	**DRN**	**71MS4**	26	879
6.9	255	204	7430	1.45	**SA**	**57pR17**	**DRN**	**71MS4**	22	879
7.5	235	187	7580	1.55	**SAF**	**57pR17**	**DRN**	**71MS4**	25	879
8.5	210	165	7740	1.75						
11	169	131	7950	2.2						
4.8	315	294	6910	0.95						
5.2	295	269	7100	1.00						
6.2	255	229	7440	1.15	**S**	**57R17**	**DRN**	**71MS4**	22	879
6.9	230	204	7610	1.30	**SF**	**57R17**	**DRN**	**71MS4**	26	879
7.5	210	187	7730	1.40	**SA**	**57R17**	**DRN**	**71MS4**	22	879
8.5	187	165	7860	1.60	**SAF**	**57R17**	**DRN**	**71MS4**	25	879
11	149	131	8030	2.0						
4.2	410	217.41	11200	1.55	**S**	**67p**	**DRN**	**71M6**	31	859
4.8	365	190.11	11300	1.75	**SF**	**67p**	**DRN**	**71M6**	37	860
5.1	350	180.60*	11300	1.85	**SA**	**67p**	**DRN**	**71M6**	32	861
5.8	310	158.45	11400	2.1	**SAF**	**67p**	**DRN**	**71M6**	36	860
6.5	280	217.41	11500	2.3	**S**	**67p**	**DRN**	**71MS4**	30	859
7.4	250	190.11	11600	2.5	**SF**	**67p**	**DRN**	**71MS4**	36	860
7.8	235	180.60*	11600	2.7	**SA**	**67p**	**DRN**	**71MS4**	31	861
					SAF	**67p**	**DRN**	**71MS4**	35	860
4.2	335	217.41	9950	1.65	**S**	**67**	**DRN**	**71M6**	31	859
4.8	295	190.11	10100	1.85	**SF**	**67**	**DRN**	**71M6**	37	860
5.1	285	180.60*	10200	1.95	**SA**	**67**	**DRN**	**71M6**	32	861
5.8	250	158.45	10300	2.2	**SAF**	**67**	**DRN**	**71M6**	36	860

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.5	230	217.41	10400	2.3						
7.4	200	190.11	10500	2.5						
7.8	195	180.60*	10500	2.7	**S**	**67**	**DRN**	**71MS4**	30	859
8.9	174	158.45	10600	3.0	**SF**	**67**	**DRN**	**71MS4**	36	860
10	150	134.40*	10600	3.5	**SA**	**67**	**DRN**	**71MS4**	31	861
12	137	121.33	10600	3.8	**SAF**	**67**	**DRN**	**71MS4**	35	860
13	122	106.75*	10700	4.2						
4.5	365	201.00*	6410	0.95						
5.0	340	184.80*	6690	1.05	**S**	**57p**	**DRN**	**71M6**	20	854
5.8	295	158.12	7100	1.20	**SF**	**57p**	**DRN**	**71M6**	24	855
6.7	260	137.05	7390	1.40	**SA**	**57p**	**DRN**	**71M6**	20	856
7.1	245	128.10*	7500	1.45	**SAF**	**57p**	**DRN**	**71M6**	23	855
7.0	250	201.00*	7460	1.40						
7.6	230	184.80*	7590	1.50						
8.9	200	158.12	7770	1.75	**S**	**57p**	**DRN**	**71MS4**	19	854
10	178	137.05	7900	2.0	**SF**	**57p**	**DRN**	**71MS4**	23	855
11	167	128.10*	7950	2.2	**SA**	**57p**	**DRN**	**71MS4**	19	856
13	146	110.73	8040	2.5	**SAF**	**57p**	**DRN**	**71MS4**	22	855
15	125	94.08*	8120	2.8						
17	112	84.00*	8160	3.0						
4.5	290	201.00*	7140	1.00						
5.0	270	184.80*	7310	1.10	**S**	**57**	**DRN**	**71M6**	20	854
5.8	235	158.12	7560	1.25	**SF**	**57**	**DRN**	**71M6**	24	855
6.7	210	137.05	7730	1.40	**SA**	**57**	**DRN**	**71M6**	20	856
7.1	198	128.10*	7800	1.50	**SAF**	**57**	**DRN**	**71M6**	23	855
7.0	200	201.00*	7780	1.45						
7.6	188	184.80*	7860	1.55						
8.9	164	158.12	7970	1.80	**S**	**57**	**DRN**	**71MS4**	19	854
10	144	137.05	8050	2.0	**SF**	**57**	**DRN**	**71MS4**	23	855
11	136	128.10*	8080	2.2	**SA**	**57**	**DRN**	**71MS4**	19	856
13	119	110.73	8130	2.5	**SAF**	**57**	**DRN**	**71MS4**	22	855
15	103	94.08*	8180	2.8						
17	93	84.00*	8200	3.1						
7.0	245	201.00*	3410	0.80						
7.6	225	184.80*	5020	0.85						
8.9	198	158.12	5190	1.00						
10	174	137.05	5320	1.10						
11	164	128.10*	5370	1.20						
13	143	110.73	5470	1.35	**S**	**47p**	**DRN**	**71MS4**	15	849
15	123	94.08*	5560	1.60	**SF**	**47p**	**DRN**	**71MS4**	19	850
17	110	84.00*	5620	1.80	**SA**	**47p**	**DRN**	**71MS4**	16	851
20	95	71.75*	5680	2.0	**SAF**	**47p**	**DRN**	**71MS4**	18	850
20	102	69.39	5620	1.95						
21	89	67.20*	5700	2.1						
22	94	63.80*	5660	2.1						
26	81	54.59	5710	2.5						
30	71	47.32	5610	2.8						
7.0	195	201.00*	5200	0.85						
7.6	181	184.80*	5280	0.95						
8.9	158	158.12	5400	1.05						
10	140	137.05	5490	1.20						
11	132	128.10*	5520	1.25						
13	116	110.73	5590	1.45	**S**	**47**	**DRN**	**71MS4**	15	849
15	100	94.08*	5660	1.65	**SF**	**47**	**DRN**	**71MS4**	19	850
17	91	84.00*	5690	1.85	**SA**	**47**	**DRN**	**71MS4**	16	851
20	79	71.75*	5740	2.1	**SAF**	**47**	**DRN**	**71MS4**	18	850
20	90	69.39	5670	1.70						
21	74	67.20*	5750	2.2						
22	83	63.80*	5700	1.85						
26	72	54.59	5740	2.1						
30	63	47.32	5670	2.4						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	126	98.80*	2550	0.75						
16	111	86.36	3000	0.90						
17	104	80.96	3000	0.95						
20	93	71.44*	3000	1.05						
22	83	63.33	3000	1.20						
25	82	55.93	3000	1.25						
26	71	53.83	3000	1.30	**S**	**37p**	**DRN**	**71MS4**	12	845
27	75	51.30*	3000	1.35	**SF**	**37p**	**DRN**	**71MS4**	13	846
32	64	43.68	3000	1.60	**SA**	**37p**	**DRN**	**71MS4**	12	847
37	56	37.66	3000	1.85	**SAF**	**37p**	**DRN**	**71MS4**	13	846
40	52	35.10*	3000	2.0						
46	46	30.68	3000	2.3						
49	43	28.76	3000	2.4						
55	38	25.38*	3000	2.6						
62	34	22.50*	3000	2.8						
71	31	19.89	2820	2.5						
77	28	18.24*	2760	2.7						
14	100	98.80*	3000	0.85						
16	89	86.36	3000	0.95						
17	84	80.96	3000	1.00						
20	75	71.44*	3000	1.10						
22	68	63.33	3000	1.20						
25	72	55.93	3000	1.10						
27	66	51.30*	3000	1.20						
32	57	43.68	3000	1.40						
37	50	37.66	3000	1.55						
40	47	35.10*	3000	1.65						
46	41	30.68	3000	1.85						
49	39	28.76	3000	1.90						
55	34	25.38*	3000	2.1	**S**	**37**	**DRN**	**71MS4**	12	845
62	31	22.50*	3000	2.4	**SF**	**37**	**DRN**	**71MS4**	13	846
71	29	19.89	2840	1.75	**SA**	**37**	**DRN**	**71MS4**	12	847
77	26	18.24*	2780	1.95	**SAF**	**37**	**DRN**	**71MS4**	13	846
90	23	15.53	2680	2.2						
105	20	13.39	2580	2.4						
113	18	12.48*	2530	2.6						
129	16	10.91	2440	2.9						
137	15	10.23	2400	3.0						
156	13	9.02*	2320	3.4						
176	12	8.00*	2240	3.7						
207	10	6.80*	2140	4.1						
222	9.0	6.33	2090	3.6						
261	8.0	5.38	2000	4.1						
289	7.0	4.86*	1940	4.4						
354	6.0	3.97	1820	5.2						
96	20	28.76	2720	3.1						
109	18	25.38*	2620	3.4						
122	16	22.50*	2540	3.5	**S**	**37**	**DRN**	**63M2**	12	845
139	15	19.89	2390	2.9	**SF**	**37**	**DRN**	**63M2**	13	846
151	14	18.24*	2340	3.1	**SA**	**37**	**DRN**	**63M2**	11	847
177	12	15.53	2240	3.5	**SAF**	**37**	**DRN**	**63M2**	13	846
206	10	13.39	2140	3.9						
221	9.0	12.48*	2100	4.1						

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	3630	2586	-	0.85						
0.61	3260	2335	-	0.90						
0.69	2870	2054	23800	1.05	**S**	**87pR57**	**DRN**	**71M4**	110	879
0.78	2610	1824	27200	1.15	**SF**	**87pR57**	**DRN**	**71M4**	130	879
0.87	2390	1631	27700	1.25	**SA**	**87pR57**	**DRN**	**71M4**	105	879
1.5	1500	930	29200	2.0	**SAF**	**87pR57**	**DRN**	**71M4**	125	879
1.7	1370	831	29300	2.1						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.69	2780	2054	25800	0.90	**S**	**87R57**	**DRN**	**71M4**	110	879
0.78	2460	1824	27600	1.00	**SF**	**87R57**	**DRN**	**71M4**	130	879
0.87	2200	1631	28100	1.15	**SA**	**87R57**	**DRN**	**71M4**	105	879
1.5	1300	930	29400	1.90	**SAF**	**87R57**	**DRN**	**71M4**	125	879
1.7	1180	831	29500	2.1						
1.5	1750	954	9580	0.80						
1.7	1530	837	11000	0.95						
2.0	1290	714	12200	1.10	**S**	**77pR37**	**DRN**	**71M4**	61	879
2.2	1150	637	13000	1.25	**SF**	**77pR37**	**DRN**	**71M4**	71	879
2.5	1050	574	13500	1.35	**SA**	**77pR37**	**DRN**	**71M4**	61	879
2.8	910	499	14200	1.55	**SAF**	**77pR37**	**DRN**	**71M4**	67	879
3.2	810	438	14700	1.75						
3.6	730	389	15100	1.90						
2.0	1280	714	11600	0.95						
2.2	1130	637	12800	1.10	**S**	**77R37**	**DRN**	**71M4**	61	879
2.5	1020	574	13600	1.20	**SF**	**77R37**	**DRN**	**71M4**	71	879
2.8	880	499	14500	1.40	**SA**	**77R37**	**DRN**	**71M4**	61	879
3.2	775	438	15000	1.60	**SAF**	**77R37**	**DRN**	**71M4**	67	879
3.6	690	389	15400	1.80						
3.0	800	469	8600	0.90						
3.3	735	424	9020	0.95	**S**	**67pR37**	**DRN**	**71M4**	42	879
3.9	660	365	9510	1.10	**SF**	**67pR37**	**DRN**	**71M4**	48	879
4.4	580	319	10000	1.15	**SA**	**67pR37**	**DRN**	**71M4**	43	879
5.0	510	281	10400	1.30	**SAF**	**67pR37**	**DRN**	**71M4**	47	879
5.8	465	246	10700	1.55						
3.9	605	365	7750	0.95	**S**	**67R37**	**DRN**	**71M4**	42	879
4.4	530	319	8570	1.05	**SF**	**67R37**	**DRN**	**71M4**	48	879
5.0	465	281	9120	1.20	**SA**	**67R37**	**DRN**	**71M4**	43	879
5.8	420	246	9450	1.35	**SAF**	**67R37**	**DRN**	**71M4**	47	879
3.6	745	256.47	15600	2.0	**S**	**77p**	**DRN**	**80MK6**	54	864
4.2	665	225.26	15700	2.2	**SF**	**77p**	**DRN**	**80MK6**	64	865
4.4	635	214.00*	15700	2.4	**SA**	**77p**	**DRN**	**80MK6**	54	866
					SAF	**77p**	**DRN**	**80MK6**	60	865
3.6	620	256.47	15600	2.0	**S**	**77**	**DRN**	**80MK6**	54	864
4.2	550	225.26	15900	2.3	**SF**	**77**	**DRN**	**80MK6**	64	865
4.4	525	214.00*	15900	2.4	**SA**	**77**	**DRN**	**80MK6**	54	866
					SAF	**77**	**DRN**	**80MK6**	60	865
4.3	600	217.41	10300	1.05	**S**	**67p**	**DRN**	**80MK6**	33	859
4.9	535	190.11	10700	1.20	**SF**	**67p**	**DRN**	**80MK6**	40	860
5.2	510	180.60*	10800	1.25	**SA**	**67p**	**DRN**	**80MK6**	34	861
5.9	455	158.45	11100	1.40	**SAF**	**67p**	**DRN**	**80MK6**	39	860
6.5	415	217.41	11200	1.55						
7.4	365	190.11	11300	1.75	**S**	**67p**	**DRN**	**71M4**	31	859
7.8	350	180.60*	11300	1.85	**SF**	**67p**	**DRN**	**71M4**	37	860
8.9	310	158.45	11400	2.1	**SA**	**67p**	**DRN**	**71M4**	32	861
11	265	134.40*	11500	2.4	**SAF**	**67p**	**DRN**	**71M4**	36	860
12	240	121.33	11600	2.7						
4.3	485	217.41	8950	1.15	**S**	**67**	**DRN**	**80MK6**	33	859
4.9	430	190.11	9360	1.30	**SF**	**67**	**DRN**	**80MK6**	40	860
5.2	410	180.60*	9490	1.35	**SA**	**67**	**DRN**	**80MK6**	34	861
5.9	365	158.45	9770	1.50	**SAF**	**67**	**DRN**	**80MK6**	39	860
6.5	335	217.41	9940	1.55						
7.4	300	190.11	10100	1.75	**S**	**67**	**DRN**	**71M4**	31	859
7.8	285	180.60*	10200	1.80	**SF**	**67**	**DRN**	**71M4**	37	860
8.9	255	158.45	10300	2.0	**SA**	**67**	**DRN**	**71M4**	32	861
11	220	134.40*	10400	2.4	**SAF**	**67**	**DRN**	**71M4**	36	860
12	200	121.33	10500	2.6						
5.9	430	158.12	1810	0.85						
6.8	380	137.05	6190	0.95	**S**	**57p**	**DRN**	**80MK6**	22	854
7.3	355	128.10*	6470	1.00	**SF**	**57p**	**DRN**	**80MK6**	26	855
8.4	315	110.73	6940	1.15	**SA**	**57p**	**DRN**	**80MK6**	22	856
9.9	270	94.08*	7320	1.35	**SAF**	**57p**	**DRN**	**80MK6**	25	855
11	245	84.00*	7520	1.50						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.0	370	201.00*	6330	0.95						
7.7	340	184.80*	6640	1.05						
8.9	295	158.12	7090	1.20						
10	260	137.05	7390	1.35						
11	245	128.10*	7500	1.50	**S**	**57p**	**DRN**	**71M4**	20	854
13	215	110.73	7710	1.70	**SF**	**57p**	**DRN**	**71M4**	24	855
15	184	94.08*	7870	1.90	**SA**	**57p**	**DRN**	**71M4**	20	856
17	165	84.00*	7960	2.0	**SAF**	**57p**	**DRN**	**71M4**	23	855
20	142	71.75*	8060	2.2						
20	152	69.39	8020	2.4						
21	133	67.20*	8090	2.3						
22	140	63.80*	8060	2.6						
5.9	345	158.12	6620	0.85						
6.8	305	137.05	7030	0.95	**S**	**57**	**DRN**	**80MK6**	22	854
7.3	285	128.10*	7180	1.00	**SF**	**57**	**DRN**	**80MK6**	26	855
8.4	250	110.73	7450	1.15	**SA**	**57**	**DRN**	**80MK6**	22	856
9.9	220	94.08*	7680	1.35	**SAF**	**57**	**DRN**	**80MK6**	25	855
11	199	84.00*	7800	1.50						
7.0	295	201.00*	7100	1.00						
7.7	275	184.80*	7280	1.05						
8.9	240	158.12	7540	1.20						
10	210	137.05	7720	1.40						
11	200	128.10*	7790	1.45	**S**	**57**	**DRN**	**71M4**	20	854
13	176	110.73	7910	1.65	**SF**	**57**	**DRN**	**71M4**	24	855
15	152	94.08*	8020	1.95	**SA**	**57**	**DRN**	**71M4**	20	856
17	137	84.00*	8070	2.1	**SAF**	**57**	**DRN**	**71M4**	23	855
20	119	71.75*	8130	2.4						
20	135	69.39	8080	1.80						
21	112	67.20*	8150	2.5						
22	125	63.80*	8120	1.95						
11	240	128.10*	3880	0.80						
13	210	110.73	5120	0.95						
15	181	94.08*	5290	1.10						
17	163	84.00*	5380	1.20						
20	140	71.75*	5490	1.40						
20	150	69.39	5400	1.35	**S**	**47p**	**DRN**	**71M4**	16	849
21	131	67.20*	5530	1.45	**SF**	**47p**	**DRN**	**71M4**	20	850
22	138	63.80*	5460	1.45	**SA**	**47p**	**DRN**	**71M4**	17	851
26	119	54.59	5470	1.65	**SAF**	**47p**	**DRN**	**71M4**	19	850
30	104	47.32	5300	1.90						
32	97	44.22*	5220	2.0						
37	84	38.23	5050	2.3						
44	72	32.48*	4850	2.6						
49	64	29.00*	4720	2.8						
10	205	137.05	5140	0.80						
11	194	128.10*	5210	0.85						
13	170	110.73	5340	1.00						
15	148	94.08*	5450	1.15						
17	133	84.00*	5520	1.25						
20	116	71.75*	5590	1.45						
20	133	69.39	5480	1.15						
21	109	67.20*	5620	1.50						
22	123	63.80*	5530	1.25	**S**	**47**	**DRN**	**71M4**	16	849
26	106	54.59	5570	1.45	**SF**	**47**	**DRN**	**71M4**	20	850
30	93	47.32	5390	1.65	**SA**	**47**	**DRN**	**71M4**	17	851
32	87	44.22*	5300	1.75	**SAF**	**47**	**DRN**	**71M4**	19	850
37	76	38.23	5110	2.0						
44	65	32.48*	4900	2.4						
49	58	29.00*	4760	2.6						
57	50	24.77	4560	3.0						
61	47	23.20*	4480	3.2						
70	44	20.33	4170	2.5						
80	38	17.62	4020	2.8						
86	36	16.47*	3950	3.0						

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
22	122	63.33	3000	0.80						
25	120	55.93	3000	0.85						
26	104	53.83	3000	0.90						
28	111	51.30*	3000	0.95						
32	95	43.68	3000	1.10						
38	82	37.66	3000	1.25						
40	77	35.10*	3000	1.35						
46	67	30.68	2960	1.55	**S**	**37p**	**DRN**	**71M4**	13	845
49	63	28.76	2930	1.65	**SF**	**37p**	**DRN**	**71M4**	15	846
56	56	25.38*	2870	1.75	**SA**	**37p**	**DRN**	**71M4**	13	847
63	50	22.50*	2810	1.90	**SAF**	**37p**	**DRN**	**71M4**	15	846
71	46	19.89	2590	1.70						
78	42	18.24*	2560	1.85						
91	36	15.53	2480	2.1						
106	31	13.39	2410	2.4						
113	29	12.48*	2370	2.5						
130	25	10.91	2300	2.9						
22	100	63.33	3000	0.80						
28	98	51.30*	3000	0.80						
32	84	43.68	3000	0.95						
38	73	37.66	3000	1.05						
40	69	35.10*	3000	1.15						
46	61	30.68	3000	1.25						
49	57	28.76	3000	1.30						
56	51	25.38*	2930	1.45						
63	45	22.50*	2860	1.60						
71	43	19.89	2620	1.20						
78	39	18.24*	2580	1.30	**S**	**37**	**DRN**	**71M4**	13	845
91	33	15.53	2500	1.45	**SF**	**37**	**DRN**	**71M4**	15	846
106	29	13.39	2430	1.65	**SA**	**37**	**DRN**	**71M4**	13	847
113	27	12.48*	2390	1.75	**SAF**	**37**	**DRN**	**71M4**	15	846
130	24	10.91	2320	2.0						
138	22	10.23	2280	2.1						
157	20	9.02*	2220	2.3						
177	17	8.00*	2150	2.5						
208	15	6.80*	2060	2.8						
223	14	6.33	2010	2.4						
263	12	5.38	1930	2.8						
291	11	4.86*	1880	3.0						
357	9.0	3.97	1770	3.5						
111	26	25.38*	2500	2.3						
125	23	22.50*	2430	2.4						
141	22	19.89	2270	1.95						
154	20	18.24*	2230	2.1	**S**	**37**	**DRN**	**71MS2**	12	845
181	17	15.53	2140	2.4	**SF**	**37**	**DRN**	**71MS2**	13	846
210	15	13.39	2060	2.7	**SA**	**37**	**DRN**	**71MS2**	12	847
225	14	12.48*	2020	2.8	**SAF**	**37**	**DRN**	**71MS2**	13	846
258	12	10.91	1950	3.1						
275	11	10.23	1920	3.2						
311	10	9.02*	1850	3.5						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.88	3590	1631	-	0.80						
1.1	3010	1332	19300	1.00						
1.2	2750	1191	26500	1.05						
1.4	2420	1032	27600	1.20	**S**	**87pR57**	**DRN**	**80MK4**	110	879
1.5	2260	930	28000	1.30	**SF**	**87pR57**	**DRN**	**80MK4**	135	879
1.7	2060	831	28300	1.45	**SA**	**87pR57**	**DRN**	**80MK4**	110	879
2.0	1800	719	28800	1.65	**SAF**	**87pR57**	**DRN**	**80MK4**	125	879
2.3	1580	624	29100	1.90						
2.6	1430	558	29200	2.0						
3.3	1150	435	29600	2.5						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.1	2700	1332	27000	0.95						
1.2	2430	1191	27600	1.05						
1.4	2120	1032	28200	1.20						
1.5	1960	930	28500	1.25	**S**	**87R57**	**DRN**	**80MK4**	110	879
1.7	1770	831	28800	1.40	**SF**	**87R57**	**DRN**	**80MK4**	135	879
2.0	1540	719	29100	1.60	**SA**	**87R57**	**DRN**	**80MK4**	110	879
2.3	1340	624	29400	1.85	**SAF**	**87R57**	**DRN**	**80MK4**	125	879
2.6	1210	558	29500	2.1						
3.3	970	435	29700	2.5						
2.2	1710	637	10100	0.85						
2.5	1560	574	10900	0.90						
2.9	1370	499	11900	1.05	**S**	**77pR37**	**DRN**	**80MK4**	63	879
3.3	1220	438	12700	1.20	**SF**	**77pR37**	**DRN**	**80MK4**	73	879
3.7	1090	389	13300	1.30	**SA**	**77pR37**	**DRN**	**80MK4**	63	879
4.4	930	327	14100	1.50	**SAF**	**77pR37**	**DRN**	**80MK4**	70	879
5.0	840	289	14600	1.70						
5.7	735	250	15100	1.95						
3.3	1150	438	12700	1.05						
3.7	1030	389	13600	1.20	**S**	**77R37**	**DRN**	**80MK4**	63	879
4.4	870	327	14500	1.40	**SF**	**77R37**	**DRN**	**80MK4**	73	879
5.0	785	289	15000	1.55	**SA**	**77R37**	**DRN**	**80MK4**	63	879
5.7	680	250	15400	1.80	**SAF**	**77R37**	**DRN**	**80MK4**	70	879
5.1	765	281	8880	0.90						
5.8	690	246	9340	1.05	**S**	**67pR37**	**DRN**	**80MK4**	44	879
6.5	620	221	9780	1.05	**SF**	**67pR37**	**DRN**	**80MK4**	51	879
7.3	570	198	10100	1.20	**SA**	**67pR37**	**DRN**	**80MK4**	45	879
8.6	485	168	10600	1.40	**SAF**	**67pR37**	**DRN**	**80MK4**	50	879
9.2	455	156	10800	1.40						
5.8	625	246	7560	0.90	**S**	**67R37**	**DRN**	**80MK4**	44	879
6.5	555	221	8310	1.00	**SF**	**67R37**	**DRN**	**80MK4**	51	879
7.3	510	198	8760	1.10	**SA**	**67R37**	**DRN**	**80MK4**	45	879
8.6	435	168	9340	1.30	**SAF**	**67R37**	**DRN**	**80MK4**	50	879
3.4	1250	288.00*	29400	2.4	**S**	**87p**	**DRN**	**90SR6**	99	869
3.7	1130	258.18	29600	2.6	**SF**	**87p**	**DRN**	**90SR6**	120	870
4.3	990	222.40*	29700	3.0	**SA**	**87p**	**DRN**	**90SR6**	96	871
					SAF	**87p**	**DRN**	**90SR6**	110	870
3.4	1060	288.00*	29600	2.3	**S**	**87**	**DRN**	**90SR6**	99	869
3.7	960	258.18	29700	2.5	**SF**	**87**	**DRN**	**90SR6**	120	870
4.3	840	222.40*	29800	2.9	**SA**	**87**	**DRN**	**90SR6**	96	871
4.8	770	202.96	29900	3.1	**SAF**	**87**	**DRN**	**90SR6**	110	870
3.8	1070	256.47	14200	1.40						
4.3	960	225.26	14700	1.55	**S**	**77p**	**DRN**	**90SR6**	63	864
4.5	910	214.00*	14900	1.65	**SF**	**77p**	**DRN**	**90SR6**	72	865
5.1	810	189.09	15300	1.85	**SA**	**77p**	**DRN**	**90SR6**	62	866
6.0	705	161.60*	15700	2.1	**SAF**	**77p**	**DRN**	**90SR6**	69	865
5.6	750	256.47	15600	2.0	**S**	**77p**	**DRN**	**80MK4**	54	864
6.4	665	225.26	15700	2.2	**SF**	**77p**	**DRN**	**80MK4**	64	865
6.7	635	214.00*	15700	2.4	**SA**	**77p**	**DRN**	**80MK4**	54	866
7.6	565	189.09	15700	2.6	**SAF**	**77p**	**DRN**	**80MK4**	60	865
3.8	890	256.47	14400	1.40						
4.3	795	225.26	14900	1.60	**S**	**77**	**DRN**	**90SR6**	63	864
4.5	760	214.00*	15100	1.65	**SF**	**77**	**DRN**	**90SR6**	72	865
5.1	680	189.09	15400	1.85	**SA**	**77**	**DRN**	**90SR6**	62	866
6.0	590	161.60*	15700	2.1	**SAF**	**77**	**DRN**	**90SR6**	69	865
5.6	625	256.47	15600	2.0	**S**	**77**	**DRN**	**80MK4**	54	864
6.4	560	225.26	15800	2.3	**SF**	**77**	**DRN**	**80MK4**	64	865
6.7	535	214.00*	15900	2.4	**SA**	**77**	**DRN**	**80MK4**	54	866
7.6	475	189.09	16000	2.6	**SAF**	**77**	**DRN**	**80MK4**	60	865

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.6	610	217.41	10300	1.05						
7.5	540	190.11	10600	1.20						
8.0	515	180.60*	10800	1.25						
9.1	455	158.45	11100	1.40	**S**	**67p**	**DRN**	**80MK4**	33	859
11	390	134.40*	11200	1.65	**SF**	**67p**	**DRN**	**80MK4**	40	860
12	350	121.33	11300	1.80	**SA**	**67p**	**DRN**	**80MK4**	34	861
13	310	106.75*	11400	2.1	**SAF**	**67p**	**DRN**	**80MK4**	39	860
14	295	100.80*	11500	2.2						
17	250	85.83	11600	2.6						
19	240	75.06	11000	2.9						
6.6	495	217.41	8870	1.05						
7.5	440	190.11	9300	1.20						
8.0	420	180.60*	9440	1.25						
9.1	375	158.45	9730	1.40						
11	320	134.40*	10000	1.60	**S**	**67**	**DRN**	**80MK4**	33	859
12	295	121.33	10100	1.75	**SF**	**67**	**DRN**	**80MK4**	40	860
13	260	106.75*	10300	1.95	**SA**	**67**	**DRN**	**80MK4**	34	861
14	250	100.80*	10300	2.1	**SAF**	**67**	**DRN**	**80MK4**	39	860
17	215	85.83	10400	2.4						
19	220	75.06	10400	2.2						
22	194	65.63	10500	2.5						
10	390	94.08*	6060	0.95						
12	350	84.00*	6550	1.05						
13	300	71.75*	7040	1.20						
14	285	67.20*	7200	1.25	**S**	**57p**	**DRN**	**90SR6**	30	854
17	240	56.61	7530	1.40	**SF**	**57p**	**DRN**	**90SR6**	34	855
18	255	54.59	7420	1.45	**SA**	**57p**	**DRN**	**90SR6**	30	856
20	225	47.32	7640	1.65	**SAF**	**57p**	**DRN**	**90SR6**	33	855
22	210	44.22*	7730	1.75						
25	183	38.23	7880	2.0						
9.1	435	158.12	-	0.80						
10	385	137.05	6150	0.95						
11	360	128.10*	6440	1.00						
13	315	110.73	6940	1.15						
15	270	94.08*	7330	1.30						
17	240	84.00*	7530	1.40	**S**	**57p**	**DRN**	**80MK4**	22	854
20	205	71.75*	7750	1.55	**SF**	**57p**	**DRN**	**80MK4**	26	855
21	195	67.20*	7820	1.60	**SA**	**57p**	**DRN**	**80MK4**	22	856
26	177	54.59	7910	2.0	**SAF**	**57p**	**DRN**	**80MK4**	25	855
30	154	47.32	8010	2.2						
32	144	44.22*	8050	2.3						
38	125	38.23	8120	2.6						
44	106	32.48*	7800	2.8						
10	315	94.08*	6920	0.95						
12	285	84.00*	7190	1.00						
13	250	71.75*	7480	1.20	**S**	**57**	**DRN**	**90SR6**	30	854
14	235	67.20*	7580	1.25	**SF**	**57**	**DRN**	**90SR6**	34	855
18	225	54.59	7620	1.20	**SA**	**57**	**DRN**	**90SR6**	30	856
20	200	47.32	7790	1.35	**SAF**	**57**	**DRN**	**90SR6**	33	855
22	188	44.22*	7850	1.45						
25	164	38.23	7960	1.65						

26883198/EN – 04/2022

P_m = 0.55 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
9.1	350	158.12	6530	0.85							
10	310	137.05	6970	0.95							
11	290	128.10*	7130	1.00							
13	255	110.73	7420	1.15							
15	220	94.08*	7650	1.30							
17	200	84.00*	7780	1.45							
20	175	71.75*	7920	1.65	**S**	**57**	**DRN**	**80MK4**		22	854
21	165	67.20*	7960	1.70	**SF**	**57**	**DRN**	**80MK4**		26	855
26	158	54.59	7990	1.55	**SA**	**57**	**DRN**	**80MK4**		22	856
30	138	47.32	8070	1.75	**SAF**	**57**	**DRN**	**80MK4**		25	855
32	130	44.22*	8100	1.90							
38	113	38.23	8150	2.1							
44	97	32.48*	7860	2.5							
49	87	29.00*	7610	2.8							
58	75	24.77	7280	3.2							
62	70	23.20*	7140	3.5							
71	65	20.33	6690	2.6							
17	235	84.00*	4180	0.85							
20	205	71.75*	5150	0.95							
21	220	69.39	4950	0.90							
21	193	67.20*	5220	1.00							
22	200	63.80*	5050	1.00							
26	175	54.59	4950	1.15							
30	153	47.32	4850	1.30	**S**	**47p**	**DRN**	**80MK4**		19	849
32	143	44.22*	4790	1.40	**SF**	**47p**	**DRN**	**80MK4**		22	850
38	124	38.23	4670	1.55	**SA**	**47p**	**DRN**	**80MK4**		20	851
44	106	32.48*	4530	1.75	**SAF**	**47p**	**DRN**	**80MK4**		21	850
49	95	29.00*	4430	1.90							
58	81	24.77	4280	2.1							
62	76	23.20*	4210	2.2							
71	69	20.33	3880	2.3							
81	60	17.62	3770	2.6							
87	56	16.47*	3710	2.7							
17	196	84.00*	5200	0.85							
20	170	71.75*	5340	1.00							
21	161	67.20*	5390	1.05							
26	156	54.59	5090	1.00							
30	136	47.32	4970	1.15							
32	128	44.22*	4900	1.20							
38	112	38.23	4770	1.40							
44	96	32.48*	4600	1.60	**S**	**47**	**DRN**	**80MK4**		19	849
49	86	29.00*	4490	1.80	**SF**	**47**	**DRN**	**80MK4**		22	850
58	74	24.77	4330	2.1	**SA**	**47**	**DRN**	**80MK4**		20	851
62	70	23.20*	4260	2.2	**SAF**	**47**	**DRN**	**80MK4**		21	850
71	65	20.33	3910	1.70							
81	57	17.62	3790	1.95							
87	53	16.47*	3730	2.1							
101	46	14.24	3610	2.4							
119	39	12.10*	3470	2.8							
133	35	10.80*	3370	3.1							
156	30	9.23*	3240	3.6							

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
38	121	37.66	2560	0.85						
41	113	35.10*	2570	0.95						
47	99	30.68	2560	1.05						
50	93	28.76	2560	1.10						
57	82	25.38*	2540	1.20						
64	73	22.50*	2510	1.30						
72	67	19.89	2260	1.15						
75	62	19.13*	2460	1.40						
79	62	18.24*	2250	1.25	**S**	**37p**	**DRN**	**80MK4**	16	845
92	53	15.53	2220	1.45	**SF**	**37p**	**DRN**	**80MK4**	17	846
107	45	13.39	2180	1.65	**SA**	**37p**	**DRN**	**80MK4**	15	847
115	42	12.48*	2160	1.70	**SAF**	**37p**	**DRN**	**80MK4**	17	846
132	37	10.91	2120	1.95						
140	35	10.23	2090	2.1						
159	31	9.02*	2050	2.2						
179	27	8.00*	2000	2.4						
211	23	6.80*	1940	2.5						
227	21	6.33	1890	2.5						
267	18	5.38	1820	2.7						
295	16	4.86*	1780	2.8						
98	48	28.76	2360	1.60						
111	42	25.38*	2310	1.75						
126	37	22.50*	2260	1.90						
142	34	19.89	2090	2.1						
155	31	18.24*	2060	2.2	**S**	**37p**	**DRN**	**71M2**	13	845
182	27	15.53	2000	2.5	**SF**	**37p**	**DRN**	**71M2**	15	846
211	23	13.39	1940	2.5	**SA**	**37p**	**DRN**	**71M2**	13	847
226	21	12.48*	1900	2.6	**SAF**	**37p**	**DRN**	**71M2**	15	846
276	18	10.23	1820	3.0						
313	15	9.02*	1770	2.9						
353	14	8.00*	1710	2.8						
415	11	6.80*	1640	2.6						
47	89	30.68	2670	0.85						
50	84	28.76	2660	0.90						
57	74	25.38*	2620	1.00						
64	66	22.50*	2580	1.10						
75	57	19.13*	2520	1.25						
92	49	15.53	2250	1.00						
107	43	13.39	2210	1.15						
115	40	12.48*	2180	1.20	**S**	**37**	**DRN**	**80MK4**	16	845
132	35	10.91	2140	1.35	**SF**	**37**	**DRN**	**80MK4**	17	846
140	33	10.23	2110	1.40	**SA**	**37**	**DRN**	**80MK4**	15	847
159	29	9.02*	2060	1.55	**SAF**	**37**	**DRN**	**80MK4**	17	846
179	26	8.00*	2010	1.70						
211	22	6.80*	1940	1.90						
227	21	6.33	1900	1.65						
267	17	5.38	1830	1.90						
295	16	4.86*	1790	2.0						
362	13	3.97	1700	2.4						
98	44	28.76	2400	1.45						
111	39	25.38*	2340	1.55						
126	35	22.50*	2280	1.60						
142	32	19.89	2110	1.35						
155	30	18.24*	2070	1.45						
182	25	15.53	2010	1.60	**S**	**37**	**DRN**	**71M2**	13	845
211	22	13.39	1940	1.85	**SF**	**37**	**DRN**	**71M2**	15	846
226	20	12.48*	1920	1.90	**SA**	**37**	**DRN**	**71M2**	13	847
259	18	10.91	1860	2.1	**SAF**	**37**	**DRN**	**71M2**	15	846
276	17	10.23	1830	2.2						
313	15	9.02*	1770	2.4						
353	13	8.00*	1720	2.6						
415	11	6.80*	1650	2.5						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	4740	1223	23200	0.90						
1.4	4160	1070	32100	1.05						
1.6	3590	928	34000	1.20	**S**	**97pR57**	**DRN**	**80M4**	175	879
1.8	3200	824	34600	1.35	**SF**	**97pR57**	**DRN**	**80M4**	210	879
2.0	2620	714	35500	1.65	**SA**	**97pR57**	**DRN**	**80M4**	170	879
2.3	2480	626	35600	1.75	**SAF**	**97pR57**	**DRN**	**80M4**	195	879
2.7	2140	538	36000	2.0						
3.0	1950	484	36200	2.2						
1.2	4690	1223	24000	0.90						
1.4	4110	1070	32700	1.00						
1.6	3540	928	34100	1.20	**S**	**97R57**	**DRN**	**80M4**	175	879
1.8	3130	824	34800	1.35	**SF**	**97R57**	**DRN**	**80M4**	210	879
2.0	2230	714	35900	1.90	**SA**	**97R57**	**DRN**	**80M4**	170	879
2.3	2380	626	35800	1.75	**SAF**	**97R57**	**DRN**	**80M4**	195	879
2.7	2040	538	36100	2.1						
3.0	1840	484	36300	2.3						
1.4	3360	1032	-	0.90						
1.6	3110	930	14500	0.95						
1.7	2840	831	24900	1.05	**S**	**87pR57**	**DRN**	**80M4**	115	879
2.0	2490	719	27500	1.20	**SF**	**87pR57**	**DRN**	**80M4**	135	879
2.3	2190	624	28100	1.35	**SA**	**87pR57**	**DRN**	**80M4**	115	879
2.6	1980	558	28500	1.50	**SAF**	**87pR57**	**DRN**	**80M4**	130	879
3.3	1590	435	29000	1.80						
4.5	1210	323	29500	2.4						
1.4	2930	1032	22000	0.85						
1.6	2700	930	27000	0.90						
1.7	2440	831	27600	1.00	**S**	**87R57**	**DRN**	**80M4**	115	879
2.0	2120	719	28200	1.15	**SF**	**87R57**	**DRN**	**80M4**	135	879
2.3	1860	624	28700	1.35	**SA**	**87R57**	**DRN**	**80M4**	115	879
2.6	1680	558	28900	1.50	**SAF**	**87R57**	**DRN**	**80M4**	130	879
3.3	1340	435	29400	1.80						
4.5	1020	323	29700	2.3						
3.3	1670	438	10400	0.85						
3.7	1500	389	11300	0.95	**S**	**77pR37**	**DRN**	**80M4**	67	879
4.4	1280	327	12400	1.10	**SF**	**77pR37**	**DRN**	**80M4**	77	879
5.0	1160	289	13000	1.25	**SA**	**77pR37**	**DRN**	**80M4**	66	879
5.8	1010	250	13800	1.40	**SAF**	**77pR37**	**DRN**	**80M4**	73	879
6.6	890	219	14400	1.60						
4.4	1190	327	12300	1.05	**S**	**77R37**	**DRN**	**80M4**	67	879
5.0	1070	289	13300	1.15	**SF**	**77R37**	**DRN**	**80M4**	77	879
5.8	930	250	14200	1.35	**SA**	**77R37**	**DRN**	**80M4**	66	879
6.6	820	219	14800	1.50	**SAF**	**77R37**	**DRN**	**80M4**	73	879
3.3	1720	288.00*	28900	1.70	**S**	**87p**	**DRN**	**90S6**	99	869
3.7	1560	258.18	29100	1.90	**SF**	**87p**	**DRN**	**90S6**	120	870
4.3	1360	222.40*	29300	2.2	**SA**	**87p**	**DRN**	**90S6**	96	871
4.7	1250	202.96	29500	2.4	**SAF**	**87p**	**DRN**	**90S6**	110	870
					S	**87p**	**DRN**	**80M4**	94	869
5.0	1180	288.00*	29500	2.5	**SF**	**87p**	**DRN**	**80M4**	115	870
5.6	1060	258.18	29600	2.7	**SA**	**87p**	**DRN**	**80M4**	91	871
					SAF	**87p**	**DRN**	**80M4**	105	870
3.3	1450	288.00*	29200	1.70	**S**	**87**	**DRN**	**90S6**	99	869
3.7	1320	258.18	29400	1.85	**SF**	**87**	**DRN**	**90S6**	120	870
4.3	1150	222.40*	29500	2.1	**SA**	**87**	**DRN**	**90S6**	96	871
4.7	1060	202.96	29600	2.2	**SAF**	**87**	**DRN**	**90S6**	110	870
5.0	1000	288.00*	29700	2.3	**S**	**87**	**DRN**	**80M4**	94	869
5.6	910	258.18	29800	2.5	**SF**	**87**	**DRN**	**80M4**	115	870
6.5	795	222.40*	29800	2.9	**SA**	**87**	**DRN**	**80M4**	91	871
7.1	730	202.96	29900	3.1	**SAF**	**87**	**DRN**	**80M4**	105	870
3.7	1480	256.47	12500	1.00						
4.2	1320	225.26	13100	1.15	**S**	**77p**	**DRN**	**90S6**	63	864
4.5	1260	214.00*	13400	1.20	**SF**	**77p**	**DRN**	**90S6**	72	865
5.1	1120	189.09	14000	1.35	**SA**	**77p**	**DRN**	**90S6**	62	866
5.9	970	161.60*	14600	1.55	**SAF**	**77p**	**DRN**	**90S6**	69	865

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.6	1020	256.47	14400	1.45						
6.4	900	225.26	14900	1.65						
6.7	860	214.00*	15100	1.75	**S**	**77p**	**DRN**	**80M4**	58	864
7.6	765	189.09	15500	1.95	**SF**	**77p**	**DRN**	**80M4**	67	865
8.9	660	161.60*	15700	2.3	**SA**	**77p**	**DRN**	**80M4**	57	866
9.7	605	148.15	15700	2.5	**SAF**	**77p**	**DRN**	**80M4**	64	865
11	535	130.00*	15700	2.8						
12	505	123.20*	15700	2.9						
4.2	1090	225.26	13100	1.15	**S**	**77**	**DRN**	**90S6**	63	864
4.5	1040	214.00*	13500	1.20	**SF**	**77**	**DRN**	**90S6**	72	865
5.1	930	189.09	14200	1.35	**SA**	**77**	**DRN**	**90S6**	62	866
5.9	810	161.60*	14800	1.55	**SAF**	**77**	**DRN**	**90S6**	69	865
5.6	850	256.47	14600	1.50						
6.4	760	225.26	15100	1.65						
6.7	725	214.00*	15200	1.75						
7.6	650	189.09	15500	1.95	**S**	**77**	**DRN**	**80M4**	58	864
8.9	560	161.60*	15800	2.2	**SF**	**77**	**DRN**	**80M4**	67	865
9.7	520	148.15	16000	2.4	**SA**	**77**	**DRN**	**80M4**	57	866
11	460	130.00*	16000	2.6	**SAF**	**77**	**DRN**	**80M4**	64	865
12	440	123.20*	16000	2.7						
13	390	107.83	16000	3.0						
7.6	735	190.11	9630	0.85						
8.0	700	180.60*	9810	0.90						
9.1	620	158.45	10200	1.05						
11	530	134.40*	10700	1.20						
12	480	121.33	11000	1.35	**S**	**67p**	**DRN**	**80M4**	37	859
13	425	106.75*	11200	1.50	**SF**	**67p**	**DRN**	**80M4**	43	860
14	400	100.80*	11200	1.60	**SA**	**67p**	**DRN**	**80M4**	38	861
17	345	85.83	11200	1.90	**SAF**	**67p**	**DRN**	**80M4**	42	860
19	330	75.06	10500	2.2						
22	290	65.63	10200	2.5						
23	275	62.35*	10100	2.6						
26	240	54.70	9770	2.9						
7.6	600	190.11	7850	0.85						
8.0	570	180.60*	8140	0.90						
9.1	510	158.45	8750	1.00						
11	440	134.40*	9310	1.20						
12	400	121.33	9570	1.30						
13	355	106.75*	9830	1.45	**S**	**67**	**DRN**	**80M4**	37	859
14	340	100.80*	9930	1.50	**SF**	**67**	**DRN**	**80M4**	43	860
17	290	85.83	10100	1.75	**SA**	**67**	**DRN**	**80M4**	38	861
19	295	75.06	10100	1.60	**SAF**	**67**	**DRN**	**80M4**	42	860
22	260	65.63	10300	1.80						
23	250	62.35*	10300	1.90						
26	220	54.70	10200	2.2						
31	190	46.40*	9740	2.5						
13	415	71.75*	4420	0.90						
14	390	67.20*	6040	0.90						
17	330	56.61	6750	1.00	**S**	**57p**	**DRN**	**90S6**	30	854
18	355	54.59	6520	1.05	**SF**	**57p**	**DRN**	**90S6**	34	855
20	310	47.32	6990	1.20	**SA**	**57p**	**DRN**	**90S6**	30	856
22	290	44.22*	7160	1.25	**SAF**	**57p**	**DRN**	**90S6**	33	855
25	250	38.23	7460	1.45						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	425	110.73	2770	0.85						
15	365	94.08*	6380	0.95						
17	325	84.00*	6800	1.00						
20	280	71.75*	7230	1.15						
21	265	67.20*	7370	1.15						
25	220	56.61	7650	1.30						
26	240	54.59	7550	1.50						
30	205	47.32	7740	1.65	**S**	**57p**	**DRN**	**80M4**	26	854
33	196	44.22*	7810	1.70	**SF**	**57p**	**DRN**	**80M4**	30	855
38	170	38.23	7810	1.90	**SA**	**57p**	**DRN**	**80M4**	26	856
44	145	32.48*	7520	2.1	**SAF**	**57p**	**DRN**	**80M4**	28	855
50	129	29.00*	7310	2.2						
58	110	24.77	7020	2.5						
62	104	23.20*	6900	2.6						
71	94	20.33	6420	2.4						
82	82	17.62	6200	2.7						
87	77	16.47*	6100	2.9						
13	340	71.75*	6650	0.85	**S**	**57**	**DRN**	**90S6**	30	854
14	320	67.20*	6850	0.90	**SF**	**57**	**DRN**	**90S6**	34	855
17	275	56.61	7270	1.10	**SA**	**57**	**DRN**	**90S6**	30	856
20	275	47.32	7280	1.00	**SAF**	**57**	**DRN**	**90S6**	33	855
					S	**57**	**DRN**	**90S6**	30	854
					SF	**57**	**DRN**	**90S6**	34	855
22	255	44.22*	7410	1.05	**SA**	**57**	**DRN**	**90S6**	30	856
					SAF	**57**	**DRN**	**90S6**	33	855
13	350	110.73	6560	0.85						
15	300	94.08*	7040	0.95						
17	275	84.00*	7290	1.05						
20	235	71.75*	7560	1.20						
21	225	67.20*	7650	1.25						
26	215	54.59	7700	1.15						
30	188	47.32	7850	1.30						
33	177	44.22*	7910	1.40	**S**	**57**	**DRN**	**80M4**	26	854
38	154	38.23	7910	1.60	**SF**	**57**	**DRN**	**80M4**	30	855
44	132	32.48*	7590	1.85	**SA**	**57**	**DRN**	**80M4**	26	856
50	119	29.00*	7370	2.1	**SAF**	**57**	**DRN**	**80M4**	28	855
58	102	24.77	7070	2.4						
62	96	23.20*	6950	2.5						
71	89	20.33	6450	1.90						
82	77	17.62	6230	2.2						
87	72	16.47*	6120	2.3						
101	63	14.24	5890	2.7						
26	235	54.59	4250	0.85						
30	205	47.32	4360	0.95						
33	194	44.22*	4340	1.05						
38	169	38.23	4280	1.15						
44	144	32.48*	4190	1.30						
50	129	29.00*	4120	1.40	**S**	**47p**	**DRN**	**80M4**	22	849
58	110	24.77	4020	1.55	**SF**	**47p**	**DRN**	**80M4**	26	850
62	103	23.20*	3970	1.60	**SA**	**47p**	**DRN**	**80M4**	23	851
71	94	20.33	3590	1.70	**SAF**	**47p**	**DRN**	**80M4**	25	850
82	82	17.62	3520	1.90						
87	77	16.47*	3480	2.0						
101	66	14.24	3390	2.3						
119	56	12.10*	3280	2.6						
133	50	10.80*	3210	2.8						
30	186	47.32	4520	0.85						
33	174	44.22*	4490	0.90	**S**	**47**	**DRN**	**80M4**	22	849
38	152	38.23	4400	1.00	**SF**	**47**	**DRN**	**80M4**	26	850
44	130	32.48*	4290	1.20	**SA**	**47**	**DRN**	**80M4**	23	851
50	117	29.00*	4210	1.30	**SAF**	**47**	**DRN**	**80M4**	25	850

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
58	101	24.77	4080	1.55						
62	95	23.20*	4030	1.60						
71	88	20.33	3630	1.25						
82	77	17.62	3550	1.40						
87	72	16.47*	3510	1.50						
101	63	14.24	3410	1.75						
119	53	12.10*	3300	2.0	**S**	**47**	**DRN**	**80M4**	22	849
133	48	10.80*	3220	2.3	**SF**	**47**	**DRN**	**80M4**	26	850
156	41	9.23*	3110	2.6	**SA**	**47**	**DRN**	**80M4**	23	851
167	38	8.64*	3060	2.8	**SAF**	**47**	**DRN**	**80M4**	25	850
198	32	7.28	2940	3.1						
225	29	6.40*	2830	2.6						
267	24	5.39	2700	3.0						
302	21	4.76	2620	3.3						
360	18	4.00*	2500	3.3						
50	127	28.76	2140	0.85						
57	112	25.38*	2170	0.90						
64	100	22.50*	2180	0.95						
75	85	19.13*	2180	1.05						
93	72	15.53	1930	1.05						
108	62	13.39	1930	1.20						
115	58	12.48*	1930	1.25	**S**	**37p**	**DRN**	**80M4**	19	845
132	51	10.91	1910	1.45	**SF**	**37p**	**DRN**	**80M4**	20	846
141	47	10.23	1900	1.50	**SA**	**37p**	**DRN**	**80M4**	19	847
160	42	9.02*	1880	1.65	**SAF**	**37p**	**DRN**	**80M4**	20	846
180	37	8.00*	1850	1.75						
212	31	6.80*	1810	1.90						
227	29	6.33	1760	1.85						
267	25	5.38	1720	2.0						
296	22	4.86*	1680	2.1						
363	18	3.97	1620	2.4						
51	124	55.93	2150	0.85						
56	114	51.30*	2170	0.85						
65	97	43.68	2180	0.95						
76	84	37.66	2180	1.05						
81	78	35.10*	2180	1.10						
93	69	30.68	2160	1.15						
99	64	28.76	2150	1.20						
112	57	25.38*	2120	1.30	**S**	**37p**	**DRN**	**80MS2**	19	845
127	50	22.50*	2090	1.40	**SF**	**37p**	**DRN**	**80MS2**	20	846
149	43	19.13*	2040	1.35	**SA**	**37p**	**DRN**	**80MS2**	19	847
184	36	15.53	1850	1.85	**SAF**	**37p**	**DRN**	**80MS2**	20	846
213	31	13.39	1800	1.90						
229	29	12.48*	1780	1.95						
262	25	10.91	1740	2.2						
279	24	10.23	1720	2.2						
316	21	9.02*	1680	2.1						
357	19	8.00*	1640	2.0						
420	16	6.80*	1580	1.90						
75	77	19.13*	2260	0.90						
115	54	12.48*	1960	0.85						
132	48	10.91	1940	1.00						
141	45	10.23	1930	1.05						
160	40	9.02*	1900	1.15	**S**	**37**	**DRN**	**80M4**	19	845
180	35	8.00*	1870	1.25	**SF**	**37**	**DRN**	**80M4**	20	846
212	30	6.80*	1820	1.40	**SA**	**37**	**DRN**	**80M4**	19	847
227	28	6.33	1780	1.20	**SAF**	**37**	**DRN**	**80M4**	20	846
267	24	5.38	1730	1.40						
296	22	4.86*	1690	1.50						
363	18	3.97	1620	1.75						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
149	40	19.13*	2070	1.10						
184	35	15.53	1860	1.20						
213	30	13.39	1820	1.35						
229	28	12.48*	1800	1.40	**S**	**37**	**DRN**	**80MS2**	19	845
262	24	10.91	1750	1.55	**SF**	**37**	**DRN**	**80MS2**	20	846
279	23	10.23	1730	1.65	**SA**	**37**	**DRN**	**80MS2**	19	847
316	20	9.02*	1680	1.75	**SAF**	**37**	**DRN**	**80MS2**	20	846
357	18	8.00*	1640	1.90						
420	15	6.80*	1580	1.85						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
1.6	5260	928	-	0.80						
1.8	4700	824	24000	0.90						
2.0	3850	714	33500	1.10	**S**	**97pR57**	**DRN**	**90S4**	180	879
2.3	3650	626	33900	1.20	**SF**	**97pR57**	**DRN**	**90S4**	215	879
2.7	3160	538	34700	1.35	**SA**	**97pR57**	**DRN**	**90S4**	175	879
3.0	2870	484	35100	1.50	**SAF**	**97pR57**	**DRN**	**90S4**	200	879
3.5	2500	420	35600	1.70						
1.8	4590	824	25600	0.90						
2.0	3280	714	34500	1.30	**S**	**97R57**	**DRN**	**90S4**	180	879
2.3	3490	626	34200	1.20	**SF**	**97R57**	**DRN**	**90S4**	215	879
2.7	3000	538	34900	1.40	**SA**	**97R57**	**DRN**	**90S4**	175	879
3.0	2710	484	35400	1.55	**SAF**	**97R57**	**DRN**	**90S4**	200	879
3.5	2350	420	35800	1.80						
2.0	3670	719	-	0.80						
2.3	3230	624	5620	0.95						
2.6	2930	558	22200	1.00						
3.0	2580	485	27300	1.15						
3.4	2340	435	27800	1.25	**S**	**87pR57**	**DRN**	**90S4**	120	879
3.9	2060	378	28300	1.40	**SF**	**87pR57**	**DRN**	**90S4**	145	879
4.5	1780	323	28800	1.60	**SA**	**87pR57**	**DRN**	**90S4**	120	879
5.2	1560	281	29100	1.85	**SAF**	**87pR57**	**DRN**	**90S4**	135	879
5.7	1530	255	29100	1.70						
6.5	1340	222	29300	2.0						
7.1	1250	205	29400	2.1						
2.3	2740	624	26500	0.90						
2.6	2480	558	27500	1.00						
3.0	2180	485	28100	1.15						
3.4	1980	435	28500	1.25	**S**	**87R57**	**DRN**	**90S4**	120	879
3.9	1740	378	28800	1.40	**SF**	**87R57**	**DRN**	**90S4**	145	879
4.5	1510	323	29100	1.60	**SA**	**87R57**	**DRN**	**90S4**	120	879
5.2	1330	281	29400	1.80	**SAF**	**87R57**	**DRN**	**90S4**	135	879
5.7	1420	255	29200	1.40						
6.5	1240	222	29400	1.60						
7.1	1160	205	29500	1.70						
5.0	1690	289	10400	0.85	**S**	**77pR37**	**DRN**	**90S4**	73	879
5.8	1470	250	11500	0.95	**SF**	**77pR37**	**DRN**	**90S4**	82	879
6.6	1310	219	12300	1.10	**SA**	**77pR37**	**DRN**	**90S4**	72	879
					SAF	**77pR37**	**DRN**	**90S4**	79	879
6.6	1200	219	12200	1.05	**S**	**77R37**	**DRN**	**90S4**	73	879
					SF	**77R37**	**DRN**	**90S4**	82	879
					SA	**77R37**	**DRN**	**90S4**	72	879
					SAF	**77R37**	**DRN**	**90S4**	79	879
3.3	2600	286.40*	35500	1.65	**S**	**97p**	**DRN**	**90L6**	160	874
3.6	2390	262.22	35700	1.80	**SF**	**97p**	**DRN**	**90L6**	195	875
4.1	2130	231.67	36000	2.0	**SA**	**97p**	**DRN**	**90L6**	155	876
					SAF	**97p**	**DRN**	**90L6**	180	875
3.3	2220	286.40*	35900	1.90	**S**	**97**	**DRN**	**90L6**	160	874
3.6	2050	262.22	36100	2.0	**SF**	**97**	**DRN**	**90L6**	195	875
4.1	1830	231.67	36300	2.3	**SA**	**97**	**DRN**	**90L6**	155	876
					SAF	**97**	**DRN**	**90L6**	180	875

26883198/EN – 04/2022

P_m = 1.1 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.3	2530	288.00*	27400	1.15	**S**	**87p**	**DRN**	**90L6**	100	869
3.7	2290	258.18	27900	1.30	**SF**	**87p**	**DRN**	**90L6**	125	870
4.3	1990	222.40*	28400	1.50	**SA**	**87p**	**DRN**	**90L6**	99	871
4.7	1830	202.96	28700	1.60	**SAF**	**87p**	**DRN**	**90L6**	115	870
5.0	1710	288.00*	28900	1.70						
5.6	1550	258.18	29100	1.90	**S**	**87p**	**DRN**	**90S4**	99	869
6.5	1340	222.40*	29400	2.1	**SF**	**87p**	**DRN**	**90S4**	120	870
7.2	1230	202.96	29500	2.3	**SA**	**87p**	**DRN**	**90S4**	96	871
8.1	1090	180.00*	29600	2.5	**SAF**	**87p**	**DRN**	**90S4**	110	870
9.6	920	151.30	29700	2.9						
3.7	1930	258.18	28500	1.25	**S**	**87**	**DRN**	**90L6**	100	869
4.3	1690	222.40*	28900	1.40	**SF**	**87**	**DRN**	**90L6**	125	870
4.7	1560	202.96	29100	1.55	**SA**	**87**	**DRN**	**90L6**	99	871
					SAF	**87**	**DRN**	**90L6**	115	870
5.0	1460	288.00*	29200	1.55						
5.6	1320	258.18	29400	1.70	**S**	**87**	**DRN**	**90S4**	99	869
6.5	1150	222.40*	29500	1.95	**SF**	**87**	**DRN**	**90S4**	120	870
7.2	1060	202.96	29600	2.1	**SA**	**87**	**DRN**	**90S4**	96	871
8.1	950	180.00*	29700	2.3	**SAF**	**87**	**DRN**	**90S4**	110	870
9.6	810	151.30	29800	2.6						
5.7	1480	256.47	12500	1.00						
6.5	1310	225.26	13200	1.15						
6.8	1250	214.00*	13400	1.20						
7.7	1110	189.09	14000	1.35						
9.0	960	161.60*	14700	1.55	**S**	**77p**	**DRN**	**90S4**	63	864
9.8	880	148.15	15000	1.70	**SF**	**77p**	**DRN**	**90S4**	72	865
11	775	130.00*	15500	1.90	**SA**	**77p**	**DRN**	**90S4**	62	866
12	740	123.20*	15600	2.0	**SAF**	**77p**	**DRN**	**90S4**	69	865
13	645	107.83	15700	2.3						
15	585	97.14	15700	2.5						
17	515	85.22	15400	2.7						
6.5	1100	225.26	13100	1.15						
6.8	1050	214.00*	13400	1.20						
7.7	940	189.09	14100	1.35						
9.0	820	161.60*	14800	1.55	**S**	**77**	**DRN**	**90S4**	63	864
9.8	755	148.15	15100	1.65	**SF**	**77**	**DRN**	**90S4**	72	865
11	670	130.00*	15500	1.80	**SA**	**77**	**DRN**	**90S4**	62	866
12	640	123.20*	15600	1.85	**SAF**	**77**	**DRN**	**90S4**	69	865
13	565	107.83	15800	2.1						
15	510	97.14	16000	2.2						
17	455	85.22	16000	2.4						
11	770	134.40*	9440	0.85						
12	695	121.33	9820	0.90						
14	615	106.75*	10200	1.05						
14	585	100.80*	10400	1.10						
17	500	85.83	10400	1.30						
19	455	78.00*	10200	1.45	**S**	**67p**	**DRN**	**90S4**	43	859
19	480	75.06	9570	1.50	**SF**	**67p**	**DRN**	**90S4**	50	860
22	420	65.63	9380	1.70	**SA**	**67p**	**DRN**	**90S4**	44	861
23	400	62.35*	9300	1.80	**SAF**	**67p**	**DRN**	**90S4**	48	860
27	355	54.70	9080	2.0						
31	300	46.40*	8800	2.2						
35	270	41.89	8620	2.5						
39	240	36.85	8380	2.7						
42	225	34.80*	8270	2.8						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	585	121.33	8020	0.90						
14	520	106.75*	8660	1.00						
14	495	100.80*	8890	1.05						
17	425	85.83	9400	1.20						
19	390	78.00*	9640	1.30	**S**	**67**	**DRN**	**90S4**	43	859
22	380	65.63	9690	1.25	**SF**	**67**	**DRN**	**90S4**	50	860
23	365	62.35*	9750	1.30	**SA**	**67**	**DRN**	**90S4**	44	861
27	320	54.70	9500	1.50	**SAF**	**67**	**DRN**	**90S4**	48	860
31	275	46.40*	9170	1.75						
35	250	41.89	8960	1.90						
39	220	36.85	8700	2.2						
42	210	34.80*	8590	2.3						
49	180	29.63	8260	2.7						
20	410	71.75*	5330	0.80						
22	385	67.20*	6140	0.80						
26	325	56.61	6830	0.90						
27	345	54.59	6590	1.05						
31	300	47.32	7050	1.15						
33	280	44.22*	7220	1.20						
38	245	38.23	7230	1.30	**S**	**57p**	**DRN**	**90S4**	32	854
45	210	32.48*	7010	1.45	**SF**	**57p**	**DRN**	**90S4**	35	855
50	188	29.00*	6860	1.55	**SA**	**57p**	**DRN**	**90S4**	31	856
59	161	24.77	6630	1.70	**SAF**	**57p**	**DRN**	**90S4**	34	855
63	151	23.20*	6540	1.80						
74	127	19.54	6280	1.95						
83	119	17.62	5830	1.90						
88	111	16.47*	5750	2.0						
102	96	14.24	5570	2.3						
120	82	12.10*	5360	2.7						
20	345	71.75*	6620	0.85	**S**	**57**	**DRN**	**90S4**	32	854
22	325	67.20*	6830	0.85	**SF**	**57**	**DRN**	**90S4**	35	855
26	275	56.61	7260	0.95	**SA**	**57**	**DRN**	**90S4**	31	856
31	270	47.32	7300	0.90	**SAF**	**57**	**DRN**	**90S4**	34	855
33	255	44.22*	7430	0.95						
38	220	38.23	7360	1.10						
45	192	32.48*	7120	1.25						
50	172	29.00*	6950	1.40						
59	148	24.77	6710	1.65	**S**	**57**	**DRN**	**90S4**	32	854
63	139	23.20*	6610	1.75	**SF**	**57**	**DRN**	**90S4**	35	855
74	118	19.54	6340	1.80	**SA**	**57**	**DRN**	**90S4**	31	856
83	112	17.62	5860	1.50	**SAF**	**57**	**DRN**	**90S4**	34	855
88	105	16.47*	5780	1.60						
102	91	14.24	5590	1.85						
120	78	12.10*	5380	2.1						
135	70	10.80*	5230	2.4						
158	60	9.23*	5030	2.8						
45	205	32.48*	3600	0.90						
50	187	29.00*	3590	0.95						
59	160	24.77	3560	1.05						
63	150	23.20*	3540	1.10						
72	137	20.33	3090	1.15						
74	127	19.54	3480	1.25						
83	119	17.62	3080	1.30						
88	111	16.47*	3070	1.40	**S**	**47p**	**DRN**	**90S4**	28	849
102	96	14.24	3030	1.55	**SF**	**47p**	**DRN**	**90S4**	32	850
120	82	12.10*	2980	1.75	**SA**	**47p**	**DRN**	**90S4**	29	851
135	73	10.80*	2930	1.95	**SAF**	**47p**	**DRN**	**90S4**	31	850
158	63	9.23*	2860	2.1						
168	59	8.64*	2830	2.2						
200	49	7.28	2740	2.2						
227	44	6.40*	2650	2.7						
270	37	5.39	2550	2.8						
306	32	4.76	2480	2.8						
364	27	4.00*	2380	2.7						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
50	170	29.00*	3720	0.90						
59	147	24.77	3660	1.05	**S**	**47**	**DRN**	**90S4**	28	849
63	138	23.20*	3630	1.10	**SF**	**47**	**DRN**	**90S4**	32	850
74	117	19.54	3550	1.25	**SA**	**47**	**DRN**	**90S4**	29	851
83	112	17.62	3120	1.00	**SAF**	**47**	**DRN**	**90S4**	31	850
88	105	16.47*	3110	1.05						
102	91	14.24	3070	1.20						
120	78	12.10*	3010	1.40						
135	70	10.80*	2960	1.55						
158	60	9.23*	2880	1.80	**S**	**47**	**DRN**	**90S4**	28	849
168	56	8.64*	2850	1.95	**SF**	**47**	**DRN**	**90S4**	32	850
200	47	7.28	2750	2.2	**SA**	**47**	**DRN**	**90S4**	29	851
227	42	6.40*	2660	1.80	**SAF**	**47**	**DRN**	**90S4**	31	850
270	35	5.39	2560	2.1						
306	31	4.76	2490	2.3						
364	26	4.00*	2390	2.3						
109	90	13.39	960	0.85						
117	84	12.48*	1080	0.85						
133	74	10.91	1280	1.00						
142	69	10.23	1360	1.05						
161	61	9.02*	1500	1.15	**S**	**37p**	**DRN**	**90S4**	25	845
182	54	8.00*	1590	1.20	**SF**	**37p**	**DRN**	**90S4**	26	846
214	46	6.80*	1590	1.30	**SA**	**37p**	**DRN**	**90S4**	25	847
230	43	6.33	1550	1.30	**SAF**	**37p**	**DRN**	**90S4**	26	846
270	36	5.38	1530	1.40						
299	33	4.86*	1520	1.45						
367	27	3.97	1480	1.60						
99	94	28.76	1780	0.80						
113	83	25.38*	1800	0.90						
127	74	22.50*	1800	0.95						
150	63	19.13*	1790	0.90						
184	53	15.53	1590	1.25						
214	46	13.39	1590	1.30	**S**	**37p**	**DRN**	**80M2**	19	845
229	43	12.48*	1580	1.35	**SF**	**37p**	**DRN**	**80M2**	20	846
262	37	10.91	1560	1.55	**SA**	**37p**	**DRN**	**80M2**	19	847
280	35	10.23	1550	1.50	**SAF**	**37p**	**DRN**	**80M2**	20	846
317	31	9.02*	1530	1.45						
358	27	8.00*	1500	1.40						
421	23	6.80*	1460	1.30						
721	13	3.97	1300	1.45						
182	51	8.00*	1620	0.85						
214	44	6.80*	1610	0.95	**S**	**37**	**DRN**	**90S4**	25	845
230	41	6.33	1570	0.85	**SF**	**37**	**DRN**	**90S4**	26	846
270	35	5.38	1540	0.95	**SA**	**37**	**DRN**	**90S4**	25	847
299	32	4.86*	1530	1.05	**SAF**	**37**	**DRN**	**90S4**	26	846
367	26	3.97	1490	1.20						
214	44	13.39	1610	0.90						
229	41	12.48*	1600	0.95						
262	36	10.91	1580	1.05	**S**	**37**	**DRN**	**80M2**	19	845
280	34	10.23	1570	1.10	**SF**	**37**	**DRN**	**80M2**	20	846
317	30	9.02*	1540	1.20	**SA**	**37**	**DRN**	**80M2**	19	847
358	26	8.00*	1510	1.30	**SAF**	**37**	**DRN**	**80M2**	20	846
421	22	6.80*	1470	1.25						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	5270	714	-	0.80						
2.3	4990	626	12800	0.85						
2.7	4330	538	30000	1.00	**S**	**97pR57**	**DRN**	**90L4**	185	879
3.0	3930	484	33300	1.10	**SF**	**97pR57**	**DRN**	**90L4**	220	879
3.5	3430	420	34300	1.25	**SA**	**97pR57**	**DRN**	**90L4**	180	879
3.9	3110	376	34800	1.40	**SAF**	**97pR57**	**DRN**	**90L4**	205	879
4.5	2740	327	35300	1.55						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	4490	714	30600	0.95						
2.3	4770	626	22600	0.90						
2.7	4110	538	32800	1.00	**S**	**97R57**	**DRN**	**90L4**	185	879
3.0	3710	484	33700	1.15	**SF**	**97R57**	**DRN**	**90L4**	220	879
3.5	3230	420	34600	1.30	**SA**	**97R57**	**DRN**	**90L4**	180	879
3.9	2920	376	35100	1.45	**SAF**	**97R57**	**DRN**	**90L4**	205	879
4.5	2560	327	35500	1.65						
3.0	3540	485	-	0.85						
3.4	3210	435	7490	0.90						
3.9	2820	378	25300	1.05	**S**	**87pR57**	**DRN**	**90L4**	125	879
4.5	2440	323	27600	1.20	**SF**	**87pR57**	**DRN**	**90L4**	145	879
5.2	2140	281	28200	1.35	**SA**	**87pR57**	**DRN**	**90L4**	125	879
5.7	2090	255	28200	1.25	**SAF**	**87pR57**	**DRN**	**90L4**	140	879
6.6	1840	222	28700	1.45						
7.1	1720	205	28800	1.50						
3.0	2990	485	20100	0.85						
3.4	2710	435	27000	0.90						
3.9	2390	378	27700	1.00	**S**	**87R57**	**DRN**	**90L4**	125	879
4.5	2070	323	28300	1.15	**SF**	**87R57**	**DRN**	**90L4**	145	879
5.2	1820	281	28700	1.30	**SA**	**87R57**	**DRN**	**90L4**	125	879
5.7	1940	255	28500	1.00	**SAF**	**87R57**	**DRN**	**90L4**	140	879
6.6	1700	222	28900	1.15						
7.1	1590	205	29000	1.25						
3.4	3530	286.40*	34100	1.20	**S**	**97p**	**DRN**	**100L6**	170	874
3.7	3250	262.22	34600	1.30	**SF**	**97p**	**DRN**	**100L6**	205	875
4.2	2890	231.67	35100	1.50	**SA**	**97p**	**DRN**	**100L6**	165	876
4.9	2470	196.52	35700	1.75	**SAF**	**97p**	**DRN**	**100L6**	195	875
5.1	2370	286.40*	35800	1.80	**S**	**97p**	**DRN**	**90L4**	160	874
5.6	2180	262.22	36000	1.95	**SF**	**97p**	**DRN**	**90L4**	195	875
6.3	1930	231.67	36200	2.2	**SA**	**97p**	**DRN**	**90L4**	155	876
7.4	1650	196.52	36500	2.6	**SAF**	**97p**	**DRN**	**90L4**	180	875
3.4	3020	286.40*	34900	1.40	**S**	**97**	**DRN**	**100L6**	170	874
3.7	2790	262.22	35200	1.50	**SF**	**97**	**DRN**	**100L6**	205	875
4.2	2490	231.67	35600	1.70	**SA**	**97**	**DRN**	**100L6**	165	876
4.9	2140	196.52	36000	1.95	**SAF**	**97**	**DRN**	**100L6**	195	875
5.1	2060	286.40*	36100	1.95	**S**	**97**	**DRN**	**90L4**	160	874
5.6	1900	262.22	36300	2.1	**SF**	**97**	**DRN**	**90L4**	195	875
6.3	1690	231.67	36400	2.4	**SA**	**97**	**DRN**	**90L4**	155	876
7.4	1450	196.52	36600	2.7	**SAF**	**97**	**DRN**	**90L4**	180	875
3.7	3110	258.18	14800	0.95	**S**	**87p**	**DRN**	**100L6**	115	869
4.3	2710	222.40*	27000	1.10	**SF**	**87p**	**DRN**	**100L6**	135	870
4.7	2490	202.96	27500	1.20	**SA**	**87p**	**DRN**	**100L6**	110	871
5.3	2220	180.00*	28000	1.30	**SAF**	**87p**	**DRN**	**100L6**	125	870
5.1	2330	288.00*	27800	1.25						
5.7	2100	258.18	28300	1.40						
6.6	1820	222.40*	28700	1.55						
7.2	1670	202.96	28900	1.70	**S**	**87p**	**DRN**	**90L4**	100	869
8.1	1490	180.00*	29200	1.85	**SF**	**87p**	**DRN**	**90L4**	125	870
9.7	1250	151.30	29400	2.1	**SA**	**87p**	**DRN**	**90L4**	99	871
11	1150	139.05	29500	2.3	**SAF**	**87p**	**DRN**	**90L4**	115	870
12	1030	123.48	29700	2.5						
13	920	110.40*	29800	2.7						
15	830	99.26	29800	2.9						
3.7	2630	258.18	27200	0.90	**S**	**87**	**DRN**	**100L6**	115	869
4.3	2300	222.40*	27900	1.05	**SF**	**87**	**DRN**	**100L6**	135	870
4.7	2110	202.96	28200	1.10	**SA**	**87**	**DRN**	**100L6**	110	871
5.3	1900	180.00*	28600	1.25	**SAF**	**87**	**DRN**	**100L6**	125	870

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	1990	288.00*	28500	1.15						
5.7	1800	258.18	28800	1.25						
6.6	1570	222.40*	29100	1.45						
7.2	1440	202.96	29200	1.55	**S**	**87**	**DRN**	**90L4**	100	869
8.1	1290	180.00*	29400	1.70	**SF**	**87**	**DRN**	**90L4**	125	870
9.7	1100	151.30	29600	1.95	**SA**	**87**	**DRN**	**90L4**	99	871
11	1020	139.05	29700	2.0	**SAF**	**87**	**DRN**	**90L4**	115	870
12	910	123.48	29800	2.2						
13	820	110.40*	29800	2.4						
15	745	99.26	29900	2.6						
6.5	1790	225.26	11200	0.85						
6.8	1700	214.00*	11500	0.90						
7.7	1510	189.09	12300	1.00						
9.0	1300	161.60*	13200	1.15						
9.9	1200	148.15	13700	1.25						
11	1050	130.00*	14300	1.40						
12	1000	123.20*	14500	1.50						
14	880	107.83	15000	1.65	**S**	**77p**	**DRN**	**90L4**	66	864
15	795	97.14	15000	1.80	**SF**	**77p**	**DRN**	**90L4**	76	865
17	700	85.22	14600	2.0	**SA**	**77p**	**DRN**	**90L4**	65	866
19	675	75.09	13600	2.0	**SAF**	**77p**	**DRN**	**90L4**	72	865
20	640	71.33	13500	2.1						
22	545	66.67	13900	2.4						
23	570	63.03	13200	2.3						
26	470	56.92	13400	2.6						
27	485	53.87	12700	2.7						
30	445	49.38	12500	2.9						
7.7	1280	189.09	11500	1.00						
9.0	1110	161.60*	13000	1.15						
9.9	1030	148.15	13600	1.20						
11	910	130.00*	14300	1.30						
12	870	123.20*	14600	1.40						
14	765	107.83	15000	1.50						
15	695	97.14	15300	1.65	**S**	**77**	**DRN**	**90L4**	66	864
17	615	85.22	15300	1.80	**SF**	**77**	**DRN**	**90L4**	76	865
19	625	75.09	14100	1.75	**SA**	**77**	**DRN**	**90L4**	65	866
20	595	71.33	13900	1.85	**SAF**	**77**	**DRN**	**90L4**	72	865
22	490	66.67	14400	2.1						
23	530	63.03	13600	2.1						
26	420	56.92	13900	2.3						
27	455	53.87	13100	2.4						
30	420	49.38	12900	2.6						
34	370	43.33	12500	3.0						
14	795	100.80*	9320	0.80						
17	680	85.83	9400	0.95						
19	615	78.00*	9320	1.05						
22	575	65.63	8470	1.25						
23	545	62.35*	8430	1.30						
27	480	54.70	8320	1.45						
31	410	46.40*	8150	1.65						
35	370	41.89	8030	1.80	**S**	**67p**	**DRN**	**90L4**	46	859
40	325	36.85	7860	2.0	**SF**	**67p**	**DRN**	**90L4**	53	860
42	305	34.80*	7780	2.1	**SA**	**67p**	**DRN**	**90L4**	47	861
49	260	29.63	7550	2.4	**SAF**	**67p**	**DRN**	**90L4**	52	860
54	235	26.93	7400	2.5						
60	225	24.44	6800	1.85						
63	215	23.22*	6740	1.95						
72	189	20.37	6580	2.3						
85	160	17.28*	6370	2.6						
94	145	15.60*	6240	2.8						
17	580	85.83	8060	0.90	**S**	**67**	**DRN**	**90L4**	46	859
19	530	78.00*	8560	1.00	**SF**	**67**	**DRN**	**90L4**	53	860
22	520	65.63	8670	0.90	**SA**	**67**	**DRN**	**90L4**	47	861
					SAF	**67**	**DRN**	**90L4**	52	860

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
23	495	62.35*	8880	0.95						
27	435	54.70	8770	1.10						
31	375	46.40*	8550	1.30						
35	340	41.89	8400	1.40						
40	300	36.85	8200	1.60						
42	285	34.80*	8110	1.70	**S**	**67**	**DRN**	**90L4**	46	859
49	245	29.63	7850	1.95	**SF**	**67**	**DRN**	**90L4**	53	860
54	220	26.93	7690	2.1	**SA**	**67**	**DRN**	**90L4**	47	861
60	210	24.44	7040	1.60	**SAF**	**67**	**DRN**	**90L4**	52	860
63	200	23.22*	6970	1.65						
72	179	20.37	6800	1.90						
85	153	17.28*	6580	2.2						
94	138	15.60*	6430	2.5						
106	122	13.73*	6250	2.8						
31	410	47.32	5120	0.85						
33	385	44.22*	6130	0.85						
38	335	38.23	6580	0.95						
45	285	32.48*	6460	1.05						
50	255	29.00*	6360	1.15						
59	215	24.77	6210	1.25	**S**	**57p**	**DRN**	**90L4**	35	854
63	205	23.20*	6140	1.30	**SF**	**57p**	**DRN**	**90L4**	39	855
75	173	19.54	5950	1.45	**SA**	**57p**	**DRN**	**90L4**	35	856
83	162	17.62	5410	1.40	**SAF**	**57p**	**DRN**	**90L4**	37	855
89	152	16.47*	5360	1.50						
103	131	14.24	5230	1.70						
121	111	12.10*	5070	2.0						
135	100	10.80*	4960	2.2						
158	85	9.23*	4790	2.3						
45	260	32.48*	6610	0.95						
50	230	29.00*	6490	1.05						
59	200	24.77	6310	1.20						
63	189	23.20*	6230	1.30						
75	161	19.54	6020	1.35	**S**	**57**	**DRN**	**90L4**	35	854
83	153	17.62	5460	1.10	**SF**	**57**	**DRN**	**90L4**	39	855
89	143	16.47*	5400	1.15	**SA**	**57**	**DRN**	**90L4**	35	856
103	124	14.24	5260	1.35	**SAF**	**57**	**DRN**	**90L4**	37	855
121	106	12.10*	5100	1.60						
135	95	10.80*	4980	1.75						
158	81	9.23*	4810	2.1						
63	200	23.20*	3060	0.80						
75	172	19.54	3070	0.90						
83	162	17.62	2480	0.95						
89	151	16.47*	2610	1.00						
103	131	14.24	2640	1.15						
121	111	12.10*	2640	1.30	**S**	**47p**	**DRN**	**90L4**	31	849
135	100	10.80*	2630	1.40	**SF**	**47p**	**DRN**	**90L4**	35	850
158	85	9.23*	2600	1.55	**SA**	**47p**	**DRN**	**90L4**	32	851
169	80	8.64*	2590	1.65	**SAF**	**47p**	**DRN**	**90L4**	34	850
201	67	7.28	2530	1.60						
228	59	6.40*	2460	1.95						
271	50	5.39	2390	2.1						
307	44	4.76	2340	2.0						
365	37	4.00*	2260	2.0						
103	124	14.24	2680	0.90	**S**	**47**	**DRN**	**90L4**	31	849
121	106	12.10*	2680	1.05	**SF**	**47**	**DRN**	**90L4**	35	850
135	95	10.80*	2660	1.15	**SA**	**47**	**DRN**	**90L4**	32	851
					SAF	**47**	**DRN**	**90L4**	34	850
158	81	9.23*	2630	1.35						
169	76	8.64*	2610	1.40						
201	64	7.28	2550	1.60	**S**	**47**	**DRN**	**90L4**	31	849
228	57	6.40*	2470	1.30	**SF**	**47**	**DRN**	**90L4**	35	850
271	48	5.39	2400	1.50	**SA**	**47**	**DRN**	**90L4**	32	851
307	43	4.76	2350	1.65	**SAF**	**47**	**DRN**	**90L4**	34	850
365	36	4.00*	2270	1.70						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
162	83	9.02*	620	0.85						
183	74	8.00*	820	0.90						
215	63	6.80*	1030	0.95	**S**	**37p**	**DRN**	**90L4**	28	845
231	58	6.33	940	0.95	**SF**	**37p**	**DRN**	**90L4**	29	846
271	50	5.38	1120	1.00	**SA**	**37p**	**DRN**	**90L4**	28	847
300	45	4.86*	1200	1.05	**SAF**	**37p**	**DRN**	**90L4**	29	846
368	36	3.97	1320	1.20						
186	72	15.53	840	0.95						
216	62	13.39	1040	0.95						
231	58	12.48*	1110	1.00						
265	51	10.91	1240	1.15						
282	48	10.23	1300	1.10	**S**	**37p**	**DRN**	**90S2**	25	845
320	42	9.02*	1360	1.10	**SF**	**37p**	**DRN**	**90S2**	26	846
361	37	8.00*	1350	1.05	**SA**	**37p**	**DRN**	**90S2**	25	847
424	31	6.80*	1340	0.95	**SAF**	**37p**	**DRN**	**90S2**	26	846
456	29	6.33	1300	1.25						
536	25	5.38	1280	1.20						
593	22	4.86*	1260	1.20						
728	18	3.97	1220	1.05						
320	40	9.02*	1380	0.90	**S**	**37**	**DRN**	**90S2**	25	845
361	36	8.00*	1370	0.95	**SF**	**37**	**DRN**	**90S2**	26	846
424	30	6.80*	1350	0.95	**SA**	**37**	**DRN**	**90S2**	25	847
					SAF	**37**	**DRN**	**90S2**	26	846

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.5	5110	420	-	0.85						
3.9	4620	376	25700	0.95	**S**	**97pR57**	**DRN**	**100LS4**	190	879
4.4	4060	327	33000	1.05	**SF**	**97pR57**	**DRN**	**100LS4**	220	879
5.0	3590	287	34000	1.20	**SA**	**97pR57**	**DRN**	**100LS4**	185	879
5.8	3150	252	34700	1.35	**SAF**	**97pR57**	**DRN**	**100LS4**	210	879
3.5	4810	420	22200	0.85						
3.9	4340	376	29600	0.95	**S**	**97R57**	**DRN**	**100LS4**	190	879
4.4	3800	327	33600	1.10	**SF**	**97R57**	**DRN**	**100LS4**	220	879
5.0	3360	287	34400	1.25	**SA**	**97R57**	**DRN**	**100LS4**	185	879
5.8	2940	252	35000	1.40	**SAF**	**97R57**	**DRN**	**100LS4**	210	879
3.4	5120	286.40*	-	0.85						
3.7	4720	262.22	26000	0.90	**S**	**97p**	**DRN**	**112M6**	180	874
4.2	4200	231.67	32800	1.00	**SF**	**97p**	**DRN**	**112M6**	215	875
5.0	3580	196.52	34000	1.20	**SA**	**97p**	**DRN**	**112M6**	175	876
5.4	3310	180.95	34500	1.30	**SAF**	**97p**	**DRN**	**112M6**	200	875
6.0	2970	161.74	35000	1.45						
5.1	3510	286.40*	34100	1.20						
5.5	3220	262.22	34600	1.35						
6.3	2860	231.67	35200	1.50						
7.4	2430	196.52	35700	1.75	**S**	**97p**	**DRN**	**100LS4**	165	874
8.0	2240	180.95	35900	1.90	**SF**	**97p**	**DRN**	**100LS4**	200	875
9.0	2010	161.74	36200	2.1	**SA**	**97p**	**DRN**	**100LS4**	160	876
10.0	1810	145.60*	36300	2.4	**SAF**	**97p**	**DRN**	**100LS4**	185	875
11	1640	131.85	36500	2.6						
12	1460	116.92	36600	2.9						
3.4	4380	286.40*	32200	0.95	**S**	**97**	**DRN**	**112M6**	180	874
3.7	4040	262.22	33100	1.05	**SF**	**97**	**DRN**	**112M6**	215	875
4.2	3610	231.67	33900	1.15	**SA**	**97**	**DRN**	**112M6**	175	876
5.0	3110	196.52	34800	1.35	**SAF**	**97**	**DRN**	**112M6**	200	875

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	3040	286.40*	34900	1.30						
5.5	2810	262.22	35200	1.40						
6.3	2500	231.67	35600	1.60						
7.4	2150	196.52	36000	1.85						
8.0	1990	180.95	36200	1.95	**S**	**97**	**DRN**	**100LS4**	165	874
9.0	1790	161.74	36300	2.1	**SF**	**97**	**DRN**	**100LS4**	200	875
10.0	1620	145.60*	36500	2.3	**SA**	**97**	**DRN**	**100LS4**	160	876
11	1480	131.85	36600	2.5	**SAF**	**97**	**DRN**	**100LS4**	185	875
12	1320	116.92	36700	2.6						
14	1200	105.71	36800	2.9						
16	1020	89.60*	36900	3.1						
5.6	3110	258.18	14900	0.95						
6.5	2700	222.40*	27100	1.05						
7.1	2470	202.96	27600	1.15						
8.1	2200	180.00*	28100	1.25						
9.6	1860	151.30	28700	1.45						
10	1710	139.05	28900	1.55	**S**	**87p**	**DRN**	**100LS4**	105	869
12	1520	123.48	29100	1.70	**SF**	**87p**	**DRN**	**100LS4**	130	870
13	1360	110.40*	29300	1.85	**SA**	**87p**	**DRN**	**100LS4**	105	871
15	1230	99.26	29500	2.0	**SAF**	**87p**	**DRN**	**100LS4**	120	870
17	1070	86.15	29600	2.2						
18	1100	81.76	29600	2.2						
19	950	77.14	29700	2.4						
21	950	70.43	29700	2.5						
23	870	64.27	29800	2.7						
5.6	2660	258.18	27100	0.85						
6.5	2320	222.40*	27900	1.00						
7.1	2130	202.96	28200	1.05						
8.1	1910	180.00*	28600	1.15						
9.6	1630	151.30	29000	1.30						
10	1500	139.05	29200	1.40						
12	1350	123.48	29300	1.50	**S**	**87**	**DRN**	**100LS4**	105	869
13	1210	110.40*	29500	1.65	**SF**	**87**	**DRN**	**100LS4**	130	870
15	1100	99.26	29600	1.80	**SA**	**87**	**DRN**	**100LS4**	105	871
17	960	86.15	29700	1.95	**SAF**	**87**	**DRN**	**100LS4**	120	870
18	1030	81.76	29600	1.55						
19	860	77.14	29800	2.1						
21	890	70.43	29800	1.80						
23	810	64.27	29800	1.95						
25	730	57.00*	29900	2.2						
9.8	1770	148.15	11300	0.85						
11	1560	130.00*	12100	0.95						
12	1480	123.20*	12500	1.00						
13	1300	107.83	13200	1.15						
15	1170	97.14	13500	1.20						
17	1030	85.22	13300	1.35						
19	910	75.20*	13100	1.45						
22	810	66.67	12800	1.60						
23	840	63.03	11900	1.55	**S**	**77p**	**DRN**	**100LS4**	70	864
25	690	56.92	12500	1.75	**SF**	**77p**	**DRN**	**100LS4**	80	865
27	720	53.87	11600	1.80	**SA**	**77p**	**DRN**	**100LS4**	69	866
29	660	49.38	11500	1.95	**SAF**	**77p**	**DRN**	**100LS4**	76	865
33	580	43.33	11300	2.1						
35	550	41.07	11200	2.2						
40	485	35.94	10900	2.5						
45	435	32.38	10700	2.7						
51	380	28.41	10400	3.0						
63	315	22.89	9300	2.6						
69	290	20.99	9150	2.8						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	1350	130.00*	9150	0.90						
12	1280	123.20*	11500	0.95						
13	1130	107.83	12800	1.05						
15	1030	97.14	13600	1.10						
17	910	85.22	14000	1.20						
19	810	75.20*	13800	1.30						
22	725	66.67	13500	1.45						
23	780	63.03	12400	1.40						
25	625	56.92	13000	1.60	**S**	**77**	**DRN**	**100LS4**	70	864
27	670	53.87	12100	1.65	**SF**	**77**	**DRN**	**100LS4**	80	865
29	620	49.38	11900	1.75	**SA**	**77**	**DRN**	**100LS4**	69	866
33	545	43.33	11700	2.0	**SAF**	**77**	**DRN**	**100LS4**	76	865
35	515	41.07	11500	2.1						
40	455	35.94	11200	2.4						
45	410	32.38	11000	2.6						
51	360	28.41	10700	2.9						
58	320	25.07	10400	3.2						
63	300	22.89	9550	2.3						
69	275	20.99	9390	2.5						
21	795	67.57	7840	0.80						
27	710	54.70	6990	1.00						
31	605	46.40*	7020	1.10						
35	545	41.89	7010	1.20						
39	480	36.85	6970	1.35						
42	455	34.80*	6940	1.40						
49	385	29.63	6830	1.60						
54	350	26.93	6750	1.70	**S**	**67p**	**DRN**	**100LS4**	50	859
62	305	23.33	6620	1.70	**SF**	**67p**	**DRN**	**100LS4**	57	860
71	275	20.37	5910	1.55	**SA**	**67p**	**DRN**	**100LS4**	51	861
84	235	17.28*	5810	1.75	**SAF**	**67p**	**DRN**	**100LS4**	55	860
93	210	15.60*	5730	1.90						
106	188	13.73*	5610	2.1						
112	178	12.96*	5560	2.2						
131	152	11.03	5400	2.5						
145	138	10.03	5300	2.6						
167	119	8.69	5140	2.9						
31	550	46.40*	7480	0.85						
35	500	41.89	7430	0.95						
39	445	36.85	7350	1.10						
42	420	34.80*	7300	1.15						
49	360	29.63	7160	1.35						
54	330	26.93	7060	1.45						
62	285	23.33	6900	1.65	**S**	**67**	**DRN**	**100LS4**	50	859
71	265	20.37	6130	1.30	**SF**	**67**	**DRN**	**100LS4**	57	860
84	225	17.28*	6010	1.50	**SA**	**67**	**DRN**	**100LS4**	51	861
93	205	15.60*	5920	1.65	**SAF**	**67**	**DRN**	**100LS4**	55	860
106	181	13.73*	5800	1.90						
112	171	12.96*	5740	2.0						
131	146	11.03	5570	2.3						
145	133	10.03	5470	2.5						
167	115	8.69	5300	2.9						
59	320	24.77	5470	0.85						
62	300	23.20*	5450	0.90						
74	255	19.54	5370	1.00						
102	194	14.24	4650	1.15						
120	165	12.10*	4580	1.35						
134	147	10.80*	4520	1.50	**S**	**57p**	**DRN**	**100LS4**	39	854
157	126	9.23*	4420	1.55	**SF**	**57p**	**DRN**	**100LS4**	43	855
168	118	8.64*	4380	1.60	**SA**	**57p**	**DRN**	**100LS4**	39	856
199	99	7.28	4250	1.55	**SAF**	**57p**	**DRN**	**100LS4**	41	855
227	88	6.40*	4100	1.75						
269	74	5.39	3960	2.0						
304	65	4.76	3860	1.95						
362	55	4.00*	3710	1.95						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
102	184	14.24	4700	0.90						
120	157	12.10*	4620	1.05						
134	141	10.80*	4560	1.20						
157	121	9.23*	4450	1.40	**S**	**57**	**DRN**	**100LS4**	39	854
168	113	8.64*	4400	1.45	**SF**	**57**	**DRN**	**100LS4**	43	855
199	96	7.28	4270	1.50	**SA**	**57**	**DRN**	**100LS4**	39	856
227	85	6.40*	4120	1.15	**SAF**	**57**	**DRN**	**100LS4**	41	855
269	72	5.39	3980	1.30						
304	63	4.76	3870	1.45						
362	53	4.00*	3720	1.65						
120	165	12.10*	1500	0.90						
134	147	10.80*	1740	0.95						
157	126	9.23*	2020	1.05						
168	118	8.64*	2110	1.10	**S**	**47p**	**DRN**	**100LS4**	35	849
199	99	7.28	2180	1.10	**SF**	**47p**	**DRN**	**100LS4**	39	850
212	94	6.83	2130	1.25	**SA**	**47p**	**DRN**	**100LS4**	36	851
227	88	6.40*	2130	1.35	**SAF**	**47p**	**DRN**	**100LS4**	38	850
269	74	5.39	2120	1.40						
304	65	4.76	2100	1.40						
362	55	4.00*	2060	1.35						

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	4900	287	18500	0.90	**S**	**97pR57**	**DRN**	**100L4**	195	879
5.8	4300	252	30600	1.00	**SF**	**97pR57**	**DRN**	**100L4**	230	879
6.7	3760	219	33600	1.15	**SA**	**97pR57**	**DRN**	**100L4**	190	879
7.1	3540	205	34100	1.20	**SAF**	**97pR57**	**DRN**	**100L4**	215	879
5.1	4580	287	26000	0.90	**S**	**97R57**	**DRN**	**100L4**	195	879
5.8	4020	252	33100	1.05	**SF**	**97R57**	**DRN**	**100L4**	230	879
6.7	3510	219	34100	1.20	**SA**	**97R57**	**DRN**	**100L4**	190	879
7.1	3300	205	34500	1.25	**SAF**	**97R57**	**DRN**	**100L4**	215	879
5.1	4770	286.40*	24200	0.90						
5.5	4380	262.22	32400	1.00						
6.3	3880	231.67	33400	1.10						
7.4	3310	196.52	34500	1.30						
8.1	3050	180.95	34900	1.40	**S**	**97p**	**DRN**	**100L4**	170	874
9.0	2730	161.74	35300	1.55	**SF**	**97p**	**DRN**	**100L4**	205	875
10	2460	145.60*	35700	1.75	**SA**	**97p**	**DRN**	**100L4**	165	876
11	2230	131.85	35900	1.90	**SAF**	**97p**	**DRN**	**100L4**	195	875
12	1980	116.92	36200	2.2						
14	1790	105.71	36300	2.4						
16	1520	89.60*	36600	2.7						
18	1490	80.85	36600	2.5						
5.1	4140	286.40*	32900	0.95						
5.5	3820	262.22	33600	1.05						
6.3	3400	231.67	34300	1.15						
7.4	2920	196.52	35100	1.35						
8.1	2710	180.95	35400	1.45	**S**	**97**	**DRN**	**100L4**	170	874
9.0	2440	161.74	35700	1.55	**SF**	**97**	**DRN**	**100L4**	205	875
10	2210	145.60*	36000	1.70	**SA**	**97**	**DRN**	**100L4**	165	876
11	2010	131.85	36200	1.80	**SAF**	**97**	**DRN**	**100L4**	195	875
12	1790	116.92	36300	1.95						
14	1630	105.71	36500	2.1						
16	1390	89.60*	36600	2.3						
18	1410	80.85	36600	2.3						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	3350	202.96	-	0.85						
8.1	2990	180.00*	20100	0.95						
9.6	2520	151.30	27400	1.05						
10	2320	139.05	27900	1.15						
12	2070	123.48	28300	1.25						
13	1850	110.40*	28700	1.35						
15	1670	99.26	28900	1.45	**S**	**87p**	**DRN**	**100L4**	115	869
17	1450	86.15	29200	1.60	**SF**	**87p**	**DRN**	**100L4**	135	870
18	1490	81.76	29100	1.65	**SA**	**87p**	**DRN**	**100L4**	110	871
19	1300	77.14	29400	1.75	**SAF**	**87p**	**DRN**	**100L4**	125	870
21	1290	70.43	29400	1.85						
23	1180	64.27	29500	2.0						
26	1050	57.00*	29600	2.2						
30	880	47.91	29800	2.5						
33	810	44.03	29800	2.7						
37	720	39.10	29900	3.0						
8.1	2600	180.00*	27300	0.85						
9.6	2210	151.30	28100	0.95						
10	2050	139.05	28400	1.00						
12	1830	123.48	28700	1.10						
13	1650	110.40*	29000	1.20						
15	1490	99.26	29200	1.30						
17	1310	86.15	29400	1.45	**S**	**87**	**DRN**	**100L4**	115	869
18	1400	81.76	29300	1.15	**SF**	**87**	**DRN**	**100L4**	135	870
19	1180	77.14	29500	1.55	**SA**	**87**	**DRN**	**100L4**	110	871
21	1210	70.43	29500	1.30	**SAF**	**87**	**DRN**	**100L4**	125	870
23	1110	64.27	29600	1.45						
26	990	57.00*	29700	1.60						
30	830	47.91	29800	1.90						
33	770	44.03	29800	2.1						
37	685	39.10	29900	2.3						
42	615	34.96*	29900	2.6						
14	1770	107.83	11300	0.85						
15	1590	97.14	11700	0.90						
17	1400	85.22	11700	1.00						
19	1240	75.20*	11700	1.10						
22	1100	66.67	11600	1.15						
23	1140	63.03	10400	1.15						
26	940	56.92	11400	1.30						
27	980	53.87	10400	1.30						
29	900	49.38	10300	1.40	**S**	**77p**	**DRN**	**100L4**	77	864
34	790	43.33	10200	1.60	**SF**	**77p**	**DRN**	**100L4**	87	865
35	750	41.07	10200	1.65	**SA**	**77p**	**DRN**	**100L4**	77	866
41	655	35.94	10000	1.85	**SAF**	**77p**	**DRN**	**100L4**	83	865
45	590	32.38	9900	2.0						
51	520	28.41	9700	2.2						
58	460	25.07	9500	2.4						
64	430	22.89	8540	1.95						
69	390	20.99	8450	2.1						
79	345	18.42	8300	2.3						
83	325	17.45	8230	2.4						
95	285	15.28	8040	2.7						
106	255	13.76	7890	2.9						
17	1240	85.22	12000	0.90	**S**	**77**	**DRN**	**100L4**	77	864
19	1100	75.20*	12500	0.95	**SF**	**77**	**DRN**	**100L4**	87	865
22	980	66.67	12300	1.05	**SA**	**77**	**DRN**	**100L4**	77	866
23	1060	63.03	10900	1.05	**SAF**	**77**	**DRN**	**100L4**	83	865

