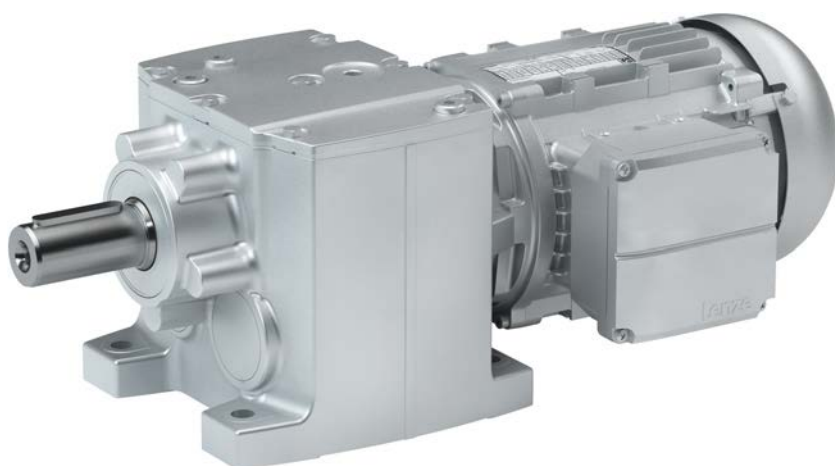


g500-H + m550-U helical geared motors



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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 helical gearboxes represent a compact, powerful drive unit. Numerous drive and output options allow the drive to be precisely adapted to your application.

The robust 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 an output torque of up to 3000 Nm and a ratio of up to $i = 3529$.

Versions

- Finely scaled in size/torque - ensures optimal machine adaptation
- Shaft dimensions in line with market standard and standardized flanges for easy machine integration
- High 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

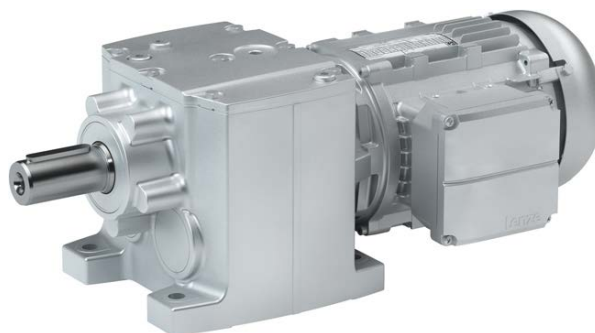
In a power range from 0.25 to 22 kW, Lenze offers inverter-compatible three-phase motors for more extensive tasks.

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-H450 gearbox with m550-U80/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](#)  49

► [Gearboxes with adapter](#)  62



g500-H 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	Gearbox
Helical gearbox	g500	-	H	45	g500-H45
				100	g500-H100
				140	g500-H140
				210	g500-H210
				320	g500-H320
				450	g500-H450
				600	g500-H600
				850	g500-H850
				1500	g500-H1500
				3000	g500-H3000

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)

Output shaft

Output flange

Housing type

Temperature monitoring

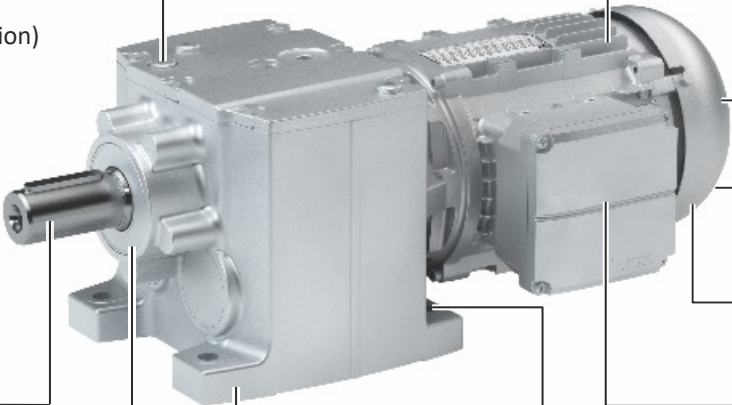
Cooling

Feedback

Brake

Motor connection

Oil drain plug
(depending on the mounting position)





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.

Gearbox motors up to 450 Nm

Gearboxes		g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Min. motor assignment		m550-U63	m550-U63	m550-U63	m550-U63	m550-U63	m550-U63
Max. motor assignment		m550-U71	m550-U90	m550-U90	m550-U100	m550-U112	m550-U132
Technical data							
Max. output torque	Nm	45	100	140	210	320	450
Min. drive power at 62 Hz	kW	0.37	0.37	0.37	0.37	0.37	0.37
Max. drive power at 62 Hz	kW	0.75	2.2	2.2	4	5.5	11
Mounting position							
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)					
Combined		M1-M6 (A-F)	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	mm	14 x 28 20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	30 x 60 35 x 70
Solid shaft without keyway	mm	20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	35 x 70
Shaft material		Steel Stainless steel					
Output shaft bearing		Standard Reinforced					
Gearbox design							
		With foot (VBR)					
			With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)	With foot and centering (VAR)
			With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)	With foot and output flange (VAK)
		With centering (VCR)					
		With output flange (VCK)					
			With output flange (VCP)	With output flange (VCP)	With output flange (VCP)	With output flange (VCP)	With output flange (VCP)
Output flange	mm	120/140/160	120/140/160	120/140/160	120/140 160/200	160/200	160/200/250
Ventilation		Without				Vent valve	
Cooling		Integral fan					
Product extensions							
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 600 Nm to 3000 Nm

Gearboxes		g500-H600	g500-H850	g500-H1500	g500-H3000
Min. motor assignment		m550-U63	m550-U63	m550-U63	m550-U63
Max. motor assignment		m550-U132	m550-U132	m550-U132	m550-U132
Technical data					
Max. output torque	Nm	600	850	1500	3000
Min. drive power at 62 Hz	kW	0.37	0.37	0.37	0.37
Max. drive power at 62 Hz	kW	11	11	11	11
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	mm	35 x 70 40 x 80	40 x 80	50 x 100	60 x 120
Solid shaft without keyway	mm	35 x 70	40 x 80	50 x 100	60 x 120
Shaft material		Steel Stainless steel			
Output shaft bearing		Standard Reinforced			
Gearbox design		With foot (VBR) With foot and centering (VAR) With foot and output flange (VAK) With centering (VCR) With output flange (VCK)			
Output flange	mm	200/250	250/300	250/300/350	300/350/450
Ventilation		Vent valve			
				Oil compensation reservoir	
Cooling		Integral fan			
Product extensions					
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

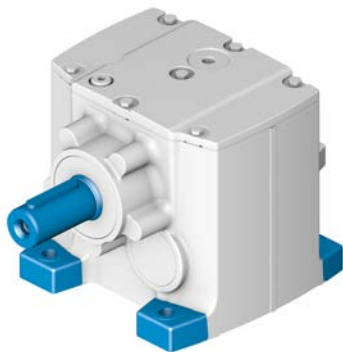


Observe the available gearbox designs!

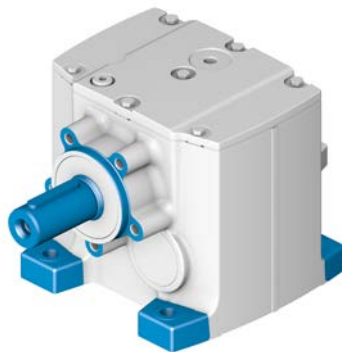
► [The modular system](#) 13

The VCP design (reinforced flange) is suitable for absorbing high radial and axial forces 65 .

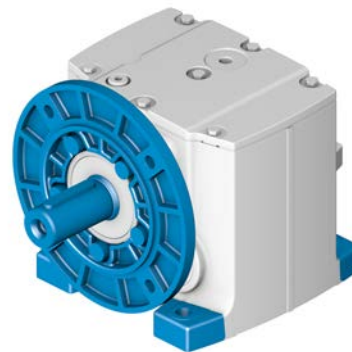
Solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

Solid shaft, without foot



With centering (VCR)



Flange with through holes (VCK)



Reinforced flange with through holes (VCP)

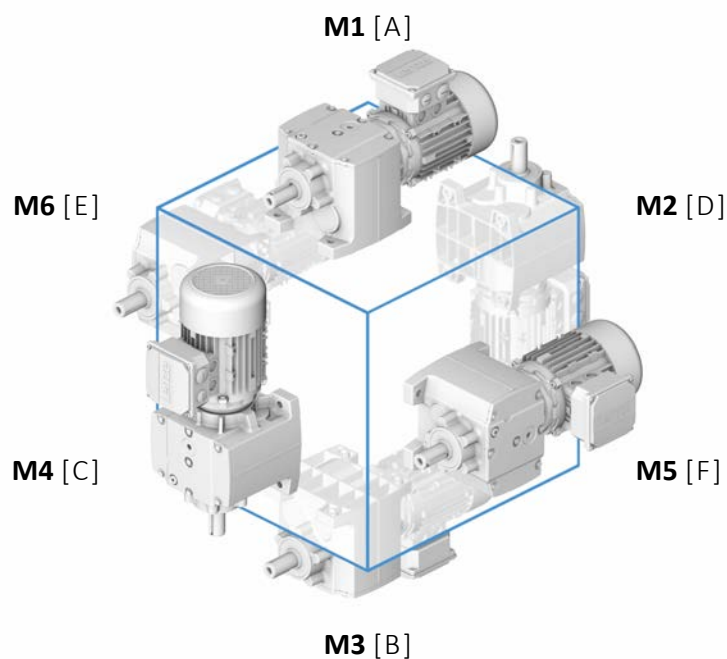


2.4.2 Mounting positions

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.

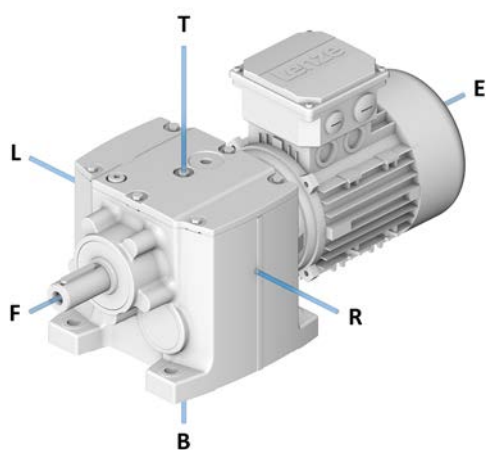


Defined positions on the geared motor

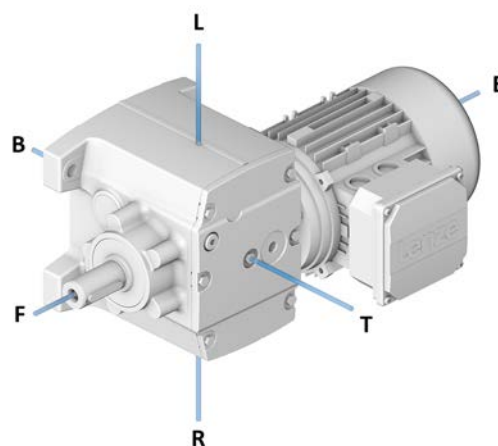
All of the defined positions refer to the areas on the geared motor in mounting position **M1 (A)**.

