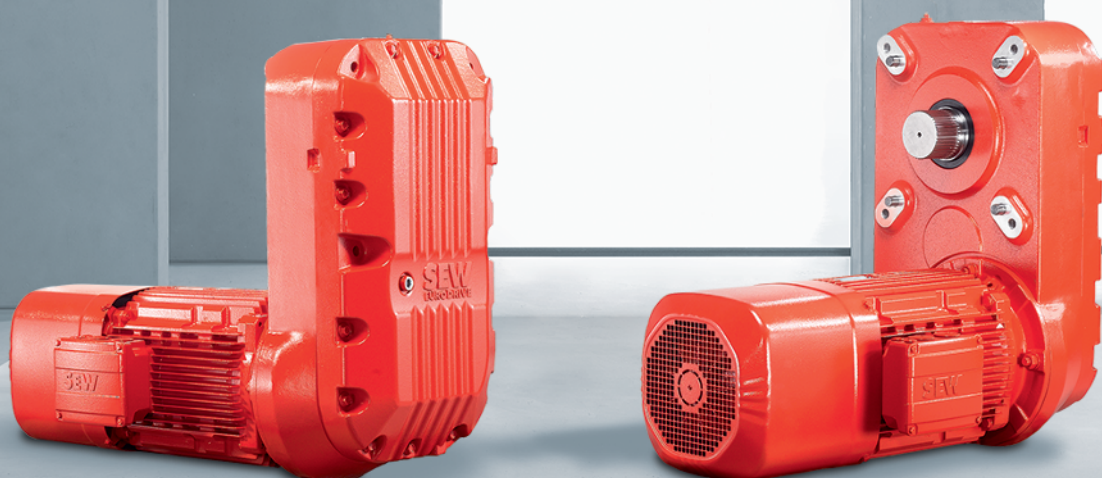




Catalog



G..7 hoist gearmotors (50 Hz)



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1 SEW-EURODRIVE

1.1 What do we stand for?

For a reliable partnership!

Humanity and partnership, solutions and services, responsibility and quality, tradition and innovation: SEW-EURODRIVE, the owner-managed family business, has stood for all this and much more for more than 90 years.

As a market leader in drive and automation technology, we don't just power countless applications in virtually every industry. With over 22000 employees, we are also playing a key role in shaping the future of drive technology. For you. Ensuring you, your systems and machines are always at the cutting edge. Not just now, but in the future as well. We want you to succeed together with us.

1.2 Where can you find us?

We are always nearby!

Our 18 production plants and 92 Drive Technology Centers in 57 countries mean we are at your service on every continent and in every corner of the world, always working with you as an equal partner and ensuring everything runs smoothly.

What makes us truly stand out from other manufacturers? With our broad customer support and service network worldwide, you never have to wait long for spare parts, repairs or professional advice.



57
countries



18
production
plants



92
Drive
Technology
Centers



> 22000
employees



Global
service



Countless
industries

1.3 What do we offer?

1

State-of-the-art drive technology and automation solutions from a single source!

Looking to modernize your processes or to construct a new system? We offer you one of the most extensive ranges of drive technology products, solutions, and services on the market. A single contact person for everything: that sounds good, doesn't it?

						
Gear units	Gearmotors	Motors	Industrial gear units	Decentralized drives/mechatronics	Inverter technology	Servo drives
						
Industrial communication	Control technology	Software	Safety technology	Energy transfer/power supply	Services	

From the very outset, our customers have been able to rely on our high quality, committed advice and support, and fast delivery times. We offer a portfolio of modular solutions that are comprehensive and unique and meet every possible need.

- Perfect combination options and solutions for every application
- Energy efficiency up to IE5
- Quick and easy selection process and project planning
- Comprehensive portfolio – from drives and motors for continuous operation to high-precision servo drives
- Special designs in stainless steel, with explosion protection, or for electrified monorail systems
- Ideal solutions for every application
- Complete automation solutions for your machine or factory and many other areas

Independent of the project scope and the complexity of your requirements: We rise to the challenge, working with you to develop the perfect solution for you – including an all-round service package throughout your entire system life cycle on request.

Predictive maintenance is just one of the service trend topics no. 1. Early diagnosis and end-to-end condition monitoring have been an essential part of our offering for many years. That's because one thing in particular matters to us – the satisfaction and trust of our customers. From planning and the operation phase all the way to modernization. Where necessary, we also take care of drives from other manufacturers.

1.4 What are the goals we want to reach with you?

We want to take you to the top!

Nothing excites us more than the future of production. We are already using Industry 4.0 principles to transform our manufacturing operations. As far as we are concerned, Industry 4.0 ceased to be a distant vision long ago – it is already a successful reality thanks to our smart factory. As a result, we have become one of the world's pioneers in this field.

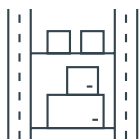
Yet we do not just focus on increasing our performance to ever greater levels. We also pass on to you the expertise, experience, and technical solutions we have gathered in implementing Industry 4.0 in our production halls. Why not find out more?

No matter how large or small your project may be, no matter how high or complex your requirements may be: We rise to the challenge, working with you to develop the perfect solution for you – including an all-round service package throughout your entire system life cycle on request.

Predictive maintenance is one of the currently trending service topics. Early diagnosis and end-to-end condition monitoring have been an essential part of our offering for many years. The only thing that counts is your satisfaction and driving forward your processes – from planning and the operation phase all the way to modernization. Where necessary, we also take care of drives from other manufacturers.

1.5 Why should you choose SEW-EURODRIVE?

Because these ten reasons speak for themselves:



1. You will be more flexible

However much the requirements for your processes and production systems increase, we're there for you every step of the way. With rapid conversions, short delivery times, enhanced capacity and faster format changeovers, we're at your side – from evaluating your needs and implementing an appropriate solution all the way to Life Cycle Services.



2. You will be more satisfied

Our name stands for the best quality. But we do not rest on our laurels. Quite the contrary, in fact. To ensure we meet all standards – both ours and yours – we undergo annual testing, including certification processes. That's because only one thing matters to us – the satisfaction and trust of our customers.



3. You will know more

We're happy to share with you the industry and application expertise we have gained over decades and extending far beyond drive technology areas. We work with you to plan and put into practice your tailored solutions in a process where you constantly evolve in tandem with us.



4. You will be more sustainable

We take responsibility for our employees, customers and business partners but also the environment in which we live and work. As a family business, we think in generations and always look beyond today and tomorrow. With us, you too can drive the future.



5. You will be more successful

Like you, we cannot afford to stand still. We provide continuous training for our employees and customers. We constantly expand our horizons and enhance our products, solutions and services, and thus your processes. You can only continue to be successful in the future with optimized workflows.



6. You will be more energy efficient

We go out of our way to find new approaches and make our drives more efficient while always staying well ahead of international regulations. And, if you wish, we work with you to plan your systems and machines so that you can make the best possible use of energy recovery.



7. You will be more innovative

What's the point of innovations if they remain out of your reach? We listen to you, which makes us fully aware of your future challenges, and we respond accordingly. With our approximately 800 researchers, we drive forward innovative technologies and help bring your processes up to date.



8. You will save more money

With us, you can lower your overall operating costs. After all, it isn't just a matter of procurement expenses. Your TCO is significantly determined by the subsequent utilization and service life of your drive technology. We provide you with comprehensive advice on how to reduce your costs through sustainable operations.



9. You will be close to us

Wherever in the world your system is running, our comprehensive service network and experts mean we're always ready to provide advice and practical assistance when you need it. All-in-one, on-site service that knows no bounds and significantly reduces or even eliminates downtimes.



10. You will be faster

Throughout the world, our service staff ensure spare parts get to you fast, and faulty drives – including third-party products – are collected and repaired quickly. Software tools make engineering and startup easier for you. Services covering your entire system life cycle help make you faster and more efficient.

1.6 Documentation

1.6.1 Contents of this documentation

This document provides a detailed description of the following product groups offered by SEW-EURODRIVE:

- G..7 hoist gearmotors in conjunction with 4-pole DRN.. motors and 12/2-pole DR2S.. motors

1.6.2 Additional documentation

In addition to this "Hoist Gearmotors G..7 Series" 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 our website at **www.sew-eurodrive.com**.

Catalogs

- "DRN63 – 315, DR2S56 – 225, DR2L71 – 225 AC Motors" catalog

Manuals

- "DR.., DRN.., DRU.., DR2.., EDR.., EDRN.. AC motors – Project planning for BE.. brakes" manual
- "Built-in encoders, add-on encoders, and safety encoders for DR.., DRN.., DRU.., DR2.., EDR.., EDRN.. AC motors" product manual

Drive Engineering – Practical Implementation

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

- "Drive engineering – Practical implementation – Project planning for controlled and non-controlled drives" project planning manual
- Collection of formulas – Project planning for controlled and non-controlled drives
- EMC in drive engineering – Basic theoretical principles and EMC-compliant installation in practice
- Efficient system automation with mechatronic drive solutions

1.7 Product names and trademarks

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

1.8 Decimal separator in numerical values

In this document, a period is used to indicate the decimal separator.

Example: 30.5 kg

1.9 Copyright notice

1

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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

When filling the gear units in accordance with the lubricant table, the following standard temperature ranges are permitted:

Gear units	Filling with	Permitted standard temperature range
G67 – G157	CLP PG VG680	-15°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.

Motors

Motors from SEW-EURODRIVE are designed for use in a temperature range between -20 °C and +40 °C.

This goes beyond 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.

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 apply 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 ratings

Standard equipment and standard lubrication of the gearmotors as well as normal ambient conditions are required for the specified power ratings.

2.1.4 Speeds

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

2.1.5 Noise

The sound power levels of the gear units, gearmotors, and motors correspond to ISO 8579-1 for gear units and gearmotors and comply with the limit values of IEC/EN 60034-9 for motors.

2.1.6 Painting

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

Gear unit	Painting
G67 – G157	Blue gray RAL 7031

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.

2.1.8 Heat dissipation and accessibility

Make sure to maintain adequate distance in the axial and radial direction when installing the drive to the driven machine. Space is required for maintenance and for air circulation for cooling.

Also observe the notes in the motor dimension sheets in the "AC Motors" catalog.

2.1.9 Weights

Note that the weight information shown in the catalogs only apply 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 the exact weight, refer to the quotation or the order confirmation.

Refer to the operating instructions for guide values regarding the lubricant fill quantities depending on the mounting position.

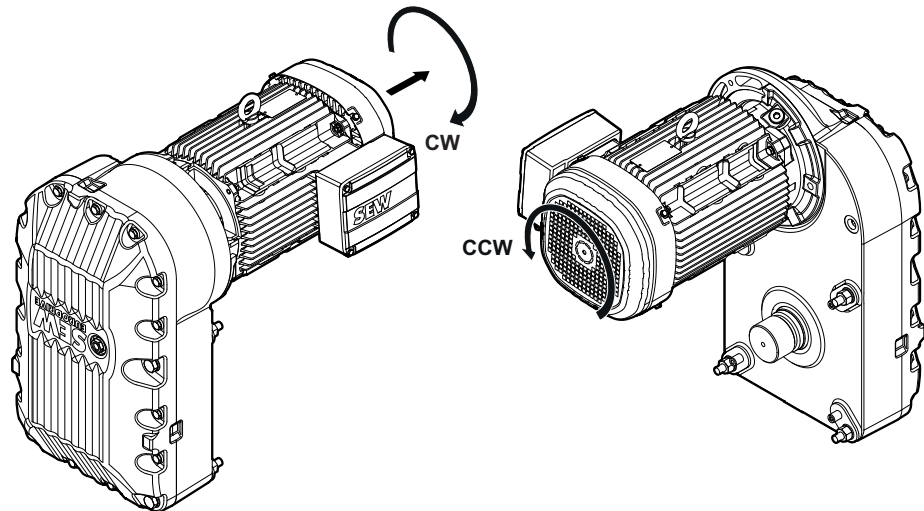
2.1.10 Directions of rotation

Direction of rotation of the motor shaft

Defined as standard in accordance with the standard IEC 60034-8:

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

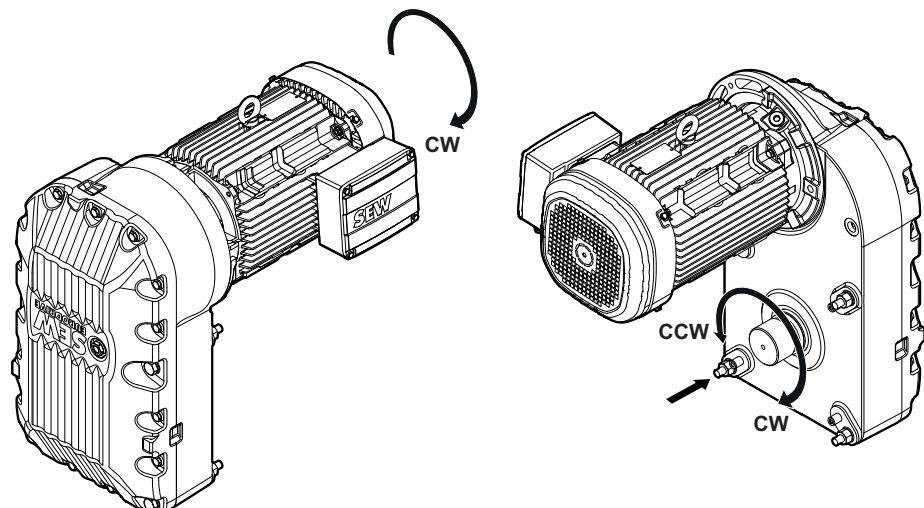
Prerequisite: Connection U1-V1-W1



Direction of rotation of the output shaft

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



Direction of rotation of the gear unit

Series	Size	Gear unit stages	Standard direction of rotation when looking onto output shaft ¹⁾
G..7	67 – 157	3	CCW

1) CW = clockwise; CCW = counterclockwise.

2.1.11 Brakemotors

The hoist gearmotors are 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. The brake therefore meets the basic safety requirements. The brake can also be released mechanically if equipped with a manual brake release. Included in the delivery is either an automatically disengaging hand lever or an adjustable set screw. The brake is controlled by a brake control that is installed in either the motor wiring space or the control cabinet.

A key feature of the brakes is the very short design. The brake endshield is also part of the motor. The integrated construction of the SEW-EURODRIVE brakemotor permits particularly compact and sturdy solutions.

2.1.12 Pole-changing motors

The SEW-EURODRIVE hoist gear units can be combined with the 12/2-pole, pole-changing DR2S.. motors.

DR2S.. motors have the following characteristics:

- They have an aluminum housing.
- They have a low weight.
- They are equipped with heavy-duty bearings.
- They meet high start/stop conditions.
- They achieve high starting torques with low starting current.
- They meet the requirements of FEM and IEC.

2.1.13 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 and to the efficiency.

For further details, refer to the relevant motor catalogs.

Depending on the selected approvals, the hoist gear units can be used in the following countries and all countries that accept the respective approval.

Contact SEW-EURODRIVE, if required.

- China
- European Union
- USA and Canada
- Brazil
- Eurasian Economic Union (EAWU)
- India
- Great Britain
- Morocco

Voltage and frequency

The following table shows the preferred voltages and the frequency of the respective markets.

Market	Frequency Hz	Voltage Volt
China	50	380
Europe	50	400
USA	60	460
Brazil	60	380 and 440
Canada	60	460 and 575
India	50	415

2.2 Corrosion and surface protection

2.2.1 General information

2

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

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

For motors, a combination of KS corrosion protection and OS surface protection offers optimum protection.

2.2.2 KS corrosion protection



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KS corrosion protection for motors consists of the following measures:

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

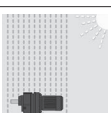
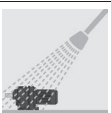
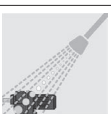
A label with the word "KORROSIONSSCHUTZ" (corrosion protection) on the fan guard indicates that special treatment has been applied.

The following motor options cannot be supplied with KS corrosion protection:

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

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. Special measure "Z" means that large contour recesses are filled with rubber before painting.

Surface protection ¹⁾²⁾		Ambient conditions	Sample applications
Standard ECO2		Suitable for machines and systems in buildings and indoor spaces with neutral atmospheres. Based on corrosivity category ³⁾ : • C1 (negligible)	• Machinery and systems in the automotive industry • Transport systems in the logistics area • 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 • Industrial doors • Agitators and mixers
OS2		Suited for environments with high humidity or medium atmospheric contamination, such as applications outdoors that are subject to direct weathering. Based on corrosivity category ³⁾ : • C3 (medium)	• Applications in amusement parks • Funiculars and chair-lifts • Applications in gravel plants • Systems in nuclear power plants
OS3		Suitable for environments with high humidity and occasional severe atmospheric and chemical contamination. Occasional acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt exposure. 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 (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 the ambient conditions.

2.3 Sealing systems

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

2.3.1 Protection against bearing currents – for maximum service life and reliability

When operating electric drives on frequency inverters, voltages are generated via the rolling bearings of the motor regardless of the motor or inverter type. The pulse width modulation method (PWM) generates a common mode voltage that triggers so-called bearing currents. These currents flow through the motor bearings and can cause premature wear.

The height and effects of the bearing currents depend on various influencing factors such as ambient conditions, operating mode and motor design. In principle, the trend toward increasing energy efficiency of modern AC motors leads to higher bearing currents. Whether these shorten the bearing service life cannot be predicted mathematically and must always be checked under real operating conditions.

Solution: The **Premium Sine Seal Conductive** sealing system (motor sizes 71 – 315) reliably protects bearings from harmful currents and thus extends the service life of drives. For particularly demanding applications, additionally insulated bearings (for motor size 200 and larger) or sine output filters can be used.

Benefits:

- ✓ Increased operational reliability:
- ✓ Extended bearing service life
- ✓ Fewer unplanned downtimes

2.3.2 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 -40 °C to +80 °C	Oil seal according to Fig. 1	≈ 10 000 h	High-quality NBR (nitrile butadiene rubber) ¹⁾
NBR conductive Sealing system with fleece to discharge bearing currents for longer bearing service life	- Speeds up to 1800 min⁻¹ - Temperature range -40 °C to +80 °C - Current passage in the motor bearings	Oil seal with electrically conductive properties based on Fig. 4	≈ 10 000 h	High-quality NBR (nitrile butadiene rubber) ²⁾ , electrically conductive fleece
FKM Sealing system for increased rotational speeds and/or increased temperatures	- Speeds up to 4500 min⁻¹ - Temperature range -25 °C to +115 °C - S3 operation (high switching frequencies)	Oil seal with optimization based on Fig. 1	≈ 10 000 h	High-quality FKM (fluorocarbon rubber mixture) ¹⁾

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
FKM conductive Sealing system with fleece to discharge bearing currents for longer bearing service life	- Speeds up to 4500 min⁻¹ - Temperature range -40 °C to +80 °C - Current passage in the motor bearings	Oil seal with electrically conductive properties based on Fig. 4	≈ 10 000 h	High-quality FKM (fluorocarbon rubber mixture) ¹⁾ , electrically conductive fleece
Premium Sine Seal³⁾ Premium sealing system for longer service life	- Speeds up to 4500 min⁻¹ - Temperature range -25 °C to +115 °C - S3 operation (high switching frequencies) - Extended maintenance interval - Especially recommended with CLP PG NSF H1 lubricants - Especially recommended with GearOil by SEW-EURODRIVE	Premium Sine Seal according to Fig. 2	≈ 20 000 h	High-quality FKM (fluorocarbon rubber mixture) ¹⁾
Premium Sine Seal conductive³⁾ Premium sealing system with fleece to discharge bearing currents for longer bearing service life	- Speeds up to 4500 min⁻¹ - Temperature range -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	≈ 20 000 h	High-quality FKM (fluorocarbon rubber mixture) ¹⁾ , fleece with electrically conductive properties

1) Nitrile butadiene rubber and fluorocarbon rubber in accordance with SEW-EURODRIVE specification 97 118_15.

2) Nitrile butadiene rubber and fluorocarbon rubber in accordance with SEW-EURODRIVE specification 97 118_15.

3) Premium Sine Seal is designated only for the A-side of the motor. An FKM oil seal is used on the B-side.

Oil side



Fig. 1



Fig. 2

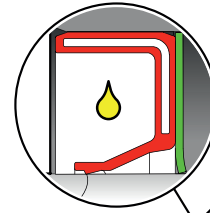


Fig. 3

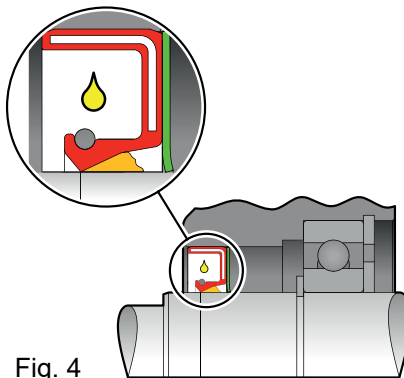


Fig. 4

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2.3.3 Output seals

Sealing system	Recommended use	Sealing system design	Recommended maintenance interval	Material
NBR Standard sealing system	- Temperature range -40 °C to +80 °C - Moderate ambient conditions	Oil seal with dust lip according to Fig. 4	≈ 10 000 h	High-quality NBR (nitrile butadiene rubber) ¹⁾

1) Nitrile butadiene rubber and fluorocarbon rubber in accordance with SEW-EURODRIVE specification 97 118_15.