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
26	850	56.92	12000	1.15						
27	910	53.87	10900	1.20						
29	840	49.38	10800	1.30						
34	740	43.33	10700	1.50						
35	705	41.07	10600	1.55						
41	620	35.94	10400	1.75						
45	560	32.38	10200	1.95						
51	490	28.41	10000	2.1	**S**	**77**	**DRN**	**100L4**	77	864
58	435	25.07	9790	2.3	**SF**	**77**	**DRN**	**100L4**	87	865
64	410	22.89	8790	1.70	**SA**	**77**	**DRN**	**100L4**	77	866
69	375	20.99	8690	1.85	**SAF**	**77**	**DRN**	**100L4**	83	865
79	330	18.42	8520	2.1						
83	315	17.45	8450	2.2						
95	275	15.28	8250	2.6						
106	250	13.76	8090	2.8						
121	220	12.07	7880	3.3						
137	195	10.65	7670	3.7						
31	820	46.40*	5730	0.85						
35	740	41.89	5840	0.90						
40	655	36.85	5940	1.00						
42	620	34.80*	5960	1.05						
49	525	29.63	6000	1.15						
54	480	26.93	5990	1.25						
62	415	23.33	5960	1.25	**S**	**67p**	**DRN**	**100L4**	57	859
71	375	20.37	5140	1.15	**SF**	**67p**	**DRN**	**100L4**	64	860
84	320	17.28*	5150	1.30	**SA**	**67p**	**DRN**	**100L4**	58	861
93	290	15.60*	5130	1.40	**SAF**	**67p**	**DRN**	**100L4**	63	860
106	255	13.73*	5090	1.55						
112	240	12.96*	5060	1.60						
132	205	11.03	4980	1.80						
145	187	10.03	4920	1.95						
168	162	8.69	4810	2.1						
193	141	7.56*	4700	2.3						
					S	**67**	**DRN**	**100L4**	57	859
42	570	34.80*	6370	0.85	**SF**	**67**	**DRN**	**100L4**	64	860
49	490	29.63	6350	1.00	**SA**	**67**	**DRN**	**100L4**	58	861
54	445	26.93	6320	1.05	**SAF**	**67**	**DRN**	**100L4**	63	860
62	390	23.33	6260	1.25						
71	360	20.37	5360	0.95						
84	305	17.28*	5350	1.10						
93	275	15.60*	5320	1.20	**S**	**67**	**DRN**	**100L4**	57	859
106	245	13.73*	5270	1.40	**SF**	**67**	**DRN**	**100L4**	64	860
112	230	12.96*	5240	1.45	**SA**	**67**	**DRN**	**100L4**	58	861
132	198	11.03	5150	1.70	**SAF**	**67**	**DRN**	**100L4**	63	860
145	181	10.03	5080	1.90						
168	157	8.69	4960	2.1						
193	137	7.56*	4840	2.1						
102	260	14.24	3990	0.85						
120	220	12.10*	4020	1.00						
135	200	10.80*	4020	1.10						
158	171	9.23*	3990	1.15						
169	160	8.64*	3970	1.15	**S**	**57p**	**DRN**	**100L4**	46	854
200	135	7.28	3900	1.15	**SF**	**57p**	**DRN**	**100L4**	50	855
213	127	6.83	3810	1.25	**SA**	**57p**	**DRN**	**100L4**	46	856
228	119	6.40*	3780	1.30	**SAF**	**57p**	**DRN**	**100L4**	49	855
270	101	5.39	3690	1.45						
306	89	4.76	3620	1.45						
364	74	4.00*	3510	1.45						
135	191	10.80*	4060	0.90						
158	164	9.23*	4030	1.05						
169	154	8.64*	4000	1.10	**S**	**57**	**DRN**	**100L4**	46	854
200	130	7.28	3930	1.10	**SF**	**57**	**DRN**	**100L4**	50	855
228	115	6.40*	3810	0.85	**SA**	**57**	**DRN**	**100L4**	46	856
270	97	5.39	3710	0.95	**SAF**	**57**	**DRN**	**100L4**	49	855
306	86	4.76	3630	1.05						
364	72	4.00*	3520	1.20						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					S	**97pR57**	**DRN**	**112M4**	205	879
6.7	5010	219	11700	0.85	**SF**	**97pR57**	**DRN**	**112M4**	240	879
7.1	4710	205	24400	0.90	**SA**	**97pR57**	**DRN**	**112M4**	200	879
					SAF	**97pR57**	**DRN**	**112M4**	225	879
					S	**97R57**	**DRN**	**112M4**	205	879
6.7	4670	219	24500	0.90	**SF**	**97R57**	**DRN**	**112M4**	240	879
7.1	4390	205	28900	0.95	**SA**	**97R57**	**DRN**	**112M4**	200	879
					SAF	**97R57**	**DRN**	**112M4**	225	879
6.3	5150	231.67	-	0.85						
7.5	4390	196.52	32300	1.00						
8.1	4050	180.95	33100	1.05						
9.1	3620	161.74	33900	1.20						
10	3270	145.60*	34500	1.30						
11	2960	131.85	35000	1.45	**S**	**97p**	**DRN**	**112M4**	180	874
13	2630	116.92	35500	1.65	**SF**	**97p**	**DRN**	**112M4**	215	875
14	2380	105.71	35800	1.80	**SA**	**97p**	**DRN**	**112M4**	175	876
16	2020	89.60*	36100	2.0	**SAF**	**97p**	**DRN**	**112M4**	200	875
18	1980	80.85	36200	1.85						
20	1750	71.43	36400	2.3						
24	1490	60.59	36600	2.7						
26	1370	55.79	36700	2.8						
6.3	4520	231.67	30300	0.90						
7.5	3880	196.52	33400	1.05						
8.1	3590	180.95	34000	1.10						
9.1	3230	161.74	34600	1.20						
10	2930	145.60*	35000	1.25						
11	2670	131.85	35400	1.35	**S**	**97**	**DRN**	**112M4**	180	874
13	2380	116.92	35800	1.45	**SF**	**97**	**DRN**	**112M4**	215	875
14	2170	105.71	36000	1.60	**SA**	**97**	**DRN**	**112M4**	175	876
16	1850	89.60*	36300	1.75	**SAF**	**97**	**DRN**	**112M4**	200	875
18	1880	80.85	36300	1.70						
20	1660	71.43	36400	2.0						
24	1420	60.59	36600	2.3						
26	1310	55.79	36700	2.5						
11	3080	139.05	16100	0.85						
12	2740	123.48	26700	0.95						
13	2460	110.40*	27600	1.00						
15	2210	99.26	28100	1.10						
17	1920	86.15	28600	1.20						
19	1720	77.14	28900	1.30						
21	1710	70.43	28900	1.40	**S**	**87p**	**DRN**	**112M4**	125	869
23	1560	64.27	29100	1.50	**SF**	**87p**	**DRN**	**112M4**	145	870
26	1390	57.00*	29300	1.65	**SA**	**87p**	**DRN**	**112M4**	120	871
31	1170	47.91	29500	1.90	**SAF**	**87p**	**DRN**	**112M4**	135	870
33	1070	44.03	29600	2.0						
37	950	39.10	29700	2.2						
42	850	34.96*	29600	2.4						
47	770	31.43	28900	2.6						
54	670	27.28	27900	2.9						
57	635	25.50*	26500	2.2						
12	2430	123.48	27600	0.85						
13	2190	110.40*	28100	0.90						
15	1980	99.26	28500	1.00						
17	1730	86.15	28800	1.10						
19	1560	77.14	29100	1.15						
21	1610	70.43	29000	1.00						
23	1470	64.27	29200	1.10	**S**	**87**	**DRN**	**112M4**	125	869
26	1310	57.00*	29400	1.20	**SF**	**87**	**DRN**	**112M4**	145	870
31	1110	47.91	29600	1.45	**SA**	**87**	**DRN**	**112M4**	120	871
33	1020	44.03	29700	1.55	**SAF**	**87**	**DRN**	**112M4**	135	870
37	910	39.10	29700	1.75						
42	810	34.96*	29700	1.95						
47	735	31.43	28900	2.2						
54	640	27.28	28000	2.5						
57	615	25.50*	26600	2.0						

26883198/EN – 04/2022

P_m = 4.0 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
19	1640	75.20*	9910	0.80							
22	1460	66.67	10000	0.90							
26	1250	56.92	10100	1.00							
27	1300	53.87	8810	1.00							
30	1190	49.38	8900	1.05							
34	1050	43.33	8970	1.20							
36	990	41.07	8980	1.25							
41	870	35.94	8980	1.40							
45	785	32.38	8940	1.50	**S**	**77p**	**DRN**	**112M4**		86	864
52	690	28.41	8860	1.65	**SF**	**77p**	**DRN**	**112M4**		96	865
58	610	25.07	8750	1.80	**SA**	**77p**	**DRN**	**112M4**		86	866
64	570	22.89	7600	1.45	**SAF**	**77p**	**DRN**	**112M4**		93	865
70	520	20.99	7590	1.55							
79	455	18.42	7540	1.75							
84	435	17.45	7510	1.80							
96	380	15.28	7410	2.0							
106	340	13.76	7320	2.2							
121	300	12.07	7190	2.4							
137	265	10.65	7040	2.7							
26	1120	56.92	10800	0.90	**S**	**77**	**DRN**	**112M4**		86	864
27	1210	53.87	9340	0.90	**SF**	**77**	**DRN**	**112M4**		96	865
30	1110	49.38	9390	1.00	**SA**	**77**	**DRN**	**112M4**		86	866
34	980	43.33	9420	1.10	**SAF**	**77**	**DRN**	**112M4**		93	865
36	930	41.07	9410	1.15							
41	820	35.94	9370	1.35							
45	740	32.38	9300	1.45							
52	655	28.41	9190	1.60							
58	580	25.07	9060	1.75							
64	545	22.89	7840	1.30							
70	500	20.99	7820	1.40	**S**	**77**	**DRN**	**112M4**		86	864
79	440	18.42	7760	1.60	**SF**	**77**	**DRN**	**112M4**		96	865
84	415	17.45	7720	1.70	**SA**	**77**	**DRN**	**112M4**		86	866
96	365	15.28	7620	1.95	**SAF**	**77**	**DRN**	**112M4**		93	865
106	330	13.76	7520	2.1							
121	290	12.07	7380	2.5							
137	255	10.65	7220	2.8							
155	225	9.44	7070	3.1							
182	196	8.06	6850	3.5							
49	700	29.63	4970	0.90							
54	635	26.93	5060	0.95							
63	550	23.33	5140	0.95							
72	480	20.30*	5180	0.95							
85	425	17.28*	3870	0.95	**S**	**67p**	**DRN**	**112M4**		67	859
94	385	15.60*	4220	1.05	**SF**	**67p**	**DRN**	**112M4**		73	860
107	340	13.73*	4440	1.15	**SA**	**67p**	**DRN**	**112M4**		68	861
113	320	12.96*	4450	1.20	**SAF**	**67p**	**DRN**	**112M4**		72	860
133	270	11.03	4450	1.35							
146	245	10.03	4440	1.45							
169	215	8.69	4390	1.60							
194	187	7.56*	4330	1.75							
85	405	17.28*	4060	0.85							
94	365	15.60*	4400	0.90							
107	325	13.73*	4620	1.05	**S**	**67**	**DRN**	**112M4**		67	859
113	305	12.96*	4620	1.10	**SF**	**67**	**DRN**	**112M4**		73	860
133	260	11.03	4620	1.30	**SA**	**67**	**DRN**	**112M4**		68	861
146	240	10.03	4600	1.40	**SAF**	**67**	**DRN**	**112M4**		72	860
169	205	8.69	4540	1.60							
194	182	7.56*	4480	1.60							

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.0	5000	161.74	12700	0.85						
10	4500	145.60*	30700	0.95						
11	4080	131.85	33000	1.05						
12	3630	116.92	33900	1.20						
14	3280	105.71	34500	1.30						
16	2780	89.60*	35300	1.45	**S**	**97p**	**DRN**	**132S4**	190	874
19	2430	78.26	35700	1.60	**SF**	**97p**	**DRN**	**132S4**	225	875
20	2420	71.43	35700	1.70	**SA**	**97p**	**DRN**	**132S4**	185	876
22	2040	65.45	36100	1.70	**SAF**	**97p**	**DRN**	**132S4**	215	875
24	2050	60.59	36100	1.95						
26	1890	55.79	36300	2.1						
29	1690	49.87	36400	2.2						
33	1520	44.89	36600	2.4						
36	1380	40.65	36700	2.6						
9.0	4460	161.74	31200	0.85						
10	4040	145.60*	33100	0.90						
11	3680	131.85	33800	1.00						
12	3280	116.92	34500	1.05						
14	2980	105.71	35000	1.15						
16	2550	89.60*	35600	1.25	**S**	**97**	**DRN**	**132S4**	190	874
19	2240	78.26	35900	1.35	**SF**	**97**	**DRN**	**132S4**	225	875
20	2290	71.43	35900	1.45	**SA**	**97**	**DRN**	**132S4**	185	876
22	1890	65.45	36300	1.55	**SAF**	**97**	**DRN**	**132S4**	215	875
24	1960	60.59	36200	1.70						
26	1800	55.79	36300	1.80						
29	1620	49.87	36500	2.0						
33	1460	44.89	36600	2.2						
36	1320	40.65	36700	2.5						
17	2650	86.15	27200	0.90						
19	2380	77.14	27700	0.95						
23	1970	64.00*	28500	1.10						
26	1920	57.00*	28500	1.20						
30	1610	47.91	29000	1.40						
33	1480	44.03	29200	1.50						
37	1320	39.10	29000	1.65	**S**	**87p**	**DRN**	**132S4**	135	869
42	1180	34.96*	28400	1.75	**SF**	**87p**	**DRN**	**132S4**	155	870
46	1060	31.43	27800	1.90	**SA**	**87p**	**DRN**	**132S4**	130	871
54	920	27.28	27000	2.1	**SAF**	**87p**	**DRN**	**132S4**	150	870
57	880	25.50*	25300	1.65						
68	740	21.43	24500	1.90						
74	680	19.70	24100	2.0						
84	605	17.49	23500	2.2						
93	540	15.64*	23000	2.3						
104	485	14.06	22500	2.5						
120	420	12.21	21700	2.9						
19	2150	77.14	28200	0.85	**S**	**87**	**DRN**	**132S4**	135	869
23	1800	64.00*	28700	0.95	**SF**	**87**	**DRN**	**132S4**	155	870
26	1810	57.00*	28700	0.90	**SA**	**87**	**DRN**	**132S4**	130	871
30	1530	47.91	29100	1.05	**SAF**	**87**	**DRN**	**132S4**	150	870
33	1410	44.03	29300	1.15						
37	1250	39.10	29100	1.25						
42	1120	34.96*	28500	1.40						
46	1010	31.43	27900	1.55						
54	880	27.28	27100	1.80	**S**	**87**	**DRN**	**132S4**	135	869
57	840	25.50*	25400	1.45	**SF**	**87**	**DRN**	**132S4**	155	870
68	715	21.43	24600	1.75	**SA**	**87**	**DRN**	**132S4**	130	871
74	655	19.70	24200	1.90	**SAF**	**87**	**DRN**	**132S4**	150	870
84	585	17.49	23600	2.1						
93	525	15.64*	23000	2.4						
104	470	14.06	22500	2.6						
120	410	12.21	21800	3.0						
134	365	10.93	21200	3.4						

26883198/EN – 04/2022

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
34	1440	43.33	7070	0.85						
36	1370	41.07	7180	0.90						
41	1200	35.94	7400	1.00						
45	1080	32.38	7520	1.10						
51	950	28.41	7610	1.20						
58	840	25.07	7650	1.30	**S**	**77p**	**DRN**	**132S4**	98	864
66	745	22.22	7650	1.45	**SF**	**77p**	**DRN**	**132S4**	105	865
79	630	18.42	6030	1.25	**SA**	**77p**	**DRN**	**132S4**	97	866
84	600	17.45	6260	1.30	**SAF**	**77p**	**DRN**	**132S4**	105	865
96	525	15.28	6480	1.45						
106	470	13.76	6480	1.55						
121	415	12.07	6450	1.75						
137	365	10.65	6390	1.95						
155	325	9.44	6320	2.2						
181	275	8.06	6200	2.5						
36	1290	41.07	7660	0.85	**S**	**77**	**DRN**	**132S4**	98	864
41	1130	35.94	7830	0.95	**SF**	**77**	**DRN**	**132S4**	105	865
45	1020	32.38	7910	1.05	**SA**	**77**	**DRN**	**132S4**	97	866
					SAF	**77**	**DRN**	**132S4**	105	865
51	900	28.41	7970	1.15						
58	800	25.07	7980	1.25						
66	710	22.22	7950	1.40						
79	605	18.42	6230	1.15						
84	575	17.45	6460	1.25	**S**	**77**	**DRN**	**132S4**	98	864
96	505	15.28	6680	1.40	**SF**	**77**	**DRN**	**132S4**	105	865
106	455	13.76	6670	1.55	**SA**	**77**	**DRN**	**132S4**	97	866
121	400	12.07	6630	1.80	**SAF**	**77**	**DRN**	**132S4**	105	865
137	355	10.65	6570	2.0						
155	315	9.44	6490	2.3						
181	270	8.06	6360	2.5						
106	465	13.73*	2100	0.85						
113	440	12.96*	2360	0.90	**S**	**67p**	**DRN**	**132S4**	78	859
132	375	11.03	2980	1.00	**SF**	**67p**	**DRN**	**132S4**	85	860
146	340	10.03	3290	1.05	**SA**	**67p**	**DRN**	**132S4**	79	861
168	295	8.69	3680	1.20	**SAF**	**67p**	**DRN**	**132S4**	84	860
193	255	7.56*	3800	1.25						
132	360	11.03	3120	0.95	**S**	**67**	**DRN**	**132S4**	78	859
146	330	10.03	3430	1.05	**SF**	**67**	**DRN**	**132S4**	85	860
168	285	8.69	3820	1.15	**SA**	**67**	**DRN**	**132S4**	79	861
193	250	7.56*	3940	1.20	**SAF**	**67**	**DRN**	**132S4**	84	860

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	4920	116.92	17200	0.85						
14	4460	105.71	31400	0.95						
16	3780	89.60*	33600	1.10						
19	3300	78.26	34500	1.20						
21	3280	71.43	34500	1.25						
22	2760	65.45	35300	1.25						
24	2790	60.59	35200	1.40						
26	2570	55.79	35500	1.50	**S**	**97p**	**DRN**	**132M4**	210	874
29	2300	49.87	35800	1.65	**SF**	**97p**	**DRN**	**132M4**	245	875
33	2070	44.89	36100	1.80	**SA**	**97p**	**DRN**	**132M4**	205	876
36	1870	40.65	36300	1.90	**SAF**	**97p**	**DRN**	**132M4**	230	875
41	1660	36.05	35900	2.1						
45	1500	32.60	35200	2.2						
56	1240	26.39	32100	2.1						
62	1110	23.59	31400	2.3						
69	1000	21.23	30700	2.6						
76	900	19.23	30100	2.9						

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	4050	105.71	33100	0.85						
16	3460	89.60*	34200	0.95						
19	3040	78.26	34900	1.00						
21	3120	71.43	34800	1.05						
22	2560	65.45	35500	1.15						
24	2660	60.59	35400	1.25						
26	2450	55.79	35700	1.35	**S**	**97**	**DRN**	**132M4**	210	874
29	2200	49.87	36000	1.50	**SF**	**97**	**DRN**	**132M4**	245	875
33	1980	44.89	36200	1.65	**SA**	**97**	**DRN**	**132M4**	205	876
36	1800	40.65	36300	1.85	**SAF**	**97**	**DRN**	**132M4**	230	875
41	1600	36.05	36100	2.1						
45	1450	32.60	35300	2.2						
56	1210	26.39	32100	2.1						
62	1080	23.59	31400	2.4						
69	970	21.23	30800	2.7						
76	880	19.23	30100	2.9						
26	2600	57.00*	27000	0.90						
31	2190	47.91	27700	1.05						
33	2010	44.03	27500	1.10						
38	1790	39.10	27100	1.20						
42	1600	34.96*	26700	1.30						
47	1440	31.43	26300	1.40						
54	1250	27.28	25700	1.55	**S**	**87p**	**DRN**	**132M4**	150	869
58	1190	25.50*	23600	1.20	**SF**	**87p**	**DRN**	**132M4**	175	870
68	1000	21.43	23100	1.40	**SA**	**87p**	**DRN**	**132M4**	150	871
75	920	19.70	22800	1.50	**SAF**	**87p**	**DRN**	**132M4**	165	870
84	820	17.49	22400	1.60						
94	730	15.64*	22000	1.70						
104	660	14.06	21500	1.90						
120	570	12.21	20900	2.2						
134	510	10.93	20500	2.4						
162	425	9.07	19700	2.7						
186	370	7.88	19000	2.7						
					S	**87**	**DRN**	**132M4**	150	869
33	1910	44.03	27800	0.85	**SF**	**87**	**DRN**	**132M4**	175	870
38	1700	39.10	27400	0.95	**SA**	**87**	**DRN**	**132M4**	150	871
42	1530	34.96*	26900	1.05	**SAF**	**87**	**DRN**	**132M4**	165	870
47	1380	31.43	26500	1.15						
54	1200	27.28	25800	1.35						
58	1150	25.50*	23700	1.10						
68	970	21.43	23200	1.30						
75	890	19.70	22900	1.40	**S**	**87**	**DRN**	**132M4**	150	869
84	795	17.49	22400	1.55	**SF**	**87**	**DRN**	**132M4**	175	870
94	710	15.64*	22000	1.75	**SA**	**87**	**DRN**	**132M4**	150	871
104	640	14.06	21600	1.95	**SAF**	**87**	**DRN**	**132M4**	165	870
120	555	12.21	21000	2.2						
134	500	10.93	20500	2.5						
162	415	9.07	19700	2.7						
186	360	7.88	19100	2.8						
52	1290	28.41	5960	0.90						
59	1140	25.07	6190	0.95						
66	1010	22.22	6350	1.05						
77	860	18.97	6480	1.15						
80	850	18.42	2210	0.95	**S**	**77p**	**DRN**	**132M4**	115	864
84	810	17.45	2620	1.00	**SF**	**77p**	**DRN**	**132M4**	125	865
96	710	15.28	3500	1.05	**SA**	**77p**	**DRN**	**132M4**	115	866
107	640	13.76	4090	1.15	**SAF**	**77p**	**DRN**	**132M4**	120	865
122	560	12.07	4720	1.30						
138	495	10.65	5210	1.45						
155	440	9.44	5540	1.65						
182	375	8.06	5530	1.80						
52	1220	28.41	6340	0.85	**S**	**77**	**DRN**	**132M4**	115	864
59	1080	25.07	6540	0.95	**SF**	**77**	**DRN**	**132M4**	125	865
66	960	22.22	6670	1.00	**SA**	**77**	**DRN**	**132M4**	115	866
80	820	18.42	2360	0.85	**SAF**	**77**	**DRN**	**132M4**	120	865

26883198/EN – 04/2022

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
84	785	17.45	2770	0.90						
96	685	15.28	3660	1.05						
107	620	13.76	4250	1.15	**S**	**77**	**DRN**	**132M4**	115	864
122	545	12.07	4880	1.30	**SF**	**77**	**DRN**	**132M4**	125	865
138	480	10.65	5380	1.50	**SA**	**77**	**DRN**	**132M4**	115	866
155	425	9.44	5710	1.70	**SAF**	**77**	**DRN**	**132M4**	120	865
182	365	8.06	5690	1.85						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	4630	89.60*	28700	0.90						
19	4050	78.26	33100	0.95						
22	3390	65.45	34300	1.05						
26	3150	55.79	34700	1.25						
29	2820	49.87	35200	1.35						
33	2540	44.89	35600	1.45						
36	2300	40.65	35500	1.55	**S**	**97p**	**DRN**	**132L4**	220	874
41	2040	36.05	34800	1.70	**SF**	**97p**	**DRN**	**132L4**	250	875
45	1840	32.60	34100	1.85	**SA**	**97p**	**DRN**	**132L4**	215	876
56	1520	26.39	30900	1.70	**SAF**	**97p**	**DRN**	**132L4**	240	875
62	1360	23.59	30300	1.90						
69	1220	21.23	29800	2.1						
76	1110	19.23	29200	2.3						
86	980	17.05	28600	2.6						
95	890	15.42	28000	2.8						
19	3730	78.26	33700	0.80	**S**	**97**	**DRN**	**132L4**	220	874
22	3140	65.45	34700	0.90	**SF**	**97**	**DRN**	**132L4**	250	875
26	3000	55.79	34900	1.10	**SA**	**97**	**DRN**	**132L4**	215	876
					SAF	**97**	**DRN**	**132L4**	240	875
29	2690	49.87	35400	1.20						
33	2430	44.89	35700	1.35						
36	2210	40.65	35700	1.50						
41	1960	36.05	34900	1.70						
45	1780	32.60	34300	1.80						
56	1480	26.39	30900	1.75	**S**	**97**	**DRN**	**132L4**	220	874
62	1320	23.59	30400	1.95	**SF**	**97**	**DRN**	**132L4**	250	875
69	1190	21.23	29800	2.2	**SA**	**97**	**DRN**	**132L4**	215	876
76	1080	19.23	29300	2.4	**SAF**	**97**	**DRN**	**132L4**	240	875
86	960	17.05	28600	2.7						
95	870	15.42	28000	2.8						
112	740	13.07	27000	3.1						
129	645	11.41	26200	3.4						
33	2470	44.03	25800	0.90						
38	2190	39.10	25600	1.00						
42	1960	34.96*	25300	1.05						
47	1760	31.43	25100	1.15						
54	1530	27.28	24600	1.30						
60	1370	24.43	24200	1.35						
73	1140	20.27	23500	1.55	**S**	**87p**	**DRN**	**132L4**	160	869
75	1130	19.70	21700	1.20	**SF**	**87p**	**DRN**	**132L4**	180	870
84	1000	17.49	21400	1.30	**SA**	**87p**	**DRN**	**132L4**	160	871
94	890	15.64*	21100	1.40	**SAF**	**87p**	**DRN**	**132L4**	175	870
105	800	14.06	20700	1.55						
120	700	12.21	20300	1.75						
135	625	10.93	19900	1.95						
162	520	9.07	19200	2.2						
186	450	7.88	18600	2.2						
42	1870	34.96*	25600	0.85	**S**	**87**	**DRN**	**132L4**	160	869
47	1690	31.43	25300	0.95	**SF**	**87**	**DRN**	**132L4**	180	870
54	1470	27.28	24800	1.10	**SA**	**87**	**DRN**	**132L4**	160	871
60	1320	24.43	24400	1.20	**SAF**	**87**	**DRN**	**132L4**	175	870

26883198/EN – 04/2022

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
73	1100	20.27	23600	1.45						
75	1090	19.70	21800	1.15						
84	970	17.49	21500	1.25						
94	870	15.64*	21100	1.40	**S**	**87**	**DRN**	**132L4**	160	869
105	785	14.06	20800	1.55	**SF**	**87**	**DRN**	**132L4**	180	870
120	680	12.21	20300	1.80	**SA**	**87**	**DRN**	**132L4**	160	871
135	610	10.93	19900	2.0	**SAF**	**87**	**DRN**	**132L4**	175	870
162	510	9.07	19200	2.2						
186	440	7.88	18600	2.3						
66	1240	22.22	5250	0.85						
77	1060	18.97	5540	0.95						
107	785	13.76	1660	0.95	**S**	**77p**	**DRN**	**132L4**	125	864
122	690	12.07	2540	1.05	**SF**	**77p**	**DRN**	**132L4**	135	865
138	610	10.65	3250	1.20	**SA**	**77p**	**DRN**	**132L4**	125	866
156	540	9.44	3840	1.35	**SAF**	**77p**	**DRN**	**132L4**	130	865
182	460	8.06	4460	1.45						
77	1010	18.97	5840	0.90						
107	760	13.76	1770	0.95	**S**	**77**	**DRN**	**132L4**	125	864
122	670	12.07	2660	1.05	**SF**	**77**	**DRN**	**132L4**	135	865
138	590	10.65	3380	1.20	**SA**	**77**	**DRN**	**132L4**	125	866
156	525	9.44	3970	1.40	**SAF**	**77**	**DRN**	**132L4**	130	865
182	450	8.06	4590	1.50						

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	4830	78.26	21600	0.80						
22	4040	65.45	33100	0.85						
26	3760	55.79	33700	1.05						
30	3360	49.87	34400	1.15						
33	3030	44.89	34500	1.20						
36	2740	40.65	34100	1.30						
41	2430	36.05	33500	1.45	**S**	**97p**	**DRN**	**160M4**	250	874
45	2200	32.60	33000	1.55	**SF**	**97p**	**DRN**	**160M4**	285	875
56	1810	26.39	29600	1.45	**SA**	**97p**	**DRN**	**160M4**	245	876
62	1620	23.59	29200	1.60	**SAF**	**97p**	**DRN**	**160M4**	270	875
69	1460	21.23	28700	1.75						
77	1320	19.23	28300	1.95						
86	1170	17.05	27700	2.2						
96	1060	15.42	27200	2.3						
113	900	13.07	26400	2.6						
129	785	11.41	25700	2.8						
26	3590	55.79	34000	0.90						
30	3210	49.87	34600	1.05						
33	2900	44.89	34800	1.15						
36	2630	40.65	34300	1.25						
41	2340	36.05	33700	1.40						
45	2120	32.60	33200	1.50	**S**	**97**	**DRN**	**160M4**	250	874
56	1760	26.39	29700	1.45	**SF**	**97**	**DRN**	**160M4**	285	875
62	1580	23.59	29200	1.65	**SA**	**97**	**DRN**	**160M4**	245	876
69	1420	21.23	28800	1.80	**SAF**	**97**	**DRN**	**160M4**	270	875
77	1290	19.23	28300	2.0						
86	1150	17.05	27800	2.2						
96	1040	15.42	27300	2.4						
113	880	13.07	26400	2.6						
129	770	11.41	25700	2.9						

26883198/EN – 04/2022

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
38	2620	39.10	24000	0.80						
42	2340	34.96*	23900	0.90						
47	2110	31.43	23800	0.95						
54	1830	27.28	23500	1.05						
60	1640	24.43	23200	1.15						
73	1360	20.27	22700	1.30	**S**	**87p**	**DRN**	**160M4**	190	869
75	1350	19.70	20600	1.00	**SF**	**87p**	**DRN**	**160M4**	215	870
84	1200	17.49	20400	1.10	**SA**	**87p**	**DRN**	**160M4**	190	871
94	1070	15.64*	20200	1.15	**SAF**	**87p**	**DRN**	**160M4**	205	870
105	960	14.06	19900	1.30						
121	830	12.21	19500	1.50						
135	750	10.93	19200	1.65						
162	620	9.07	18600	1.85						
187	540	7.88	18100	1.85						
54	1750	27.28	23700	0.90	**S**	**87**	**DRN**	**160M4**	190	869
60	1570	24.43	23400	1.00	**SF**	**87**	**DRN**	**160M4**	215	870
73	1310	20.27	22800	1.20	**SA**	**87**	**DRN**	**160M4**	190	871
					SAF	**87**	**DRN**	**160M4**	205	870
75	1300	19.70	20700	0.95						
84	1160	17.49	20500	1.05						
94	1040	15.64*	20200	1.20	**S**	**87**	**DRN**	**160M4**	190	869
105	930	14.06	20000	1.30	**SF**	**87**	**DRN**	**160M4**	215	870
121	810	12.21	19600	1.50	**SA**	**87**	**DRN**	**160M4**	190	871
135	730	10.93	19300	1.70	**SAF**	**87**	**DRN**	**160M4**	205	870
162	605	9.07	18700	1.85						
187	530	7.88	18200	1.90						
78	1260	18.97	4550	0.80	**S**	**77p**	**DRN**	**160M4**	155	864
122	820	12.07	305	0.85	**SF**	**77p**	**DRN**	**160M4**	165	865
138	725	10.65	1240	1.00	**SA**	**77p**	**DRN**	**160M4**	155	866
156	645	9.44	2020	1.10	**SAF**	**77p**	**DRN**	**160M4**	160	865
183	550	8.06	2870	1.25						

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
30	4580	49.87	26600	0.85						
33	4130	44.89	31200	0.90						
36	3740	40.65	31100	0.95						
41	3320	36.05	30800	1.05						
45	3000	32.60	30600	1.15						
56	2470	26.39	26800	1.05	**S**	**97p**	**DRN**	**160L4**	265	874
62	2210	23.59	26600	1.15	**SF**	**97p**	**DRN**	**160L4**	300	875
69	1990	21.23	26500	1.30	**SA**	**97p**	**DRN**	**160L4**	260	876
77	1800	19.23	26200	1.45	**SAF**	**97p**	**DRN**	**160L4**	290	875
86	1600	17.05	25900	1.60						
96	1450	15.42	25600	1.70						
113	1220	13.07	25000	1.90						
129	1070	11.41	24400	2.1						
154	890	9.55	23700	2.3						
178	775	8.26	23000	2.3						
33	3950	44.89	31500	0.85	**S**	**97**	**DRN**	**160L4**	265	874
36	3590	40.65	31400	0.90	**SF**	**97**	**DRN**	**160L4**	300	875
41	3190	36.05	31100	1.05	**SA**	**97**	**DRN**	**160L4**	260	876
					SAF	**97**	**DRN**	**160L4**	290	875
45	2890	32.60	30800	1.10						
56	2410	26.39	26900	1.10						
62	2150	23.59	26700	1.20						
69	1940	21.23	26600	1.35						
77	1760	19.23	26300	1.45	**S**	**97**	**DRN**	**160L4**	265	874
86	1560	17.05	26000	1.65	**SF**	**97**	**DRN**	**160L4**	300	875
96	1410	15.42	25600	1.75	**SA**	**97**	**DRN**	**160L4**	260	876
113	1200	13.07	25000	1.95	**SAF**	**97**	**DRN**	**160L4**	290	875
129	1050	11.41	24500	2.1						
154	880	9.55	23700	2.3						
178	765	8.26	23000	2.3						

26883198/EN – 04/2022

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
60	2230	24.43	21000	0.85						
73	1850	20.27	20800	0.95						
94	1460	15.64*	16800	0.85	**S**	**87p**	**DRN**	**160L4**	210	869
105	1310	14.06	17900	0.95	**SF**	**87p**	**DRN**	**160L4**	230	870
121	1140	12.21	18000	1.10	**SA**	**87p**	**DRN**	**160L4**	205	871
135	1020	10.93	17800	1.20	**SAF**	**87p**	**DRN**	**160L4**	220	870
163	840	9.07	17500	1.35						
187	735	7.88	17100	1.35						
94	1420	15.64*	16800	0.85	**S**	**87**	**DRN**	**160L4**	210	869
105	1280	14.06	17900	0.95	**SF**	**87**	**DRN**	**160L4**	230	870
121	1110	12.21	18000	1.10	**SA**	**87**	**DRN**	**160L4**	205	871
					SAF	**87**	**DRN**	**160L4**	220	870
135	990	10.93	17900	1.25	**S**	**87**	**DRN**	**160L4**	210	869
163	830	9.07	17500	1.35	**SF**	**87**	**DRN**	**160L4**	230	870
187	720	7.88	17200	1.40	**SA**	**87**	**DRN**	**160L4**	205	871
					SAF	**87**	**DRN**	**160L4**	220	870

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	4080	36.05	28500	0.85						
45	3690	32.60	28400	0.90						
54	3130	27.63	28200	1.05						
61	2730	24.13	27900	1.10						
70	2450	21.23	24500	1.05	**S**	**97p**	**DRN**	**180M4**	290	874
77	2220	19.23	24400	1.15	**SF**	**97p**	**DRN**	**180M4**	320	875
87	1970	17.05	24300	1.30	**SA**	**97p**	**DRN**	**180M4**	285	876
96	1780	15.42	24100	1.40	**SAF**	**97p**	**DRN**	**180M4**	310	875
113	1510	13.07	23800	1.55						
130	1320	11.41	23400	1.65						
155	1100	9.55	22800	1.85						
179	950	8.26	22200	1.85						
41	3930	36.05	28800	0.85						
45	3560	32.60	28700	0.90						
54	3020	27.63	28500	1.00						
61	2650	24.13	28100	1.10						
70	2390	21.23	24500	1.10	**S**	**97**	**DRN**	**180M4**	290	874
77	2170	19.23	24500	1.20	**SF**	**97**	**DRN**	**180M4**	320	875
87	1920	17.05	24400	1.35	**SA**	**97**	**DRN**	**180M4**	285	876
96	1740	15.42	24200	1.40	**SAF**	**97**	**DRN**	**180M4**	310	875
113	1480	13.07	23800	1.55						
130	1290	11.41	23400	1.70						
155	1080	9.55	22800	1.90						
179	940	8.26	22300	1.90						
121	1400	12.21	14800	0.90	**S**	**87p**	**DRN**	**180M4**	230	869
135	1250	10.93	16000	1.00	**SF**	**87p**	**DRN**	**180M4**	250	870
163	1040	9.07	16400	1.10	**SA**	**87p**	**DRN**	**180M4**	225	871
187	900	7.88	16200	1.10	**SAF**	**87p**	**DRN**	**180M4**	245	870

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	3720	27.63	26400	0.85						
61	3250	24.13	26400	0.95						
70	2920	21.23	18500	0.90						
77	2640	19.23	20400	1.00	**S**	**97p**	**DRN**	**180L4**	305	874
87	2340	17.05	22300	1.10	**SF**	**97p**	**DRN**	**180L4**	340	875
96	2120	15.42	22700	1.15	**SA**	**97p**	**DRN**	**180L4**	300	876
113	1800	13.07	22600	1.30	**SAF**	**97p**	**DRN**	**180L4**	325	875
129	1570	11.41	22300	1.40						
155	1310	9.55	21900	1.55						
179	1130	8.26	21500	1.55						

26883198/EN – 04/2022

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	3600	27.63	26700	0.85	**S**	**97**	**DRN**	**180L4**	305	874
61	3150	24.13	26600	0.90	**SF**	**97**	**DRN**	**180L4**	340	875
70	2840	21.23	18600	0.90	**SA**	**97**	**DRN**	**180L4**	300	876
77	2580	19.23	20500	1.00	**SAF**	**97**	**DRN**	**180L4**	325	875
87	2290	17.05	22400	1.10						
96	2070	15.42	22800	1.20	**S**	**97**	**DRN**	**180L4**	305	874
113	1760	13.07	22600	1.30	**SF**	**97**	**DRN**	**180L4**	340	875
129	1540	11.41	22400	1.45	**SA**	**97**	**DRN**	**180L4**	300	876
155	1290	9.55	21900	1.60	**SAF**	**97**	**DRN**	**180L4**	325	875
179	1120	8.26	21500	1.60						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
87	3190	17.05	11200	0.80						
96	2880	15.42	13700	0.85	**S**	**97p**	**DRN**	**200L4**	415	874
113	2440	13.07	17000	0.95	**SF**	**97p**	**DRN**	**200L4**	445	875
130	2140	11.41	19000	1.05	**SA**	**97p**	**DRN**	**200L4**	410	876
155	1790	9.55	19900	1.15	**SAF**	**97p**	**DRN**	**200L4**	435	875
179	1540	8.26	19700	1.15						

26883198/EN – 04/2022

11.4 S..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 92 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.14	10037	3000						
0.16	8654	3000						
0.17	8066	3000						
0.20	7051	3000						
0.23	6079	3000						
0.25	5431	3000						
0.29	4747	3000						
0.33	4155	3000						
0.38	3632	3000	**S**	**37R17**	**DRN**	**63MS4**	14	879
0.48	2866	3000	**SF**	**37R17**	**DRN**	**63MS4**	16	879
0.56	2471	3000	**SA**	**37R17**	**DRN**	**63MS4**	14	879
0.64	2160	3000	**SAF**	**37R17**	**DRN**	**63MS4**	16	879
0.73	1887	3000						
0.83	1665	3000						
0.95	1456	3000						
1.1	1271	3000						
1.2	1121	3000						
1.4	994	3000						
1.6	869	3000						
1.8	774	3000						
2.1	666	3000						
2.3	596	3000						
2.6	521	3000						
3.0	456	3000	**S**	**37R17**	**DRN**	**63MS4**	14	879
3.5	398	3000	**SF**	**37R17**	**DRN**	**63MS4**	15	879
3.9	351	3000	**SA**	**37R17**	**DRN**	**63MS4**	14	879
4.6	303	3000	**SAF**	**37R17**	**DRN**	**63MS4**	15	879
5.2	265	3000						
6.0	232	3000						
6.8	202	3000						
7.7	179	3000	**S**	**37R17**	**DRN**	**63M4**	15	879
8.7	158	3000	**SF**	**37R17**	**DRN**	**63M4**	16	879
9.5	144	3000	**SA**	**37R17**	**DRN**	**63M4**	15	879
12	118	3000	**SAF**	**37R17**	**DRN**	**63M4**	16	879
			S	**37R17**	**DRN**	**71MS4**	15	879
13	110	3000	**SF**	**37R17**	**DRN**	**71MS4**	17	879
			SA	**37R17**	**DRN**	**71MS4**	15	879
			SAF	**37R17**	**DRN**	**71MS4**	17	879

$M_{a\ max}$ = 99 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.14	10037	3000						
0.17	8066	3000	**S**	**37pR17**	**DRN**	**63MS4**	14	879
0.20	7051	3000	**SF**	**37pR17**	**DRN**	**63MS4**	16	879
0.25	5431	3000	**SA**	**37pR17**	**DRN**	**63MS4**	14	879
0.29	4747	3000	**SAF**	**37pR17**	**DRN**	**63MS4**	16	879

$M_{a\ max}$ = 100 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**37pR17**	**DRN**	**63MS4**	14	879
0.16	8654	3000	**SF**	**37pR17**	**DRN**	**63MS4**	16	879
			SA	**37pR17**	**DRN**	**63MS4**	14	879
			SAF	**37pR17**	**DRN**	**63MS4**	16	879

26883198/EN – 04/2022

$M_{a\,max}$ = 101 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.23	6079	3000	S	37pR17	DRN	63MS4	14	879
			SF	37pR17	DRN	63MS4	16	879
			SA	37pR17	DRN	63MS4	14	879
			SAF	37pR17	DRN	63MS4	16	879

$M_{a\,max}$ = 102 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.33	4155	3000	S	37pR17	DRN	63MS4	14	879
0.38	3632	3000	SF	37pR17	DRN	63MS4	16	879
			SA	37pR17	DRN	63MS4	14	879
			SAF	37pR17	DRN	63MS4	16	879

$M_{a\,max}$ = 105 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.48	2866	3000						
0.56	2471	3000						
0.64	2160	3000						
0.73	1887	3000	S	37pR17	DRN	63MS4	14	879
0.83	1665	3000	SF	37pR17	DRN	63MS4	16	879
0.95	1456	3000	SA	37pR17	DRN	63MS4	14	879
1.1	1271	3000	SAF	37pR17	DRN	63MS4	16	879
1.2	1121	3000						
1.4	994	3000						
1.6	869	3000						
1.8	774	3000						
2.1	666	3000						
2.3	596	3000						
2.6	521	3000						
3.0	456	3000	S	37pR17	DRN	63MS4	14	879
3.5	398	3000	SF	37pR17	DRN	63MS4	15	879
3.9	351	3000	SA	37pR17	DRN	63MS4	14	879
4.6	303	3000	SAF	37pR17	DRN	63MS4	15	879
5.2	265	3000						
6.0	232	3000						
6.8	202	3000						
7.7	179	3000	S	37pR17	DRN	63M4	15	879
8.7	158	3000	SF	37pR17	DRN	63M4	16	879
9.5	144	3000	SA	37pR17	DRN	63M4	15	879
12	118	3000	SAF	37pR17	DRN	63M4	16	879
13	110	3000	S	37pR17	DRN	71MS4	15	879
			SF	37pR17	DRN	71MS4	17	879
			SA	37pR17	DRN	71MS4	15	879
			SAF	37pR17	DRN	71MS4	17	879

$M_{a\,max}$ = 183 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.4	956	5210	S	47R17	DRN	63MS4	17	879
			SF	47R17	DRN	63MS4	21	879
			SA	47R17	DRN	63MS4	18	879
			SAF	47R17	DRN	63MS4	20	879

26883198/EN – 04/2022

$M_{a\ max}$ = 185 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12909	5250						
0.12	11189	5250						
0.13	10374	5250						
0.15	8992	5250						
0.18	7860	5250						
0.20	6887	5250						
0.23	6055	5250						
0.26	5292	5250						
0.30	4637	5250						
0.34	4092	5250	**S**	**47R17**	**DRN**	**63MS4**	17	879
0.39	3582	5200	**SF**	**47R17**	**DRN**	**63MS4**	21	879
0.44	3131	5200	**SA**	**47R17**	**DRN**	**63MS4**	18	879
0.51	2714	5200	**SAF**	**47R17**	**DRN**	**63MS4**	20	879
0.57	2412	5200						
0.65	2131	5200						
0.74	1863	5200						
0.83	1663	5200						
0.96	1435	5200						
1.1	1254	5200						
1.2	1120	5200						
1.3	1083	5200						
1.4	965	5200						
1.6	865	5200						
1.8	750	5200	**S**	**47R17**	**DRN**	**63MS4**	17	879
2.1	655	5200	**SF**	**47R17**	**DRN**	**63MS4**	21	879
2.4	574	5200	**SA**	**47R17**	**DRN**	**63MS4**	18	879
2.7	506	5200	**SAF**	**47R17**	**DRN**	**63MS4**	20	879
3.1	438	5200						
3.6	388	5200						
			S	**47R17**	**DRN**	**63M4**	18	879
4.1	336	5200	**SF**	**47R17**	**DRN**	**63M4**	21	879
4.7	294	5200	**SA**	**47R17**	**DRN**	**63M4**	19	879
			SAF	**47R17**	**DRN**	**63M4**	21	879
5.5	257	5260	**S**	**47R17**	**DRN**	**71MS4**	18	879
6.2	229	5200	**SF**	**47R17**	**DRN**	**71MS4**	22	879
7.0	200	5200	**SA**	**47R17**	**DRN**	**71MS4**	20	879
7.5	187	5200	**SAF**	**47R17**	**DRN**	**71MS4**	21	879
			S	**47R17**	**DRN**	**71M4**	20	879
8.6	165	5200	**SF**	**47R17**	**DRN**	**71M4**	23	879
9.6	148	5200	**SA**	**47R17**	**DRN**	**71M4**	21	879
11	131	5200	**SAF**	**47R17**	**DRN**	**71M4**	22	879

$M_{a\ max}$ = 194 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**47pR17**	**DRN**	**63MS4**	17	879
0.11	12909	5200	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
0.13	10374	5200	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
			SAF	**47pR17**	**DRN**	**63MS4**	20	879

$M_{a\ max}$ = 195 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11189	5200	**S**	**47pR17**	**DRN**	**63MS4**	17	879
0.15	8992	5200	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
0.18	7860	5200	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
0.23	6055	5200	**SAF**	**47pR17**	**DRN**	**63MS4**	20	879
0.26	5292	5200						

26883198/EN – 04/2022

$M_{a\ max}$ = 196 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.20	6887	5190	**S**	**47pR17**	**DRN**	**63MS4**	17	879
0.30	4637	5190	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
0.34	4092	5190	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
			SAF	**47pR17**	**DRN**	**63MS4**	20	879

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.39	3582	5070						
0.44	3131	5070						
0.51	2714	5070						
0.57	2412	5070						
0.65	2131	5070	**S**	**47pR17**	**DRN**	**63MS4**	17	879
0.74	1863	5070	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
0.83	1663	5070	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
0.96	1435	5070	**SAF**	**47pR17**	**DRN**	**63MS4**	20	879
1.1	1254	5070						
1.2	1120	5070						
1.3	1083	5070						
1.4	956	5070						
1.4	965	5070						
1.6	865	5070						
1.8	750	5070	**S**	**47pR17**	**DRN**	**63MS4**	17	879
2.1	655	5070	**SF**	**47pR17**	**DRN**	**63MS4**	21	879
2.4	574	5070	**SA**	**47pR17**	**DRN**	**63MS4**	18	879
2.7	506	5070	**SAF**	**47pR17**	**DRN**	**63MS4**	20	879
3.1	438	5070						
			S	**47pR17**	**DRN**	**63M4**	18	879
3.5	388	5070	**SF**	**47pR17**	**DRN**	**63M4**	21	879
4.1	336	5080	**SA**	**47pR17**	**DRN**	**63M4**	19	879
4.7	294	5080	**SAF**	**47pR17**	**DRN**	**63M4**	21	879
5.5	257	5180						
6.2	229	5100	**S**	**47pR17**	**DRN**	**71MS4**	18	879
7.0	200	5100	**SF**	**47pR17**	**DRN**	**71MS4**	22	879
7.5	187	5100	**SA**	**47pR17**	**DRN**	**71MS4**	20	879
8.5	165	5110	**SAF**	**47pR17**	**DRN**	**71MS4**	21	879
			S	**47pR17**	**DRN**	**71M4**	20	879
9.6	148	5110	**SF**	**47pR17**	**DRN**	**71M4**	23	879
11	131	5120	**SA**	**47pR17**	**DRN**	**71M4**	21	879
			SAF	**47pR17**	**DRN**	**71M4**	22	879

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.44	3131	7080						
0.51	2714	7080						
0.57	2412	7080						
0.65	2131	7080	**S**	**57R17**	**DRN**	**63MS4**	21	879
0.74	1863	7080	**SF**	**57R17**	**DRN**	**63MS4**	25	879
0.83	1663	7080	**SA**	**57R17**	**DRN**	**63MS4**	21	879
0.96	1435	7080	**SAF**	**57R17**	**DRN**	**63MS4**	24	879
1.1	1254	7080						
1.3	1083	7080						
1.4	965	7080	**S**	**57R17**	**DRN**	**63MS4**	21	879
1.6	865	7080	**SF**	**57R17**	**DRN**	**63MS4**	25	879
1.8	750	7080	**SA**	**57R17**	**DRN**	**63MS4**	21	879
2.1	655	7080	**SAF**	**57R17**	**DRN**	**63MS4**	23	879
			S	**57R17**	**DRN**	**63M4**	22	879
2.4	574	7080	**SF**	**57R17**	**DRN**	**63M4**	25	879
2.7	506	7080	**SA**	**57R17**	**DRN**	**63M4**	21	879
3.1	438	7080	**SAF**	**57R17**	**DRN**	**63M4**	24	879

26883198/EN – 04/2022

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.6	388	7080	**S**	**57R17**	**DRN**	**71MS4**	22	879
4.2	336	7080	**SF**	**57R17**	**DRN**	**71MS4**	26	879
4.8	294	7080	**SA**	**57R17**	**DRN**	**71MS4**	22	879
			SAF	**57R17**	**DRN**	**71MS4**	25	879
5.3	269	7080	**S**	**57R17**	**DRN**	**71M4**	23	879
6.2	229	7080	**SF**	**57R17**	**DRN**	**71M4**	27	879
6.9	204	7080	**SA**	**57R17**	**DRN**	**71M4**	23	879
7.6	187	7080	**SAF**	**57R17**	**DRN**	**71M4**	26	879
			S	**57R17**	**DRN**	**80MK4**	26	879
8.7	165	7080	**SF**	**57R17**	**DRN**	**80MK4**	29	879
11	131	7080	**SA**	**57R17**	**DRN**	**80MK4**	25	879
			SAF	**57R17**	**DRN**	**80MK4**	28	879

$M_{a\ max}$ = 330 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12909	6800						
0.12	11189	6800						
0.13	10374	6800						
0.15	8992	6800						
0.18	7860	6800	**S**	**57R17**	**DRN**	**63MS4**	21	879
0.20	6887	6800	**SF**	**57R17**	**DRN**	**63MS4**	25	879
0.23	6055	6800	**SA**	**57R17**	**DRN**	**63MS4**	21	879
0.26	5292	6800	**SAF**	**57R17**	**DRN**	**63MS4**	24	879
0.30	4637	6800						
0.34	4092	6800						
0.38	3628	6800						

$M_{a\ max}$ = 360 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**57pR17**	**DRN**	**63MS4**	21	879
0.11	12909	6470	**SF**	**57pR17**	**DRN**	**63MS4**	25	879
0.13	10374	6470	**SA**	**57pR17**	**DRN**	**63MS4**	21	879
			SAF	**57pR17**	**DRN**	**63MS4**	24	879

$M_{a\ max}$ = 365 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11189	6410						
0.15	8992	6410						
0.18	7860	6410	**S**	**57pR17**	**DRN**	**63MS4**	21	879
0.20	6887	6410	**SF**	**57pR17**	**DRN**	**63MS4**	25	879
0.23	6055	6410	**SA**	**57pR17**	**DRN**	**63MS4**	21	879
0.26	5292	6410	**SAF**	**57pR17**	**DRN**	**63MS4**	24	879
0.30	4637	6410						
0.34	4092	6410						
0.38	3628	6410						

$M_{a\ max}$ = 370 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.44	3131	6350						
0.51	2714	6350						
0.57	2412	6350	**S**	**57pR17**	**DRN**	**63MS4**	21	879
0.65	2131	6350	**SF**	**57pR17**	**DRN**	**63MS4**	25	879
0.74	1863	6350	**SA**	**57pR17**	**DRN**	**63MS4**	21	879
0.83	1663	6350	**SAF**	**57pR17**	**DRN**	**63MS4**	24	879
0.96	1435	6350						
1.1	1254	6350						
1.3	1083	6350						

26883198/EN – 04/2022

$M_{a\ max}$ = 370 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
1.4	965	6350	**S**	**57pR17**	**DRN**	**63MS4**		21	879
1.6	865	6350	**SF**	**57pR17**	**DRN**	**63MS4**		25	879
1.8	750	6350	**SA**	**57pR17**	**DRN**	**63MS4**		21	879
			SAF	**57pR17**	**DRN**	**63MS4**		23	879
2.1	655	6350	**S**	**57pR17**	**DRN**	**63M4**		22	879
2.4	574	6350	**SF**	**57pR17**	**DRN**	**63M4**		25	879
2.7	506	6350	**SA**	**57pR17**	**DRN**	**63M4**		21	879
			SAF	**57pR17**	**DRN**	**63M4**		24	879
3.2	438	6350	**S**	**57pR17**	**DRN**	**71MS4**		22	879
3.6	388	6350	**SF**	**57pR17**	**DRN**	**71MS4**		26	879
4.2	336	6350	**SA**	**57pR17**	**DRN**	**71MS4**		22	879
			SAF	**57pR17**	**DRN**	**71MS4**		25	879
4.8	294	6350	**S**	**57pR17**	**DRN**	**71M4**		23	879
5.3	269	6350	**SF**	**57pR17**	**DRN**	**71M4**		27	879
6.2	229	6350	**SA**	**57pR17**	**DRN**	**71M4**		23	879
6.9	204	6350	**SAF**	**57pR17**	**DRN**	**71M4**		26	879
7.7	187	6350	**S**	**57pR17**	**DRN**	**80MK4**		26	879
8.7	165	6350	**SF**	**57pR17**	**DRN**	**80MK4**		29	879
11	131	6350	**SA**	**57pR17**	**DRN**	**80MK4**		25	879
			SAF	**57pR17**	**DRN**	**80MK4**		28	879

$M_{a\ max}$ = 570 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.06	21362	8190							
0.07	19594	8190							
0.08	18120	8190							
0.08	16682	8190							
0.10	14383	8190							
0.11	12774	8190							
0.13	11013	8190							
0.14	9694	8190							
0.16	8529	8190							
0.19	7455	8190							
0.21	6531	8190	**S**	**67R37**	**DRN**	**63MS4**		40	879
0.24	5759	8190	**SF**	**67R37**	**DRN**	**63MS4**		46	879
0.28	4965	8190	**SA**	**67R37**	**DRN**	**63MS4**		41	879
0.31	4410	8190	**SAF**	**67R37**	**DRN**	**63MS4**		45	879
0.36	3880	8190							
0.40	3432	8190							
0.47	2944	8190							
0.52	2630	8190							
0.61	2279	8190							
0.69	2014	8190							
0.78	1772	8190							
0.88	1559	8190							
1.0	1363	8190							
1.2	1194	8190							
			S	**67R37**	**DRN**	**63M4**		40	879
1.3	1045	8190	**SF**	**67R37**	**DRN**	**63M4**		47	879
1.5	914	8190	**SA**	**67R37**	**DRN**	**63M4**		41	879
			SAF	**67R37**	**DRN**	**63M4**		46	879
			S	**67R37**	**DRN**	**63M4**		40	879
1.7	809	8190	**SF**	**67R37**	**DRN**	**63M4**		47	879
1.9	712	8190	**SA**	**67R37**	**DRN**	**63M4**		41	879
			SAF	**67R37**	**DRN**	**63M4**		46	879
			S	**67R37**	**DRN**	**71MS4**		41	879
2.3	615	8190	**SF**	**67R37**	**DRN**	**71MS4**		47	879
2.6	543	8190	**SA**	**67R37**	**DRN**	**71MS4**		42	879
			SAF	**67R37**	**DRN**	**71MS4**		46	879
			S	**67R37**	**DRN**	**71M4**		42	879
3.0	469	8190	**SF**	**67R37**	**DRN**	**71M4**		48	879
3.3	424	8190	**SA**	**67R37**	**DRN**	**71M4**		43	879
3.9	365	8190	**SAF**	**67R37**	**DRN**	**71M4**		47	879

26883198/EN – 04/2022

$M_{a\ max}$ = 570 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
4.5	319	8190	**S**	**67R37**	**DRN**	**80MK4**	44	879
5.1	281	8190	**SF**	**67R37**	**DRN**	**80MK4**	51	879
5.8	246	8190	**SA**	**67R37**	**DRN**	**80MK4**	45	879
			SAF	**67R37**	**DRN**	**80MK4**	50	879
6.5	221	8190	**S**	**67R37**	**DRN**	**80M4**	48	879
7.3	198	8190	**SF**	**67R37**	**DRN**	**80M4**	54	879
8.6	168	8190	**SA**	**67R37**	**DRN**	**80M4**	49	879
			SAF	**67R37**	**DRN**	**80M4**	53	879
9.3	156	8190	**S**	**67R37**	**DRN**	**90S4**	53	879
			SF	**67R37**	**DRN**	**90S4**	60	879
			SA	**67R37**	**DRN**	**90S4**	54	879
			SAF	**67R37**	**DRN**	**90S4**	59	879

$M_{a\ max}$ = 640 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.3	1045	9580	**S**	**67pR37**	**DRN**	**63M4**	40	879
1.5	914	9580	**SF**	**67pR37**	**DRN**	**63M4**	47	879
			SA	**67pR37**	**DRN**	**63M4**	41	879
			SAF	**67pR37**	**DRN**	**63M4**	46	879
6.5	221	9670	**S**	**67pR37**	**DRN**	**80M4**	48	879
			SF	**67pR37**	**DRN**	**80M4**	54	879
			SA	**67pR37**	**DRN**	**80M4**	49	879
			SAF	**67pR37**	**DRN**	**80M4**	53	879
9.3	156	9690	**S**	**67pR37**	**DRN**	**90S4**	53	879
			SF	**67pR37**	**DRN**	**90S4**	60	879
			SA	**67pR37**	**DRN**	**90S4**	54	879
			SAF	**67pR37**	**DRN**	**90S4**	59	879

$M_{a\ max}$ = 645 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	21362	10000						
0.07	19594	10000						
0.08	18120	10000						
0.08	16682	10000						
0.10	14383	10000	**S**	**67pR37**	**DRN**	**63MS4**	40	879
0.11	12774	10000	**SF**	**67pR37**	**DRN**	**63MS4**	46	879
0.13	11013	10000	**SA**	**67pR37**	**DRN**	**63MS4**	41	879
0.14	9694	10000	**SAF**	**67pR37**	**DRN**	**63MS4**	45	879
0.16	8529	10000						
0.19	7455	10000						
0.21	6531	10000						

$M_{a\ max}$ = 660 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.61	2279	9460	**S**	**67pR37**	**DRN**	**63MS4**	40	879
			SF	**67pR37**	**DRN**	**63MS4**	46	879
			SA	**67pR37**	**DRN**	**63MS4**	41	879
			SAF	**67pR37**	**DRN**	**63MS4**	45	879
4.5	319	9530	**S**	**67pR37**	**DRN**	**80MK4**	44	879
			SF	**67pR37**	**DRN**	**80MK4**	51	879
			SA	**67pR37**	**DRN**	**80MK4**	45	879
			SAF	**67pR37**	**DRN**	**80MK4**	50	879

26883198/EN – 04/2022

$M_{a\ max}$ = 680 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
5.1	281	9420	**S**	**67pR37**	**DRN**	**80MK4**	44	879
			SF	**67pR37**	**DRN**	**80MK4**	51	879
			SA	**67pR37**	**DRN**	**80MK4**	45	879
			SAF	**67pR37**	**DRN**	**80MK4**	50	879
7.3	198	9440	**S**	**67pR37**	**DRN**	**80M4**	48	879
			SF	**67pR37**	**DRN**	**80M4**	54	879
			SA	**67pR37**	**DRN**	**80M4**	49	879
			SAF	**67pR37**	**DRN**	**80M4**	53	879
8.7	168	9450	**S**	**67pR37**	**DRN**	**90S4**	53	879
			SF	**67pR37**	**DRN**	**90S4**	60	879
			SA	**67pR37**	**DRN**	**90S4**	54	879
			SAF	**67pR37**	**DRN**	**90S4**	59	879

$M_{a\ max}$ = 700 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.47	2944	9220	**S**	**67pR37**	**DRN**	**63MS4**	40	879
0.88	1559	9220	**SF**	**67pR37**	**DRN**	**63MS4**	46	879
			SA	**67pR37**	**DRN**	**63MS4**	41	879
			SAF	**67pR37**	**DRN**	**63MS4**	45	879
1.0	1363	9220	**S**	**67pR37**	**DRN**	**63M4**	40	879
			SF	**67pR37**	**DRN**	**63M4**	47	879
			SA	**67pR37**	**DRN**	**63M4**	41	879
			SAF	**67pR37**	**DRN**	**63M4**	46	879
2.6	543	9230	**S**	**67pR37**	**DRN**	**71M4**	42	879
			SF	**67pR37**	**DRN**	**71M4**	48	879
			SA	**67pR37**	**DRN**	**71M4**	43	879
			SAF	**67pR37**	**DRN**	**71M4**	47	879

$M_{a\ max}$ = 720 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.24	5759	9100							
0.28	4965	9100							
0.31	4410	9100	**S**	**67pR37**	**DRN**	**63MS4**	40	879
0.36	3880	9100	**SF**	**67pR37**	**DRN**	**63MS4**	46	879
0.40	3432	9100	**SA**	**67pR37**	**DRN**	**63MS4**	41	879
0.52	2630	9100	**SAF**	**67pR37**	**DRN**	**63MS4**	45	879
0.69	2014	9100							
0.78	1772	9100							
1.1	1194	9100	**S**	**67pR37**	**DRN**	**63M4**	40	879
			SF	**67pR37**	**DRN**	**63M4**	47	879
			SA	**67pR37**	**DRN**	**63M4**	41	879
			SAF	**67pR37**	**DRN**	**63M4**	46	879
1.7	809	9100	**S**	**67pR37**	**DRN**	**71MS4**	41	879
2.0	712	9100	**SF**	**67pR37**	**DRN**	**71MS4**	47	879
			SA	**67pR37**	**DRN**	**71MS4**	42	879
			SAF	**67pR37**	**DRN**	**71MS4**	46	879
2.3	615	9100	**S**	**67pR37**	**DRN**	**71M4**	42	879
3.0	469	9130	**SF**	**67pR37**	**DRN**	**71M4**	48	879
3.3	424	9140	**SA**	**67pR37**	**DRN**	**71M4**	43	879
			SAF	**67pR37**	**DRN**	**71M4**	47	879
3.9	365	9160	**S**	**67pR37**	**DRN**	**80MK4**	44	879
			SF	**67pR37**	**DRN**	**80MK4**	51	879
			SA	**67pR37**	**DRN**	**80MK4**	45	879
			SAF	**67pR37**	**DRN**	**80MK4**	50	879
5.9	246	9190	**S**	**67pR37**	**DRN**	**80M4**	48	879
			SF	**67pR37**	**DRN**	**80M4**	54	879
			SA	**67pR37**	**DRN**	**80M4**	49	879
			SAF	**67pR37**	**DRN**	**80M4**	53	879

26883198/EN – 04/2022

$M_{a\ max}$ = 1240 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**77R37**	**DRN**	**63MS4**	59	879
0.50	2753	12000	**SF**	**77R37**	**DRN**	**63MS4**	68	879
0.58	2374	12000	**SA**	**77R37**	**DRN**	**63MS4**	58	879
			SAF	**77R37**	**DRN**	**63MS4**	65	879
0.66	2083	12000	**S**	**77R37**	**DRN**	**63M4**	60	879
0.76	1813	12000	**SF**	**77R37**	**DRN**	**63M4**	69	879
0.79	1745	12000	**SA**	**77R37**	**DRN**	**63M4**	59	879
0.86	1600	12000	**SAF**	**77R37**	**DRN**	**63M4**	66	879
			S	**77R37**	**DRN**	**71MS4**	60	879
1.0	1404	12000	**SF**	**77R37**	**DRN**	**71MS4**	70	879
1.1	1245	12000	**SA**	**77R37**	**DRN**	**71MS4**	60	879
			SAF	**77R37**	**DRN**	**71MS4**	66	879
			S	**77R37**	**DRN**	**71MS4**	60	879
1.3	1100	12000	**SF**	**77R37**	**DRN**	**71MS4**	70	879
			SA	**77R37**	**DRN**	**71MS4**	59	879
			SAF	**77R37**	**DRN**	**71MS4**	66	879
			S	**77R37**	**DRN**	**71M4**	61	879
1.5	954	12000	**SF**	**77R37**	**DRN**	**71M4**	71	879
1.7	837	12000	**SA**	**77R37**	**DRN**	**71M4**	61	879
2.0	714	12000	**SAF**	**77R37**	**DRN**	**71M4**	67	879
			S	**77R37**	**DRN**	**80MK4**	63	879
2.2	637	12000	**SF**	**77R37**	**DRN**	**80MK4**	73	879
2.5	574	12000	**SA**	**77R37**	**DRN**	**80MK4**	63	879
2.9	499	12000	**SAF**	**77R37**	**DRN**	**80MK4**	70	879
			S	**77R37**	**DRN**	**80M4**	67	879
3.3	438	12000	**SF**	**77R37**	**DRN**	**80M4**	77	879
3.7	389	12000	**SA**	**77R37**	**DRN**	**80M4**	66	879
			SAF	**77R37**	**DRN**	**80M4**	73	879
			S	**77R37**	**DRN**	**90S4**	73	879
4.4	327	12000	**SF**	**77R37**	**DRN**	**90S4**	82	879
5.0	289	12000	**SA**	**77R37**	**DRN**	**90S4**	72	879
5.8	250	12000	**SAF**	**77R37**	**DRN**	**90S4**	79	879
			S	**77R37**	**DRN**	**90L4**	76	879
6.7	219	12000	**SF**	**77R37**	**DRN**	**90L4**	86	879
			SA	**77R37**	**DRN**	**90L4**	75	879
			SAF	**77R37**	**DRN**	**90L4**	82	879

$M_{a\ max}$ = 1270 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	25493	11700						
0.06	21787	11700						
0.07	19907	11700						
0.08	17013	11700						
0.09	14668	11700						
0.11	13110	11700						
0.12	11569	11700	**S**	**77R37**	**DRN**	**63MS4**	59	879
0.14	9887	11700	**SF**	**77R37**	**DRN**	**63MS4**	68	879
0.16	8817	11700	**SA**	**77R37**	**DRN**	**63MS4**	58	879
0.18	7735	11700	**SAF**	**77R37**	**DRN**	**63MS4**	65	879
0.20	6735	11700						
0.23	5943	11700						
0.26	5214	11700						
0.30	4618	11700						
0.35	3992	11700						
0.39	3540	11700						
			S	**77R37**	**DRN**	**63M4**	60	879
0.44	3098	11700	**SF**	**77R37**	**DRN**	**63M4**	69	879
			SA	**77R37**	**DRN**	**63M4**	59	879
			SAF	**77R37**	**DRN**	**63M4**	66	879

26883198/EN – 04/2022

$M_{a\ max}$ = 1400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.7	389	11800	**S**	**77pR37**	**DRN**	**80M4**	67	879
			SF	**77pR37**	**DRN**	**80M4**	77	879
			SA	**77pR37**	**DRN**	**80M4**	66	879
			SAF	**77pR37**	**DRN**	**80M4**	73	879
4.4	327	11800	**S**	**77pR37**	**DRN**	**90S4**	73	879
			SF	**77pR37**	**DRN**	**90S4**	82	879
			SA	**77pR37**	**DRN**	**90S4**	72	879
			SAF	**77pR37**	**DRN**	**90S4**	79	879

$M_{a\ max}$ = 1440 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.50	2753	11500	**S**	**77pR37**	**DRN**	**63MS4**	59	879
			SF	**77pR37**	**DRN**	**63MS4**	68	879
			SA	**77pR37**	**DRN**	**63MS4**	58	879
			SAF	**77pR37**	**DRN**	**63MS4**	65	879
0.58	2374	11500	**S**	**77pR37**	**DRN**	**63M4**	60	879
0.66	2083	11500	**SF**	**77pR37**	**DRN**	**63M4**	69	879
0.76	1813	11500	**SA**	**77pR37**	**DRN**	**63M4**	59	879
			SAF	**77pR37**	**DRN**	**63M4**	66	879
0.88	1600	11500	**S**	**77pR37**	**DRN**	**71MS4**	60	879
1.0	1404	11500	**SF**	**77pR37**	**DRN**	**71MS4**	70	879
1.1	1245	11500	**SA**	**77pR37**	**DRN**	**71MS4**	60	879
			SAF	**77pR37**	**DRN**	**71MS4**	66	879
1.3	1100	11500	**S**	**77pR37**	**DRN**	**71M4**	61	879
1.5	954	11500	**SF**	**77pR37**	**DRN**	**71M4**	71	879
1.7	837	11500	**SA**	**77pR37**	**DRN**	**71M4**	61	879
			SAF	**77pR37**	**DRN**	**71M4**	67	879
2.5	574	11500	**S**	**77pR37**	**DRN**	**80MK4**	63	879
			SF	**77pR37**	**DRN**	**80MK4**	73	879
			SA	**77pR37**	**DRN**	**80MK4**	63	879
			SAF	**77pR37**	**DRN**	**80MK4**	70	879
2.9	499	11600	**S**	**77pR37**	**DRN**	**80M4**	67	879
3.3	438	11600	**SF**	**77pR37**	**DRN**	**80M4**	77	879
			SA	**77pR37**	**DRN**	**80M4**	66	879
			SAF	**77pR37**	**DRN**	**80M4**	73	879
5.0	289	11700	**S**	**77pR37**	**DRN**	**90S4**	73	879
5.8	250	11700	**SF**	**77pR37**	**DRN**	**90S4**	82	879
			SA	**77pR37**	**DRN**	**90S4**	72	879
			SAF	**77pR37**	**DRN**	**90S4**	79	879
6.7	219	11700	**S**	**77pR37**	**DRN**	**90L4**	76	879
			SF	**77pR37**	**DRN**	**90L4**	86	879
			SA	**77pR37**	**DRN**	**90L4**	75	879
			SAF	**77pR37**	**DRN**	**90L4**	82	879

$M_{a\ max}$ = 1450 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.79	1745	11500	**S**	**77pR37**	**DRN**	**63M4**	60	879
			SF	**77pR37**	**DRN**	**63M4**	69	879
			SA	**77pR37**	**DRN**	**63M4**	59	879
			SAF	**77pR37**	**DRN**	**63M4**	66	879
2.0	714	11500	**S**	**77pR37**	**DRN**	**80MK4**	63	879
2.2	637	11500	**SF**	**77pR37**	**DRN**	**80MK4**	73	879
			SA	**77pR37**	**DRN**	**80MK4**	63	879
			SAF	**77pR37**	**DRN**	**80MK4**	70	879

26883198/EN – 04/2022

$M_{a\ max}$ = 1500 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	25493	12200						
0.06	21787	12200						
0.07	19907	12200						
0.08	17013	12200						
0.09	14668	12200						
0.11	13110	12200	**S**	**77pR37**	**DRN**	**63MS4**	59	879
0.12	11569	12200	**SF**	**77pR37**	**DRN**	**63MS4**	68	879
0.14	9887	12200	**SA**	**77pR37**	**DRN**	**63MS4**	58	879
0.16	8817	12200	**SAF**	**77pR37**	**DRN**	**63MS4**	65	879
0.18	7735	12200						
0.20	6735	12200						
0.23	5943	12200						
0.26	5214	12200						
0.30	4618	12200						
0.35	3992	12200						
			S	**77pR37**	**DRN**	**63M4**	60	879
0.39	3540	12200	**SF**	**77pR37**	**DRN**	**63M4**	69	879
0.44	3098	12200	**SA**	**77pR37**	**DRN**	**63M4**	59	879
			SAF	**77pR37**	**DRN**	**63M4**	66	879

$M_{a\ max}$ = 1980 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
5.7	255	28400	**S**	**87R57**	**DRN**	**100LS4**	130	879
6.5	222	28400	**SF**	**87R57**	**DRN**	**100LS4**	150	879
7.1	205	28400	**SA**	**87R57**	**DRN**	**100LS4**	125	879
			SAF	**87R57**	**DRN**	**100LS4**	145	879

$M_{a\ max}$ = 2400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**87R57**	**DRN**	**100LS4**	130	879
4.5	323	27700	**SF**	**87R57**	**DRN**	**100LS4**	150	879
5.2	281	27700	**SA**	**87R57**	**DRN**	**100LS4**	125	879
			SAF	**87R57**	**DRN**	**100LS4**	145	879

$M_{a\ max}$ = 2450 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**87R57**	**DRN**	**90L4**	125	879
3.4	435	27600	**SF**	**87R57**	**DRN**	**90L4**	145	879
			SA	**87R57**	**DRN**	**90L4**	125	879
			SAF	**87R57**	**DRN**	**90L4**	140	879
			S	**87R57**	**DRN**	**100LS4**	130	879
3.8	378	27600	**SF**	**87R57**	**DRN**	**100LS4**	150	879
			SA	**87R57**	**DRN**	**100LS4**	125	879
			SAF	**87R57**	**DRN**	**100LS4**	145	879

26883198/EN – 04/2022

$M_{a\ max}$ = 2500 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	25987	27500						
0.06	23940	27500						
0.07	20568	27500						
0.08	18265	27500						
0.08	16774	27500	**S**	**87R57**	**DRN**	**63MS4**	110	879
0.09	14820	27500	**SF**	**87R57**	**DRN**	**63MS4**	130	879
0.10	13160	27500	**SA**	**87R57**	**DRN**	**63MS4**	105	879
0.12	11200	27500	**SAF**	**87R57**	**DRN**	**63MS4**	120	879
0.14	9904	27500						
0.16	8549	27500						
0.18	7643	27500						
0.21	6706	27500						
0.23	5875	27500	**S**	**87R57**	**DRN**	**63M4**	110	879
0.27	5187	27500	**SF**	**87R57**	**DRN**	**63M4**	130	879
0.30	4606	27500	**SA**	**87R57**	**DRN**	**63M4**	105	879
			SAF	**87R57**	**DRN**	**63M4**	125	879
0.36	3872	27500	**S**	**87R57**	**DRN**	**71MS4**	110	879
			SF	**87R57**	**DRN**	**71MS4**	130	879
			SA	**87R57**	**DRN**	**71MS4**	105	879
			SAF	**87R57**	**DRN**	**71MS4**	125	879
0.40	3475	27500	**S**	**87R57**	**DRN**	**71MS4**	110	879
0.48	2905	27500	**SF**	**87R57**	**DRN**	**71MS4**	130	879
			SA	**87R57**	**DRN**	**71MS4**	105	879
			SAF	**87R57**	**DRN**	**71MS4**	120	879
0.55	2586	27500	**S**	**87R57**	**DRN**	**71M4**	110	879
0.61	2335	27500	**SF**	**87R57**	**DRN**	**71M4**	130	879
0.69	2054	27500	**SA**	**87R57**	**DRN**	**71M4**	105	879
			SAF	**87R57**	**DRN**	**71M4**	125	879
0.79	1824	27500	**S**	**87R57**	**DRN**	**80MK4**	110	879
0.88	1631	27500	**SF**	**87R57**	**DRN**	**80MK4**	135	879
1.1	1332	27500	**SA**	**87R57**	**DRN**	**80MK4**	110	879
			SAF	**87R57**	**DRN**	**80MK4**	125	879
1.2	1191	27500	**S**	**87R57**	**DRN**	**80M4**	115	879
1.4	1032	27500	**SF**	**87R57**	**DRN**	**80M4**	135	879
1.6	930	27500	**SA**	**87R57**	**DRN**	**80M4**	115	879
			SAF	**87R57**	**DRN**	**80M4**	130	879
1.8	831	27500	**S**	**87R57**	**DRN**	**90S4**	120	879
2.0	719	27500	**SF**	**87R57**	**DRN**	**90S4**	145	879
2.3	624	27500	**SA**	**87R57**	**DRN**	**90S4**	120	879
			SAF	**87R57**	**DRN**	**90S4**	135	879
2.6	558	27500	**S**	**87R57**	**DRN**	**90L4**	125	879
3.0	485	27500	**SF**	**87R57**	**DRN**	**90L4**	145	879
			SA	**87R57**	**DRN**	**90L4**	125	879
			SAF	**87R57**	**DRN**	**90L4**	140	879

$M_{a\ max}$ = 2590 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
5.7	255	27000	**S**	**87pR57**	**DRN**	**100LS4**	130	879
			SF	**87pR57**	**DRN**	**100LS4**	150	879
			SA	**87pR57**	**DRN**	**100LS4**	125	879
			SAF	**87pR57**	**DRN**	**100LS4**	145	879
7.1	205	27100	**S**	**87pR57**	**DRN**	**100L4**	135	879
			SF	**87pR57**	**DRN**	**100L4**	160	879
			SA	**87pR57**	**DRN**	**100L4**	135	879
			SAF	**87pR57**	**DRN**	**100L4**	150	879

26883198/EN – 04/2022

$M_{a\,max}$ = 2660 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.5	222	26000	**S**	**87pR57**	**DRN**	**100LS4**	130	879
			SF	**87pR57**	**DRN**	**100LS4**	150	879
			SA	**87pR57**	**DRN**	**100LS4**	125	879
			SAF	**87pR57**	**DRN**	**100LS4**	145	879

$M_{a\,max}$ = 2900 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.14	9904	23200	**S**	**87pR57**	**DRN**	**63MS4**	110	879
			SF	**87pR57**	**DRN**	**63MS4**	130	879
			SA	**87pR57**	**DRN**	**63MS4**	105	879
			SAF	**87pR57**	**DRN**	**63MS4**	120	879
3.4	435	23200	**S**	**87pR57**	**DRN**	**90L4**	125	879
			SF	**87pR57**	**DRN**	**90L4**	145	879
			SA	**87pR57**	**DRN**	**90L4**	125	879
			SAF	**87pR57**	**DRN**	**90L4**	140	879
3.8	378	23200	**S**	**87pR57**	**DRN**	**100LS4**	130	879
4.5	323	23200	**SF**	**87pR57**	**DRN**	**100LS4**	150	879
5.2	281	23200	**SA**	**87pR57**	**DRN**	**100LS4**	125	879
			SAF	**87pR57**	**DRN**	**100LS4**	145	879

$M_{a\,max}$ = 2950 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.18	7643	21600	**S**	**87pR57**	**DRN**	**63MS4**	110	879
			SF	**87pR57**	**DRN**	**63MS4**	130	879
			SA	**87pR57**	**DRN**	**63MS4**	105	879
			SAF	**87pR57**	**DRN**	**63MS4**	120	879
0.23	5875	21600	**S**	**87pR57**	**DRN**	**63M4**	110	879
			SF	**87pR57**	**DRN**	**63M4**	130	879
			SA	**87pR57**	**DRN**	**63M4**	105	879
			SAF	**87pR57**	**DRN**	**63M4**	125	879
0.36	3872	21600	**S**	**87pR57**	**DRN**	**71MS4**	110	879
			SF	**87pR57**	**DRN**	**71MS4**	130	879
			SA	**87pR57**	**DRN**	**71MS4**	105	879
			SAF	**87pR57**	**DRN**	**71MS4**	125	879
0.49	2905	21600	**S**	**87pR57**	**DRN**	**71M4**	110	879
			SF	**87pR57**	**DRN**	**71M4**	130	879
			SA	**87pR57**	**DRN**	**71M4**	105	879
			SAF	**87pR57**	**DRN**	**71M4**	125	879
0.88	1631	21600	**S**	**87pR57**	**DRN**	**80MK4**	110	879
			SF	**87pR57**	**DRN**	**80MK4**	135	879
			SA	**87pR57**	**DRN**	**80MK4**	110	879
			SAF	**87pR57**	**DRN**	**80MK4**	125	879
1.2	1191	21600	**S**	**87pR57**	**DRN**	**80M4**	115	879
1.4	1032	21600	**SF**	**87pR57**	**DRN**	**80M4**	135	879
			SA	**87pR57**	**DRN**	**80M4**	115	879
			SAF	**87pR57**	**DRN**	**80M4**	130	879
1.8	831	21600	**S**	**87pR57**	**DRN**	**90S4**	120	879
			SF	**87pR57**	**DRN**	**90S4**	145	879
			SA	**87pR57**	**DRN**	**90S4**	120	879
			SAF	**87pR57**	**DRN**	**90S4**	135	879
2.6	558	21600	**S**	**87pR57**	**DRN**	**90L4**	125	879
3.0	485	21600	**SF**	**87pR57**	**DRN**	**90L4**	145	879
			SA	**87pR57**	**DRN**	**90L4**	125	879
			SAF	**87pR57**	**DRN**	**90L4**	140	879

26883198/EN – 04/2022

$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	25987	19800						
0.06	23940	19800						
0.07	20568	19800						
0.08	18265	19800	**S**	**87pR57**	**DRN**	**63MS4**	110	879
0.08	16774	19800	**SF**	**87pR57**	**DRN**	**63MS4**	130	879
0.09	14820	19800	**SA**	**87pR57**	**DRN**	**63MS4**	105	879
0.10	13160	19800	**SAF**	**87pR57**	**DRN**	**63MS4**	120	879
0.12	11200	19800						
0.16	8549	19800						
			S	**87pR57**	**DRN**	**63M4**	110	879
0.21	6706	19800	**SF**	**87pR57**	**DRN**	**63M4**	130	879
0.27	5187	19800	**SA**	**87pR57**	**DRN**	**63M4**	105	879
			SAF	**87pR57**	**DRN**	**63M4**	125	879
			S	**87pR57**	**DRN**	**71MS4**	110	879
0.31	4606	19800	**SF**	**87pR57**	**DRN**	**71MS4**	130	879
			SA	**87pR57**	**DRN**	**71MS4**	105	879
			SAF	**87pR57**	**DRN**	**71MS4**	125	879
			S	**87pR57**	**DRN**	**71MS4**	110	879
0.40	3475	19800	**SF**	**87pR57**	**DRN**	**71MS4**	130	879
			SA	**87pR57**	**DRN**	**71MS4**	105	879
			SAF	**87pR57**	**DRN**	**71MS4**	120	879
			S	**87pR57**	**DRN**	**71M4**	110	879
0.55	2586	19800	**SF**	**87pR57**	**DRN**	**71M4**	130	879
0.61	2335	19800	**SA**	**87pR57**	**DRN**	**71M4**	105	879
			SAF	**87pR57**	**DRN**	**71M4**	125	879
			S	**87pR57**	**DRN**	**80MK4**	110	879
0.70	2054	19800	**SF**	**87pR57**	**DRN**	**80MK4**	135	879
0.79	1824	19800	**SA**	**87pR57**	**DRN**	**80MK4**	110	879
1.1	1332	19800	**SAF**	**87pR57**	**DRN**	**80MK4**	125	879
			S	**87pR57**	**DRN**	**80M4**	115	879
1.6	930	19800	**SF**	**87pR57**	**DRN**	**80M4**	135	879
			SA	**87pR57**	**DRN**	**80M4**	115	879
			SAF	**87pR57**	**DRN**	**80M4**	130	879
			S	**87pR57**	**DRN**	**90S4**	120	879
2.0	719	19800	**SF**	**87pR57**	**DRN**	**90S4**	145	879
2.3	624	19800	**SA**	**87pR57**	**DRN**	**90S4**	120	879
			SAF	**87pR57**	**DRN**	**90S4**	135	879

$M_{a\ max}$ = 4200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.04	33818	25200						
0.04	31154	25200						
0.05	27847	25200						
0.06	24641	25200						
0.06	21537	25200	**S**	**97R57**	**DRN**	**63MS4**	170	879
0.07	18749	25200	**SF**	**97R57**	**DRN**	**63MS4**	200	879
0.09	16233	25200	**SA**	**97R57**	**DRN**	**63MS4**	165	879
0.09	14576	25200	**SAF**	**97R57**	**DRN**	**63MS4**	190	879
0.11	12752	25200						
0.12	11267	25200						
0.14	10078	25200						
0.16	8608	25200						
0.18	7554	25200	**S**	**97R57**	**DRN**	**63M4**	170	879
0.21	6640	20300	**SF**	**97R57**	**DRN**	**63M4**	200	879
0.24	5780	20300	**SA**	**97R57**	**DRN**	**63M4**	165	879
0.28	4937	20300	**SAF**	**97R57**	**DRN**	**63M4**	190	879
			S	**97R57**	**DRN**	**71MS4**	170	879
0.32	4444	20300	**SF**	**97R57**	**DRN**	**71MS4**	200	879
0.35	4017	20300	**SA**	**97R57**	**DRN**	**71MS4**	165	879
0.41	3453	20300	**SAF**	**97R57**	**DRN**	**71MS4**	190	879

26883198/EN – 04/2022

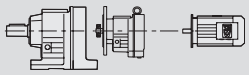
$M_{a\ max}$ = 4200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.46	3108	20300	**S**	**97R57**	**DRN**	**71M4**	170	879
0.53	2654	20300	**SF**	**97R57**	**DRN**	**71M4**	205	879
0.61	2329	20300	**SA**	**97R57**	**DRN**	**71M4**	165	879
			SAF	**97R57**	**DRN**	**71M4**	190	879
0.69	2081	20300	**S**	**97R57**	**DRN**	**80MK4**	175	879
0.77	1860	20300	**SF**	**97R57**	**DRN**	**80MK4**	205	879
0.91	1574	20300	**SA**	**97R57**	**DRN**	**80MK4**	170	879
			SAF	**97R57**	**DRN**	**80MK4**	195	879
1.0	1394	20300	**S**	**97R57**	**DRN**	**80M4**	175	879
1.2	1223	20300	**SF**	**97R57**	**DRN**	**80M4**	210	879
			SA	**97R57**	**DRN**	**80M4**	170	879
			SAF	**97R57**	**DRN**	**80M4**	195	879
1.4	1070	20300	**S**	**97R57**	**DRN**	**90S4**	180	879
1.6	928	20300	**SF**	**97R57**	**DRN**	**90S4**	215	879
1.8	824	20300	**SA**	**97R57**	**DRN**	**90S4**	175	879
			SAF	**97R57**	**DRN**	**90S4**	200	879
2.0	714	25400	**S**	**97R57**	**DRN**	**90L4**	185	879
2.3	626	20300	**SF**	**97R57**	**DRN**	**90L4**	220	879
			SA	**97R57**	**DRN**	**90L4**	180	879
			SAF	**97R57**	**DRN**	**90L4**	205	879
2.7	538	20400	**S**	**97R57**	**DRN**	**100LS4**	190	879
3.0	484	20400	**SF**	**97R57**	**DRN**	**100LS4**	220	879
3.5	420	20400	**SA**	**97R57**	**DRN**	**100LS4**	185	879
3.9	376	20500	**SAF**	**97R57**	**DRN**	**100LS4**	210	879
4.5	327	20500	**S**	**97R57**	**DRN**	**100L4**	195	879
5.1	287	20600	**SF**	**97R57**	**DRN**	**100L4**	230	879
			SA	**97R57**	**DRN**	**100L4**	190	879
			SAF	**97R57**	**DRN**	**100L4**	215	879
5.8	252	20600	**S**	**97R57**	**DRN**	**112M4**	205	879
6.7	219	20700	**SF**	**97R57**	**DRN**	**112M4**	240	879
7.1	205	20700	**SA**	**97R57**	**DRN**	**112M4**	200	879
			SAF	**97R57**	**DRN**	**112M4**	225	879

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.04	33818	23600						
0.04	31154	23600						
0.05	27847	23600						
0.06	24641	23600						
0.06	21537	23600	**S**	**97pR57**	**DRN**	**63MS4**	170	879
0.07	18749	23600	**SF**	**97pR57**	**DRN**	**63MS4**	200	879
0.09	16233	23600	**SA**	**97pR57**	**DRN**	**63MS4**	165	879
0.09	14576	23600	**SAF**	**97pR57**	**DRN**	**63MS4**	190	879
0.11	12752	23600						
0.12	11267	23600						
0.14	10078	23600						
0.16	8608	23600						
0.18	7554	23600	**S**	**97pR57**	**DRN**	**63M4**	170	879
0.21	6640	18700	**SF**	**97pR57**	**DRN**	**63M4**	200	879
0.24	5780	18700	**SA**	**97pR57**	**DRN**	**63M4**	165	879
0.28	4937	18700	**SAF**	**97pR57**	**DRN**	**63M4**	190	879
0.32	4444	18700	**S**	**97pR57**	**DRN**	**71MS4**	170	879
0.35	4017	18700	**SF**	**97pR57**	**DRN**	**71MS4**	200	879
0.41	3453	18700	**SA**	**97pR57**	**DRN**	**71MS4**	165	879
			SAF	**97pR57**	**DRN**	**71MS4**	190	879
0.46	3108	18700	**S**	**97pR57**	**DRN**	**71M4**	170	879
0.53	2654	18700	**SF**	**97pR57**	**DRN**	**71M4**	205	879
0.61	2329	18700	**SA**	**97pR57**	**DRN**	**71M4**	165	879
			SAF	**97pR57**	**DRN**	**71M4**	190	879

26883198/EN – 04/2022

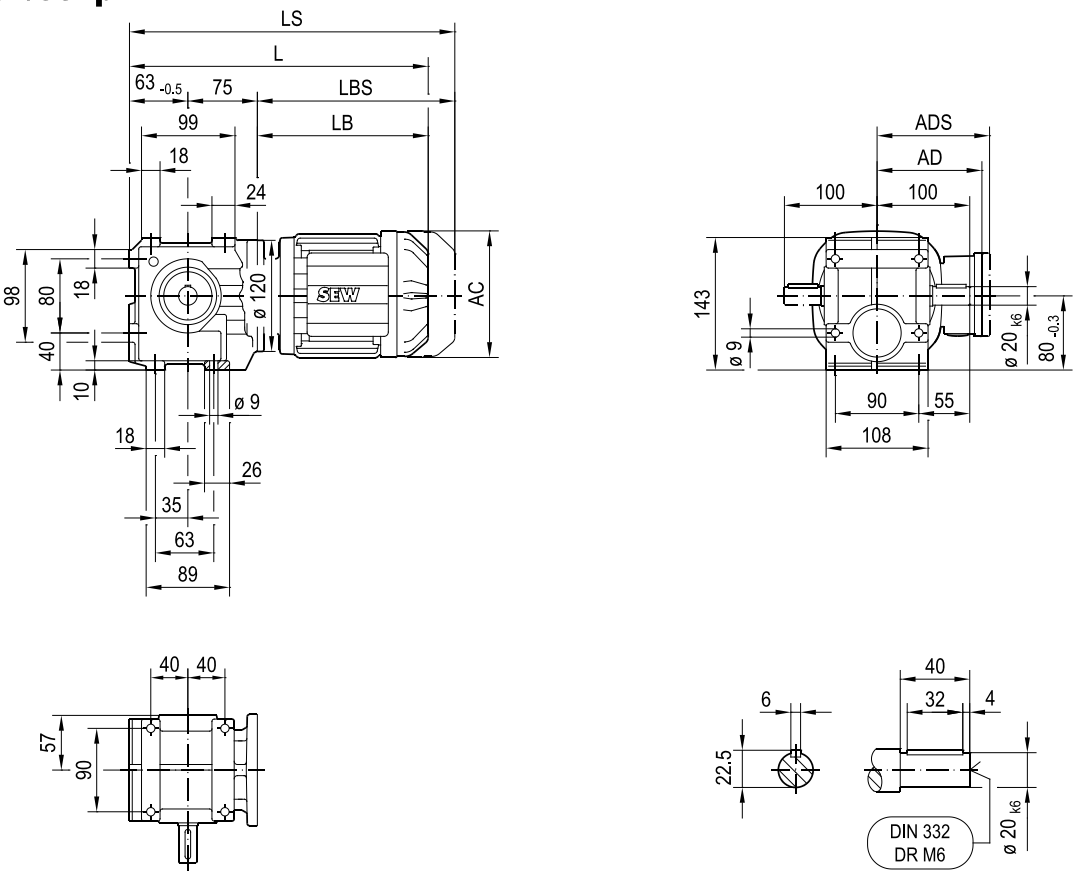
$M_{a\ max}$ = 4300 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.69	2081	18700	**S**	**97pR57**	**DRN**	**80MK4**	175	879
0.77	1860	18700	**SF**	**97pR57**	**DRN**	**80MK4**	205	879
0.91	1574	18700	**SA**	**97pR57**	**DRN**	**80MK4**	170	879
			SAF	**97pR57**	**DRN**	**80MK4**	195	879
			S	**97pR57**	**DRN**	**80M4**	175	879
1.0	1394	18700	**SF**	**97pR57**	**DRN**	**80M4**	210	879
1.2	1223	18700	**SA**	**97pR57**	**DRN**	**80M4**	170	879
			SAF	**97pR57**	**DRN**	**80M4**	195	879
			S	**97pR57**	**DRN**	**90S4**	180	879
1.4	1070	18700	**SF**	**97pR57**	**DRN**	**90S4**	215	879
1.6	928	18700	**SA**	**97pR57**	**DRN**	**90S4**	175	879
1.8	824	18800	**SAF**	**97pR57**	**DRN**	**90S4**	200	879
			S	**97pR57**	**DRN**	**90L4**	185	879
2.0	714	24200	**SF**	**97pR57**	**DRN**	**90L4**	220	879
2.3	626	19000	**SA**	**97pR57**	**DRN**	**90L4**	180	879
2.7	538	19100	**SAF**	**97pR57**	**DRN**	**90L4**	205	879
			S	**97pR57**	**DRN**	**100LS4**	190	879
3.0	484	19200	**SF**	**97pR57**	**DRN**	**100LS4**	220	879
3.5	420	19300	**SA**	**97pR57**	**DRN**	**100LS4**	185	879
3.9	376	19400	**SAF**	**97pR57**	**DRN**	**100LS4**	210	879
			S	**97pR57**	**DRN**	**100L4**	195	879
4.5	327	19400	**SF**	**97pR57**	**DRN**	**100L4**	230	879
5.1	287	19500	**SA**	**97pR57**	**DRN**	**100L4**	190	879
5.8	252	19600	**SAF**	**97pR57**	**DRN**	**100L4**	215	879
			S	**97pR57**	**DRN**	**112M4**	205	879
6.7	219	19600	**SF**	**97pR57**	**DRN**	**112M4**	240	879
7.1	205	19600	**SA**	**97pR57**	**DRN**	**112M4**	200	879
			SAF	**97pR57**	**DRN**	**112M4**	225	879

26883198/EN – 04/2022

11.5 S..DRN.. dimension sheets in mm

02 047 02 16

S37/S37p..