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)



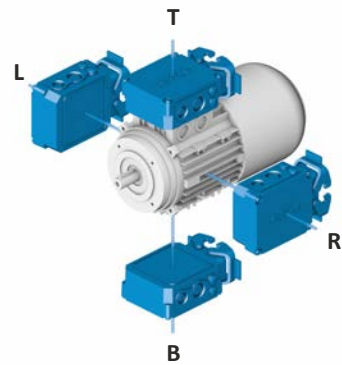
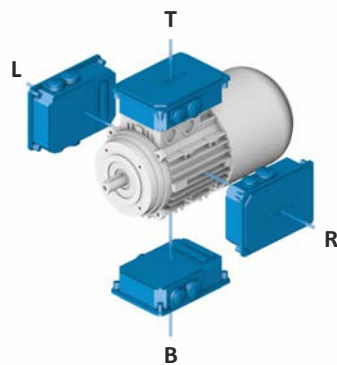


Positions of the terminal boxes/connectors

Power terminal box

with/without M23 connector

Han connector

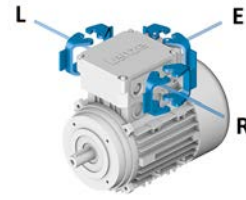
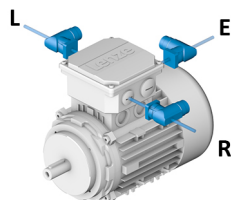


Positions of the connectors

Power terminal box

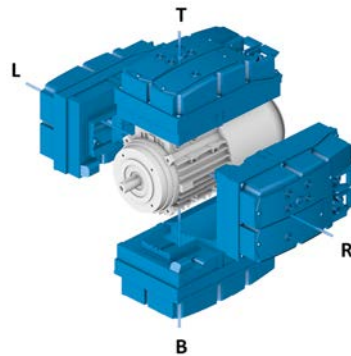
Cable glands/M23 connector

Han connector



Positions of the i550/i650 motec frequency inverters

Positions of the i550/i650 motec

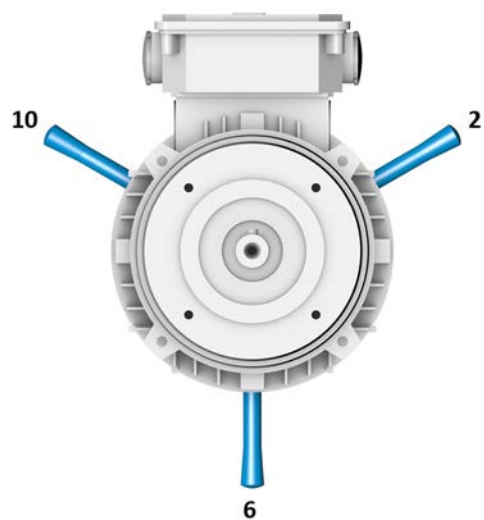


Product information

The modular system
Mounting positions



Manual release lever 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

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.

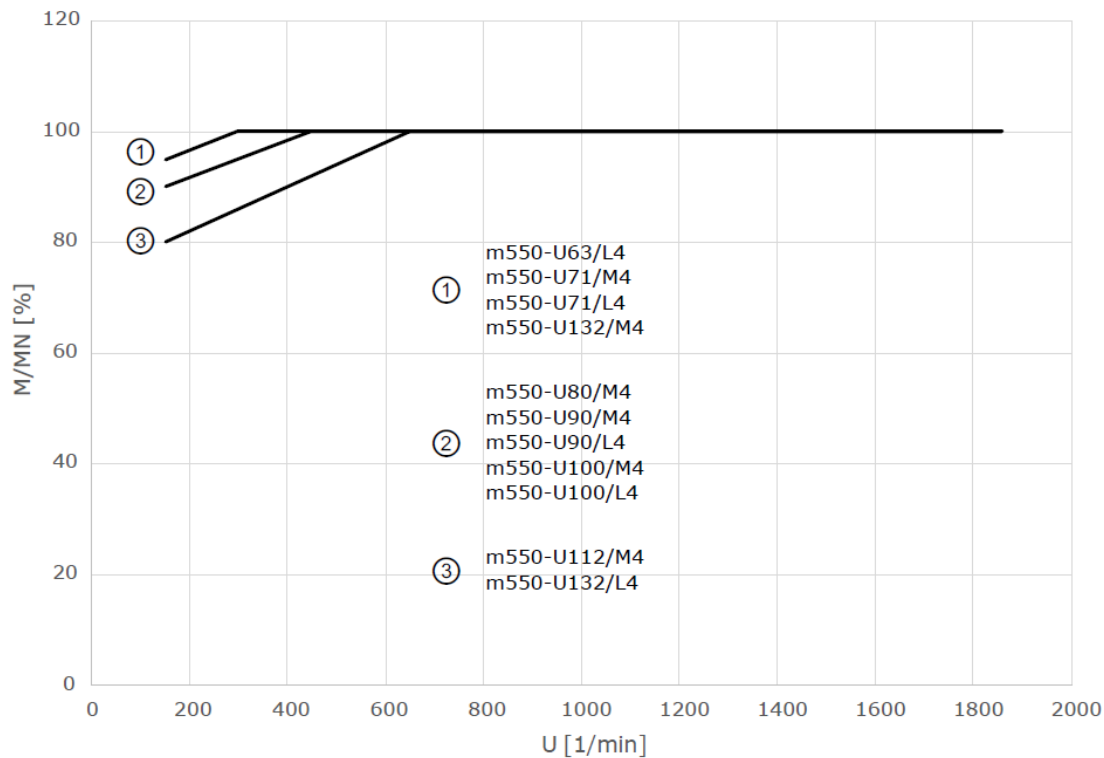
Torque reduction at low motor frequencies

At low motor frequencies (usually < 20 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.

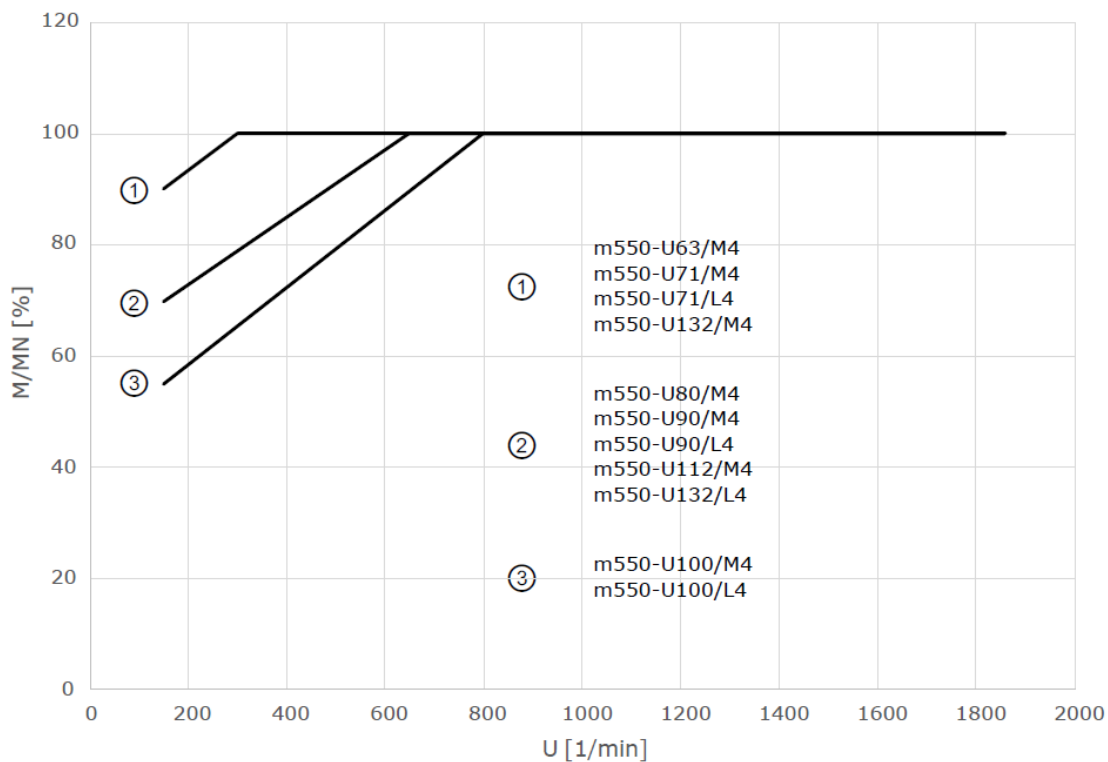


The diagram shows the motor size-dependent torque reduction for self-ventilated motors, taking into account the thermal behavior during operation on the inverter.

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-H850 ... H3000	≤ 10

Motor	Mounting position M1	Mounting position M3, M5, M6	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.



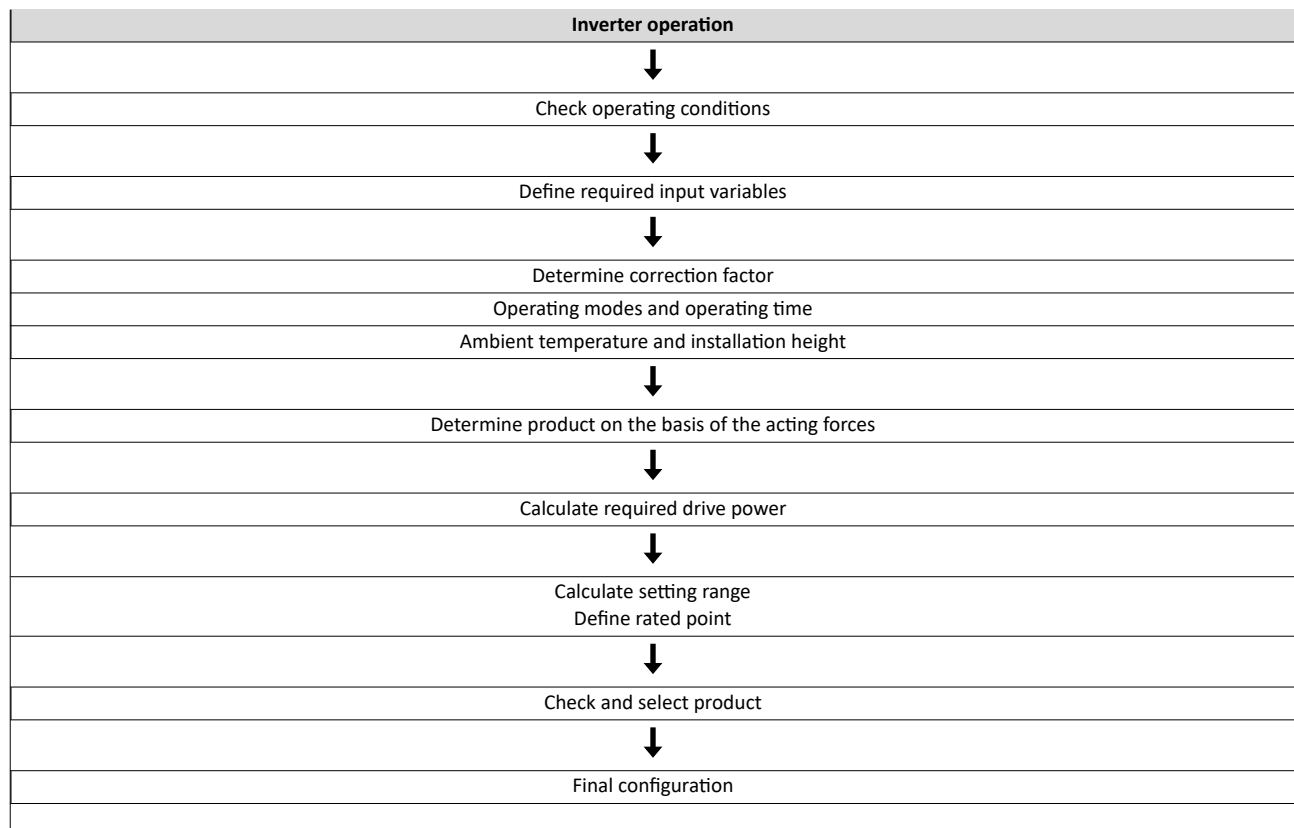
4.2 Drive dimensioning

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](#) 47

► [Surface and corrosion protection](#) 32



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 [182](#)