👉 = Oil side

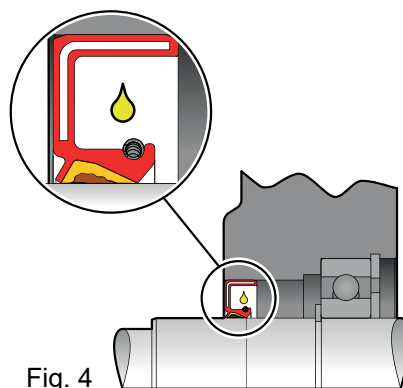


Fig. 4

38860387339

3 Overview of types and type designations

3.1 Designs and options

No adapter mounting is provided for the G..7 hoist gearmotors.

3

3.1.1 Hoist gear units

Designation	Description	Size
G..7	Hoist gear unit with splined solid shaft in accordance with DIN 5480	67 – 157

3.1.2 DRN.. and DR2S.. motors

Condition monitoring

Thermal monitoring

Designation	Description	Size
/TF	Temperature sensor (PTC thermistor or PTC resistor)	56 to 315
/TH ¹⁾	Thermostat (bimetallic switch)	56 to 315
/PT	Pt100 temperature sensor	63 to 315

1) Standard for DR2S..

Brake

Designation	Description	Size
/DUE	Diagnostic Unit Eddy Current = function/wear monitoring for BE1 to BE122 brake	80 to 315

Brake

Brake

Designation	Description	Size
/BE	Spring-loaded brake	56 to 315

Brake options

Designation	Description	Size
/HR	Manual brake release, with automatic spring-return	56 to 280

Winding

Thermal class

Designation	Description	Size
–	Thermal class F	56 to 315
–	Thermal class H	63 to 315

Environmental influences*IP degrees of protection*

Designation	Description	Size
—	IP55	56 to 315
—	IP56	56 to 315
—	IP65	56 to 315
—	IP66	56 to 315

Surface protection

Designation	Description	Size
—	OSG base coat	56 to 315
—	OS1 to OS4 surface protection	56 to 315

Encoders for DRN.. motors*Built-in encoders*

Designation	Description	Size
/EI7C ¹⁾	Built-in incremental encoder with HTL interface, 24 periods	63 to 132S
/EI76	Built-in incremental encoder with HTL interface and 6/2/1 period(s)	71 to 132S
/EI72	Built-in incremental encoder with HTL interface and 6/2/1 period(s)	71 to 132S
/EI71	Built-in incremental encoder with HTL interface and 6/2/1 period(s)	71 to 132S
/EI8R	Built-in incremental encoder with TTL interface and 1024 periods (4096 increments)	71 to 132S
/EI8C	Built-in incremental encoder with HTL interface and 1024 periods (4096 increments)	71 to 132S
/EI8Z	Built-in incremental encoder with MOVILINK® DDI interface (12 bit incremental)	71 to 132S

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

Add-on encoders

Designation	Description	Size
/EK8S ¹⁾	Add-on encoder with sin/cos interface	71 to 315
/EV8S	Add-on encoder with sin/cos interface	71 to 280
/EK8R	Add-on encoder with TTL (RS422) interface	71 to 315
/EV8R	Add-on encoder with TTL (RS422) interface	71 to 280
/EK8C	Add-on encoder with HTL interface	71 to 315
/EV8C	Add-on encoder with HTL interface	71 to 280

Designation	Description	Size
/EK8Z	Add-on incremental and single-turn encoder with MOVILINK® DDI interface (18 bit incremental)	71 to 180
/AK8W ¹⁾	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	71 to 315
/AV8W	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	71 to 280
/AK8Y ¹⁾	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	71 to 315
/AV8Y	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	71 to 280
/AK8H	Add-on absolute encoder with sin/cos and RS485 interface and HIPERFACE® protocol	71 to 315
/AV8H	Add-on absolute encoder with sin/cos and RS485 interface and HIPERFACE® protocol	71 to 280
/AK8Z	Add-on absolute encoder with MOVILINK® DDI interface (18 bit incremental, 16 bit multi-turn)	71 to 180
/AK8Z	Add-on absolute encoder with MOVILINK® DDI interface (18 bit incremental, 16 bit multi-turn)	71 to 180

1) Optionally available as safety encoder.

Type of ventilation

Designation	Description	Size
–	Fan-cooled	56 to 315
/V	Forced cooling fan	71 to 315

3.2 Type designation

The following table shows an example of a type designation:

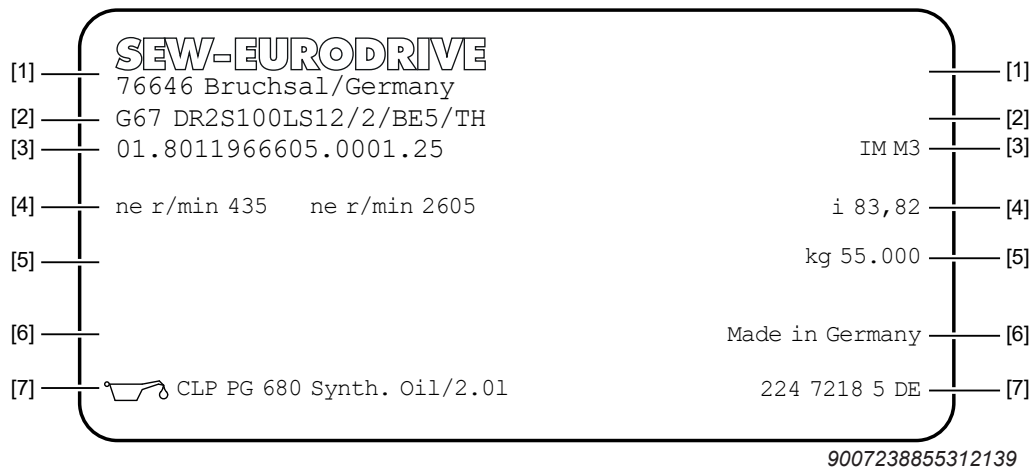
G77 DRN112M4/BE5HR/TF	
G	Gear unit type
77	Gear unit size
DRN	Motor series
112	Motor size
M	Motor length
4	Number of poles
BE5	Brake with size specification
HR	Manual brake release
TF	Thermal motor protection

3.3 Nameplates

The following figures show examples of the nameplates of a G..7 DR2S.. and G..7 DRN.. gearmotor:

3.3.1 Gear unit nameplate – G..7 DR2S.. (12/2-pole)

The following figure shows the English nameplate as an example:



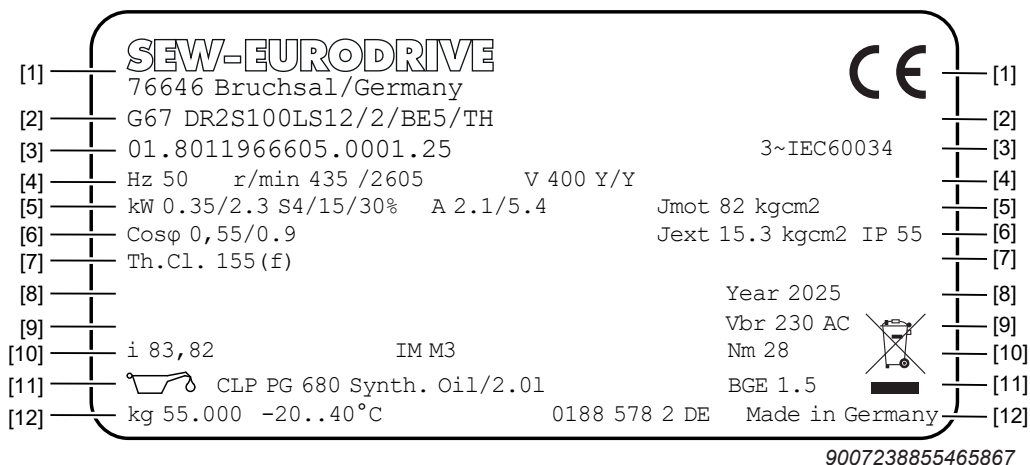
[1]	• Manufacturer, address
[2]	• Type designation
[3]	• Serial number • Mounting position
[4]	• Input speed for high number of poles • Input speed for low number of poles • Gear unit ratio
[5]	• Mass of the gearmotor
[6]	• Country of manufacture
[7]	• Oil type and oil fill volume • Nameplate number

3 Overview of types and type designations

Nameplates

3.3.2 Motor nameplate – G..7 DR2S.. (12/2-pole)

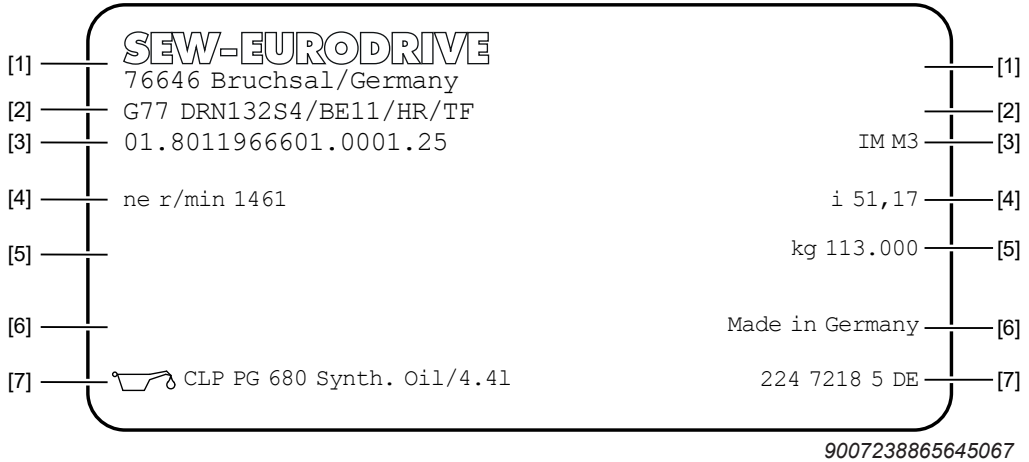
The following figure shows the English nameplate as an example:



[1]	- Manufacturer, address - CE marking
[2]	Type designation
[3]	- Serial number - Number of phases and the underlying rating and power standard
[4]	- Rated frequency - Rated speed of the motor for high and low number of poles - Nominal voltage, connection type
[5]	- Rated power, duty type - Rated current - Mass moment of inertia of the motor
[6]	- Power factor - Mass moment of inertia (external) reduced to the motor shaft - Degree of protection according to IEC/EN 60034-5
[7]	Thermal class
[8]	Year of manufacture
[9]	- Brake voltage - WEEE mark
[10]	- Gear unit ratio - Mounting position - Braking torque
[11]	- Oil type and oil fill volume - Brake control
[12]	- Mass of the gearmotor - Permitted ambient temperature range of the motor - Nameplate number - Country of manufacture

3.3.3 Gear unit nameplate – G..7 DRN.. (4-pole)

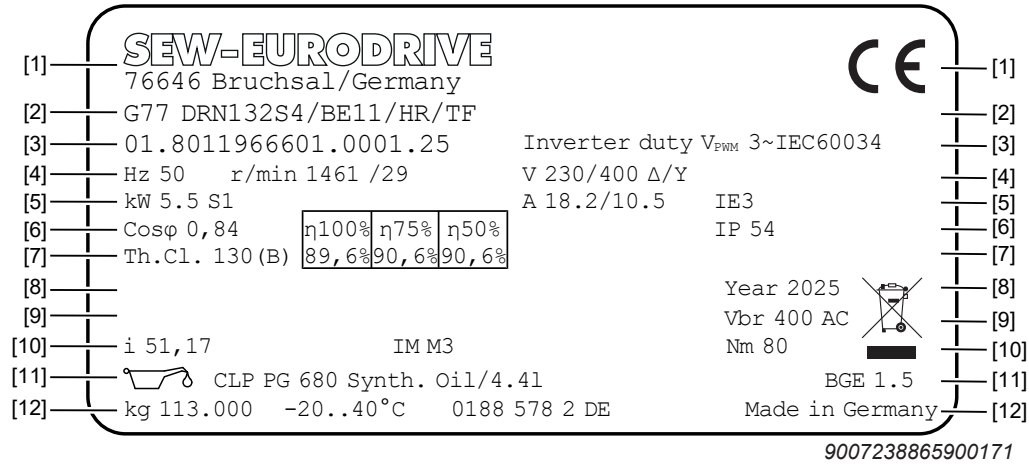
The following figure shows the English nameplate as an example:



Line	Information
[1]	• Manufacturer, address
[2]	• Type designation
[3]	• Serial number • Mounting position
[4]	• Input speed • Gear unit ratio
[5]	• Mass of the gearmotor
[6]	• Country of manufacture
[7]	• Oil type and oil fill volume • Nameplate number

3.3.4 Motor nameplate – G..7 DRN.. (4-pole)

The following figure shows the English nameplate as an example:



[1]	• Manufacturer, address • CE marking
-----	---

[2]	Type designation
[3]	- Serial number - Suitability for inverter operation
[4]	- Rated frequency - Rated speed of the motor / speed of the gear unit output shaft - Nominal voltage, connection type
[5]	- Rated power, duty type - Rated current - Energy efficiency class according to IEC 60034-30-1
[6]	- Power factor - Efficiency at X% of the rated power - Degree of protection according to IEC/EN 60034-5
[7]	Thermal class
[8]	- Year of manufacture - WEEE mark
[9]	Brake voltage
[10]	- Gear unit ratio - Mounting position - Braking torque
[11]	- Oil type and oil fill volume - Brake control
[12]	- Mass of the gearmotor - Permitted ambient temperature range of the motor - Nameplate number - Country of manufacture

3.3.5 Product label

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

In addition to the option of scanning 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.

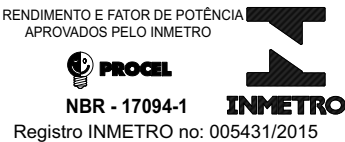
The following figure shows an example of a product label:



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3.3.6 Markings

The following table shows an example of the markings on the nameplate.

	CE marking to state compliance with European directives (see EU declaration of conformity or EU declaration of incorporation).
	UR mark to confirm that UL (Underwriters Laboratory) is informed about the registered components; register number by UL: E189357
	DoE mark to confirm compliance with US-American efficiency limit values for AC motors.
	CSAe mark for confirmation of compliance with the Canadian efficiency limit values for AC motors
	CCC logo to confirm the adherence to the Chinese regulation for small appliances.
	The UKCA mark indicates compliance with British directives (see UK declaration of conformity or UK declaration of incorporation).
	EAC mark (EurAsian Conformity) Confirms compliance with the technical regulations of the economic and customs union of Russia, Belarus, Kazakhstan, Armenia.
	BIS mark Confirmation of compliance with the Indian standard IS 12615.
	ENCE mark (Brazil) Confirmation of compliance with the Brazilian efficiency limit values for AC motors.
	CMIM logo to confirm compliance with the technical regulations of Morocco.

4 Project planning for drives

4.1 Additional documentation on project planning

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

Drive engineering – practical implementation

- "Drive engineering – Practical implementation – Project planning for controlled and non-controlled drives" project planning manual
- Collection of formulas – Project planning for controlled and non-controlled drives

Manuals

- "DR.., DRN.., DRU.., DR2.., EDR.., EDRN.. AC motors – Project planning for BE.. brakes" manual
- "Built-in encoders, add-on encoders, and safety encoders for DR.., DRN.., DRU.., DR2.., EDR.., EDRN.. AC motors" product manual

4.2 Drive and gear unit selection data

Selecting the correct drive

The correct drive can be determined by the customer using the "Selection tables and dimension sheets" (→ 59). Contact SEW-EURODRIVE if the permitted operating data deviates or is exceeded.

Determining application data

First, you require the data of the machine to be driven to select the correct drive.

Necessary information regarding the machine to be driven:

- Technical data
- Stopping accuracy
- Output speed
- Required duty type
- Travel cycle
- Other specifications (such as minimum and maximum acceleration, run-up time, etc.)
- Ambient conditions
- Country of use
- Required approvals and certifications
- Installation situation, available space
- Acceleration time, delay, cyclic duration factor and switching frequency
- Machine class according to FEM (M1 – M8)

This data helps determine the required power, torque and speed.

4.3 Project planning notes – G..7 gear units

4.3.1 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.

G..7 gear units

The gearing efficiency of G..7 hoist gear units is up to 96% (3 stage).

4.4 Project planning notes – Motors

4.4.1 Motor operation according to FEM 9.683

The FEM 9.863 standard determines the operational use of a hoist gearmotor without specifying the exact duty type.

The following table shows the minimum number of starts per hour and the minimum number of starts per hour in relation to the operating time and the number of cycles per hour.

Mechanical group		Intermittent duty			Short-time duty	
ISO	FEM	Number of cycles per hour	Starts per hour	Cyclic duration factor in %	Operating time in minutes	
					High speed	Low speed
M1	1Dm	15	90	15	7.5	1.5
M2	1Cm	20	120	20	7.5	2
M3	1Bm	25	150	25	15	2.5
M4	1Am	30	180	30	15	3
M5	2 m	40	240	40	30	3.5
M6	3 m	50	300	50	30	4
M7	4 m	60	360	60	60	5
M8	5 m	60	360	60	> 60	6

Note that the data is only valid for either intermittent duty or short-time duty.

Short-time duty

Under special conditions, such as long hoist distances, the operating time must only be dimensioned so that the permitted limit temperature is not exceeded.

In these cases, short-time duty in intermittent duty is permitted.

In this duty type, a hoist motor that is cooled down to the temperature of the cooling medium can be operated for a certain time with a load corresponding to the respective drive group.

No more than 10 starts may be performed during the operating time.

Mixed mode

In mixed mode, intermittent and short-time duty alternate.

The permitted limit temperatures will not be exceeded.

The table under "Motor operation according to FEM 9.683" (→ 34) applies to hoist motors with a lifting speed for intermittent duty.

For hoist motors with creep speed (single motor), half the cyclic duration factor should be achieved with the same switching frequency.

In case of hoist motors with 2 speeds (pole-changing motors), the table values for both windings apply together for intermittent duty.

The following speed ratios are assumed:

	Low speed	High speed
Number of starting operations per hour	2/3	1/3
Operating time	1/3	2/3

The specified switching frequency in the table under "Motor operation according to FEM 9.683" (→ 34) refers to an even distribution over an hour in which the motor reaches the nominal speed. Jog mode requires different specifications.