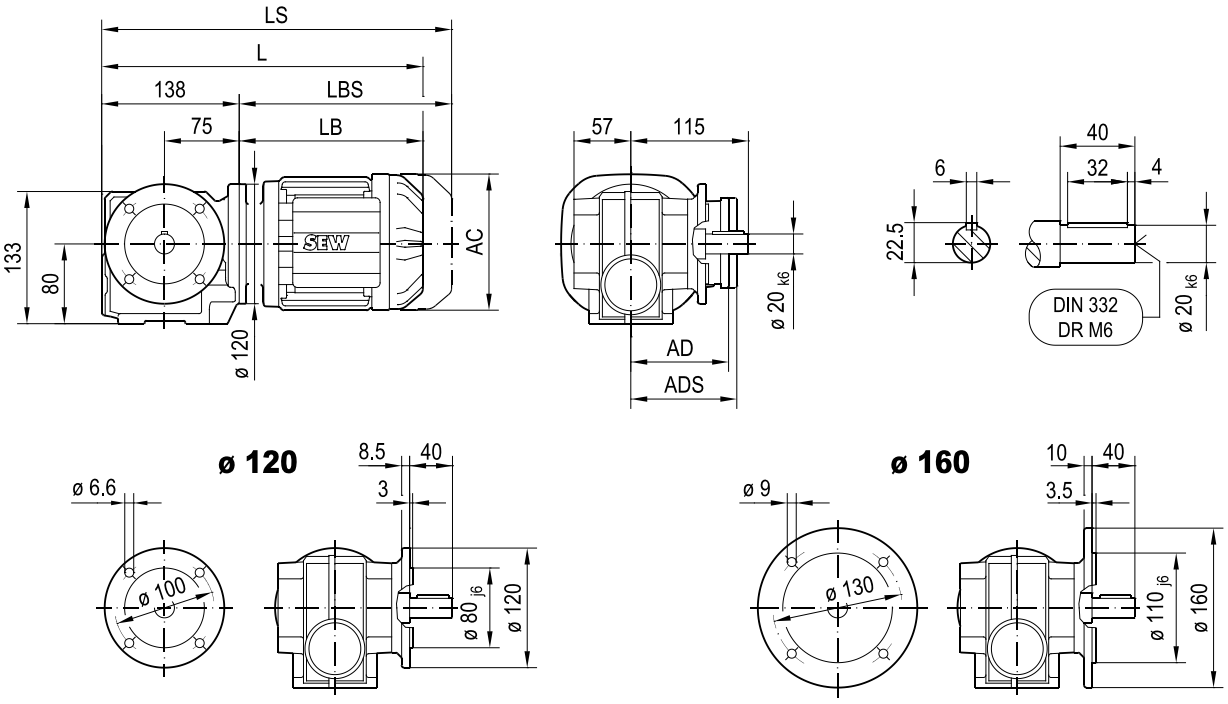


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	328	342	344	364	375	392	420	421	453
LS	384	398	411	431	456	473	501	515	547
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

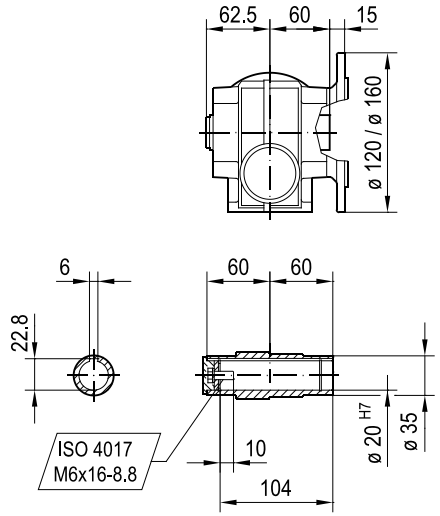
26883198/EN – 04/2022

02 048 02 16

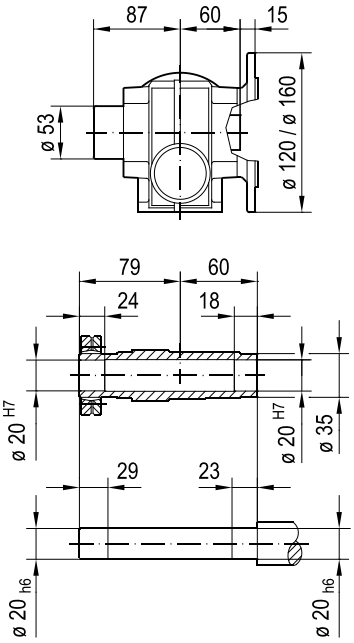
SF37/SF37p..



SAF37/SAF37p..



SHF37/SHF37p..

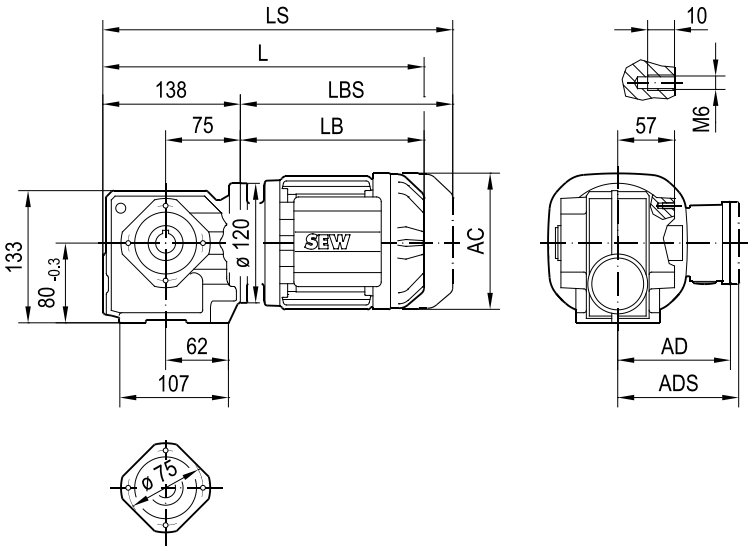


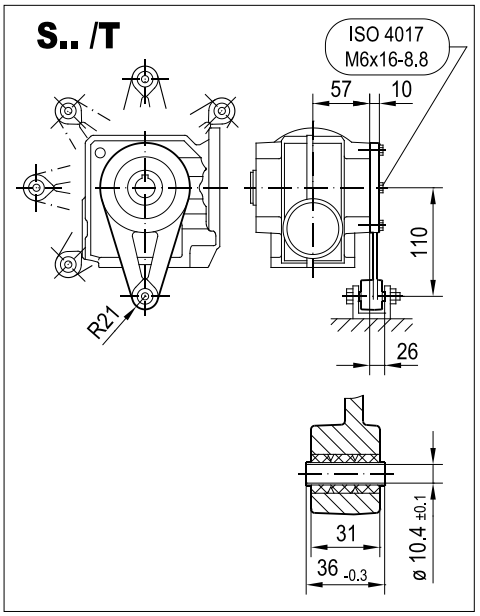
(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	328	342	344	364	375	392	420	421	453
LS	384	398	411	431	456	473	501	515	547
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

26883198/EN – 04/2022

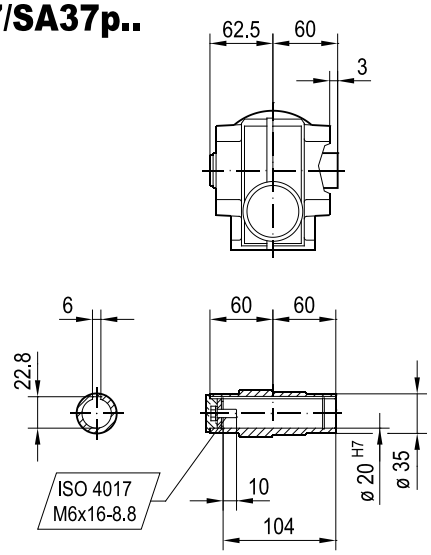
02 049 02 16

SA37/SA37p..

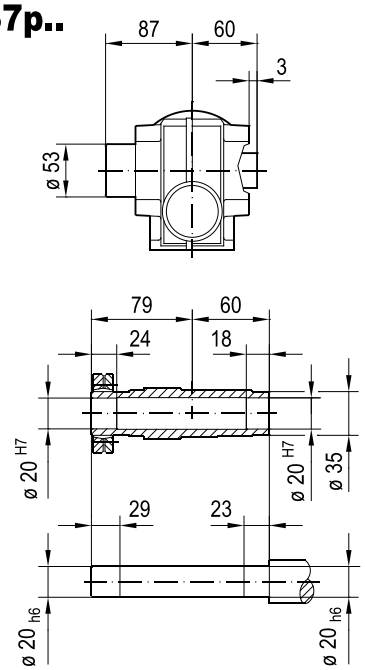




SA37/SA37p..



SH37/SH37p..

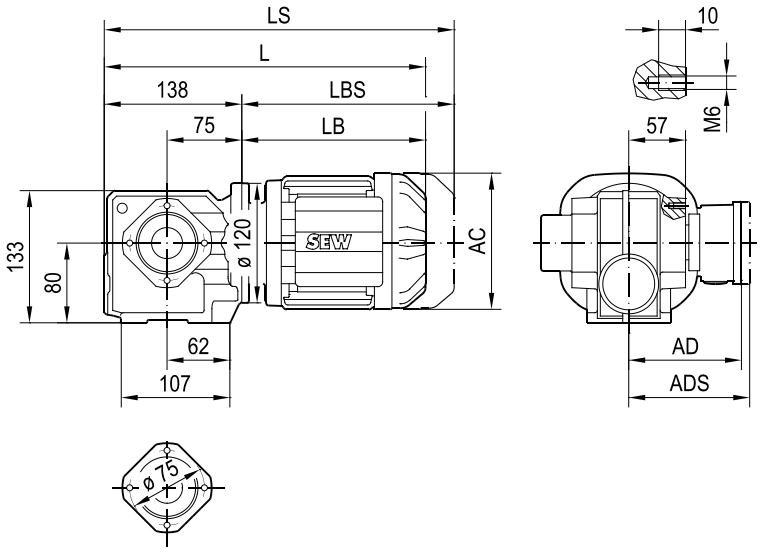


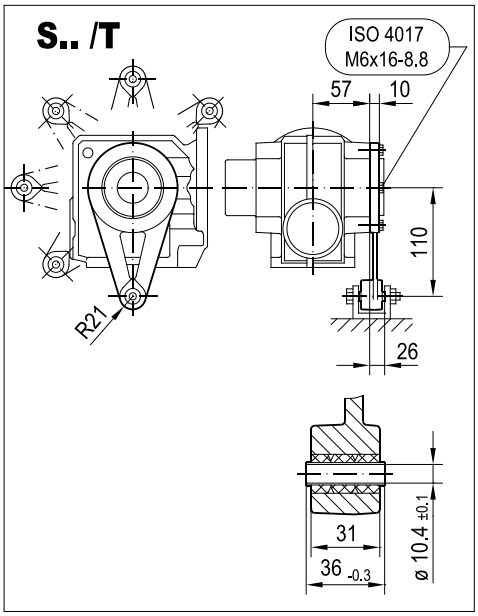
(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	328	342	344	364	375	392	420	421	453
LS	384	398	411	431	456	473	501	515	547
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

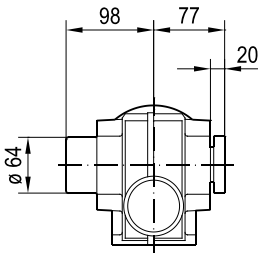
26883198/EN – 04/2022

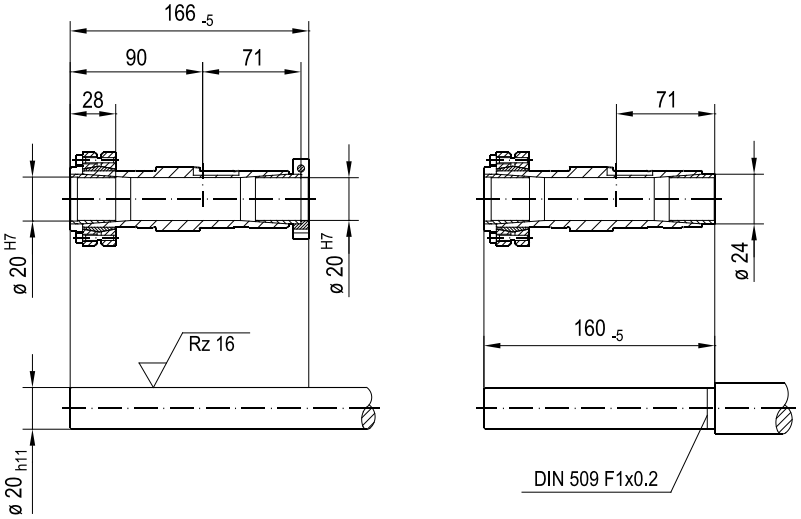
02 050 02 16

ST37/ST37p..







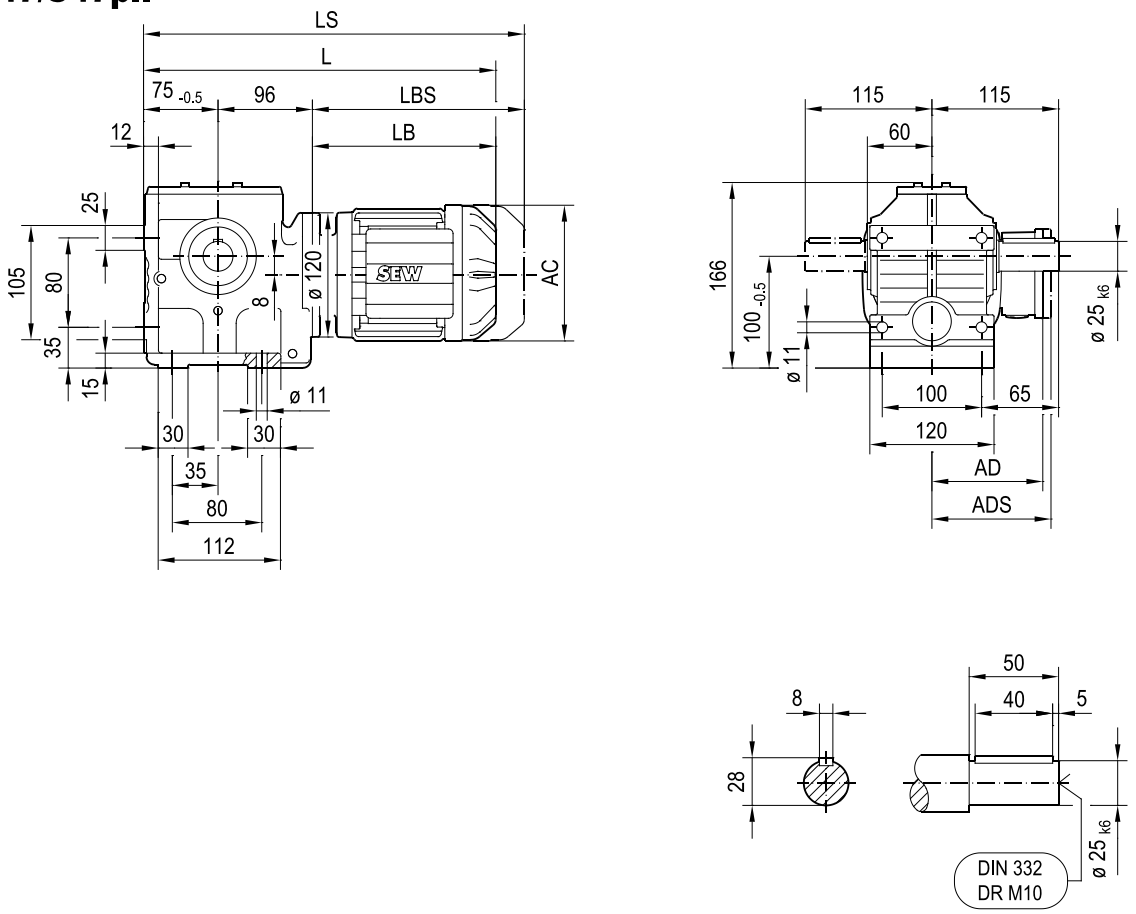


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	328	342	344	364	375	392	420	421	453
LS	384	398	411	431	456	473	501	515	547
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

26883198/EN – 04/2022

02 051 02 16

S47/S47p..

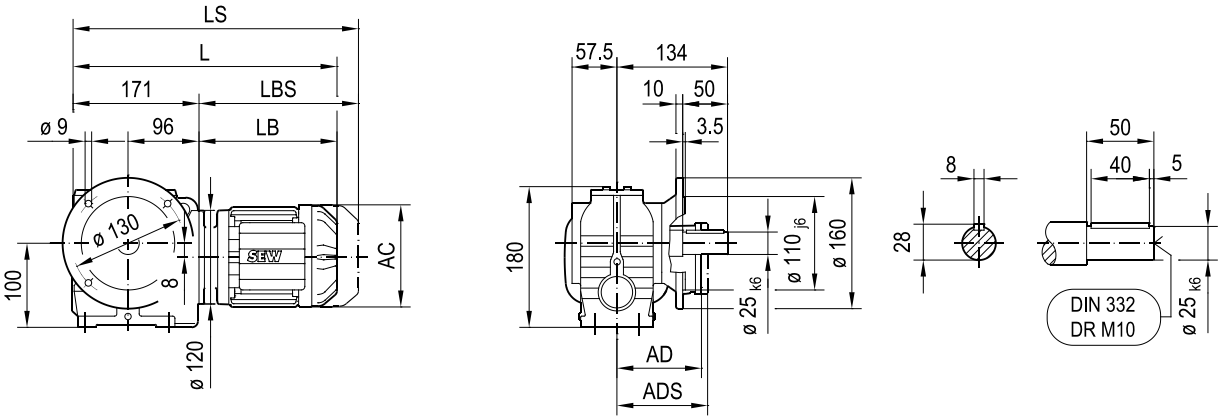


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	361	375	377	397	408	425	453	454	486	485	535
LS	417	431	444	464	489	506	534	548	580	579	629
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

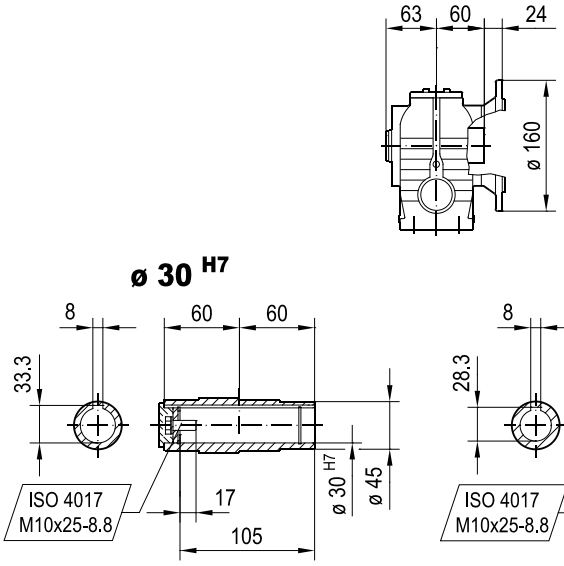
26883198/EN – 04/2022

02 052 01 16

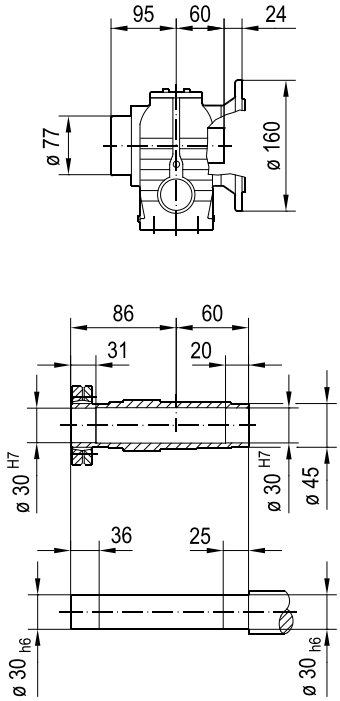
SF47/SF47p..



SAF47/SAF47p..



SHF47/SHF47p..

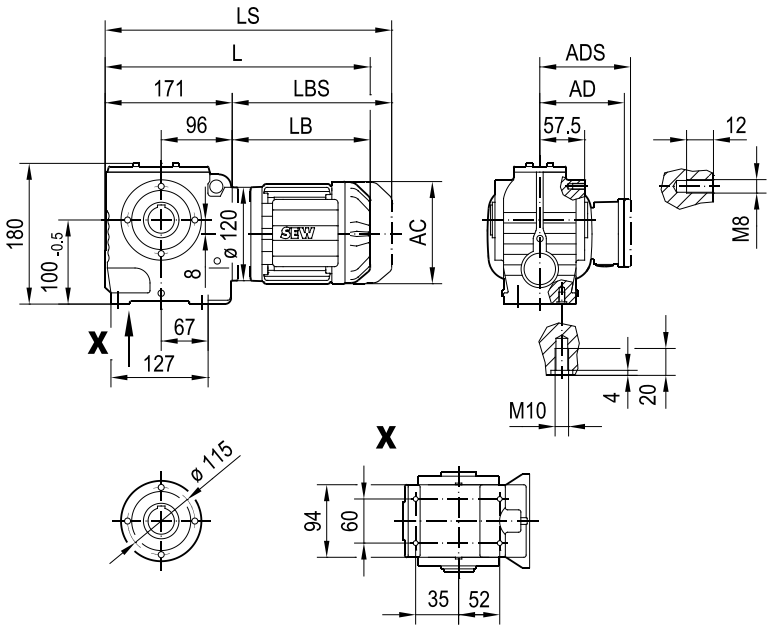


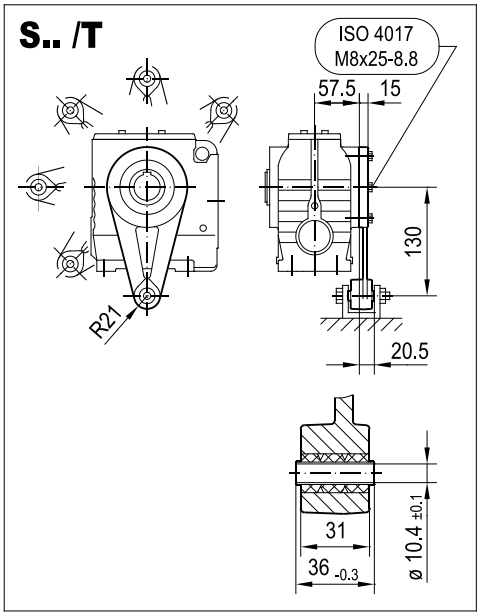
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	361	375	377	397	408	425	453	454	486	485	535
LS	417	431	444	464	489	506	534	548	580	579	629
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

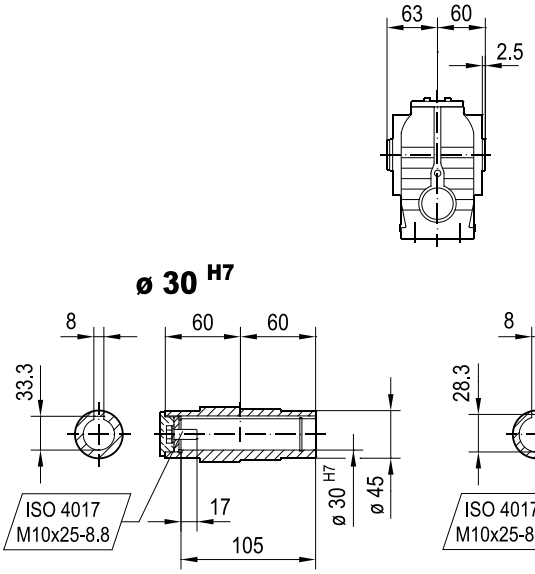
02 053 01 16

SA47/SA47p..

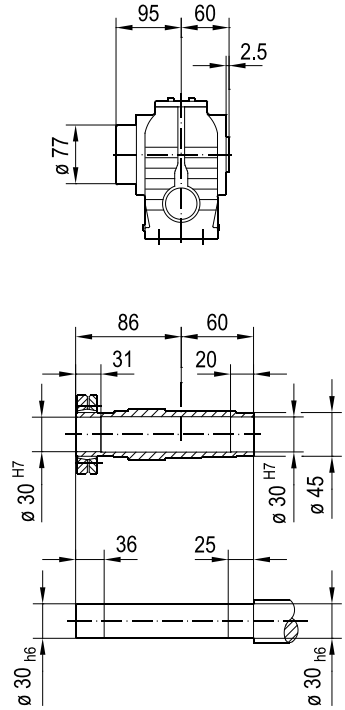




SA47/SA47p..



SH47/SH47p..

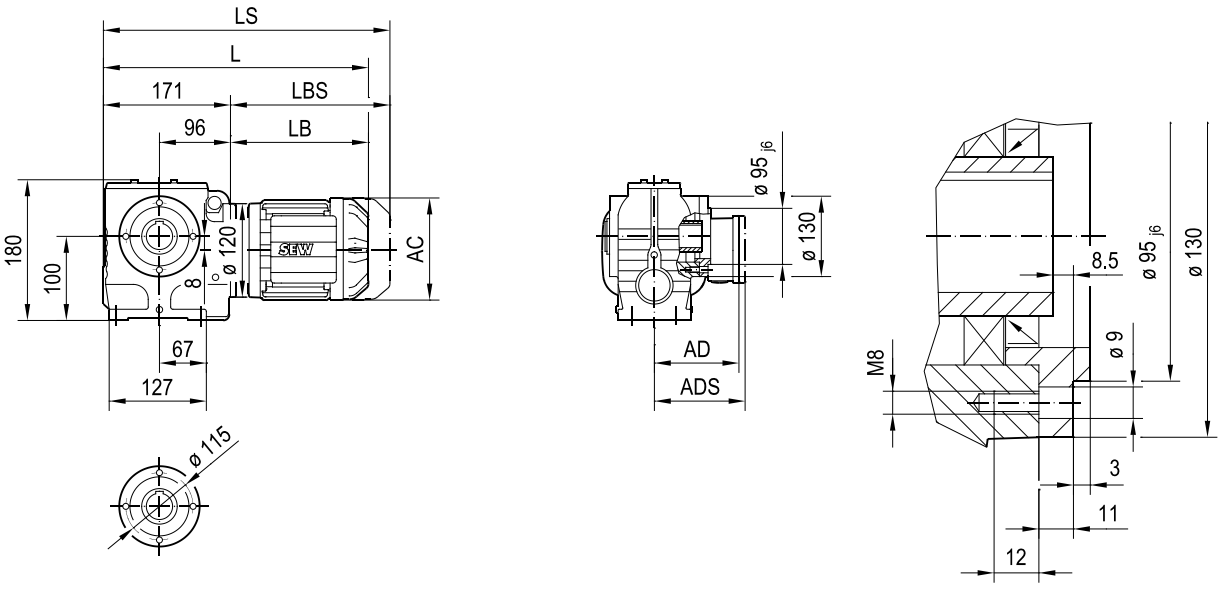


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	361	375	377	397	408	425	453	454	486	485	535
LS	417	431	444	464	489	506	534	548	580	579	629
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

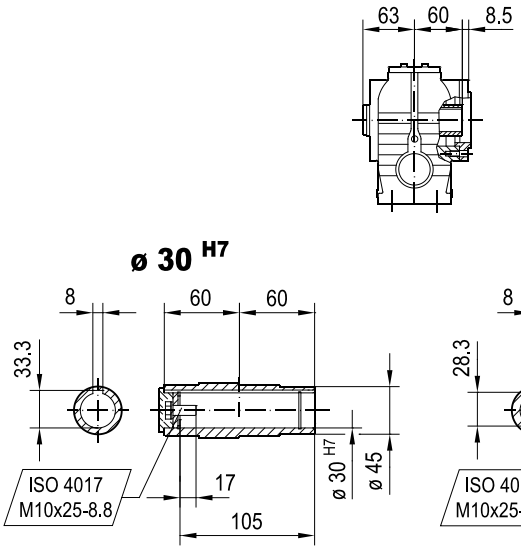
26883198/EN – 04/2022

SAZ47/SAZ47p..

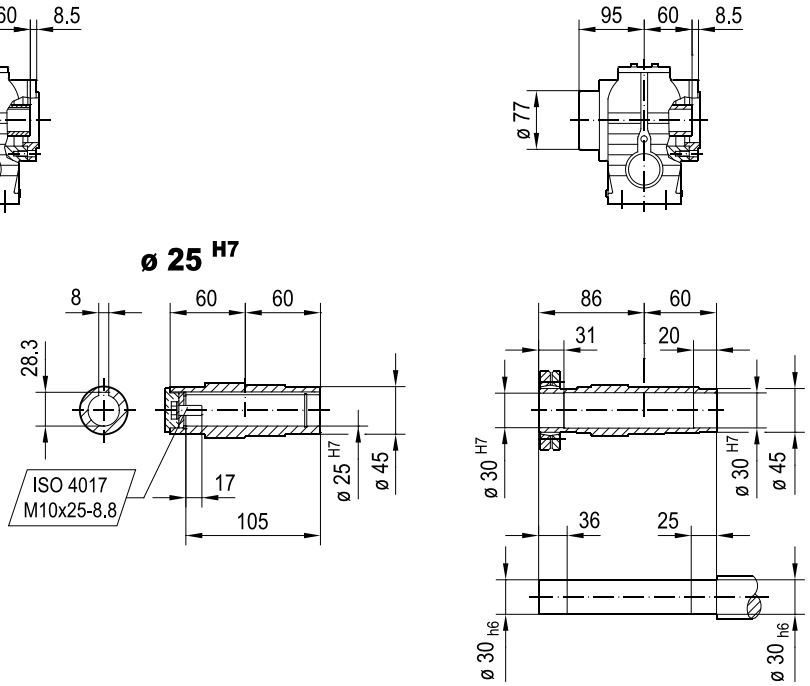
02 054 01 16



SAZ47/SAZ47p..



SHZ47/SHZ47p..

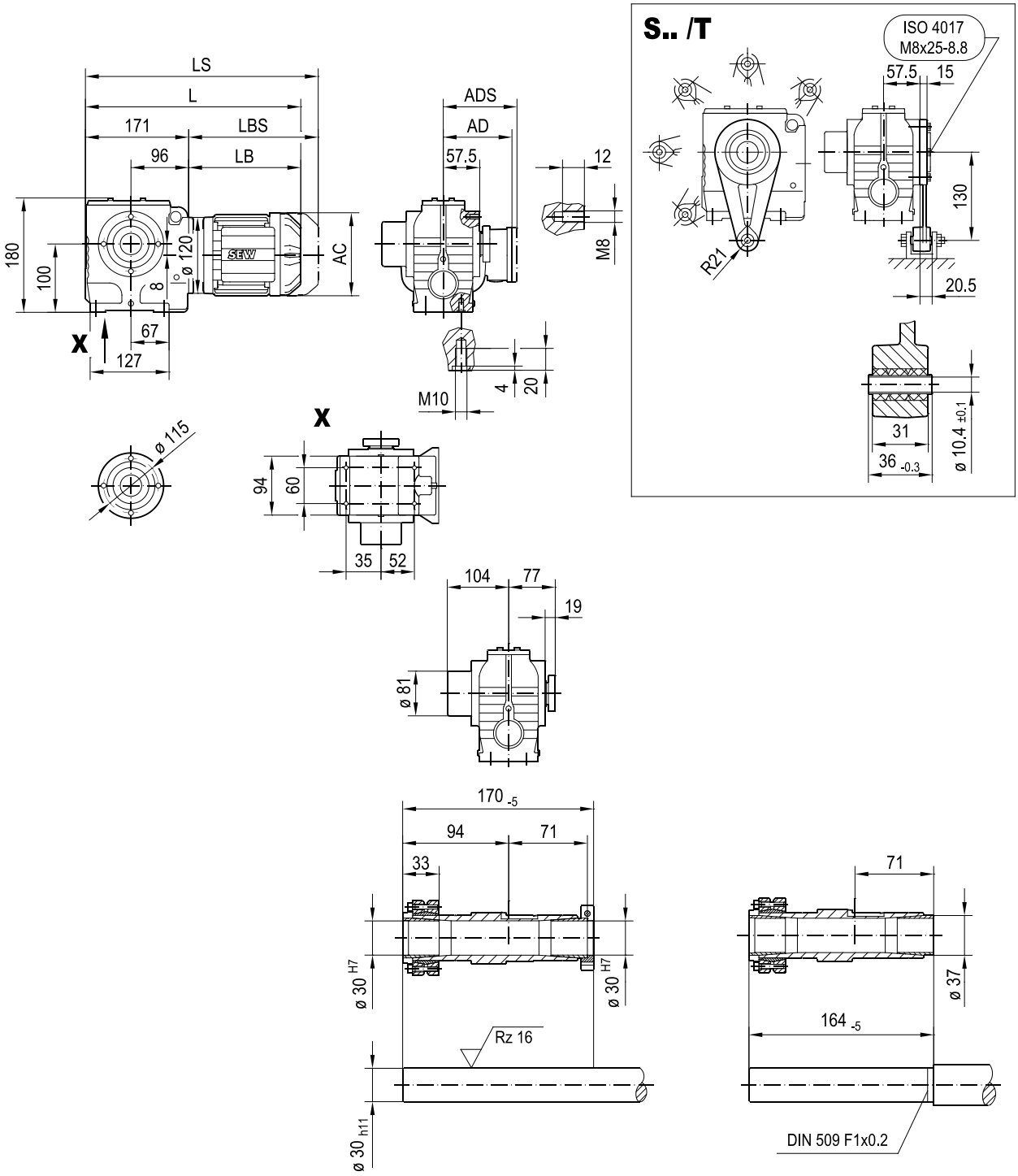


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	361	375	377	397	408	425	453	454	486	485	535
LS	417	431	444	464	489	506	534	548	580	579	629
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

02 055 01 16

ST47/ST47p..

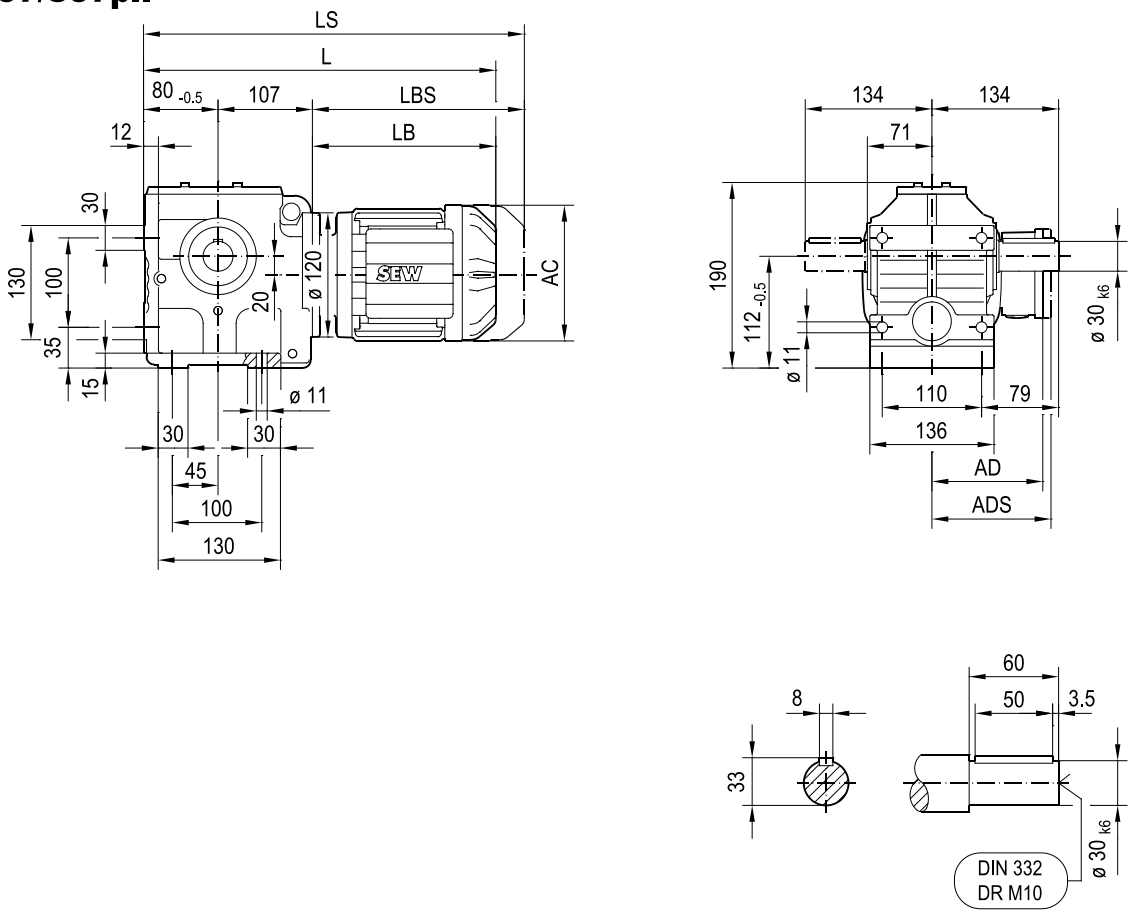


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	361	375	377	397	408	425	453	454	486	485	535
LS	417	431	444	464	489	506	534	548	580	579	629
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

02 017 01 14

S57/S57p..

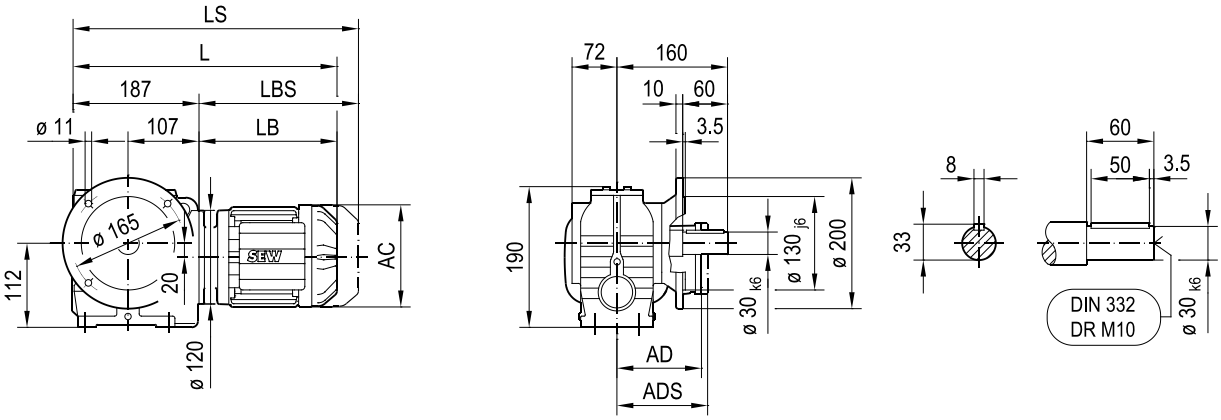


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	377	391	393	413	424	441	469	470	502	501	551
LS	433	447	460	480	505	522	550	564	596	595	645
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

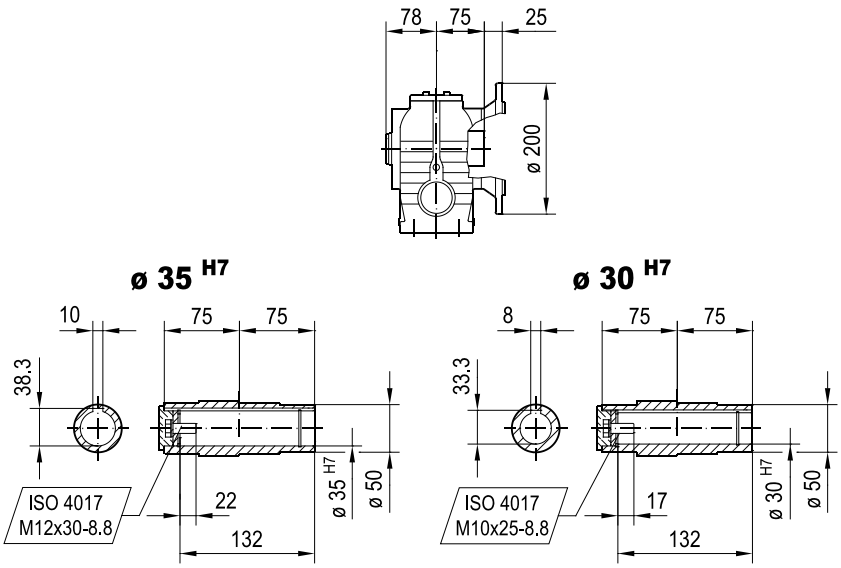
26883198/EN – 04/2022

02 018 02 14

SF57/SF57p..



SAF57/SAF57p..



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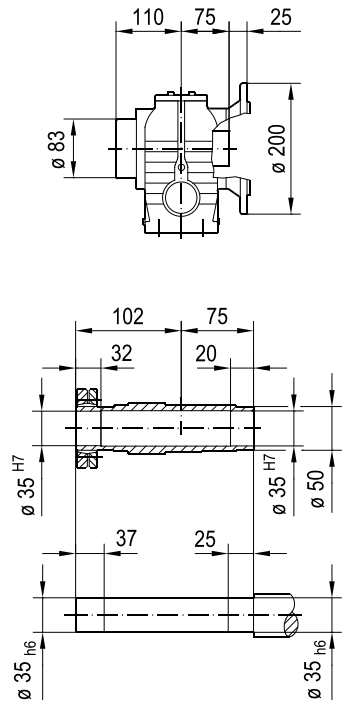
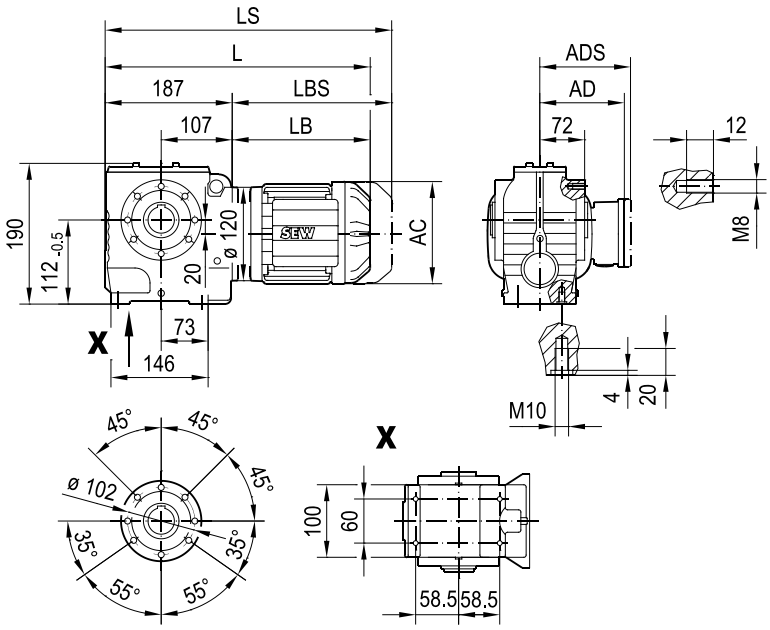


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	377	391	393	413	424	441	469	470	502	501	551
LS	433	447	460	480	505	522	550	564	596	595	645
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

02 019 02 14

SA57/SA57p..



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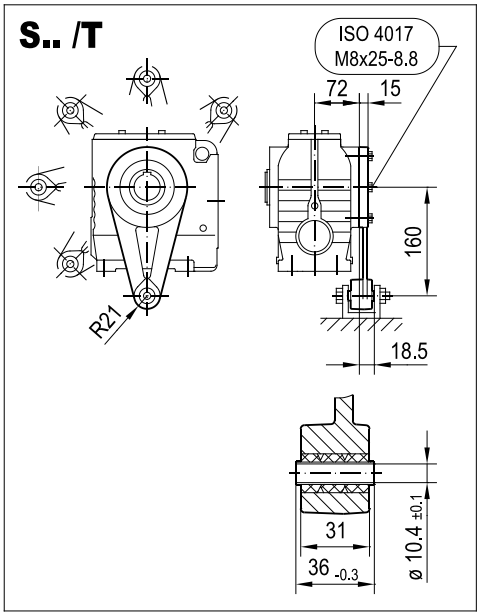
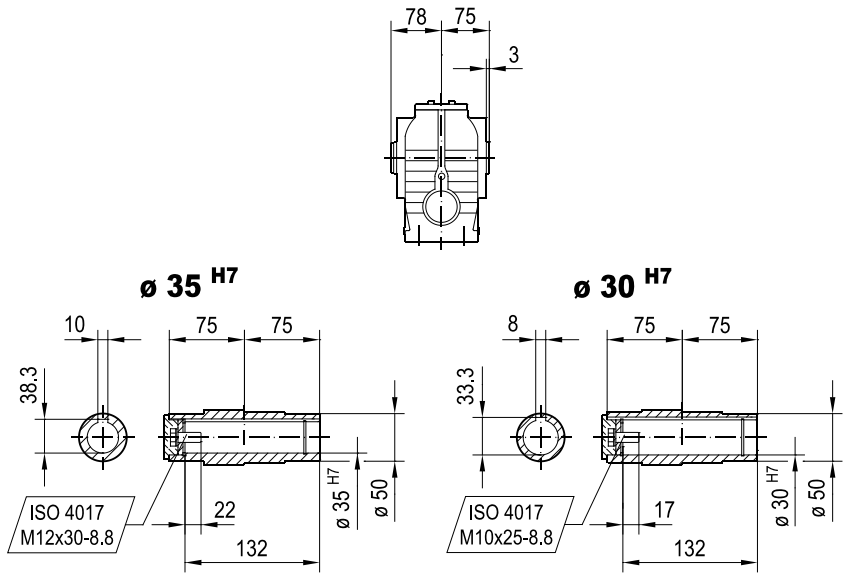
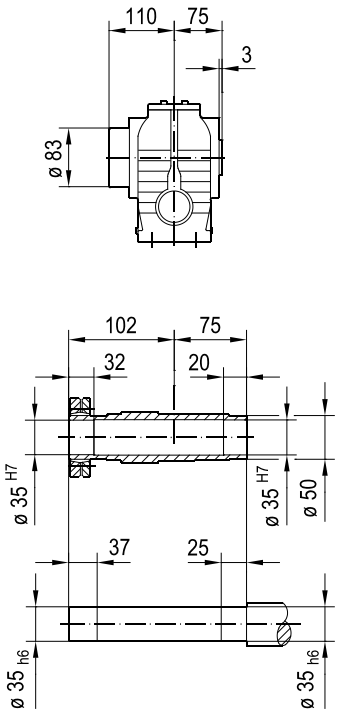


SA57/SA57p..



SH57/SH57p..

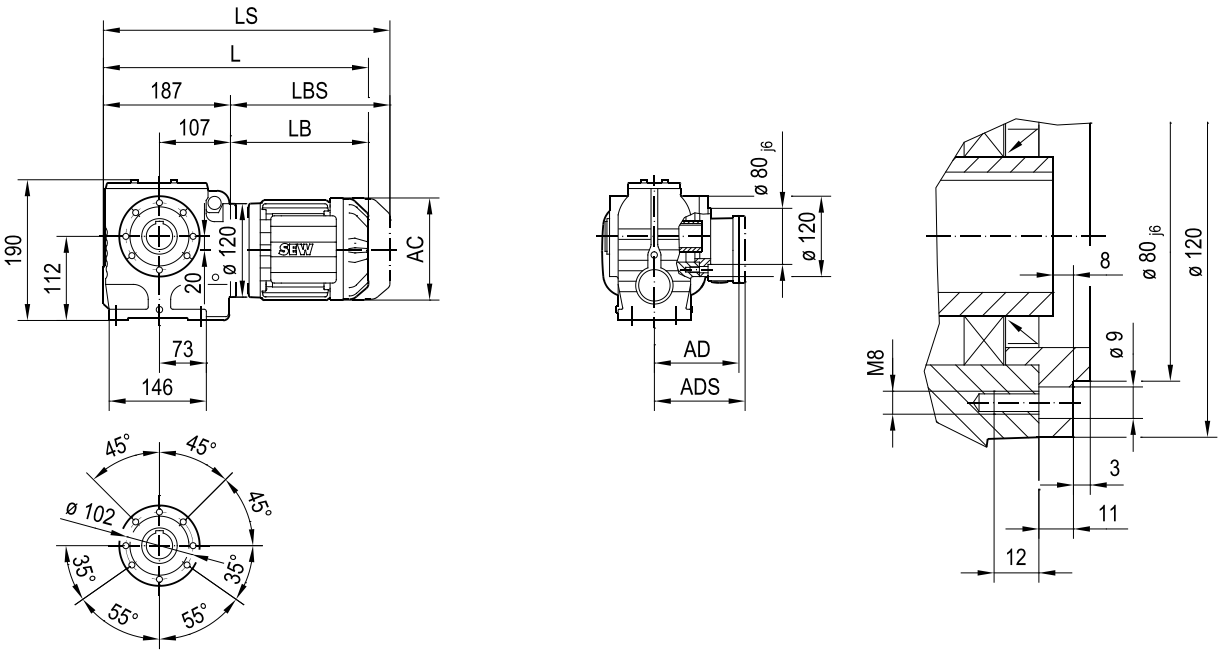


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	377	391	393	413	424	441	469	470	502	501	551
LS	433	447	460	480	505	522	550	564	596	595	645
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

SAZ57/SAZ57p..

02 020 01 14



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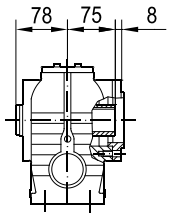

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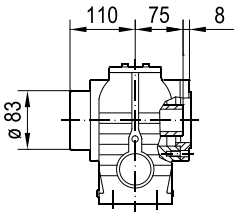
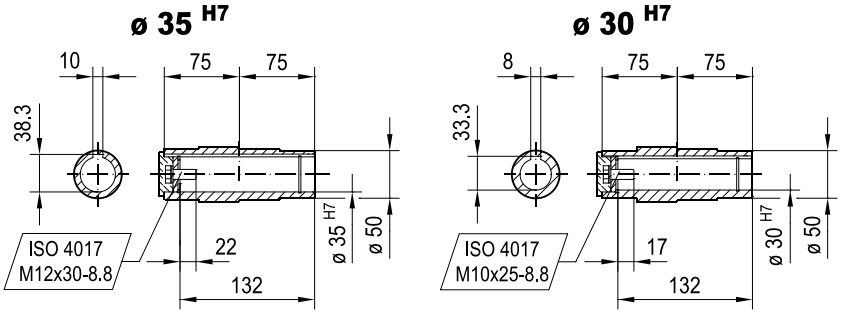
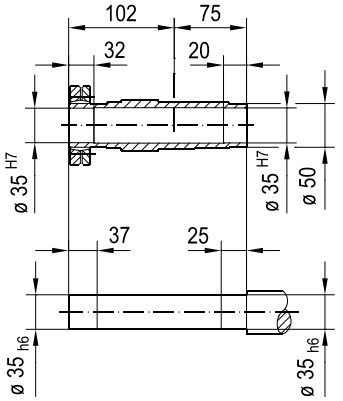




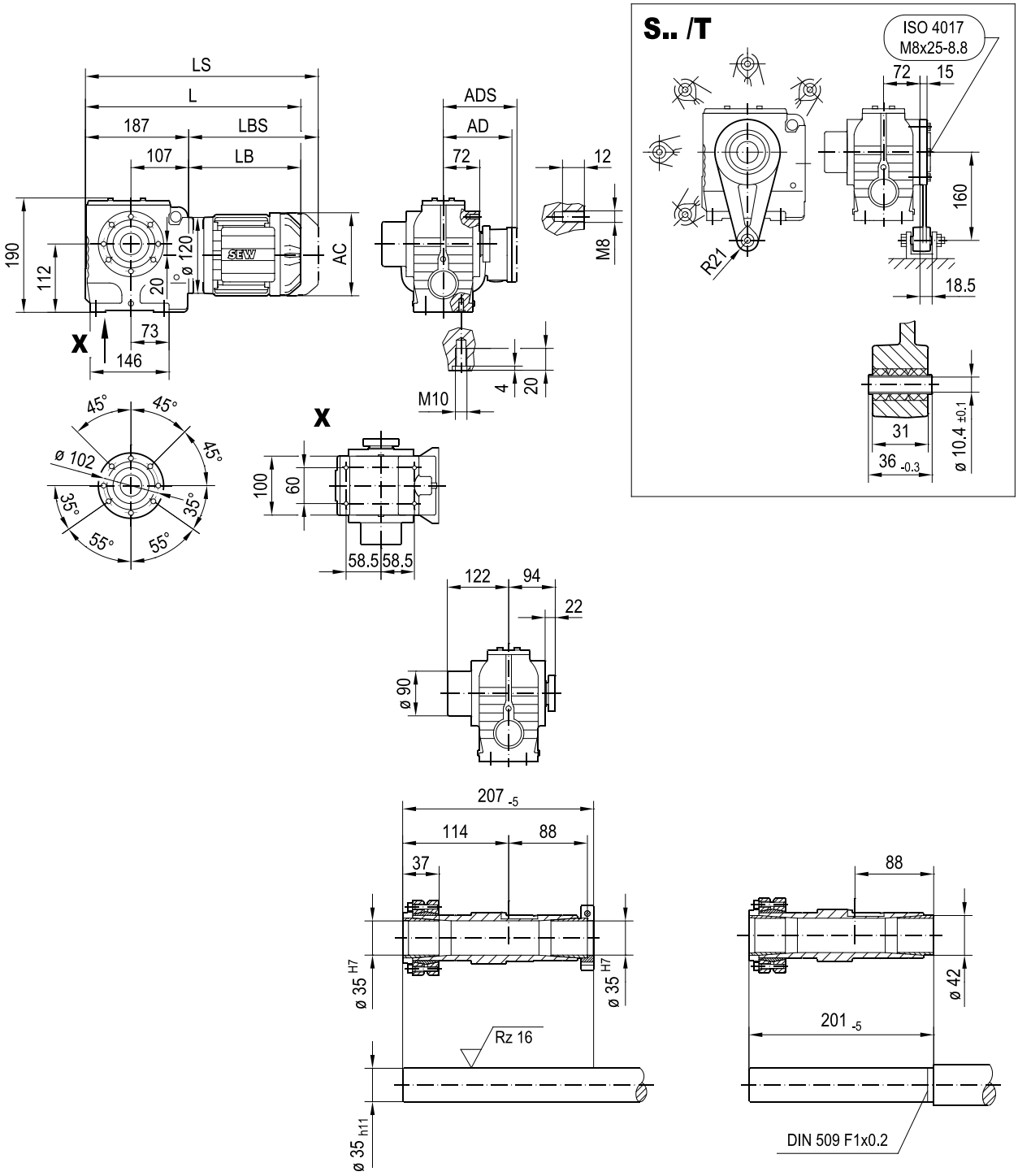


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	377	391	393	413	424	441	469	470	502	501	551
LS	433	447	460	480	505	522	550	564	596	595	645
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

02 021 02 14

ST57/ST57p..

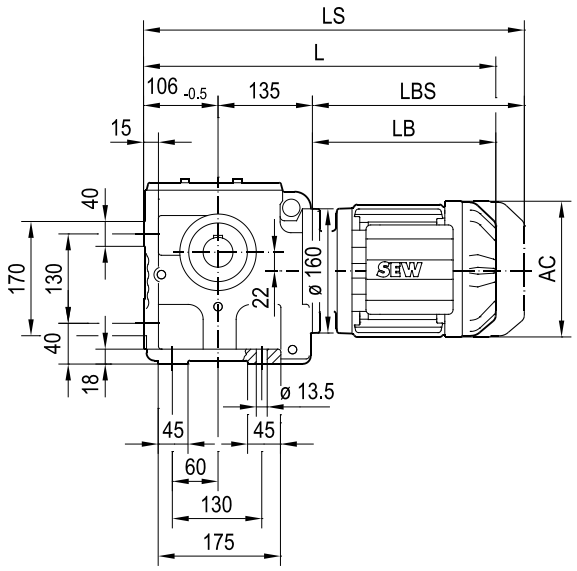


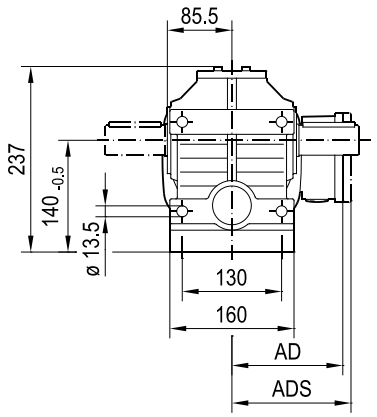
(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	377	391	393	413	424	441	469	470	502	501	551
LS	433	447	460	480	505	522	550	564	596	595	645
LB	190	204	206	226	237	254	282	283	315	314	364
LBS	246	260	273	293	318	335	363	377	409	408	458

26883198/EN – 04/2022

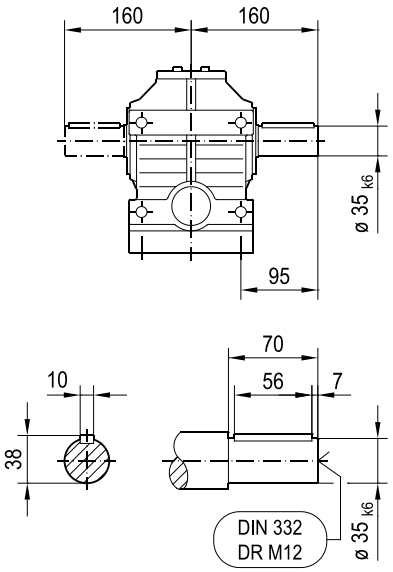
02 022 01 14

S67/S67p..

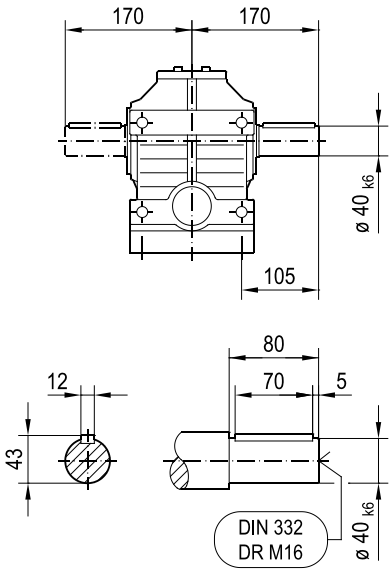




S67..



S67/S67p..

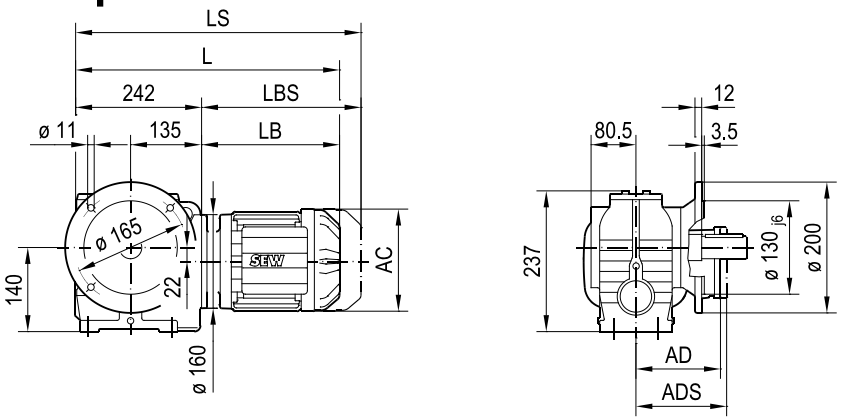


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	439	440	460	471	488	516	518	550	546	596	627	681	699
LS	495	508	528	552	569	597	611	643	640	690	739	793	837
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

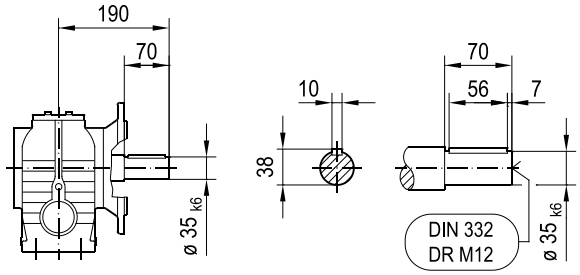
26883198/EN – 04/2022

SF67/SF67p..

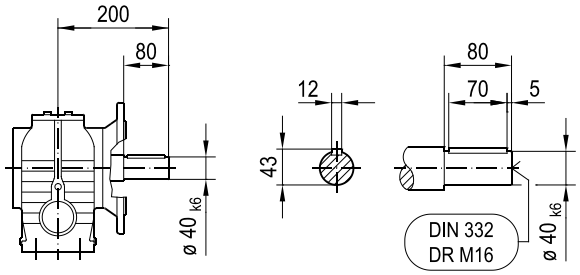
02 023 01 14



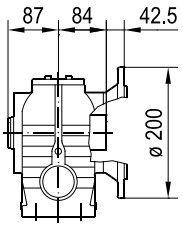
SF67..



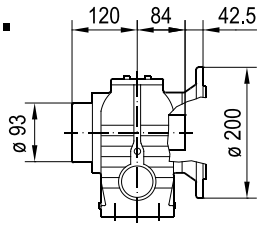
SF67/SF67p..

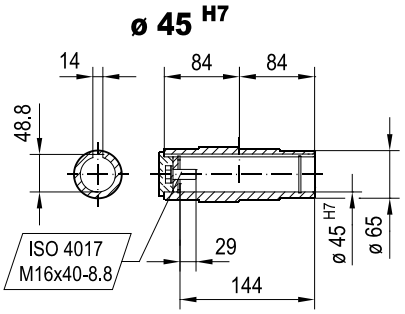


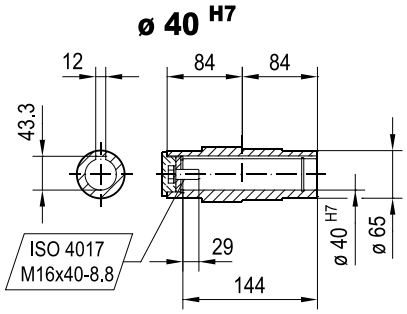
SAF67/SAF67p..

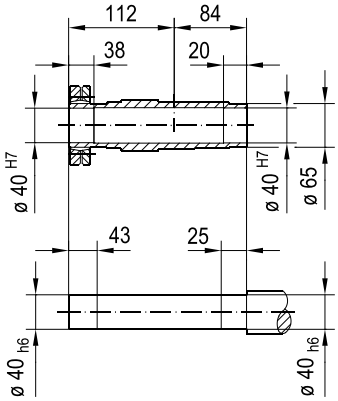


SHF67/SHF67p..









(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	440	441	461	472	489	517	519	551	547	597	628	682	700
LS	496	509	529	553	570	598	612	644	641	691	740	794	838
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

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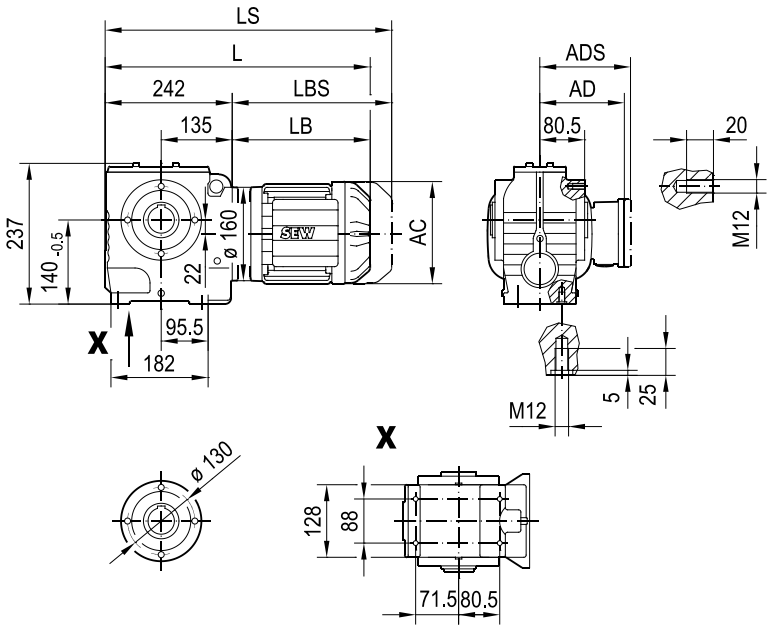
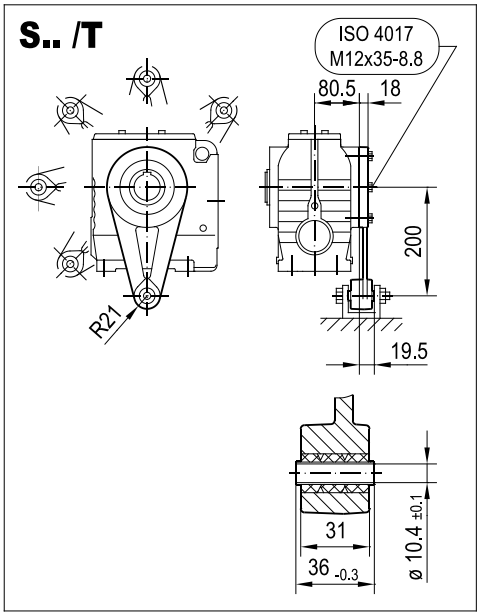
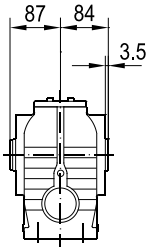
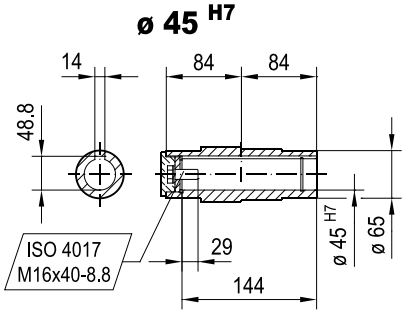
SA67/SA67p..

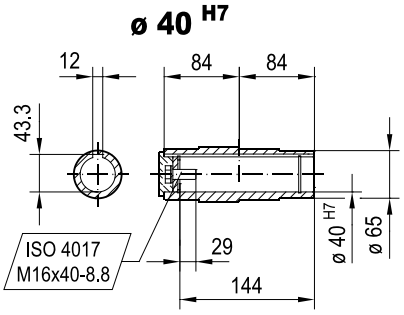




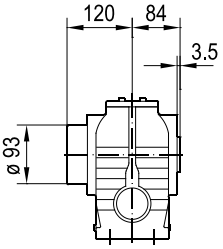
SA67/SA67p..

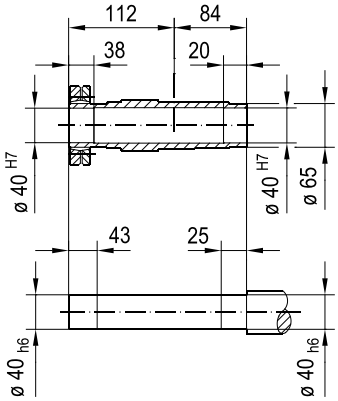






SH67/SH67p..



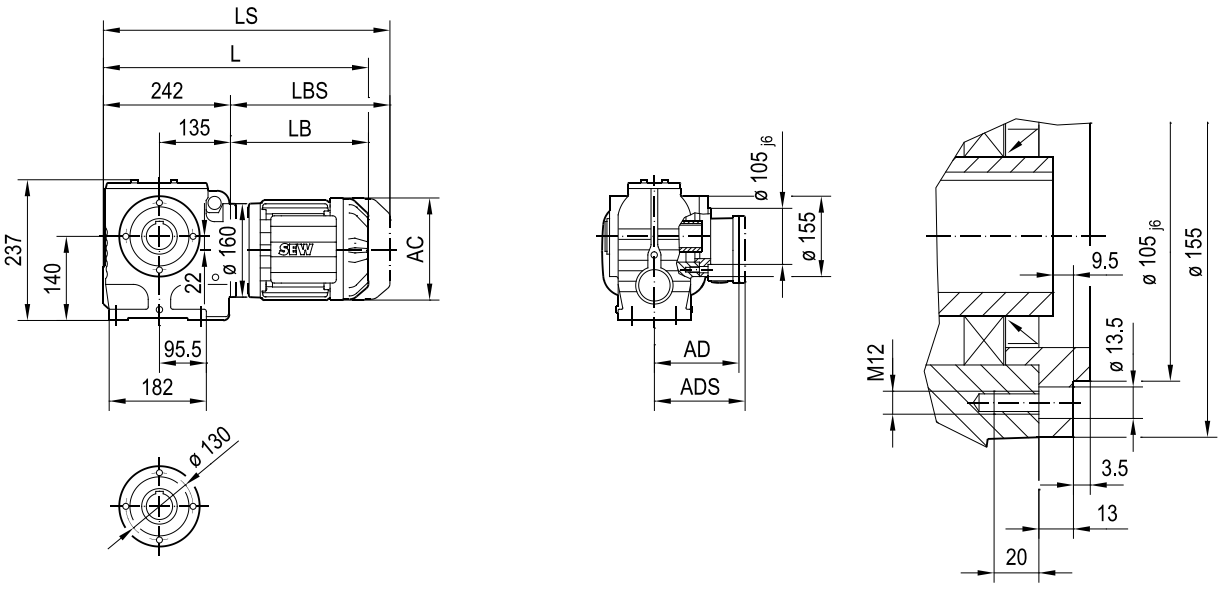


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	440	441	461	472	489	517	519	551	547	597	628	682	700
LS	496	509	529	553	570	598	612	644	641	691	740	794	838
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

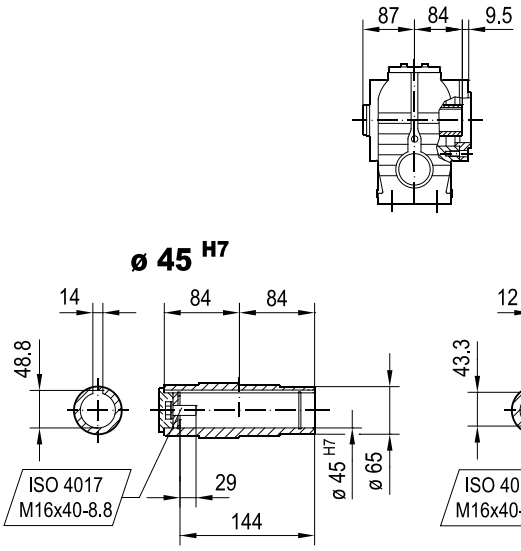
26883198/EN – 04/2022

SAZ67/SAZ67p..

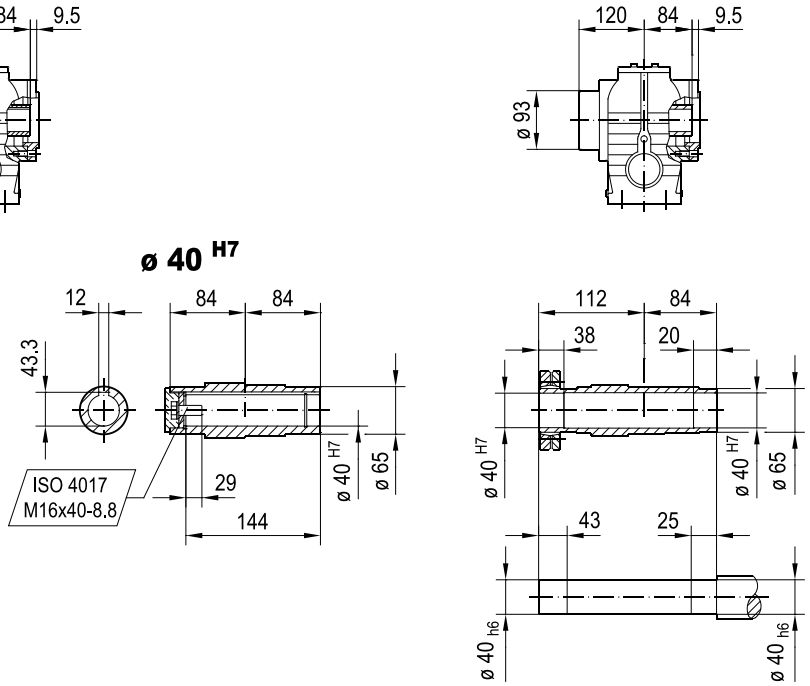
02 025 01 14



SAZ67/SAZ67p..



SHZ67/SHZ67p..

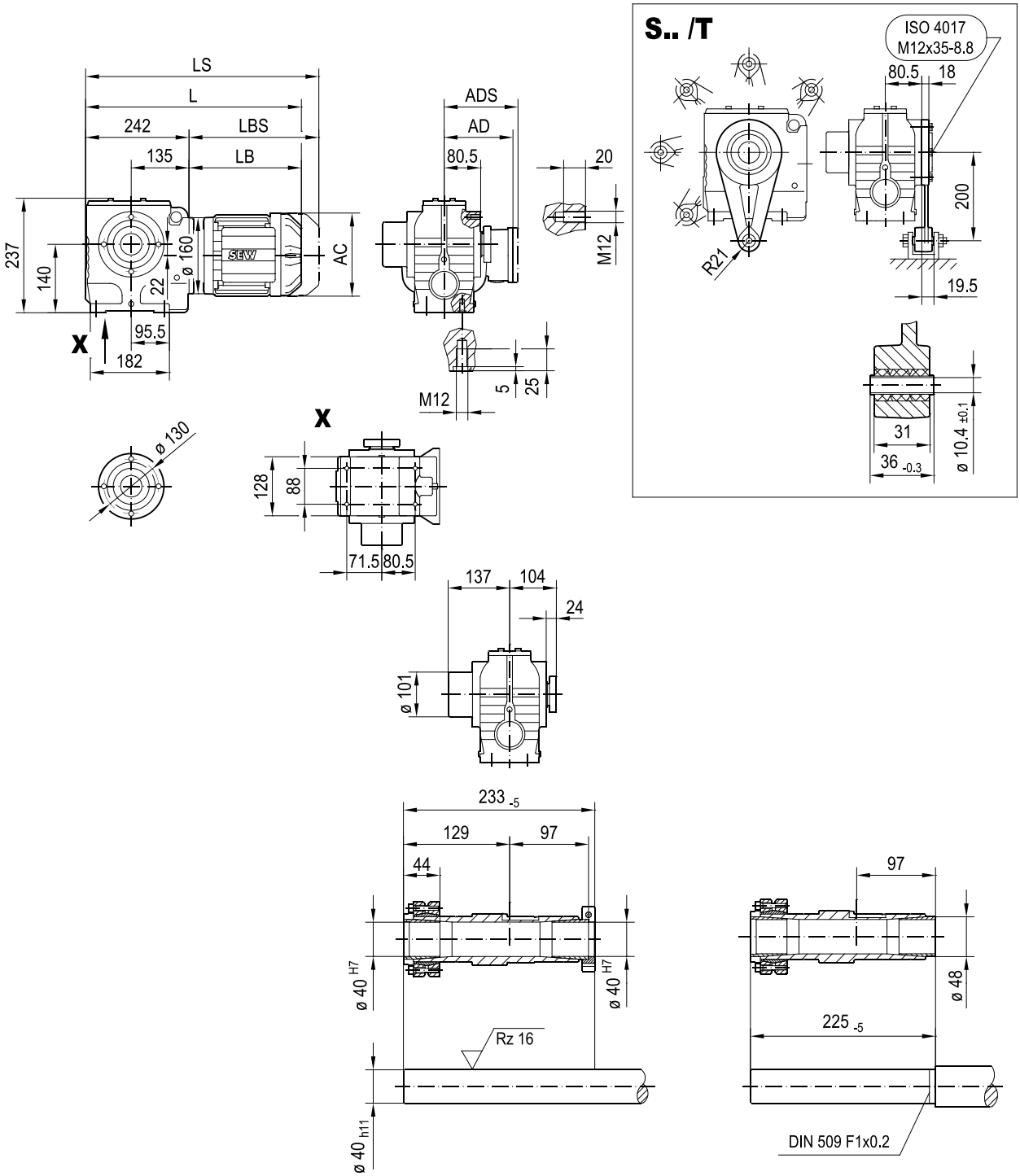


(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	440	441	461	472	489	517	519	551	547	597	628	682	700
LS	496	509	529	553	570	598	612	644	641	691	740	794	838
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

02 026 02 14

ST67/ST67p..

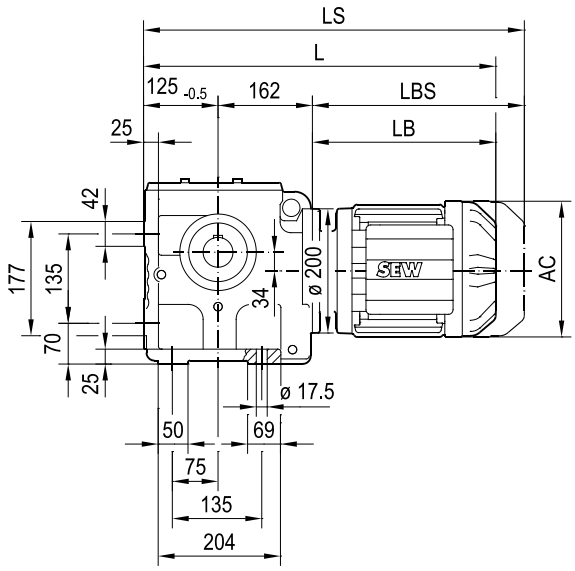


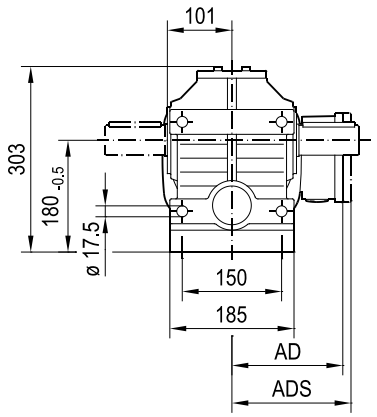
(→ 📖 7.3)	DRN												
	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	139	139	156	156	156	179	179	197	197	221	221	261
AD	98	118	118	128	128	128	140	140	157	157	170	170	228
ADS	98	129	129	139	139	139	150	150	158	158	172	172	228
L	440	441	461	472	489	517	519	551	547	597	628	682	700
LS	496	509	529	553	570	598	612	644	641	691	740	794	838
LB	198	199	219	230	247	275	277	309	305	355	386	440	458
LBS	254	267	287	311	328	356	370	402	399	449	498	552	596

26883198/EN – 04/2022

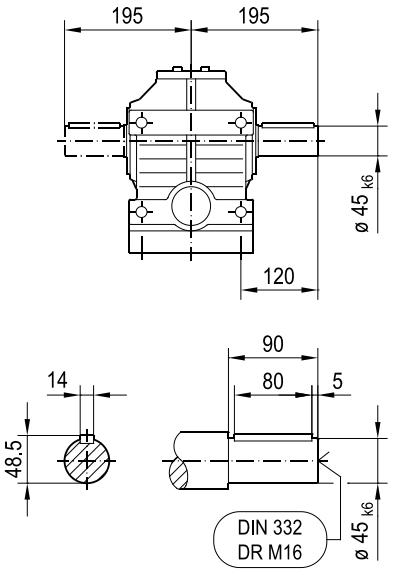
02 027 01 14

S77/S77p..

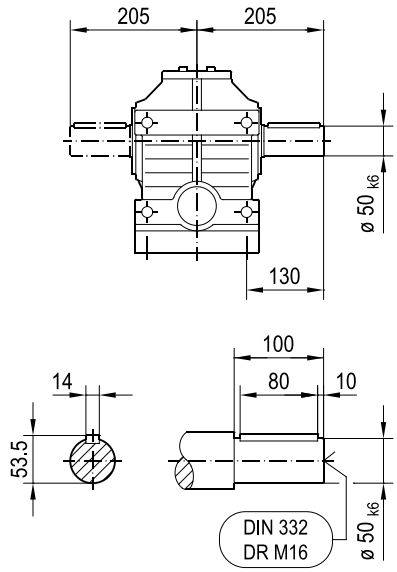




S77..



S77/S77p..

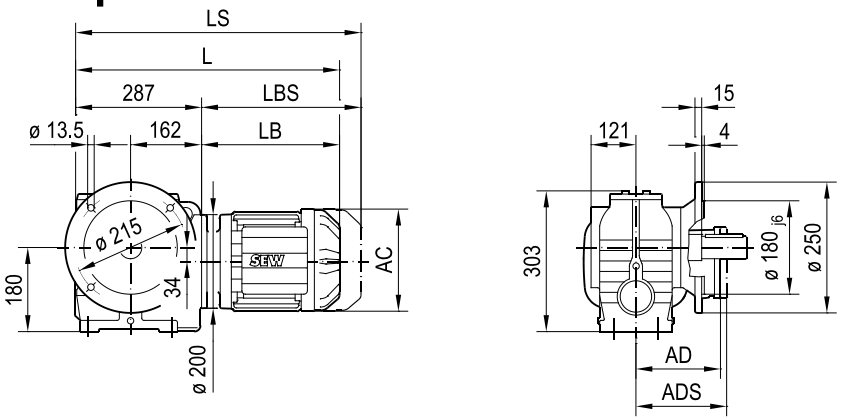


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	479	499	510	527	555	557	589	585	635	666	716	734	760	826
LS	547	567	591	608	636	650	682	679	729	778	828	872	897	1015
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

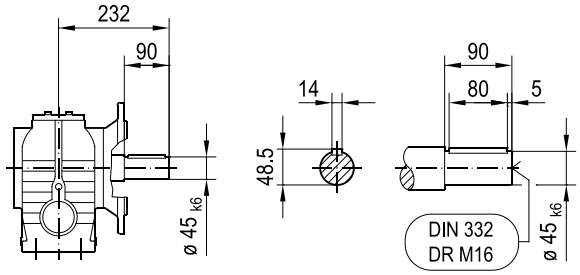
26883198/EN – 04/2022

SF77/SF77p..

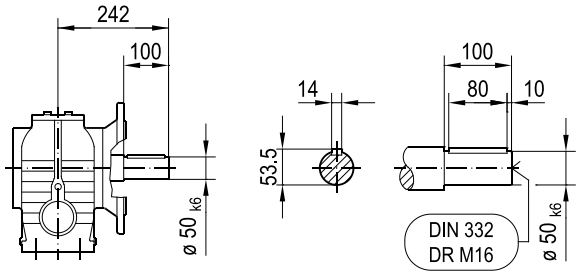
02 028 01 14



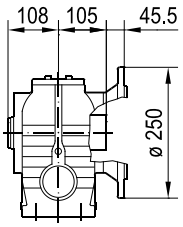
SF77..



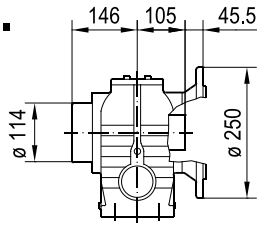
SF77/SF77p..



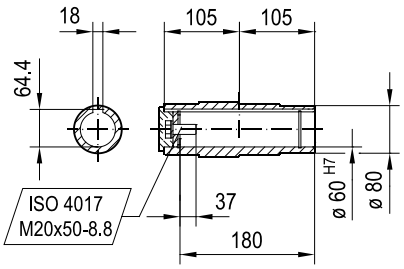
SAF77/SAF77p..



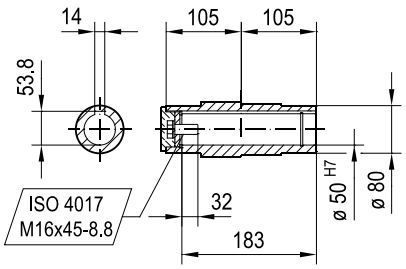
SHF77/SHF77p..

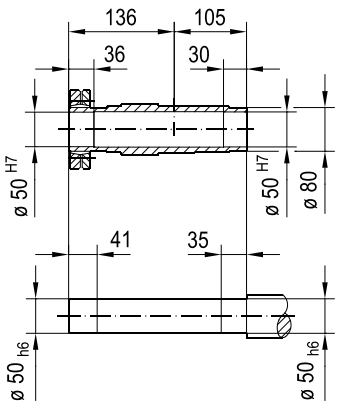


ø 60 H7



ø 50 H7



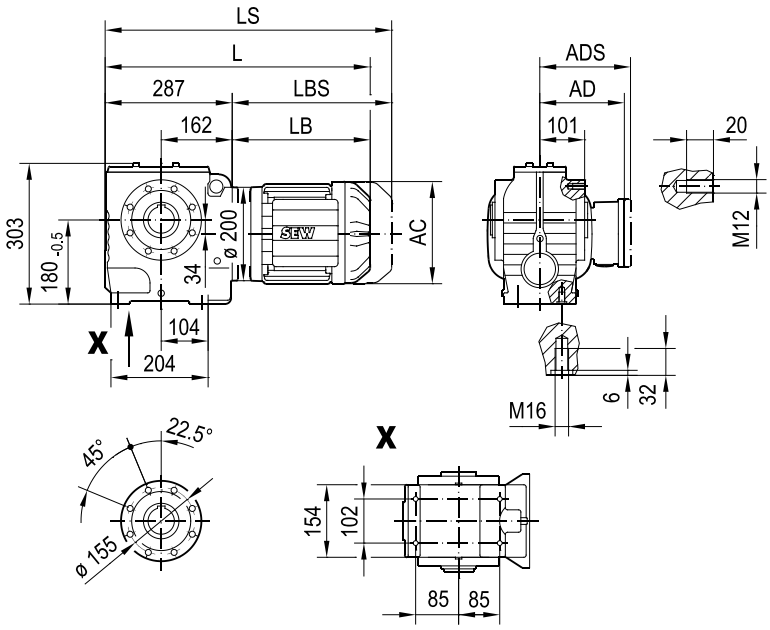


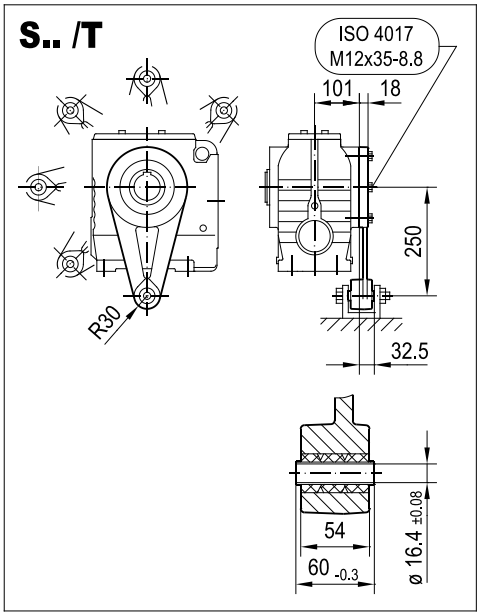
(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	479	499	510	527	555	557	589	585	635	666	716	734	760	826
LS	547	567	591	608	636	650	682	679	729	778	828	872	897	1015
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

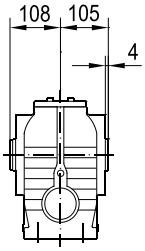
02 029 02 14

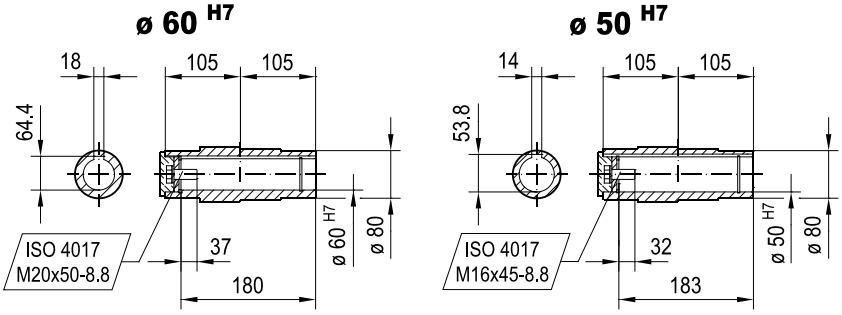
SA77/SA77p..



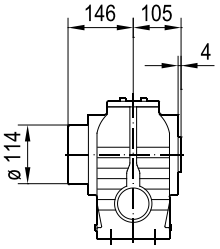


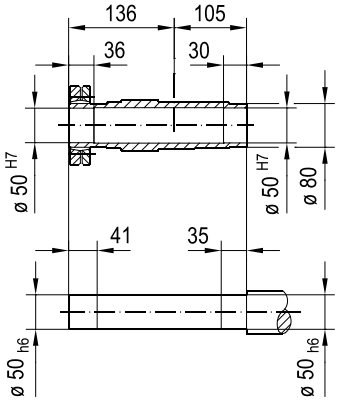
SA77/SA77p..





SH77/SH77p..



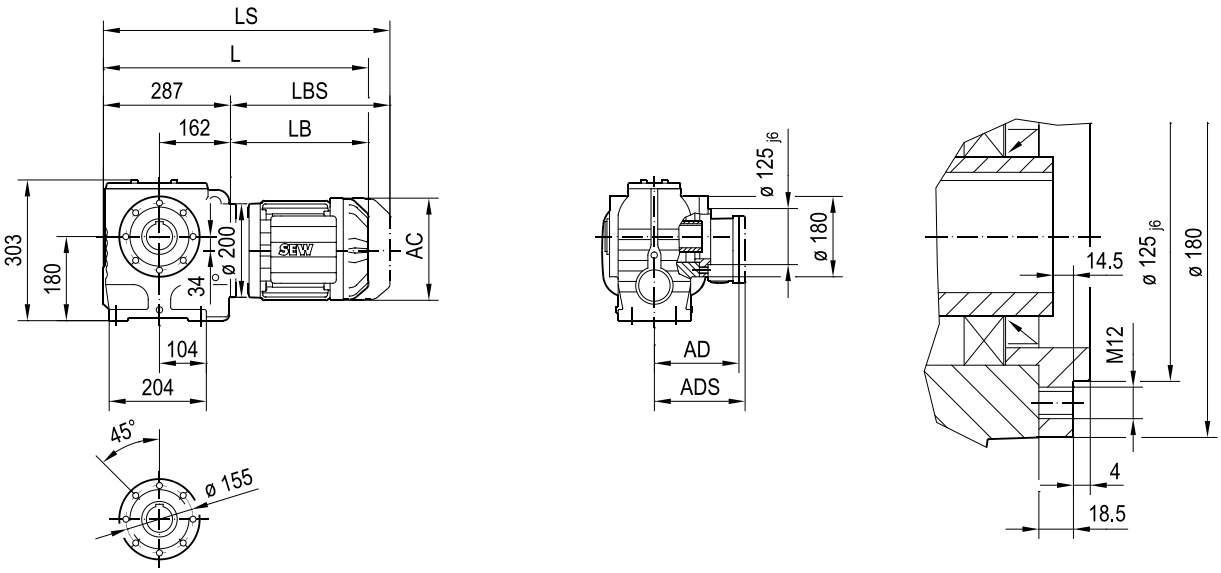


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	479	499	510	527	555	557	589	585	635	666	716	734	760	826
LS	547	567	591	608	636	650	682	679	729	778	828	872	897	1015
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

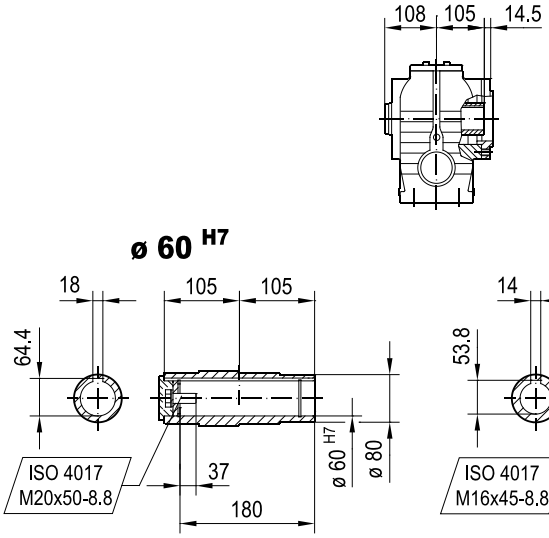
26883198/EN – 04/2022

SAZ77/SAZ77p..

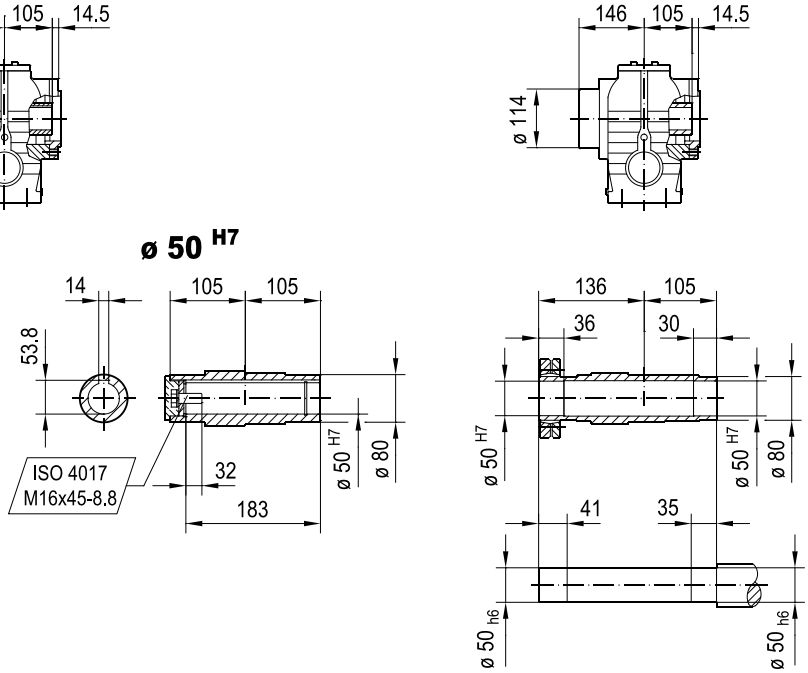
02 030 01 14



SAZ77/SAZ77p..



SHZ77/SHZ77p..

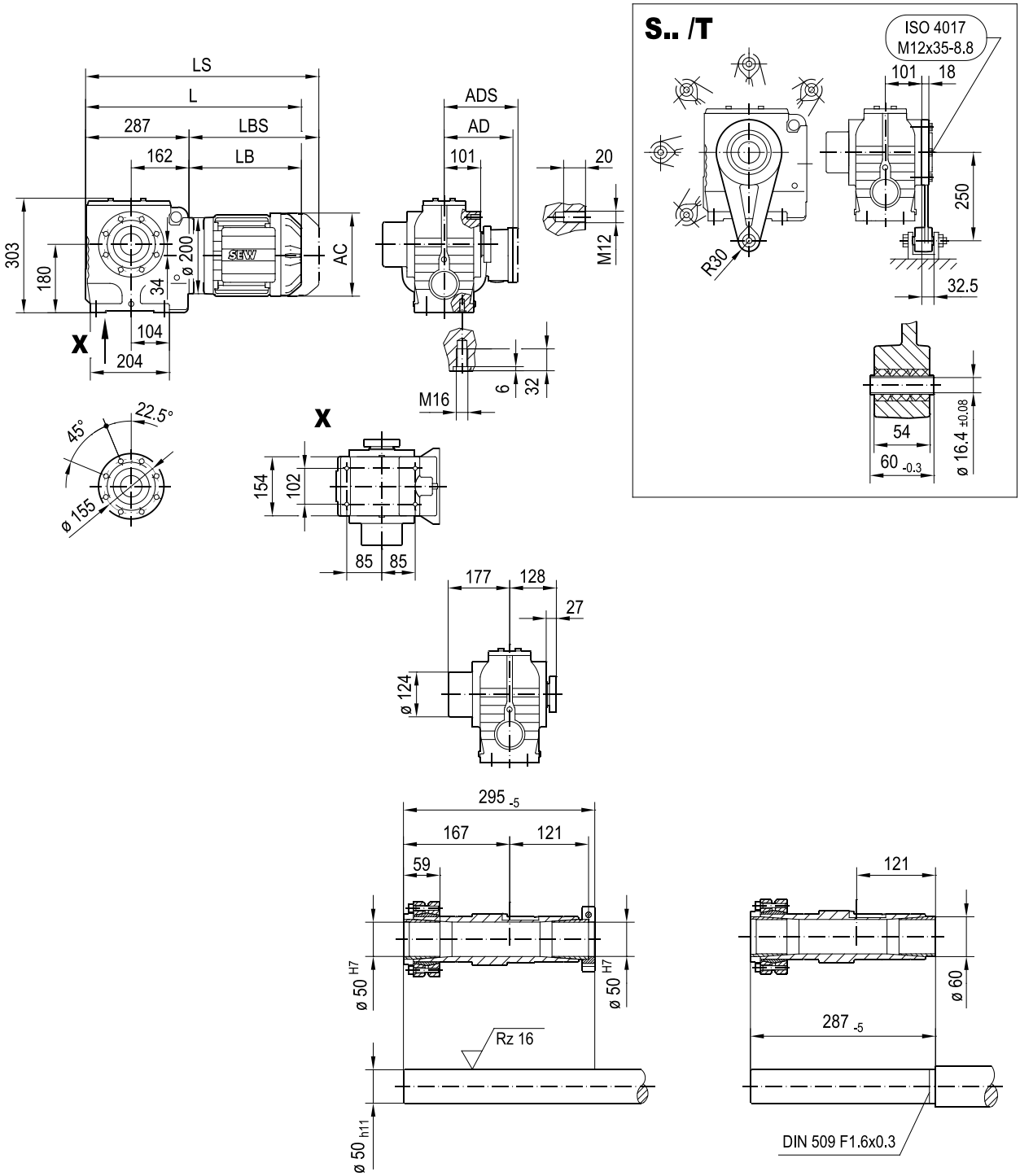


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	479	499	510	527	555	557	589	585	635	666	716	734	760	826
LS	547	567	591	608	636	650	682	679	729	778	828	872	897	1015
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

02 031 02 14

ST77/ST77p..

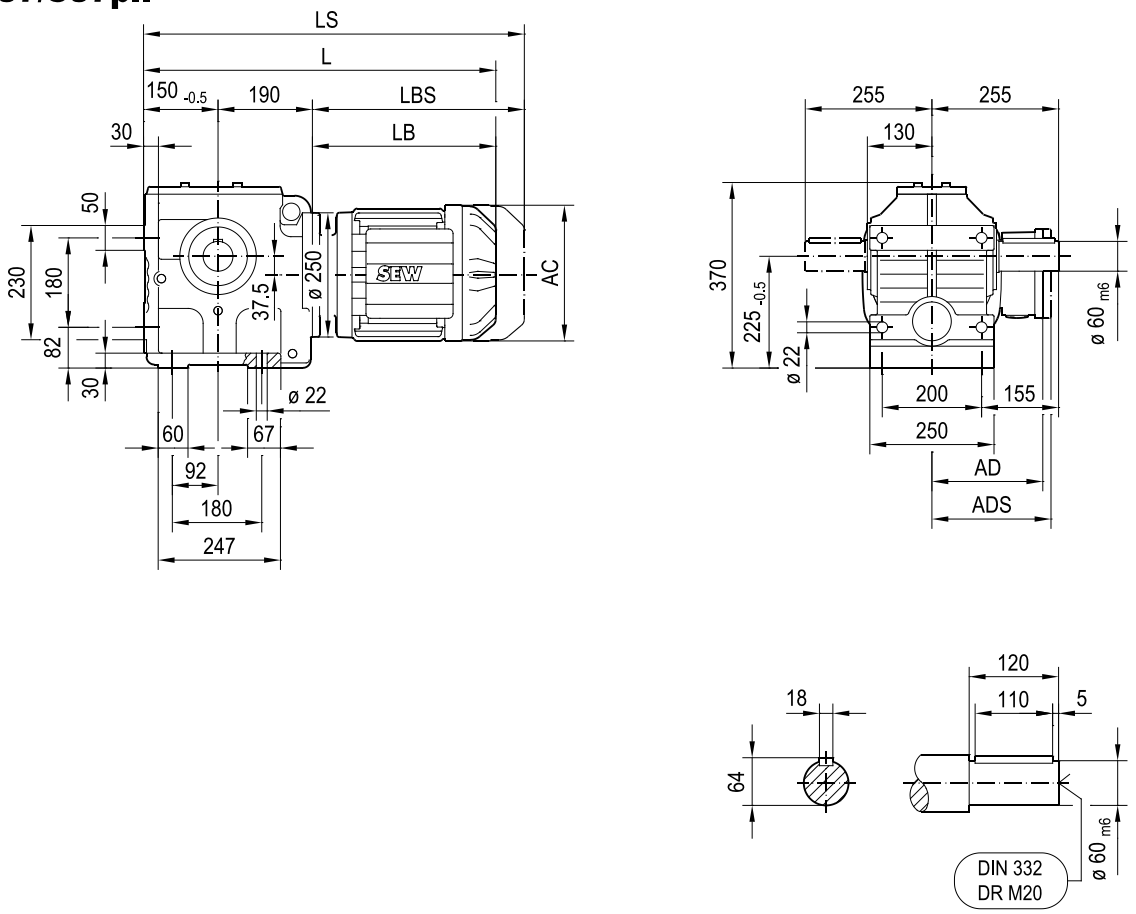


(→ 📖 7.3)	DRN													
	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	139	150	150	158	158	172	172	228	228	253
L	479	499	510	527	555	557	589	585	635	666	716	734	760	826
LS	547	567	591	608	636	650	682	679	729	778	828	872	897	1015
LB	192	212	223	240	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	321	349	363	395	392	442	491	541	585	610	728

26883198/EN – 04/2022

02 032 01 14

S87/S87p..