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-H	1.00	0.70	0.80	0.80	1.00	1.00

► Selection tables [270](#)



Gearbox efficiency

Gearboxes	Gearbox efficiency	
	η_{c1}	
g500-H		
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](#) 65

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

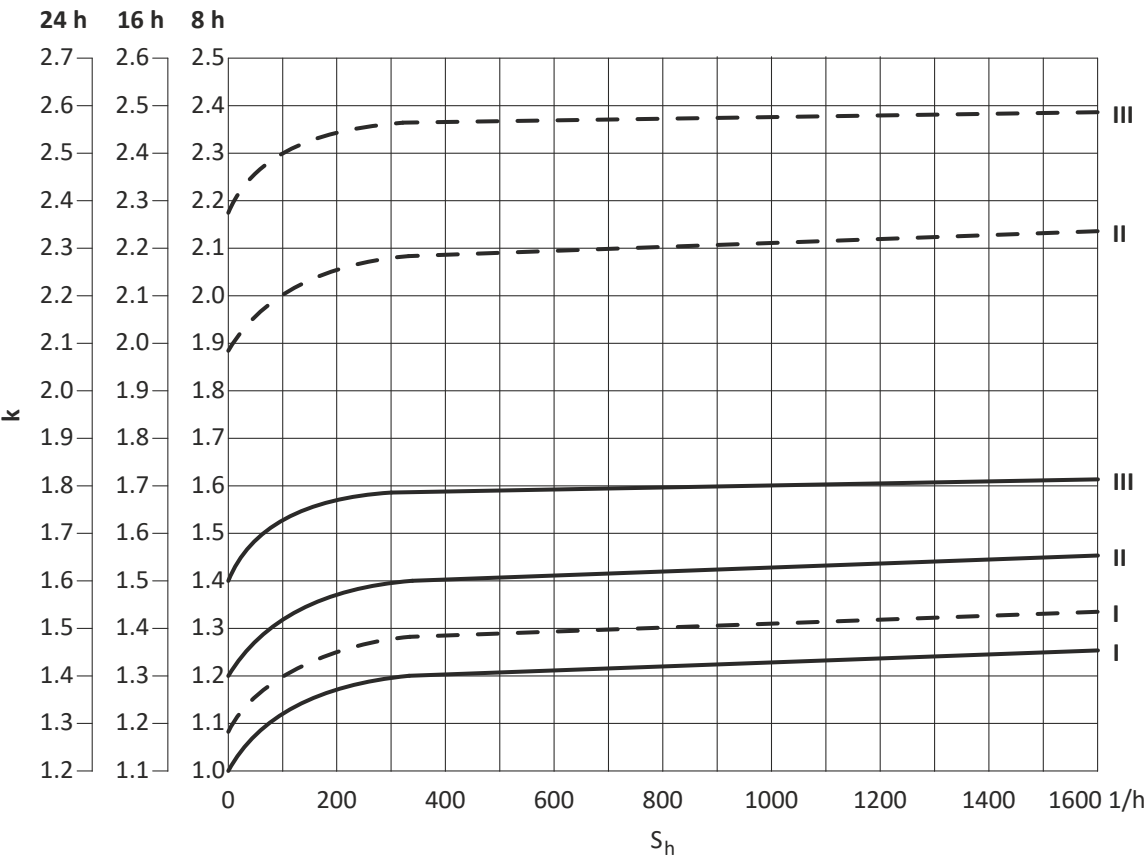
η_g Gearbox efficiency

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](#) 178

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-H45
Motor	m550-U63/L4
Gearbox ratio i	10466
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](#)  13
- ▶ [Product extensions](#)  148



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 $< 0\text{ °C}$ or $> +40\text{ °C}$ please contact your responsible Lenze sales company.

Temperature packages	
Standard	
Ambient temperature	$0\text{ °C} \dots +40\text{ °C}$
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 $+30\text{ °C}$: • Verification of the application by Lenze required.



4.3.3 Lubricants

The following gearboxes are lubricated for life:

- g500-H45
- g500-H100
- g500-H140

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-M6 (A-F)	M1, M5, M6 (AEF)
Gearbox									
g500-H45	I	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-
g500-H100	I	0.5	0.7	0.8	0.7	0.5	0.7	-	0.7
g500-H140	I	0.5	0.8	0.9	0.7	0.5	0.8	-	0.8
g500-H210	I	0.8	1.1	1.2	1.3	0.9	1.2	-	1.2
g500-H320	I	0.8	1.2	1.3	1.3	1.0	1.2	-	1.2
g500-H450	I	1.1	1.6	1.7	1.8	1.4	1.6	-	1.6
g500-H600	I	1.7	2.6	2.4	3.0	1.9	2.3	-	-
g500-H850	I	2.3	3.5	3.0	4.0	2.5	3.2	-	-
g500-H1500	I	4.6	7.0	6.0	7.7	5.0	6.0	-	-
g500-H3000	I	8.0	12.6	10.0	13.2	9.5	9.8	-	-
Pre-stage	I	0.4							

► Gearbox with pre-stage  143



4.3.4 Ventilation



No ventilation is required for the gearboxes g500-H45 ...H210.

The gearbox g500-H210 can optionally be fitted with ventilation units.

From g500-H320 onwards, the gearboxes are supplied with ventilation units as standard.

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

- g500-H45 in mounting position M1-M6 (A-F)
- g500-H100 ... H450 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-H210

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

Ventilation

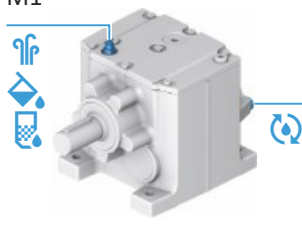
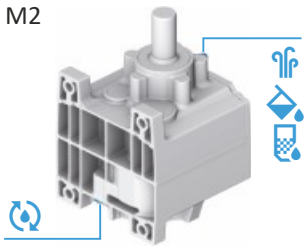
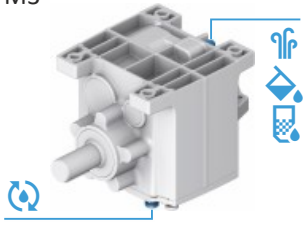
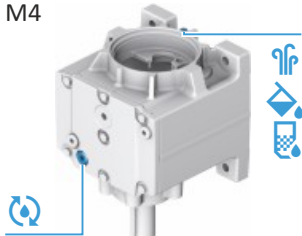
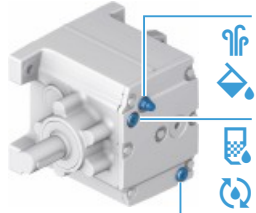
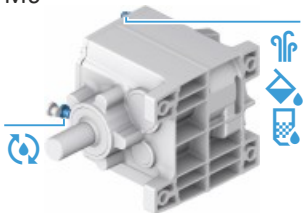
Change oil

Fill oil

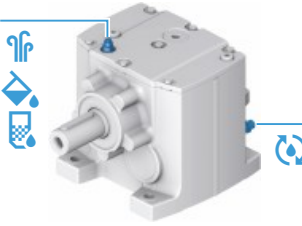
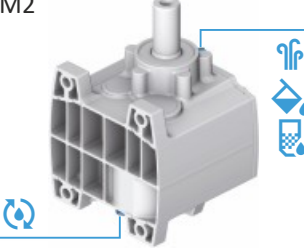
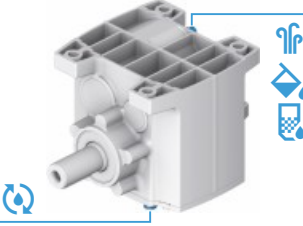
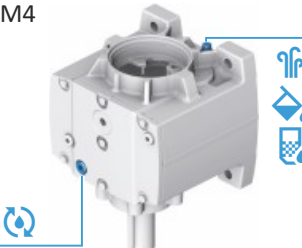
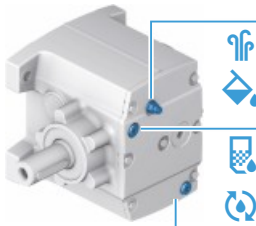
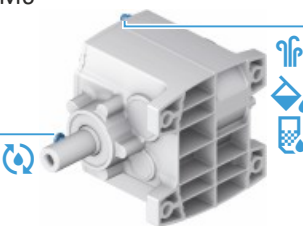
Oil level



g500-H320

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-H450

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-H600

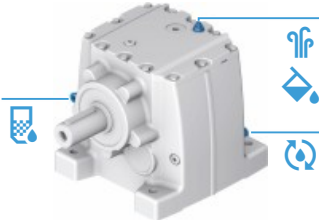
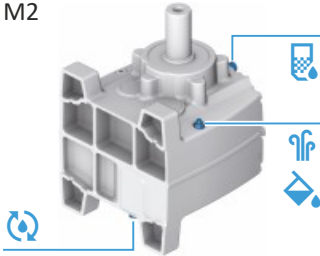
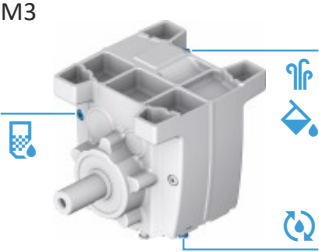
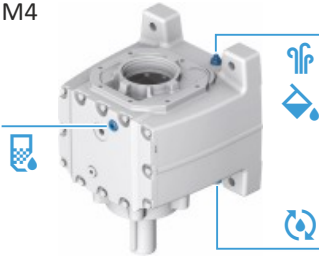
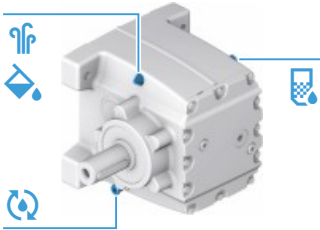
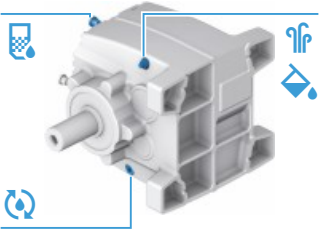
Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6
Ventilation Change oil Fill oil Oil level		

g500-H850

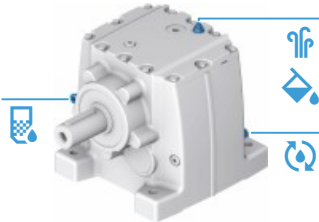
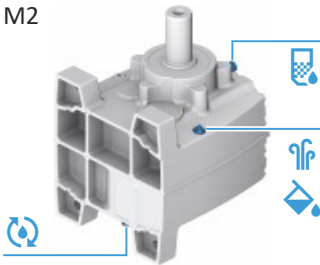
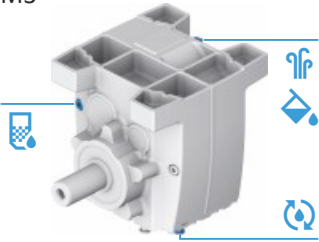
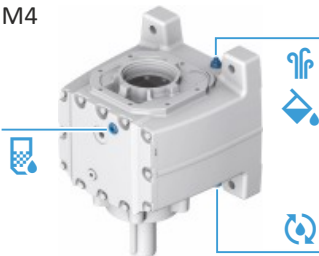
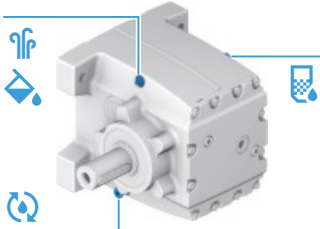
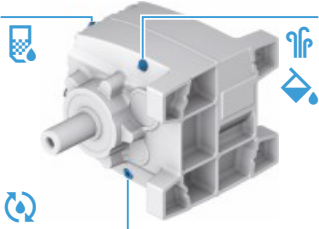
Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6
Ventilation Change oil Fill oil Oil level		



g500-H1500

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-H3000

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



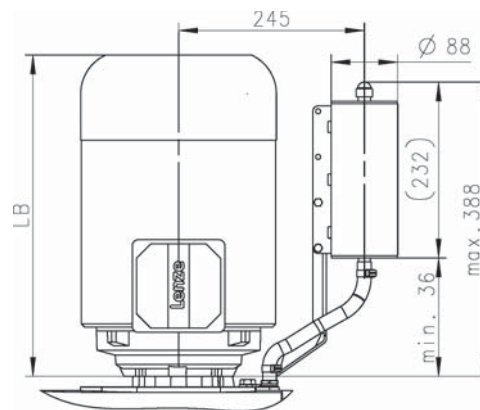
Gearbox with oil compensation reservoir for mounting position M4 (C)