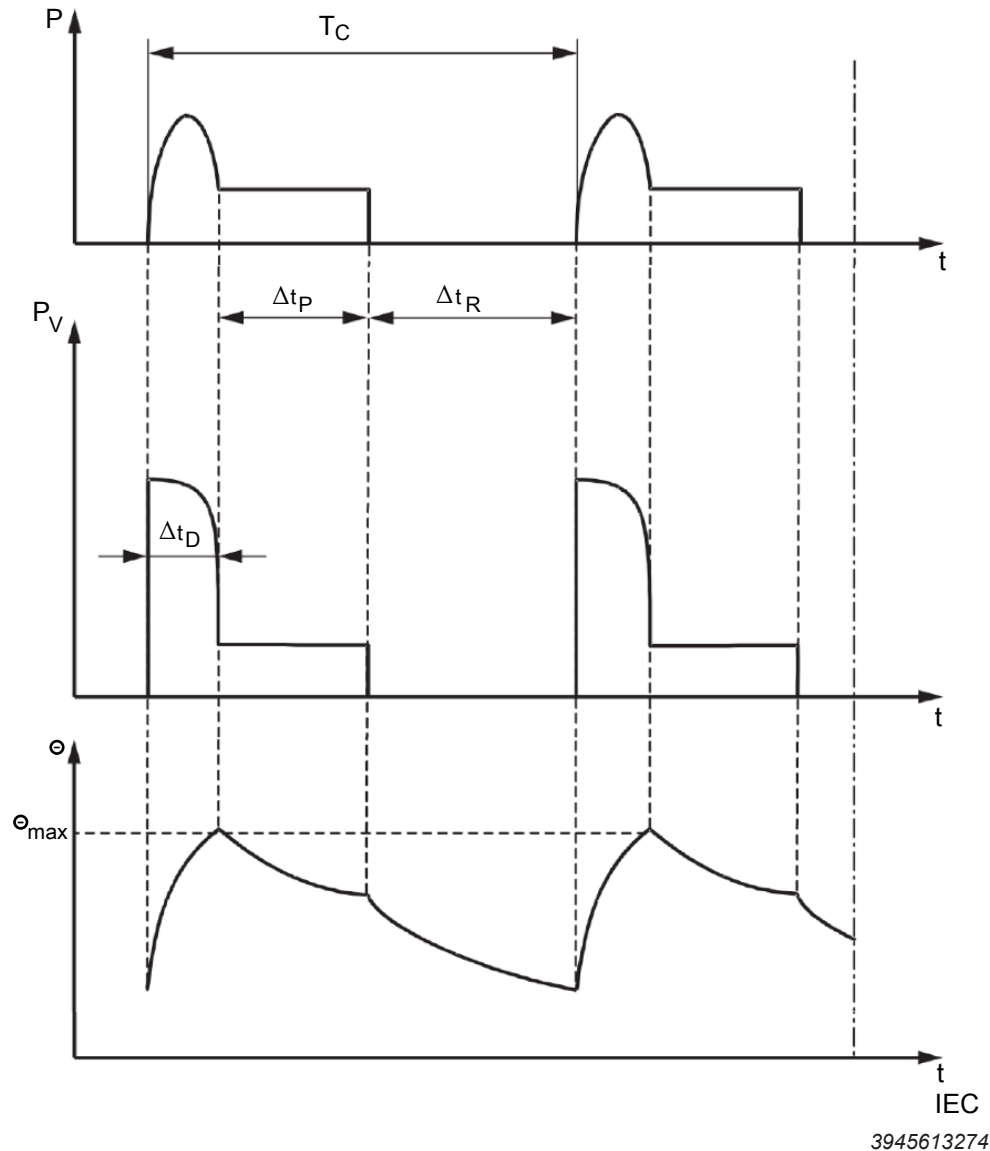
Operation of the hoist motor must correspond to the assigned duty types listed in standard FEM 9.683. The permitted cyclic duration factor and cycles per hour must be observed. The hoist motor must be operated with the higher number of poles for at least one second during all starts and stops.

4.4.2 Duty type

The duty type is **S4 15/30%** according to IEC 60034-1:

- Duty type S4 – intermittent periodic duty with startup
- Periodic duty means that the state of thermal equilibrium is not reached while the unit is under load.

A sequence of identical working cycles, with each cycle comprising a significant run-up time, an operating time at constant load and idle time in de-energized state, see the following figure.



P	Load	T_C	Cycle duration
P_V	Electrical losses	Δt_D	Run-up time
Θ	Temperature	Δt_P	Operating time with a constant load
Θ_{max}	Highest temperature	Δt_R	Idling time with de-energized windings
t	Time		

The corresponding abbreviation is S4, followed by the factor of the cycle duration, the mass moment of inertia of the motor (J_{Mot}) and the mass moment of inertia of the load (J_{ext}), both in relation to the motor shaft.

4.4.3 Example for pole-changing motors

Example for pole-changing motors	
Machine class	M5
Cyclic duration factor of the motors	S4 15/30% (based on a cycle time of 10 minutes)
Starts or stops per hour (c/h)	240
Cyclic duration factor	1/3 at low speed (approx. 500 min⁻¹) corresponds to 1.5 minutes 2/3 working at high speed (approx. 3000 min⁻¹) corresponds to 3 minutes
Permitted starts/stops per hour (c/h)	1/3 at high speed (approx. 3000 min⁻¹) corresponds to 80 c/h. 2/3 at low speed (approx. 500 min⁻¹) corresponds to 160 c/h.

4.4.4 Inverter operation

The 4-pole AC motors by 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.

For inverter-operated gearmotors, the maximum and effective values of the configuration must be observed during startup.

The acceleration times must be at least 3 seconds long to avoid increased vibration load under heavy loads. The seller is obliged to provide the data to the user.

Delta connection of the motor – 87 Hz characteristic curve

In order to provide a voltage reserve between the line voltage and rated motor voltage, a motor is selected whose rated voltage in a star connection corresponds to the line voltage. This motor is connected in delta, which makes the line voltage $\sqrt{3}$ times higher than the motor rated voltage in a delta connection.

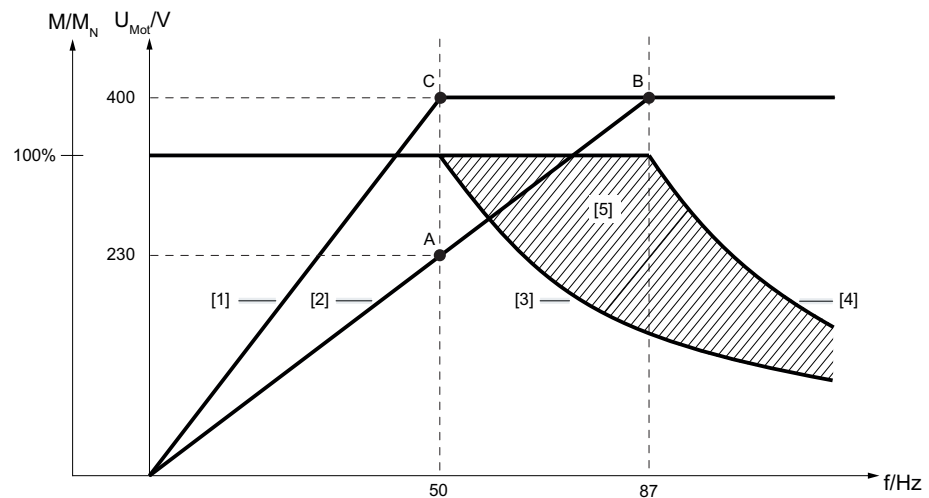
Example: Motor according to nameplate with rated voltage of 230 V Δ /400 V $\star$

The motor is connected in delta and connected to a frequency inverter. The line voltage at the input of the frequency inverter is 400 V. Due to the delta connection, the rated point of the electrical values is 230 V/50 Hz or 400 V/87 Hz.

V/f characteristic and power gain

In the following diagram, the circuit-dependent V/f characteristics are compared with the corresponding transition and rated points in star and delta connections. The transition points do not necessarily represent the rated points.

The gain in mechanical power is shown by the motor torque curves in the shaded area in the following figure.



9007225149297547

M/M_N Ratio of motor torque to rated motor torque

V_{Mot} Motor voltage

[A] Rated voltage at 230 V/50 Hz in a delta connection

[B] Transition point at 400 V/87 Hz in a delta connection

[C] Transition point (= rated point) at 400 V/50 Hz in a star connection

[1] V/f characteristic in a star connection

[2] V/f characteristic in a delta connection

[3] Curve of the motor torque as a function of the frequency in relation to [1]

[4] Curve of the motor torque as a function of the frequency in relation to [2]

[5] Gain in mechanical power

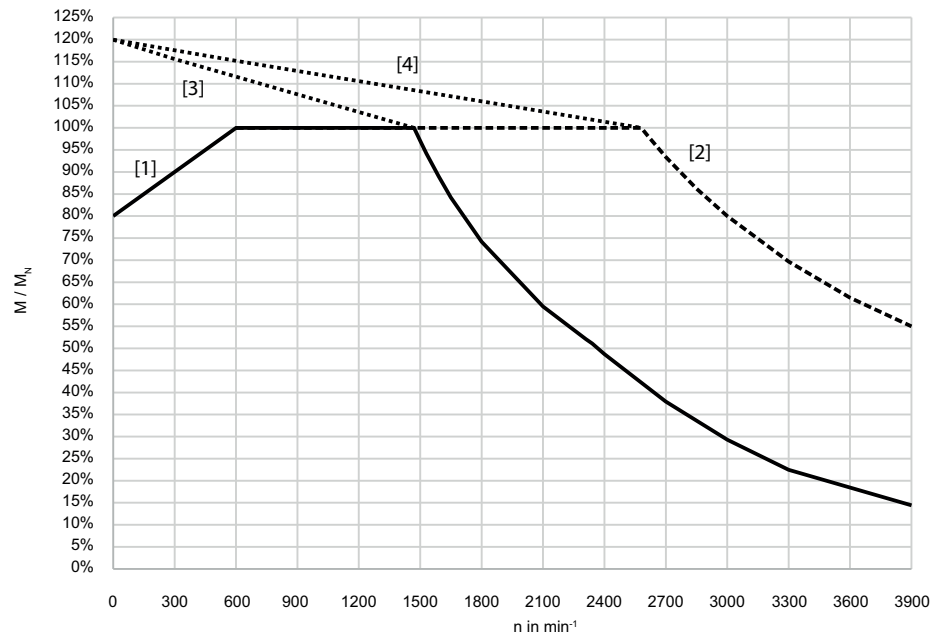
For motors rated for a frequency of 50 Hz, the base frequencies apply for star/delta connection:

- $f_{base} = 50$ Hz (connection in star)
- $f_{base} = 87$ Hz (connection in delta)

DRN.. motor, 4-pole (self-cooling and forced air cooling), $f_{base} = 50$ Hz (400 V Δ , 50 Hz) and 87 Hz (230 V Δ , 50 Hz)

The following diagrams show the thermal limit characteristics of the DRN.. motors at a base frequency f_{base} of 50 Hz in Δ connection and at a base frequency f_{base} of 87 Hz in Δ connection. A distinction is made between motors with self-cooling and forced air cooling (option forced cooling fan /V).

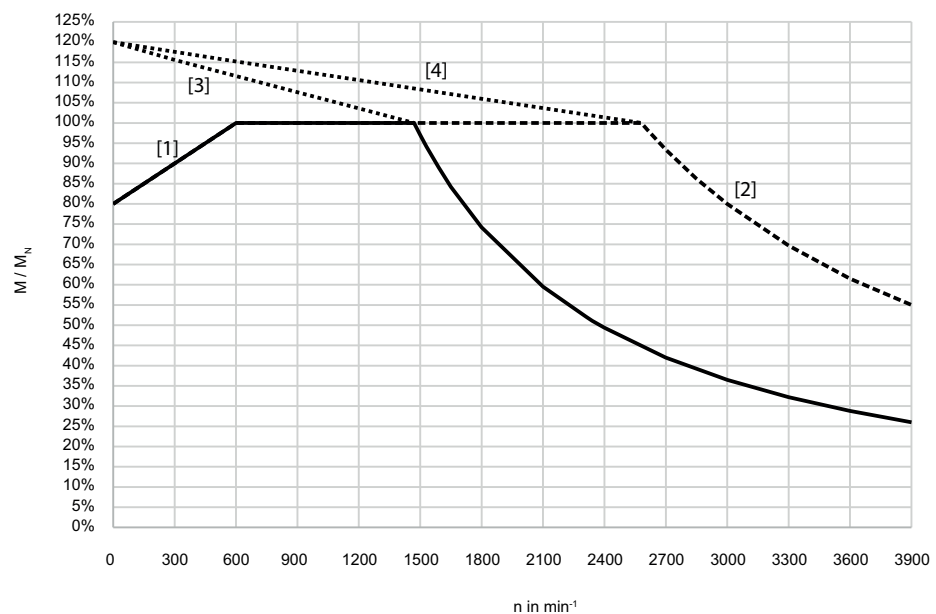
DRN63MS4 – 80MK4



36885783691

- [1] Duty type S1 with self-cooling DRN63MS4 – 80MK4 (star connection)
- [2] Duty type S1 with self-cooling DRN63MS4 – 80MK4 (delta connection)
- [3] Duty type S1 with forced air cooling DRN63MS4 – 80MK4 (star connection)
- [4] Duty type S1 with forced air cooling DRN63MS4 – 80MK4 (delta connection)

DRN80M4 – 250M4



36885786123

- [1] Duty type S1 with self-cooling DRN80M4 – 250M4 (star connection)
- [2] Duty type S1 with self-cooling DRN80M4 – 250M4 (delta connection)
- [3] Duty type S1 with forced air cooling DRN80M4 – 250M4 (star connection)
- [4] Duty type S1 with forced air cooling DRN80M4 – 250M4 (delta connection)

Operation with the 87 Hz characteristic curve

The maximum lifting speed specified in chapter "Selection tables and dimension sheets" (→ 59) is based on the following data, taking into account the 87 Hz characteristic curve and S1 duty type:

Motor type	P _N kW	M _N Nm	n _N rpm 87 Hz	I _N A 400 V	M _B Nm
DRN90L4 BE5	2.6	9.8	2571	6	28
DRN100LS4 BE5	3.8	14.4	2566	8.4	40
DRN100L4 BE5	5.2	19.7	2566	11.4	55
DRN112M4 BE11	6.9	26	2574	14	80
DRN132S4 BE11	9.5	36	2574	20.1	110
DRN132M4 BE11	13	49	2578	26.8	110
DRN132L4 BE20	15.9	60	2580	33.1	150
DRN160M4 BE20	19.1	71	2583	38.1	200
DRN160L4 BE30	26	97	2584	52	300
DRN180M4 BE30	32	120	2588	59.8	300
DRN180L4 BE32	38.1	142	2587	69.3	400

4.4.5 BE.. brake from SEW-EURODRIVE

BE.. brakes of SEW-EURODRIVE are DC-operated electromagnetic disk brakes. They open electrically and brake using spring force. The brake is installed on the B-side and integrated into the motor. The advantage is that brakemotors of SEW-EURODRIVE are very short and robust. Furthermore, SEW-EURODRIVE brake-motors are especially low-noise. This means they are especially suited for environments sensitive to noise.

The brake coil is available in various connection voltages. It is powered via a brake control which is either placed in the terminal box of the motor or in the control cabinet.

The brake is applied if the current supply is interrupted. It is therefore suited for basic safety requirements in horizontal and vertical applications (e.g. according to EN 115).

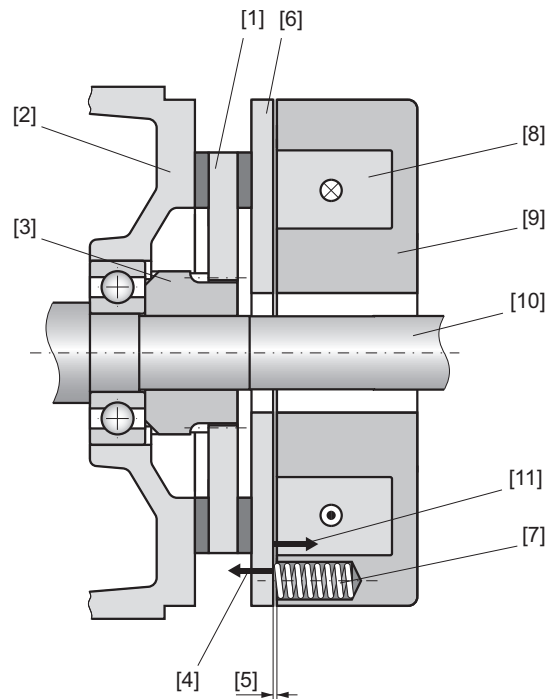
Due to the high overload capacity during emergency stops, the BE.. brake is ideally suited as a holding brake in controlled applications. The working capacity is available for emergency stop braking operations.

Motors with BE.. brake can be used in ambient temperature ranges of -40 °C to +100 °C. They can be delivered in degrees of protection IP54, IP55, IP65, and IP66.

Basic design and functional principle

The essential parts of the brake system are the mobile pressure plate [6], the brake springs [7], the brake lining carrier [1], the brake endshield [2] and the brake coil [8] (accelerator coil BS + coil section TS = holding coil HS). The magnet body consists of the magnet body housing [9] with cast winding and a tapping.

The pressure plate is forced against the brake disk by the brake springs when the electromagnet is de-energized. The brake is applied to the motor. The number and type of brake springs determine the braking torque. When the brake coil is connected to the corresponding DC voltage, the force of the brake springs [4] is overcome by magnetic force [11], thereby bringing the pressure plate into contact with the magnet body. The brake lining carrier moves clear and the rotor can turn.



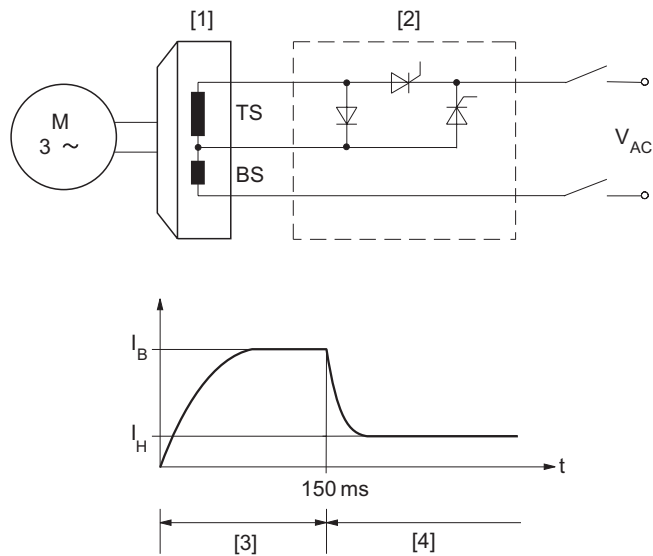
9007203239898251

- [1] Brake lining carrier
- [2] Brake endshield
- [3] Driver
- [4] Spring force
- [5] Working air gap
- [6] Pressure plate

- [7] Brake spring
- [8] Brake coil
- [9] Magnet body housing
- [10] Motor shaft
- [11] Electromagnetic force

Particularly short response times at switch-on

BE.. brakes are equipped with the two-coil system patented by SEW-EURODRIVE. When using special brake control systems from SEW-EURODRIVE with acceleration function, the brake control ensures that only the accelerator coil is switched on first, followed by the holding coil (entire coil). The powerful impulse magnetization (high acceleration current) of the accelerator coil results in a very short response time, particularly in large brakes, without reaching the saturation limit. The brake lining carrier moves clear very swiftly and the motor starts up with hardly any braking losses.



9007203239913739

BS Accelerator coil
 TS Coil section
 [1] Brake
 [2] Brake control
 [3] Acceleration
 [4] Hold
 I_B Acceleration current
 I_H Holding current
 BS + TS = Holding coil HS

The particularly short response times of the BE.. brakes from SEW-EURODRIVE have the following advantages:

- Reduced run-up time of the drive
- Minimum heating of the motor during start-up and thus energy savings with negligible brake wear during start-up.
- High switching frequency
- Long operating life of the brake lining and thus long maintenance intervals

Technical data of the brake

The variability in our modular brake design means that you can choose from up to 3 different brake sizes for installation on the motor required. Furthermore, the braking torque can also be varied by using different spring packages. The resulting multitude of braking torques also ensures the solution meets your requirements.

Brake type	M_{Bmax} Nm	Reduced braking torque M_{Bred} Nm					W_{insp} 10^6 J	t_1 10^{-3} s	t_2 10^{-3} s		PB W
									$t_{2,II}$	$t_{2,I}$	
BE2	20	14	10	7	5	–	180	17	10	68	43
BE5	55	40	28	20	14	–	390	37	10	70	49
BE11	110	80	55	40	20	–	640	41	15	82	76
BE20	200	150	110	80	55	40	1000	57	20	88	100
BE30	300	200	150	100	75	–	1500	60	16	80	130
BE32	600	500	400	300	200	150	1500	60	16	80	130

$t_{1,I}$ Response time for standard excitation

$t_{1,II}$ Response time for high-speed excitation

$t_{2,I}$ Brake application time for cut-off in the AC circuit

$t_{2,II}$ Brake application time for cut-off in the DC and AC circuit

The times stated are guide values which were determined with the brakes at operating temperature. These may vary under real application conditions.

Hoists always require cut-off in the DC and AC circuits.