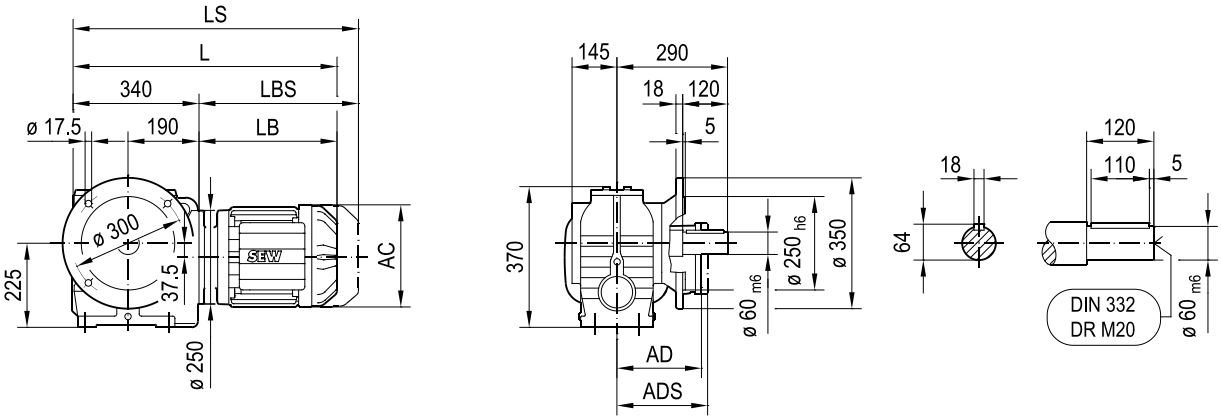


(→ 📖 7.3)	DRN												
	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	139	150	150	158	158	172	172	228	228	253	268
L	558	575	603	605	637	633	683	714	764	782	808	874	897
LS	639	656	684	698	730	727	777	826	876	920	945	1063	1086
LB	218	235	263	265	297	293	343	374	424	442	468	534	557
LBS	299	316	344	358	390	387	437	486	536	580	605	723	746

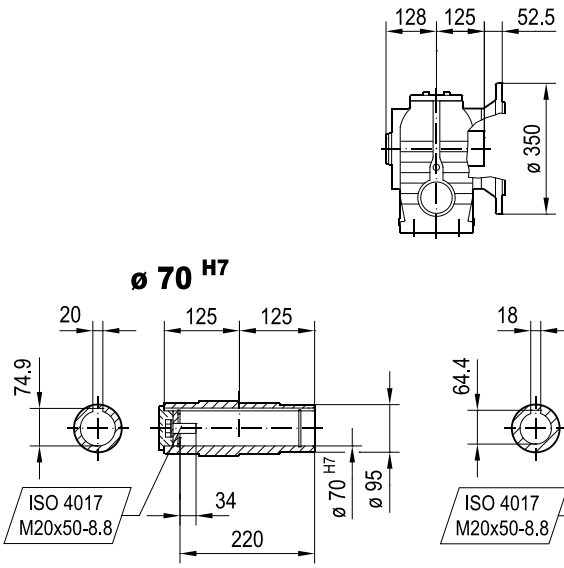
26883198/EN – 04/2022

02 033 01 14

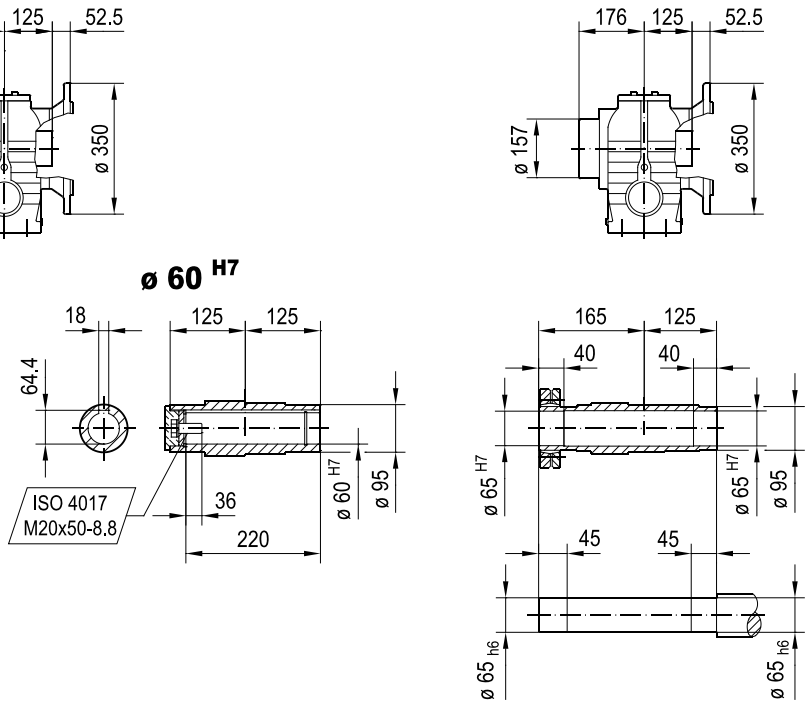
SF87/SF87p..



SAF87/SAF87p..



SHF87/SHF87p..

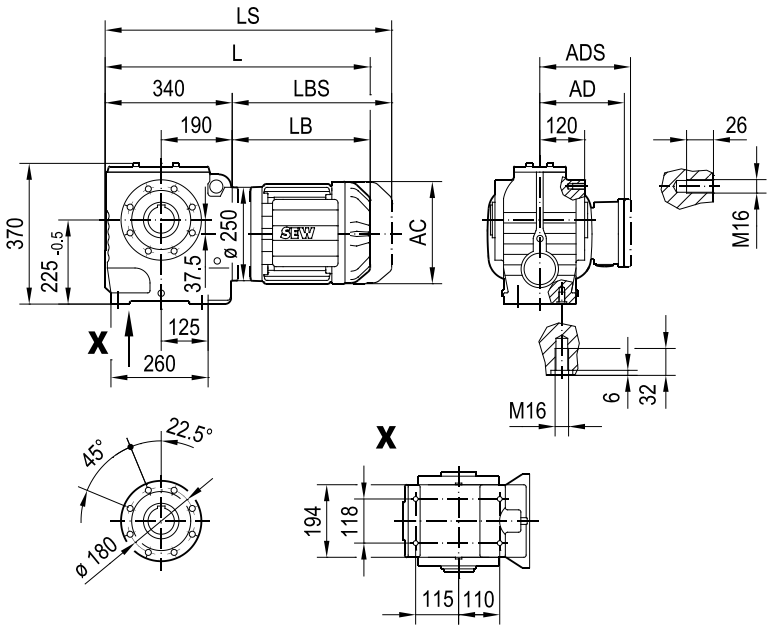


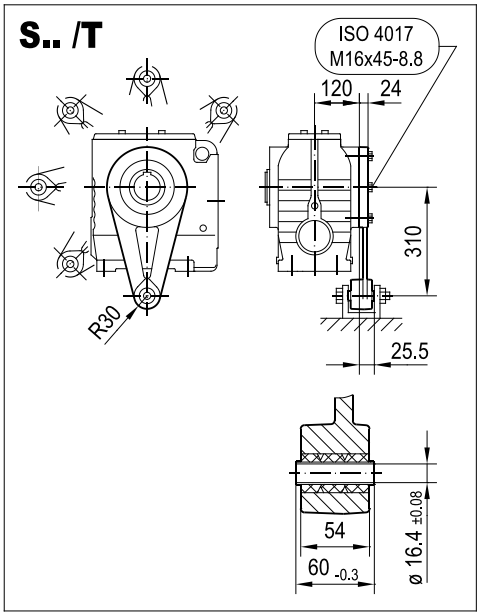
(→ 📖 7.3)	DRN												
	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	139	150	150	158	158	172	172	228	228	253	268
L	558	575	603	605	637	633	683	714	764	782	808	874	897
LS	639	656	684	698	730	727	777	826	876	920	945	1063	1086
LB	218	235	263	265	297	293	343	374	424	442	468	534	557
LBS	299	316	344	358	390	387	437	486	536	580	605	723	746

26883198/EN – 04/2022

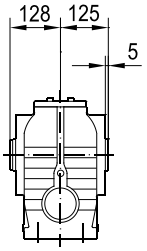
02 034 02 14

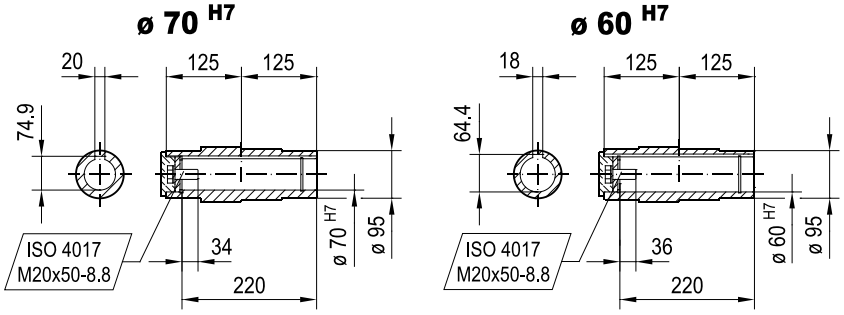
SA87/SA87p..



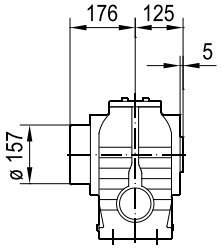


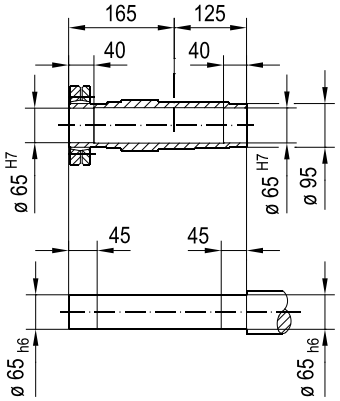
SA87/SA87p..





SH87/SH87p..



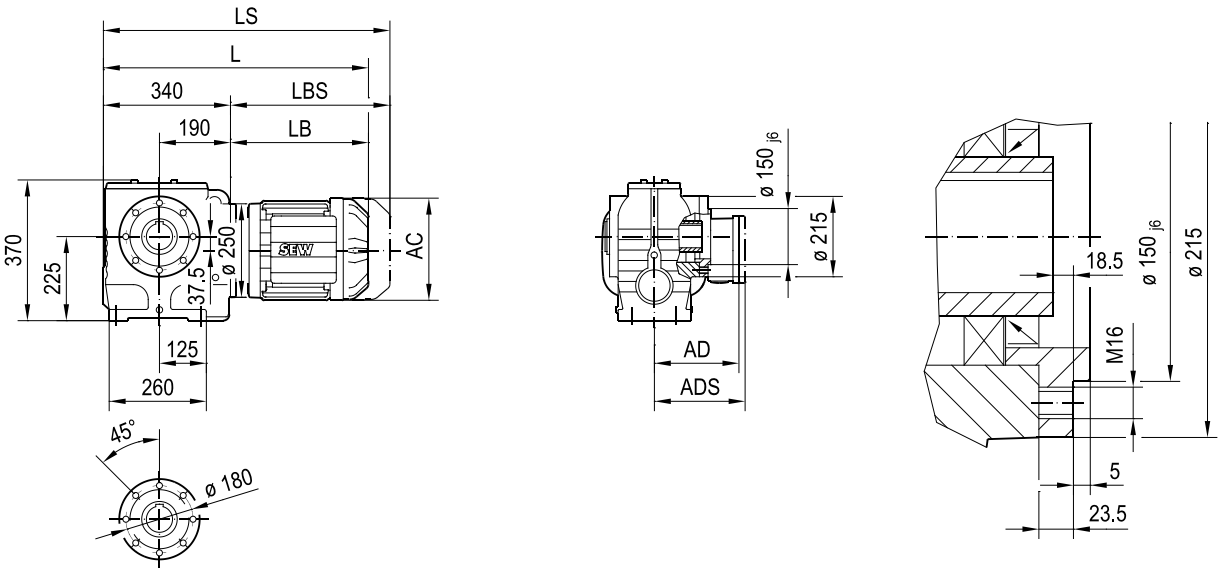


(→ 📖 7.3)	DRN												
	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	139	150	150	158	158	172	172	228	228	253	268
L	558	575	603	605	637	633	683	714	764	782	808	874	897
LS	639	656	684	698	730	727	777	826	876	920	945	1063	1086
LB	218	235	263	265	297	293	343	374	424	442	468	534	557
LBS	299	316	344	358	390	387	437	486	536	580	605	723	746

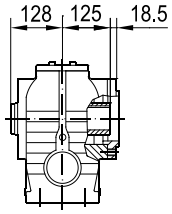
26883198/EN – 04/2022

SAZ87/SAZ87p..

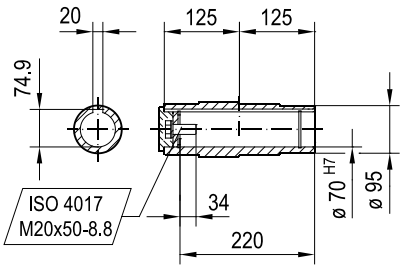
02 035 01 14



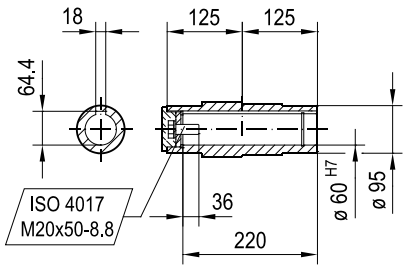
SAZ87/SAZ87p..



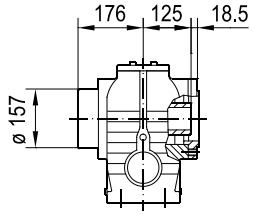
ø 70 H7

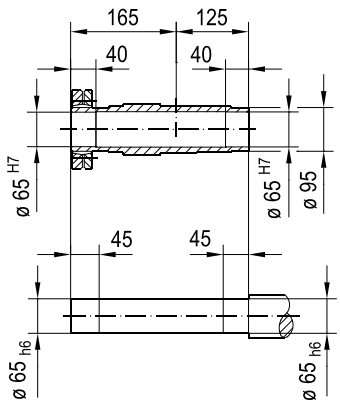


ø 60 H7



SHZ87/SHZ87p..



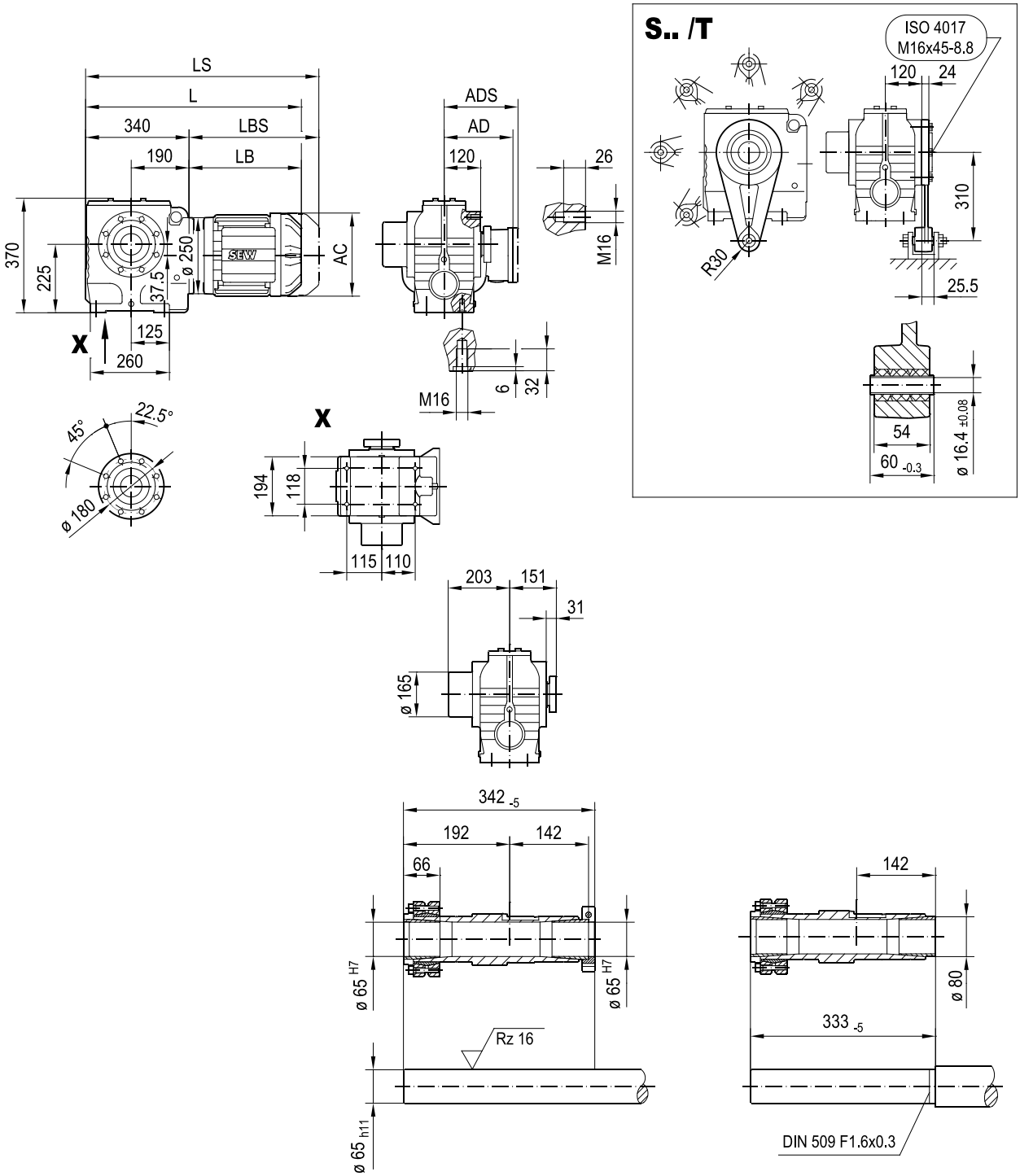


(→ 📖 7.3)	DRN												
	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	139	150	150	158	158	172	172	228	228	253	268
L	558	575	603	605	637	633	683	714	764	782	808	874	897
LS	639	656	684	698	730	727	777	826	876	920	945	1063	1086
LB	218	235	263	265	297	293	343	374	424	442	468	534	557
LBS	299	316	344	358	390	387	437	486	536	580	605	723	746

26883198/EN – 04/2022

02 036 02 14

ST87/ST87p..

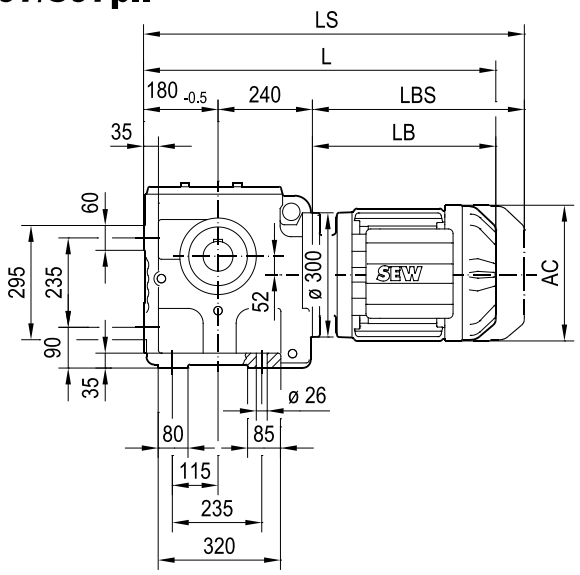


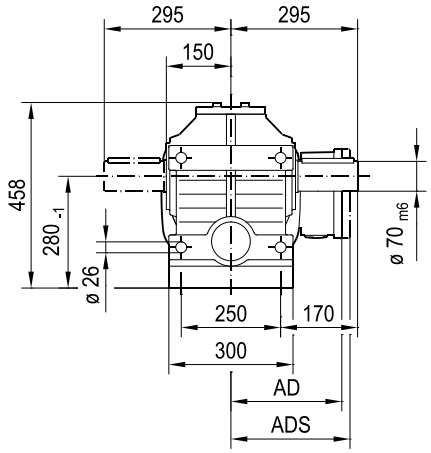
(→ 📖 7.3)	DRN												
	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	139	150	150	158	158	172	172	228	228	253	268
L	558	575	603	605	637	633	683	714	764	782	808	874	897
LS	639	656	684	698	730	727	777	826	876	920	945	1063	1086
LB	218	235	263	265	297	293	343	374	424	442	468	534	557
LBS	299	316	344	358	390	387	437	486	536	580	605	723	746

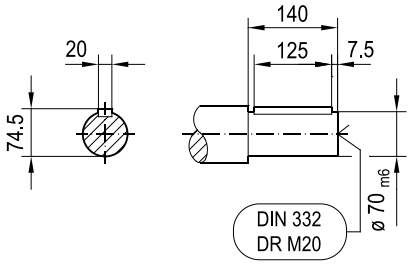
26883198/EN – 04/2022

02 037 01 14

S97/S97p..





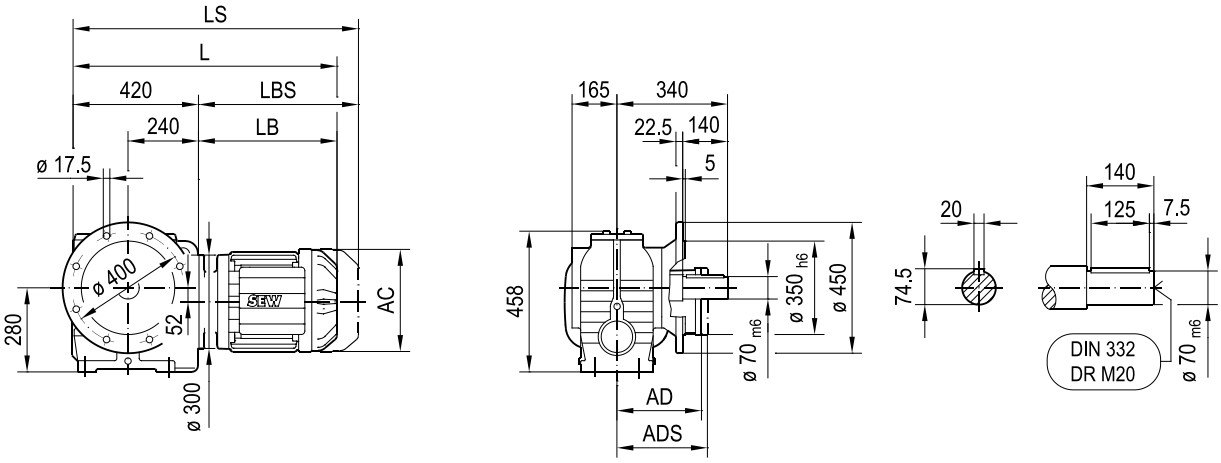


(→ 📖 7.3)	DRN													
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	633	678	680	712	708	758	789	839	857	883	949	972	1082	1056
LS	714	759	773	805	802	852	901	951	995	1020	1138	1161	1287	1261
LB	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867	841

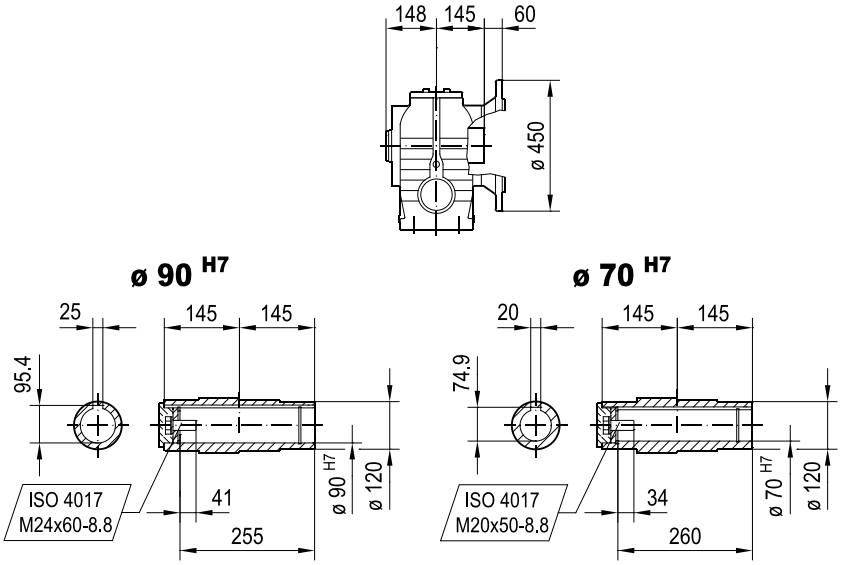
26883198/EN – 04/2022

02 038 01 14

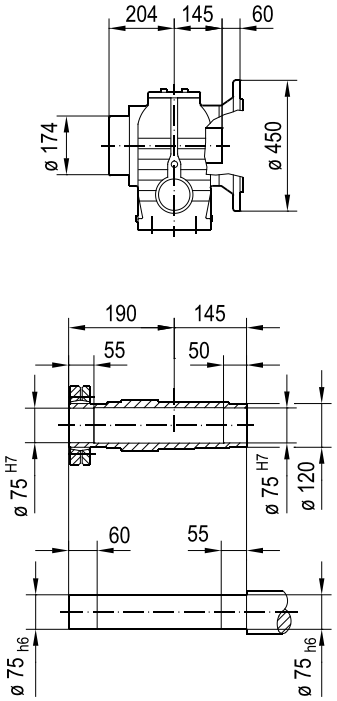
SF97/SF97p..



SAF97/SAF97p..



SHF97/SHF97p..

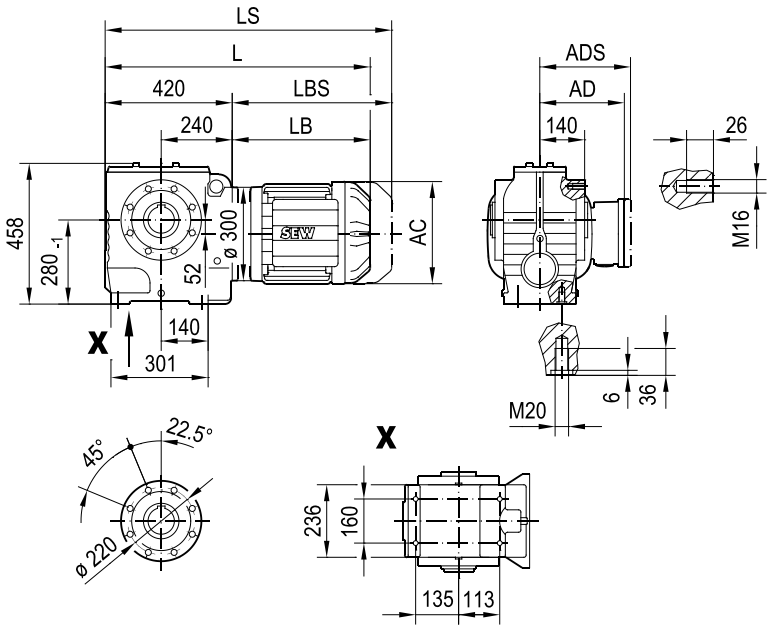


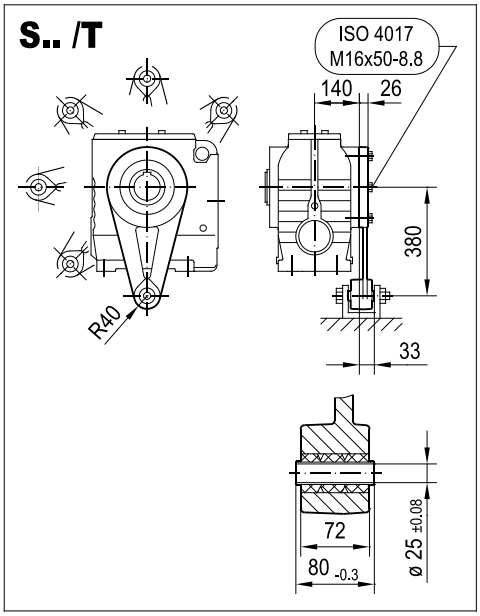
(→ 📖 7.3)	DRN													
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	633	678	680	712	708	758	789	839	857	883	949	972	1082	1056
LS	714	759	773	805	802	852	901	951	995	1020	1138	1161	1287	1261
LB	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

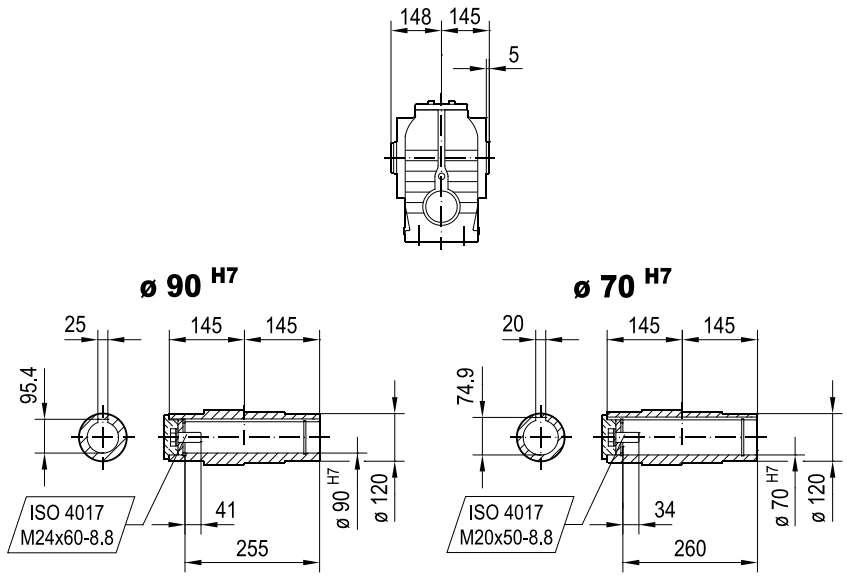
02 039 02 14

SA97/SA97p..

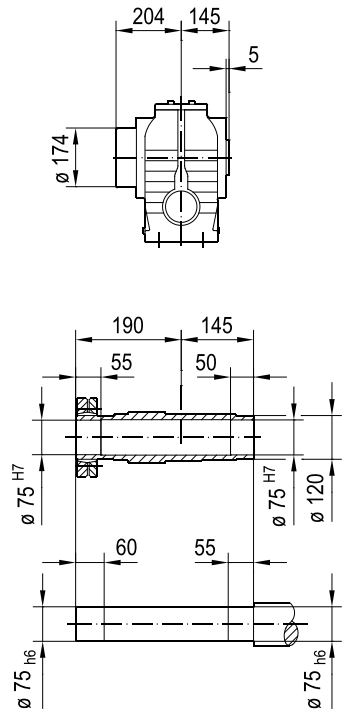




SA97/SA97p..



SH97/SH97p..

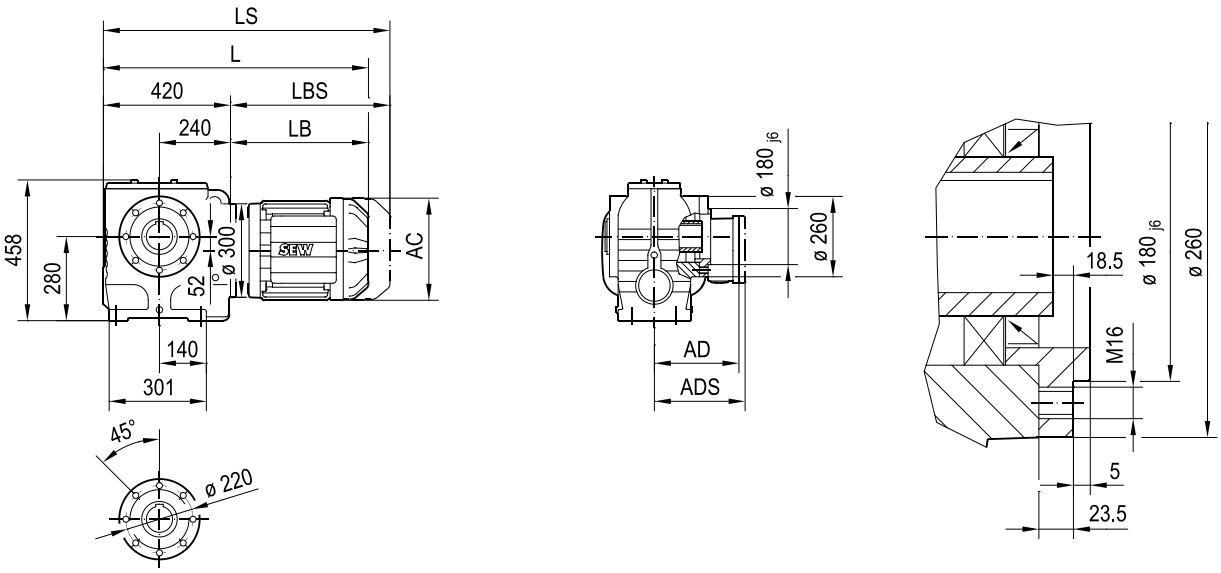


(→ 📖 7.3)	DRN													
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	633	678	680	712	708	758	789	839	857	883	949	972	1082	1056
LS	714	759	773	805	802	852	901	951	995	1020	1138	1161	1287	1261
LB	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867	841

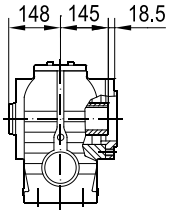
26883198/EN – 04/2022

SAZ97/SAZ97p..

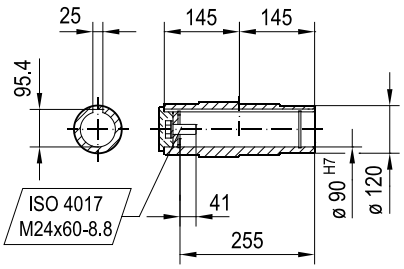
02 040 01 14



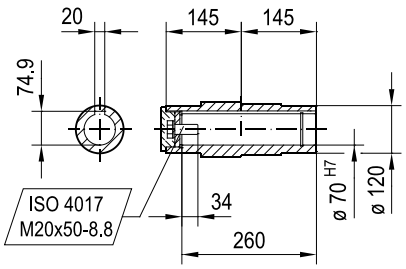
SAZ97/SAZ97p..



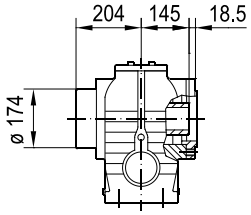
ø 90 H7

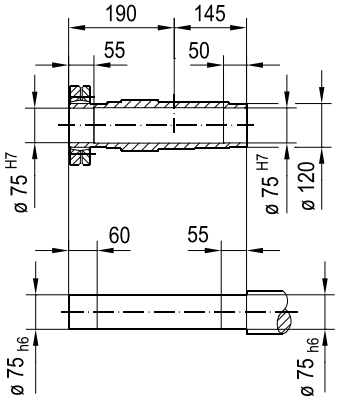


ø 70 H7



SHZ97/SHZ97p..



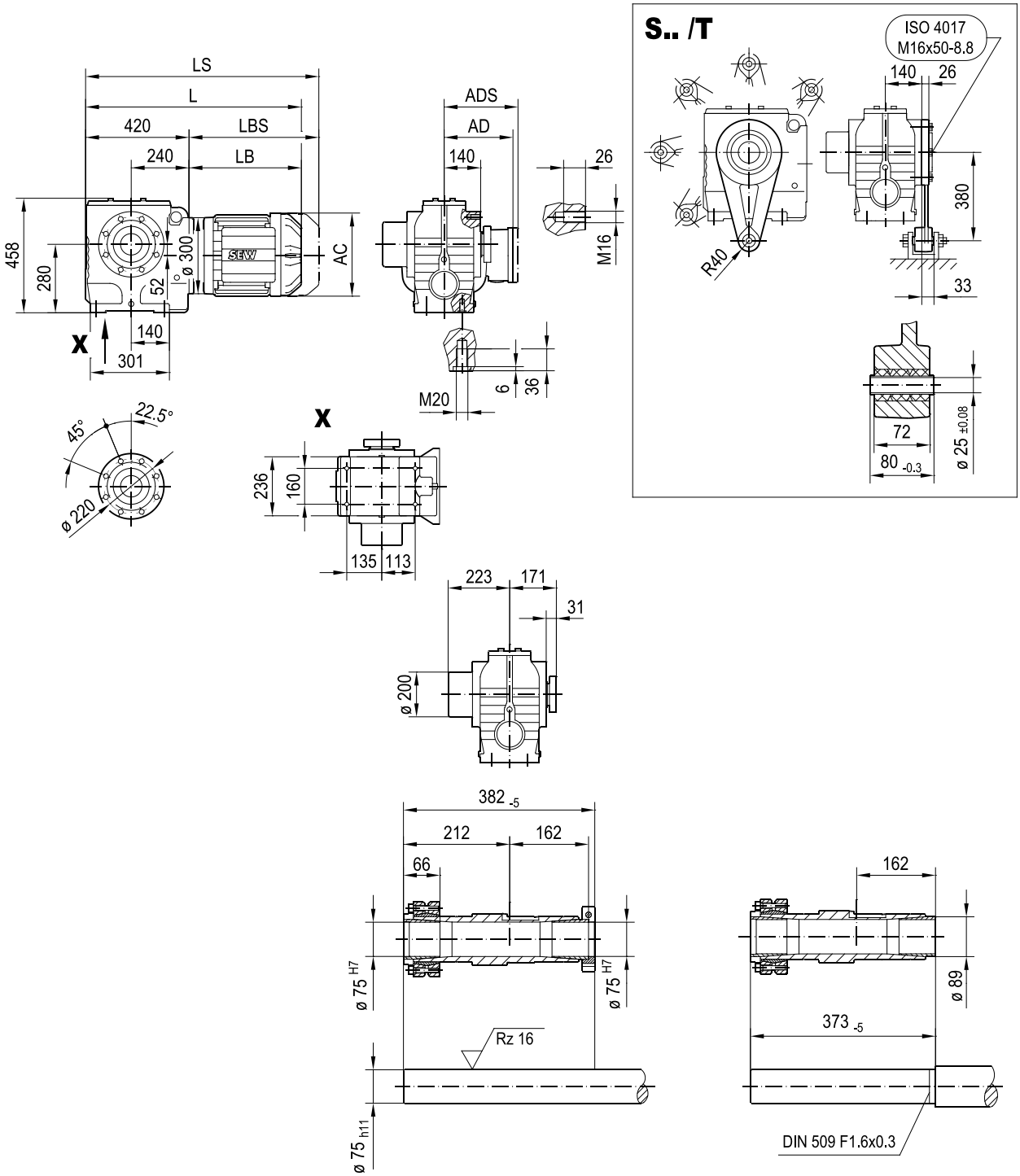


(→ 📖 7.3)	DRN													
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	633	678	680	712	708	758	789	839	857	883	949	972	1082	1056
LS	714	759	773	805	802	852	901	951	995	1020	1138	1161	1287	1261
LB	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

02 041 02 14

ST97/ST97p..

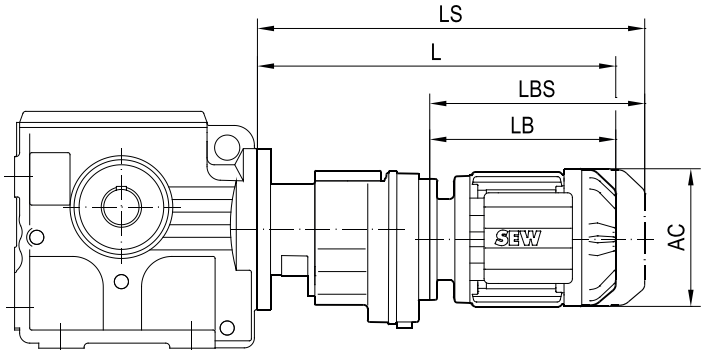


(→ 📖 7.3)	DRN													
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	156	156	179	179	197	197	221	221	261	261	314	357	394	434
AD	128	128	140	140	157	157	170	170	228	228	253	268	283	305
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283	305
L	633	678	680	712	708	758	789	839	857	883	949	972	1082	1056
LS	714	759	773	805	802	852	901	951	995	1020	1138	1161	1287	1261
LB	213	258	260	292	288	338	369	419	437	463	529	552	662	636
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867	841

26883198/EN – 04/2022

11.6 Dimension sheets S..(p)R..DRN.. in mm

02 042 01 21



(→ 📖 7.3)	AC	L	LS	LB	LBS
S..37R17 DR2S56..	109	293	329	160	196
S..37R17 DRN63MS	115	323	379	190	246
S..37R17 DRN63M	115	337	393	204	260
S..37R17 DRN71MS	139	339	406	206	273
S..47R17 DR2S56..	109	293	329	160	196
S..47R17 DRN63MS	115	323	379	190	246
S..47R17 DRN63M	115	337	393	204	260
S..47R17 DRN71MS	139	339	406	206	273
S..47R17 DRN71M	139	359	426	226	293
S..47R17 DRN80MK	156	370	451	237	318
S..57R17 DR2S56..	109	293	329	160	196
S..57R17 DRN63MS	115	323	379	190	246
S..57R17 DRN63M	115	337	393	204	260
S..57R17 DRN71MS	139	339	406	206	273
S..57R17 DRN71M	139	359	426	226	293
S..57R17 DRN80MK	156	370	451	237	318
S..57R17 DRN80M	156	416	497	283	364
S..67R37 DRN63MS	115	355	411	190	246
S..67R37 DRN63M	115	369	425	204	260
S..67R37 DRN71MS	139	371	438	206	273
S..67R37 DRN71M	139	391	458	226	293
S..67R37 DRN80MK	156	402	483	237	318
S..67R37 DRN80M	156	447	528	282	363
S..67R37 DRN90S	179	448	542	283	377
S..77R37 DRN63MS	115	347	403	190	246
S..77R37 DRN63M	115	361	417	204	260
S..77R37 DRN71MS	139	363	430	206	273
S..77R37 DRN71M	139	383	450	226	293
S..77R37 DRN80MK	156	394	475	237	318
S..77R37 DRN80M	156	439	520	282	363
S..77R37 DRN90S	179	440	534	283	377
S..77R37 DRN90L	179	472	566	315	409
S..87R57 DRN63MS	115	411	467	184	240
S..87R57 DRN63M	115	425	481	198	254
S..87R57 DRN71MS	139	427	494	199	267
S..87R57 DRN71M	139	447	514	219	287
S..87R57 DRN80MK	156	458	539	230	311
S..87R57 DRN80M	156	503	584	275	356
S..87R57 DRN90S	179	504	598	277	370
S..87R57 DRN90L	179	536	630	309	402
S..87R57 DRN100LS	197	533	626	305	399
S..87R57 DRN100L/LM	197	583	676	355	449

(→ 📖 7.3)	AC	L	LS	LB	LBS
S..97R57 DRN63MS	115	406	462	184	240
S..97R57 DRN63M	115	420	476	198	254
S..97R57 DRN71MS	139	422	489	199	267
S..97R57 DRN71M	139	442	509	219	287
S..97R57 DRN80MK	156	453	534	230	311
S..97R57 DRN80M	156	498	579	275	356
S..97R57 DRN90S	179	499	593	277	370
S..97R57 DRN90L	179	531	625	309	402
S..97R57 DRN100LS	197	528	621	305	399
S..97R57 DRN100L/LM	197	578	671	355	449
S..97R57 DRN112M	221	609	721	386	498
S..97R57 DRN132S	221	663	775	440	552

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26883198/EN – 04/2022

11.7 Technical data S..37 – 97

11.7.1 Technical data S..37

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	21	78	0.31	56	20	80	0.30	56	17	82	0.28	56
144.40		23	76	0.33	57	22	78	0.32	56	19	80	0.29	56
122.94		27	74	0.37	57	26	75	0.36	57	22	78	0.33	57
106.00		32	71	0.41	58	30	72	0.39	58	26	76	0.36	58
98.80		34	70	0.43	58	32	72	0.42	58	28	75	0.38	58
86.36		39	68	0.48	59	37	69	0.45	59	32	72	0.42	59
80.96		41	66	0.49	59	39	68	0.48	59	34	72	0.44	59
71.44		47	55	0.47	59	44	64	0.50	60	39	70	0.48	60
63.33		53	37	0.37	56	50	51	0.46	59	44	67	0.52	60
53.83		63	29	0.35	54	59	32	0.36	55	52	53	0.49	60
55.93	27/2	60	70	0.59	76	57	71	0.56	76	50	72	0.50	75
51.30		66	68	0.62	76	62	70	0.60	76	54	72	0.55	76
43.68		77	66	0.70	77	73	67	0.67	76	64	70	0.62	76
37.66		90	64	0.78	77	84	65	0.75	77	74	68	0.69	77
35.10		96	62	0.81	77	91	64	0.79	77	79	66	0.72	77
30.68		110	61	0.91	78	104	62	0.87	78	91	64	0.79	77
28.76		118	58	0.92	78	111	61	0.91	78	97	64	0.84	78
25.38		133	47	0.85	77	126	53	0.90	78	110	62	0.92	78
22.50		151	31	0.65	75	142	43	0.83	77	124	57	0.95	78
19.13		177	24	0.61	74	167	27	0.63	75	146	44	0.87	78
19.89	24/5	170	42	0.88	85	160	43	0.85	85	140	44	0.76	85
18.24		186	41	0.93	86	175	42	0.90	86	153	44	0.83	85
15.53		218	39	1.0	86	206	40	1.0	86	180	42	0.93	86
13.39		253	37	1.1	86	238	39	1.1	86	209	41	1.0	86
12.48		272	37	1.2*	86	256	38	1.2*	86	224	40	1.1	86
10.91		311	35	1.3*	86	293	36	1.3*	86	256	39	1.2*	86
10.23		332	35	1.4*	86	312	36	1.4*	86	273	38	1.3*	86
9.02		376	31	1.4*	85	354	34	1.5*	86	310	36	1.4*	86
8.00		425	20	1.0	85	400	29	1.4*	85	350	35	1.5*	86
6.80		500	16	1.0	84	470	18	1.0	85	411	29	1.5*	85
6.33	19/5	537	24	1.5*	87	505	27	1.6*	88	442	32	1.7*	88
5.38		631	20	1.5*	87	594	22	1.6*	87	520	26	1.6*	88
4.86		699	18	1.5*	87	658	19	1.5*	87	576	24	1.6*	88
3.97		856	14	1.5*	86	806	15	1.5*	87	705	19	1.6*	88

* P_{Mot_max} = 1.1 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	13	87	0.23	54	10	91	0.19	53	8.8	92	0.16	52
144.40		15	86	0.25	55	11	90	0.21	54	9.6	92	0.18	53
122.94		17	83	0.28	56	13	87	0.23	55	11	91	0.20	54
106.00		20	81	0.31	57	16	86	0.26	56	13	88	0.22	55
98.80		22	80	0.33	57	17	85	0.27	56	14	87	0.23	55
86.36		25	78	0.36	58	19	82	0.30	57	16	86	0.26	56
80.96		27	77	0.38	58	20	82	0.31	57	17	85	0.27	56
71.44		30	75	0.41	59	23	80	0.34	58	19	84	0.30	57
63.33		34	73	0.44	60	26	79	0.38	59	22	82	0.33	58
53.83		40	69	0.49	60	31	76	0.42	60	26	80	0.37	59
55.93	27/2	39	77	0.43	74	30	81	0.35	73	25	81	0.29	73
51.30		42	76	0.46	75	33	80	0.38	74	27	81	0.32	73
43.68		50	74	0.52	76	38	78	0.43	75	32	81	0.37	74
37.66		58	72	0.58	76	45	76	0.48	75	37	79	0.41	75
35.10		62	71	0.61	76	48	75	0.50	76	39	78	0.43	75
30.68		71	70	0.68	77	55	73	0.56	76	45	76	0.48	76
28.76		76	68	0.71	77	59	73	0.59	77	48	75	0.50	76
25.38		86	67	0.78	78	66	71	0.65	77	55	74	0.56	76
22.50		97	66	0.86	78	75	70	0.71	78	62	73	0.62	77
19.13		115	63	0.96	79	88	68	0.81	78	73	71	0.70	78
19.89	24/5	110	48	0.66	85	85	50	0.53	84	70	52	0.46	84
18.24		120	47	0.70	85	93	49	0.57	84	76	52	0.50	84
15.53		141	45	0.78	85	109	48	0.65	85	90	50	0.56	84
13.39		164	44	0.88	86	126	47	0.73	85	104	49	0.63	85
12.48		176	43	0.92	86	136	46	0.77	86	112	48	0.66	85
10.91		201	42	1.0	86	155	45	0.85	86	128	48	0.75	86
10.23		215	41	1.1	86	166	45	0.91	86	136	47	0.79	86
9.02		243	40	1.2*	87	188	43	0.98	86	155	46	0.87	86
8.00		275	39	1.3*	86	212	43	1.1	87	175	45	0.95	86
6.80		323	37	1.5*	86	250	41	1.2*	87	205	43	1.1	87
6.33	19/5	347	35	1.4*	88	268	35	1.1	88	221	35	0.93	87
5.38		408	34	1.6*	88	315	34	1.3*	88	260	34	1.1	88
4.86		452	32	1.7*	89	349	33	1.4*	88	288	33	1.1	88
3.97		554	26	1.7*	88	428	32	1.6*	89	352	32	1.3*	88

* P_{Mot_max} = 1.1 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	6.9	92	0.13	51	5.7	92	0.11	50	4.4	92	0.09	48
144.40		7.6	92	0.14	51	6.2	92	0.12	50	4.8	92	0.10	49
122.94		8.9	92	0.17	52	7.3	92	0.14	51	5.6	92	0.11	50
106.00		10	92	0.19	53	8.4	92	0.16	52	6.6	92	0.13	51
98.80		11	92	0.20	54	9.1	92	0.17	53	7.0	92	0.13	51
86.36		12	90	0.22	55	10	92	0.19	54	8.1	92	0.15	52
80.96		13	89	0.23	55	11	92	0.20	54	8.6	92	0.16	53
71.44		15	87	0.25	56	12	91	0.22	55	9.7	92	0.18	53
63.33		17	86	0.28	57	14	89	0.24	56	11	92	0.20	54
53.83		20	84	0.31	58	16	87	0.27	57	13	91	0.22	56
55.93	27/2	19	87	0.25	72	16	91	0.22	71	12	92	0.17	69
51.30		21	87	0.27	72	17	90	0.23	71	13	92	0.19	70
43.68		25	84	0.30	73	20	87	0.26	72	16	92	0.22	71
37.66		29	82	0.34	74	23	86	0.30	73	18	89	0.24	72
35.10		31	82	0.36	74	25	84	0.31	73	19	88	0.26	72
30.68		35	80	0.40	75	29	82	0.34	74	22	87	0.29	73
28.76		38	79	0.42	75	31	82	0.36	74	24	86	0.30	73
25.38		43	78	0.47	76	35	81	0.40	75	27	84	0.33	74
22.50		48	77	0.52	76	40	79	0.44	75	31	82	0.36	74
19.13		57	75	0.59	77	47	78	0.50	76	36	81	0.41	75
19.89	24/5	55	55	0.38	83	45	58	0.33	82	35	60	0.27	81
18.24		60	54	0.41	83	49	56	0.35	83	38	60	0.30	82
15.53		70	53	0.47	84	57	55	0.40	83	45	58	0.33	82
13.39		82	52	0.53	84	67	54	0.45	84	52	56	0.37	83
12.48		88	51	0.56	85	72	53	0.48	84	56	55	0.39	83
10.91		100	50	0.62	85	82	52	0.53	84	64	54	0.43	84
10.23		107	49	0.65	85	87	51	0.56	85	68	54	0.46	84
9.02		121	48	0.72	86	99	50	0.61	85	77	53	0.51	84
8.00		137	47	0.79	86	112	49	0.68	85	87	52	0.56	85
6.80		161	46	0.90	86	132	48	0.77	86	102	51	0.64	85
6.33	19/5	173	45	0.94	87	142	45	0.77	87	110	45	0.61	86
5.38		204	43	1.1	88	167	43	0.86	87	130	43	0.68	87
4.86		226	42	1.1	88	185	42	0.93	88	144	42	0.73	87
3.97		277	40	1.3*	88	226	40	1.1	88	176	40	0.84	88

* P_{Mot_max} = 1.1 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	3.1	92	0.07	47	1.5	92	<0.05	46	0.06	92	<0.05	46
144.40		3.4	92	0.07	47	1.7	92	<0.05	46	0.06	92	<0.05	46
122.94		4.0	92	0.08	48	2.0	92	<0.05	46	0.08	92	<0.05	46
106.00		4.7	92	0.09	49	2.3	92	<0.05	46	0.09	92	<0.05	47
98.80		5.0	92	0.10	49	2.5	92	0.05	46	0.10	92	<0.05	47
86.36		5.7	92	0.11	50	2.8	92	0.06	47	0.11	92	<0.05	47
80.96		6.1	92	0.12	50	3.0	92	0.06	47	0.12	92	<0.05	47
71.44		6.9	92	0.13	51	3.4	92	0.07	48	0.13	92	<0.05	47
63.33		7.8	92	0.15	52	3.9	92	0.08	48	0.15	92	<0.05	47
53.83		9.2	92	0.17	53	4.6	92	0.09	49	0.18	92	<0.05	47
55.93	27/2	8.9	92	0.13	68	4.4	92	0.06	67	0.17	92	<0.05	67
51.30		9.7	92	0.14	68	4.8	92	0.07	67	0.19	92	<0.05	67
43.68		11	92	0.16	69	5.7	92	0.08	67	0.22	92	<0.05	67
37.66		13	92	0.18	70	6.6	92	0.10	67	0.26	92	<0.05	67
35.10		14	92	0.20	70	7.1	92	0.10	67	0.28	92	<0.05	67
30.68		16	92	0.22	71	8.1	92	0.12	68	0.32	92	<0.05	67
28.76		17	91	0.23	71	8.6	92	0.12	68	0.34	92	<0.05	67
25.38		19	89	0.25	72	9.8	92	0.14	69	0.39	92	<0.05	67
22.50		22	87	0.28	73	11	92	0.15	69	0.44	92	<0.05	67
19.13		26	85	0.32	74	13	92	0.18	70	0.52	92	<0.05	67
19.89	24/5	25	68	0.22	80	12	72	0.12	79	0.50	72	<0.05	79
18.24		27	66	0.23	81	13	72	0.13	79	0.54	72	<0.05	79
15.53		32	63	0.26	81	16	72	0.15	79	0.64	72	<0.05	79
13.39		37	61	0.29	82	18	72	0.18	80	0.74	72	<0.05	79
12.48		40	59	0.30	82	20	72	0.19	80	0.8	72	<0.05	79
10.91		45	58	0.34	83	22	71	0.21	80	0.91	71	<0.05	79
10.23		48	57	0.35	83	24	70	0.22	81	0.97	70	<0.05	79
9.02		55	56	0.39	83	27	66	0.24	81	1.1	66	<0.05	79
8.00		62	55	0.43	84	31	63	0.25	81	1.2	63	<0.05	79
6.80		73	54	0.49	84	36	61	0.29	82	1.4	61	<0.05	79
6.33	19/5	78	45	0.44	85	39	45	0.23	83	1.5	45	<0.05	80
5.38		92	43	0.49	86	46	43	0.25	83	1.8	43	<0.05	80
4.86		102	42	0.53	86	51	42	0.27	84	2.0	42	<0.05	80
3.97		125	40	0.61	87	62	40	0.31	84	0.06	92	<0.05	80

26883198/EN – 04/2022

11.7.2 Technical data S..47

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	16	150	0.46	57	15	150	0.44	57	13	150	0.39	56
184.80		18	150	0.50	58	17	150	0.47	58	15	150	0.42	57
158.12		21	150	0.58	59	20	150	0.54	58	17	150	0.48	58
137.05		24	150	0.65	60	23	150	0.62	59	20	150	0.55	59
128.10		26	150	0.69	60	24	150	0.66	60	21	150	0.58	59
110.73		30	138	0.73	60	28	148	0.74	61	25	150	0.66	60
94.08		36	113	0.71	60	34	123	0.73	60	29	146	0.75	61
84.00		40	95	0.68	59	38	107	0.71	60	33	130	0.75	61
71.75		47	58	0.52	56	44	82	0.65	59	39	107	0.72	61
67.20		50	53	0.51	55	47	68	0.59	58	41	99	0.72	60
56.61		60	40	0.48	53	56	46	0.50	54	49	75	0.66	59
69.39	29/2	48	140	0.94	77	46	140	0.88	77	40	140	0.78	76
63.80		53	140	1.0	77	50	140	0.96	77	43	140	0.84	76
54.59		62	140	1.2	78	58	140	1.1	78	51	140	0.98	77
47.32		71	139	1.3	78	67	140	1.3	78	59	140	1.1	78
44.22		76	129	1.3	78	72	139	1.3	78	63	140	1.2	78
38.23		88	112	1.3	78	83	120	1.3	79	73	139	1.4	79
32.48		104	91	1.3	78	98	100	1.3	78	86	117	1.3	79
29.00		117	76	1.2	77	110	86	1.3	78	96	104	1.3	79
24.77		137	47	0.91	75	129	66	1.2	77	113	87	1.3	78
23.20		146	42	0.87	74	137	54	1.0	76	120	79	1.3	78
19.54		174	32	0.81	72	163	37	0.86	74	143	59	1.1	77
20.33	27/5	167	100	2.0*	86	157	100	1.9*	86	137	100	1.7*	86
17.62		192	97	2.3*	86	181	100	2.2*	86	158	100	1.9*	86
16.47		206	90	2.3*	86	194	97	2.3*	86	170	100	2.1*	86
14.24		238	78	2.3*	86	224	83	2.3*	86	196	97	2.3*	86
12.10		280	63	2.2*	86	264	69	2.2*	86	231	82	2.3*	86
10.80		314	53	2.1*	85	296	60	2.2*	85	259	72	2.3*	86
9.23		368	32	1.5	85	346	45	1.9*	85	303	60	2.2*	86
8.64		393	29	1.4	84	370	37	1.7*	85	324	55	2.2*	86
7.28		467	22	1.3	83	439	25	1.4	84	384	41	1.9*	85
6.83	20/5	497	34	2.0*	87	468	37	2.1*	88	409	45	2.2*	88
6.4		531	31	2.0*	87	500	34	2.0*	87	437	42	2.2*	88
5.39		630	24	1.8*	86	593	27	1.9*	87	519	34	2.1*	88
4.76		714	20	1.8*	85	672	23	1.9*	86	588	29	2.0*	87
4		850	16	1.7*	85	800	18	1.8*	85	700	23	1.9*	87

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	10	167	0.35	55	8.4	170	0.28	54	6.9	170	0.23	53
184.80		11	167	0.37	56	9.1	168	0.30	55	7.5	170	0.25	53
158.12		13	167	0.43	57	10	168	0.34	56	8.8	170	0.29	54
137.05		16	165	0.48	58	12	167	0.38	57	10	168	0.32	55
128.10		17	165	0.51	58	13	167	0.41	57	10	168	0.34	56
110.73		19	165	0.58	59	15	167	0.46	58	12	168	0.39	57
94.08		23	165	0.67	60	18	167	0.53	59	14	168	0.45	58
84.00		26	162	0.73	61	20	167	0.59	60	16	167	0.50	59
71.75		30	145	0.76	62	23	167	0.68	61	19	167	0.57	60
67.20		32	137	0.76	62	25	164	0.71	61	20	167	0.60	60
56.61		38	115	0.76	62	30	152	0.77	62	24	165	0.69	62
69.39	29/2	31	155	0.68	75	24	155	0.54	74	20	155	0.45	73
63.80		34	155	0.74	76	26	155	0.58	75	21	155	0.48	74
54.59		40	155	0.86	77	31	155	0.67	75	25	155	0.56	75
47.32		46	155	0.98	77	35	155	0.77	76	29	155	0.64	75
44.22		49	155	1.0	78	38	155	0.82	77	31	155	0.68	76
38.23		57	154	1.2	78	44	155	0.93	77	36	155	0.78	77
32.48		67	146	1.3	79	52	155	1.1	78	43	155	0.91	77
29.00		75	137	1.4	79	58	154	1.2	79	48	155	1.0	78
24.77		88	117	1.4	79	68	145	1.3	79	56	155	1.2	79
23.20		94	111	1.4	79	73	142	1.4	79	60	152	1.2	79
19.54		112	92	1.4	79	87	123	1.4	80	71	144	1.4	79
20.33	27/5	108	109	1.4	86	83	110	1.1	86	68	110	0.93	85
17.62		124	108	1.6*	87	96	109	1.3	86	79	110	1.1	86
16.47		133	108	1.7*	87	103	109	1.4	86	85	110	1.1	86
14.24		154	108	2.0*	87	119	109	1.6*	87	98	110	1.3	86
12.10		181	105	2.3*	87	140	109	1.8*	87	115	109	1.5	87
10.80		203	95	2.3*	87	157	108	2.1*	87	129	109	1.7*	87
9.23		238	82	2.4*	87	184	105	2.3*	87	151	109	2.0*	87
8.64		254	77	2.4*	86	196	100	2.4*	87	162	109	2.1*	87
7.28		302	64	2.3*	86	233	86	2.4*	87	192	103	2.4*	87
6.83	20/5	322	62	2.4*	89	248	78	2.3*	89	204	78	1.9*	89
6.40		343	58	2.3*	89	265	76	2.4*	89	218	76	2.0*	89
5.39		408	48	2.3*	89	315	65	2.4*	89	259	74	2.3*	89
4.76		462	42	2.3*	89	357	58	2.4*	89	294	72	2.5*	90
4.00		550	34	2.2*	88	425	48	2.4*	89	350	61	2.5*	90

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	5.4	176	0.20	52	4.4	180	0.17	50	3.4	185	0.14	49
184.80		5.9	174	0.21	52	4.8	178	0.18	51	3.7	183	0.15	50
158.12		6.9	172	0.24	53	5.6	176	0.20	52	4.4	180	0.17	51
137.05		8.0	171	0.27	54	6.5	172	0.22	53	5.1	178	0.19	51
128.10		8.5	171	0.28	55	7.0	172	0.24	53	5.4	176	0.19	52
110.73		9.9	169	0.32	56	8.1	171	0.27	54	6.3	174	0.22	53
94.08		11	169	0.37	57	9.5	171	0.31	55	7.4	172	0.25	54
84.00		13	169	0.40	58	10	169	0.34	56	8.3	171	0.27	55
71.75		15	169	0.46	59	12	169	0.39	57	9.7	171	0.31	56
67.20		16	169	0.49	59	13	169	0.41	58	10	171	0.33	56
56.61		19	169	0.57	60	15	169	0.48	59	12	171	0.38	58
69.39	29/2	15	173	0.40	72	12	176	0.33	71	10	180	0.27	70
63.80		17	173	0.43	73	14	175	0.36	72	10	180	0.29	71
54.59		20	171	0.49	74	16	173	0.41	73	12	176	0.33	72
47.32		23	171	0.56	74	19	173	0.47	74	14	175	0.38	72
44.22		24	171	0.60	75	20	171	0.49	74	15	175	0.40	73
38.23		28	169	0.67	76	23	171	0.56	75	18	173	0.45	73
32.48		33	169	0.78	76	27	171	0.66	76	21	171	0.52	74
29.00		37	170	0.88	77	31	171	0.73	76	24	171	0.58	75
24.77		44	169	1.0	78	36	170	0.84	77	28	171	0.67	76
23.20		47	164	1.0	78	38	170	0.89	77	30	171	0.71	76
19.54		56	154	1.2	79	46	165	1.0	78	35	170	0.83	77
20.33	27/5	54	112	0.75	84	44	114	0.63	84	34	116	0.51	83
17.62		62	112	0.86	85	51	113	0.72	84	39	115	0.57	83
16.47		66	112	0.92	85	54	113	0.77	84	42	114	0.61	84
14.24		77	111	1.1	86	63	112	0.87	85	49	113	0.69	84
12.10		90	111	1.2	86	74	111	1.0	86	57	113	0.81	85
10.80		101	111	1.4	86	83	111	1.1	86	64	112	0.89	85
9.23		119	110	1.6*	87	97	111	1.3	86	75	112	1.0	86
8.64		127	109	1.7*	87	104	111	1.4	87	81	112	1.1	86
7.28		151	109	2.0*	87	123	111	1.6*	87	96	111	1.3	87
6.83	20/5	161	95	1.8*	89	131	95	1.5*	88	102	95	1.2	88
6.40		171	93	1.9*	89	140	93	1.6*	88	109	93	1.2	88
5.39		204	89	2.1*	89	166	89	1.8*	89	129	89	1.4	88
4.76		231	87	2.4*	89	189	87	1.9*	89	147	87	1.5	89
4.00		275	78	2.5*	90	225	84	2.2*	89	175	84	1.7*	89

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	2.4	185	0.10	47	1.2	185	0.05	47	0.04	185	<0.05	47
184.80		2.7	185	0.11	48	1.3	185	0.06	47	0.05	185	<0.05	47
158.12		3.1	185	0.13	49	1.5	185	0.07	47	0.06	185	<0.05	47
137.05		3.6	185	0.14	50	1.8	185	0.08	47	0.07	185	<0.05	47
128.10		3.9	183	0.15	50	1.9	185	0.08	47	0.07	185	<0.05	47
110.73		4.5	181	0.17	51	2.2	185	0.09	47	0.09	185	<0.05	48
94.08		5.3	178	0.19	52	2.6	185	0.11	48	0.10	185	<0.05	48
84.00		5.9	176	0.21	53	2.9	185	0.12	49	0.11	185	<0.05	48
71.75		6.9	174	0.24	54	3.4	185	0.14	50	0.13	185	<0.05	48
67.20		7.4	172	0.25	54	3.7	185	0.14	50	0.14	185	<0.05	48
56.61		8.8	172	0.29	56	4.4	181	0.16	51	0.17	181	<0.05	48
69.39	29/2	7.2	185	0.20	69	3.6	185	0.10	67	0.14	185	<0.05	67
63.80		7.8	185	0.22	69	3.9	185	0.11	67	0.15	185	<0.05	67
54.59		9.1	185	0.25	70	4.5	185	0.13	67	0.18	185	<0.05	67
47.32		10	181	0.28	71	5.2	185	0.15	68	0.21	185	<0.05	68
44.22		11	180	0.30	71	5.6	185	0.16	68	0.22	185	<0.05	68
38.23		13	178	0.34	72	6.5	185	0.18	69	0.26	185	<0.05	68
32.48		15	174	0.39	73	7.6	185	0.22	69	0.30	185	<0.05	68
29.00		17	174	0.43	73	8.6	185	0.24	70	0.34	185	<0.05	68
24.77		20	172	0.49	74	10	183	0.27	71	0.40	183	<0.05	68
23.20		21	172	0.52	75	10	181	0.29	71	0.43	181	<0.05	68
19.54		25	172	0.61	76	12	178	0.33	72	0.51	178	<0.05	68
20.33	27/5	24	124	0.39	82	12	157	0.25	80	0.49	157	<0.05	79
17.62		28	120	0.43	82	14	149	0.28	80	0.56	149	<0.05	80
16.47		30	118	0.46	82	15	145	0.29	80	0.60	145	<0.05	80
14.24		35	116	0.51	83	17	138	0.31	81	0.70	138	<0.05	80
12.10		41	115	0.60	84	20	131	0.35	81	0.82	131	<0.05	80
10.80		46	114	0.66	84	23	127	0.38	82	0.92	127	<0.05	80
9.23		54	113	0.76	85	27	121	0.42	82	1.0	121	<0.05	80
8.64		57	113	0.81	85	28	120	0.44	83	1.1	120	<0.05	80
7.28		68	112	0.94	86	34	117	0.51	83	1.3	117	<0.05	80
6.83	20/5	73	95	0.84	87	36	95	0.43	84	1.4	95	<0.05	81
6.40		78	93	0.88	87	39	93	0.45	85	1.5	93	<0.05	81
5.39		92	89	0.99	87	46	89	0.51	85	1.8	89	<0.05	81
4.76		105	87	1.1	88	52	87	0.56	86	2.1	87	<0.05	81
4.00		125	84	1.2	88	62	84	0.64	86	2.5	84	<0.05	81

26883198/EN – 04/2022

11.7.3 Technical data S..57

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	16	270	0.78	61	15	270	0.74	61	13	270	0.66	60
184.80		18	270	0.84	62	17	270	0.79	62	15	270	0.70	61
158.12		21	270	0.97	63	20	270	0.92	63	17	270	0.81	62
137.05		24	255	1.0	64	23	270	1.0	63	20	270	0.92	63
128.10		26	245	1.1	64	24	255	1.0	64	21	270	0.98	63
110.73		30	215	1.1	64	28	230	1.1	64	25	255	1.1	64
94.08		36	184	1.1	64	34	196	1.1	64	29	225	1.1	64
84.00		40	165	1.1	64	38	175	1.1	64	33	200	1.1	64
71.75		47	139	1.1	64	44	149	1.1	64	39	174	1.1	65
67.20		50	128	1.1	64	47	139	1.1	64	41	164	1.1	65
56.61		60	103	1.0	63	56	114	1.1	64	49	138	1.1	65
69.39	29/2	48	220	1.4	79	46	220	1.4	79	40	220	1.2	78
63.80		53	220	1.5	79	50	220	1.5	79	43	220	1.3	79
54.59		62	220	1.8	80	58	220	1.7	80	51	220	1.5	79
47.32		71	210	2.0	80	67	220	1.9	80	59	220	1.7	80
44.22		76	197	2.0	80	72	205	1.9	80	63	220	1.8	80
38.23		88	174	2.0	81	83	184	2.0	81	73	205	2.0	81
32.48		104	148	2.0	81	98	157	2.0	81	86	180	2.0	81
29.00		117	131	2.0	81	110	141	2.0	81	96	162	2.0	81
24.77		137	111	2.0	80	129	120	2.0	81	113	139	2.0	81
23.20		146	102	2.0	80	137	111	2.0	81	120	131	2.0	81
19.54		174	81	1.9	80	163	90	1.9	80	143	109	2.0	81
20.33	27/5	167	160	3.2*	88	157	160	3.0	88	137	160	2.6	88
17.62		192	140	3.2*	88	181	149	3.2*	88	158	160	3.0	88
16.47		206	132	3.2*	88	194	140	3.2*	88	170	158	3.2*	88
14.24		238	116	3.3*	88	224	123	3.3*	88	196	139	3.2*	88
12.10		280	99	3.3*	88	264	105	3.3*	88	231	121	3.3*	88
10.80		314	88	3.3*	88	296	94	3.3*	88	259	108	3.3*	88
9.23		368	73	3.2*	88	346	79	3.3*	88	303	93	3.3*	88
8.64		393	68	3.2*	88	370	74	3.3*	88	324	87	3.3*	88
7.28		467	54	3.0	88	439	60	3.1*	88	384	72	3.3*	88
6.8	20/5	497	54	3.2*	89	468	58	3.2*	89	409	69	3.3*	90
6.4		531	50	3.1*	89	500	54	3.2*	89	437	64	3.3*	89
5.4		630	41	3.1*	89	593	44	3.1*	89	519	53	3.2*	89
4.8		714	35	3.0	88	672	38	3.0	89	588	46	3.2*	89
4.0		850	28	2.8	88	800	31	2.9	88	700	38	3.1*	89

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	10	295	0.58	59	8.4	295	0.46	57	6.9	295	0.39	56
184.80		11	295	0.62	60	9.1	295	0.49	58	7.5	295	0.41	56
158.12		13	295	0.71	61	10	295	0.56	59	8.8	295	0.47	58
137.05		16	295	0.80	62	12	295	0.64	60	10	295	0.54	59
128.10		17	295	0.85	62	13	295	0.68	61	10	295	0.57	59
110.73		19	290	0.96	63	15	295	0.77	62	12	295	0.65	60
94.08		23	275	1.1	64	18	300	0.91	63	14	295	0.75	62
84.00		26	250	1.1	64	20	285	0.95	63	16	295	0.83	62
71.75		30	220	1.1	65	23	275	1.1	64	19	290	0.94	63
67.20		32	210	1.1	65	25	260	1.1	64	20	285	0.98	64
56.61		38	179	1.1	65	30	225	1.1	65	24	265	1.1	65
69.39	29/2	31	245	1.1	77	24	245	0.83	76	20	245	0.69	75
63.80		34	245	1.1	78	26	245	0.89	77	21	245	0.74	76
54.59		40	245	1.3	79	31	245	1.0	78	25	245	0.86	77
47.32		46	245	1.5	79	35	245	1.2	78	29	245	0.98	77
44.22		49	245	1.6	80	38	245	1.3	79	31	245	1.0	78
38.23		57	245	1.8	80	44	245	1.4	79	36	245	1.2	78
32.48		67	225	2.0	81	52	245	1.7	80	43	245	1.4	79
29.00		75	200	2.0	81	58	245	1.9	80	48	245	1.6	80
24.77		88	177	2.0	81	68	220	2.0	81	56	245	1.8	80
23.20		94	167	2.0	81	73	210	2.0	81	60	245	1.9	81
19.54		112	143	2.1	81	87	183	2.1	81	71	215	2.0	81
20.33	27/5	108	168	2.2	87	83	168	1.7	87	68	168	1.4	86
17.62		124	168	2.5	88	96	168	2.0	87	79	168	1.6	86
16.47		133	169	2.7	88	103	168	2.1	87	85	168	1.7	87
14.24		154	169	3.1*	88	119	169	2.4	88	98	169	2.0	87
12.10		181	150	3.2*	88	140	169	2.8	88	115	169	2.3	88
10.80		203	136	3.3*	88	157	169	3.2*	88	129	169	2.6	88
9.23		238	119	3.4*	88	184	149	3.3*	88	151	169	3.0	88
8.64		254	112	3.4*	89	196	141	3.3*	89	162	166	3.2*	88
7.28		302	96	3.4*	89	233	122	3.4*	89	192	146	3.3*	89
6.8	20/5	322	91	3.4*	90	248	100	2.9	90	204	100	2.4	89
6.4		343	85	3.4*	90	265	98	3.0	90	218	98	2.5	89
5.4		408	72	3.4*	90	315	95	3.5*	90	259	95	2.9	90
4.8		462	63	3.4*	90	357	84	3.5*	90	294	93	3.2*	90
4.0		550	53	3.4*	90	425	71	3.5*	90	350	88	3.6*	90

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	5.4	295	0.31	54	4.4	300	0.27	53	3.4	310	0.22	51
184.80		5.9	295	0.34	55	4.8	300	0.29	54	3.7	305	0.23	52
158.12		6.9	295	0.38	56	5.6	295	0.32	55	4.4	300	0.26	53
137.05		8.0	295	0.43	57	6.5	295	0.36	56	5.1	300	0.29	54
128.10		8.5	295	0.46	58	7.0	295	0.38	57	5.4	295	0.31	55
110.73		9.9	295	0.52	59	8.1	295	0.44	58	6.3	295	0.35	56
94.08		11	295	0.60	60	9.5	295	0.50	59	7.4	295	0.40	57
84.00		13	295	0.67	61	10	295	0.56	60	8.3	295	0.44	58
71.75		15	295	0.77	62	12	295	0.64	61	9.7	295	0.51	59
67.20		16	300	0.82	62	13	295	0.68	61	10	295	0.54	60
56.61		19	290	0.93	64	15	300	0.80	62	12	295	0.63	61
69.39	29/2	15	270	0.61	74	12	270	0.50	73	10	270	0.40	72
63.80		17	270	0.65	75	14	270	0.54	74	10	270	0.43	72
54.59		20	270	0.75	76	16	270	0.62	75	12	270	0.50	73
47.32		23	270	0.86	76	19	270	0.71	75	14	270	0.56	74
44.22		24	270	0.92	77	20	270	0.76	76	15	270	0.60	75
38.23		28	270	1.0	78	23	270	0.87	77	18	270	0.69	75
32.48		33	270	1.2	78	27	270	1.0	77	21	270	0.80	76
29.00		37	270	1.4	79	31	270	1.1	78	24	270	0.89	77
24.77		44	270	1.6	80	36	270	1.3	79	28	270	1.0	78
23.20		47	270	1.7	80	38	270	1.4	79	30	270	1.1	78
19.54		56	250	1.8	81	46	270	1.6	80	35	270	1.3	79
20.33	27/5	54	168	1.1	85	44	170	0.93	84	34	172	0.74	84
17.62		62	169	1.3	86	51	169	1.1	85	39	170	0.84	84
16.47		66	168	1.4	86	54	168	1.1	85	42	170	0.90	84
14.24		77	168	1.6	86	63	168	1.3	86	49	170	1.0	85
12.10		90	169	1.9	87	74	169	1.5	86	57	169	1.2	86
10.80		101	169	2.1	87	83	169	1.7	87	64	169	1.3	86
9.23		119	170	2.4	88	97	168	2.0	87	75	168	1.5	87
8.64		127	170	2.6	88	104	169	2.1	87	81	168	1.6	87
7.28		151	170	3.0	88	123	170	2.5	88	96	170	2.0	87
6.8	20/5	161	120	2.3	89	131	120	1.9	89	102	120	1.5	88
6.4		171	117	2.4	89	140	117	1.9	89	109	117	1.5	88
5.4		204	111	2.6	90	166	111	2.2	89	129	111	1.7	89
4.8		231	108	2.9	90	189	108	2.4	90	147	108	1.9	89
4.0		275	103	3.3*	90	225	103	2.7	90	175	103	2.1	89

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	2.4	330	0.17	50	1.2	330	0.09	48	0.04	330	<0.05	48
184.80		2.7	330	0.19	50	1.3	330	0.10	48	0.05	330	<0.05	48
158.12		3.1	315	0.20	51	1.5	330	0.11	48	0.06	330	<0.05	48
137.05		3.6	310	0.23	52	1.8	330	0.13	49	0.07	330	<0.05	48
128.10		3.9	305	0.24	53	1.9	330	0.14	49	0.07	330	<0.05	49
110.73		4.5	300	0.26	54	2.2	330	0.16	50	0.09	330	<0.05	49
94.08		5.3	300	0.30	55	2.6	330	0.18	51	0.10	330	<0.05	49
84.00		5.9	295	0.33	56	2.9	325	0.20	51	0.11	325	<0.05	49
71.75		6.9	295	0.38	57	3.4	310	0.22	52	0.13	310	<0.05	49
67.20		7.4	295	0.40	57	3.7	310	0.23	53	0.14	310	<0.05	49
56.61		8.8	295	0.47	59	4.4	300	0.26	54	0.17	300	<0.05	49
69.39	29/2	7.2	300	0.32	70	3.6	300	0.17	68	0.14	300	<0.05	68
63.80		7.8	300	0.35	71	3.9	300	0.18	68	0.15	300	<0.05	68
54.59		9.1	300	0.40	72	4.5	300	0.21	68	0.18	300	<0.05	68
47.32		10	300	0.46	73	5.2	300	0.24	69	0.21	300	<0.05	68
44.22		11	300	0.49	73	5.6	300	0.26	69	0.22	300	<0.05	68
38.23		13	295	0.55	74	6.5	300	0.29	70	0.26	300	<0.05	68
32.48		15	295	0.64	75	7.6	300	0.34	71	0.30	300	<0.05	68
29.00		17	295	0.71	75	8.6	300	0.38	72	0.34	300	<0.05	68
24.77		20	295	0.82	76	10	300	0.44	73	0.40	300	<0.05	68
23.20		21	295	0.87	76	10	300	0.46	73	0.43	300	<0.05	68
19.54		25	295	1.0	77	12	295	0.54	74	0.51	295	<0.05	68
20.33	27/5	24	181	0.57	82	12	215	0.35	80	0.49	215	<0.05	79
17.62		28	175	0.63	83	14	210	0.39	80	0.56	210	<0.05	79
16.47		30	174	0.66	83	15	205	0.40	81	0.60	205	<0.05	79
14.24		35	172	0.75	84	17	198	0.45	81	0.70	198	<0.05	79
12.10		41	170	0.87	84	20	188	0.50	82	0.82	188	<0.05	79
10.80		46	170	0.97	85	23	184	0.54	82	0.92	184	<0.05	79
9.23		54	170	1.1	85	27	177	0.61	83	1.0	177	<0.05	79
8.64		57	170	1.2	86	28	175	0.64	83	1.1	175	<0.05	79
7.28		68	170	1.4	86	34	172	0.74	84	1.3	172	<0.05	79
6.8	20/5	73	120	1.1	87	36	120	0.54	85	1.4	120	<0.05	81
6.4		78	117	1.1	87	39	117	0.56	85	1.5	117	<0.05	81
5.4		92	111	1.2	88	46	111	0.63	86	1.8	111	<0.05	81
4.8		105	108	1.3	88	52	108	0.69	86	2.1	108	<0.05	81
4.0		125	103	1.5	89	62	103	0.78	87	2.5	103	<0.05	81

26883198/EN – 04/2022

11.7.4 Technical data S..67

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	15	465	1.2	63	14	465	1.2	62	12	465	1.0	62
190.11		17	465	1.4	63	16	465	1.3	63	14	465	1.2	62
180.60		18	465	1.4	63	17	465	1.4	63	15	465	1.2	63
158.45		21	465	1.6	64	20	465	1.5	64	17	465	1.4	63
134.40		25	465	1.9	65	23	465	1.8	65	20	465	1.6	64
121.33		28	455	2.0	65	26	465	2.0	65	23	465	1.7	65
106.75		31	405	2.1	65	29	430	2.1	66	26	465	2.0	65
100.80		33	380	2.1	65	31	410	2.1	66	27	465	2.1	66
85.83		39	320	2.0	65	37	345	2.1	65	32	400	2.1	66
78.00		43	285	2.0	65	41	310	2.0	65	35	365	2.1	66
67.57		50	235	1.9	64	47	260	2.0	65	41	315	2.1	66
58.80		57	184	1.8	62	54	215	1.9	64	47	270	2.1	65
75.06	29/2	45	435	2.6	80	42	435	2.4	80	37	435	2.1	79
65.63		51	435	2.9	80	48	435	2.8	80	42	435	2.4	80
62.35		54	435	3.1	81	51	435	2.9	80	44	435	2.6	80
54.70		62	435	3.5	81	58	435	3.3	81	51	435	2.9	81
46.40		73	395	3.7	81	68	415	3.7	81	60	435	3.4	81
41.89		81	355	3.7	81	76	380	3.7	81	66	430	3.7	81
36.85		92	310	3.7	81	86	335	3.8	81	75	380	3.7	81
34.80		97	295	3.7	81	91	315	3.7	81	80	365	3.8	81
29.63		114	250	3.7	81	107	270	3.8	81	94	310	3.8	81
26.93		126	220	3.6	80	118	240	3.7	81	103	280	3.7	81
23.33		145	182	3.5	80	137	200	3.6	80	120	245	3.8	81
20.30		167	141	3.1	79	157	164	3.4	80	137	205	3.7	81
24.44	27/5	139	315	5.2	89	130	315	4.9	89	114	315	4.3	88
23.22		146	315	5.4	89	137	315	5.1	89	120	315	4.5	89
20.37		166	315	6.2*	89	157	315	5.8*	89	137	315	5.1	89
17.28		196	270	6.3*	89	185	290	6.3*	89	162	315	6.0*	89
15.60		217	245	6.3*	89	205	260	6.3*	89	179	295	6.2*	89
13.73		247	215	6.3*	89	233	230	6.3*	89	203	265	6.4*	89
12.96		262	200	6.2*	89	246	215	6.3*	89	216	250	6.4*	89
11.03		308	169	6.2*	88	290	183	6.3*	89	253	215	6.4*	89
10.03		338	151	6.1*	88	319	164	6.2*	88	279	194	6.4*	89
8.69		391	124	5.8*	88	368	137	6.0*	88	322	166	6.3*	89
7.56		449	95	5.1	87	423	112	5.7*	88	370	141	6.2*	88

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	10	520	0.91	61	7.8	520	0.72	59	6.4	520	0.60	58
190.11		11	520	1.0	62	8.9	520	0.81	60	7.3	520	0.68	59
180.60		12	520	1.1	62	9.4	520	0.85	61	7.7	520	0.71	59
158.45		13	520	1.2	63	10	520	0.95	61	8.8	520	0.80	60
134.40		16	520	1.4	64	12	520	1.1	62	10	520	0.93	61
121.33		18	520	1.5	64	14	520	1.2	63	11	520	1.0	62
106.75		20	520	1.7	65	15	520	1.4	64	13	520	1.1	63
100.80		21	510	1.8	65	16	520	1.4	64	13	520	1.2	63
85.83		25	490	2.0	66	19	520	1.7	65	16	520	1.4	64
78.00		28	465	2.1	66	21	510	1.8	66	17	520	1.5	65
67.57		32	410	2.1	67	25	495	2.0	66	20	520	1.7	66
58.80		37	360	2.1	67	28	460	2.1	67	23	500	1.9	66
75.06	29/2	29	480	1.9	79	22	480	1.5	78	18	480	1.2	77
65.63		33	480	2.1	79	25	480	1.7	78	21	480	1.4	78
62.35		35	480	2.2	80	27	480	1.7	79	22	480	1.5	78
54.70		40	480	2.5	80	31	480	2.0	79	25	480	1.6	78
46.40		47	480	3.0	81	36	480	2.3	80	30	480	1.9	79
41.89		52	480	3.3	81	40	480	2.5	80	33	480	2.1	80
36.85		59	475	3.6	81	46	480	2.9	81	37	480	2.4	80
34.80		63	450	3.7	82	48	480	3.0	81	40	480	2.5	80
29.63		74	395	3.8	82	57	480	3.5	82	47	480	2.9	81
26.93		81	360	3.8	82	63	455	3.7	82	51	480	3.2	81
23.33		94	320	3.9	82	72	405	3.8	82	60	480	3.7	82
20.30		108	280	3.9	82	83	360	3.8	82	68	425	3.7	82
24.44	27/5	90	340	3.6	88	69	340	2.8	87	57	340	2.3	87
23.22		94	340	3.8	88	73	340	3.0	88	60	340	2.5	87
20.37		108	340	4.3	88	83	340	3.4	88	68	340	2.8	87
17.28		127	340	5.1	89	98	340	4.0	88	81	340	3.3	88
15.60		141	340	5.6*	89	108	340	4.4	89	89	340	3.6	88
13.73		160	330	6.2*	89	123	340	5.0	89	101	340	4.1	89
12.96		169	315	6.3*	89	131	340	5.2	89	108	340	4.3	89
11.03		199	275	6.4*	89	154	340	6.2*	89	126	340	5.1	89
10.03		219	250	6.4*	89	169	315	6.3*	89	139	340	5.6*	89
8.69		253	220	6.6*	89	195	280	6.4*	89	161	335	6.3*	89
7.56		291	192	6.6*	89	224	250	6.6*	89	185	295	6.4*	89

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	5.0	555	0.52	57	4.1	560	0.44	56	3.2	570	0.35	54
190.11		5.7	555	0.58	58	4.7	560	0.49	57	3.6	565	0.40	55
180.60		6.0	555	0.61	58	4.9	555	0.51	57	3.8	565	0.41	55
158.45		6.9	550	0.68	59	5.6	555	0.57	58	4.4	560	0.46	56
134.40		8.1	550	0.78	60	6.6	550	0.65	59	5.2	555	0.53	57
121.33		9.0	550	0.86	61	7.4	550	0.72	60	5.7	555	0.58	58
106.75		10	550	0.96	62	8.4	550	0.80	61	6.5	555	0.65	59
100.80		10	550	1.0	62	8.9	550	0.84	61	6.9	555	0.68	59
85.83		12	550	1.2	63	10	550	0.97	62	8.1	550	0.78	61
78.00		14	550	1.3	64	11	550	1.1	63	8.9	550	0.84	61
67.57		16	550	1.4	65	13	550	1.2	64	10	550	0.96	62
58.80		18	530	1.6	66	15	550	1.4	65	11	550	1.1	63
75.06	29/2	14	525	1.1	76	11	525	0.88	75	9.3	525	0.69	74
65.63		16	525	1.2	77	13	525	1.00	76	10	525	0.79	75
62.35		17	525	1.3	77	14	525	1.0	76	11	525	0.83	75
54.70		20	525	1.4	78	16	525	1.2	77	12	525	0.93	75
46.40		23	525	1.7	78	19	525	1.4	78	15	525	1.1	76
41.89		26	525	1.8	79	21	525	1.5	78	16	525	1.2	77
36.85		29	525	2.1	79	24	525	1.7	79	18	525	1.3	78
34.80		31	525	2.2	80	25	525	1.8	79	20	525	1.4	78
29.63		37	525	2.5	80	30	525	2.1	80	23	525	1.7	79
26.93		40	525	2.8	81	33	525	2.3	80	25	525	1.8	79
23.33		47	525	3.2	81	38	525	2.6	81	30	525	2.1	80
20.30		54	520	3.6	82	44	525	3.0	81	34	525	2.4	80
24.44	27/5	45	355	1.9	86	36	360	1.6	86	28	365	1.3	85
23.22		47	355	2.0	86	38	360	1.7	86	30	365	1.4	85
20.37		54	355	2.3	87	44	355	1.9	86	34	365	1.5	86
17.28		63	355	2.7	87	52	355	2.2	87	40	360	1.8	86
15.60		70	350	3.0	88	57	355	2.5	87	44	355	1.9	86
13.73		80	350	3.3	88	65	355	2.8	88	50	355	2.2	87
12.96		84	350	3.5	88	69	350	2.9	88	54	355	2.3	87
11.03		99	350	4.1	89	81	350	3.4	88	63	355	2.7	88
10.03		109	345	4.5	89	89	350	3.7	88	69	355	3.0	88
8.69		126	345	5.1	89	103	350	4.3	89	80	350	3.3	88
7.56		145	345	5.9*	89	119	345	4.8	89	92	350	3.8	89

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	2.2	570	0.26	52	1.1	570	0.14	50	0.04	570	<0.05	51
190.11		2.6	570	0.30	53	1.3	570	0.16	50	0.05	570	<0.05	51
180.60		2.7	570	0.31	53	1.3	570	0.17	50	0.05	570	<0.05	51
158.45		3.1	570	0.35	54	1.5	570	0.19	51	0.06	570	<0.05	51
134.40		3.7	565	0.40	55	1.8	570	0.22	52	0.07	570	<0.05	51
121.33		4.1	560	0.43	56	2.0	570	0.24	52	0.08	570	<0.05	51
106.75		4.6	560	0.48	57	2.3	570	0.27	53	0.09	570	<0.05	51
100.80		4.9	560	0.51	57	2.4	570	0.28	53	0.09	570	<0.05	51
85.83		5.8	555	0.58	58	2.9	570	0.32	54	0.11	570	<0.05	51
78.00		6.4	555	0.63	59	3.2	570	0.35	55	0.12	570	<0.05	51
67.57		7.3	555	0.71	60	3.6	565	0.39	56	0.14	565	<0.05	51
58.80		8.5	550	0.80	61	4.2	560	0.44	57	0.17	560	<0.05	51
75.06	29/2	6.6	570	0.55	72	3.3	570	0.29	69	0.13	570	<0.05	70
65.63		7.6	570	0.62	73	3.8	570	0.33	70	0.15	570	<0.05	70
62.35		8.0	570	0.65	73	4.0	570	0.34	70	0.16	570	<0.05	70
54.70		9.1	570	0.74	74	4.5	570	0.39	71	0.18	570	<0.05	70
46.40		10	570	0.86	75	5.3	570	0.45	71	0.21	570	<0.05	70
41.89		11	570	0.95	75	5.9	570	0.50	72	0.23	570	<0.05	70
36.85		13	570	1.1	76	6.7	570	0.56	73	0.27	570	<0.05	70
34.80		14	570	1.1	76	7.1	570	0.59	73	0.28	570	<0.05	70
29.63		16	565	1.3	77	8.4	570	0.68	74	0.33	570	<0.05	70
26.93		18	565	1.4	78	9.2	570	0.75	74	0.37	570	<0.05	70
23.33		21	565	1.6	78	10	570	0.85	75	0.42	570	<0.05	70
20.30		24	565	1.8	79	12	570	0.97	76	0.49	570	<0.05	70
24.44	27/5	20	365	0.93	84	10	355	0.47	82	0.40	355	<0.05	81
23.22		21	365	0.98	84	10	355	0.49	82	0.43	355	<0.05	81
20.37		24	380	1.2	85	12	365	0.57	82	0.49	365	<0.05	81
17.28		28	365	1.3	85	14	435	0.80	83	0.57	435	<0.05	81
15.60		32	365	1.4	85	16	430	0.87	83	0.64	430	<0.05	81
13.73		36	365	1.6	86	18	415	0.95	84	0.72	415	<0.05	81
12.96		38	360	1.7	86	19	410	0.99	84	0.77	410	<0.05	81
11.03		45	355	1.9	87	22	390	1.1	84	0.90	390	<0.05	81
10.03		49	355	2.1	87	24	380	1.2	85	0.99	380	<0.05	81
8.69		57	355	2.4	87	28	370	1.3	85	1.1	370	0.06	81
7.56		66	355	2.8	88	33	365	1.5	86	1.3	365	0.06	81

26883198/EN – 04/2022

11.7.5 Technical data S..77

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	13	1160	2.4	68	12	1160	2.2	67	10	1160	2.0	67
225.26		15	1130	2.6	68	14	1150	2.5	68	12	1160	2.2	68
214.00		15	1110	2.7	68	14	1140	2.6	68	13	1160	2.3	68
189.09		17	1080	3.0	69	16	1100	2.8	69	14	1140	2.6	68
161.60		21	1040	3.3	69	19	1050	3.1	69	17	1090	2.9	69
148.15		22	1010	3.5	70	21	1030	3.4	70	18	1070	3.1	69
130.00		26	970	3.8	70	24	990	3.7	70	21	1030	3.3	70
123.20		27	950	3.9	70	25	970	3.8	70	22	1010	3.4	70
107.83		31	900	4.2	70	29	920	4.1	70	25	970	3.8	70
97.14		35	860	4.5	71	32	880	4.3	71	28	930	4.0	71
85.22		39	770	4.6	71	37	820	4.6	71	32	880	4.3	71
75.20		45	675	4.5	70	42	725	4.6	71	37	830	4.6	71
66.67		50	585	4.5	70	47	635	4.5	70	41	745	4.6	71
56.92		59	485	4.4	69	56	530	4.5	70	49	635	4.6	71
75.09	40/3	45	1020	5.7	85	42	1020	5.4	85	37	1020	4.7	84
71.33		47	1020	6.0	85	44	1020	5.7	85	39	1020	5.0	84
63.03		53	1020	6.8	85	50	1020	6.4	85	44	1020	5.6	85
53.87		63	980	7.6	86	59	1000	7.3	85	51	1020	6.5	85
49.38		68	950	8.0	86	64	970	7.7	86	56	1010	7.0	85
43.33		78	910	8.7	86	73	930	8.4	86	64	970	7.7	86
41.07		82	900	9.1	86	77	910	8.7	86	68	950	7.9	86
35.94		94	800	9.2	86	89	850	9.2	86	77	910	8.6	86
32.38		105	725	9.3*	86	98	770	9.3*	86	86	880	9.3	86
28.41		119	635	9.3*	86	112	680	9.3*	86	98	780	9.3	86
25.07		135	560	9.3*	86	127	600	9.3*	86	111	695	9.4	86
22.22		153	485	9.1	85	144	525	9.2	86	126	615	9.4	86
18.97		179	395	8.7	85	168	440	9.1	85	147	520	9.4	86
22.89	34/6	148	590	10.*2	90	139	590	9.6*	90	122	590	8.4	90
20.99		161	590	11.1*	90	152	590	10.5*	90	133	590	9.1	90
18.42		184	590	12.7*	90	173	590	11.9*	90	152	590	10.4	90
17.45		194	590	13.4*	90	183	590	12.6*	90	160	590	11.0	90
15.28		222	530	13.8*	90	209	560	13.7*	90	183	590	12.6	90
13.76		247	480	13.9*	90	232	505	13.7*	90	203	585	13.9*	90
12.07		281	415	13.7*	89	265	445	13.8*	89	231	515	13.9*	90
10.65		319	365	13.7*	89	300	390	13.8*	89	262	455	14.0*	90
9.44		360	315	13.4*	89	338	345	13.8*	89	296	405	14.1*	89
8.06		421	260	13.0*	88	397	285	13.4*	89	347	340	13.9*	89

* P_{Mot_max} = 9.2 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	8.5	1260	1.7	66	6.6	1270	1.4	64	5.4	1270	1.1	63
225.26		9.7	1230	1.9	67	7.5	1270	1.5	65	6.2	1270	1.3	64
214.00		10	1220	2.0	67	7.9	1270	1.6	66	6.5	1270	1.4	64
189.09		11	1200	2.2	67	8.9	1240	1.8	66	7.4	1270	1.5	65
161.60		13	1160	2.4	68	10	1220	2.0	67	8.6	1260	1.7	66
148.15		14	1140	2.6	69	11	1200	2.1	68	9.4	1240	1.8	67
130.00		16	1100	2.8	69	13	1170	2.4	68	10	1210	2.0	67
123.20		17	1080	2.9	69	13	1150	2.4	68	11	1200	2.1	68
107.83		20	1040	3.2	70	15	1110	2.7	69	12	1170	2.3	68
97.14		22	1010	3.4	70	17	1090	2.9	70	14	1140	2.5	69
85.22		25	970	3.7	71	19	1050	3.1	70	16	1100	2.7	69
75.20		29	920	4.0	71	22	1010	3.4	71	18	1070	3.0	70
66.67		32	880	4.3	71	25	970	3.6	71	20	1040	3.2	71
56.92		38	830	4.7	72	29	920	4.0	72	24	990	3.6	71
75.09	40/3	29	1100	4.0	84	22	1100	3.1	83	18	1100	2.6	82
71.33		30	1100	4.2	84	23	1100	3.3	83	19	1100	2.7	82
63.03		34	1100	4.8	84	26	1100	3.7	84	22	1100	3.1	83
53.87		40	1100	5.5	85	31	1100	4.3	84	25	1100	3.6	83
49.38		44	1080	5.9	85	34	1100	4.7	84	28	1100	3.9	84
43.33		50	1050	6.5	85	39	1100	5.3	85	32	1100	4.4	84
41.07		53	1030	6.8	85	41	1100	5.6	85	34	1100	4.7	84
35.94		61	980	7.3	86	47	1060	6.2	85	38	1100	5.3	85
32.38		67	960	8.0	86	52	1040	6.7	86	43	1090	5.8	85
28.41		77	920	8.7	86	59	990	7.2	86	49	1050	6.3	86
25.07		87	870	9.3*	86	67	960	7.9	86	55	1020	7.0	86
22.22		99	790	9.5*	86	76	920	8.5	86	63	980	7.5	86
18.97		115	680	9.6*	86	89	860	9.3*	87	73	930	8.3	86
22.89	34/6	96	710	7.9	90	74	705	6.1	89	61	705	5.1	89
20.99		104	710	8.7	90	80	705	6.7	90	66	705	5.5	89
18.42		119	720	10.0*	90	92	710	7.6	90	76	705	6.3	90
17.45		126	720	10.5*	90	97	710	8.0	90	80	710	6.7	90
15.28		143	720	12.0*	90	111	720	9.3*	90	91	710	7.6	90
13.76		159	725	13.5*	90	123	720	10.3*	90	101	710	8.4	90
12.07		182	650	13.8*	90	140	725	11.8*	90	115	720	9.7*	90
10.65		206	580	13.9*	90	159	725	13.4*	90	131	720	11.0*	91
9.44		233	520	14.1*	90	180	655	13.7*	90	148	725	12.4*	91
8.06		272	445	14.1*	90	210	575	14.1*	90	173	680	13.7*	91