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:

g500-H1500		g500-H3000	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm
3.743	2000	4.496	2000
4.758	2000	5.902	2000
5.400	2000	6.344	2000
6.245	2000	6.968	2000
6.864	2000	8.327	2000
7.592	2000	9.146	2000
9.010	2000	10.005	2000
10.267	2000	11.619	2000
11.356	2000	12.762	2000
12.362	3000	14.233	2000
13.673	3000	15.633	2000
15.156	3000	18.752	3000
16.763	3000	20.596	3000
20.533	3000	23.044	3000
22.711	3000	25.311	3000
24.933	3000	29.822	3000
27.578	3000	32.756	3000
32.267	4000	36.193	4000
35.689	4000	39.753	4000
39.160	4000	45.750	4000
43.313	4000	50.250	4000
49.500	4000		
54.750	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](#)  47
- 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 eye bolt is not included in the scope of supply!

Position of the eye bolt

Geared motor		
	Eye bolt on the shaft	Eye bolt on the housing
G50AH045Mxxxxxx	M5 ... M6	-
G50BH110Mxxxxxx	M6	-
G50BH114Mxxxxxx	M10	-
G50BH121Mxxxxxx	-	M8
G50BH132Mxxxxxx	-	M10
G50BH145Mxxxxxx	-	M12
G50BH160Mxxxxxx	-	M12
G50BH185Mxxxxxx	-	M16
G50BH215Mxxxxxx	-	M16
G50BH230Mxxxxxx	-	M20
G50BH250Mxxxxxx	-	M20
G50BH280Mxxxxxx	-	M24
G50BH314Mxxxxxx	-	M24



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](#)  148

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 $\leq$ 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 helical geared motors \(Lenze.com\)](https://www.lenze.com)

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



7.2.4 Environmental conditions

Energy efficiency			
Efficiency level	EN IEC 60034-30-2	Energy efficiency class IE5	
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-H45, 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				'
716	18.0	2.597	896	345	41
545	19.0	3.413	256	75	39
426	21.0	4.368	1376	315	38
350	27.0	5.312	1344	253	28
312	29.0	5.965	686	115	28
266	30.0	6.982	384	55	27
237	32.0	7.840	196	25	27
208	33.0	8.935	688	77	27
185	35.0	10.033	301	30	26
163	35.0	11.429	80	7	26
145	38.0	12.833	77	6	26
125	39.0	14.836	816	55	26
112	41.0	16.660	833	50	25
97.8	42.0	19.013	1464	77	26
87.1	44.0	21.350	427	20	25
75.6	45.0	24.595	2976	121	25
67.3	45.0	27.618	1519	55	25
58.1	45.0	32.000	32	1	26
51.8	45.0	35.933	539	15	25



g500-H100, 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				'
882	49.0	2.108	120	253	30
555	62.0	3.354	161	48	29
404	72.0	4.600	23	5	27
360	75.0	5.167	31	6	24
316	81.0	5.887	989	168	27
289	83.0	6.440	161	25	27
263	86.0	7.086	248	35	23
226	92.0	8.214	115	14	27
205	96.0	9.068	1333	147	23
185	99.0	10.063	161	16	27
164	100	11.360	284	25	22
147	100	12.653	620	49	23
128	100	14.490	710	49	22
120	100	15.500	31	2	23
105	100	17.750	71	4	22
95.5	100	19.486	682	35	23
83.4	100	22.314	781	35	22
74.1	100	25.095	527	21	23
64.7	100	28.738	1207	42	21
58.5	100	31.805	2449	77	22
51.1	100	36.422	5609	154	21
46.7	100	39.857	279	7	22
40.8	100	45.643	639	14	21

g500-H100, 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				'
35.8	100	51.962	5456	105	23
31.3	100	59.505	6248	105	22
28.0	100	66.499	29326	441	23
25.6	100	72.747	5456	75	23
22.3	100	83.307	6248	75	22
20.0	100	92.789	13640	147	23
17.5	100	106.259	15620	147	22



g500-H140, 2-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{z, \max}$	i	z_g	z_t	'
rpm	Nm				
906	63.0	2.053	75	154	27
639	83.0	2.912	125	364	26
569	82.0	3.267	49	15	25
415	94.0	4.480	112	25	24
324	103	5.733	86	15	23
297	105	6.272	784	125	23
256	106	7.269	189	26	18
233	117	8.000	8	1	23
206	117	9.029	316	35	18
190	125	9.800	49	5	23
161	128	11.554	3397	294	18
147	132	12.640	316	25	18
133	136	13.957	4536	325	17
115	140	16.122	790	49	18
105	140	17.802	1620	91	17
94.2	140	19.750	79	4	18
85.3	140	21.808	567	26	17
74.9	140	24.829	869	35	18
67.8	140	27.415	1782	65	17
58.2	140	31.976	1343	42	18
52.7	140	35.308	459	13	17
45.9	140	40.526	6241	154	17
41.6	140	44.748	6399	143	16
36.6	133	50.786	711	14	17
33.2	140	56.077	729	13	16

g500-H140, 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				'
32.3	140	57.582	12956	225	18
29.3	140	63.582	20664	325	17
25.3	140	73.447	32390	441	18
22.0	140	84.732	37367	441	18
20.1	140	92.693	6952	75	18
18.2	140	102.351	33264	325	17
15.7	140	118.231	17380	147	18
14.2	140	130.549	11880	91	17
12.8	140	144.833	869	6	18



g500-H210, 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				'
549	126	3.389	61	18	22
400	143	4.648	488	105	22
333	159	5.583	67	12	18
298	158	6.250	25	4	17
243	172	7.657	268	35	18
217	171	8.571	60	7	17
190	182	9.799	2881	294	18
174	189	10.720	268	25	18
155	186	12.000	12	1	17
136	201	13.673	670	49	17
122	200	15.306	750	49	17
111	210	16.750	67	4	17
99.2	210	18.750	75	4	16
85.3	210	21.802	2747	126	17
76.2	210	24.405	1025	42	16
68.6	210	27.119	1139	42	17
61.3	210	30.357	425	14	16
53.0	210	35.095	737	21	17
47.3	210	39.286	275	7	16
43.7	183	42.593	5963	140	16
39.0	206	47.679	1335	28	16
34.2	137	54.438	871	16	16
30.5	155	60.938	975	16	16

g500-H210, 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				'
42.9	210	43.390	4556	105	17
38.3	210	48.571	340	7	16
33.5	210	55.529	48977	882	17
29.9	210	62.160	18275	294	16
26.2	210	71.026	62645	882	16
23.4	210	79.507	23375	294	16
20.2	210	92.205	19363	210	16
18.0	210	103.214	1445	14	16
15.7	210	118.162	69479	588	16
14.1	210	132.270	25925	196	15
12.2	210	152.853	35309	231	16
10.9	210	171.104	13175	77	15
9.4	210	198.873	12529	63	16
8.4	210	222.619	4675	21	15



g500-H320, 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				
549	165	3.389	61	18	20
400	189	4.648	488	105	20
306	227	6.083	73	12	16
269	218	6.910	539	78	15
223	249	8.343	292	35	16
196	238	9.477	616	65	15
174	265	10.677	3139	294	15
159	271	11.680	292	25	15
153	254	12.128	473	39	15
140	262	13.268	4312	325	15
125	294	14.898	730	49	15
110	281	16.923	220	13	14
102	313	18.250	73	4	15
89.7	299	20.731	539	26	14
78.3	320	23.754	2993	126	15
68.9	320	26.983	3157	117	14
62.9	320	29.548	1241	42	15
55.4	320	33.564	1309	39	14
48.6	251	38.238	803	21	15
42.8	285	43.436	1694	39	14
40.1	218	46.407	6497	140	14
35.3	248	52.715	6853	130	14

g500-H320, 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				'
39.3	320	47.276	4964	105	15
34.6	320	53.703	10472	195	14
30.7	320	60.502	53363	882	15
27.1	320	68.726	8041	117	14
24.0	320	77.387	68255	882	15
21.2	320	87.906	10285	117	14
18.5	320	100.462	21097	210	15
16.3	320	114.118	22253	195	14
14.4	320	128.743	75701	588	15
12.7	320	146.244	11407	78	14
11.2	320	166.541	38471	231	15
9.8	320	189.179	7378	39	14
8.6	315	216.683	13651	63	15
7.6	320	246.137	28798	117	14

g500-H320, 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				'
5.4	320	346.692	109208	315	15



g500-H450, 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				'
540	256	3.444	31	9	19
394	293	4.724	496	105	17
328	315	5.678	511	90	15
308	323	6.045	2666	441	17
281	334	6.613	496	75	17
239	354	7.787	584	75	14
211	370	8.800	44	5	13
187	384	9.965	3139	315	14
165	400	11.262	473	42	13
151	411	12.320	308	25	13
134	426	13.905	292	21	13
118	441	15.714	110	7	13
109	450	17.033	511	30	13
96.6	448	19.250	77	4	13
83.9	450	22.170	2993	135	13
74.2	450	25.056	451	18	13
67.4	450	27.578	1241	45	13
59.7	450	31.167	187	6	13
52.1	450	35.689	1606	45	13
46.1	450	40.333	121	3	12
42.9	322	43.313	6497	150	13
38.0	366	48.950	979	20	12
34.0	273	54.750	219	4	13
30.1	307	61.875	495	8	12

g500-H450, 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				'
42.2	450	44.124	9928	225	14
37.3	450	49.867	748	15	13
32.9	450	56.469	53363	945	14
30.1	450	61.774	69496	1125	14
26.6	450	69.813	5236	75	13
23.6	450	78.794	4964	63	14
20.9	450	89.048	1870	21	13
19.3	450	96.522	8687	90	14
17.1	450	109.083	1309	12	13
15.3	450	121.342	27302	225	14
13.6	450	137.133	2057	15	13
11.9	450	156.274	21097	135	14
10.5	450	176.611	3179	18	13
9.4	450	198.059	98039	495	13
8.3	450	223.833	1343	6	13
7.5	450	248.200	1241	5	13
6.6	450	280.500	561	2	13



