

g500-S + m550-V shaft-mounted helical geared motors



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1 About this document

WARNING!

Read this documentation carefully before starting any work.

► Please observe the safety instructions!



1.1 Document description

This document addresses to all persons who want to carry out any configurations with the products described.

The data and information compiled in this document serve to support you in the dimensioning and selection processes and in carrying out the electrical and mechanical installation. You will receive information regarding product extensions and accessories.

- The document includes safety instructions which must be observed.
- All persons working on and with the drives must have the documentation at hand during work and observe the information and notes relevant for it.
- The documentation must always be complete and in a perfectly readable state.



1.2 Further documents



Information and tools with regard to the Lenze products can be found on the Internet:

www.Lenze.com → Downloads



1.3 Notations and conventions

Conventions are used in this document to distinguish between different types of information.

Numeric notation		
Decimal separator	Point	Generally shown as a decimal point. Example: 1 234.56
Warnings		
UL Warnings	UL	Are used in English and French.
UR warnings	UR	
Text		
Engineering Tools	" "	Software Example: "EASY Starter", "PLC Designer"
Icons		
Page reference		Reference to another page with additional information. Example:  16 = see page 16
Documentation reference		Reference to other documentation with additional information. Example:  EDKxxx = see documentation EDKxxx

Layout of the safety instructions

DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.

WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.

CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTICE

Indicates a material hazard. Failure to comply with this instruction may result in material damage.



2 Product information

2.1 Product description

In combination with three-phase motors, our shaft-mounted helical gearboxes represent a compact, powerful drive unit. Numerous drive and output options allow the drive to be precisely adapted to your application.

The slim shaft-mounted helical gearboxes are characterized by high permissible radial forces, closely stepped ratios and low backlash. They are available in a 2-stage, 3-stage and 4-stage design with a torque of up to 4500 Nm and a ratio of up to $i = 5849$.

Versions

- Slim design saves installation space of the machine
- Shaft dimensions in line with market standard and standardized flanges for easy machine integration
- High accuracy with axial output provide for the highest efficiency
- Highly efficient synchronous motors in the compact and robust design of a three-phase motor
- Optimized for sensorless control and designed for 250% (IE5) and 300% (IE6) overload capacity from 0 rpm

Three-phase motors for inverter operation

In a power range from 0.25 to 22 kW, Lenze offers inverter-compatible three-phase motors for more extensive tasks.

These motors differ in terms of efficiency class and can be used for the versions required for controlled or regulated inverter operation.

- Efficiency class IE5 in the power range 0.37 ... 22 kW
- Efficiency class IE6 in the power range 0.25 ... 7.5 kW

Customer benefit

- Different efficiency classes for the greatest economic benefit
- Space saving thanks to compact direct mounting on Lenze gearboxes
- Market-oriented modular system enables universal use for extensive machine tasks
- Standard market connectors ensure fast connection, even when servicing is required
- Simple design and commissioning, as easy as with an asynchronous machine
- More compact than an IE3 three-phase motor



g500-S400 gearbox with m550-V80/M4 three-phase AC motor



Flexible in motor mounting

For motor mounting, Lenze offers a scalable modular system of gearboxes with adapters.

Power is transmitted between the motor and the gearbox via a flexible jaw coupling or plug-in hollow shaft. The shaft mountings for motor shafts are available with a featherkey.

Customer benefit

- Market-oriented modular system enables universal use for extensive machine tasks
- Simple plug-in motor mounting
- Motor mounting according to IEC 72/DIN 42948
- Torsional vibration-damping power transmission of the coupling
- Motor shaft connection with low or no backlash, depending on the version

More information can be found under:

► [Gearbox data](#) 53

► [Gearboxes with adapter](#) 65



g500-S shaft-mounted helical gearbox with adapter for IEC standard motors



2.2 Identification of the products

Gearbox product name

Gearbox type	Product series		Type	Rated torque Nm	Product
Shaft-mounted helical gearbox	g500	-	S	130	g500-S130
				220	g500-S220
				400	g500-S400
				660	g500-S660
				950	g500-S950
				2100	g500-S2100
				3100	g500-S3100
				4500	g500-S4500

Three-phase AC motor product name

Example		m550	-	V	80	/	S	4
Meaning	Variant	Product name						
Product family		m550						
		m650						
Efficiency class	IE5			U				
	IE6			V				
Size					63 71 80 90 100 112 132			
Motor length	Short						S	
	Medium						M	
	Long						L	
Number of pole pairs	4-pole							4



2.3 Features

The following figure provides an overview of the elements and connections on the product. Their position, size and appearance may vary.

Ventilation

(depending on the mounting position)

Oil filler plug

(depending on the mounting position)

Oil control plug

(depending on the mounting position)

Torque plate

Output flange

Output shaft

Oil drain plug

(depending on the mounting position)

Housing type

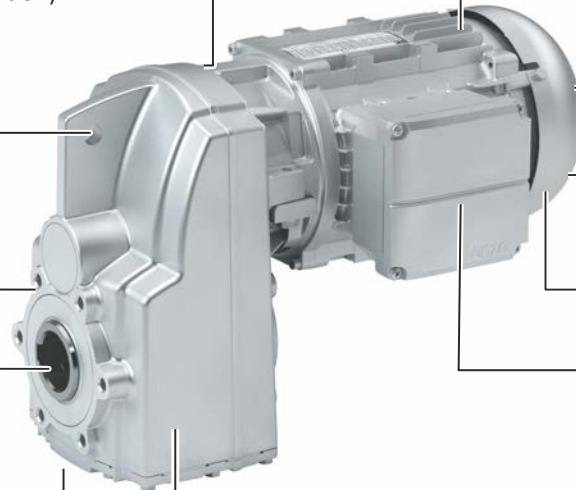
Temperature monitoring

Cooling

Feedback

Brake

Motor connection





2.4 The modular system



Values printed in bold are standard designs. Values that are not printed in bold are potential extensions, some of them including a surcharge.

Geared motors up to 660 Nm

Gearbox		g500-S130	g500-S220	g500-S400	g500-S660
Min. motor assignment		m550-V63	m550-V63	m550-V63	m550-V63
Max. motor assignment		m550-V71	m550-V100	m550-V112	m550-V132
Technical data					
Max. output torque	Nm	130	220	400	660
Min. drive power at 62 Hz	kW	0.25	0.25	0.25	0.25
Max. drive power at 62 Hz	kW	0.55	3	4	7.5
Mounting position					
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined		M1/5/6 (AEF)			
Temperature package					
Standard		Ambient temperature: 0 °C ... +40 °C			
Color		Unpainted Primed/RAL colors			
Surface and corrosion protection		Without OKS Different types of OKS			
Output shaft					
Solid shaft with featherkey (V)	mm	25 x 50	25 x 50	30 x 60	35 x 70 40 x 80
Hollow shaft with keyway (H)	mm	25	25/30	30/35	40/45
Hollow shaft with shrink disk (S)	mm	25	25/30	35	40
Shaft material		Steel Stainless steel			
Output shaft bearing		Normal			
Gearbox design		With foot (HBR/VBR) Without foot and centering (HCR)/(VCR/SCR) With centering (HCR/VCR/SCR) With output flange (HCK/VCK/SCK)			
Output flange (K)	mm	160	160	200	200/250
Ventilation		Without		Vent valve	
Cooling		Integral fan			
Product extensions					
Torque plate		Rubber buffers			
Shaft cover		Shrink disc cover			
Connection method		Y			
Connection type		Terminal box M23 connector Han-Modular connector			
Spring-applied brake		Without Holding brake			
Feedback		Without Resolver Incremental encoder Incremental encoder with safety functions Absolute value encoder			
Temperature monitoring		TCO thermal contact			



Geared motors from 950 Nm to 4500 Nm

Gearbox		g500-S950	g500-S2100	g500-S3100	g500-S4500
Min. motor assignment		m550-V63	m550-V63	m550-V63	m550-V63
Max. motor assignment		m550-V132	m550-V132	m550-V132	m550-V132
Technical data					
Max. output torque	Nm	950	2100	3100	4500
Min. drive power at 62 Hz	kW	0.25	0.25	0.25	0.25
Max. drive power at 62 Hz	kW	7.5	7.5	7.5	7.5
Mounting position					
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined					
Temperature package					
Standard		Ambient temperature: 0 °C ... +40 °C			
Color		Primed Painted in RAL colors			
Surface and corrosion protection					
		OKS-S Different types of OKS			
Output shaft					
Solid shaft with featherkey (V)	mm	40 x 80	50 x 100	60 x 120	70 x 140 80 x 160
Hollow shaft with keyway (H)	mm	40	50/55	60/70	70/80
Hollow shaft with shrink disk (S)	mm	40	50	65	75/80
Shaft material		Steel Stainless steel			
Output shaft bearing		Normal			
Gearbox design					
		With foot (HBR)/(VBR/SBR) With foot and centering (HAR/VAR(SAR) With foot and output flange (HAK/VAK/SAK)			
Output flange (K)	mm	250	250/300	350	400/450
Ventilation					
		Vent valve			
			Oil compensation reservoir		
Cooling					
		Integral fan			
Product extensions					
Torque plate		Rubber buffers			
Shaft cover		Shrink disc cover			
Connection method		Y			
Connection type		Terminal box M23 connector Han-Modular connector			
Spring-applied brake		Without Holding brake			
Feedback		Without Resolver Incremental encoder Incremental encoder with safety functions Absolute value encoder			
Temperature monitoring		TCO thermal contact			



2.4.1 Designs

Gearbox designs

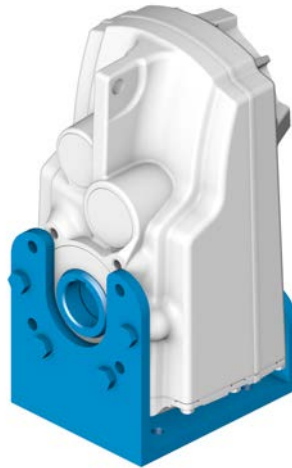


Observe the available gearbox designs!

► [The modular system](#)  14

g500-S130 ... S660

Hollow shaft, with foot



Without centring (HBR)

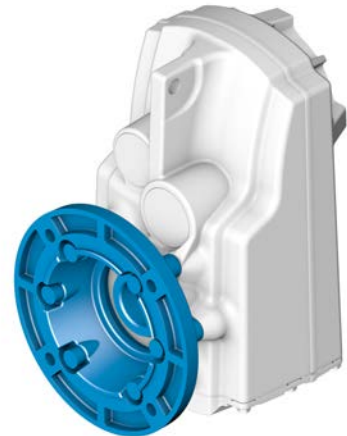
Hollow shaft, without foot



Without centring (HDR)



With centering (HCR)



Flange with through holes (HCK)



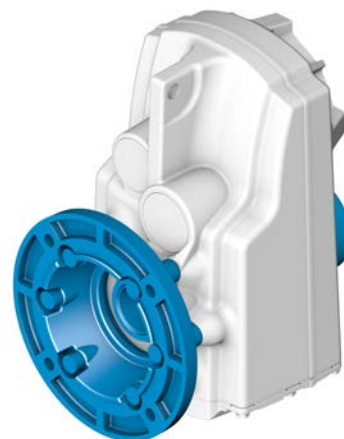
Shrink disc, without foot



Without centring (SDR)

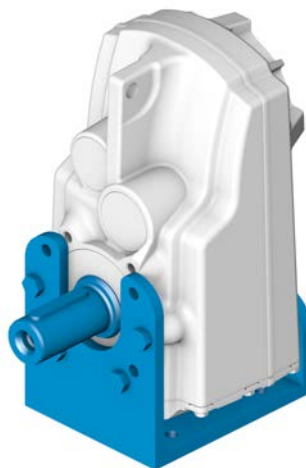


With centring (SCR)



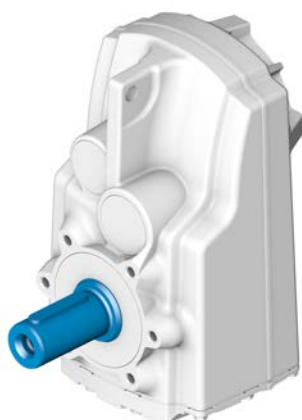
Flange with through holes (SCK)

Solid shaft, with foot



Without centring (VBR)

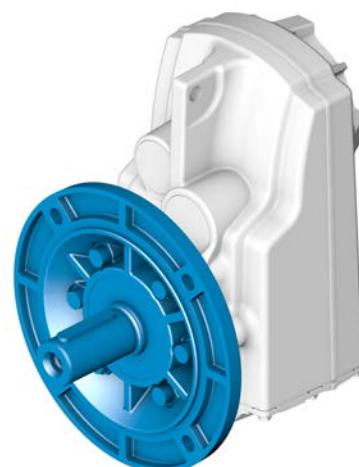
Solid shaft, without foot



Without centring (VDR)



With centering (VCR)



Flange with through holes (VCK)

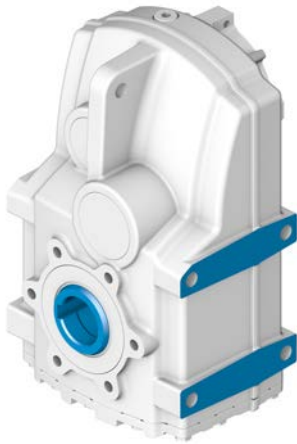
Product information

The modular system
Designs

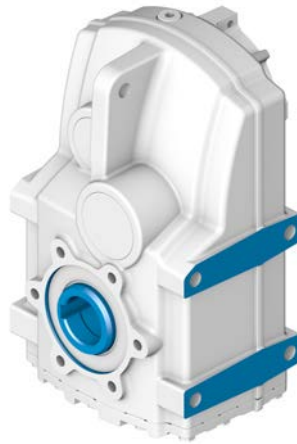


g500-S950 ... S4500

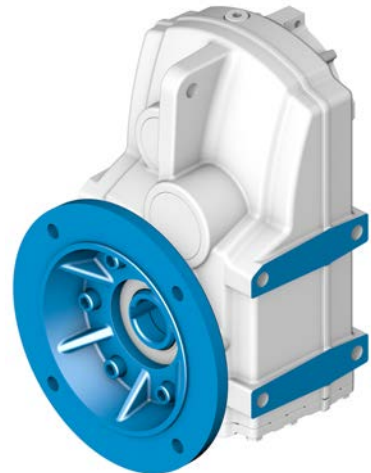
Hollow shaft, with foot



Without centring (HBR)

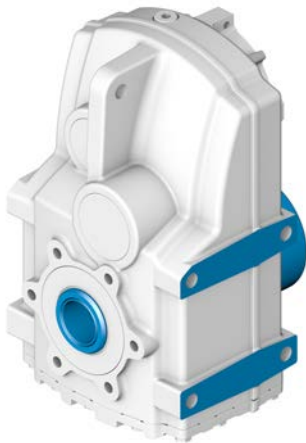


With centring (HAR)



Flange with through holes (HAK)

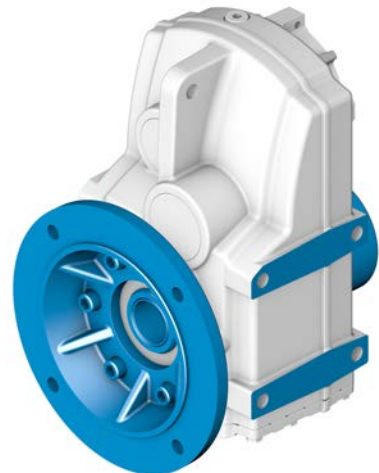
Shrink disc, with foot



Without centring (SBR)

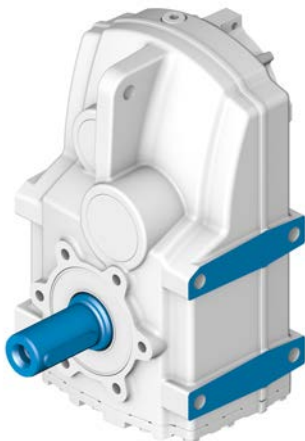


With centring (SAR)

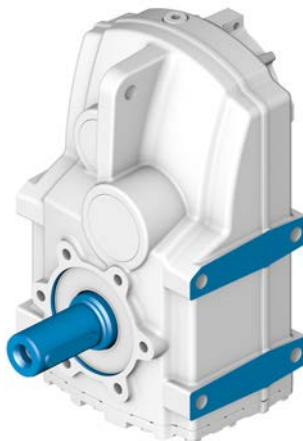


Flange with through holes (SAK)

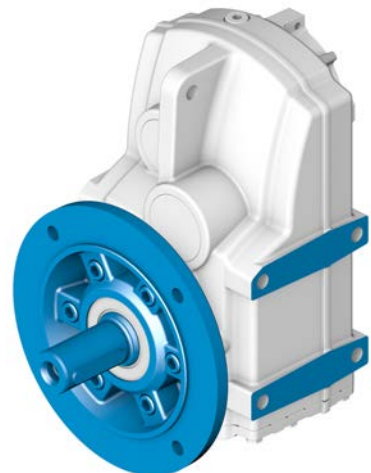
Solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

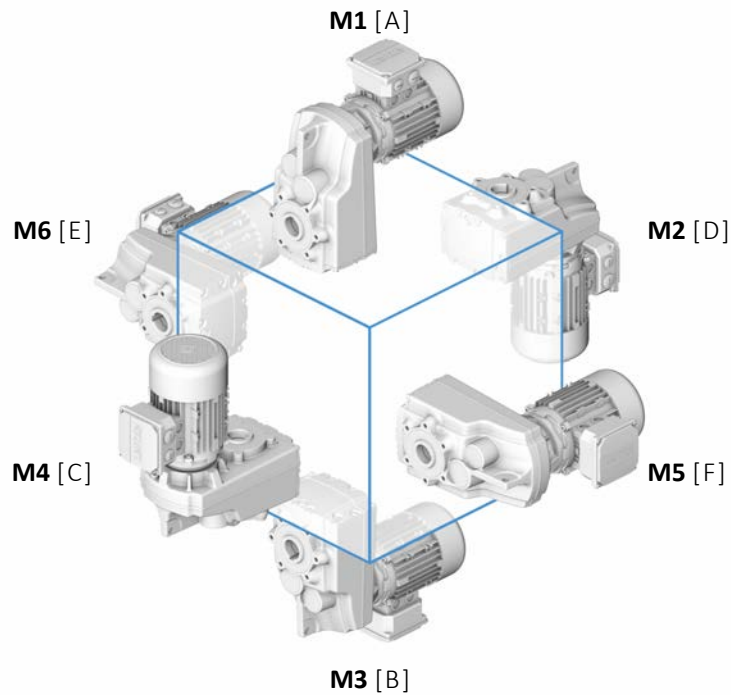


2.4.2 Mounting positions

Details of the mounting position are needed to ensure the corresponding lubricant amount, position of the ventilation, oil checks and oil drain plug on the gearbox.



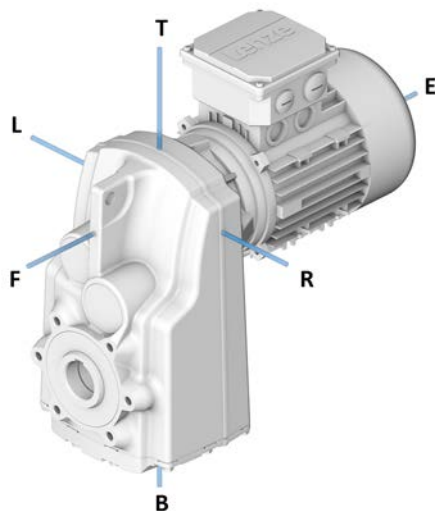
The gearmotors can be swiveled by 5° to 45° in all mounting positions.



Defined positions on the geared motor

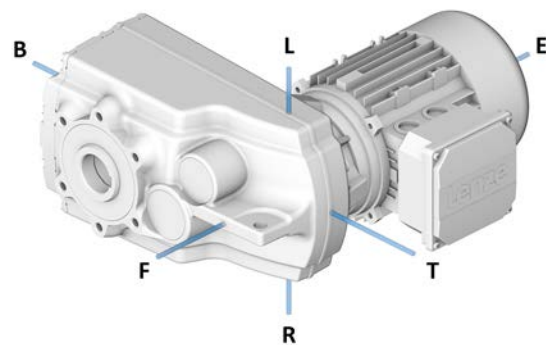
All of the defined positions refer to the areas on the geared motor in mounting position **M1 (A)**.

Position of the built-on accessories with T, L, R, B, F, E (Top, Left, Right, Bottom, Front and End)



If the geared motor is rotated into a different mounting position M2 ... M6 (B...F), the defined positions on the geared motor are retained.

Example: Mounting position M5 (F)



Product information

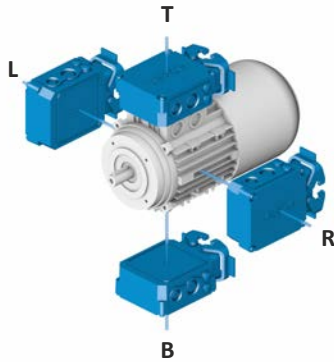
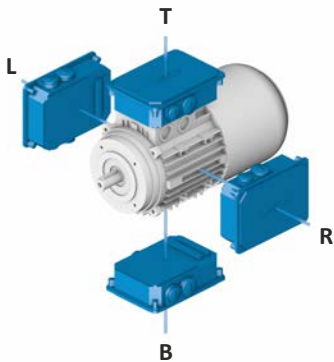
The modular system
Mounting positions



Positions of the terminal boxes/connectors

Power terminal box	Han connector
--------------------	---------------

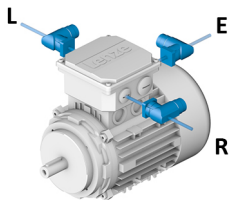
with/without M23 connector



Positions of the connectors

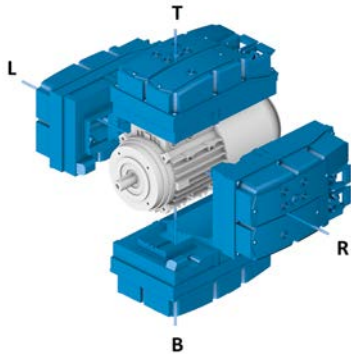
Power terminal box	Han connector
--------------------	---------------

Cable glands/M23 connector



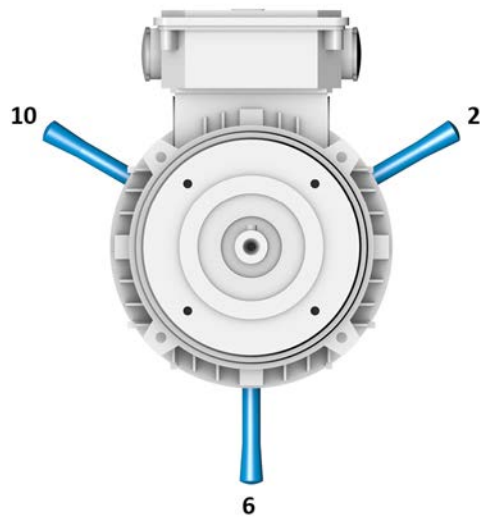
Positions of the i550/i650 motec frequency inverters

Positions of the i550/i650 motec





Manual release lever position

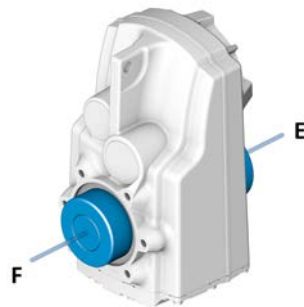


Position of the hollow shaft with shrink disc



The output flange is only available in position "F".

Output flange and shrink disc are not possible in the same position.





3 Safety instructions

3.1 Basic safety instructions

Disregarding the following basic safety instructions and safety information may lead to severe personal injury and damage to property!

- Only use the product as directed.
- Never commission the product in the event of visible damage.
- Never modify the product technically.
- Never commission the product before assembly has been completed.
- Never operate the product without the required covers.
- Connect/disconnect all pluggable connections only in deenergized condition!
- Only remove the product from the installation in the deenergized state.
- The product can – depending on their degree of protection – have live, movable or rotating parts during or after operation. Surfaces can be hot.
- Observe the specifications of the corresponding documentation. This is the condition for safe and trouble-free operation and the achievement of the specified product features.
- The procedural notes and circuit details given in the associated documentation are suggestions and their transferability to the respective application has to be checked. The manufacturer of the product does not take responsibility for the suitability of the process and circuit proposals.
- All work with and on the product may only be carried out by qualified personnel. IEC 60364 and CENELEC HD 384 define the qualifications of these persons:
 - They are familiar with installing, mounting, commissioning, and operating the product.
 - They have the corresponding qualifications for their work.
 - They know and can apply all regulations for the prevention of accidents, directives, and laws applicable at the place of use.

Please observe the specific safety information in the other sections!



3.2 Application as directed

- The product is a piece of professional equipment intended for use by trades, specific professions or industry, and not for sale to the general public. IEC 60050 [IEV 161-05-05]
- To prevent personal injury and damage to property, higher-level safety and protection systems must be used!
- All transport locks must be removed.
- Mounted eye bolts on the motor are not suitable for transporting gearmotors.
- The product may only be operated under the specified operating conditions and in the specified mounting positions.
- The product must be operated with an inverter.
- Only certified application brakes may be used as safety brakes for functional safety.
- The product must not be operated in private areas, in potentially explosive atmospheres and in areas with harmful gases, oils, acids and radiation.



3.3 Foreseeable misuse

- Use in potentially explosive atmospheres
- Use in aggressive environments (acids, gases, vapors, dusts, oils)
- Use under water
- Use under radiation
- Operation on a frequency-rigid mains (public AC system)



3.4 Residual hazards

Even if notes given are taken into consideration and protective measures are implemented, the occurrence of residual risks cannot be fully prevented.

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this can lead to severe injuries to persons and damage to property!

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this may result in injuries to persons and material damage!

Product

Observe the warning labels on the product!



Dangerous electrical voltage:

Before working on the product, make sure there is no voltage applied to the power terminals!
After mains disconnection, the power terminals will still carry the hazardous electrical voltage for the time given next to the symbol!



Electrostatic sensitive devices:

Before working on the product, the staff must ensure to be free of electrostatic charge!



High leakage current:

Carry out fixed installation and PE connection in compliance with:
EN 61800-5-1 / EN 60204-1



Hot surface:

Use personal protective equipment or wait until the device has cooled down!

Protection of persons

- The power terminals may carry voltage in the switched-off state or when the motor is stopped.
 - Before working, check whether all power terminals are deenergized.
- Voltages may occur on the drive components (e.g. capacitive, caused by inverter supply).
 - Careful earthing in the marked positions of the components must be carried out.
- There is a risk of burns from hot surfaces.
 - Provide protection against accidental contact.
 - Use personal protective equipment or wait until the device has cooled down.
 - Prevent contact with flammable substances.
- There is a risk of injury due to rotating parts.
 - Before working on the drive system, ensure that the motor is at a standstill.
- There is a risk of accidental start-up or electric shock.



Gearbox protection

- Excessive vibration accelerations and resonances will damage the gearbox.
 - Do not operate the gearbox at vibration accelerations $> 2 \text{ g}$ (20 m/s^2) of the machine.
 - Do not operate the gearbox in the resonance range of the machine.
- Excessive torques will damage the gearboxes.
 - Do not exceed the output torques specified on the nameplate.
- Excessive input speeds lead to increased temperatures.
 - Do not exceed the input speeds specified on the nameplate.
- Avoid excessive lateral forces on the gearbox shaft.
 - Align the shafts of the gearbox and driven machine exactly with each other.
- Machine elements can be damaged by a lack of lubricant.
 - Mount the gearbox only in the mounting position indicated on the nameplate.
 - When changing the lubricant, use the lubricant type and quantity specified on the nameplate.

Motor protection

- Installed temperature contacts are not full protection for the machine.
 - If necessary, limit the maximum current. Parameterize the inverter so that it will be switched off after some seconds of operation with $I > I_{\text{rated}}$, especially if there is a risk of blocking.
 - Integrated overload protection does not prevent overloading under all conditions.
- The fuses are no motor protection.
 - Use a current-dependent motor protection switch.
 - Use the built-in temperature contacts.



4 Information on project planning

4.1 General information

NOTICE

For gearboxes with hollow shaft and shrink disk
observe the following requirements for the machine shaft:

- ▶ Fit tolerance h6
- ▶ Material yield strength $R_e \geq 360 \text{ MPa}$
- ▶ Modulus of elasticity approx. 210000 MPa
- ▶ Surface roughness $R_z \leq 15 \text{ }\mu\text{m}$
- ▶ No radial, axial forces and forces due to stress/rotation permissible

Operation on a frequency inverter

The m550-U, m550-V, and m650-U synchronous motors are optimized for sensorless operation with the i5xx and i6xx frequency inverters. With a frequency inverter operated at 400 V - 480 V, the motor can be operated continuously and efficiently at rated torque in the speed range up to 1860 rpm (m550) or up to 3720 rpm (m650).

On delivery, the frequency inverters are preset for the operation of asynchronous motors. Exceptions are the mounted i550/i650 motec units by Lenze.

Permanent position control during standstill under load can lead to increased gearbox wear.

Ensure that the frequency inverter is operated with the correct motor parameters and in SLSM operating mode.

Further information can be found in the frequency inverter documentation.

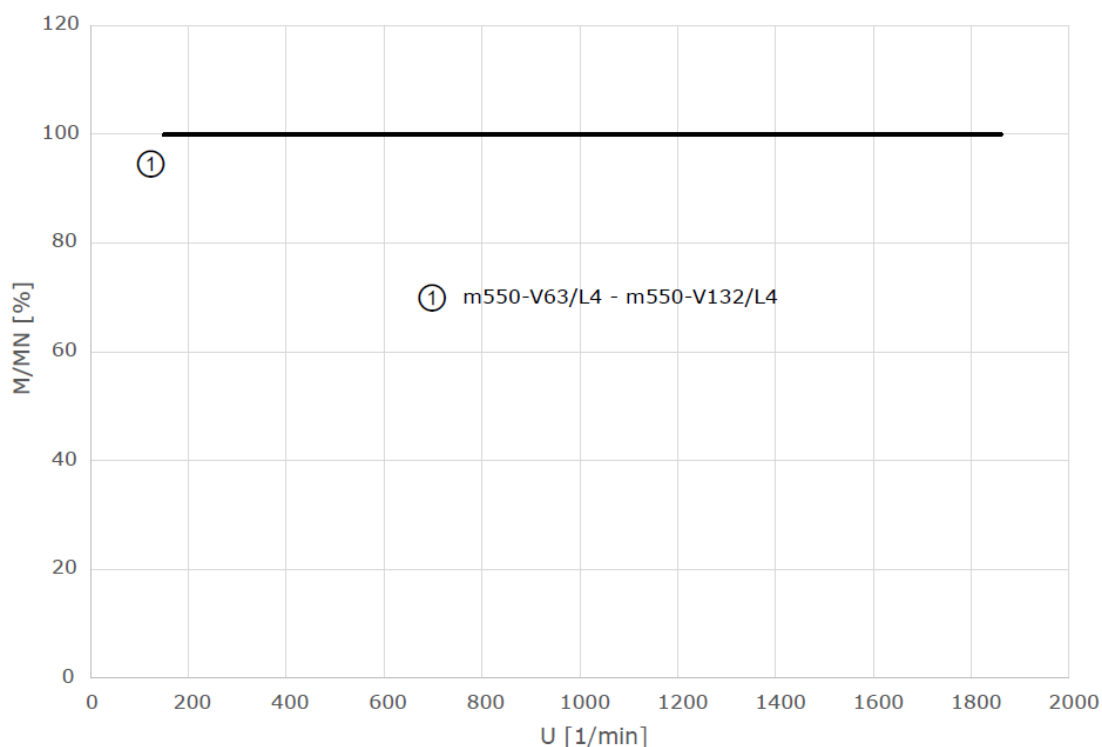
Torque reduction at low motor frequencies

At low motor frequencies (usually $< 20 \text{ Hz}$) and integral-fan operation, the motor is insufficiently cooled at the rated torque. By reducing the torque accordingly, the motor can be operated from 5 Hz.

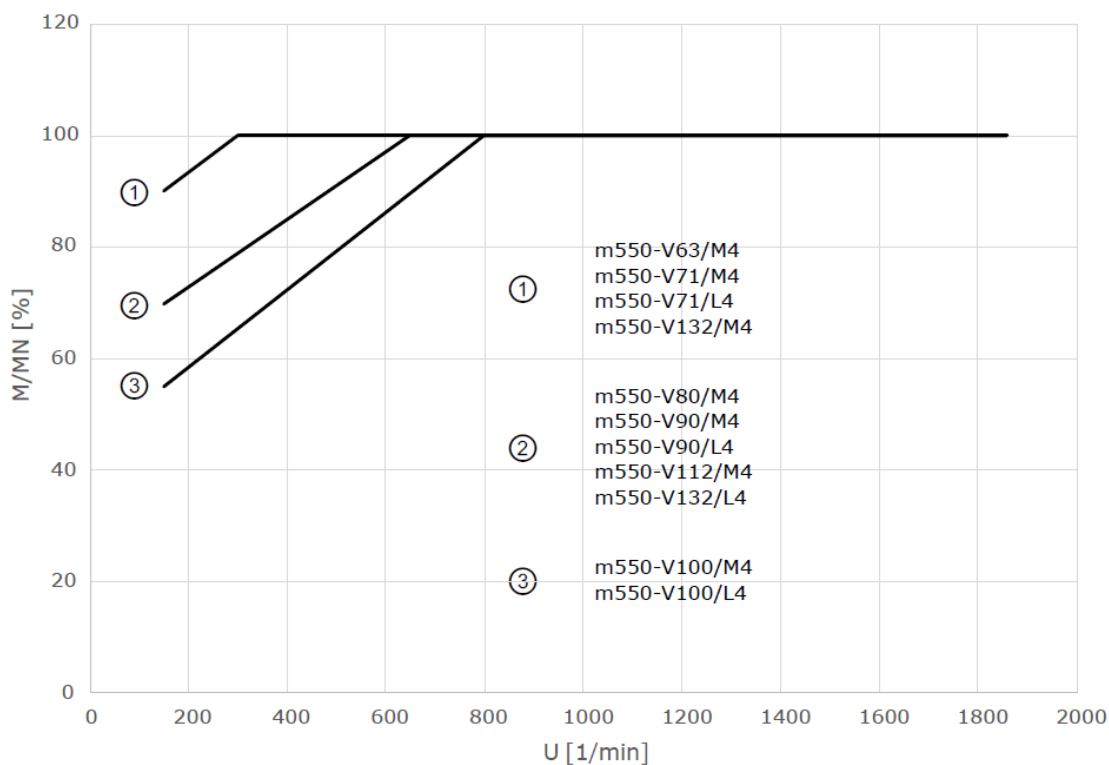


The diagram shows the motor size-dependent torque reduction for self-ventilated motors, taking into account the thermal behavior during operation on the inverter.

Derating wall/control cabinet-mounted inverters in S1 operating mode



Derating i5x0motec/i6x0motec as a drive package in S1 operating mode





Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible continuous gearbox power. It is affected by

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the gears
- the load and the speed spectrum.
- the ambient conditions: temperature, air circulation, input or dissipation of heat via shafts and the foundations.

NOTICE

A thermal check using the EASY System Designer (ESD) or consultation with your Lenze representative is required if

- ▶ the input speed $n_1 > 1860$ rpm is exceeded with the gearbox ratios listed below.
- ▶ the input speeds specified below are exceeded depending on the mounting position. For short periods of up to 5 minutes, speeds 30% higher than this are permissible.
- ▶ the ambient temperature is predominantly above +3 0°C.

Gearbox	Ratio i
g500-S2100 ... S4500	≤ 16

Motor	Mounting position M5, M6	Mounting position M1, M3	Mounting position M2, M4
m550-x63 ... x71	3200 rpm	3200 rpm	3000 rpm
m550-x80 ... x100	3200 rpm	3200 rpm	3000 rpm
m550-x112 ... x132	3000 rpm	2600 rpm	1500 rpm

Possible measures for expanding the scope of application

- Shaft sealing rings made of FKM material/Viton (optional)
- Reduction of lubricant quantity (in consultation with Lenze)
- Cooling of the gearmotor by air convection on the machine/system
- A version with a inch shaft is available on request.



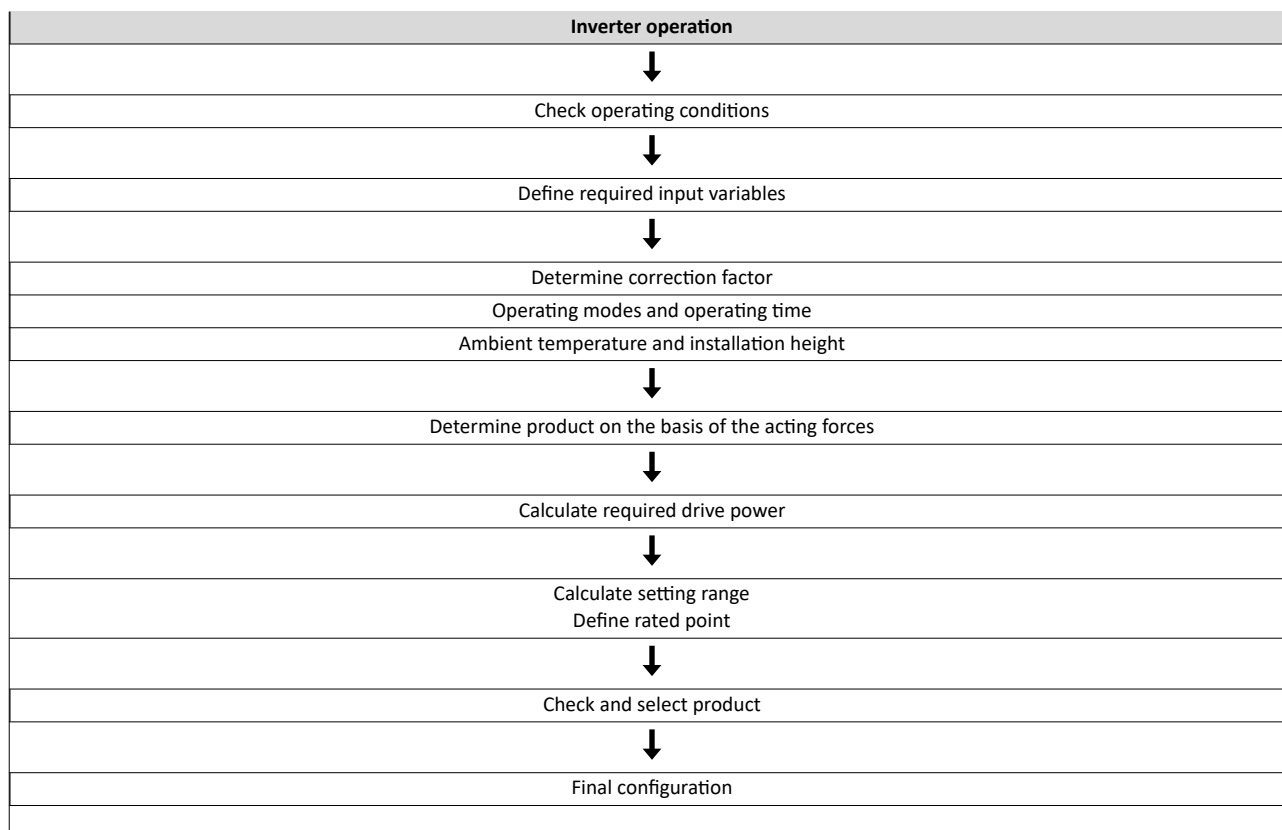
4.2 Drive dimensioning

In order to carry out an accurate drive dimensioning process, you can use our configuring software, the »EASY System Designer«.

With the »EASY System Designer«, you can design the drive both quickly and to a high quality. The software contains profound and proven expertise with regard to drive applications and mechatronic drive components.

Please get in touch with your Lenze representative.

Workflow



Check operating conditions

Check
Approvals Conformities Supply voltage Degree of protection Ambient temperature Surface protection

► [Standards and operating conditions](#) 51

► [Surface and corrosion protection](#) 35



Define required input variables

Necessary input variables	Note	Symbol	Unit
Operating time / day		OD	
Ambient temperature		T_V	°C
Site altitude amsl		H	m
Radial force		F_{rad}	N
Axial force		F_{ax}	N
Transmission element at the output Effective diameter of the transmission element	Gear wheels, sprockets ...	d_w	mm
Load torque	For short-term load peaks	$M_{L,max}$	Nm
	In rated operation	M_L	Nm
	In mains operation, $M_{L,max}/M_L$ should be < 2.0 to guarantee a safe start of the motor		
Load speed		$n_{L,max}$	rpm
	In inverter operation	$n_{L,min}$	rpm
Runtime for $M_{L,max}$	In inverter operation		%
External moments of inertia		J_{ext}	kgcm ²
Switching operations per hour		S_H	1/h

Determine correction factor

Operating modes S1, S2, S3, S6, and operating time							
Operating mode S1		Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_L	ED	k_L	ED	k_L	ED	k_L
%		min		%		%	
100	1.0	10	1.4 - 1.5	15	1.4 - 1.5	15	1.5 - 1.6
		30	1.15 - 1.2	25	1.3 - 1.4	25	1.4 - 1.5
		60	1.07 - 1.1	40	1.15 - 1.2	40	1.3 - 1.4
		90	1.0 - 1.05	60	1.05 - 1.1	60	1.15 - 1.2

► Operating modes of the motor [180](#)

Installation altitude amsl	
≤ 1000 m	≤ 2000 m
Correction factor	
k_H	k_H
1	0.95

Ambient temperature		
≤ 40 °C	≤ 45 °C	≤ 50 °C
Correction factor		
k_{TU}	k_{TU}	k_{TU}
1	0.95	0.90

Mounting position						
Gearbox	Mounting position					
	M1	M2	M3	M4	M5	M6
	Correction factor					
	k_E	k_E	k_E	k_E	k_E	k_E
g500-S	1.00	0.70	0.80	0.85	0.80	0.90

► Selection tables [71](#)



Gearbox efficiency

Gearboxes	Gearbox efficiency	
	η_{c1}	
g500-S		
2-stage	0.96	
3-stage	0.95	
4-stage	0.94	

Determine product on the basis of the forces

Transmission element			Gear wheels	Sprockets	Toothed belt pulleys (depending on the pretension)	Narrow V-belt (depending on the pretension)
Additional radial force factor	f_z		≥ 17 teeth: 1.0 < 17 teeth: 1.15	≥ 20 teeth: 1.0 < 20 teeth: 1.25 < 13 teeth: 1.4	With belt tightener: 2.0 – 2.5 Without belt tightener: 2.5 – 3.0	1.5 – 2.0
			Calculation		Check	
Radial force	F_{rad}	N	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{dw}$		$F_{rad} \leq f_W \times F_{rad,max}$	
Axial force	F_{ax}	N			$F_{ax} \leq F_{rad,max} \times 0.5$	

dw Effective diameter of transmission element in mm

f_w Additional load factor

► [Radial forces and axial forces](#) 69

Calculate drive power

Required Drive power	kW	$P_1 = \frac{M_L \times \eta_{L,max}}{9549 \times k_L \times k_H \times k_{TU} \times \eta_g}$	
----------------------	----	--	--

k_L Correction factor - operating mode

k_{TU} Correction factor - ambient temperature

k_H Correction factor - site altitude

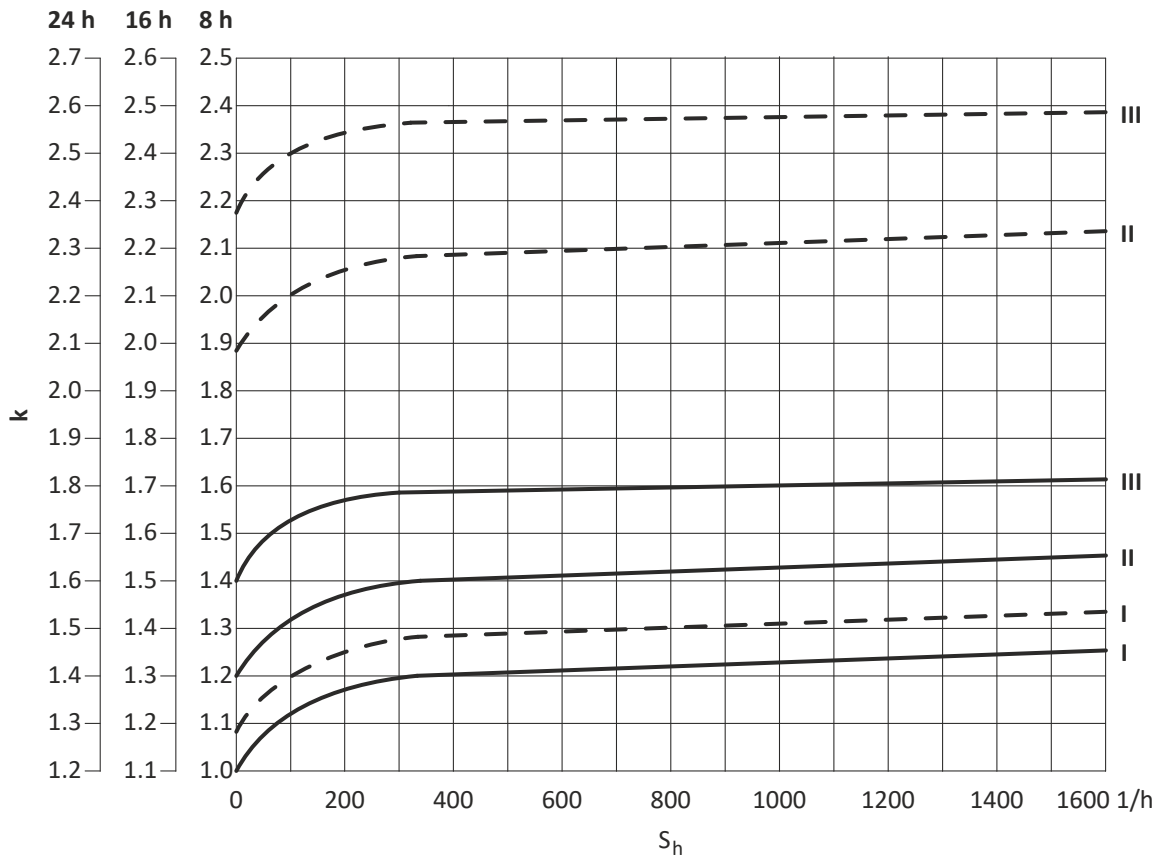
η_g Gearbox efficiency

Intensity and load class for inverter operation

	Calculation	
Intensity	$M_I = \frac{M_{L,max}}{M_L}$	For alternating load, select load class III!
Intensity	Load type	Load class
$M_I \leq 1.5$	Smooth operation, small or light jolts	I
$1.5 < M_I \leq 2$	Uneven operation, average jolts	II
$2 < M_I \leq 2.5$	Uneven operation, severe jolts and/or alternating load	III



Application factor k



k Application factor
 S_h Switching rate
 - - - - Ratio of max. torque/rated torque = 2.5

Stalling torque/rated torque of the motor ▶ [Rated data](#) 176

Inverter operation

Selection table	Check	Unit	Note
Rated frequency	62	Hz	
Rated power	$P_{rated} \geq P_1$	kW	
Output torque	$M_2 \geq M_L$	Nm	The geared motor must be able to provide sufficient torque for $M_{L,max.}$
Max. output speed	$n_2 \approx n_{L,max}$	rpm	
Min. output speed			
Self-ventilated	$n_{21} \approx n_{L,min}$	rpm	Setting ranges ≤ 2.5 (62 Hz)
Self-ventilated (reduced output torque)	$n_{22} \approx n_{L,min}$	rpm	Setting ranges ≤ 10 (62 Hz)
Load factor	$c \geq k$		

Order information	Example
Gearmotor	
Gearbox	g500-S130
Motor	m550-U63/L4
Gearbox ratio i	31387
Number of stages	2



4.3 Final configuration

	Check
Connection dimensions	Output shaft Output flange/foot
Mounting position	Geared motor Connector/terminal box Output shaft/output flange
Product extensions	Torque plate Shaft cover Connector/terminal box Brake Temperature monitoring ...

Further information on final project planning:

- ▶ [The modular system](#)  14
- ▶ [Product extensions](#)  143



4.3.1 Surface and corrosion protection

Depending on the ambient conditions, the surface and corrosion protection system (called OKS) offers tailor-made solutions for optimum protection.

Various surface coatings ensure reliable functioning even at high air humidity, in outdoor installations, or in the presence of atmospheric contamination. Any color from the "RAL Classic" collection can be chosen for the top coat.

For indoor installation in buildings and if no special corrosion protection is required, the products are also available unpainted (without surface and corrosion protection system).



Without OKS (unpainted):

The aluminum parts are uncoated and cast iron parts primed with gray paint. Slight color differences between the components are possible.

Surface and corrosion protection	Applications	Product	
		g500-H45 ... H450 g500-S130 ... S660 g500-B45 ... B450	g500-H600 ... H1500 g500-S950 ... S4500 g500-B600 ... B1500
Without OKS (unpainted)	- Indoor installation, no special corrosion protection necessary - Painting by customer	Default	-
OKS-G (primed)	Dependent on subsequent top coat applied	Optionally	Optionally
OKS-S (small)	- Standard applications - Indoor installation in heated buildings - Air humidity up to 90 %		Default
OKS-M (medium)	- Indoor installation in unheated buildings - Covered, protected outdoor installation - Air humidity up to 95 %		Optionally
OKS-L (large)	- Outdoor installation - Chemical industrial plants - Food industry - Air humidity above 95 %		

Surface and corrosion protection	Corrosivity category	Surface coating	Color	Coating thickness
	DIN EN ISO 12944-2	Design		
Without OKS (unpainted)	-	Dip priming of the gray cast iron parts	-	30 ... 50 µm
OKS-G (primed)	-	- Dip priming of the gray cast iron parts 2K PUR priming coat	-	80 ... 120 µm
OKS-S (small)	Comparable to C1	- Dip priming of the gray cast iron parts 2K-PUR top coat	- Standard: RAL 7012 - Optional: According to RAL Classic possible	80 ... 120 µm
OKS-M (medium)	Comparable to C2	Dip priming of the gray cast iron parts		110 ... 160 µm
OKS-L (large)	Comparable to C3	2K PUR priming coat 2K-PUR top coat		140 ... 200 µm



4.3.2 Temperature ranges

Temperature packages

The following temperature packages are available to suit your ambient conditions:

- Standard

On request:

- Deep-freeze
- Wide range



Observe the instructions given for the temperature packages!

For ambient temperatures < 0 °C or > +40 °C please contact your responsible Lenze sales company.

Temperature packages	
Standard	
Ambient temperature	0 °C ... +40 °C
Lubricant	Mineral oil • CLP 460 Synthetic oil • CLP HC 220 Food-grade oil • CLP HC 220 USDA H1
Note	At an ambient temperature predominantly above +30 °C: • Verification of the application by Lenze required.



4.3.3 Lubricants

The following gearboxes are lubricated for life:

- g500-S130

Recommended lubricants:

Lubricant	CLP 460	CLP HC 220 NSF H1	CLP HC 220	CLP HC 320
Ambient temperature	0 ... +40 °C	-20 ... +40 °C	-30 ... +40 °C	-20 ... +50 °C
Specification	Mineral oil with EP additives	Synthetic oil (polyalfaolefins basis)	Synthetic oil (polyalfaolefins basis)	
Change interval				
Operating hours	16000		25000	
Not later than after	3 years		4 years	
At oil temperature	70 °C		70 °C	
Fuchs	Renolin CLP 460	Cassida Fluid GL 220	Renolin Unisyn XT 220	Renolin Unisyn XT 320
Klüber	Klüberoil GEM 1-460 N	Klüberoil 4 UH1-220 N	Klübersynth GEM 4-220 N	Klübersynth GEM 4-320 N
Shell	Shell Omala S2 GX 460		Shell Omala S4 GXV 220	Shell Omala S4 GXV 320

Lubricant amounts for stocking

All lubricant amounts are reference values for a change of lubricant. They serve stocking purposes, for example. The specified values may vary if the unit is installed in a tilted position.

The exact values can be found on the nameplate.

Mounting position		M1 (A)	M2 (D)	M3 (B)	M4 (C)	M5 (F)	M6 (E)	M1, M5, M6 (AEF)
Gearboxes								
g500-S130	I	0.7	0.8	0.7	0.7	0.6	0.6	0.7
g500-S220	I	1.1	1.1	.9	1.1	1.0	0.8	1.1
g500-S400	I	1.6	1.3	1.2	1.5	1.3	1.1	1.6
g500-S660	I	2.5	2.4	1.8	2.4	1.9	1.9	2.5
g500-S950	I	2.9	3.2	2.4	3.2	2.4	2.4	-
g500-S2100	I	7.1	7.5	6.0	7.5	5.6	5.5	-
g500-S3100	I	9.7	10.6	8.0	11.7	8.7	7.3	-
g500-S4500	I	19.4	20.0	13.7	21.2	14.7	15.8	-
Pre-stage	I	0.4						

► Gearbox with pre-stage [138](#)



4.3.4 Ventilation



No venting measures are required for the g500-S130 ... S220 gearboxes.

The g500-S220 gearbox can optionally be equipped with a breather element.

From g500-S400 onwards, the gearboxes are supplied with breather elements as standard.

To reduce the number of different versions, the following gearboxes can also be ordered with combined mounting positions:

- g500-S130 ... S660 in mounting position M1/5/6 (AEF)



In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and must be mounted before commissioning depending on the mounting position.

NOTICE

- For gearboxes with ventilation, a gap of at least 30 mm has to be observed to the machine wall on the corresponding gearbox side.

g500-S220

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

Ventilation

Change oil

Fill oil

Oil level



g500-S400

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📊 Oil level

g500-S660

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

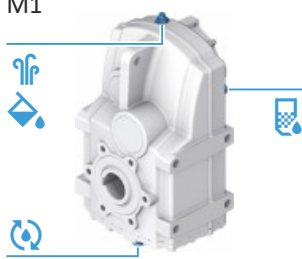
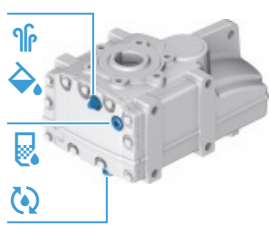
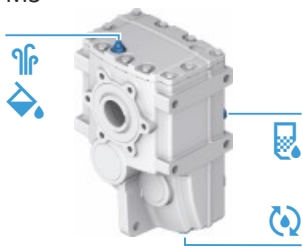
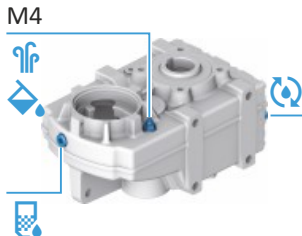
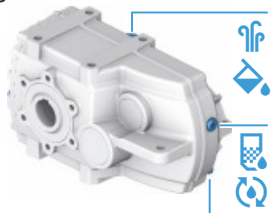
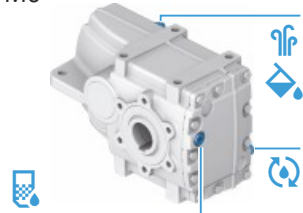
📊 Oil level

Information on project planning

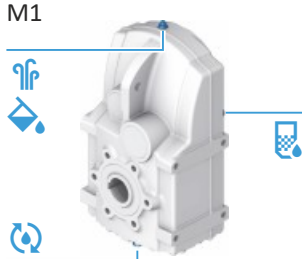
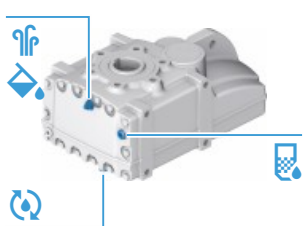
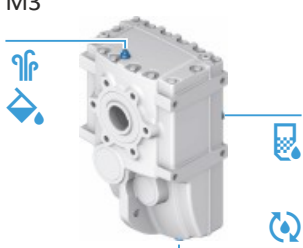
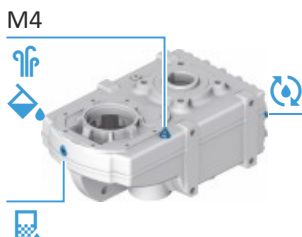
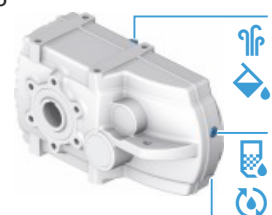
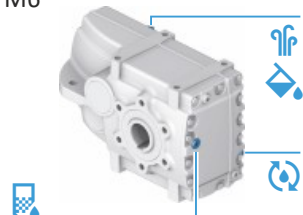
Final configuration
Ventilation



g500-S950

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level

g500-S2100

Mounting position			
M1 (A)	M2 (D)	M3 (B)	
M1 	M2 	M3 	
M4 (C)	M5 (F)	M6 (E)	
M4 	M5 	M6 	
 Ventilation	 Change oil	 Fill oil	 Oil level



Information on project planning

Final configuration
Ventilation

g500-S3100

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📊 Oil level

g500-S4500

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📊 Oil level



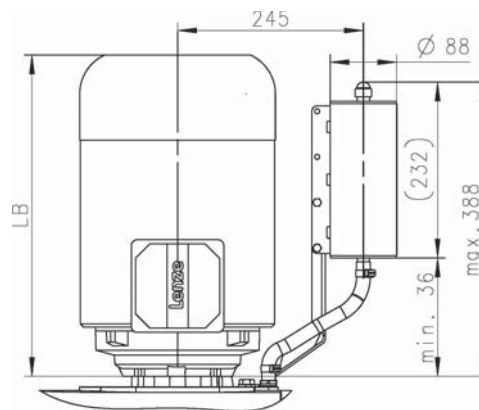
Gearbox with oil compensation reservoir for mounting position M4 (C)

In order to guarantee a reliable lubrication of the toothed parts in mounting position M4 (C) (motor is on the gearbox vertical from the top), a high filling level is required in the gearbox. As a result of the reduced volume of air in the gearbox, this may lead to oil escaping from the ventilation at higher input speeds. The oil compensation reservoir increases the expansion space for the lubricant.

The oil compensation reservoir can be ordered as a mounting set for fastening to the gearbox.

If insufficient space is available, the oil compensation reservoir can also be mounted over the gearbox hose connection on nearby system parts.

Dimensions of the oil compensation reservoir



8800783-00

For the following gearboxes in mounting position M4 (C), which exceed the specified min. input speed, an oil expansion reservoir is required depending on the specified gear ratio:



Information on project planning

Final configuration
Ventilation

g500-S2100		g500-S3100		g500-S4500	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm		rpm
4.593	2000	4.951	2000	4.914	2000
6.029	2000	6.499	2000	6.450	2000
6.870	2000	7.406	2000	7.056	2000
8.272	2000	8.917	2000	8.944	2000
9.452	2000	10.932	2000	9.984	2000
10.504	2000	11.128	2000	11.740	2000
12.406	2000	12.584	2000	12.843	2000
13.787	2000	14.606	2000	13.105	2000
14.137	2000	16.517	2000	14.336	2000
15.711	2000	16.644	2000	16.381	2000
17.022	3000	18.822	2000	18.286	2000
18.917	3000	20.041	3000	20.067	2000
20.869	3000	22.663	3000	22.400	2000
23.193	3000	24.570	3000	26.437	3000
28.275	3000	27.785	3000	29.511	3000
31.422	3000	33.289	3000	32.489	3000
34.333	3000	37.644	3000	36.267	3000
38.156	3000	40.422	3000	42.044	3000
44.431	4000	45.711	3000	46.933	3000
49.378	4000	52.311	4000	51.027	4000
53.924	4000	59.156	4000	56.960	4000
59.927	4000	63.487	4000	64.500	4000
68.162	4000	71.793	4000	72.000	4000
75.750	4000				



5 Mechanical installation

5.1 Important notes

- Install the product according to the information in the chapter "Standards and operating conditions".
 - ▶ [Standards and operating conditions](#)  51
- The technical data and the data regarding the supply conditions can be found on the nameplate and in this documentation.
- Ambient media – especially chemically aggressive ones – may damage shaft sealing rings, lacquers and plastics.
- Lenze offers special surface and corrosion protection in this case.