* P_{Mot_max} = 9.2 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	4.2	1270	0.92	62	3.5	1270	0.77	61	2.7	1270	0.61	59
225.26		4.8	1270	1.0	63	3.9	1270	0.86	62	3.1	1270	0.69	60
214.00		5.1	1270	1.1	63	4.2	1270	0.90	62	3.2	1270	0.72	60
189.09		5.8	1270	1.2	64	4.7	1270	1.0	63	3.7	1270	0.81	61
161.60		6.8	1270	1.4	65	5.5	1270	1.2	64	4.3	1270	0.93	62
148.15		7.4	1270	1.5	65	6.0	1270	1.3	64	4.7	1270	1.0	63
130.00		8.4	1260	1.7	66	6.9	1270	1.4	65	5.3	1270	1.1	64
123.20		8.9	1250	1.8	67	7.3	1270	1.5	65	5.6	1270	1.2	64
107.83		10	1220	1.9	67	8.3	1260	1.7	66	6.4	1270	1.3	65
97.14		11	1200	2.1	68	9.2	1250	1.8	67	7.2	1270	1.5	66
85.22		12	1170	2.3	69	10	1220	2.0	68	8.2	1270	1.6	66
75.20		14	1140	2.5	69	11	1190	2.2	68	9.3	1250	1.8	67
66.67		16	1110	2.7	70	13	1160	2.4	69	10	1220	2.0	68
56.92		19	1060	3.0	71	15	1120	2.7	70	12	1190	2.2	69
75.09	40/3	14	1120	2.1	81	11	1130	1.8	81	9.3	1170	1.4	80
71.33		15	1120	2.2	82	12	1130	1.9	81	9.8	1120	1.4	80
63.03		17	1120	2.5	82	14	1120	2.1	81	11	1130	1.6	80
53.87		20	1120	2.9	83	16	1120	2.4	82	12	1120	1.9	81
49.38		22	1120	3.1	83	18	1120	2.6	82	14	1120	2.0	81
43.33		25	1130	3.6	84	20	1120	2.9	83	16	1120	2.3	82
41.07		26	1130	3.8	84	21	1120	3.1	83	17	1120	2.4	82
35.94		30	1150	4.4	84	25	1130	3.5	84	19	1120	2.8	83
32.38		33	1130	4.8	85	27	1130	3.9	84	21	1120	3.1	83
28.41		38	1110	5.3	85	31	1150	4.5	84	24	1130	3.5	84
25.07		43	1080	5.8	85	35	1120	5.0	85	27	1130	3.9	84
22.22		49	1050	6.4	86	40	1100	5.5	85	31	1150	4.5	85
18.97		57	1010	7.1	86	47	1060	6.1	86	36	1120	5.1	85
22.89	34/6	48	695	4.0	89	39	695	3.3	88	30	705	2.6	87
20.99		52	705	4.4	89	42	695	3.5	88	33	705	2.8	88
18.42		59	700	4.9	89	48	700	4.0	89	38	700	3.2	88
17.45		63	700	5.2	89	51	700	4.3	89	40	700	3.3	88
15.28		71	710	6.0	90	58	700	4.8	89	45	700	3.8	89
13.76		79	710	6.6	90	65	700	5.4	89	50	700	4.2	89
12.07		91	710	7.5	90	74	710	6.2	90	57	700	4.8	89
10.65		103	715	8.6	90	84	710	7.0	90	65	710	5.5	90
9.44		116	720	9.7*	91	95	715	7.9	90	74	710	6.1	90
8.06		136	725	11.4*	91	111	720	9.3*	91	86	710	7.2	90

* P_{Mot_max} = 9.2 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	1.9	1270	0.45	57	0.97	1270	0.24	55	0.03	1270	<0.05	55
225.26		2.2	1270	0.51	58	1.1	1270	0.27	55	0.04	1270	<0.05	55
214.00		2.3	1270	0.53	58	1.1	1270	0.28	55	0.04	1270	<0.05	55
189.09		2.6	1270	0.59	59	1.3	1270	0.32	55	0.05	1270	<0.05	55
161.60		3.0	1270	0.68	60	1.5	1270	0.37	56	0.06	1270	<0.05	55
148.15		3.3	1270	0.74	61	1.6	1270	0.40	57	0.06	1270	<0.05	55
130.00		3.8	1270	0.83	62	1.9	1270	0.45	57	0.07	1270	<0.05	55
123.20		4.0	1270	0.87	62	2.0	1270	0.47	58	0.08	1270	<0.05	55
107.83		4.6	1270	0.98	63	2.3	1270	0.53	59	0.09	1270	<0.05	55
97.14		5.1	1270	1.1	64	2.5	1270	0.58	59	0.10	1270	<0.05	55
85.22		5.8	1270	1.2	64	2.9	1270	0.65	60	0.11	1270	<0.05	55
75.20		6.6	1270	1.4	65	3.3	1270	0.73	61	0.13	1270	<0.05	55
66.67		7.4	1270	1.5	66	3.7	1270	0.81	62	0.14	1270	<0.05	55
56.92		8.7	1260	1.7	67	4.3	1270	0.93	63	0.17	1270	<0.05	55
75.09	40/3	6.6	1160	1.0	78	3.3	1120	0.52	76	0.13	1120	<0.05	76
71.33		7.0	1110	1.0	78	3.5	1060	0.51	76	0.14	1060	<0.05	76
63.03		7.9	1230	1.3	79	3.9	1200	0.65	76	0.15	1200	<0.05	76
53.87		9.2	1180	1.4	80	4.6	1240	0.78	77	0.18	1240	<0.05	76
49.38		10	1160	1.5	80	5.0	1240	0.85	77	0.20	1240	<0.05	76
43.33		11	1120	1.7	81	5.7	1240	0.96	78	0.23	1240	<0.05	76
41.07		12	1120	1.8	81	6.0	1240	1.0	78	0.24	1240	<0.05	76
35.94		13	1120	2.0	81	6.9	1240	1.1	79	0.27	1240	<0.05	76
32.38		15	1120	2.2	82	7.7	1240	1.3	79	0.30	1240	0.05	76
28.41		17	1120	2.5	82	8.7	1190	1.4	80	0.35	1190	0.06	76
25.07		19	1120	2.8	83	9.9	1170	1.5	80	0.39	1170	0.06	76
22.22		22	1130	3.2	83	11	1130	1.6	81	0.45	1130	0.07	76
18.97		26	1130	3.7	84	13	1120	1.9	81	0.52	1120	0.08	76
22.89	34/6	21	690	1.8	86	10	675	0.92	84	0.43	675	<0.05	83
20.99		23	725	2.1	87	11	740	1.1	85	0.47	740	<0.05	83
18.42		27	705	2.3	87	13	830	1.4	85	0.54	830	0.06	83
17.45		28	705	2.4	87	14	810	1.4	85	0.57	810	0.06	83
15.28		32	705	2.8	88	16	785	1.6	86	0.65	785	0.06	83
13.76		36	695	3.0	88	18	770	1.7	86	0.72	770	0.07	83
12.07		41	695	3.4	88	20	750	1.9	86	0.82	750	0.08	83
10.65		46	695	3.9	89	23	725	2.1	87	0.93	725	0.09	83
9.44		52	705	4.4	89	26	705	2.2	87	1.0	705	0.09	83
8.06		62	705	5.1	90	31	705	2.6	88	1.2	705	0.11	83

26883198/EN – 04/2022

11.7.6 Technical data S..87

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	11	2030	3.6	70	11	2070	3.4	70	9.7	2070	3.0	70
258.18		13	1990	3.9	71	12	2010	3.7	71	10	2070	3.4	70
222.40		15	1910	4.3	71	14	1950	4.1	71	12	2010	3.8	71
202.96		16	1850	4.6	71	15	1890	4.4	71	13	1970	4.0	71
180.00		18	1800	5.0	72	17	1830	4.8	72	15	1910	4.4	71
151.30		22	1690	5.5	72	21	1730	5.3	72	18	1800	4.9	72
139.05		24	1630	5.8	72	23	1680	5.6	72	20	1760	5.2	72
123.48		27	1570	6.3	72	25	1600	6.0	72	22	1690	5.6	72
110.40		30	1430	6.4	72	28	1540	6.4	73	25	1620	5.9	73
99.26		34	1260	6.3	72	32	1380	6.4	72	28	1550	6.3	73
86.15		39	1030	6.0	71	37	1150	6.2	72	32	1390	6.5	73
77.14		44	830	5.5	70	41	970	5.9	71	36	1220	6.4	72
64.00		53	500	4.3	65	50	620	4.8	68	43	960	6.2	72
91.20	38/3	37	1470	6.7	86	35	1470	6.3	86	30	1470	5.5	85
81.76		41	1470	7.5	86	39	1470	7.0	86	34	1470	6.2	86
70.43		48	1470	8.6	86	45	1470	8.1	86	39	1470	7.1	86
64.27		52	1470	9.4	86	49	1470	8.9	86	43	1470	7.8	86
57.00		59	1470	10.6	87	56	1470	10.0	87	49	1470	8.8	86
47.91		70	1470	12.6	87	66	1470	11.8	87	58	1470	10.4	87
44.03		77	1470	13.6	87	72	1470	12.8	87	63	1470	11.3	87
39.10		86	1300	13.6	87	81	1400	13.8	87	71	1470	12.6	87
34.96		97	1140	13.4	87	91	1240	13.6	87	80	1440	13.8	87
31.43		108	1000	13.1	87	101	1090	13.4	87	89	1290	13.8	87
27.28		124	810	12.3	86	117	910	12.9	87	102	1110	13.7	87
24.43		139	660	11.3	85	130	775	12.4	86	114	960	13.3	87
20.27		167	395	8.4	83	157	490	9.6	84	138	755	12.7	86
25.50	34/6	133	990	15.2*	91	125	990	14.3	91	109	990	12.6	91
21.43		158	990	18.1*	91	149	990	17.0*	91	130	990	14.9	91
19.70		172	990	20*	91	162	990	19*	91	142	990	16.2*	91
17.49		194	870	20*	90	182	930	20*	91	160	990	18.3*	91
15.64		217	760	19*	90	204	830	20*	90	179	960	20*	91
14.06		241	660	19*	90	227	725	19*	90	199	860	20*	91
12.21		278	540	17.6*	90	262	605	18.5*	90	229	730	19*	90
10.93		311	440	16.0*	89	292	510	17.4*	90	256	645	19*	90
9.07		374	255	11.5	87	352	325	13.5	89	308	500	18.0*	90
7.88		431	200	10.5	86	406	230	11.2	87	355	375	15.6*	89

* P_{Mot_max} =15 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	7.6	2210	2.6	69	5.9	2280	2.1	67	4.8	2280	1.7	66
258.18		8.5	2170	2.8	69	6.5	2260	2.3	68	5.4	2280	1.9	67
222.40		9.8	2130	3.2	70	7.6	2210	2.6	69	6.2	2280	2.2	68
202.96		10	2080	3.4	70	8.3	2190	2.8	69	6.8	2260	2.4	68
180.00		12	2020	3.7	71	9.4	2130	3.0	70	7.7	2210	2.6	69
151.30		14	1940	4.1	71	11	2060	3.4	71	9.2	2150	3.0	70
139.05		15	1880	4.4	72	12	2020	3.6	71	10	2100	3.2	70
123.48		17	1820	4.7	72	13	1960	4.0	71	11	2060	3.5	71
110.40		19	1770	5.1	72	15	1900	4.3	72	12	2000	3.7	71
99.26		22	1700	5.4	73	17	1840	4.6	72	14	1960	4.0	72
86.15		25	1620	5.9	73	19	1770	5.0	73	16	1880	4.4	72
77.14		28	1540	6.3	73	22	1700	5.4	73	18	1820	4.8	73
64.00		34	1360	6.7	73	26	1580	6.0	74	21	1700	5.3	73
91.20	38/3	24	1540	4.6	85	18	1520	3.5	84	15	1510	2.9	83
81.76		26	1600	5.3	85	20	1600	4.1	84	17	1600	3.4	84
70.43		31	1600	6.1	86	24	1600	4.8	85	19	1600	3.9	84
64.27		34	1600	6.7	86	26	1600	5.2	85	21	1600	4.3	85
57.00		38	1600	7.5	86	29	1600	5.8	86	24	1600	4.8	85
47.91		45	1600	8.9	87	35	1600	6.9	86	29	1600	5.7	86
44.03		49	1600	9.7	87	38	1600	7.5	86	31	1600	6.2	86
39.10		56	1600	10.8	87	43	1600	8.4	87	35	1600	7.0	86
34.96		62	1600	12.1	87	48	1600	9.4	87	40	1600	7.8	87
31.43		69	1600	13.4	88	54	1600	10.4	87	44	1600	8.6	87
27.28		80	1450	14.0	88	62	1600	11.9	88	51	1600	9.9	87
24.43		90	1310	14.1	88	69	1600	13.3	88	57	1600	11.0	87
20.27		108	1080	14.0	88	83	1420	14.2	88	69	1600	13.2	88
25.50	34/6	86	1240	12.4	91	66	1240	9.6	90	54	1240	7.9	90
21.43		102	1240	14.6	91	79	1240	11.4	91	65	1240	9.4	90
19.70		111	1240	15.9*	91	86	1240	12.3	91	71	1240	10.2	91
17.49		125	1240	17.9*	91	97	1240	13.9	91	80	1240	11.4	91
15.64		140	1230	20*	91	108	1240	15.5*	91	89	1240	12.8	91
14.06		156	1110	20*	91	120	1240	17.2*	91	99	1240	14.2	91
12.21		180	970	20*	91	139	1240	20*	91	114	1240	16.3*	91
10.93		201	870	20*	91	155	1130	20*	91	128	1240	18.2*	91
9.07		242	720	20*	91	187	950	20*	91	154	1140	20*	91
7.88		279	605	20*	90	215	830	21*	91	177	1010	21*	91

* P_{Mot_max} = 15 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	3.8	2400	1.5	65	3.1	2450	1.3	64	2.4	2480	1.0	63
258.18		4.2	2380	1.6	66	3.4	2430	1.4	65	2.7	2470	1.1	63
222.40		4.9	2350	1.8	67	4.0	2400	1.6	66	3.1	2450	1.3	64
202.96		5.4	2330	2.0	67	4.4	2380	1.7	66	3.4	2430	1.4	65
180.00		6.1	2280	2.2	68	5.0	2350	1.8	67	3.8	2400	1.5	65
151.30		7.2	2240	2.5	69	5.9	2310	2.1	68	4.6	2350	1.7	67
139.05		7.9	2190	2.6	69	6.4	2260	2.2	68	5.0	2330	1.8	67
123.48		8.9	2150	2.9	70	7.2	2240	2.5	69	5.6	2310	2.0	68
110.40		9.9	2110	3.1	70	8.1	2190	2.7	70	6.3	2280	2.2	68
99.26		11	2070	3.4	71	9.0	2150	2.9	70	7.0	2240	2.4	69
86.15		12	2000	3.7	72	10	2090	3.2	71	8.1	2190	2.7	70
77.14		14	1940	4.0	72	11	2040	3.5	71	9.0	2150	2.9	70
64.00		17	1840	4.5	73	14	1960	4.0	72	10	2070	3.3	71
91.20	38/3	12	1490	2.3	83	9.8	1480	1.9	82	7.6	1460	1.4	81
81.76		13	1760	3.0	83	11	1760	2.5	83	8.5	1760	1.9	82
70.43		15	1760	3.4	84	12	1760	2.8	83	9.9	1760	2.2	82
64.27		17	1760	3.8	84	14	1760	3.1	84	10	1760	2.4	83
57.00		19	1760	4.2	85	15	1760	3.5	84	12	1760	2.7	83
47.91		22	1760	5.0	85	18	1760	4.1	85	14	1760	3.2	84
44.03		24	1760	5.4	85	20	1760	4.4	85	15	1760	3.5	84
39.10		28	1760	6.0	86	23	1760	5.0	85	17	1760	3.9	85
34.96		31	1760	6.7	86	25	1760	5.5	86	20	1760	4.3	85
31.43		34	1760	7.5	86	28	1760	6.1	86	22	1760	4.8	85
27.28		40	1760	8.6	87	32	1760	7.0	86	25	1760	5.5	86
24.43		45	1760	9.5	87	36	1760	7.8	87	28	1760	6.1	86
20.27		54	1760	11.4	88	44	1760	9.4	87	34	1760	7.3	87
25.50	34/6	43	1340	6.7	90	35	1340	5.6	89	27	1340	4.3	89
21.43		51	1340	8.0	90	41	1340	6.6	90	32	1340	5.1	89
19.70		55	1340	8.7	90	45	1340	7.1	90	35	1340	5.6	89
17.49		62	1340	9.8	91	51	1340	8.0	90	40	1340	6.3	90
15.64		70	1340	10.9	91	57	1340	8.9	90	44	1340	7.0	90
14.06		78	1340	12.1	91	64	1340	9.9	91	49	1340	7.8	90
12.21		90	1340	13.9	91	73	1340	11.4	91	57	1340	8.9	90
10.93		100	1340	15.5*	91	82	1340	12.7	91	64	1340	9.9	91
9.07		121	1340	19*	91	99	1340	15.2*	91	77	1340	11.9	91
7.88		139	1260	20*	92	114	1340	17.5*	92	88	1340	13.7	91

* P_{Mot_max} = 15 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	1.7	2500	0.75	61	0.86	2500	0.39	58	0.03	2500	<0.05	58
258.18		1.9	2500	0.83	61	0.96	2500	0.44	58	0.03	2500	<0.05	58
222.40		2.2	2500	0.95	62	1.1	2500	0.50	59	0.04	2500	<0.05	58
202.96		2.4	2480	1.0	63	1.2	2500	0.55	59	0.04	2500	<0.05	58
180.00		2.7	2480	1.1	64	1.3	2500	0.61	60	0.05	2500	<0.05	58
151.30		3.3	2430	1.3	65	1.6	2500	0.71	61	0.06	2500	<0.05	58
139.05		3.5	2430	1.4	65	1.7	2500	0.77	61	0.07	2500	<0.05	58
123.48		4.0	2400	1.5	66	2.0	2500	0.86	62	0.08	2500	<0.05	58
110.40		4.5	2380	1.7	67	2.2	2500	0.95	63	0.09	2500	<0.05	58
99.26		5.0	2330	1.8	67	2.5	2470	1.0	63	0.10	2470	<0.05	58
86.15		5.8	2310	2.1	68	2.9	2450	1.2	64	0.11	2450	0.05	59
77.14		6.4	2260	2.2	69	3.2	2430	1.3	65	0.12	2430	0.06	59
64.00		7.8	2220	2.6	70	3.9	2400	1.5	66	0.15	2400	0.07	59
91.20	38/3	5.4	1450	1.0	80	2.7	1390	0.51	78	0.10	1390	<0.05	78
81.76		6.1	1960	1.6	81	3.0	1880	0.77	78	0.12	1880	<0.05	78
70.43		7.0	1980	1.8	81	3.5	1980	0.93	79	0.14	1980	<0.05	78
64.27		7.7	1980	2.0	82	3.8	1980	1.0	79	0.15	1980	<0.05	78
57.00		8.7	1980	2.2	82	4.3	1980	1.1	80	0.17	1980	<0.05	78
47.91		10	1980	2.6	83	5.2	1980	1.3	80	0.2	1980	0.06	78
44.03		11	1980	2.8	83	5.6	1980	1.5	81	0.22	1980	0.06	78
39.10		12	1980	3.2	84	6.3	1980	1.6	81	0.25	1980	0.07	79
34.96		14	1980	3.5	84	7.1	1980	1.8	82	0.28	1980	0.08	79
31.43		15	1980	3.9	84	7.9	1980	2.0	82	0.31	1980	0.08	79
27.28		18	1980	4.5	85	9.1	1980	2.3	83	0.36	1980	0.10	79
24.43		20	1980	5.0	85	10	1980	2.6	83	0.40	1980	0.11	79
20.27		24	1980	5.9	86	12	1980	3.1	84	0.49	1980	0.13	79
25.50	34/6	19	1430	3.3	88	9.8	1390	1.7	86	0.39	1390	0.07	85
21.43		23	1420	3.9	88	11	1510	2.1	87	0.46	1510	0.09	85
19.70		25	1410	4.2	89	12	1570	2.4	87	0.50	1570	0.10	85
17.49		28	1390	4.7	89	14	1570	2.7	87	0.57	1570	0.11	85
15.64		31	1390	5.2	89	15	1540	2.9	87	0.63	1540	0.12	85
14.06		35	1390	5.8	90	17	1510	3.2	88	0.71	1510	0.13	85
12.21		40	1390	6.6	90	20	1460	3.5	88	0.81	1460	0.15	85
10.93		45	1390	7.4	90	22	1430	3.9	89	0.91	1430	0.16	85
9.07		55	1410	9.0	91	27	1390	4.5	89	1.1	1390	0.19	85
7.88		63	1410	10.3	91	31	1390	5.2	89	1.2	1390	0.22	85

26883198/EN – 04/2022

11.7.7 Technical data S..97

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	11	3520	6.0	73	11	3590	5.8	73	9.7	3700	5.2	72
262.22		12	3450	6.4	73	12	3520	6.2	73	10	3630	5.6	73
231.67		14	3310	6.9	73	13	3380	6.7	73	12	3520	6.1	73
196.52		17	3120	7.7	74	16	3210	7.4	74	14	3350	6.8	73
180.95		18	3030	8.1	74	17	3120	7.8	74	15	3250	7.2	74
161.74		21	2910	8.7	74	19	2970	8.3	74	17	3120	7.7	74
145.60		23	2760	9.1	74	21	2850	8.9	74	19	3000	8.2	74
131.85		25	2660	9.7	74	24	2740	9.4	74	21	2880	8.6	74
116.92		29	2320	9.6	74	27	2550	9.8	74	23	2740	9.2	74
105.71		32	1980	9.1	73	30	2210	9.5	74	26	2630	9.8	74
89.60		37	1280	7.3	70	35	1670	8.6	72	31	2210	9.8	74
78.26		43	920	6.2	67	40	1040	6.5	69	35	1770	9.1	73
65.45		51	675	5.7	64	48	775	6.0	66	42	1030	6.7	69
80.85	37/3	42	3150	15.7	88	39	3150	14.8	88	34	3150	13.0	88
71.43		47	3090	17.4	88	44	3150	16.8	88	39	3150	14.7	88
60.59		56	2910	19	88	52	2970	19	88	46	3120	17.1	88
55.79		60	2820	20	89	57	2880	20	89	50	3030	18.0	88
49.87		68	2710	22	89	64	2760	21	89	56	2910	19	89
44.89		75	2430	22	89	71	2630	22	89	62	2790	21	89
40.65		83	2170	22	88	78	2350	22	89	68	2680	22	89
36.05		94	1830	21	88	88	2020	21	88	77	2400	22	89
32.60		104	1560	19	88	98	1760	21	88	85	2150	22	89
27.63		123	1010	15.2	86	115	1320	18.4	87	101	1740	21	88
24.13		140	725	12.7	84	132	820	13.4	85	116	1390	19	88
26.39	35/6	128	1750	26*	92	121	1750	24*	92	106	1750	21	92
23.59		144	1750	29*	92	135	1750	27*	92	118	1750	24*	92
21.23		160	1750	32*	91	150	1750	30*	92	131	1750	26*	92
19.23		176	1550	31*	91	166	1680	32*	91	145	1750	29*	92
17.05		199	1320	30*	91	187	1450	31*	91	164	1730	33*	92
15.42		220	1110	28*	91	207	1260	30*	91	181	1540	32*	91
13.07		260	725	22	90	244	940	27*	91	214	1240	31*	91
11.41		297	515	18.1	89	280	585	19	90	245	1000	28*	91
9.55		356	375	16.0	87	335	435	17.3	88	293	580	20	90
8.26		411	290	14.6	86	387	335	15.6	87	338	455	18.1	89

* P_{Mot_max} = 22 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	7.6	3920	4.4	72	5.9	4000	3.5	70	4.8	4000	3.0	69
262.22		8.3	3840	4.7	72	6.4	4000	3.8	71	5.3	4000	3.2	70
231.67		9.4	3770	5.2	72	7.3	3960	4.3	72	6.0	4000	3.6	71
196.52		11	3580	5.8	73	8.6	3840	4.8	72	7.1	4000	4.2	71
180.95		12	3510	6.1	73	9.3	3770	5.1	73	7.7	3920	4.4	72
161.74		13	3410	6.6	74	10	3650	5.5	73	8.6	3840	4.8	72
145.60		15	3270	7.0	74	11	3550	5.9	73	9.6	3730	5.2	73
131.85		16	3170	7.5	74	12	3440	6.3	74	10	3650	5.6	73
116.92		18	3020	8.0	74	14	3340	6.9	74	11	3510	6.0	74
105.71		20	2930	8.6	75	16	3210	7.3	74	13	3440	6.5	74
89.60		24	2730	9.4	75	18	3020	8.0	75	15	3240	7.1	74
78.26		28	2540	10.0	75	21	2870	8.7	75	17	3080	7.7	75
65.45		33	2120	10.0	75	25	2650	9.6	75	21	2900	8.6	75
80.85	37/3	27	3300	10.8	87	21	3270	8.3	87	17	3230	6.8	86
71.43		30	3300	12.1	88	23	3300	9.4	87	19	3300	7.8	87
60.59		36	3300	14.3	88	28	3300	11.1	88	23	3300	9.2	87
55.79		39	3270	15.3	88	30	3300	12.0	88	25	3300	9.9	87
49.87		44	3170	16.6	88	34	3300	13.4	88	28	3300	11.1	88
44.89		49	3050	17.7	89	37	3300	14.8	88	31	3300	12.3	88
40.65		54	2950	19	89	41	3230	16.0	88	34	3300	13.5	88
36.05		61	2810	20	89	47	3110	17.3	89	38	3300	15.2	88
32.60		67	2700	21	89	52	2980	18.3	89	42	3200	16.3	89
27.63		79	2390	22	89	61	2810	20	89	50	3010	18.0	89
24.13		91	2060	22	89	70	2670	22	89	58	2870	20	89
26.39	35/6	83	2550	24*	92	64	2600	19	92	53	2600	15.8	92
23.59		93	2450	26*	92	72	2600	21	92	59	2600	17.6	92
21.23		103	2380	28*	92	80	2570	23*	92	65	2600	20	92
19.23		114	2280	30*	92	88	2500	25*	92	72	2600	21	92
17.05		129	2170	32*	92	99	2400	27*	92	82	2570	24*	92
15.42		142	2040	33*	92	110	2300	29*	92	90	2470	25*	92
13.07		168	1720	33*	92	130	2170	32*	92	107	2330	28*	92
11.41		192	1480	33*	92	148	2000	34*	92	122	2210	31*	92
9.55		230	1200	32*	91	178	1670	34*	92	146	2040	34*	92
8.26		266	980	30*	91	205	1440	34*	92	169	1770	34*	92

* P_{Mot_max} = 22 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	3.8	4200	2.5	68	3.1	4200	2.1	67	2.4	4200	1.6	66
262.22		4.1	4200	2.7	69	3.4	4200	2.2	68	2.6	4200	1.8	66
231.67		4.7	4200	3.0	70	3.8	4200	2.5	68	3.0	4200	2.0	67
196.52		5.5	4160	3.5	70	4.5	4200	2.9	69	3.5	4200	2.3	68
180.95		6.0	4120	3.7	71	4.9	4200	3.1	70	3.8	4200	2.5	69
161.74		6.8	4030	4.0	71	5.5	4160	3.4	71	4.3	4200	2.8	69
145.60		7.5	3950	4.3	72	6.1	4080	3.7	71	4.8	4200	3.0	70
131.85		8.3	3880	4.7	72	6.8	4030	4.0	72	5.3	4200	3.3	70
116.92		9.4	3760	5.1	73	7.6	3910	4.4	72	5.9	4120	3.6	71
105.71		10	3650	5.4	73	8.5	3840	4.7	73	6.6	4030	3.9	72
89.60		12	3500	6.1	74	10	3690	5.3	73	7.8	3910	4.4	72
78.26		14	3370	6.7	74	11	3580	5.8	74	8.9	3800	4.9	73
65.45		16	3170	7.4	75	13	3400	6.6	75	10	3650	5.5	74
80.85	37/3	13	3230	5.4	86	11	3200	4.4	85	8.6	3170	3.4	84
71.43		15	3600	6.7	86	12	3600	5.5	86	9.7	3600	4.4	85
60.59		18	3600	7.9	87	14	3600	6.5	86	11	3600	5.1	85
55.79		19	3600	8.6	87	16	3600	7.0	86	12	3600	5.5	86
49.87		22	3600	9.5	87	18	3600	7.8	87	14	3600	6.2	86
44.89		24	3600	10.6	88	20	3600	8.7	87	15	3600	6.8	86
40.65		27	3600	11.6	88	22	3600	9.6	87	17	3600	7.5	87
36.05		30	3530	12.8	88	24	3600	10.7	88	19	3600	8.4	87
32.60		33	3420	13.7	88	27	3600	11.8	88	21	3600	9.3	87
27.63		39	3260	15.4	89	32	3460	13.4	88	25	3600	10.9	88
24.13		45	3130	16.8	89	37	3320	14.7	89	29	3560	12.3	88
26.39	35/6	41	2650	12.7	91	34	2620	10.3	91	26	2620	8.0	91
23.59		46	2650	14.1	92	38	2650	11.6	91	29	2620	9.0	91
21.23		51	2650	15.7	92	42	2650	12.9	91	32	2620	9.9	91
19.23		57	2650	17.3	92	46	2650	14.2	92	36	2620	11.0	91
17.05		64	2670	20	92	52	2650	16.0	92	41	2650	12.5	91
15.42		71	2670	22*	92	58	2650	17.6	92	45	2650	13.8	92
13.07		84	2540	24*	92	68	2670	21	92	53	2650	16.2	92
11.41		96	2420	26*	92	78	2590	23*	92	61	2650	18.5	92
9.55		115	2280	30*	92	94	2440	26*	93	73	2650	22	92
8.26		133	2140	32*	92	108	2320	29*	93	84	2540	24*	93

* P_{Mot_max} = 22 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	1.7	4200	1.2	64	0.87	4200	0.64	60	0.03	4200	<0.05	60
262.22		1.9	4200	1.3	64	0.95	4200	0.69	61	0.03	4200	<0.05	60
231.67		2.1	4200	1.5	65	1	4200	0.77	61	0.04	4200	<0.05	60
196.52		2.5	4200	1.7	66	1.2	4200	0.90	62	0.05	4200	<0.05	60
180.95		2.7	4200	1.8	67	1.3	4200	0.97	63	0.05	4200	<0.05	60
161.74		3	4200	2.0	67	1.5	4200	1.1	63	0.06	4200	<0.05	60
145.60		3.4	4200	2.2	68	1.7	4200	1.2	64	0.06	4200	0.05	60
131.85		3.7	4200	2.4	69	1.8	4200	1.3	65	0.07	4200	0.06	60
116.92		4.2	4200	2.7	69	2.1	4200	1.4	65	0.08	4200	0.06	60
105.71		4.7	4200	3.0	70	2.3	4200	1.6	66	0.09	4200	0.07	60
89.60		5.5	4160	3.4	71	2.7	4200	1.8	67	0.11	4200	0.08	60
78.26		6.3	4080	3.8	72	3.1	4200	2.1	68	0.12	4200	0.09	60
65.45		7.6	3910	4.3	73	3.8	4200	2.4	69	0.15	4200	0.11	60
80.85	37/3	6.1	3110	2.4	83	3	3010	1.2	81	0.12	3010	<0.05	80
71.43		6.9	4200	3.7	84	3.4	4160	1.9	82	0.13	4160	0.08	80
60.59		8.2	4200	4.3	84	4.1	4080	2.1	82	0.16	4080	0.09	80
55.79		8.9	4200	4.7	85	4.4	4200	2.4	82	0.17	4200	0.10	80
49.87		10	4200	5.2	85	5	4200	2.7	83	0.20	4200	0.11	80
44.89		11	4160	5.7	86	5.5	4200	2.9	83	0.22	4200	0.12	80
40.65		12	4120	6.2	86	6.1	4200	3.2	84	0.24	4200	0.13	80
36.05		13	4080	6.9	86	6.9	4200	3.6	84	0.27	4200	0.15	80
32.60		15	3990	7.4	87	7.6	4200	4.0	84	0.30	4200	0.17	80
27.63		18	3910	8.5	87	9	4200	4.7	85	0.36	4200	0.20	80
24.13		20	3800	9.4	87	10	4200	5.3	85	0.41	4200	0.23	80
26.39	35/6	18	2590	5.7	90	9.4	2540	2.9	88	0.37	2540	0.12	86
23.59		21	2590	6.4	90	10	2540	3.2	88	0.42	2540	0.13	86
21.23		23	2590	7.1	90	11	2570	3.6	89	0.47	2570	0.15	86
19.23		26	2620	7.9	91	13	2570	3.9	89	0.52	2570	0.16	86
17.05		29	2620	8.9	91	14	2570	4.4	89	0.58	2570	0.18	86
15.42		32	2620	9.8	91	16	2570	4.9	90	0.64	2570	0.20	86
13.07		38	2650	11.6	91	19	2590	5.8	90	0.76	2590	0.24	86
11.41		43	2650	13.3	92	21	2590	6.6	90	0.87	2590	0.27	87
9.55		52	2650	15.8	92	26	2620	7.9	91	1.0	2620	0.33	87
8.26		60	2650	18.2	92	30	2620	9.1	91	1.2	2620	0.38	87

26883198/EN – 04/2022

11.8 Technical data S..37p – 97p

11.8.1 Technical data S..37p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	21	94	0.31	69	20	94	0.29	69	17	94	0.26	68
144.40		23	94	0.34	69	22	94	0.32	69	19	94	0.28	69
122.94		27	89	0.37	69	26	91	0.36	69	22	95	0.33	69
106.00		32	84	0.41	69	30	86	0.39	69	26	91	0.36	70
98.80		34	81	0.42	69	32	83	0.41	69	28	88	0.38	70
86.36		39	77	0.46	69	37	79	0.44	69	32	83	0.41	70
80.96		41	75	0.48	69	39	77	0.46	69	34	81	0.42	70
71.44		47	71	0.51	69	44	73	0.49	69	39	77	0.45	70
63.33		53	62	0.51	68	50	69	0.53	69	44	73	0.49	70
53.83		63	45	0.45	66	59	53	0.49	67	52	69	0.54	70
55.93	27/2	60	95	0.72	84	57	97	0.69	84	50	103	0.64	84
51.30		66	91	0.75	84	62	94	0.73	84	54	99	0.67	84
43.68		77	86	0.83	84	73	88	0.80	84	64	93	0.74	85
37.66		90	81	0.91	84	84	83	0.87	84	74	87	0.80	85
35.10		96	78	0.94	84	91	80	0.90	84	79	85	0.84	85
30.68		110	73	1.0	84	104	76	0.98	84	91	80	0.90	85
28.76		118	72	1.1	84	111	73	1.0	84	97	78	0.94	85
25.38		133	62	1.0	84	126	69	1.1	84	110	74	1.0	85
22.50		151	50	0.96	83	142	58	1.0	84	124	71	1.1	85
19.13		177	37	0.85	81	167	42	0.90	82	146	58	1.1	84
19.89	24/5	170	69	1.4	91	160	70	1.3	91	140	72	1.2	91
18.24		186	67	1.4	91	175	68	1.4	91	153	70	1.2	91
15.53		218	57	1.4	91	206	59	1.4	91	180	68	1.4	91
13.39		253	53	1.6*	91	238	57	1.6*	91	209	60	1.4	91
12.48		272	53	1.7*	91	256	55	1.6*	91	224	58	1.5	91
10.91		311	44	1.6*	91	293	49	1.7*	91	256	58	1.7*	91
10.23		332	40	1.5	90	312	44	1.6*	91	273	54	1.7*	91
9.02		376	34	1.5	90	354	37	1.5	90	310	46	1.6*	91
8.00		425	26	1.3	89	400	32	1.5	90	350	39	1.6*	90
6.80		500	20	1.2	88	470	23	1.3	89	411	31	1.5	90
6.33	19/5	537	28	1.7*	90	505	31	1.8*	91	442	38	1.9*	91
5.38		631	22	1.6*	90	594	24	1.7*	90	520	31	1.9*	91
4.86		699	19	1.6*	89	658	21	1.6*	90	576	27	1.8*	91
3.97		856	14	1.4	88	806	16	1.5	89	705	20	1.6*	90

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	13	94	0.20	67	10	94	0.16	66	8.8	94	0.14	64
144.40		15	95	0.22	68	11	95	0.18	67	9.6	95	0.15	65
122.94		17	96	0.26	69	13	96	0.21	68	11	96	0.17	67
106.00		20	97	0.30	69	16	97	0.24	69	13	97	0.20	68
98.80		22	97	0.32	70	17	97	0.25	69	14	97	0.21	68
86.36		25	92	0.35	70	19	98	0.29	70	16	98	0.24	69
80.96		27	90	0.37	70	20	99	0.31	70	17	99	0.26	70
71.44		30	85	0.39	70	23	95	0.34	70	19	100	0.29	70
63.33		34	81	0.42	70	26	91	0.36	71	22	98	0.32	71
53.83		40	76	0.46	70	31	85	0.40	71	26	92	0.35	71
55.93	27/2	39	104	0.51	84	30	104	0.40	83	25	104	0.33	82
51.30		42	104	0.55	84	33	104	0.43	84	27	104	0.36	83
43.68		50	103	0.64	85	38	105	0.51	84	32	105	0.42	84
37.66		58	97	0.70	85	45	105	0.59	85	37	105	0.49	84
35.10		62	94	0.73	85	48	105	0.63	85	39	105	0.52	84
30.68		71	89	0.79	85	55	99	0.68	85	45	105	0.59	85
28.76		76	87	0.82	85	59	97	0.71	85	48	105	0.63	85
25.38		86	82	0.88	85	66	92	0.76	85	55	100	0.68	85
22.50		97	78	0.94	85	75	87	0.81	85	62	95	0.73	85
19.13		115	73	1.0	85	88	82	0.89	85	73	89	0.80	86
19.89	24/5	110	74	0.94	91	85	77	0.76	91	70	78	0.64	90
18.24		120	73	1.0	91	93	76	0.82	91	76	78	0.69	90
15.53		141	72	1.2	91	109	74	0.93	91	90	76	0.79	91
13.39		164	70	1.3	91	126	74	1.1	91	104	75	0.90	91
12.48		176	68	1.4	91	136	72	1.1	91	112	74	0.95	91
10.91		201	63	1.5	91	155	70	1.2	91	128	73	1.1	91
10.23		215	59	1.5	91	166	67	1.3	91	136	73	1.1	91
9.02		243	55	1.5	91	188	64	1.4	92	155	70	1.2	92
8.00		275	50	1.6*	91	212	56	1.4	91	175	66	1.3	92
6.80		323	45	1.7*	91	250	52	1.5	91	205	60	1.4	92
6.33	19/5	347	44	1.7*	92	268	49	1.5	92	221	56	1.4	92
5.38		408	40	1.9*	92	315	47	1.7*	92	260	51	1.5	92
4.86		452	36	1.9*	92	349	43	1.7*	92	288	48	1.6*	92
3.97		554	31	2.0*	91	428	40	1.9*	92	352	44	1.8*	92

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	6.9	94	0.11	62	5.7	95	0.09	60	4.4	95	0.08	58
144.40		7.6	95	0.12	63	6.2	96	0.10	61	4.8	96	0.08	59
122.94		8.9	96	0.14	65	7.3	97	0.12	63	5.6	97	0.10	61
106.00		10	97	0.16	66	8.4	98	0.13	65	6.6	98	0.11	62
98.80		11	97	0.17	67	9.1	98	0.14	65	7.0	98	0.12	63
86.36		12	98	0.19	68	10	99	0.16	67	8.1	99	0.13	65
80.96		13	99	0.21	68	11	99	0.17	67	8.6	99	0.14	65
71.44		15	100	0.23	69	12	100	0.19	68	9.7	100	0.15	67
63.33		17	100	0.26	70	14	101	0.22	69	11	101	0.17	68
53.83		20	101	0.30	71	16	102	0.25	70	13	102	0.20	69
55.93	27/2	19	104	0.26	81	16	104	0.22	80	12	104	0.17	78
51.30		21	104	0.29	82	17	104	0.24	81	13	104	0.19	79
43.68		25	105	0.34	83	20	105	0.28	82	16	105	0.22	80
37.66		29	105	0.39	83	23	105	0.32	82	18	105	0.25	81
35.10		31	105	0.41	84	25	105	0.34	83	19	105	0.27	82
30.68		35	105	0.47	84	29	105	0.39	84	22	105	0.30	82
28.76		38	105	0.50	84	31	105	0.41	84	24	105	0.32	83
25.38		43	105	0.56	85	35	105	0.46	84	27	105	0.36	83
22.50		48	105	0.63	85	40	105	0.52	85	31	105	0.41	84
19.13		57	98	0.69	86	47	105	0.61	85	36	105	0.47	85
19.89	24/5	55	80	0.52	90	45	81	0.43	89	35	81	0.34	88
18.24		60	80	0.56	90	49	81	0.47	89	38	82	0.37	88
15.53		70	78	0.64	90	57	80	0.54	90	45	81	0.43	89
13.39		82	78	0.74	91	67	78	0.61	90	52	80	0.49	90
12.48		88	76	0.77	91	72	78	0.65	90	56	80	0.52	90
10.91		100	75	0.87	91	82	78	0.74	91	64	79	0.59	90
10.23		107	75	0.93	91	87	76	0.77	91	68	78	0.62	90
9.02		121	73	1.0	91	99	75	0.86	91	77	77	0.69	91
8.00		137	72	1.1	92	112	74	0.95	91	87	77	0.78	91
6.80		161	70	1.3	92	132	72	1.1	92	102	75	0.88	91
6.33	19/5	173	65	1.3	92	142	68	1.1	92	110	69	0.87	92
5.38		204	63	1.5	92	167	66	1.3	92	130	68	1.0	92
4.86		226	61	1.6*	92	185	63	1.3	92	144	68	1.1	92
3.97		277	56	1.8*	93	226	58	1.5	93	176	61	1.2	92

* P_{Mot_max} = 1.5 kW

26883198/EN – 04/2022

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
157.43	38/1	3.1	97	0.06	54	1.5	98	<0.05	47	0.06	105	<0.05	48
144.40		3.4	97	0.06	55	1.7	98	<0.05	48	0.06	105	<0.05	48
122.94		4.0	98	0.07	57	2.0	99	<0.05	49	0.08	105	<0.05	48
106.00		4.7	99	0.08	59	2.3	100	<0.05	50	0.09	105	<0.05	48
98.80		5.0	100	0.09	60	2.5	100	0.05	51	0.10	105	<0.05	48
86.36		5.7	101	0.10	61	2.8	101	0.06	53	0.11	105	<0.05	49
80.96		6.1	101	0.11	62	3.0	101	0.06	54	0.12	105	<0.05	49
71.44		6.9	102	0.12	64	3.4	102	0.07	56	0.13	105	<0.05	49
63.33		7.8	102	0.13	65	3.9	102	0.07	57	0.15	105	<0.05	49
53.83		9.2	102	0.15	67	4.6	102	0.08	60	0.18	105	<0.05	49
55.93	27/2	8.9	104	0.13	75	4.4	104	0.07	68	0.17	105	<0.05	68
51.30		9.7	104	0.14	76	4.8	104	0.08	69	0.19	105	<0.05	68
43.68		11	105	0.16	77	5.7	105	0.09	71	0.22	105	<0.05	68
37.66		13	105	0.19	79	6.6	105	0.10	72	0.26	105	<0.05	69
35.10		14	105	0.20	79	7.1	105	0.11	73	0.28	105	<0.05	69
30.68		16	105	0.22	8	8.1	105	0.12	74	0.32	105	<0.05	69
28.76		17	105	0.24	81	8.6	105	0.13	75	0.34	105	<0.05	69
25.38		19	105	0.27	82	9.8	105	0.14	76	0.39	105	<0.05	69
22.50		22	105	0.30	83	11	105	0.16	78	0.44	105	<0.05	69
19.13		26	105	0.34	83	13	105	0.18	79	0.52	105	<0.05	69
19.89	24/5	25	81	0.25	86	12	82	0.13	81	0.50	83	<0.05	80
18.24		27	82	0.27	87	13	82	0.14	82	0.54	83	<0.05	80
15.53		32	82	0.32	88	16	83	0.17	83	0.64	83	<0.05	80
13.39		37	82	0.36	88	18	83	0.19	84	0.74	83	<0.05	80
12.48		40	81	0.38	89	20	83	0.21	85	0.80	83	<0.05	80
10.91		45	81	0.44	89	22	83	0.23	86	0.91	83	<0.05	80
10.23		48	81	0.46	90	24	83	0.25	86	0.97	83	<0.05	81
9.02		55	80	0.52	90	27	82	0.27	87	1.1	82	<0.05	81
8.00		62	79	0.57	90	31	82	0.31	88	1.2	82	<0.05	81
6.80		73	78	0.66	91	36	82	0.36	89	1.4	82	<0.05	81
6.33	19/5	78	69	0.63	91	39	69	0.32	89	1.5	69	<0.05	81
5.38		92	68	0.72	92	46	68	0.37	90	1.8	68	<0.05	81
4.86		102	68	0.80	92	51	68	0.41	90	2.0	68	<0.05	81
3.97		125	68	0.97	92	62	68	0.49	91	2.5	68	<0.05	81

26883198/EN – 04/2022

11.8.2 Technical data S..47p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	16	192	0.49	70	15	192	0.46	70	13	192	0.40	70
184.80		18	193	0.53	70	17	193	0.50	70	15	193	0.44	70
158.12		21	188	0.60	71	20	192	0.58	71	17	194	0.51	71
137.05		24	179	0.66	71	23	183	0.63	71	20	191	0.58	71
128.10		26	175	0.69	71	24	179	0.66	71	21	187	0.60	71
110.73		30	167	0.76	71	28	170	0.72	71	25	178	0.66	71
94.08		36	126	0.69	69	34	139	0.71	70	29	168	0.73	71
84.00		40	106	0.66	68	38	118	0.68	69	33	147	0.73	71
71.75		47	83	0.62	66	44	93	0.65	67	39	118	0.69	69
67.20		50	79	0.64	66	47	85	0.64	67	41	108	0.68	69
56.61		60	60	0.60	63	56	69	0.63	65	49	90	0.69	68
69.39	29/2	48	179	1.1	85	46	183	1.0	85	40	191	0.95	85
63.80		53	174	1.1	85	50	177	1.1	85	43	186	1.0	85
54.59		62	165	1.3	85	58	168	1.2	85	51	176	1.1	85
47.32		71	157	1.4	85	67	160	1.3	85	59	168	1.2	85
44.22		76	154	1.5	85	72	157	1.4	85	63	164	1.3	85
38.23		88	131	1.4	85	83	142	1.5	85	73	156	1.4	85
32.48		104	103	1.3	84	98	114	1.4	84	86	139	1.5	85
29.00		117	87	1.3	83	110	96	1.3	84	96	121	1.4	85
24.77		137	68	1.2	82	129	76	1.2	82	113	96	1.4	84
23.20		146	61	1.2	81	137	69	1.2	82	120	88	1.3	84
19.54		174	45	1.0	79	163	53	1.1	80	143	69	1.3	82
20.33	27/5	167	117	2.2	91	157	127	2.3*	91	137	141	2.2	92
17.62		192	98	2.2	91	181	107	2.2	91	158	127	2.3*	92
16.47		206	90	2.1	91	194	98	2.2	91	170	118	2.3*	91
14.24		238	78	2.2	91	224	83	2.2	91	196	98	2.2	91
12.10		280	63	2.1	90	264	69	2.1	90	231	82	2.2	91
10.80		314	53	2.0	89	296	60	2.1	90	259	72	2.2	91
9.23		368	38	1.7	88	346	45	1.8	89	303	60	2.1	90
8.64		393	34	1.6	87	370	39	1.7	88	324	55	2.1	90
7.28		467	25	1.4	86	439	30	1.6	87	384	41	1.9	89
6.83	20/5	497	36	2.1	90	468	41	2.2	90	409	52	2.5*	91
6.40		531	33	2.1	89	500	37	2.2	90	437	47	2.4*	91
5.39		630	25	1.9	88	593	28	2.0	89	519	37	2.2	90
4.76		714	20	1.7	87	672	23	1.8	88	588	30	2.1	90
4.00		850	16	1.7	86	800	18	1.7	87	700	23	1.9	89

* P_{Mot_max} = 2.2 kW

26883198/EN – 04/2022

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	10	192	0.32	69	8.4	192	0.25	67	6.9	192	0.21	66
184.80		11	193	0.35	69	9.1	193	0.27	68	7.5	193	0.23	67
158.12		13	194	0.40	70	10	194	0.32	69	8.8	194	0.27	68
137.05		16	195	0.46	71	12	195	0.36	70	10	195	0.30	69
128.10		17	196	0.50	71	13	196	0.39	70	10	196	0.32	69
110.73		19	193	0.56	71	15	197	0.45	71	12	197	0.37	70
94.08		23	182	0.62	72	18	198	0.52	72	14	198	0.43	71
84.00		26	176	0.67	72	20	191	0.56	72	16	199	0.49	72
71.75		30	167	0.75	72	23	181	0.62	72	19	194	0.55	72
67.20		32	156	0.75	72	25	178	0.65	72	20	189	0.57	72
56.61		38	126	0.72	71	30	168	0.73	73	24	179	0.64	73
69.39	29/2	31	200	0.78	85	24	200	0.61	84	20	200	0.51	83
63.80		34	200	0.85	85	26	200	0.66	84	21	200	0.55	84
54.59		40	191	0.95	85	31	200	0.77	85	25	200	0.64	84
47.32		46	182	1.0	85	35	198	0.88	85	29	200	0.73	85
44.22		49	178	1.1	85	38	193	0.91	85	31	200	0.78	85
38.23		57	169	1.2	85	44	184	1.0	85	36	196	0.88	85
32.48		67	160	1.3	86	52	174	1.1	86	43	186	0.98	86
29.00		75	154	1.4	86	58	167	1.2	86	48	179	1.1	86
24.77		88	139	1.5	85	68	159	1.3	86	56	169	1.2	86
23.20		94	129	1.5	85	73	155	1.4	86	60	165	1.2	86
19.54		112	103	1.4	85	87	146	1.5	86	71	156	1.4	86
20.33	27/5	108	149	1.8	92	83	155	1.5	91	68	160	1.3	91
17.62		124	145	2.1	92	96	152	1.7	92	79	156	1.4	91
16.47		133	142	2.2	92	103	149	1.8	92	85	155	1.5	91
14.24		154	134	2.4*	92	119	146	2.0	92	98	152	1.7	92
12.10		181	111	2.3*	92	140	138	2.2	92	115	146	1.9	92
10.80		203	96	2.2	91	157	133	2.4*	92	129	142	2.1	92
9.23		238	82	2.2	91	184	112	2.4*	92	151	134	2.3*	92
8.64		254	77	2.3*	91	196	104	2.3*	92	162	131	2.4*	92
7.28		302	64	2.2	91	233	86	2.3*	91	192	109	2.4*	92
6.83	20/5	322	76	2.8*	92	248	107	3.0*	93	204	120	2.8*	93
6.40		343	70	2.7*	92	265	99	3.0*	93	218	118	2.9*	93
5.39		408	56	2.6*	92	315	82	2.9*	93	259	104	3.0*	93
4.76		462	48	2.5*	91	357	71	2.9*	92	294	91	3.0*	93
4.00		550	37	2.3*	91	425	57	2.8*	92	350	75	3.0*	93

* P_{Mot_max} = 2.2 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	5.4	192	0.17	64	4.4	192	0.15	62	3.4	192	0.12	59
184.80		5.9	193	0.19	65	4.8	193	0.16	63	3.7	193	0.13	60
158.12		6.9	194	0.21	66	5.6	194	0.18	64	4.4	194	0.15	62
137.05		8.0	195	0.24	67	6.5	195	0.20	66	5.1	195	0.16	63
128.10		8.5	196	0.26	68	7.0	196	0.22	66	5.4	196	0.17	64
110.73		9.9	197	0.30	69	8.1	197	0.25	68	6.3	197	0.20	66
94.08		11	198	0.35	70	9.5	198	0.29	69	7.4	198	0.23	67
84.00		13	199	0.39	71	10	199	0.32	70	8.3	199	0.25	68
71.75		15	200	0.45	72	12	200	0.37	71	9.7	200	0.29	70
67.20		16	200	0.48	72	13	200	0.39	71	10	200	0.31	70
56.61		19	194	0.54	73	15	200	0.46	72	12	200	0.36	71
69.39	29/2	15	200	0.41	82	12	200	0.34	81	10	200	0.27	79
63.80		17	200	0.44	82	14	200	0.36	81	10	200	0.29	80
54.59		20	200	0.51	83	16	200	0.42	82	12	200	0.33	81
47.32		23	200	0.58	84	19	200	0.48	83	14	200	0.38	82
44.22		24	200	0.62	84	20	200	0.51	83	15	200	0.40	82
38.23		28	200	0.71	85	23	200	0.59	84	18	200	0.46	83
32.48		33	200	0.83	85	27	200	0.69	85	21	200	0.54	84
29.00		37	193	0.90	86	31	200	0.76	85	24	200	0.60	84
24.77		44	183	0.99	86	36	196	0.87	86	28	200	0.70	85
23.20		47	179	1.0	86	38	191	0.91	86	30	200	0.74	85
19.54		56	169	1.2	86	46	180	1.0	86	35	196	0.86	86
20.33	27/5	54	163	1.0	91	44	166	0.85	90	34	169	0.68	89
17.62		62	161	1.2	91	51	164	0.97	91	39	167	0.77	90
16.47		66	159	1.2	91	54	164	1.0	91	42	167	0.82	90
14.24		77	156	1.4	91	63	161	1.2	91	49	164	0.93	91
12.10		90	153	1.6	92	74	158	1.3	91	57	162	1.1	91
10.80		101	151	1.8	92	83	155	1.5	92	64	161	1.2	91
9.23		119	145	2.0	92	97	152	1.7	92	75	158	1.4	92
8.64		127	141	2.0	92	104	149	1.8	92	81	156	1.4	92
7.28		151	132	2.3*	92	123	142	2.0	92	96	152	1.7	92
6.83	20/5	161	128	2.3*	93	131	133	2.0	93	102	139	1.6	93
6.40		171	125	2.4*	93	140	132	2.1	93	109	138	1.7	93
5.39		204	120	2.8*	93	166	126	2.4*	93	129	133	1.9	93
4.76		231	114	3.0*	93	189	122	2.6*	93	147	130	2.2	93
4.00		275	101	3.1*	93	225	113	2.9*	93	175	123	2.4*	93

* P_{Mot_max} = 2.2 kW

26883198/EN – 04/2022

500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	2.4	192	0.09	54	1.2	193	0.05	48	0.04	200	<0.05	48
184.80		2.7	193	0.10	56	1.3	193	0.06	48	0.05	200	<0.05	48
158.12		3.1	194	0.11	58	1.5	194	0.07	49	0.06	200	<0.05	49
137.05		3.6	195	0.12	60	1.8	195	0.07	51	0.07	200	<0.05	49
128.10		3.9	196	0.13	61	1.9	196	0.08	52	0.07	200	<0.05	49
110.73		4.5	197	0.15	62	2.2	197	0.09	54	0.09	200	<0.05	49
94.08		5.3	198	0.17	64	2.6	198	0.10	56	0.10	200	<0.05	49
84.00		5.9	199	0.19	66	2.9	199	0.11	58	0.11	200	<0.05	49
71.75		6.9	200	0.22	67	3.4	200	0.12	60	0.13	200	<0.05	50
67.20		7.4	200	0.23	68	3.7	200	0.13	61	0.14	200	<0.05	50
56.61		8.8	200	0.27	69	4.4	200	0.15	63	0.17	200	<0.05	50
69.39	29/2	7.2	200	0.20	76	3.6	200	0.11	69	0.14	200	<0.05	68
63.80		7.8	200	0.21	77	3.9	200	0.12	70	0.15	200	<0.05	69
54.59		9.1	200	0.25	78	4.5	200	0.13	72	0.18	200	<0.05	69
47.32		10	200	0.28	79	5.2	200	0.15	73	0.21	200	<0.05	69
44.22		11	200	0.30	80	5.6	200	0.16	74	0.22	200	<0.05	69
38.23		13	200	0.34	81	6.5	200	0.18	75	0.26	200	<0.05	69
32.48		15	200	0.39	82	7.6	200	0.21	77	0.30	200	<0.05	69
29.00		17	200	0.44	83	8.6	200	0.23	78	0.34	200	<0.05	69
24.77		20	200	0.50	84	10	200	0.27	79	0.40	200	<0.05	69
23.20		21	200	0.54	84	10	200	0.28	80	0.43	200	<0.05	69
19.54		25	200	0.63	85	12	200	0.33	81	0.51	200	<0.05	69
20.33	27/5	24	171	0.50	88	12	174	0.27	84	0.49	174	<0.05	81
17.62		28	171	0.57	89	14	174	0.31	85	0.56	174	<0.05	81
16.47		30	171	0.61	89	15	174	0.33	85	0.60	174	<0.05	81
14.24		35	169	0.69	90	17	174	0.37	86	0.70	174	<0.05	81
12.10		41	167	0.80	90	20	173	0.43	87	0.82	174	<0.05	81
10.80		46	166	0.89	91	23	173	0.48	88	0.92	174	<0.05	81
9.23		54	164	1.0	91	27	172	0.55	89	1.00	174	<0.05	81
8.64		57	162	1.1	91	28	171	0.58	89	1.1	174	<0.05	81
7.28		68	159	1.2	92	34	170	0.68	90	1.3	174	<0.05	81
6.83	20/5	73	145	1.2	92	36	155	0.66	91	1.4	165	<0.05	83
6.40		78	145	1.3	92	39	153	0.69	91	1.5	165	<0.05	83
5.39		92	142	1.5	93	46	152	0.81	91	1.8	164	<0.05	83
4.76		105	139	1.6	93	52	151	0.91	92	2.1	164	<0.05	83
4.00		125	134	1.9	93	62	149	1.1	92	2.5	164	0.05	83

26883198/EN – 04/2022

11.8.3 Technical data S..57p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	16	335	0.81	74	15	345	0.78	73	13	355	0.71	73
184.80		18	325	0.85	74	17	335	0.82	74	15	350	0.75	74
158.12		21	310	0.94	74	20	315	0.90	74	17	330	0.83	74
137.05		24	295	1.0	74	23	300	0.99	74	20	315	0.91	74
128.10		26	290	1.1	74	24	295	1.0	74	21	310	0.95	74
110.73		30	265	1.1	74	28	280	1.1	74	25	295	1.0	75
94.08		36	215	1.1	73	34	235	1.1	74	29	275	1.2	75
84.00		40	188	1.1	73	38	205	1.1	73	33	245	1.2	74
71.75		47	143	1.00	71	44	157	1.0	72	39	200	1.1	74
67.20		50	131	0.98	71	47	145	1.0	72	41	187	1.1	73
56.61		60	103	0.93	69	56	115	0.97	70	49	142	1.0	72
69.39	29/2	48	290	1.7	86	46	300	1.7	86	40	310	1.5	86
63.80		53	285	1.8	87	50	290	1.8	87	43	305	1.6	87
54.59		62	270	2.0	87	58	275	1.9	87	51	285	1.8	87
47.32		71	255	2.2	87	67	260	2.1	87	59	275	2.0	87
44.22		76	235	2.2	87	72	255	2.2	87	63	265	2.0	87
38.23		88	200	2.2	86	83	215	2.2	87	73	255	2.3	87
32.48		104	164	2.1	86	98	178	2.1	86	86	210	2.2	87
29.00		117	131	1.9	85	110	154	2.1	86	96	186	2.2	86
24.77		137	111	1.9	85	129	120	1.9	85	113	153	2.1	86
23.20		146	102	1.9	84	137	111	1.9	85	120	131	1.9	85
19.54		174	81	1.8	83	163	90	1.8	84	143	109	1.9	85
20.33	27/5	167	171	3.3*	92	157	184	3.3*	92	137	225	3.5*	92
17.62		192	144	3.2*	92	181	155	3.2*	92	158	183	3.3*	92
16.47		206	134	3.2*	92	194	143	3.2*	92	170	169	3.3*	92
14.24		238	116	3.2*	91	224	123	3.2*	92	196	143	3.2*	92
12.10		280	99	3.2*	91	264	105	3.2*	91	231	121	3.2*	92
10.80		314	88	3.2*	91	296	94	3.2*	91	259	108	3.2*	91
9.23		368	73	3.1*	91	346	79	3.2*	91	303	93	3.2*	91
8.64		393	68	3.1*	90	370	74	3.2*	91	324	87	3.2*	91
7.28		467	54	2.9	90	439	60	3.1*	90	384	72	3.2*	91
6.83	20/5	497	59	3.4*	91	468	66	3.5*	92	409	80	3.7*	92
6.40		531	54	3.3*	91	500	60	3.4*	91	437	74	3.7*	92
5.39		630	42	3.1*	90	593	47	3.2*	91	519	59	3.5*	92
4.76		714	35	2.9	90	672	40	3.1*	91	588	50	3.4*	91
4.00		850	28	2.8	89	800	31	2.9	90	700	40	3.2*	91

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	10	355	0.56	72	8.4	355	0.44	71	6.9	355	0.37	69
184.80		11	355	0.61	73	9.1	355	0.48	72	7.5	355	0.40	70
158.12		13	360	0.71	74	10	360	0.56	73	8.8	360	0.46	72
137.05		16	340	0.77	74	12	360	0.64	74	10	360	0.53	73
128.10		17	335	0.81	74	13	365	0.69	74	10	365	0.57	73
110.73		19	320	0.89	75	15	345	0.75	74	12	365	0.65	74
94.08		23	300	0.98	75	18	330	0.84	75	14	350	0.73	74
84.00		26	290	1.1	75	20	315	0.89	75	16	335	0.78	75
71.75		30	275	1.2	75	23	300	0.99	75	19	320	0.87	75
67.20		32	255	1.2	75	25	290	1.0	75	20	310	0.90	75
56.61		38	210	1.1	74	30	275	1.1	75	24	295	1.0	76
69.39	29/2	31	335	1.3	86	24	365	1.1	86	20	370	0.92	85
63.80		34	330	1.4	86	26	355	1.2	86	21	370	1.00	85
54.59		40	310	1.5	87	31	340	1.3	86	25	360	1.1	86
47.32		46	295	1.7	87	35	325	1.4	87	29	345	1.2	86
44.22		49	290	1.7	87	38	315	1.5	87	31	335	1.3	87
38.23		57	275	1.9	87	44	300	1.6	87	36	320	1.4	87
32.48		67	260	2.1	87	52	285	1.8	87	43	300	1.6	87
29.00		75	250	2.3	87	58	270	1.9	87	48	290	1.7	87
24.77		88	210	2.3	87	68	255	2.1	87	56	275	1.9	87
23.20		94	195	2.2	87	73	250	2.2	87	60	270	2.0	87
19.54		112	160	2.2	86	87	220	2.3	87	71	250	2.1	87
20.33	27/5	108	225	2.8	92	83	225	2.1	92	68	225	1.8	92
17.62		124	225	3.2*	92	96	225	2.5	92	79	225	2.0	92
16.47		133	225	3.4*	92	103	225	2.6	92	85	225	2.2	92
14.24		154	190	3.3*	92	119	225	3.0	92	98	225	2.5	92
12.10		181	159	3.3*	92	140	220	3.5*	92	115	225	3.0	92
10.80		203	139	3.2*	92	157	191	3.4*	92	129	225	3.3*	92
9.23		238	119	3.2*	92	184	159	3.3*	92	151	199	3.4*	92
8.64		254	112	3.3*	92	196	148	3.3*	92	162	187	3.4*	92
7.28		302	96	3.3*	92	233	123	3.3*	92	192	155	3.4*	92
6.83	20/5	322	112	4.1*	93	248	152	4.3*	93	204	162	3.7*	93
6.40		343	103	4.0*	93	265	141	4.2*	93	218	156	3.8*	93
5.39		408	84	3.9*	92	315	118	4.2*	93	259	147	4.3*	93
4.76		462	72	3.8*	92	357	103	4.2*	93	294	129	4.3*	93
4.00		550	58	3.6*	92	425	84	4.0*	93	350	108	4.3*	93

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	5.4	355	0.30	67	4.4	355	0.25	65	3.4	360	0.21	63
184.80		5.9	360	0.33	68	4.8	360	0.28	67	3.7	360	0.22	64
158.12		6.9	360	0.37	70	5.6	360	0.31	68	4.4	360	0.25	66
137.05		8.0	365	0.43	71	6.5	365	0.36	70	5.1	365	0.29	68
128.10		8.5	365	0.46	72	7.0	365	0.38	70	5.4	365	0.31	68
110.73		9.9	365	0.52	73	8.1	365	0.43	72	6.3	365	0.35	70
94.08		11	370	0.61	74	9.5	370	0.51	73	7.4	370	0.41	71
84.00		13	365	0.67	74	10	370	0.57	73	8.3	370	0.45	72
71.75		15	345	0.74	75	12	370	0.65	74	9.7	370	0.52	73
67.20		16	340	0.78	75	13	360	0.68	75	10	370	0.55	74
56.61		19	320	0.86	75	15	340	0.75	75	12	370	0.64	74
69.39	29/2	15	370	0.73	84	12	370	0.61	83	10	370	0.48	81
63.80		17	370	0.79	84	14	370	0.66	83	10	370	0.52	82
54.59		20	370	0.92	85	16	370	0.76	84	12	370	0.60	83
47.32		23	370	1.0	86	19	370	0.87	85	14	370	0.68	84
44.22		24	365	1.1	86	20	370	0.92	85	15	370	0.73	84
38.23		28	345	1.2	86	23	370	1.1	86	18	370	0.83	85
32.48		33	325	1.3	87	27	350	1.2	86	21	370	0.97	86
29.00		37	315	1.4	87	31	335	1.3	87	24	365	1.1	86
24.77		44	295	1.6	87	36	320	1.4	87	28	345	1.2	87
23.20		47	290	1.7	87	38	310	1.4	87	30	340	1.2	87
19.54		56	275	1.9	87	46	290	1.6	87	35	315	1.4	87
20.33	27/5	54	225	1.4	91	44	225	1.1	91	34	225	0.90	90
17.62		62	225	1.6	92	51	225	1.3	91	39	225	1.0	91
16.47		66	225	1.7	92	54	225	1.4	91	42	225	1.1	91
14.24		77	225	2.0	92	63	225	1.6	92	49	225	1.3	91
12.10		90	225	2.3	92	74	225	1.9	92	57	225	1.5	92
10.80		101	225	2.6	92	83	225	2.1	92	64	225	1.7	92
9.23		119	215	2.9	92	97	225	2.5	92	75	225	1.9	92
8.64		127	205	3.0	92	104	215	2.5	92	81	225	2.1	92
7.28		151	185	3.2*	92	123	210	2.9	92	96	215	2.3	92
6.83	20/5	161	170	3.1*	93	131	195	2.9	93	102	205	2.4	93
6.40		171	165	3.2*	93	140	185	2.9	93	109	190	2.3	93
5.39		204	155	3.6*	93	166	175	3.3*	93	129	180	2.6	93
4.76		231	145	3.8*	93	189	160	3.4*	93	147	170	2.8	93
4.00		275	130	4.0*	93	225	150	3.8*	93	175	160	3.1*	93

* P_{Mot_max} = 3.0 kW

26883198/EN – 04/2022

500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
201.00	42/1	2.4	360	0.16	58	1.2	360	0.09	50	0.04	370	<0.05	50
184.80		2.7	360	0.17	60	1.3	360	0.10	51	0.05	370	<0.05	50
158.12		3.1	360	0.19	62	1.5	360	0.11	53	0.06	370	<0.05	50
137.05		3.6	365	0.22	64	1.8	365	0.13	55	0.07	370	<0.05	50
128.10		3.9	365	0.23	65	1.9	365	0.13	56	0.07	370	<0.05	50
110.73		4.5	365	0.26	67	2.2	365	0.15	58	0.09	370	<0.05	50
94.08		5.3	370	0.30	68	2.6	370	0.17	60	0.10	370	<0.05	50
84.00		5.9	370	0.33	70	2.9	370	0.19	62	0.11	370	<0.05	51
71.75		6.9	370	0.38	71	3.4	370	0.21	64	0.13	370	<0.05	51
67.20		7.4	370	0.40	71	3.7	370	0.22	65	0.14	370	<0.05	51
56.61		8.8	370	0.47	73	4.4	370	0.26	67	0.17	370	<0.05	51
69.39	29/2	7.2	370	0.36	78	3.6	370	0.20	71	0.14	370	<0.05	69
63.80		7.8	370	0.38	79	3.9	370	0.21	72	0.15	370	<0.05	69
54.59		9.1	370	0.44	81	4.5	370	0.24	74	0.18	370	<0.05	69
47.32		10	370	0.50	82	5.2	370	0.27	76	0.21	370	<0.05	69
44.22		11	370	0.53	82	5.6	370	0.29	77	0.22	370	<0.05	69
38.23		13	370	0.61	83	6.5	370	0.32	78	0.26	370	<0.05	70
32.48		15	370	0.71	84	7.6	370	0.38	80	0.30	370	<0.05	70
29.00		17	370	0.79	85	8.6	370	0.41	81	0.34	370	<0.05	70
24.77		20	370	0.91	86	10	370	0.48	82	0.40	370	<0.05	70
23.20		21	370	0.97	86	10	370	0.51	82	0.43	370	<0.05	70
19.54		25	355	1.1	86	12	370	0.59	84	0.51	370	<0.05	70
20.33	27/5	24	225	0.65	89	12	225	0.34	85	0.49	225	<0.05	80
17.62		28	225	0.75	90	14	225	0.39	86	0.56	225	<0.05	80
16.47		30	225	0.80	90	15	225	0.41	86	0.60	225	<0.05	80
14.24		35	225	0.92	90	17	225	0.47	87	0.70	225	<0.05	80
12.10		41	225	1.1	91	20	225	0.55	88	0.82	225	<0.05	80
10.80		46	225	1.2	91	23	225	0.61	89	0.92	225	<0.05	80
9.23		54	225	1.4	92	27	225	0.71	90	1.0	225	<0.05	80
8.64		57	225	1.5	92	28	225	0.76	90	1.1	225	<0.05	80
7.28		68	225	1.8	92	34	225	0.89	90	1.3	225	<0.05	80
6.83	20/5	73	200	1.7	93	36	200	0.84	91	1.4	200	<0.05	82
6.40		78	200	1.8	93	39	200	0.90	91	1.5	200	<0.05	82
5.39		92	205	2.1	93	46	205	1.1	92	1.8	205	<0.05	82
4.76		105	205	2.4	93	52	205	1.2	92	2.1	205	0.05	82
4.00		125	194	2.7	93	62	194	1.4	93	2.5	194	0.06	82

26883198/EN – 04/2022

11.8.4 Technical data S..67p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	15	635	1.4	74	14	635	1.3	74	12	640	1.2	74
190.11		17	640	1.6	75	16	640	1.5	75	14	640	1.3	74
180.60		18	640	1.7	75	17	640	1.6	75	15	640	1.4	74
158.45		21	640	1.9	75	20	645	1.8	75	17	645	1.6	75
134.40		25	525	1.9	74	23	610	2.0	75	20	645	1.9	75
121.33		28	460	1.8	74	26	505	1.9	74	23	635	2.0	75
106.75		31	405	1.9	73	29	430	1.8	73	26	515	1.9	74
100.80		33	380	1.9	72	31	410	1.9	73	27	475	1.9	74
85.83		39	320	1.9	72	37	345	1.9	72	32	400	1.9	73
78.00		43	285	1.8	71	41	310	1.9	72	35	365	1.9	73
67.57		50	235	1.8	69	47	260	1.8	70	41	315	1.9	72
58.80		57	184	1.7	67	54	215	1.8	69	47	270	1.9	71
75.06	29/2	45	625	3.4	87	42	635	3.3	87	37	660	3.0	87
65.63		51	580	3.6	87	48	620	3.6	87	42	635	3.3	87
62.35		54	540	3.6	87	51	585	3.6	87	44	630	3.4	87
54.70		62	465	3.5	87	58	505	3.6	87	51	595	3.7	87
46.40		73	415	3.7	86	68	415	3.5	86	60	490	3.6	87
41.89		81	365	3.6	86	76	395	3.7	86	66	435	3.5	87
36.85		92	310	3.5	85	86	335	3.6	86	75	405	3.7	86
34.80		97	295	3.5	85	91	315	3.5	86	80	380	3.7	86
29.63		114	250	3.6	85	107	270	3.6	85	94	310	3.6	86
26.93		126	220	3.5	84	118	240	3.5	85	103	280	3.6	85
23.33		145	182	3.3	83	137	200	3.4	84	120	245	3.6	85
20.30		167	141	3.0	82	157	164	3.3	83	137	205	3.5	84
24.44	27/5	139	365	5.8*	92	130	370	5.5	92	114	385	5.0	92
23.22		146	360	6.0*	92	137	365	5.7*	92	120	380	5.2	92
20.37		166	345	6.5*	92	157	350	6.2*	92	137	365	5.7*	92
17.28		196	275	6.2*	92	185	300	6.3*	92	162	350	6.4*	92
15.60		217	245	6.1*	92	205	265	6.2*	92	179	320	6.5*	92
13.73		247	215	6.1*	91	233	230	6.1*	92	203	270	6.3*	92
12.96		262	200	6.0*	91	246	215	6.1*	91	216	250	6.2*	92
11.03		308	169	6.0*	91	290	183	6.1*	91	253	215	6.2*	92
10.03		338	151	5.9*	91	319	164	6.0*	91	279	194	6.2*	91
8.69		391	124	5.7*	90	368	137	5.9*	90	322	166	6.2*	91
7.56		449	95	5.0*	89	423	112	5.5*	90	370	141	6.0*	91

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	10	640	0.92	73	7.8	640	0.72	73	6.4	640	0.60	72
190.11		11	640	1.0	74	8.9	640	0.82	73	7.3	640	0.68	72
180.60		12	640	1.1	74	9.4	645	0.87	73	7.7	645	0.72	73
158.45		13	645	1.3	75	10	645	0.98	74	8.8	645	0.81	73
134.40		16	645	1.5	75	12	645	1.1	75	10	645	0.95	74
121.33		18	645	1.6	75	14	645	1.3	75	11	645	1.0	74
106.75		20	645	1.8	75	15	645	1.4	75	13	645	1.2	75
100.80		21	645	2.0	76	16	645	1.5	75	13	645	1.3	75
85.83		25	550	2.0	75	19	660	1.8	76	16	660	1.5	76
78.00		28	485	1.9	75	21	645	1.9	76	17	660	1.6	76
67.57		32	410	1.9	74	25	580	2.0	76	20	650	1.9	76
58.80		37	360	1.9	74	28	495	2.0	76	23	625	2.0	76
75.06	29/2	29	685	2.4	87	22	720	2.0	87	18	720	1.6	86
65.63		33	670	2.7	87	25	700	2.2	87	21	720	1.9	87
62.35		35	665	2.8	87	27	700	2.3	87	22	720	2.0	87
54.70		40	645	3.1	87	31	680	2.5	87	25	705	2.2	87
46.40		47	620	3.5	87	36	660	2.9	87	30	680	2.5	87
41.89		52	585	3.7	87	40	645	3.1	87	33	670	2.7	87
36.85		59	505	3.6	87	46	625	3.5	88	37	655	3.0	87
34.80		63	470	3.6	87	48	610	3.6	88	40	640	3.1	88
29.63		74	435	3.9	87	57	545	3.7	88	47	620	3.5	88
26.93		81	385	3.8	87	63	485	3.7	87	51	600	3.7	88
23.33		94	320	3.7	86	72	455	4.0	87	60	525	3.8	88
20.30		108	280	3.7	86	83	390	3.9	87	68	450	3.7	87
24.44	27/5	90	410	4.2	92	69	415	3.3	92	57	415	2.7	92
23.22		94	405	4.4	92	73	420	3.5	92	60	420	2.9	92
20.37		108	390	4.8	92	83	415	3.9	92	68	435	3.4	92
17.28		127	375	5.4	92	98	400	4.5	92	81	415	3.8	92
15.60		141	360	5.8*	92	108	390	4.8	93	89	410	4.2	93
13.73		160	350	6.4*	92	123	380	5.3	93	101	395	4.6	93
12.96		169	340	6.5*	92	131	375	5.6*	93	108	390	4.8	93
11.03		199	285	6.5*	92	154	355	6.2*	93	126	375	5.4	93
10.03		219	255	6.4*	92	169	340	6.5*	93	139	365	5.8*	93
8.69		253	220	6.4*	92	195	300	6.6*	93	161	350	6.4*	93
7.56		291	192	6.4*	92	224	260	6.6*	92	185	330	6.9*	93

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	5.0	640	0.49	70	4.1	640	0.41	68	3.2	645	0.33	66
190.11		5.7	645	0.55	71	4.7	645	0.46	70	3.6	645	0.37	67
180.60		6.0	645	0.58	71	4.9	645	0.48	70	3.8	645	0.39	68
158.45		6.9	645	0.65	72	5.6	645	0.54	71	4.4	645	0.43	69
134.40		8.1	645	0.76	73	6.6	645	0.63	72	5.2	645	0.50	71
121.33		9.0	645	0.83	74	7.4	645	0.69	73	5.7	645	0.55	71
106.75		10	645	0.94	74	8.4	645	0.77	74	6.5	645	0.61	72
100.80		10	645	0.99	74	8.9	645	0.82	74	6.9	645	0.65	73
85.83		12	660	1.2	75	10	660	0.97	75	8.1	660	0.76	74
78.00		14	665	1.3	76	11	665	1.1	75	8.9	665	0.84	74
67.57		16	665	1.5	76	13	665	1.2	76	10	665	0.96	75
58.80		18	655	1.7	76	15	655	1.4	76	11	655	1.1	76
75.06	29/2	14	720	1.3	85	11	720	1.1	84	9.3	720	0.85	83
65.63		16	720	1.5	86	13	720	1.2	85	10	720	0.96	84
62.35		17	720	1.5	86	14	720	1.3	85	11	720	1.0	84
54.70		20	720	1.8	86	16	720	1.4	86	12	720	1.1	85
46.40		23	715	2.0	87	19	720	1.7	86	15	720	1.3	86
41.89		26	700	2.2	87	21	700	1.8	87	16	700	1.4	86
36.85		29	670	2.4	87	24	670	2.0	87	18	670	1.5	86
34.80		31	640	2.4	87	25	640	2.0	87	20	640	1.6	86
29.63		37	620	2.8	88	30	620	2.3	87	23	620	1.8	87
26.93		40	600	2.9	88	33	600	2.4	87	25	600	1.9	87
23.33		47	580	3.3	88	38	580	2.7	88	30	580	2.1	87
20.30		54	550	3.6	88	44	550	2.9	88	34	550	2.3	88
24.44	27/5	45	415	2.1	92	36	415	1.8	91	28	415	1.4	91
23.22		47	420	2.3	92	38	420	1.9	92	30	420	1.5	91
20.37		54	450	2.8	92	44	455	2.3	92	34	455	1.8	91
17.28		63	435	3.1	92	52	450	2.7	92	40	455	2.1	92
15.60		70	430	3.4	92	57	440	2.9	92	44	455	2.3	92
13.73		80	420	3.8	93	65	435	3.2	92	50	455	2.6	92
12.96		84	415	4.0	93	69	430	3.4	92	54	450	2.8	92
11.03		99	400	4.5	93	81	415	3.8	93	63	435	3.1	92
10.03		109	390	4.8	93	89	410	4.2	93	69	430	3.4	93
8.69		126	375	5.4	93	103	400	4.7	93	80	420	3.8	93
7.56		145	360	5.9*	93	119	385	5.2	93	92	410	4.3	93

* P_{Mot_max} = 5.5 kW

26883198/EN – 04/2022

500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
217.41	42/1	2.2	645	0.25	62	1.1	645	0.15	54	0.04	645	<0.05	52
190.11		2.6	645	0.28	64	1.3	645	0.16	55	0.05	645	<0.05	52
180.60		2.7	645	0.29	64	1.3	645	0.17	56	0.05	645	<0.05	52
158.45		3.1	645	0.32	66	1.5	645	0.19	58	0.06	645	<0.05	52
134.40		3.7	645	0.37	68	1.8	645	0.21	60	0.07	645	<0.05	52
121.33		4.1	645	0.41	69	2.0	645	0.23	61	0.08	645	<0.05	52
106.75		4.6	645	0.45	70	2.3	645	0.25	63	0.09	645	<0.05	52
100.80		4.9	645	0.48	70	2.4	645	0.26	63	0.09	645	<0.05	52
85.83		5.8	660	0.56	72	2.9	660	0.31	66	0.11	695	<0.05	53
78.00		6.4	665	0.61	73	3.2	665	0.33	67	0.12	685	<0.05	53
67.57		7.3	665	0.70	74	3.6	665	0.38	68	0.14	675	<0.05	53
58.80		8.5	655	0.78	74	4.2	655	0.42	70	0.17	655	<0.05	53
75.06	29/2	6.6	720	0.62	81	3.3	720	0.34	75	0.13	720	<0.05	71
65.63		7.6	720	0.70	82	3.8	720	0.38	76	0.15	720	<0.05	71
62.35		8.0	720	0.74	82	4.0	720	0.40	76	0.16	720	<0.05	71
54.70		9.1	720	0.83	83	4.5	720	0.44	78	0.18	720	<0.05	71
46.40		10	720	0.97	84	5.3	720	0.51	79	0.21	720	<0.05	71
41.89		11	720	1.1	85	5.9	720	0.56	80	0.23	720	<0.05	71
36.85		13	720	1.2	85	6.7	720	0.63	81	0.27	720	<0.05	71
34.80		14	700	1.2	86	7.1	700	0.65	82	0.28	700	<0.05	71
29.63		16	680	1.4	86	8.4	680	0.73	83	0.33	680	<0.05	71
26.93		18	660	1.5	86	9.2	660	0.77	83	0.37	660	<0.05	71
23.33		21	640	1.7	87	10	640	0.85	84	0.42	640	<0.05	71
20.30		24	620	1.8	87	12	620	0.94	85	0.49	620	<0.05	71
24.44	27/5	20	415	0.99	90	10	415	0.52	86	0.40	415	<0.05	82
23.22		21	420	1.1	90	10	420	0.55	86	0.43	420	<0.05	82
20.37		24	455	1.3	90	12	455	0.67	87	0.49	455	<0.05	82
17.28		28	455	1.5	91	14	455	0.78	88	0.57	455	<0.05	82
15.60		32	455	1.7	91	16	455	0.86	89	0.64	455	<0.05	82
13.73		36	455	1.9	92	18	455	0.97	89	0.72	455	<0.05	82
12.96		38	455	2.0	92	19	455	1.0	90	0.77	455	<0.05	82
11.03		45	455	2.3	92	22	455	1.2	90	0.90	455	0.05	82
10.03		49	450	2.5	92	24	455	1.3	91	0.99	455	0.06	82
8.69		57	440	2.9	92	28	455	1.5	91	1.1	455	0.07	82
7.56		66	435	3.3	93	33	455	1.7	92	1.3	455	0.08	82

26883198/EN – 04/2022

11.8.5 Technical data S..77p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	13	1470	2.6	78	12	1480	2.5	78	10	1500	2.2	78
225.26		15	1420	2.9	78	14	1440	2.7	78	12	1480	2.5	78
214.00		15	1410	3.0	78	14	1420	2.8	78	13	1470	2.6	78
189.09		17	1370	3.3	78	16	1380	3.1	78	14	1420	2.8	78
161.60		21	1290	3.6	78	19	1330	3.5	78	17	1370	3.2	78
148.15		22	1260	3.9	78	21	1280	3.7	78	18	1340	3.4	78
130.00		26	1210	4.2	78	24	1230	4.1	78	21	1290	3.7	78
123.20		27	1130	4.2	78	25	1210	4.2	78	22	1260	3.8	78
107.83		31	950	4.1	77	29	1040	4.2	78	25	1210	4.2	78
97.14		35	860	4.1	77	32	900	4.0	77	28	1100	4.3	78
85.22		39	770	4.2	76	37	820	4.2	77	32	930	4.1	78
75.20		45	675	4.2	76	42	725	4.2	76	37	830	4.2	77
66.67		50	585	4.2	75	47	635	4.2	75	41	745	4.3	77
56.92		59	485	4.1	74	56	530	4.2	74	49	635	4.3	76
75.09	40/3	45	1160	6.1	90	42	1190	5.9	90	37	1210	5.3	90
71.33		47	1150	6.4	90	44	1170	6.1	90	39	1210	5.5	90
63.03		53	1110	7.0	90	50	1140	6.7	90	44	1170	6.1	90
53.87		63	1070	7.9	90	59	1080	7.5	90	51	1120	6.8	90
49.38		68	1030	8.3	90	64	1060	8.0	90	56	1100	7.3	90
43.33		78	910	8.4	90	73	1010	8.7	90	64	1060	8.0	90
41.07		82	900	8.7	90	77	910	8.3	90	68	1050	8.3	90
35.94		94	800	8.9	89	89	850	8.9	89	77	910	8.3	90
32.38		105	725	9.0	89	98	770	8.9	89	86	880	8.9	90
28.41		119	635	9.0	89	112	680	9.0	89	98	780	9.0	89
25.07		135	560	9.0	88	127	600	9.1	89	111	695	9.1	89
22.22		153	485	8.8	88	144	525	9.0	88	126	615	9.1	89
18.97		179	395	8.5	87	168	440	8.9	88	147	520	9.1	89
22.89	34/6	148	665	11.1*	93	139	680	10.7	93	122	710	9.8	93
20.99		161	620	11.3*	93	152	660	11.3*	93	133	690	10.4	93
18.42		184	590	12.3*	93	173	590	11.6*	93	152	660	11.3*	93
17.45		194	590	13.0*	93	183	590	12.2*	93	160	635	11.5*	93
15.28		222	530	13.3*	93	209	560	13.2*	93	183	590	12.2*	93
13.76		247	480	13.4*	93	232	505	13.3*	93	203	585	13.4*	93
12.07		281	415	13.3*	92	265	445	13.4*	92	231	515	13.5*	93
10.65		319	365	13.3*	92	300	390	13.3	92	262	455	13.5*	93
9.44		360	315	13.0*	92	338	345	13.3*	92	296	405	13.6*	92
8.06		421	260	12.6*	91	397	285	12.9*	92	347	340	13.4*	92

* P_{Mot_max} = 11.0 kW

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	8.5	1500	1.7	77	6.6	1500	1.4	77	5.4	1500	1.1	76
225.26		9.7	1500	2.0	78	7.5	1500	1.5	77	6.2	1500	1.3	76
214.00		10	1500	2.1	78	7.9	1500	1.6	77	6.5	1500	1.3	77
189.09		11	1490	2.3	78	8.9	1500	1.8	78	7.4	1500	1.5	77
161.60		13	1450	2.6	78	10	1500	2.1	78	8.6	1500	1.7	78
148.15		14	1420	2.8	79	11	1500	2.3	78	9.4	1500	1.9	78
130.00		16	1380	3.1	79	13	1470	2.6	79	10	1500	2.2	78
123.20		17	1370	3.3	79	13	1460	2.7	79	11	1500	2.3	79
107.83		20	1320	3.6	79	15	1410	3.0	79	12	1470	2.5	79
97.14		22	1270	3.8	79	17	1370	3.2	79	14	1440	2.8	79
85.22		25	1220	4.2	79	19	1320	3.5	79	16	1390	3.0	79
75.20		29	1120	4.4	79	22	1270	3.8	79	18	1340	3.3	79
66.67		32	960	4.2	78	25	1220	4.1	79	20	1290	3.6	79
56.92		38	830	4.3	78	29	1140	4.5	79	24	1230	4.0	80
75.09	40/3	29	1280	4.4	90	22	1320	3.5	89	18	1360	3.0	89
71.33		30	1270	4.6	90	23	1320	3.7	90	19	1350	3.1	89
63.03		34	1230	5.0	90	26	1290	4.1	90	22	1320	3.4	90
53.87		40	1200	5.7	90	31	1250	4.6	90	25	1300	3.9	90
49.38		44	1170	6.1	90	34	1230	4.9	90	28	1280	4.2	90
43.33		50	1130	6.7	90	39	1210	5.5	90	32	1250	4.7	90
41.07		53	1110	6.9	90	41	1190	5.7	90	34	1240	4.9	90
35.94		61	1080	7.7	90	47	1150	6.3	90	38	1210	5.5	90
32.38		67	1040	8.2	90	52	1120	6.8	90	43	1180	5.9	90
28.41		77	930	8.4	90	59	1080	7.5	90	49	1140	6.5	90
25.07		87	870	8.9	90	67	1040	8.2	90	55	1100	7.1	90
22.22		99	790	9.1	90	76	970	8.6	90	63	1070	7.8	90
18.97		115	680	9.2	90	89	860	9.0	90	73	1010	8.6	91
22.89	34/6	96	760	8.2	93	74	810	6.8	93	61	840	5.8	93
20.99		104	745	8.8	93	80	790	7.2	93	66	820	6.2	93
18.42		119	720	9.7	93	92	765	7.9	93	76	800	6.8	93
17.45		126	720	10.2	93	97	760	8.3	93	80	795	7.2	93
15.28		143	720	11.6*	93	111	730	9.1	93	91	765	7.9	93
13.76		159	725	13.0*	93	123	720	10.0	93	101	745	8.5	93
12.07		182	650	13.3*	93	140	725	11.4*	93	115	720	9.4	93
10.65		206	580	13.5*	93	159	725	13.0*	93	131	720	10.6	93
9.44		233	520	13.7*	93	180	655	13.2*	93	148	725	12.0*	94
8.06		272	445	13.7*	93	210	575	13.6*	93	173	680	13.2*	94

* P_{Mot_max} = 11.0 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	4.2	1500	0.91	74	3.5	1500	0.76	73	2.7	1500	0.61	71
225.26		4.8	1500	1.0	75	3.9	1500	0.85	74	3.1	1500	0.68	72
214.00		5.1	1500	1.1	76	4.2	1500	0.89	74	3.2	1500	0.71	72
189.09		5.8	1500	1.2	76	4.7	1500	0.99	75	3.7	1500	0.79	74
161.60		6.8	1500	1.4	77	5.5	1500	1.1	76	4.3	1500	0.91	75
148.15		7.4	1500	1.5	77	6.0	1500	1.2	77	4.7	1500	0.99	75
130.00		8.4	1500	1.7	78	6.9	1500	1.4	77	5.3	1500	1.1	76
123.20		8.9	1500	1.8	78	7.3	1500	1.5	77	5.6	1500	1.2	76
107.83		10	1500	2.0	79	8.3	1500	1.7	78	6.4	1500	1.3	77
97.14		11	1500	2.3	79	9.2	1500	1.9	78	7.2	1500	1.5	78
85.22		12	1470	2.5	79	10	1500	2.1	79	8.2	1500	1.6	78
75.20		14	1430	2.8	79	11	1490	2.4	79	9.3	1500	1.9	79
66.67		16	1380	3.0	80	13	1450	2.6	79	10	1500	2.1	79
56.92		19	1330	3.4	80	15	1400	2.9	80	12	1480	2.4	80
75.09	40/3	14	1390	2.4	89	11	1420	2.0	88	9.3	1440	1.6	87
71.33		15	1390	2.5	89	12	1410	2.1	88	9.8	1440	1.7	87
63.03		17	1380	2.8	89	14	1390	2.3	89	11	1430	1.9	88
53.87		20	1350	3.2	89	16	1380	2.7	89	12	1400	2.2	88
49.38		22	1320	3.4	90	18	1360	2.9	89	14	1390	2.3	89
43.33		25	1300	3.8	90	20	1350	3.3	90	16	1380	2.6	89
41.07		26	1300	4.1	90	21	1330	3.4	90	17	1380	2.8	89
35.94		30	1270	4.5	90	25	1300	3.8	90	19	1350	3.1	90
32.38		33	1240	4.9	90	27	1290	4.2	90	21	1320	3.3	90
28.41		38	1210	5.4	90	31	1250	4.6	90	24	1280	3.7	90
25.07		43	1180	6.0	90	35	1230	5.1	90	27	1240	4.0	90
22.22		49	1140	6.5	91	40	1200	5.6	91	31	1200	4.4	90
18.97		57	1090	7.3	91	47	1150	6.3	91	36	1150	4.9	90
22.89	34/6	48	850	4.6	93	39	850	3.8	93	30	850	2.9	92
20.99		52	850	5.0	93	42	850	4.1	93	33	850	3.2	93
18.42		59	840	5.6	93	48	850	4.7	93	38	850	3.6	93
17.45		63	830	5.9	93	51	850	4.9	93	40	850	3.8	93
15.28		71	820	6.6	93	58	840	5.6	93	45	850	4.4	93
13.76		79	795	7.1	93	65	830	6.1	93	50	850	4.9	93
12.07		91	765	7.8	93	74	810	6.8	93	57	840	5.5	93
10.65		103	750	8.7	93	84	785	7.4	93	65	830	6.1	93
9.44		116	720	9.4	94	95	765	8.2	94	74	810	6.7	94
8.06		136	725	11.1*	94	111	730	9.1	94	86	785	7.6	94

* P_{Mot_max} = 11.0 kW

26883198/EN – 04/2022

500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
256.47	40/1	1.9	1500	0.46	67	0.97	1500	0.26	59	0.03	1500	<0.05	57
225.26		2.2	1500	0.51	69	1.1	1500	0.29	60	0.04	1500	<0.05	57
214.00		2.3	1500	0.53	69	1.1	1500	0.30	61	0.04	1500	<0.05	57
189.09		2.6	1500	0.59	71	1.3	1500	0.33	63	0.05	1500	<0.05	57
161.60		3.0	1500	0.67	72	1.5	1500	0.38	65	0.06	1500	<0.05	57
148.15		3.3	1500	0.73	73	1.6	1500	0.40	66	0.06	1500	<0.05	57
130.00		3.8	1500	0.82	74	1.9	1500	0.45	67	0.07	1500	<0.05	57
123.20		4.0	1500	0.86	74	2.0	1500	0.47	68	0.08	1500	<0.05	57
107.83		4.6	1500	0.97	75	2.3	1500	0.52	70	0.09	1500	<0.05	57
97.14		5.1	1500	1.1	76	2.5	1500	0.57	71	0.10	1500	<0.05	57
85.22		5.8	1500	1.2	77	2.9	1500	0.64	72	0.11	1500	<0.05	57
75.20		6.6	1500	1.3	78	3.3	1500	0.71	73	0.13	1500	<0.05	57
66.67		7.4	1500	1.5	78	3.7	1500	0.79	74	0.14	1500	<0.05	57
56.92		8.7	1500	1.8	79	4.3	1500	0.91	76	0.17	1500	<0.05	57
75.09	40/3	6.6	1450	1.2	85	3.3	1460	0.64	80	0.13	1500	<0.05	77
71.33		7.0	1460	1.3	85	3.5	1460	0.67	80	0.14	1500	<0.05	77
63.03		7.9	1460	1.4	86	3.9	1460	0.74	82	0.15	1460	<0.05	77
53.87		9.2	1450	1.6	87	4.6	1450	0.85	83	0.18	1450	<0.05	77
49.38		10	1440	1.7	87	5.0	1440	0.92	83	0.20	1440	<0.05	77
43.33		11	1430	2.0	88	5.7	1440	1.0	84	0.23	1440	<0.05	77
41.07		12	1400	2.0	88	6.0	1400	1.1	85	0.24	1400	<0.05	77
35.94		13	1360	2.2	89	6.9	1360	1.2	86	0.27	1360	0.05	77
32.38		15	1320	2.4	89	7.7	1320	1.2	86	0.30	1320	0.06	77
28.41		17	1280	2.6	89	8.7	1280	1.4	87	0.35	1280	0.06	77
25.07		19	1240	2.9	90	9.9	1240	1.5	87	0.39	1240	0.07	77
22.22		22	1200	3.1	90	11	1200	1.6	88	0.45	1200	0.07	77
18.97		26	1150	3.5	90	13	1150	1.8	89	0.52	1150	0.08	77
22.89	34/6	21	850	2.1	92	10	850	1.1	89	0.43	850	<0.05	84
20.99		23	850	2.3	92	11	850	1.2	89	0.47	850	0.05	84
18.42		27	850	2.6	92	13	850	1.3	90	0.54	850	0.06	84
17.45		28	850	2.8	92	14	850	1.4	90	0.57	850	0.06	84
15.28		32	850	3.1	93	16	850	1.6	91	0.65	850	0.07	84
13.76		36	850	3.5	93	18	850	1.8	91	0.72	850	0.08	84
12.07		41	850	4.0	93	20	850	2.0	92	0.82	850	0.09	84
10.65		46	850	4.5	93	23	850	2.3	92	0.93	850	0.10	84
9.44		52	850	5.1	93	26	850	2.6	92	1.0	850	0.11	84
8.06		62	830	5.8	94	31	850	3.0	93	1.2	850	0.13	84