g500-H450, 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				'
5.7	450	323.579	218416	675	13
5.1	450	365.689	16456	45	14
4.5	450	414.104	1173986	2835	14
4.1	450	453.011	1528912	3375	14

g500-H600, 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				'
638	220	2.917	12	35	18
569	240	3.267	49	15	17
415	297	4.480	112	25	15
324	339	5.733	86	15	15
288	404	6.456	581	90	13
257	435	7.250	29	4	13
210	487	8.853	664	75	12
187	510	9.943	348	35	12
164	537	11.330	3569	315	12
150	553	12.395	4648	375	12
134	578	13.920	348	25	12
118	600	15.810	332	21	12
105	600	17.755	870	49	12
96.0	600	19.367	581	30	12
85.5	600	21.750	87	4	11
73.8	600	25.207	3403	135	12
65.7	600	28.310	1189	42	11
59.3	600	31.356	1411	45	12
52.8	600	35.214	493	14	11
45.8	558	40.578	1826	45	11
40.8	600	45.571	319	7	11
37.8	456	49.247	7387	150	11
33.6	513	55.307	7743	140	11
29.9	371	62.250	249	4	11
26.6	418	69.911	3915	56	11



g500-H600, 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				'
59.6	600	31.197	49136	1575	13
53.1	600	35.037	8584	245	12
46.6	600	39.925	264106	6615	13
42.6	600	43.676	49136	1125	12
37.9	600	49.051	8584	175	12
33.4	600	55.710	24568	441	12
29.7	600	62.566	21460	343	12
27.3	600	68.244	3071	45	12
24.3	600	76.643	1073	14	12
20.9	600	88.826	251822	2835	12
18.6	600	99.757	43993	441	12
16.8	600	110.491	104414	945	12
15.0	600	124.088	18241	147	12
13.0	600	142.988	135124	945	12
11.6	600	160.585	23606	147	12
10.7	600	173.536	273319	1575	12
9.5	600	194.892	95497	490	12
8.4	600	221.794	39923	180	12
7.5	600	249.089	13949	56	12

g500-H600, 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				'
9.3	600	198.970	2014576	10125	13
8.3	600	223.457	351944	1575	12
7.3	600	253.789	1007288	3969	13
6.5	600	285.021	879860	3087	12
5.8	600	320.294	1080992	3375	12
5.2	600	359.710	188848	525	12
4.6	600	408.538	540496	1323	12
4.1	600	458.814	472120	1029	12
3.7	600	500.459	67562	135	12
3.3	600	562.048	11803	21	12
2.9	600	651.391	5540084	8505	12



g500-H850, 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				'
591	306	3.147	1734	551	15
426	378	4.362	663	152	15
347	429	5.368	102	19	14
313	551	5.946	1207	203	13
280	578	6.644	578	87	12
226	615	8.241	923	112	12
202	649	9.208	221	24	12
183	667	10.143	71	7	12
164	696	11.360	284	25	12
147	725	12.693	952	75	11
128	758	14.490	710	49	11
115	792	16.190	340	21	11
105	814	17.750	71	4	11
93.8	833	19.833	119	6	11
80.5	850	23.103	2911	126	11
72.1	850	25.815	697	27	11
65.7	850	28.315	4757	168	11
58.8	850	31.639	1139	36	11
50.0	850	37.190	781	21	11
44.8	850	41.556	374	9	11
41.2	850	45.136	6319	140	11
36.9	850	50.433	1513	30	11

g500-H850, 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				'
63.0	850	29.536	3692	125	12
56.4	850	33.003	12376	375	12
49.2	850	37.799	39689	1050	12
45.0	850	41.350	25844	625	12
40.3	850	46.204	86632	1875	12
35.3	850	52.743	1846	35	12
31.6	850	58.933	884	15	12
28.8	850	64.610	6461	100	12
25.8	850	72.193	10829	150	12
22.1	850	84.096	37843	450	12
19.8	850	93.966	63427	675	12
17.8	850	104.607	15691	150	12
15.9	850	116.884	26299	225	12
13.7	850	135.373	10153	75	12
12.3	850	151.262	34034	225	12
11.3	850	164.294	82147	500	12
10.1	850	183.577	137683	750	12
9.0	850	207.675	8307	40	12
8.0	850	232.050	4641	20	12



g500-H850, 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				'
8.8	850	210.484	3551912	16875	12
7.9	850	234.319	439348	1875	12
7.1	850	261.821	1472744	5625	12
6.3	850	294.334	264901	900	12
5.7	850	328.881	443989	1350	12
5.1	850	368.019	1150058	3125	12
4.5	850	411.213	3855124	9375	12
3.9	850	473.807	71071	150	12
3.5	850	529.418	119119	225	12
3.2	850	575.029	575029	1000	12
3.0	850	616.701	416273	675	12
2.7	850	689.083	1395394	2025	12
2.4	850	767.116	172601	225	12
2.2	850	857.153	578578	675	12

g500-H1500, 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				'
497	775	3.743	1647	440	14
391	924	4.758	2379	500	13
344	1021	5.400	27	5	10
298	1098	6.245	2623	420	13
271	1157	6.864	858	125	10
245	1217	7.592	949	125	10
206	1320	9.010	946	105	10
181	1380	10.267	154	15	10
164	1400	11.356	511	45	9
151	1420	12.362	1298	105	10
136	1430	13.673	4307	315	9
123	1440	15.156	682	45	10
111	1450	16.763	2263	135	9
90.6	1500	20.533	308	15	10
81.9	1500	22.711	1022	45	9
74.6	1500	24.933	374	15	9
67.4	1500	27.578	1241	45	9
57.6	1484	32.267	484	15	9
52.1	1500	35.689	1606	45	9
47.5	1500	39.160	979	25	9
42.9	1500	43.313	6497	150	9
37.6	1250	49.500	99	2	9
34.0	1382	54.750	219	4	9



g500-H1500, 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				'
45.9	1500	40.517	2431	60	10
41.5	1500	44.814	16133	360	10
37.3	1500	49.867	748	15	10
33.3	1500	55.851	20944	375	10
30.1	1500	61.774	69496	1125	10
26.1	1500	71.238	1496	21	10
23.6	1500	78.794	4964	63	10
21.3	1500	87.267	1309	15	10
19.3	1500	96.522	8687	90	10
16.4	1500	113.585	15334	135	10
14.8	1500	125.632	50881	405	10
13.4	1500	139.211	12529	90	10
12.1	1500	153.976	83147	540	10
10.2	1500	182.844	8228	45	10
9.2	1500	202.237	27302	135	10
8.4	1500	221.907	16643	75	10
7.6	1500	245.442	110449	450	10
6.6	1500	280.500	561	2	10
6.0	1500	310.250	1241	4	10

g500-H1500, 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				'
9.1	1500	203.537	29920	147	10
8.3	1500	225.125	99280	441	10
7.3	1500	254.431	858704	3375	10
6.6	1500	281.416	2849336	10125	10
5.9	1500	316.487	356048	1125	10
5.3	1500	350.054	1181432	3375	10
4.7	1500	397.548	53669	135	10
4.2	1500	446.497	84388	189	10
3.8	1500	494.511	22253	45	10
3.2	1500	572.324	2086121	3645	10
2.9	1500	634.184	513689	810	10
2.7	1500	701.446	3409027	4860	10
2.4	1500	788.863	212993	270	10
2.1	1500	872.530	1413499	1620	10
2.0	1500	921.302	1119382	1215	10
1.8	1500	1020.881	137819	135	10
1.6	1500	1129.157	914617	810	10
1.4	1500	1340.859	181016	135	10
1.3	1500	1483.072	600644	405	10
1.1	1500	1627.316	366146	225	10



g500-H3000, 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				'
186	2300	10.005	3752	375	9
160	2400	11.619	244	21	9
146	2475	12.762	268	21	9
131	2530	14.233	427	30	8
119	2610	15.633	469	30	8
99.2	2750	18.752	5063	270	8
90.3	2815	20.596	5561	270	8
80.7	2900	23.044	1037	45	8
73.5	2965	25.311	1139	45	8
62.4	3000	29.822	1342	45	8
56.8	3000	32.756	1474	45	8
51.4	3000	36.193	5429	150	8
46.8	3000	39.753	5963	150	8
40.7	1765	45.750	183	4	8
37.0	1938	50.250	201	4	8

g500-H3000, 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	2830	47.186	44591	945	9
35.9	2910	51.828	48977	945	9
34.6	2950	53.770	7259	135	9
31.5	3000	59.059	7973	135	9
28.7	3000	64.744	61183	945	9
26.2	3000	71.112	67201	945	9
23.4	3000	79.375	32147	405	9
21.3	3000	87.183	35309	405	9
17.3	3000	107.541	14518	135	9
15.7	3000	118.119	15946	135	9
14.2	3000	130.585	17629	135	9
13.0	3000	143.430	19363	135	9
11.0	3000	168.993	22814	135	9
10.0	3000	185.615	25058	135	9
9.1	3000	205.096	92293	450	9
8.3	3000	225.269	101371	450	9
7.2	3000	259.250	1037	4	9
6.5	3000	284.750	1139	4	9



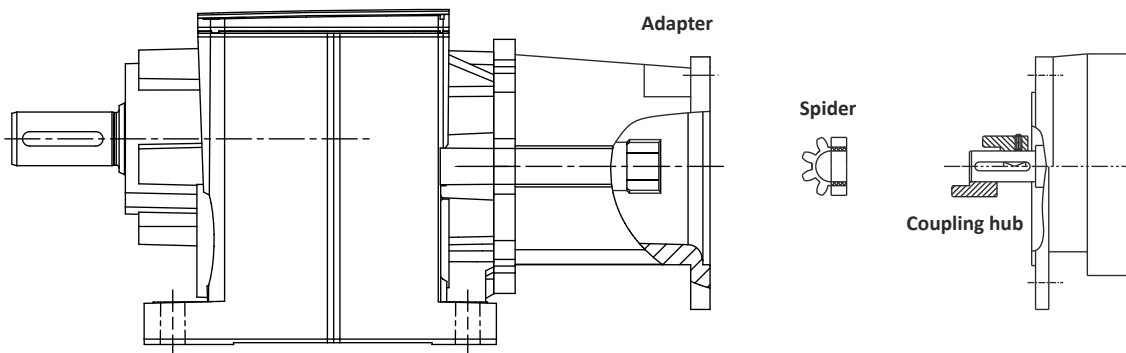
g500-H3000, 4-stage gearboxes

Output speed	Max. output torque	Ratio	Number of teeth		Max. backlash
					Standard
n_2	$M_{2, \max}$	i	z_g	z_t	
rpm	Nm				'
9.2	2850	203.178	268804	1323	9
8.2	2650	226.604	61183	270	9
7.5	2950	248.893	67201	270	9
6.4	3000	292.511	987224	3375	9
5.8	3000	321.282	1084328	3375	9
4.9	3000	376.393	50813	135	9
4.5	3000	413.415	55811	135	9
4.1	3000	457.048	123403	270	9
3.8	3000	489.908	595238	1215	9
3.5	3000	538.095	653786	1215	9
3.1	3000	594.888	722789	1215	9
2.8	3000	653.402	793883	1215	9
2.5	3000	739.983	299693	405	9
2.4	3000	788.632	319396	405	9
2.1	3000	866.202	350812	405	9
1.9	3000	957.625	387838	405	9
1.8	3000	1051.817	425986	405	9
1.5	3000	1239.279	501908	405	9
1.4	3000	1361.175	551276	405	9
1.2	3000	1504.034	1015223	675	9
1.1	3000	1651.972	1115081	675	9
1.0	3000	1825.350	8214077	4500	9
0.9	3000	2004.893	9022019	4500	9
0.8	3000	2332.962	8398663	3600	9
0.7	3000	2562.434	9224761	3600	9
0.6	3000	2948.969	94367	32	9
0.6	3000	3239.031	103649	32	9