5.2 Transport

CAUTION!

Danger from tipping and falling loads!

Standing beneath suspended loads is prohibited!

Possible consequences: Minor or moderate injuries.

- ▶ To achieve a load direction that is as vertical as possible (maximum load-bearing capacity), use additional, suitable load carriers if necessary. Secure the load carrier against slipping!
- ▶ Screw in the transport aids completely. They must lie flat and over the entire surface!
- ▶ Load the transport aids vertically in the direction of the screw axis! Inclined or lateral tension reduces the load-bearing capacity! Observe the specifications in the DIN 580!

NOTICE

Eye bolts or lifting eyes on the motor are not suitable for transporting geared motors.

Only use these for mounting/dismounting the motor on the gearbox.

Possible consequences: Damage to the geared motor.

- ▶ Only use the threads provided on the gearbox for eye bolts or lifting eyes for transporting the geared motor.

Preconditions

- Ensure appropriate handling.
- Make sure that all component parts are securely mounted. Secure or remove loose component parts.
- Only use safely fixed transport aids (e.g., eye bolts or support plates).
- Do not damage any components during transport.
- Avoid electrostatic discharges on electronic components and contacts.
- Avoid impacts.
- Check the carrying capacity of the hoists and load handling devices. The weights can be found in the shipping documents.
- Secure the load against tipping and falling down.
- Standing beneath suspended loads is prohibited.



The lifting eye is not included in the scope of supply!

Position of the lifting eye

Geared motor		
	Lifting eye on the housing	
G50BS113Mxxxxxx		•
G50BS122Mxxxxxx		•
G50BS140Mxxxxxx		•
G50BS166Mxxxxxx		•
G50BS195Mxxxxxx		•
G50BS221Mxxxxxx		•
G50BS231Mxxxxxx		•
G50BS245Mxxxxxx		•
G50BS280Mxxxxxx		•
G50BS314Mxxxxxx		•
G50BS319Mxxxxxx		•



5.3 Installation

Ventilation elements

Gearboxes that are supplied with a pre-assembled ventilation element:

- The ventilation element is identified by a sign on the gearbox.
- Remove the transport lock from the ventilation element before initial commissioning.

Gearboxes that are supplied with a loosely attached ventilation element:

- Before commissioning for the first time, install the ventilation element according to the mounting position.

Mounting surfaces

- The mounting surfaces must be plane, torsionally rigid and free from vibrations.
- The mounting areas must be suited to absorb the forces and torques generated during operation.
- Ensure an unhindered ventilation.
- For versions with a fan, keep a minimum distance of 10 % from the outside diameter of the fan cover in intake direction.



6 Electrical installation

6.1 Important notes

DANGER!

Risk of injury and risk of burns from dangerous voltage

Power terminals may also carry voltage in the switched-off state or when the motor is stopped and may cause life-threatening cardiac arrhythmia and serious burns.

- ▶ Disconnect the product from the mains.
- ▶ Check that the power terminals are deenergized before starting work.

-
- When working on energized products, comply with the applicable national accident prevention regulations.
 - The electrical installation must be carried out according to the appropriate regulations (e.g. cable cross-sections, fuses, PE connection).
 - The manufacturer of the system or machine is responsible for adherence to the limits required in connection with EMC legislation.

Connection for high leakage current

If the leakage current is greater than 3.5 mA for alternating current or greater than 10 mA for direct current, the standard EN 61800-5-1 requires that at least one or more of the following measures be met:

- The minimum PE conductor cross-section is 10 mm² with Cu or 16 mm² with Al.
- Attachment of an additional protective grounding conductor with the same cross-section as the original protective grounding conductor.
 - Do not place the additional terminal on the same terminal.
- Provide automatic disconnection of the mains in case of interruption of the protective conductor.

▶ [Connection options](#)  145

Operation on an external inverter

A max. pulse voltage amplitude of $U_{pk} = 1560 \text{ V}$ at the motor terminals must not be exceeded.

Here, the minimum pulse rise time must be $t_r = 0.1 \text{ } \mu\text{s}$.

If it cannot be ruled out that the permissible voltage peaks will be exceeded or that the minimum pulse rise time will not be reached, the following measures must be initiated:

- Reduction of the DC-bus voltage (threshold for brake chopper voltage)
- Use of filters, chokes
- Use of special motor cables



6.2 Preparation

EMC-compliant wiring



The EMC-compliant wiring is described in detail in the documentation of the Lenze inverters.



7 Technical data

7.1 Notes regarding the given data

Catalog data

The power values, torques and speeds specified in the configuration are rounded values and apply to:

- Operating time per day = 8 hrs (100 % ED)
- Duty class up to 10 switching operations per hour
- Ambient temperature = 0 ... +40 °C
- Site altitude ≤ 1000 m above mean sea level
- The selection tables indicate the mechanically permissible power levels and torques.
- The specified rated data apply to operating mode S1 (acc. to EN 60034-1).

NOTICE

In case of other operating conditions, the achievable values can differ for those mentioned.

► In case of extreme operating conditions, please get in touch with your Lenze representative.



7.2 Standards and operating conditions

7.2.1 Conformities and approvals

More information and certificates of approval can be found under

[g500 + m500 shaft-mounted helical geared motors \(Lenze.com\)](https://www.lenze.com/g500+m500-shaft-mounted-helical-g geared-motors)

Europe					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
European Union	CE	2006/42/EC	Machinery Directive	Only for safety- relevant components	CE mark
		2011/65/EU	RoHS	-	
		2014/30/EU	EMC Directive		
		2014/35/EU	Low-Voltage Directive		
Great Britain	UKCA	S.I. 2008/1597	The Supply of Machinery (Safety) Regulations 2008	Only for safety- relevant components	UKCA mark
		S.I. 2012/3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	-	
		S.I. 2016/1091	The Electromagnetic Compatibility Regulations 2016		
		S.I. 2016/1101	The Electrical Equipment (Safety) Regulations 2016		

America					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
Canada	CSA	CSA 22.1 No. 100	CSA Standard for Motors and Generators	-	cULus mark
USA	UL	UL 1004-1	UL Standard for Rotating Electrical Machines		

Asia					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
China	-	GB 30253	Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors	in preparation	CEL mark
		GB/T 26572	Requirements on concentration limits for certain restricted substances in electrical and electronic products	-	EFUP mark

7.2.2 Protection of persons and device protection

Degree of protection			
EN	EN IEC 60529,EN IEC 60034-5	IP54	Information applies to the mounted and ready for-use state
		IP55	
Temperature class			
-	EN IEC 60034-1	F (155 °C)	Insulation system
Utilization		B (130 °C)	Utilization
Permissible voltage			
-	IEC 60034-18-41	IVIC C	At 500 V

7.2.3 EMC data

Noise emission		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable
Interference immunity		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable

Technical data

Standards and operating conditions
Environmental conditions



7.2.4 Environmental conditions

Energy efficiency			
Efficiency level	EN IEC 60034-30-2	Energy efficiency class IE6	
Installation altitude			
0 ... 1000 m amsl	-	Without current derating	
Air humidity			
-	-	Average relative humidity 85 %	Without condensation



7.3 Gearbox data

The following tables contain the most important data of the gearbox for attachable motors of a geared motor.

The specified data for speed, torque, and power are valid at

- input speed $n_1 = 1860$ rpm
- Application factor $c = 1.0$

In order to calculate the exact ratio, the number of teeth z_g (driven) can be divided by the number of teeth z_t (driving).

g500-S130, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
n_2	$M_{2, \max}$	i	z_g	z_t	Standard
rpm	Nm				'
508	63.0	3.661	637	174	19
371	76.0	5.021	728	145	18
290	87.0	6.425	559	87	18
265	92.0	7.029	5096	725	18
224	116	8.322	749	90	13
198	125	9.411	847	90	12
163	130	11.413	856	75	13
144	130	12.907	968	75	12
127	130	14.606	4601	315	12
116	130	15.979	5992	375	12
103	130	18.069	6776	375	12
91.3	130	20.381	428	21	13
80.7	130	23.048	484	21	12
74.5	130	24.967	749	30	12
65.9	130	28.233	847	30	12
59.3	130	31.387	2354	75	12
52.4	130	35.493	2662	75	12
46.0	130	40.422	1819	45	12
40.7	130	45.711	2057	45	12
36.3	130	51.230	8453	165	12
32.1	130	57.933	869	15	11
29.0	130	64.200	321	5	12
25.6	130	72.600	363	5	11

g500-S130, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
n_2	$M_{2, \max}$	i	z_g	z_t	Standard
rpm	Nm				'
22.2	130	83.698	18832	225	13
19.7	130	94.649	21296	225	12
17.4	130	107.113	101222	945	13
15.9	130	117.177	131824	1125	13
14.0	130	132.508	149072	1125	12
12.4	130	149.460	9416	63	13
11.0	130	169.016	10648	63	12
10.2	130	183.089	8239	45	13
9.0	130	207.044	9317	45	12



g500-S220, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
484	178	3.840	553	144	16
353	181	5.267	79	15	16
275	220	6.767	203	30	13
243	217	7.667	23	3	12
200	220	9.280	232	25	13
177	220	10.514	368	35	12
157	220	11.876	1247	105	12
143	220	12.992	1624	125	12
138	220	13.456	1978	147	12
126	220	14.720	368	25	12
112	220	16.571	116	7	12
99.1	220	18.776	920	49	12
91.6	220	20.300	203	10	12
80.9	220	23.000	23	1	11
70.4	220	26.422	1189	45	12
62.1	220	29.937	1886	63	11
56.6	220	32.867	493	15	12
49.9	220	37.238	782	21	11
43.7	220	42.533	638	15	12
38.6	220	48.190	1012	21	11
36.0	220	51.620	2581	50	11
31.8	220	58.486	2047	35	11
28.2	171	65.975	2639	40	11
24.9	194	74.750	299	4	11

g500-S220, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
46.5	220	40.012	13804	345	13
41.0	220	45.333	136	3	12
35.4	220	52.587	3944	75	12
31.2	220	59.581	6256	105	12
27.6	220	67.298	21199	315	12
24.4	220	76.249	33626	441	12
21.6	220	86.079	5423	63	12
19.1	220	97.528	43010	441	12
16.6	220	111.747	8381	75	12
14.7	220	126.610	13294	105	12
13.0	220	143.205	30073	210	12
11.5	220	162.252	23851	147	12
10.0	220	185.248	30566	165	12
8.9	220	209.887	48484	231	12
7.7	220	241.022	10846	45	12
6.8	220	273.079	17204	63	12



g500-S220, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
6.3	220	293.418	303688	1035	13
5.6	220	332.444	2992	9	12

g500-S400, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
557	203	3.339	581	174	16
406	243	4.579	664	145	16
317	258	5.860	3569	609	13
290	261	6.411	4648	725	12
249	365	7.467	112	15	13
221	380	8.436	329	39	12
182	400	10.240	256	25	12
161	400	11.569	752	65	12
142	400	13.105	1376	105	12
130	400	14.336	1792	125	12
126	400	14.806	4042	273	12
115	400	16.197	5264	325	12
102	400	18.286	128	7	12
90.0	400	20.659	1880	91	11
83.0	400	22.400	112	5	12
73.5	400	25.308	329	13	11
63.8	400	29.156	1312	45	12
56.5	400	32.940	3854	117	11
51.3	400	36.267	544	15	12
45.4	400	40.974	1598	39	11
39.6	314	46.933	704	15	11
35.1	348	53.026	2068	39	11
32.7	268	56.960	1424	25	11
28.9	302	64.354	4183	65	11



g500-S400, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
32.1	400	58.027	4352	75	11
28.4	400	65.559	12784	195	11
25.0	400	74.260	23392	315	11
22.2	400	83.900	68714	819	11
19.6	400	94.984	5984	63	11
17.3	399	107.314	87890	819	11
15.1	400	123.307	9248	75	11
13.4	399	139.313	27166	195	11
11.8	399	158.019	16592	105	11
10.4	400	178.531	48739	273	11
9.1	400	204.412	33728	165	11
8.1	396	230.946	99076	429	11
7.0	388	265.956	11968	45	11
6.2	400	300.479	35156	117	11

g500-S400, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n ₂	M _{2, max}	i	z _g	z _t	
rpm	Nm				'
4.4	400	425.529	95744	225	11
3.9	400	480.766	281248	585	11
3.4	400	544.576	514624	945	11
3.0	400	615.266	1511708	2457	11



g500-S660, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
475	419	3.920	98	25	14
346	492	5.376	672	125	13
290	601	6.417	77	12	11
270	496	6.880	172	25	13
254	593	7.311	329	45	11
211	638	8.800	44	5	10
186	625	10.027	752	75	10
165	660	11.262	473	42	10
151	660	12.320	308	25	10
145	660	12.832	4042	315	10
133	660	14.037	5264	375	10
118	660	15.714	110	7	10
104	660	17.905	376	21	10
96.6	660	19.250	77	4	10
84.8	660	21.933	329	15	9
74.2	578	25.056	451	18	10
65.2	660	28.548	3854	135	9
59.7	660	31.167	187	6	10
52.4	660	35.511	1598	45	9
46.1	545	40.333	121	3	10
40.5	620	45.956	2068	45	9
38.0	446	48.950	979	20	10
33.3	508	55.773	4183	75	9

g500-S660, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
37.3	625	49.867	748	15	10
32.7	650	56.818	12784	225	10
29.1	660	63.817	8041	126	10
26.6	660	69.813	5236	75	10
25.6	660	72.713	68714	945	10
23.4	660	79.545	89488	1125	10
20.9	660	89.048	1870	21	10
18.3	660	101.460	6392	63	10
17.1	660	109.083	1309	12	10
15.0	660	124.289	5593	45	10
13.6	660	137.133	2057	15	10
11.9	660	156.249	35156	225	10
10.5	660	176.611	3179	18	10
9.2	660	201.230	27166	135	10
8.3	660	223.833	1343	6	10
7.3	660	255.034	126242	495	10
6.6	603	280.500	561	2	10
5.8	660	319.600	1598	5	10



g500-S660, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
5.8	660	318.039	214676	675	11
5.1	592	365.689	16456	45	11
4.5	640	416.664	281248	675	10
4.0	660	467.995	88451	189	11
3.6	660	511.964	115192	225	11
3.2	660	583.329	1968736	3375	10
2.8	660	653.016	41140	63	11
2.5	660	744.042	140624	189	10
2.3	660	799.944	14399	18	11
2.0	660	911.452	123046	135	10
1.8	660	1005.644	45254	45	11

g500-S950, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
425	621	4.380	403	92	15
345	691	5.391	124	23	14
308	732	6.038	3472	575	14
242	783	7.702	1240	161	14
204	950	9.100	91	10	10
183	950	10.183	611	60	10
166	950	11.200	56	5	10
148	950	12.544	1568	125	9
133	950	14.037	5264	375	9
116	950	16.000	16	1	9
104	950	17.905	376	21	9
94.9	950	19.600	98	5	9
84.8	950	21.933	329	15	9
72.9	950	25.511	1148	45	9
65.2	950	28.548	3854	135	9
59.5	950	31.267	469	15	9
53.2	950	34.989	3149	90	9
45.3	950	41.067	616	15	9
40.5	950	45.956	2068	45	9
37.3	924	49.840	1246	25	9
33.3	950	55.773	4183	75	9
29.5	668	63.000	63	1	9
26.4	736	70.500	141	2	9



g500-S950, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
37.2	950	50.027	3752	75	10
33.2	950	55.982	12596	225	9
29.1	950	64.022	2881	45	10
26.6	950	70.037	26264	375	9
26.0	950	71.644	135407	1890	10
23.7	950	78.375	88172	1125	9
20.8	950	89.333	268	3	10
18.6	950	99.968	6298	63	9
17.0	950	109.433	3283	30	9
15.2	950	122.461	22043	180	9
13.1	950	142.437	19229	135	9
11.7	950	159.394	129109	810	9
10.5	950	177.178	7973	45	9
9.4	950	198.270	53533	270	9
8.1	950	229.289	10318	45	9
7.2	950	256.585	34639	135	9
6.7	950	278.273	41741	150	9
6.0	950	311.401	280261	900	9
5.2	950	355.658	42679	120	9
4.7	950	397.999	286559	720	9

g500-S950, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
5.8	950	319.059	1076824	3375	10
5.2	950	357.042	3615052	10125	10
4.6	950	406.963	10988	27	10
4.1	950	455.411	258218	567	10
3.6	950	513.607	577808	1125	10
3.2	950	574.751	1939784	3375	10
2.8	950	655.111	5896	9	10
2.5	950	733.101	138556	189	10
2.3	950	802.511	36113	45	10
2.1	950	898.048	242473	270	10
1.8	950	1044.538	423038	405	9
1.6	950	1168.888	1420199	1215	10
1.4	950	1299.304	175406	135	9
1.3	950	1453.983	588863	405	10



g500-S2100, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
309	1487	6.029	2279	378	11
271	1487	6.870	371	54	11
225	1487	8.272	3127	378	11
197	1866	9.452	4017	425	8
177	1872	10.504	1313	125	8
150	2030	12.406	4429	357	7
135	2047	13.787	4343	315	7
132	2050	14.137	721	51	7
118	2050	15.711	707	45	7
109	2050	17.022	6077	357	7
98.3	2050	18.917	5959	315	7
89.1	2050	20.869	3193	153	7
80.2	2050	23.193	3131	135	7
65.8	2050	28.275	1442	51	8
59.2	2050	31.422	1414	45	7
54.2	2050	34.333	103	3	7
48.7	2050	38.156	1717	45	7
41.9	2044	44.431	2266	51	7
37.7	2050	49.378	2222	45	7
34.5	1957	53.924	9167	170	7
31.0	2050	59.927	8989	150	7
27.3	1454	68.162	4635	68	7
24.6	1576	75.750	303	4	7

g500-S2100, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
46.4	1945	40.056	721	18	8
41.8	2050	44.515	12019	270	8
33.9	2050	54.933	824	15	8
30.5	2050	61.049	13736	225	8
26.5	2050	70.302	4429	63	8
24.2	2050	76.907	5768	75	8
23.8	2050	78.128	73831	945	7
21.8	2050	85.468	96152	1125	7
19.0	2050	98.095	2060	21	8
17.1	2050	109.016	6868	63	7
15.5	2050	120.167	721	6	8
13.9	2050	133.544	12019	90	7
11.9	2050	156.407	4223	27	8
10.7	2050	173.820	70397	405	7
9.6	2050	194.556	1751	9	8
8.6	2050	216.215	29189	135	7
7.4	2050	251.778	2266	9	8
6.6	2050	279.807	37774	135	7
6.1	2050	305.567	9167	30	8
5.5	2050	339.584	152813	450	7
4.8	2050	386.250	1545	4	7
4.3	2050	429.250	1717	4	7



g500-S2100, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
5.8	2050	320.263	181589	567	8
5.3	2050	350.353	236488	675	8
4.8	2050	389.356	3942232	10125	8
4.2	2050	446.878	84460	189	8
3.7	2050	496.628	281588	567	8
3.4	2050	547.426	29561	54	8
3.1	2050	608.369	492779	810	8
2.6	2050	712.523	173143	243	8
2.3	2050	791.846	2886277	3645	8
2.1	2050	886.309	71791	81	8
1.9	2050	984.979	1196749	1215	8
1.6	2050	1146.988	92906	81	8
1.5	2050	1274.678	1548734	1215	8
1.3	2050	1426.741	38522	27	8
1.2	2050	1585.575	642158	405	8
1.0	2050	1846.370	49852	27	8
0.9	2050	2051.921	831028	405	8
0.8	2050	2240.822	100837	45	8
0.7	2050	2490.286	1680943	675	8
0.7	2050	2719.543	815863	300	8
0.6	2050	3022.302	13600357	4500	8

g500-S3100, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
286	2110	6.499	3139	483	10
251	2235	7.406	511	69	9
209	2264	8.917	4307	483	9
170	2275	10.932	2263	207	9
148	2965	12.584	1573	125	6
127	3100	14.606	4601	315	6
113	3100	16.517	5203	315	6
112	3100	16.644	749	45	6
98.8	3100	18.822	847	45	6
92.8	3100	20.041	6313	315	6
82.1	3100	22.663	7139	315	6
75.7	3100	24.570	3317	135	6
66.9	3100	27.785	3751	135	6
55.9	3100	33.289	1498	45	6
49.4	3100	37.644	1694	45	6
46.0	3100	40.422	1819	45	6
40.7	3100	45.711	2057	45	6
35.6	2587	52.311	2354	45	6
31.4	2743	59.156	2662	45	6
29.3	2250	63.487	9523	150	6
25.9	2408	71.793	10769	150	6



g500-S3100, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
39.4	2958	47.159	12733	270	6
34.9	3054	53.330	14399	270	6
28.8	3100	64.676	14552	225	6
25.4	3100	73.138	16456	225	6
22.5	3100	82.769	78217	945	6
20.5	3100	90.546	101864	1125	6
19.9	3100	93.599	88451	945	6
18.2	3100	102.393	115192	1125	6
16.1	3100	115.492	7276	63	6
14.2	3100	130.603	8228	63	6
13.1	3100	141.478	12733	90	6
11.6	3100	159.989	14399	90	6
10.1	3100	184.146	74579	405	6
8.9	3100	208.240	84337	405	6
8.1	3100	229.059	30923	135	6
7.2	3100	259.030	34969	135	6
6.3	3100	296.430	40018	135	6
5.5	3100	335.215	45254	135	6
5.2	3100	359.758	161891	450	6
4.6	3100	406.829	183073	450	6

g500-S3100, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
5.9	3100	316.910	356524	1125	7
5.2	3100	358.375	403172	1125	6
4.6	3100	404.222	3638	9	7
4.1	3100	457.111	4114	9	6
3.8	3100	495.172	89131	180	6
3.3	3100	559.961	100793	180	6
2.9	3100	644.510	522053	810	6
2.6	3100	728.838	590359	810	6
2.3	3100	801.707	216461	270	6
2.1	3100	906.604	244783	270	6
1.8	3100	1043.492	1267843	1215	6
1.6	3100	1180.024	1433729	1215	6
1.4	3100	1298.002	525691	405	6
1.3	3100	1467.835	594473	405	6
1.1	3100	1679.768	680306	405	6
1.0	3100	1899.551	769318	405	6
0.9	3100	2173.817	880396	405	6
0.8	3100	2458.242	995588	405	6
0.7	3100	2638.224	1780801	675	6
0.6	3100	2983.412	2013803	675	6
0.6	3030	3201.844	14408299	4500	6
0.5	3100	3620.777	16293497	4500	6
0.5	3030	4092.245	14732081	3600	6
0.4	3100	4627.679	16659643	3600	6



g500-S4500, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
114	4500	16.381	344	21	5
92.7	4500	20.067	301	15	5
83.0	4500	22.400	112	5	4
70.4	4500	26.437	3569	135	5
63.0	4500	29.511	1328	45	4
57.3	4500	32.489	1462	45	5
51.3	4500	36.267	544	15	4
44.2	4101	42.044	1892	45	5
39.6	4394	46.933	704	15	4
36.5	3653	51.027	3827	75	5
32.7	3946	56.960	1424	25	4
28.8	2488	64.500	129	2	5
25.8	2586	72.000	72	1	4

g500-S4500, 3-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
48.8	4150	38.090	49708	1305	5
43.7	4291	42.520	18496	435	4
35.2	4500	52.794	9503	180	5
31.6	4500	58.933	884	15	4
28.6	4500	64.978	2924	45	5
25.6	4500	72.533	1088	15	4
25.6	4500	72.775	81872	1125	5
22.9	4500	81.237	30464	375	4
20.0	4500	92.825	5848	63	5
18.0	4500	103.619	2176	21	4
16.4	4500	113.711	5117	45	5
14.7	4500	126.933	1904	15	4
12.6	4500	148.005	59942	405	5
11.3	4500	165.215	22304	135	4
10.3	4500	181.396	48977	270	5
9.2	4500	202.489	9112	45	4
7.8	4500	238.252	32164	135	5
7.0	4500	265.956	11968	45	4
6.4	4500	289.151	65059	225	5
5.8	4500	322.773	24208	75	4
5.1	3962	365.500	731	2	5
4.6	4410	408.000	408	1	4



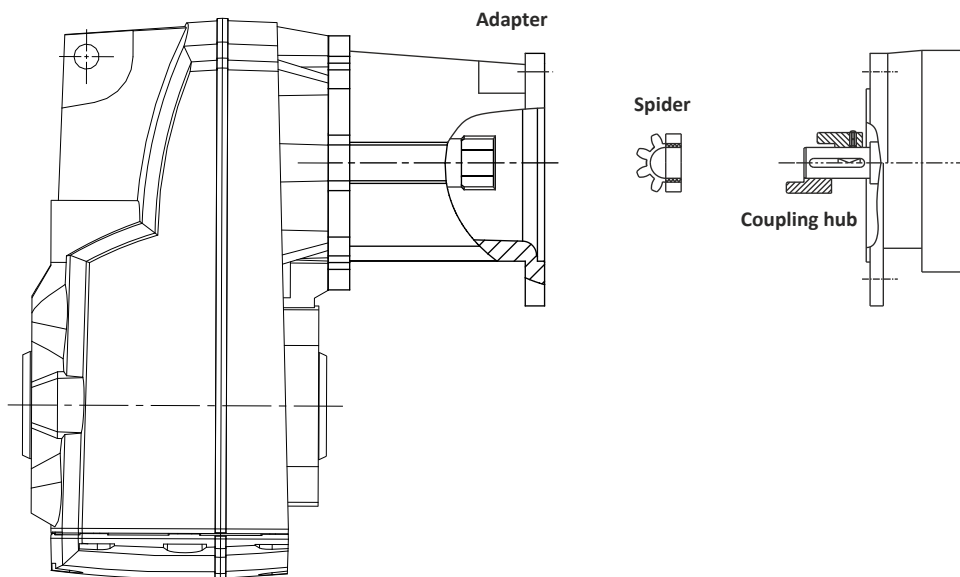
g500-S4500, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
n_2	$M_{2, \max}$	i	z_g	z_t	Standard
rpm	Nm				'
5.7	4500	324.889	2924	9	5
5.1	4500	362.667	1088	3	5
4.7	4500	397.989	35819	90	5
4.2	4500	444.267	6664	15	5
3.6	4500	518.017	209797	405	5
3.2	4500	578.252	78064	135	4
2.9	4500	634.887	342839	540	5
2.6	4500	708.711	31892	45	4
2.3	4500	826.361	2008057	2430	5
2.0	4500	922.449	373592	405	4
1.8	4500	1027.912	832609	810	5
1.6	4500	1147.437	154904	135	4
1.5	4500	1211.575	490688	405	4
1.4	4500	1350.094	546788	405	5
1.2	4500	1507.081	203456	135	4
1.1	4500	1747.180	707608	405	5
1.0	4500	1950.341	263296	135	4
0.9	4500	2120.441	1431298	675	5
0.8	4500	2367.004	532576	225	4
0.6	4500	2872.683	1077256	375	4
0.6	4500	3025.244	136136	45	4
0.6	4500	3289.094	5920369	1800	5
0.5	4500	3671.547	275366	75	4
0.4	3598	4157.563	66521	16	5
0.4	4016	4641.000	4641	1	4



7.4 Gearboxes with adapter

Versions with flexible coupling



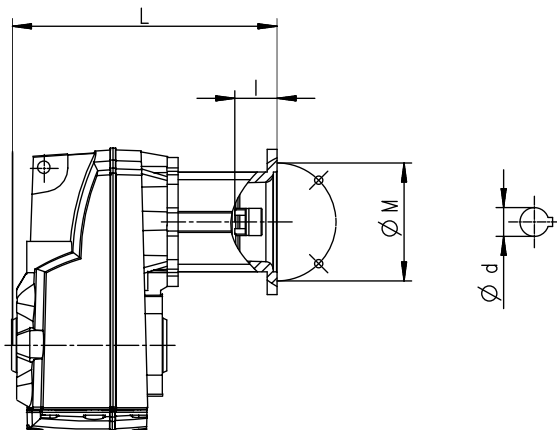
Power is transmitted between the motor and the gearbox via a flexible coupling. The gearbox shaft is designed as a coupling claw on the motor side. The counterpart, the coupling hub, is placed on the motor shaft and secured axially. A spider (elastic ring gear) is located between the two coupling claws, which can absorb shocks and ensures torque transmission with reduced torsional vibration.

- Coupling hub with keyway
 - Form-fit power transmission
 - Suitable for normal operation
- Clamping hub with tangential clamping screw and keyway
 - Form-fit and force-fit power transmission
 - Suitable for reversing duty





Dimensions of gearbox with adapter for IEC standard motors



Gearbox dimensions ► [Basic dimensions](#) 106

Versions with flexible coupling

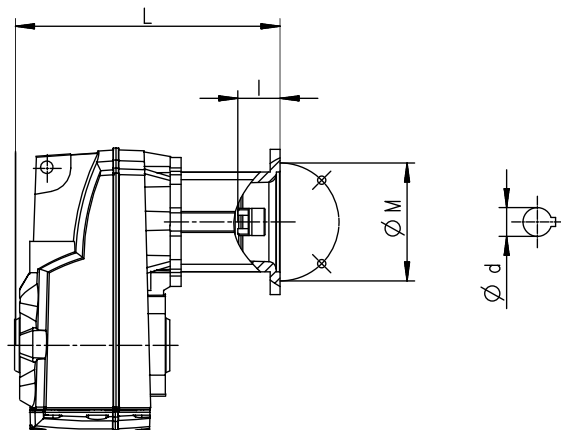
Motor				Adapter		Gearbox g500							
P ₁	Size	Shaft		M	Size	-S130	-S220	-S400	-S660	-S950	-S2100	-S3100	-S4500
kW		d	l	mm		L	L	L	L	L	L	L	L
		mm	mm			mm	mm	mm	mm	mm	mm	mm	mm
0.12 0.18	63	11	23	FF75	N1A	196	212	228	246	-	-	-	-
					N2B	196	212	228	246	255	279	299	-
				FF130	N6C	213	229	245	263	272	296	316	367
0.25 0.37	71	14	30	FF85	N1B	213	229	245	263	272	296	316	-
					N3C	213	229	245	263	272	296	316	367
				FF100	N4C	213	229	245	263	272	296	316	367
				FF130	N2C	213	229	245	263	272	296	316	367
0.55 0.75	80	19	40	FF100	N7C	213	229	245	263	272	296	316	367
				FF130	N1C	213	229	245	263	272	296	316	367
					N2D	242	258	274	292	301	325	345	396
					N3E	-	258	274	292	301	325	345	396
1.1 1.5	90	24	50	FF130	N1D	242	258	274	292	301	325	345	396
					N2E	-	258	274	292	301	325	345	396
					N2F	-	-	-	-	301	325	345	396
				FT165	N4E	-	278	294	312	321	345	365	416
					N3F	-	-	-	-	321	345	365	416
2.2 3.0 4.0	100	28	60	FF130	N1E	-	258	274	292	301	325	345	396
					N1F	-	-	-	-	301	325	345	396
	112			FF215	N2G	-	-	-	-	365	389	409	460
5.5 7.5	132	38	80	FF215	N3G	-	-	-	-	385	409	429	480
				FF265	N1G	-	-	-	-	385	409	429	480
					N3H	-	-	-	-	-	448	468	520
11.0 15.0	160	42	110	FF300	N1H	-	-	-	-	-	478	498	550
18.5 22.0	180	48	110	FF300	N2H	-	-	-	-	-	478	498	550

The N6C adapter is only available with clamping hub.

The N1D adapter is only available with standard and clamping hub.



Dimensions of gearboxes with adapter for servo motors



Gearbox dimensions ► [Basic dimensions](#) 106

Versions with servo adapter

Motor			Adapter		Gearbox g500							
M	Shaft		M	Size	-S130	-S220	-S400	-S660	-S950	-S2100	-S3100	-S4500
mm	d	l	mm		L	L	L	L	L	L	L	L
	mm	mm			mm	mm	mm	mm	mm	mm	mm	mm
-75	11	23	FT75	S2B	152	168	184	202	211	235	255	-
	14	30		S3B	152	168	184	202	211	235	255	-
100	14	30	FF100	S4C	167	183	199	217	226	250	270	321
	19	40		S7C	167	183	199	217	226	250	270	321
	16	40		S8C	167	183	199	217	226	250	270	321
115	19	50	FF115	S3D	184	200	216	234	243	267	287	338
	24	50		S4D	184	200	216	234	243	267	287	338
130	19	50	FF130	S2D	184	200	216	234	243	267	287	338
	24	50		S1D	184	200	216	234	243	267	287	338
	24	60		S2E	-	200	216	234	243	267	287	338
	28	60		S1E	-	200	216	234	243	267	287	338
	24	50		S4E	-	200	216	234	243	267	287	338
165	32	58	FF165	S6E	-	200	216	234	243	267	287	338
	28	60		S7E	-	200	216	234	243	267	287	338
	28	60		S7E	-	200	216	234	243	267	287	338



7.5 Radial forces and axial forces

Permissible radial force

The calculation of the permissible radial force must take account of the additional load factor f_w .

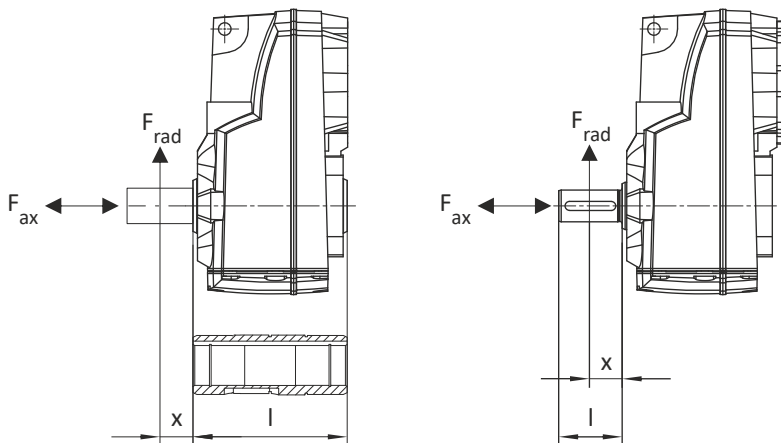
$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

Permissible axial force

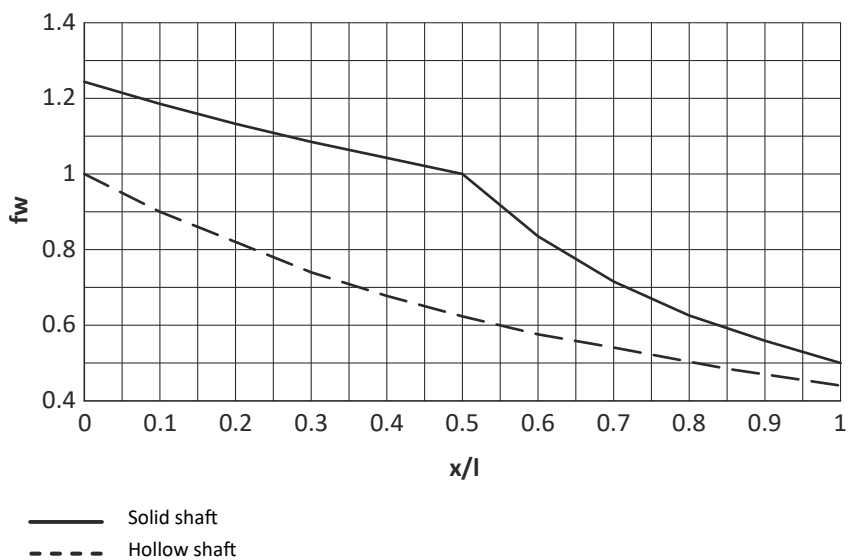
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

$$F_{\text{ax, zul}} = 0.5 \times F_{\text{rad, max}}$$

Application of forces



Additional load factor f_w on the drive shaft



Technical data

Radial forces and axial forces



The values given in the tables refer to the centre shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated with a load capacity of $c = 1.3$ and an input speed of 1400 rpm.



In case of different operating conditions, considerably higher forces can be transmitted. Please get in touch with your Lenze representative



A hollow shaft with shrink disc (SAR/SBR/SCR/SDR/SAK/SCK) requires a check by Lenze.

Max. radial force, gearbox with hollow shaft (H□R/H□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	2100	2300	2800	3200	3800	4600	5500	6300	7000	7000
g500-S400	2200	2500	3000	3400	4100	5000	6000	7100	8000	8000
g500-S660	2500	2900	3500	4000	5000	6600	8500	10800	12000	12000
g500-S950	3400	4000	4300	5000	6000	8000	10300	11500	12500	13000
g500-S2100	4500	5100	6200	6500	7500	10000	12000	15700	15700	16000
g500-S3100	5200	5700	7000	8000	9000	12500	15000	17000	19800	19800
g500-S4500	11100	12900	15000	17500	19000	20000	23000	30000	30000	30000

Max. radial force, gearbox with solid shaft, without flange (V□R)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	1700	1900	2300	2700	3200	3600	3600	3600	3600	3600
g500-S400	1700	1900	2300	2700	3200	4000	4800	5800	6200	6200
g500-S660	2300	2600	3100	3600	3900	5100	6500	8400	9000	9000
g500-S950	6100	6800	8200	9500	10300	10300	10300	10300	10300	10300
g500-S2100	7500	8200	10000	11500	13600	15700	15700	15700	15700	15700
g500-S3100	9400	10300	12600	14500	16500	18000	19800	19800	19800	19800
g500-S4500	12000	13100	16100	18500	20000	22000	25000	30000	30000	30000

Max. radial force, gearbox with solid shaft and flange (V□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-S130	1000	1100	1300	1500	1650	2200	2750	3450	4200	4500
g500-S220	2400	2600	3200	3700	4400	4600	4600	4600	4600	4600
g500-S400	3300	3600	4400	5100	5900	6800	7000	7000	7000	7000
g500-S660	4500	5000	6100	7000	7800	9600	10000	10000	10000	10000
g500-S950	4900	5300	6500	7500	8500	10300	10300	10300	10300	10300
g500-S2100	7400	8200	10000	11500	13600	15700	15700	15700	15700	15700
g500-S3100	12800	14100	17200	19800	19800	19800	19800	19800	19800	19800
g500-S4500	17500	19200	23500	27000	28000	30000	30000	30000	30000	30000



7.6 Selection tables

Notes on the selection tables

The selection tables represent the available combinations of gearbox, number of stages, ratio and motor for the mounting position M1. They only serve as a rough overview.

The following legend shows the layout of the selection tables:

Example	Explanation
120 Hz: $P_{\text{rated}} = 0.55 \text{ kW}$	Rated motor power at a rated frequency of 120 Hz

Inverter operation							Geared motor					
5 Hz -		- 20 Hz		- 62 Hz (1:24)								
n_{22}	M^{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
28.0	5.7	116	9.4	359	9.4	4.8	4033	5185	g500-S130	m550-V V63/L4	2	11
26.8	6.0	111	9.8	344	9.8	3.7	3547	5411	g500-S130	m550-V V63/L4	2	8.9

												Basic weight											
												Number of gear stages											
												Motor product name											
												Gearbox product name											
												Ratio											
Moment of inertia without brake																							
Data at 62/124 Hz																							
n ₂ = output speed - M ₂ = output torque																							
c = the load capacity of the gearbox is the ratio of the permissible rated torque of the gearbox to the rated torque of the motor (converted to the output shaft). c must always be greater than the application factor determined for the application k																							
$c = \frac{M_{2,zul}}{M_{1,N} \times i \times \eta_{Getr}} > k$																							
Data at 20 Hz																							
n ₂₁ = output speed - M ₂ = output torque																							



The following selection tables refer exclusively to inverters from the motec series. For all other inverters, please use the EASY System Designer to view the relevant data.



62 Hz: 0.25 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
6.5	29.1	13.0	29.0	80.7	29.0	4.5	3.472	23.048	g500-S130	m550-V63/L4	2	11
6.0	31.5	12.0	31.0	74.5	31.0	4.1	3.371	24.967	g500-S130	m550-V63/L4	2	11
5.3	35.6	10.6	36.0	65.9	36.0	3.7	3.409	28.233	g500-S130	m550-V63/L4	2	11
4.8	39.6	9.6	40.0	59.3	40.0	3.3	3.327	31.387	g500-S130	m550-V63/L4	2	11
4.6	41.5	9.1	41.0	56.6	41.0	4.9	3.391	32.867	g500-S220	m550-V63/L4	2	12
4.2	44.8	8.5	45.0	52.4	45.0	2.9	3.351	35.493	g500-S130	m550-V63/L4	2	11
4.1	45.7	8.3	46.0	51.3	46.0	4.9	3.414	36.267	g500-S400	m550-V63/L4	2	16
4.0	47.0	8.1	47.0	49.9	47.0	4.7	3.385	37.238	g500-S220	m550-V63/L4	2	12
3.7	49.7	7.5	50.0	46.5	50.0	4.1	3.443	40.012	g500-S220	m550-V63/L4	3	13
3.7	50.9	7.4	51.0	46.1	51.0	4.9	3.530	40.333	g500-S660	m550-V63/L4	2	21
3.7	51.0	7.4	51.0	46.0	51.0	2.6	3.299	40.422	g500-S130	m550-V63/L4	2	11
3.7	51.7	7.3	52.0	45.4	52.0	4.9	3.404	40.974	g500-S400	m550-V63/L4	2	16
3.5	53.6	7.1	54.0	43.7	54.0	4.1	3.335	42.533	g500-S220	m550-V63/L4	2	12
3.3	56.3	6.6	56.0	41.0	56.0	3.6	3.439	45.333	g500-S220	m550-V63/L4	3	13
3.3	57.7	6.6	58.0	40.7	58.0	2.3	3.314	45.711	g500-S130	m550-V63/L4	2	11
3.3	58.0	6.5	58.0	40.5	58.0	4.9	3.515	45.956	g500-S660	m550-V63/L4	2	21
3.2	59.2	6.4	59.0	39.6	59.0	4.4	3.349	46.933	g500-S400	m550-V63/L4	2	16
3.1	60.8	6.2	61.0	38.6	61.0	3.6	3.331	48.190	g500-S220	m550-V63/L4	2	12
3.1	61.7	6.1	62.0	38.0	62.0	4.3	3.451	48.950	g500-S660	m550-V63/L4	2	21
2.9	64.6	5.9	65.0	36.3	65.0	2.0	3.279	51.230	g500-S130	m550-V63/L4	2	11
2.9	65.1	5.8	65.0	36.0	65.0	3.4	3.309	51.620	g500-S220	m550-V63/L4	2	12
2.9	65.3	5.7	65.0	35.4	65.0	3.4	3.374	52.587	g500-S220	m550-V63/L4	3	13
2.8	66.9	5.7	67.0	35.1	67.0	4.4	3.343	53.026	g500-S400	m550-V63/L4	2	16
2.7	70.3	5.4	70.0	33.3	70.0	4.3	3.441	55.773	g500-S660	m550-V63/L4	2	21
2.6	71.8	5.3	72.0	32.7	72.0	3.7	3.319	56.960	g500-S400	m550-V63/L4	2	16
2.6	73.1	5.2	73.0	32.1	73.0	1.8	3.288	57.933	g500-S130	m550-V63/L4	2	11
2.6	73.8	5.1	74.0	31.8	74.0	3.0	3.307	58.486	g500-S220	m550-V63/L4	2	12
2.5	74.0	5.0	74.0	31.2	74.0	3.0	3.371	59.581	g500-S220	m550-V63/L4	3	13
2.3	81.0	4.7	81.0	29.0	81.0	1.6	3.267	64.200	g500-S130	m550-V63/L4	2	11
2.3	81.2	4.7	81.0	28.9	81.0	3.7	3.314	64.354	g500-S400	m550-V63/L4	2	16
2.3	81.4	4.6	81.0	28.4	81.0	4.9	3.379	65.559	g500-S400	m550-V63/L4	3	16
2.3	83.2	4.5	83.0	28.2	83.0	1.8	3.284	65.975	g500-S220	m550-V63/L4	2	12
2.2	83.6	4.5	84.0	27.6	84.0	2.6	3.332	67.298	g500-S220	m550-V63/L4	3	13
2.1	91.6	4.1	92.0	25.6	92.0	1.4	3.272	72.600	g500-S130	m550-V63/L4	2	11
2.0	92.3	4.0	92.0	25.0	92.0	4.3	3.338	74.260	g500-S400	m550-V63/L4	3	16
2.0	94.3	4.0	94.0	24.9	94.0	1.8	3.283	74.750	g500-S220	m550-V63/L4	2	12
2.0	94.7	3.9	95.0	24.4	95.0	2.3	3.331	76.249	g500-S220	m550-V63/L4	3	13
1.8	104	3.6	104	22.2	104	1.3	3.384	83.698	g500-S130	m550-V63/L4	3	14
1.8	104	3.6	104	22.2	104	3.8	3.335	83.900	g500-S400	m550-V63/L4	3	16
1.7	107	3.5	107	21.6	107	2.1	3.302	86.079	g500-S220	m550-V63/L4	3	13
1.6	118	3.2	118	19.7	118	1.1	3.377	94.649	g500-S130	m550-V63/L4	3	14
1.6	118	3.2	118	19.6	118	3.4	3.306	94.984	g500-S400	m550-V63/L4	3	16
1.5	121	3.1	121	19.1	121	1.8	3.301	97.528	g500-S220	m550-V63/L4	3	13
1.4	133	2.8	133	17.4	133	1.0	3.363	107.113	g500-S130	m550-V63/L4	3	14
1.4	133	2.8	133	17.3	133	3.0	3.304	107.314	g500-S400	m550-V63/L4	3	16
1.4	136	2.8	136	17.1	136	4.9	3.365	109.083	g500-S660	m550-V63/L4	3	22
1.3	139	2.7	139	16.6	139	1.6	3.284	111.747	g500-S220	m550-V63/L4	3	13
1.3	146	2.6	146	15.9	146	0.9	3.357	117.177	g500-S130	m550-V63/L4	3	14
1.2	153	2.4	153	15.1	153	2.6	3.286	123.307	g500-S400	m550-V63/L4	3	16
1.2	154	2.4	154	15.0	154	4.3	3.363	124.289	g500-S660	m550-V63/L4	3	22
1.2	157	2.4	157	14.7	157	1.4	3.283	126.610	g500-S220	m550-V63/L4	3	13



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
1.1	170	2.2	170	13.6	170	3.9	3.323	137.133	g500-S660	m550-V63/L4	3	22
1.1	173	2.2	173	13.4	173	2.3	3.285	139.313	g500-S400	m550-V63/L4	3	16
1.0	178	2.1	178	13.0	178	1.2	3.270	143.205	g500-S220	m550-V63/L4	3	13
1.0	194	1.9	194	11.9	194	3.4	3.322	156.249	g500-S660	m550-V63/L4	3	22
0.9	196	1.9	196	11.8	196	2.0	3.272	158.019	g500-S400	m550-V63/L4	3	16
0.9	198	1.9	198	11.7	198	4.8	3.452	159.394	g500-S950	m550-V63/L4	3	41
0.9	202	1.8	202	11.5	202	1.1	3.270	162.252	g500-S220	m550-V63/L4	3	13
0.8	219	1.7	219	10.5	219	3.0	3.296	176.611	g500-S660	m550-V63/L4	3	22
0.8	220	1.7	220	10.5	220	4.3	3.394	177.178	g500-S950	m550-V63/L4	3	41
0.8	222	1.7	222	10.4	222	1.8	3.271	178.531	g500-S400	m550-V63/L4	3	16
0.8	230	1.6	230	10.0	230	1.0	3.261	185.248	g500-S220	m550-V63/L4	3	13
0.8	246	1.5	246	9.4	246	3.9	3.393	198.270	g500-S950	m550-V63/L4	3	41
0.7	250	1.5	250	9.2	250	2.6	3.296	201.230	g500-S660	m550-V63/L4	3	22
0.7	254	1.5	254	9.1	254	1.6	3.261	204.412	g500-S400	m550-V63/L4	3	16
0.7	261	1.4	261	8.9	261	0.8	3.260	209.887	g500-S220	m550-V63/L4	3	13
0.7	278	1.3	278	8.3	278	2.4	3.277	223.833	g500-S660	m550-V63/L4	3	22
0.7	285	1.3	285	8.1	285	3.3	3.337	229.289	g500-S950	m550-V63/L4	3	41
0.6	287	1.3	287	8.1	287	1.4	3.261	230.946	g500-S400	m550-V63/L4	3	16
0.6	313	1.2	313	7.4	313	4.9	3.512	251.778	g500-S2100	m550-V63/L4	3	74
0.6	317	1.2	317	7.3	317	2.1	3.277	255.034	g500-S660	m550-V63/L4	3	22
0.6	319	1.2	319	7.2	319	3.0	3.336	256.585	g500-S950	m550-V63/L4	3	41
0.6	330	1.1	330	7.0	330	1.2	3.254	265.956	g500-S400	m550-V63/L4	3	16
0.5	346	1.1	346	6.7	346	2.8	3.311	278.273	g500-S950	m550-V63/L4	3	41
0.5	349	1.1	348	6.6	348	1.6	3.266	280.500	g500-S660	m550-V63/L4	3	22
0.5	348	1.1	348	6.6	348	4.9	3.510	279.807	g500-S2100	m550-V63/L4	3	74
0.5	368	1.0	368	6.3	368	4.9	3.531	296.430	g500-S3100	m550-V63/L4	3	113
0.5	373	1.0	373	6.2	373	1.1	3.254	300.479	g500-S400	m550-V63/L4	3	16
0.5	380	1.0	380	6.1	380	4.3	3.439	305.567	g500-S2100	m550-V63/L4	3	74
0.5	387	1.0	387	6.0	387	2.5	3.310	311.401	g500-S950	m550-V63/L4	3	41
0.5	389	0.9	389	5.8	389	1.7	3.443	318.039	g500-S660	m550-V63/L4	4	25
0.5	390	0.9	390	5.8	390	2.4	3.463	319.059	g500-S950	m550-V63/L4	4	44
0.5	397	0.9	397	5.8	397	1.6	3.265	319.600	g500-S660	m550-V63/L4	3	22
0.4	417	0.9	416	5.5	416	4.9	3.525	335.215	g500-S3100	m550-V63/L4	3	113
0.4	422	0.9	422	5.5	422	4.3	3.437	339.584	g500-S2100	m550-V63/L4	3	74
0.4	429	0.9	429	5.3	429	4.8	3.515	350.353	g500-S2100	m550-V63/L4	4	77
0.4	437	0.8	437	5.2	437	2.2	3.462	357.042	g500-S950	m550-V63/L4	4	44
0.4	442	0.8	442	5.2	442	1.8	3.285	355.658	g500-S950	m550-V63/L4	3	41
0.4	447	0.8	447	5.2	447	4.3	3.451	359.758	g500-S3100	m550-V63/L4	3	113
0.4	448	0.8	448	5.1	448	1.3	3.336	365.689	g500-S660	m550-V63/L4	4	25
0.4	477	0.8	476	4.8	476	4.3	3.514	389.356	g500-S2100	m550-V63/L4	4	77
0.4	480	0.8	480	4.8	480	3.5	3.369	386.250	g500-S2100	m550-V63/L4	3	74
0.4	495	0.8	494	4.7	494	1.8	3.285	397.999	g500-S950	m550-V63/L4	3	41
0.4	498	0.7	498	4.6	498	1.9	3.454	406.963	g500-S950	m550-V63/L4	4	44
0.4	505	0.7	505	4.6	505	4.3	3.447	406.829	g500-S3100	m550-V63/L4	3	113
0.4	510	0.7	510	4.5	510	1.3	3.335	416.664	g500-S660	m550-V63/L4	4	25
0.3	533	0.7	533	4.3	533	3.5	3.367	429.250	g500-S2100	m550-V63/L4	3	74
0.3	547	0.7	547	4.2	547	3.8	3.490	446.878	g500-S2100	m550-V63/L4	4	77
0.3	557	0.7	557	4.1	557	1.7	3.454	455.411	g500-S950	m550-V63/L4	4	44
0.3	573	0.6	573	4.0	573	1.2	3.333	467.995	g500-S660	m550-V63/L4	4	25
0.3	608	0.6	608	3.7	608	3.4	3.489	496.628	g500-S2100	m550-V63/L4	4	77
0.3	627	0.6	627	3.6	627	1.1	3.333	511.964	g500-S660	m550-V63/L4	4	25
0.3	629	0.6	629	3.6	629	1.5	3.340	513.607	g500-S950	m550-V63/L4	4	44



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_{21}	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.3	670	0.5	670	3.4	670	3.1	3.476	547.426	g500-S2100	m550-V63/L4	4	77
0.3	703	0.5	703	3.2	703	1.4	3.340	574.751	g500-S950	m550-V63/L4	4	44
0.3	714	0.5	714	3.2	714	0.9	3.333	583.329	g500-S660	m550-V63/L4	4	25
0.2	745	0.5	744	3.1	744	2.8	3.475	608.369	g500-S2100	m550-V63/L4	4	77
0.2	789	0.5	789	2.9	789	3.9	3.479	644.510	g500-S3100	m550-V63/L4	4	116
0.2	799	0.5	799	2.8	799	0.8	3.331	653.016	g500-S660	m550-V63/L4	4	25
0.2	802	0.5	802	2.8	802	1.2	3.337	655.111	g500-S950	m550-V63/L4	4	44
0.2	872	0.4	872	2.6	872	2.4	3.461	712.523	g500-S2100	m550-V63/L4	4	77
0.2	892	0.4	892	2.6	892	3.5	3.478	728.838	g500-S3100	m550-V63/L4	4	116
0.2	897	0.4	897	2.5	897	1.1	3.337	733.101	g500-S950	m550-V63/L4	4	44
0.2	969	0.4	969	2.3	969	2.1	3.461	791.846	g500-S2100	m550-V63/L4	4	77
0.2	981	0.4	981	2.3	981	3.2	3.411	801.707	g500-S3100	m550-V63/L4	4	116
0.2	982	0.4	982	2.3	982	1.0	3.335	802.511	g500-S950	m550-V63/L4	4	44
0.2	1011	0.4	1011	2.3	1011	4.5	3.498	826.361	g500-S4500	m550-V63/L4	4	191
0.2	1085	0.3	1085	2.1	1085	1.9	3.399	886.309	g500-S2100	m550-V63/L4	4	77
0.2	1099	0.3	1099	2.1	1099	0.9	3.335	898.048	g500-S950	m550-V63/L4	4	44
0.2	1109	0.3	1109	2.1	1109	2.8	3.410	906.604	g500-S3100	m550-V63/L4	4	116
0.2	1129	0.3	1129	2.0	1129	4.0	3.497	922.449	g500-S4500	m550-V63/L4	4	191
0.2	1205	0.3	1205	1.9	1205	1.7	3.399	984.979	g500-S2100	m550-V63/L4	4	77
0.1	1258	0.3	1258	1.8	1258	3.6	3.423	1027.912	g500-S4500	m550-V63/L4	4	191
0.1	1277	0.3	1277	1.8	1277	2.4	3.400	1043.492	g500-S3100	m550-V63/L4	4	116
0.1	1404	0.3	1404	1.6	1404	1.5	3.340	1146.988	g500-S2100	m550-V63/L4	4	77
0.1	1404	0.3	1404	1.6	1404	3.2	3.422	1147.437	g500-S4500	m550-V63/L4	4	191
0.1	1444	0.3	1444	1.6	1444	2.2	3.400	1180.024	g500-S3100	m550-V63/L4	4	116
0.1	1483	0.2	1483	1.5	1483	3.0	3.363	1211.575	g500-S4500	m550-V63/L4	4	191
0.1	1560	0.2	1560	1.5	1560	1.3	3.340	1274.678	g500-S2100	m550-V63/L4	4	77
0.1	1588	0.2	1588	1.4	1588	2.0	3.395	1298.002	g500-S3100	m550-V63/L4	4	116
0.1	1652	0.2	1652	1.4	1652	2.7	3.408	1350.094	g500-S4500	m550-V63/L4	4	191
0.1	1746	0.2	1746	1.3	1746	1.2	3.337	1426.741	g500-S2100	m550-V63/L4	4	77
0.1	1796	0.2	1796	1.3	1796	1.7	3.394	1467.835	g500-S3100	m550-V63/L4	4	116
0.1	1844	0.2	1844	1.2	1844	2.4	3.407	1507.081	g500-S4500	m550-V63/L4	4	191
0.1	1940	0.2	1940	1.2	1940	1.1	3.337	1585.575	g500-S2100	m550-V63/L4	4	77
0.1	2056	0.2	2056	1.1	2056	1.5	3.337	1679.768	g500-S3100	m550-V63/L4	4	116
0.1	2138	0.2	2138	1.1	2138	2.1	3.345	1747.180	g500-S4500	m550-V63/L4	4	191
0.1	2260	0.2	2259	1.0	2259	0.9	3.333	1846.370	g500-S2100	m550-V63/L4	4	77
0.1	2325	0.2	2325	1.0	2325	1.3	3.337	1899.551	g500-S3100	m550-V63/L4	4	116
0.1	2387	0.2	2387	1.0	2387	1.9	3.345	1950.341	g500-S4500	m550-V63/L4	4	191
0.1	2511	0.1	2511	0.9	2511	0.8	3.333	2051.921	g500-S2100	m550-V63/L4	4	77
0.1	2595	0.1	2595	0.9	2595	1.7	3.316	2120.441	g500-S4500	m550-V63/L4	4	191
0.1	2660	0.1	2660	0.9	2660	1.2	3.334	2173.817	g500-S3100	m550-V63/L4	4	116
0.1	2897	0.1	2897	0.8	2897	1.6	3.340	2367.004	g500-S4500	m550-V63/L4	4	191
0.1	3008	0.1	3008	0.8	3008	1.0	3.334	2458.242	g500-S3100	m550-V63/L4	4	116
0.1	3229	0.1	3228	0.7	3228	1.0	3.308	2638.224	g500-S3100	m550-V63/L4	4	116
0.1	3515	0.1	3515	0.6	3515	1.3	3.313	2872.683	g500-S4500	m550-V63/L4	4	191
0.1	3651	0.1	3651	0.6	3651	0.9	3.308	2983.412	g500-S3100	m550-V63/L4	4	116
0.0	3702	0.1	3702	0.6	3702	1.2	3.288	3025.244	g500-S4500	m550-V63/L4	4	191
0.0	4025	0.1	4025	0.6	4025	1.1	3.286	3289.094	g500-S4500	m550-V63/L4	4	191
0.0	4493	0.1	4493	0.5	4493	1.0	3.286	3671.547	g500-S4500	m550-V63/L4	4	191