Motor/brake combinations DR2S.. (12/2-pole)

Motor/brake combinations at 50 Hz							
Motor type	M _N 12-pole	M _N 2-pole	BE2	BE5	BE11	BE20	BE30 BE32
DR2S 100LS 12/2	7.7	8.4	O	28	–	–	–
DR2S 100LM 12/2	10	10	O	28	–	–	–
DR2S 100L 12/2	12.1	12.9	O	40	–	–	–
DR2S 112M 12/2	14.6	15.3	–	40	O	–	–
DR2S 132S 12/2	20.5	21.5	–	55	O	–	–
DR2S 132M 12/2	26.5	26.5	–	–	80	O	–
DR2S 132L 12/2	30.5	31.5	–	–	80	O	–
DR2S 132H 12/2	40	38	–	–	110	O	–
DR2S 160M 12/2	40	43	–	–	–	110	O
DR2S 160L 12/2	49	53	–	–	–	150	O
DR2S 160H 12/2	59	59	–	–	–	150	O

Recommended assignment, O = optional

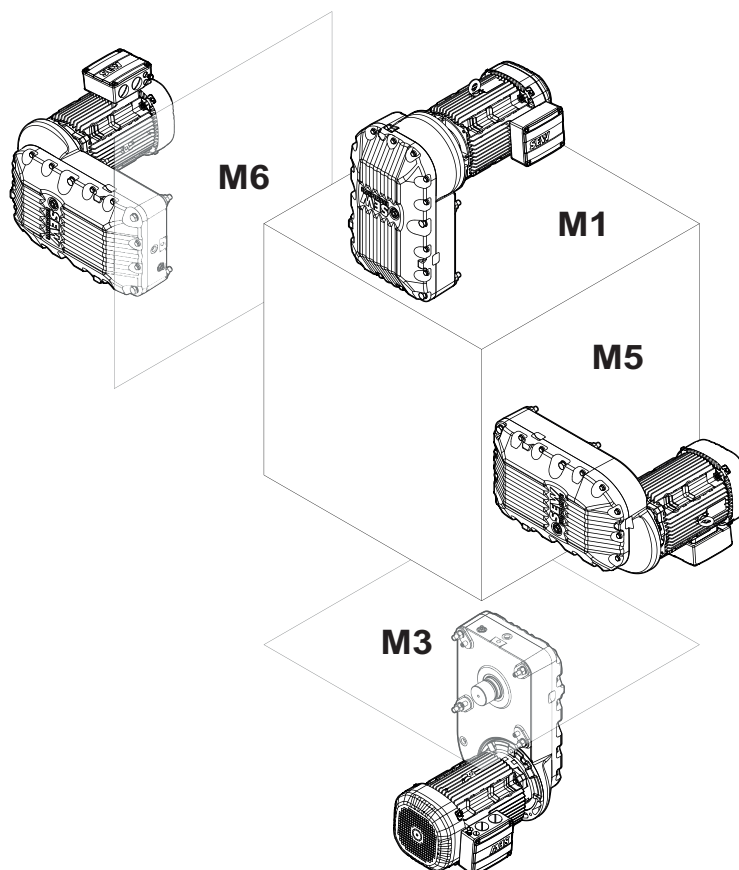
Motor/brake combinations DRN.. (4-pin)

Motor/brake combinations at 50 Hz						
Motor type	M _N	BE2	BE5	BE11	BE20	BE30 BE32
DRN 90L 4	9.8	20	O	–	–	–
DRN 100LS 4	14.5	O	28	–	–	–
DRN 100L 4	19.7	O	40	–	–	–
DRN 112M 4	26	–	55	O	–	–
DRN 132S 4	36	–	O	80	–	–
DRN 132M 4	49	–	–	110	O	–
DRN 132L 4	60	–	–	O	150	–
DRN 160M 4	71	–	–	–	150	O
DRN 160L 4	97	–	–	–	200	O
DRN 180M 4	120	–	–	–	O	300
DRN 180L 4	142	–	–	–	O	300
DRN 200L 4	142	–	–	–	–	400
DRN 225S 4	142	–	–	–	–	400
DRN 225M 4	142	–	–	–	–	500

Recommended assignment, O = optional

5 Mounting position of the gearmotors and order information**5.1 General information on mounting positions – G..7 gear units**

The following illustration shows the available mounting positions M1, M3, M5 and M6.



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5.1.1 Change of mounting position

If you want to operate the gearmotor in a different mounting position than ordered, contact SEW-EURODRIVE.

5.1.2 Gear unit in pivoted mounting position (stationary)

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.

5.1.3 Breather valve/oil drain plug position in the motor flange

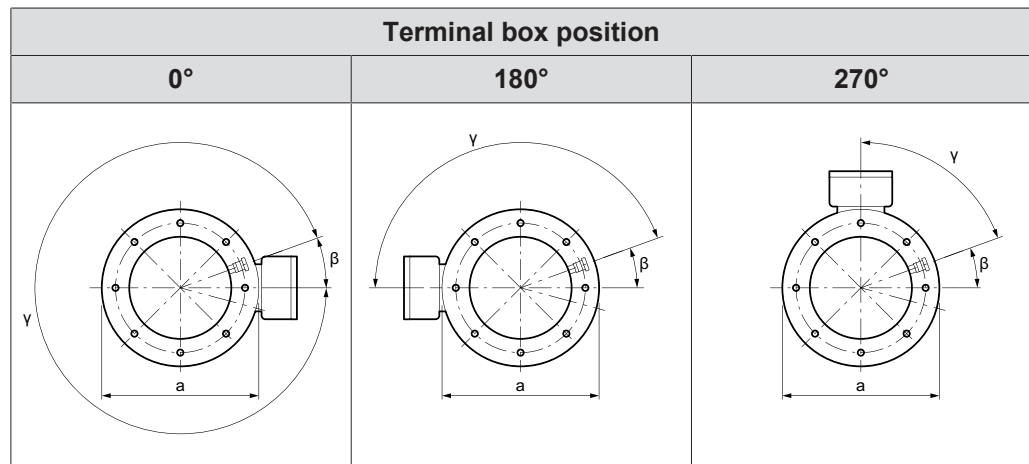
The position of the venting and oil drain depends on the mounting position of the gearmotor.

The following table lists 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, M6	In the motor flange	In the gear unit housing
M3, M5	In the gear unit housing	In the motor flange

For the exact position of the breather valve and oil drain plug, refer to "Mounting position sheets" (→ 50).

The following figures show the position of the breather valve (mounting position M1, M6) or oil drain plug (mounting position M3, M5) in the motor flange when looking at the output shaft.



[a] Flange diameter
[β, γ] Position angle

Dimension table

The following table contains the dimensions regarding the position of the venting and the oil drain:

Motor	a in mm	Mounting position	β in °	Venting	Oil drain	Terminal box po- sition	γ in °
DRN90 – DRN225, DR2S100 – DR2S160	160 – 350	M1, M6	11,25° – 45°	✓	–	0°	360° - β
						180°	180° - β
						270°	90° - β
		M3, M5		–	✓	0°	360° - β
						180°	180° - β
						270°	90° - β

5.2 Order information

The following order information is required for G..7 gear units or gearmotors in addition to the mounting position. 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.

5.2.2 Position of motor terminal box and cable entry

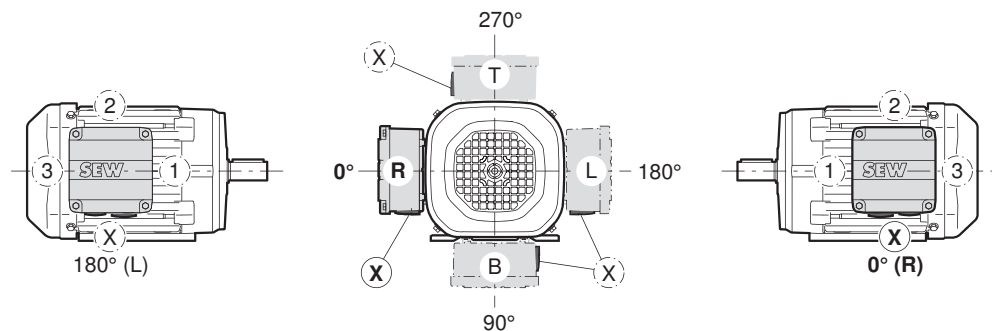
The standard IEC 60034-1 specifies the following designations for the motor terminal box positions:

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

Deviating from this standard, in case of gearmotors the position of the motor terminal box is specified with 0°, 90°, 180° or 270° as viewed onto the fan guard = B-side.

The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly.

The cable entry position is specified with x, 1, 2, 3.

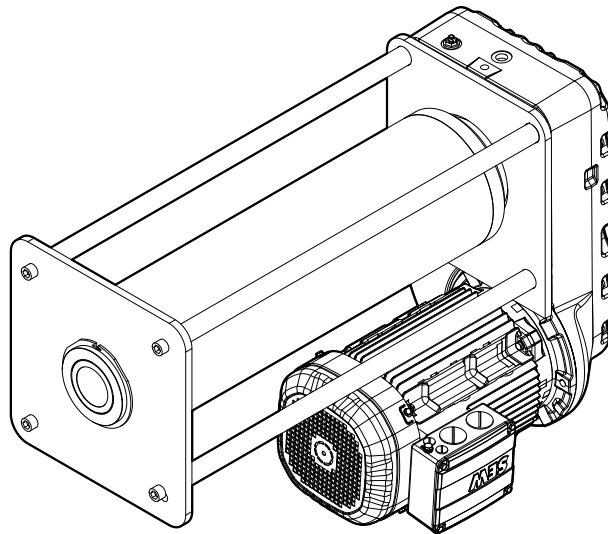


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Observe the following points for ordering:

- Unless other information is given regarding the terminal box, the R (0°) type with "X" cable entry will be supplied.
- SEW-EURODRIVE recommends selecting cable entry "2" with mounting position M3.
- When selecting the terminal box position, perform a collision check with the cable drum to be installed.
- The cable drum to be installed is not included in the delivery from SEW-EURODRIVE.
- With gearmotors, the motor is designed as flange-mounted motor for mounting to gear units.
- With terminal box position 90° (B), make sure that the terminal box has sufficient space.

Example – order information for gearmotors:



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

Mounting position of the entire drive	M3
Terminal box position	R (0°)
Cable bushing	X

Limitations

The cable entry positions X, 1, 2, 3, and terminal box positions (0° = R, 90° = B, 180° = L, 270° = T) cannot be chosen freely for all cases. Some additional motor features require a connection in the terminal box. This connection requires a larger terminal box than the standard design – in accordance with the clearance and creepage distances required in the standards.

The dimension sheets show only the standard terminal box. Dimensions not listed in the dimension sheets are available via Online Support on the SEW-EURODRIVE website in the respective CAD data.

5.2.3 Sample orders

Order examples regarding the mounting position of the complete drive, terminal box and cable entry:

Type (examples)	Mounting position	Position of terminal box	Cable entry position
G97 DR2S132H12/2/BE11/HR/TH	M3	0°	"X"
G107 DR2S160L12/2/BE20/HR/TH	M3	270°	"2"

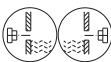
5.3 Mounting position sheets

5.3.1 Key for the mounting position sheets

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.

Symbols used

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

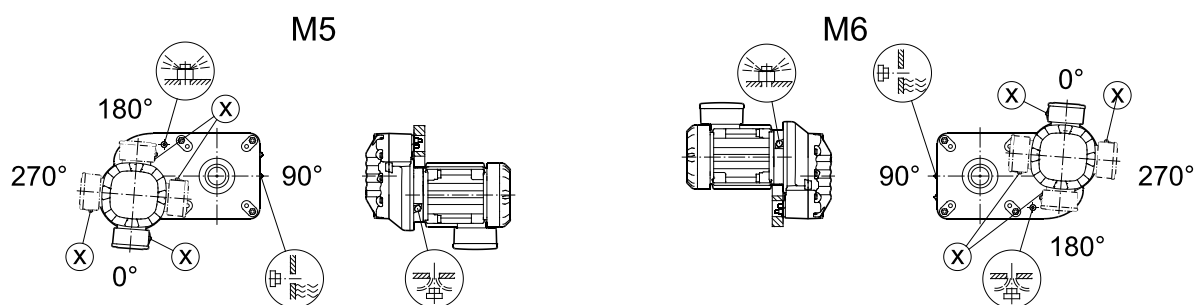
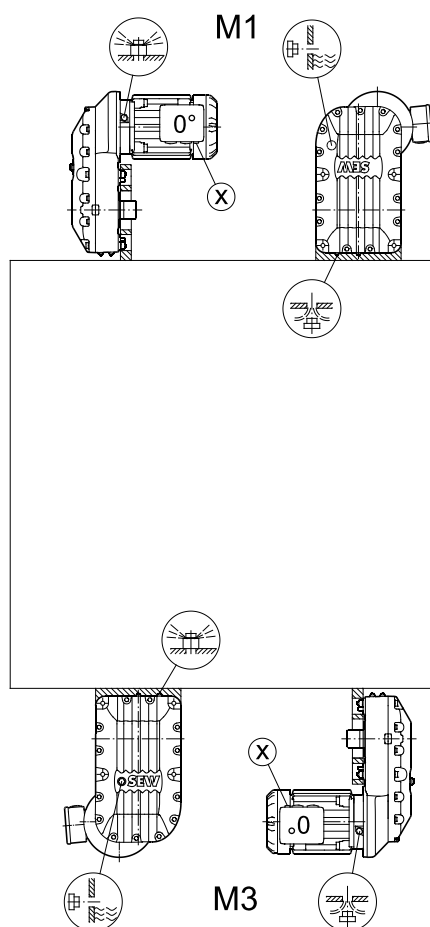
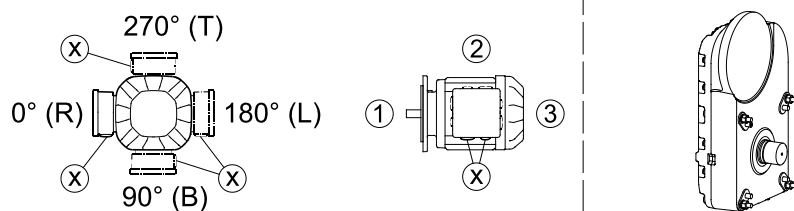
Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug

5.3.2 Mounting positions for hoist gear units

G67 – G157

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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 Bearing greases

The gear unit rolling bearings are given a factory-fill with the greases described below.

The following table shows the lubricants recommended by SEW-EURODRIVE:

Area of application	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

1) Bearing grease based on semi-synthetic base oil.

The rolling bearings do not need to be re-greased. If the rolling bearings have been washed or new ungreased rolling bearings are installed, the rolling bearings must be filled with the following grease quantities:

- **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.

If the customer wishes to use a grease that is not listed here, the customer is responsible for ensuring that the grease is suitable for the intended use.

6.1.2 Lubricant table

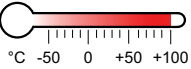
The lubricant recommendation provided in the lubricant table in no way represents a guarantee as to the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product.

Oils of the same viscosity class from different manufacturers do not have the same characteristics. In particular, the minimum and maximum permitted oil bath temperatures are manufacturer-specific. These temperatures are specified in the lubricant tables.

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 values specified in the lubricant tables apply as of the time of printing of this document. The data of the lubricants are 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

[1]	[2]	[3]
		ISO, SAE NLGI
	-15 +40	VG 460
	-25 +30	VG 220
		CLP HC - NSF H1 - PSS
	[4]	[5]

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- [1] Gear unit type
- [2] Ambient temperature range
- [3] Viscosity class
- [4] Information about special approvals
- [5] Lubricant type

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

			[3]
[1]	-15	+80	[4]
[2]	XYZ108		
	SEW070030014		[5]

- [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. Observe the information on the 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.

Key

The following table shows the symbols and abbreviations used in the lubricant table and their meaning.

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
RWDR	Oil seal
PSS	Oil seal of the Premium Sine Seal type. The addendum "PSS" for the lubricant type indicates compatibility with the sealing system.

Lubricant table for G..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 application limit of the oil seal materials under "Lubricant compatibility with oil seals" (→ 54).

	[3] °C -50 0 +50 +100		[1]	[2]	ISO, SAE NLGI	KLÜBER LUBRICATION	
	[4] -15	+40			CLP PG (PSS)	VG 680	-15 +115 Klübersynth GH 6-680

[1] Note on special approvals

[2] Oil type

[3] Ambient temperature range

[4] Standard

6.2 Gear unit venting

Dirt and dust in the environment may affect the function of the breather valves. Contact SEW-EURODRIVE regarding alternative venting systems.

6.3 Gear unit mounting

Always mount gearmotors using screws of strength class 8.8.

7 Important information on selection tables and dimension drawings

7.1 Selection tables for gearmotors

7.1.1 Structure of the selection tables

The selection tables show which combinations of gear unit and AC (brake-)motor are possible.

The technical data refers to the drum diameter and the rope insertion, which are specified above each table.

The G..7 DRN../DR2S.. hoist gearmotors are always 3-stage.

The weight specifications refer to the no-load weight of the gear unit (without oil) and may vary depending on the selected motor options.

The following example shows the structure of the selection tables.

For an explanation of the used abbreviations, refer to chapter "Key to the data tables" (→ 59).

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
3.2	M5 / 2m	0.5 ~ 3.4	2.6	G67 DRN90L4 BE5	83.82	28	50.6
		0.6 ~ 3.6			79.15		
		0.7 ~ 4.2	3.8	G67 DRN100LS4 BE5	67.39	40	60.1
		0.8 ~ 4.6			61.24		
		0.9 ~ 5.3			53.05		
		1.0 ~ 6.1			46.17		
	M4 / 1m	1.0 ~ 6.3	5.2	G67 DRN100L4 BE5	44.43	55	61.6
		1.2 ~ 7.4			37.74		
		1.3 ~ 8.1			34.3		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

7.2 Technical data of the motors

7.2.1 Structure of the motor tables

The motor tables show the technical data of the motors.

The G..7.. hoist gear units can be combined with two types of motors:

1. DRN.. motors, 400 V, 50 Hz, 4-pole, energy efficiency class IE3
2. DR2S.. motors, 400 V, 50 Hz, 12/2-pole, duty type S4 15/30%

The following example shows the structure of the motor tables.

For an explanation of the used abbreviations, refer to chapter "Key for the data tables" (→ 85).

Motor type	P_N kW	M_N Nm	n_N min ⁻¹	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	$\frac{M_A/M_N}{M_H/M_N}$	M_K/M_N
DRN 90L 4	1.5	9.8	1461	3.4	0.74	84.6	86.1	85.6	7.5	$\frac{2.7}{2.0}$	3.3

Motor type	P_N kW	M_N Nm	n_N min ⁻¹	m_{Mot} kg	J_{mot} 10 ⁻⁴ kgm ²	BE..	Z_0 BG BGE h ⁻¹	M_B Nm	m_{BMot} kg	J_{BMot} 10 ⁻⁴ kgm ²
DRN 90L 4	1.5	9.8	1461	23	67.2	BE2	$\frac{2200}{5800}$	20	27	71.9

7.3 Dimension sheet information

7.3.1 Symbols for scope of delivery

The scope of delivery is indicated in the dimension sheets using the following shapes:



Standard parts supplied by SEW-EURODRIVE.



Standard parts not supplied by SEW-EURODRIVE.

7.3.2 Eyebolts, lifting eyes

The G67 – G157 hoist gear units are supplied with screw-off lifting eyebolts as transport devices.

Gear unit/motor type	Removable		Cast-on lifting eyes
	eyebolts	lifting eyes	
G67 – G157	✓	—	—

✓ = present, — = not present

7.3.3 Breather valves

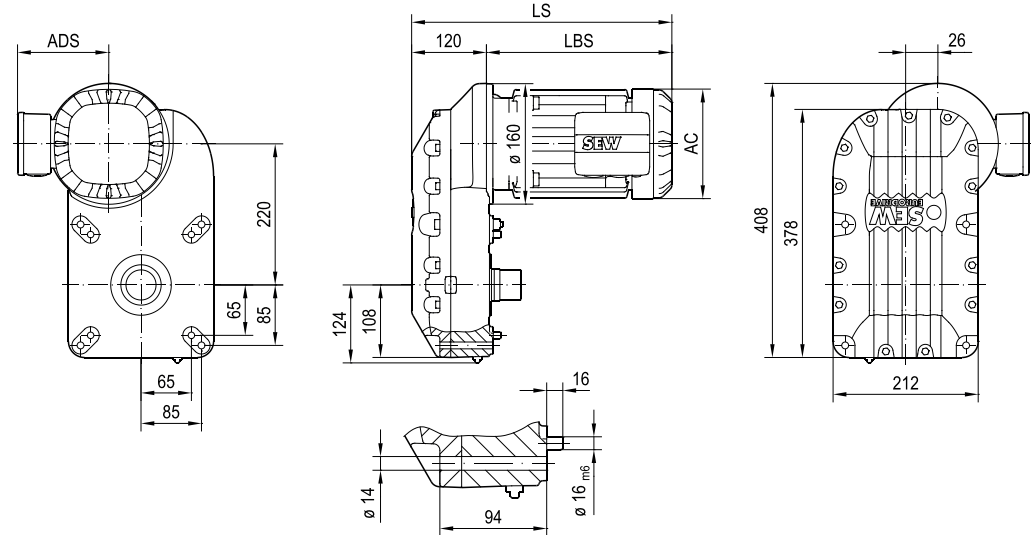
The gear unit dimension drawings are always shown with screw plugs. Depending on the mounting position ordered (M1 to M6), the corresponding screw plug is replaced with an activated breather valve at the factory. As a result, the contour dimensions can change slightly.

7.3.4 Splined hollow shaft

The G67 – G157 hoist gear units are supplied with a splined solid shaft according to standard DIN 5480.