26883198/EN – 04/2022

11.8.6 Technical data S..87p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	11	2580	4.0	80	11	2600	3.8	80	9.7	2680	3.4	80
258.18		13	2500	4.3	80	12	2520	4.1	80	10	2600	3.7	80
222.40		15	2400	4.8	80	14	2430	4.6	80	12	2520	4.2	80
202.96		16	2350	5.2	80	15	2370	4.9	80	13	2460	4.4	80
180.00		18	2240	5.6	80	17	2300	5.4	80	15	2380	4.9	80
151.30		22	1950	5.8	79	21	2120	5.9	80	18	2260	5.5	80
139.05		24	1860	6.0	79	23	1900	5.8	79	20	2210	5.8	80
123.48		27	1580	5.8	78	25	1730	6.0	79	22	1970	5.9	80
110.40		30	1430	5.9	78	28	1540	6.0	78	25	1820	6.1	79
99.26		34	1260	5.9	77	32	1380	6.0	78	28	1570	5.9	79
86.15		39	1030	5.6	76	37	1150	5.8	77	32	1390	6.1	78
77.14		44	830	5.2	74	41	970	5.6	75	36	1220	6.0	77
64.00		53	500	4.1	69	50	620	4.5	71	43	960	5.8	76
91.20	38/3	37	2140	9.2	91	35	2180	8.8	91	30	2230	7.9	91
81.76		41	2070	9.9	91	39	2100	9.5	91	34	2180	8.6	91
70.43		48	1980	11.0	91	45	2030	10.6	91	39	2090	9.6	91
64.27		52	1940	11.8	91	49	1970	11.3	91	43	2060	10.3	91
57.00		59	1860	12.8	91	56	1900	12.3	91	49	1980	11.2	91
47.91		70	1600	13.2	90	66	1760	13.6	91	58	1880	12.7	91
44.03		77	1470	13.2	90	72	1570	13.2	90	63	1830	13.4	91
39.10		86	1300	13.2	90	81	1400	13.3	90	71	1620	13.4	91
34.96		97	1140	13.0	90	91	1240	13.2	90	80	1440	13.4	90
31.43		108	1000	12.7	89	101	1090	13.0	89	89	1290	13.4	90
27.28		124	810	12.0	88	117	910	12.6	89	102	1110	13.3	90
24.43		139	660	11.0	87	130	775	12.0	88	114	960	12.9	89
20.27		167	395	8.2	84	157	490	9.4	86	138	755	12.3	89
25.50	34/6	133	1070	16.0	93	125	1090	15.4	93	109	1160	14.3	93
21.43		158	990	17.7	93	149	1020	17.1	93	130	1080	15.8	93
19.70		172	990	19.0*	93	162	990	18.1	93	142	1040	16.6	93
17.49		194	870	19.0*	93	182	930	19.0*	93	160	990	17.8	93
15.64		217	760	19.0*	93	204	830	19.0*	93	179	960	19.0*	93
14.06		241	660	18.1	92	227	725	19.0*	93	199	860	19.0*	93
12.21		278	540	17.2	92	262	605	18.0	92	229	730	19.0*	93
10.93		311	440	15.7	91	292	510	17.1	92	256	645	19.0*	92
9.07		374	255	11.3	89	352	325	13.3	90	308	500	17.6	92
7.88		431	200	10.4	87	406	230	11.1	88	355	375	15.3	91

* P_{Mot_max} = 18.5 kW

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	7.6	2770	2.8	80	5.9	2900	2.3	79	4.8	3000	2.0	78
258.18		8.5	2720	3.0	80	6.5	2840	2.5	79	5.4	2920	2.1	79
222.40		9.8	2660	3.4	80	7.6	2770	2.8	80	6.2	2860	2.4	79
202.96		10	2610	3.7	80	8.3	2730	3.0	80	6.8	2820	2.6	80
180.00		12	2540	4.1	80	9.4	2680	3.3	80	7.7	2780	2.8	80
151.30		14	2440	4.6	80	11	2580	3.8	80	9.2	2680	3.2	80
139.05		15	2380	4.9	80	12	2540	4.0	80	10	2670	3.5	80
123.48		17	2310	5.4	80	13	2460	4.4	80	11	2580	3.8	80
110.40		19	2210	5.8	80	15	2390	4.8	81	12	2510	4.1	81
99.26		22	2080	6.0	80	17	2340	5.2	81	14	2440	4.5	81
86.15		25	1870	6.3	80	19	2220	5.7	81	16	2360	5.0	81
77.14		28	1620	6.1	79	22	2130	6.1	81	18	2280	5.4	81
64.00		34	1360	6.2	79	26	1860	6.4	80	21	2160	6.1	81
91.20	38/3	24	2330	6.5	91	18	2420	5.2	91	15	2490	4.4	90
81.76		26	2280	7.1	91	20	2400	5.8	91	17	2460	4.9	90
70.43		31	2210	8.0	91	24	2330	6.5	91	19	2400	5.5	91
64.27		34	2190	8.6	91	26	2300	7.0	91	21	2380	6.0	91
57.00		38	2110	9.4	91	29	2230	7.7	91	24	2330	6.6	91
47.91		45	2030	10.7	91	35	2150	8.8	91	29	2260	7.6	91
44.03		49	1970	11.3	91	38	2110	9.4	91	31	2210	8.1	91
39.10		56	1890	12.3	91	43	2050	10.2	91	35	2160	8.9	91
34.96		62	1820	13.2	91	48	1990	11.1	91	40	2090	9.6	91
31.43		69	1720	13.9	91	54	1930	12.0	91	44	2040	10.4	91
27.28		80	1450	13.5	91	62	1840	13.2	91	51	1970	11.6	91
24.43		90	1310	13.7	90	69	1760	14.1	91	57	1890	12.4	91
20.27		108	1080	13.6	90	83	1450	14.0	91	69	1760	13.9	91
25.50	34/6	86	1270	12.3	94	66	1410	10.5	94	54	1440	8.8	94
21.43		102	1240	14.3	94	79	1320	11.7	94	65	1420	10.4	94
19.70		111	1240	15.5	94	86	1270	12.3	94	71	1370	10.9	94
17.49		125	1240	17.4	94	97	1240	13.5	94	80	1310	11.7	94
15.64		140	1230	19.0*	94	108	1240	15.1	94	89	1260	12.6	94
14.06		156	1110	19.0*	94	120	1240	16.8	94	99	1240	13.8	94
12.21		180	970	20.0*	93	139	1240	19.0*	94	114	1240	15.9	94
10.93		201	870	20.0*	93	155	1130	20.0*	94	128	1240	17.7	94
9.07		242	720	20.0*	93	187	950	20.0*	94	154	1140	20.0*	94
7.88		279	605	19.0*	93	215	830	20.0*	93	177	1010	20.0*	94

* P_{Mot_max} = 18.5 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	3.8	3000	1.6	77	3.1	3000	1.3	76	2.4	3000	1.0	74
258.18		4.2	2970	1.7	78	3.4	2970	1.4	77	2.7	2970	1.1	75
222.40		4.9	2950	1.9	79	4.0	2970	1.6	78	3.1	2970	1.3	76
202.96		5.4	2910	2.1	79	4.4	2970	1.8	78	3.4	2990	1.4	77
180.00		6.1	2890	2.3	79	5.0	2930	2.0	79	3.8	2990	1.6	77
151.30		7.2	2790	2.7	80	5.9	2880	2.3	79	4.6	2980	1.8	78
139.05		7.9	2780	2.9	80	6.4	2870	2.4	80	5.0	2960	2.0	79
123.48		8.9	2700	3.1	80	7.2	2790	2.7	80	5.6	2900	2.2	79
110.40		9.9	2650	3.4	81	8.1	2750	2.9	80	6.3	2860	2.4	80
99.26		11	2600	3.7	81	9.0	2700	3.2	81	7.0	2810	2.6	80
86.15		12	2510	4.2	81	10	2630	3.6	81	8.1	2750	2.9	81
77.14		14	2460	4.5	81	11	2560	3.9	81	9.0	2700	3.2	81
64.00		17	2330	5.2	81	14	2440	4.4	81	10	2600	3.7	81
91.20	38/3	12	2550	3.6	90	9.8	2310	2.7	89	7.6	2310	2.1	88
81.76		13	2530	4.0	90	11	2560	3.3	90	8.5	2610	2.6	89
70.43		15	2470	4.5	90	12	2530	3.8	90	9.9	2580	3.0	89
64.27		17	2440	4.8	91	14	2500	4.1	90	10	2560	3.3	90
57.00		19	2400	5.4	91	15	2470	4.5	90	12	2530	3.6	90
47.91		22	2350	6.2	91	18	2410	5.2	91	14	2500	4.2	90
44.03		24	2300	6.6	91	20	2400	5.7	91	15	2470	4.5	91
39.10		28	2280	7.4	91	23	2350	6.2	91	17	2440	5.0	91
34.96		31	2210	8.0	91	25	2300	6.8	91	20	2390	5.5	91
31.43		34	2170	8.7	91	28	2250	7.4	91	22	2370	6.1	91
27.28		40	2080	9.6	91	32	2190	8.3	91	25	2300	6.8	91
24.43		45	2030	10.5	91	36	2140	9.0	91	28	2250	7.4	91
20.27		54	1920	11.9	91	44	2030	10.3	92	34	2170	8.6	92
25.50	34/6	43	1440	7.0	93	35	1440	5.7	93	27	1440	4.5	93
21.43		51	1510	8.7	94	41	1510	7.1	94	32	1510	5.5	93
19.70		55	1500	9.4	94	45	1540	7.9	94	35	1570	6.3	93
17.49		62	1440	10.1	94	51	1510	8.7	94	40	1570	7.0	94
15.64		70	1380	10.8	94	57	1480	9.5	94	44	1540	7.7	94
14.06		78	1340	11.7	94	64	1440	10.3	94	49	1510	8.4	94
12.21		90	1340	13.5	94	73	1370	11.3	94	57	1460	9.3	94
10.93		100	1340	15.0	94	82	1360	12.5	94	64	1440	10.3	94
9.07		121	1340	18.1	94	99	1340	14.8	94	77	1380	11.9	94
7.88		139	1260	20.0*	94	114	1340	17.0	94	88	1340	13.3	94

* P_{Mot_max} = 18.5 kW

26883198/EN – 04/2022

500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
288.00	40/1	1.7	3000	0.77	71	0.86	3000	0.43	63	0.03	3000	<0.05	60
258.18		1.9	2990	0.84	72	0.96	2990	0.47	64	0.03	3000	<0.05	60
222.40		2.2	3000	0.96	73	1.1	3000	0.54	66	0.04	3000	<0.05	60
202.96		2.4	3000	1.0	74	1.2	3000	0.58	67	0.04	3000	<0.05	60
180.00		2.7	3000	1.2	75	1.3	3000	0.64	68	0.05	3000	<0.05	60
151.30		3.3	3000	1.4	77	1.6	3000	0.74	70	0.06	3000	<0.05	60
139.05		3.5	3000	1.5	77	1.7	3000	0.79	71	0.07	3000	<0.05	60
123.48		4.0	2990	1.6	78	2.0	3000	0.88	73	0.08	3000	<0.05	60
110.40		4.5	2950	1.8	79	2.2	2950	0.95	74	0.09	2950	<0.05	60
99.26		5.0	2900	1.9	79	2.5	2900	1.0	75	0.10	2900	0.05	60
86.15		5.8	2880	2.2	80	2.9	2900	1.2	76	0.11	2900	0.06	60
77.14		6.4	2870	2.4	80	3.2	2900	1.3	77	0.12	2900	0.07	60
64.00		7.8	2770	2.8	81	3.9	2900	1.5	78	0.15	2900	0.08	60
91.20	38/3	5.4	2500	1.7	87	2.7	2280	0.80	82	0.10	2280	<0.05	80
81.76		6.1	2670	2.0	87	3.0	2500	0.97	83	0.12	2500	<0.05	80
70.43		7.0	2660	2.2	88	3.5	2580	1.1	84	0.14	2580	<0.05	80
64.27		7.7	2640	2.4	88	3.8	2530	1.2	85	0.15	2530	0.05	80
57.00		8.7	2620	2.7	89	4.3	2710	1.5	85	0.17	2790	0.06	80
47.91		10	2590	3.2	90	5.2	2690	1.7	86	0.20	2790	0.08	80
44.03		11	2560	3.4	90	5.6	2660	1.8	87	0.22	2790	0.08	80
39.10		12	2530	3.8	90	6.3	2660	2.0	88	0.25	2790	0.09	80
34.96		14	2510	4.2	90	7.1	2660	2.3	88	0.28	2810	0.11	80
31.43		15	2470	4.5	91	7.9	2610	2.5	89	0.31	2810	0.12	80
27.28		18	2440	5.2	91	9.1	2590	2.8	89	0.36	2790	0.13	80
24.43		20	2390	5.6	91	10	2590	3.1	90	0.40	2790	0.15	80
20.27		24	2320	6.6	91	12	2530	3.6	90	0.49	2810	0.18	80
25.50	34/6	19	1440	3.2	92	9.8	1440	1.6	90	0.39	1440	0.07	85
21.43		23	1510	4.0	93	11	1510	2.0	91	0.46	1510	0.09	85
19.70		25	1570	4.5	93	12	1570	2.3	91	0.50	1570	0.10	85
17.49		28	1570	5.0	93	14	1570	2.6	92	0.57	1570	0.11	85
15.64		31	1540	5.5	93	15	1540	2.8	92	0.63	1540	0.12	85
14.06		35	1510	6.0	94	17	1510	3.0	92	0.71	1510	0.13	85
12.21		40	1460	6.7	94	20	1460	3.4	93	0.81	1460	0.15	85
10.93		45	1440	7.4	94	22	1440	3.7	93	0.91	1440	0.16	85
9.07		55	1440	8.9	94	27	1440	4.5	93	1.1	1440	0.19	85
7.88		63	1440	10.2	94	31	1440	5.1	94	1.2	1440	0.22	85

26883198/EN – 04/2022

11.8.7 Technical data S..97p

3400 – 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	11	4300	6.6	81	11	4300	6.2	81	9.7	4300	5.4	81
262.22		12	4300	7.2	81	12	4300	6.8	81	10	4300	5.9	81
231.67		14	4150	7.9	81	13	4240	7.6	81	12	4300	6.7	81
196.52		17	3970	8.9	81	16	4010	8.4	81	14	4210	7.7	81
180.95		18	3780	9.2	81	17	3890	8.9	81	15	4090	8.2	81
161.74		21	3230	8.9	80	19	3540	9.1	81	17	3970	8.9	81
145.60		23	2800	8.6	79	21	3050	8.8	80	19	3720	9.3	81
131.85		25	2660	9.1	79	24	2740	8.8	79	21	3250	9.0	80
116.92		29	2320	9.0	78	27	2550	9.3	79	23	2760	8.7	80
105.71		32	1980	8.6	77	30	2210	9.0	78	26	2630	9.2	79
89.60		37	1280	6.9	74	35	1670	8.2	76	31	2210	9.2	79
78.26		43	970	6.2	71	40	1130	6.6	73	35	1770	8.6	77
65.45		51	675	5.5	67	48	795	5.9	69	42	1110	6.8	73
80.85	37/3	42	3410	16.4	92	39	3480	15.7	92	34	3640	14.4	92
71.43		47	3280	17.8	92	44	3340	17.1	92	39	3480	15.6	92
60.59		56	3020	19	91	52	3180	19	92	46	3310	17.5	92
55.79		60	2820	20	91	57	2950	19	91	50	3210	18.4	92
49.87		68	2710	21	91	64	2760	20	91	56	3060	20	92
44.89		75	2430	21	91	71	2630	22	91	62	2790	20	91
40.65		83	2170	21	91	78	2350	21	91	68	2680	21	91
36.05		94	1830	20	90	88	2020	21	91	77	2400	21	91
32.60		104	1560	19	90	98	1760	20	90	85	2150	21	91
27.63		123	1070	15.6	88	115	1320	17.9	89	101	1740	20	90
24.13		140	810	13.8	87	132	940	14.9	88	116	1390	19	90
26.39	35/6	128	1800	26	94	121	1840	25	94	106	1930	23	94
23.59		144	1750	28	94	135	1750	27	94	118	1850	24	94
21.23		160	1750	31*	94	150	1750	29	94	131	1770	26	94
19.23		176	1550	31*	94	166	1680	31	94	145	1750	28	94
17.05		199	1320	30	93	187	1450	30	94	164	1730	32*	94
15.42		220	1110	28	93	207	1260	29	93	181	1540	31*	94
13.07		260	725	22	92	244	940	26	92	214	1240	30	93
11.41		297	515	17.9	90	280	585	19	91	245	1000	28	93
9.55		356	375	15.8	88	335	435	17.1	89	293	580	20	91
8.26		411	290	14.4	87	387	335	15.5	88	338	455	17.9	90

* P_{Mot_max} = 30 kW

2200 – 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	7.6	4300	4.3	81	5.9	4300	3.3	80	4.8	4300	2.8	80
262.22		8.3	4300	4.7	81	6.4	4300	3.6	81	5.3	4300	3.0	80
231.67		9.4	4300	5.3	81	7.3	4300	4.1	81	6	4300	3.4	81
196.52		11	4300	6.2	81	8.6	4300	4.8	81	7.1	4300	4.0	81
180.95		12	4300	6.7	81	9.3	4300	5.2	81	7.7	4300	4.3	81
161.74		13	4260	7.5	81	10	4300	5.8	81	8.6	4300	4.8	81
145.60		15	4150	8.1	81	11	4300	6.5	82	9.6	4300	5.3	81
131.85		16	3980	8.6	81	12	4300	7.1	82	10	4300	5.9	82
116.92		18	3840	9.3	81	14	4170	7.8	82	11	4300	6.6	82
105.71		20	3430	9.2	81	16	4030	8.3	82	13	4290	7.3	82
89.60		24	2780	8.9	80	18	3800	9.3	82	15	4070	8.1	82
78.26		28	2540	9.4	80	21	3360	9.4	81	17	3910	8.9	82
65.45		33	2120	9.4	79	25	2690	9.1	81	21	3520	9.6	82
80.85	37/3	27	3720	11.6	92	21	3710	8.9	92	17	3700	7.3	91
71.43		30	3710	13.0	92	23	3940	10.7	92	19	4100	9.2	92
60.59		36	3570	14.8	92	28	3810	12.2	92	23	3980	10.5	92
55.79		39	3510	15.8	92	30	3730	13.0	92	25	3910	11.2	92
49.87		44	3360	16.9	92	34	3640	14.1	92	28	3810	12.2	92
44.89		49	3270	18.3	92	37	3540	15.3	92	31	3710	13.2	92
40.65		54	3130	19	92	41	3420	16.3	92	34	3600	14.1	92
36.05		61	2810	20	92	47	3300	17.7	92	38	3500	15.5	92
32.60		67	2700	21	92	52	3200	19	92	42	3390	16.6	92
27.63		79	2390	22	91	61	2850	20	92	50	3230	19	92
24.13		91	2060	22	91	70	2670	21	92	58	3080	20	92
26.39	35/6	83	2550	24	94	64	2600	19	94	53	2600	15.3	94
23.59		93	2450	25	94	72	2600	21	94	59	2600	17.1	94
21.23		103	2380	27	94	80	2570	23	94	65	2600	19	94
19.23		114	2280	29	94	88	2500	25	94	72	2600	21	95
17.05		129	2170	31*	94	99	2400	27	94	82	2570	23	95
15.42		142	2040	32*	94	110	2300	28	94	90	2470	25	95
13.07		168	1720	32*	94	130	2170	31*	94	107	2330	28	95
11.41		192	1480	32*	94	148	2000	33*	94	122	2210	30	95
9.55		230	1200	31*	94	178	1670	33*	94	146	2040	33*	94
8.26		266	980	29	93	205	1440	33*	94	169	1770	33*	94

* P_{Mot_max} = 30 kW

26883198/EN – 04/2022

1100 – 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	3.8	4300	2.2	79	3.1	4300	1.8	78	2.4	4300	1.4	77
262.22		4.1	4300	2.4	80	3.4	4300	2.0	79	2.6	4300	1.6	77
231.67		4.7	4300	2.7	80	3.8	4300	2.2	79	3.0	4300	1.7	78
196.52		5.5	4300	3.1	80	4.5	4300	2.6	80	3.5	4300	2.0	79
180.95		6.0	4300	3.4	81	4.9	4300	2.8	80	3.8	4300	2.2	79
161.74		6.8	4300	3.8	81	5.5	4300	3.1	81	4.3	4300	2.4	80
145.60		7.5	4300	4.2	81	6.1	4300	3.4	81	4.8	4300	2.7	80
131.85		8.3	4300	4.6	81	6.8	4300	3.8	81	5.3	4300	3.0	81
116.92		9.4	4300	5.2	82	7.6	4300	4.3	81	5.9	4300	3.3	81
105.71		10	4300	5.7	82	8.5	4300	4.7	82	6.6	4300	3.7	81
89.60		12	4300	6.7	82	10	4300	5.5	82	7.8	4300	4.3	82
78.26		14	4230	7.6	82	11	4300	6.3	82	8.9	4300	4.9	82
65.45		16	3980	8.5	82	13	4240	7.4	82	10	4300	5.9	82
80.85	37/3	13	3690	5.8	91	11	3670	4.7	91	8.6	3640	3.7	90
71.43		15	4200	7.4	92	12	4200	6.1	91	9.7	4200	4.8	91
60.59		18	4160	8.6	92	14	4270	7.3	92	11	4300	5.7	91
55.79		19	4110	9.2	92	16	4210	7.8	92	12	4300	6.2	91
49.87		22	4030	10.1	92	18	4160	8.6	92	14	4300	6.9	92
44.89		24	3930	11.0	92	20	4070	9.3	92	15	4270	7.6	92
40.65		27	3860	11.9	92	22	4030	10.2	92	17	4190	8.2	92
36.05		30	3740	13.0	92	24	3900	11.1	92	19	4110	9.1	92
32.60		33	3630	13.9	92	27	3820	12.0	92	21	4040	9.9	92
27.63		39	3490	15.8	92	32	3670	13.6	92	25	3900	11.2	92
24.13		45	3320	17.2	92	37	3560	15.1	92	29	3770	12.4	92
26.39	35/6	41	2650	12.3	94	34	2620	9.9	94	26	2700	8.0	94
23.59		46	2650	13.7	94	38	2650	11.2	94	29	2670	8.8	94
21.23		51	2650	15.2	94	42	2650	12.5	94	32	2620	9.6	94
19.23		57	2650	16.8	95	46	2650	13.8	94	36	2620	10.6	94
17.05		64	2670	19	95	52	2650	15.5	95	41	2650	12.1	94
15.42		71	2670	21	95	58	2650	17.1	95	45	2650	13.3	95
13.07		84	2540	24	95	68	2670	20	95	53	2650	15.7	95
11.41		96	2420	26	95	78	2590	23	95	61	2650	18.0	95
9.55		115	2280	29	95	94	2440	25	95	73	2650	21	95
8.26		133	2140	32*	95	108	2320	28	95	84	2540	24	95

* P_{Mot_max} = 30 kW

26883198/EN – 04/2022

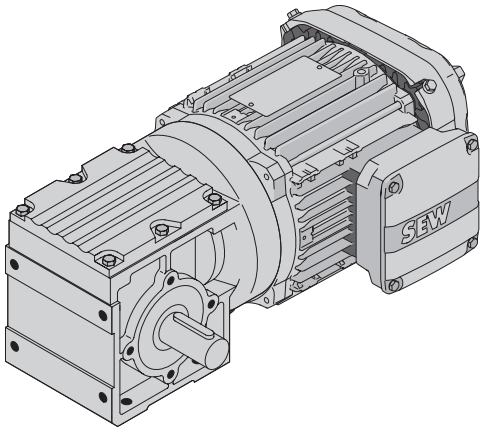
500 – 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{amax} Nm	P_{Mot} kW	η %
286.40	40/1	1.7	4300	1.1	74	0.87	4300	0.58	67	0.03	4300	<0.05	61
262.22		1.9	4300	1.1	75	0.95	4300	0.63	68	0.03	4300	<0.05	61
231.67		2.1	4300	1.3	76	1.0	4300	0.70	70	0.04	4300	<0.05	61
196.52		2.5	4300	1.5	77	1.2	4300	0.80	72	0.05	4300	<0.05	61
180.95		2.7	4300	1.6	78	1.3	4300	0.86	72	0.05	4300	<0.05	61
161.74		3.0	4300	1.8	79	1.5	4300	0.95	74	0.06	4300	<0.05	61
145.60		3.4	4300	2.0	79	1.7	4300	1.0	75	0.06	4300	0.05	61
131.85		3.7	4300	2.1	80	1.8	4300	1.1	75	0.07	4300	0.06	61
116.92		4.2	4300	2.4	80	2.1	4300	1.3	76	0.08	4300	0.06	61
105.71		4.7	4300	2.6	81	2.3	4300	1.4	77	0.09	4300	0.07	61
89.60		5.5	4300	3.1	81	2.7	4300	1.6	78	0.11	4300	0.08	61
78.26		6.3	4300	3.5	82	3.1	4300	1.8	79	0.12	4300	0.09	61
65.45		7.6	4300	4.2	82	3.8	4300	2.1	80	0.15	4300	0.11	61
80.85	37/3	6.1	3600	2.6	89	3.0	3250	1.2	86	0.12	3250	0.05	81
71.43		6.9	4200	3.4	90	3.4	4160	1.8	87	0.13	4160	0.08	81
60.59		8.2	4300	4.1	90	4.1	4300	2.1	88	0.16	4300	0.09	81
55.79		8.9	4300	4.5	91	4.4	4300	2.3	88	0.17	4300	0.10	81
49.87		10	4300	5.0	91	5.0	4300	2.6	89	0.20	4300	0.11	81
44.89		11	4300	5.5	91	5.5	4300	2.8	89	0.22	4300	0.12	81
40.65		12	4300	6.1	91	6.1	4300	3.1	89	0.24	4300	0.14	81
36.05		13	4290	6.8	92	6.9	4300	3.5	90	0.27	4300	0.15	81
32.60		15	4280	7.5	92	7.6	4300	3.8	90	0.30	4300	0.17	81
27.63		18	4150	8.5	92	9.0	4300	4.5	91	0.36	4300	0.20	81
24.13		20	4070	9.6	92	10	4300	5.1	91	0.41	4300	0.23	81
26.39	35/6	18	2790	5.9	94	9.4	2790	3.0	92	0.37	2790	0.13	87
23.59		21	2710	6.4	94	10	2710	3.3	93	0.42	2710	0.14	87
21.23		23	2740	7.2	94	11	2790	3.7	93	0.47	2790	0.16	87
19.23		26	2700	7.8	94	13	2790	4.1	93	0.52	2790	0.17	87
17.05		29	2670	8.7	94	14	2790	4.6	93	0.58	2790	0.20	87
15.42		32	2620	9.4	94	16	2790	5.1	94	0.64	2790	0.22	87
13.07		38	2650	11.2	95	19	2790	6.0	94	0.76	2790	0.26	87
11.41		43	2650	12.9	95	21	2780	6.8	94	0.87	2790	0.29	87
9.55		52	2650	15.3	95	26	2700	7.8	94	1.0	2790	0.35	87
8.26		60	2650	17.7	95	30	2670	9.0	95	1.2	2790	0.41	87

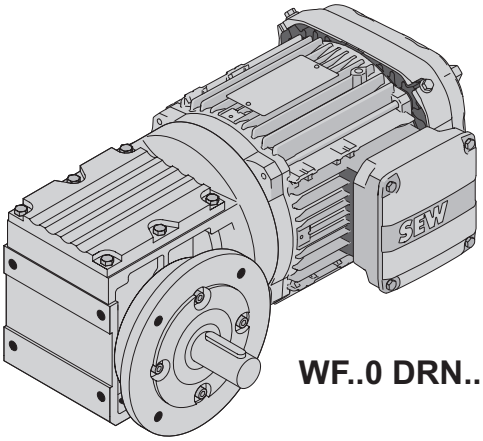
26883198/EN – 04/2022

12 SPIROPLAN® gearmotors

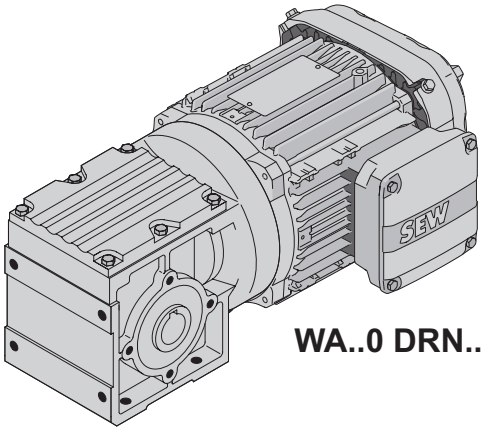
12.1 W..DRN.. designs



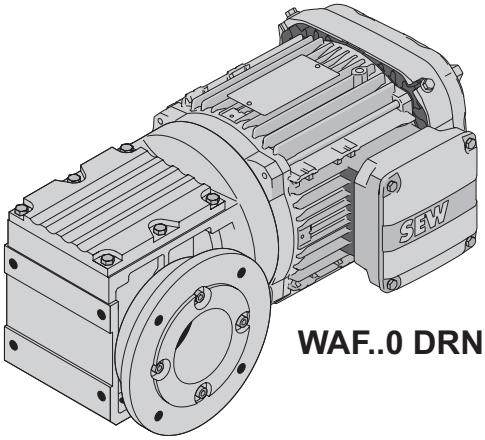
W..0 DRN..



WF..0 DRN..



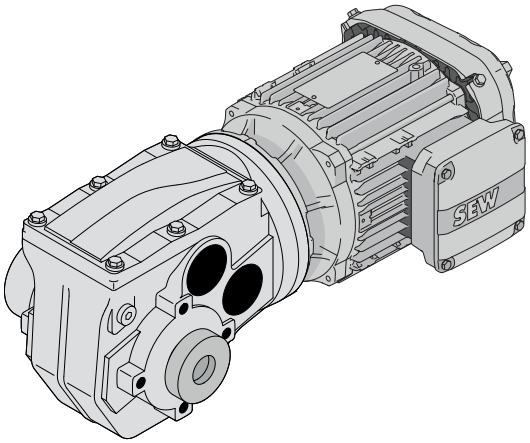
WA..0 DRN..



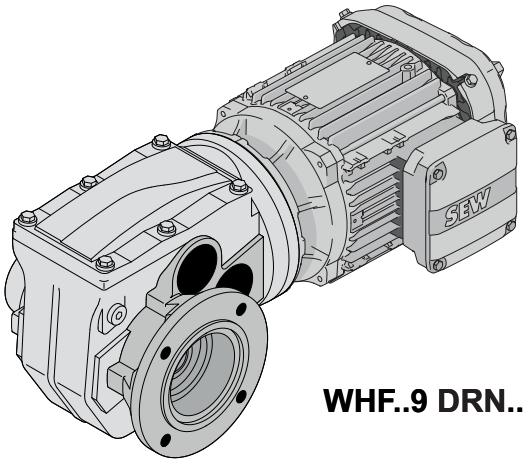
WAF..0 DRN..

27021606429321995

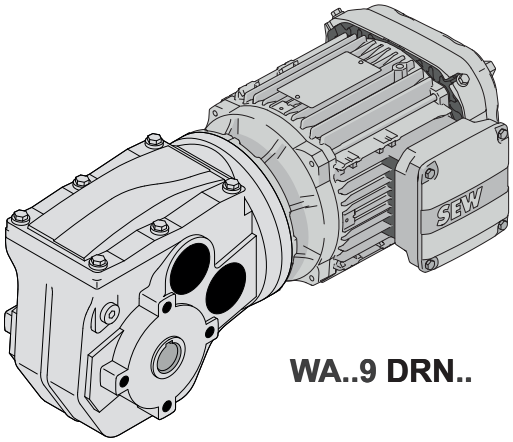
26883198/EN – 04/2022



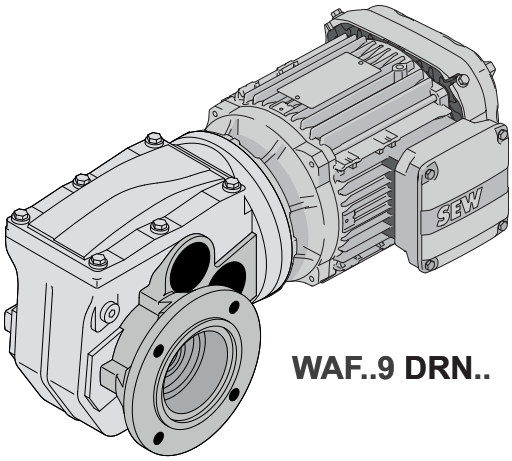
WT..9 DRN..



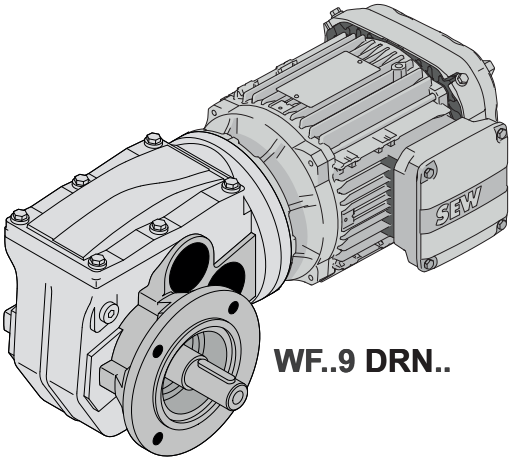
WHF..9 DRN..



WA..9 DRN..



WAF..9 DRN..



WF..9 DRN..

35756686219

26883198/EN – 04/2022

12.2 Possible geometrical combinations of W..DRN..

W10, n_e=1400 min^{-1}						30 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M
					1	
19	25	1800	-	75.00*		
23	25	1800	-	60.00*		
29	25	1800	-	48.00*		
36	26	1800	-	39.00*		
43	28	1800	-	32.50*		
51	27	1800	-	27.50*		
57	25	1800	-	24.50*		
72	30	1800	-	19.50*		
85	27	1800	-	16.50*		
98	24	1800	-	14.33		
137	28	1800	-	10.25*		
171	23	1730	-	8.20*		
213	19	1670	-	6.57		

W20, n_e=1400 min^{-1}						45 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80MK
					1	
19	40	2200	-	75.00*		
23	40	2200	-	60.00*		
29	40	2200	-	48.00*		
36	40	2200	-	39.00*		
43	40	2200	-	32.50*		
51	40	2200	-	27.50*		
57	40	2200	-	24.50*		
72	42	2190	-	19.50*		
85	38	2090	-	16.50*		
98	45	1920	-	14.33		
137	36	1790	-	10.25*		
171	29	1730	-	8.20*		
213	24	1700	-	6.57		

W30, n_e=1400 min^{-1}						70 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80M 80MK
					1	
19	70	3000	-	75.00*		
23	70	3000	-	60.00*		
29	70	3000	-	48.00*		
36	70	3000	-	39.00*		
43	70	3000	-	32.50*		

26883198/EN – 04/2022

W30, n_e=1400 min^{-1}						70 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80M 80MK
51	70	3000	-	27.50*		
57	70	3000	-	24.50*		
72	70	3000	-	19.50*		
86	68	3000	-	16.33		
98	69	3000	-	14.33		
137	63	2860	-	10.25*		
171	65	2610	-	8.20*		
213	62	2450	-	6.57		

WA19, n_e=1400 min^{-1}							80 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
3							
8.4	80	2200	-	167.59			
11	80	2200	-	127.90			
12	80	2200	-	119.61			
15	80	2200	-	96.28			
16	80	2200	-	90.04			
17	80	2200	-	82.03			
19	80	2200	-	74.57			
20	80	2200	-	68.71			
23	80	2200	-	61.75			
25	80	2200	-	56.14			
27	80	2200	-	52.61			
30	80	2200	-	47.28			
32	80	2200	-	44.07			
35	80	2200	-	40.07			
41	80	2200	-	33.74			
46	80	2200	-	30.68			
2							
51	68	2200	-	27.71			
67	61	2200	-	20.86			
79	63	2200	-	17.77			
87	62	2200	-	16.16			
105	57	2200	-	13.38			
115	56	2200	-	12.16			
137	50	2200	-	10.24			
150	50	2140	-	9.31			
167	41	2090	-	8.38			
184	43	1970	-	7.62			
216	32	1970	-	6.49*			
237	34	1850	-	5.90			

26883198/EN – 04/2022

WA29, n_e=1400 min^{-1}						130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S
				3		
7.4	130	5000	-	188.47		
9.4	130	5000	-	149.43		
11	130	5000	-	131.50		
12	130	5000	-	119.55		
13	130	5000	-	108.68		
14	130	5000	-	99.87		
15	130	5000	-	93.58		
17	130	5000	-	83.41		
18	130	5000	-	78.02		
19	130	5000	-	74.19		
20	130	5000	-	69.68		
22	130	5000	-	62.41		
25	130	5000	-	56.74		
27	130	5000	-	52.14		
28	130	5000	-	49.58		
32	130	5000	-	43.54		
36	130	5000	-	38.73*		
38	130	5000	-	36.38		
45	130	4720	-	30.99*		
50	130	4520	-	28.17		
54	130	4350	-	25.89		
				2		
60	130	4340	-	23.29		
66	130	4160	-	21.17		
72	130	4000	-	19.45		
86	120	3710	-	16.25		
95	126	3480	-	14.77		
103	124	3360	-	13.57		
121	85	3510	-	11.56*		
133	90	3300	-	10.51		
145	89	3190	-	9.66		
175	58	3160	-	8.00		
193	62	2960	-	7.27		
210	62	2860	-	6.68		
250	41	2890	-	5.60		
275	43	2740	-	5.09		
299	43	2640	-	4.68		

WA29R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
				3 3			
0.11	130	5000	-	12199			

26883198/EN – 04/2022

WA29R17, n_e=1400 min^{-1}							130 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DR2S	DRN	DRN
min^{-1}	Nm	N	'		56M	63MS 63M 71MS 71M 80MK	80M
0.13	130	5000	-	10518			
0.14	130	5000	-	9760			
0.16	130	5000	-	8570			
0.18	130	5000	-	7650			
0.21	130	5000	-	6810			
0.23	130	5000	-	6057			
0.26	130	5000	-	5473			
0.29	130	5000	-	4868			
0.32	130	5000	-	4328			
0.36	130	5000	-	3856			
0.45	130	5000	-	3078			
0.57	130	5000	-	2474			
0.64	130	5000	-	2191			
0.79	130	5000	-	1767			
2 3							
2.2	124	3360	-	644			
3 2							
0.40	130	5000	-	3459			
0.51	130	5000	-	2768			
0.71	130	5000	-	1968			
0.88	130	5000	-	1582			
0.99	130	5000	-	1411			
1.1	130	5000	-	1260			
1.2	130	5000	-	1128			
1.4	130	5000	-	1008			
1.5	130	5000	-	904			
1.7	130	5000	-	810			
1.9	130	5000	-	722			
2.4	130	5000	-	576			
2.7	130	5000	-	513			
2 2							
3.1	130	4340	-	459			
3.4	130	4160	-	417			
3.8	130	4340	-	369			
4.2	130	4000	-	330			
4.8	130	4160	-	293			
5.3	90	3300	-	265			
5.9	130	4340	-	236			
6.6	120	3710	-	211			

26883198/EN – 04/2022

WA39, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(i/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
				3			
6.7	200	6820	-	210.49			
8.9	200	6820	-	157.87			
9.9	200	6620	-	141.23			
11	200	6820	-	126.29			
12	200	6820	-	114.81			
13	200	6680	-	105.50			
14	186	6270	-	97.24			
15	200	6280	-	91.92			
17	200	5860	-	84.74			
18	200	5600	-	77.03			
19	200	5680	-	73.53			
20	200	5380	-	70.79			
21	200	5430	-	66.85			
23	200	5220	-	61.43			
24	186	4920	-	58.34			
26	186	4690	-	53.04			
28	200	4490	-	49.34			
31	200	4280	-	44.85			
34	200	4090	-	41.22			
41	196	3590	-	33.97			
45	196	3400	-	30.88			
49	196	3240	-	28.38			
				2			
59	200	3200	-	23.68*			
65	200	3030	-	21.53			
71	200	2890	-	19.78			
88	170	2690	-	15.89			
97	175	2480	-	14.44			
106	175	2350	-	13.27			
128	125	2580	-	10.94			
141	127	2430	-	9.94			
153	124	2350	-	9.14			
184	88	2380	-	7.61			
203	80	2380	-	6.91			
220	80	2280	-	6.35			
248	66	2240	-	5.65			
272	59	2250	-	5.14			
297	59	2160	-	4.72			

26883198/EN – 04/2022

WA39R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.08	200	6820	-	17184			
0.09	200	6820	-	14816			
0.11	200	6820	-	12889			
0.12	200	6620	-	11530			
0.14	200	6820	-	10358			
0.15	200	6820	-	9373			
0.16	200	6820	-	8487			
0.18	200	6820	-	7620			
0.20	200	6820	-	6975			
0.22	200	5600	-	6289			
0.25	200	6820	-	5579			
0.28	200	5380	-	4983			
0.32	200	6820	-	4433			
0.35	200	5680	-	3953			
0.40	200	5680	-	3488			
					2 3		
1.1	200	3200	-	1273			
					3 2		
0.45	200	6820	-	3112			
0.50	200	6620	-	2784			
0.56	200	6820	-	2501			
0.63	200	6620	-	2237			
0.70	200	6820	-	2000			
0.78	200	5380	-	1786			
0.87	200	6820	-	1602			
0.98	200	5220	-	1422			
1.2	200	5430	-	1136			
1.4	200	5680	-	1018			
1.5	200	6820	-	909			
1.7	200	4090	-	812			
1.9	200	6820	-	727			
2.2	200	6680	-	649			
2.4	200	4280	-	582			
2.7	200	5860	-	521			
					2 2		
3.0	200	3200	-	467			
3.3	200	3030	-	424			
3.7	200	3200	-	375			
4.2	200	2890	-	336			
4.7	200	3030	-	298			
5.3	175	2350	-	262			
6.1	124	2350	-	231			

26883198/EN – 04/2022

WA49, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
7.0	396	6000	-	200.76				
9.2	396	6000	-	151.87				
9.3	400	6000	-	149.88				
11	396	6000	-	126.43				
12	396	6000	-	114.94				
13	396	6000	-	105.36				
15	400	6000	-	94.39				
15	396	6000	-	92.86				
16	400	6000	-	85.81				
18	400	6000	-	78.66				
20	396	6000	-	70.25				
21	400	5510	-	67.73				
23	400	5200	-	61.58				
24	396	5600	-	58.48				
26	396	5310	-	53.16				
29	396	5040	-	48.73				
32	400	4470	-	43.66				
35	400	4200	-	39.69				
38	400	3960	-	36.38				
45	378	3490	-	31.33				
49	378	3250	-	28.48				
54	378	3040	-	26.11				
					2			
62	342	3560	-	22.69				
68	335	3420	-	20.63				
74	327	3300	-	18.91				
83	258	3610	-	16.94				
91	290	3080	-	15.40				
99	269	3120	-	14.12				
115	184	3570	-	12.16				
127	209	3120	-	11.05				
138	193	3140	-	10.13				
161	131	3440	-	8.67				
178	149	3070	-	7.88				
194	138	3060	-	7.22				

WA49R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.09	396	6000	-	16390			
0.10	396	6000	-	14131			
0.11	396	6000	-	13172			

26883198/EN – 04/2022

WA49R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.11	400	6000	-	12236			
0.13	396	6000	-	10793			
0.14	400	6000	-	9834			
0.16	396	6000	-	8899			
0.17	396	6000	-	8165			
0.19	396	6000	-	7416			
0.21	400	6000	-	6644			
0.23	400	6000	-	6040			
0.26	400	6000	-	5413			
0.29	400	6000	-	4787			
0.32	400	6000	-	4335			
0.36	400	6000	-	3884			
0.40	400	6000	-	3475			
0.45	400	6000	-	3106			
0.49	400	6000	-	2847			
0.62	400	6000	-	2276			
3 2							
0.55	400	6000	-	2546			
0.68	400	6000	-	2074			
0.75	400	6000	-	1860			
0.83	400	6000	-	1691			
0.94	400	6000	-	1495			
1.0	400	6000	-	1335			
1.2	400	6000	-	1214			
1.3	400	6000	-	1089			
1.4	400	6000	-	983			
1.6	400	6000	-	901			
1.7	400	6000	-	815			
1.9	400	6000	-	742			
2.1	400	6000	-	674			
2.3	400	6000	-	604			
2.6	400	6000	-	544			
2.8	400	6000	-	494			
3.2	400	6000	-	443			
3.5	400	6000	-	400			
3.9	400	6000	-	362			
4.2	400	6000	-	330			
4.7	400	6000	-	300			
5.2	396	6000	-	269			
5.7	400	6000	-	244			
6.3	400	6000	-	222			

26883198/EN – 04/2022

WA59, n_e=1400 min^{-1}									600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M
					3				
6.6	600	8000	-	213.21					
9.2	600	8000	-	151.56					
9.8	600	8000	-	142.72					
11	600	8000	-	129.74					
12	600	8000	-	118.93					
13	600	8000	-	107.33					
14	600	8000	-	101.45					
15	600	8000	-	92.23					
17	600	8000	-	84.54					
18	600	7900	-	76.29					
19	600	7960	-	73.72					
21	600	7540	-	67.02					
23	600	7160	-	61.43					
25	600	6730	-	55.44					
27	600	6280	-	52.40					
29	590	6000	-	47.64					
32	570	5860	-	43.67					
36	550	5670	-	39.41					
38	520	5380	-	36.98					
42	520	5040	-	33.62					
45	520	4740	-	30.82					
50	505	4560	-	27.81					
					2				
56	387	5840	-	24.89					
62	444	5000	-	22.63					
68	515	4060	-	20.74					
75	481	4080	-	18.72					
87	310	5170	-	16.09					
95	371	4330	-	14.75					
105	357	4200	-	13.31					
123	217	5040	-	11.35					
134	262	4350	-	10.41					
149	240	4350	-	9.39					
171	157	4730	-	8.18					
187	189	4180	-	7.49					
207	172	4160	-	6.76					

WA59R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.07	600	8000	-	19242				
0.08	600	8000	-	17649				

26883198/EN – 04/2022

WA59R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.09	600	8000	-	16044				
0.10	600	8000	-	14707				
0.11	600	8000	-	12955				
0.12	600	8000	-	11405				
0.14	600	8000	-	10063				
0.16	600	8000	-	8796				
0.18	600	8000	-	7674				
0.21	600	8000	-	6692				
0.24	600	8000	-	5814				
0.28	600	8000	-	5032				
0.32	600	8000	-	4367				
0.37	600	8000	-	3788				
0.42	600	8000	-	3311				
3 2								
0.48	600	8000	-	2889				
0.54	600	8000	-	2576				
0.62	600	8000	-	2259				
0.70	600	8000	-	1986				
0.80	600	8000	-	1745				
0.92	600	8000	-	1526				
1.1	600	8000	-	1331				
1.2	600	8000	-	1167				
1.4	600	8000	-	1016				
1.6	600	8000	-	888				
1.8	600	8000	-	771				
2.1	600	8000	-	674				
2.4	600	8000	-	588				
2.7	600	8000	-	513				
3.1	600	8000	-	447				
3.5	600	8000	-	398				
4.0	600	8000	-	350				
4.5	600	8000	-	311				
5.2	600	8000	-	271				
5.8	600	8000	-	240				

26883198/EN – 04/2022

12.3 W..DRN.. selection tables in kW

P_m = 0.09 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	460	983	6000	0.85						
1.5	420	901	6000	0.95						
1.7	360	815	6000	1.10						
1.9	360	742	6000	1.10						
2.0	330	674	6000	1.20						
2.3	295	604	6000	1.35						
2.5	255	544	6000	1.55						
2.8	235	494	6000	1.70	**WA**	**49R17**	**DR2S**	**56MR4**	18	1004
3.1	200	443	6000	2.0	**WAF**	**49R17**	**DR2S**	**56MR4**	18	1004
3.5	189	400	6000	2.1	**WF**	**49R17**	**DR2S**	**56MR4**	19	1004
3.8	162	362	6000	2.5						
4.2	161	330	6000	2.5						
4.6	147	300	6000	2.7						
5.1	121	269	6000	3.2						
5.7	117	244	6000	3.4						
6.2	103	222	6000	3.9						
					WA	**39R17**	**DR2S**	**56MR4**	13	1004
2.6	245	521	3890	0.80	**WAF**	**39R17**	**DR2S**	**56MR4**	14	1004
					WF	**39R17**	**DR2S**	**56MR4**	15	1004
3.0	230	467	4180	0.85						
3.2	210	424	4330	0.95						
3.7	182	375	4500	1.10	**WA**	**39R17**	**DR2S**	**56MR4**	12	1004
4.1	164	336	4500	1.20	**WAF**	**39R17**	**DR2S**	**56MR4**	13	1004
4.6	143	298	4500	1.40	**WF**	**39R17**	**DR2S**	**56MR4**	14	1004
5.3	129	262	4500	1.35						
6.0	114	231	4500	1.10						
4.2	162	330	3280	0.80						
4.7	141	293	3460	0.90	**WA**	**29R17**	**DR2S**	**56MR4**	11	1004
5.8	107	236	3500	1.20	**WAF**	**29R17**	**DR2S**	**56MR4**	11	1004
6.5	99	211	3500	1.20	**WF**	**29R17**	**DR2S**	**56MR4**	12	1004
4.9	159	188.47	3480	0.80	**WA**	**29**	**DRN**	**63MR6**	9.8	991
6.2	128	149.43	3570	1.00	**WAF**	**29**	**DRN**	**63MR6**	10	990
7.0	110	131.50	3610	1.15	**WF**	**29**	**DRN**	**63MR6**	10	990
8.2	92	167.59	2200	0.85						
11	73	127.90	2200	1.10						
12	66	119.61	2200	1.20						
14	55	96.28	2200	1.45						
15	49	90.04	2200	1.60						
17	48	82.03	2200	1.65						
19	44	74.57	2200	1.80	**WA**	**19**	**DR2S**	**56MR4**	6.4	989
20	39	68.71	2200	2.0	**WAF**	**19**	**DR2S**	**56MR4**	6.5	988
22	36	61.75	2200	2.2	**WF**	**19**	**DR2S**	**56MR4**	7.1	988
25	33	56.14	2200	2.4						
26	30	52.61	2200	2.6						
29	28	47.28	2200	2.9						
31	26	44.07	2200	3.1						
34	23	40.07	2200	3.3						
41	20	33.74	2200	4.0						
19	21	48.00*	1800	1.15	**W**	**10**	**DRN**	**63MR6**	6.8	976
24	19	39.00*	1800	1.30	**WF**	**10**	**DRN**	**63MR6**	7.0	977
28	18	32.50*	1800	1.55	**WA**	**10**	**DRN**	**63MR6**	6.8	979
33	15	27.50*	1800	1.70	**WAF**	**10**	**DRN**	**63MR6**	7.0	978

26883198/EN – 04/2022

P_m = 0.09 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	18	75.00*	1800	1.30						
23	16	60.00*	1800	1.50						
29	15	48.00*	1800	1.65						
35	13	39.00*	1800	1.85						
42	12	32.50*	1800	2.2	**W**	**10**	**DR2S**	**56MR4**	5.3	976
50	11	27.50*	1800	2.4	**WF**	**10**	**DR2S**	**56MR4**	5.5	977
56	10	24.50*	1800	2.4	**WA**	**10**	**DR2S**	**56MR4**	5.3	979
71	8.0	19.50*	1800	3.4	**WAF**	**10**	**DR2S**	**56MR4**	5.5	978
84	7.0	16.50*	1800	3.4						
96	7.0	14.33	1800	3.4						
135	5.0	10.25*	1800	5.1						
168	4.0	8.20*	1800	5.1						
210	3.0	6.57	1800	5.1						

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.4	620	1016	8000	0.95						
1.6	570	888	8000	1.05						
1.8	475	771	8000	1.25						
2.0	400	674	8000	1.50						
2.4	345	588	8000	1.70						
2.7	320	513	8000	1.85	**WA**	**59R37**	**DRN**	**63MS4**	31	1004
3.1	290	447	8000	2.0	**WAF**	**59R37**	**DRN**	**63MS4**	32	1004
3.5	245	398	8000	2.4	**WF**	**59R37**	**DRN**	**63MS4**	33	1004
4.0	225	350	8000	2.6						
4.4	197	311	8000	3.0						
5.1	167	271	8000	3.6						
5.8	150	240	8000	4.0						
4.1	260	213.21	8000	2.3						
5.7	187	151.56	8000	3.2	**WA**	**59**	**DRN**	**63M6**	20	1002
6.1	177	142.72	8000	3.4	**WAF**	**59**	**DRN**	**63M6**	22	1001
6.7	162	129.74	8000	3.7	**WF**	**59**	**DRN**	**63M6**	23	1001
					WA	**59**	**DRN**	**63MS4**	19	1002
6.5	168	213.21	8000	3.6	**WAF**	**59**	**DRN**	**63MS4**	21	1001
					WF	**59**	**DRN**	**63MS4**	22	1001
1.9	495	742	5930	0.80						
2.0	455	674	6000	0.90						
2.3	405	604	6000	1.00						
2.5	355	544	6000	1.10						
2.8	325	494	6000	1.20						
3.1	280	443	6000	1.40	**WA**	**49R17**	**DRN**	**63MS4**	19	1004
3.5	260	400	6000	1.50	**WAF**	**49R17**	**DRN**	**63MS4**	19	1004
3.8	225	362	6000	1.75	**WF**	**49R17**	**DRN**	**63MS4**	20	1004
4.2	220	330	6000	1.80						
4.6	200	300	6000	1.95						
5.1	172	269	6000	2.3						
5.7	162	244	6000	2.5						
6.2	144	222	6000	2.8						
6.9	157	200.76	6000	2.5						
9.1	121	151.87	6000	3.2	**WA**	**49**	**DRN**	**63MS4**	15	999
9.2	117	149.88	6000	3.4	**WAF**	**49**	**DRN**	**63MS4**	16	998
11	100	126.43	6000	4.0	**WF**	**49**	**DRN**	**63MS4**	17	998
3.7	250	375	4050	0.80						
4.1	225	336	4230	0.90	**WA**	**39R17**	**DRN**	**63MS4**	13	1004
4.6	198	298	4420	1.00	**WAF**	**39R17**	**DRN**	**63MS4**	14	1004
5.3	177	262	4430	1.00	**WF**	**39R17**	**DRN**	**63MS4**	15	1004
4.1	245	210.49	4060	0.80						
5.5	195	157.87	4440	1.00						
6.2	167	141.23	4530	1.20	**WA**	**39**	**DRN**	**63M6**	12	996
6.9	156	126.29	4720	1.30	**WAF**	**39**	**DRN**	**63M6**	13	994
7.6	143	114.81	4810	1.40	**WF**	**39**	**DRN**	**63M6**	13	994
8.2	132	105.50	4890	1.50						

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.6	160	210.49	4700	1.25						
8.7	124	157.87	4950	1.60						
9.8	107	141.23	5000	1.85						
11	99	126.29	5120	2.0						
12	91	114.81	5180	2.2						
13	84	105.50	5170	2.4	**WA**	**39**	**DRN**	**63MS4**	11	996
14	73	97.24	5000	2.5	**WAF**	**39**	**DRN**	**63MS4**	12	994
15	72	91.92	4990	2.8	**WF**	**39**	**DRN**	**63MS4**	13	994
16	66	84.74	4840	3.0						
18	61	77.03	4720	3.3						
19	57	73.53	4700	3.5						
19	56	70.79	4610	3.5						
21	53	66.85	4580	3.8						
5.8	151	236	3420	0.85	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
6.5	137	211	3470	0.85	**WAF**	**29R17**	**DRN**	**63MS4**	12	1004
					WF	**29R17**	**DRN**	**63MS4**	13	1004
7.3	143	188.47	3530	0.90						
9.2	116	149.43	3600	1.10						
10	100	131.50	3640	1.30						
12	93	119.55	3650	1.40						
13	86	108.68	3670	1.50						
14	79	99.87	3680	1.65						
15	71	93.58	3700	1.80						
17	65	83.41	3710	2.0	**WA**	**29**	**DRN**	**63MS4**	9.0	991
18	60	78.02	3720	2.1	**WAF**	**29**	**DRN**	**63MS4**	9.2	990
19	57	74.19	3720	2.3	**WF**	**29**	**DRN**	**63MS4**	9.6	990
20	55	69.68	3720	2.4						
22	48	62.41	3740	2.7						
24	45	56.74	3740	2.9						
26	41	52.14	3750	3.1						
28	39	49.58	3750	3.3						
32	34	43.54	3760	3.8						
11	97	127.90	2200	0.80						
12	88	119.61	2200	0.90						
14	73	96.28	2200	1.10						
15	66	90.04	2200	1.20						
17	64	82.03	2200	1.25						
19	59	74.57	2200	1.35						
20	52	68.71	2200	1.50	**WA**	**19**	**DRN**	**63MS4**	7.5	989
22	48	61.75	2200	1.65	**WAF**	**19**	**DRN**	**63MS4**	7.6	988
25	44	56.14	2200	1.80	**WF**	**19**	**DRN**	**63MS4**	8.2	988
26	40	52.61	2200	2.0						
29	37	47.28	2200	2.1						
31	34	44.07	2200	2.3						
34	31	40.07	2200	2.5						
41	26	33.74	2200	3.0						
45	24	30.68	2200	3.3						
50	21	27.71	2200	3.2	**WA**	**19**	**DRN**	**63MS4**	7.0	989
66	15	20.86	2200	3.8	**WAF**	**19**	**DRN**	**63MS4**	7.2	988
					WF	**19**	**DRN**	**63MS4**	7.7	988
12	41	75.00*	3000	1.70						
14	38	60.00*	3000	1.80	**W**	**30**	**DRN**	**63M6**	10.0	984
18	33	48.00*	3000	2.1	**WF**	**30**	**DRN**	**63M6**	10	985
22	30	39.00*	3000	2.3	**WA**	**30**	**DRN**	**63M6**	9.7	987
27	25	32.50*	3000	2.7	**WAF**	**30**	**DRN**	**63M6**	10.0	986
32	24	27.50*	3000	2.9						
18	28	75.00*	3000	2.5						
23	25	60.00*	3000	2.7	**W**	**30**	**DRN**	**63MS4**	9.1	984
29	22	48.00*	3000	3.1	**WF**	**30**	**DRN**	**63MS4**	9.5	985
35	20	39.00*	3000	3.4	**WA**	**30**	**DRN**	**63MS4**	8.8	987
42	17	32.50*	3000	4.1	**WAF**	**30**	**DRN**	**63MS4**	9.2	986

26883198/EN – 04/2022

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	37	75.00*	2200	1.10						
14	32	60.00*	2200	1.25	**W**	**20**	**DRN**	**63M6**	7.5	980
18	30	48.00*	2200	1.30	**WF**	**20**	**DRN**	**63M6**	7.7	981
22	27	39.00*	2200	1.45	**WA**	**20**	**DRN**	**63M6**	7.2	983
27	27	32.50*	2200	1.45	**WAF**	**20**	**DRN**	**63M6**	7.2	982
32	23	27.50*	2200	1.75						
18	25	75.00*	2200	1.60						
23	22	60.00*	2200	1.80						
29	20	48.00*	2200	1.95						
35	18	39.00*	2200	2.2						
42	18	32.50*	2200	2.2						
50	15	27.50*	2200	2.6	**W**	**20**	**DRN**	**63MS4**	6.7	980
56	13	24.50*	2200	2.9	**WF**	**20**	**DRN**	**63MS4**	6.8	981
71	11	19.50*	2200	3.5	**WA**	**20**	**DRN**	**63MS4**	6.4	983
84	10	16.50*	2200	3.7	**WAF**	**20**	**DRN**	**63MS4**	6.4	982
96	9.0	14.33	2200	4.7						
135	7.0	10.25*	2160	5.0						
168	5.0	8.20*	2020	4.9						
210	4.0	6.57	1890	4.9						
18	30	48.00*	1800	0.85	**W**	**10**	**DRN**	**63M6**	6.8	976
22	27	39.00*	1800	0.95	**WF**	**10**	**DRN**	**63M6**	7.0	977
27	25	32.50*	1800	1.10	**WA**	**10**	**DRN**	**63M6**	6.8	979
32	22	27.50*	1800	1.20	**WAF**	**10**	**DRN**	**63M6**	7.0	978
18	25	75.00*	1800	1.00						
23	22	60.00*	1800	1.15						
29	20	48.00*	1800	1.25						
35	18	39.00*	1800	1.40						
42	16	32.50*	1800	1.65						
50	14	27.50*	1800	1.80	**W**	**10**	**DRN**	**63MS4**	6.0	976
56	13	24.50*	1800	1.80	**WF**	**10**	**DRN**	**63MS4**	6.2	977
71	11	19.50*	1800	2.5	**WA**	**10**	**DRN**	**63MS4**	6.0	979
84	10	16.50*	1800	2.5	**WAF**	**10**	**DRN**	**63MS4**	6.2	978
96	9.0	14.33	1800	2.5						
135	7.0	10.25*	1800	3.8						
168	5.0	8.20*	1800	3.8						
210	4.0	6.57	1800	3.8						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	650	674	7960	0.90						
2.3	565	588	8000	1.05						
2.7	510	513	8000	1.15						
3.1	460	447	8000	1.30	**WA**	**59R37**	**DRN**	**63M4**	31	1004
3.5	395	398	8000	1.50	**WAF**	**59R37**	**DRN**	**63M4**	33	1004
3.9	355	350	8000	1.70	**WF**	**59R37**	**DRN**	**63M4**	34	1004
4.4	310	311	8000	1.90						
5.1	265	271	8000	2.2						
5.7	235	240	8000	2.5						
4.3	375	213.21	8000	1.60						
6.0	265	151.56	8000	2.2						
6.4	250	142.72	8000	2.4						
7.0	230	129.74	8000	2.6	**WA**	**59**	**DRN**	**71MS6**	21	1002
7.7	210	118.93	8000	2.8	**WAF**	**59**	**DRN**	**71MS6**	22	1001
8.5	192	107.33	8000	3.1	**WF**	**59**	**DRN**	**71MS6**	24	1001
9.0	180	101.45	8000	3.3						
9.9	164	92.23	8000	3.6						
11	150	84.54	8000	4.0						
6.5	250	213.21	8000	2.4						
9.1	179	151.56	8000	3.3	**WA**	**59**	**DRN**	**63M4**	20	1002
9.6	170	142.72	8000	3.5	**WAF**	**59**	**DRN**	**63M4**	22	1001
11	155	129.74	8000	3.9	**WF**	**59**	**DRN**	**63M4**	23	1001

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.1	445	443	6000	0.90						
3.4	410	400	6000	0.95						
3.8	360	362	6000	1.10						
4.2	340	330	6000	1.15	**WA**	**49R17**	**DRN**	**63M4**	19	1004
4.6	315	300	6000	1.25	**WAF**	**49R17**	**DRN**	**63M4**	20	1004
5.1	270	269	6000	1.45	**WF**	**49R17**	**DRN**	**63M4**	21	1004
5.6	250	244	6000	1.55						
6.2	225	222	6000	1.75						
6.8	235	200.76	6000	1.65						
9.1	183	151.87	6000	2.2						
9.2	176	149.88	6000	2.3						
11	151	126.43	6000	2.6	**WA**	**49**	**DRN**	**63M4**	16	999
12	137	114.94	6000	2.9	**WAF**	**49**	**DRN**	**63M4**	17	998
13	126	105.36	6000	3.1	**WF**	**49**	**DRN**	**63M4**	18	998
15	112	94.39	6000	3.5						
15	109	92.86	6000	3.6						
16	102	85.81	6000	3.9						
6.5	240	210.49	4120	0.85						
8.7	187	157.87	4500	1.05						
9.7	161	141.23	4580	1.25						
11	149	126.29	4770	1.35						
12	137	114.81	4860	1.45						
13	126	105.50	4870	1.60						
14	111	97.24	4700	1.65						
15	109	91.92	4740	1.85						
16	100	84.74	4590	2.0	**WA**	**39**	**DRN**	**63M4**	12	996
18	92	77.03	4480	2.2	**WAF**	**39**	**DRN**	**63M4**	13	994
19	87	73.53	4500	2.3	**WF**	**39**	**DRN**	**63M4**	13	994
19	85	70.79	4390	2.4						
21	79	66.85	4390	2.5						
22	73	61.43	4300	2.7						
24	69	58.34	4170	2.7						
26	63	53.04	4070	2.9						
28	58	49.34	4030	3.4						
31	53	44.85	3920	3.7						
10	150	131.50	3510	0.85						
12	140	119.55	3530	0.90						
13	129	108.68	3560	1.00						
14	119	99.87	3590	1.10						
15	107	93.58	3620	1.20						
16	98	83.41	3640	1.30						
18	91	78.02	3660	1.45						
19	86	74.19	3660	1.50						
20	83	69.68	3670	1.55	**WA**	**29**	**DRN**	**63M4**	9.8	991
22	73	62.41	3690	1.75	**WAF**	**29**	**DRN**	**63M4**	10	990
24	67	56.74	3700	1.90	**WF**	**29**	**DRN**	**63M4**	10	990
26	62	52.14	3710	2.1						
28	59	49.58	3720	2.2						
32	51	43.54	3730	2.5						
36	45	38.73*	3740	2.9						
38	43	36.38	3740	3.0						
44	36	30.99*	3760	3.6						
49	33	28.17	3760	3.9						
15	99	90.04	2200	0.80						
17	97	82.03	2200	0.80						
18	89	74.57	2200	0.90						
20	79	68.71	2200	1.00						
22	73	61.75	2200	1.10						
24	67	56.14	2200	1.20	**WA**	**19**	**DRN**	**63M4**	8.3	989
26	60	52.61	2200	1.30	**WAF**	**19**	**DRN**	**63M4**	8.4	988
29	56	47.28	2200	1.40	**WF**	**19**	**DRN**	**63M4**	9.0	988
31	52	44.07	2200	1.50						
34	48	40.07	2200	1.65						
41	40	33.74	2200	2.0						
45	36	30.68	2200	2.2						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
50	31	27.71	2200	2.1						
66	23	20.86	2150	2.5						
77	21	17.77	2060	3.0	**WA**	**19**	**DRN**	**63M4**	7.8	989
85	19	16.16	2010	3.2	**WAF**	**19**	**DRN**	**63M4**	8.0	988
103	15	13.38	1900	3.6	**WF**	**19**	**DRN**	**63M4**	8.5	988
113	14	12.16	1850	3.8						
12	59	75.00*	3000	1.15						
15	55	60.00*	3000	1.25	**W**	**30**	**DRN**	**71MS6**	11	984
19	48	48.00*	3000	1.45	**WF**	**30**	**DRN**	**71MS6**	11	985
23	44	39.00*	3000	1.60	**WA**	**30**	**DRN**	**71MS6**	10	987
28	37	32.50*	3000	1.90	**WAF**	**30**	**DRN**	**71MS6**	11	986
33	34	27.50*	3000	2.0						
18	42	75.00*	3000	1.65						
23	38	60.00*	3000	1.80						
29	33	48.00*	3000	2.1						
35	30	39.00*	3000	2.3						
42	25	32.50*	3000	2.7						
50	24	27.50*	3000	2.9	**W**	**30**	**DRN**	**63M4**	10.0	984
56	22	24.50*	3000	3.1	**WF**	**30**	**DRN**	**63M4**	10	985
71	18	19.50*	3000	3.7	**WA**	**30**	**DRN**	**63M4**	9.7	987
84	16	16.33	3000	4.2	**WAF**	**30**	**DRN**	**63M4**	10.0	986
96	14	14.33	3000	4.7						
134	11	10.25*	3000	5.7						
168	9.0	8.20*	3000	7.1						
209	7.0	6.57	2940	8.1						
111	11	24.50*	3000	6.0						
140	9.0	19.50*	3000	7.1						
167	8.0	16.33	3000	8.0	**W**	**30**	**DRN**	**63MS2**	9.1	984
190	7.0	14.33	3000	9.0	**WF**	**30**	**DRN**	**63MS2**	9.5	985
266	5.0	10.25*	2720	11	**WA**	**30**	**DRN**	**63MS2**	8.8	987
332	4.0	8.20*	2540	14	**WAF**	**30**	**DRN**	**63MS2**	9.2	986
415	3.0	6.57	2360	16						
15	46	60.00*	2200	0.85						
19	43	48.00*	2200	0.90						
23	39	39.00*	2200	1.00	**W**	**20**	**DRN**	**71MS6**	8.1	980
28	39	32.50*	2200	1.00	**WF**	**20**	**DRN**	**71MS6**	8.2	981
33	33	27.50*	2200	1.20	**WA**	**20**	**DRN**	**71MS6**	7.8	983
37	30	24.50*	2200	1.35	**WAF**	**20**	**DRN**	**71MS6**	7.8	982
47	26	19.50*	2200	1.60						
18	37	75.00*	2200	1.05						
23	33	60.00*	2200	1.20						
29	30	48.00*	2200	1.30						
35	27	39.00*	2200	1.45						
42	27	32.50*	2200	1.45						
50	22	27.50*	2200	1.75	**W**	**20**	**DRN**	**63M4**	7.5	980
56	20	24.50*	2200	1.90	**WF**	**20**	**DRN**	**63M4**	7.7	981
71	17	19.50*	2200	2.4	**WA**	**20**	**DRN**	**63M4**	7.2	983
83	15	16.50*	2200	2.4	**WAF**	**20**	**DRN**	**63M4**	7.2	982
96	14	14.33	2200	3.1						
134	10	10.25*	2110	3.3						
168	8.0	8.20*	1980	3.3						
209	7.0	6.57	1870	3.2						
111	11	24.50*	2200	3.6						
140	9.0	19.50*	2090	4.5						
165	8.0	16.50*	1980	4.7	**W**	**20**	**DRN**	**63MS2**	6.7	980
190	7.0	14.33	1900	6.0	**WF**	**20**	**DRN**	**63MS2**	6.8	981
266	5.0	10.25*	1720	6.5	**WA**	**20**	**DRN**	**63MS2**	6.4	983
332	4.0	8.20*	1610	6.4	**WAF**	**20**	**DRN**	**63MS2**	6.4	982
415	3.0	6.57	1510	6.3						

26883198/EN – 04/2022

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
29	30	48.00*	1800	0.80						
35	27	39.00*	1800	0.95						
42	25	32.50*	1800	1.10						
50	22	27.50*	1800	1.20						
56	20	24.50*	1800	1.20	**W**	**10**	**DRN**	**63M4**	6.8	976
71	17	19.50*	1800	1.70	**WF**	**10**	**DRN**	**63M4**	7.0	977
83	15	16.50*	1800	1.70	**WA**	**10**	**DRN**	**63M4**	6.8	979
96	14	14.33	1800	1.65	**WAF**	**10**	**DRN**	**63M4**	7.0	978
134	10	10.25*	1800	2.5						
168	9.0	8.20*	1800	2.5						
209	7.0	6.57	1790	2.5						
190	7.0	14.33	1800	3.2	**W**	**10**	**DRN**	**63MS2**	6.0	976
266	5.0	10.25*	1650	4.9	**WF**	**10**	**DRN**	**63MS2**	6.2	977
332	4.0	8.20*	1540	4.9	**WA**	**10**	**DRN**	**63MS2**	6.0	979
415	3.0	6.57	1450	4.9	**WAF**	**10**	**DRN**	**63MS2**	6.2	978

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
2.7	715	513	7520	0.85						
3.1	635	447	8000	0.95						
3.5	555	398	8000	1.10	**WA**	**59R37**	**DRN**	**71MS4**	32	1004
4.0	490	350	8000	1.20	**WAF**	**59R37**	**DRN**	**71MS4**	33	1004
4.5	435	311	8000	1.35	**WF**	**59R37**	**DRN**	**71MS4**	35	1004
5.2	375	271	8000	1.60						
5.9	335	240	8000	1.80						
4.3	520	213.21	8000	1.15						
6.0	370	151.56	8000	1.60						
6.4	350	142.72	8000	1.70						
7.0	320	129.74	8000	1.85						
7.7	290	118.93	8000	2.0						
8.5	265	107.33	8000	2.2	**WA**	**59**	**DRN**	**71M6**	22	1002
9.0	250	101.45	8000	2.4	**WAF**	**59**	**DRN**	**71M6**	23	1001
9.9	225	92.23	8000	2.6	**WF**	**59**	**DRN**	**71M6**	25	1001
11	205	84.54	8000	2.9						
12	190	76.29	8000	3.2						
12	181	73.72	8000	3.3						
14	166	67.02	8000	3.6						
15	151	61.43	8000	4.0						
6.6	340	213.21	8000	1.75						
9.3	240	151.56	8000	2.5						
9.8	230	142.72	8000	2.6						
11	210	129.74	8000	2.9	**WA**	**59**	**DRN**	**71MS4**	21	1002
12	191	118.93	8000	3.1	**WAF**	**59**	**DRN**	**71MS4**	22	1001
13	175	107.33	8000	3.4	**WF**	**59**	**DRN**	**71MS4**	24	1001
14	164	101.45	8000	3.6						
15	149	92.23	8000	4.0						
					WA	**59**	**DRN**	**63M2**	20	1002
13	177	213.21	8000	3.4	**WAF**	**59**	**DRN**	**63M2**	22	1001
					WF	**59**	**DRN**	**63M2**	23	1001
4.3	470	330	6000	0.85						
4.7	430	300	6000	0.90	**WA**	**49R17**	**DRN**	**71MS4**	20	1004
5.2	380	269	6000	1.05	**WAF**	**49R17**	**DRN**	**71MS4**	21	1004
5.8	350	244	6000	1.15	**WF**	**49R17**	**DRN**	**71MS4**	21	1004
6.3	315	222	6000	1.25						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.0	320	200.76	6000	1.25						
9.2	245	151.87	6000	1.60						
9.4	240	149.88	6000	1.65						
11	205	126.43	6000	1.95						
12	186	114.94	6000	2.1						
13	172	105.36	6000	2.3	**WA**	**49**	**DRN**	**71MS4**	17	999
15	153	94.39	6000	2.6	**WAF**	**49**	**DRN**	**71MS4**	18	998
15	148	92.86	6000	2.7	**WF**	**49**	**DRN**	**71MS4**	18	998
16	139	85.81	6000	2.9						
18	128	78.66	6000	3.1						
20	115	70.25	6000	3.4						
21	110	67.73	6000	3.6						
23	100	61.58	6000	4.0						
9.9	215	141.23	4130	0.90						
11	200	126.29	4390	1.00						
12	186	114.81	4500	1.05						
13	172	105.50	4510	1.15						
14	151	97.24	4330	1.25						
15	148	91.92	4420	1.35						
17	136	84.74	4270	1.45						
18	125	77.03	4190	1.60						
19	118	73.53	4240	1.70						
20	115	70.79	4120	1.75	**WA**	**39**	**DRN**	**71MS4**	12	996
21	108	66.85	4150	1.85	**WAF**	**39**	**DRN**	**71MS4**	13	994
23	100	61.43	4070	2.0	**WF**	**39**	**DRN**	**71MS4**	14	994
24	93	58.34	3930	2.0						
26	86	53.04	3850	2.2						
28	79	49.34	3830	2.5						
31	72	44.85	3740	2.7						
34	67	41.22	3670	3.0						
41	54	33.97	3480	3.6						
46	50	30.88	3390	3.9						
50	46	28.38	3320	4.2						
14	162	99.87	3470	0.80						
15	145	93.58	3520	0.90						
17	133	83.41	3550	0.95						
18	124	78.02	3580	1.05						
19	117	74.19	3590	1.10						
20	113	69.68	3600	1.15						
23	99	62.41	3640	1.30						
25	92	56.74	3650	1.40	**WA**	**29**	**DRN**	**71MS4**	10	991
27	84	52.14	3670	1.55	**WAF**	**29**	**DRN**	**71MS4**	11	990
28	80	49.58	3680	1.60	**WF**	**29**	**DRN**	**71MS4**	11	990
32	69	43.54	3700	1.85						
36	61	38.73*	3710	2.1						
39	59	36.38	3720	2.2						
45	49	30.99*	3730	2.6						
50	45	28.17	3640	2.8						
54	42	25.89	3560	3.1						
60	37	23.29	3500	3.5	**WA**	**29**	**DRN**	**71MS4**	10	991
66	34	21.17	3410	3.8	**WAF**	**29**	**DRN**	**71MS4**	10	990
					WF	**29**	**DRN**	**71MS4**	11	990
23	100	61.75	2200	0.80						
25	91	56.14	2200	0.85						
27	82	52.61	2200	0.95						
30	76	47.28	2200	1.05	**WA**	**19**	**DRN**	**71MS4**	8.8	989
32	71	44.07	2200	1.10	**WAF**	**19**	**DRN**	**71MS4**	9.0	988
35	65	40.07	2200	1.20	**WF**	**19**	**DRN**	**71MS4**	9.6	988
42	54	33.74	2200	1.45						
46	50	30.68	2180	1.60						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
51	43	27.71	2200	1.55						
67	32	20.86	2060	1.85						
79	28	17.77	1980	2.2						
87	26	16.16	1930	2.4						
105	21	13.38	1830	2.6						
116	19	12.16	1780	2.8	**WA**	**19**	**DRN**	**71MS4**	8.4	989
137	16	10.24	1690	3.0	**WAF**	**19**	**DRN**	**71MS4**	8.5	988
151	15	9.31	1650	3.3	**WF**	**19**	**DRN**	**71MS4**	9.1	988
168	13	8.38	1580	3.0						
184	12	7.62	1540	3.5						
216	10	6.49*	1460	3.0						
238	9.0	5.90	1430	3.5						
15	77	60.00*	3000	0.90						
19	67	48.00*	3000	1.05						
23	61	39.00*	3000	1.15	**W**	**30**	**DRN**	**71M6**	12	984
28	51	32.50*	3000	1.35	**WF**	**30**	**DRN**	**71M6**	12	985
33	48	27.50*	3000	1.45	**WA**	**30**	**DRN**	**71M6**	11	987
37	45	24.50*	3000	1.55	**WAF**	**30**	**DRN**	**71M6**	12	986
47	38	19.50*	3000	1.80						
19	57	75.00*	3000	1.20						
23	53	60.00*	3000	1.30						
29	46	48.00*	3000	1.50						
36	41	39.00*	3000	1.65						
43	35	32.50*	3000	2.0						
51	32	27.50*	3000	2.1	**W**	**30**	**DRN**	**71MS4**	11	984
57	30	24.50*	3000	2.3	**WF**	**30**	**DRN**	**71MS4**	11	985
72	25	19.50*	3000	2.7	**WA**	**30**	**DRN**	**71MS4**	10	987
86	22	16.33	3000	3.1	**WAF**	**30**	**DRN**	**71MS4**	11	986
98	20	14.33	3000	3.4						
137	15	10.25*	3000	4.2						
171	12	8.20*	3000	5.2						
214	10	6.57	2900	6.0						
112	16	24.50*	3000	4.3						
141	13	19.50*	3000	5.2						
169	11	16.33	3000	5.8	**W**	**30**	**DRN**	**63M2**	10.0	984
192	10	14.33	2980	6.5	**WF**	**30**	**DRN**	**63M2**	10	985
269	7.0	10.25*	2690	8.0	**WA**	**30**	**DRN**	**63M2**	9.7	987
336	6.0	8.20*	2510	10	**WAF**	**30**	**DRN**	**63M2**	10.0	986
419	5.0	6.57	2340	11						
23	45	60.00*	2200	0.90						
29	41	48.00*	2200	0.95						
36	37	39.00*	2200	1.05						
43	37	32.50*	2200	1.10						
51	31	27.50*	2200	1.30	**W**	**20**	**DRN**	**71MS4**	8.1	980
57	28	24.50*	2200	1.40	**WF**	**20**	**DRN**	**71MS4**	8.2	981
72	24	19.50*	2200	1.75	**WA**	**20**	**DRN**	**71MS4**	7.8	983
85	21	16.50*	2200	1.80	**WAF**	**20**	**DRN**	**71MS4**	7.8	982
98	19	14.33	2200	2.3						
137	14	10.25*	2050	2.5						
171	12	8.20*	1930	2.4						
214	10	6.57	1830	2.4						
85	19	32.50*	2200	2.0						
100	16	27.50*	2200	2.4						
112	15	24.50*	2170	2.6						
141	12	19.50*	2030	3.2	**W**	**20**	**DRN**	**63M2**	7.5	980
167	11	16.50*	1930	3.4	**WF**	**20**	**DRN**	**63M2**	7.7	981
192	10	14.33	1860	4.4	**WA**	**20**	**DRN**	**63M2**	7.2	983
269	7.0	10.25*	1690	4.7	**WAF**	**20**	**DRN**	**63M2**	7.2	982
336	6.0	8.20*	1580	4.6						
419	5.0	6.57	1490	4.6						

26883198/EN – 04/2022

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
51	30	27.50*	1800	0.90						
57	28	24.50*	1800	0.90						
72	24	19.50*	1800	1.25	**W**	**10**	**DRN**	**71MS4**	7.4	976
85	21	16.50*	1800	1.25	**WF**	**10**	**DRN**	**71MS4**	7.6	977
98	19	14.33	1800	1.25	**WA**	**10**	**DRN**	**71MS4**	7.4	979
137	14	10.25*	1800	1.90	**WAF**	**10**	**DRN**	**71MS4**	7.6	978
171	12	8.20*	1800	1.90						
214	10	6.57	1750	1.85						
192	10	14.33	1780	2.3	**W**	**10**	**DRN**	**63M2**	6.8	976
269	7.0	10.25*	1620	3.6	**WF**	**10**	**DRN**	**63M2**	7.0	977
336	6.0	8.20*	1520	3.6	**WA**	**10**	**DRN**	**63M2**	6.8	979
419	5.0	6.57	1430	3.6	**WAF**	**10**	**DRN**	**63M2**	7.0	978

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.0	735	350	7340	0.80						
4.5	655	311	7930	0.90	**WA**	**59R37**	**DRN**	**71M4**	33	1004
5.2	570	271	8000	1.05	**WAF**	**59R37**	**DRN**	**71M4**	34	1004
5.9	505	240	8000	1.20	**WF**	**59R37**	**DRN**	**71M4**	35	1004
6.2	535	151.56	8000	1.10						
6.5	510	142.72	8000	1.20						
7.2	465	129.74	8000	1.30						
7.9	425	118.93	8000	1.40						
8.7	385	107.33	8000	1.55						
9.2	360	101.45	8000	1.65						
10	330	92.23	8000	1.80						
11	300	84.54	8000	2.0	**WA**	**59**	**DRN**	**80MK6**	25	1002
12	275	76.29	8000	2.2	**WAF**	**59**	**DRN**	**80MK6**	26	1001
13	260	73.72	8000	2.3	**WF**	**59**	**DRN**	**80MK6**	27	1001
14	240	67.02	8000	2.5						
15	215	61.43	8000	2.7						
17	200	55.44	8000	3.0						
18	187	52.40	8000	3.2						
20	171	47.64	8000	3.5						
21	156	43.67	8000	3.6						
24	142	39.41	8000	3.9						
25	132	36.98	8000	3.9						
6.6	505	213.21	8000	1.20						
9.3	355	151.56	8000	1.65						
9.9	335	142.72	8000	1.75						
11	305	129.74	8000	1.95						
12	280	118.93	8000	2.1						
13	255	107.33	8000	2.3	**WA**	**59**	**DRN**	**71M4**	22	1002
14	240	101.45	8000	2.5	**WAF**	**59**	**DRN**	**71M4**	23	1001
15	220	92.23	8000	2.7	**WF**	**59**	**DRN**	**71M4**	25	1001
17	200	84.54	8000	3.0						
19	183	76.29	8000	3.3						
19	175	73.72	8000	3.4						
21	160	67.02	8000	3.8						
13	255	213.21	8000	2.3						
19	183	151.56	8000	3.3	**WA**	**59**	**DRN**	**71MS2**	21	1002
20	173	142.72	8000	3.5	**WAF**	**59**	**DRN**	**71MS2**	22	1001
22	157	129.74	8000	3.8	**WF**	**59**	**DRN**	**71MS2**	24	1001
					WA	**49R17**	**DRN**	**71M4**	21	1004
6.4	470	222	6000	0.85	**WAF**	**49R17**	**DRN**	**71M4**	22	1004
					WF	**49R17**	**DRN**	**71M4**	23	1004

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.0	470	200.76	6000	0.85						
9.3	365	151.87	6000	1.10						
9.4	350	149.88	6000	1.15						
11	300	126.43	6000	1.30						
12	270	114.94	6000	1.45						
13	250	105.36	6000	1.55						
15	225	94.39	6000	1.75						
15	215	92.86	6000	1.80	**WA**	**49**	**DRN**	**71M4**	18	999
16	200	85.81	6000	1.95	**WAF**	**49**	**DRN**	**71M4**	19	998
18	188	78.66	6000	2.1	**WF**	**49**	**DRN**	**71M4**	20	998
20	169	70.25	6000	2.3						
21	161	67.73	6000	2.5						
23	147	61.58	6000	2.7						
24	139	58.48	6000	2.8						
27	126	53.16	6000	3.1						
29	116	48.73	6000	3.4						
32	104	43.66	6000	3.8						
15	220	97.24	3740	0.85						
15	215	91.92	3920	0.90						
17	200	84.74	3760	1.00						
18	184	77.03	3720	1.10						
19	173	73.53	3840	1.15						
20	170	70.79	3690	1.20						
21	159	66.85	3780	1.25						
23	147	61.43	3730	1.35	**WA**	**39**	**DRN**	**71M4**	14	996
24	137	58.34	3560	1.35	**WAF**	**39**	**DRN**	**71M4**	14	994
27	126	53.04	3500	1.45	**WF**	**39**	**DRN**	**71M4**	15	994
29	116	49.34	3540	1.70						
32	107	44.85	3470	1.85						
34	99	41.22	3410	2.0						
42	80	33.97	3260	2.4						
46	73	30.88	3190	2.6						
50	68	28.38	3130	2.9						
60	55	23.68*	3080	3.6	**WA**	**39**	**DRN**	**71M4**	13	996
66	51	21.53	3000	3.9	**WAF**	**39**	**DRN**	**71M4**	14	994
					WF	**39**	**DRN**	**71M4**	14	994
23	146	62.41	3520	0.90						
25	135	56.74	3550	0.95						
27	124	52.14	3580	1.05						
29	118	49.58	3590	1.10						
32	102	43.54	3630	1.25	**WA**	**29**	**DRN**	**71M4**	12	991
37	90	38.73*	3660	1.45	**WAF**	**29**	**DRN**	**71M4**	12	990
39	86	36.38	3660	1.50	**WF**	**29**	**DRN**	**71M4**	12	990
46	72	30.99*	3530	1.80						
50	67	28.17	3450	1.95						
55	61	25.89	3380	2.1						
61	54	23.29	3370	2.4						
67	50	21.17	3280	2.6						
73	46	19.45	3210	2.8						
87	38	16.25	3040	3.1						
96	35	14.77	2960	3.6						
104	32	13.57	2900	3.8						
122	27	11.56*	2760	3.1	**WA**	**29**	**DRN**	**71M4**	11	991
135	25	10.51	2680	3.6	**WAF**	**29**	**DRN**	**71M4**	12	990
146	23	9.66	2620	3.9	**WF**	**29**	**DRN**	**71M4**	12	990
177	18	8.00	2450	3.1						
195	17	7.27	2380	3.6						
212	15	6.68	2320	3.9						
253	13	5.60	2190	3.1						
278	12	5.09	2130	3.5						
303	11	4.68	2080	3.9						
35	96	40.07	2040	0.85	**WA**	**19**	**DRN**	**71M4**	10	989
42	80	33.74	1960	1.00	**WAF**	**19**	**DRN**	**71M4**	10	988
46	73	30.68	1950	1.10	**WF**	**19**	**DRN**	**71M4**	11	988

26883198/EN – 04/2022

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
51	63	27.71	2030	1.05						
68	47	20.86	1910	1.25						
80	42	17.77	1860	1.50						
88	38	16.16	1820	1.60						
106	31	13.38	1730	1.80						
116	29	12.16	1700	1.90	**WA**	**19**	**DRN**	**71M4**	9.6	989
138	24	10.24	1610	2.0	**WAF**	**19**	**DRN**	**71M4**	9.8	988
152	22	9.31	1570	2.2	**WF**	**19**	**DRN**	**71M4**	10	988
169	19	8.38	1510	2.0						
186	18	7.62	1470	2.4						
218	15	6.49*	1400	2.1						
240	14	5.90	1370	2.4						
24	78	60.00*	3000	0.90						
29	67	48.00*	3000	1.05						
36	61	39.00*	3000	1.15						
44	51	32.50*	3000	1.35						
51	48	27.50*	3000	1.45	**W**	**30**	**DRN**	**71M4**	12	984
58	44	24.50*	3000	1.55	**WF**	**30**	**DRN**	**71M4**	12	985
73	37	19.50*	3000	1.85	**WA**	**30**	**DRN**	**71M4**	11	987
87	32	16.33	3000	2.1	**WAF**	**30**	**DRN**	**71M4**	12	986
99	29	14.33	3000	2.3						
138	22	10.25*	3000	2.8						
173	18	8.20*	3000	3.6						
215	15	6.57	2850	4.0						
115	23	24.50*	3000	3.0						
144	19	19.50*	3000	3.5						
172	16	16.33	3000	4.0	**W**	**30**	**DRN**	**71MS2**	11	984
196	15	14.33	2910	4.5	**WF**	**30**	**DRN**	**71MS2**	11	985
274	11	10.25*	2640	5.5	**WA**	**30**	**DRN**	**71MS2**	10	987
343	9.0	8.20*	2460	7.0	**WAF**	**30**	**DRN**	**71MS2**	11	986
428	7.0	6.57	2300	7.9						
51	46	27.50*	2200	0.85						
58	41	24.50*	2200	0.95						
73	35	19.50*	2200	1.15	**W**	**20**	**DRN**	**71M4**	9.3	980
86	31	16.50*	2170	1.20	**WF**	**20**	**DRN**	**71M4**	9.5	981
99	28	14.33	2120	1.55	**WA**	**20**	**DRN**	**71M4**	9.1	983
138	21	10.25*	1960	1.65	**WAF**	**20**	**DRN**	**71M4**	9.1	982
173	17	8.20*	1860	1.65						
215	14	6.57	1780	1.60						
115	22	24.50*	2060	1.80						
144	18	19.50*	1940	2.2						
170	16	16.50*	1850	2.3	**W**	**20**	**DRN**	**71MS2**	8.1	980
196	14	14.33	1790	3.0	**WF**	**20**	**DRN**	**71MS2**	8.2	981
274	11	10.25*	1630	3.2	**WA**	**20**	**DRN**	**71MS2**	7.8	983
343	9.0	8.20*	1540	3.2	**WAF**	**20**	**DRN**	**71MS2**	7.8	982
428	7.0	6.57	1460	3.1						
73	35	19.50*	1800	0.85						
86	31	16.50*	1800	0.85	**W**	**10**	**DRN**	**71M4**	8.6	976
99	28	14.33	1800	0.85	**WF**	**10**	**DRN**	**71M4**	8.8	977
138	21	10.25*	1800	1.30	**WA**	**10**	**DRN**	**71M4**	8.6	979
173	18	8.20*	1780	1.30	**WAF**	**10**	**DRN**	**71M4**	8.8	978
215	14	6.57	1700	1.25						
196	15	14.33	1710	1.60	**W**	**10**	**DRN**	**71MS2**	7.4	976
274	11	10.25*	1560	2.5	**WF**	**10**	**DRN**	**71MS2**	7.6	977
343	9.0	8.20*	1470	2.5	**WA**	**10**	**DRN**	**71MS2**	7.4	979
428	7.0	6.57	1390	2.5	**WAF**	**10**	**DRN**	**71MS2**	7.6	978

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.8	730	142.72	7370	0.80						
7.5	670	129.74	7850	0.90						
8.1	610	118.93	8000	1.00						
9.0	555	107.33	8000	1.10						
9.5	520	101.45	8000	1.15						
10	475	92.23	8000	1.25						
11	430	84.54	8000	1.40						
13	395	76.29	8000	1.50						
13	375	73.72	8000	1.60						
14	345	67.02	8000	1.75	**WA**	**59**	**DRN**	**90SR6**	33	1002
16	315	61.43	8000	1.90	**WAF**	**59**	**DRN**	**90SR6**	34	1001
17	285	55.44	8000	2.1	**WF**	**59**	**DRN**	**90SR6**	35	1001
18	265	52.40	8000	2.2						
20	245	47.64	8000	2.4						
22	220	43.67	8000	2.5						
25	200	39.41	8000	2.7						
26	190	36.98	8000	2.7						
29	173	33.62	8000	3.0						
31	158	30.82	8000	3.3						
35	144	27.81	8000	3.5						
6.7	740	213.21	7320	0.80						
9.5	525	151.56	8000	1.15						
10	495	142.72	8000	1.20						
11	450	129.74	8000	1.30						
12	410	118.93	8000	1.45						
13	375	107.33	8000	1.60						
14	350	101.45	8000	1.70						
16	320	92.23	8000	1.85						
17	290	84.54	8000	2.0	**WA**	**59**	**DRN**	**80MK4**	25	1002
19	265	76.29	8000	2.2	**WAF**	**59**	**DRN**	**80MK4**	26	1001
19	255	73.72	8000	2.3	**WF**	**59**	**DRN**	**80MK4**	27	1001
21	230	67.02	8000	2.6						
23	210	61.43	8000	2.8						
26	195	55.44	8000	3.1						
27	183	52.40	8000	3.3						
30	166	47.64	8000	3.5						
33	151	43.67	8000	3.8						
36	138	39.41	8000	4.0						
13	380	213.21	8000	1.55						
19	270	151.56	8000	2.2						
20	255	142.72	8000	2.3						
22	230	129.74	8000	2.6	**WA**	**59**	**DRN**	**71M2**	22	1002
24	210	118.93	8000	2.8	**WAF**	**59**	**DRN**	**71M2**	23	1001
26	193	107.33	8000	3.1	**WF**	**59**	**DRN**	**71M2**	25	1001
28	181	101.45	8000	3.3						
31	165	92.23	8000	3.6						
33	150	84.54	8000	4.0						
39	128	24.89	8000	3.0						
43	116	22.63	8000	3.8	**WA**	**59**	**DRN**	**90SR6**	30	1002
60	83	16.09	7340	3.7	**WAF**	**59**	**DRN**	**90SR6**	31	1001
85	58	11.35	6610	3.7	**WF**	**59**	**DRN**	**90SR6**	33	1001
118	42	8.18	5970	3.7						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	440	126.43	6000	0.90						
12	400	114.94	6000	1.00						
14	370	105.36	6000	1.05						
15	330	94.39	6000	1.20						
15	320	92.86	6000	1.25						
17	300	85.81	6000	1.35						
18	275	78.66	6000	1.45						
20	245	70.25	6000	1.60						
21	235	67.73	6000	1.70	**WA**	**49**	**DRN**	**80MK4**	20	999
23	215	61.58	6000	1.85	**WAF**	**49**	**DRN**	**80MK4**	21	998
25	200	58.48	6000	1.95	**WF**	**49**	**DRN**	**80MK4**	22	998
27	186	53.16	6000	2.1						
29	171	48.73	6000	2.3						
33	152	43.66	6000	2.6						
36	138	39.69	6000	2.9						
39	128	36.38	6000	3.1						
46	109	31.33	6000	3.5						
50	99	28.48	6000	3.8						
20	245	70.79	3050	0.80						
21	230	66.85	3230	0.85						
23	215	61.43	3220	0.90						
25	200	58.34	3010	0.90						
27	185	53.04	3000	1.00	**WA**	**39**	**DRN**	**80MK4**	16	996
29	171	49.34	3090	1.15	**WAF**	**39**	**DRN**	**80MK4**	17	994
32	157	44.85	3060	1.25	**WF**	**39**	**DRN**	**80MK4**	18	994
35	145	41.22	3040	1.40						
42	117	33.97	2930	1.65						
46	108	30.88	2890	1.80						
51	100	28.38	2850	1.95						
61	82	23.68*	2880	2.4						
67	75	21.53	2820	2.6						
73	69	19.78	2760	2.9						
90	55	15.89	2600	3.1						
99	50	14.44	2540	3.5						
108	46	13.27	2490	3.7						
131	37	10.94	2360	3.3	**WA**	**39**	**DRN**	**80MK4**	15	996
144	34	9.94	2300	3.6	**WAF**	**39**	**DRN**	**80MK4**	16	994
157	32	9.14	2250	3.9	**WF**	**39**	**DRN**	**80MK4**	17	994
189	26	7.61	2110	3.3						
208	24	6.91	2060	3.3						
226	22	6.35	2010	3.6						
254	19	5.65	1930	3.4						
279	18	5.14	1880	3.3						
304	16	4.72	1840	3.5						
33	150	43.54	3440	0.85						
37	132	38.73*	3330	1.00	**WA**	**29**	**DRN**	**80MK4**	14	991
39	127	36.38	3350	1.00	**WAF**	**29**	**DRN**	**80MK4**	14	990
46	106	30.99*	3230	1.20	**WF**	**29**	**DRN**	**80MK4**	15	990
51	98	28.17	3170	1.30						
55	90	25.89	3120	1.45						
62	80	23.29	3160	1.60						
68	74	21.17	3090	1.75						
74	68	19.45	3030	1.90						
88	56	16.25	2890	2.1						
97	51	14.77	2820	2.4						
106	47	13.57	2760	2.6						
124	39	11.56*	2640	2.1	**WA**	**29**	**DRN**	**80MK4**	14	991
137	36	10.51	2570	2.5	**WAF**	**29**	**DRN**	**80MK4**	14	990
149	33	9.66	2510	2.6	**WF**	**29**	**DRN**	**80MK4**	14	990
179	27	8.00	2340	2.1						
197	25	7.27	2280	2.4						
215	23	6.68	2230	2.6						
256	19	5.60	2110	2.1						
282	17	5.09	2050	2.4						
307	16	4.68	2010	2.6						

26883198/EN – 04/2022

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
81	62	17.77	1670	1.00						
89	56	16.16	1650	1.10						
107	46	13.38	1590	1.20						
118	42	12.16	1560	1.30						
140	35	10.24	1490	1.40	**WA**	**19**	**DRN**	**80MK4**	12	989
154	32	9.31	1460	1.55	**WAF**	**19**	**DRN**	**80MK4**	12	988
171	29	8.38	1400	1.40	**WF**	**19**	**DRN**	**80MK4**	12	988
188	26	7.62	1370	1.60						
221	22	6.49*	1310	1.40						
243	20	5.90	1280	1.65						
276	18	10.24	1290	2.7						
303	16	9.31	1260	3.0						
337	15	8.38	1210	2.7	**WA**	**19**	**DRN**	**71M2**	9.6	989
371	13	7.62	1180	3.1	**WAF**	**19**	**DRN**	**71M2**	9.8	988
435	11	6.49*	1120	2.8	**WF**	**19**	**DRN**	**71M2**	10	988
479	10	5.90	1090	3.2						
44	75	32.50*	3000	0.90						
52	70	27.50*	3000	1.00						
59	65	24.50*	3000	1.05						
74	55	19.50*	3000	1.25	**W**	**30**	**DRN**	**80MK4**	14	984
88	47	16.33	3000	1.40	**WF**	**30**	**DRN**	**80MK4**	14	985
100	43	14.33	3000	1.60	**WA**	**30**	**DRN**	**80MK4**	14	987
140	32	10.25*	3000	1.95	**WAF**	**30**	**DRN**	**80MK4**	14	986
175	26	8.20*	2940	2.4						
218	22	6.57	2770	2.8						
115	34	24.50*	3000	2.0						
145	29	19.50*	3000	2.4						
173	24	16.33	2930	2.7	**W**	**30**	**DRN**	**71M2**	12	984
197	22	14.33	2830	3.0	**WF**	**30**	**DRN**	**71M2**	12	985
276	16	10.25*	2580	3.7	**WA**	**30**	**DRN**	**71M2**	11	987
345	13	8.20*	2420	4.7	**WAF**	**30**	**DRN**	**71M2**	12	986
430	11	6.57	2260	5.3						
74	52	19.50*	2020	0.80						
87	45	16.50*	1960	0.85	**W**	**20**	**DRN**	**80MK4**	11	980
100	42	14.33	1940	1.05	**WF**	**20**	**DRN**	**80MK4**	12	981
140	31	10.25*	1820	1.15	**WA**	**20**	**DRN**	**80MK4**	11	983
175	25	8.20*	1750	1.10	**WAF**	**20**	**DRN**	**80MK4**	11	982
218	21	6.57	1710	1.10						
115	32	24.50*	1900	1.25						
145	27	19.50*	1810	1.50						
171	24	16.50*	1740	1.60	**W**	**20**	**DRN**	**71M2**	9.3	980
197	22	14.33	1690	2.0	**WF**	**20**	**DRN**	**71M2**	9.5	981
276	16	10.25*	1560	2.2	**WA**	**20**	**DRN**	**71M2**	9.1	983
345	13	8.20*	1480	2.2	**WAF**	**20**	**DRN**	**71M2**	9.1	982
430	11	6.57	1420	2.1						