62 Hz: 0.37 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
10.3	26.9	20.5	27.0	127	27.0	4.5	9.038	14.606	g500-S130	m550-V71/M4	2	13
9.4	29.5	18.8	29.0	116	29.0	4.1	9.000	15.979	g500-S130	m550-V71/M4	2	13
8.3	33.3	16.6	33.0	103	33.0	3.9	9.094	18.069	g500-S130	m550-V71/M4	2	13
7.4	37.6	14.7	38.0	91.3	38.0	3.5	8.925	20.381	g500-S130	m550-V71/M4	2	13
6.5	42.5	13.0	42.0	80.7	42.0	3.1	8.982	23.048	g500-S130	m550-V71/M4	2	13
6.0	46.0	12.0	46.0	74.5	46.0	2.8	8.881	24.967	g500-S130	m550-V71/M4	2	13
5.7	48.7	11.4	49.0	70.4	49.0	4.5	8.959	26.422	g500-S220	m550-V71/M4	2	15
5.3	52.0	10.6	52.0	65.9	52.0	2.5	8.919	28.233	g500-S130	m550-V71/M4	2	13
5.0	55.2	10.0	55.0	62.1	55.0	4.0	8.949	29.937	g500-S220	m550-V71/M4	2	15
4.8	57.9	9.6	58.0	59.3	58.0	2.3	8.837	31.387	g500-S130	m550-V71/M4	2	13
4.6	60.6	9.1	61.0	56.6	61.0	3.6	8.901	32.867	g500-S220	m550-V71/M4	2	15
4.2	65.4	8.5	65.0	52.4	65.0	2.0	8.861	35.493	g500-S130	m550-V71/M4	2	13
4.0	68.6	8.1	69.0	49.9	69.0	3.2	8.895	37.238	g500-S220	m550-V71/M4	2	15
3.7	74.5	7.4	75.0	46.0	75.0	1.7	8.809	40.422	g500-S130	m550-V71/M4	2	13
3.5	78.4	7.1	78.0	43.7	78.0	2.8	8.845	42.533	g500-S220	m550-V71/M4	2	15
3.3	84.3	6.6	84.0	40.7	84.0	1.5	8.824	45.711	g500-S130	m550-V71/M4	2	13
3.2	86.5	6.4	87.0	39.6	87.0	3.6	8.859	46.933	g500-S400	m550-V71/M4	2	18
3.1	88.8	6.2	89.0	38.6	89.0	2.5	8.841	48.190	g500-S220	m550-V71/M4	2	15
3.1	90.2	6.1	90.0	38.0	90.0	4.7	8.961	48.950	g500-S660	m550-V71/M4	2	23
2.9	95.2	5.8	95.0	36.0	95.0	2.3	8.819	51.620	g500-S220	m550-V71/M4	2	15
2.9	95.5	5.7	95.0	35.4	95.0	2.3	8.884	52.587	g500-S220	m550-V71/M4	3	15
2.8	97.7	5.7	98.0	35.1	98.0	3.6	8.853	53.026	g500-S400	m550-V71/M4	2	18
2.7	103	5.4	103	33.3	103	4.7	8.951	55.773	g500-S660	m550-V71/M4	2	23
2.6	105	5.3	105	32.7	105	2.6	8.829	56.960	g500-S400	m550-V71/M4	2	18
2.6	105	5.2	105	32.1	105	3.8	8.892	58.027	g500-S400	m550-V71/M4	3	18
2.6	108	5.1	108	31.8	108	2.0	8.817	58.486	g500-S220	m550-V71/M4	2	15
2.5	108	5.0	108	31.2	108	2.0	8.881	59.581	g500-S220	m550-V71/M4	3	15
2.4	116	4.8	116	29.5	116	4.3	9.122	63.000	g500-S950	m550-V71/M4	2	43
2.3	119	4.7	119	28.9	119	2.6	8.824	64.354	g500-S400	m550-V71/M4	2	18
2.3	119	4.6	119	28.4	119	3.4	8.889	65.559	g500-S400	m550-V71/M4	3	18
2.2	122	4.5	122	27.6	122	1.8	8.842	67.298	g500-S220	m550-V71/M4	3	15
2.1	130	4.3	130	26.4	130	4.3	9.111	70.500	g500-S950	m550-V71/M4	2	43
2.1	132	4.1	132	25.6	132	5.0	9.014	72.713	g500-S660	m550-V71/M4	3	24
2.0	135	4.0	135	25.0	135	3.0	8.848	74.260	g500-S400	m550-V71/M4	3	18
2.0	139	3.9	138	24.4	138	1.6	8.841	76.249	g500-S220	m550-V71/M4	3	15
1.9	144	3.8	144	23.4	144	4.6	8.980	79.545	g500-S660	m550-V71/M4	3	24
1.8	152	3.6	152	22.2	152	0.9	8.894	83.698	g500-S130	m550-V71/M4	3	16
1.8	152	3.6	152	22.2	152	2.6	8.845	83.900	g500-S400	m550-V71/M4	3	18
1.7	156	3.5	156	21.6	156	1.4	8.812	86.079	g500-S220	m550-V71/M4	3	15
1.7	162	3.4	162	20.9	162	4.1	8.915	89.048	g500-S660	m550-V71/M4	3	24
1.6	173	3.2	172	19.6	172	2.3	8.816	94.984	g500-S400	m550-V71/M4	3	18
1.5	177	3.1	177	19.1	177	1.2	8.811	97.528	g500-S220	m550-V71/M4	3	15
1.5	184	3.0	184	18.3	184	3.6	8.912	101.460	g500-S660	m550-V71/M4	3	24
1.4	195	2.8	195	17.3	195	2.1	8.814	107.314	g500-S400	m550-V71/M4	3	18
1.4	198	2.8	198	17.1	198	3.3	8.875	109.083	g500-S660	m550-V71/M4	3	24
1.4	199	2.7	199	17.0	199	4.8	9.095	109.433	g500-S950	m550-V71/M4	3	44
1.3	203	2.7	203	16.6	203	1.1	8.794	111.747	g500-S220	m550-V71/M4	3	15
1.2	222	2.4	222	15.2	222	4.3	9.091	122.461	g500-S950	m550-V71/M4	3	44
1.2	224	2.4	224	15.1	224	1.8	8.796	123.307	g500-S400	m550-V71/M4	3	18
1.2	226	2.4	226	15.0	226	2.9	8.873	124.289	g500-S660	m550-V71/M4	3	24
1.2	230	2.4	230	14.7	230	1.0	8.793	126.610	g500-S220	m550-V71/M4	3	15



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
1.1	249	2.2	249	13.6	249	2.7	8.833	137.133	g500-S660	m550-V71/M4	3	24
1.1	253	2.2	253	13.4	253	1.6	8.795	139.313	g500-S400	m550-V71/M4	3	18
1.1	259	2.1	259	13.1	259	3.7	8.964	142.437	g500-S950	m550-V71/M4	3	44
1.0	284	1.9	284	11.9	284	2.3	8.832	156.249	g500-S660	m550-V71/M4	3	24
0.9	289	1.9	289	11.7	289	3.3	8.962	159.394	g500-S950	m550-V71/M4	3	44
0.8	321	1.7	321	10.5	321	2.1	8.806	176.611	g500-S660	m550-V71/M4	3	24
0.8	322	1.7	322	10.5	322	3.0	8.904	177.178	g500-S950	m550-V71/M4	3	44
0.8	360	1.5	360	9.4	360	2.6	8.903	198.270	g500-S950	m550-V71/M4	3	44
0.7	365	1.5	365	9.2	365	1.8	8.806	201.230	g500-S660	m550-V71/M4	3	24
0.7	416	1.3	416	8.1	416	2.3	8.847	229.289	g500-S950	m550-V71/M4	3	44
0.6	457	1.2	457	7.4	457	4.5	9.022	251.778	g500-S2100	m550-V71/M4	3	76
0.6	466	1.2	466	7.2	466	2.0	8.846	256.585	g500-S950	m550-V71/M4	3	44
0.5	505	1.1	505	6.7	505	1.9	8.821	278.273	g500-S950	m550-V71/M4	3	44
0.5	508	1.1	508	6.6	508	4.0	9.020	279.807	g500-S2100	m550-V71/M4	3	76
0.5	555	1.0	555	6.1	555	3.7	8.949	305.567	g500-S2100	m550-V71/M4	3	76
0.5	565	1.0	565	6.0	565	1.7	8.820	311.401	g500-S950	m550-V71/M4	3	44
0.5	569	0.9	569	5.8	569	1.2	8.953	318.039	g500-S660	m550-V71/M4	4	27
0.5	571	0.9	571	5.8	571	1.7	8.973	319.059	g500-S950	m550-V71/M4	4	47
0.5	573	0.9	573	5.8	573	3.6	9.040	320.263	g500-S2100	m550-V71/M4	4	79
0.4	617	0.9	617	5.5	617	3.3	8.947	339.584	g500-S2100	m550-V71/M4	3	76
0.4	627	0.9	627	5.3	627	3.3	9.025	350.353	g500-S2100	m550-V71/M4	4	79
0.4	639	0.8	639	5.2	639	1.5	8.972	357.042	g500-S950	m550-V71/M4	4	47
0.4	641	0.8	641	5.2	641	4.8	9.207	358.375	g500-S3100	m550-V71/M4	4	118
0.4	653	0.8	653	5.2	653	4.7	8.961	359.758	g500-S3100	m550-V71/M4	3	115
0.4	654	0.8	654	5.1	654	0.9	8.846	365.689	g500-S660	m550-V71/M4	4	27
0.4	664	0.8	664	5.1	664	4.3	9.158	365.500	g500-S4500	m550-V71/M4	3	190
0.4	696	0.8	696	4.8	696	2.9	9.024	389.356	g500-S2100	m550-V71/M4	4	79
0.4	701	0.8	701	4.8	701	2.7	8.879	386.250	g500-S2100	m550-V71/M4	3	76
0.4	723	0.7	723	4.6	723	4.3	9.165	404.222	g500-S3100	m550-V71/M4	4	118
0.4	728	0.7	728	4.6	728	1.3	8.964	406.963	g500-S950	m550-V71/M4	4	47
0.4	739	0.7	739	4.6	739	4.2	8.957	406.829	g500-S3100	m550-V71/M4	3	115
0.4	741	0.7	741	4.6	741	4.3	9.153	408.000	g500-S4500	m550-V71/M4	3	190
0.4	745	0.7	745	4.5	745	0.9	8.845	416.664	g500-S660	m550-V71/M4	4	27
0.3	779	0.7	779	4.3	779	2.6	8.877	429.250	g500-S2100	m550-V71/M4	3	76
0.3	799	0.7	799	4.2	799	2.6	9.000	446.878	g500-S2100	m550-V71/M4	4	79
0.3	815	0.7	815	4.1	815	1.2	8.964	455.411	g500-S950	m550-V71/M4	4	47
0.3	818	0.7	818	4.1	818	3.8	9.161	457.111	g500-S3100	m550-V71/M4	4	118
0.3	886	0.6	886	3.8	886	3.5	9.137	495.172	g500-S3100	m550-V71/M4	4	118
0.3	888	0.6	888	3.7	888	2.3	8.999	496.628	g500-S2100	m550-V71/M4	4	79
0.3	919	0.6	919	3.6	919	1.0	8.850	513.607	g500-S950	m550-V71/M4	4	47
0.3	927	0.6	926	3.6	926	4.9	9.212	518.017	g500-S4500	m550-V71/M4	4	193
0.3	979	0.5	979	3.4	979	2.1	8.986	547.426	g500-S2100	m550-V71/M4	4	79
0.3	1002	0.5	1002	3.3	1002	3.1	9.135	559.961	g500-S3100	m550-V71/M4	4	118
0.3	1028	0.5	1028	3.2	1028	0.9	8.850	574.751	g500-S950	m550-V71/M4	4	47
0.3	1034	0.5	1034	3.2	1034	4.4	9.209	578.252	g500-S4500	m550-V71/M4	4	193
0.2	1088	0.5	1088	3.1	1088	1.9	8.985	608.369	g500-S2100	m550-V71/M4	4	79
0.2	1136	0.5	1136	2.9	1136	4.0	9.169	634.887	g500-S4500	m550-V71/M4	4	193
0.2	1153	0.5	1153	2.9	1153	2.7	8.989	644.510	g500-S3100	m550-V71/M4	4	118
0.2	1172	0.5	1172	2.8	1172	0.8	8.847	655.111	g500-S950	m550-V71/M4	4	47
0.2	1268	0.4	1268	2.6	1268	3.6	9.168	708.711	g500-S4500	m550-V71/M4	4	193
0.2	1274	0.4	1274	2.6	1274	1.6	8.971	712.523	g500-S2100	m550-V71/M4	4	79
0.2	1304	0.4	1304	2.6	1304	2.4	8.988	728.838	g500-S3100	m550-V71/M4	4	118



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.2	1416	0.4	1416	2.3	1416	1.5	8.971	791.846	g500-S2100	m550-V71/M4	4	79
0.2	1434	0.4	1434	2.3	1434	2.2	8.921	801.707	g500-S3100	m550-V71/M4	4	118
0.2	1478	0.4	1478	2.3	1478	3.0	9.008	826.361	g500-S4500	m550-V71/M4	4	193
0.2	1585	0.3	1585	2.1	1585	1.3	8.909	886.309	g500-S2100	m550-V71/M4	4	79
0.2	1622	0.3	1621	2.1	1621	1.9	8.920	906.604	g500-S3100	m550-V71/M4	4	118
0.2	1650	0.3	1650	2.0	1650	2.7	9.007	922.449	g500-S4500	m550-V71/M4	4	193
0.2	1762	0.3	1762	1.9	1762	1.2	8.909	984.979	g500-S2100	m550-V71/M4	4	79
0.1	1839	0.3	1838	1.8	1838	2.5	8.933	1027.912	g500-S4500	m550-V71/M4	4	193
0.1	1866	0.3	1866	1.8	1866	1.7	8.910	1043.492	g500-S3100	m550-V71/M4	4	118
0.1	2051	0.3	2051	1.6	2051	1.0	8.850	1146.988	g500-S2100	m550-V71/M4	4	79
0.1	2052	0.3	2052	1.6	2052	2.2	8.932	1147.437	g500-S4500	m550-V71/M4	4	193
0.1	2111	0.3	2111	1.6	2111	1.5	8.910	1180.024	g500-S3100	m550-V71/M4	4	118
0.1	2167	0.2	2167	1.5	2167	2.1	8.873	1211.575	g500-S4500	m550-V71/M4	4	193
0.1	2280	0.2	2280	1.5	2280	0.9	8.850	1274.678	g500-S2100	m550-V71/M4	4	79
0.1	2322	0.2	2322	1.4	2322	1.3	8.905	1298.002	g500-S3100	m550-V71/M4	4	118
0.1	2415	0.2	2415	1.4	2415	1.9	8.918	1350.094	g500-S4500	m550-V71/M4	4	193
0.1	2552	0.2	2552	1.3	2552	0.8	8.847	1426.741	g500-S2100	m550-V71/M4	4	79
0.1	2625	0.2	2625	1.3	2625	1.2	8.904	1467.835	g500-S3100	m550-V71/M4	4	118
0.1	2696	0.2	2695	1.2	2695	1.7	8.917	1507.081	g500-S4500	m550-V71/M4	4	193
0.1	3004	0.2	3004	1.1	3004	1.0	8.847	1679.768	g500-S3100	m550-V71/M4	4	118
0.1	3125	0.2	3125	1.1	3125	1.4	8.855	1747.180	g500-S4500	m550-V71/M4	4	193
0.1	3397	0.2	3397	1.0	3397	0.9	8.847	1899.551	g500-S3100	m550-V71/M4	4	118
0.1	3488	0.2	3488	1.0	3488	1.3	8.855	1950.341	g500-S4500	m550-V71/M4	4	193
0.1	3793	0.1	3792	0.9	3792	1.2	8.826	2120.441	g500-S4500	m550-V71/M4	4	193
0.1	3888	0.1	3888	0.9	3888	0.8	8.844	2173.817	g500-S3100	m550-V71/M4	4	118
0.1	4234	0.1	4233	0.8	4233	1.1	8.850	2367.004	g500-S4500	m550-V71/M4	4	193
0.1	5138	0.1	5138	0.6	5138	0.9	8.823	2872.683	g500-S4500	m550-V71/M4	4	193



62 Hz: 0.55 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
23.3	17.5	46.7	17.0	290	17.0	4.6	11.673	6.425	g500-S130	m550-V71/L4	2	14
21.3	19.1	42.7	19.0	265	19.0	4.5	11.588	7.029	g500-S130	m550-V71/L4	2	14
18.0	22.6	36.0	23.0	224	23.0	4.8	11.785	8.322	g500-S130	m550-V71/L4	2	14
15.9	25.6	31.9	26.0	198	26.0	4.6	12.130	9.411	g500-S130	m550-V71/L4	2	14
13.1	31.0	26.3	31.0	163	31.0	3.9	11.521	11.413	g500-S130	m550-V71/L4	2	14
11.6	35.1	23.2	35.0	144	35.0	3.5	11.704	12.907	g500-S130	m550-V71/L4	2	14
10.3	39.7	20.5	40.0	127	40.0	3.1	11.388	14.606	g500-S130	m550-V71/L4	2	14
9.4	43.4	18.8	43.0	116	43.0	2.8	11.350	15.979	g500-S130	m550-V71/L4	2	14
9.1	45.0	18.1	45.0	112	45.0	4.6	11.542	16.571	g500-S220	m550-V71/L4	2	16
8.3	49.1	16.6	49.0	103	49.0	2.7	11.444	18.069	g500-S130	m550-V71/L4	2	14
8.0	51.0	16.0	51.0	99.1	51.0	4.3	11.518	18.776	g500-S220	m550-V71/L4	2	16
7.4	55.1	14.8	55.0	91.6	55.0	4.0	11.436	20.300	g500-S220	m550-V71/L4	2	16
7.4	55.4	14.7	55.0	91.3	55.0	2.4	11.275	20.381	g500-S130	m550-V71/L4	2	14
6.7	60.9	13.4	61.0	83.0	61.0	5.0	11.496	22.400	g500-S400	m550-V71/L4	2	19
6.5	62.5	13.0	62.0	80.9	62.0	3.5	11.420	23.000	g500-S220	m550-V71/L4	2	16
6.5	62.6	13.0	63.0	80.7	63.0	2.1	11.332	23.048	g500-S130	m550-V71/L4	2	14
6.0	67.8	12.0	68.0	74.5	68.0	1.9	11.231	24.967	g500-S130	m550-V71/L4	2	14
6.0	68.1	12.0	68.0	74.2	68.0	5.0	11.747	25.056	g500-S660	m550-V71/L4	2	25
5.9	68.8	11.9	69.0	73.5	69.0	5.0	11.470	25.308	g500-S400	m550-V71/L4	2	19
5.7	71.8	11.4	72.0	70.4	72.0	3.1	11.309	26.422	g500-S220	m550-V71/L4	2	16
5.3	76.7	10.6	77.0	65.9	77.0	1.7	11.269	28.233	g500-S130	m550-V71/L4	2	14
5.3	77.6	10.5	78.0	65.2	78.0	5.0	11.709	28.548	g500-S660	m550-V71/L4	2	25
5.1	79.2	10.3	79.0	63.8	79.0	4.5	11.344	29.156	g500-S400	m550-V71/L4	2	19
5.0	81.3	10.0	81.0	62.1	81.0	2.7	11.299	29.937	g500-S220	m550-V71/L4	2	16
4.8	84.7	9.6	85.0	59.7	85.0	4.2	11.567	31.167	g500-S660	m550-V71/L4	2	25
4.8	85.3	9.6	85.0	59.3	85.0	1.5	11.187	31.387	g500-S130	m550-V71/L4	2	14
4.6	89.3	9.1	89.0	56.6	89.0	2.5	11.251	32.867	g500-S220	m550-V71/L4	2	16
4.6	89.5	9.1	89.0	56.5	89.0	4.5	11.328	32.940	g500-S400	m550-V71/L4	2	19
4.2	96.4	8.5	96.0	52.4	96.0	1.4	11.211	35.493	g500-S130	m550-V71/L4	2	14
4.2	96.5	8.4	96.0	52.4	96.0	4.2	11.542	35.511	g500-S660	m550-V71/L4	2	25
4.1	98.5	8.3	99.0	51.3	99.0	3.8	11.274	36.267	g500-S400	m550-V71/L4	2	19
4.0	101	8.1	101	49.9	101	2.2	11.245	37.238	g500-S220	m550-V71/L4	2	16
3.7	110	7.4	110	46.1	110	3.8	11.390	40.333	g500-S660	m550-V71/L4	2	25
3.7	110	7.4	110	46.0	110	1.2	11.159	40.422	g500-S130	m550-V71/L4	2	14
3.7	111	7.3	111	45.4	111	3.6	11.264	40.974	g500-S400	m550-V71/L4	2	19
3.7	112	7.3	112	45.3	112	4.2	11.887	41.067	g500-S950	m550-V71/L4	2	44
3.5	116	7.1	116	43.7	116	1.9	11.195	42.533	g500-S220	m550-V71/L4	2	16
3.3	124	6.6	124	40.7	124	1.1	11.174	45.711	g500-S130	m550-V71/L4	2	14
3.3	125	6.5	125	40.5	125	3.8	11.375	45.956	g500-S660	m550-V71/L4	2	25
3.3	125	6.5	125	40.5	125	4.2	11.861	45.956	g500-S950	m550-V71/L4	2	44
3.2	128	6.4	128	39.6	128	2.5	11.209	46.933	g500-S400	m550-V71/L4	2	19
3.1	131	6.2	131	38.6	131	1.7	11.191	48.190	g500-S220	m550-V71/L4	2	16
3.1	133	6.1	133	38.0	133	3.2	11.311	48.950	g500-S660	m550-V71/L4	2	25
3.0	133	6.0	133	37.3	133	4.7	11.490	49.867	g500-S660	m550-V71/L4	3	25
3.0	135	6.0	135	37.3	135	3.7	11.678	49.840	g500-S950	m550-V71/L4	2	44
2.9	140	5.8	140	36.0	140	1.6	11.169	51.620	g500-S220	m550-V71/L4	2	16
2.9	141	5.7	141	35.4	141	1.6	11.234	52.587	g500-S220	m550-V71/L4	3	16
2.8	144	5.7	144	35.1	144	2.4	11.203	53.026	g500-S400	m550-V71/L4	2	19
2.7	152	5.4	152	33.3	152	3.2	11.301	55.773	g500-S660	m550-V71/L4	2	25
2.7	152	5.4	152	33.3	152	3.7	11.660	55.773	g500-S950	m550-V71/L4	2	44
2.6	152	5.3	152	32.7	152	4.3	11.481	56.818	g500-S660	m550-V71/L4	3	25



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
2.6	155	5.3	155	32.7	155	1.7	11.179	56.960	g500-S400	m550-V71/L4	2	19
2.6	155	5.2	155	32.1	155	2.6	11.242	58.027	g500-S400	m550-V71/L4	3	20
2.6	159	5.1	159	31.8	159	1.4	11.167	58.486	g500-S220	m550-V71/L4	2	16
2.5	159	5.0	159	31.2	159	1.4	11.231	59.581	g500-S220	m550-V71/L4	3	16
2.4	171	4.8	171	29.5	171	2.9	11.472	63.000	g500-S950	m550-V71/L4	2	44
2.4	171	4.7	171	29.1	171	3.9	11.370	63.817	g500-S660	m550-V71/L4	3	25
2.3	175	4.7	175	28.9	175	1.7	11.174	64.354	g500-S400	m550-V71/L4	2	19
2.3	175	4.6	175	28.4	175	2.3	11.239	65.559	g500-S400	m550-V71/L4	3	20
2.2	180	4.5	180	27.6	180	1.2	11.192	67.298	g500-S220	m550-V71/L4	3	16
2.1	187	4.3	187	26.6	187	3.5	11.335	69.813	g500-S660	m550-V71/L4	3	25
2.1	192	4.3	192	26.4	192	2.9	11.461	70.500	g500-S950	m550-V71/L4	2	44
2.1	192	4.2	192	26.0	192	5.0	11.834	71.644	g500-S950	m550-V71/L4	3	45
2.1	195	4.1	195	25.6	195	3.4	11.364	72.713	g500-S660	m550-V71/L4	3	25
2.0	199	4.0	199	25.0	199	2.0	11.198	74.260	g500-S400	m550-V71/L4	3	20
2.0	204	3.9	204	24.4	204	1.1	11.191	76.249	g500-S220	m550-V71/L4	3	16
1.9	210	3.8	210	23.7	210	4.5	11.734	78.375	g500-S950	m550-V71/L4	3	45
1.9	213	3.8	213	23.4	213	3.1	11.330	79.545	g500-S660	m550-V71/L4	3	25
1.8	225	3.6	225	22.2	225	1.8	11.195	83.900	g500-S400	m550-V71/L4	3	20
1.7	230	3.5	230	21.6	230	1.0	11.162	86.079	g500-S220	m550-V71/L4	3	16
1.7	238	3.4	238	20.9	238	2.8	11.265	89.048	g500-S660	m550-V71/L4	3	25
1.7	239	3.4	239	20.8	239	4.0	11.555	89.333	g500-S950	m550-V71/L4	3	45
1.6	254	3.2	254	19.6	254	1.6	11.166	94.984	g500-S400	m550-V71/L4	3	20
1.5	261	3.1	261	19.1	261	0.8	11.161	97.528	g500-S220	m550-V71/L4	3	16
1.5	268	3.0	268	18.6	268	3.6	11.549	99.968	g500-S950	m550-V71/L4	3	45
1.5	272	3.0	271	18.3	271	2.4	11.262	101.460	g500-S660	m550-V71/L4	3	25
1.4	287	2.8	287	17.3	287	1.4	11.164	107.314	g500-S400	m550-V71/L4	3	20
1.4	292	2.8	292	17.1	292	2.3	11.225	109.083	g500-S660	m550-V71/L4	3	25
1.4	293	2.7	293	17.0	293	3.2	11.445	109.433	g500-S950	m550-V71/L4	3	45
1.2	328	2.4	328	15.2	328	2.9	11.441	122.461	g500-S950	m550-V71/L4	3	45
1.2	330	2.4	330	15.1	330	1.2	11.146	123.307	g500-S400	m550-V71/L4	3	20
1.2	333	2.4	333	15.0	333	2.0	11.223	124.289	g500-S660	m550-V71/L4	3	25
1.1	367	2.2	367	13.6	367	1.8	11.183	137.133	g500-S660	m550-V71/L4	3	25
1.1	373	2.2	373	13.4	373	1.1	11.145	139.313	g500-S400	m550-V71/L4	3	20
1.1	381	2.1	381	13.1	381	2.5	11.314	142.437	g500-S950	m550-V71/L4	3	45
1.0	418	1.9	418	11.9	418	1.6	11.182	156.249	g500-S660	m550-V71/L4	3	25
1.0	419	1.9	419	11.9	419	4.9	11.701	156.407	g500-S2100	m550-V71/L4	3	77
0.9	427	1.9	427	11.7	427	2.2	11.312	159.394	g500-S950	m550-V71/L4	3	45
0.9	465	1.7	465	10.7	465	4.4	11.695	173.820	g500-S2100	m550-V71/L4	3	77
0.8	473	1.7	473	10.5	473	1.4	11.156	176.611	g500-S660	m550-V71/L4	3	25
0.8	474	1.7	474	10.5	474	2.0	11.254	177.178	g500-S950	m550-V71/L4	3	45
0.8	493	1.6	493	10.1	493	5.0	11.802	184.146	g500-S3100	m550-V71/L4	3	117
0.8	521	1.5	521	9.6	521	3.9	11.537	194.556	g500-S2100	m550-V71/L4	3	77
0.8	531	1.5	531	9.4	531	1.8	11.253	198.270	g500-S950	m550-V71/L4	3	45
0.7	539	1.5	538	9.2	538	1.2	11.156	201.230	g500-S660	m550-V71/L4	3	25
0.7	557	1.4	557	8.9	557	5.0	11.787	208.240	g500-S3100	m550-V71/L4	3	117
0.7	579	1.4	579	8.6	579	3.5	11.533	216.215	g500-S2100	m550-V71/L4	3	77
0.7	613	1.3	613	8.1	613	4.2	11.568	229.059	g500-S3100	m550-V71/L4	3	117
0.7	614	1.3	614	8.1	614	1.6	11.197	229.289	g500-S950	m550-V71/L4	3	45
0.6	638	1.3	638	7.8	638	4.2	11.973	238.252	g500-S4500	m550-V71/L4	3	192
0.6	674	1.2	674	7.4	674	3.0	11.372	251.778	g500-S2100	m550-V71/L4	3	77
0.6	687	1.2	687	7.2	687	1.4	11.196	256.585	g500-S950	m550-V71/L4	3	45
0.6	693	1.2	693	7.2	693	4.2	11.558	259.030	g500-S3100	m550-V71/L4	3	117



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.6	712	1.1	712	7.0	712	4.2	11.961	265.956	g500-S4500	m550-V71/L4	3	192
0.5	745	1.1	745	6.7	745	1.3	11.171	278.273	g500-S950	m550-V71/L4	3	45
0.5	749	1.1	749	6.6	749	2.7	11.370	279.807	g500-S2100	m550-V71/L4	3	77
0.5	774	1.0	774	6.4	774	3.7	11.736	289.151	g500-S4500	m550-V71/L4	3	192
0.5	793	1.0	793	6.3	793	3.8	11.391	296.430	g500-S3100	m550-V71/L4	3	117
0.5	818	1.0	818	6.1	818	2.5	11.299	305.567	g500-S2100	m550-V71/L4	3	77
0.5	833	1.0	833	6.0	833	1.1	11.170	311.401	g500-S950	m550-V71/L4	3	45
0.5	835	0.9	835	5.9	835	3.7	11.562	316.910	g500-S3100	m550-V71/L4	4	120
0.5	841	0.9	841	5.8	841	1.1	11.323	319.059	g500-S950	m550-V71/L4	4	48
0.5	844	0.9	844	5.8	844	2.4	11.390	320.263	g500-S2100	m550-V71/L4	4	80
0.5	856	0.9	856	5.7	856	5.0	11.728	324.889	g500-S4500	m550-V71/L4	4	195
0.5	864	0.9	864	5.8	864	3.7	11.728	322.773	g500-S4500	m550-V71/L4	3	192
0.4	897	0.9	897	5.5	897	3.5	11.385	335.215	g500-S3100	m550-V71/L4	3	117
0.4	909	0.9	909	5.5	909	2.3	11.297	339.584	g500-S2100	m550-V71/L4	3	77
0.4	923	0.9	923	5.3	923	2.2	11.375	350.353	g500-S2100	m550-V71/L4	4	80
0.4	941	0.8	941	5.2	941	1.0	11.322	357.042	g500-S950	m550-V71/L4	4	48
0.4	945	0.8	945	5.2	945	3.3	11.557	358.375	g500-S3100	m550-V71/L4	4	120
0.4	956	0.8	956	5.1	956	4.7	11.722	362.667	g500-S4500	m550-V71/L4	4	195
0.4	963	0.8	963	5.2	963	3.2	11.311	359.758	g500-S3100	m550-V71/L4	3	117
0.4	978	0.8	978	5.1	978	2.9	11.508	365.500	g500-S4500	m550-V71/L4	3	192
0.4	1026	0.8	1026	4.8	1026	2.0	11.374	389.356	g500-S2100	m550-V71/L4	4	80
0.4	1034	0.8	1034	4.8	1034	1.8	11.229	386.250	g500-S2100	m550-V71/L4	3	77
0.4	1049	0.8	1049	4.7	1049	4.3	11.644	397.989	g500-S4500	m550-V71/L4	4	195
0.4	1065	0.7	1065	4.6	1065	2.9	11.515	404.222	g500-S3100	m550-V71/L4	4	120
0.4	1073	0.7	1073	4.6	1073	0.9	11.314	406.963	g500-S950	m550-V71/L4	4	48
0.4	1089	0.7	1089	4.6	1089	2.9	11.307	406.829	g500-S3100	m550-V71/L4	3	117
0.4	1092	0.7	1092	4.6	1092	2.9	11.503	408.000	g500-S4500	m550-V71/L4	3	192
0.3	1149	0.7	1149	4.3	1149	1.8	11.227	429.250	g500-S2100	m550-V71/L4	3	77
0.3	1171	0.7	1171	4.2	1171	3.8	11.640	444.267	g500-S4500	m550-V71/L4	4	195
0.3	1178	0.7	1178	4.2	1178	1.7	11.350	446.878	g500-S2100	m550-V71/L4	4	80
0.3	1205	0.7	1205	4.1	1205	2.6	11.511	457.111	g500-S3100	m550-V71/L4	4	120
0.3	1305	0.6	1305	3.8	1305	2.4	11.487	495.172	g500-S3100	m550-V71/L4	4	120
0.3	1309	0.6	1309	3.7	1309	1.6	11.349	496.628	g500-S2100	m550-V71/L4	4	80
0.3	1365	0.6	1365	3.6	1365	3.3	11.562	518.017	g500-S4500	m550-V71/L4	4	195
0.3	1443	0.5	1443	3.4	1443	1.4	11.336	547.426	g500-S2100	m550-V71/L4	4	80
0.3	1476	0.5	1476	3.3	1476	2.1	11.485	559.961	g500-S3100	m550-V71/L4	4	120
0.3	1524	0.5	1524	3.2	1524	3.0	11.559	578.252	g500-S4500	m550-V71/L4	4	195
0.2	1604	0.5	1604	3.1	1604	1.3	11.335	608.369	g500-S2100	m550-V71/L4	4	80
0.2	1673	0.5	1673	2.9	1673	2.7	11.519	634.887	g500-S4500	m550-V71/L4	4	195
0.2	1699	0.5	1699	2.9	1699	1.8	11.339	644.510	g500-S3100	m550-V71/L4	4	120
0.2	1868	0.4	1868	2.6	1868	2.4	11.518	708.711	g500-S4500	m550-V71/L4	4	195
0.2	1878	0.4	1878	2.6	1878	1.1	11.321	712.523	g500-S2100	m550-V71/L4	4	80
0.2	1921	0.4	1921	2.6	1921	1.6	11.338	728.838	g500-S3100	m550-V71/L4	4	120
0.2	2087	0.4	2087	2.3	2087	1.0	11.321	791.846	g500-S2100	m550-V71/L4	4	80
0.2	2113	0.4	2113	2.3	2113	1.5	11.271	801.707	g500-S3100	m550-V71/L4	4	120
0.2	2178	0.4	2178	2.3	2178	2.1	11.358	826.361	g500-S4500	m550-V71/L4	4	195
0.2	2336	0.3	2336	2.1	2336	0.9	11.259	886.309	g500-S2100	m550-V71/L4	4	80
0.2	2390	0.3	2390	2.1	2390	1.3	11.270	906.604	g500-S3100	m550-V71/L4	4	120
0.2	2431	0.3	2431	2.0	2431	1.9	11.357	922.449	g500-S4500	m550-V71/L4	4	195
0.1	2709	0.3	2709	1.8	2709	1.7	11.283	1027.912	g500-S4500	m550-V71/L4	4	195
0.1	2750	0.3	2750	1.8	2750	1.1	11.260	1043.492	g500-S3100	m550-V71/L4	4	120
0.1	3024	0.3	3024	1.6	3024	1.5	11.282	1147.437	g500-S4500	m550-V71/L4	4	195



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.1	3110	0.3	3110	1.6	3110	1.0	11.260	1180.024	g500-S3100	m550-V71/L4	4	120
0.1	3193	0.2	3193	1.5	3193	1.4	11.223	1211.575	g500-S4500	m550-V71/L4	4	195
0.1	3421	0.2	3421	1.4	3421	0.9	11.255	1298.002	g500-S3100	m550-V71/L4	4	120
0.1	3559	0.2	3558	1.4	3558	1.3	11.268	1350.094	g500-S4500	m550-V71/L4	4	195
0.1	3869	0.2	3869	1.3	3869	0.8	11.254	1467.835	g500-S3100	m550-V71/L4	4	120
0.1	3972	0.2	3972	1.2	3972	1.1	11.267	1507.081	g500-S4500	m550-V71/L4	4	195
0.1	4605	0.2	4605	1.1	4605	1.0	11.205	1747.180	g500-S4500	m550-V71/L4	4	195
0.1	5141	0.2	5141	1.0	5141	0.9	11.205	1950.341	g500-S4500	m550-V71/L4	4	195
0.1	5589	0.1	5589	0.9	5589	0.8	11.176	2120.441	g500-S4500	m550-V71/L4	4	195



62 Hz: 0.75 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
41.0	13.9	123	14.0	508	14.0	4.2	22.663	3.661	g500-S130	m550-V80/M4	2	16
29.9	19.0	89.6	19.0	371	19.0	3.7	21.987	5.021	g500-S130	m550-V80/M4	2	16
23.3	24.3	70.0	24.0	290	24.0	3.3	21.673	6.425	g500-S130	m550-V80/M4	2	16
21.3	26.6	64.0	27.0	265	27.0	3.2	21.588	7.029	g500-S130	m550-V80/M4	2	16
18.0	31.5	54.1	31.0	224	31.0	3.4	21.785	8.322	g500-S130	m550-V80/M4	2	16
15.9	35.6	47.8	36.0	198	36.0	3.3	22.130	9.411	g500-S130	m550-V80/M4	2	16
13.1	43.2	39.4	43.0	163	43.0	2.8	21.521	11.413	g500-S130	m550-V80/M4	2	16
12.6	44.9	37.9	45.0	157	45.0	4.6	21.819	11.876	g500-S220	m550-V80/M4	2	18
11.6	48.8	34.9	49.0	144	49.0	2.5	21.704	12.907	g500-S130	m550-V80/M4	2	16
11.5	49.2	34.6	49.0	143	49.0	4.2	21.721	12.992	g500-S220	m550-V80/M4	2	18
11.1	50.9	33.4	51.0	138	51.0	4.0	21.773	13.456	g500-S220	m550-V80/M4	2	18
10.3	55.3	30.8	55.0	127	55.0	2.2	21.388	14.606	g500-S130	m550-V80/M4	2	16
10.2	55.7	30.6	56.0	126	56.0	3.7	21.683	14.720	g500-S220	m550-V80/M4	2	18
9.4	60.5	28.2	60.0	116	60.0	2.0	21.350	15.979	g500-S130	m550-V80/M4	2	16
9.1	62.7	27.2	63.0	112	63.0	3.3	21.542	16.571	g500-S220	m550-V80/M4	2	18
8.3	68.4	24.9	68.0	103	68.0	1.9	21.444	18.069	g500-S130	m550-V80/M4	2	16
8.0	71.0	24.0	71.0	99.1	71.0	3.1	21.518	18.776	g500-S220	m550-V80/M4	2	18
7.4	76.8	22.2	77.0	91.6	77.0	2.9	21.436	20.300	g500-S220	m550-V80/M4	2	18
7.4	77.1	22.1	77.0	91.3	77.0	1.7	21.275	20.381	g500-S130	m550-V80/M4	2	16
6.7	84.8	20.1	85.0	83.0	85.0	4.5	21.496	22.400	g500-S400	m550-V80/M4	2	21
6.5	87.0	19.6	87.0	80.9	87.0	2.5	21.420	23.000	g500-S220	m550-V80/M4	2	18
6.5	87.2	19.5	87.0	80.7	87.0	1.5	21.332	23.048	g500-S130	m550-V80/M4	2	16
6.0	94.5	18.0	94.0	74.5	94.0	1.4	21.231	24.967	g500-S130	m550-V80/M4	2	16
6.0	94.8	18.0	95.0	74.2	95.0	4.5	21.747	25.056	g500-S660	m550-V80/M4	2	27
5.9	95.8	17.8	96.0	73.5	96.0	4.2	21.470	25.308	g500-S400	m550-V80/M4	2	21
5.7	100	17.0	100	70.4	100	2.2	21.309	26.422	g500-S220	m550-V80/M4	2	18
5.3	107	15.9	107	65.9	107	1.2	21.269	28.233	g500-S130	m550-V80/M4	2	16
5.3	108	15.8	108	65.2	108	4.5	21.709	28.548	g500-S660	m550-V80/M4	2	27
5.1	110	15.4	110	63.8	110	3.6	21.344	29.156	g500-S400	m550-V80/M4	2	21
5.0	113	15.0	113	62.1	113	1.9	21.299	29.937	g500-S220	m550-V80/M4	2	18
4.8	118	14.4	118	59.7	118	3.8	21.567	31.167	g500-S660	m550-V80/M4	2	27
4.8	119	14.3	119	59.3	119	1.1	21.187	31.387	g500-S130	m550-V80/M4	2	16
4.6	124	13.7	124	56.6	124	1.8	21.251	32.867	g500-S220	m550-V80/M4	2	18
4.6	125	13.7	125	56.5	125	3.2	21.328	32.940	g500-S400	m550-V80/M4	2	21
4.2	134	12.7	134	52.4	134	1.0	21.211	35.493	g500-S130	m550-V80/M4	2	16
4.2	134	12.7	134	52.4	134	3.8	21.542	35.511	g500-S660	m550-V80/M4	2	27
4.1	137	12.4	137	51.3	137	2.9	21.274	36.267	g500-S400	m550-V80/M4	2	21
4.0	141	12.1	141	49.9	141	1.6	21.245	37.238	g500-S220	m550-V80/M4	2	18
3.7	153	11.2	153	46.1	153	3.4	21.390	40.333	g500-S660	m550-V80/M4	2	27
3.7	153	11.1	153	46.0	153	0.9	21.159	40.422	g500-S130	m550-V80/M4	2	16
3.7	155	11.0	155	45.4	155	2.6	21.264	40.974	g500-S400	m550-V80/M4	2	21
3.7	155	11.0	155	45.3	155	3.8	21.887	41.067	g500-S950	m550-V80/M4	2	46
3.5	161	10.6	161	43.7	161	1.4	21.195	42.533	g500-S220	m550-V80/M4	2	18
3.3	174	9.8	174	40.5	174	3.4	21.375	45.956	g500-S660	m550-V80/M4	2	27
3.3	174	9.8	174	40.5	174	3.8	21.861	45.956	g500-S950	m550-V80/M4	2	46
3.2	178	9.6	178	39.6	178	1.8	21.209	46.933	g500-S400	m550-V80/M4	2	21
3.1	182	9.3	182	38.6	182	1.2	21.191	48.190	g500-S220	m550-V80/M4	2	18
3.1	185	9.2	185	38.0	185	2.4	21.311	48.950	g500-S660	m550-V80/M4	2	27
3.0	186	9.0	186	37.3	186	3.4	21.490	49.867	g500-S660	m550-V80/M4	3	27
3.0	189	9.0	189	37.3	189	3.3	21.678	49.840	g500-S950	m550-V80/M4	2	46
2.9	195	8.7	195	36.0	195	1.1	21.169	51.620	g500-S220	m550-V80/M4	2	18



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
2.9	196	8.6	196	35.4	196	1.1	21.234	52.587	g500-S220	m550-V80/M4	3	18
2.8	201	8.5	201	35.1	201	1.7	21.203	53.026	g500-S400	m550-V80/M4	2	21
2.7	211	8.1	211	33.3	211	2.4	21.301	55.773	g500-S660	m550-V80/M4	2	27
2.7	211	8.1	211	33.3	211	3.3	21.660	55.773	g500-S950	m550-V80/M4	2	46
2.6	212	7.9	212	32.7	212	3.1	21.481	56.818	g500-S660	m550-V80/M4	3	27
2.6	216	7.9	216	32.7	216	1.2	21.179	56.960	g500-S400	m550-V80/M4	2	21
2.6	216	7.8	216	32.1	216	1.9	21.242	58.027	g500-S400	m550-V80/M4	3	22
2.6	221	7.7	221	31.8	221	1.0	21.167	58.486	g500-S220	m550-V80/M4	2	18
2.5	222	7.6	222	31.2	222	1.0	21.231	59.581	g500-S220	m550-V80/M4	3	18
2.4	238	7.1	238	29.5	238	2.6	21.472	63.000	g500-S950	m550-V80/M4	2	46
2.4	238	7.1	238	29.1	238	2.8	21.370	63.817	g500-S660	m550-V80/M4	3	27
2.3	239	7.0	239	29.1	239	4.0	21.844	64.022	g500-S950	m550-V80/M4	3	47
2.3	244	7.0	244	28.9	244	1.2	21.174	64.354	g500-S400	m550-V80/M4	2	21
2.3	244	6.9	244	28.4	244	1.6	21.239	65.559	g500-S400	m550-V80/M4	3	22
2.2	251	6.7	251	27.6	251	0.9	21.192	67.298	g500-S220	m550-V80/M4	3	18
2.1	260	6.4	260	26.6	260	2.5	21.335	69.813	g500-S660	m550-V80/M4	3	27
2.1	261	6.4	261	26.6	261	3.6	21.743	70.037	g500-S950	m550-V80/M4	3	47
2.1	267	6.4	267	26.4	267	2.6	21.461	70.500	g500-S950	m550-V80/M4	2	46
2.1	267	6.3	267	26.0	267	3.6	21.834	71.644	g500-S950	m550-V80/M4	3	47
2.1	271	6.2	271	25.6	271	2.4	21.364	72.713	g500-S660	m550-V80/M4	3	27
2.0	277	6.1	277	25.0	277	1.5	21.198	74.260	g500-S400	m550-V80/M4	3	22
1.9	292	5.7	292	23.7	292	3.3	21.734	78.375	g500-S950	m550-V80/M4	3	47
1.9	297	5.7	296	23.4	296	2.2	21.330	79.545	g500-S660	m550-V80/M4	3	27
1.8	313	5.4	313	22.2	313	1.3	21.195	83.900	g500-S400	m550-V80/M4	3	22
1.7	332	5.1	332	20.9	332	2.0	21.265	89.048	g500-S660	m550-V80/M4	3	27
1.7	333	5.0	333	20.8	333	2.9	21.555	89.333	g500-S950	m550-V80/M4	3	47
1.6	354	4.7	354	19.6	354	1.1	21.166	94.984	g500-S400	m550-V80/M4	3	22
1.5	373	4.5	373	18.6	373	2.6	21.549	99.968	g500-S950	m550-V80/M4	3	47
1.5	378	4.4	378	18.3	378	1.8	21.262	101.460	g500-S660	m550-V80/M4	3	27
1.4	400	4.2	400	17.3	400	1.0	21.164	107.314	g500-S400	m550-V80/M4	3	22
1.4	407	4.1	407	17.1	407	1.6	21.225	109.083	g500-S660	m550-V80/M4	3	27
1.4	408	4.1	408	17.0	408	2.3	21.445	109.433	g500-S950	m550-V80/M4	3	47
1.2	456	3.7	456	15.2	456	2.1	21.441	122.461	g500-S950	m550-V80/M4	3	47
1.2	460	3.6	460	15.1	460	0.9	21.146	123.307	g500-S400	m550-V80/M4	3	22
1.2	463	3.6	463	15.0	463	1.4	21.223	124.289	g500-S660	m550-V80/M4	3	27
1.1	511	3.3	511	13.6	511	1.3	21.183	137.133	g500-S660	m550-V80/M4	3	27
1.1	531	3.2	531	13.1	531	1.8	21.314	142.437	g500-S950	m550-V80/M4	3	47
1.0	582	2.9	582	11.9	582	1.1	21.182	156.249	g500-S660	m550-V80/M4	3	27
1.0	583	2.9	583	11.9	583	3.5	21.701	156.407	g500-S2100	m550-V80/M4	3	79
0.9	594	2.8	594	11.7	594	1.6	21.312	159.394	g500-S950	m550-V80/M4	3	47
0.9	648	2.6	648	10.7	648	3.2	21.695	173.820	g500-S2100	m550-V80/M4	3	79
0.8	658	2.5	658	10.5	658	1.0	21.156	176.611	g500-S660	m550-V80/M4	3	27
0.8	660	2.5	660	10.5	660	1.4	21.254	177.178	g500-S950	m550-V80/M4	3	47
0.8	686	2.4	686	10.1	686	4.5	21.802	184.146	g500-S3100	m550-V80/M4	3	119
0.8	725	2.3	725	9.6	725	2.8	21.537	194.556	g500-S2100	m550-V80/M4	3	79
0.8	739	2.3	739	9.4	739	1.3	21.253	198.270	g500-S950	m550-V80/M4	3	47
0.7	750	2.2	750	9.2	750	0.9	21.156	201.230	g500-S660	m550-V80/M4	3	27
0.7	776	2.2	776	8.9	776	4.0	21.787	208.240	g500-S3100	m550-V80/M4	3	119
0.7	806	2.1	806	8.6	806	2.5	21.533	216.215	g500-S2100	m550-V80/M4	3	79
0.7	854	2.0	854	8.1	854	3.6	21.568	229.059	g500-S3100	m550-V80/M4	3	119
0.7	855	2.0	855	8.1	855	1.1	21.197	229.289	g500-S950	m550-V80/M4	3	47
0.6	888	1.9	888	7.8	888	3.8	21.973	238.252	g500-S4500	m550-V80/M4	3	194



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.6	938	1.8	938	7.4	938	2.2	21.372	251.778	g500-S2100	m550-V80/M4	3	79
0.6	956	1.8	956	7.2	956	1.0	21.196	256.585	g500-S950	m550-V80/M4	3	47
0.6	965	1.7	965	7.2	965	3.2	21.558	259.030	g500-S3100	m550-V80/M4	3	119
0.6	991	1.7	991	7.0	991	3.8	21.961	265.956	g500-S4500	m550-V80/M4	3	194
0.5	1037	1.6	1037	6.7	1037	0.9	21.171	278.273	g500-S950	m550-V80/M4	3	47
0.5	1043	1.6	1043	6.6	1043	2.0	21.370	279.807	g500-S2100	m550-V80/M4	3	79
0.5	1078	1.6	1078	6.4	1078	3.3	21.736	289.151	g500-S4500	m550-V80/M4	3	194
0.5	1105	1.5	1105	6.3	1105	2.8	21.391	296.430	g500-S3100	m550-V80/M4	3	119
0.5	1139	1.5	1139	6.1	1139	1.8	21.299	305.567	g500-S2100	m550-V80/M4	3	79
0.5	1161	1.4	1161	6.0	1161	0.8	21.170	311.401	g500-S950	m550-V80/M4	3	47
0.5	1163	1.4	1163	5.9	1163	2.7	21.562	316.910	g500-S3100	m550-V80/M4	4	122
0.5	1171	1.4	1171	5.8	1171	0.8	21.323	319.059	g500-S950	m550-V80/M4	4	50
0.5	1176	1.4	1176	5.8	1176	1.7	21.390	320.263	g500-S2100	m550-V80/M4	4	82
0.5	1193	1.4	1193	5.7	1193	3.8	21.728	324.889	g500-S4500	m550-V80/M4	4	197
0.5	1203	1.4	1203	5.8	1203	3.3	21.728	322.773	g500-S4500	m550-V80/M4	3	194
0.4	1249	1.3	1249	5.5	1249	2.5	21.385	335.215	g500-S3100	m550-V80/M4	3	119
0.4	1266	1.3	1266	5.5	1266	1.6	21.297	339.584	g500-S2100	m550-V80/M4	3	79
0.4	1286	1.3	1286	5.3	1286	1.6	21.375	350.353	g500-S2100	m550-V80/M4	4	82
0.4	1316	1.3	1316	5.2	1316	2.4	21.557	358.375	g500-S3100	m550-V80/M4	4	122
0.4	1331	1.2	1331	5.1	1331	3.4	21.722	362.667	g500-S4500	m550-V80/M4	4	197
0.4	1341	1.3	1341	5.2	1341	2.3	21.311	359.758	g500-S3100	m550-V80/M4	3	119
0.4	1362	1.2	1362	5.1	1362	2.6	21.508	365.500	g500-S4500	m550-V80/M4	3	194
0.4	1429	1.2	1429	4.8	1429	1.4	21.374	389.356	g500-S2100	m550-V80/M4	4	82
0.4	1440	1.2	1440	4.8	1440	1.4	21.229	386.250	g500-S2100	m550-V80/M4	3	79
0.4	1461	1.1	1461	4.7	1461	3.1	21.644	397.989	g500-S4500	m550-V80/M4	4	197
0.4	1484	1.1	1484	4.6	1484	2.1	21.515	404.222	g500-S3100	m550-V80/M4	4	122
0.4	1516	1.1	1516	4.6	1516	2.0	21.307	406.829	g500-S3100	m550-V80/M4	3	119
0.4	1521	1.1	1521	4.6	1521	2.6	21.503	408.000	g500-S4500	m550-V80/M4	3	194
0.3	1600	1.0	1600	4.3	1600	1.3	21.227	429.250	g500-S2100	m550-V80/M4	3	79
0.3	1631	1.0	1631	4.2	1631	2.8	21.640	444.267	g500-S4500	m550-V80/M4	4	197
0.3	1641	1.0	1641	4.2	1641	1.3	21.350	446.878	g500-S2100	m550-V80/M4	4	82
0.3	1678	1.0	1678	4.1	1678	1.9	21.511	457.111	g500-S3100	m550-V80/M4	4	122
0.3	1818	0.9	1818	3.8	1818	1.7	21.487	495.172	g500-S3100	m550-V80/M4	4	122
0.3	1823	0.9	1823	3.7	1823	1.1	21.349	496.628	g500-S2100	m550-V80/M4	4	82
0.3	1902	0.9	1902	3.6	1902	2.4	21.562	518.017	g500-S4500	m550-V80/M4	4	197
0.3	2010	0.8	2010	3.4	2010	1.0	21.336	547.426	g500-S2100	m550-V80/M4	4	82
0.3	2056	0.8	2056	3.3	2056	1.5	21.485	559.961	g500-S3100	m550-V80/M4	4	122
0.3	2123	0.8	2123	3.2	2123	2.1	21.559	578.252	g500-S4500	m550-V80/M4	4	197
0.2	2234	0.7	2233	3.1	2233	0.9	21.335	608.369	g500-S2100	m550-V80/M4	4	82
0.2	2331	0.7	2331	2.9	2331	1.9	21.519	634.887	g500-S4500	m550-V80/M4	4	197
0.2	2366	0.7	2366	2.9	2366	1.3	21.339	644.510	g500-S3100	m550-V80/M4	4	122
0.2	2602	0.6	2602	2.6	2602	1.7	21.518	708.711	g500-S4500	m550-V80/M4	4	197
0.2	2676	0.6	2676	2.6	2676	1.2	21.338	728.838	g500-S3100	m550-V80/M4	4	122
0.2	2943	0.6	2943	2.3	2943	1.1	21.271	801.707	g500-S3100	m550-V80/M4	4	122
0.2	3034	0.5	3034	2.3	3034	1.5	21.358	826.361	g500-S4500	m550-V80/M4	4	197
0.2	3328	0.5	3328	2.1	3328	0.9	21.270	906.604	g500-S3100	m550-V80/M4	4	122
0.2	3387	0.5	3387	2.0	3387	1.3	21.357	922.449	g500-S4500	m550-V80/M4	4	197
0.1	3774	0.4	3774	1.8	3774	1.2	21.283	1027.912	g500-S4500	m550-V80/M4	4	197
0.1	3831	0.4	3831	1.8	3831	0.8	21.260	1043.492	g500-S3100	m550-V80/M4	4	122
0.1	4213	0.4	4212	1.6	4212	1.1	21.282	1147.437	g500-S4500	m550-V80/M4	4	197
0.1	4448	0.4	4448	1.5	4448	1.0	21.223	1211.575	g500-S4500	m550-V80/M4	4	197
0.1	4957	0.3	4956	1.4	4956	0.9	21.268	1350.094	g500-S4500	m550-V80/M4	4	197



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.1	5533	0.3	5533	1.2	5533	0.8	21.267	1507.081	g500-S4500	m550-V80/M4	4	197



62 Hz: 1.1 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
41.0	19.9	123	20.0	508	20.0	3.0	37.363	3.661	g500-S130	m550-V90/M4	2	19
29.9	27.3	89.6	27.0	371	27.0	2.6	36.687	5.021	g500-S130	m550-V90/M4	2	19
23.3	34.9	70.0	35.0	290	35.0	2.3	36.373	6.425	g500-S130	m550-V90/M4	2	19
21.3	38.2	64.0	38.0	265	38.0	2.2	36.288	7.029	g500-S130	m550-V90/M4	2	19
19.6	41.7	58.7	42.0	243	42.0	4.9	37.299	7.667	g500-S220	m550-V90/M4	2	21
18.0	45.2	54.1	45.0	224	45.0	2.4	36.485	8.322	g500-S130	m550-V90/M4	2	19
16.2	50.4	48.5	50.0	200	50.0	4.1	36.836	9.280	g500-S220	m550-V90/M4	2	21
15.9	51.1	47.8	51.0	198	51.0	2.3	36.830	9.411	g500-S130	m550-V90/M4	2	19
14.3	57.1	42.8	57.0	177	57.0	3.6	36.761	10.514	g500-S220	m550-V90/M4	2	21
13.1	62.0	39.4	62.0	163	62.0	2.0	36.221	11.413	g500-S130	m550-V90/M4	2	19
12.6	64.5	37.9	65.0	157	65.0	3.2	36.519	11.876	g500-S220	m550-V90/M4	2	21
11.6	70.1	34.9	70.0	144	70.0	1.7	36.404	12.907	g500-S130	m550-V90/M4	2	19
11.5	70.6	34.6	71.0	143	71.0	2.9	36.421	12.992	g500-S220	m550-V90/M4	2	21
11.1	73.1	33.4	73.0	138	73.0	2.8	36.473	13.456	g500-S220	m550-V90/M4	2	21
10.5	77.9	31.4	78.0	130	78.0	4.8	36.567	14.336	g500-S400	m550-V90/M4	2	25
10.3	79.4	30.8	79.0	127	79.0	1.5	36.088	14.606	g500-S130	m550-V90/M4	2	19
10.2	80.0	30.6	80.0	126	80.0	2.6	36.383	14.720	g500-S220	m550-V90/M4	2	21
10.1	80.4	30.4	80.0	126	80.0	4.6	36.617	14.806	g500-S400	m550-V90/M4	2	25
9.4	86.8	28.2	87.0	116	87.0	1.4	36.050	15.979	g500-S130	m550-V90/M4	2	19
9.3	88.0	27.8	88.0	115	88.0	4.2	36.504	16.197	g500-S400	m550-V90/M4	2	25
9.1	90.0	27.2	90.0	112	90.0	2.3	36.242	16.571	g500-S220	m550-V90/M4	2	21
8.3	98.2	24.9	98.0	103	98.0	1.3	36.144	18.069	g500-S130	m550-V90/M4	2	19
8.2	99.4	24.6	99.0	102	99.0	4.0	36.331	18.286	g500-S400	m550-V90/M4	2	25
8.0	102	24.0	102	99.1	102	2.2	36.218	18.776	g500-S220	m550-V90/M4	2	21
7.4	110	22.2	110	91.6	110	2.0	36.136	20.300	g500-S220	m550-V90/M4	2	21
7.4	111	22.1	111	91.3	111	1.2	35.975	20.381	g500-S130	m550-V90/M4	2	19
7.3	112	21.8	112	90.0	112	3.6	36.292	20.659	g500-S400	m550-V90/M4	2	25
6.7	122	20.1	122	83.0	122	3.3	36.196	22.400	g500-S400	m550-V90/M4	2	25
6.5	125	19.6	125	80.9	125	1.8	36.120	23.000	g500-S220	m550-V90/M4	2	21
6.5	125	19.5	125	80.7	125	1.0	36.032	23.048	g500-S130	m550-V90/M4	2	19
6.0	136	18.0	136	74.5	136	1.0	35.931	24.967	g500-S130	m550-V90/M4	2	19
6.0	136	18.0	136	74.2	136	4.3	36.447	25.056	g500-S660	m550-V90/M4	2	30
5.9	138	17.8	138	73.5	138	2.9	36.170	25.308	g500-S400	m550-V90/M4	2	25
5.7	144	17.0	144	70.4	144	1.5	36.009	26.422	g500-S220	m550-V90/M4	2	21
5.3	153	15.9	153	65.9	153	0.9	35.969	28.233	g500-S130	m550-V90/M4	2	19
5.3	155	15.8	155	65.2	155	4.3	36.409	28.548	g500-S660	m550-V90/M4	2	30
5.1	158	15.4	158	63.8	158	2.5	36.044	29.156	g500-S400	m550-V90/M4	2	25
5.0	163	15.0	163	62.1	163	1.4	35.999	29.937	g500-S220	m550-V90/M4	2	21
4.8	169	14.4	169	59.7	169	3.9	36.267	31.167	g500-S660	m550-V90/M4	2	30
4.6	179	13.7	179	56.6	179	1.2	35.951	32.867	g500-S220	m550-V90/M4	2	21
4.6	179	13.7	179	56.5	179	2.2	36.028	32.940	g500-S400	m550-V90/M4	2	25
4.3	190	12.9	190	53.2	190	5.0	37.014	34.989	g500-S950	m550-V90/M4	2	50
4.2	193	12.7	193	52.4	193	3.4	36.242	35.511	g500-S660	m550-V90/M4	2	30
4.1	197	12.4	197	51.3	197	2.0	35.974	36.267	g500-S400	m550-V90/M4	2	25
4.0	202	12.1	202	49.9	202	1.1	35.945	37.238	g500-S220	m550-V90/M4	2	21
3.7	219	11.2	219	46.1	219	2.5	36.090	40.333	g500-S660	m550-V90/M4	2	30
3.7	223	11.0	223	45.4	223	1.8	35.964	40.974	g500-S400	m550-V90/M4	2	25
3.7	223	11.0	223	45.3	223	4.3	36.587	41.067	g500-S950	m550-V90/M4	2	50
3.3	250	9.8	250	40.5	250	2.5	36.075	45.956	g500-S660	m550-V90/M4	2	30
3.3	250	9.8	250	40.5	250	3.8	36.561	45.956	g500-S950	m550-V90/M4	2	50
3.1	266	9.2	266	38.0	266	1.7	36.011	48.950	g500-S660	m550-V90/M4	2	30