7.3.5 Gearmotor dimension drawings

The dimension designations of the gearmotors are described below:



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- LBS Length of brakemotor
- LS Total length of gearmotor including brake
- AC Square dimension of the motor
- ADS Center of brakemotor shaft to top edge of terminal box

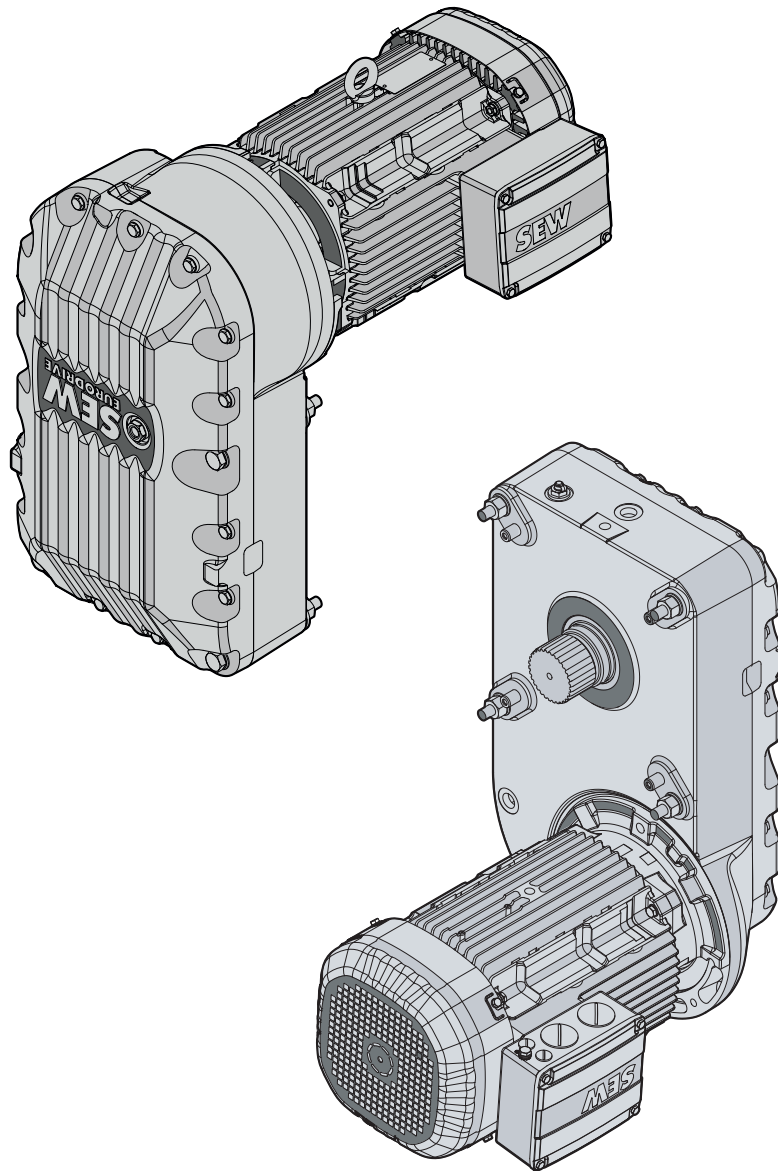
The motor dimensions may change when installing motor options. Refer to the dimension drawings of the motor options in the "AC Motors" catalog.

Note that the terminal box dimensions of special designs may differ from the standard.

8 Technical data

8.1 Design types G..7 DRN../DR2S..

G..7 DRN../DR2S..



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8.2 Selection tables and dimension sheets

8.2.1 Key to the data tables

The following table lists the abbreviations used in the "Technical data" tables:

t	Load
ISO / FEM	Mechanical group
m/min	Lifting speed
kW	Motor power with delta connection and 87 Hz operation
i	Gear ratio
Nm	Braking torque
kg	Mass (no-load weight)

8.2.2 G..7 DRN.. hoist gearmotors (4-pole) | 15 Hz to 87 Hz

G67 DRN..

This table applies to the following values:

- Drum diameter: 140 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
3.2	M5 / 2m	0.5 ~ 3.4	2.6	G67 DRN90L4 BE5	83.82	28	50.6
		0.6 ~ 3.6			79.15		
		0.7 ~ 4.2	3.8	G67 DRN100LS4 BE5	67.39	40	60.1
		0.8 ~ 4.6			61.24		
		0.9 ~ 5.3			53.05		
		1.0 ~ 6.1			46.17		
	M4 / 1m	1.0 ~ 6.3	5.2	G67 DRN100L4 BE5	44.43	55	61.6
		1.2 ~ 7.4			37.74		
		1.3 ~ 8.1			34.3		
2.5	M6 / 3m	0.5 ~ 3.4	2.6	G67 DRN90L4 BE5	83.82	28	50.6
		0.6 ~ 3.6			79.15		
		0.7 ~ 4.2	3.8	G67 DRN100LS4 BE5	67.39	40	60.1
		0.8 ~ 4.6			61.24		
		0.9 ~ 5.3			53.05		
		1.0 ~ 6.1			46.17		
	M5 / 2m	1.0 ~ 6.3	5.2	G67 DRN100L4 BE5	44.43	55	61.6
		1.2 ~ 7.4			37.74		
		1.3 ~ 8.1			34.3		
2	M7 / 4m	0.5 ~ 3.4	2.6	G67 DRN90L4 BE5	83.82	28	50.6
		0.6 ~ 3.6			79.15		
		0.7 ~ 4.2	3.8	G67 DRN100LS4 BE5	67.39	40	60.1
		0.8 ~ 4.6			61.24		
		0.9 ~ 5.3			53.05		
		1.0 ~ 6.1			46.17		
	M6 / 3m	1.0 ~ 6.3	5.2	G67 DRN100L4 BE5	44.33	55	61.6
		1.2 ~ 7.4			37.74		
		1.3 ~ 8.1			34.3		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G77 DRN..

This table applies to the following values:

- Drum diameter: 170 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
6.3	M5 / 2m	0.5 ~ 2.9	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.5 ~ 3.1	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.6 ~ 3.5			96.92		
		0.6 ~ 3.9			87.32		
		0.7 ~ 4.5	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		0.8 ~ 5.1			67.59		
		0.9 ~ 5.7	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.1 ~ 6.7			51.17		
		1.1 ~ 6.9			49.39		
5	M6 / 3m	0.5 ~ 2.9	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.5 ~ 3.1	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.6 ~ 3.5			96.92		
		0.6 ~ 3.9			87.32		
		0.7 ~ 4.5	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		0.8 ~ 5.1			67.59		
		0.9 ~ 5.7	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.1 ~ 6.7			51.17		
		1.1 ~ 6.9			49.39		
4	M7 / 4m	0.5 ~ 2.9	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.5 ~ 3.1	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.6 ~ 3.5			96.92		
		0.6 ~ 3.9			87.32		
		0.7 ~ 4.5	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		0.8 ~ 5.1			67.59		
		0.9 ~ 5.7	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.1 ~ 6.7			51.17		
		1.1 ~ 6.9			49.39		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G77 DRN..

This table applies to the following values:

- Drum diameter: 215 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
5	M5 / 2m	0.6 ~ 3.7	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.6 ~ 3.9	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.7 ~ 4.5			96.92		
		0.8 ~ 5.0			87.32		
		0.9 ~ 5.6	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		1.0 ~ 6.4			67.59		
		1.2 ~ 7.2	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.4 ~ 8.5			51.17		
		1.4 ~ 8.8			49.39		
4	M6 / 3m	0.6 ~ 3.7	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.6 ~ 3.9	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.7 ~ 4.5			96.92		
		0.8 ~ 5.0			87.32		
		0.9 ~ 5.6	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		1.0 ~ 6.4			67.59		
		1.2 ~ 7.2	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.4 ~ 8.5			51.17		
		1.4 ~ 8.8			49.39		
3.2	M7 / 4m	0.6 ~ 3.7	3.8	G77 DRN100LS4 BE5	116.85	40	78.8
		0.6 ~ 3.9	5.2	G77 DRN100L4 BE5	110.74	55	79.8
		0.7 ~ 4.5			96.92		
		0.8 ~ 5.0			87.32		
		0.9 ~ 5.6	7.0	G77 DRN112M4 BE11	76.6	80	90.3
		1.0 ~ 6.4			67.59		
		1.2 ~ 7.2	9.6	G77 DRN132S4 BE11	59.92	110	109
		1.4 ~ 8.5			51.17		
		1.4 ~ 8.8			49.39		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G97 DRN..

This table applies to the following values:

- Drum diameter: 266 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
12.5	M5 / 2m	0.5 ~ 3.1	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.5			152.74		
		0.6 ~ 3.9	13	G97 DRN132M4 BE11	137.50	110	178.9
		0.7 ~ 4.3			124.52		
		0.8 ~ 4.9			110.42		
	M4 / 1m	0.9 ~ 5.4	16	G97 DRN132L4 BE20	99.84	150	195
		1.0 ~ 6.4			84.62		
10	M6 / 3m	0.5 ~ 3.1	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.5			152.74		
		0.6 ~ 3.9	13	G97 DRN132M4 BE11	137.50	110	178.9
		0.7 ~ 4.3			124.52		
		0.8 ~ 4.8			110.42		
	M5 / 2m	0.9 ~ 5.4	16	G97 DRN132L4 BE20	99.84	150	195
		1.0 ~ 6.3			84.62		
8	M7 / 4m	0.5 ~ 3.1	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.5			152.74		
		0.6 ~ 3.9	13	G97 DRN132M4 BE11	137.50	110	178.9
		0.7 ~ 4.3			124.52		
		0.8 ~ 4.8			110.42		
	M6 / 3m	0.9 ~ 5.4	16	G97 DRN132L4 BE20	99.84	150	195
		1.0 ~ 6.3			84.62		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G97 DRN..

This table applies to the following values:

- Drum diameter: 295 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
12.5	M4 / 1m	0.6 ~ 3.5	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.9	13	G97 DRN132M4 BE11	152.74	110	178.9
		0.7 ~ 4.3			137.50		
		0.8 ~ 4.8			124.52		
		0.9 ~ 5.4	16	G97 DRN132L4 BE20	110.42	150	195
		1.0 ~ 6.0			99.84		
10	M5 / 2m	0.6 ~ 3.5	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.9			152.74		
		0.7 ~ 4.3			137.50		
		0.8 ~ 4.8	13	G97 DRN132M4 BE11	124.52	110	178.9
		0.9 ~ 5.4			110.42		
		1.0 ~ 6.0			99.84		
		1.1 ~ 7.0	16	G97 DRN132L4 BE20	84.62	150	195
8	M6 / 3m	0.6 ~ 3.5	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.9			152.74		
		0.7 ~ 4.3			137.50		
		0.8 ~ 4.8	13	G97 DRN132M4 BE11	124.52	110	178.9
		0.9 ~ 5.4			110.42		
		1.0 ~ 6.0			99.84		
		1.1 ~ 7.0	16	G97 DRN132L4 BE20	84.62	150	195
6.3	M7 / 4m	0.6 ~ 3.5	9.6	G97 DRN132S4 BE11	170.89	110	156.6
		0.6 ~ 3.9			152.74		
		0.7 ~ 4.3			137.50		
		0.8 ~ 4.8	13	G97 DRN132M4 BE11	124.52	110	178.9
		0.9 ~ 5.4			110.42		
		1.0 ~ 6.0			99.84		
		1.1 ~ 7.0	16	G97 DRN132L4 BE20	84.62	150	195

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G107 DRN..

This table applies to the following values:

- Drum diameter: 295 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
20	M5 / 2m	0.5 ~ 3.0	13	G107 DRN132M4 BE11	198.4	110	254.9
		0.6 ~ 3.4	16	G107 DRN132L4 BE20	174.9	150	274
		0.6 ~ 3.8			157.9		
		0.7 ~ 4.1	19	G107 DRN160M4 BE20	143.4	200	312
		0.8 ~ 4.7			127.2		
		0.8 ~ 5.2	26	G107 DRN160L4 BE30	115.5	300	336
	M4 / 1m	1.0 ~ 6.0			99.3		
16	M6 / 3m	0.5 ~ 3.0	13	G107 DRN132M4 BE11	198.4	110	254.9
		0.6 ~ 3.4	16	G107 DRN132L4 BE20	174.9	150	274
		0.6 ~ 3.8			157.9		
		0.7 ~ 4.1	19	G107 DRN160M4 BE20	143.4	200	312
		0.8 ~ 4.7			127.2		
		0.8 ~ 5.2	26	G107 DRN160L4 BE30	115.5	300	336
	M5 / 2m	1.0 ~ 6.0			99.3		
		1.1 ~ 6.9			86.6		
		1.3 ~ 8.1			73.5		
12.5	M7 / 4m	0.5 ~ 3.0	13	G107 DRN132M4 BE11	198.4	110	254.9
		0.6 ~ 3.4	16	G107 DRN132L4 BE20	174.9	150	274
		0.6 ~ 3.8			157.9		
		0.7 ~ 4.1	19	G107 DRN160M4 BE20	143.4	200	312
		0.8 ~ 4.7			127.2		
		0.8 ~ 5.2	26	G107 DRN160L4 BE30	115.5	300	336
	M6 / 3m	1.0 ~ 6.0			99.3		
		1.1 ~ 6.9			86.6		
		1.3 ~ 8.1			73.5		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G107 DRN..

This table applies to the following values:

- Drum diameter: 325 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
25	M4 / 1m	0.5 ~ 3.3	19	G107 DRN160M4 BE20	198.4	200	312
		0.6 ~ 3.7			174.9		
		0.7 ~ 4.1	26	G107 DRN160L4 BE30	157.9	300	336
20	M5 / 2m	0.5 ~ 3.3	16	G107 DRN132L4 BE20	198.4	150	274
		0.6 ~ 3.7			174.9		
		0.7 ~ 4.1	19	G107 DRN160M4 BE20	157.9	200	312
	M4 / 1m	0.7 ~ 4.6			143.4		
		0.8 ~ 5.2	26	G107 DRN160L4 BE30	127.2	300	336
		0.9 ~ 5.7			115.5		
16	M6 / 3m	0.5 ~ 3.3	16	G107 DRN132L4 BE20	198.4	150	274
		0.6 ~ 3.7			174.9		
		0.7 ~ 4.1	19	G107 DRN160M4 BE20	157.9	200	312
	M5 / 2m	0.7 ~ 4.6			143.4		
		0.8 ~ 5.2			127.2		
		0.9 ~ 5.7			115.5		
		1.1 ~ 6.6	26	G107 DRN160L4 BE30	99.3	300	336
		1.2 ~ 7.6			86.6		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G157 DRN..

This table applies to the following values:

- Drum diameter: 405 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
40	M4 / 1m	0.8 ~ 4.5	40	G157 DRN180L4 BE32	153.9	400	463
		1.0 ~ 5.2			133.2		
32	M5 / 2m	0.8 ~ 4.5	30	G157 DRN180M4 BE30	153.9	300	442
		1.0 ~ 5.2			133.2		
		1.1 ~ 5.9	40	G157 DRN180L4 BE32	117.6	400	463
25	M5 / 2m	1.0 ~ 5.2	30	G157 DRN180M4 BE30	133.2	300	442
		1.1 ~ 5.9			117.6		
		1.3 ~ 6.9	40	G157 DRN180L4 BE32	101.5	400	463
		1.5 ~ 7.8			89.8		
20	M5 / 2m	1.3 ~ 6.9	30	G157 DRN180M4 BE30	101.5	300	442
		1.5 ~ 7.8			89.8		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G157 DRN..

This table applies to the following values:

- Drum diameter: 405 mm
- Reeving: 6/1

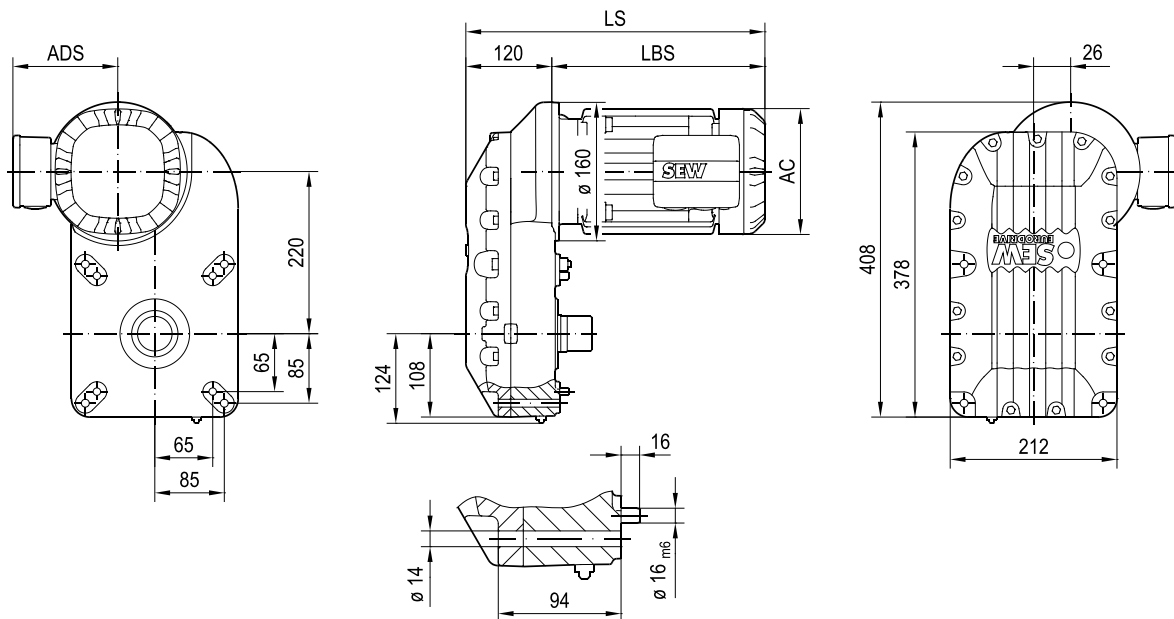
Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
63	M4 / 1m	0.7 ~ 3.0	40	G157 DRN180L4 BE32	153.9	400	463
50	M4 / 1m	0.8 ~ 4.0			117.6		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

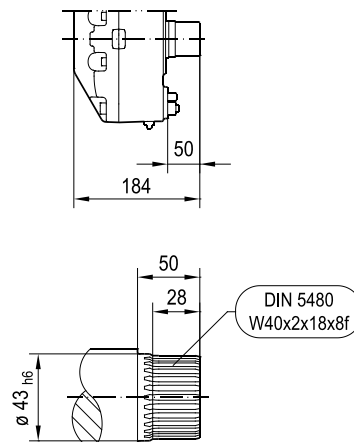
Dimension sheets

G67..

10 003 00 19



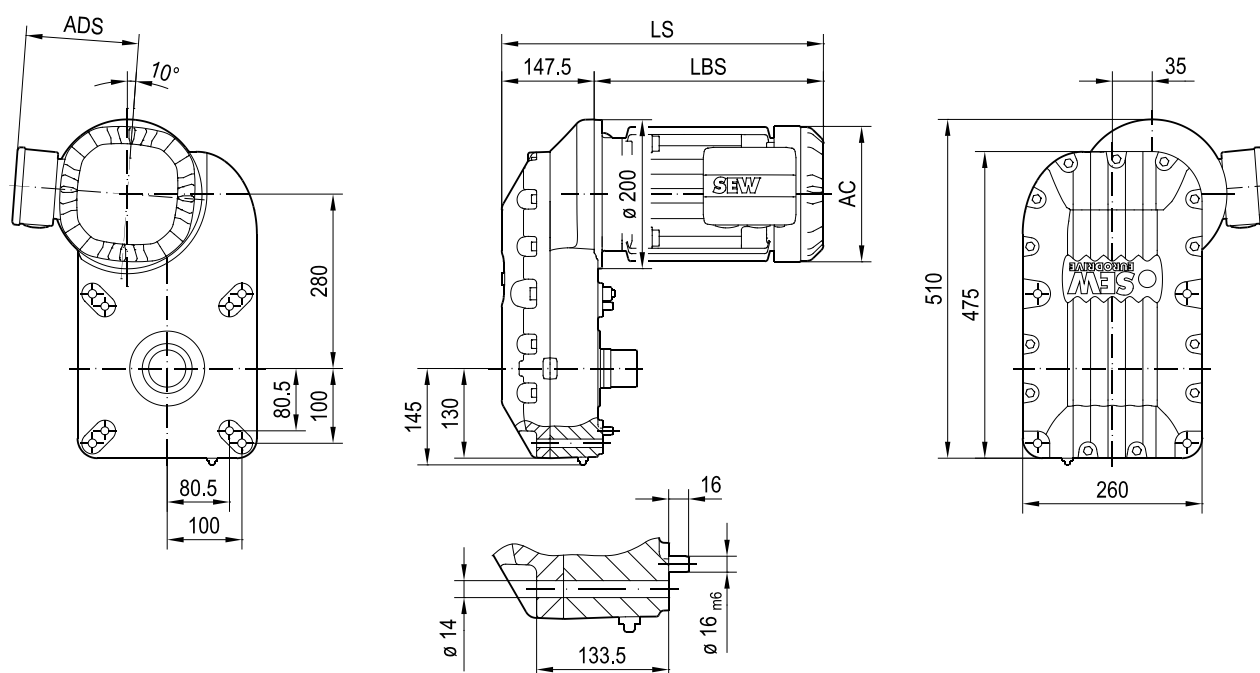
**DIN 5480
W40x2x18x8f**



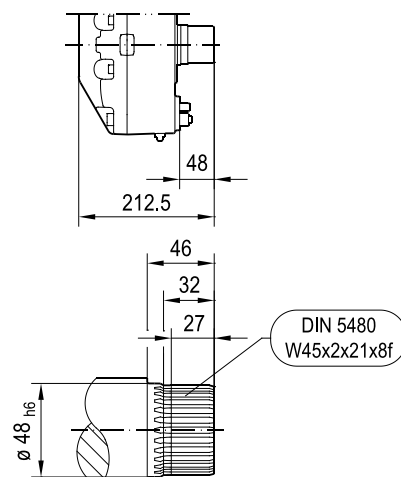
(→ ▢ ←)	DRN90S	DRN90L	DRN100LS	DRN100L/LM	DRN112M	DRN132S
AC	179	179	197	197	221	221
ADS	150	150	158	158	172	172
LS	491	523	519	569	618	672
LBS	371	403	399	449	498	552

G77..