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.4	715	101.45	7500	0.85						
10	655	92.23	7950	0.90						
11	595	84.54	8000	1.00						
13	545	76.29	8000	1.10						
13	520	73.72	8000	1.15						
14	475	67.02	8000	1.25						
16	435	61.43	8000	1.40	**WA**	**59**	**DRN**	**90S6**	33	1002
17	395	55.44	8000	1.50	**WAF**	**59**	**DRN**	**90S6**	34	1001
18	370	52.40	8000	1.60	**WF**	**59**	**DRN**	**90S6**	35	1001
20	335	47.64	8000	1.75						
22	305	43.67	8000	1.85						
24	280	39.41	8000	1.95						
26	260	36.98	8000	2.0						
28	235	33.62	8000	2.2						
31	215	30.82	8000	2.4						
34	198	27.81	8000	2.5						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.5	715	151.56	7510	0.85						
10	675	142.72	7800	0.90						
11	615	129.74	8000	0.95						
12	560	118.93	8000	1.05						
13	510	107.33	8000	1.15						
14	480	101.45	8000	1.25						
16	435	92.23	8000	1.35						
17	395	84.54	8000	1.50						
19	360	76.29	8000	1.65						
20	345	73.72	8000	1.70	**WA**	**59**	**DRN**	**80M4**	28	1002
21	315	67.02	8000	1.90	**WAF**	**59**	**DRN**	**80M4**	29	1001
23	290	61.43	8000	2.1	**WF**	**59**	**DRN**	**80M4**	31	1001
26	265	55.44	8000	2.3						
27	245	52.40	8000	2.4						
30	225	47.64	8000	2.6						
33	205	43.67	8000	2.8						
37	188	39.41	8000	2.9						
39	175	36.98	7860	3.0						
43	159	33.62	7690	3.2						
47	145	30.82	7540	3.6						
52	132	27.81	7340	3.8						
13	510	213.21	8000	1.15						
19	365	151.56	8000	1.65						
20	345	142.72	8000	1.75						
22	310	129.74	8000	1.90						
24	285	118.93	8000	2.1						
27	260	107.33	8000	2.3	**WA**	**59**	**DRN**	**80MS2**	28	1002
28	245	101.45	8000	2.4	**WAF**	**59**	**DRN**	**80MS2**	29	1001
31	220	92.23	8000	2.7	**WF**	**59**	**DRN**	**80MS2**	31	1001
34	200	84.54	8000	3.0						
37	185	76.29	8000	3.2						
39	178	73.72	7980	3.4						
43	162	67.02	7800	3.7						
38	176	24.89	8000	2.2						
42	160	22.63	7830	2.8						
46	146	20.74	7670	3.5						
51	133	18.72	7460	3.6						
59	114	16.09	7150	2.7						
65	104	14.75	6990	3.5	**WA**	**59**	**DRN**	**90S6**	30	1002
72	95	13.31	6800	3.8	**WAF**	**59**	**DRN**	**90S6**	31	1001
84	80	11.35	6470	2.7	**WF**	**59**	**DRN**	**90S6**	33	1001
92	73	10.41	6320	3.6						
102	67	9.39	6140	3.6						
117	58	8.18	5860	2.7						
128	53	7.49	5720	3.6						
142	48	6.76	5550	3.6						
					WA	**59**	**DRN**	**80M4**	25	1002
58	118	24.89	7230	3.3	**WAF**	**59**	**DRN**	**80M4**	27	1001
					WF	**59**	**DRN**	**80M4**	28	1001
15	445	94.39	6000	0.90						
16	435	92.86	6000	0.90						
17	405	85.81	6000	1.00						
18	375	78.66	6000	1.05						
20	335	70.25	6000	1.15						
21	320	67.73	6000	1.25						
23	290	61.58	6000	1.35						
25	275	58.48	6000	1.40	**WA**	**49**	**DRN**	**80M4**	24	999
27	250	53.16	6000	1.55	**WAF**	**49**	**DRN**	**80M4**	25	998
30	230	48.73	6000	1.70	**WF**	**49**	**DRN**	**80M4**	25	998
33	205	43.66	6000	1.95						
36	188	39.69	6000	2.1						
40	173	36.38	6000	2.3						
46	149	31.33	6000	2.5						
51	135	28.48	6000	2.8						
55	124	26.11	6000	3.0						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
63	108	22.69	5990	3.2						
70	98	20.63	5850	3.4						
76	90	18.91	5710	3.6						
85	80	16.94	5520	3.2						
93	73	15.40	5380	4.0	**WA**	**49**	**DRN**	**80M4**	22	999
102	67	14.12	5260	4.0	**WAF**	**49**	**DRN**	**80M4**	23	998
118	57	12.16	5010	3.2	**WF**	**49**	**DRN**	**80M4**	24	998
130	52	11.05	4880	4.0						
142	48	10.13	4760	4.0						
166	41	8.67	4530	3.2						
183	37	7.88	4410	4.0						
199	34	7.22	4300	4.0						
29	230	49.34	2610	0.85						
32	210	44.85	2620	0.95						
35	197	41.22	2630	1.00	**WA**	**39**	**DRN**	**80M4**	19	996
42	160	33.97	2580	1.20	**WAF**	**39**	**DRN**	**80M4**	20	994
47	147	30.88	2570	1.35	**WF**	**39**	**DRN**	**80M4**	21	994
51	135	28.38	2550	1.45						
61	111	23.68*	2660	1.80						
67	102	21.53	2620	1.95						
73	94	19.78	2580	2.1						
91	74	15.89	2440	2.3						
100	68	14.44	2400	2.5						
108	63	13.27	2360	2.8						
132	51	10.94	2250	2.4	**WA**	**39**	**DRN**	**80M4**	18	996
145	47	9.94	2200	2.7	**WAF**	**39**	**DRN**	**80M4**	19	994
158	43	9.14	2160	2.8	**WF**	**39**	**DRN**	**80M4**	20	994
189	35	7.61	2020	2.5						
208	32	6.91	1970	2.4						
227	30	6.35	1930	2.6						
255	26	5.65	1850	2.5						
280	24	5.14	1810	2.4						
305	22	4.72	1770	2.6						
46	145	30.99*	2900	0.90	**WA**	**29**	**DRN**	**80M4**	17	991
51	133	28.17	2870	0.95	**WAF**	**29**	**DRN**	**80M4**	18	990
56	123	25.89	2850	1.05	**WF**	**29**	**DRN**	**80M4**	18	990
62	109	23.29	2940	1.20						
68	100	21.17	2890	1.30						
74	92	19.45	2850	1.40						
89	76	16.25	2730	1.60						
97	70	14.77	2670	1.80						
106	64	13.57	2620	1.90						
125	54	11.56*	2510	1.55	**WA**	**29**	**DRN**	**80M4**	17	991
137	49	10.51	2460	1.80	**WAF**	**29**	**DRN**	**80M4**	17	990
149	46	9.66	2410	1.95	**WF**	**29**	**DRN**	**80M4**	18	990
180	37	8.00	2240	1.55						
198	34	7.27	2190	1.80						
216	31	6.68	2140	1.95						
257	26	5.60	2030	1.55						
283	24	5.09	1980	1.80						
308	22	4.68	1940	1.95						
89	77	16.16	1470	0.80						
108	63	13.38	1430	0.90						
118	58	12.16	1420	0.95						
141	48	10.24	1360	1.05	**WA**	**19**	**DRN**	**80M4**	15	989
155	44	9.31	1350	1.10	**WAF**	**19**	**DRN**	**80M4**	15	988
172	39	8.38	1280	1.05	**WF**	**19**	**DRN**	**80M4**	16	988
189	36	7.62	1260	1.20						
222	30	6.49*	1200	1.05						
244	28	5.90	1190	1.20						
279	24	10.24	1220	2.0						
307	22	9.31	1200	2.2						
341	20	8.38	1140	2.0	**WA**	**19**	**DRN**	**80MS2**	15	989
375	18	7.62	1120	2.3	**WAF**	**19**	**DRN**	**80MS2**	15	988
440	15	6.49*	1070	2.0	**WF**	**19**	**DRN**	**80MS2**	16	988
484	14	5.90	1040	2.4						

26883198/EN – 04/2022

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
59	89	24.50*	3000	0.80						
74	75	19.50*	3000	0.95						
88	65	16.33	3000	0.95	**W**	**30**	**DRN**	**80M4**	17	984
100	59	14.33	3000	1.15	**WF**	**30**	**DRN**	**80M4**	18	985
140	44	10.25*	3000	1.40	**WA**	**30**	**DRN**	**80M4**	17	987
176	36	8.20*	2850	1.80	**WAF**	**30**	**DRN**	**80M4**	17	986
219	30	6.57	2700	2.0						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	695	67.02	7640	0.85						
16	635	61.43	8000	0.95						
17	580	55.44	8000	1.05						
18	540	52.40	8000	1.10						
20	495	47.64	8000	1.20	**WA**	**59**	**DRN**	**90L6**	37	1002
22	450	43.67	8000	1.25	**WAF**	**59**	**DRN**	**90L6**	39	1001
24	410	39.41	7900	1.35	**WF**	**59**	**DRN**	**90L6**	40	1001
26	380	36.98	7690	1.35						
28	350	33.62	7610	1.50						
31	320	30.82	7540	1.60						
34	290	27.81	7410	1.75						
14	745	107.33	7290	0.80						
14	695	101.45	7640	0.85						
16	635	92.23	8000	0.95						
17	575	84.54	8000	1.05						
19	525	76.29	8000	1.15						
20	505	73.72	8000	1.20						
22	460	67.02	8000	1.30						
24	420	61.43	8000	1.40	**WA**	**59**	**DRN**	**90S4**	34	1002
26	380	55.44	7910	1.55	**WAF**	**59**	**DRN**	**90S4**	36	1001
28	360	52.40	7780	1.65	**WF**	**59**	**DRN**	**90S4**	37	1001
31	325	47.64	7680	1.80						
33	295	43.67	7590	1.90						
37	270	39.41	7440	2.0						
39	250	36.98	7260	2.0						
43	230	33.62	7140	2.2						
47	210	30.82	7040	2.5						
52	193	27.81	6880	2.6						
38	255	24.89	7480	1.50						
42	235	22.63	7340	1.90						
46	215	20.74	7220	2.4						
51	196	18.72	7060	2.5						
59	167	16.09	6790	1.85						
65	153	14.75	6660	2.4	**WA**	**59**	**DRN**	**90L6**	35	1002
72	139	13.31	6500	2.6	**WAF**	**59**	**DRN**	**90L6**	36	1001
84	118	11.35	6200	1.85	**WF**	**59**	**DRN**	**90L6**	38	1001
92	108	10.41	6070	2.4						
102	98	9.39	5910	2.4						
117	85	8.18	5640	1.85						
128	77	7.49	5520	2.4						
142	70	6.76	5370	2.4						
58	171	24.89	6860	2.3						
64	156	22.63	6710	2.8						
70	142	20.74	6580	3.6						
78	129	18.72	6400	3.7						
90	111	16.09	6140	2.8						
99	101	14.75	6010	3.7	**WA**	**59**	**DRN**	**90S4**	32	1002
109	92	13.31	5840	3.9	**WAF**	**59**	**DRN**	**90S4**	33	1001
128	78	11.35	5570	2.8	**WF**	**59**	**DRN**	**90S4**	35	1001
140	71	10.41	5440	3.7						
155	65	9.39	5290	3.7						
178	56	8.18	5050	2.8						
194	51	7.49	4930	3.7						
215	46	6.76	4790	3.7						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
21	485	70.25	6000	0.80						
21	465	67.73	5970	0.85						
24	425	61.58	6000	0.95						
25	400	58.48	6000	1.00						
27	365	53.16	6000	1.10						
30	335	48.73	6000	1.15	**WA**	**49**	**DRN**	**90S4**	30	999
33	300	43.66	6000	1.35	**WAF**	**49**	**DRN**	**90S4**	31	998
37	270	39.69	6000	1.45	**WF**	**49**	**DRN**	**90S4**	32	998
40	250	36.38	6000	1.60						
46	215	31.33	5810	1.75						
51	196	28.48	5730	1.90						
56	181	26.11	5640	2.1						
64	156	22.69	5640	2.2						
71	142	20.63	5530	2.4						
77	131	18.91	5420	2.5						
86	117	16.94	5250	2.2						
94	106	15.40	5130	2.7						
103	98	14.12	5020	2.7	**WA**	**49**	**DRN**	**90S4**	29	999
120	83	12.16	4800	2.2	**WAF**	**49**	**DRN**	**90S4**	29	998
132	76	11.05	4680	2.7	**WF**	**49**	**DRN**	**90S4**	30	998
144	70	10.13	4580	2.7						
168	59	8.67	4360	2.2						
185	54	7.88	4260	2.7						
201	50	7.22	4160	2.8						
43	230	33.97	1980	0.85	**WA**	**39**	**DRN**	**90S4**	25	996
47	210	30.88	2010	0.90	**WAF**	**39**	**DRN**	**90S4**	26	994
51	197	28.38	2040	1.00	**WF**	**39**	**DRN**	**90S4**	27	994
61	161	23.68*	2300	1.25						
68	148	21.53	2280	1.35						
74	137	19.78	2270	1.45						
92	108	15.89	2170	1.55						
101	99	14.44	2150	1.75						
110	92	13.27	2120	1.90						
133	74	10.94	2050	1.65	**WA**	**39**	**DRN**	**90S4**	24	996
146	68	9.94	2010	1.85	**WAF**	**39**	**DRN**	**90S4**	25	994
159	63	9.14	1980	1.95	**WF**	**39**	**DRN**	**90S4**	26	994
191	52	7.61	1860	1.70						
210	47	6.91	1820	1.65						
229	44	6.35	1790	1.80						
257	38	5.65	1720	1.70						
283	35	5.14	1680	1.65						
308	32	4.72	1660	1.80						
376	26	7.61	1620	3.3						
414	24	6.91	1590	3.3						
450	22	6.35	1550	3.5	**WA**	**39**	**DRN**	**80M2**	18	996
506	19	5.65	1490	3.3	**WAF**	**39**	**DRN**	**80M2**	19	994
557	18	5.14	1450	3.2	**WF**	**39**	**DRN**	**80M2**	20	994
606	16	4.72	1420	3.5						
62	158	23.29	2560	0.80						
69	146	21.17	2540	0.90						
75	134	19.45	2520	0.95						
90	110	16.25	2450	1.10						
99	101	14.77	2410	1.25						
107	93	13.57	2380	1.30						
126	78	11.56*	2300	1.10	**WA**	**29**	**DRN**	**90S4**	23	991
138	72	10.51	2260	1.25	**WAF**	**29**	**DRN**	**90S4**	23	990
151	66	9.66	2220	1.35	**WF**	**29**	**DRN**	**90S4**	23	990
182	54	8.00	2060	1.05						
200	50	7.27	2020	1.25						
218	46	6.68	1990	1.35						
260	38	5.60	1880	1.10						
286	35	5.09	1840	1.20						
311	32	4.68	1810	1.35						

26883198/EN – 04/2022

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
358	27	8.00	1800	2.1						
393	25	7.27	1760	2.4						
428	23	6.68	1720	2.6	**WA**	**29**	**DRN**	**80M2**	17	991
511	19	5.60	1630	2.1	**WAF**	**29**	**DRN**	**80M2**	17	990
562	18	5.09	1590	2.4	**WF**	**29**	**DRN**	**80M2**	18	990
612	16	4.68	1550	2.6						
137	71	20.86	1200	0.85						
161	63	17.77	1210	1.00						
177	57	16.16	1200	1.10						
214	47	13.38	1170	1.20						
235	43	12.16	1160	1.30	**WA**	**19**	**DRN**	**80M2**	15	989
279	36	10.24	1110	1.40	**WAF**	**19**	**DRN**	**80M2**	15	988
307	33	9.31	1090	1.50	**WF**	**19**	**DRN**	**80M2**	16	988
341	29	8.38	1040	1.40						
375	27	7.62	1020	1.60						
441	23	6.49*	980	1.40						
485	21	5.90	960	1.60						
175	49	16.33	2660	1.40	**W**	**30**	**DRN**	**80M2**	17	984
200	44	14.33	2590	1.55	**WF**	**30**	**DRN**	**80M2**	18	985
279	33	10.25*	2410	1.90	**WA**	**30**	**DRN**	**80M2**	17	987
349	27	8.20*	2280	2.4	**WAF**	**30**	**DRN**	**80M2**	17	986
435	23	6.57	2160	2.7						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	715	76.29	6720	0.85						
20	685	73.72	6950	0.85						
22	625	67.02	6990	0.95						
24	570	61.43	7040	1.05						
26	520	55.44	7000	1.15						
28	490	52.40	6900	1.20	**WA**	**59**	**DRN**	**90L4**	37	1002
31	445	47.64	6870	1.30	**WAF**	**59**	**DRN**	**90L4**	39	1001
33	405	43.67	6860	1.40	**WF**	**59**	**DRN**	**90L4**	40	1001
37	370	39.41	6770	1.50						
40	345	36.98	6590	1.50						
43	315	33.62	6530	1.65						
47	285	30.82	6480	1.80						
53	260	27.81	6370	1.95						
19	720	151.56	6710	0.85						
20	680	142.72	6920	0.90						
22	620	129.74	6960	0.95						
24	565	118.93	7020	1.05						
27	515	107.33	6970	1.15						
28	485	101.45	6860	1.25						
31	440	92.23	6840	1.35						
34	400	84.54	6830	1.50						
38	365	76.29	6740	1.65						
39	350	73.72	6820	1.70	**WA**	**59**	**DRN**	**90S2**	34	1002
43	320	67.02	6740	1.85	**WAF**	**59**	**DRN**	**90S2**	36	1001
47	290	61.43	6680	2.1	**WF**	**59**	**DRN**	**90S2**	37	1001
52	265	55.44	6550	2.2						
55	250	52.40	6440	2.4						
61	225	47.64	6340	2.6						
66	205	43.67	6250	2.8						
73	189	39.41	6120	2.9						
78	177	36.98	5960	2.9						
86	161	33.62	5850	3.2						
94	146	30.82	5760	3.5						
104	133	27.81	5620	3.8						

26883198/EN – 04/2022

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
59	230	24.89	6450	1.65						
65	210	22.63	6330	2.1						
70	193	20.74	6240	2.7						
78	176	18.72	6090	2.7						
91	150	16.09	5860	2.0						
99	137	14.75	5760	2.7	**WA**	**59**	**DRN**	**90L4**	35	1002
110	125	13.31	5610	2.9	**WAF**	**59**	**DRN**	**90L4**	36	1001
129	106	11.35	5360	2.0	**WF**	**59**	**DRN**	**90L4**	38	1001
140	96	10.41	5250	2.7						
156	88	9.39	5110	2.7						
179	76	8.18	4880	2.0						
195	69	7.49	4780	2.7						
216	63	6.76	4650	2.7						
116	119	24.89	5570	3.2	**WA**	**59**	**DRN**	**90S2**	32	1002
254	54	11.35	4490	4.0	**WAF**	**59**	**DRN**	**90S2**	33	1001
					WF	**59**	**DRN**	**90S2**	35	1001
30	455	48.73	5560	0.85						
33	405	43.66	5440	1.00						
37	370	39.69	5440	1.05	**WA**	**49**	**DRN**	**90L4**	33	999
40	340	36.38	5410	1.15	**WAF**	**49**	**DRN**	**90L4**	34	998
47	290	31.33	5220	1.30	**WF**	**49**	**DRN**	**90L4**	35	998
51	265	28.48	5190	1.40						
56	245	26.11	5140	1.55						
64	210	22.69	5260	1.60						
71	193	20.63	5180	1.75						
77	178	18.91	5100	1.85						
86	158	16.94	4940	1.60						
95	144	15.40	4860	2.0						
103	133	14.12	4770	2.0	**WA**	**49**	**DRN**	**90L4**	32	999
120	114	12.16	4560	1.60	**WAF**	**49**	**DRN**	**90L4**	32	998
132	103	11.05	4470	2.0	**WF**	**49**	**DRN**	**90L4**	33	998
144	95	10.13	4380	2.0						
169	81	8.67	4180	1.60						
185	73	7.88	4090	2.0						
202	68	7.22	4000	2.0						
62	215	23.68*	1880	0.90						
68	200	21.53	1900	1.00						
74	186	19.78	1910	1.05						
92	147	15.89	1870	1.15						
101	135	14.44	1870	1.30						
110	125	13.27	1860	1.40						
134	101	10.94	1820	1.25	**WA**	**39**	**DRN**	**90L4**	28	996
147	93	9.94	1810	1.35	**WAF**	**39**	**DRN**	**90L4**	28	994
160	86	9.14	1790	1.45	**WF**	**39**	**DRN**	**90L4**	29	994
192	70	7.61	1670	1.25						
211	64	6.91	1650	1.25						
230	59	6.35	1640	1.35						
258	52	5.65	1560	1.25						
284	48	5.14	1540	1.20						
309	44	4.72	1520	1.30						
316	44	9.14	1630	2.8						
379	36	7.61	1530	2.4						
417	33	6.91	1500	2.4	**WA**	**39**	**DRN**	**90S2**	24	996
454	30	6.35	1470	2.6	**WAF**	**39**	**DRN**	**90S2**	25	994
511	26	5.65	1410	2.5	**WF**	**39**	**DRN**	**90S2**	26	994
562	24	5.14	1380	2.4						
611	22	4.72	1350	2.6						

26883198/EN – 04/2022

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
28	720	52.40	5340	0.85						
30	660	47.64	5460	0.90						
33	600	43.67	5570	0.95						
37	545	39.41	5600	1.00	**WA**	**59**	**DRN**	**100LS4**	41	1002
39	510	36.98	5420	1.00	**WAF**	**59**	**DRN**	**100LS4**	43	1001
43	465	33.62	5470	1.10	**WF**	**59**	**DRN**	**100LS4**	44	1001
47	420	30.82	5520	1.25						
52	385	27.81	5490	1.30						
27	750	107.33	5420	0.80						
29	705	101.45	5340	0.85						
32	640	92.23	5460	0.95						
34	585	84.54	5570	1.05						
38	535	76.29	5590	1.10						
39	510	73.72	5750	1.15						
43	465	67.02	5770	1.30						
47	425	61.43	5790	1.40	**WA**	**59**	**DRN**	**90L2**	37	1002
52	385	55.44	5740	1.55	**WAF**	**59**	**DRN**	**90L2**	39	1001
55	365	52.40	5650	1.65	**WF**	**59**	**DRN**	**90L2**	40	1001
61	330	47.64	5620	1.75						
67	300	43.67	5600	1.90						
74	275	39.41	5520	2.0						
79	255	36.98	5360	2.0						
86	230	33.62	5310	2.2						
94	210	30.82	5260	2.4						
104	195	27.81	5160	2.6						
58	340	24.89	5740	1.10						
64	310	22.63	5690	1.40						
70	285	20.74	5660	1.80						
77	260	18.72	5560	1.85						
90	220	16.09	5400	1.40						
98	200	14.75	5330	1.85	**WA**	**59**	**DRN**	**100LS4**	39	1002
109	185	13.31	5230	1.95	**WAF**	**59**	**DRN**	**100LS4**	40	1001
128	157	11.35	5010	1.40	**WF**	**59**	**DRN**	**100LS4**	42	1001
139	143	10.41	4940	1.85						
154	130	9.39	4820	1.85						
177	113	8.18	4600	1.40						
193	103	7.49	4530	1.85						
214	94	6.76	4420	1.85						
117	173	24.89	5200	2.2						
128	158	22.63	5100	2.8						
140	143	20.74	5020	3.6						
155	131	18.72	4900	3.7						
181	112	16.09	4720	2.8						
197	102	14.75	4630	3.6	**WA**	**59**	**DRN**	**90L2**	35	1002
218	93	13.31	4510	3.8	**WAF**	**59**	**DRN**	**90L2**	36	1001
256	79	11.35	4300	2.7	**WF**	**59**	**DRN**	**90L2**	38	1001
279	72	10.41	4210	3.6						
309	65	9.39	4100	3.6						
355	57	8.18	3910	2.8						
388	51	7.49	3830	3.6						
430	47	6.76	3720	3.6						
46	430	31.33	4180	0.85	**WA**	**49**	**DRN**	**100LS4**	37	999
51	390	28.48	4240	0.95	**WAF**	**49**	**DRN**	**100LS4**	38	998
56	360	26.11	4270	1.05	**WF**	**49**	**DRN**	**100LS4**	39	998
64	310	22.69	4600	1.10						
70	285	20.63	4590	1.15						
77	260	18.91	4550	1.25						
86	230	16.94	4430	1.10						
94	210	15.40	4390	1.35						
103	196	14.12	4340	1.35	**WA**	**49**	**DRN**	**100LS4**	36	999
119	168	12.16	4170	1.10	**WAF**	**49**	**DRN**	**100LS4**	36	998
131	153	11.05	4110	1.35	**WF**	**49**	**DRN**	**100LS4**	37	998
143	141	10.13	4050	1.35						
167	120	8.67	3880	1.10						
184	109	7.88	3810	1.35						
201	100	7.22	3750	1.35						

26883198/EN – 04/2022

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
43	630	33.62	4260	0.80	**WA**	**59**	**DRN**	**100L4**	48	1002
47	575	30.82	4410	0.90	**WAF**	**59**	**DRN**	**100L4**	50	1001
52	525	27.81	4480	0.95	**WF**	**59**	**DRN**	**100L4**	51	1001
38	730	76.29	4270	0.80						
39	700	73.72	4530	0.85						
43	640	67.02	4660	0.95						
47	580	61.43	4790	1.05						
52	530	55.44	4820	1.15						
55	500	52.40	4750	1.20	**WA**	**59**	**DRN**	**100LM2**	48	1002
61	455	47.64	4800	1.30	**WAF**	**59**	**DRN**	**100LM2**	50	1001
66	410	43.67	4860	1.40	**WF**	**59**	**DRN**	**100LM2**	51	1001
73	375	39.41	4840	1.45						
78	350	36.98	4690	1.45						
86	320	33.62	4690	1.60						
94	290	30.82	4700	1.80						
104	265	27.81	4660	1.90						
64	425	22.63	4960	1.05						
70	385	20.74	4980	1.35						
78	350	18.72	4950	1.35						
91	300	16.09	4850	1.00						
99	275	14.75	4830	1.35						
109	250	13.31	4770	1.40	**WA**	**59**	**DRN**	**100L4**	46	1002
128	210	11.35	4600	1.00	**WAF**	**59**	**DRN**	**100L4**	47	1001
140	194	10.41	4560	1.35	**WF**	**59**	**DRN**	**100L4**	49	1001
155	177	9.39	4480	1.35						
178	153	8.18	4270	1.00						
194	140	7.49	4230	1.35						
215	127	6.76	4140	1.35						
116	235	24.89	4790	1.65						
128	215	22.63	4740	2.0						
140	196	20.74	4690	2.6						
155	179	18.72	4600	2.7						
180	153	16.09	4440	2.0						
196	139	14.75	4380	2.7	**WA**	**59**	**DRN**	**100LM2**	46	1002
217	127	13.31	4280	2.8	**WAF**	**59**	**DRN**	**100LM2**	47	1001
255	108	11.35	4100	2.0	**WF**	**59**	**DRN**	**100LM2**	49	1001
278	98	10.41	4030	2.7						
308	90	9.39	3930	2.7						
354	78	8.18	3750	2.0						
386	71	7.49	3680	2.7						
428	64	6.76	3590	2.6						
71	385	20.63	3900	0.85						
77	355	18.91	3920	0.90						
95	285	15.40	3840	1.00						
103	265	14.12	3840	1.00	**WA**	**49**	**DRN**	**100L4**	43	999
132	205	11.05	3690	1.00	**WAF**	**49**	**DRN**	**100L4**	43	998
144	191	10.13	3660	1.00	**WF**	**49**	**DRN**	**100L4**	44	998
185	148	7.88	3490	1.00						
202	136	7.22	3450	1.00						
238	116	12.16	3440	1.60						
262	105	11.05	3390	2.0						
286	97	10.13	3330	2.0	**WA**	**49**	**DRN**	**100LM2**	43	999
334	82	8.67	3180	1.60	**WAF**	**49**	**DRN**	**100LM2**	43	998
367	75	7.88	3120	2.0	**WF**	**49**	**DRN**	**100LM2**	44	998
401	69	7.22	3060	2.0						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	695	55.44	3700	0.85						
68	540	43.67	3950	1.05	**WA**	**59**	**DRN**	**112M2**	58	1002
75	495	39.41	4000	1.10	**WAF**	**59**	**DRN**	**112M2**	59	1001
96	380	30.82	4010	1.35	**WF**	**59**	**DRN**	**112M2**	61	1001
106	345	27.81	4020	1.45						

26883198/EN – 04/2022

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
71	510	20.74	4150	1.00						
78	465	18.72	4180	1.00						
99	365	14.75	4220	1.00						
110	330	13.31	4210	1.05	**WA**	**59**	**DRN**	**112M4**	55	1002
141	255	10.41	4090	1.00	**WAF**	**59**	**DRN**	**112M4**	57	1001
156	235	9.39	4050	1.00	**WF**	**59**	**DRN**	**112M4**	58	1001
195	185	7.49	3850	1.00						
216	169	6.76	3800	1.00						
142	255	20.74	4260	2.0						
157	235	18.72	4200	2.0						
200	182	14.75	4060	2.0						
222	167	13.31	3980	2.1	**WA**	**59**	**DRN**	**112M2**	55	1002
283	129	10.41	3780	2.0	**WAF**	**59**	**DRN**	**112M2**	57	1001
314	118	9.39	3700	2.0	**WF**	**59**	**DRN**	**112M2**	58	1001
393	92	7.49	3480	2.0						
436	85	6.76	3400	2.0						

26883198/EN – 04/2022

12.4 W..R..DRN.. selection tables for low output speeds in Nm

$M_{a\,max}$ = 90 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
5.2	265	-1	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
			WAF	**29R17**	**DRN**	**63MS4**	12	1004
			WF	**29R17**	**DRN**	**63MS4**	13	1004

$M_{a\,max}$ = 120 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.5	211	-1	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
			WAF	**29R17**	**DRN**	**63MS4**	12	1004
			WF	**29R17**	**DRN**	**63MS4**	13	1004

$M_{a\,max}$ = 124 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.1	644	-1	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
			WAF	**29R17**	**DRN**	**63MS4**	13	1004
			WF	**29R17**	**DRN**	**63MS4**	13	1004
6.0	231	-1	**WA**	**39R17**	**DRN**	**63MS4**	13	1004
			WAF	**39R17**	**DRN**	**63MS4**	14	1004
			WF	**39R17**	**DRN**	**63MS4**	15	1004

$M_{a\,max}$ = 130 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12199	-1						
0.13	10518	-1						
0.14	9760	-1						
0.16	8570	-1						
0.18	7650	-1						
0.20	6810	-1						
0.23	6057	-1	**WA**	**29R17**	**DRN**	**63MS4**	13	1004
0.25	5473	-1	**WAF**	**29R17**	**DRN**	**63MS4**	13	1004
0.28	4868	-1	**WF**	**29R17**	**DRN**	**63MS4**	13	1004
0.32	4328	-1						
0.36	3856	-1						
0.45	3078	-1						
0.56	2474	-1						
0.63	2191	-1						
0.78	1767	-1						
0.40	3459	-1						
0.50	2768	-1						
0.70	1968	-1						
0.87	1582	-1						
0.98	1411	-1						
1.1	1260	-1	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
1.2	1128	-1	**WAF**	**29R17**	**DRN**	**63MS4**	12	1004
1.4	1008	-1	**WF**	**29R17**	**DRN**	**63MS4**	13	1004
1.5	904	-1						
1.7	810	-1						
1.9	722	-1						
2.4	576	-1						
2.7	513	-1						
3.0	459	-1						
3.3	417	-1						
3.7	369	-1	**WA**	**29R17**	**DRN**	**63MS4**	12	1004
4.2	330	-1	**WAF**	**29R17**	**DRN**	**63MS4**	12	1004
4.7	293	-1	**WF**	**29R17**	**DRN**	**63MS4**	13	1004
5.8	236	-1						

26883198/EN – 04/2022

$M_{a\ max}$ = 175 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			WA	39R17	DRN	63MS4	13	1004
5.3	262	-1	WAF	39R17	DRN	63MS4	14	1004
			WF	39R17	DRN	63MS4	15	1004

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	17184	-1						
0.09	14816	-1						
0.11	12889	-1						
0.12	11530	-1						
0.13	10358	-1						
0.15	9373	-1						
0.16	8487	-1	WA	39R17	DRN	63MS4	15	1004
0.18	7620	-1	WAF	39R17	DRN	63MS4	15	1004
0.20	6975	-1	WF	39R17	DRN	63MS4	16	1004
0.22	6289	-1						
0.25	5579	-1						
0.28	4983	-1						
0.31	4433	-1						
0.35	3953	-1						
0.40	3488	-1						
			WA	39R17	DRN	63MS4	14	1004
1.1	1273	-1	WAF	39R17	DRN	63MS4	15	1004
			WF	39R17	DRN	63MS4	15	1004
0.44	3112	-1						
0.50	2784	-1						
0.55	2501	-1						
0.62	2237	-1						
0.69	2000	-1						
0.77	1786	-1						
0.86	1602	-1						
0.97	1422	-1	WA	39R17	DRN	63MS4	14	1004
1.2	1136	-1	WAF	39R17	DRN	63MS4	15	1004
1.4	1018	-1	WF	39R17	DRN	63MS4	16	1004
1.5	909	-1						
1.7	812	-1						
1.9	727	-1						
2.1	649	-1						
2.4	582	-1						
2.6	521	-1						
3.0	467	-1						
3.2	424	-1	WA	39R17	DRN	63MS4	13	1004
3.7	375	-1	WAF	39R17	DRN	63MS4	14	1004
4.1	336	-1	WF	39R17	DRN	63MS4	15	1004
			WA	39R17	DRN	63M4	14	1004
4.6	298	-1	WAF	39R17	DRN	63M4	15	1004
			WF	39R17	DRN	63M4	16	1004

$M_{a\ max}$ = 395 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	16390	-1						
0.10	14131	-1						
0.10	13172	-1	WA	49R17	DRN	63MS4	19	1004
0.13	10793	-1	WAF	49R17	DRN	63MS4	20	1004
0.16	8899	-1	WF	49R17	DRN	63MS4	20	1004
0.17	8165	-1						
0.19	7416	-1						
			WA	49R17	DRN	71M4	21	1004
5.2	269	-1	WAF	49R17	DRN	71M4	22	1004
			WF	49R17	DRN	71M4	23	1004

26883198/EN – 04/2022

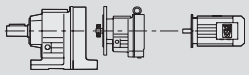
$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12236	-1						
0.14	9834	-1						
0.21	6644	-1						
0.23	6040	-1						
0.25	5413	-1	**WA**	**49R17**	**DRN**	**63MS4**	19	1004
0.29	4787	-1	**WAF**	**49R17**	**DRN**	**63MS4**	20	1004
0.32	4335	-1	**WF**	**49R17**	**DRN**	**63MS4**	20	1004
0.36	3884	-1						
0.40	3475	-1						
0.44	3106	-1						
0.48	2847	-1						
0.61	2276	-1						
0.54	2546	-1						
0.67	2074	-1						
0.74	1860	-1						
0.82	1691	-1						
0.92	1495	-1						
1.0	1335	-1						
1.1	1214	-1	**WA**	**49R17**	**DRN**	**63MS4**	19	1004
1.3	1089	-1	**WAF**	**49R17**	**DRN**	**63MS4**	19	1004
1.4	983	-1	**WF**	**49R17**	**DRN**	**63MS4**	20	1004
1.5	901	-1						
1.7	815	-1						
1.9	742	-1						
2.0	674	-1						
2.3	604	-1						
2.5	544	-1						
2.8	494	-1	**WA**	**49R17**	**DRN**	**63M4**	19	1004
3.1	443	-1	**WAF**	**49R17**	**DRN**	**63M4**	20	1004
3.4	400	-1	**WF**	**49R17**	**DRN**	**63M4**	21	1004
3.9	362	-1	**WA**	**49R17**	**DRN**	**71MS4**	20	1004
4.3	330	-1	**WAF**	**49R17**	**DRN**	**71MS4**	21	1004
4.7	300	-1	**WF**	**49R17**	**DRN**	**71MS4**	21	1004
			WA	**49R17**	**DRN**	**71M4**	21	1004
5.8	244	-1	**WAF**	**49R17**	**DRN**	**71M4**	22	1004
6.4	222	-1	**WF**	**49R17**	**DRN**	**71M4**	23	1004

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	19242	-1						
0.08	17649	-1						
0.09	16044	-1						
0.09	14707	-1						
0.11	12955	-1						
0.12	11405	-1						
0.14	10063	-1	**WA**	**59R37**	**DRN**	**63MS4**	31	1004
0.16	8796	-1	**WAF**	**59R37**	**DRN**	**63MS4**	32	1004
0.18	7674	-1	**WF**	**59R37**	**DRN**	**63MS4**	34	1004
0.21	6692	-1						
0.24	5814	-1						
0.27	5032	-1						
0.32	4367	-1						
0.36	3788	-1						
0.42	3311	-1						
0.48	2889	-1						
0.54	2576	-1						
0.61	2259	-1						
0.69	1986	-1	**WA**	**59R37**	**DRN**	**63MS4**	30	1004
0.79	1745	-1	**WAF**	**59R37**	**DRN**	**63MS4**	31	1004
0.90	1526	-1	**WF**	**59R37**	**DRN**	**63MS4**	33	1004
1.0	1331	-1						
1.2	1167	-1						
1.4	1016	-1						

26883198/EN – 04/2022

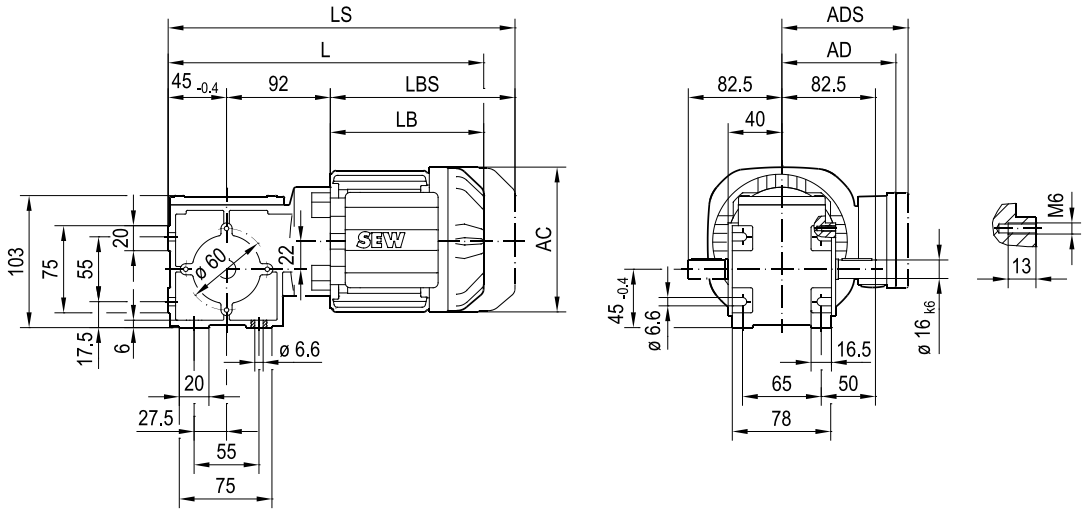
$M_{a\ max}$ = 600 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.6	888	-1	**WA**	**59R37**	**DRN**	**63M4**	31	1004
1.8	771	-1	**WAF**	**59R37**	**DRN**	**63M4**	33	1004
2.0	674	-1	**WF**	**59R37**	**DRN**	**63M4**	34	1004
2.4	588	-1	**WA**	**59R37**	**DRN**	**71MS4**	31	1004
2.7	513	-1	**WAF**	**59R37**	**DRN**	**71MS4**	33	1004
3.1	447	-1	**WF**	**59R37**	**DRN**	**71MS4**	34	1004
3.5	398	-1	**WA**	**59R37**	**DRN**	**71M4**	33	1004
4.0	350	-1	**WAF**	**59R37**	**DRN**	**71M4**	34	1004
4.5	311	-1	**WF**	**59R37**	**DRN**	**71M4**	35	1004
5.3	271	-1	**WA**	**59R37**	**DRN**	**80MK4**	35	1004
6.0	240	-1	**WAF**	**59R37**	**DRN**	**80MK4**	37	1004
			WF	**59R37**	**DRN**	**80MK4**	38	1004

26883198/EN – 04/2022

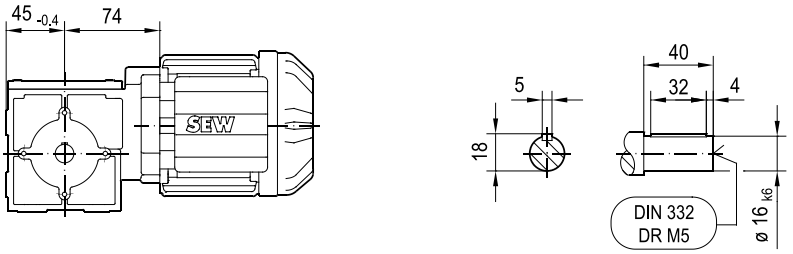
12.5 W..DRN.. dimension sheets in mm

20 001 03 14

W10..



DR2S56..

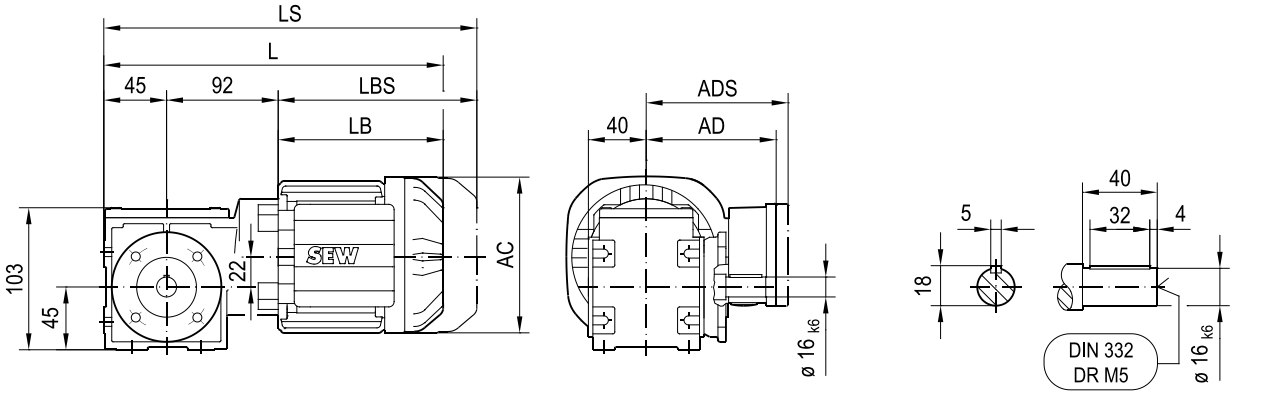


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	255	285	299	301	321			
LS	291	341	355	368	388			
LB	136	148	162	164	184			
LBS	172	204	218	231	251			

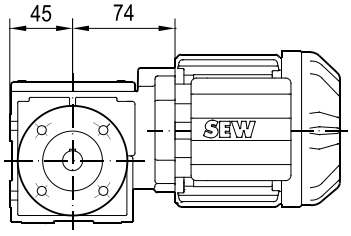
26883198/EN – 04/2022

WF10..

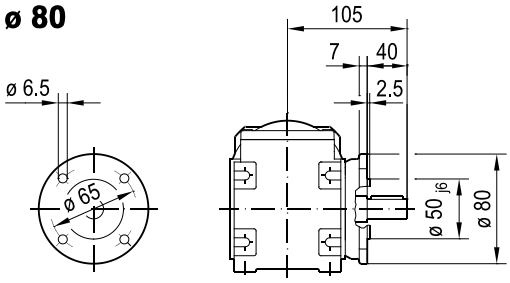
20 002 03 14



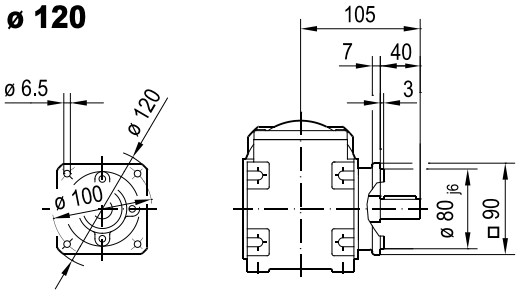
DR2S56..



ø 80



ø 120

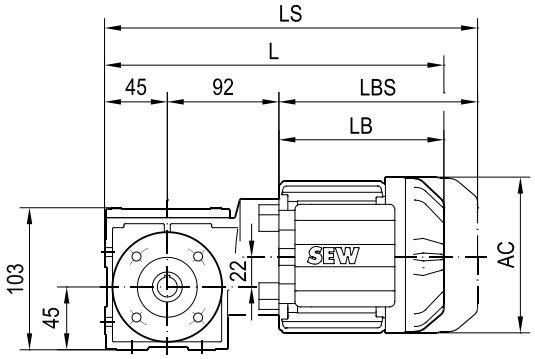


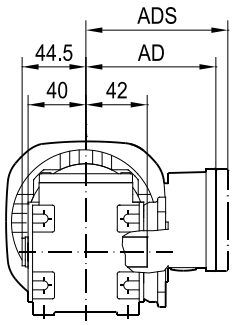
(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	255	285	299	301	321			
LS	291	341	355	368	388			
LB	136	148	162	164	184			
LBS	172	204	218	231	251			

26883198/EN – 04/2022

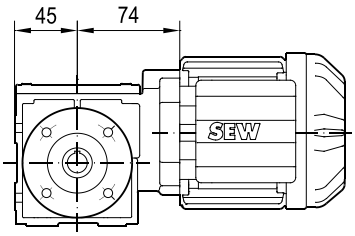
WAF10..

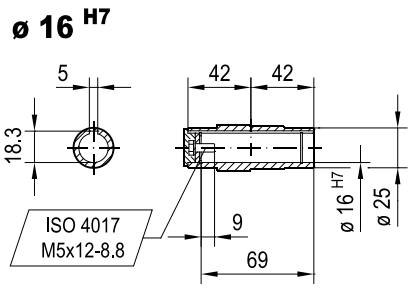
20 058 01 17

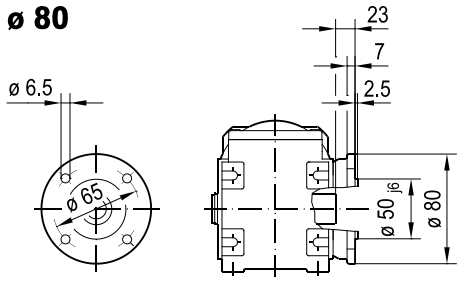


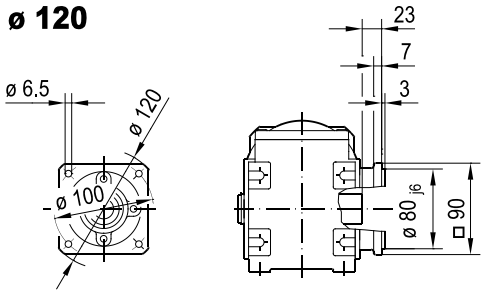


DR2S56..





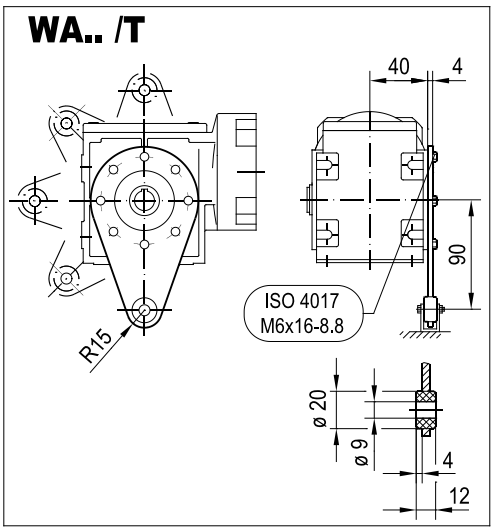




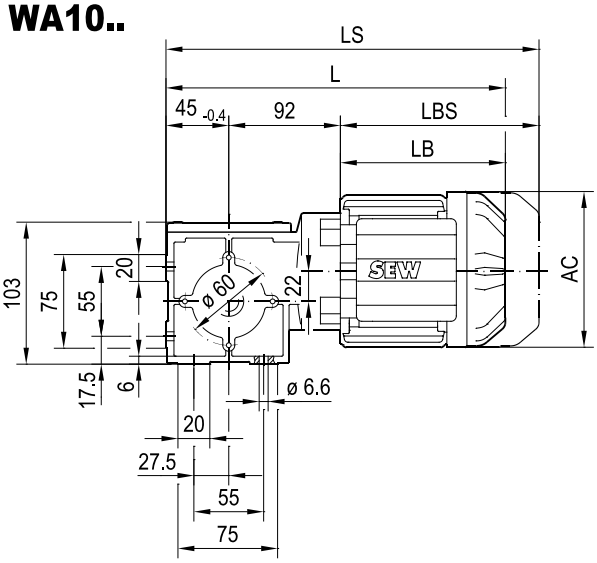
(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	255	285	299	301	321			
LS	291	341	355	368	388			
LB	136	148	162	164	184			
LBS	172	204	218	231	251			

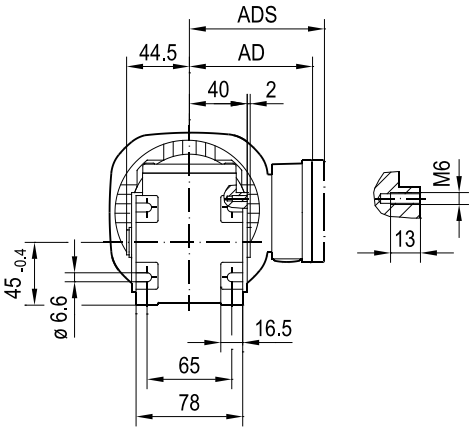
26883198/EN – 04/2022

20 003 04 14

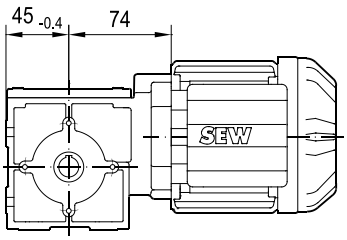


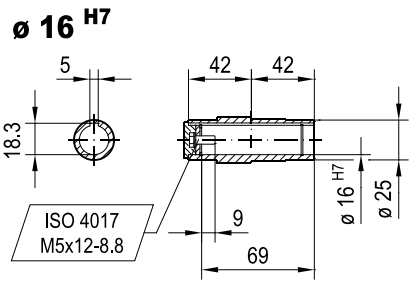
WA10..





DR2S56..



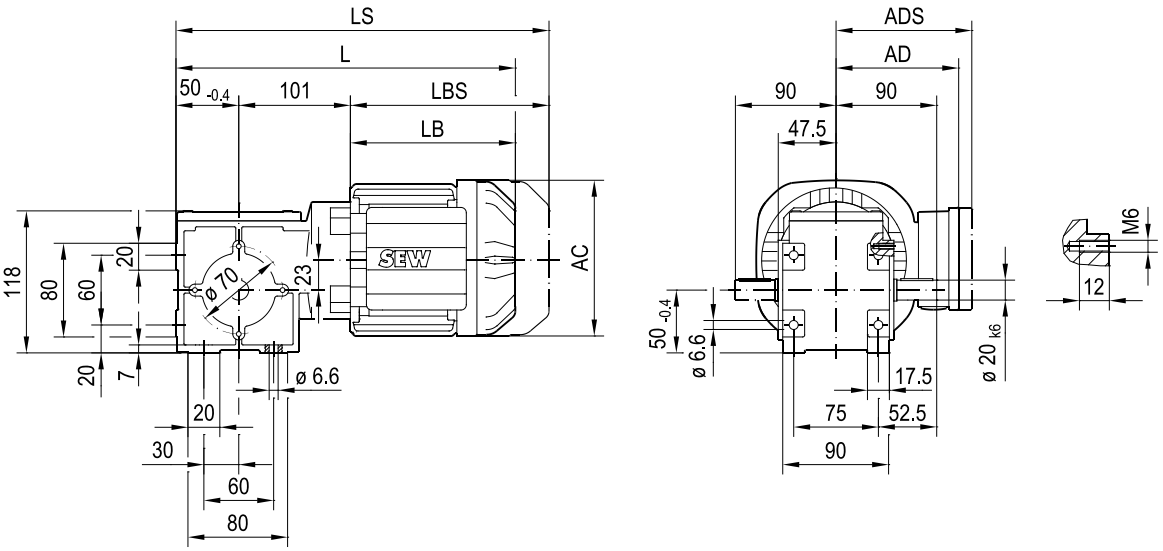


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	255	285	299	301	321			
LS	291	341	355	368	388			
LB	136	148	162	164	184			
LBS	172	204	218	231	251			

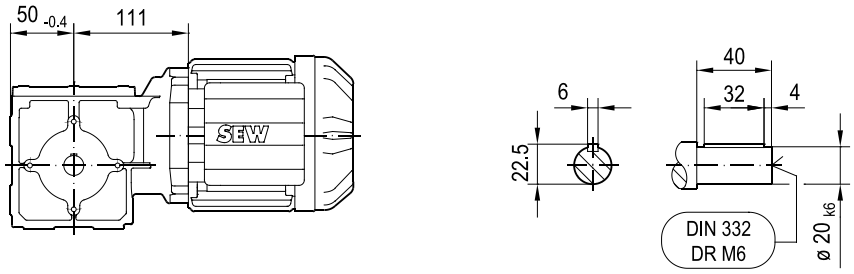
26883198/EN – 04/2022

20 004 01 14

W20..



DRN80..

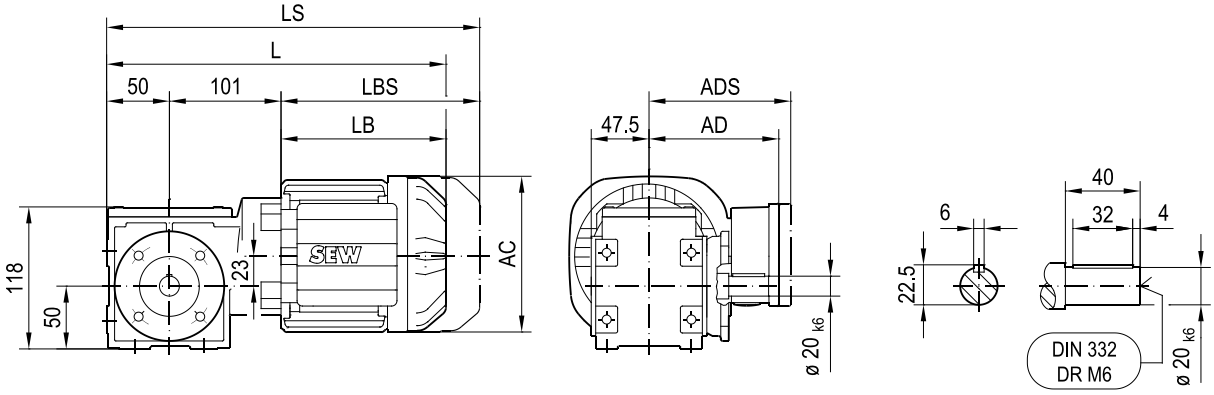


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	299	313	315	335	350	368		
LS	355	369	382	402	431	449		
LB	148	162	164	184	189	207		
LBS	204	218	231	251	270	288		

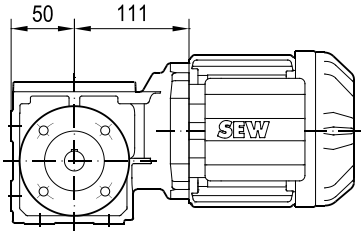
26883198/EN – 04/2022

WF20..

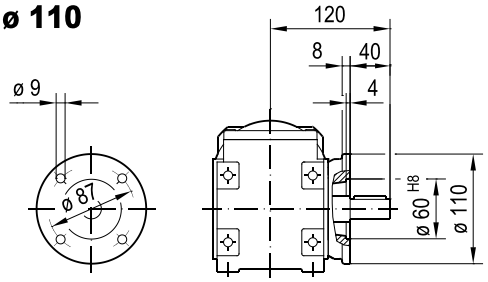
20 005 02 14



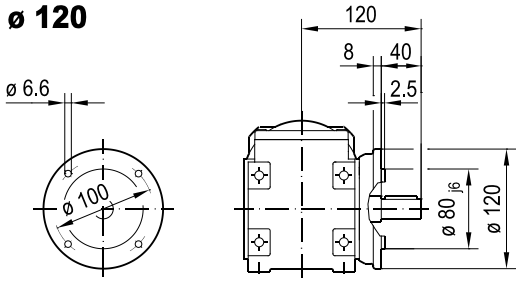
DRN80..



ø 110



ø 120

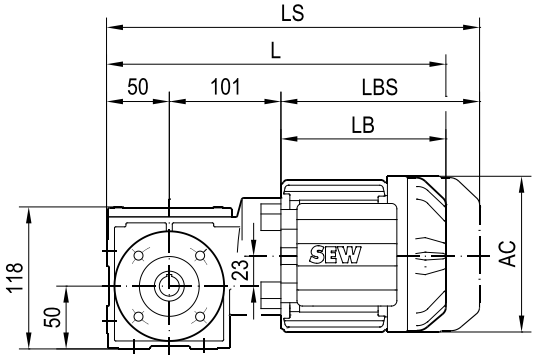


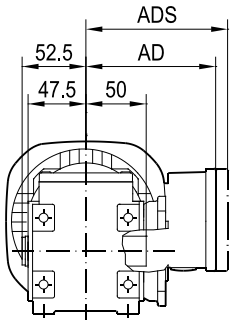
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	299	313	315	335	350	368		
LS	355	369	382	402	431	449		
LB	148	162	164	184	189	207		
LBS	204	218	231	251	270	288		

26883198/EN – 04/2022

WAF20..

20 059 00 17





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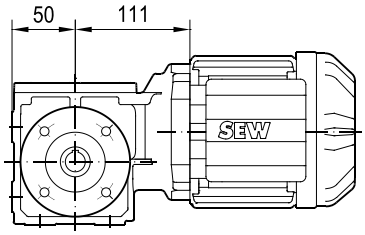
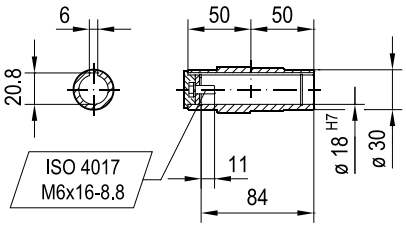


ø 18 H7



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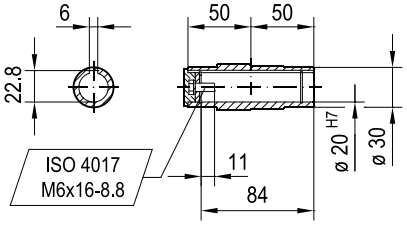

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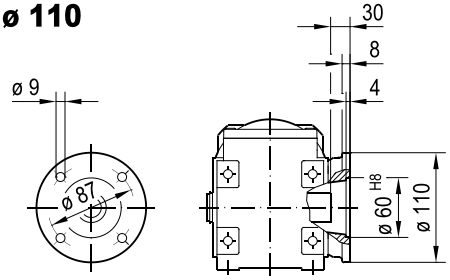

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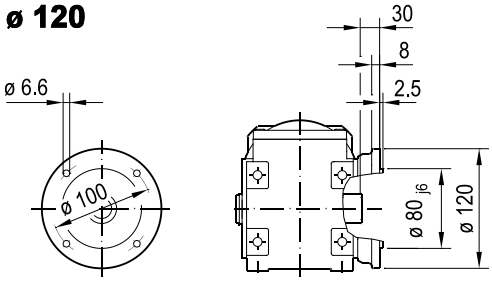
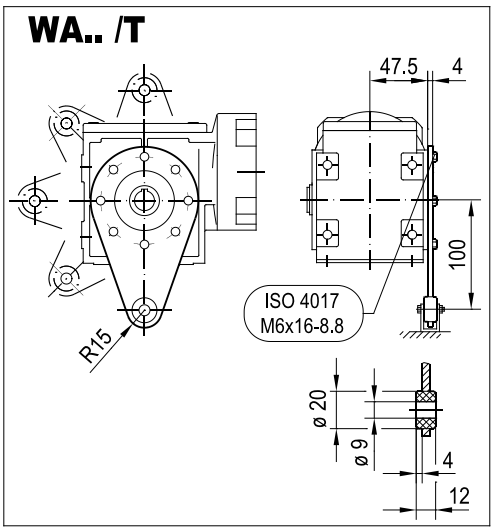


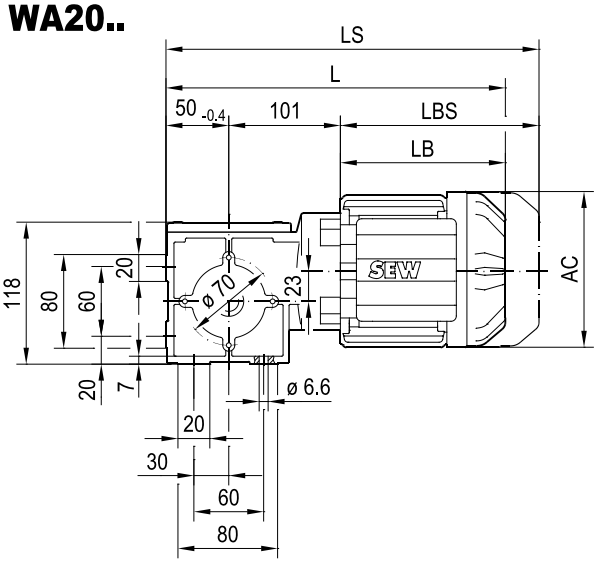
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	299	313	315	335	350	368		
LS	355	369	382	402	431	449		
LB	148	162	164	184	189	207		
LBS	204	218	231	251	270	288		

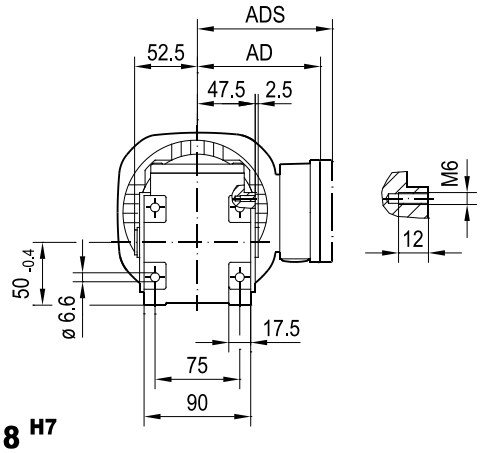
26883198/EN – 04/2022

20 006 02 14



WA20..





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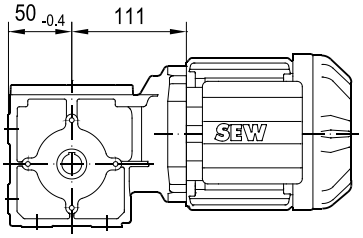

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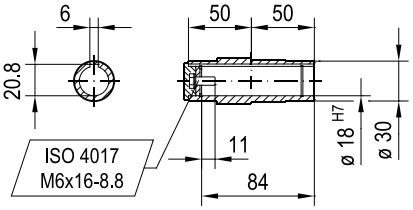

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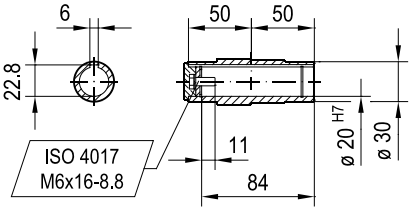
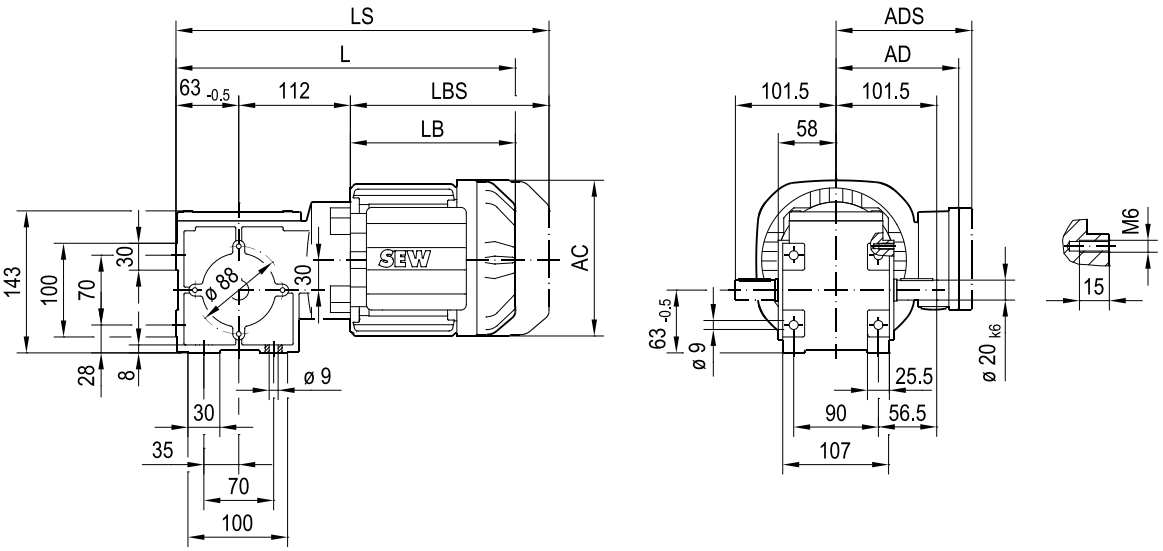


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	299	313	315	335	350	368		
LS	355	369	382	402	431	449		
LB	148	162	164	184	189	207		
LBS	204	218	231	251	270	288		

26883198/EN – 04/2022

20 007 00 14

W30..



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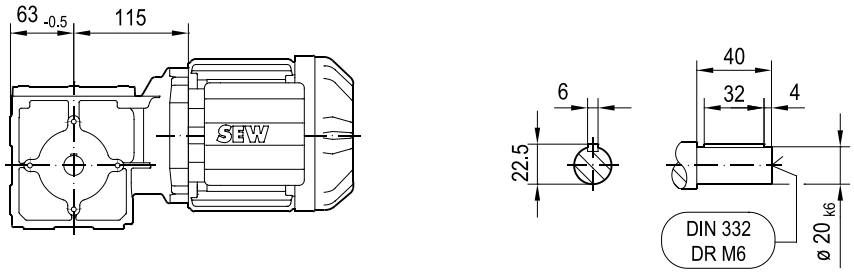
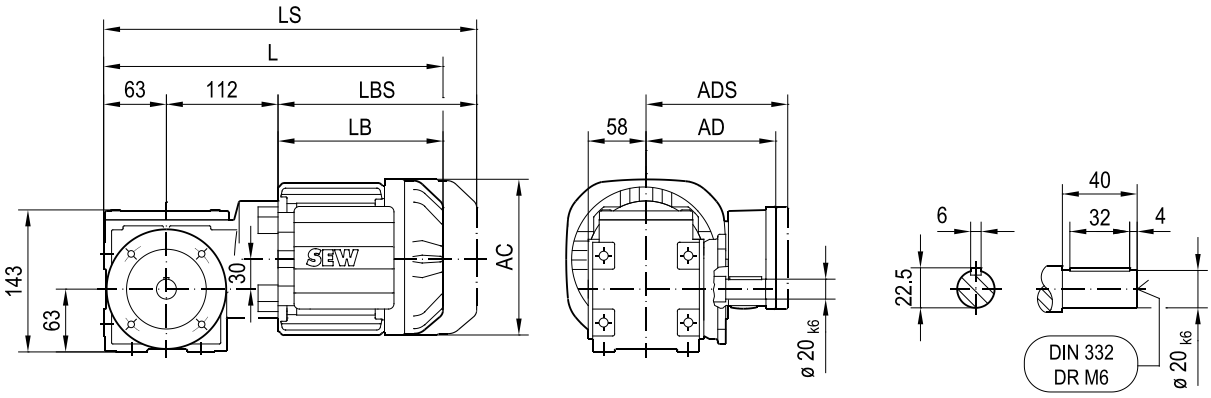


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	323	337	339	359	367	413		
LS	379	393	406	426	448	494		
LB	148	162	164	184	189	235		
LBS	204	218	231	251	270	316		

26883198/EN – 04/2022

WF30..

20 008 01 14



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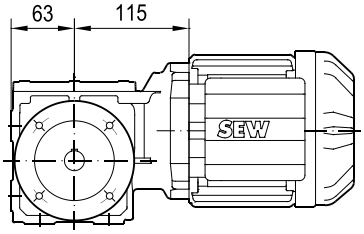

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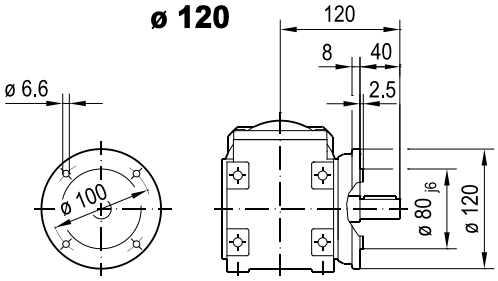

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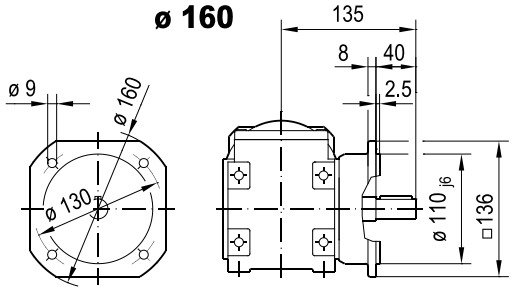

(→ 📖 7.3)	DRN							
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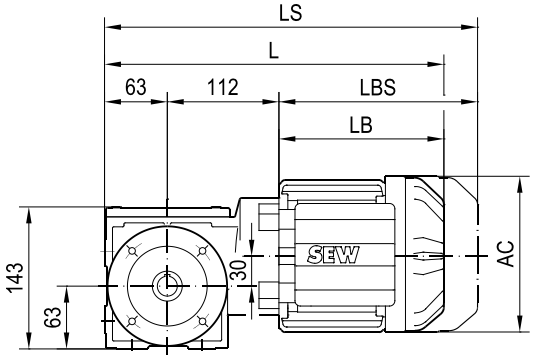
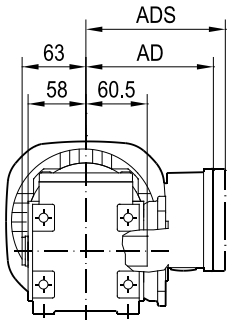
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	323	337	339	359	367	413		
LS	379	393	406	426	448	494		
LB	148	162	164	184	189	235		
LBS	204	218	231	251	270	316		

26883198/EN – 04/2022

WAF30..

20 009 01 14





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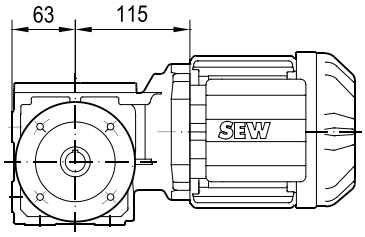

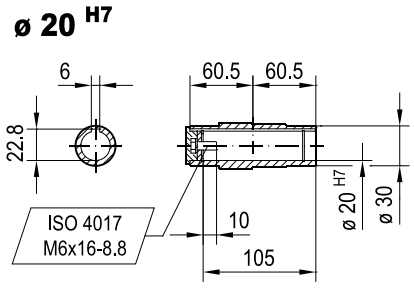

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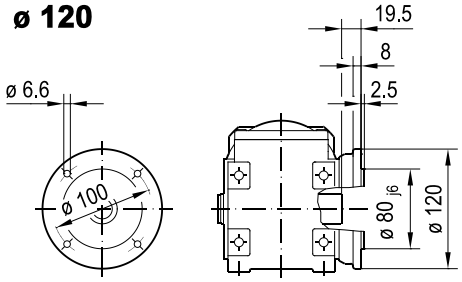

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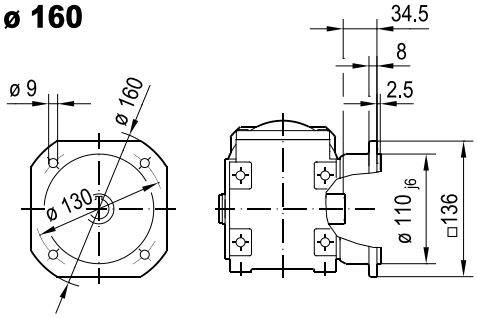
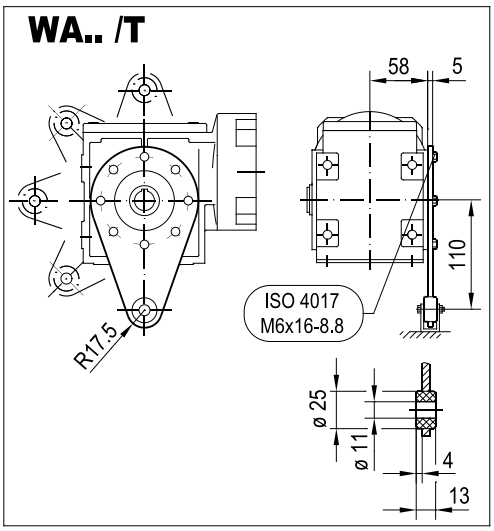


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	323	337	339	359	367	413		
LS	379	393	406	426	448	494		
LB	148	162	164	184	189	235		
LBS	204	218	231	251	270	316		

26883198/EN – 04/2022

20 010 02 14



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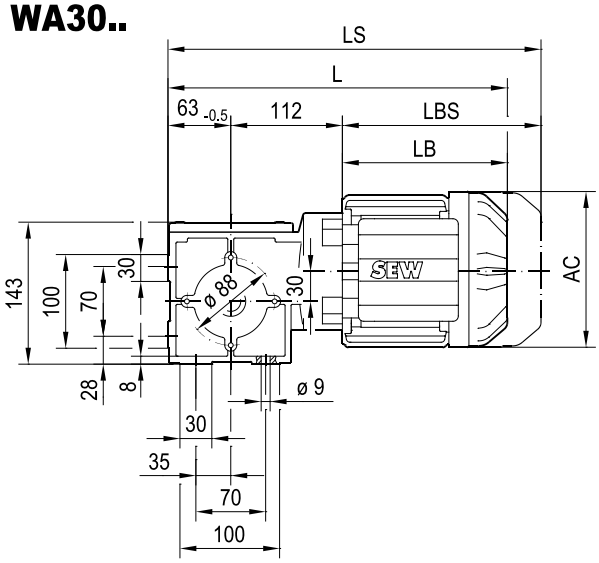

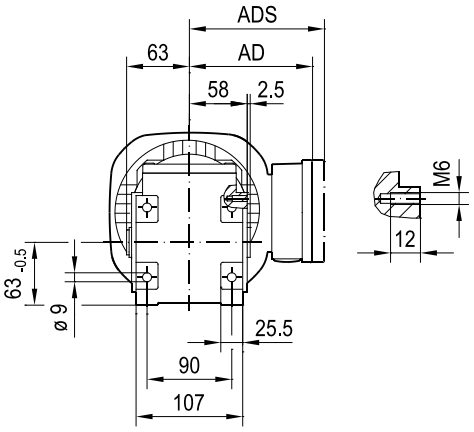

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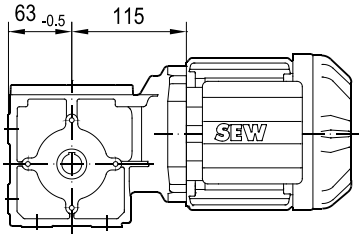

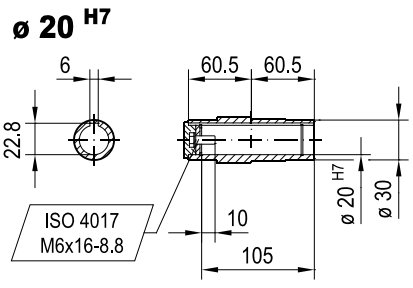

(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	323	337	339	359	367	413		
LS	379	393	406	426	448	494		
LB	148	162	164	184	189	235		
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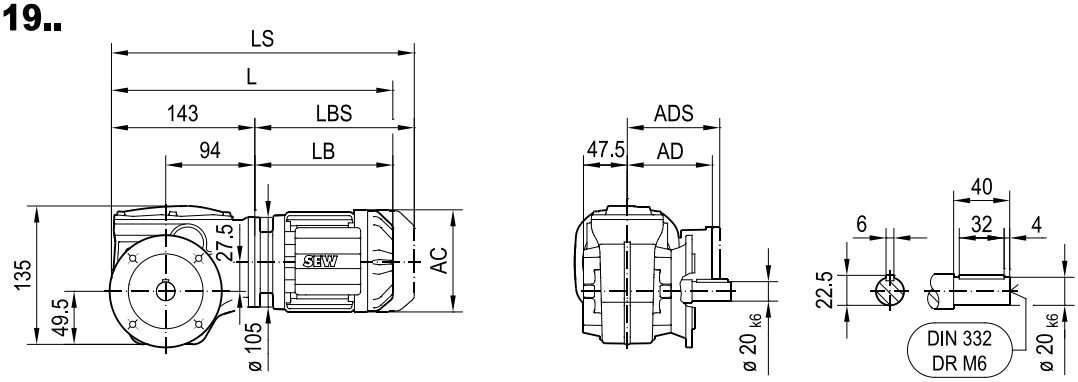
26883198/EN – 04/2022

20 002 00 21

WF19..



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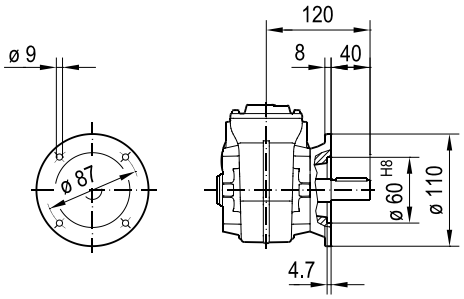

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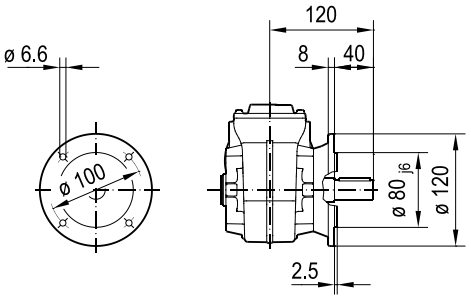

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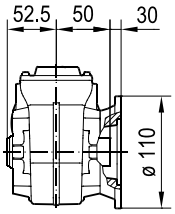
ø 110



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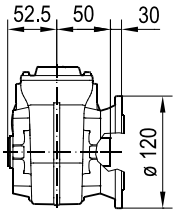
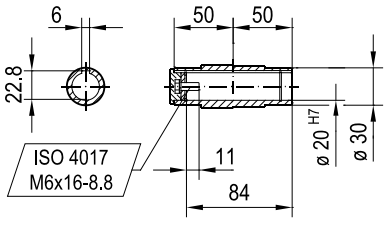
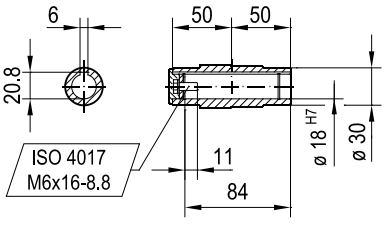


ø 20 H7



ø 18 H7



(→ 📖 7.3)	DR2S	DRN						
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AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	303	333	347	349	369	380	392	426
LS	339	389	403	416	436	461	473	507
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

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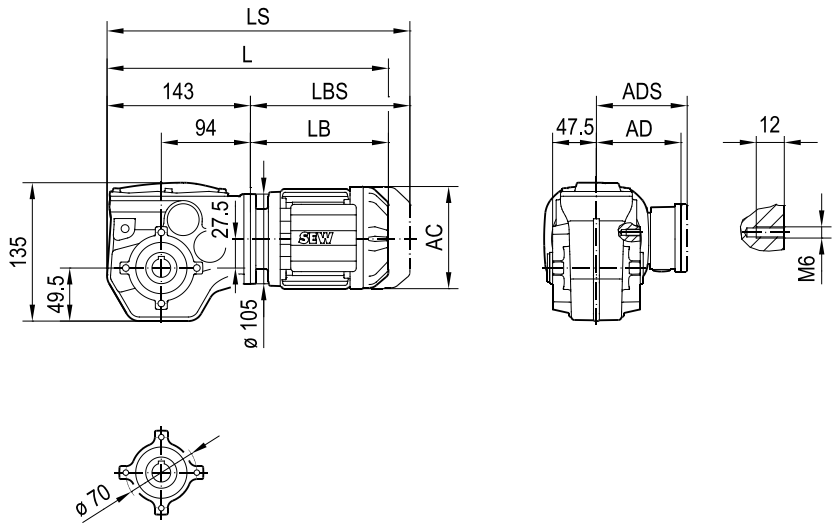
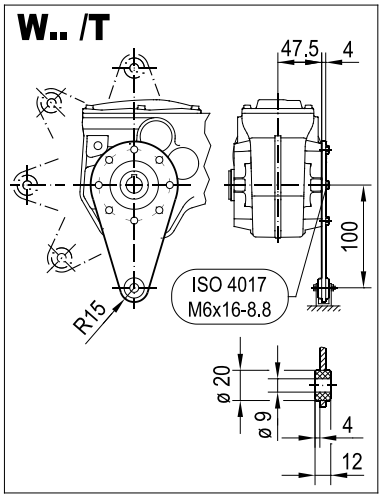
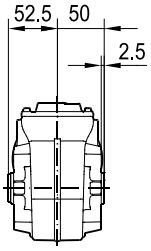
WA19..







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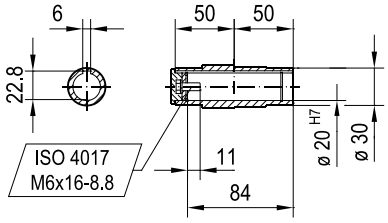
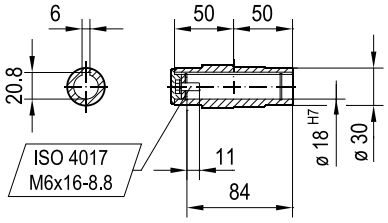


ø 18 H7

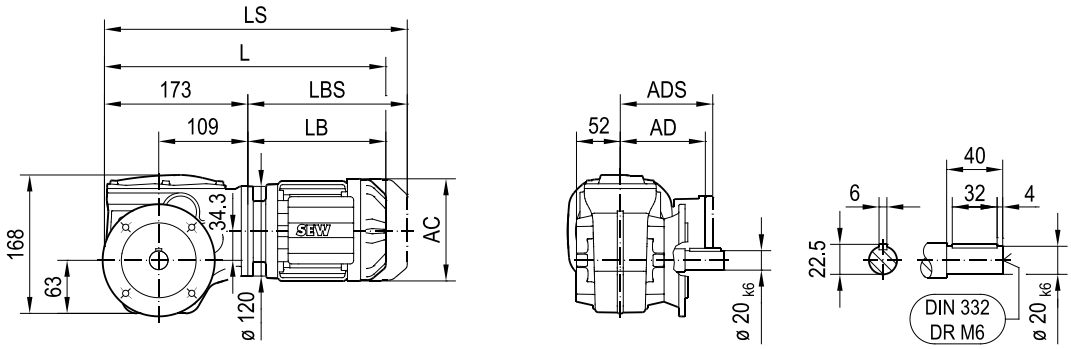


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M	80MK	80MS	80M
AC	109	115	115	139	139	156	156	156
AD	87	98	98	118	118	128	128	128
ADS	87	98	98	129	129	139	139	139
L	303	333	347	349	369	380	392	426
LS	339	389	403	416	436	461	473	507
LB	160	190	204	206	226	237	249	283
LBS	196	246	260	273	293	318	330	364

26883198/EN – 04/2022

20 009 01 20

WF29..



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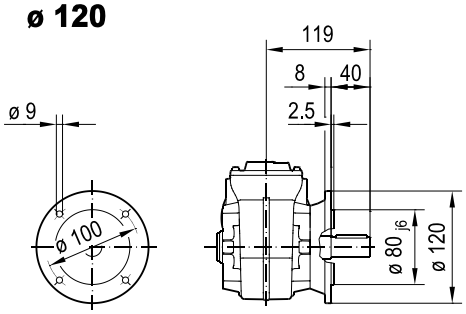

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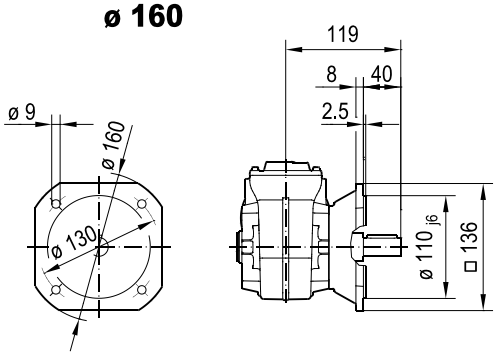

WAF29..

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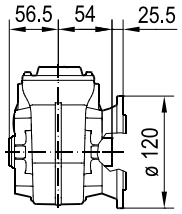

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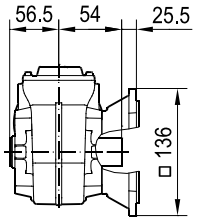
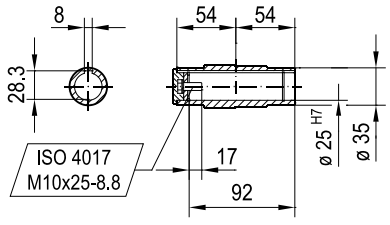
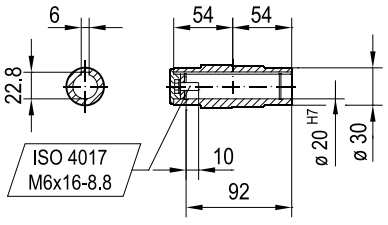


ø 25 H7



ø 20 H7

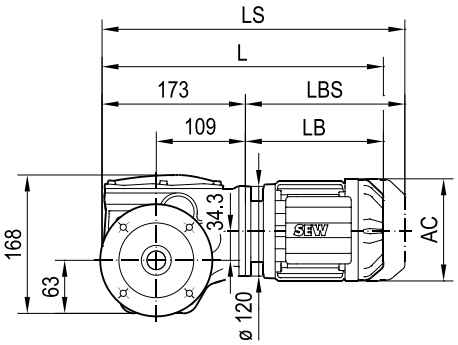


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	363	377	379	399	410	427	455	456
LS	419	433	446	466	491	508	536	550
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

20 010 01 20

WHF29..



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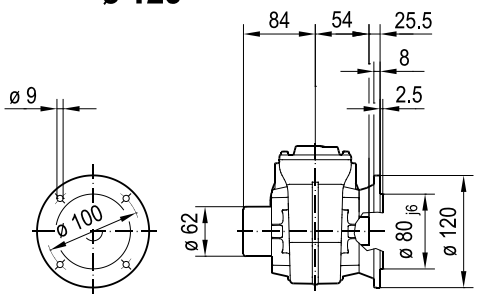

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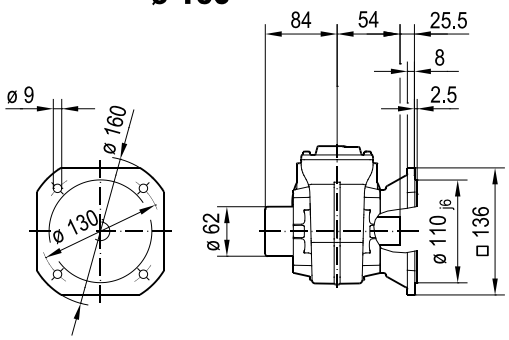

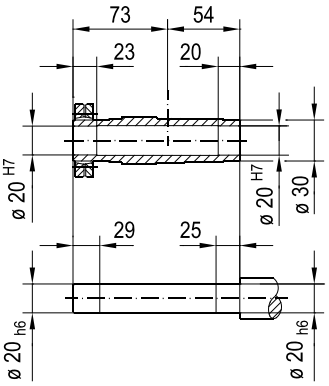

(→ 📖 7.3)	DRN							
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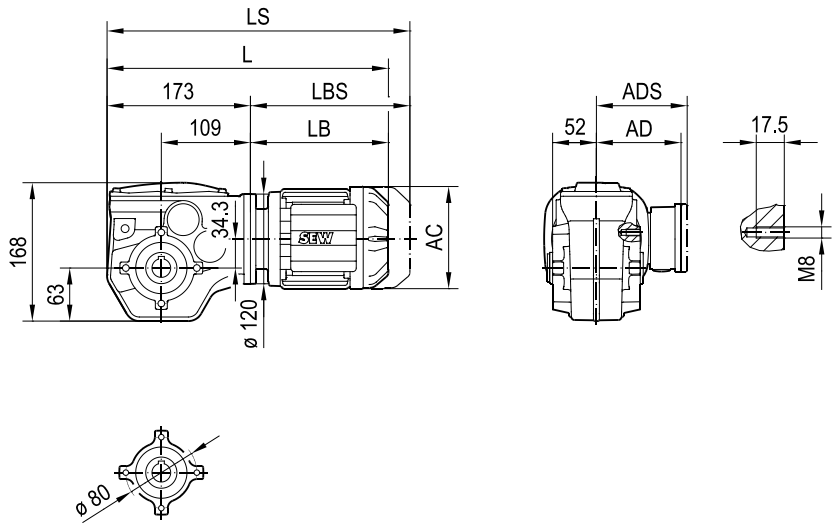
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	363	377	379	399	410	427	455	456
LS	419	433	446	466	491	508	536	550
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

20 011 03 20

WA29..



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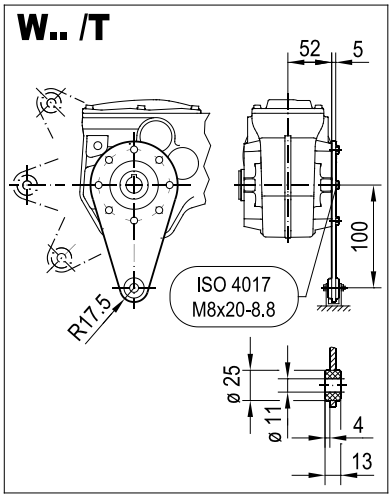

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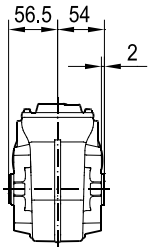

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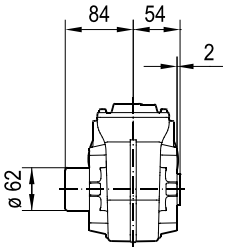

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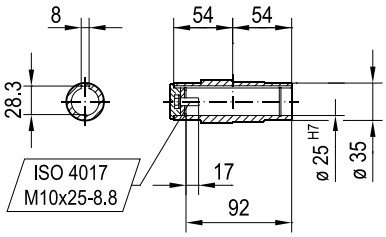

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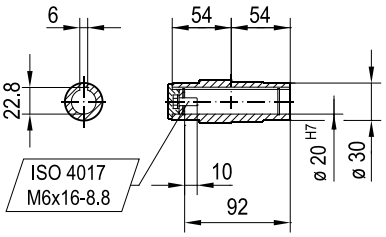

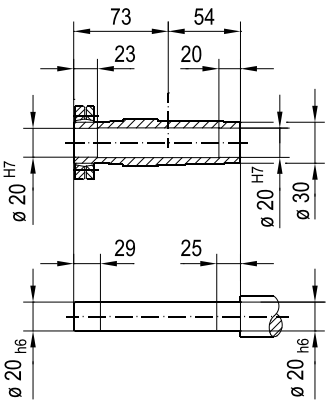

(→ 📖 7.3)	DRN							
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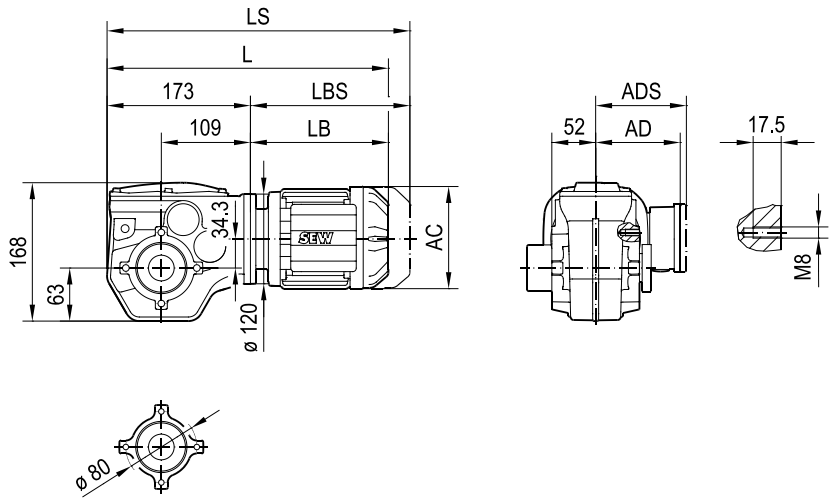
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	363	377	379	399	410	427	455	456
LS	419	433	446	466	491	508	536	550
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

20 012 02 20

WT29..



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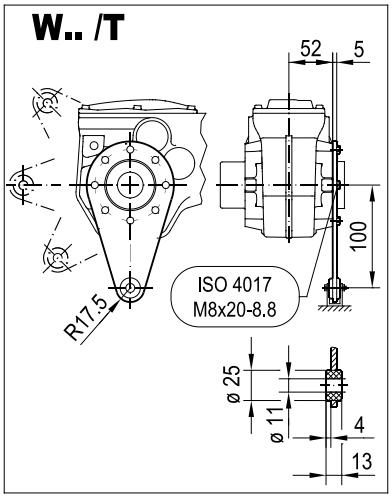
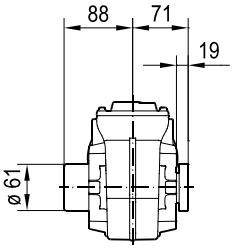
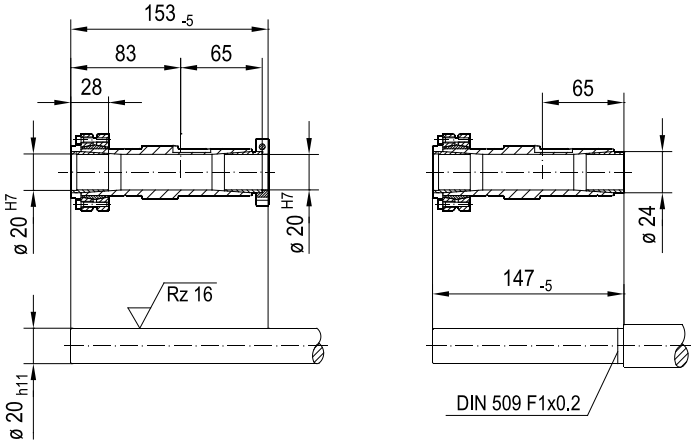




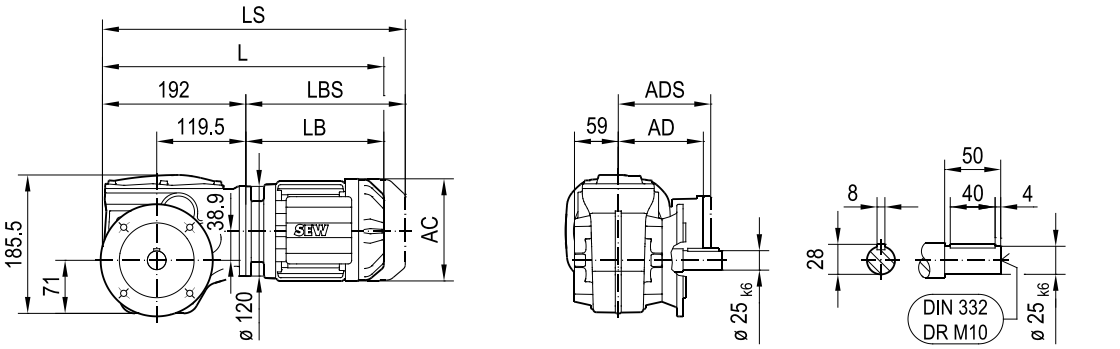


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	363	377	379	399	410	427	455	456
LS	419	433	446	466	491	508	536	550
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

26883198/EN – 04/2022

20 014 00 20

WF39..