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
3.0	267	9.0	267	37.3	267	2.3	36.190	49.867	g500-S660	m550-V90/M4	3	30
3.0	268	9.0	268	37.2	268	3.6	36.878	50.027	g500-S950	m550-V90/M4	3	50
3.0	271	9.0	271	37.3	271	3.4	36.378	49.840	g500-S950	m550-V90/M4	2	50
2.8	293	8.3	293	34.5	293	4.6	37.711	53.924	g500-S2100	m550-V90/M4	2	82
2.7	300	8.0	300	33.2	300	3.2	36.861	55.982	g500-S950	m550-V90/M4	3	50
2.7	303	8.1	303	33.3	303	1.7	36.001	55.773	g500-S660	m550-V90/M4	2	30
2.7	303	8.1	303	33.3	303	3.1	36.360	55.773	g500-S950	m550-V90/M4	2	50
2.6	304	7.9	304	32.7	304	2.1	36.181	56.818	g500-S660	m550-V90/M4	3	30
2.5	326	7.5	326	31.0	326	4.6	37.654	59.927	g500-S2100	m550-V90/M4	2	82
2.4	342	7.1	342	29.5	342	2.0	36.172	63.000	g500-S950	m550-V90/M4	2	50
2.4	342	7.1	342	29.1	342	1.9	36.070	63.817	g500-S660	m550-V90/M4	3	30
2.3	343	7.0	343	29.1	343	2.8	36.544	64.022	g500-S950	m550-V90/M4	3	50
2.4	345	7.1	345	29.3	345	4.6	38.072	63.487	g500-S3100	m550-V90/M4	2	121
2.2	370	6.6	370	27.3	370	3.5	37.059	68.162	g500-S2100	m550-V90/M4	2	82
2.1	374	6.4	374	26.6	374	1.8	36.035	69.813	g500-S660	m550-V90/M4	3	30
2.1	375	6.4	375	26.6	375	2.5	36.443	70.037	g500-S950	m550-V90/M4	3	50
2.1	383	6.4	383	26.4	383	1.9	36.161	70.500	g500-S950	m550-V90/M4	2	50
2.1	383	6.3	383	26.0	383	2.5	36.534	71.644	g500-S950	m550-V90/M4	3	50
2.1	389	6.2	389	25.6	389	1.7	36.064	72.713	g500-S660	m550-V90/M4	3	30
2.1	390	6.3	390	25.9	390	4.6	37.941	71.793	g500-S3100	m550-V90/M4	2	121
2.0	412	5.9	412	24.6	412	3.5	37.024	75.750	g500-S2100	m550-V90/M4	2	82
2.0	412	5.9	412	24.2	412	5.0	37.732	76.907	g500-S2100	m550-V90/M4	3	82
1.9	418	5.8	418	23.8	418	4.9	37.946	78.128	g500-S2100	m550-V90/M4	3	82
1.9	419	5.7	419	23.7	419	2.3	36.434	78.375	g500-S950	m550-V90/M4	3	50
1.9	426	5.7	426	23.4	426	1.6	36.030	79.545	g500-S660	m550-V90/M4	3	30
1.8	457	5.3	457	21.8	457	4.5	37.704	85.468	g500-S2100	m550-V90/M4	3	82
1.7	477	5.1	477	20.9	477	1.4	35.965	89.048	g500-S660	m550-V90/M4	3	30
1.7	478	5.0	478	20.8	478	2.0	36.255	89.333	g500-S950	m550-V90/M4	3	50
1.5	525	4.6	525	19.0	525	3.9	37.196	98.095	g500-S2100	m550-V90/M4	3	82
1.5	535	4.5	535	18.6	535	1.8	36.249	99.968	g500-S950	m550-V90/M4	3	50
1.5	543	4.4	543	18.3	543	1.2	35.962	101.460	g500-S660	m550-V90/M4	3	30
1.4	583	4.1	583	17.1	583	3.5	37.179	109.016	g500-S2100	m550-V90/M4	3	82
1.4	584	4.1	584	17.1	584	1.1	35.925	109.083	g500-S660	m550-V90/M4	3	30
1.4	586	4.1	586	17.0	586	1.6	36.145	109.433	g500-S950	m550-V90/M4	3	50
1.2	643	3.7	643	15.5	643	3.2	36.876	120.167	g500-S2100	m550-V90/M4	3	82
1.2	655	3.7	655	15.2	655	1.5	36.141	122.461	g500-S950	m550-V90/M4	3	50
1.2	665	3.6	665	15.0	665	1.0	35.923	124.289	g500-S660	m550-V90/M4	3	30
1.1	699	3.4	699	14.2	699	4.4	37.280	130.603	g500-S3100	m550-V90/M4	3	122
1.1	715	3.4	715	13.9	715	2.9	36.865	133.544	g500-S2100	m550-V90/M4	3	82
1.1	757	3.2	757	13.1	757	4.1	36.958	141.478	g500-S3100	m550-V90/M4	3	122
1.1	762	3.2	762	13.1	762	1.3	36.014	142.437	g500-S950	m550-V90/M4	3	50
1.0	837	2.9	837	11.9	837	2.5	36.401	156.407	g500-S2100	m550-V90/M4	3	82
0.9	853	2.8	853	11.7	853	1.1	36.012	159.394	g500-S950	m550-V90/M4	3	50
0.9	856	2.8	856	11.6	856	3.6	36.932	159.989	g500-S3100	m550-V90/M4	3	122
0.9	930	2.6	930	10.7	930	2.2	36.395	173.820	g500-S2100	m550-V90/M4	3	82
0.8	948	2.5	948	10.5	948	1.0	35.954	177.178	g500-S950	m550-V90/M4	3	50
0.8	971	2.5	971	10.3	971	4.6	37.207	181.396	g500-S4500	m550-V90/M4	3	197
0.8	986	2.4	986	10.1	986	3.2	36.502	184.146	g500-S3100	m550-V90/M4	3	122
0.8	1041	2.3	1041	9.6	1041	2.0	36.237	194.556	g500-S2100	m550-V90/M4	3	82
0.8	1061	2.3	1061	9.4	1061	0.9	35.953	198.270	g500-S950	m550-V90/M4	3	50
0.7	1084	2.2	1084	9.2	1084	4.2	37.186	202.489	g500-S4500	m550-V90/M4	3	197
0.7	1114	2.2	1114	8.9	1114	2.8	36.487	208.240	g500-S3100	m550-V90/M4	3	122



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
0.7	1157	2.1	1157	8.6	1157	1.8	36.233	216.215	g500-S2100	m550-V90/M4	3	82
0.7	1226	2.0	1226	8.1	1226	2.5	36.268	229.059	g500-S3100	m550-V90/M4	3	122
0.6	1275	1.9	1275	7.8	1275	3.5	36.673	238.252	g500-S4500	m550-V90/M4	3	197
0.6	1348	1.8	1347	7.4	1347	1.5	36.072	251.778	g500-S2100	m550-V90/M4	3	82
0.6	1386	1.7	1386	7.2	1386	2.2	36.258	259.030	g500-S3100	m550-V90/M4	3	122
0.6	1423	1.7	1423	7.0	1423	3.2	36.661	265.956	g500-S4500	m550-V90/M4	3	197
0.5	1498	1.6	1497	6.6	1497	1.4	36.070	279.807	g500-S2100	m550-V90/M4	3	82
0.5	1548	1.6	1547	6.4	1547	2.9	36.436	289.151	g500-S4500	m550-V90/M4	3	197
0.5	1586	1.5	1586	6.3	1586	2.0	36.091	296.430	g500-S3100	m550-V90/M4	3	122
0.5	1635	1.5	1635	6.1	1635	1.3	35.999	305.567	g500-S2100	m550-V90/M4	3	82
0.5	1671	1.4	1671	5.9	1671	1.9	36.262	316.910	g500-S3100	m550-V90/M4	4	125
0.5	1688	1.4	1688	5.8	1688	1.2	36.090	320.263	g500-S2100	m550-V90/M4	4	85
0.5	1713	1.4	1713	5.7	1713	2.6	36.428	324.889	g500-S4500	m550-V90/M4	4	200
0.5	1727	1.4	1727	5.8	1727	2.6	36.428	322.773	g500-S4500	m550-V90/M4	3	197
0.4	1794	1.3	1794	5.5	1794	1.7	36.085	335.215	g500-S3100	m550-V90/M4	3	122
0.4	1817	1.3	1817	5.5	1817	1.1	35.997	339.584	g500-S2100	m550-V90/M4	3	82
0.4	1847	1.3	1847	5.3	1847	1.1	36.075	350.353	g500-S2100	m550-V90/M4	4	85
0.4	1889	1.3	1889	5.2	1889	1.6	36.257	358.375	g500-S3100	m550-V90/M4	4	125
0.4	1912	1.2	1912	5.1	1912	2.4	36.422	362.667	g500-S4500	m550-V90/M4	4	200
0.4	1925	1.3	1925	5.2	1925	1.6	36.011	359.758	g500-S3100	m550-V90/M4	3	122
0.4	1956	1.2	1956	5.1	1956	2.0	36.208	365.500	g500-S4500	m550-V90/M4	3	197
0.4	2053	1.2	2052	4.8	2052	1.0	36.074	389.356	g500-S2100	m550-V90/M4	4	85
0.4	2098	1.1	2098	4.7	2098	2.1	36.344	397.989	g500-S4500	m550-V90/M4	4	200
0.4	2131	1.1	2131	4.6	2131	1.5	36.215	404.222	g500-S3100	m550-V90/M4	4	125
0.4	2177	1.1	2177	4.6	2177	1.4	36.007	406.829	g500-S3100	m550-V90/M4	3	122
0.4	2184	1.1	2184	4.6	2184	2.0	36.203	408.000	g500-S4500	m550-V90/M4	3	197
0.3	2342	1.0	2342	4.2	2342	1.9	36.340	444.267	g500-S4500	m550-V90/M4	4	200
0.3	2356	1.0	2356	4.2	2356	0.9	36.050	446.878	g500-S2100	m550-V90/M4	4	85
0.3	2410	1.0	2410	4.1	2410	1.3	36.211	457.111	g500-S3100	m550-V90/M4	4	125
0.3	2610	0.9	2610	3.8	2610	1.2	36.187	495.172	g500-S3100	m550-V90/M4	4	125
0.3	2731	0.9	2731	3.6	2731	1.7	36.262	518.017	g500-S4500	m550-V90/M4	4	200
0.3	2952	0.8	2952	3.3	2952	1.1	36.185	559.961	g500-S3100	m550-V90/M4	4	125
0.3	3048	0.8	3048	3.2	3048	1.5	36.259	578.252	g500-S4500	m550-V90/M4	4	200
0.2	3347	0.7	3347	2.9	3347	1.3	36.219	634.887	g500-S4500	m550-V90/M4	4	200
0.2	3398	0.7	3398	2.9	3398	0.9	36.039	644.510	g500-S3100	m550-V90/M4	4	125
0.2	3736	0.6	3736	2.6	3736	1.2	36.218	708.711	g500-S4500	m550-V90/M4	4	200
0.2	3842	0.6	3842	2.6	3842	0.8	36.038	728.838	g500-S3100	m550-V90/M4	4	125
0.2	4356	0.5	4356	2.3	4356	1.0	36.058	826.361	g500-S4500	m550-V90/M4	4	200
0.2	4863	0.5	4863	2.0	4863	0.9	36.057	922.449	g500-S4500	m550-V90/M4	4	200
0.1	5419	0.4	5419	1.8	5419	0.8	35.983	1027.912	g500-S4500	m550-V90/M4	4	200



62 Hz: 1.5 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
41.0	27.3	123	27.0	508	27.0	2.1	47.463	3.661	g500-S130	m550-V90/L4	2	22
29.9	37.5	89.6	38.0	371	38.0	1.9	46.787	5.021	g500-S130	m550-V90/L4	2	22
28.5	39.3	85.4	39.0	353	39.0	4.3	47.444	5.267	g500-S220	m550-V90/L4	2	23
25.6	43.8	76.8	44.0	317	44.0	4.8	47.761	5.860	g500-S400	m550-V90/L4	2	27
23.4	47.9	70.2	48.0	290	48.0	4.8	47.476	6.411	g500-S400	m550-V90/L4	2	27
23.3	48.0	70.0	48.0	290	48.0	1.7	46.473	6.425	g500-S130	m550-V90/L4	2	22
22.2	50.6	66.5	51.0	275	51.0	4.1	47.541	6.767	g500-S220	m550-V90/L4	2	23
21.3	52.5	64.0	53.0	265	53.0	1.6	46.388	7.029	g500-S130	m550-V90/L4	2	22
19.6	57.3	58.7	57.0	243	57.0	3.5	47.399	7.667	g500-S220	m550-V90/L4	2	23
18.0	62.2	54.1	62.0	224	62.0	1.7	46.585	8.322	g500-S130	m550-V90/L4	2	22
16.2	69.3	48.5	69.0	200	69.0	3.0	46.936	9.280	g500-S220	m550-V90/L4	2	23
15.9	70.3	47.8	70.0	198	70.0	1.7	46.930	9.411	g500-S130	m550-V90/L4	2	22
14.6	76.5	43.9	77.0	182	77.0	4.9	47.222	10.240	g500-S400	m550-V90/L4	2	27
14.3	78.5	42.8	79.0	177	79.0	2.6	46.861	10.514	g500-S220	m550-V90/L4	2	23
13.1	85.3	39.4	85.0	163	85.0	1.4	46.321	11.413	g500-S130	m550-V90/L4	2	22
13.0	86.4	38.9	86.0	161	86.0	4.3	47.098	11.569	g500-S400	m550-V90/L4	2	27
12.6	88.7	37.9	89.0	157	89.0	2.3	46.619	11.876	g500-S220	m550-V90/L4	2	23
11.6	96.4	34.9	96.0	144	96.0	1.3	46.504	12.907	g500-S130	m550-V90/L4	2	22
11.5	97.1	34.6	97.0	143	97.0	2.1	46.521	12.992	g500-S220	m550-V90/L4	2	23
11.4	97.9	34.3	98.0	142	98.0	3.8	46.793	13.105	g500-S400	m550-V90/L4	2	27
11.1	101	33.4	101	138	101	2.0	46.573	13.456	g500-S220	m550-V90/L4	2	23
10.5	107	31.4	107	130	107	3.5	46.667	14.336	g500-S400	m550-V90/L4	2	27
10.3	109	30.8	109	127	109	1.1	46.188	14.606	g500-S130	m550-V90/L4	2	22
10.2	110	30.6	110	126	110	1.9	46.483	14.720	g500-S220	m550-V90/L4	2	23
10.1	111	30.4	111	126	111	3.4	46.717	14.806	g500-S400	m550-V90/L4	2	27
9.5	117	28.6	117	118	117	4.8	47.413	15.714	g500-S660	m550-V90/L4	2	32
9.4	119	28.2	119	116	119	1.0	46.150	15.979	g500-S130	m550-V90/L4	2	22
9.3	121	27.8	121	115	121	3.1	46.604	16.197	g500-S400	m550-V90/L4	2	27
9.1	124	27.2	124	112	124	1.7	46.342	16.571	g500-S220	m550-V90/L4	2	23
8.4	134	25.1	134	104	134	4.6	47.315	17.905	g500-S660	m550-V90/L4	2	32
8.3	135	24.9	135	103	135	1.0	46.244	18.069	g500-S130	m550-V90/L4	2	22
8.2	137	24.6	137	102	137	2.9	46.431	18.286	g500-S400	m550-V90/L4	2	27
8.0	140	24.0	140	99.1	140	1.6	46.318	18.776	g500-S220	m550-V90/L4	2	23
7.8	144	23.4	144	96.6	144	4.6	47.054	19.250	g500-S660	m550-V90/L4	2	32
7.4	152	22.2	152	91.6	152	1.5	46.236	20.300	g500-S220	m550-V90/L4	2	23
7.4	152	22.1	152	91.3	152	0.9	46.075	20.381	g500-S130	m550-V90/L4	2	22
7.3	154	21.8	154	90.0	154	2.6	46.392	20.659	g500-S400	m550-V90/L4	2	27
6.8	164	20.5	164	84.8	164	4.0	46.989	21.933	g500-S660	m550-V90/L4	2	32
6.7	167	20.1	167	83.0	167	2.4	46.296	22.400	g500-S400	m550-V90/L4	2	27
6.5	172	19.6	172	80.9	172	1.3	46.220	23.000	g500-S220	m550-V90/L4	2	23
6.0	187	18.0	187	74.2	187	3.1	46.547	25.056	g500-S660	m550-V90/L4	2	32
5.9	189	17.8	189	73.5	189	2.1	46.270	25.308	g500-S400	m550-V90/L4	2	27
5.9	191	17.6	191	72.9	191	4.6	47.730	25.511	g500-S950	m550-V90/L4	2	52
5.7	197	17.0	197	70.4	197	1.1	46.109	26.422	g500-S220	m550-V90/L4	2	23
5.3	213	15.8	213	65.2	213	3.1	46.509	28.548	g500-S660	m550-V90/L4	2	32
5.3	213	15.8	213	65.2	213	4.5	47.663	28.548	g500-S950	m550-V90/L4	2	52
5.1	218	15.4	218	63.8	218	1.8	46.144	29.156	g500-S400	m550-V90/L4	2	27
5.0	224	15.0	224	62.1	224	1.0	46.099	29.937	g500-S220	m550-V90/L4	2	23
4.8	233	14.4	233	59.7	233	2.8	46.367	31.167	g500-S660	m550-V90/L4	2	32
4.8	234	14.4	234	59.5	234	3.8	47.159	31.267	g500-S950	m550-V90/L4	2	52
4.6	246	13.7	246	56.6	246	0.9	46.051	32.867	g500-S220	m550-V90/L4	2	23



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
4.6	246	13.7	246	56.5	246	1.6	46.128	32.940	g500-S400	m550-V90/L4	2	27
4.3	261	12.9	261	53.2	261	3.6	47.114	34.989	g500-S950	m550-V90/L4	2	52
4.2	265	12.7	265	52.4	265	2.5	46.342	35.511	g500-S660	m550-V90/L4	2	32
4.1	271	12.4	271	51.3	271	1.5	46.074	36.267	g500-S400	m550-V90/L4	2	27
3.7	301	11.2	301	46.1	301	1.8	46.190	40.333	g500-S660	m550-V90/L4	2	32
3.7	306	11.0	306	45.4	306	1.3	46.064	40.974	g500-S400	m550-V90/L4	2	27
3.7	307	11.0	307	45.3	307	3.1	46.687	41.067	g500-S950	m550-V90/L4	2	52
3.4	332	10.1	332	41.9	332	3.8	48.519	44.431	g500-S2100	m550-V90/L4	2	84
3.3	343	9.8	343	40.5	343	1.8	46.175	45.956	g500-S660	m550-V90/L4	2	32
3.3	343	9.8	343	40.5	343	2.8	46.661	45.956	g500-S950	m550-V90/L4	2	52
3.1	366	9.2	366	38.0	366	1.2	46.111	48.950	g500-S660	m550-V90/L4	2	32
3.0	367	9.0	367	37.3	367	1.7	46.290	49.867	g500-S660	m550-V90/L4	3	32
3.0	368	9.0	368	37.2	368	2.6	46.978	50.027	g500-S950	m550-V90/L4	3	52
3.0	369	9.1	369	37.7	369	3.8	48.436	49.378	g500-S2100	m550-V90/L4	2	84
3.0	372	9.0	372	37.3	372	2.5	46.478	49.840	g500-S950	m550-V90/L4	2	52
2.9	391	8.6	391	35.6	391	3.8	49.051	52.311	g500-S3100	m550-V90/L4	2	123
2.8	403	8.3	403	34.5	403	3.3	47.811	53.924	g500-S2100	m550-V90/L4	2	84
2.7	412	8.0	412	33.2	412	2.3	46.961	55.982	g500-S950	m550-V90/L4	3	52
2.7	417	8.1	417	33.3	417	1.2	46.101	55.773	g500-S660	m550-V90/L4	2	32
2.7	417	8.1	417	33.3	417	2.3	46.460	55.773	g500-S950	m550-V90/L4	2	52
2.6	418	7.9	418	32.7	418	1.6	46.281	56.818	g500-S660	m550-V90/L4	3	32
2.5	442	7.6	442	31.4	442	3.8	48.859	59.156	g500-S3100	m550-V90/L4	2	123
2.5	448	7.5	448	31.0	448	3.3	47.754	59.927	g500-S2100	m550-V90/L4	2	84
2.4	470	7.1	470	29.1	470	1.4	46.170	63.817	g500-S660	m550-V90/L4	3	32
2.4	471	7.1	471	29.5	471	1.4	46.272	63.000	g500-S950	m550-V90/L4	2	52
2.3	471	7.0	471	29.1	471	2.0	46.644	64.022	g500-S950	m550-V90/L4	3	52
2.4	474	7.1	474	29.3	474	3.3	48.172	63.487	g500-S3100	m550-V90/L4	2	123
2.2	509	6.6	509	27.3	509	2.6	47.159	68.162	g500-S2100	m550-V90/L4	2	84
2.1	514	6.4	514	26.6	514	1.3	46.135	69.813	g500-S660	m550-V90/L4	3	32
2.1	515	6.4	515	26.6	515	1.8	46.543	70.037	g500-S950	m550-V90/L4	3	52
2.1	517	6.4	517	26.5	517	4.0	48.079	70.302	g500-S2100	m550-V90/L4	3	84
2.1	527	6.4	527	26.4	527	1.4	46.261	70.500	g500-S950	m550-V90/L4	2	52
2.1	527	6.3	527	26.0	527	1.8	46.634	71.644	g500-S950	m550-V90/L4	3	52
2.1	535	6.2	535	25.6	535	1.2	46.164	72.713	g500-S660	m550-V90/L4	3	32
2.1	536	6.3	536	25.9	536	3.3	48.041	71.793	g500-S3100	m550-V90/L4	2	123
2.0	566	5.9	566	24.6	566	2.6	47.124	75.750	g500-S2100	m550-V90/L4	2	84
2.0	566	5.9	566	24.2	566	3.6	47.832	76.907	g500-S2100	m550-V90/L4	3	84
1.9	575	5.8	575	23.8	575	3.6	48.046	78.128	g500-S2100	m550-V90/L4	3	84
1.9	577	5.7	577	23.7	577	1.7	46.534	78.375	g500-S950	m550-V90/L4	3	52
1.9	585	5.7	585	23.4	585	1.1	46.130	79.545	g500-S660	m550-V90/L4	3	32
1.8	629	5.3	629	21.8	629	3.3	47.804	85.468	g500-S2100	m550-V90/L4	3	84
1.7	655	5.1	655	20.9	655	1.0	46.065	89.048	g500-S660	m550-V90/L4	3	32
1.7	657	5.0	657	20.8	657	1.5	46.355	89.333	g500-S950	m550-V90/L4	3	52
1.7	666	5.0	666	20.5	666	4.7	48.032	90.546	g500-S3100	m550-V90/L4	3	124
1.6	689	4.8	689	19.9	689	4.5	48.242	93.599	g500-S3100	m550-V90/L4	3	124
1.5	722	4.6	722	19.0	722	2.8	47.296	98.095	g500-S2100	m550-V90/L4	3	84
1.5	736	4.5	736	18.6	736	1.3	46.349	99.968	g500-S950	m550-V90/L4	3	52
1.5	747	4.4	747	18.3	747	0.9	46.062	101.460	g500-S660	m550-V90/L4	3	32
1.5	754	4.4	753	18.2	753	4.1	47.968	102.393	g500-S3100	m550-V90/L4	3	124
1.4	802	4.1	802	17.1	802	2.6	47.279	109.016	g500-S2100	m550-V90/L4	3	84
1.4	803	4.1	803	17.1	803	0.8	46.025	109.083	g500-S660	m550-V90/L4	3	32
1.4	805	4.1	805	17.0	805	1.2	46.245	109.433	g500-S950	m550-V90/L4	3	52



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
1.3	850	3.9	850	16.1	850	3.7	47.419	115.492	g500-S3100	m550-V90/L4	3	124
1.2	884	3.7	884	15.5	884	2.3	46.976	120.167	g500-S2100	m550-V90/L4	3	84
1.2	901	3.7	901	15.2	901	1.1	46.241	122.461	g500-S950	m550-V90/L4	3	52
1.1	961	3.4	961	14.2	961	3.2	47.380	130.603	g500-S3100	m550-V90/L4	3	124
1.1	983	3.4	983	13.9	983	2.1	46.965	133.544	g500-S2100	m550-V90/L4	3	84
1.1	1041	3.2	1041	13.1	1041	3.0	47.058	141.478	g500-S3100	m550-V90/L4	3	124
1.1	1048	3.2	1048	13.1	1048	0.9	46.114	142.437	g500-S950	m550-V90/L4	3	52
1.0	1089	3.0	1089	12.6	1089	4.1	47.952	148.005	g500-S4500	m550-V90/L4	3	199
1.0	1151	2.9	1151	11.9	1151	1.8	46.501	156.407	g500-S2100	m550-V90/L4	3	84
0.9	1173	2.8	1173	11.7	1173	0.8	46.112	159.394	g500-S950	m550-V90/L4	3	52
0.9	1177	2.8	1177	11.6	1177	2.6	47.032	159.989	g500-S3100	m550-V90/L4	3	124
0.9	1216	2.7	1216	11.3	1216	3.7	47.922	165.215	g500-S4500	m550-V90/L4	3	199
0.9	1279	2.6	1279	10.7	1279	1.6	46.495	173.820	g500-S2100	m550-V90/L4	3	84
0.8	1335	2.5	1335	10.3	1335	3.4	47.307	181.396	g500-S4500	m550-V90/L4	3	199
0.8	1355	2.4	1355	10.1	1355	2.3	46.602	184.146	g500-S3100	m550-V90/L4	3	124
0.8	1432	2.3	1432	9.6	1432	1.4	46.337	194.556	g500-S2100	m550-V90/L4	3	84
0.7	1490	2.2	1490	9.2	1490	3.0	47.286	202.489	g500-S4500	m550-V90/L4	3	199
0.7	1532	2.2	1532	8.9	1532	2.0	46.587	208.240	g500-S3100	m550-V90/L4	3	124
0.7	1591	2.1	1591	8.6	1591	1.3	46.333	216.215	g500-S2100	m550-V90/L4	3	84
0.7	1686	2.0	1686	8.1	1686	1.8	46.368	229.059	g500-S3100	m550-V90/L4	3	124
0.6	1753	1.9	1753	7.8	1753	2.6	46.773	238.252	g500-S4500	m550-V90/L4	3	199
0.6	1853	1.8	1853	7.4	1853	1.1	46.172	251.778	g500-S2100	m550-V90/L4	3	84
0.6	1906	1.7	1906	7.2	1906	1.6	46.358	259.030	g500-S3100	m550-V90/L4	3	124
0.6	1957	1.7	1957	7.0	1957	2.3	46.761	265.956	g500-S4500	m550-V90/L4	3	199
0.5	2059	1.6	2059	6.6	2059	1.0	46.170	279.807	g500-S2100	m550-V90/L4	3	84
0.5	2128	1.6	2128	6.4	2128	2.1	46.536	289.151	g500-S4500	m550-V90/L4	3	199
0.5	2181	1.5	2181	6.3	2181	1.4	46.191	296.430	g500-S3100	m550-V90/L4	3	124
0.5	2249	1.5	2249	6.1	2249	0.9	46.099	305.567	g500-S2100	m550-V90/L4	3	84
0.5	2297	1.4	2297	5.9	2297	1.4	46.362	316.910	g500-S3100	m550-V90/L4	4	127
0.5	2321	1.4	2321	5.8	2321	0.9	46.190	320.263	g500-S2100	m550-V90/L4	4	87
0.5	2355	1.4	2355	5.7	2355	1.9	46.528	324.889	g500-S4500	m550-V90/L4	4	202
0.5	2375	1.4	2375	5.8	2375	1.9	46.528	322.773	g500-S4500	m550-V90/L4	3	199
0.4	2467	1.3	2467	5.5	2467	1.3	46.185	335.215	g500-S3100	m550-V90/L4	3	124
0.4	2499	1.3	2499	5.5	2499	0.8	46.097	339.584	g500-S2100	m550-V90/L4	3	84
0.4	2540	1.3	2539	5.3	2539	0.8	46.175	350.353	g500-S2100	m550-V90/L4	4	87
0.4	2598	1.3	2598	5.2	2598	1.2	46.357	358.375	g500-S3100	m550-V90/L4	4	127
0.4	2629	1.2	2629	5.1	2629	1.7	46.522	362.667	g500-S4500	m550-V90/L4	4	202
0.4	2647	1.3	2647	5.2	2647	1.2	46.111	359.758	g500-S3100	m550-V90/L4	3	124
0.4	2690	1.2	2690	5.1	2690	1.5	46.308	365.500	g500-S4500	m550-V90/L4	3	199
0.4	2885	1.1	2885	4.7	2885	1.6	46.444	397.989	g500-S4500	m550-V90/L4	4	202
0.4	2930	1.1	2930	4.6	2930	1.1	46.315	404.222	g500-S3100	m550-V90/L4	4	127
0.4	2994	1.1	2994	4.6	2994	1.0	46.107	406.829	g500-S3100	m550-V90/L4	3	124
0.4	3002	1.1	3002	4.6	3002	1.5	46.303	408.000	g500-S4500	m550-V90/L4	3	199
0.3	3220	1.0	3220	4.2	3220	1.4	46.440	444.267	g500-S4500	m550-V90/L4	4	202
0.3	3313	1.0	3313	4.1	3313	0.9	46.311	457.111	g500-S3100	m550-V90/L4	4	127
0.3	3589	0.9	3589	3.8	3589	0.9	46.287	495.172	g500-S3100	m550-V90/L4	4	127
0.3	3755	0.9	3755	3.6	3755	1.2	46.362	518.017	g500-S4500	m550-V90/L4	4	202
0.3	4191	0.8	4191	3.2	4191	1.1	46.359	578.252	g500-S4500	m550-V90/L4	4	202
0.2	4602	0.7	4602	2.9	4602	1.0	46.319	634.887	g500-S4500	m550-V90/L4	4	202
0.2	5137	0.6	5137	2.6	5137	0.9	46.318	708.711	g500-S4500	m550-V90/L4	4	202



62 Hz: 2.2 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
39.1	42.1	117	42.0	484	42.0	3.9	78.496	3.840	g500-S220	m550-V100/M4	2	29
32.8	50.2	98.3	50.0	406	50.0	4.5	78.807	4.579	g500-S400	m550-V100/M4	2	33
28.5	57.7	85.4	58.0	353	58.0	2.9	77.444	5.267	g500-S220	m550-V100/M4	2	29
25.6	64.3	76.8	64.0	317	64.0	3.7	77.761	5.860	g500-S400	m550-V100/M4	2	33
23.4	70.3	70.2	70.0	290	70.0	3.5	77.476	6.411	g500-S400	m550-V100/M4	2	33
22.2	74.2	66.5	74.0	275	74.0	2.8	77.541	6.767	g500-S220	m550-V100/M4	2	29
20.1	81.9	60.3	82.0	249	82.0	4.2	78.079	7.467	g500-S400	m550-V100/M4	2	33
19.6	84.1	58.7	84.0	243	84.0	2.4	77.399	7.667	g500-S220	m550-V100/M4	2	29
17.8	92.5	53.3	92.0	221	92.0	3.8	77.845	8.436	g500-S400	m550-V100/M4	2	33
16.2	102	48.5	102	200	102	2.0	76.936	9.280	g500-S220	m550-V100/M4	2	29
14.6	112	43.9	112	182	112	3.3	77.222	10.240	g500-S400	m550-V100/M4	2	33
14.3	115	42.8	115	177	115	1.8	76.861	10.514	g500-S220	m550-V100/M4	2	29
13.3	124	40.0	123	165	123	5.0	78.306	11.262	g500-S660	m550-V100/M4	2	38
13.0	127	38.9	127	161	127	2.9	77.098	11.569	g500-S400	m550-V100/M4	2	33
12.6	130	37.9	130	157	130	1.6	76.619	11.876	g500-S220	m550-V100/M4	2	29
12.2	135	36.5	135	151	135	4.6	78.022	12.320	g500-S660	m550-V100/M4	2	38
11.7	141	35.1	141	145	141	4.4	78.116	12.832	g500-S660	m550-V100/M4	2	38
11.5	142	34.6	142	143	142	1.4	76.521	12.992	g500-S220	m550-V100/M4	2	29
11.4	144	34.3	144	142	144	2.6	76.793	13.105	g500-S400	m550-V100/M4	2	33
11.1	148	33.4	148	138	148	1.4	76.573	13.456	g500-S220	m550-V100/M4	2	29
10.7	154	32.1	154	133	154	4.0	77.863	14.037	g500-S660	m550-V100/M4	2	38
10.5	157	31.4	157	130	157	2.4	76.667	14.336	g500-S400	m550-V100/M4	2	33
10.2	161	30.6	161	126	161	1.3	76.483	14.720	g500-S220	m550-V100/M4	2	29
10.1	162	30.4	162	126	162	2.3	76.717	14.806	g500-S400	m550-V100/M4	2	33
9.5	172	28.6	172	118	172	3.6	77.413	15.714	g500-S660	m550-V100/M4	2	38
9.3	178	27.8	178	115	178	2.1	76.604	16.197	g500-S400	m550-V100/M4	2	33
9.1	182	27.2	182	112	182	1.1	76.342	16.571	g500-S220	m550-V100/M4	2	29
8.4	196	25.1	196	104	196	3.1	77.315	17.905	g500-S660	m550-V100/M4	2	38
8.4	196	25.1	196	104	196	4.5	79.242	17.905	g500-S950	m550-V100/M4	2	57
8.2	201	24.6	200	102	200	2.0	76.431	18.286	g500-S400	m550-V100/M4	2	33
8.0	206	24.0	206	99.1	206	1.1	76.318	18.776	g500-S220	m550-V100/M4	2	29
7.8	211	23.4	211	96.6	211	3.1	77.054	19.250	g500-S660	m550-V100/M4	2	38
7.7	215	23.0	215	94.9	215	4.4	78.588	19.600	g500-S950	m550-V100/M4	2	57
7.4	223	22.2	223	91.6	223	1.0	76.236	20.300	g500-S220	m550-V100/M4	2	29
7.3	227	21.8	226	90.0	226	1.8	76.392	20.659	g500-S400	m550-V100/M4	2	33
6.8	241	20.5	240	84.8	240	2.7	76.989	21.933	g500-S660	m550-V100/M4	2	38
6.8	241	20.5	240	84.8	240	4.0	78.474	21.933	g500-S950	m550-V100/M4	2	57
6.7	246	20.1	246	83.0	246	1.6	76.296	22.400	g500-S400	m550-V100/M4	2	33
6.5	252	19.6	252	80.9	252	0.9	76.220	23.000	g500-S220	m550-V100/M4	2	29
6.0	275	18.0	275	74.2	275	2.1	76.547	25.056	g500-S660	m550-V100/M4	2	38
5.9	278	17.8	277	73.5	277	1.4	76.270	25.308	g500-S400	m550-V100/M4	2	33
5.9	280	17.6	280	72.9	280	3.4	77.730	25.511	g500-S950	m550-V100/M4	2	57
5.3	313	15.8	313	65.2	313	2.1	76.509	28.548	g500-S660	m550-V100/M4	2	38
5.3	313	15.8	313	65.2	313	3.0	77.663	28.548	g500-S950	m550-V100/M4	2	57
4.8	342	14.4	342	59.7	342	1.9	76.367	31.167	g500-S660	m550-V100/M4	2	38
4.8	343	14.4	343	59.5	343	2.8	77.159	31.267	g500-S950	m550-V100/M4	2	57
4.4	376	13.1	376	54.2	376	4.5	80.020	34.333	g500-S2100	m550-V100/M4	2	90
4.3	384	12.9	384	53.2	384	2.5	77.114	34.989	g500-S950	m550-V100/M4	2	57
4.2	389	12.7	389	52.4	389	1.7	76.342	35.511	g500-S660	m550-V100/M4	2	38
3.9	418	11.8	418	48.7	418	4.5	79.881	38.156	g500-S2100	m550-V100/M4	2	90
3.7	433	11.2	433	46.4	433	4.2	80.682	40.056	g500-S2100	m550-V100/M4	3	90



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
3.7	443	11.1	443	46.0	443	4.5	80.910	40.422	g500-S3100	m550-V100/M4	2	129
3.7	450	11.0	450	45.3	450	2.1	76.687	41.067	g500-S950	m550-V100/M4	2	57
3.6	461	10.7	461	44.2	461	4.4	84.866	42.044	g500-S4500	m550-V100/M4	2	202
3.4	481	10.1	481	41.8	481	4.0	80.579	44.515	g500-S2100	m550-V100/M4	3	90
3.4	487	10.1	487	41.9	487	3.6	78.519	44.431	g500-S2100	m550-V100/M4	2	90
3.3	501	9.8	501	40.7	501	4.5	80.589	45.711	g500-S3100	m550-V100/M4	2	129
3.3	504	9.8	504	40.5	504	1.9	76.661	45.956	g500-S950	m550-V100/M4	2	57
3.2	515	9.6	515	39.6	515	4.4	84.486	46.933	g500-S4500	m550-V100/M4	2	202
3.0	540	9.0	540	37.2	540	1.8	76.978	50.027	g500-S950	m550-V100/M4	3	58
3.0	541	9.1	541	37.7	541	3.6	78.436	49.378	g500-S2100	m550-V100/M4	2	90
3.0	546	9.0	546	37.3	546	1.7	76.478	49.840	g500-S950	m550-V100/M4	2	57
2.9	559	8.8	559	36.5	559	3.7	82.405	51.027	g500-S4500	m550-V100/M4	2	202
2.9	574	8.6	574	35.6	574	3.6	79.051	52.311	g500-S3100	m550-V100/M4	2	129
2.8	591	8.3	591	34.5	591	3.0	77.811	53.924	g500-S2100	m550-V100/M4	2	90
2.7	593	8.2	593	33.9	593	3.5	79.027	54.933	g500-S2100	m550-V100/M4	3	90
2.7	605	8.0	605	33.2	605	1.6	76.961	55.982	g500-S950	m550-V100/M4	3	58
2.7	612	8.1	611	33.3	611	1.6	76.460	55.773	g500-S950	m550-V100/M4	2	57
2.6	625	7.9	624	32.7	624	3.7	82.147	56.960	g500-S4500	m550-V100/M4	2	202
2.5	649	7.6	649	31.4	649	3.6	78.859	59.156	g500-S3100	m550-V100/M4	2	129
2.5	657	7.5	657	31.0	657	3.0	77.754	59.927	g500-S2100	m550-V100/M4	2	90
2.5	659	7.4	659	30.5	659	3.1	78.972	61.049	g500-S2100	m550-V100/M4	3	90
2.3	691	7.0	691	29.1	691	1.4	76.644	64.022	g500-S950	m550-V100/M4	3	58
2.4	696	7.1	696	29.3	696	3.0	78.172	63.487	g500-S3100	m550-V100/M4	2	129
2.3	698	7.0	698	28.8	698	4.4	79.419	64.676	g500-S3100	m550-V100/M4	3	130
2.3	707	7.0	707	28.8	707	3.0	80.148	64.500	g500-S4500	m550-V100/M4	2	202
2.2	747	6.6	747	27.3	747	2.0	77.159	68.162	g500-S2100	m550-V100/M4	2	90
2.1	756	6.4	756	26.6	756	1.3	76.543	70.037	g500-S950	m550-V100/M4	3	58
2.1	759	6.4	759	26.5	759	2.7	78.079	70.302	g500-S2100	m550-V100/M4	3	90
2.1	774	6.3	774	26.0	774	1.2	76.634	71.644	g500-S950	m550-V100/M4	3	58
2.1	787	6.3	787	25.9	787	3.0	78.041	71.793	g500-S3100	m550-V100/M4	2	129
2.1	789	6.3	789	25.8	789	3.0	79.987	72.000	g500-S4500	m550-V100/M4	2	202
2.1	790	6.2	790	25.4	790	3.9	79.294	73.138	g500-S3100	m550-V100/M4	3	130
2.0	831	5.9	830	24.6	830	1.9	77.124	75.750	g500-S2100	m550-V100/M4	2	90
2.0	831	5.9	831	24.2	831	2.5	77.832	76.907	g500-S2100	m550-V100/M4	3	90
1.9	844	5.8	844	23.8	844	2.4	78.046	78.128	g500-S2100	m550-V100/M4	3	90
1.9	846	5.7	846	23.7	846	1.1	76.534	78.375	g500-S950	m550-V100/M4	3	58
1.8	894	5.4	894	22.5	894	3.5	78.318	82.769	g500-S3100	m550-V100/M4	3	130
1.8	923	5.3	923	21.8	923	2.2	77.804	85.468	g500-S2100	m550-V100/M4	3	90
1.7	965	5.0	965	20.8	965	1.0	76.355	89.333	g500-S950	m550-V100/M4	3	58
1.7	978	5.0	978	20.5	978	3.2	78.032	90.546	g500-S3100	m550-V100/M4	3	130
1.6	1002	4.8	1002	20.0	1002	4.5	79.977	92.825	g500-S4500	m550-V100/M4	3	205
1.6	1011	4.8	1011	19.9	1011	3.1	78.242	93.599	g500-S3100	m550-V100/M4	3	130
1.5	1059	4.6	1059	19.0	1059	1.9	77.296	98.095	g500-S2100	m550-V100/M4	3	90
1.5	1080	4.5	1080	18.6	1080	0.9	76.349	99.968	g500-S950	m550-V100/M4	3	58
1.5	1106	4.4	1106	18.2	1106	2.8	77.968	102.393	g500-S3100	m550-V100/M4	3	130
1.4	1119	4.3	1119	18.0	1119	4.0	79.899	103.619	g500-S4500	m550-V100/M4	3	205
1.4	1177	4.1	1177	17.1	1177	1.7	77.279	109.016	g500-S2100	m550-V100/M4	3	90
1.4	1182	4.1	1182	17.0	1182	0.8	76.245	109.433	g500-S950	m550-V100/M4	3	58
1.3	1228	4.0	1228	16.4	1228	3.7	78.964	113.711	g500-S4500	m550-V100/M4	3	205
1.3	1247	3.9	1247	16.1	1247	2.5	77.419	115.492	g500-S3100	m550-V100/M4	3	130
1.2	1298	3.7	1298	15.5	1298	1.6	76.976	120.167	g500-S2100	m550-V100/M4	3	90
1.2	1371	3.5	1371	14.7	1371	3.3	78.912	126.933	g500-S4500	m550-V100/M4	3	205



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
1.1	1410	3.4	1410	14.2	1410	2.2	77.380	130.603	g500-S3100	m550-V100/M4	3	130
1.1	1442	3.4	1442	13.9	1442	1.4	76.965	133.544	g500-S2100	m550-V100/M4	3	90
1.1	1528	3.2	1528	13.1	1528	2.0	77.058	141.478	g500-S3100	m550-V100/M4	3	130
1.0	1598	3.0	1598	12.6	1598	2.8	77.952	148.005	g500-S4500	m550-V100/M4	3	205
1.0	1689	2.9	1689	11.9	1689	1.2	76.501	156.407	g500-S2100	m550-V100/M4	3	90
0.9	1728	2.8	1728	11.6	1728	1.8	77.032	159.989	g500-S3100	m550-V100/M4	3	130
0.9	1784	2.7	1784	11.3	1784	2.5	77.922	165.215	g500-S4500	m550-V100/M4	3	205
0.9	1877	2.6	1877	10.7	1877	1.1	76.495	173.820	g500-S2100	m550-V100/M4	3	90
0.8	1959	2.5	1959	10.3	1959	2.3	77.307	181.396	g500-S4500	m550-V100/M4	3	205
0.8	1989	2.4	1989	10.1	1989	1.6	76.602	184.146	g500-S3100	m550-V100/M4	3	130
0.8	2101	2.3	2101	9.6	2101	1.0	76.337	194.556	g500-S2100	m550-V100/M4	3	90
0.7	2187	2.2	2187	9.2	2187	2.1	77.286	202.489	g500-S4500	m550-V100/M4	3	205
0.7	2249	2.2	2249	8.9	2249	1.4	76.587	208.240	g500-S3100	m550-V100/M4	3	130
0.7	2335	2.1	2335	8.6	2335	0.9	76.333	216.215	g500-S2100	m550-V100/M4	3	90
0.7	2474	2.0	2474	8.1	2474	1.3	76.368	229.059	g500-S3100	m550-V100/M4	3	130
0.6	2573	1.9	2573	7.8	2573	1.8	76.773	238.252	g500-S4500	m550-V100/M4	3	205
0.6	2797	1.7	2797	7.2	2797	1.1	76.358	259.030	g500-S3100	m550-V100/M4	3	130
0.6	2872	1.7	2872	7.0	2872	1.6	76.761	265.956	g500-S4500	m550-V100/M4	3	205
0.5	3123	1.6	3123	6.4	3123	1.4	76.536	289.151	g500-S4500	m550-V100/M4	3	205
0.5	3371	1.4	3371	5.9	3371	0.9	76.362	316.910	g500-S3100	m550-V100/M4	4	133
0.5	3456	1.4	3456	5.7	3456	1.3	76.528	324.889	g500-S4500	m550-V100/M4	4	208
0.5	3486	1.4	3486	5.8	3486	1.3	76.528	322.773	g500-S4500	m550-V100/M4	3	205
0.4	3812	1.3	3812	5.2	3812	0.8	76.357	358.375	g500-S3100	m550-V100/M4	4	133
0.4	3858	1.2	3858	5.1	3858	1.2	76.522	362.667	g500-S4500	m550-V100/M4	4	208
0.4	4233	1.1	4233	4.7	4233	1.1	76.444	397.989	g500-S4500	m550-V100/M4	4	208
0.3	4726	1.0	4726	4.2	4726	1.0	76.440	444.267	g500-S4500	m550-V100/M4	4	208
0.3	5510	0.9	5510	3.6	5510	0.8	76.362	518.017	g500-S4500	m550-V100/M4	4	208



62 Hz: 3 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
44.9	49.9	135	50.0	557	50.0	3.8	102.660	3.339	g500-S400	m550-V100/L4	2	36
39.1	57.4	117	57.0	484	57.0	2.9	100.096	3.840	g500-S220	m550-V100/L4	2	33
38.3	58.6	115	59.0	475	59.0	4.9	106.301	3.920	g500-S660	m550-V100/L4	2	42
32.8	68.4	98.3	68.0	406	68.0	3.3	100.407	4.579	g500-S400	m550-V100/L4	2	36
28.5	78.7	85.4	79.0	353	79.0	2.1	99.044	5.267	g500-S220	m550-V100/L4	2	33
27.9	80.3	83.7	80.0	346	80.0	4.9	102.764	5.376	g500-S660	m550-V100/L4	2	42
25.6	87.6	76.8	88.0	317	88.0	2.7	99.361	5.860	g500-S400	m550-V100/L4	2	36
24.8	90.2	74.5	90.0	308	90.0	4.9	105.006	6.038	g500-S950	m550-V100/L4	2	61
23.4	95.8	70.2	96.0	290	96.0	2.5	99.076	6.411	g500-S400	m550-V100/L4	2	36
23.4	95.9	70.1	96.0	290	96.0	4.9	102.981	6.417	g500-S660	m550-V100/L4	2	42
22.2	101	66.5	101	275	101	2.0	99.141	6.767	g500-S220	m550-V100/L4	2	33
21.8	103	65.4	103	270	103	4.2	100.984	6.880	g500-S660	m550-V100/L4	2	42
20.5	109	61.6	109	254	109	4.9	102.396	7.311	g500-S660	m550-V100/L4	2	42
20.1	112	60.3	112	249	112	3.0	99.679	7.467	g500-S400	m550-V100/L4	2	36
19.6	115	58.7	115	243	115	1.8	98.999	7.667	g500-S220	m550-V100/L4	2	33
19.5	115	58.4	115	242	115	4.1	102.580	7.702	g500-S950	m550-V100/L4	2	61
17.8	126	53.3	126	221	126	2.8	99.445	8.436	g500-S400	m550-V100/L4	2	36
17.0	132	51.1	131	211	131	4.5	100.999	8.800	g500-S660	m550-V100/L4	2	42
16.2	139	48.5	139	200	139	1.5	98.536	9.280	g500-S220	m550-V100/L4	2	33
15.0	150	44.9	150	186	150	3.9	100.688	10.027	g500-S660	m550-V100/L4	2	42
14.6	153	43.9	153	182	153	2.4	98.822	10.240	g500-S400	m550-V100/L4	2	36
14.3	157	42.8	157	177	157	1.3	98.461	10.514	g500-S220	m550-V100/L4	2	33
13.3	168	40.0	168	165	168	3.7	99.906	11.262	g500-S660	m550-V100/L4	2	42
13.0	173	38.9	173	161	173	2.2	98.698	11.569	g500-S400	m550-V100/L4	2	36
12.6	177	37.9	177	157	177	1.2	98.219	11.876	g500-S220	m550-V100/L4	2	33
12.2	184	36.5	184	151	184	3.3	99.622	12.320	g500-S660	m550-V100/L4	2	42
12.0	187	35.9	187	148	187	4.7	102.456	12.544	g500-S950	m550-V100/L4	2	61
11.7	192	35.1	192	145	192	3.2	99.716	12.832	g500-S660	m550-V100/L4	2	42
11.5	194	34.6	194	143	194	1.1	98.121	12.992	g500-S220	m550-V100/L4	2	33
11.4	196	34.3	196	142	196	1.9	98.393	13.105	g500-S400	m550-V100/L4	2	36
11.1	201	33.4	201	138	201	1.0	98.173	13.456	g500-S220	m550-V100/L4	2	33
10.7	210	32.1	210	133	210	2.9	99.463	14.037	g500-S660	m550-V100/L4	2	42
10.7	210	32.1	210	133	210	4.2	102.178	14.037	g500-S950	m550-V100/L4	2	61
10.5	214	31.4	214	130	214	1.7	98.267	14.336	g500-S400	m550-V100/L4	2	36
10.2	220	30.6	220	126	220	0.9	98.083	14.720	g500-S220	m550-V100/L4	2	33
10.1	221	30.4	221	126	221	1.7	98.317	14.806	g500-S400	m550-V100/L4	2	36
9.5	235	28.6	235	118	235	2.6	99.013	15.714	g500-S660	m550-V100/L4	2	42
9.4	239	28.1	239	116	239	3.7	101.012	16.000	g500-S950	m550-V100/L4	2	61
9.3	242	27.8	242	115	242	1.5	98.204	16.197	g500-S400	m550-V100/L4	2	36
9.1	248	27.2	248	112	248	0.8	97.942	16.571	g500-S220	m550-V100/L4	2	33
8.4	268	25.1	268	104	268	2.3	98.915	17.905	g500-S660	m550-V100/L4	2	42
8.4	268	25.1	268	104	268	3.3	100.842	17.905	g500-S950	m550-V100/L4	2	61
8.2	273	24.6	273	102	273	1.5	98.031	18.286	g500-S400	m550-V100/L4	2	36
7.8	288	23.4	288	96.6	288	2.3	98.654	19.250	g500-S660	m550-V100/L4	2	42
7.7	293	23.0	293	94.9	293	3.2	100.188	19.600	g500-S950	m550-V100/L4	2	61
7.3	309	21.8	309	90.0	309	1.3	97.992	20.659	g500-S400	m550-V100/L4	2	36
6.8	328	20.5	328	84.8	328	2.0	98.589	21.933	g500-S660	m550-V100/L4	2	42
6.8	328	20.5	328	84.8	328	2.9	100.074	21.933	g500-S950	m550-V100/L4	2	61
6.7	335	20.1	335	83.0	335	1.2	97.896	22.400	g500-S400	m550-V100/L4	2	36
6.0	374	18.0	374	74.2	374	1.5	98.147	25.056	g500-S660	m550-V100/L4	2	42
5.9	378	17.8	378	73.5	378	1.1	97.870	25.308	g500-S400	m550-V100/L4	2	36



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_{21}	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
5.9	381	17.6	381	72.9	381	2.5	99.330	25.511	g500-S950	m550-V100/L4	2	61
5.3	423	15.9	422	65.8	422	3.8	102.993	28.275	g500-S2100	m550-V100/L4	2	94
5.3	427	15.8	427	65.2	427	1.6	98.109	28.548	g500-S660	m550-V100/L4	2	42
5.3	427	15.8	427	65.2	427	2.2	99.263	28.548	g500-S950	m550-V100/L4	2	61
4.8	466	14.4	466	59.7	466	1.4	97.967	31.167	g500-S660	m550-V100/L4	2	42
4.8	467	14.4	467	59.5	467	2.0	98.759	31.267	g500-S950	m550-V100/L4	2	61
4.8	470	14.3	469	59.2	469	3.8	102.788	31.422	g500-S2100	m550-V100/L4	2	94
4.5	497	13.5	497	55.9	497	3.8	104.306	33.289	g500-S3100	m550-V100/L4	2	133
4.4	513	13.1	513	54.2	513	3.3	101.620	34.333	g500-S2100	m550-V100/L4	2	94
4.3	523	12.9	523	53.2	523	1.8	98.714	34.989	g500-S950	m550-V100/L4	2	61
4.2	531	12.7	531	52.4	531	1.2	97.942	35.511	g500-S660	m550-V100/L4	2	42
4.0	563	12.0	562	49.4	562	3.8	103.832	37.644	g500-S3100	m550-V100/L4	2	133
3.9	570	11.8	570	48.7	570	3.3	101.481	38.156	g500-S2100	m550-V100/L4	2	94
3.7	590	11.2	590	46.4	590	3.1	102.282	40.056	g500-S2100	m550-V100/L4	3	94
3.7	604	11.1	604	46.0	604	3.3	102.510	40.422	g500-S3100	m550-V100/L4	2	133
3.7	614	11.0	614	45.3	614	1.6	98.287	41.067	g500-S950	m550-V100/L4	2	61
3.6	628	10.7	628	44.2	628	3.3	106.466	42.044	g500-S4500	m550-V100/L4	2	206
3.4	655	10.1	655	41.8	655	2.9	102.179	44.515	g500-S2100	m550-V100/L4	3	94
3.4	664	10.1	664	41.9	664	2.6	100.119	44.431	g500-S2100	m550-V100/L4	2	94
3.3	683	9.8	683	40.7	683	3.3	102.189	45.711	g500-S3100	m550-V100/L4	2	133
3.3	687	9.8	687	40.5	687	1.4	98.261	45.956	g500-S950	m550-V100/L4	2	61
3.2	694	9.5	694	39.4	694	4.0	103.019	47.159	g500-S3100	m550-V100/L4	3	134
3.2	701	9.6	701	39.6	701	3.3	106.086	46.933	g500-S4500	m550-V100/L4	2	206
3.0	736	9.0	736	37.2	736	1.3	98.578	50.027	g500-S950	m550-V100/L4	3	62
3.0	738	9.1	738	37.7	738	2.6	100.036	49.378	g500-S2100	m550-V100/L4	2	94
3.0	745	9.0	745	37.3	745	1.2	98.078	49.840	g500-S950	m550-V100/L4	2	61
2.9	762	8.8	762	36.5	762	2.7	104.005	51.027	g500-S4500	m550-V100/L4	2	206
2.9	782	8.6	782	35.6	782	2.6	100.651	52.311	g500-S3100	m550-V100/L4	2	133
2.8	785	8.4	785	34.9	785	3.9	102.783	53.330	g500-S3100	m550-V100/L4	3	134
2.8	806	8.3	806	34.5	806	2.2	99.411	53.924	g500-S2100	m550-V100/L4	2	94
2.7	809	8.2	808	33.9	808	2.5	100.627	54.933	g500-S2100	m550-V100/L4	3	94
2.7	824	8.0	824	33.2	824	1.2	98.561	55.982	g500-S950	m550-V100/L4	3	62
2.7	833	8.1	833	33.3	833	1.1	98.060	55.773	g500-S950	m550-V100/L4	2	61
2.6	851	7.9	851	32.7	851	2.7	103.747	56.960	g500-S4500	m550-V100/L4	2	206
2.5	884	7.6	884	31.4	884	2.6	100.459	59.156	g500-S3100	m550-V100/L4	2	133
2.5	895	7.5	895	31.0	895	2.2	99.354	59.927	g500-S2100	m550-V100/L4	2	94
2.5	899	7.4	898	30.5	898	2.3	100.572	61.049	g500-S2100	m550-V100/L4	3	94
2.3	942	7.0	942	29.1	942	1.0	98.244	64.022	g500-S950	m550-V100/L4	3	62
2.4	949	7.1	949	29.3	949	2.2	99.772	63.487	g500-S3100	m550-V100/L4	2	133
2.3	952	7.0	952	28.8	952	3.3	101.019	64.676	g500-S3100	m550-V100/L4	3	134
2.3	956	6.9	956	28.6	956	4.7	104.702	64.978	g500-S4500	m550-V100/L4	3	209
2.3	964	7.0	964	28.8	964	2.2	101.748	64.500	g500-S4500	m550-V100/L4	2	206
2.2	1018	6.6	1018	27.3	1018	1.4	98.759	68.162	g500-S2100	m550-V100/L4	2	94
2.1	1031	6.4	1031	26.6	1031	0.9	98.143	70.037	g500-S950	m550-V100/L4	3	62
2.1	1035	6.4	1035	26.5	1035	2.0	99.679	70.302	g500-S2100	m550-V100/L4	3	94
2.1	1054	6.3	1054	26.0	1054	0.9	98.234	71.644	g500-S950	m550-V100/L4	3	62
2.1	1068	6.2	1067	25.6	1067	4.2	104.543	72.533	g500-S4500	m550-V100/L4	3	209
2.1	1071	6.2	1071	25.6	1071	4.2	103.375	72.775	g500-S4500	m550-V100/L4	3	209
2.1	1073	6.3	1073	25.9	1073	2.2	99.641	71.793	g500-S3100	m550-V100/L4	2	133
2.1	1076	6.3	1076	25.8	1076	2.2	101.587	72.000	g500-S4500	m550-V100/L4	2	206
2.1	1076	6.2	1076	25.4	1076	2.9	100.894	73.138	g500-S3100	m550-V100/L4	3	134
2.0	1132	5.9	1132	24.6	1132	1.4	98.724	75.750	g500-S2100	m550-V100/L4	2	94