7.4 Gearboxes with adapter

Versions with flexible coupling

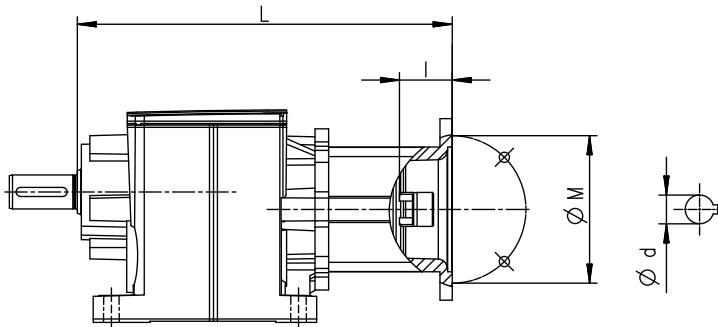


Power is transmitted between the motor and the gearbox via a flexible coupling. The gearbox shaft is designed as a coupling claw on the motor side. The counterpart, the coupling hub, is placed on the motor shaft and secured axially. A spider (elastic ring gear) is located between the two coupling claws, 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](#) [108](#)

Versions with flexible coupling

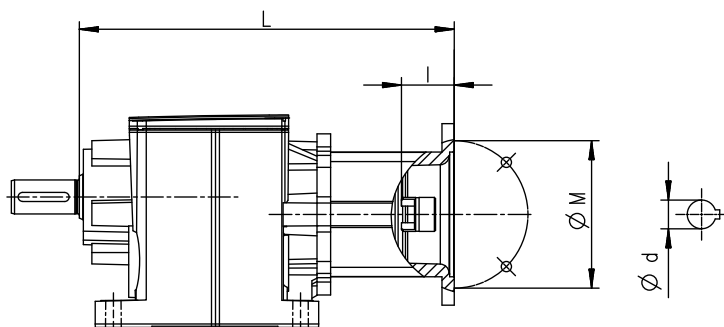
Motor				Adapter		Gearbox g500									
	Size	Shaft			Size	-H45	-H100	-H140	-H210	-H320	-H450	-H600	-H850	-H1500	-H3000
P ₁		d	l	M		L	L	L	L	L	L	L	L	L	L
kW		mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0.12 0.18	63	11	23	FF75	N1A	164	218	231	255	270	285	-	-	-	-
					N2B	-	218	231	255	270	285	-	-	-	-
				FF130	N6C	-	234	248	272	287	285	306	317	-	-
0.25 0.37	71	14	30	FF85	N1B	-	235	248	272	287	302	323	334	386	-
					N3C	-	235	248	272	287	302	323	334	386	-
				FF100	N4C	-	235	248	272	287	302	323	334	386	-
				FF130	N2C	-	235	248	272	287	302	323	334	386	-
0.55 0.75	80	19	40	FF100	N7C	-	235	248	272	287	302	323	334	386	-
				FF130	N1C	-	235	248	272	287	302	323	334	386	-
					N2D	-	264	277	301	316	331	352	363	415	455
					N3E	-	-	-	301	316	331	352	363	415	-
1.1 1.5	90	24	50	FF130	N1D	-	264	277	301	316	331	352	363	415	455
					N2E	-	-	-	301	316	331	352	363	415	455
					N2F	-	-	-	-	-	-	352	363	415	455
				FT165	N4E	-	-	-	321	336	351	372	383	435	475
					N3F	-	-	-	-	-	-	372	383	435	475
2.2 3.0 4.0	100	28	60	FF130	N1E	-	-	-	301	316	331	352	363	415	455
					N1F	-	-	-	-	-	-	352	363	415	455
	112			FF215	N2G	-	-	-	-	-	-	416	427	479	519
5.5 7.5	132	38	80	FF215	N3G	-	-	-	-	-	-	436	447	499	539
				FF265	N1G	-	-	-	-	-	-	436	447	499	539
					N3H	-	-	-	-	-	-	-	-	539	579
11.0 15.0	160	42	110	FF300	N1H	-	-	-	-	-	-	-	-	569	609
18.5 22.0	180	48	110	FF300	N2H	-	-	-	-	-	-	-	-	569	609

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](#) 108

Versions with servo adapter

Motor			Adapter		Gearbox g500								
M	Shaft		M	Size	-H100	-H140	-H210	-H320	-H450	-H600	-H850	-H1500	-H3000
	d	l			L	L	L	L	L	L	L	L	L
mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm
75	11	23	FT75	S2B	174	187	211	226	241	262	273	-	-
	14	30		S3B	174	187	211	226	241	262	273	-	-
100	14	30	FF100	S4C	189	202	226	241	256	277	288	340	-
	19	40		S7C	189	202	226	241	256	277	288	340	-
	16	40		S8C	189	202	226	241	256	277	288	340	-
115	19	50	FF115	S3D	206	219	243	258	273	294	305	357	397
	24	50		S4D	206	219	243	258	273	294	305	357	397
130	19	50	FF130	S2D	206	219	243	258	273	294	305	357	397
	24	50		S1D	206	219	243	258	273	294	305	357	397
	24	60		S2E	-	-	243	258	273	294	305	357	397
	28	60		S1E	-	-	243	258	273	294	305	357	397
165	24	50	FF165	S4E	-	-	243	258	273	294	305	357	397
	32	58		S6E	-	-	243	258	273	294	305	357	397
	28	60		S7E	-	-	243	258	273	294	305	357	397



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 .

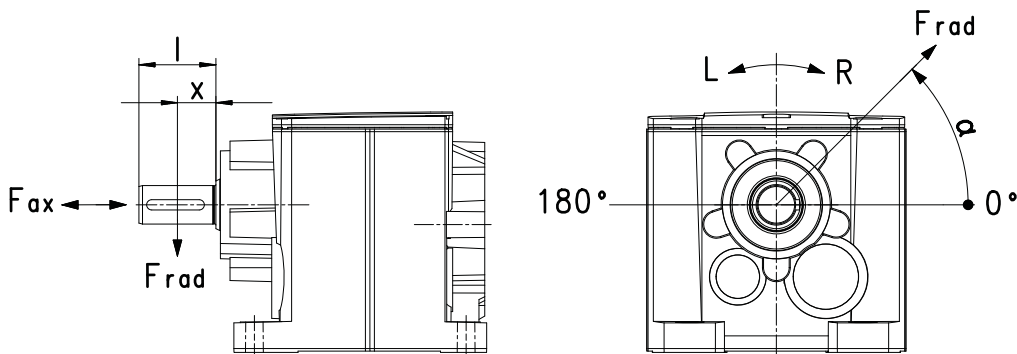
$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

Permissible axial force

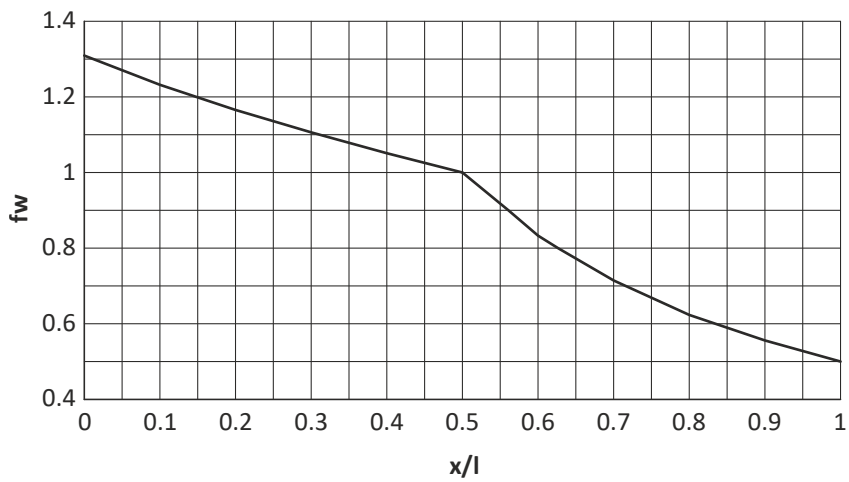
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

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

Application of forces



Additional load factor f_w on the drive shaft





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

Max. radial force, gearbox with foot (VBR)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1800	2100	2600	2700	2700	2700
g500-H140	1000	1440	1800	2200	2500	3000	3300	3700	4100	4200
g500-H210	1100	1600	2000	2400	2800	3400	3900	4100	4400	4800
g500-H320	1760	2090	2480	3000	3520	4190	5000	5700	5700	5700
g500-H450	2440	2820	3340	4020	4660	5540	6500	7100	7100	7100
g500-H600	3820	4480	5250	6100	7260	8450	9500	9500	9500	9500
g500-H850	4700	5510	6430	7500	8860	10400	11500	11500	11500	11500
g500-H1500	6300	7440	8790	10300	12200	14500	17000	17000	17000	17000
g500-H3000	7510	8880	10100	12400	14600	17200	20000	20000	20000	20000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1000	1200	1500	1800	2200	2700	3200	3300	3300	3300
g500-H140	1300	1800	2300	2700	3100	3700	4100	4600	5100	5300
g500-H210	1400	2000	2500	3000	3500	4200	4900	5100	5500	6000
g500-H320	2380	3250	4380	5600	6800	7100	7100	7100	7100	7100
g500-H450	4030	5100	6870	8650	8900	8900	8900	8900	8900	8900
g500-H600	7180	8710	9860	11300	12000	12000	12000	12000	12000	12000
g500-H850	9520	10500	11900	13300	15400	15600	15600	15600	15600	15600
g500-H1500	12600	14600	16500	19100	21000	21000	21000	21000	21000	21000
g500-H3000	16100	18000	20200	23600	25000	25000	25000	25000	25000	25000



Max. radial force, gearbox with/without foot with threaded pitch circle (V□R/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-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1700	1700	1700	1700	1700	1700
g500-H140	1000	1400	1800	2200	2500	2600	2600	2600	2600	2600
g500-H210	1100	1600	2000	2400	2800	3000	3000	3000	3000	3000
g500-H320	1760	2090	2480	3000	3520	3600	3600	3600	3600	3600
g500-H450	2440	2820	3340	4020	4400	4400	4400	4400	4400	4400
g500-H600	3820	4480	5250	6100	7260	8450	8500	8500	8500	8500
g500-H850	4700	5510	6430	7500	8860	10000	10000	10000	10000	10000
g500-H1500	6300	7440	8790	10300	12200	14000	14000	14000	14000	14000
g500-H3000	7510	8880	10100	12400	14600	17000	17000	17000	17000	17000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1000	1200	1500	1700	1700	1700	1700	1700	1700	1700
g500-H140	1300	1800	2300	2600	2600	2600	2600	2600	2600	2600
g500-H210	1400	2000	2500	3000	3000	3000	3000	3000	3000	3000
g500-H320	2380	3250	3600	3600	3600	3600	3600	3600	3600	3600
g500-H450	4030	4400	4400	4400	4400	4400	4400	4400	4400	4400
g500-H600	7180	8500	8500	8500	8500	8500	8500	8500	8500	8500
g500-H850	9250	10000	10000	10000	10000	10000	10000	10000	10000	10000
g500-H1500	12600	14000	14000	14000	14000	14000	14000	14000	14000	14000
g500-H3000	16100	17000	17000	17000	17000	17000	17000	17000	17000	17000