10 004 00 19



DIN 5480 W45x2x21x8f

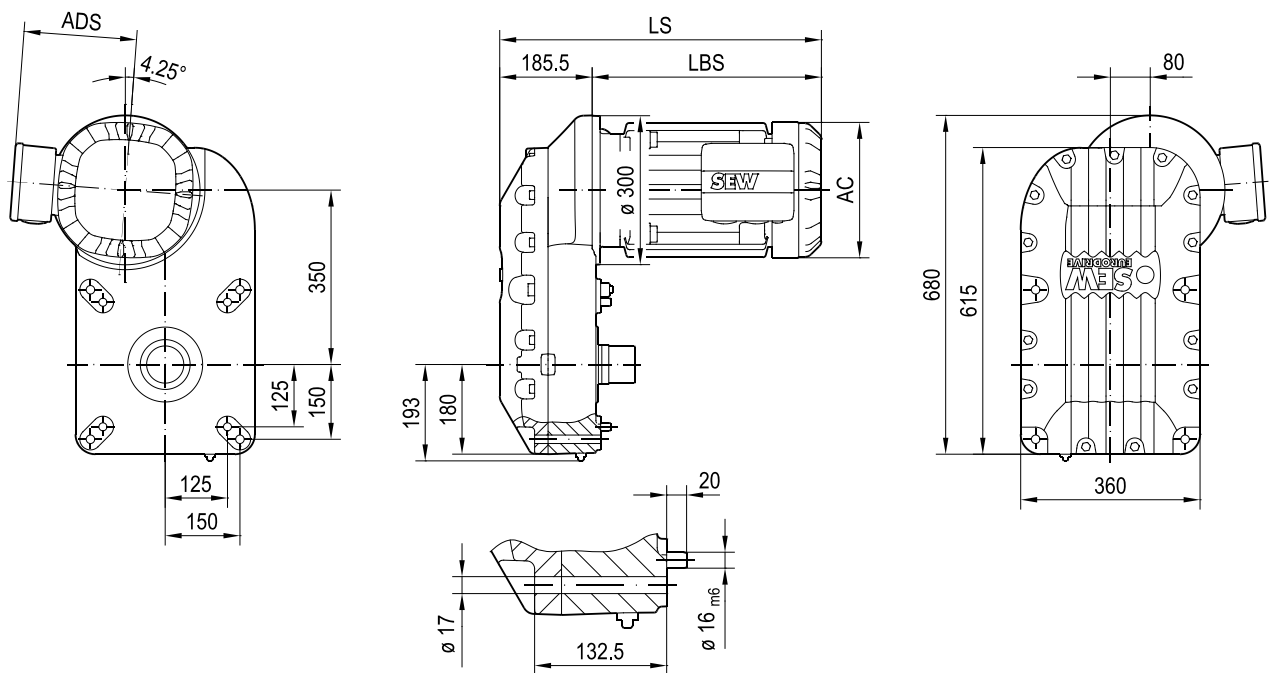


(→ -)	DRN100LS	DRN100L/LM	DRN112M	DRN132S	DRN132M	DRN132L
AC	197	197	221	221	261	261
ADS	158	158	172	172	228	228
LS	539	589	639	689	732	757
LBS	392	442	491	541	585	610

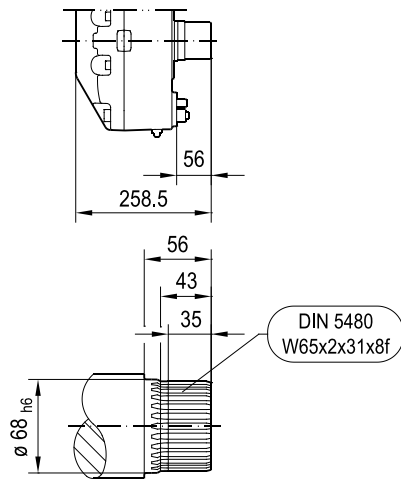
33954747/EN – 04/2026

G97..

10 005 00 19



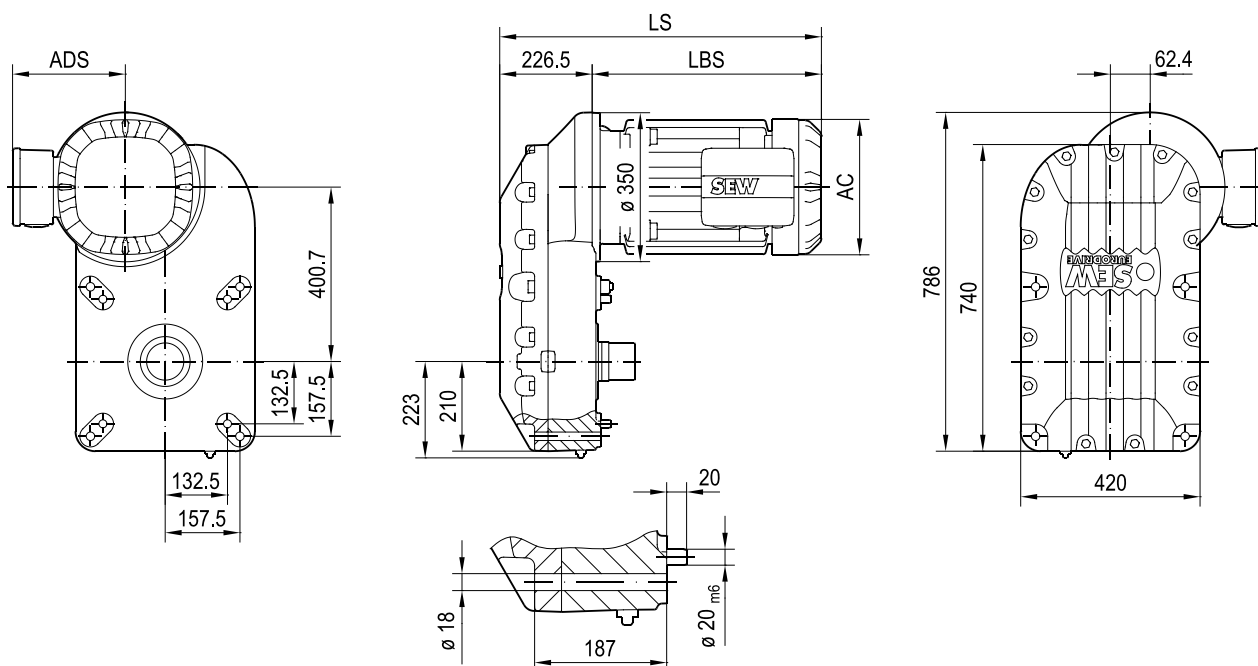
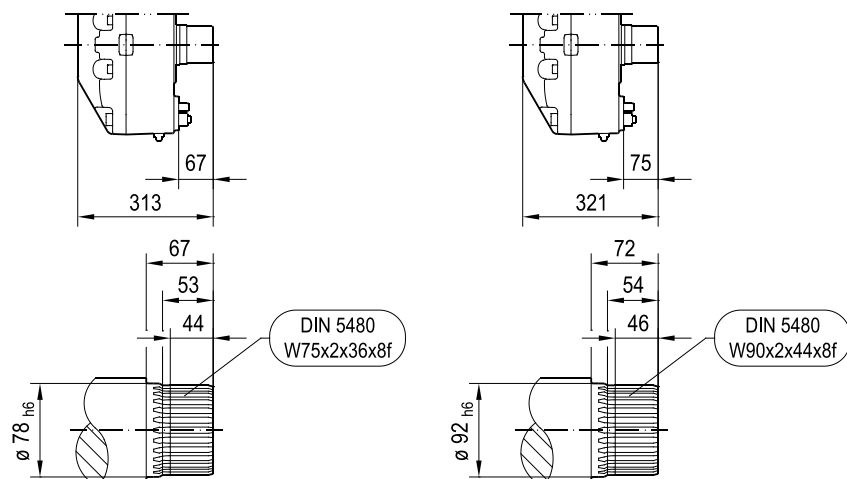
DIN 5480
W65x2x31x8f



(→ -)	DRN112M	DRN132S	DRN132M	DRN132L	DRN160..			
AC	221	221	261	261	314			
ADS	172	172	228	228	253			
LS	667	717	760	785	904			
LBS	481	531	575	600	718			

G107..

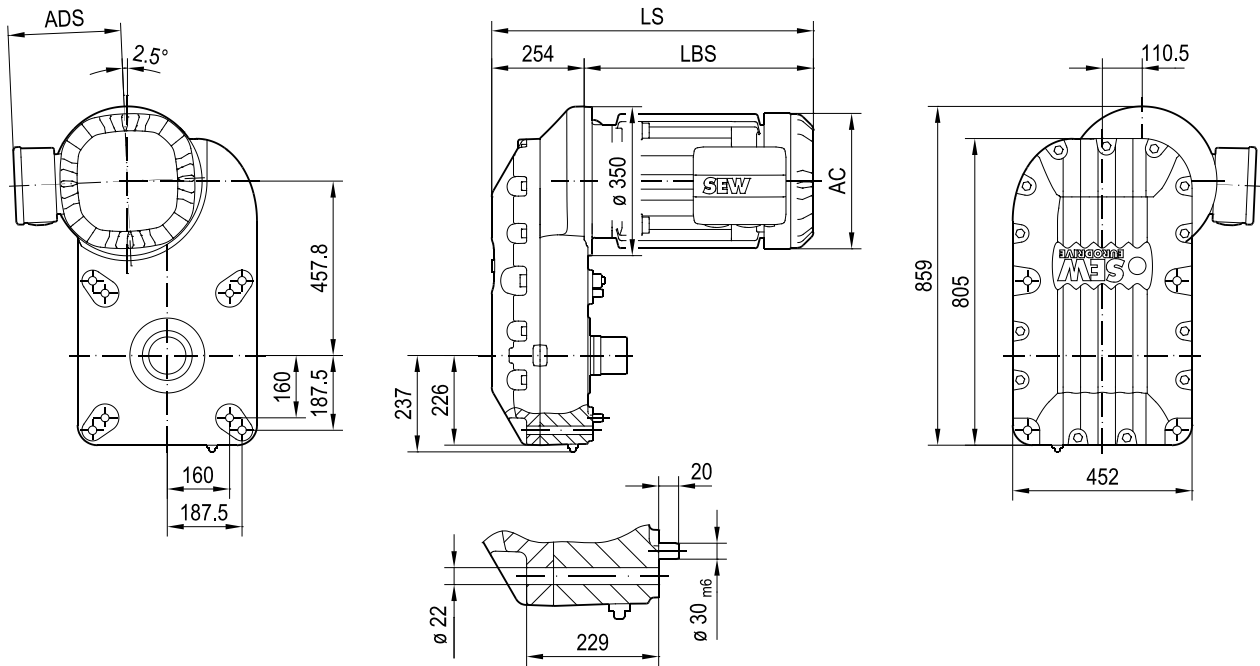
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DIN 5480
W90x2x44x8f


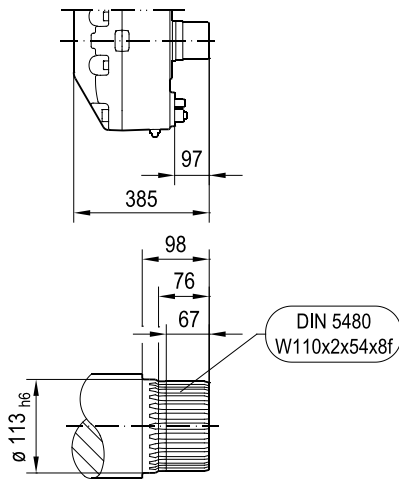
(→  -)	DRN132L	DRN160..	DRN180..	DRN200L	DRN225..			
AC	261	314	357	394	434			
ADS	228	253	268	283	305			
LS	820	939	962	1087	1062			
LBS	594	712	735	861	835			

G157..

10 007 01 19



DIN 5480
W110x2x54x8f



(→ -)	DRN132L	DRN160..	DRN180..	DRN200L	DRN225..			
AC	261	314	357	394	434			
ADS	228	253	268	283	305			
LS	848	967	990	1115	1090			
LBS	594	712	735	861	835			

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8.2.3 G..7 DR2S.. hoist gearmotors (12/2-pole)

G67 DR2S..

This table applies to the following values:

- Drum diameter: 140 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
3.2	M5 / 2m	0.5 / 3.0	0.35 / 2.3	G67 DR2S100LS12/2 BE5	95.27	28	54.5
		0.5 / 3.4			83.82		
		0.6 / 3.6			79.15		
		0.7 / 4.2	0.45 / 2.8	G67 DR2S100LM12/2 BE5	69.68	28	60.1
		0.8 / 4.8	0.55 / 3.6	G67 DR2S100L12/2 BE5	61.24	40	61.6
		0.9 / 5.0			59.1		
		1.0 / 5.6			53.05		
2.5	M6 / 3m	0.5 / 3.0	0.35 / 2.3	G67 DR2S100LS12/2 BE5	95.27	28	54.5
		0.5 / 3.4			83.82		
		0.6 / 3.6			79.15		
		0.7 / 4.2	0.45 / 2.8	G67 DR2S100LM12/2 BE5	69.68	28	60.1
		0.8 / 4.8			61.24		
		0.9 / 5.0			59.1		
		1.0 / 5.6	0.55 / 3.6	G67 DR2S100L12/2 BE5	53.05	40	61.6
	M5 / 2m	1.1 / 6.3			46.94		
		1.2 / 6.6			44.33		
		1.4 / 7.8			37.74		
2	M6 / 3m	1.1 / 6.3	0.55 / 3.6	G67 DR2S100L12/2 BE5	46.94	40	61.6
		1.2 / 6.6			44.33		
		1.4 / 7.8			37.74		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G77 DR2S..

This table applies to the following values:

- Drum diameter: 170 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
6.3	M5 / 2m	0.5 / 3.0	0.65 / 4.2	G77 DR2S112M12/2 BE5	116.85	40	90.4
		0.6 / 3.2			110.74		
		0.7 / 3.7	0.9 / 6.1	G77 DR2S132S12/2 BE5	96.92	55	101.8
		0.7 / 4.2			87.32		
		0.8 / 4.7			76.6		
		0.9 / 5.2	1.2 / 7.5	G77 DR2S132M12/2 BE11	67.59	80	131.2
		1.1 / 5.8			59.92		
		1.2 / 7.1	1.4 / 9.0	G77 DR2S132L12/2 BE11	51.17	80	140
		1.3 / 7.4			49.39		
5	M6 / 3m	0.5 / 3.2	0.65 / 4.2	G77 DR2S112M12/2 BE5	110.74	40	90.4
		0.6 / 3.7			96.92		
		0.7 / 4.2			87.32		
		0.7 / 4.7	0.9 / 6.1	G77 DR2S132S12/2 BE5	76.6	55	101.8
		0.8 / 5.2			67.59		
		0.9 / 5.8	1.2 / 7.5	G77 DR2S132M12/2 BE11	59.92	80	131.2
		1.1 / 7.1			51.17		
		1.2 / 7.4	1.4 / 9.0	G77 DR2S132L12/2 BE11	49.39	80	140
		1.3 / 8.2			44.49		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G77 DR2S..

This table applies to the following values:

- Drum diameter: 215 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
5	M5 / 2m	0.7 / 3.8	0.65 / 4.2	G77 DR2S112M12/2 BE5	116.85	40	90.4
		0.7 / 4.1			110.74		
		0.8 / 4.7	0.9 / 6.1	G77 DR2S132S12/2 BE5	96.92	55	101.8
		0.9 / 5.3			87.32		
		1.0 / 6.0			76.6		
		1.2 / 6.5	1.2 / 7.5	G77 DR2S132M12/2 BE11	67.59	80	131.2
		1.3 / 7.4			59.92		
		1.6 / 9.0	1.4 / 9.0	G77 DR2S132L12/2 BE11	51.17	80	140
		1.6 / 9.4			49.39		
4	M6 / 3m	0.7 / 4.1	0.55 / 3.6	G77 DR2S100L12/2 BE5	110.74	40	79.8
		0.7 / 4.7	0.65 / 4.2	G77 DR2S112M12/2 BE5	96.92	40	90.4
		0.8 / 5.3			87.32		
		0.9 / 6.0	0.9 / 6.1	G77 DR2S132S12/2 BE5	76.6	55	101.8
		1.0 / 6.5			67.59		
		1.2 / 7.4	1.2 / 7.5	G77 DR2S132M12/2 BE11	59.92	80	131.2
		1.3 / 9.0			51.17		
		1.6 / 9.4	1.4 / 9.0	G77 DR2S132L12/2 BE11	49.39	80	140
		1.6 / 10.4			44.49		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G97 DR2S..

This table applies to the following values:

- Drum diameter: 266 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
12.5	M5 / 2m	0.6 / 3.3	1.4 / 9.0	G97 DR2S132L12/2 BE11	170.89	80	187
		0.6 / 3.7			152.74		
		0.7 / 4.2	1.8 / 11.0	G97 DR2S132H12/2 BE11	137.50	110	227
		0.8 / 4.6			124.52		
10	M6 / 3m	0.6 / 3.3	1.4 / 9.0	G97 DR2S132L12/2 BE11	170.89	80	187
		0.6 / 3.7			152.74		
		0.7 / 4.2	1.8 / 11.0	G97 DR2S132H12/2 BE11	137.50	110	227
		0.8 / 4.6			124.52		
	M5 / 2m	0.9 / 5.2	1.8 / 11.0	G97 DR2S132H12/2 BE11	110.42	110	227
		1.0 / 5.7			99.84		
8	M6 / 3m	0.9 / 5.2	1.8 / 11.0	G97 DR2S132H12/2 BE11	110.42	110	227
		1.0 / 5.7			99.84		
	M5 / 2m	1.2 / 6.7			84.62		
6.3	M6 / 3m	1.0 / 5.7	1.8 / 11.0	G97 DR2S132H12/2 BE11	99.84	110	227
		1.2 / 6.7			84.62		
		1.3 / 7.8			73.91		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G97 DR2S..

This table applies to the following values:

- Drum diameter: 295 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
12.5	M4 / 1m	0.6 / 3.7	1.4 / 9.0	G97 DR2S132L12/2 BE11	170.89	80	187
		0.7 / 4.2	1.8 / 11.0	G97 DR2S132H12/2 BE11	152.74	110	227
		0.8 / 4.6			137.50		
10	M5 / 2m	0.6 / 3.7	1.2 / 7.5	G97 DR2S132M12/2 BE11	170.89	80	178.9
		0.7 / 4.2	1.4 / 9.0	G97 DR2S132L12/2 BE11	152.74	80	187
		0.8 / 4.6			137.50		
		0.9 / 5.1	1.8 / 11.0	G97 DR2S132H12/2 BE11	124.52	110	227
8	M6 / 3m	0.6 / 3.7	1.2 / 7.5	G97 DR2S132M12/2 BE11	170.89	80	178.9
		0.7 / 4.2	1.4 / 9.0	G97 DR2S132L12/2 BE11	152.74	80	187
		0.8 / 4.6			137.50		
		0.9 / 5.1	1.8 / 11.0	G97 DR2S132H12/2 BE11	124.52	110	227
	M5 / 2m	1.0 / 5.8			110.42		
		1.1 / 6.4			99.84		
6.3	M6 / 3m	1.1 / 6.4	1.8 / 11.0	G97 DR2S132H12/2 BE11	99.84	110	227
		1.3 / 7.5			84.62		
	M5 / 2m	1.5 / 8.6			73.91		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G107 DR2S..