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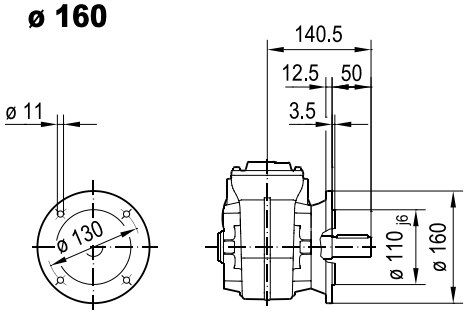

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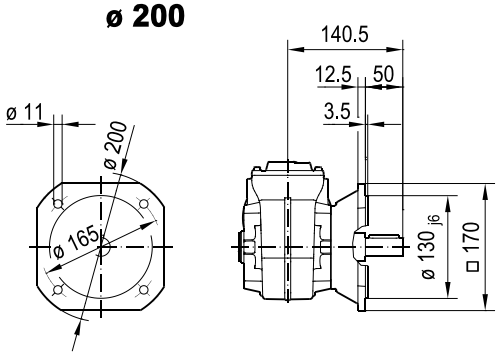

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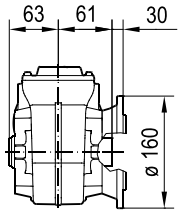

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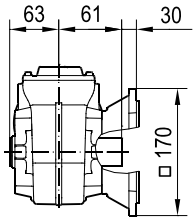
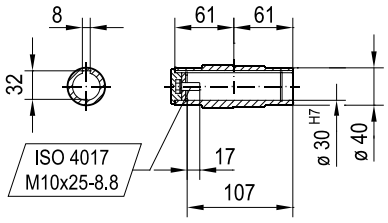


ø 30 H7
DIN 6885-3



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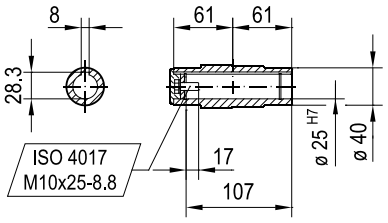

(→ 📖 7.3)	DRN								
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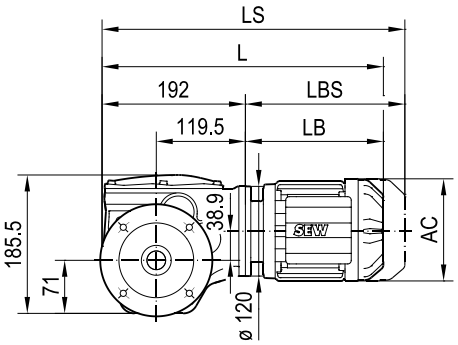
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	382	396	398	418	429	446	474	475	507
LS	438	452	465	485	510	527	555	569	601
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

26883198/EN – 04/2022

20 015 00 20

WHF39..



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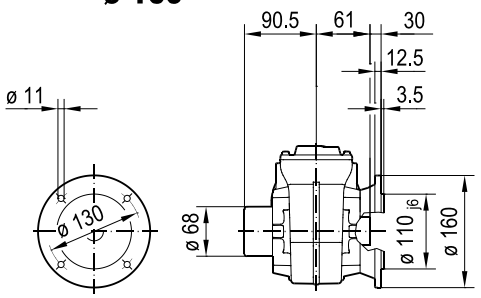

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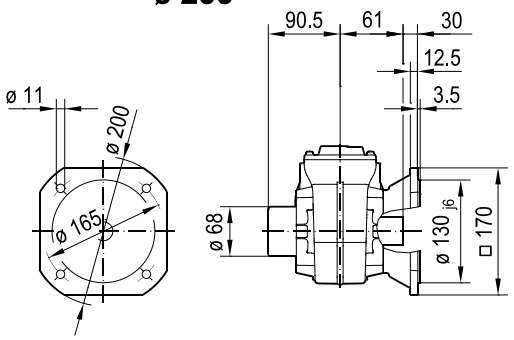

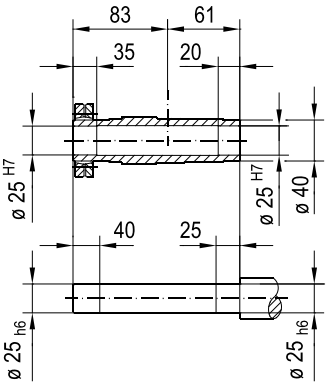

(→ 📖 7.3)	DRN								
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AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	382	396	398	418	429	446	474	475	507
LS	438	452	465	485	510	527	555	569	601
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

26883198/EN – 04/2022

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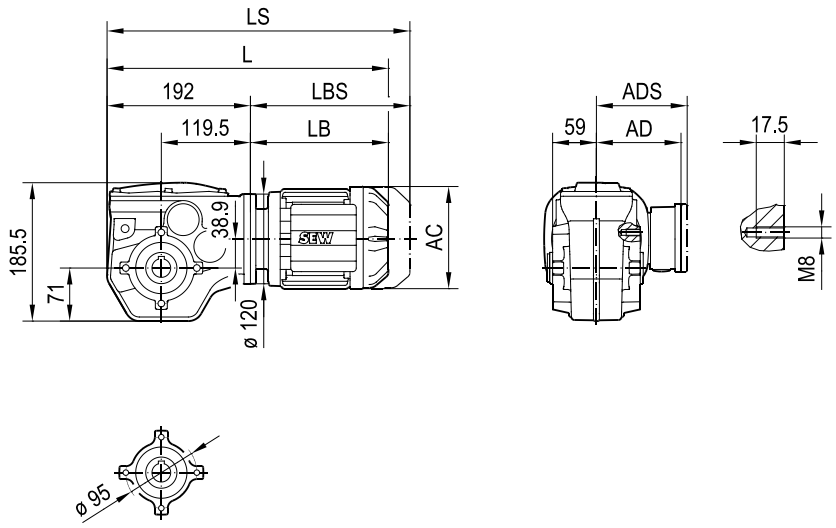
WA39..



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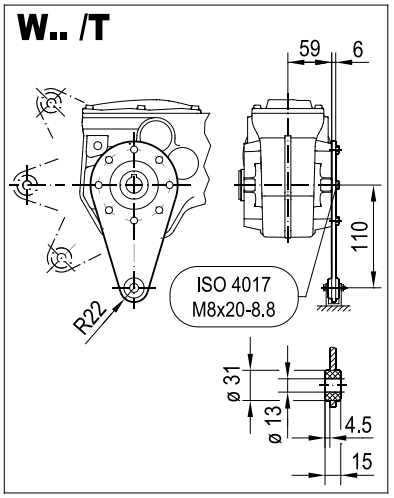

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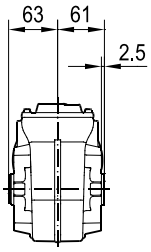

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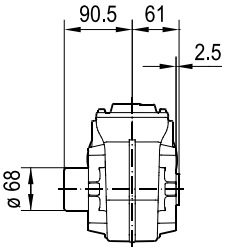
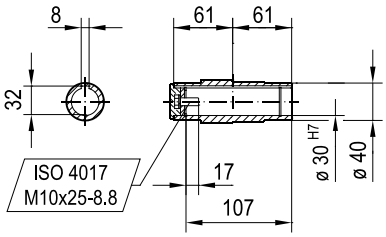


ø 30 H7
DIN 6885-3



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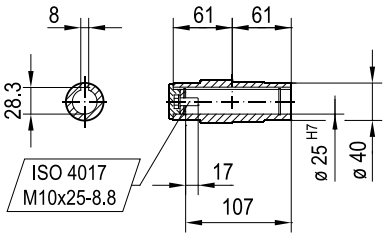
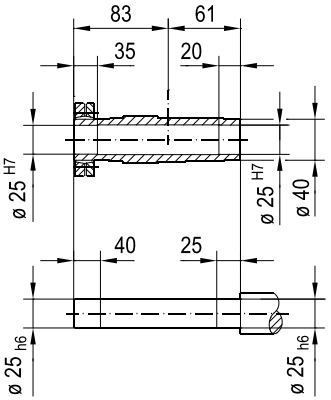


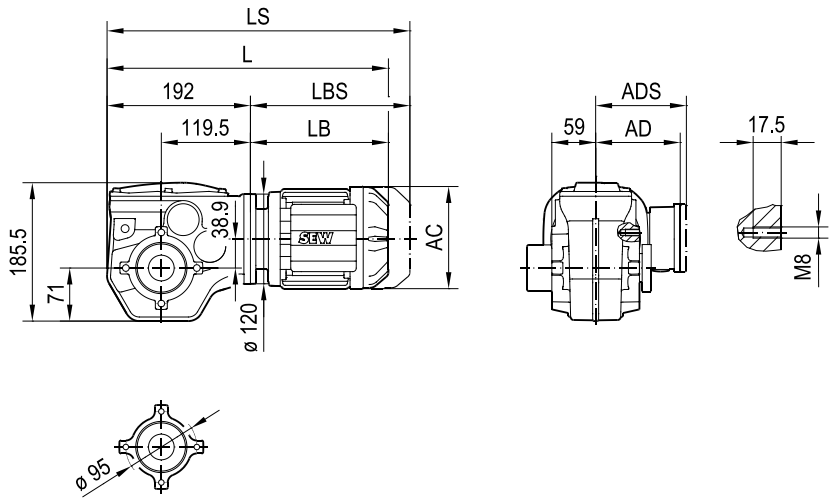


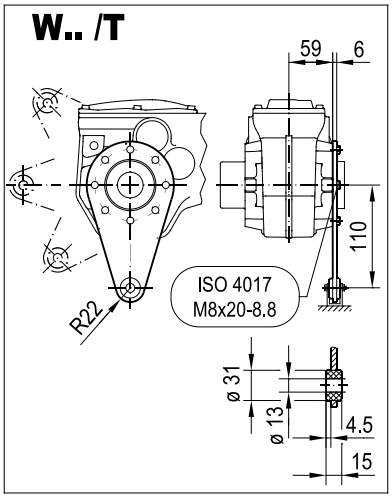
(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	382	396	398	418	429	446	474	475	507
LS	438	452	465	485	510	527	555	569	601
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

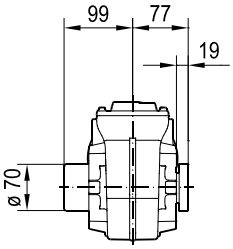
26883198/EN – 04/2022

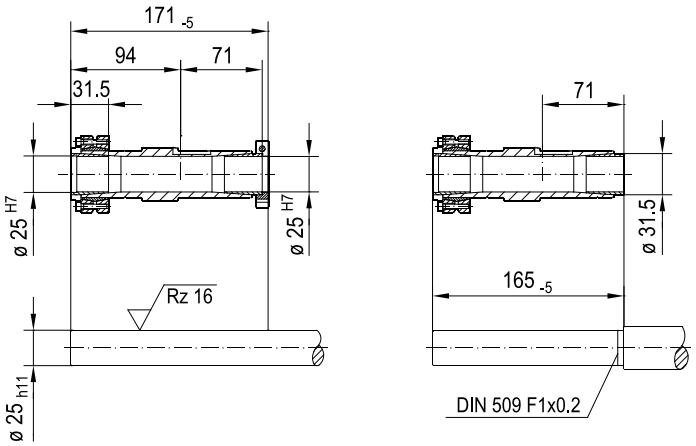
20 017 02 20

WT39..









(→ 📖 7.3)	DRN								
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AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	382	396	398	418	429	446	474	475	507
LS	438	452	465	485	510	527	555	569	601
LB	190	204	206	226	237	254	282	283	315
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26883198/EN – 04/2022

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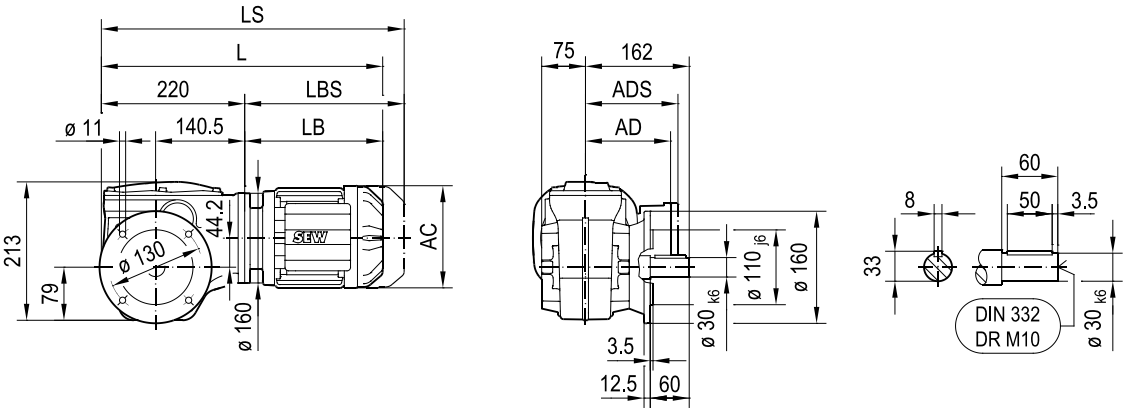
WF49..



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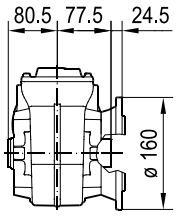

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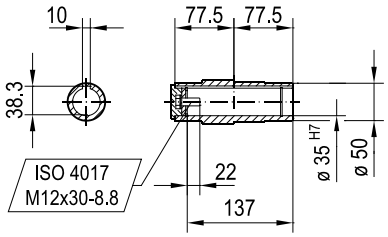

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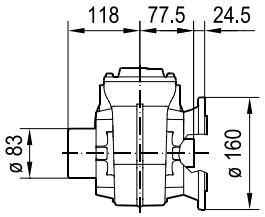

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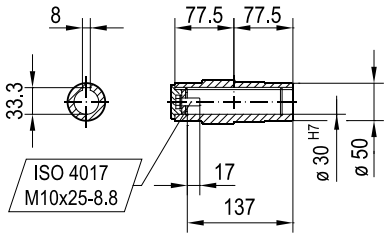

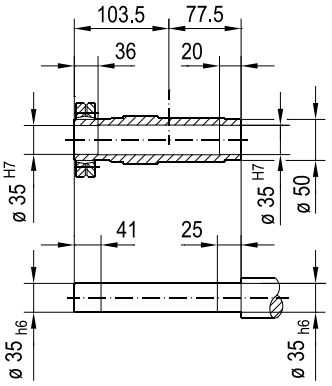

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	404	418	419	439	450	467	495	497	529	525	575
LS	460	474	487	507	531	548	576	590	622	619	669
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

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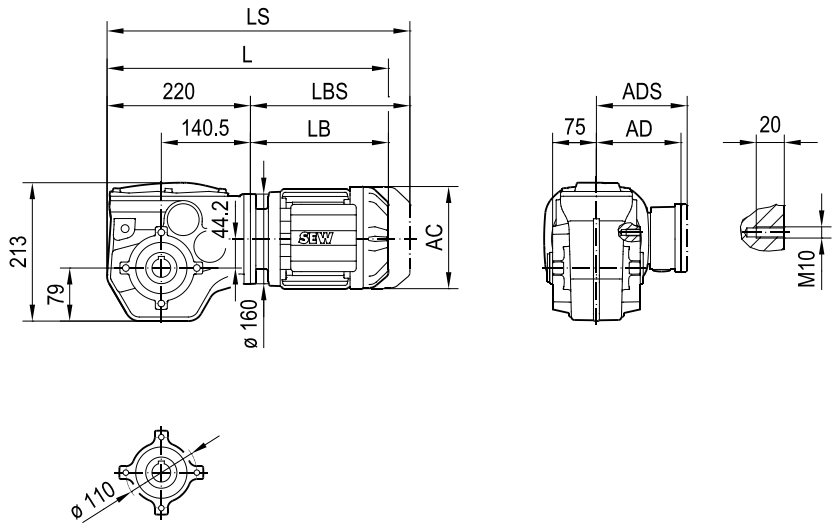
WA49..



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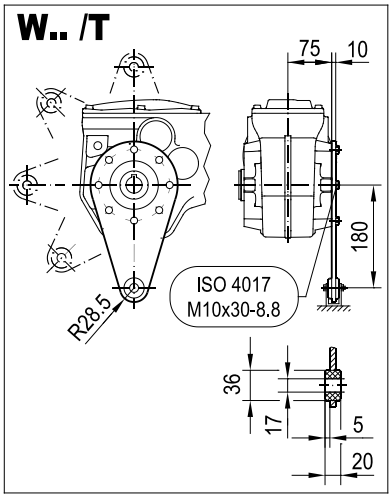

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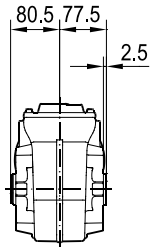

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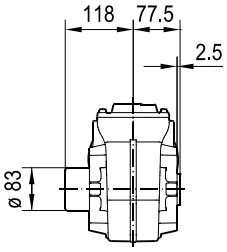

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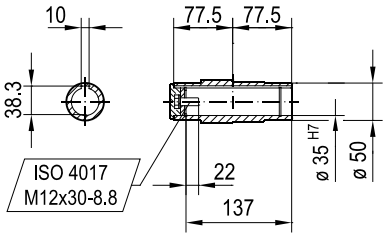

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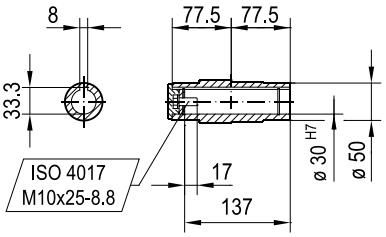

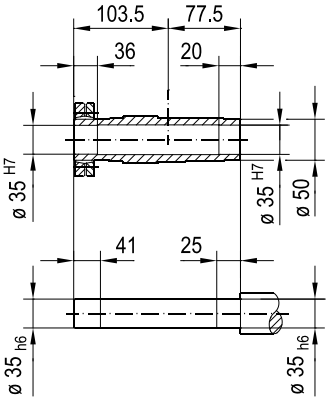

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	404	418	419	439	450	467	495	497	529	525	575
LS	460	474	487	507	531	548	576	590	622	619	669
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

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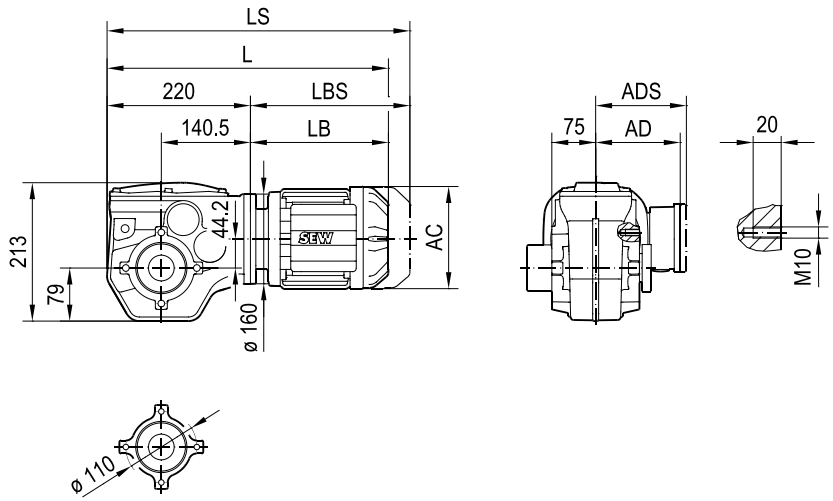
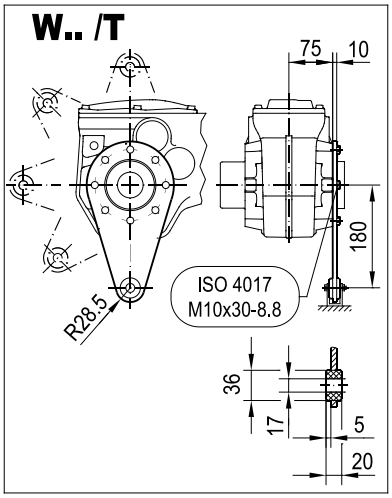
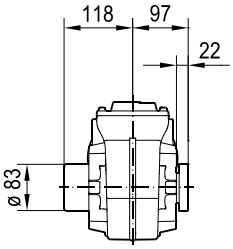
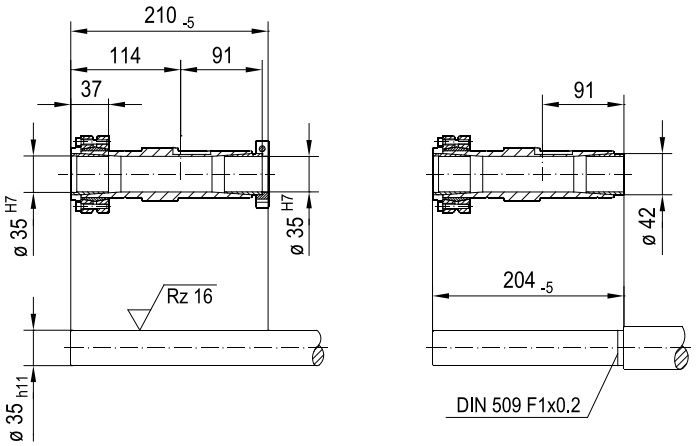
WT49..









(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	156	179	179	197	197
AD	98	98	118	118	128	128	128	140	140	157	157
ADS	98	98	129	129	139	139	139	150	150	158	158
L	404	418	419	439	450	467	495	497	529	525	575
LS	460	474	487	507	531	548	576	590	622	619	669
LB	184	198	199	219	230	247	275	277	309	305	355
LBS	240	254	267	287	311	328	356	370	402	399	449

26883198/EN – 04/2022

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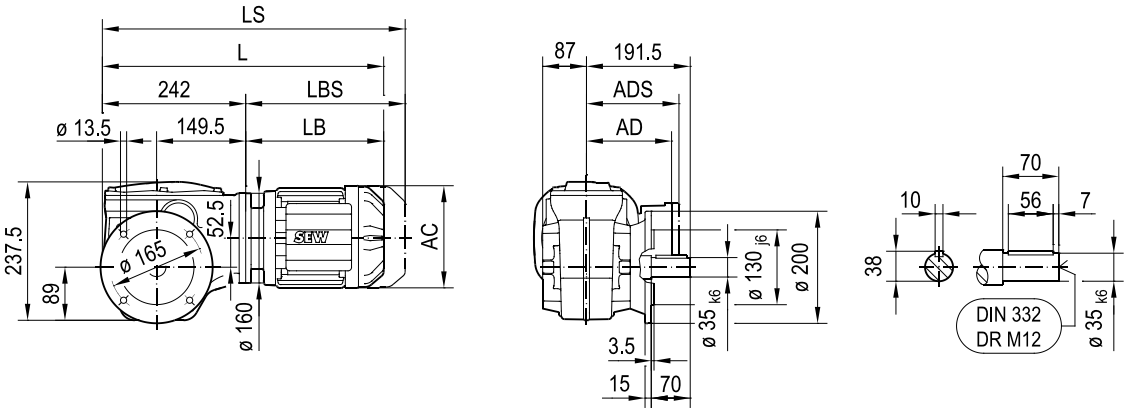
WF59..



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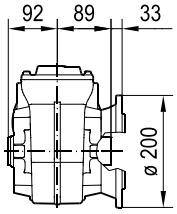

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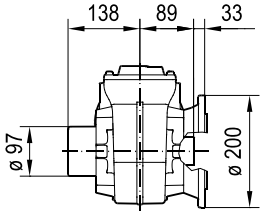

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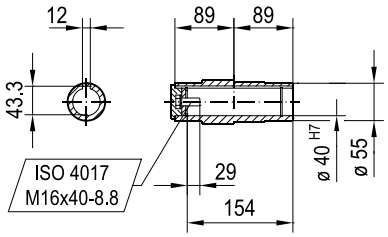

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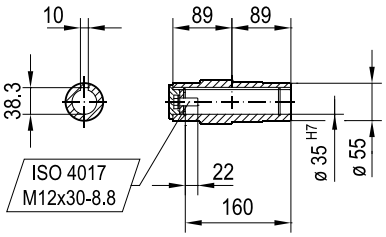

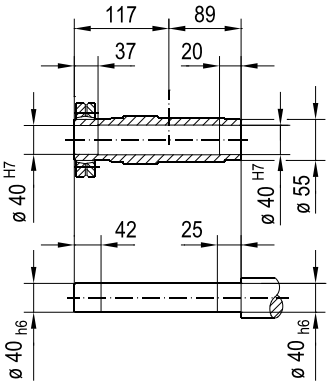

(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172
L	426	440	441	461	472	489	517	519	551	547	597	628
LS	482	496	509	529	553	570	598	612	644	641	691	740
LB	184	198	199	219	230	247	275	277	309	305	355	386
LBS	240	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

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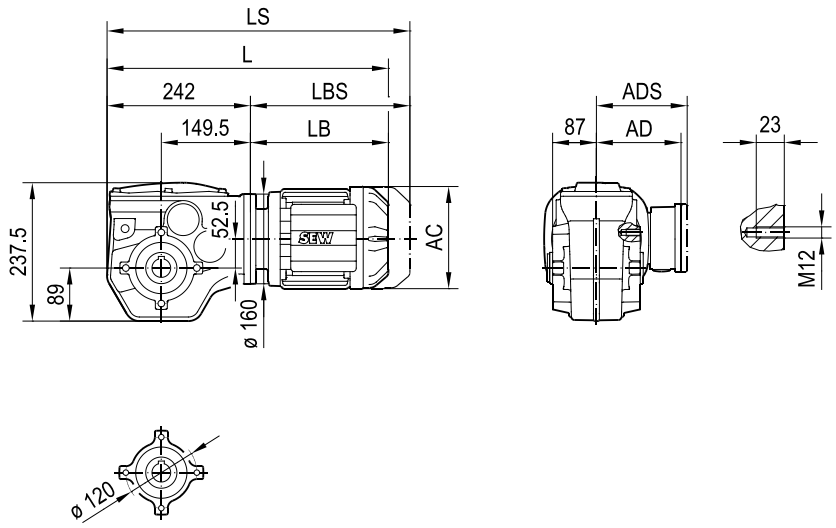
WA59..



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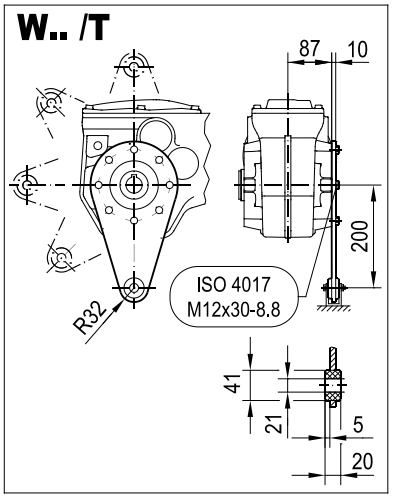

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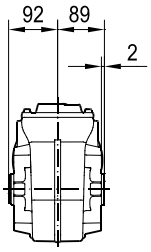

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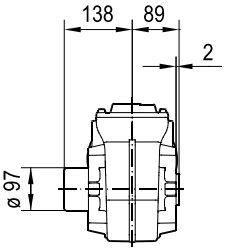

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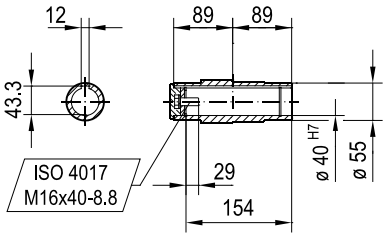

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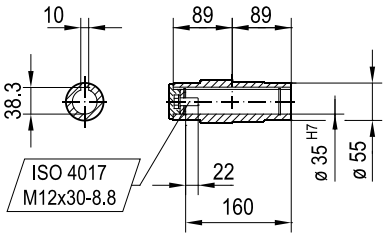

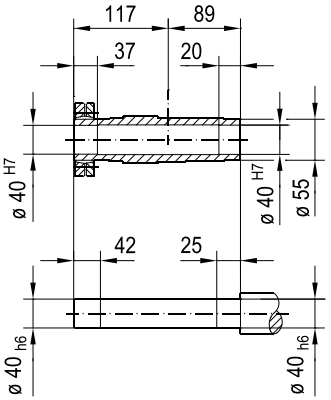

(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172
L	426	440	441	461	472	489	517	519	551	547	597	628
LS	482	496	509	529	553	570	598	612	644	641	691	740
LB	184	198	199	219	230	247	275	277	309	305	355	386
LBS	240	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

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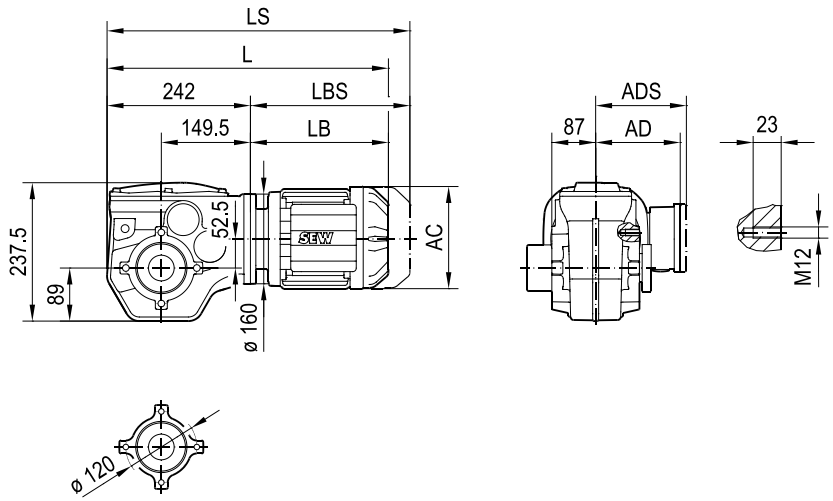
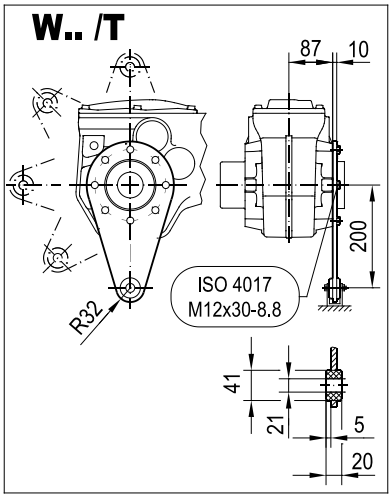
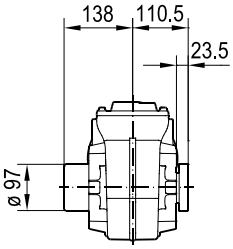
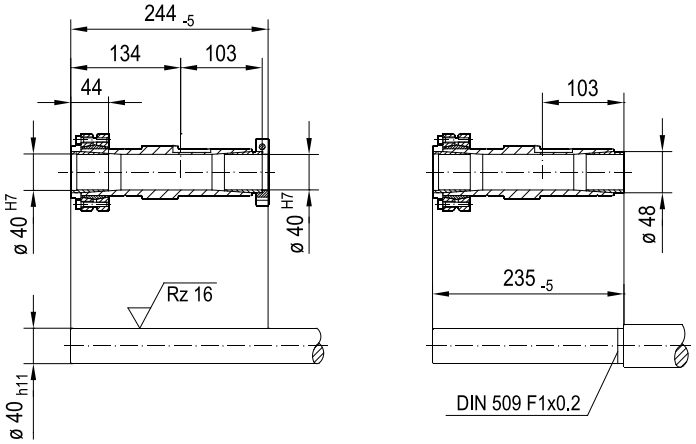
WT59..







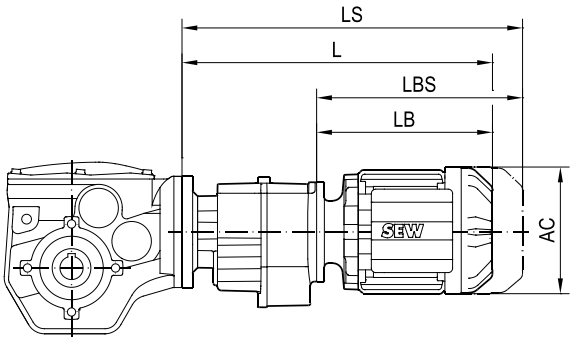


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	139	150	150	158	158	172
L	426	440	441	461	472	489	517	519	551	547	597	628
LS	482	496	509	529	553	570	598	612	644	641	691	740
LB	184	198	199	219	230	247	275	277	309	305	355	386
LBS	240	254	267	287	311	328	356	370	402	399	449	498

26883198/EN – 04/2022

12.6 W..R..DRN.. dimension sheets in mm

20 049 01 21



(→ 📖 7.3)	AC	L	LS	LB	LBS
W..29R17 DR2S56..	109	293	329	160	196
W..29R17 DRN63MS	115	323	379	190	246
W..39R17 DR2S56..	109	293	329	160	196
W..39R17 DRN63MS	115	323	379	190	246
W..39R17 DRN63M	115	337	393	204	260
W..49R17 DR2S56..	109	293	329	160	196
W..49R17 DRN63MS	115	323	379	190	246
W..49R17 DRN63M	115	337	393	204	260
W..49R17 DRN71MS	139	339	406	206	273
W..49R17 DRN71M	139	359	426	226	293
W..49R17 DRN80MK	156	370	451	237	318
W..59R37 DRN63MS	115	355	411	190	246
W..59R37 DRN63M	115	369	425	204	260
W..59R37 DRN71MS	139	371	438	206	273
W..59R37 DRN71M	139	391	458	226	293
W..59R37 DRN80MK	156	402	483	237	318
W..59R37 DRN80MS	156	419	500	254	335
W..59R37 DRN80M	156	447	528	282	363

26883198/EN – 04/2022

13 Technical data of the motors

INFORMATION

You find more information in the "AC Motors" catalog.

13.1 Key to the data tables

The following table lists the short symbols used in the "Technical data" tables.

P_N	Rated power
M_N	Rated torque
n_N	Rated speed
I_N	Rated current
cosφ	Power factor
$\eta_{50\%}$	Efficiency at 50% of the rated power
$\eta_{75\%}$	Efficiency at 75% of the rated power
$\eta_{100\%}$	Efficiency at 100% of the rated power
I_A/I_N	Starting current ratio
M_A/M_N	Starting torque ratio
M_H/M_N	Ramp-up torque ratio
M_K/M_N	Breakdown torque ratio
m_{Mot}	Mass of the motor
J_{Mot}	Mass moment of inertia of the motor
BE..	Brake used
Z_0 BG	Switching frequency for operation with BG brake controller
Z_0 BGE	Switching frequency for operation with BGE brake controller
M_B	Braking torque
m_{BMot}	Mass of the brakemotor
J_{BMot}	Mass moment of inertia of the brakemotor

26883198/EN – 04/2022

13.2 IE3 DRN.. motors, 400 V, 50 Hz, 2-pole

13.2.1 AuInformation on motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN 63MS 2	0.18	0.63	2725	0.465	0.78	62.7	66.2	65.9	4.2	2.6 2.6	2.6
DRN 63M 2	0.25	0.87	2755	0.57	0.81	69.2	70.9	69.7	4.9	2.7 2.6	2.7
DRN 71MS 2	0.25	0.84	2834	0.59	0.77	66.1	69.3	69.7	5.7	3.5 3.0	3.5
DRN 71MS 2	0.37	1.26	2810	0.87	0.78	70.7	73.8	73.8	5.4	3.1 2.7	3.1
DRN 71M 2	0.55	1.86	2825	1.24	0.81	75.7	78.0	77.8	5.9	3.2 3.0	3.2
DRN 80MS 2	0.75	2.5	2855	1.58	0.84	80.2	82.0	81.4	5.9	2.8 2.5	2.9
DRN 80M 2	1.1	3.65	2860	2.2	0.85	83.1	84.1	83.0	6.6	3.0 2.5	2.9
DRN 90S 2	1.5	4.95	2886	3.1	0.83	83.7	85.0	84.2	6.6	2.7 2.5	2.9
DRN 90L 2	2.2	7.2	2905	4.3	0.85	86.1	86.7	85.9	7.4	2.5 2.1	3.0
DRN 100LM 2	3	9.9	2894	5.8	0.85	88.9	88.7	87.2	7.7	3.3 2.6	3.5
DRN 112M 2	4	13	2948	7.5	0.86	88.1	88.7	88.1	9.8	3.3 2.7	3.9
DRN 132S 2	5.5	17.9	2935	9.4	0.92	90.3	90.2	89.2	10.0	3.0 2.1	3.7
DRN 132S 2	7.5	24.5	2936	14.1	0.85	90.6	90.8	90.1	9.6	3.3 2.0	3.4

26883198/EN – 04/2022

13.2.2 Further information on motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN 63MS 2	0.18	0.63	2725	4.9	2.95	BE03	5000 6000	1.3	6.8	3.64
DRN 63M 2	0.25	0.87	2755	5.8	3.76	BE03	4500 6000	1.7	7.7	4.45
DRN 71MS 2	0.25	0.84	2834	6.8	2.93	BE03	3600 6000	1.7	8.7	3.62
DRN 71MS 2	0.37	1.26	2810	6.8	2.93	BE03	3600 6000	2.7	8.7	3.62
DRN 71M 2	0.55	1.86	2825	8	3.71	BE05	2600 5500	5	10	5.01
DRN 80MS 2	0.75	2.5	2855	11	18.5	BE05	1200 3400	5	15	20
DRN 80M 2	1.1	3.65	2860	14	24.1	BE1	1000 2600	7	18	25.6
DRN 90S 2	1.5	4.95	2886	20	53.1	BE1	600 1300	10	22	54.7
DRN 90L 2	2.2	7.2	2905	23	66.3	BE2	- 1000	14	27	71
DRN 100LM 2	3	9.9	2894	33	89.7	BE2	- 750	20	37	94.4
DRN 112M 2	4	13	2948	45	178	BE5	- 400	28	52	183
DRN 132S 2	5.5	17.9	2935	56	241	BE5	- 300	40	64	246
DRN 132S 2	7.5	24.5	2936	56	241	BE5	- 300	55	64	246

26883198/EN – 04/2022

13.3 IE3 DRN.. motors, 400 V, 50 Hz, 4-pole

13.3.1 Information on motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN 63MS 4	0.12	0.83	1380	0.405	0.64	58.3	63.9	64.8	3.6	2.7 2.6	2.7
DRN 63M 4	0.18	1.25	1375	0.57	0.65	65.1	69.4	69.9	3.7	2.6 2.6	2.6
DRN 71MS 4	0.18	1.19	1440	0.64	0.54	61.1	67.1	69.9	4.9	3.6 3.2	3.6
DRN 71MS 4	0.25	1.7	1405	0.72	0.66	70.1	73.5	73.5	4.3	2.5 2.3	2.5
DRN 71M 4	0.37	2.5	1415	1.02	0.66	74.3	77.3	77.3	4.8	2.8 2.4	2.8
DRN 80MK 4	0.55	3.65	1435	1.29	0.75	78.6	81.0	80.8	6.1	2.7 2.1	3.1
DRN 80M 4	0.75	4.95	1440	1.75	0.74	80.7	82.9	82.9	6.7	3.1 2.7	3.4
DRN 90S 4	1.1	7.2	1455	2.55	0.73	83.5	85.0	84.5	6.9	2.7 2.1	3.3
DRN 90L 4	1.5	9.8	1461	3.4	0.74	84.6	86.1	85.6	7.5	2.7 2.0	3.3
DRN 100LS 4	2.2	14.5	1450	4.75	0.76	86.4	87.5	86.9	7.1	2.9 2.2	3.3
DRN 100L 4	3	19.7	1456	6.4	0.76	87.3	88.3	87.8	8.2	3.4 2.3	3.7
DRN 112M 4	4	26	1464	7.9	0.81	88.6	89.4	88.7	8.2	2.6 2.3	3.4
DRN 132S 4	5.5	36	1461	10.5	0.84	90.6	90.6	89.6	8.3	2.8 2.2	3.5
DRN 132M 4	7.5	49	1468	15.2	0.78	90.8	91.1	90.4	7.8	3.1 2.4	3.3
DRN 132L 4	9.2	60	1470	18.7	0.77	90.8	91.6	91.0	8.4	3.7 1.8	3.7
DRN 160M 4	11	71	1473	21	0.81	91.1	91.7	91.4	7.3	2.6 2.2	3.0
DRN 160L 4	15	97	1474	29	0.80	91.9	92.5	92.1	8.0	3.0 2.0	3.4
DRN 180M 4	18.5	120	1478	33.5	0.85	92.8	93.1	92.6	9.5	3.6 2.9	3.6
DRN 180L 4	22	142	1477	38.5	0.87	93.4	93.6	93.0	9.6	3.5 2.1	3.4
DRN 200L 4	30	194	1480	56	0.82	93.3	93.9	93.6	8.2	2.9 2.5	3.3
DRN 225S 4	37	240	1482	64	0.88	94.3	94.4	93.9	8.4	3.0 2.3	2.7
DRN 225M 4	45	290	1482	81	0.85	94.1	94.5	94.2	8.8	3.0 2.2	2.7
DRN 250M 4	55	355	1482	104	0.80	94.4	94.8	94.6	8.2	4.0 2.5	2.9
DRN 280S 4	75	485	1482	143	0.79	94.9	95.3	95.0	7.6	3.7 2.6	2.9
DRN 280M 4	90	580	1481	161	0.84	95.4	95.6	95.2	7.7	3.6 2.0	2.7
DRN 315S 4	110	710	1488	189	0.87	95.4	95.7	95.5	6.7	2.9 2.1	3.1
DRN 315M 4	132	850	1487	230	0.87	95.6	95.9	95.6	6.5	2.7 2.0	2.9
DRN 315L 4	160	1030	1486	275	0.87	95.9	96.1	95.9	6.5	2.7 2.0	2.8
DRN 315H 4	200	1.280	1489	355	0.84	95.4	96.0	96.0	8.1	3.7 2.8	3.8

26883198/EN – 04/2022

13.3.2 Further information on motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN 63MS 4	0.12	0.83	1380	4.9	2.95	BE03	10000 10000	1.7	6.8	3.64
DRN 63M 4	0.18	1.25	1375	5.8	3.76	BE03	10000 10000	2.7	7.7	4.45
DRN 71MS 4	0.18	1.19	1440	6.8	5.42	BE03	6200 9700	2.7	8.7	6.11
DRN 71MS 4	0.25	1.7	1405	6.8	5.42	BE03	6200 9700	3.4	8.7	6.11
DRN 71M 4	0.37	2.5	1415	8	7.14	BE05	5000 9000	5	10	8.44
DRN 80MK 4	0.55	3.65	1435	11	17.1	BE1	3500 8500	7	14	18.6
DRN 80M 4	0.75	4.95	1440	14	24.7	BE1	3200 8200	10	18	26.2
DRN 90S 4	1.1	7.2	1455	20	54	BE2	2300 6000	14	24	58.7
DRN 90L 4	1.5	9.8	1461	23	67.2	BE2	2200 5800	20	27	71.9
DRN 100LS 4	2.2	14.5	1450	27	81.4	BE5	- 6100	28	33	87.4
DRN 100L 4	3	19.7	1456	34	112	BE5	- 3700	40	40	118
DRN 112M 4	4	26	1464	45	178	BE5	- 2900	55	52	183
DRN 132S 4	5.5	36	1461	56	241	BE11	- 2100	80	71	251
DRN 132M 4	7.5	49	1468	74	381	BE11	- 1100	110	92	403
DRN 132L 4	9.2	60	1470	82	439	BE20	- 980	150	110	490
DRN 160M 4	11	71	1473	115	817	BE20	- 900	150	150	877
DRN 160L 4	15	97	1474	130	1040	BE20	- 800	200	165	1100
DRN 180M 4	18.5	120	1478	155	1630	BE30	- 510	300	195	1770
DRN 180L 4	22	142	1477	170	1950	BE30	- 470	300	210	2090
DRN 200L 4	30	194	1480	285	2660	BE32	- 500	400	340	2890
DRN 225S 4	37	240	1482	315	4350	BE32	- 230	500	370	4580
DRN 225M 4	45	290	1482	315	4350	BE32	- 200	600	370	4580
DRN 250M 4	55	355	1482	470	7360	BE62	- 180	800	560	7960
DRN 280S 4	75	485	1482	530	8940	BE62	- 150	1000	620	9530
DRN 280M 4	90	580	1481	640	12000	BE62	- 79	1200	730	12600
DRN 315S 4	110	710	1488	880	23400	BE122	- 53	1600	1020	24400
DRN 315M 4	132	850	1487	900	24800	BE122	- 46	2000	1040	25800
DRN 315L 4	160	1030	1486	1030	28600	BE122	- 34	2000	1160	29600
DRN 315H 4	200	1280	1489	1150	35200	BE122	- 23	2000	1280	36200

26883198/EN – 04/2022

13.4 IE3 DRN.. motors, 400 V, 50 Hz, 6-pole

13.4.1 Information on motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN 63MR 6	0.09	0.93	920	0.36	0.58	44.3	51.7	55.0	2.9	2.7 2.6	2.8
DRN 63M 6	0.12	1.32	870	0.405	0.71	51.9	57.5	57.7	2.6	1.9 1.8	1.9
DRN 71MS 6	0.18	1.88	915	0.55	0.69	59.4	63.7	63.9	3.4	1.9 1.9	2.2
DRN 71M 6	0.25	2.6	915	0.76	0.68	63.5	68.2	68.6	3.4	2.0 1.9	2.3
DRN 80MK 6	0.37	3.8	935	1.05	0.68	70.8	73.8	73.5	4.1	2.1 2.1	2.4
DRN 90SR 6	0.55	5.4	966	1.52	0.65	73.5	76.7	77.2	5.2	2.3 2.2	2.8
DRN 90S 6	0.75	7.5	957	2	0.68	77.4	79.8	78.9	4.8	2.0 2.0	2.4
DRN 90L 6	1.1	11	957	2.95	0.67	78.8	81.3	81.0	5.0	2.4 2.3	2.8
DRN 100L 6	1.5	14.9	961	4.1	0.63	80.7	82.8	82.5	4.7	2.2 2.2	2.9
DRN 112M 6	2.2	21.5	973	5.5	0.66	83.6	85.0	84.3	6.5	2.4 1.9	3.2
DRN 132S 6	3	29.5	974	7.4	0.66	84.8	86.0	85.6	6.2	2.6 2.5	3.4
DRN 132S 6	4	39.5	968	9.7	0.68	86.4	87.5	86.8	5.5	2.5 2.5	3.2
DRN 132L 6	5.5	54	975	13.8	0.64	86.9	88.3	88.0	5.6	2.7 2.5	2.8
DRN 160M 6	7.5	73	979	15.8	0.74	88.4	89.4	89.1	8.2	2.7 1.6	4.0

26883198/EN – 04/2022

13.4.2 Further information on motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN 63MR 6	0.09	0.93	920	5.8	6.47	BE03	12000 12000	2.1	7.7	7.16
DRN 63M 6	0.12	1.32	870	5.8	6.47	BE03	12000 12000	2.7	7.7	7.16
DRN 71MS 6	0.18	1.88	915	6.8	8.29	BE05	7000 12000	5	9.2	9.59
DRN 71M 6	0.25	2.6	915	8	10.4	BE05	5200 12000	5	10	11.7
DRN 80MK 6	0.37	3.8	935	11	17.1	BE1	3000 9000	10	14	18.6
DRN 90SR 6	0.55	5.4	966	20	54	BE2	2400 5000	14	24	58.7
DRN 90S 6	0.75	7.5	957	20	54	BE2	2400 5000	20	24	58.7
DRN 90L 6	1.1	11	957	23	67.4	BE5	2200 4400	28	29	73.4
DRN 100L 6	1.5	14.9	961	34	112	BE5	- 3400	40	40	118
DRN 112M 6	2.2	21.5	973	45	178	BE5	- 2500	55	52	183
DRN 132S 6	3	29.5	974	56	245	BE11	- 2300	80	71	256
DRN 132S 6	4	39.5	968	56	245	BE11	- 2100	80	71	256
DRN 132L 6	5.5	54	975	82	439	BE11	- 1700	110	100	461
DRN 160M 6	7.5	73	979	115	1290	BE20	- 1200	150	150	1350

26883198/EN – 04/2022

13.5 IE3 DRN.. motors, 400 V, 50 Hz, 8-pole

13.5.1 Information on motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN 71MSR 8	0.09	1.24	695	0.435	0.53	39.0	46.7	50.7	2.4	2.3 2.3	2.6
DRN 71MS 8	0.12	1.72	665	0.47	0.64	46.2	52.4	53.5	2.3	1.6 1.6	1.8
DRN 80MK 8	0.18	2.45	705	0.76	0.54	49.4	56.1	58.7	3.0	1.8 1.8	2.4
DRN 80M 8	0.25	3.4	702	1.02	0.53	55.8	62.0	64.1	3.1	2.0 1.9	2.3
DRN 90S 8	0.37	4.95	716	1.38	0.55	61.9	67.5	69.3	3.6	1.8 1.7	2.4
DRN 90L 8	0.55	7.4	710	1.81	0.59	69.0	72.7	73.0	3.5	1.8 1.8	2.3
DRN 100LS 8	0.75	10.1	708	2.25	0.62	72.2	75.2	75.0	3.8	1.9 1.8	2.2
DRN 100L 8	1.1	14.8	710	3.45	0.59	73.5	77.2	77.7	4.1	2.2 2.1	2.7
DRN 112M 8	1.5	20	715	4.2	0.63	78.7	80.4	79.7	4.3	1.9 1.8	2.3
DRN 132S 8	2.2	29.5	715	6	0.64	81.6	82.9	81.9	4.5	2.0 1.8	2.4
DRN 132M 8	3	39.5	726	8.7	0.58	80.9	83.3	83.5	5.1	2.2 2.0	2.9
DRN 132L 8	4	53	722	11.1	0.61	83.6	85.1	84.8	4.7	2.1 1.9	2.6
DRN 160M 8	5.5	72	729	15	0.61	85.1	86.5	86.2	5.4	2.1 1.9	2.8
DRN 160L 8	7.5	98	729	19.6	0.63	86.8	87.7	87.3	5.8	2.1 1.9	2.9
DRN 180L 8	11	143	733	27.5	0.64	88.2	89.0	88.6	5.2	2.6 2.0	2.2

26883198/EN – 04/2022

13.5.2 Further information on motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN 71MSR 8	0.09	1.24	695	6.8	8.29	BE03	6000 16000	2.7	8.7	8.98
DRN 71MS 8	0.12	1.72	665	6.8	8.29	BE03	6000 16000	3.4	8.7	8.98
DRN 80MK 8	0.18	2.45	705	11	17.1	BE05	5000 11500	5	14	18.6
DRN 80M 8	0.25	3.4	702	14	24.7	BE1	3700 10500	7	18	26.2
DRN 90S 8	0.37	4.95	716	20	54	BE1	2800 6700	10	23	55.6
DRN 90L 8	0.55	7.4	710	23	67.6	BE2	2300 5700	20	27	72.3
DRN 100LS 8	0.75	10.1	708	27	80.8	BE2	2400 6400	20	32	85.5
DRN 100L 8	1.1	14.8	710	34	111	BE5	1800 5300	40	40	117
DRN 112M 8	1.5	20	715	45	182	BE5	- 3500	55	52	187
DRN 132S 8	2.2	29.5	715	56	245	BE11	- 2500	80	71	255
DRN 132M 8	3	39.5	726	74	564	BE11	- 2300	80	92	586
DRN 132L 8	4	53	722	82	678	BE11	- 2100	110	100	700
DRN 160M 8	5.5	72	729	115	1290	BE20	- 1300	150	150	1350
DRN 160L 8	7.5	98	729	130	1640	BE20	- 1100	200	165	1700
DRN 180L 8	11	143	733	175	1960	BE30	- 1000	300	215	2100

26883198/EN – 04/2022

14 Address directory SEW-EURODRIVE

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	Córdoba	SEW EURODRIVE ARGENTINA S.A. Ruta Nacional 19, Manzana 97, Lote 5 (X5125) Malvinas Argentinas Prov. de Córdoba	Tel. +54 351-490-0010 http://www.sew-eurodrive.com.ar sewcor@sew-eurodrive.com.ar
	Santa Fe	SEW EURODRIVE ARGENTINA S.A. Ruta Prov. 21 Km 7, Lote 41 Parque Industrial Alvear (2126) Gral. Alvear Prov. de Santa Fe	Tel. +54 341-317-7277 http://www.sew-eurodrive.com.ar sewsfe@sew-eurodrive.com.ar
Service	Mendoza	SEW EURODRIVE ARGENTINA S.A. Francisco Gabrielli (ex Urquiza) 2060-Zona Industrial- Guaymallen- CP 5521	Tel. +54 261-4214150 http://www.sew-eurodrive.com.ar sewmen@sew-eurodrive.com.ar
Technical Offices	Tucumán	SEW EURODRIVE ARGENTINA S.A. Balcarce 609 (T4000IAM) S.M. de Tucumán Prov. de Tucumán	Tel. +54 381-400-4569 http://www.sew-eurodrive.com.ar sewtuc@sew-eurodrive.com.ar
	Bahía Blanca	SEW EURODRIVE ARGENTINA S.A. O'Higgins 95, 1er Piso A (B8000IVA) Bahía Blanca Prov. de Buenos Aires	Tel. +54 291-451-7345 http://www.sew-eurodrive.com.ar sewbb@sew-eurodrive.com.ar
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	Brisbane	SEW-EURODRIVE PTY. LTD. 1 /34 Collinsvale St Rocklea, Queensland, 4106	Tel. +61 7 3276 5100 Fax +61 7 3276 5102 enquires@sew-eurodrive.com.au
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26883198/EN – 04/2022

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Sales	Minsk	Foreign unitary production enterprise SEW-EURODRIVE Novodvorskij village council 145 223016, Minsk region	Tel. +375 17 319 47 56 / +375 17 378 47 58 Fax +375 17 378 47 54 http://www.sew-eurodrive.by sew@sew-eurodrive.by
Belgium			
Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.be info@sew-eurodrive.be
Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue du Parc Industriel, 31 6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be info@sew.be
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Assembly Sales Service	Rio Claro	SEW-EURODRIVE Brasil Ltda. Rodovia Washington Luiz, Km 172 Condomínio Industrial Conpark Caixa Postal: 327 13501-600 – Rio Claro / SP	Tel. +55 19 3522-3100 Fax +55 19 3524-6653 montadora.rc@sew.com.br
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	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2001 Ch. de l'Aviation Dorval Quebec H9P 2X6	Tel. +1 514 367-1124 Fax +1 514 367-3677 n.paradis@sew-eurodrive.ca
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Assembly Sales Service	Santiago de Chile	SEW-EURODRIVE CHILE LTDA Las Encinas 1295 Parque Industrial Valle Grande LAMPA Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile	Tel. +56 2 2757 7000 Fax +56 2 2757 7001 http://www.sew-eurodrive.cl ventas@sew-eurodrive.cl

26883198/EN – 04/2022

China			
Production Assembly Sales Service	Tianjin	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 78, 13th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25323273 http://www.sew-eurodrive.cn info@sew-eurodrive.cn
Assembly Sales Service	Suzhou	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew-eurodrive.cn
	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530	Tel. +86 20 82267890 Fax +86 20 82267922 guangzhou@sew-eurodrive.cn
	Shenyang	SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141	Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn
	Taiyuan	SEW-EURODRIVE (Taiyuan) Co,. Ltd. No.3, HuaZhang Street, TaiYuan Economic & Technical Development Zone ShanXi, 030032	Tel. +86-351-7117520 Fax +86-351-7117522 taiyuan@sew-eurodrive.cn
	Wuhan	SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan	Tel. +86 27 84478388 Fax +86 27 84478389 wuhan@sew-eurodrive.cn
	Xi'An	SEW-EURODRIVE (Xi'An) Co., Ltd. No. 12 Jinye 2nd Road Xi'An High-Technology Industrial Development Zone Xi'An 710065	Tel. +86 29 68686262 Fax +86 29 68686311 xian@sew-eurodrive.cn
Sales Service	Hong Kong	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 36902200 Fax +852 36902211 contact@sew-eurodrive.hk
Colombia			
Assembly Sales Service	Bogota	SEW-EURODRIVE COLOMBIA LTDA. Calle 17 No. 132-18 Interior 2 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 http://www.sew-eurodrive.com.co sew@sew-eurodrive.com.co
Croatia			
Sales Service	Zagreb	KOMPEKS d. o. o. Zeleni dol 10 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@inet.hr
Czech Republic			
Assembly Sales Service	Hostivice	SEW-EURODRIVE CZ s.r.o. Floriánova 2459 253 01 Hostivice	Tel. +420 255 709 601 Fax +420 235 350 613 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz
Assembly Service	Plzeň	SEW-EURODRIVE CZ s.r.o. Areal KRPA a.s. Zahradni 173/2 326 00 Plzeň	Tel. +420 378 775 320 Fax +420 377 970 710 sew@sew-eurodrive.cz
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26883198/EN – 04/2022

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Service	Přerov	SEW-EURODRIVE CZ s.r.o. Areál STS Přerov a.s. ul. 9. května 2452 750 02 Přerov I – Město	Tel. +420 581 224 374 Fax +420 581 224 374 servis@sew-eurodrive.cz
Denmark			
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Service	Vejle	SEW-EURODRIVE A/S Bødkervej 2 7100 Vejle	Tel. +45 43 9585 00 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk
Egypt			
Representation: United Arab Emirates			
Estonia			
Sales	Tallin	ALAS-KUUL AS Loomäe tee 1, Lehmja küla 75306 Rae vald Harjumaa	Tel. +372 6593230 Fax +372 6593231 http://www.alas-kuul.ee info@alas-kuul.ee
Finland			
Assembly Sales Service	Hollola	SEW-EURODRIVE OY Vesimäentie 4 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
Service	Hollola	SEW-EURODRIVE OY Keskikankaantie 21 15860 Hollola	Tel. +358 201 589-300 Fax +358 3 780-6211 http://www.sew-eurodrive.fi sew@sew.fi
	Tornio	SEW-EURODRIVE Oy Lossirannankatu 5 95420 Tornio	Tel. +358 201 589 300 Fax +358 3 780 6211 http://www.sew-eurodrive.fi sew@sew.fi
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	Oulu	SEW Industrial Gears Oy Paulaharjuntie 22 90530 Oulu	Tel. +358 201 589 300 sew@sew.fi
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26883198/EN – 04/2022

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	Lyon	SEW USOCOME 75 rue Antoine Condorcet 38090 Vaulx-Milieu	Tel. +33 4 74 99 60 00 dtclyon@usocome.com
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	Paris	SEW USOCOME Zone industrielle 2 rue Denis Papin 77390 Verneuil l'Étang	Tel. +33 1 64 42 40 80 dtcparis@usocome.com
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Production / Precision Gear Units	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de
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	MAXOLUTION® Factory Automation	SEW-EURODRIVE GmbH & Co KG Eisenbahnstraße 11 76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 sew@sew-eurodrive.de
Drive Technology Center	North	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 43 30823 Garbsen (Hannover)	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 dtc-nord@sew-eurodrive.de
	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 08393 Meerane (Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 dtc-ost@sew-eurodrive.de
	South	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim (München)	Tel. +49 89 909551-21 Fax +49 89 909551-50 dtc-sued@sew-eurodrive.de
	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 40764 Langenfeld (Düsseldorf)	Tel. +49 2173 8507-10 Fax +49 2173 8507-50 dtc-west@sew-eurodrive.de

26883198/EN – 04/2022

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	Hamburg	SEW-EURODRIVE GmbH & Co KG Hasselbinnen 11 22869 Schenefeld	Tel. +49 40298109-60 Fax +49 40298109-70 dc-hamburg@sew-eurodrive.de
	Saarland	SEW-EURODRIVE GmbH & Co KG Gottlieb-Daimler-Straße 4 66773 Schwalbach Saar – Hülzweiler	Tel. +49 6831 48946 10 Fax +49 6831 48946 13 dc-saarland@sew-eurodrive.de
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	Würzburg	SEW-EURODRIVE GmbH & Co KG Nürnbergerstraße 118 97076 Würzburg-Lengfeld	Tel. +49 931 27886-60 Fax +49 931 27886-66 dc-wuerzburg@sew-eurodrive.de
Drive Service Hotline / 24 Hour Service			0 800 SEWHELP 0 800 7394357
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	Dresden	SEW-EURODRIVE GmbH & Co KG Hauptstraße 32 01445 Radebeul	Tel. +49 351 26338-0 Fax +49 351 26338-38 tb-dresden@sew-eurodrive.de
	Erfurt	SEW-EURODRIVE GmbH & Co KG Dubliner Straße 12 99091 Erfurt	Tel. +49 361 21709-70 Fax +49 361 21709-79 tb-erfurt@sew-eurodrive.de
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	Kassel	SEW-EURODRIVE GmbH & Co KG Sonnenweg 3 34260 Kaufungen	Tel. +49 561 95144-80 Fax +49 561 95144-90 tb-kassel@sew-eurodrive.de
	Koblenz	SEW-EURODRIVE GmbH & Co KG Carl-Benz-Straße 8 56218 Mülheim-Kärlich	Tel. +49 2630 91930-10 Fax +49 2630 91930-90 tb-koblenz@sew-eurodrive.de

26883198/EN – 04/2022

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	Magdeburg	SEW-EURODRIVE GmbH & Co KG Breiteweg 53 39179 Barleben	Tel. +49 39203 7577-1 Fax +49 39203 7577-9 tb-magdeburg@sew-eurodrive.de
	Mannheim	SEW-EURODRIVE GmbH & Co KG Besselstraße 26 68219 Mannheim	Tel. +49 621 71683-10 Fax +49 621 71683-22 tb-mannheim@sew-eurodrive.de
	München	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 85551 Kirchheim	Tel. +49 89 90955-110 Fax +49 89 90955-150 tb-muenchen@sew-eurodrive.de
	Münster	SEW-EURODRIVE GmbH & Co KG Hafenplatz 4 48155 Münster	Tel. +49 251 41475-11 Fax +49 251 41475-50 tb-muenster@sew-eurodrive.de
	Nuremberg	SEW-EURODRIVE GmbH & Co KG Lina-Ammon-Straße 22 90471 Nürnberg	Tel. +49 911 98884-50 Fax +49 911 98884-60 tb-nuernberg@sew-eurodrive.de
	Regensburg	SEW-EURODRIVE GmbH & Co KG Im Gewerbepark A15 93059 Regensburg	Tel. +49 941 46668-68 Fax +49 941 46668-66 tb-regensburg@sew-eurodrive.de
	Rhine-Main	SEW-EURODRIVE GmbH & Co KG Niederstedter Weg 5 61348 Bad Homburg	Tel. +49 6172 9617-0 Fax +49 6172 9617-50 tb-rheinmain@sew-eurodrive.de
	Stuttgart	SEW-EURODRIVE GmbH & Co KG Friedrich-List-Straße 46 70771 Leinfelden-Echterdingen	Tel. +49 711 16072-0 Fax +49 711 16072-72 tb-stuttgart@sew-eurodrive.de
	Zwickau / Meerane	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg1 08393 Meerane	Tel. +49 3764 7606-0 Fax +49 3764 7606-20 tb-zwickau@sew-eurodrive.de
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Service Competence Center	Southern England	SEW-EURODRIVE Ltd. Unit 41 Easter Park Benyon Road Silchester Reading Berkshire RG7 2PQ	Tel. +44 1189 701-699 Fax +44 1189 701-021
Technical Offices	Midlands	SEW-EURODRIVE Ltd. 5 Sugar Brook court Aston Road Bromsgrove Worcs. B60 3EX	Tel. +44 1527 877-319 Fax +44 1527 575-245
	Northern Ireland	Heyn Engineering (NI) Ltd. 1 Corry Place, Belfast, BT3 9AH	Tel. +44 02890350022 Fax +44 02890350012 http://www.heyn.co.uk info@heyn.co.uk
Drive Center	Scotland	SEW-EURODRIVE Ltd. 133-135 Deerdykes View Cumbernauld G68 9HF	Tel. +44 17 8647-8730

26883198/EN – 04/2022

Greece			
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Technical Office	Thessaloniki	Christ. Boznos & Son S.A. Asklipiou 26 562 24 Evosmos, Thessaloniki	Tel. +30 2 310 7054-00 Fax +30 2 310 7055-15 info@boznos.gr
Hungary			
Sales Service	Budapest	SEW-EURODRIVE Kft. Csillaghegyí út 13. 1037 Budapest	Tel. +36 1 437 06-58 Fax +36 1 437 06-50 http://www.sew-eurodrive.hu office@sew-eurodrive.hu
Iceland			
Sales	Reykjavik	Varma & Vélaverk ehf. Knarrarvogi 4 104 Reykjavík	Tel. +354 585 1070 Fax +354 585)1071 https://vov.is/ vov@vov.is
India			
Registered Office Assembly Sales Service	Vadodara	SEW-EURODRIVE India Private Limited 302, NOTUS IT PARK, Sarabhai Campus, Beside Notus Pride, Genda Circle, Vadodara 390023 Gujarat	Tel. +91 265 3045200 Fax +91 265 3045300 http://www.seweurodriveindia.com salesvadodara@seweurodriveindia.com
Assembly Sales Service	Chennai	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com
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26883198/EN – 04/2022

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Ludhiana	SEW-EURODRIVE India Private Limited B-31, 605/24 Street No 1, Sukhdev Nagar, Bhamian Road Focal Point Ludhiana, Pin Code - 141010, Punjab	Tel. +91 9878746730

26883198/EN – 04/2022

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Nagpur	SEW-EURODRIVE India Private Limited Plot No 49, New Kailash Nager, Samta colony, Nagpur-440027, Maharashtra	Tel. +91 95610 89525 salesnagpur@seweurodriveindia.com
Nashik	SEW-EURODRIVE India Private Limited 107, "YOG" Bunglow, Mahatama Nagar, Trimbak Road, Nashik – 422 007, Maharashtra	Tel. +91 96657 52978 salesnashik@seweurodriveindia.com
New Delhi	SEW-EURODRIVE India Private Limited # B-206 DLF Towers-B District Centre Jasola New Delhi -110044	Tel. +91 11 26944551 Fax +91 11 26944467 salesdelhi@seweurodriveindia.com
Navi Mumbai	SEW-EURODRIVE India Private Limited No.202, Shivam Yeshoram Plot No. 262/257, Sector 19 Kopar Khairane, Navi Mumbai - 400 709, Maharashtra	Tel. +91 99677 21324 salesmumbai@seweurodriveindia.com
Pune	SEW-EURODRIVE India Private Limited Plot No. 7,"Shri Shantadurga Niwas" Shivaji Co –operative Housing Society Ltd., Behind J.W. Marriot. Off Senapati Bapat Marg. Pune –411 016, Maharashtra	Tel. +91 20 27290180 salespune@seweurodriveindia.com
Pune	SEW-EURODRIVE India Private Limited Jai Tulajabhavani Complex. Office No:- 15 First Floor, Opp. Century Enka Company, MIDC Bhosari , Pune 411 026	Tel. +91 20-65118890 / 91 Fax +91 20 25380721 salespune@seweurodriveindia.com
Raipur	SEW-EURODRIVE India Private Limited Shop No. 204, 2nd Floor, Lalganga Business Park, Pachpedi Naka, NH -43 Dhamtari Road, Raipur 492 001 - Chhattisgarh	Tel. +91 771 4090765 Fax +91 771 4090765 salesraipur@seweurodriveindia.com
Rajkot	SEW-EURODRIVE India Private Limited Block No:64, Ajanta Park, Sadhu Vaswani Marg, University Road Rajkot 360005 - Gujarat	Tel. +91 8511149383 Fax +91 8511149383
Tiruchirappalli	SEW-EURODRIVE India Pvt.Ltd. V.S.Residency, 2nd floor, Flat no B-3 Elango Adigal street, Anna nagar, Near Thillai nagar, Thenur, 620017 Tamil Nadu	Tel. +91 97899 79855 salestrichy@seweurodriveindia.com
Vadodara	SEW-EURODRIVE India Private Limited Unit No. 301, Savorite Bldg, Plot No. 143, Vinayak Society, off old Padra Road, Vadodara - 390 007, Gujarat	Tel. +91 265 2325258 / 6560482 salesvadodara@seweurodriveindia.com
Vellore	SEW-EURODRIVE India Private Limited 23/2, 3rd Main road, Vani Vidyalaya School Road, Bharathi Nagar Extension, Katpadi Vellore - 632007, Tamilnadu	Tel. +91 96000 02247 salesvellore@seweurodriveindia.com
Vijayawada	SEW-EURODRIVE India Private Limited III Floor, H NO. 8-164, Masjid Street, Gollapdudi, Vijayawada - 521225 Andhra Pradesh	Tel. +91 8978861212
Indonesia		
Sales	Medan	PT. Serumpun Indah Lestari Jl.Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252	Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com http://www.serumpunindah.com

26883198/EN – 04/2022

Indonesia			
	Jakarta	PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350	Tel. +62 21 65310599 Fax +62 21 65310600 csajkt@cbn.net.id
	Jakarta	PT. Agrindo Putra Lestari JL.Pantai Indah Selatan, Komplek Sentra Industri Terpadu, Pantai indah Kapuk Tahap III, Blok E No. 27 Jakarta 14470	Tel. +62 21 2921-8899 Fax +62 21 2921-8988 aplindo@indosat.net.id http://www.aplindo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60111	Tel. +62 31 5990128 Fax +62 31 5962666 sales@triagri.co.id http://www.triagri.co.id
	Surabaya	CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174	Tel. +62 31 5458589 Fax +62 31 5317220 sianhwa@sby.centrin.net.id http://www.cvmultimas.com
Ireland			
Sales Service	Dublin	Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 http://www.alperton.ie info@alperton.ie
Israel			
Sales	Tel Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il
Italy			
Assembly Sales Service	Milan	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Bernini,12 20033 Solaro (Milano)	Tel. +39 02 96 980229 Fax +39 02 96 980 999 http://www.sew-eurodrive.it milano@sew-eurodrive.it
Drive Center	Bologna	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via della Grafica, 47 40064 Ozzano dell'Emilia (Bo)	Tel. +39 051 65-23-801 Fax +39 02 96 980 499 bologna@sew-eurodrive.it
	Caserta	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Viale Carlo III Km. 23,300 81020 S. Nicola la Strada (Caserta)	Tel. +39 0823 219011 Fax +39 02 96 980 599 caserta@sew-eurodrive.it
	Pescara	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Viale Europa,132 65010 Villa Raspa di Spoltore (PE)	Tel. +39 085 41-59-427 Fax +39 02 96 980 699 pescara@sew-eurodrive.it
	Turin	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Filiale Torino c.so Unione Sovietica 612/15 - int. C 10135 Torino	Tel. +39 011 3473780 Fax +39 02 96 980 799 torino@sew-eurodrive.it
	Verona	SEW-EURODRIVE S.a.s. di SEW S.r.l. & Co. Via Antonio Meucci, 5 37042 - Caldiero (VR)	Tel. +39 045 89-239-11 Fax +39 02 96 980 814 verona@sew-eurodrive.it
Ivory Coast			
Sales	Abidjan	SEW-EURODRIVE SARL Ivory Coast Rue des Pêcheurs, Zone 3 26 BP 916 Abidjan 26	Tel. +225 27 21 21 81 05 Fax +225 27 21 25 30 47 info@sew-eurodrive.ci http://www.sew-eurodrive.ci
Japan			
Assembly Sales Service	Iwata	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp
Technical Offices	Kyoto	SEW-EURODRIVE JAPAN CO., LTD Kyoto Operation Center 9-1-11 Seikadai, Seika-cho, Souraku-gun, Kyoto 619-0238	Tel. +81 774 98-2750 Fax +81 774 93-2100 kyoto@sew-eurodrive.co.jp

26883198/EN – 04/2022

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	Nagoya	SEW-EURODRIVE JAPAN CO., LTD Nagoya Toho building, 1-2-7, Sakae, Naka-ku Nagoya 460-0008, Aichi	Tel. +81 52-228-8608 Fax +81 52-203-2820 nagoya@sew-eurodrive.co.jp
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	Fukuoka	SEW-EURODRIVE JAPAN CO., LTD 8th-floor, Imon-Hakata-Bldg.-East. 2-2-1, Sumiyoshi, Hakata-ku Fukuoka, 812-0018	Tel. +81 92 291-3600 Fax +81 92 291-3602 fukuoka@sew-eurodrive.co.jp
Kazakhstan			
Sales Service	Almaty	SEW-EURODRIVE LLP 291-291A, Tole bi street 050031, Almaty	Tel. +7 (727) 350 5156 Fax +7 (727) 350 5156 http://www.sew-eurodrive.com kazakhstan@sew-eurodrive.com
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	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Fax +976-77109997 imt@imt.mn
Technical Offices	Karagandy	SEW-EURODRIVE LLP 82, Molokov Street 100004, Karagandy	Tel. +7 (7212) 955 956 Fax +7 (7212) 955 956 karagandy@sew-eurodrive.com
	Oskemen	SEW-EURODRIVE LLP 62 Satpaev ave. office 313 070016, Ust-Kamenogorsk	Tel. +7 (723) 291 37 48 (ext 760) Fax +7 (727) 350 5156 (ext 709) ust-Kamenogorsk@sew-eurodrive.com
	Aktobe	SEW-EURODRIVE LLP 52/1 Marat Ospanov str., office 11 030000, Aktobe	Tel. +7 (771) 993 0915 aktobe@sew-eurodrive.com
	Pavlodar	SEW-EURODRIVE LLP 6/2, Lunacharsky str., office 46 140000, Pavlodar	Tel. +7 (771) 993 09 16 pavlodar@sew-eurodrive.com
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C 1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.lv info@alas-kuul.com
Lebanon			
Sales (Lebanon)	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales (Jordan, Kuwait , Saudi Arabia, Syria)	Beirut	Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 http://www.medrives.com info@medrives.com
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C 63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 http://www.irseva.lt irmantas@irseva.lt
Luxembourg			
Representation: Belgium			

26883198/EN – 04/2022

Macedonia			
Sales	Skopje	Boznos DOOEL Dime Anicin 2A/7A 1000 Skopje	Tel. +389 23256553 Fax +389 23256554 http://www.boznos.mk
Malaysia			
Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
Technical Offices	Kuala Lumpur	SEW-EURODRIVE SDN BHD No. 2, Jalan Anggerik Mokara 31/46 Kota Kemuning Seksyen 31 40460 Shah Alam Selangor Darul Ehsan West Malaysia	Tel. +60 3 51229633 Fax +60 3 51229622 sewsa@sew-eurodrive.com.my
	Penang	SEW-EURODRIVE SDN BHD No. 38, Jalan Bawal Kimsar Garden 13700 Prai, Penang West Malaysia	Tel. +60 4 3999349 Fax +60 4 3999348 sewpg@sew-eurodrive.com.my
	Kuching	SEW-EURODRIVE SDN BHD No. 69, Lot 10899 1st Floor, Jalan Tun Jugah 93350 Kuching Sarawak East Malaysia	Tel. +60 82 572780 Fax +60 82 571780 sewswk@sew-eurodrive.com.my
	Kota Kinabalu	SEW-EURODRIVE SDN BHD East Malaysia	Tel. +60 19 7539395 sales@sew-eurodrive.com.my
	Ipoh	SEW-EURODRIVE SDN BHD West Malaysia	Tel. +60 19 7177366 sewsa@sew-eurodrive.com.my
Mexico			
Assembly Sales Service	Quéretaro	SEW-EURODRIVE MEXICO S.A. de C.V. SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Querétaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx
Sales Service	Puebla	SEW-EURODRIVE MEXICO S.A. de C.V. Calzada Zavaleta No. 3922 Piso 2 Local 6 Col. Santa Cruz Buenavista C.P. 72154 Puebla, México	Tel. +52 (222) 221 248 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx
Mongolia			
Technical Office	Ulaanbaatar	IM Trading LLC Olympic street 28B/3 Sukhbaatar district, Ulaanbaatar 14230, MN	Tel. +976-77109997 Tel. +976-99070395 Fax +976-77109997 http://imt.mn/ imt@imt.mn
Morocco			
Sales Service Assembly	Bouskoura	SEW-EURODRIVE Morocco SARL Parc Industriel CFCIM, Lot. 55/59 27182 Bouskoura Grand Casablanca	Tel. +212 522 88 85 00 Fax +212 522 88 84 50 http://www.sew-eurodrive.ma sew@sew-eurodrive.ma
Namibia			
Sales	Swakopmund	DB MINING & INDUSTRIAL SUPPLIES CC Einstein Street Strauss Industrial Park Unit1 Swakopmund	Tel. +264 64 462 738 Fax +264 64 462 734 anton@dbminingnam.com

26883198/EN – 04/2022

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New Zealand			
Assembly Sales Service	Auckland	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 30 Lodestar Avenue, Wigram Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
Technical Office	Palmerston North	SEW-EURODRIVE NEW ZEALAND LTD. C/-Grant Shearman, RD 5, Aronui Road Palmerston North	Tel. +64 6 355-2165 Fax +64 6 355-2316 sales@sew-eurodrive.co.nz
Nigeria			
Sales	Lagos	Greenpeg Nig. Ltd 64C Toyin Street Opebi-Allen Ikeja Lagos-Nigeria	Tel. +234-701-821-9200-1 http://www.greenpegltd.com sales@greenpegltd.com
Norway			
Assembly Sales Service	Moss	SEW-EURODRIVE A/S Solgaard skog 71 1599 Moss	Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no
Pakistan			
Sales	Karachi	Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Commercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi	Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk
Paraguay			
Sales	Fernando de la Mora	SEW-EURODRIVE PARAGUAY S.R.L Nu Guazu No. 642 casi Campo Esperanza Santisima Trinidad Asuncion	Tel. +595 991 519695 Fax +595 21 3285539 sewpy@sew-eurodrive.com.py
Peru			
Assembly Sales Service	Lima	SEW EURODRIVE DEL PERU S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe
Philippines			
Sales	Makati	P.T. Cerna Corporation 4137 Ponte St., Brgy. Sta. Cruz Makati City 1205	Tel. +63 2 519 6214 Fax +63 2 890 2802 mech_drive_sys@ptcerna.com http://www.ptcerna.com
Poland			
Assembly Sales Service	Łódź	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 92-518 Łódź	Tel. +48 42 293 00 00 Fax +48 42 293 00 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
	Service	Tel. +48 42 293 0030 Fax +48 42 293 0043	24 Hour Service Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl
Technical Offices	Tychy	SEW-EURODRIVE Polska Sp.z.o.o. ul. Strzelecka 66 43-109 Tychy	Tel. +48 32 32 32 610 Fax +48 32 32 32 648 tychy@sew-eurodrive.pl

26883198/EN – 04/2022

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	Posen	SEW-EURODRIVE Polska Sp.z.o.o. ul. Wschodnia 7B 62-080 Swadzim k. Poznania	Tel. +48 61 6465500 Fax +48 61 6465519
	Radom	SEW-EURODRIVE Polska Sp.z.o.o. ul. Wrocławska 10, biuro nr 7 26-600 Radom	Tel. +48 48 679 47 00 Fax +48 48 679 47 09 radom@sew-eurodrive.pl
	Rzeszów	SEW-EURODRIVE Polska Sp.z.o.o. ul. Armii Krajowej 80 35-307 Rzeszów	Tel. +48 17 784 27 00 Fax +48 17 784 27 09 rzeszow@sew-eurodrive.pl
Portugal			
Assembly Sales Service	Coimbra	SEW-EURODRIVE, LDA. Av. da Fonte Nova, n.º 86 3050-379 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt
Service Competence Center	Lisbon	SEW-EURODRIVE, LDA. Núcleo Empresarial I de São Julião do Tojal Rua de Entremuros, 54 Fracção I 2660-533 São Julião do Tojal	Tel. +351 21 958-0198 / +351 939 598 717 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt
Technical Office	Porto	SEW-EURODRIVE, LDA. Rua Monte da Bela, N.º 191, Fração X 4445-294 Ermesinde	Tel. +351 229 350 383 / +351 932 559 110 Fax +351 229 350 384 esc.porto@sew-eurodrive.pt
Romania			
Sales Service	Bucharest	Sialco Trading SRL str. Brazilia nr. 36 011783 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 http://www.sialco.ro sialco@sialco.ro
Russia			
Assembly Sales Service	St. Petersburg	ЗАО «СЕВ-ЕВРОДРАЙФ» 188660, Russia, Leningrad Region, Vse-volozhsky District, Korabselki, Aleksandra Nevskogo str. building 4, block 1 P.O. Box 36 195220 St. Petersburg	Tel. +7 812 3332522 / +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru
Technical Offices	Ekaterinburg	ЗАО «СЕВ-ЕВРОДРАЙФ» Kominterna Str. 16 Office 614 620078 Ekaterinburg	Tel. +7 343 310 3977 Fax +7 343 310 3978 eso@sew-eurodrive.ru
	Irkutsk	ЗАО «СЕВ-ЕВРОДРАЙФ» 5-Armii Str., 31 664011 Irkutsk	Tel. +7 3952 25 5880 Fax +7 3952 25 5881 iso@sew-eurodrive.ru
	Moscow	ЗАО «СЕВ-ЕВРОДРАЙФ» Malaja Semjonowskaja Str. д. 9, корпус 2 107023 Moskau	Tel. +7 495 9337090 Fax +7 495 9337094 mso@sew-eurodrive.ru
	Novosibirsk	ЗАО «СЕВ-ЕВРОДРАЙФ» pr. K Marksa 30 630087 Novosibirsk	Tel. +7 383 3350200 Fax +7 383 3462544 nso@sew-eurodrive.ru
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	Togliatti	ЗАО «СЕВ-ЕВРОДРАЙФ» Sportivnaya Str. 4B, office 2 Samarskaya obl. 445057 Togliatti	Tel. +7 8482 710529 Fax +7 8482 810590 tso@sew-eurodrive.ru

26883198/EN – 04/2022

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Serbia			
Sales	Belgrade	DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor 11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs
Singapore			
Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com
Slovakia			
Sales	Bernolákovo	SEW-Eurodrive SK s.r.o. Priemyselná ulica 6267/7 900 27 Bernolákovo	Tel.+421 2 48 212 800 http://www.sew-eurodrive.sk sew@sew-eurodrive.sk
Slovenia			
Sales Service	Celje	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net
South Africa			
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	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 bgriffiths@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 48 Prospecton Road Isipingo Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 902 3815 Fax +27 31 902 3826 cdejager@sew.co.za
	Nelspruit	SEW-EURODRIVE (PROPRIETARY) LIMITED 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za
Technical Office	Port Elizabeth	SEW-EURODRIVE (PROPRIETARY) LIMITED 8 Ruan Access Park Old Cape Road Greenbushes 6000 Port Elizabeth	Tel. +27 41 3722246 Fax +27 41 3722247 http://www.sew.co.za fsieberhagen@sew-co-za
South Korea			
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26883198/EN – 04/2022

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Assembly Service	Siheung	SEW-EURODRIVE Korea Co., Ltd. 35, Emtibeui 26-ro 58beon-gil, Siheung-si, Gyeonggi-do	http://www.sew-eurodrive.kr
Technical Offices	Daegu	SEW-EURODRIVE Korea Co., Ltd. No.303 Sungan officetel, 1834, Dalgubeol-daero, Dalseo-gu, Daegu, Zip 704-712	Tel. +82 53 650-7111 Fax +82 53 650-7112
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Spain			
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Technical Offices	Barcelona	SEW-EURODRIVE ESPAÑA, S.L. Avda. Francesc Macià, 60 – Planta 12, porta 3 Eix Macià – “Torre Milenium” 08208 Sabadell (Barcelona)	Tel. +34 93 7162200
	Madrid	SEW-EURODRIVE ESPAÑA, S.L. Gran Via. 48-2° A-D 28220 Majadahonda (Madrid)	Tel. +34 91 6342250
Sri Lanka			
Sales	Colombo	SM International (Pte) Ltd 254, Galle Raod Colombo 4, Sri Lanka	Tel. +94 1 2584887 Fax +94 1 2582981
Swaziland			
Sales	Manzini	C G Trading Co. (Pty) Ltd Simunye street Matsapha, Manzini	Tel. +268 7602 0790 Fax +268 2 518 5033 charles@cgtrading.co.sz www.cgtradingswaziland.com
Sweden			
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26883198/EN – 04/2022

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	Lake Constance and East Switzerland	Markus Künzle Eichweg 4 9403 Goldach	Tel. +41 71 845 2808 Fax +41 71 845 2809
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Tanzania			
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	Khon Kaen	SEW-EURODRIVE (Thailand) Ltd. 4th Floor, Kaow-U-HA MOTOR Bldg, 359/2, Mitraphab Road. Muang District Khonkaen 40000	Tel. +66 43 225745 Fax +66 43 324871 sewthailand@sew-eurodrive.com
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26883198/EN – 04/2022

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	Ankara	SEW-EURODRIVE Ankara Ofis 1368.Cadde Eminel İş Merkezi No: 18/68 İvedik OSB/Yenimahalle/Ankara	Tel. +90 312 385 33 90
	Bursa	SEW-EURODRIVE Bursa Ofis Beşevler Mah. Yıldırım Cd. No: 254 Karya Güçlü İş Merkezi B Blok Kat:5 No: 28 Nilüfer/Bursa	Tel. +90 224 443 45 60
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Assembly Sales Service	Northeast Region	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com
	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 332-0038 cstroy@seweurodrive.com
	Southwest Region	SEW-EURODRIVE INC. 202 W. Danieldale Rd. DeSoto, TX 75115	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com

26883198/EN – 04/2022

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	Western Region	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544	Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@seweurodrive.com
	Wellford	SEW-EURODRIVE INC. 148/150 Finch Rd. Wellford, S.C. 29385	Tel. +1 864 439-7537 Fax +1 864 661 1167 IGOrders@seweurodrive.com
	Additional addresses for service provided on request!		
Vietnam			
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	Hanoi	MICO LTD Quảng Trị - North Vietnam / All sectors except Construction Materials 8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam	Tel. +84 4 39386666 Fax +84 4 3938 6888 nam_ph@micogroup.com.vn http://www.micogroup.com.vn

26883198/EN – 04/2022

Index

A

Abbreviation key 60
Adapter for mounting of
  NEMA motors 173
  Servomotors 177
Adapters 16
Additional documentation 9
Additional documentation for
  Project planning for drives 60
Agitator gear units 28
  Strength class of the screws 185

B

Backstop 16
Bearing greases 125
Brakemotors 15
Breather valve 147, 220
  Compound gear unit 78
Breather valve in motor flange 81

C

Centering shoulder 16
Certification 15
Changing the mounting position 80
Churning losses 65
Combination options 215
Combinations, possible
  Helical gearmotors 225
  Helical-bevel gearmotors 567
  Helical-worm gearmotors 759
  Parallel-shaft helical gearmotors 408
  SPIROPLAN® gearmotors 937
  Structure of the tables 215
Compound gear unit
  Breather valve 78
  Oil drain plug 78
  Oil level plug 78
  Screw plug bore 78
Condition monitoring 35
  DUO10A 27
  DUV40A 210
  Oil aging sensor 27
  Vibration monitoring 210
Copyright notice 9

D

Design types
  Helical gearmotors 48
  Helical-bevel gearmotors 51, 52, 54
  Helical-worm gearmotors 56
  SPIROPLAN® gear units 58
  SPIROPLAN® gearmotors 935
Designs
  Helical gearmotors 223
  Helical-worm gearmotors 757
  Parallel-shaft helical gearmotors 49, 405
  SPIROPLAN® gearmotors 58
Designs, possible
  Reduced backlash 148
  SPIROPLAN® gear units 15
Diagnostic unit
  Oil aging sensor DUO10A 27
Dimension sheets
  Helical gearmotors 352
  Helical-bevel gearmotors 661
  Helical-worm gearmotors 844
  Parallel-shaft helical gearmotors 490
  SPIROPLAN® gearmotors 975
Directions of rotation 12
Dismounting using the SEW-EURODRIVE assembly/disassembly kit 155
Documentation, additional 9
Drive and gear unit selection data 60
Drive solution 6
DUO 10A
  Technical data 208
DUV40A
  Technical data 210

E

Efficiency 65
Efficiency of R, F, K, S, W gear units 64
Encoder 41
Extended storage 25

F

Fixed safety cover 203
  Part numbers and dimensions 205, 206, 207

26883198/EN – 04/22

Flange contours
FAF.., KAF.., SAF.. and WAF ... 192
FF.., KF.., SF.. and WF.. ... 190
RF.. and R..F ... 188
Food-grade lubricant
SPIROPLAN® gear unit ... 70
Force application - definition ... 73

G

Gear ratios, max. torques
Helical gearmotors ... 225
Helical-bevel gearmotors ... 567
Helical-worm gearmotors ... 759
Parallel-shaft helical gearmotors ... 408
SPIROPLAN® gearmotors ... 937
Structure of the tables ... 215
Gear unit mounting ... 185
Strength class ... 185
Gear units
Extended storage ... 25
Gear units with hollow shaft ... 157
Special motor/gear unit combinations ... 158
Gear units with hollow shafts and key
Installation/removal kit ... 149
Gearmotor
Accessibility ... 12
Heat dissipation ... 12
Installation altitude ... 11
Noise ... 11
Painting ... 11
Grease filling ... 125

H

Heavy load range ... 9
Helical gear units
Mounting positions ... 90
Type designation ... 33
Helical gearmotors ... 223
Designs ... 223
Dimension sheets ... 352
Possible geometrical combinations ... 225
Selection tables ... 261
Selection tables for low output speeds ... 336
Helical-bevel gear unit
Mounting positions ... 98
Helical-bevel gear units K..
Type designation ... 34
Helical-bevel gearmotors ... 564
Design types ... 51, 52, 54
Dimension sheets ... 661
Possible geometrical combinations ... 567
Selection tables ... 592
Selection tables for low output speeds ... 647
Variants ... 564
Helical-worm gear units
Mounting positions ... 111
Type designation ... 34
Helical-worm gearmotors ... 757
Design types ... 56
Designs ... 757
Dimension sheets ... 844
Possible geometrical combinations ... 759
Selection tables ... 785
Selection tables for low output speeds ... 828
Higher permitted overhung loads
Gear units ... 73
Hollow shaft and key, assembly/disassembly ... 149

I

Installation altitude ... 11
Installation kit for gear units with hollow shaft and key ... 149
International markets ... 15

L

Light load range ... 9
Lubricant
Compatibility with oil seal ... 127
Lubricant table ... 126
Lubricant fill quantities ... 142
Lubricant table
Notes ... 126

M

Modular automation system ... 6
Monitoring the oil temperature ... 213
Motor
Operating temperature ... 10
Motor designs ... 36
Motor flange
Breather valve, oil drain plug ... 81

26883198/EN – 04/22

Motor mounting positions 122
Motor platform 16
Mounting gear units with hollow shaft and key
Supplied fastening parts 149
Using the assembly/disassembly kit by SEW-EURODRIVE 152
Mounting of gear units 185
Mounting position
Mounting position M0 80
Mounting position MX 80
Variable mounting position 81
Mounting position sheets, key 89
Mounting positions
Helical gear units 90
Helical-bevel gear unit 98
Helical-worm gear units 111
Overview 79
Parallel-shaft helical gear units 95
SPIROPLAN® gear units 117
Multi-stage gearmotors 77

N

NOCO® fluid 21
Notes on the gearmotor dimension sheets 218

O

Oil aging sensor 27
Oil aging sensor DUO10A
Technical data 208
Oil drain plug
Compound gear unit 78
Oil drain plug in motor flange 81
Oil expansion tank 27
Oil level plug
Compound gear unit 78
Oil quantity 142
Oil seal
Lubricant compatibility 127
Oil seals 37
Operating temperature
Gear unit 10
Motor 10
Options
R.., F.., K.., S.., W.. 35
Order information 84
Overhung load
Permitted overhung load 71
Reduced overhung load 71
Overhung load conversion, gear unit constants .. 74

P

Parallel-shaft helical gear unit
Type designation 33
Parallel-shaft helical gear units
Mounting positions 95
Parallel-shaft helical gearmotors 405
Designs 49, 405
Dimension sheets 490
Possible geometrical combinations 408
Selection tables 434
Selection tables for low output speeds 474
Permitted axial load 73
Pivoted mounting position
Dynamic 80
Stationary 80
Possible geometrical combinations
Helical gearmotors 225
Helical-bevel gearmotors 567
Helical-worm gearmotors 759
Parallel-shaft helical gearmotors 408
SPIROPLAN® gearmotors 937
Product names 9
Project Planning for Drives
Additional documentation 60
Multi-stage gearmotors 77
Project planning procedure 61
Project Planning for Gear Units
Service factor 67
PT1000 213

R

R, F, K, S, W gear units
Operating temperature 10
Reduced backlash gear units 14, 148
Removal kit for gear units with hollow shaft and key 149
Rubber buffer for FA/FH/FV/FT 220

S

Safety cover 202
Fixed 202

26883198/EN – 04/22

Flat 203
Rotating 202
Screw plug bore
Compound gear unit 78
Selection tables
Gearmotors, structure of the selection tables 216
Helical gearmotors 261
Helical-bevel gearmotors 592
Helical-worm gearmotors 785
Parallel-shaft helical gearmotors 434
SPIROPLAN® gearmotors 947
Selection tables for low output speeds
Helical gearmotors 336
Helical-bevel gearmotors 647
Helical-worm gearmotors 828
Parallel-shaft helical gearmotors 474
SPIROPLAN® gearmotors 971
Self-locking helical-worm or SPIROPLAN® gear units 64
Service factor
Determining the service factor 67
SEW fB 67
SPIROPLAN® gear unit 70
SEW service factor 67
SEW-EURODRIVE
Group of companies 6
Shouldered hollow shaft with shrink disk 161
Helical-bevel gear unit 164
Helical-worm gear unit 166
Parallel-shaft helical gear units 162
Shrink disk connection 220
SPIROPLAN® gear unit
Service factor 70
SPIROPLAN® gear units
Design types 58
Mounting position M0 80
Mounting positions 117
Type designation 35
SPIROPLAN® gearmotors 935
Design types 935
Designs 58
Dimension sheets 975
Possible geometrical combinations 937
Selection tables 947
Selection tables for low output speeds 971
Splined hollow shaft 220
Stainless shrink disk or output shaft
Notes 167
Stainless steel shrink disk or output shaft
Notes 167
Strength class
Gear unit mounting 185
Structure of the selection tables 216
Surface protection 25
Swing base 17

T

Technical data 1004
DUO 10A 208
DUV40A 210
Oil aging sensor DUO10A 208
Thermal rating 65
Tolerances 218
Flanges 219
Hollow shafts 219
Multiple-spline shafts 219
Shaft ends 218
Shaft heights 218
TorqLOC® hollow shaft mounting system 159
Torque arm 220
Torque arm position 220
Trademarks 9
Type designation 45
Helical gear units 33
Helical-bevel gear units K 34
Helical-worm gear units 34
Parallel-shaft helical gear unit 33
SPIROPLAN® gear units 35
Type designation AC motors and options 36
Type designation DR..
Condition monitoring 38
Encoder 41
Storage 37
Ventilation 40
Type designation DRN..
Motor series 36

U

Universal mounting position M0 80

26883198/EN – 04/22

V

Variable mounting position 81
Variants
Helical-bevel gearmotors..... 564
Variants, possible
Brakemotors 15
RM Gearmotors..... 14
Vibration monitoring system 27
Vibration SmartCheck 27

26883198/EN – 04/22

Inquiry/order

Customer data:

Company: _____ Customer no.: _____
Department: _____
Name: _____ Phone: _____
Street/P.O. box: _____ Fax: _____
_____ Email: _____
Zip code/city: _____

Contact at SEW:

Name: _____ Phone: _____
Technical office: _____ Fax: _____

Technical data:

Quantity: _____ Desired delivery date: _____
Catalog designation: _____

Gear unit type:

☐ Helical gear units ☐ Parallel-shaft helical gear units ☐ Helical-bevel gear unit ☐ Helical-worm gear unit ☐ Spiroplan® gear units
☐ Double gear units ☐ Servo gear units ☐ Variable-speed gear unit ☐ Electrified monorail system ☐ Miscellaneous: ____

Power: _____ kW **Output speed:** _____ rpm **Output torque:** _____ Nm

Cycles/hour: _____ c/h **Cyclic duration factor:** S _____ / _____ % cdf

☐ 1-shift operation ☐ 2-shift operation ☐ 3-shift operation
☐ Regular ☐ Irregular ☐ Very irregular

Mounting position: [1)]

M1	M2	M3	M4	M5	M6	Pivoted
☐	☐	☐	☐	☐	☐	☐

Housing form:

☐ Foot-mounted ☐ Flange (bore) ☐ Flange (thread)
☐ Torque arm ☐ Miscellaneous: _____

Shaft design:

☐ Solid shaft with key ☐ Shrink disk Shaft/hollow shaft Ø: _____ mm
☐ Hollow shaft with key ☐ TorqLOC® Flange Ø : _____ mm

Shaft position (for right-angle gear units): ☐ A | ☐ B | ☐ AB

Terminal box position: ☐ 0°(R) ☐ 90°(B) | ☐ 180°(L) | ☐ 270°(T)

Cable entry: ☐X ☐1 | ☐2 | ☐3

Degree of protection:

IP54	IP55	IP56	IP65	IP66	IP69K
☐	☐	☐	☐	☐	☐

Thermal class:

130(B)	155(F)	180(H)
☐	☐	☐

Surface/corrosion protection:

KS	OS1	OS2	OS3	OS4
☐	☐	☐	☐	☐

Line voltage: _____ V
Line frequency: ☐ 50Hz ☐ 60Hz

Connection type: ☐ Δ | ☐ Y | ☐ YY | ☐ Y/Y

Energy efficiency class: ☐IE1 | ☐IE2 | ☐IE3 | ☐IE4

☐ For inverter operation: Max. frequency: _____ Hz | **Control range:** _____

Required options:

☐ Brake: Voltage _____ V Braking torque: _____ Nm
☐ Manual brake release: ☐ HR or ☐ HF
☐ Forced cooling fan: Forced cooling fan voltage: ____ V
☐ Motor protection: ☐ TF or ☐ TH
☐ Encoder: _____
☐ Plug connector connection: _____
☐ Inverter: _____
☐ RAL 7031 or ☐ RAL _____

Further options:

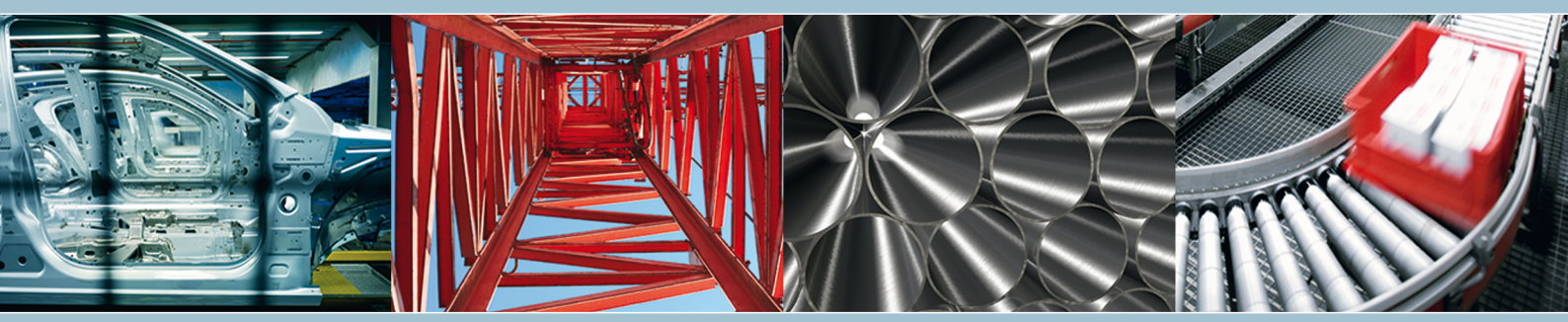
Special ambient conditions:

Temperature: from _____ °C to _____ °C | ☐ Operation outdoors | ☐ Installation altitude >1000m above NN
Further environmental conditions: _____

Miscellaneous: _____

1) see back

Place, date _____ **Signature:** _____



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Driving the world

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