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
2.0	1132	5.9	1132	24.2	1132	1.8	99.432	76.907	g500-S2100	m550-V100/L4	3	94
1.9	1150	5.8	1150	23.8	1150	1.8	99.646	78.128	g500-S2100	m550-V100/L4	3	94
1.9	1154	5.7	1153	23.7	1153	0.8	98.134	78.375	g500-S950	m550-V100/L4	3	62
1.8	1196	5.5	1196	22.9	1196	3.8	103.249	81.237	g500-S4500	m550-V100/L4	3	209
1.8	1218	5.4	1218	22.5	1218	2.5	99.918	82.769	g500-S3100	m550-V100/L4	3	134
1.8	1258	5.3	1258	21.8	1258	1.6	99.404	85.468	g500-S2100	m550-V100/L4	3	94
1.7	1333	5.0	1333	20.5	1333	2.3	99.632	90.546	g500-S3100	m550-V100/L4	3	134
1.6	1366	4.8	1366	20.0	1366	3.3	101.577	92.825	g500-S4500	m550-V100/L4	3	209
1.6	1378	4.8	1378	19.9	1378	2.3	99.842	93.599	g500-S3100	m550-V100/L4	3	134
1.5	1444	4.6	1444	19.0	1444	1.4	98.896	98.095	g500-S2100	m550-V100/L4	3	94
1.5	1507	4.4	1507	18.2	1507	2.1	99.568	102.393	g500-S3100	m550-V100/L4	3	134
1.4	1525	4.3	1525	18.0	1525	3.0	101.499	103.619	g500-S4500	m550-V100/L4	3	209
1.4	1604	4.1	1604	17.1	1604	1.3	98.879	109.016	g500-S2100	m550-V100/L4	3	94
1.3	1674	4.0	1674	16.4	1674	2.7	100.564	113.711	g500-S4500	m550-V100/L4	3	209
1.3	1700	3.9	1700	16.1	1700	1.8	99.019	115.492	g500-S3100	m550-V100/L4	3	134
1.2	1769	3.7	1769	15.5	1769	1.2	98.576	120.167	g500-S2100	m550-V100/L4	3	94
1.2	1868	3.5	1868	14.7	1868	2.4	100.512	126.933	g500-S4500	m550-V100/L4	3	209
1.1	1922	3.4	1922	14.2	1922	1.6	98.980	130.603	g500-S3100	m550-V100/L4	3	134
1.1	1965	3.4	1965	13.9	1965	1.0	98.565	133.544	g500-S2100	m550-V100/L4	3	94
1.1	2082	3.2	2082	13.1	2082	1.5	98.658	141.478	g500-S3100	m550-V100/L4	3	134
1.0	2178	3.0	2178	12.6	2178	2.1	99.552	148.005	g500-S4500	m550-V100/L4	3	209
1.0	2302	2.9	2302	11.9	2302	0.9	98.101	156.407	g500-S2100	m550-V100/L4	3	94
0.9	2355	2.8	2355	11.6	2355	1.3	98.632	159.989	g500-S3100	m550-V100/L4	3	134
0.9	2432	2.7	2432	11.3	2432	1.9	99.522	165.215	g500-S4500	m550-V100/L4	3	209
0.9	2558	2.6	2558	10.7	2558	0.8	98.095	173.820	g500-S2100	m550-V100/L4	3	94
0.8	2670	2.5	2670	10.3	2670	1.7	98.907	181.396	g500-S4500	m550-V100/L4	3	209
0.8	2710	2.4	2710	10.1	2710	1.1	98.202	184.146	g500-S3100	m550-V100/L4	3	134
0.7	2980	2.2	2980	9.2	2980	1.5	98.886	202.489	g500-S4500	m550-V100/L4	3	209
0.7	3065	2.2	3065	8.9	3065	1.0	98.187	208.240	g500-S3100	m550-V100/L4	3	134
0.7	3371	2.0	3371	8.1	3371	0.9	97.968	229.059	g500-S3100	m550-V100/L4	3	134
0.6	3506	1.9	3506	7.8	3506	1.3	98.373	238.252	g500-S4500	m550-V100/L4	3	209
0.6	3812	1.7	3812	7.2	3812	0.8	97.958	259.030	g500-S3100	m550-V100/L4	3	134
0.6	3914	1.7	3914	7.0	3914	1.2	98.361	265.956	g500-S4500	m550-V100/L4	3	209
0.5	4256	1.6	4256	6.4	4256	1.1	98.136	289.151	g500-S4500	m550-V100/L4	3	209
0.5	4710	1.4	4710	5.7	4710	1.0	98.128	324.889	g500-S4500	m550-V100/L4	4	212
0.5	4750	1.4	4750	5.8	4750	1.0	98.128	322.773	g500-S4500	m550-V100/L4	3	209
0.4	5257	1.2	5257	5.1	5257	0.9	98.122	362.667	g500-S4500	m550-V100/L4	4	212



62 Hz: 4 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
44.9	66.4	195	66.0	557	66.0	2.9	156.960	3.339	g500-S400	m550-V112/M4	2	43
38.3	78.0	166	78.0	475	78.0	4.1	160.601	3.920	g500-S660	m550-V112/M4	2	48
32.8	91.1	142	91.0	406	91.0	2.5	154.707	4.579	g500-S400	m550-V112/M4	2	43
27.9	107	121	107	346	107	4.1	157.064	5.376	g500-S660	m550-V112/M4	2	48
27.8	107	121	107	345	107	4.4	161.048	5.391	g500-S950	m550-V112/M4	2	67
25.6	117	111	117	317	117	2.1	153.661	5.860	g500-S400	m550-V112/M4	2	43
24.8	120	108	120	308	120	4.1	159.306	6.038	g500-S950	m550-V112/M4	2	67
23.4	128	101	128	290	128	1.9	153.376	6.411	g500-S400	m550-V112/M4	2	43
23.4	128	101	128	290	128	4.1	157.281	6.417	g500-S660	m550-V112/M4	2	48
21.8	137	94.5	137	270	137	3.4	155.284	6.880	g500-S660	m550-V112/M4	2	48
20.5	145	88.9	145	254	145	3.8	156.696	7.311	g500-S660	m550-V112/M4	2	48
20.1	149	87.1	149	249	149	2.3	153.979	7.467	g500-S400	m550-V112/M4	2	43
19.5	153	84.4	153	242	153	3.1	156.880	7.702	g500-S950	m550-V112/M4	2	67
18.1	165	78.6	165	225	165	4.6	168.592	8.272	g500-S2100	m550-V112/M4	2	100
17.8	168	77.1	168	221	168	2.1	153.745	8.436	g500-S400	m550-V112/M4	2	43
17.0	175	73.9	175	211	175	3.4	155.299	8.800	g500-S660	m550-V112/M4	2	48
16.8	177	72.9	177	209	177	4.6	179.971	8.917	g500-S3100	m550-V112/M4	2	139
16.5	181	71.4	181	204	181	4.9	160.072	9.100	g500-S950	m550-V112/M4	2	67
15.0	199	64.8	199	186	199	2.9	154.988	10.027	g500-S660	m550-V112/M4	2	48
14.7	203	63.8	203	183	203	4.4	159.544	10.183	g500-S950	m550-V112/M4	2	67
14.6	204	63.5	204	182	204	1.8	153.122	10.240	g500-S400	m550-V112/M4	2	43
13.7	217	59.5	217	170	217	3.9	171.682	10.932	g500-S3100	m550-V112/M4	2	139
13.4	223	58.0	223	166	223	4.0	157.849	11.200	g500-S950	m550-V112/M4	2	67
13.3	224	57.7	224	165	224	2.7	154.206	11.262	g500-S660	m550-V112/M4	2	48
13.0	230	56.2	230	161	230	1.6	152.998	11.569	g500-S400	m550-V112/M4	2	43
12.2	245	52.8	245	151	245	2.5	153.922	12.320	g500-S660	m550-V112/M4	2	48
12.0	250	51.8	249	148	249	3.5	156.756	12.544	g500-S950	m550-V112/M4	2	67
11.7	255	50.7	255	145	255	2.4	154.016	12.832	g500-S660	m550-V112/M4	2	48
11.4	261	49.6	261	142	261	1.4	152.693	13.105	g500-S400	m550-V112/M4	2	43
10.7	279	46.3	279	133	279	2.2	153.763	14.037	g500-S660	m550-V112/M4	2	48
10.7	279	46.3	279	133	279	3.2	156.478	14.037	g500-S950	m550-V112/M4	2	67
10.5	285	45.3	285	130	285	1.3	152.567	14.336	g500-S400	m550-V112/M4	2	43
10.1	295	43.9	294	126	294	1.3	152.617	14.806	g500-S400	m550-V112/M4	2	43
9.5	313	41.4	313	118	313	2.0	153.313	15.714	g500-S660	m550-V112/M4	2	48
9.4	318	40.6	318	116	318	2.8	155.312	16.000	g500-S950	m550-V112/M4	2	67
9.3	322	40.1	322	115	322	1.2	152.504	16.197	g500-S400	m550-V112/M4	2	43
8.8	339	38.2	339	109	339	4.6	163.869	17.022	g500-S2100	m550-V112/M4	2	100
8.4	356	36.3	356	104	356	1.7	153.215	17.905	g500-S660	m550-V112/M4	2	48
8.4	356	36.3	356	104	356	2.5	155.142	17.905	g500-S950	m550-V112/M4	2	67
8.2	364	35.5	364	102	364	1.1	152.331	18.286	g500-S400	m550-V112/M4	2	43
7.9	376	34.4	376	98.3	376	4.9	163.303	18.917	g500-S2100	m550-V112/M4	2	100
7.8	383	33.8	383	96.6	383	1.7	152.954	19.250	g500-S660	m550-V112/M4	2	48
7.7	390	33.2	390	94.9	390	2.4	154.488	19.600	g500-S950	m550-V112/M4	2	67
7.5	399	32.4	399	92.8	399	4.9	167.490	20.041	g500-S3100	m550-V112/M4	2	139
7.3	411	31.5	411	90.0	411	1.0	152.292	20.659	g500-S400	m550-V112/M4	2	43
7.2	415	31.1	415	89.1	415	4.2	160.969	20.869	g500-S2100	m550-V112/M4	2	100
6.8	436	29.6	436	84.8	436	1.5	152.889	21.933	g500-S660	m550-V112/M4	2	48
6.8	436	29.6	436	84.8	436	2.2	154.374	21.933	g500-S950	m550-V112/M4	2	67
6.6	451	28.7	451	82.1	451	4.9	166.183	22.663	g500-S3100	m550-V112/M4	2	139
6.5	461	28.0	461	80.2	461	4.2	160.592	23.193	g500-S2100	m550-V112/M4	2	100
6.1	489	26.5	489	75.7	489	4.2	163.378	24.570	g500-S3100	m550-V112/M4	2	139



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
6.0	498	25.9	498	74.2	498	1.2	152.447	25.056	g500-S660	m550-V112/M4	2	48
5.9	507	25.5	507	72.9	507	1.9	153.630	25.511	g500-S950	m550-V112/M4	2	67
5.7	526	24.6	526	70.4	526	4.2	171.202	26.437	g500-S4500	m550-V112/M4	2	212
5.4	553	23.4	553	66.9	553	4.2	162.508	27.785	g500-S3100	m550-V112/M4	2	139
5.3	562	23.0	562	65.8	562	3.3	157.293	28.275	g500-S2100	m550-V112/M4	2	100
5.3	568	22.8	568	65.2	568	1.2	152.409	28.548	g500-S660	m550-V112/M4	2	48
5.3	568	22.8	568	65.2	568	1.7	153.563	28.548	g500-S950	m550-V112/M4	2	67
5.1	587	22.0	587	63.0	587	4.2	170.241	29.511	g500-S4500	m550-V112/M4	2	212
4.8	622	20.8	622	59.5	622	1.5	153.059	31.267	g500-S950	m550-V112/M4	2	67
4.8	625	20.7	625	59.2	625	3.3	157.088	31.422	g500-S2100	m550-V112/M4	2	100
4.6	646	20.0	646	57.3	646	3.5	165.932	32.489	g500-S4500	m550-V112/M4	2	212
4.5	662	19.5	662	55.9	662	3.3	158.606	33.289	g500-S3100	m550-V112/M4	2	139
4.4	683	18.9	683	54.2	683	2.8	155.920	34.333	g500-S2100	m550-V112/M4	2	100
4.3	696	18.6	696	53.2	696	1.4	153.014	34.989	g500-S950	m550-V112/M4	2	67
4.1	721	17.9	721	51.3	721	3.5	165.295	36.267	g500-S4500	m550-V112/M4	2	212
4.0	749	17.3	749	49.4	749	3.3	158.132	37.644	g500-S3100	m550-V112/M4	2	139
3.9	759	17.0	759	48.7	759	2.7	155.781	38.156	g500-S2100	m550-V112/M4	2	100
3.7	785	16.2	785	46.4	785	2.3	156.582	40.056	g500-S2100	m550-V112/M4	3	100
3.7	804	16.1	804	46.0	804	2.8	156.810	40.422	g500-S3100	m550-V112/M4	2	139
3.5	833	15.3	833	43.7	833	4.8	167.802	42.520	g500-S4500	m550-V112/M4	3	215
3.6	836	15.5	836	44.2	836	2.8	160.766	42.044	g500-S4500	m550-V112/M4	2	212
3.4	872	14.6	872	41.8	872	2.2	156.479	44.515	g500-S2100	m550-V112/M4	3	100
3.4	884	14.6	884	41.9	884	2.2	154.419	44.431	g500-S2100	m550-V112/M4	2	100
3.3	909	14.2	909	40.7	909	2.8	156.489	45.711	g500-S3100	m550-V112/M4	2	139
3.2	924	13.8	924	39.4	924	3.0	157.319	47.159	g500-S3100	m550-V112/M4	3	140
3.2	934	13.8	933	39.6	933	2.8	160.386	46.933	g500-S4500	m550-V112/M4	2	212
3.0	980	13.0	980	37.2	980	1.0	152.878	50.027	g500-S950	m550-V112/M4	3	68
3.0	982	13.2	982	37.7	982	2.1	154.336	49.378	g500-S2100	m550-V112/M4	2	100
2.9	1015	12.7	1015	36.5	1015	2.3	158.305	51.027	g500-S4500	m550-V112/M4	2	212
2.8	1034	12.3	1034	35.2	1034	4.4	161.818	52.794	g500-S4500	m550-V112/M4	3	215
2.9	1040	12.4	1040	35.6	1040	2.2	154.951	52.311	g500-S3100	m550-V112/M4	2	139
2.8	1045	12.2	1045	34.9	1045	2.9	157.083	53.330	g500-S3100	m550-V112/M4	3	140
2.8	1073	12.1	1073	34.5	1073	1.8	153.711	53.924	g500-S2100	m550-V112/M4	2	100
2.7	1076	11.8	1076	33.9	1076	1.9	154.927	54.933	g500-S2100	m550-V112/M4	3	100
2.7	1097	11.6	1097	33.2	1097	0.9	152.861	55.982	g500-S950	m550-V112/M4	3	68
2.6	1133	11.4	1133	32.7	1133	2.3	158.047	56.960	g500-S4500	m550-V112/M4	2	212
2.5	1155	11.0	1155	31.6	1155	3.9	161.577	58.933	g500-S4500	m550-V112/M4	3	215
2.5	1177	11.0	1177	31.4	1177	2.2	154.759	59.156	g500-S3100	m550-V112/M4	2	139
2.5	1192	10.8	1192	31.0	1192	1.7	153.654	59.927	g500-S2100	m550-V112/M4	2	100
2.5	1196	10.6	1196	30.5	1196	1.7	154.872	61.049	g500-S2100	m550-V112/M4	3	100
2.4	1263	10.2	1263	29.3	1263	1.8	154.072	63.487	g500-S3100	m550-V112/M4	2	139
2.3	1267	10.1	1267	28.8	1267	2.5	155.319	64.676	g500-S3100	m550-V112/M4	3	140
2.3	1273	10.0	1273	28.6	1273	3.5	159.002	64.978	g500-S4500	m550-V112/M4	3	215
2.3	1283	10.1	1283	28.8	1283	1.9	156.048	64.500	g500-S4500	m550-V112/M4	2	212
2.1	1377	9.2	1377	26.5	1377	1.5	153.979	70.302	g500-S2100	m550-V112/M4	3	100
2.1	1421	9.0	1421	25.6	1421	3.2	158.843	72.533	g500-S4500	m550-V112/M4	3	215
2.1	1426	8.9	1426	25.6	1426	3.2	157.675	72.775	g500-S4500	m550-V112/M4	3	215
2.1	1428	9.1	1428	25.9	1428	1.7	153.941	71.793	g500-S3100	m550-V112/M4	2	139
2.1	1432	9.0	1432	25.8	1432	1.8	155.887	72.000	g500-S4500	m550-V112/M4	2	212
2.1	1433	8.9	1433	25.4	1433	2.2	155.194	73.138	g500-S3100	m550-V112/M4	3	140
2.0	1507	8.5	1507	24.2	1507	1.4	153.732	76.907	g500-S2100	m550-V112/M4	3	100
1.9	1531	8.3	1531	23.8	1531	1.3	153.946	78.128	g500-S2100	m550-V112/M4	3	100



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_2	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
1.8	1592	8.0	1592	22.9	1592	2.8	157.549	81.237	g500-S4500	m550-V112/M4	3	215
1.8	1622	7.9	1622	22.5	1622	1.9	154.218	82.769	g500-S3100	m550-V112/M4	3	140
1.8	1674	7.6	1674	21.8	1674	1.2	153.704	85.468	g500-S2100	m550-V112/M4	3	100
1.7	1774	7.2	1774	20.5	1774	1.8	153.932	90.546	g500-S3100	m550-V112/M4	3	140
1.6	1819	7.0	1819	20.0	1819	2.5	155.877	92.825	g500-S4500	m550-V112/M4	3	215
1.6	1834	6.9	1834	19.9	1834	1.7	154.142	93.599	g500-S3100	m550-V112/M4	3	140
1.5	1922	6.6	1922	19.0	1922	1.1	153.196	98.095	g500-S2100	m550-V112/M4	3	100
1.5	2006	6.3	2006	18.2	2006	1.6	153.868	102.393	g500-S3100	m550-V112/M4	3	140
1.4	2030	6.3	2030	18.0	2030	2.2	155.799	103.619	g500-S4500	m550-V112/M4	3	215
1.4	2136	6.0	2136	17.1	2136	1.0	153.179	109.016	g500-S2100	m550-V112/M4	3	100
1.3	2228	5.7	2228	16.4	2228	2.0	154.864	113.711	g500-S4500	m550-V112/M4	3	215
1.3	2263	5.6	2263	16.1	2263	1.4	153.319	115.492	g500-S3100	m550-V112/M4	3	140
1.2	2354	5.4	2354	15.5	2354	0.9	152.876	120.167	g500-S2100	m550-V112/M4	3	100
1.2	2487	5.1	2487	14.7	2487	1.8	154.812	126.933	g500-S4500	m550-V112/M4	3	215
1.1	2559	5.0	2559	14.2	2559	1.2	153.280	130.603	g500-S3100	m550-V112/M4	3	140
1.1	2772	4.6	2772	13.1	2772	1.1	152.958	141.478	g500-S3100	m550-V112/M4	3	140
1.0	2900	4.4	2900	12.6	2900	1.6	153.852	148.005	g500-S4500	m550-V112/M4	3	215
0.9	3134	4.1	3134	11.6	3134	1.0	152.932	159.989	g500-S3100	m550-V112/M4	3	140
0.9	3237	3.9	3237	11.3	3237	1.4	153.822	165.215	g500-S4500	m550-V112/M4	3	215
0.8	3554	3.6	3554	10.3	3554	1.3	153.207	181.396	g500-S4500	m550-V112/M4	3	215
0.8	3608	3.5	3608	10.1	3608	0.9	152.502	184.146	g500-S3100	m550-V112/M4	3	140
0.7	3967	3.2	3967	9.2	3967	1.1	153.186	202.489	g500-S4500	m550-V112/M4	3	215



62 Hz: 5.5 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
38.3	107	76.5	107	475	107	3.6	329.201	3.920	g500-S660	m550-V132/M4	2	67
34.2	120	68.5	120	425	120	4.8	333.517	4.380	g500-S950	m550-V132/M4	2	86
27.9	147	55.8	147	346	147	3.1	325.664	5.376	g500-S660	m550-V132/M4	2	67
27.8	148	55.6	148	345	148	4.4	329.648	5.391	g500-S950	m550-V132/M4	2	86
24.8	165	49.7	165	308	165	4.1	327.906	6.038	g500-S950	m550-V132/M4	2	86
23.4	176	46.8	176	290	176	3.2	325.881	6.417	g500-S660	m550-V132/M4	2	67
21.8	188	43.6	188	270	188	2.5	323.884	6.880	g500-S660	m550-V132/M4	2	67
20.5	200	41.0	200	254	200	2.8	325.296	7.311	g500-S660	m550-V132/M4	2	67
19.5	211	39.0	211	242	211	3.5	325.480	7.702	g500-S950	m550-V132/M4	2	86
17.0	241	34.1	241	211	241	2.5	323.899	8.800	g500-S660	m550-V132/M4	2	67
16.5	249	33.0	249	204	249	3.6	328.672	9.100	g500-S950	m550-V132/M4	2	86
15.0	274	29.9	274	186	274	2.1	323.588	10.027	g500-S660	m550-V132/M4	2	67
14.7	279	29.5	279	183	279	3.2	328.144	10.183	g500-S950	m550-V132/M4	2	86
13.4	306	26.8	306	166	306	2.9	326.449	11.200	g500-S950	m550-V132/M4	2	86
13.3	308	26.6	308	165	308	2.0	322.806	11.262	g500-S660	m550-V132/M4	2	67
12.2	337	24.4	337	151	337	1.8	322.522	12.320	g500-S660	m550-V132/M4	2	67
12.0	343	23.9	343	148	343	2.6	325.356	12.544	g500-S950	m550-V132/M4	2	86
11.7	351	23.4	351	145	351	1.8	322.616	12.832	g500-S660	m550-V132/M4	2	67
10.7	384	21.4	384	133	384	1.6	322.363	14.037	g500-S660	m550-V132/M4	2	67
10.7	384	21.4	384	133	384	2.3	325.078	14.037	g500-S950	m550-V132/M4	2	86
10.6	387	21.2	387	132	387	4.9	336.115	14.137	g500-S2100	m550-V132/M4	2	119
9.5	430	19.1	430	118	430	1.4	321.913	15.714	g500-S660	m550-V132/M4	2	67
9.5	430	19.1	430	118	430	4.4	335.294	15.711	g500-S2100	m550-V132/M4	2	119
9.4	438	18.8	438	116	438	2.0	323.912	16.000	g500-S950	m550-V132/M4	2	86
8.8	466	17.6	466	109	466	4.1	332.469	17.022	g500-S2100	m550-V132/M4	2	119
8.4	490	16.8	490	104	490	1.3	321.815	17.905	g500-S660	m550-V132/M4	2	67
8.4	490	16.8	490	104	490	1.8	323.742	17.905	g500-S950	m550-V132/M4	2	86
7.9	518	15.9	518	98.3	518	4.0	331.903	18.917	g500-S2100	m550-V132/M4	2	119
7.8	527	15.6	527	96.6	527	1.3	321.554	19.250	g500-S660	m550-V132/M4	2	67
7.7	536	15.3	536	94.9	536	1.8	323.088	19.600	g500-S950	m550-V132/M4	2	86
7.2	571	14.4	571	89.1	571	3.6	329.569	20.869	g500-S2100	m550-V132/M4	2	119
6.8	600	13.7	600	84.8	600	1.1	321.489	21.933	g500-S660	m550-V132/M4	2	67
6.8	600	13.7	600	84.8	600	1.6	322.974	21.933	g500-S950	m550-V132/M4	2	86
6.6	620	13.2	620	82.1	620	5.0	334.783	22.663	g500-S3100	m550-V132/M4	2	158
6.5	635	12.9	635	80.2	635	3.2	329.192	23.193	g500-S2100	m550-V132/M4	2	119
6.1	672	12.2	672	75.7	672	4.6	331.978	24.570	g500-S3100	m550-V132/M4	2	158
5.9	698	11.8	698	72.9	698	1.4	322.230	25.511	g500-S950	m550-V132/M4	2	86
5.4	760	10.8	760	66.9	760	4.1	331.108	27.785	g500-S3100	m550-V132/M4	2	158
5.3	774	10.6	774	65.8	774	2.7	325.893	28.275	g500-S2100	m550-V132/M4	2	119
5.3	781	10.5	781	65.2	781	1.2	322.163	28.548	g500-S950	m550-V132/M4	2	86
4.8	860	9.5	860	59.2	860	2.4	325.688	31.422	g500-S2100	m550-V132/M4	2	119
4.5	911	9.0	911	55.9	911	3.4	327.206	33.289	g500-S3100	m550-V132/M4	2	158
4.4	939	8.7	939	54.2	939	2.2	324.520	34.333	g500-S2100	m550-V132/M4	2	119
4.1	992	8.3	992	51.3	992	4.5	333.895	36.267	g500-S4500	m550-V132/M4	2	231
3.9	1027	7.9	1027	48.8	1027	3.8	336.865	38.090	g500-S4500	m550-V132/M4	3	234
4.0	1030	8.0	1030	49.4	1030	3.0	326.732	37.644	g500-S3100	m550-V132/M4	2	158
3.9	1044	7.9	1044	48.7	1044	2.0	324.381	38.156	g500-S2100	m550-V132/M4	2	119
3.7	1080	7.5	1079	46.4	1079	1.7	325.182	40.056	g500-S2100	m550-V132/M4	3	119
3.7	1106	7.4	1106	46.0	1106	2.8	325.410	40.422	g500-S3100	m550-V132/M4	2	158
3.5	1146	7.1	1146	43.7	1146	3.5	336.402	42.520	g500-S4500	m550-V132/M4	3	234
3.6	1150	7.1	1150	44.2	1150	3.6	329.366	42.044	g500-S4500	m550-V132/M4	2	231



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n_{22}	M_{22}	n_{21}	M_{21}	n_2	M_2	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
3.4	1200	6.7	1200	41.8	1200	1.6	325.079	44.515	g500-S2100	m550-V132/M4	3	119
3.3	1251	6.6	1251	40.7	1251	2.5	325.089	45.711	g500-S3100	m550-V132/M4	2	158
3.2	1271	6.4	1271	39.4	1271	2.2	325.919	47.159	g500-S3100	m550-V132/M4	3	159
3.2	1284	6.4	1284	39.6	1284	3.4	328.986	46.933	g500-S4500	m550-V132/M4	2	231
2.9	1396	5.9	1396	36.5	1396	2.6	326.905	51.027	g500-S4500	m550-V132/M4	2	231
2.8	1423	5.7	1423	35.2	1423	3.2	330.418	52.794	g500-S4500	m550-V132/M4	3	234
2.8	1437	5.6	1437	34.9	1437	2.1	325.683	53.330	g500-S3100	m550-V132/M4	3	159
2.7	1481	5.5	1480	33.9	1480	1.4	323.527	54.933	g500-S2100	m550-V132/M4	3	119
2.6	1558	5.3	1558	32.7	1558	2.5	326.647	56.960	g500-S4500	m550-V132/M4	2	231
2.5	1588	5.1	1588	31.6	1588	2.8	330.177	58.933	g500-S4500	m550-V132/M4	3	234
2.5	1645	4.9	1645	30.5	1645	1.3	323.472	61.049	g500-S2100	m550-V132/M4	3	119
2.3	1743	4.6	1743	28.8	1743	1.8	323.919	64.676	g500-S3100	m550-V132/M4	3	159
2.3	1751	4.6	1751	28.6	1751	2.6	327.602	64.978	g500-S4500	m550-V132/M4	3	234
2.1	1895	4.3	1895	26.5	1895	1.1	322.579	70.302	g500-S2100	m550-V132/M4	3	119
2.1	1955	4.1	1955	25.6	1955	2.3	327.443	72.533	g500-S4500	m550-V132/M4	3	234
2.1	1961	4.1	1961	25.6	1961	2.3	326.275	72.775	g500-S4500	m550-V132/M4	3	234
2.1	1971	4.1	1971	25.4	1971	1.6	323.794	73.138	g500-S3100	m550-V132/M4	3	159
2.0	2073	3.9	2073	24.2	2073	1.0	322.332	76.907	g500-S2100	m550-V132/M4	3	119
1.9	2106	3.8	2106	23.8	2106	1.0	322.546	78.128	g500-S2100	m550-V132/M4	3	119
1.8	2189	3.7	2189	22.9	2189	2.1	326.149	81.237	g500-S4500	m550-V132/M4	3	234
1.8	2231	3.6	2231	22.5	2231	1.4	322.818	82.769	g500-S3100	m550-V132/M4	3	159
1.8	2303	3.5	2303	21.8	2303	0.9	322.304	85.468	g500-S2100	m550-V132/M4	3	119
1.7	2440	3.3	2440	20.5	2440	1.3	322.532	90.546	g500-S3100	m550-V132/M4	3	159
1.6	2502	3.2	2502	20.0	2502	1.8	324.477	92.825	g500-S4500	m550-V132/M4	3	234
1.6	2523	3.2	2522	19.9	2522	1.2	322.742	93.599	g500-S3100	m550-V132/M4	3	159
1.5	2760	2.9	2759	18.2	2759	1.1	322.468	102.393	g500-S3100	m550-V132/M4	3	159
1.4	2793	2.9	2793	18.0	2793	1.6	324.399	103.619	g500-S4500	m550-V132/M4	3	234
1.3	3065	2.6	3065	16.4	3065	1.5	323.464	113.711	g500-S4500	m550-V132/M4	3	234
1.3	3113	2.6	3113	16.1	3113	1.0	321.919	115.492	g500-S3100	m550-V132/M4	3	159
1.2	3421	2.4	3421	14.7	3421	1.3	323.412	126.933	g500-S4500	m550-V132/M4	3	234
1.1	3520	2.3	3520	14.2	3520	0.9	321.880	130.603	g500-S3100	m550-V132/M4	3	159
1.1	3813	2.1	3813	13.1	3813	0.8	321.558	141.478	g500-S3100	m550-V132/M4	3	159
1.0	3989	2.0	3989	12.6	3989	1.1	322.452	148.005	g500-S4500	m550-V132/M4	3	234
0.9	4453	1.8	4453	11.3	4453	1.0	322.422	165.215	g500-S4500	m550-V132/M4	3	234



62 Hz: 7.5 kW

Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz							z	m
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i				
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
38.3	146	166	146	475	146	2.7	425.001	3.920	g500-S660	m550-V132/L4	2	77
34.2	164	148	164	425	164	3.5	429.317	4.380	g500-S950	m550-V132/L4	2	96
27.9	201	121	201	346	201	2.3	421.464	5.376	g500-S660	m550-V132/L4	2	77
27.8	201	121	201	345	201	3.2	425.448	5.391	g500-S950	m550-V132/L4	2	96
24.8	226	108	226	308	226	3.0	423.706	6.038	g500-S950	m550-V132/L4	2	96
23.4	240	101	240	290	240	2.3	421.681	6.417	g500-S660	m550-V132/L4	2	77
21.8	257	94.5	257	270	257	1.8	419.684	6.880	g500-S660	m550-V132/L4	2	77
20.5	273	88.9	273	254	273	2.0	421.096	7.311	g500-S660	m550-V132/L4	2	77
19.5	288	84.4	288	242	288	2.5	421.280	7.702	g500-S950	m550-V132/L4	2	96
18.1	309	78.6	309	225	309	4.5	432.992	8.272	g500-S2100	m550-V132/L4	2	129
17.0	329	73.9	329	211	329	1.8	419.699	8.800	g500-S660	m550-V132/L4	2	77
16.5	340	71.4	340	204	340	2.6	424.472	9.100	g500-S950	m550-V132/L4	2	96
15.9	353	68.8	353	197	353	4.9	446.432	9.452	g500-S2100	m550-V132/L4	2	129
15.0	375	64.8	375	186	375	1.6	419.388	10.027	g500-S660	m550-V132/L4	2	77
14.7	380	63.8	380	183	380	2.3	423.944	10.183	g500-S950	m550-V132/L4	2	96
14.3	392	61.9	392	177	392	4.4	444.596	10.504	g500-S2100	m550-V132/L4	2	129
13.7	408	59.5	408	170	408	4.4	436.082	10.932	g500-S3100	m550-V132/L4	2	168
13.4	418	58.0	418	166	418	2.1	422.249	11.200	g500-S950	m550-V132/L4	2	96
13.3	421	57.7	421	165	421	1.5	418.606	11.262	g500-S660	m550-V132/L4	2	77
12.2	460	52.8	460	151	460	1.3	418.322	12.320	g500-S660	m550-V132/L4	2	77
12.1	463	52.4	463	150	463	4.1	436.540	12.406	g500-S2100	m550-V132/L4	2	129
12.0	469	51.8	469	148	469	1.9	421.156	12.544	g500-S950	m550-V132/L4	2	96
11.7	479	50.7	479	145	479	1.3	418.416	12.832	g500-S660	m550-V132/L4	2	77
10.9	515	47.1	515	135	515	3.7	435.474	13.787	g500-S2100	m550-V132/L4	2	129
10.7	524	46.3	524	133	524	1.2	418.163	14.037	g500-S660	m550-V132/L4	2	77
10.7	524	46.3	524	133	524	1.7	420.878	14.037	g500-S950	m550-V132/L4	2	96
10.6	528	46.0	528	132	528	3.6	431.915	14.137	g500-S2100	m550-V132/L4	2	129
9.5	587	41.4	587	118	587	1.1	417.713	15.714	g500-S660	m550-V132/L4	2	77
9.5	587	41.4	587	118	587	3.3	431.094	15.711	g500-S2100	m550-V132/L4	2	129
9.4	598	40.6	598	116	598	1.5	419.712	16.000	g500-S950	m550-V132/L4	2	96
9.1	617	39.4	617	113	617	4.7	440.896	16.517	g500-S3100	m550-V132/L4	2	168
9.0	622	39.1	622	112	622	4.6	437.165	16.644	g500-S3100	m550-V132/L4	2	168
8.8	636	38.2	636	109	636	3.0	428.269	17.022	g500-S2100	m550-V132/L4	2	129
8.4	669	36.3	669	104	669	0.9	417.615	17.905	g500-S660	m550-V132/L4	2	77
8.4	669	36.3	669	104	669	1.3	419.542	17.905	g500-S950	m550-V132/L4	2	96
8.0	703	34.5	703	98.8	703	4.4	435.270	18.822	g500-S3100	m550-V132/L4	2	168
7.9	707	34.4	707	98.3	707	2.9	427.703	18.917	g500-S2100	m550-V132/L4	2	129
7.8	719	33.8	719	96.6	719	0.9	417.354	19.250	g500-S660	m550-V132/L4	2	77
7.7	732	33.2	732	94.9	732	1.3	418.888	19.600	g500-S950	m550-V132/L4	2	96
7.5	749	32.4	749	92.8	749	4.1	431.890	20.041	g500-S3100	m550-V132/L4	2	168
7.2	780	31.1	780	89.1	780	2.6	425.369	20.869	g500-S2100	m550-V132/L4	2	129
6.8	819	29.6	819	84.8	819	0.8	417.289	21.933	g500-S660	m550-V132/L4	2	77
6.8	819	29.6	819	84.8	819	1.2	418.774	21.933	g500-S950	m550-V132/L4	2	96
6.6	847	28.7	847	82.1	847	3.7	430.583	22.663	g500-S3100	m550-V132/L4	2	168
6.5	866	28.0	866	80.2	866	2.4	424.992	23.193	g500-S2100	m550-V132/L4	2	129
6.1	918	26.5	918	75.7	918	3.4	427.778	24.570	g500-S3100	m550-V132/L4	2	168
5.9	953	25.5	953	72.9	953	1.0	418.030	25.511	g500-S950	m550-V132/L4	2	96
5.7	988	24.6	988	70.4	988	4.6	435.602	26.437	g500-S4500	m550-V132/L4	2	241
5.4	1038	23.4	1038	66.9	1038	3.0	426.908	27.785	g500-S3100	m550-V132/L4	2	168
5.3	1056	23.0	1056	65.8	1056	1.9	421.693	28.275	g500-S2100	m550-V132/L4	2	129
5.3	1066	22.8	1066	65.2	1066	0.9	417.963	28.548	g500-S950	m550-V132/L4	2	96



Inverter operation									Geared motor			
5 Hz -		- 20 Hz		- 62 Hz								
n ₂₂	M ₂₂	n ₂₁	M ₂	n ₂	M ₂	c	J	i			z	m
rpm	Nm	rpm	Nm	rpm	Nm		kgcm ²					kg
5.1	1102	22.0	1102	63.0	1102	4.1	434.641	29.511	g500-S4500	m550-V132/L4	2	241
4.8	1174	20.7	1174	59.2	1174	1.8	421.488	31.422	g500-S2100	m550-V132/L4	2	129
4.6	1214	20.0	1214	57.3	1214	3.7	430.332	32.489	g500-S4500	m550-V132/L4	2	241
4.5	1244	19.5	1243	55.9	1243	2.5	423.006	33.289	g500-S3100	m550-V132/L4	2	168
4.4	1283	18.9	1282	54.2	1282	1.6	420.320	34.333	g500-S2100	m550-V132/L4	2	129
4.1	1355	17.9	1355	51.3	1355	3.3	429.695	36.267	g500-S4500	m550-V132/L4	2	241
3.9	1402	17.1	1401	48.8	1401	2.8	432.665	38.090	g500-S4500	m550-V132/L4	3	244
4.0	1406	17.3	1406	49.4	1406	2.2	422.532	37.644	g500-S3100	m550-V132/L4	2	168
3.9	1425	17.0	1425	48.7	1425	1.4	420.181	38.156	g500-S2100	m550-V132/L4	2	129
3.7	1474	16.2	1474	46.4	1474	1.2	420.982	40.056	g500-S2100	m550-V132/L4	3	129
3.7	1510	16.1	1510	46.0	1510	2.1	421.210	40.422	g500-S3100	m550-V132/L4	2	168
3.5	1564	15.3	1564	43.7	1564	2.6	432.202	42.520	g500-S4500	m550-V132/L4	3	244
3.6	1571	15.5	1571	44.2	1571	2.6	425.166	42.044	g500-S4500	m550-V132/L4	2	241
3.4	1638	14.6	1638	41.8	1638	1.2	420.879	44.515	g500-S2100	m550-V132/L4	3	129
3.3	1708	14.2	1707	40.7	1707	1.8	420.889	45.711	g500-S3100	m550-V132/L4	2	168
3.2	1735	13.8	1735	39.4	1735	1.6	421.719	47.159	g500-S3100	m550-V132/L4	3	169
3.2	1753	13.8	1753	39.6	1753	2.5	424.786	46.933	g500-S4500	m550-V132/L4	2	241
2.9	1906	12.7	1906	36.5	1906	1.9	422.705	51.027	g500-S4500	m550-V132/L4	2	241
2.8	1943	12.3	1942	35.2	1942	2.3	426.218	52.794	g500-S4500	m550-V132/L4	3	244
2.8	1962	12.2	1962	34.9	1962	1.6	421.483	53.330	g500-S3100	m550-V132/L4	3	169
2.7	2021	11.8	2021	33.9	2021	1.0	419.327	54.933	g500-S2100	m550-V132/L4	3	129
2.6	2128	11.4	2128	32.7	2128	1.9	422.447	56.960	g500-S4500	m550-V132/L4	2	241
2.5	2168	11.0	2168	31.6	2168	2.1	425.977	58.933	g500-S4500	m550-V132/L4	3	244
2.5	2246	10.6	2246	30.5	2246	0.9	419.272	61.049	g500-S2100	m550-V132/L4	3	129
2.3	2380	10.1	2380	28.8	2380	1.3	419.719	64.676	g500-S3100	m550-V132/L4	3	169
2.3	2391	10.0	2391	28.6	2391	1.9	423.402	64.978	g500-S4500	m550-V132/L4	3	244
2.1	2669	9.0	2669	25.6	2669	1.7	423.243	72.533	g500-S4500	m550-V132/L4	3	244
2.1	2678	8.9	2678	25.6	2678	1.7	422.075	72.775	g500-S4500	m550-V132/L4	3	244
2.1	2691	8.9	2691	25.4	2691	1.2	419.594	73.138	g500-S3100	m550-V132/L4	3	169
1.8	2989	8.0	2989	22.9	2989	1.5	421.949	81.237	g500-S4500	m550-V132/L4	3	244
1.8	3045	7.9	3045	22.5	3045	1.0	418.618	82.769	g500-S3100	m550-V132/L4	3	169
1.7	3332	7.2	3331	20.5	3331	0.9	418.332	90.546	g500-S3100	m550-V132/L4	3	169
1.6	3415	7.0	3415	20.0	3415	1.3	420.277	92.825	g500-S4500	m550-V132/L4	3	244
1.6	3444	6.9	3444	19.9	3444	0.9	418.542	93.599	g500-S3100	m550-V132/L4	3	169
1.5	3767	6.3	3767	18.2	3767	0.8	418.268	102.393	g500-S3100	m550-V132/L4	3	169
1.4	3813	6.3	3812	18.0	3812	1.2	420.199	103.619	g500-S4500	m550-V132/L4	3	244
1.3	4184	5.7	4184	16.4	4184	1.1	419.264	113.711	g500-S4500	m550-V132/L4	3	244
1.2	4670	5.1	4670	14.7	4670	1.0	419.212	126.933	g500-S4500	m550-V132/L4	3	244
1.0	5446	4.4	5446	12.6	5446	0.8	418.252	148.005	g500-S4500	m550-V132/L4	3	244



7.7 Dimensions

Notes on the basic dimensions

Gearboxes	Without pre-stage	With pre-stage
g500-S130	2-stage	3-stage
g500-S220 ... S4500	2-/3-stage	4-stage

The ratio range of gearboxes with pre-stage is extended via an additional housing with gear stage between the gearbox and motor.

The basic dimensions are shown without pre-stage and are valid up to the following deviating dimensions for gearbox with pre-stage valid:

- Total length "L"
- Center distance "a" (gearbox output shaft – motor shaft)

Deviating dimensions: ▶ [Gearbox with pre-stage](#) 138

The following legend shows the structure of the dimension tables:

Motor		m550-H		
		63/S4	63/M4	63/L4
Table content	Explanation			
Total length	L	Total length of the drive without brake/feedback		
Motor length	LB	Length of the motor without brake/feedback		
Motor diameter	AC	Motor diameter		
Motor/connection distance	AD	Distance from center of motor to terminal box end		

NOTICE

For gearboxes with hollow shaft and keyway (H□□), the hole fitting H7 is interrupted in the middle area of the hollow shaft length by a free rotation.

Ensure the double-ended control of the machine shaft in the hollow shaft.

▶ The specified min. length of the machine shaft must be reached.

Gearboxes	Min. length of the machine shaft
	mm
g500-S130	75
g500-S220	80
g500-S400	100
g500-S660	110
g500-S950	120
g500-S2100	135
g500-S3100	155
g500-S4500	190

Technical data

Dimensions
Basic dimensions

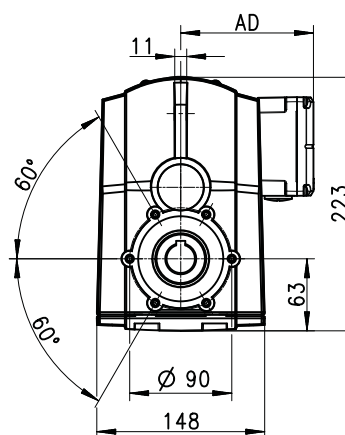
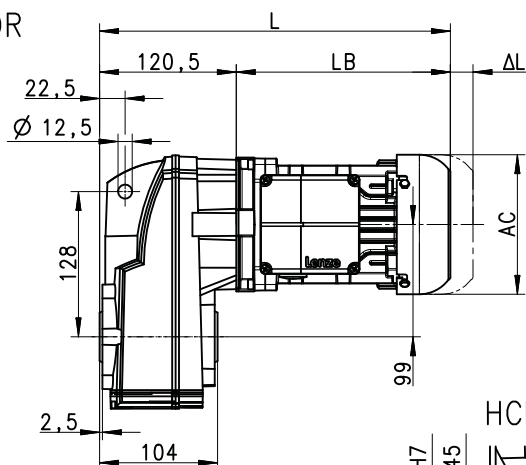


7.7.1 Basic dimensions

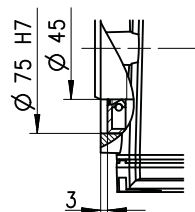
g500-S130, 2-stage

Gearbox design: Hollow shaft, without foot (HDR/HCR/HCK)

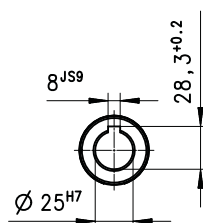
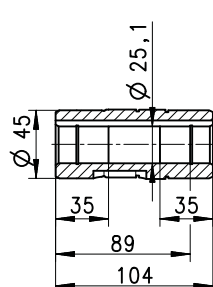
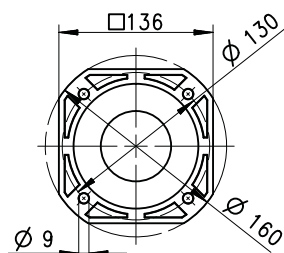
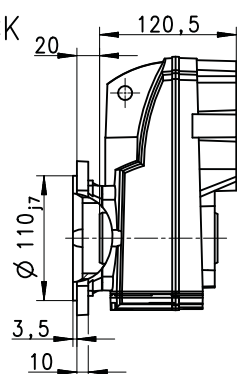
HDR



HCR



HCK



8801205-00

Motor series			m550-V			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	309	339	363	405
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

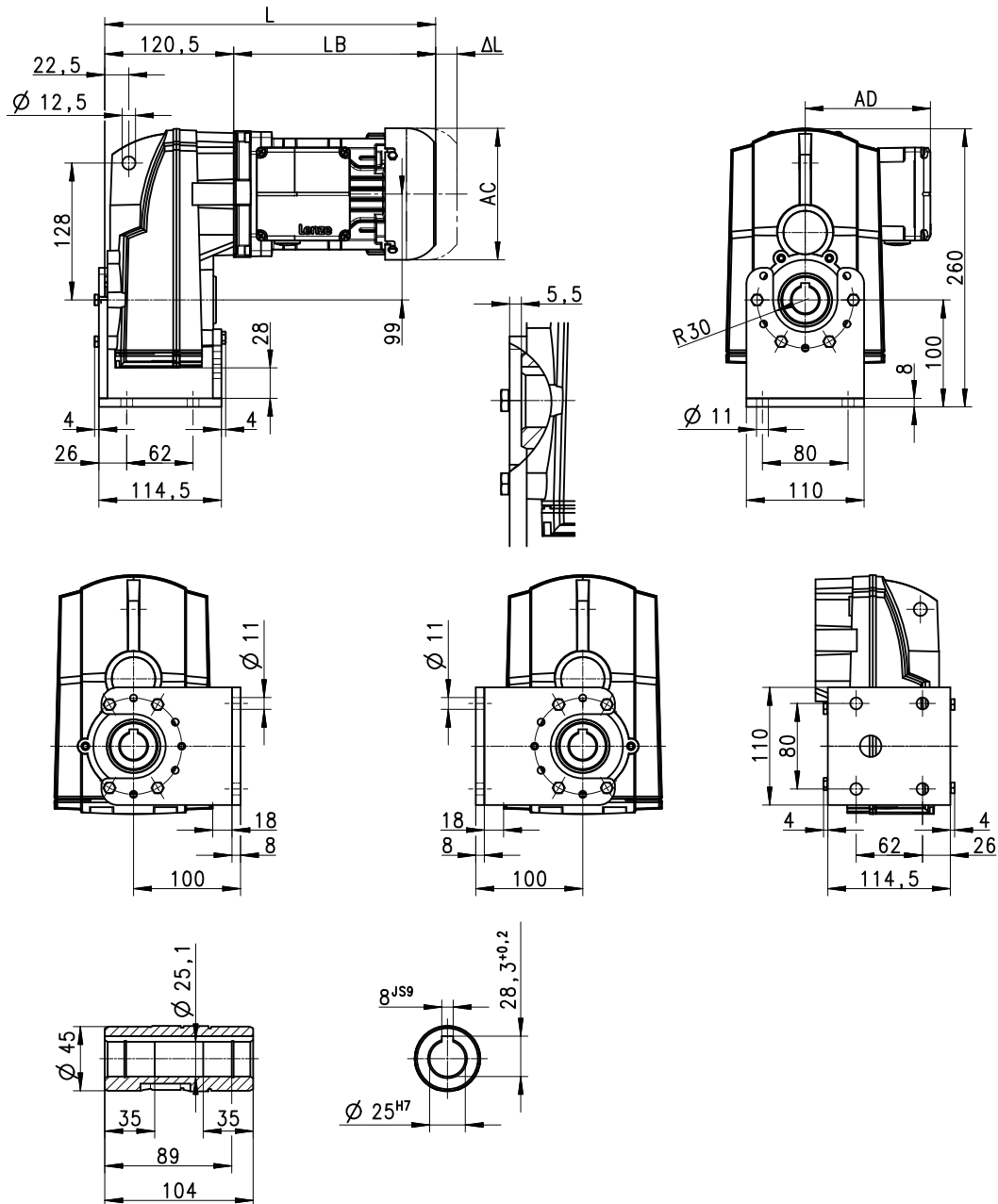
Δ L ▶ Additional lengths 141



g500-S130, 2-stage

Gearbox design: Hollow shaft, with foot (HBR)

HBR



8801209-00

Motor series			m550-V			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	309	339	363	405
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

ΔL ▶ Additional lengths [141](#)

Technical data

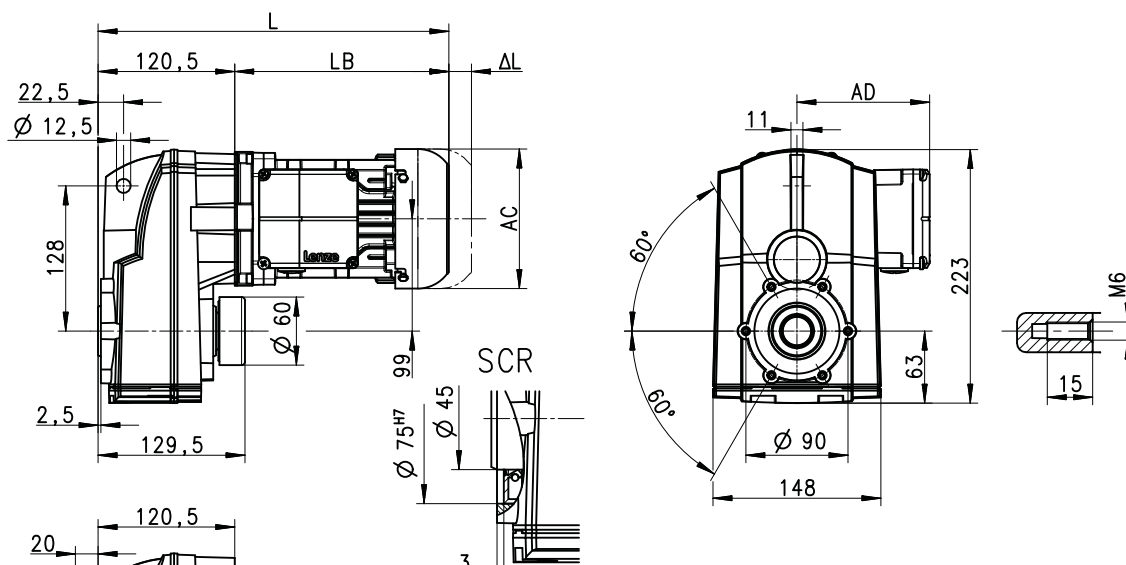
Dimensions
Basic dimensions



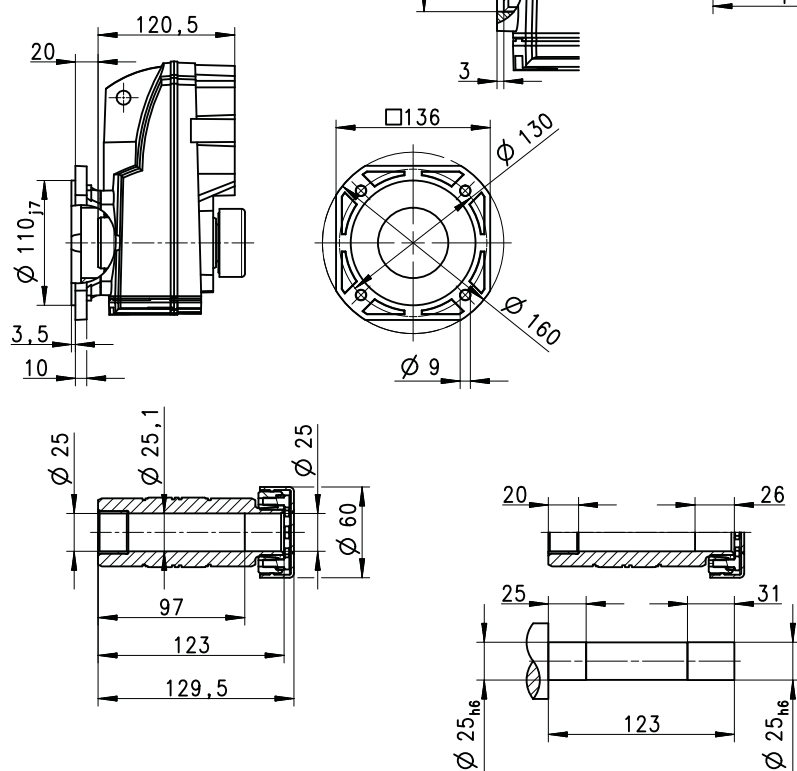
g500-S130, 2-stage

Gearbox design: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

SDR



SCK



8801207-01

Motor series			m550-V			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	309	339	363	405
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

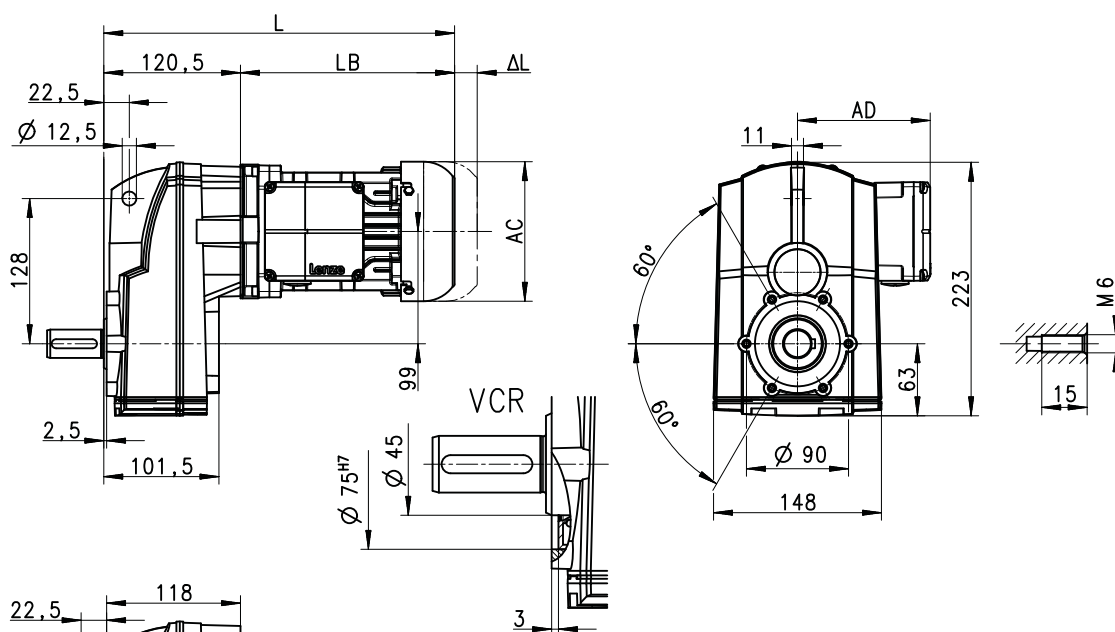
Δ L ▶ Additional lengths □ 141



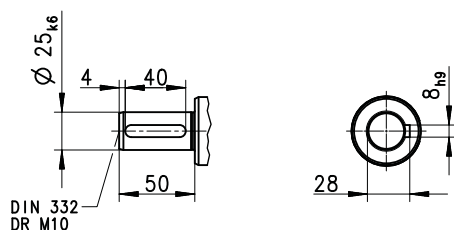
g500-S130, 2-stage

Gearbox design: Solid shaft, without foot (VDR/VCR/VCK)

VDR



VCK



DIN 332
DR M10

8801206-00

Motor series			m550-V			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	309	339	363	405
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