This table applies to the following values:

- Drum diameter: 295 mm
- Reeving: 4/1

Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
20	M5 / 2m	0.6 / 3.1	2.3 / 15	G107 DR2S160L12/2 BE20	198.4	150	328
		0.6 / 3.5			174.9		
		0.7 / 4.0	2.8 / 17	G107 DR2S160H12/2 BE20	157.9	150	343
16	M6 / 3m	0.6 / 3.1	2.3 / 15	G107 DR2S160L12/2 BE20	198.4	150	328
		0.6 / 3.5			174.9		
		0.7 / 4.0	2.8 / 17	G107 DR2S160H12/2 BE20	157.9	150	343
		0.8 / 4.5			143.4		
	M5 / 2m	0.9 / 5.0			127.2		
		1.0 / 5.5			115.5		
12.5	M6 / 3m	0.9 / 5.0	2.8 / 17	G107 DR2S160H12/2 BE20	127.2	150	343
		1.0 / 5.5			115.5		
	M5 / 2m	1.1 / 6.4			99.3		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

G107 DR2S..

This table applies to the following values:

- Drum diameter: 325 mm
- Reeving: 4/1

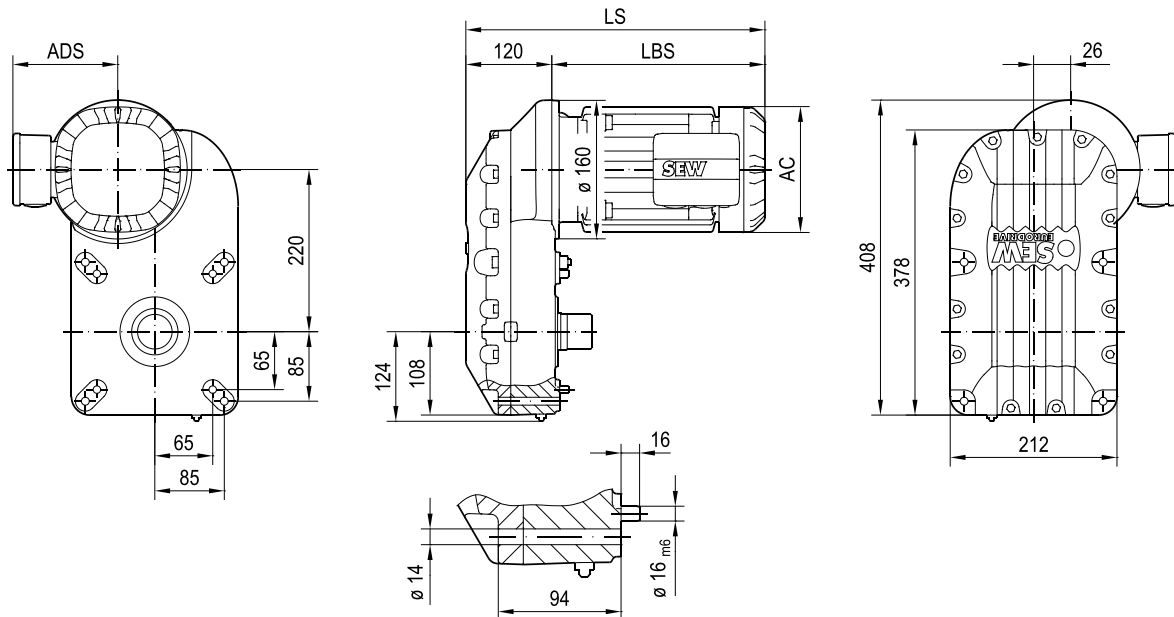
Load	Mechanical group	Lifting speed	Motor power	Type	Gear ratio ¹⁾	Braking torque	Mass
t	ISO/FEM	m/min	kW		i	Nm	kg
25	M4 / 1m	0.6 / 3.5	2.8 / 17	G107 DR2S160H12/2 BE20	198.4	150	343
20	M5 / 2m	0.6 / 3.4	2.3 / 15	G107 DR2S160L12/2 BE20	198.4	150	328
		0.7 / 4.0	2.8 / 17	G107 DR2S160H12/2 BE20	174.9	150	343
16	M6 / 3m	0.6 / 3.4	2.3 / 15	G107 DR2S160L12/2 BE20	198.4	150	328
		0.7 / 4.0	2.8 / 17	G107 DR2S160H12/2 BE20	174.9	150	343
		0.8 / 4.5			157.9		
	M5 / 2m	0.8 / 4.9			143.4		
		1.0 / 5.5			127.2		
12.5	M6 / 3m	0.8 / 4.9	2.8 / 17	G107 DR2S160H12/2 BE20	143.4	150	343
		1.0 / 5.5			127.2		
	M5 / 2m	1.0 / 6.1			115.5		
		1.2 / 7.1			99.3		

1) For further gear ratios for implementing deviating lifting speeds, drum diameters, and reevings, contact SEW-EURODRIVE.

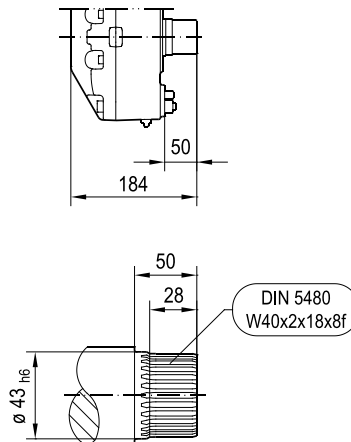
Dimension sheets

G67..

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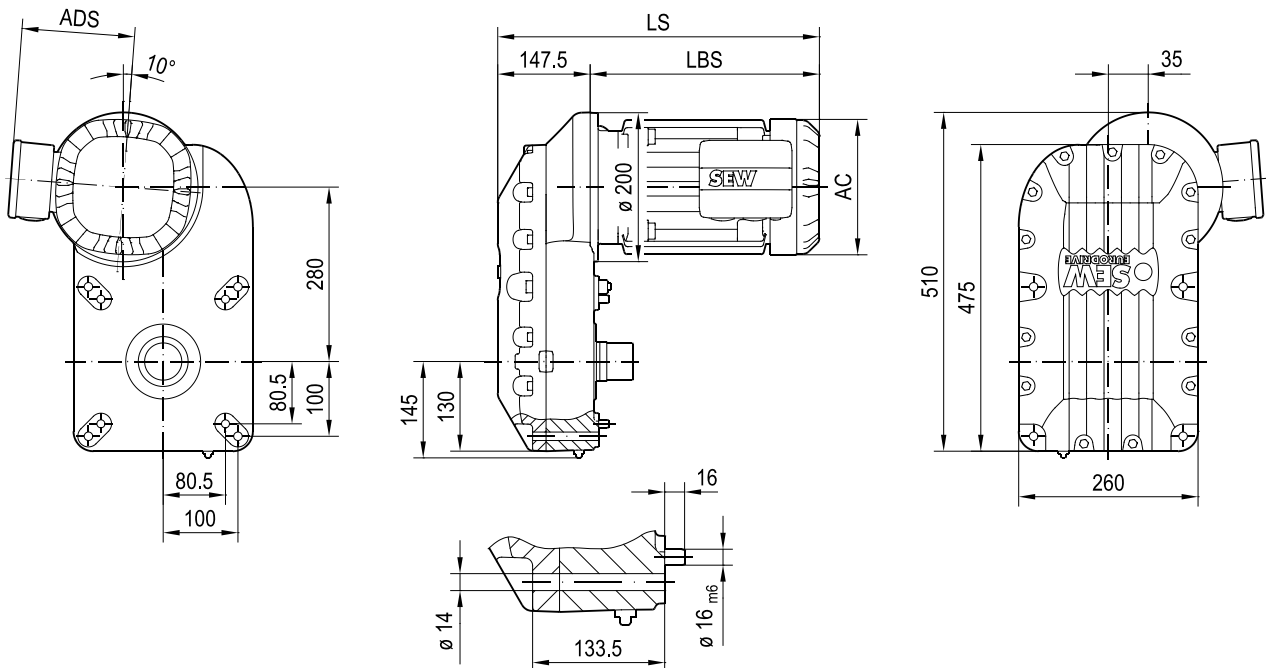
**DIN 5480
W40x2x18x8f**



(→ ▢ ←)	DR2S100LS	DR2S100L/LM	DR2S112M	DR2S132S
AC	197	197	221	221
ADS	158	158	172	172
LS	519	573	622	672
LBS	399	453	502	552

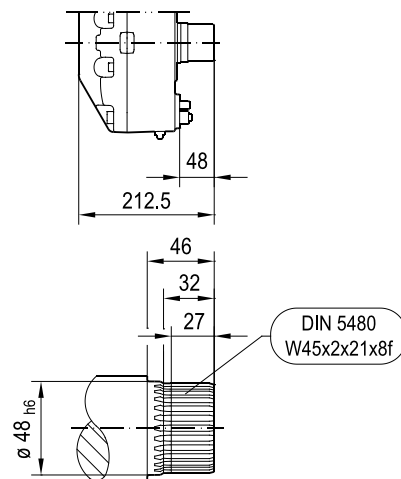
G77..

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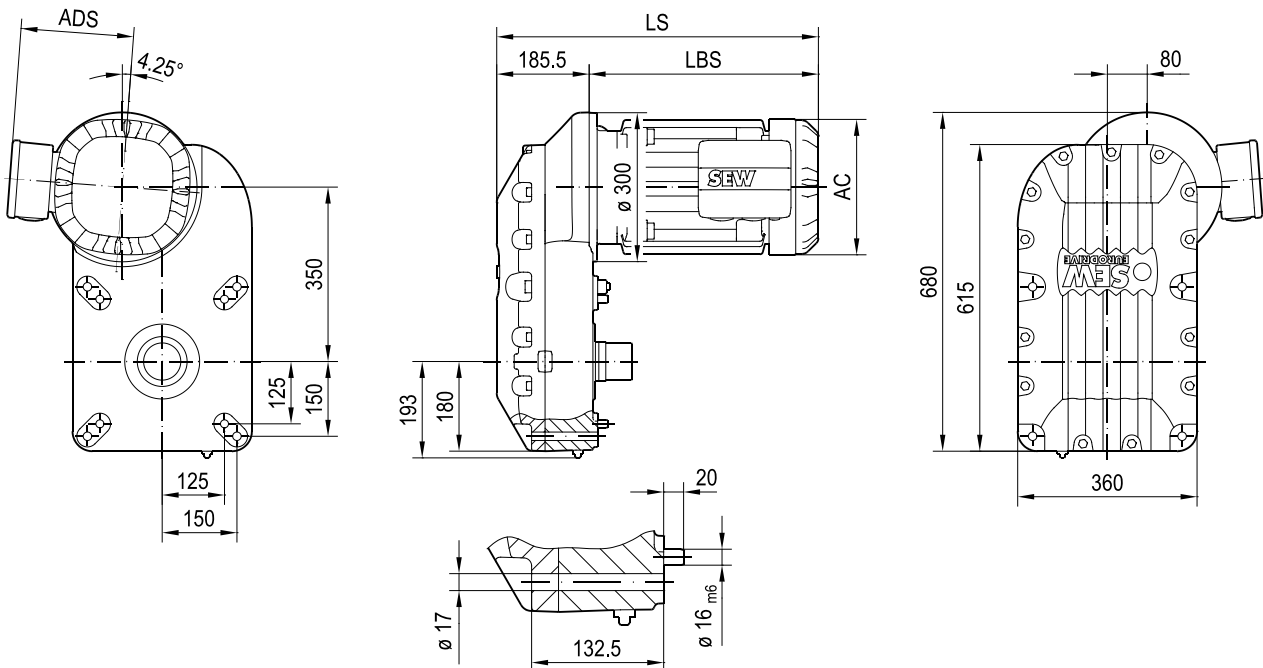
W45x2x21x8f



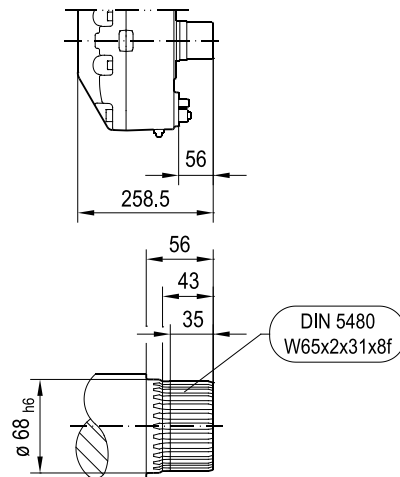
(→ ▢ -)	DR2S100LS	DR2S100L/LM	DR2S112M	DR2S132S	DR2S132M	DR2S132L	DR2S132H
AC	197	197	221	221	261	261	261
ADS	158	158	172	172	228	228	228
LS	539	589	639	689	732	757	797
LBS	392	442	491	541	585	610	649

G97..

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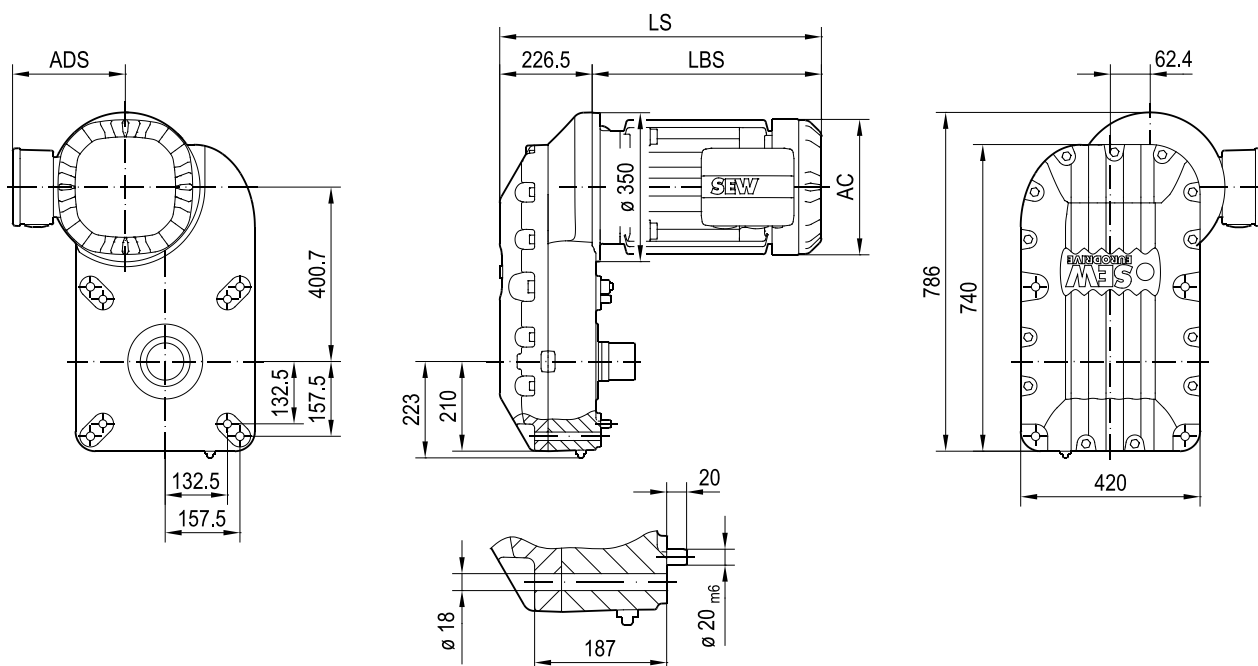
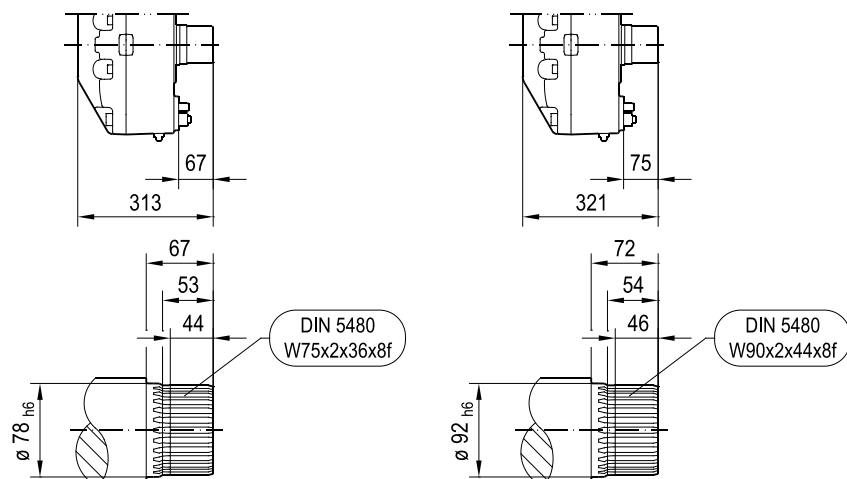
**DIN 5480
W65x2x31x8f**



(→ 100 -)	DR2S100LS	DR2S100L/LM	DR2S112M	DR2S132S	DR2S132M	DR2S132L	DR2S132H	DR2S160M/L	DR2S160H
AC	197	197	221	221	261	261	261	314	314
ADS	158	158	172	172	228	228	228	253	253
LS	567	617	667	717	760	785	825	904	964
LBS	382	432	481	531	575	600	639	718	778

G107..

10 011 00 19


DIN 5480
W75x2x36x8f
DIN 5480
W90x2x44x8f


(→ -)	DR2S160M/L	DR2S160H						
AC	314	314						
ADS	253	253						
LS	939	999						
LBS	712	772						

8.3 Technical data of the motors

8.3.1 Key for the data tables

The following tables "Technical data of the motors" use these abbreviations:

BE..	—	Brake used
$\cos\varphi$	—	Power factor
I_A/I_N	—	Starting current ratio
I_N	A	Rated current
J_{BMot}	10^{-4} kgm^2	Mass moment of inertia of the brakemotor
J_{mot}	10^{-4} kgm^2	Mass moment of inertia of the motor
J_X	10^{-4} kgm^2	Load moment of inertia, reduced to motor shaft
M_A/M_N	—	Starting torque ratio
M_H/M_N		
M_B	Nm	Braking torque
m_{BMot}	kg	Mass of the brakemotor
M_K/M_N	—	Breakdown torque ratio
m_{Mot}	kg	Mass of the motor
M_N	Nm	Rated torque
n_N	min^{-1}	Rated speed
P_N	kW	Rated power
$Z_0 \text{ BG}$	h^{-1}	Switching frequency for operation with BG brake control
$Z_0 \text{ BGE}$	h^{-1}	Switching frequency for operation with BGE brake control
$\eta_{50\%}$	%	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

8.3.2 DRN.. 4-pole motors

- 400 V
- 50 Hz
- Energy efficiency class IE3

Information on motors

Motor type	P _N kW	M _N Nm	n _N min ⁻¹	I _N A	cosφ	η _{50%} %	η _{75%} %	η _{100%} %	I _A /I _N	M _A /M _N M _H /M _N	M _K /M _N
DRN 90L 4	1.5	9.8	1461	3.4	0.74	84.6	86.1	85.6	7.5	2.7 2.2	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 2.7	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 2.4	3.5
DRN 160M 4	11	71	1473	21	0.81	91.0	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	9.4	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

Further information about motors and brakemotors

Motor type	P _N kW	M _N Nm	n _N min ⁻¹	m _{Mot} kg	J _{Mot} 10 ⁻⁴ kgm ²	BE..	Z ₀ BG BGE h ⁻¹	M _B Nm	m _{BMot} kg	J _{BMot} 10 ⁻⁴ kgm ²
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

Motor type	P_N kW	M_N Nm	n_N min^{-1}	m_{Mot} kg	J_{mot} 10^{-4} kgm^2	BE..	Z_0 BG BGE h^{-1}	M_B Nm	m_{BMot} kg	J_{BMot} 10^{-4} kgm^2
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

8.3.3 DR2S.. motors (12/2-pole)

- 400 V
- 50 Hz
- Duty type S4 15/30%
- In connection with the G7.. hoist gear units