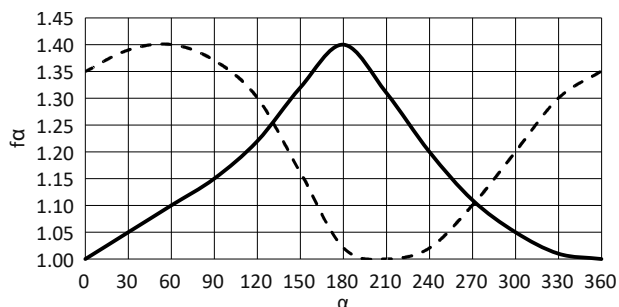
Max. radial force, gearbox with reinforced flange (VCP)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1900	2400	2900	3330	3650	3890	4060	4160	4240	4280
g500-H140	3000	3500	4000	5510	5950	6270	6480	6620	6710	6770
g500-H210	3400	4000	5000	6170	6670	7060	7330	7500	7620	7700
g500-H320	3900	4500	6000	7040	7690	8210	8570	8810	8970	9080
g500-H450	4300	5200	6400	7810	8550	9160	9590	9880	10100	10200



Effective direction factor f_α on the output shaft

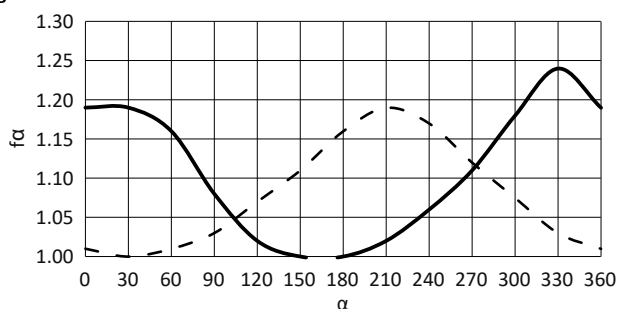
g500-H45



— 2-stage: Direction of rotation R

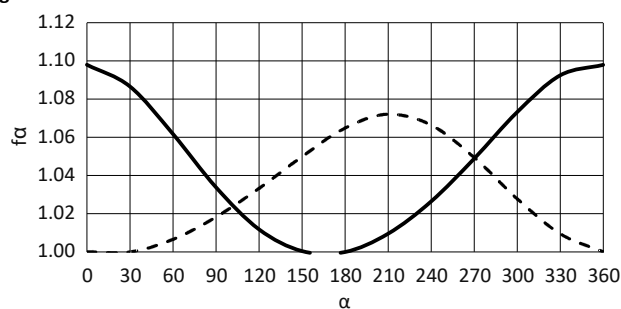
--- 2-stage: Direction of rotation L

g500-H100



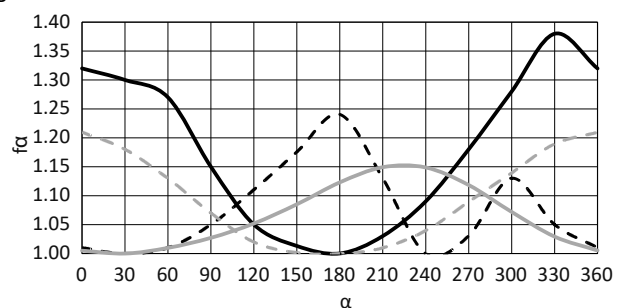
— 2-stage: Direction of rotation R
--- 3-stage: Direction of rotation L

g500-H140



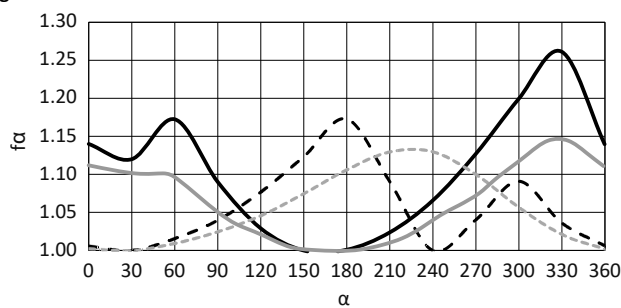
--- 2-stage: Direction of rotation L
— 3-stage: Direction of rotation R

g500-H210



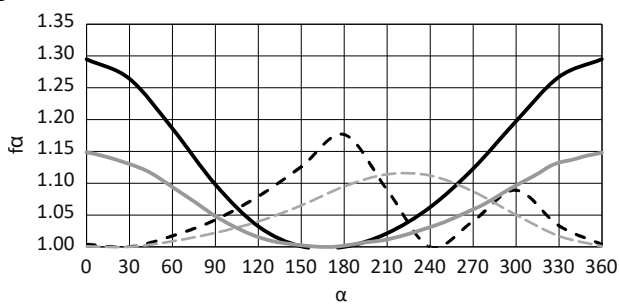
— 2-stage: Direction of rotation R
--- 4-stage: Direction of rotation L
... 2-stage: Direction of rotation L

g500-H320



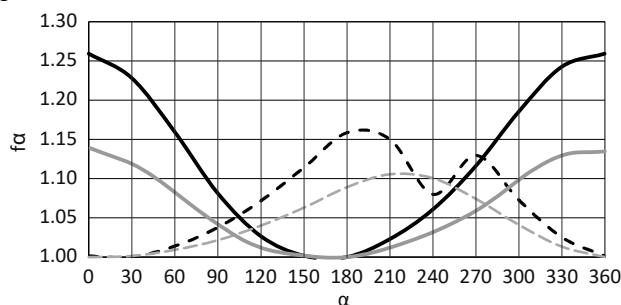
— 3-stage: Direction of rotation R
--- 3-stage: Direction of rotation L
... 4-stage: Direction of rotation R

g500-H450



— 2-stage: Direction of rotation R
--- 4-stage: Direction of rotation L
... 2-stage: Direction of rotation L

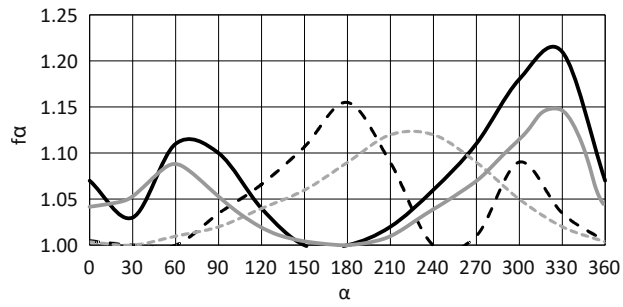
g500-H600



— 3-stage: Direction of rotation R
--- 3-stage: Direction of rotation L
... 4-stage: Direction of rotation R

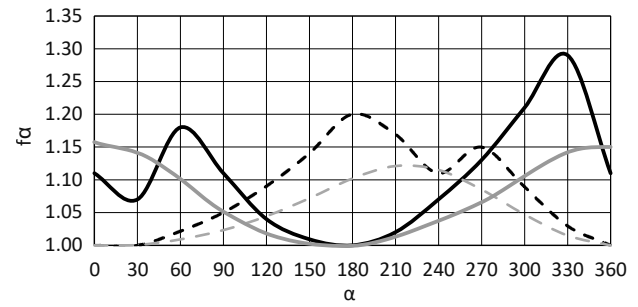


g500-H850



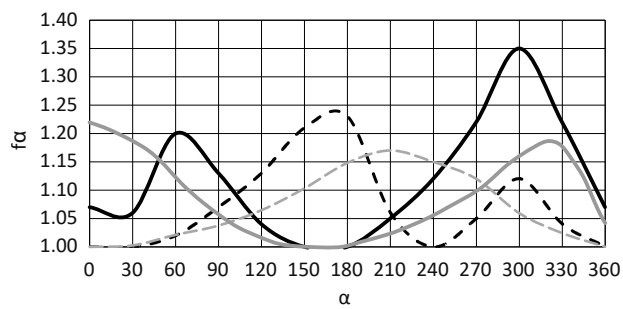
— 2-stage: Direction of rotation R
 — 4-stage: Direction of rotation L
 - - - 2-stage: Direction of rotation L
 - - - 4-stage: Direction of rotation R

g500-H1500



— 3-stage: Direction of rotation R
 — 3-stage: Direction of rotation L
 - - - 3-stage: Direction of rotation R
 - - - 3-stage: Direction of rotation L

g500-H3000



— 2-stage: Direction of rotation R
 — 4-stage: Direction of rotation L
 - - - 2-stage: Direction of rotation L
 - - - 4-stage: Direction of rotation R

— 3-stage: Direction of rotation R
 — 3-stage: Direction of rotation L
 - - - 3-stage: Direction of rotation R
 - - - 3-stage: Direction of rotation L