Δ L ▶ Additional lengths □ 141

Technical data

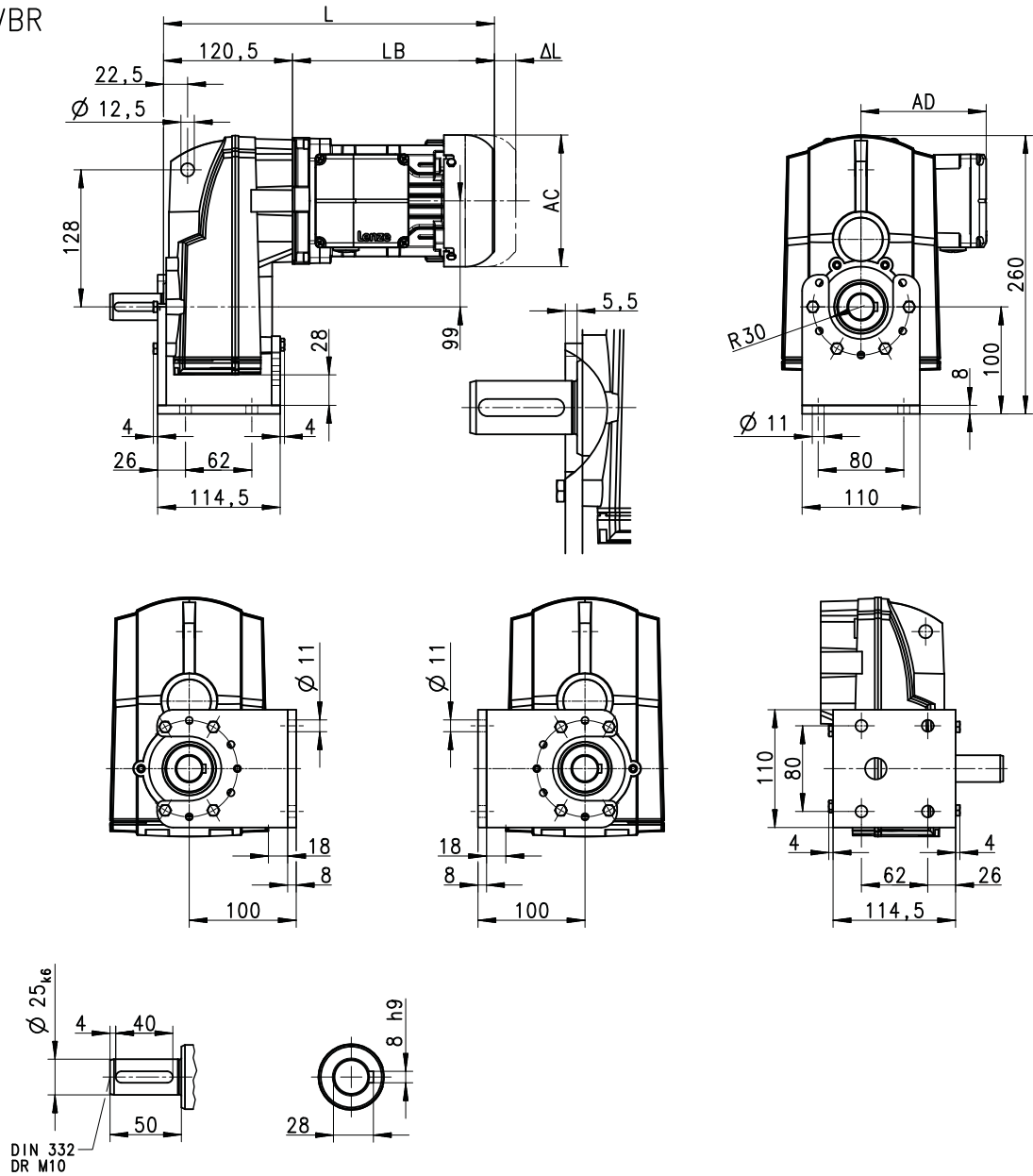
Dimensions
Basic dimensions



g500-S130, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

VBR



8801208-00

Motor series			m550-V			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	309	339	363	405
Motor length	LB	mm	189	218	242	285
Motor diameter	AC	mm	123	139	156	177
Motor/connection distance	AD	mm	117	129	145	153

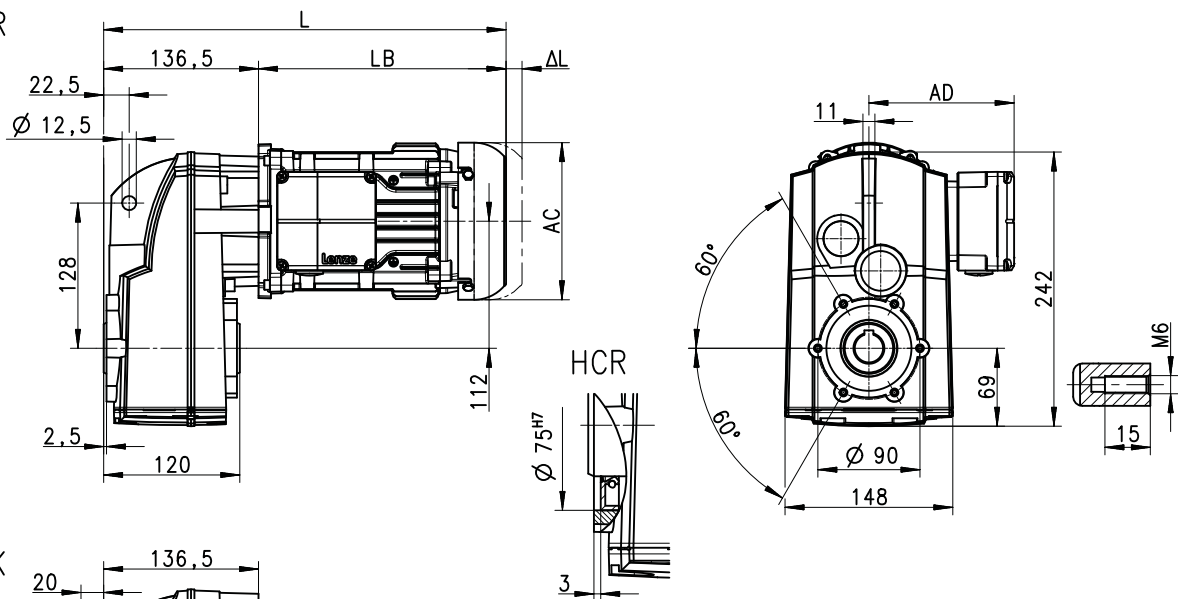
Δ L ▶ Additional lengths 141



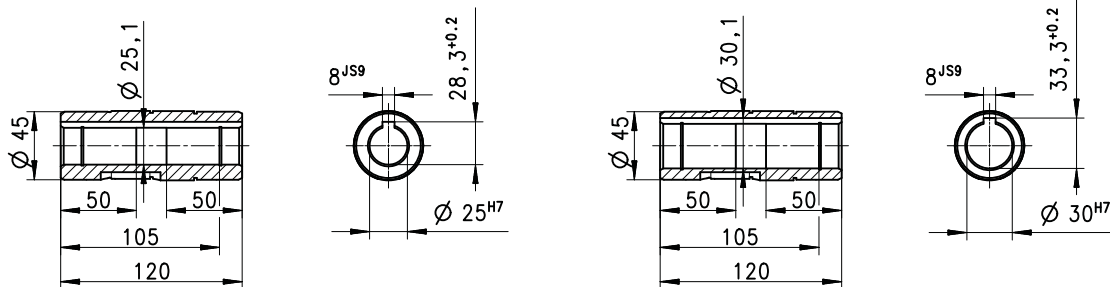
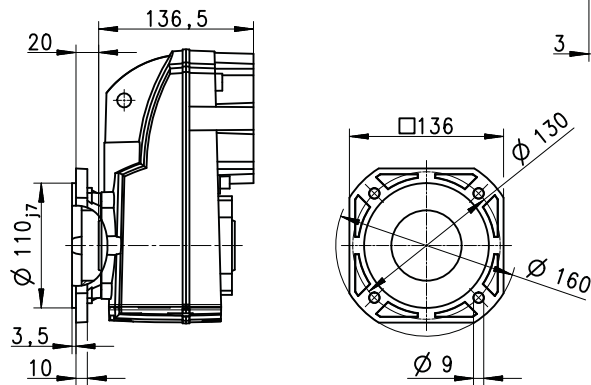
g500-S220, 2-/3-stage

Gearbox design: Hollow shaft, without foot (HDR/HCR/HCK)

HDR



HCK



8801210-00

Motor series			m550-V				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	325	355	379	421	485
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

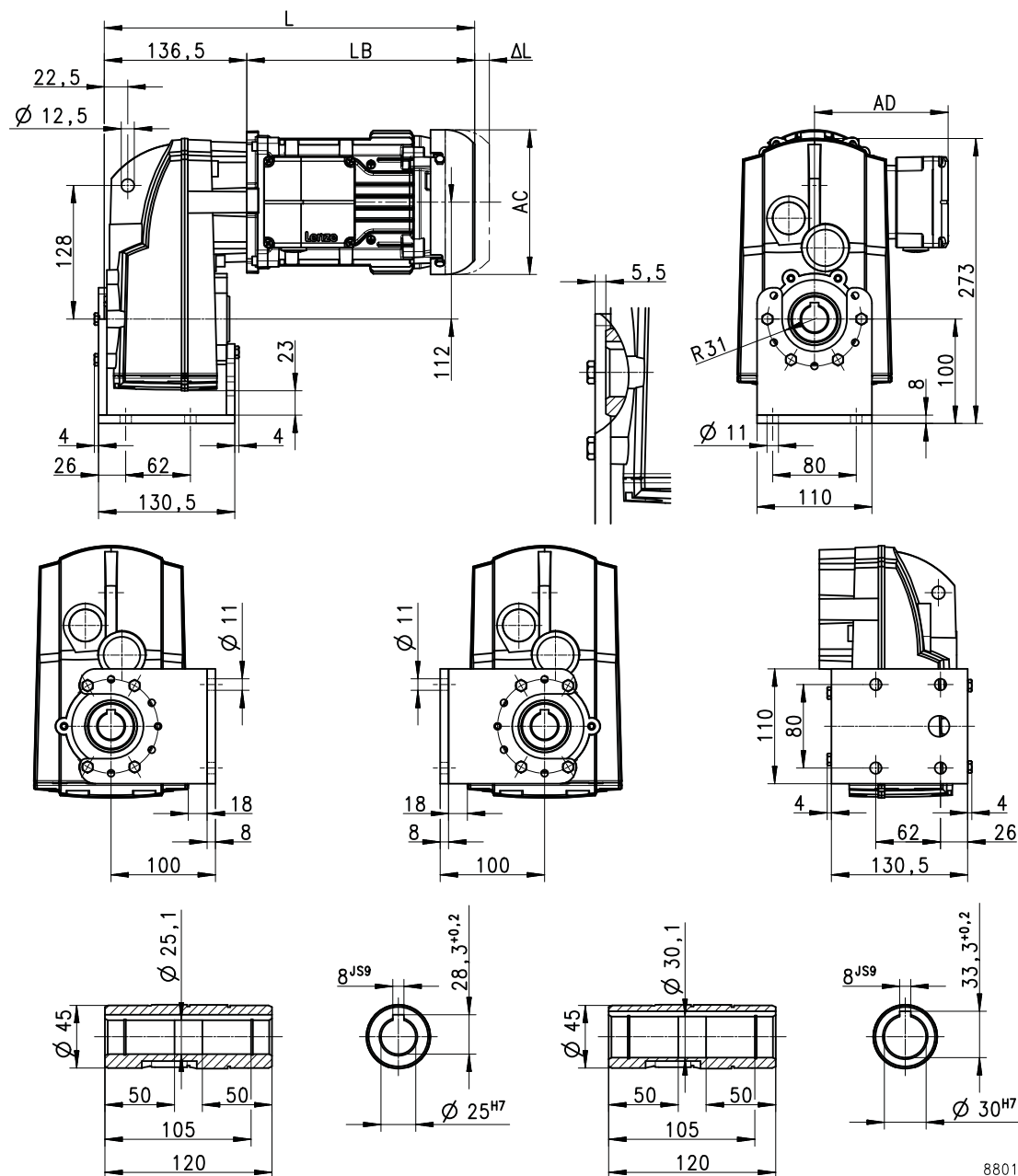
Δ L ▶ Additional lengths 141



g500-S220, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR)

HBR



8801214-00

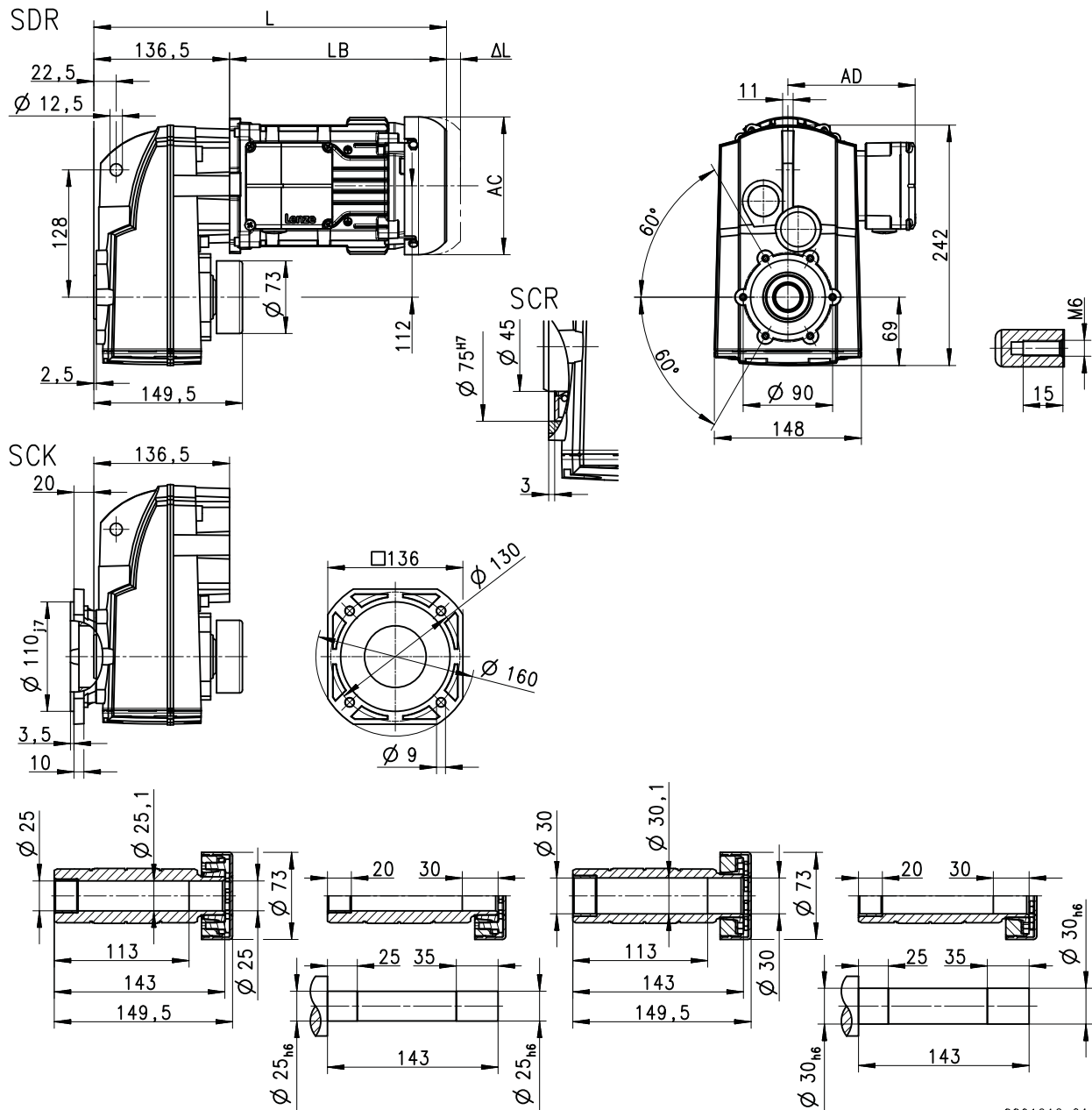
Motor series			m550-V				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	325	355	379	421	485
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

ΔL ▶ Additional lengths 141



g500-S220, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8801212-01

Motor series			m550-V				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	325	355	379	421	485
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

Δ L ▶ Additional lengths 141

Technical data

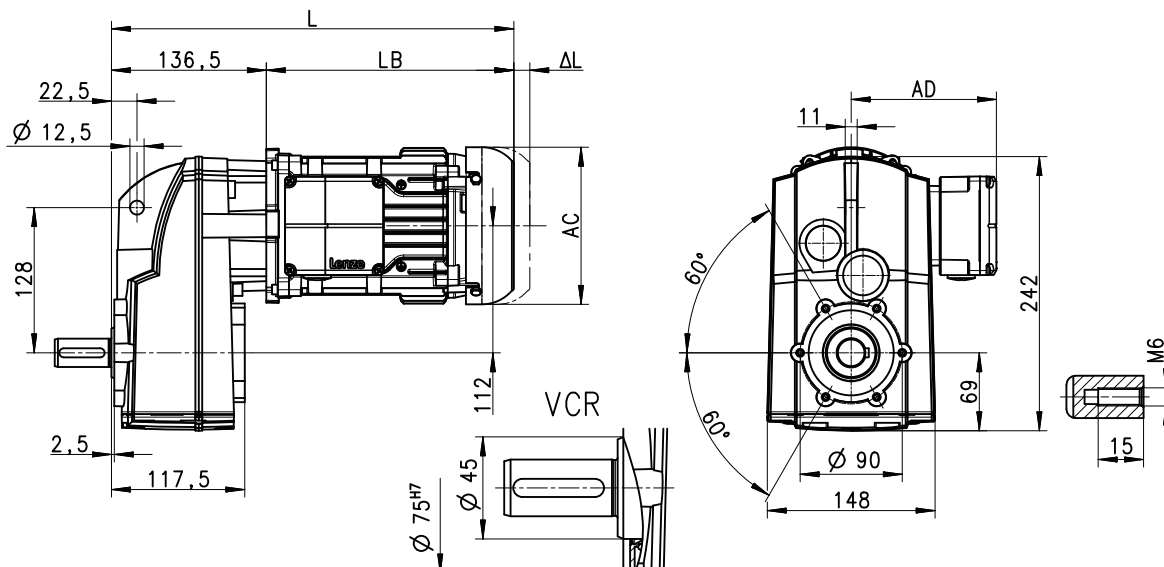
Dimensions
Basic dimensions



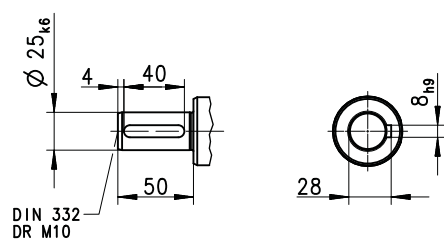
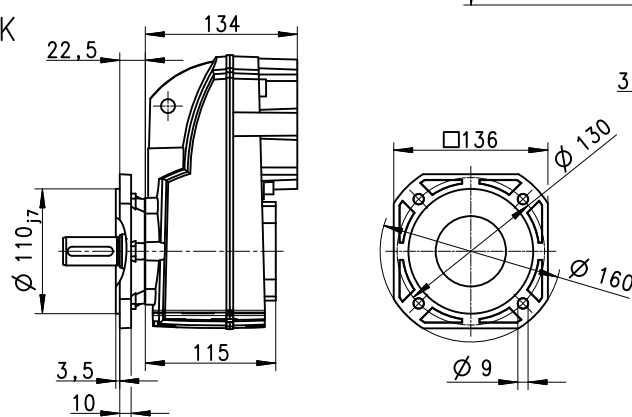
g500-S220, 2-/3-stage

Gearbox design: Solid shaft, without foot (VDR/VCR/VCK)

VDR



VCK



DIN 332
DR M10

8801211-00

Motor series			m550-V				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	325	355	379	421	485
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

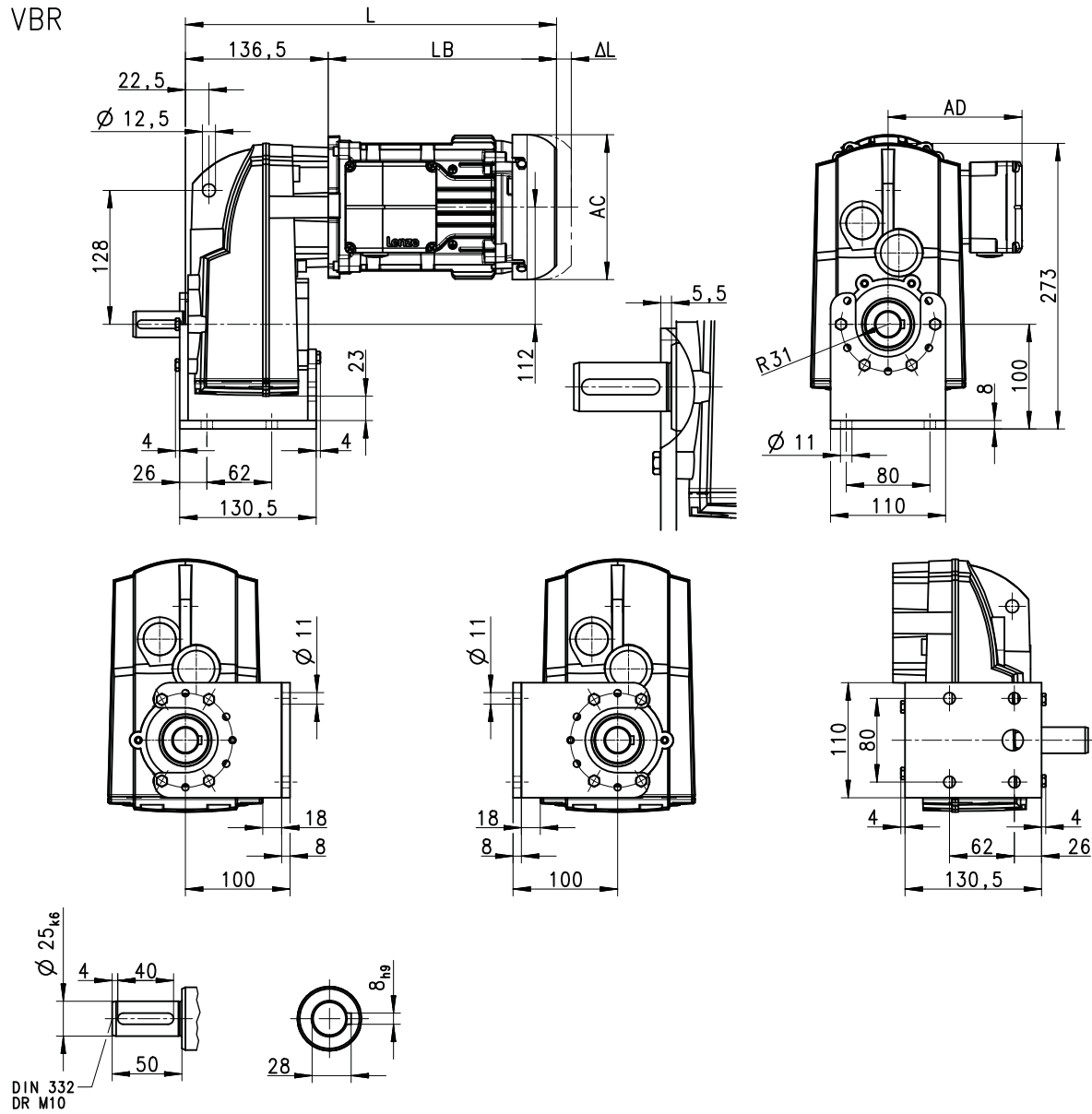
Δ L ▶ Additional lengths □ 141



g500-S220, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

VBR



8801213-00

Motor series			m550-V				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	325	355	379	421	485
Motor length	LB	mm	189	218	242	285	348
Motor diameter	AC	mm	123	139	156	177	194
Motor/connection distance	AD	mm	117	129	145	153	164

ΔL ▶ Additional lengths 141

Technical data

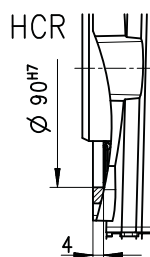
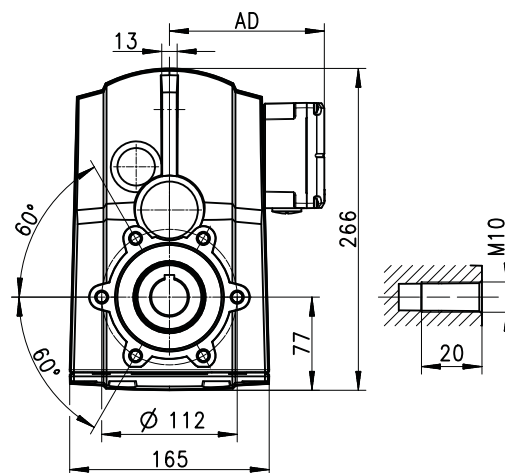
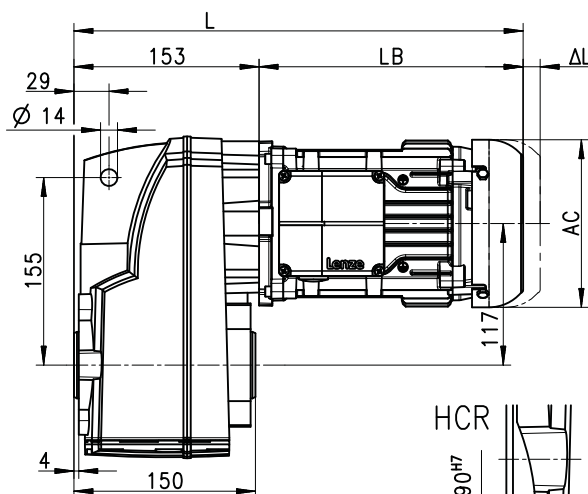
Dimensions
Basic dimensions



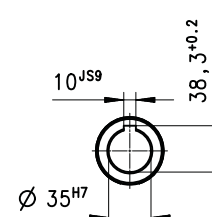
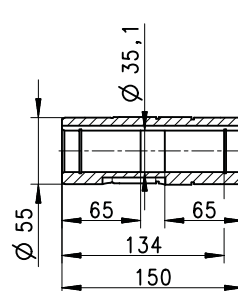
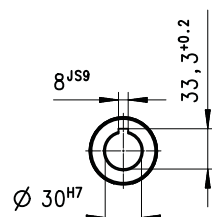
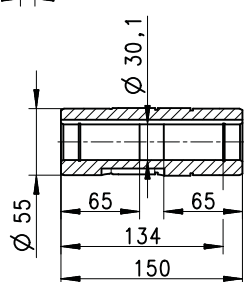
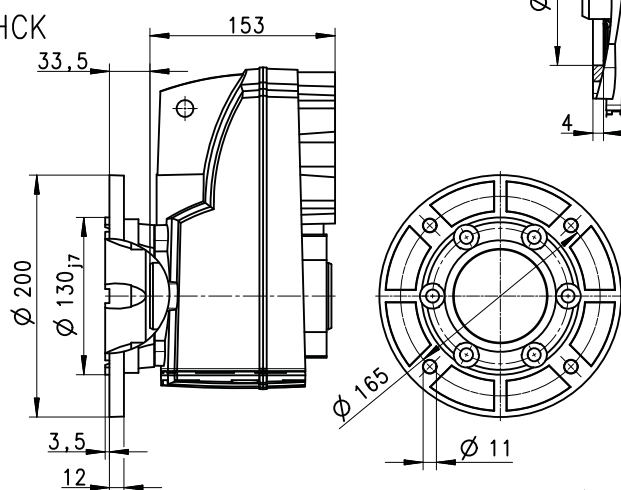
g500-S400, 2-/3-stage

Gearbox design: Hollow shaft, without foot (HDR/HCR/HCK)

HDR



HCK



8801215-00

Motor series			m550-V					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	342	371	395	438	501	514
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

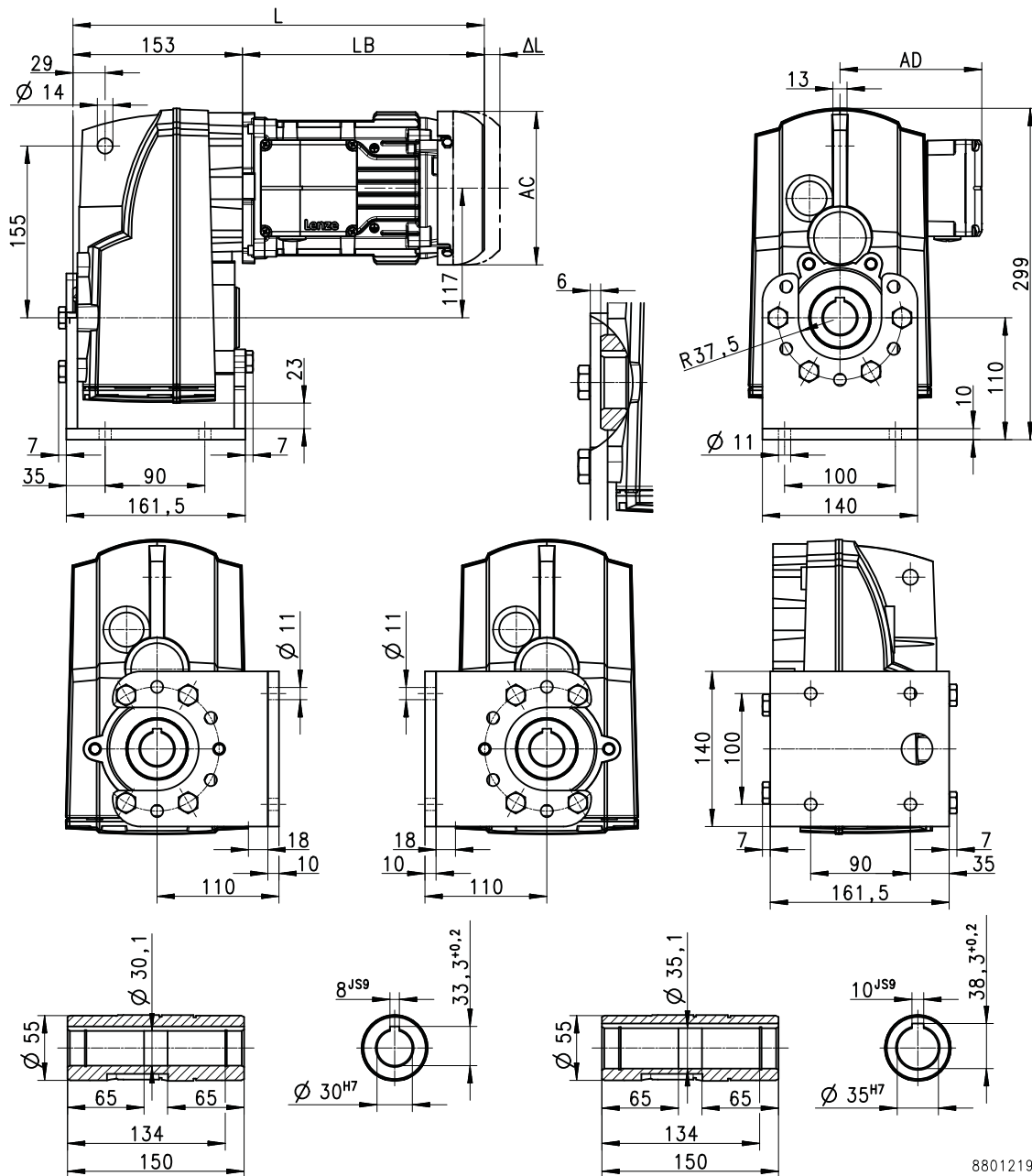
Δ L ▶ Additional lengths 141



g500-S400, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR)

HBR



8801219-00

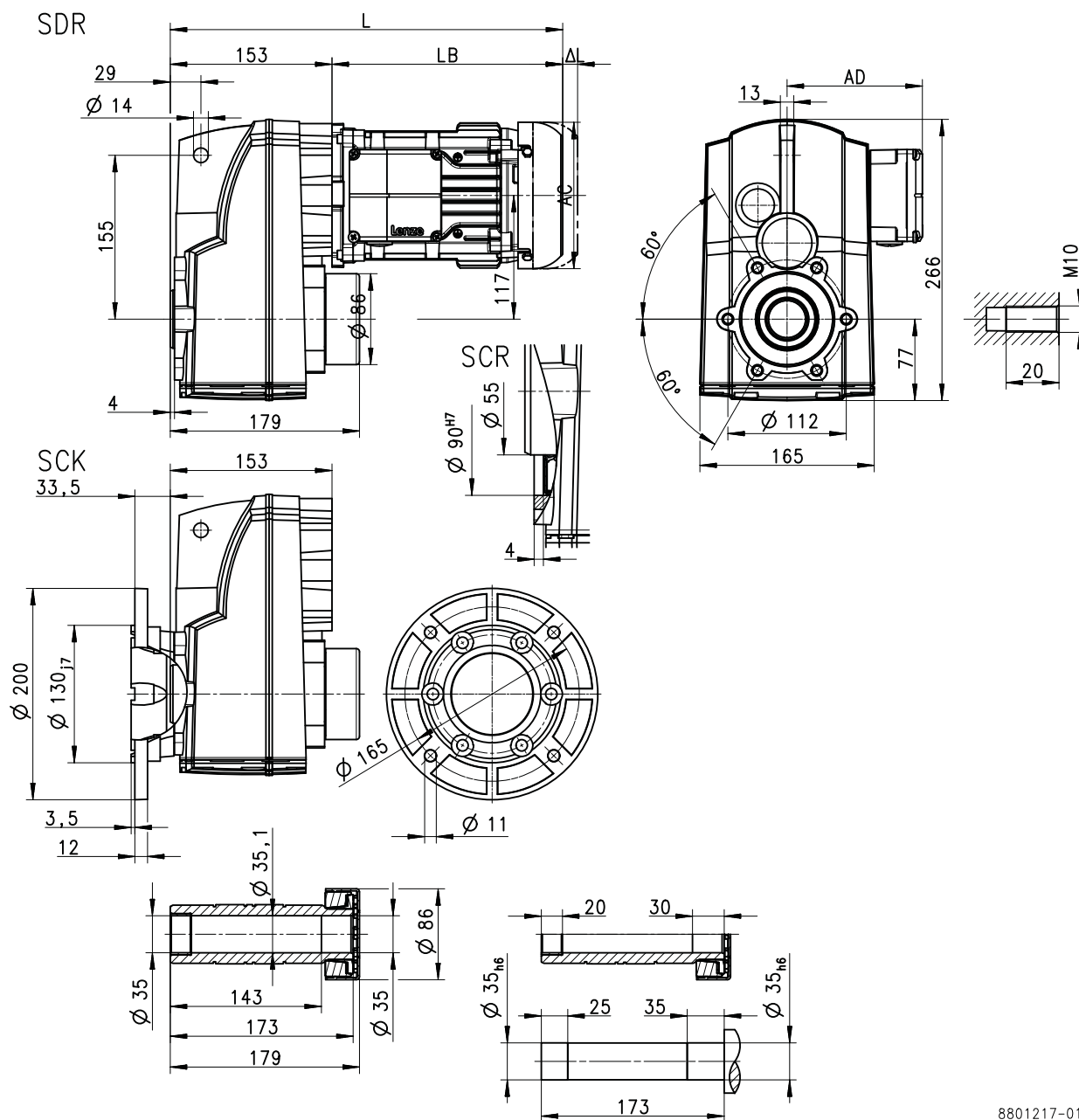
Motor series			m550-V					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	342	371	395	438	501	514
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

ΔL ▶ Additional lengths 141



g500-S400, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)



8801217-01

Motor series			m550-V					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	342	371	395	438	501	514
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

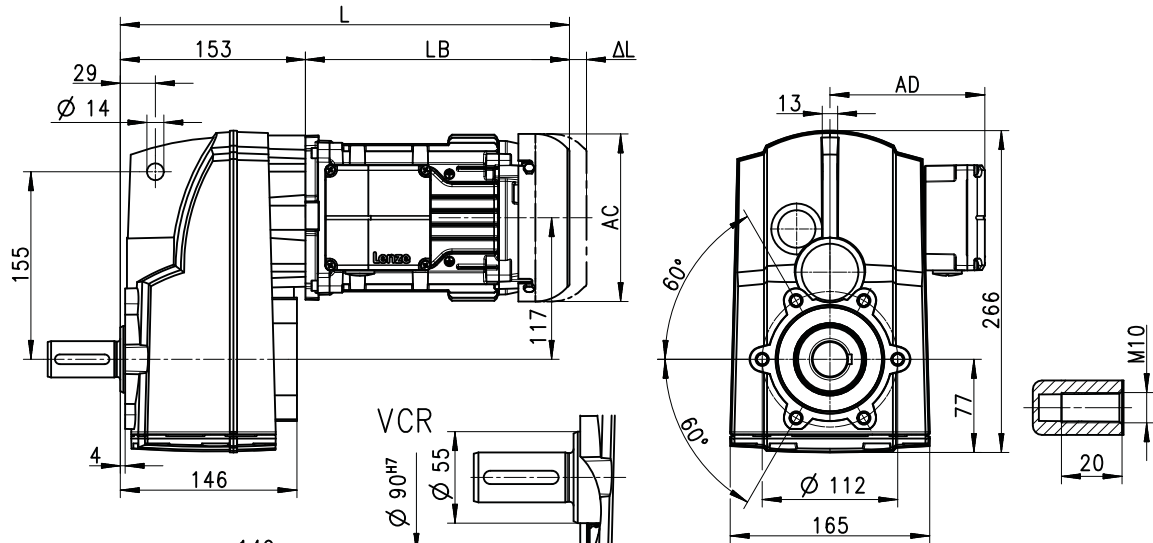
ΔL ▶ Additional lengths 141



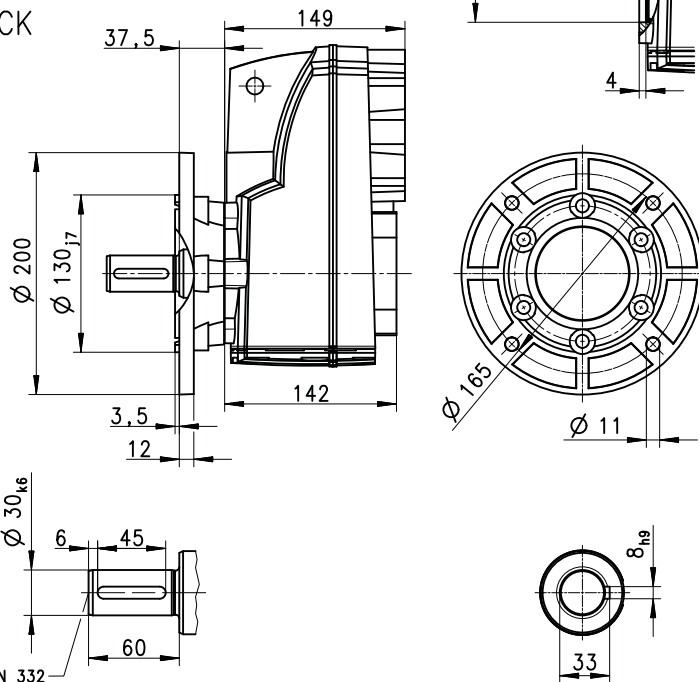
g500-S400, 2-/3-stage

Gearbox design: Solid shaft, without foot (VDR/VCR/VCK)

VDR



VCK



DIN 332
DR M10

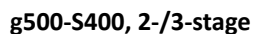
8801216-00

Motor series			m550-V					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	342	371	395	438	501	514
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

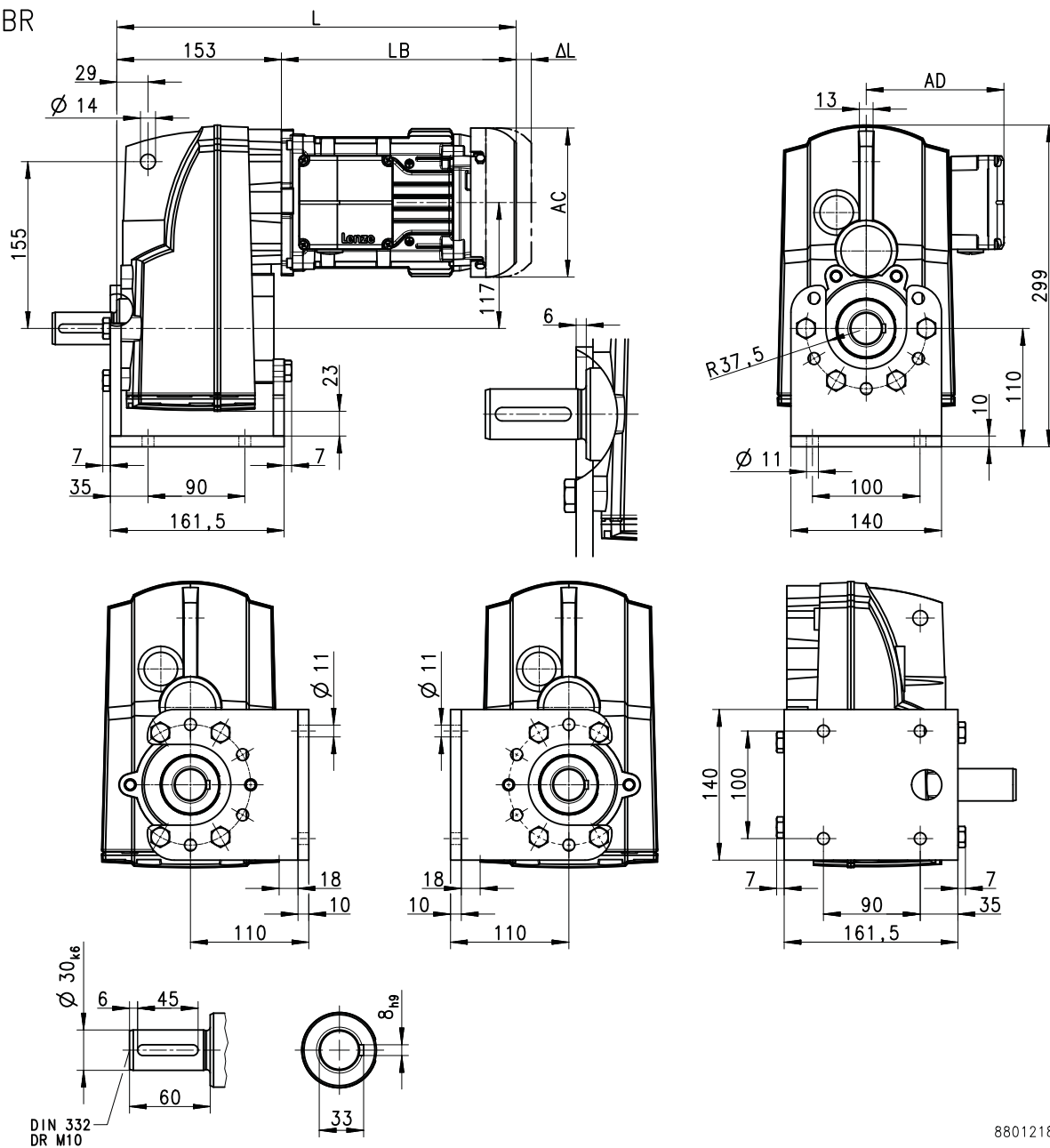
Δ L ▶ Additional lengths 141

Dimensions

Basic dimensions



VBR



8801218-00

Motor series			m550-V					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	342	371	395	438	501	514
Motor length	LB	mm	189	218	242	285	348	361
Motor diameter	AC	mm	123	139	156	177	194	220
Motor/connection distance	AD	mm	117	129	145	153	164	169

ΔL ▶ Additional lengths  141



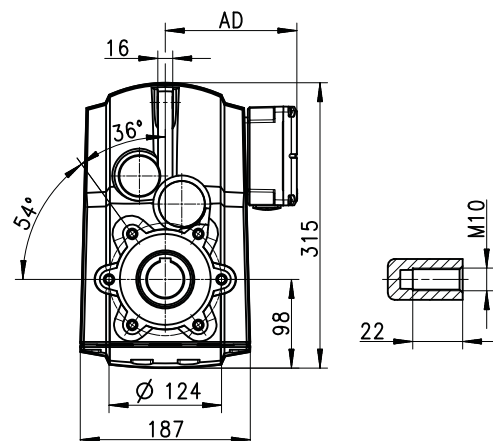
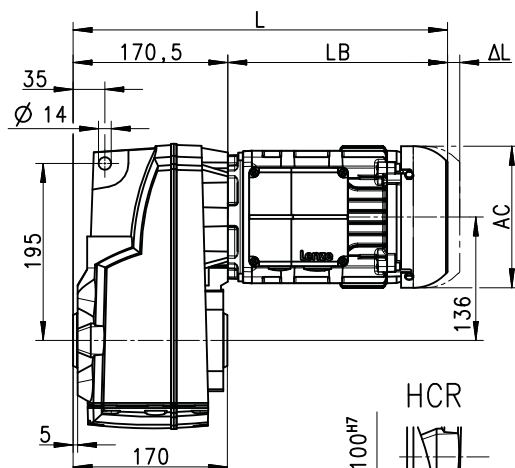
Technical data

Dimensions
Basic dimensions

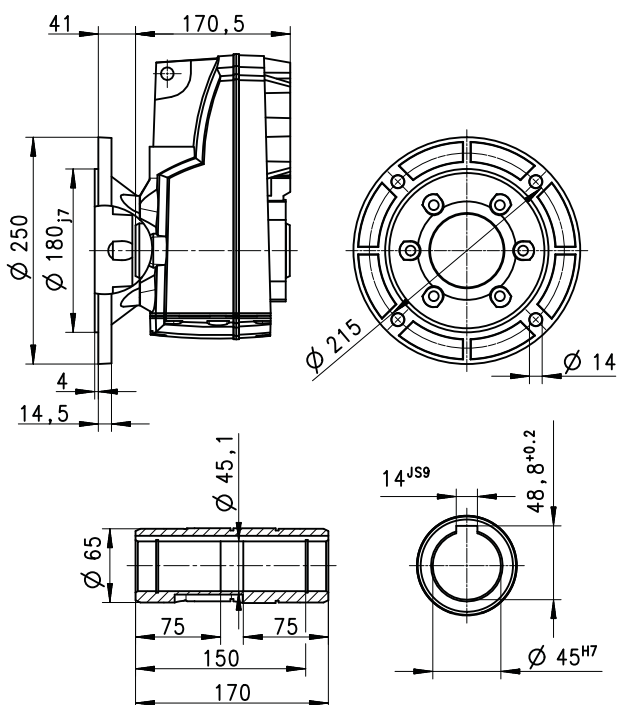
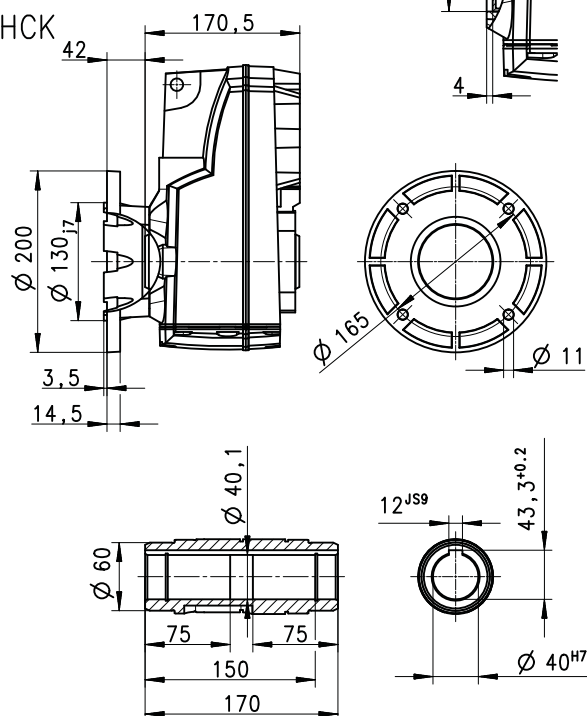
g500-S660, 2-/3-stage

Gearbox design: Hollow shaft, without foot (HDR/HCR/HCK)

HDR



HCK



8801220-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	359	389	413	455	519	531	595
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141

Technical data

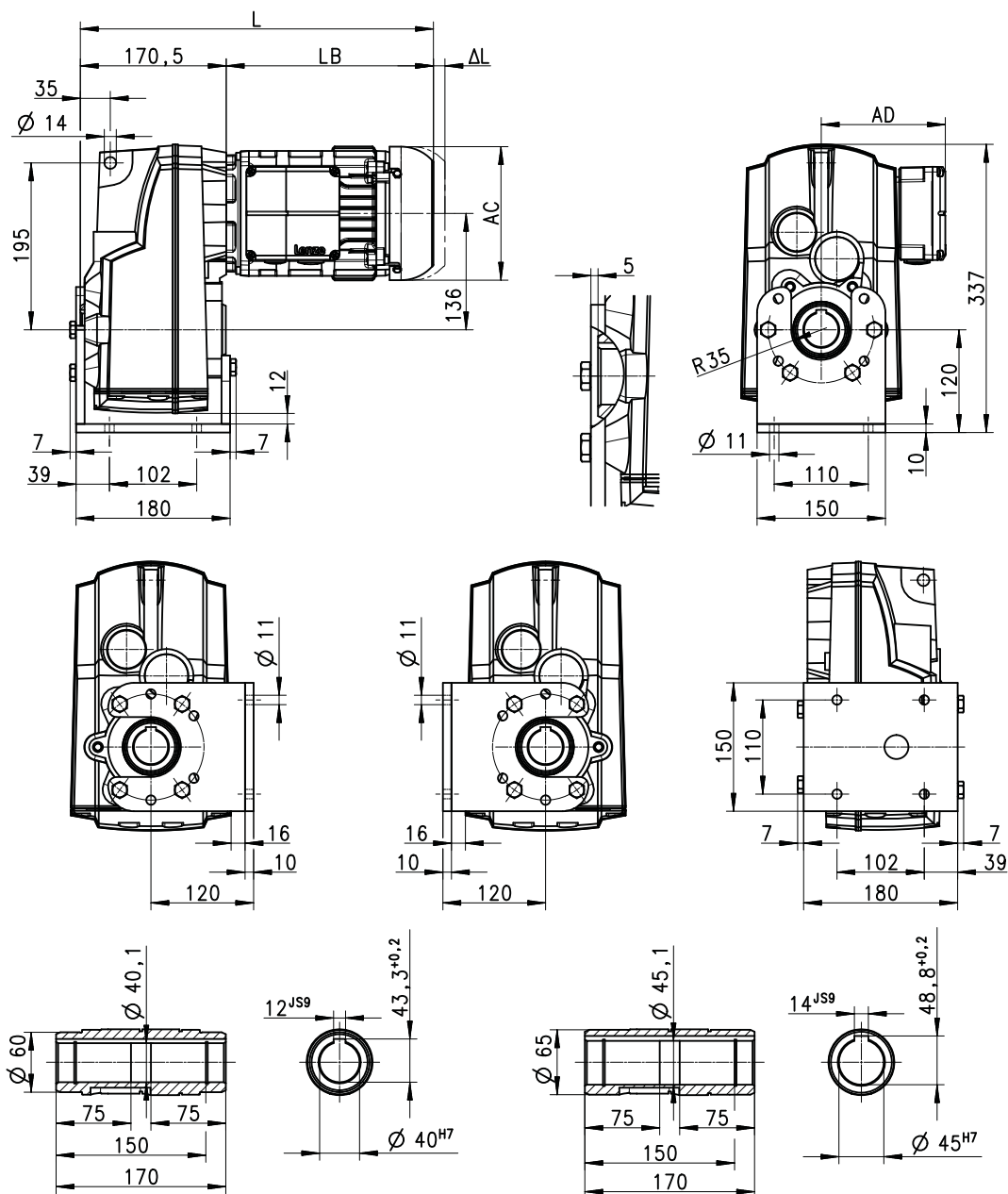
Dimensions
Basic dimensions



g500-S660, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR)

HBR



8801224-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	359	389	413	455	519	531	595
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

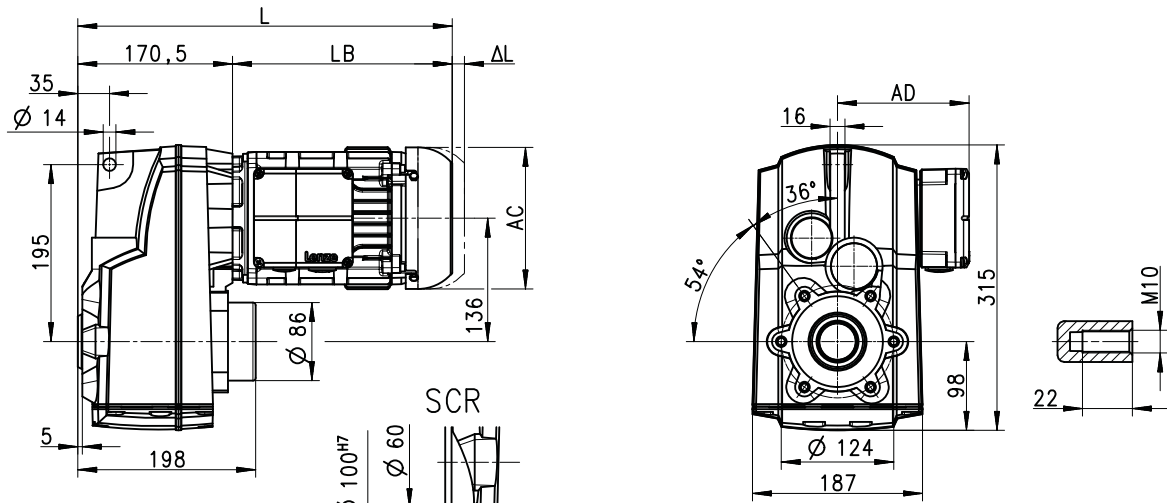
Δ L ▶ Additional lengths 141



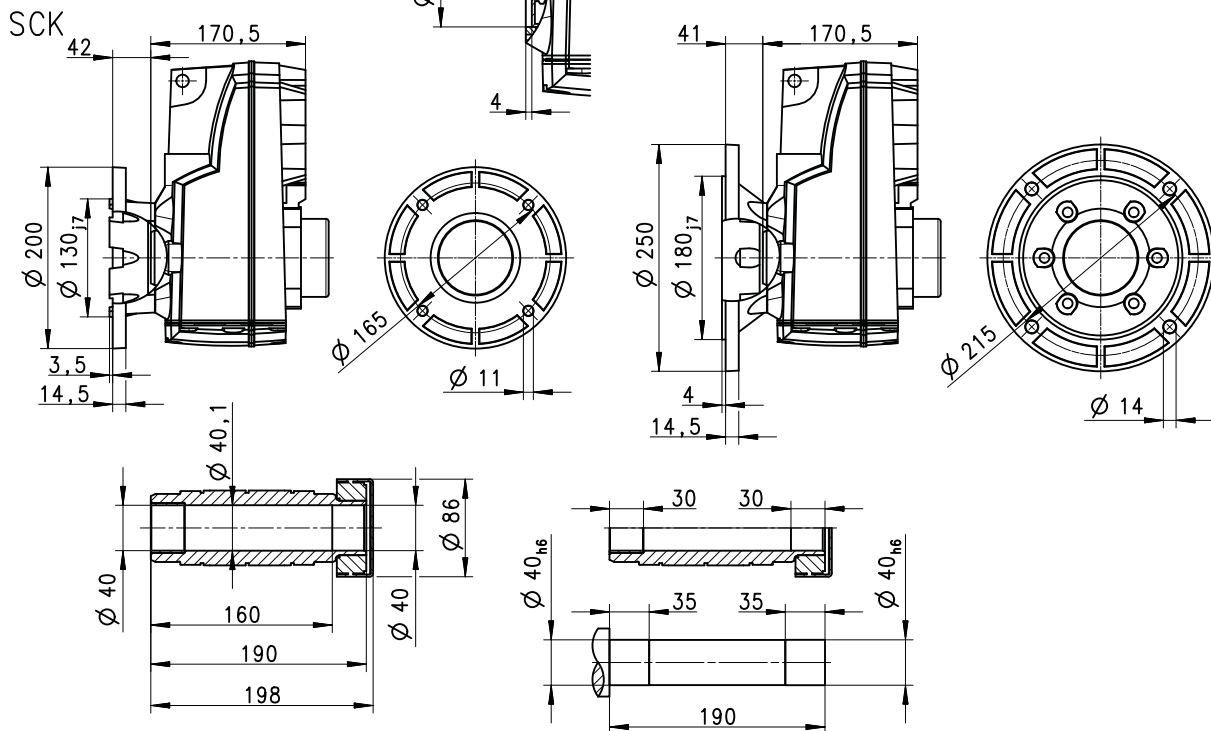
g500-S660, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, without foot (SDR/SCR/SCK)

SDR



SCK



8801222-01

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	359	389	413	455	519	531	595
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141

Technical data

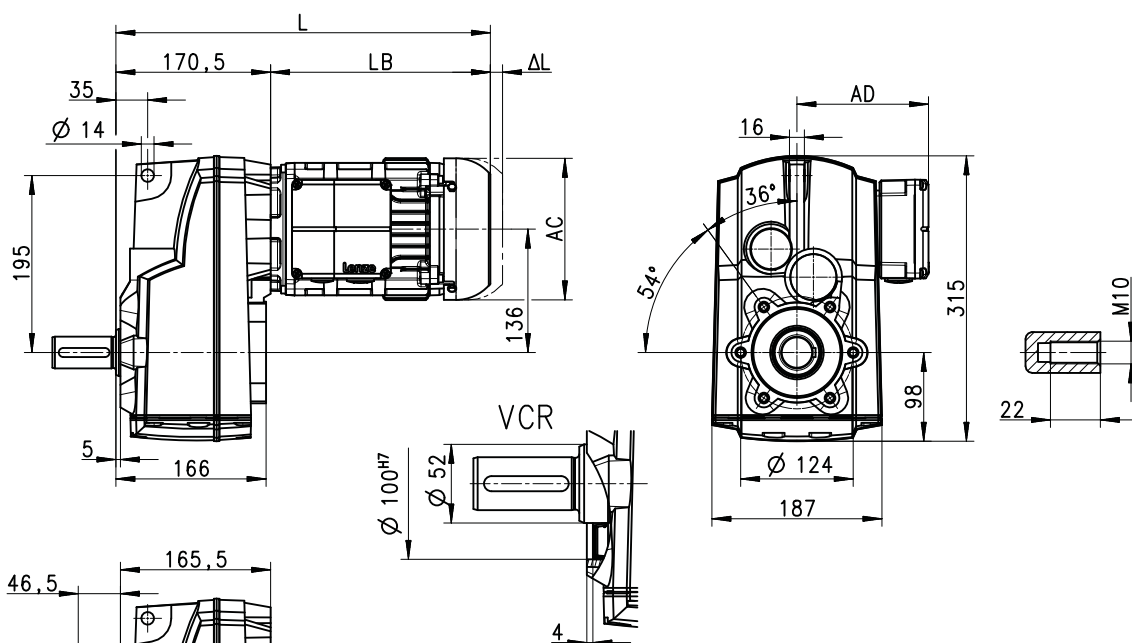
Dimensions
Basic dimensions



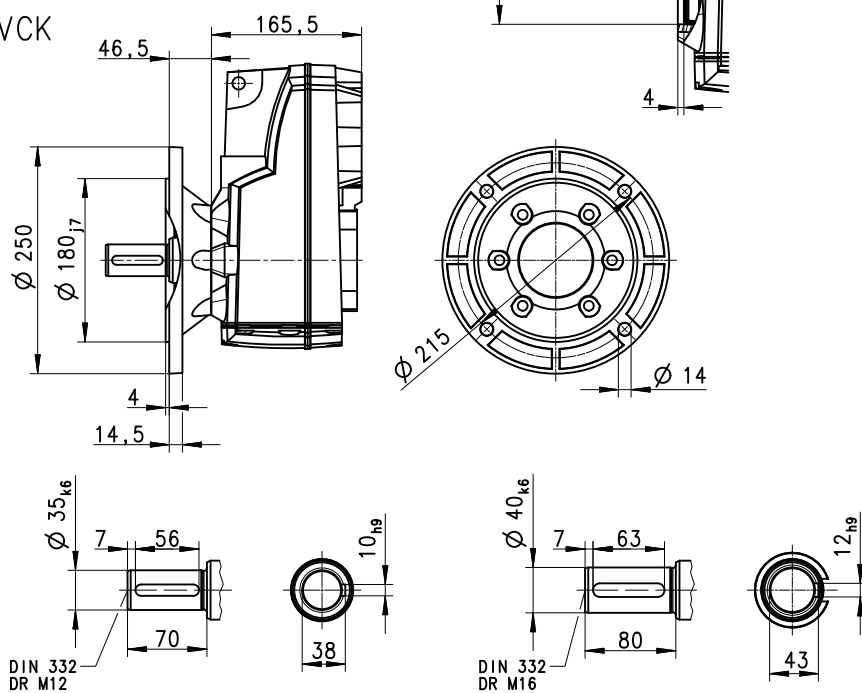
g500-S660, 2-/3-stage

Gearbox design: Solid shaft, without foot (VDR/VCR/VCK)