Information on motors

DR2S.. motor type	P _N kW	M _N Nm	n _N 1/min	I _N A	cosφ	η _{50%} %	η _{75%} %	η _{100%} %	I _A /I _N	M _A /M _N	M _H /M _N	M _K /M _N
DR2S 100LS 12/2	0.35 2.3	7.7 8.4	435 2605	2.1 5.4	0.55 0.90	30.3 71.3	38.2 72.2	42.7 68.3	2.1 4.1	2.3 2.8	2.4 2.6	2.4 2.6
DR2S 100LM 12/2	0.45 2.8	10 10	430 2670	2.65 6.5	0.55 0.88	32.3 72.1	40.1 73.3	44.0 70.5	2.1 4.4	2.2 3.1	2.2 2.6	2.2 2.7
DR2S 100L 12/2	0.55 3.6	12.1 12.9	435 2665	3.2 7.9	0.55 0.91	32.2 76.9	40.3 76.1	44.4 72.1	2.2 4.7	2.4 3.0	2.4 2.6	2.4 2.7
DR2S 112M 12/2	0.65 4.2	14.6 15.3	425 2625	3.6 9.6	0.55 0.90	37.0 75.0	44.3 74.4	46.4 69.8	2.0 4.6	1.8 3.3	1.7 2.7	1.8 2.7
DR2S 132S 12/2	0.9 6.1	20.5 21.5	420 2725	4.55 12.9	0.56 0.90	43.5 79.1	49.9 78.4	50.3 75.1	2.1 5.4	1.9 3.3	1.8 2.8	1.8 2.8
DR2S 132M 12/2	1.2 7.5	26.5 26.5	435 2690	6.5 15.5	0.54 0.90	39.4 83.9	46.7 81.3	49.3 76.7	2.1 5.0	2.2 3.2	2.1 2.5	2.1 2.5
DR2S 132L 12/2	1.4 9	30.5 31.5	435 2750	6.7 18.4	0.57 0.89	43.8 83.3	50.8 81.9	52.5 78.2	2.4 5.4	2.1 3.3	1.7 2.2	1.7 2.6
DR2S 132H 12/2	1.8 11	40 38	430 2770	8.6 22.5	0.57 0.89	44.7 83.3	51.1 82.1	51.9 78.9	2.2 5.6	2.0 3.2	1.9 2.1	1.9 2.6
DR2S 160M 12/2	1.9 12	40 43	455 2665	8.1 26	0.57 0.90	52.0 78.5	58.2 77.5	59.6 73.5	2.7 4.6	2.1 2.8	2.0 2.2	2.1 2.4
DR2S 160L 12/2	2.3 15	49 53	450 2685	9.5 31.5	0.57 0.92	54.4 80.9	60.0 79.0	60.4 74.6	2.5 4.9	2.0 3.0	2.0 2.3	2.0 2.5
DR2S 160H 12/2	2.8 17	59 59	450 2775	10.5 33.5	0.61 0.92	57.2 84.2	62.3 82.9	62.3 79.8	2.8 5.7	1.9 3.1	1.9 2.4	2.0 2.7

Further information about motors and brakemotors

Motor type	P _N kW	M _N Nm	n _N min ⁻¹	m _{Mot} kg	J _{mot} 10 ⁻⁴ kgm ²	BE..	M _B Nm	m _{BMot} kg	J _{BMot} 10 ⁻⁴ kgm ²	J _x 10 ⁻⁴ kgm ²
DR2S 100LS 12/2	0.35 2.3	7.7 8.4	435 2605	27	76	BE2	20	32	80.7	15.3
DR2S 100LM 12/2	0.45 2.8	10 10	430 2670	33	85.7	BE2	20	37	90.4	22.2
DR2S 100L 12/2	0.55 3.6	12.1 12.9	435 2665	34	105	BE5	28	40	111	53.6
DR2S 112M 12/2	0.65 4.2	14.6 15.3	425 2625	45	167	BE5	40	52	171	30.3
DR2S 132S 12/2	0.9 6.1	20.5 21.5	420 2725	56	229	BE5	55	64	233	49.3
DR2S 132M 12/2	1.2 7.5	26.5 26.5	435 2690	74	387	BE11	55	92	409	76.7
DR2S 132L 12/2	1.4 9	30.5 31.5	435 2750	82	447	BE11	80	100	469	136.7
DR2S 132H 12/2	1.8 11	40 38	430 2770	125	655	BE11	80	145	677	87.4
DR2S 160M 12/2	1.9 12	40 43	455 2665	115	790	BE20	110	150	850	173
DR2S 160L 12/2	2.3 15	49 53	450 2685	130	1010	BE20	110	165	1070	81.5
DR2S 160H 12/2	2.8 17	59 59	450 2775	150	1190	BE20	150	185	1250	106

9 Contacting SEW-EURODRIVE

You can find the worldwide contact data and locations on the **SEW-EURODRIVE website** via the following link or the QR code shown below.

<https://www.sew-eurodrive.de/contacts-worldwide>



SEW
EURODRIVE



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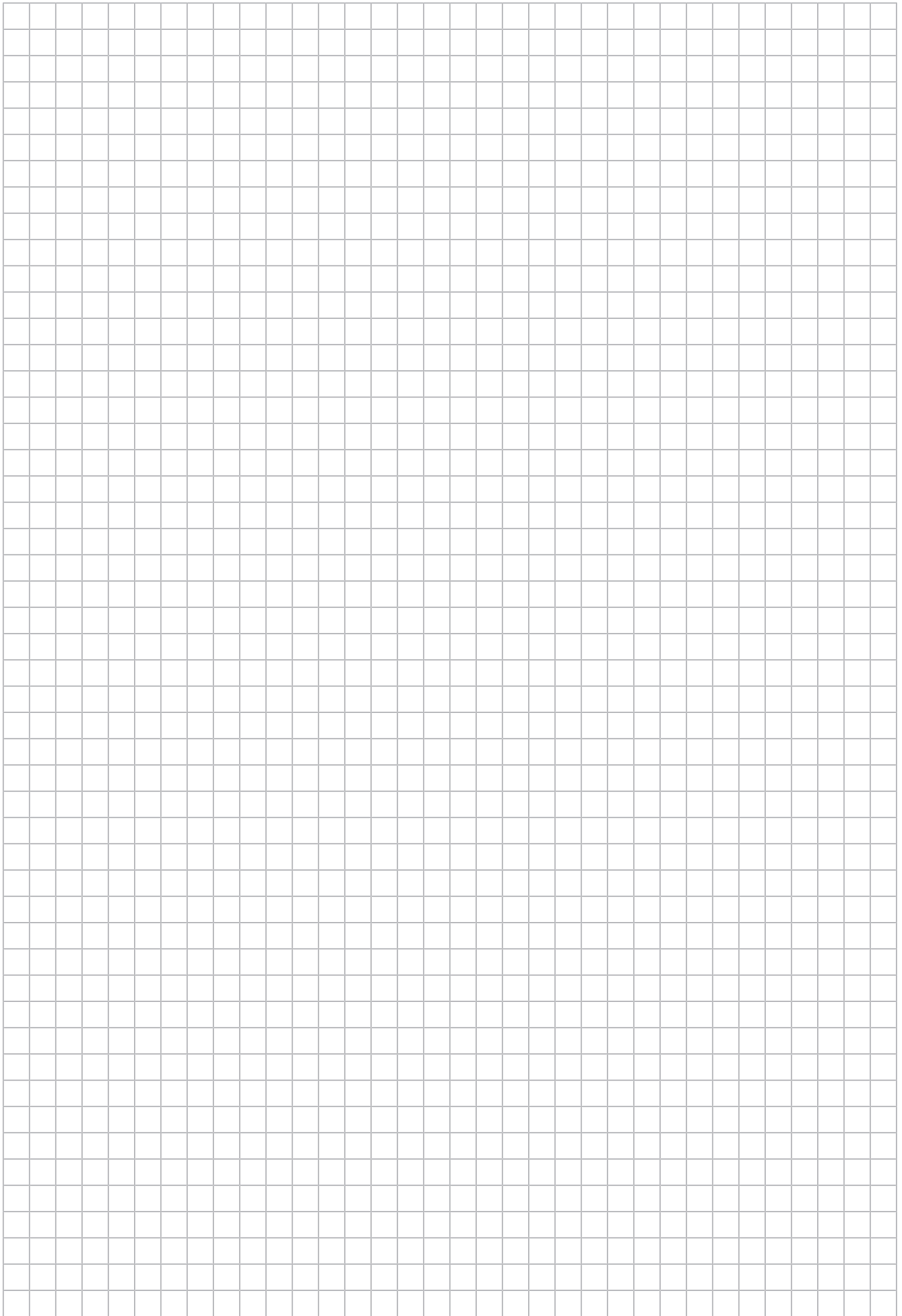
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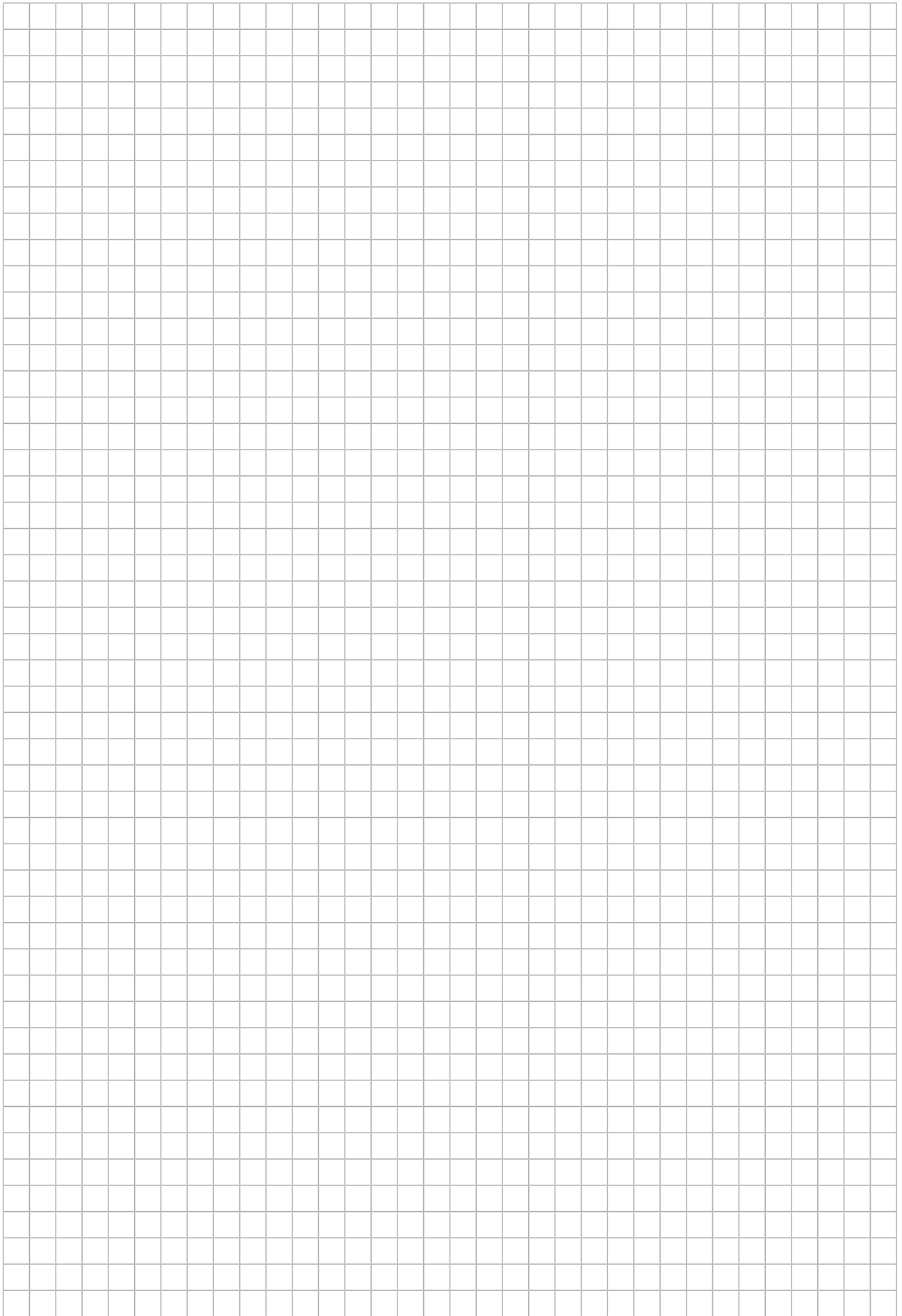
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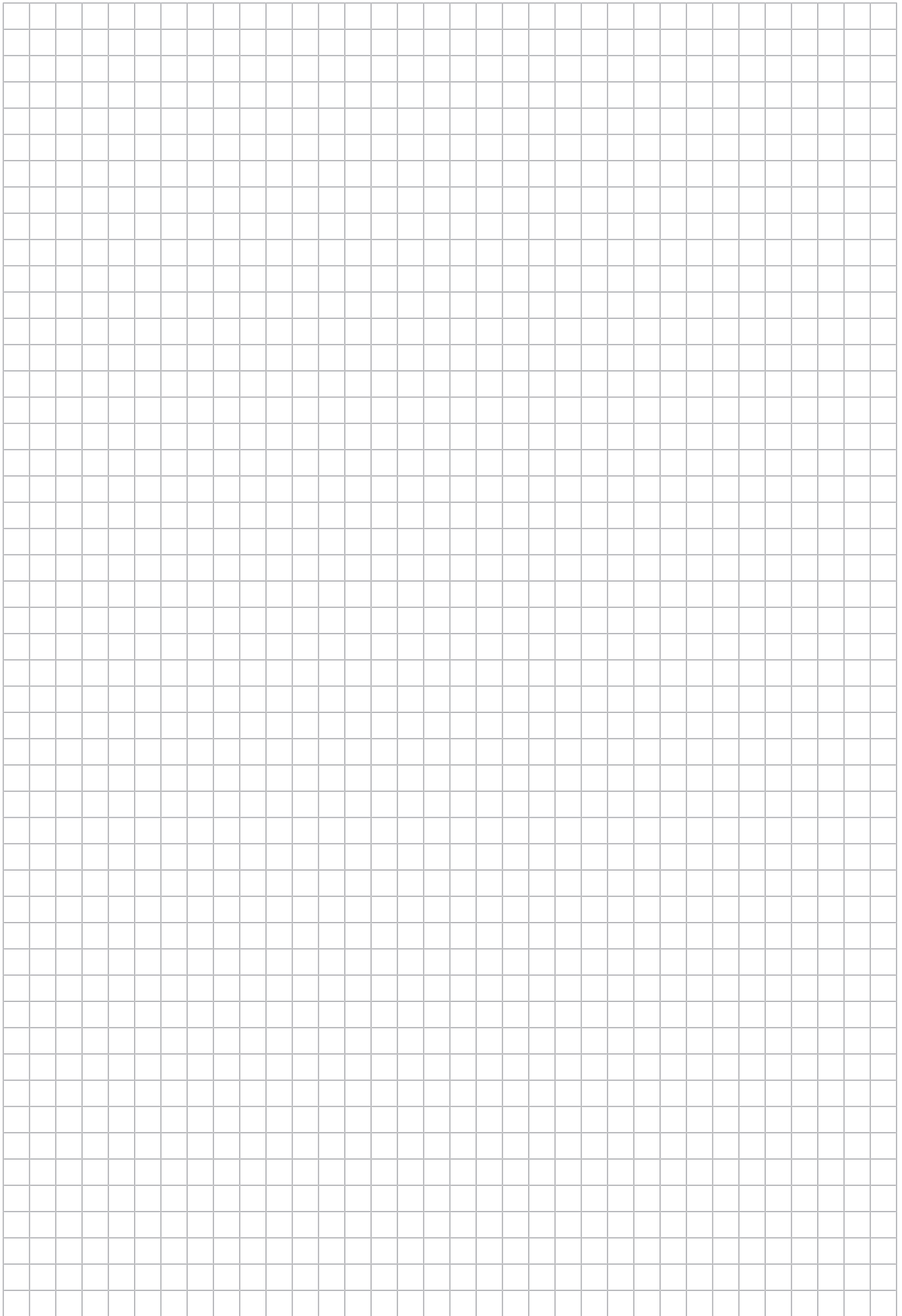
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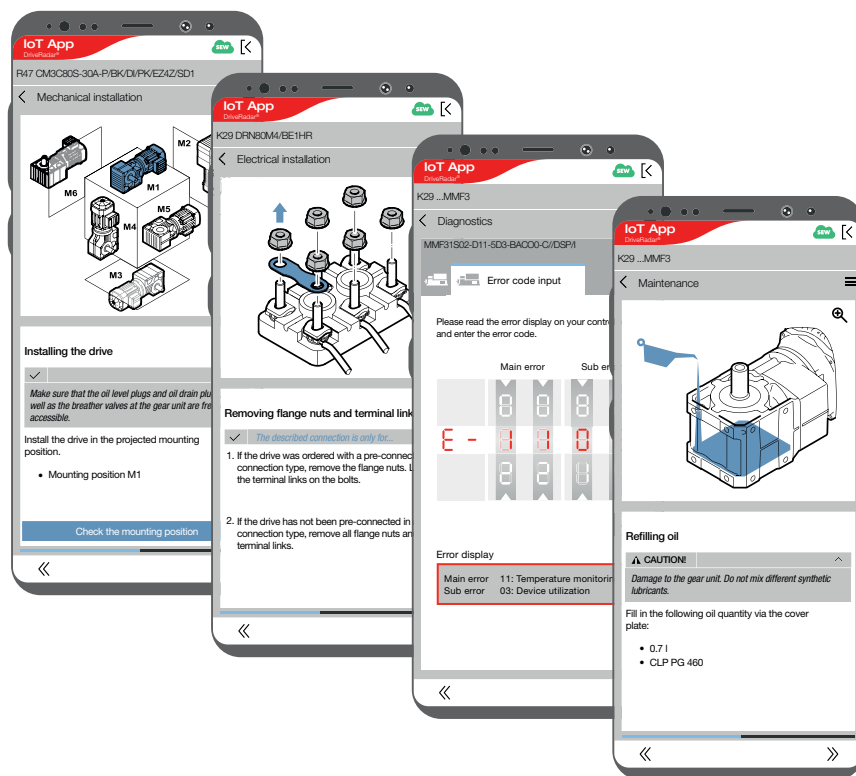
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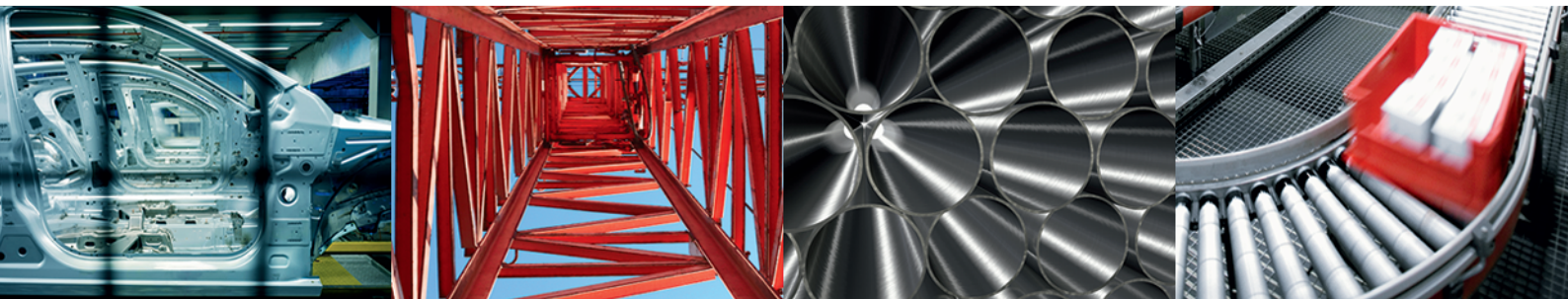


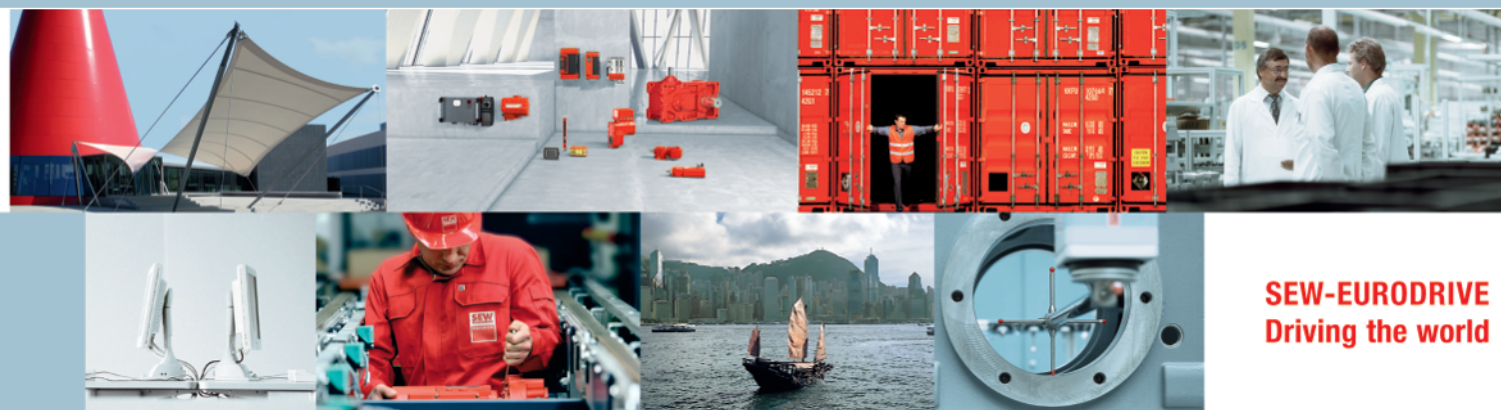
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Driving the world

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