VDR



VCK



8801221-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	359	389	413	455	519	531	595
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

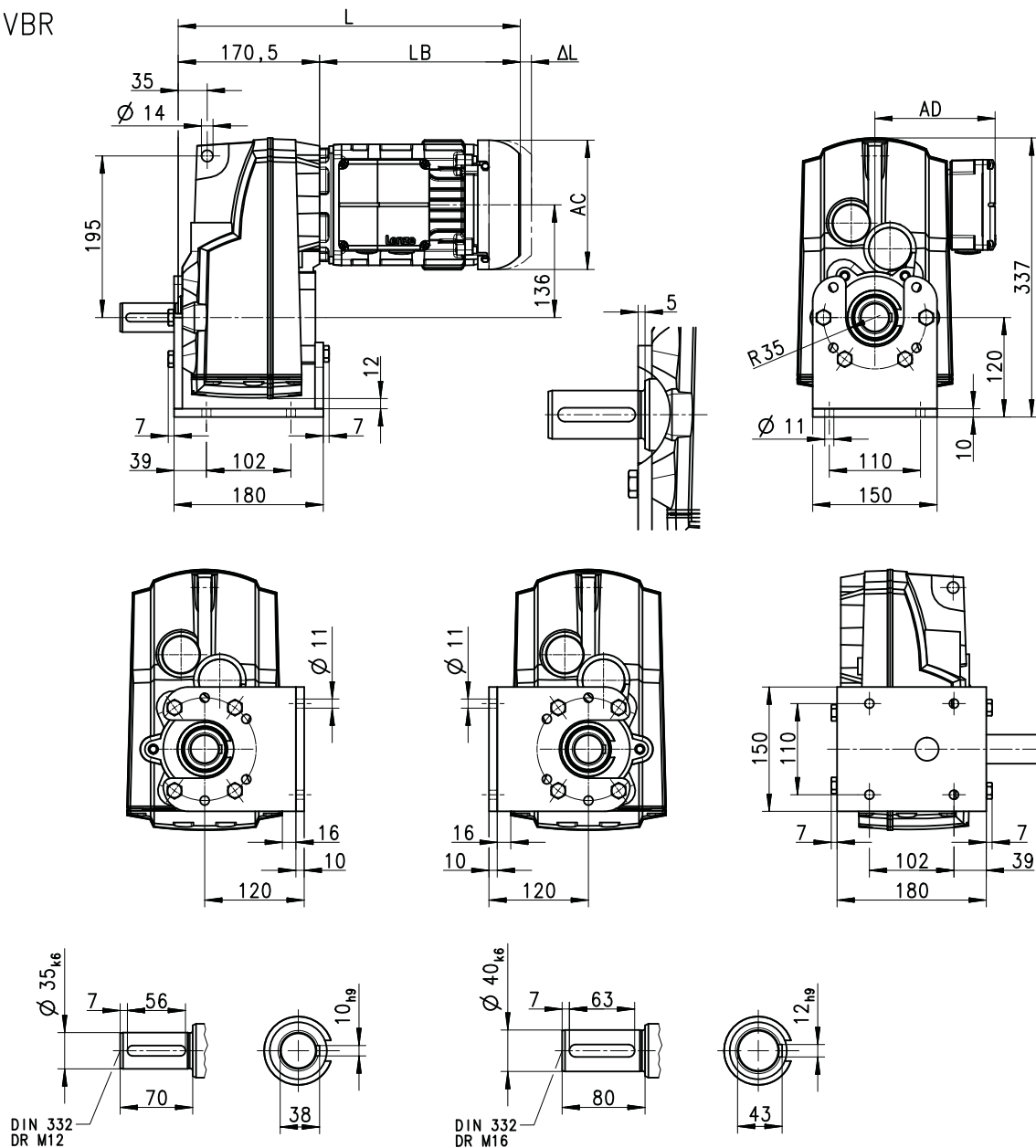
Δ L ▶ Additional lengths 141



g500-S660, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

VBR



8801223-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	359	389	413	455	519	531	595
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141

Technical data

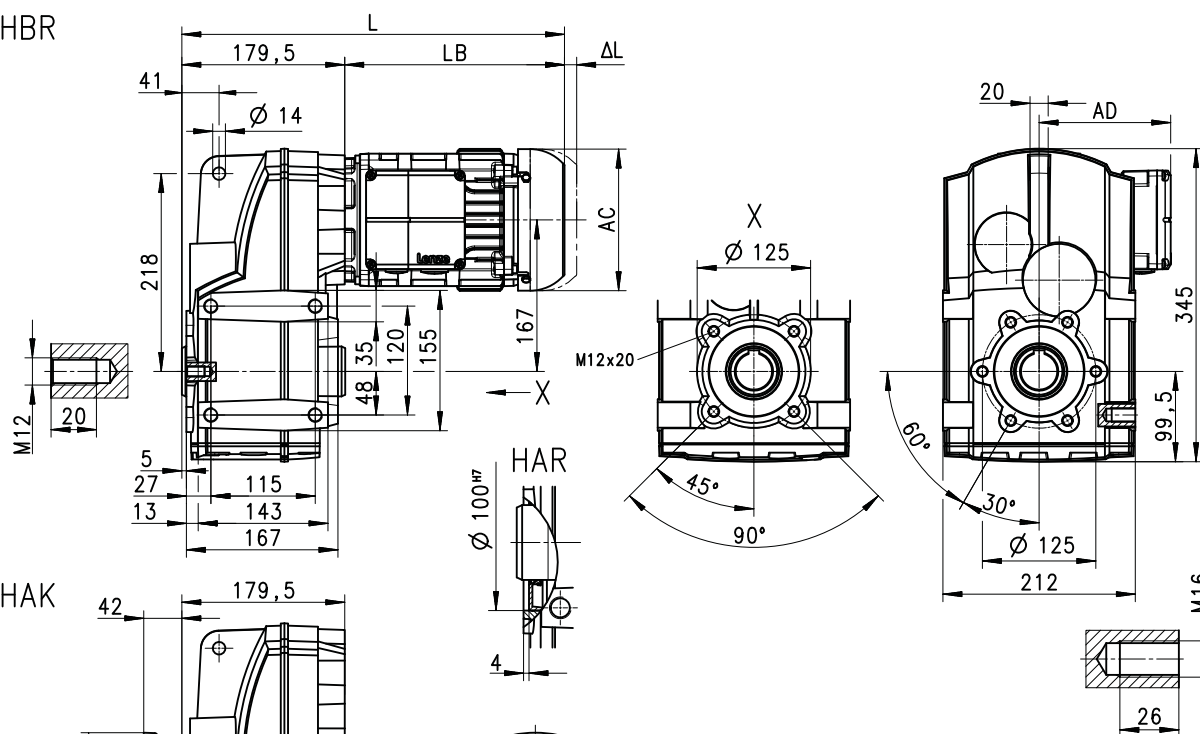
Dimensions
Basic dimensions



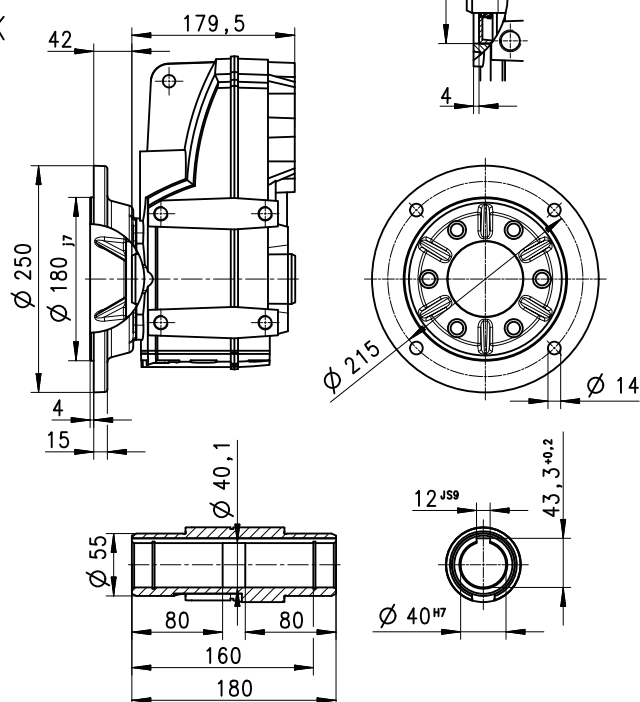
g500-S950, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR/HAR/HAK)

HBR



HAK



8801225-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	368	398	422	464	528	540	604
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141



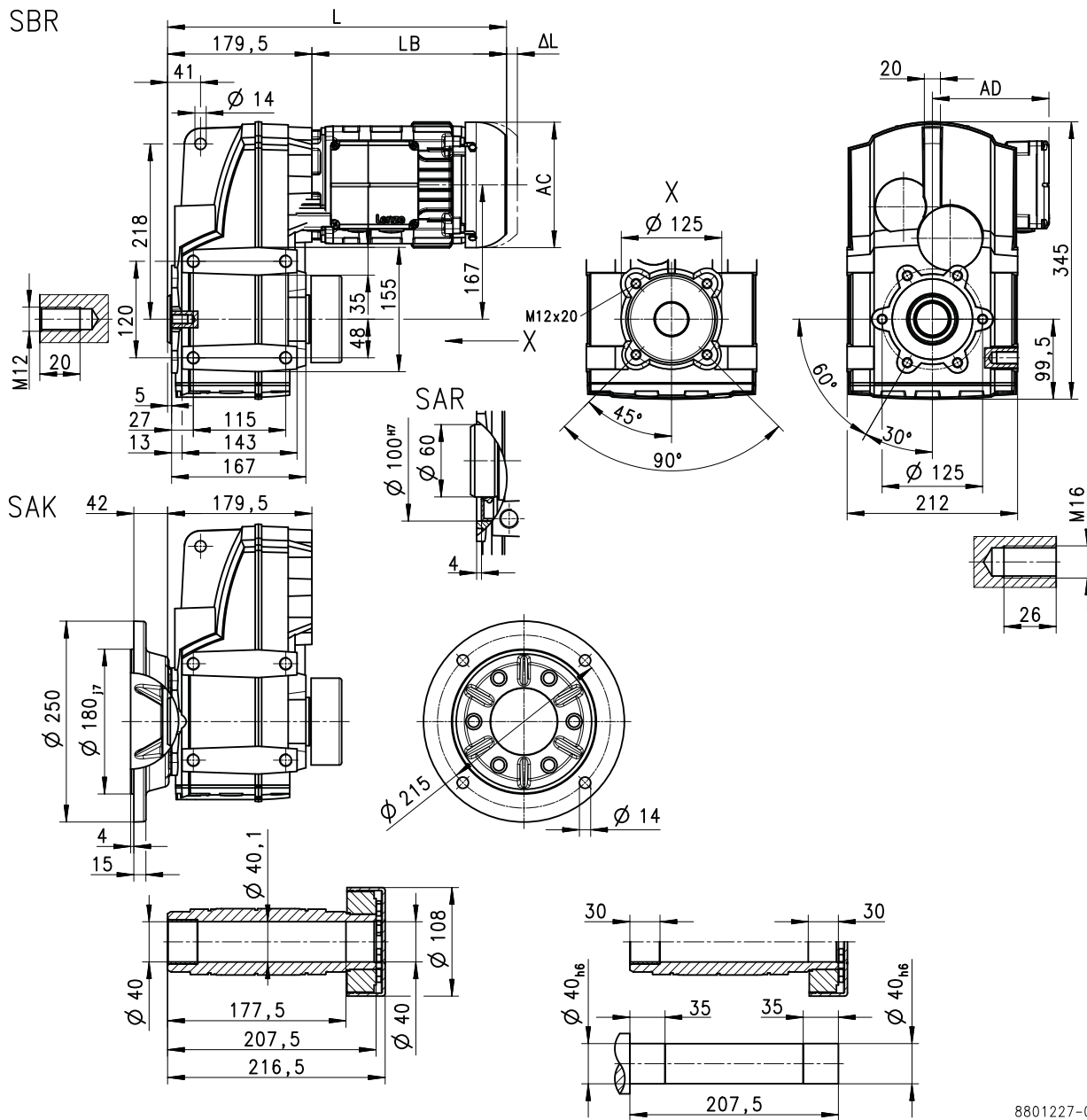
Technical data

Dimensions
Basic dimensions

g500-S950, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, with foot (SBR/SAR/SAK)

SBR



SAK

8801227-01

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	368	398	422	464	528	540	604
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

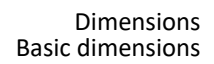
Δ L ▶ Additional lengths 141

Gearbox design: Solid shaft, with foot (VBR/VAR/VAK)

8801226-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	368	398	422	464	528	540	604
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths 141



Technical data

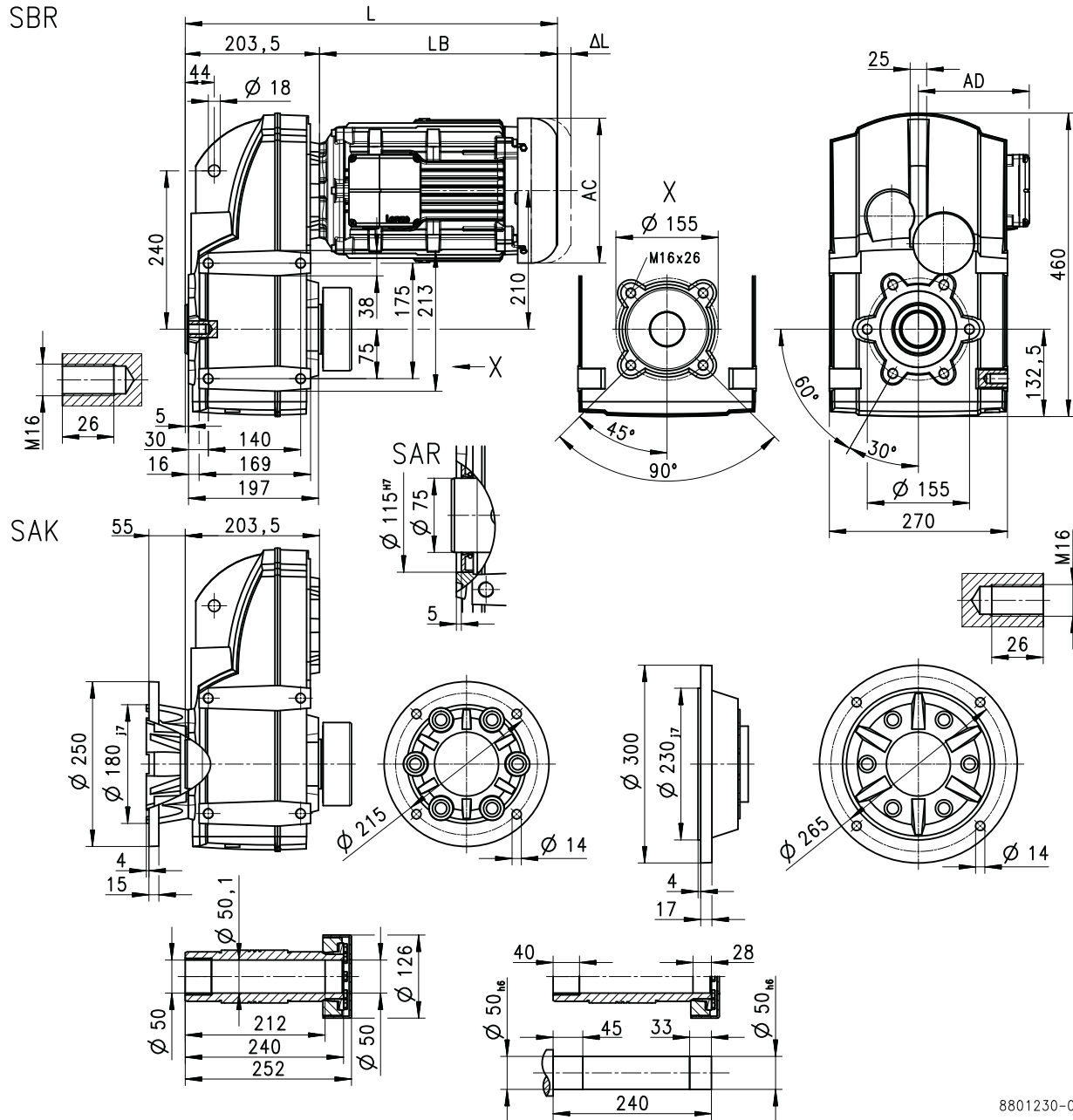
Dimensions
Basic dimensions



g500-S2100, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, with foot (SBR/SAR/SAK)

SBR



8801230-01

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	392	422	446	488	552	564	628
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths □ 141



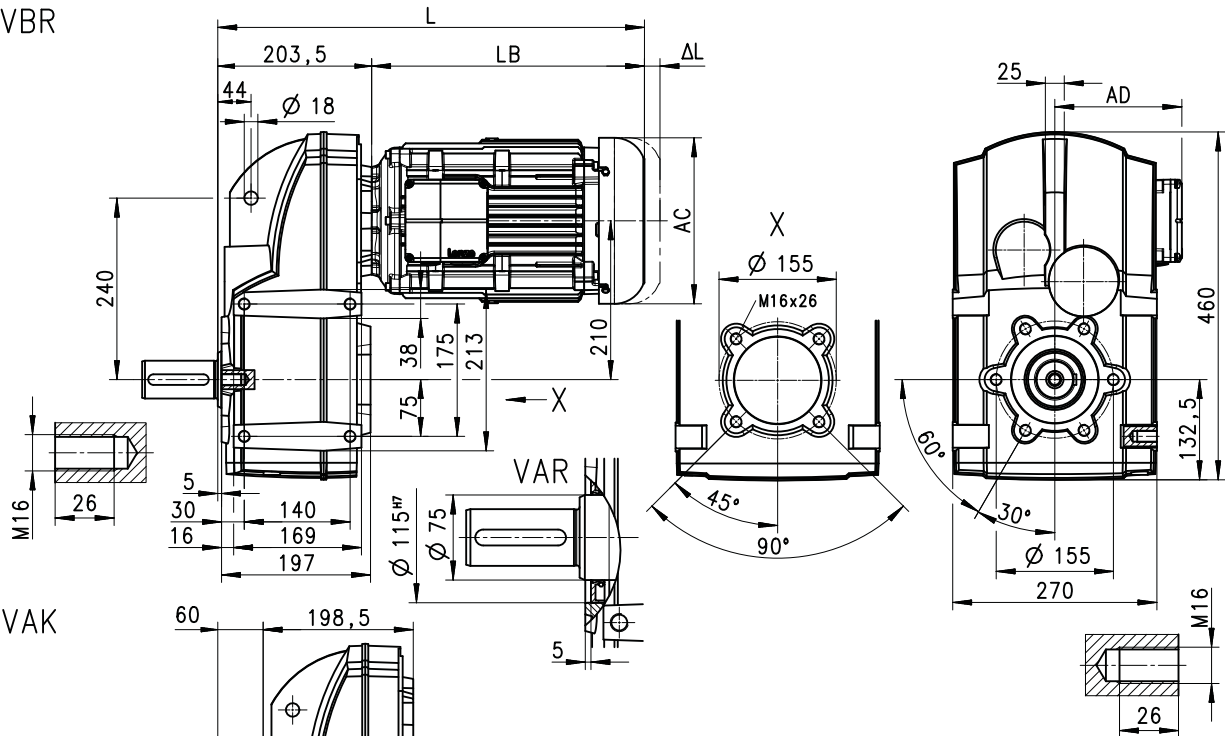
Technical data

Dimensions
Basic dimensions

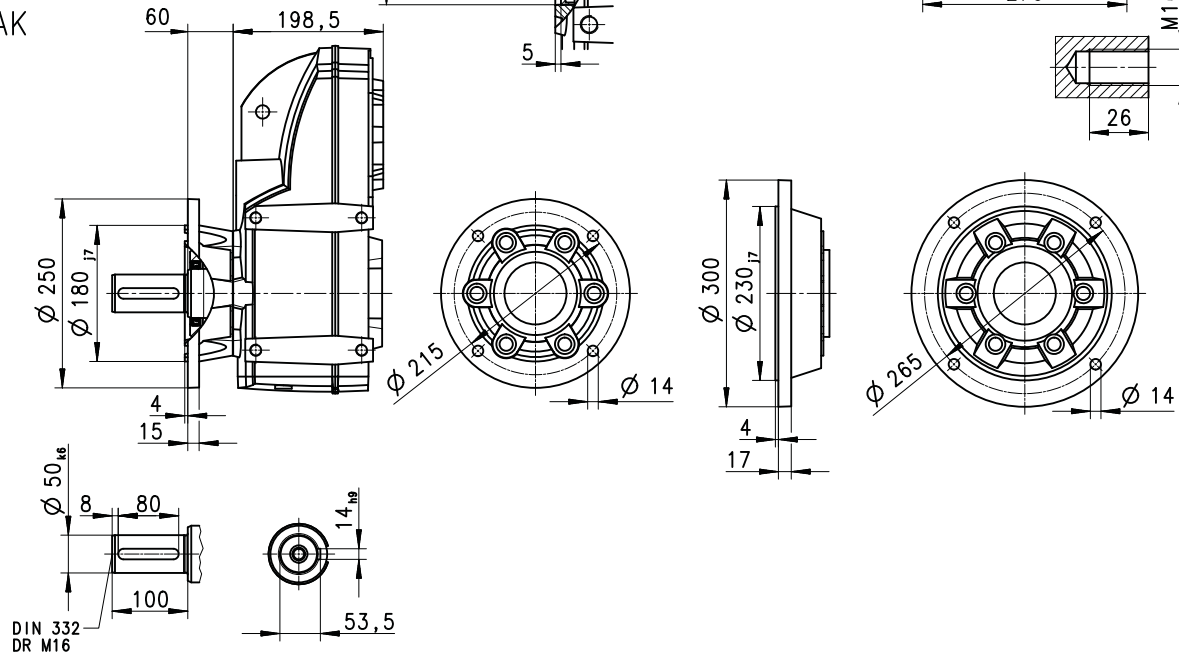
g500-S2100, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR/VAR/VAK)

VBR



VAK



8801229-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	392	422	446	488	552	564	628
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

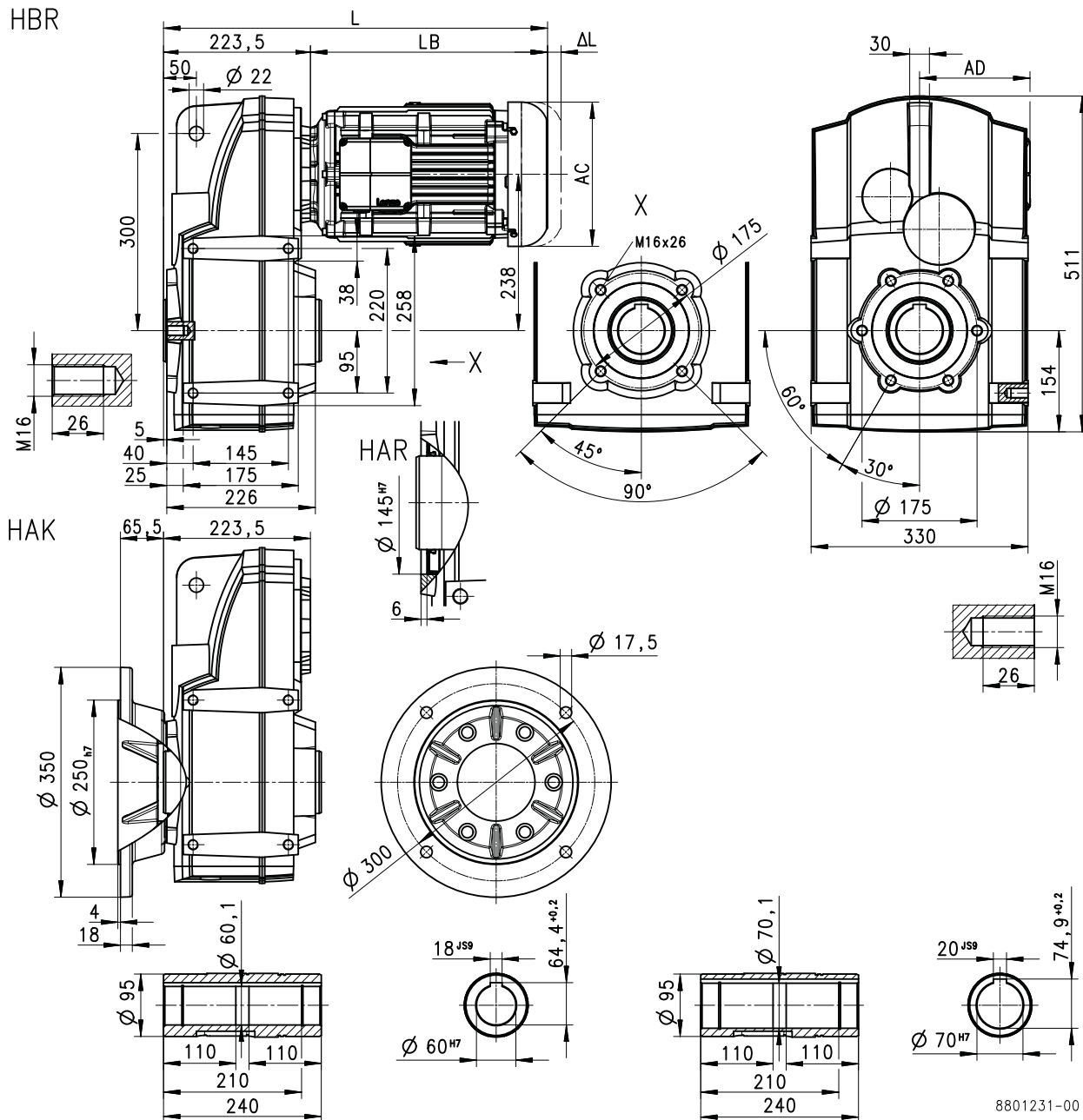
Δ L ▶ Additional lengths 141



g500-S3100, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR/HAR/HAK)

HBR



8801231-00

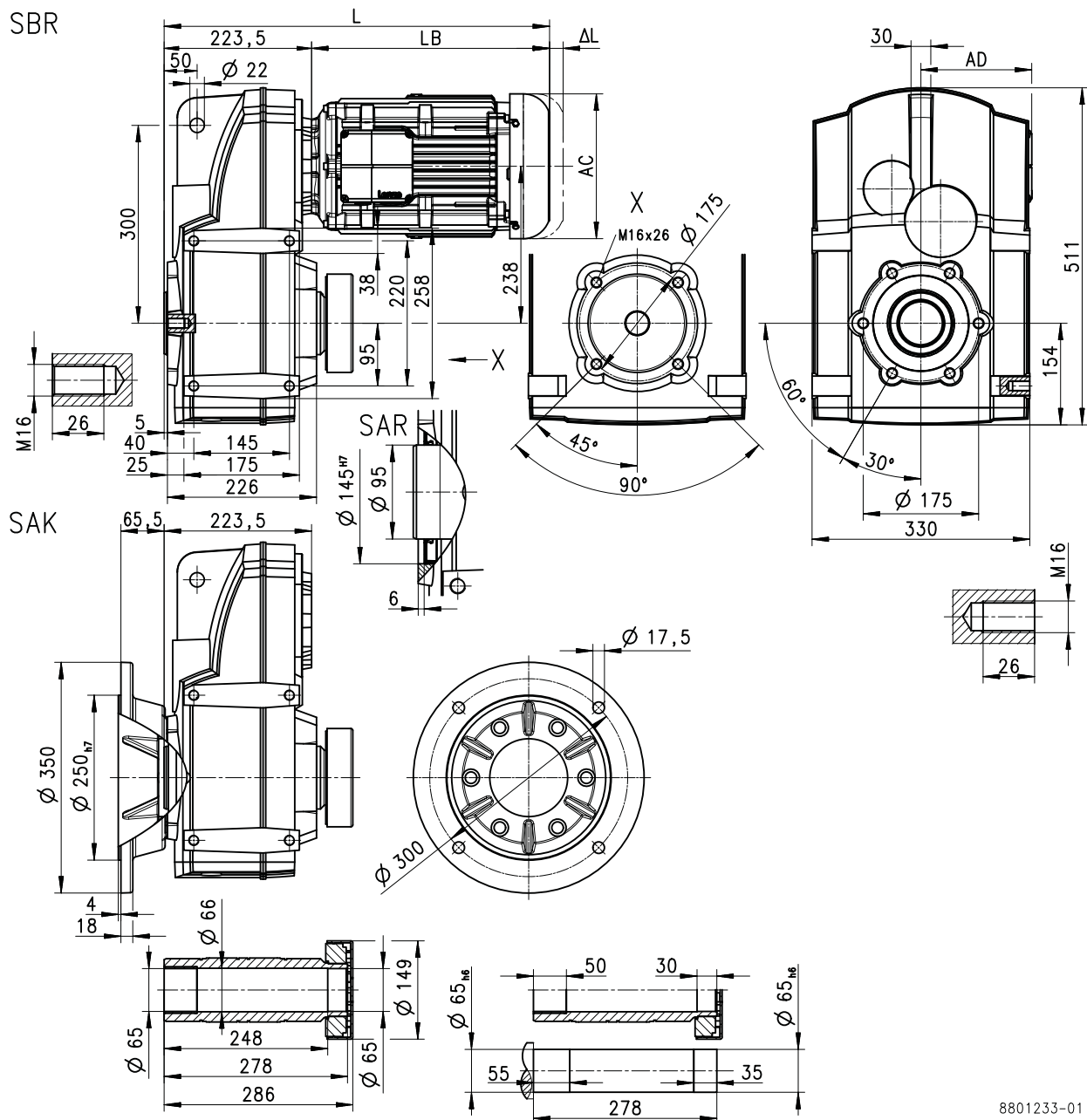
Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	412	442	466	508	572	584	648
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141

g500-S3100, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, with foot (SBR/SAR/SAK)

SBR



8801233-01

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	412	442	466	508	572	584	648
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

ΔL ▶ Additional lengths  141

Technical data

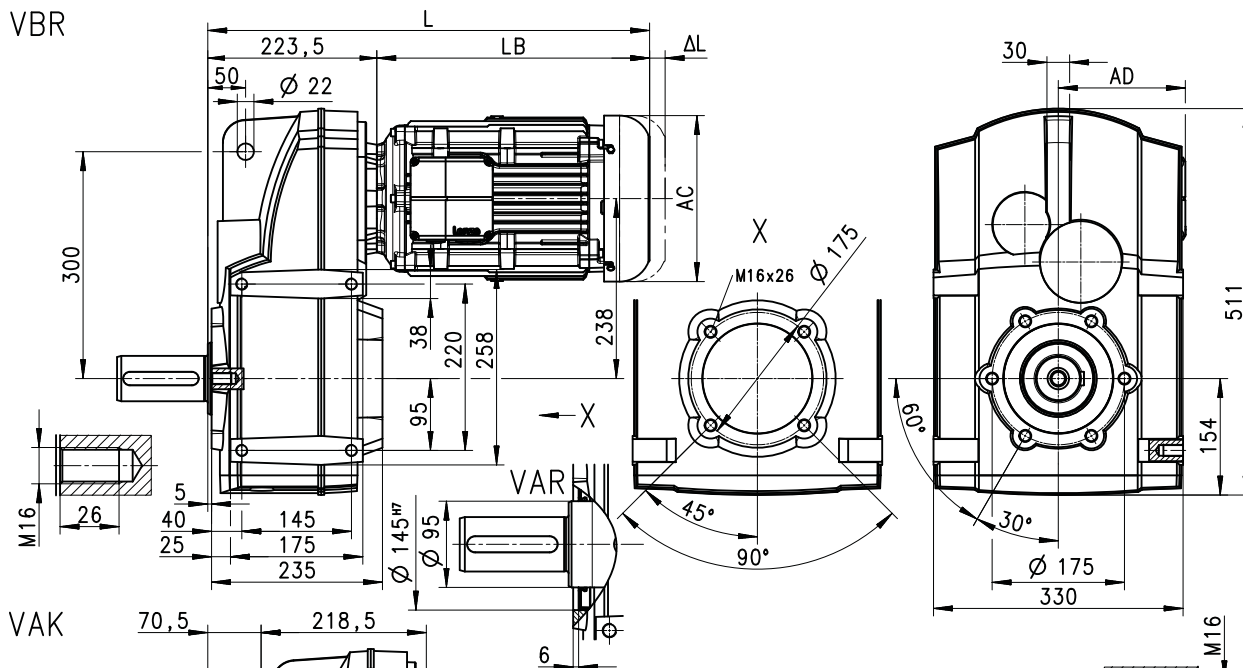
Dimensions
Basic dimensions



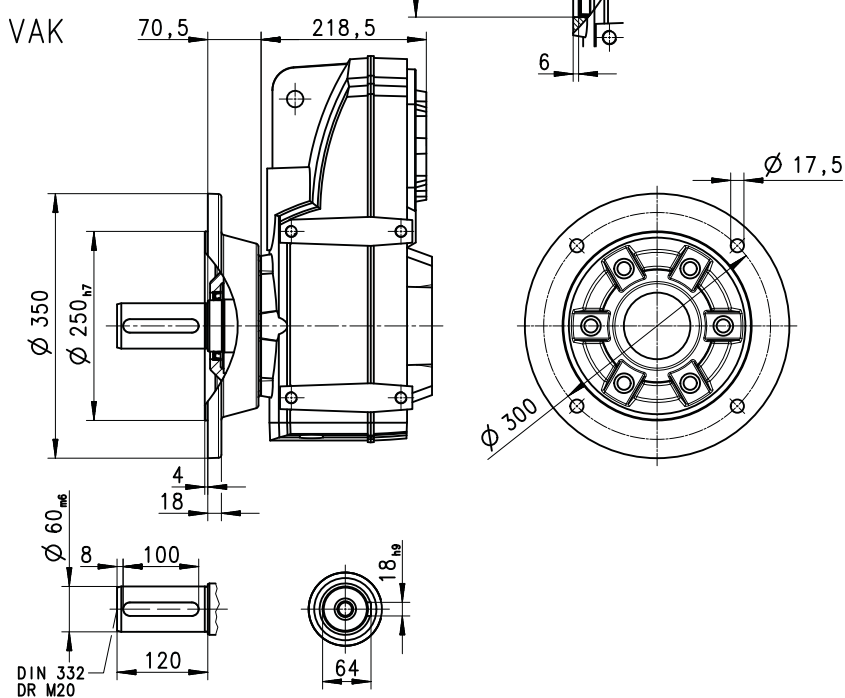
g500-S3100, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR/VAR/VAK)

VBR



VAK



8801232-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	412	442	466	508	572	584	648
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141



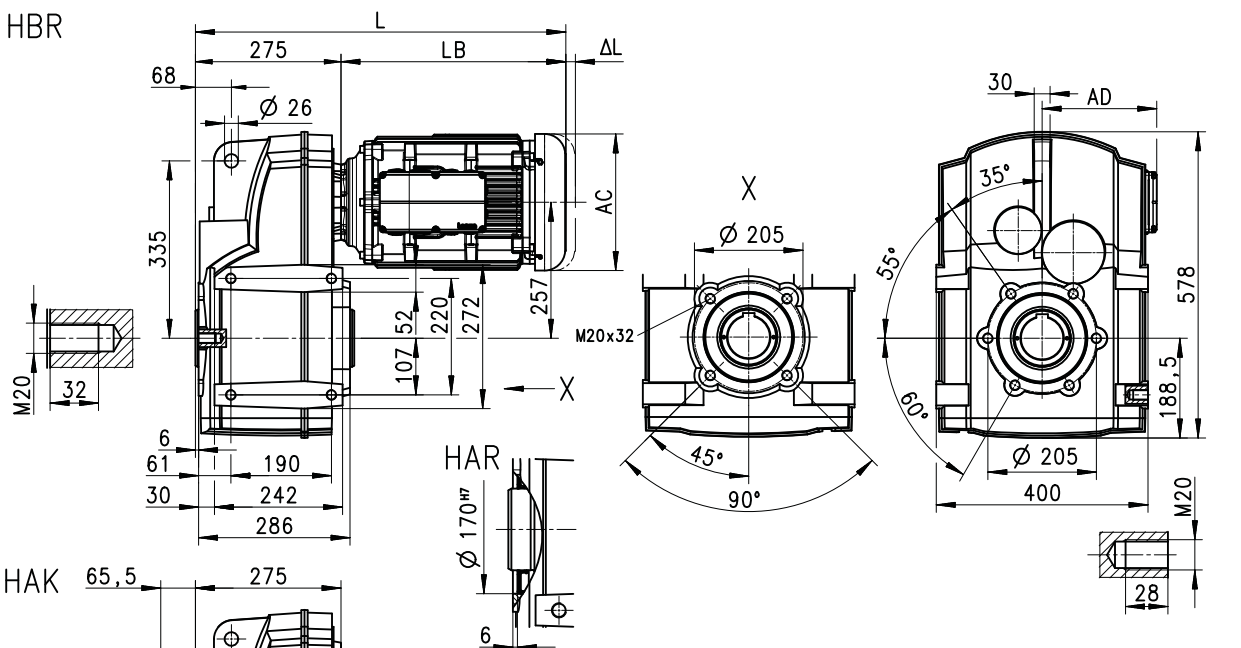
Technical data

Dimensions
Basic dimensions

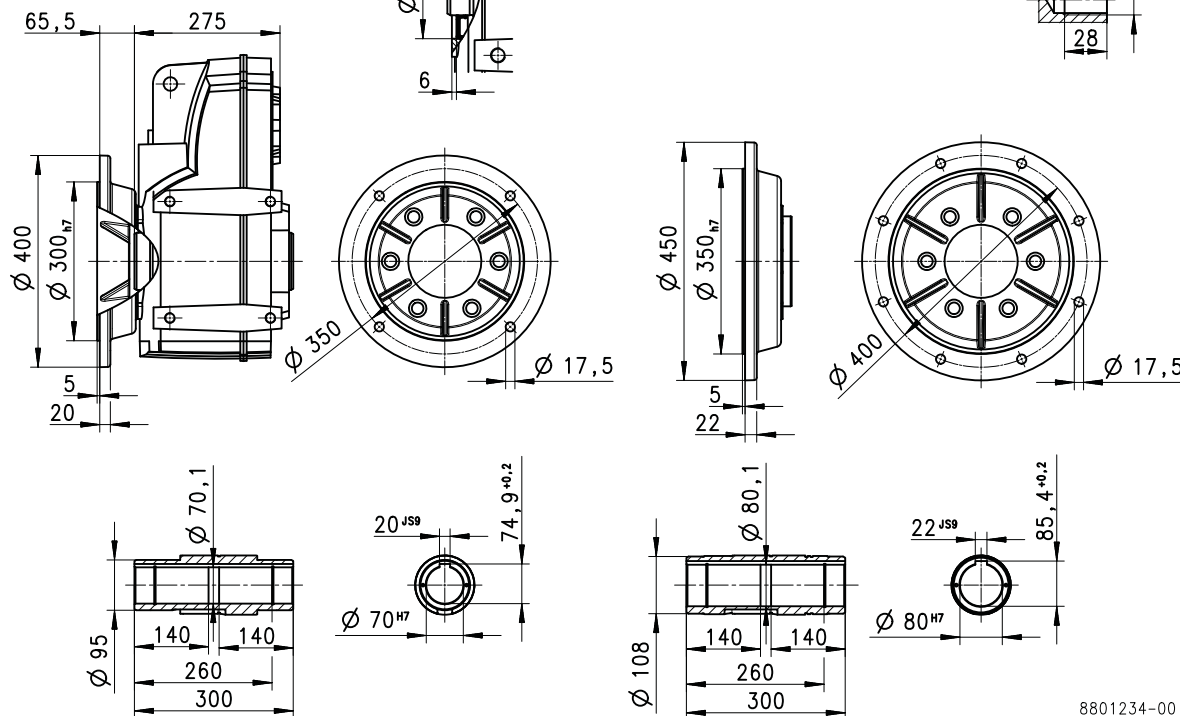
g500-S4500, 2-/3-stage

Gearbox design: Hollow shaft, with foot (HBR/HAR/HAK)

HBR



HAK



8801234-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	464	493	517	560	623	636	700
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths 141

Technical data

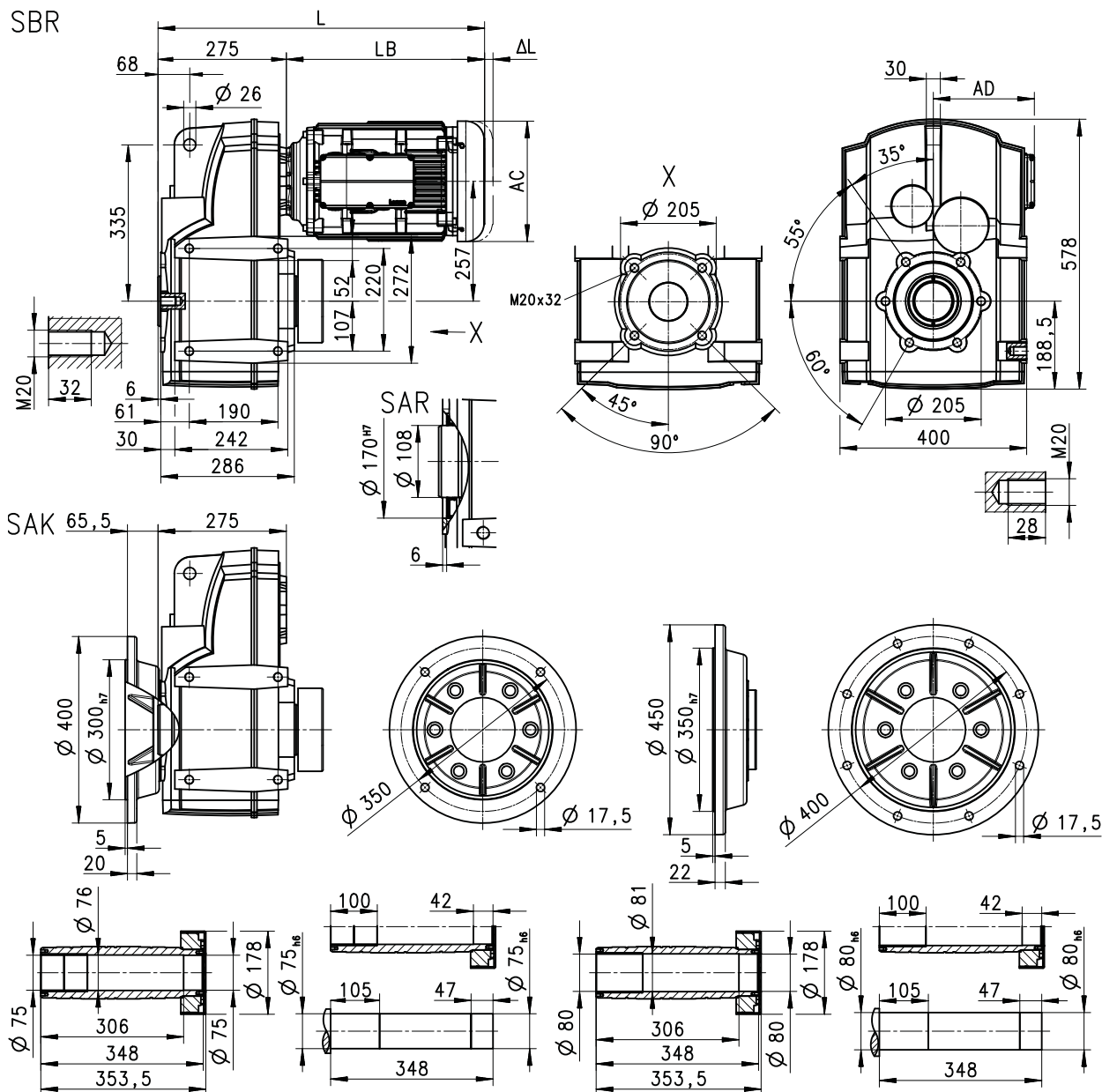
Dimensions
Basic dimensions



g500-S4500, 2-/3-stage

Gearbox design: Hollow shaft with shrink disc, with foot (SBR/SAR/SAK)

SBR



8801236-01

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	464	493	517	560	623	636	700
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths □ 141

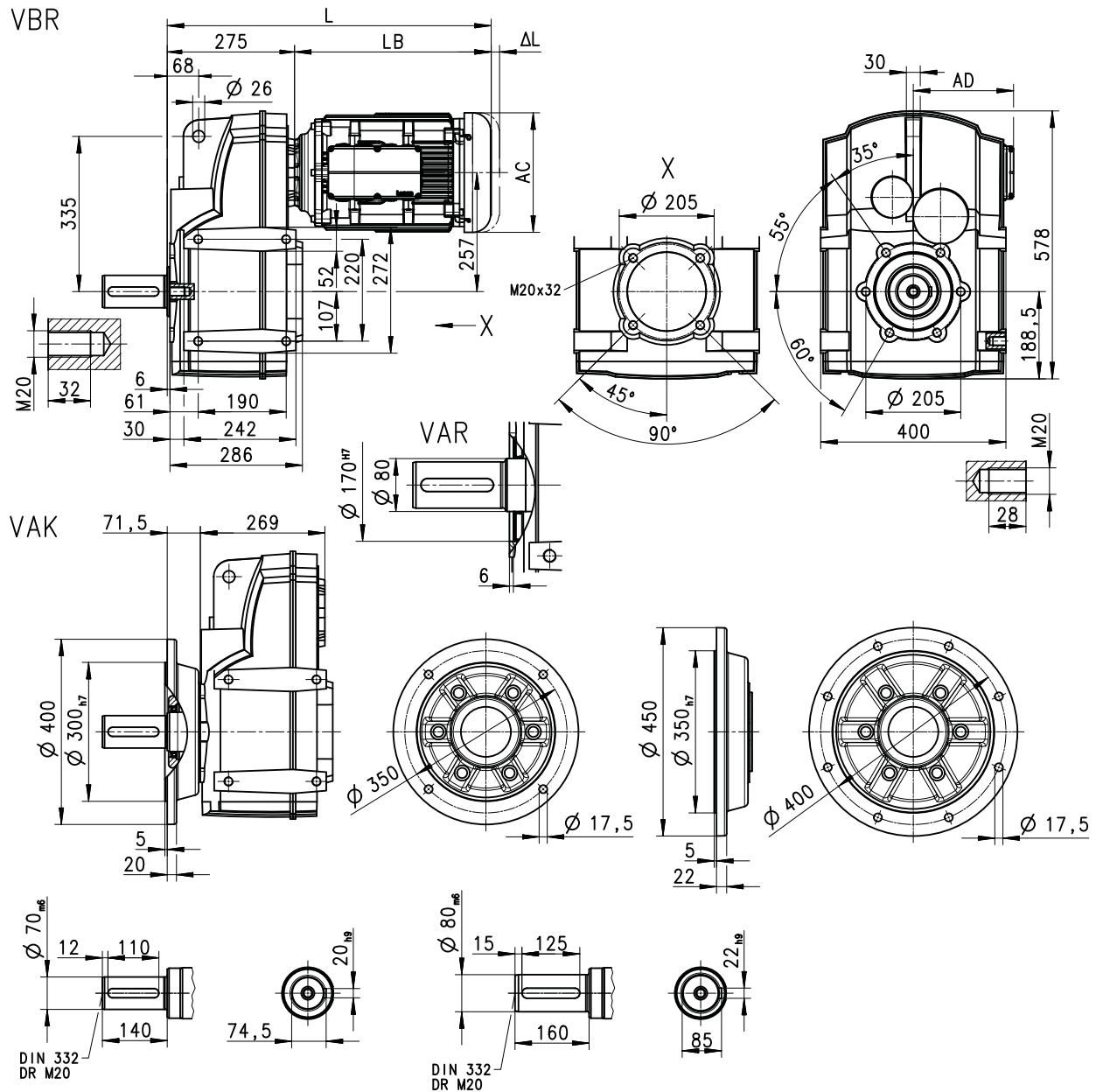


Technical data

Dimensions
Basic dimensions

g500-S4500, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR/VAR/VAK)



8801235-00

Motor series			m550-V						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	464	493	517	560	623	636	700
Motor length	LB	mm	189	218	242	285	348	361	425
Motor diameter	AC	mm	123	139	156	177	194	220	258
Motor/connection distance	AD	mm	117	129	145	153	164	169	197

Δ L ▶ Additional lengths □ 141



7.7.2 Gearbox with pre-stage

g500-S130, 3-stage

g500-S220 ... S4500, 4-stage

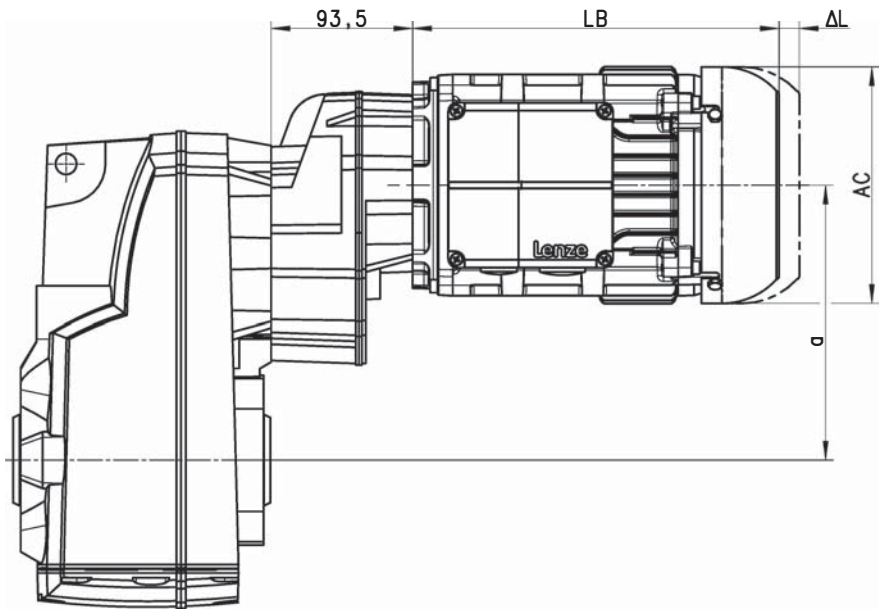


The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#)  106

The total length "L" in the basic dimensions is extended by the 93.5 mm of the pre-stage.

Pay attention to the altered center distance "a" between the gearbox and motor shaft.



8801278-00

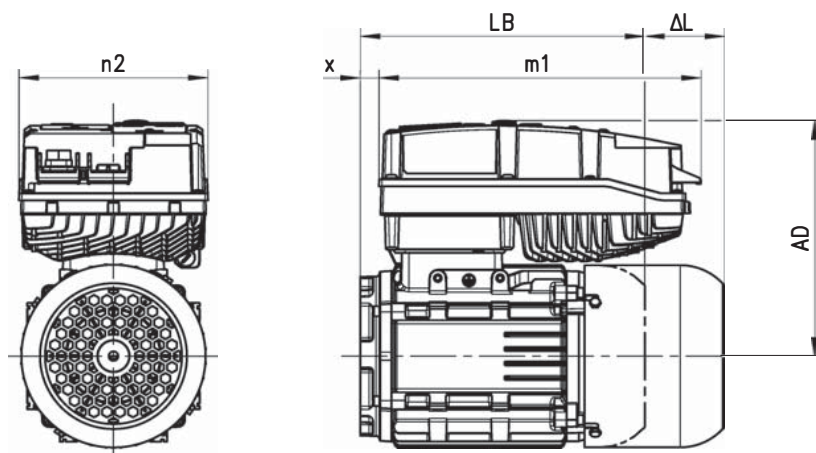
Gearboxes			S130	S220	S400	S660	S950	S2100	S3100	S4500
			3-stage	4-stage						
Center distance	a	mm	144	157	162	181	212	255	283	302



7.7.3 Integrated inverters

i550/i650 motec

Supply voltage 3x 400/480 V



8801826-01

Motor	i550 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-V63/L4	i550-M0.37/400-3	179	265	160	11
m550-V71/M4	i550-M0.37/400-3	190	265	160	21
m550-V71/M4	i550-M0.55/400-3	190	265	160	21
m550-V71/L4	i550-M0.75/400-3	190	265	160	21
m550-V71/L4	i550-M0.55/400-3	190	265	160	21
m550-V71/L4	i550-M0.37/400-3	190	265	160	21
m550-V80/M4	i550-M1.1/400-3	203	265	160	25
m550-V80/M4	i550-M0.75/400-3	203	265	160	25
m550-V80/M4	i550-M0.55/400-3	203	265	160	25
m550-V90/M4	i550-M1.1/400-3	211	265	160	44
m550-V90/M4	i550-M1.5/400-3	211	265	160	44
m550-V90/M4	i550-M0.75/400-3	211	265	160	44
m550-V90/L4	i550-M1.5/400-3	211	265	160	44
m550-V90/L4	i550-M2.2/400-3	211	265	160	44
m550-V90/L4	i550-M1.1/400-3	211	265	160	44
m550-V100/M4	i550-M2.2/400-3	221	265	160	34
m550-V100/M4	i550-M1.5/400-3	221	265	160	34
m550-V100/M4	i550-M4.0/400-3	239	265	160	34
m550-V100/M4	i550-M3.0/400-3	239	265	160	34
m550-V100/L4	i550-M2.2/400-3	221	265	160	34
m550-V100/L4	i550-M3.0/400-3	239	265	160	34
m550-V100/L4	i550-M4.0/400-3	239	265	160	34
m550-V100/L4	i550-M5.5/400-3	239	265	160	34
m550-V112/M4	i550-M5.5/400-3	244	265	160	50
m550-V112/M4	i550-M4.0/400-3	244	265	160	50
m550-V112/M4	i550-M3.0/400-3	244	265	160	50
m550-V112/M4	i550-M7.5/400-3	269	362	211	39
m550-V132/M4	i550-M5.5/400-3	264	265	160	59
m550-V132/M4	i550-M4.0/400-3	264	265	160	59
m550-V132/M4	i550-M7.5/400-3	289	362	211	48
m550-V132/M4	i550-M11/400-3	289	362	211	48
m550-V132/L4	i550-M5.5/400-3	264	265	160	59
m550-V132/L4	i550-M7.5/400-3	289	362	211	48
m550-V132/L4	i550-M11/400-3	289	362	211	48

Technical data

Dimensions
Integrated inverters



Motor	i650 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-V63/L4	i650-M0.37/400-3	179	265	160	11
m550-V71/M4	i650-M0.37/400-3	190	265	160	21
m550-V71/M4	i650-M0.55/400-3	190	265	160	21
m550-V71/L4	i650-M0.75/400-3	190	265	160	21
m550-V71/L4	i650-M0.55/400-3	190	265	160	21
m550-V71/L4	i650-M0.37/400-3	190	265	160	21
m550-V80/M4	i650-M1.1/400-3	203	265	160	25
m550-V80/M4	i650-M0.75/400-3	203	265	160	25
m550-V80/M4	i650-M0.55/400-3	203	265	160	25
m550-V90/M4	i650-M1.1/400-3	211	265	160	44
m550-V90/M4	i650-M1.5/400-3	211	265	160	44
m550-V90/M4	i650-M0.75/400-3	211	265	160	44
m550-V90/L4	i650-M1.5/400-3	211	265	160	44
m550-V90/L4	i650-M2.2/400-3	211	265	160	44
m550-V90/L4	i650-M1.1/400-3	211	265	160	44
m550-V100/M4	i650-M4.0/400-3	239	265	160	34
m550-V100/M4	i650-M2.2/400-3	221	265	160	34
m550-V100/M4	i650-M3.0/400-3	239	265	160	34
m550-V100/M4	i650-M1.5/400-3	221	265	160	34
m550-V100/L4	i650-M3.0/400-3	239	265	160	34
m550-V100/L4	i650-M4.0/400-3	239	265	160	34
m550-V100/L4	i650-M5.5/400-3	239	265	160	34
m550-V100/L4	i650-M2.2/400-3	221	265	160	34
m550-V112/M4	i650-M4.0/400-3	244	265	160	50
m550-V112/M4	i650-M5.5/400-3	244	265	160	50
m550-V112/M4	i650-M7.5/400-3	269	362	211	39
m550-V112/M4	i650-M3.0/400-3	244	265	160	50
m550-V132/M4	i650-M5.5/400-3	264	265	160	59
m550-V132/M4	i650-M7.5/400-3	289	362	211	48
m550-V132/M4	i650-M11/400-3	289	362	211	48
m550-V132/M4	i650-M4.0/400-3	264	265	160	59
m550-V132/L4	i650-M7.5/400-3	289	362	211	48
m550-V132/L4	i650-M11/400-3	289	362	211	48
m550-V132/L4	i650-M5.5/400-3	264	265	160	59

Dimensions LB and ΔL ▶ [Basic dimensions](#) 106



7.7.4 Additional lengths

Self-ventilated motors

Motor			m550-V						
			63/L4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4
				71/L4		90/L4	100/L4		132/L4
Without feedback/brake									
Protection class IP54/IP55	Δ L	mm	0	0	0	0	0	0	0
With integrated feedback									
Protection class IP54/IP55	Δ L	mm	23	9	7	7	13	0	9
With mounted feedback									
Protection class IP54/IP55	Δ L	mm	85	75	68	63	74	77	91
With spring-applied brake									
Protection class IP54/IP55	Δ L	mm	61	60	68	63	74	77	91
With spring-applied brake and integrated feedback									
Protection class IP54/IP55	Δ L	mm	61	60	68	63	74	77	91
With spring-applied brake and mounted feedback									
Protection class IP54/IP55	Δ L	mm	135	128	136	131	145	148	162



7.8 Weights

7.8.1 Basic weights



The basic weights are listed in the selection tables.

Weights with lubricant for mounting position M1, all data approximate values. The exact values can be found in the delivery documents

► [Selection tables](#)  71

Observe ► [Additional weights](#)  142!

7.8.2 Additional weights



Add the individual additional weights to the basic weight depending on the design.

Gearboxes

Gearboxes			g500-S130	g500-S220	g500-S400	g500-S660
Solid shaft	m	kg	0.5	0.5	1.7	2.5
Shrink disc	m	kg	0.2	0.4	0.6	0.6
Foot	m	kg	1.7	1.8	3.3	4.3
Flange	m	kg	0.4	0.4	0.9	1.7
Torque plate						
Rubber buffers	m	kg	0.1	0.1	0.1	0.1
Shaft cover						
Shrink disc cover	m	kg	0.1	0.1	0.1	0.1

Gearboxes			g500-S950	g500-S2100	g500-S3100	g500-S4500
Solid shaft	m	kg	3.0	5.5	8.4	19.0
Shrink disc	m	kg	1.2	1.7	2.3	4.3
Foot	m	kg		-	-	-
Flange	m	kg	6.0	11.5	15.0	29.0
Torque plate						
Rubber buffers	m	kg	0.1	0.5	0.5	0.5
Shaft cover						
Shrink disc cover	m	kg	0.1	0.2	0.3	0.4

Motors

Motor			m550-V						
			63/L4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4
				71/L4		90/L4	100/L4		132/L4
Self-ventilated fan cover									
Spring-applied brake									
06	m	kg	1.5	1.5					
08	m	kg			2.2	2.2			
10	m	kg				3.9	3.9		
12	m	kg						5.6	
14	m	kg							8.5
16	m	kg							
18	m	kg							
20	m	kg							
Manual release lever	m	kg	0.1	0.1	0.2	0.2	0.2	0.4	0.5
Feedback	m	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5



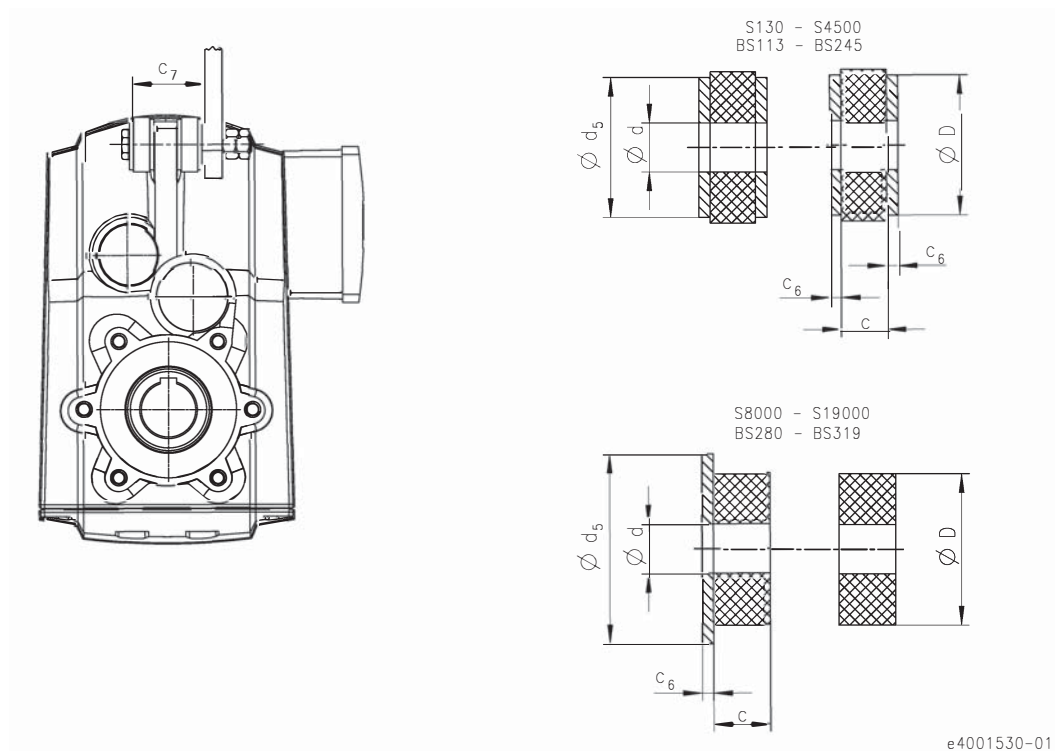
8 Product extensions

8.1 Torque plates

Torque support is usually provided by means of the foot or flange.

The integrated torque plate is another simple possibility. In this case, torque support is provided only via one point and is suitable for shaft-mounted gearboxes, among other things. Moreover, suitable rubber buffers ensure stress-free installation and absorb any slight impacts.

Rubber buffer for torque plate



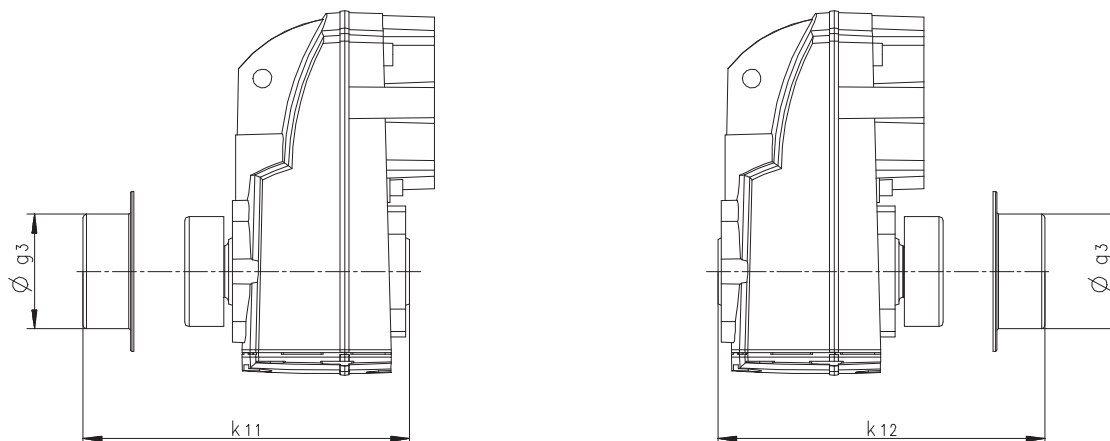
Gearboxes	Dimensions					
	d	D	d ₅	c	c ₆	c ₇
	mm	mm	mm	mm	mm	mm
g500-S130	11.0	30.0	30	12.0	2.50	45.0
g500-S220	11.0	30.0	30	12.0	2.50	45.0
g500-S400	13.0	40.0	37	12.0	3.00	49.0
g500-S660	13.0	40.0	37	12.0	3.00	52.0
g500-S950	13.0	40.0	37	12.0	3.00	56.0
g500-S2100	17.0	50.0	50	24.0	3.00	85.0
g500-S3100	21.0	60.0	60	24.0	4.00	94.0
g500-S4500	26.0	72.0	72	24.0	5.00	98.0



8.2 Shaft covers

The shrink disc cover is provided for the shrink disc to be protected from contact.

Shrink disc cover



Gearboxes	Dimensions		
	G_3	k_{11}	k_{12}
	mm	mm	mm
g500-S130	63.0	132	132
g500-S220	76.0	152	152
g500-S400	90.0	182	182
g500-S660	90.0	200	202
g500-S950	110	219	219
g500-S2100	127	252	252
g500-S3100	155	290	290
g500-S4500	188	355	357



8.3 Motor connection

8.3.1 Connection options

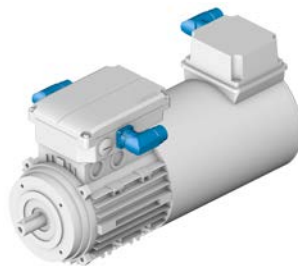


The motors are equipped with a terminal box as standard.

Alternatively, various connectors can be selected for quick commissioning or maintenance.



Terminal box with cable gland



Terminal box with M23 connector



Han connector

The three-phase motors are intended for operation on the inverter.

Frequency inverter operation

For frequency inverter operation, the base frequencies have been set to the following rated voltages:

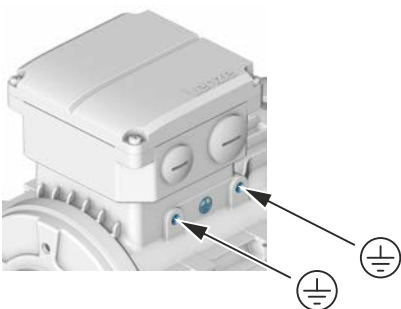
Rated frequency	Rated voltage	Circuit
Hz	V	
62	400	Y
124		

Second ground connection on the motor

According to the EN 61800-5-1 standard, additional measures are required for the protective earth connection if the leakage current is greater than 3.5 mA for alternating current or greater than 10 mA for direct current.

► [Important notes](#) 48

A possible measure is the execution via a second ground connection.



Scope of delivery when a second ground connection is selected:

- Toothed lock washer
- Washer
- Fixing screw



An additional grounding cable is not included in the scope of delivery.

The dimensioning of the grounding is done by the customer.

Product extensions

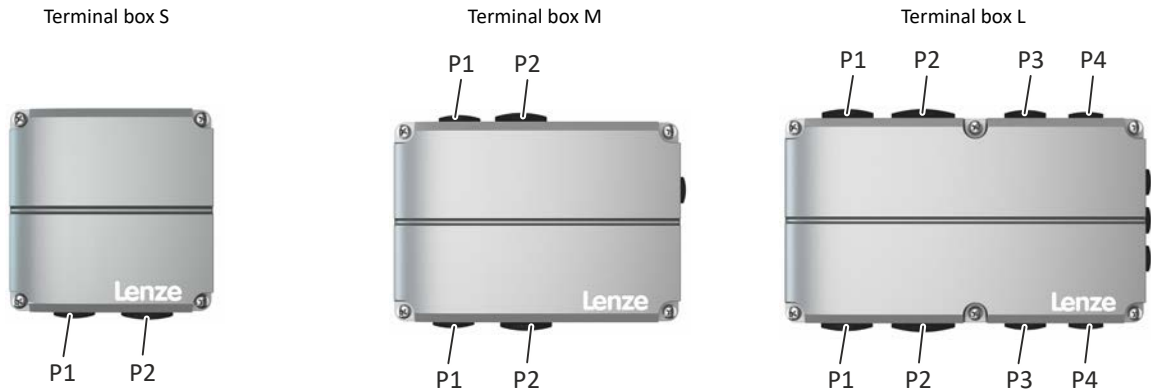
Motor connection
Assignment of the terminal boxes



8.3.2 Assignment of the terminal boxes

Depending on the product extension of the motor, different terminal box sizes (S, M or L) are used.

The M23 connectors are mounted on the terminal boxes (S, M and L) in the positions described.

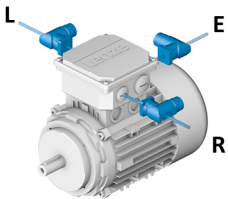


Motor	m550-V						
	63/L4	71/M4	80/M4	90/M4	100/M4	112/M4	132/M4
		71/L4		90/L4	100/L4		132/L4
Without product extensions							
Terminal box	S	S	S	S	S	S	L
Power: M23 connector	P1	P1	P1	P1	P1	P1	P1
Product extension - brake							
Terminal box	M	M	M	M	M	M	L
Power + brake: M23 connector	P2	P2	P1	P1	P1	P1	P1
Product extension - brake + feedback							
Terminal box	L	L	L	L	L	L	L
Power + brake: M23 connector	P1	P1	P1	P1	P1	P1	P1
Feedback: M23 connector	P3	P3	P3	P3	P3	P3	P3
Feedback: M12 connector	P4	P4	P4	P4	P4	P4	P4



Positions of the connectors

Positions on the motor terminal box



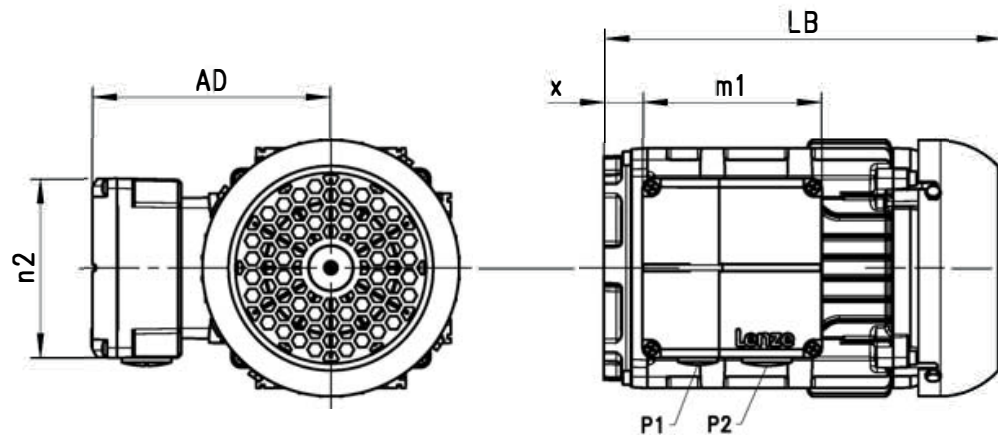
Terminal box	Positions	Note
Motor terminal box S		
Cable glands	L, E or R	
M23 connector: Power	L, E or R	
Motor terminal box M		
Cable glands	L and R	
M23 connector: Power/brake	L or R	
Motor terminal box L		
Cable glands	L and R	The plug connectors for power and brake can be arranged on the same side or on the opposite side
M23 connector: Power/brake	L or R	

Product extensions

Motor connection
Assignment of the terminal boxes



Dimensions of "S" power terminal box



8801784 00

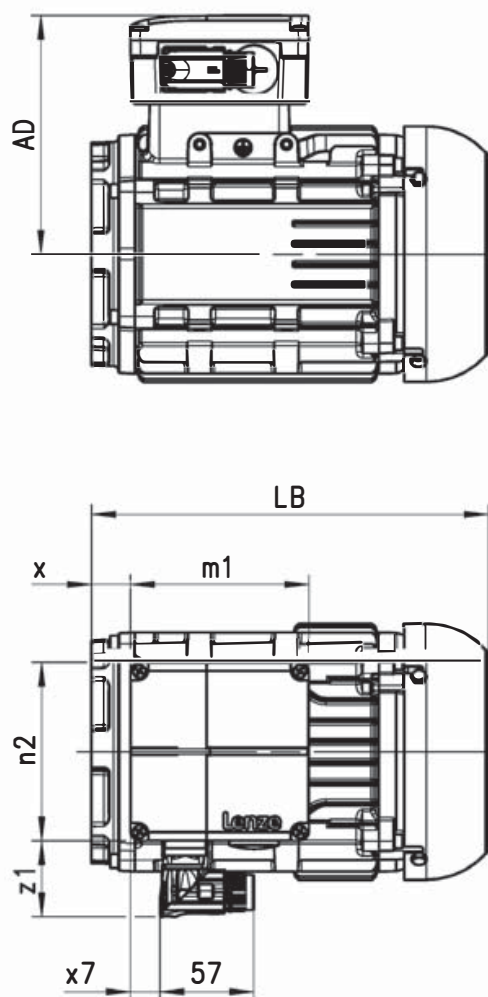
Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	117	128	145	153	163	168
x	mm	22	17	24	30	39	45
m ₁	mm	87	87	109	109	109	109
n ₂	mm	87	87	109	109	109	109
P ₁	mm	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₂	mm	-	-	M25x1.5	M25x1.5	M25x1.5	M25x1.5

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions Δ L ▶ [Additional lengths](#) 141



Dimensions of "S" power terminal box with M23 connector



8801787-00

Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	117	128	145	153	163	168
x	mm	22	17	24	30	39	45
m ₁	mm	87	87	109	109	109	109
n ₂	mm	87	87	109	109	109	109
M23 connector Power							
x ₇	mm	13	13	18	18	18	18
z ₁	mm	42	42	42	42	42	42

Dimensions LB ▶ [Basic dimensions](#) 106

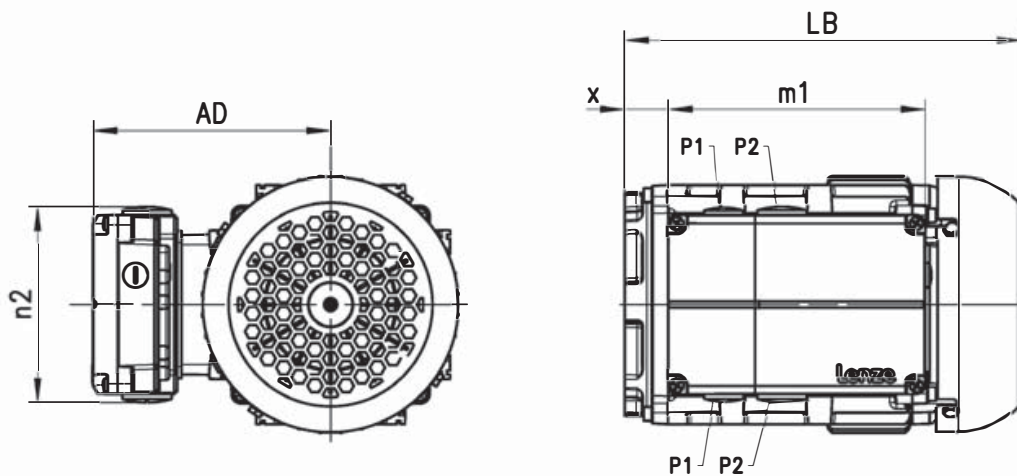
Dimensions Δ L ▶ [Additional lengths](#) 141

Product extensions

Motor connection
Assignment of the terminal boxes



Dimensions of "M" power terminal box



8801785-00

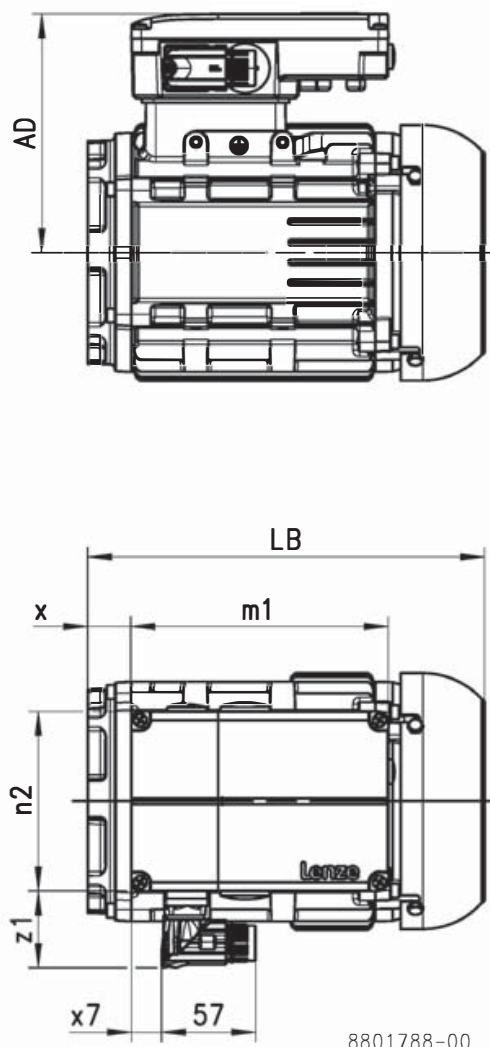
Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	113	124	145	153	163	168
x	mm	21	16	27	34	43	49
m ₁	mm	141	141	157	157	157	157
n ₂	mm	110	110	110	110	110	110
P ₁	mm	M16x1.5	M16x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₂	mm	M20x1.5	M20x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions Δ L ▶ [Additional lengths](#) 141



Dimensions of "M" power terminal box with M23 connector



8801788-00

Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	113	124	145	153	163	168
x	mm	21	16	27	34	43	49
m ₁	mm	141	141	157	157	157	157
n ₂	mm	110	110	110	110	110	110
M23 connector Power/brake							
x ₇	mm	45.3	45.3	18	18	18	18
z ₁	mm	42	42	42	42	42	42
M23 connector Feedback							
x ₇	mm	45.3	45.3	53.5	53.5	53.5	53.5
z ₁	mm	42	42	46	46	46	46

Product extensions

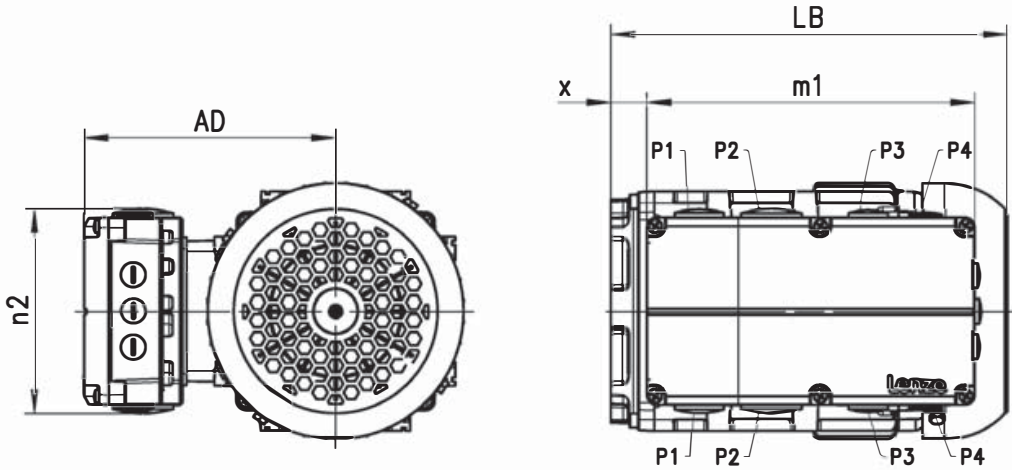
Motor connection
Assignment of the terminal boxes



Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions Δ L ▶ [Additional lengths](#) 141

Dimensions of "L" power terminal box



8801786-00

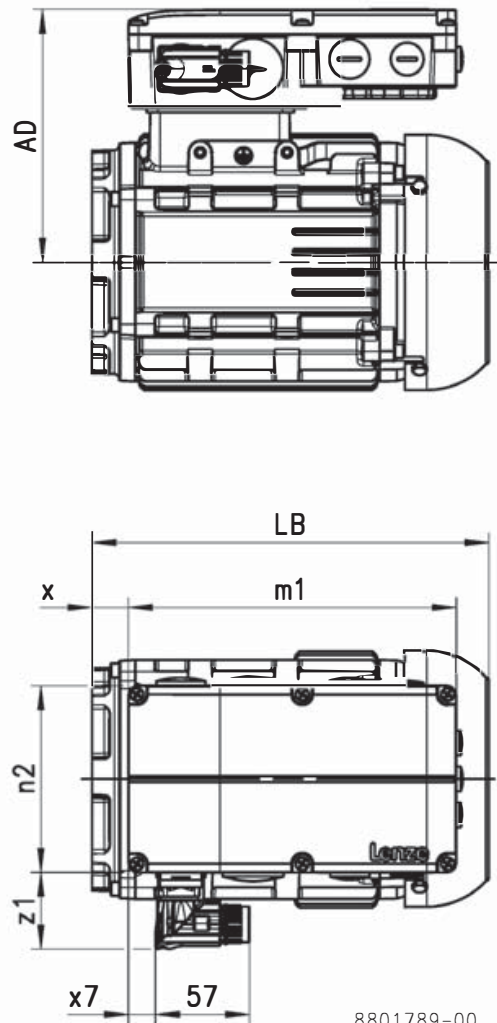
Motor		m550-U m550-V						
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
Motor terminal box								
AD	mm	113	141	154	162	172	177	197
x	mm	9	4	22	29	39	44	73
m ₁	mm	141	200	200	200	200	200	200
n ₂	mm	110	114	114	114	114	114	114
P ₁	mm	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5	M25x1.5
P ₂	mm	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5	M32x1.5
P ₃	mm	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5	M20x1.5
P ₄	mm	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5	M16x1.5

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions Δ L ▶ [Additional lengths](#) 141



Dimensions of "L" power terminal box with M23 connector



8801789-00

Motor		m550-U m550-V						
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
Motor terminal box								
AD	mm	113	141	154	162	172	177	197
x	mm	9	4	22	29	39	44	73
m ₁	mm	141	200	200	200	200	200	200
n ₂	mm	110	114	114	114	114	114	114
M23 connector Power/brake								
x ₇	mm	16	16	16	16	16	16	16
z ₁	mm	46	46	46	46	46	46	46
M23 connector Feedback								
x ₇	mm	120	120	120	120	120	120	120
z ₁	mm	42	42	42	42	42	42	42

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions Δ L ▶ [Additional lengths](#) 141



8.3.3 Assignment of the connectors Han

The power, brake and temperature monitoring can be connected in the Han connector.

The Han-Modular versions are available with two power modules (16 A or 40 A).

- 

A rectifier can also be connected to the Han-Modular connector.
- 

Feedback in conjunction with the Han plug connector or the integrated i550/i650 motec is only available with the IG128-24V-H add-on incremental encoder (with 0.5 m cable and M12 plug connector).

Motor	m550-V						
	63/L4	71/M4	80/S4	90/M4	100/M4	112/M4	132/M4
		71/L4	80/M4	90/L4	100/L4		132/L4
Han-Modular connector							
Connection: • Power • Brake • Temperature monitoring TK0	•	•	•	•	•	•	•

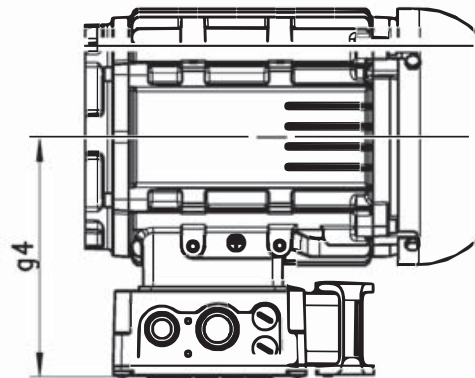
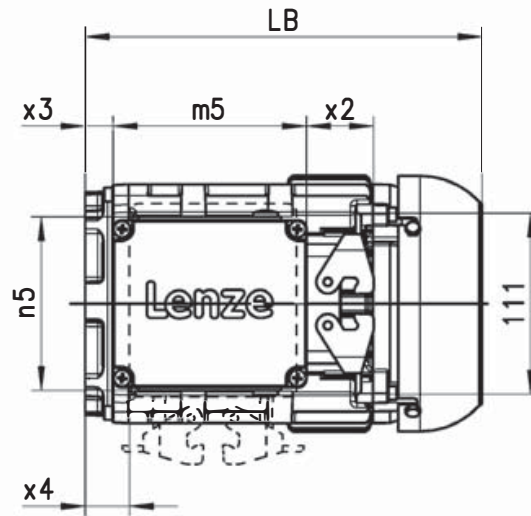
Positions of the connectors

Positions of the Han connector





Dimensions of HAN connector



8801790-00

Motor		m550-U m550-V						
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4	132/M4 132/L4
HAN connector								
Power/brake								
g_4	mm	123	134	147	155	165	170	237
x_2	mm	41	41	41	41	41	41	47
x_3	mm	6	1	19	25	34.5	40	39
m_5	mm	118	118	118	118	118	118	120
x_4	mm	7	2	20	26	35.5	41	9
n_5	mm	106	106	106	106	106	106	180

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions ΔL ▶ [Additional lengths](#) 141

Product extensions

Motor connection
Connection via terminal box



8.3.4 Connection via terminal box

Cable glands

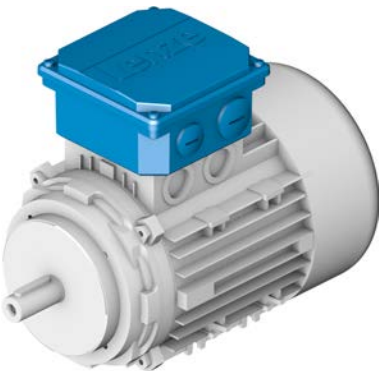


The opening cutouts for the cable glands are closed with plugs.

As the cable glands are only arranged on one side of the motor terminal box "S", the position of the cable glands must be specified.

The motor terminal box "M" and "L" have openings on both sides.

Position of the connections



Position	Meaning	Note
1	Power connection Brake connection PE connection Feedback connection Temperature monitoring connection	For the terminal box "S", the position of the cable connections "L", "R" or "E" must be specified.



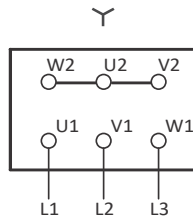
Product extensions

Motor connection
Connection via terminal box

Power connections

Bridge arrangement

Y circuit

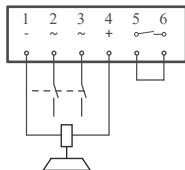


Terminal box, power		
Contact	Name	Meaning
PE	PE	PE conductor
U1	L1	Motor winding phase
V1	L2	
W1	L3	

DC brake connection

Contact	Name	Meaning
BD1	+	Brake +
BD2	-	Brake -

Connection of brake AC



Connection via rectifiers		
Contact	Name	Meaning
~	L1	Mains
~	N	
+	+	Holding brake (factory-wired)
-	-	
⎓		Switching contact - DC switching

Temperature monitoring connection

Contact	Name	Meaning
TB1		TCO thermal contact
TB2		

Product extensions

Motor connection
Connection via connector



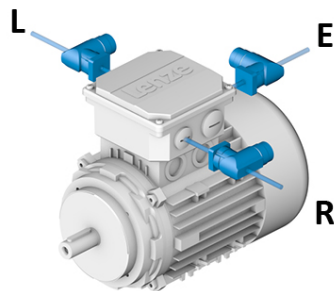
8.3.5 Connection via connector



Preassembled Lenze system cables are available for fast and error-free connection of Lenze motors to Lenze inverters.

Details and data can be found in the "Accessories" brochure on the Internet.

Position of the connections



Position	Meaning	Note
L, E and R	Additionally for the 8-pole M23 connector: • Temperature monitoring connection - TCO thermal contact • Brake supply connection	Caution: Max. brake supply voltage ≤ 230 V
L	M23 connector: • Feedback connection	The mounting position for the feedback connector is on the opposite side to the power connection (position L/R).



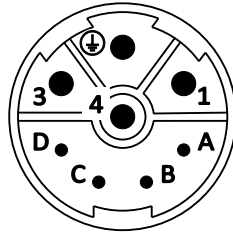
Product extensions

Motor connection
Connection via connector

Power and brake connection

M23 connector assignment

8-pole



M23 8-pole		
Contact	Name	Meaning
PE	PE	PE conductor
A	TB1	Temperature monitoring: TCO
B	TB2	Temperature monitoring: TCO
C	BD1 / BA1	Brake DC +/AC ≤ 230 V
D	BD2 / BA2	Brake DC-/AC ≤ 230 V
1	U	Power phase U
3	W	Power phase W
4	V	Power phase V

Product extensions

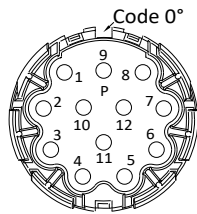
Motor connection
Connection via connector



Feedback and temperature monitoring connection

ICN-M23 connector assignment

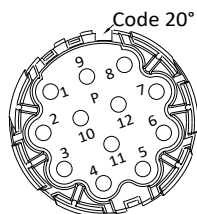
Resolver



M23 for resolvers		
Contact	Name	Meaning
1	+Ref	Transformer windings
2	-Ref	Transformer windings
3	+VCC ETS	Supply: Electronic nameplate (Only for motors and inverters that support this function)
4	+COS	Cosine stator windings
5	-COS	Cosine stator windings
6	+SIN	Sine stator windings
7	-SIN	Sine stator windings
8		Not assigned
9		Not assigned
10		Not assigned
11	+	Not assigned
12	-	Not assigned

ICN-M23 connector assignment

Incremental and SinCos absolute value encoder Hiperface®

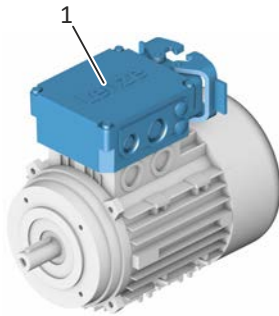


ICN M23 for encoders		
Contact	Name	Meaning
1	B	Track B / +SIN
2	A ⁻	Track A inverse / -COS
3	A	Track A / + COS
4	+UB	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse / -RS485
7	Z	Zero track / + RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10		Not assigned
11	+	Not assigned
12	-	Not assigned



8.3.6 Connection via Han connector

Position of the connections



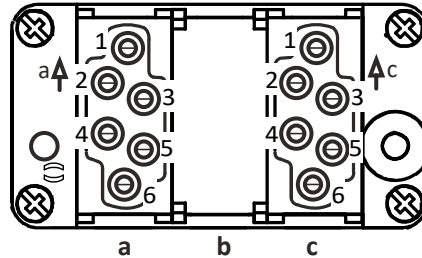
Position	Meaning
1	Power connection Brake connection PE connection Temperature monitoring connection
	Additionally for the Han-Modular: • Rectifier connection

Han-Modular connector



The motor circuit is defined in the terminal box.

Han-Modular 16 A connector assignment



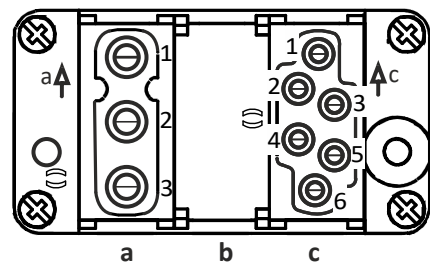
Han-modular 16 A			
Module	Contact	Name	Meaning
a	1	U1	Motor winding phase
	2	V1	
	3	W1	
b			Blank module
c	1	TKO	Temperature monitoring
	2	+/-AC	Brake
	3	-/-AC	
	4	Schaltkontakt	Rectifier
	6	TKO	Temperature monitoring

Product extensions

Motor connection
Connection via Han connector



Han-Modular 40 A connector assignment



Han-modular 40 A			
Module	Contact	Name	Meaning
a	1	U1	Motor winding phase
	2	V1	
	3	W1	
b			Blank module
c	1	TKO	Temperature monitoring
	2	+/-AC	Brake
	3	-/-AC	
	4	Schaltkontakt	Rectifier
	5		
	6	TKO	Temperature monitoring



8.4 Spring-applied brakes

The motors can be ordered with a spring-applied brake to allow stopping or deceleration of the moving masses. The spring-applied brake operates according to the closed-circuit principle. In the deenergized state, the brake is closed. The spring-applied brakes can be used as holding brakes.

Overview

The following table shows the possible versions of the spring-applied brakes.

Versions		Holding brake
		Single brake IP54/55
Standard		•
Supply voltages		
	DC supply	
	DC 24 V $\pm 10\%$	•
	DC 180 V ... 205 V $>10\%$	•
	AC supply via rectifier in the terminal box	
	AC 230 V $\pm 10\%$	•
	AC 400 V ... 460 V $>10\%$	•
Friction lining		
	Standard	•
Options		
	Manual release	•
	UL/CSA-approved	•
	Low noise during operation (noise-reduced rotor)	•
	Cover ring	•

Control	Without rectifier	Bridge/half-wave rectifier
		6-pole
Supply voltages	24 V DC DC 180 ... 205 V	AC 230 V AC 400 ... 460 V



8.4.1 Information on project planning

Important notes

DANGER!

Malfunction of the brake

Even small amounts of oil or grease on the friction surfaces reduce the braking torque considerably.

Possible consequences: Death or severe injuries

► Always keep the friction surfaces free of oil and grease.

Emergency stops

A maximum of 100 emergency stops are possible from $n = 2700$ rpm.



Connection

NOTICE

If used as a service brake, the braking torques are dependent on the motor speed to be braked.

- During braking from a high speed and in the event of emergency stops, the braking torque is significantly reduced.

Connection of the spring-applied brake

The spring-applied brakes can be ordered for connection to AC or DC voltage.

Connection to AC voltage

- A rectifier is required to convert the AC voltage into a DC voltage.
- The rectifier is included in the scope of supply. It is mounted in the terminal box of the motor.
- Available rectifiers:
 - Bridge rectifier, 6-pole

Connection to DC voltage

- No rectifier is required.
- A freewheeling diode or a spark suppressor must be used to prevent high induction peaks.

Motor supply cables

If long motor supply cables are used, pay attention to the ohmic voltage drop along the cable and compensate for it with a higher voltage at the input end of the cable.

The following applies to Lenze system cables:

$U[V] = U_B[V] + 0.08 \frac{[V]}{[A] \times [m]} \times I_{Lg}[m] \times I_B[A]$	U	V	Resulting supply voltage
	U_B	V	Rated voltage of the brake
	I_{Lg}	m	Cable length
	I_B	A	Rated current of the brake

Switching on the AC or DC side

Brakes can be switched both upstream of the rectifier (AC-side switching) and downstream of the rectifier (DC-side switching). The choice of control influences, among other things, the engagement time of the armature plate.

With switching on the AC side, the connection time increases by a factor of 5 to 10 compared to switching on the DC side. This must be taken into account when selecting the control. By simply removing a bridge and using the connections of the switching contact, DC-side switching is possible. However, this requires two additional wires in the control cabinet.

Product extensions

Spring-applied brakes
Spring-applied holding brake
Assignment of braking torques



8.4.2 Spring-applied holding brake

The spring-applied brakes are pure holding brakes. Emergency stops are possible.

DANGER!

An emergency stop during operation can cause the holding brake to malfunction.

Possible consequences: Personal injury and/or damage to property.

- After an emergency stop, check the air gap and the friction lining for damage.
- If the air gap is too large or the friction lining is damaged, replace the brake rotor.

8.4.2.1 Assignment of braking torques

For optimum adaptation of the brake motor to the application, spring-applied brakes with several braking torques are available for each motor frame size.

Motor	Single brake				
	HBR 06	HBR 08	HBR 10	HBR 12	HBR 14
	Nm	Nm	Nm	Nm	Nm
m550-V63/L4	4				
m550-V71/M4					
m550-V71/L4					
m550-V80/M4		8			
m550-V90/M4					
m550-V90/L4		16			
m550-V100/M4		23			
m550-V100/L4					
m550-V112/M4			32		
m550-V132/M4					
m550-V132/L4					

8.4.2.2 Rated data

Holding brake		HBR 06	HBR 08	HBR 10	HBR 10	HBR 12	HBR 14
Braking torque is static	Nm	4	8	16	23	32	60
Moment of inertia	kgcm ²	0.128	0.401	2	2	4.5	6.3
Power input							
DC 24 V	W	20	25	30	30	40	50
DC 180 V ... 205 V	W	20	25	30	30	40	53
AC 230 V	W	20	25	30	30	40	53
AC 400 V ... 460 V	W	20	25	30	30	40	53
Min. static braking torque tolerance	%	0	0	0	0	0	0
Max. static braking torque tolerance	%	80	80	80	80	80	80
Reversing cycles		1000000	1000000	1000000	1000000	1000000	1000000
Repetitive cycles		1000000	1000000	1000000	1000000	1000000	1000000
Maximum switching energy	J	3000	7500	12000	12000	24000	30000



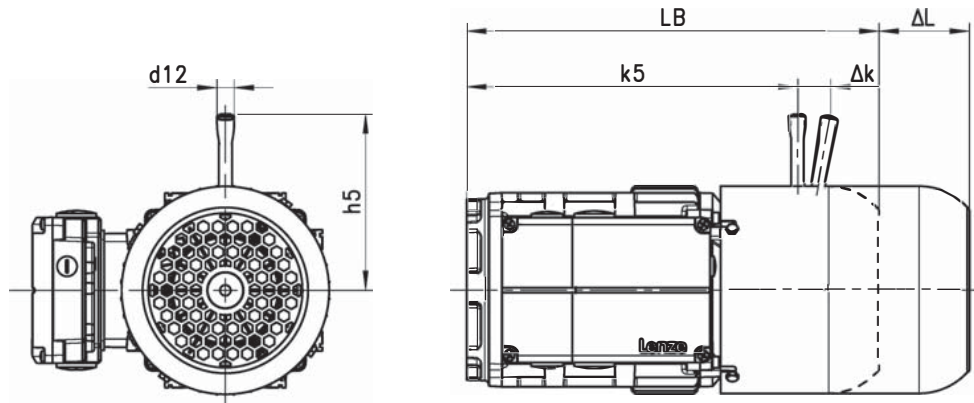
Product extensions

Spring-applied brakes
Spring-applied holding brake

Option: Manual release

The brake can be ordered with a manual release lever to facilitate positioning and maintenance work. The brake can be released manually in deenergized mode by actuating the manual release lever.

Dimensions of manual release lever



8801827-01

Motor	Brake	Dimensions			
		k_5	Δk	h_5	d_{12}
		mm	mm	mm	mm
m550-V63/L4	HBR 06	193	25	107	13
m550-V71/M4 m550-V71/L4	HBR 06	211	25	107	13
m550-V80/M4	HBR 08	231	27	116	13
m550-V90/M4	HBR 08	270	27	116	13
m550-V90/L4	HBR 10	286	23	131	13
m550-V100/M4 m550-V100/L4	HBR 10	344	23	131	13
m550-V112/M4	HBR 12	345	37	161	13
m550-V132/M4 m550-V132/L4	HBR 14	408	53	229	20

Dimensions LB ▶ [Basic dimensions](#) 106

Dimensions ΔL ▶ [Additional lengths](#) 141



8.5 Feedback

The motor can be equipped with the following feedback systems for speed control via an inverter:

A resolver, incremental encoder and SinCos absolute value encoder are optionally available to evaluate the speed and position of the motor shaft.

The resolver can be used to measure an absolute value within one revolution of the rotor. A SinCos absolute value encoder is used if not only the angle within one revolution is to be made available immediately but also the revolution within a set range. The SinCos absolute value encoder detects not only the speed and rotor position but also the position of the machine. It consists of a speed sensor system, for example TTL, and an absolute value information recorder, for example Hyperface.

The HTL incremental encoder is used in the frequency inverter range for less dynamic applications.

It is used for dynamic applications with very high requirements regarding accuracy. If the absolute angular position of the drive is required directly after the system is switched on without performing additional homing, this can be realized via a resolver or SinCos absolute value encoder.



Resolver, absolute encoder and the IG128-24V-H add-on incremental encoder are mounted behind the B-bearing shield under the fan cover.

All other incremental encoders are integrated in the B-bearing shield, which usually makes the drive shorter.

Feedbacks in the environment of functional safety

Motors can perform speed-dependent safety functions for safe speed and/or safe relative position monitoring in a drive system by Lenze inverters or Controllers. In case of inverters, these functions are implemented by integrable safety modules and in case of Controllers by the additionally required Safety Controller.

When planning systems/installations of this kind, always observe the following:

- When using just one single feedback system in the environment of these safety applications, the applicable safety engineering standard EN 61800-5-2 (adjustable speed electrical power drive systems - Part: 5-2: Safety requirements - Functional) stipulates special requirements for the connection between feedback system and motor shaft.
- This is due to the fact that two-channel safety systems at this point in the mechanical system are actually designed as single-channel systems. If this mechanical connection is designed with considerable overdimensioning, the standard permits exclusion of the fault "encoder-shaft breakage" or "encoder-shaft slip". As such, the permissible angular acceleration limit values must not be exceeded for the individual drive solutions.

You can find the limit values in the corresponding feedback data of the individual motor ranges.

Speed-dependent safety functions

Examples of speed-dependent safety functions:

- Safe stop 1 (SS1)
- Safe operational stop (SOS)
- Safely limited speed (SLS)
- Safe maximum speed (SMS)
- Safe direction (SDI)
- Operation mode selector (OMS) with confirmation (ES)
- Safe speed monitor (SSM)
- Safely limited increment (SLI)



8.5.1 Resolver

The stator-supplied, 2-pole resolver with two stator windings shifted by 90 degrees and a rotor winding with a transformer winding can record both the speed and the rotor position, just like a single-turn absolute value encoder. The rotor position can be determined within one mechanical motor revolution after a voltage failure.

Feedback type			Resolver
Feedback			RS1
Speed-dependent safety functions			Nein
Design			Mounting
Resolution - angle		'	0.8
Min. accuracy		'	-10
Max. accuracy		'	10
Absolute positioning			1 revolution
Max. speed	$n_{\max}$	rpm	8000
Max. DC input voltage	$V_{\text{in,max}}$	V	10
Max. input frequency	$f_{\text{in,max}}$	kHz	4
Ratio stator/rotor			0.3
Min ratio tolerance		%	-5
Max ratio tolerance		%	5
Rotor impedance	Z_{ro}	Ω	51+j90
Stator impedance	Z_{so}	Ω	102+j150
Impedance	Z_{rs}	Ω	44+j76
Min. insulation resistance at DC 500 V	R_{min}	M Ω	10
Number of pole pairs			1
Max. angle error Min		'	-10
Max. angle error Max		'	10



8.5.2 Incremental encoder

Incremental encoders can be used for speed measurement. Homing is required in order to enable positioning later.

Incremental HTL encoder



Feedback in conjunction with the Han plug connector or the integrated i550/i650 motec is only available with the IG128-24V-H add-on incremental encoder (with 0.5 m cable and M12 plug connector).

Feedback type			Encoder			
Feedback			IG128-24V-H		IG1024-24V-H	IG2048-24V-H
Design			Mounting	integrated	integrated	integrated
Pulses			128	128	1024	2048
Output signals			HTL	HTL	HTL	HTL
Interfaces			A, B	A, B	A, B; N; Ai, Bi; Ni	A, B; N; Ai, Bi; Ni
Absolute revolution			0	0	0	0
Min. accuracy		'	-22.5	-2	-2	-2
Max. accuracy		'	22.5	2	2	2
Min. DC input voltage	$V_{in,min}$	V	8	10	10	10
Max. DC input voltage	$V_{in,max}$	V	26	30	30	30
Max. current consumption	I_{max}	A	0.04	0.15	0.15	0.15
Cut-off frequency	f_{max}	kHz	30	200	200	200

SinCos-incremental encoder with safety functions



The connection of the safety sensors to the terminal box is only available in conjunction with a M23 connector.

Feedback type			Encoder	
Feedback			IG2048-5V-V2	IG2048-5V-V3
Design			Mounting	
Pulses			2048	2048
Output signals			SinCos 1 Vss	SinCos 1 Vss
Interfaces			SinCos	SinCos
Absolute revolution			0	0
Min. accuracy			-	-
Max. accuracy			-	-
Min. DC input voltage	$V_{in,min}$	V	4.75	4.75
Max. DC input voltage	$V_{in,max}$	V	5.25	5.25
Max. current consumption	I_{max}	A	0.07	0.07
Cut-off frequency	f_{max}	kHz	400	400
Max. Safety Integrity Level			SIL 2	SIL 3
Max. Safety Performance Level			d	e



8.5.3 Absolute value encoder

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.

SinCos absolute value encoder

Feedback type			SinCos absolute value encoder
Feedback			AM1024-8V-H
Speed-dependent safety functions			Nein
Design			Mounting
Encoder type			Multi-turn
Resolution		bit	-
Pulses			1024
Output signals			SinCos 1 Vss
Interfaces			Hiperface
Absolute revolution			4096
Resolution - angle			0.4
Min. accuracy		'	-0.8
Max. accuracy		'	0.8
Fehlergrenze Positionswert			
System accuracy			-
Integral nonlinearity			-
Min. DC input voltage	$V_{in,min}$	V	7
Max. DC input voltage	$V_{in,max}$	V	12
Max. current consumption	I_{max}	A	0.08
Cut-off frequency	f_{max}	kHz	200



8.6 Temperature monitoring



The temperature sensors are integrated in the windings. The use of an additional motor protection switch is recommended.

8.6.1 Thermal contacts TC0

The TCO thermal contact (thermal break contact) is a bimetallic switch. The thermal contact monitors the motor winding temperature; e.g., at excessively high temperatures, it switches the upstream motor relay. The motor is disconnected from the line voltage and coasts down via the relay.

Functional principle			Normally-closed contact
Operating temperature		°C	150
Min. switching temperature		°C	145
Max. switching temperature		°C	155
Min. reset temperature		°C	90
Max. reset temperature		°C	135
Max. AC switching current		A	2.5
Max. AC switching voltage		V	250
Max. DC switching current		A	2.5
Max. DC switching voltage		V	12

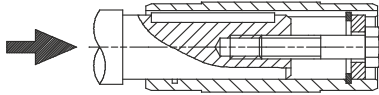


9 Accessories

9.1 Hollow shaft mounting kit

A mounting kit is available for easy installation of the hollow shaft.

Scope of supply



- Hexagon head screw
- Circlip
- Washer

Mounting set		Solid shaft	Hollow shaft diameter g500-													
Name	Material number	Thread	S130	S220	S400	S660	S950	S2100	S3100	S4500						
			25	25	30	30	35	40	45	40	50	55	60	70	70	80
Mounting kit B18	415783	M6														
Mounting kit B20	407309	M6														
Mounting kit B25	395903	M10	•	•												
Mounting kit B30	395904	M10			•	•										
Mounting kit B35	395905	M12				•										
Mounting kit B40	395906	M16					•		•							
Mounting kit B45	395907	M16						•								
Mounting kit B50	395908	M16								•						
Mounting kit B55	395909	M20									•					
Mounting kit B60	395910	M20										•				
Mounting kit B70	395911	M20											•	•		
Mounting kit B80	395912	M20														•



10 Product codes

Gearbox product code

Example		G	50	B	S	113	M	H	D	R	2	C	1B
Product type	Gearbox	G											
Product family			50										
Version				B									
Gearbox type	Shaft-mounted helical gearbox				S								
Output torque	130 Nm					113							
	220 Nm					122							
	400 Nm					140							
	660 Nm					166							
	950 Nm					195							
	2100 Nm					221							
	3100 Nm					231							
	4500 Nm					245							
	8000 Nm					280							
	14000 Nm					314							
	19000 Nm					319							
Type of construction	Geared motor						M						
	Gearbox						N						
Shaft design	Solid shaft with featherkey							V					
	Hollow shaft with keyway							H					
	Hollow shaft with shrink disc							S					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	With centering								C				
	Threaded pitch circle								D				
Flange mounting	Without flange									R			
	Flange with through holes									K			
Number of stages	2-stage										2		
	3-stage										3		
	4-stage										4		
Motor mounting	Integrated motor											C	
	IEC adapter with jaw coupling											N U	
	IEC adapter with plug-in hollow shaft											H	
	NEMA adapter with jaw coupling											A	
	NEMA adapter with plug-in hollow shaft											B	
	Servo motor adapter with plug-in hollow shaft											S	
	Servo motor adapter with jaw coupling											E D G	
Drive size													1A ... □H 08 ... 82



Motor product code

Example		M	55	A	U	063	M	04	5	E	0	0	C	C
Product type	Motor	M												
Product family			55											
Generation				A										
Efficiency class	IE5				U									
	IE6				V									
Size						063 071 080 090 100 112 132								
Overall length	Short						S							
	Medium						M							
	Long						L							
Number of poles	4-pole							04						
Degree of protection	IP54/IP55								5					
Cooling	Integral fan									E				
Brake	Without										0			
	Spring-applied brake										F			
Feedback	Without											0		
	Absolute value encoder											A		
	Incremental encoder											E		
	Resolver											R		
Approvals	None												N	
	CE												C	
	CE, CCC												3	
	CE, cULus												L	
	CE, cULus, CCC												5	
	CE, cURus												U	
	CE, cURus, CCC												W	
Design type	Internal key													C



11 Motor data

11.1 Rated data

Motor			m550-V				
			63/L4	71/M4	71/L4	80/M4	90/M4
Rated power	P_{rated}	kW	0.25	0.37	0.55	0.75	1.1
Rated speed	n_{rated}	rpm	1860	1860	1860	1860	1860
Max. speed	n_{max}	rpm	3200	3200	3200	3200	3200
Rated voltage	V_{rated}	V	284	281	286	291	305
Rated current	I_{rated}	A	0.610	0.900	1.26	1.71	2.32
Standstill current	I_0	A	1.09	1.65	2.20	2.80	3.90
Max. current	I_{max}	A	2.50	3.65	5.00	7.00	8.85
Rated torque	M_{rated}	Nm	1.30	1.90	2.80	3.90	5.60
Standstill torque	M_0	Nm	2.10	3.45	4.70	6.00	9.30
Max. torque	M_{max}	Nm	4.55	7.1	9.9	14.2	19.4
Power factor	$\cos \phi$		0.99	0.98	0.97	0.98	0.98
Efficiency							
at 50% P_{rated}	η		0.874	0.889	0.929	0.880	0.889
at 75% P_{rated}	η		0.873	0.881	0.912	0.921	0.918
at 100% P_{rated}	η		0.830	0.859	0.881	0.895	0.907
Moment of inertia	J	kgcm ²	3.24	8.75	11.1	21.1	35.8
Weight	m	kg	5.1	7.3	8.5	10.6	13.9
Power losses							
25; 25	$P_V(n; M)$	%	1.2	1.4	0.7	0.8	1.9
25; 100	$P_V(n; M)$	%	14.4	8.6	5.8	6.8	12.2
50; 25	$P_V(n; M)$	%	2.0	2.4	1.3	1.5	3.2
50; 50	$P_V(n; M)$	%	5.2	3.5	2.5	2.7	5.3
50; 100	$P_V(n; M)$	%	15.2	10.0	6.5	7.5	13.5
90; 50	$P_V(n; M)$	%	7.2	6.2	3.8	4.0	7.9
90; 100	$P_V(n; M)$	%	14.8	13.0	10.4	8.5	16.3
100; 100	$P_V(n; M)$	%	18.4	15.1	8.5	14.6	16.8
Power losses							
25; 25	$P_V(n; M)$	W	3	5	4	13	17
25; 100	$P_V(n; M)$	W	36	32	32	68	68
50; 25	$P_V(n; M)$	W	5	9	7	23	31
50; 50	$P_V(n; M)$	W	13	13	14	32	40
50; 100	$P_V(n; M)$	W	38	37	36	79	83
90; 50	$P_V(n; M)$	W	18	23	21	51	69
90; 100	$P_V(n; M)$	W	37	51	44	99	113
100; 100	$P_V(n; M)$	W	46	56	47	101	119



Motor data

Rated data

Motor			m550-V				
			90/L4	100/M4	100/L4	112/M4	132/M4
Rated power	P_{rated}	kW	1.5	2.2	3	4	5.5
Rated speed	n_{rated}	rpm	1860	1860	1860	1860	1860
Max. speed	n_{max}	rpm	3200	3200	3200	3200	3200
Rated voltage	V_{rated}	V	300	310	305	327	325
Rated current	I_{rated}	A	3.20	4.60	6.30	8.00	10.6
Standstill current	I_0	A	5.10	7.14	9.10	11.2	16.8
Max. current	I_{max}	A	13.4	18.5	24.5	30.7	41.1
Rated torque	M_{rated}	Nm	7.70	11.3	15.4	20.5	28.2
Standstill torque	M_0	Nm	11.9	17.1	21.5	28.8	44.3
Max. torque	M_{max}	Nm	28.4	39.7	54.2	72.4	98.7
Power factor	$\cos \phi$		0.98	0.97	0.97	0.98	0.98
Efficiency							
at 50% P_{rated}	η		0.897	0.939	0.940	0.920	0.951
at 75% P_{rated}	η		0.930	0.932	0.938	0.946	0.946
at 100% P_{rated}	η		0.916	0.926	0.933	0.937	0.945
Moment of inertia	J	kgcm ²	45.9	75.9	97.5	151.8	320.4
Weight	m	kg	16	21.7	25.6	31.8	50.7
Power losses							
25; 25	$P_V (n; M)$	%	1.4	0.7	0.7	0.8	0.5
25; 100	$P_V (n; M)$	%	6.3	4.3	4.4	4.0	2.8
50; 25	$P_V (n; M)$	%	2.5	1.2	1.2	1.7	0.9
50; 50	$P_V (n; M)$	%	3.7	2.0	2.0	2.3	1.4
50; 100	$P_V (n; M)$	%	7.5	5.0	5.2	4.9	3.5
90; 50	$P_V (n; M)$	%	5.7	3.2	3.2	4.2	2.6
90; 100	$P_V (n; M)$	%	7.4	7.0	6.5	5.5	5.2
100; 100	$P_V (n; M)$	%	11.3	6.9	8.2	8.7	6
Power losses							
25; 25	$P_V (n; M)$	W	21	15	20	31	26
25; 100	$P_V (n; M)$	W	94	94	133	159	155
50; 25	$P_V (n; M)$	W	38	27	36	66	49
50; 50	$P_V (n; M)$	W	55	45	60	92	79
50; 100	$P_V (n; M)$	W	113	111	155	197	190
90; 50	$P_V (n; M)$	W	86	71	96	169	141
90; 100	$P_V (n; M)$	W	146	135	189	273	260
100; 100	$P_V (n; M)$	W	152	151	206	308	332



Motor			m550-V
			132/L4
Rated power	P_{rated}	kW	7.5
Rated speed	n_{rated}	rpm	1860
Max. speed	n_{max}	rpm	3200
Rated voltage	V_{rated}	V	328
Rated current	I_{rated}	A	14.3
Standstill current	I_0	A	21.9
Max. current	I_{max}	A	58.7
Rated torque	M_{rated}	Nm	38.5
Standstill torque	M_0	Nm	57.7
Max. torque	M_{max}	Nm	141.9
Power factor	$\cos \phi$		0.98
Efficiency			
at 50% P_{rated}	η		0.959
at 75% P_{rated}	η		0.953
at 100% P_{rated}	η		0.951
Moment of inertia	J	kgcm ²	416.2
Weight	m	kg	60.8
Power losses			
25; 25	$P_V(n; M)$	%	0.3
25; 100	$P_V(n; M)$	%	1.8
50; 25	$P_V(n; M)$	%	0.8
50; 50	$P_V(n; M)$	%	1.1
50; 100	$P_V(n; M)$	%	2.4
90; 50	$P_V(n; M)$	%	2.1
90; 100	$P_V(n; M)$	%	4.3
100; 100	$P_V(n; M)$	%	4.5
Power losses			
25; 25	$P_V(n; M)$	W	26
25; 100	$P_V(n; M)$	W	135
50; 25	$P_V(n; M)$	W	60
50; 50	$P_V(n; M)$	W	83
50; 100	$P_V(n; M)$	W	177
90; 50	$P_V(n; M)$	W	159
90; 100	$P_V(n; M)$	W	257
100; 100	$P_V(n; M)$	W	336



12 Environmental notes and recycling

Lenze products are intended for use by companies in industrial environments. This means that they are also subject to requirements regarding recycling and disposal. Both mechanical and electrical components such as electric motors, gearboxes, and inverters contain valuable raw materials that can be recycled and reused. Proper recycling is important and sensible from both an economic and ecological perspective.

For information on the proper disposal and legal requirements of our products, please refer to the information on the respective product page on the Internet:

<https://www.lenze.com/en-de/products>

If you require support, please contact your local branch:

<https://www.lenze.com/en-de/company/global-presence>

Note: By disposing of devices and packaging properly, you are helping us to protect the environment and conserve resources.



Further information on Lenze's environmental and climate responsibility and on the topic of energy efficiency can be found on the Internet:

<https://www.lenze.com/en-de/company/sustainability>



13 Appendix

13.1 Good to know

13.1.1 Operating modes of the motor

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

The most important operating modes

Continuous operation S1	Short-time operation S2
Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.	Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.



Intermittent operation S3	Non-intermittent periodic operation S6
Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.	Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.
P Power t Time t_L Idle time θ Temperature	P_V Power loss t_B Load period t_S Cycle duration

13.1.2 Enclosures

The protection class indicates the suitability of a product for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The protection classes are classified in the EN IEC 60034-5/EN IEC 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust. The second code number refers to the protection against the ingress of humidity.

Code number 1	Degree of protection	Code number 2	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in case of deliberate access.	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or the like.	2	Protection against diagonally falling water (dripping water), 15° compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires or the like.	3	Protection against spraying water, up to 60° from vertical.
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wire or the like.	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

Lenze SE

Postfach 101352 · 31763 Hameln
Hans-Lenze-Straße 1 · 31855 Aerzen
GERMANY

Hannover HRB 204803
Phone +49 5154 82-0
sales.de@lenze.com
www.lenze.com