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
57.8	4.6	116	4.8	716	4.8	3.5	3.500	2.597	g500-H45	m550-U63/L4	2	6.6
45.9	5.7	91.8	6.0	569	6.0	4.8	4.142	3.267	g500-H140	m550-U63/L4	2	9.7
44.7	5.9	89.4	6.2	555	6.2	4.8	3.765	3.354	g500-H100	m550-U63/L4	2	8.6
43.9	6.0	87.9	6.3	545	6.3	2.8	3.409	3.413	g500-H45	m550-U63/L4	2	6.6
34.3	7.7	68.7	8.1	426	8.1	2.4	3.357	4.368	g500-H45	m550-U63/L4	2	6.6
33.5	7.9	67.0	8.3	415	8.3	4.8	3.776	4.480	g500-H140	m550-U63/L4	2	9.7
32.6	8.1	65.2	8.5	404	8.5	4.8	3.575	4.600	g500-H100	m550-U63/L4	2	8.6
29.0	9.1	58.1	9.5	360	9.5	4.8	3.669	5.167	g500-H100	m550-U63/L4	2	8.6
28.2	9.3	56.5	9.8	350	9.8	2.6	3.419	5.312	g500-H45	m550-U63/L4	2	6.6
26.2	10.1	52.3	11.0	324	11.0	4.5	3.599	5.733	g500-H140	m550-U63/L4	2	9.7
25.5	10.3	51.0	11.0	316	11.0	4.5	3.476	5.887	g500-H100	m550-U63/L4	2	8.6
25.1	10.5	50.3	11.0	312	11.0	2.5	3.413	5.965	g500-H45	m550-U63/L4	2	6.6
23.9	11.0	47.8	12.0	297	12.0	4.4	3.549	6.272	g500-H140	m550-U63/L4	2	9.7
23.3	11.3	46.6	12.0	289	12.0	4.4	3.447	6.440	g500-H100	m550-U63/L4	2	8.6
21.5	12.3	43.0	13.0	266	13.0	2.2	3.362	6.982	g500-H45	m550-U63/L4	2	6.6
21.2	12.4	42.3	13.0	263	13.0	4.8	3.525	7.086	g500-H100	m550-U63/L4	2	8.6
20.6	12.8	41.3	13.0	256	13.0	4.8	3.745	7.269	g500-H140	m550-U63/L4	2	9.7
19.1	13.8	38.3	14.0	237	14.0	2.1	3.359	7.840	g500-H45	m550-U63/L4	2	6.6
18.8	14.0	37.5	15.0	233	15.0	4.1	3.451	8.000	g500-H140	m550-U63/L4	2	9.7
18.3	14.4	36.5	15.0	226	15.0	4.1	3.388	8.214	g500-H100	m550-U63/L4	2	8.6
16.8	15.7	33.6	16.0	208	16.0	1.9	3.329	8.935	g500-H45	m550-U63/L4	2	6.6
16.6	15.9	33.2	17.0	206	17.0	4.8	3.582	9.029	g500-H140	m550-U63/L4	2	9.7
16.5	15.9	33.1	17.0	205	17.0	4.5	3.445	9.068	g500-H100	m550-U63/L4	2	8.6
15.3	17.2	30.6	18.0	190	18.0	3.7	3.395	9.800	g500-H140	m550-U63/L4	2	9.7
15.0	17.6	29.9	18.0	185	18.0	1.8	3.326	10.033	g500-H45	m550-U63/L4	2	6.6
14.9	17.7	29.8	19.0	185	19.0	3.7	3.353	10.063	g500-H100	m550-U63/L4	2	8.6
14.0	18.8	28.0	20.0	174	20.0	4.8	3.753	10.720	g500-H210	m550-U63/L4	2	11
13.2	19.9	26.4	21.0	164	21.0	4.4	3.415	11.360	g500-H100	m550-U63/L4	2	8.6
13.1	20.1	26.3	21.0	163	21.0	1.6	3.299	11.429	g500-H45	m550-U63/L4	2	6.6
13.0	20.3	26.0	21.0	161	21.0	4.5	3.480	11.554	g500-H140	m550-U63/L4	2	9.7
12.8	20.5	25.7	22.0	159	22.0	4.8	3.865	11.680	g500-H320	m550-U63/L4	2	13
12.5	21.1	25.0	22.0	155	22.0	4.8	3.737	12.000	g500-H210	m550-U63/L4	2	11
11.9	22.2	23.7	23.0	147	23.0	4.4	3.450	12.640	g500-H140	m550-U63/L4	2	9.7
11.9	22.2	23.7	23.0	147	23.0	4.0	3.372	12.653	g500-H100	m550-U63/L4	2	8.6
11.7	22.5	23.4	24.0	145	24.0	1.5	3.297	12.833	g500-H45	m550-U63/L4	2	6.6
11.3	23.3	22.6	24.0	140	24.0	4.8	3.826	13.268	g500-H320	m550-U63/L4	2	13
11.0	24.0	21.9	25.0	136	25.0	4.5	3.615	13.673	g500-H210	m550-U63/L4	2	11
10.7	24.5	21.5	26.0	133	26.0	4.4	3.441	13.957	g500-H140	m550-U63/L4	2	9.7
10.4	25.4	20.7	27.0	128	27.0	3.5	3.369	14.490	g500-H100	m550-U63/L4	2	8.6
10.1	26.1	20.2	27.0	125	27.0	1.3	3.281	14.836	g500-H45	m550-U63/L4	2	6.6
10.1	26.2	20.1	27.0	125	27.0	4.5	3.684	14.898	g500-H320	m550-U63/L4	2	13
9.8	26.9	19.6	28.0	122	28.0	4.5	3.605	15.306	g500-H210	m550-U63/L4	2	11
9.7	27.2	19.4	29.0	120	29.0	3.3	3.342	15.500	g500-H100	m550-U63/L4	2	8.6
9.3	28.3	18.6	30.0	115	30.0	4.1	3.390	16.122	g500-H140	m550-U63/L4	2	9.7
9.0	29.3	18.0	31.0	112	31.0	1.3	3.280	16.660	g500-H45	m550-U63/L4	2	6.6
8.9	29.7	17.7	31.0	110	31.0	4.5	3.660	16.923	g500-H320	m550-U63/L4	2	13
8.5	31.2	16.9	33.0	105	33.0	2.8	3.340	17.750	g500-H100	m550-U63/L4	2	8.6
8.4	31.3	16.9	33.0	105	33.0	4.0	3.385	17.802	g500-H140	m550-U63/L4	2	9.7
7.9	33.4	15.8	35.0	97.8	35.0	1.2	3.268	19.013	g500-H45	m550-U63/L4	2	6.6
7.7	34.2	15.4	36.0	95.5	36.0	2.6	3.309	19.486	g500-H100	m550-U63/L4	2	8.6
7.6	34.7	15.2	36.0	94.2	36.0	3.6	3.354	19.750	g500-H140	m550-U63/L4	2	9.7



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
7.0	37.5	14.1	39.0	87.1	39.0	1.1	3.267	21.350	g500-H45	m550-U63/L4	2	6.6
6.9	38.3	13.8	40.0	85.3	40.0	3.2	3.351	21.808	g500-H140	m550-U63/L4	2	9.7
6.9	38.3	13.8	40.0	85.3	40.0	3.7	3.422	21.802	g500-H210	m550-U63/L4	2	11
6.7	39.2	13.4	41.0	83.4	41.0	2.3	3.307	22.314	g500-H100	m550-U63/L4	2	8.6
6.3	41.7	12.6	44.0	78.3	44.0	3.7	3.449	23.754	g500-H320	m550-U63/L4	2	13
6.1	42.9	12.3	45.0	76.2	45.0	3.7	3.419	24.405	g500-H210	m550-U63/L4	2	11
6.1	43.2	12.2	45.0	75.6	45.0	1.0	3.259	24.595	g500-H45	m550-U63/L4	2	6.6
6.0	43.6	12.1	46.0	74.9	46.0	2.9	3.317	24.829	g500-H140	m550-U63/L4	2	9.7
6.0	44.1	12.0	46.0	74.1	46.0	2.0	3.288	25.095	g500-H100	m550-U63/L4	2	8.6
5.6	47.4	11.1	50.0	68.9	50.0	4.0	3.440	26.983	g500-H320	m550-U63/L4	2	13
5.5	47.6	11.1	50.0	68.6	50.0	3.4	3.374	27.119	g500-H210	m550-U63/L4	2	11
5.5	48.1	10.9	51.0	67.8	51.0	2.8	3.314	27.415	g500-H140	m550-U63/L4	2	9.7
5.4	48.5	10.9	51.0	67.3	51.0	0.9	3.259	27.618	g500-H45	m550-U63/L4	2	6.6
5.2	50.5	10.4	53.0	64.7	53.0	1.9	3.287	28.738	g500-H100	m550-U63/L4	2	8.6
5.1	51.9	10.2	54.0	62.9	54.0	3.4	3.392	29.548	g500-H320	m550-U63/L4	2	13
4.9	53.3	9.9	56.0	61.3	56.0	3.4	3.372	30.357	g500-H210	m550-U63/L4	2	11
4.7	55.9	9.4	59.0	58.5	59.0	1.7	3.272	31.805	g500-H100	m550-U63/L4	2	8.6
4.7	56.2	9.4	59.0	58.2	59.0	2.4	3.293	31.976	g500-H140	m550-U63/L4	2	9.7
4.5	58.9	8.9	62.0	55.4	62.0	3.4	3.386	33.564	g500-H320	m550-U63/L4	2	13
4.3	61.6	8.5	65.0	53.0	65.0	3.0	3.325	35.095	g500-H210	m550-U63/L4	2	11
4.2	62.0	8.5	65.0	52.7	65.0	2.2	3.291	35.308	g500-H140	m550-U63/L4	2	9.7
4.2	62.7	8.4	66.0	52.1	66.0	3.4	3.484	35.689	g500-H450	m550-U63/L4	2	16
4.1	64.0	8.2	67.0	51.1	67.0	1.5	3.271	36.422	g500-H100	m550-U63/L4	2	8.6
3.9	67.2	7.8	70.0	48.6	70.0	3.0	3.335	38.238	g500-H320	m550-U63/L4	2	13
3.8	69.0	7.6	72.0	47.3	72.0	2.9	3.323	39.286	g500-H210	m550-U63/L4	2	11
3.8	70.0	7.5	73.0	46.7	73.0	1.1	3.262	39.857	g500-H100	m550-U63/L4	2	8.6
3.7	70.8	7.4	74.0	46.1	74.0	3.4	3.478	40.333	g500-H450	m550-U63/L4	2	16
3.7	71.2	7.4	75.0	45.9	75.0	1.9	3.275	40.526	g500-H140	m550-U63/L4	2	9.7
3.7	71.3	7.4	75.0	45.8	75.0	3.4	3.504	40.578	g500-H600	m550-U63/L4	2	28
3.5	74.8	7.0	79.0	43.7	79.0	2.3	3.302	42.593	g500-H210	m550-U63/L4	2	11
3.5	75.1	6.9	79.0	42.9	79.0	2.5	3.367	43.390	g500-H210	m550-U63/L4	3	11
3.4	75.6	6.9	79.0	42.6	79.0	4.8	3.898	43.676	g500-H600	m550-U63/L4	3	29
3.5	76.1	6.9	80.0	42.9	80.0	2.9	3.419	43.313	g500-H450	m550-U63/L4	2	16
3.5	76.3	6.9	80.0	42.8	80.0	3.0	3.332	43.436	g500-H320	m550-U63/L4	2	13
3.4	76.3	6.8	80.0	42.2	80.0	4.8	3.600	44.124	g500-H450	m550-U63/L4	3	17
3.4	78.6	6.7	82.0	41.6	82.0	1.7	3.274	44.748	g500-H140	m550-U63/L4	2	9.7
3.3	80.2	6.6	84.0	40.8	84.0	1.1	3.262	45.643	g500-H100	m550-U63/L4	2	8.6
3.3	80.0	6.6	84.0	40.8	84.0	3.4	3.495	45.571	g500-H600	m550-U63/L4	2	28
3.2	81.5	6.5	86.0	40.1	86.0	2.5	3.310	46.407	g500-H320	m550-U63/L4	2	13
3.2	81.8	6.3	86.0	39.3	86.0	3.7	3.374	47.276	g500-H320	m550-U63/L4	3	13
3.1	83.7	6.3	88.0	39.0	88.0	2.3	3.301	47.679	g500-H210	m550-U63/L4	2	11
3.1	84.0	6.2	88.0	38.3	88.0	2.4	3.366	48.571	g500-H210	m550-U63/L4	3	11
3.1	86.0	6.1	90.0	38.0	90.0	2.9	3.415	48.950	g500-H450	m550-U63/L4	2	16
3.0	86.5	6.1	91.0	37.8	91.0	2.9	3.433	49.247	g500-H600	m550-U63/L4	2	28
3.0	86.3	6.0	91.0	37.3	91.0	5.0	3.596	49.867	g500-H450	m550-U63/L4	3	17
3.0	89.2	5.9	94.0	36.6	94.0	1.1	3.264	50.786	g500-H140	m550-U63/L4	2	9.7
2.9	89.9	5.8	94.0	35.8	94.0	1.1	3.334	51.962	g500-H100	m550-U63/L4	3	12
2.8	92.6	5.7	97.0	35.3	97.0	2.5	3.307	52.715	g500-H320	m550-U63/L4	2	13
2.8	92.9	5.6	98.0	34.6	98.0	3.3	3.371	53.703	g500-H320	m550-U63/L4	3	13
2.8	95.6	5.5	100	34.2	100	1.3	3.280	54.438	g500-H210	m550-U63/L4	2	11
2.7	96.1	5.5	101	34.0	101	2.4	3.356	54.750	g500-H450	m550-U63/L4	2	16
2.7	96.1	5.4	101	33.5	101	2.1	3.328	55.529	g500-H210	m550-U63/L4	3	11



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
2.7	96.4	5.4	101	33.4	101	4.8	3.704	55.710	g500-H600	m550-U63/L4	3	29
2.7	97.1	5.4	102	33.6	102	2.9	3.427	55.307	g500-H600	m550-U63/L4	2	28
2.7	98.5	5.3	103	33.2	103	1.1	3.264	56.077	g500-H140	m550-U63/L4	2	9.7
2.7	97.7	5.3	103	32.9	103	4.4	3.491	56.469	g500-H450	m550-U63/L4	3	17
2.6	99.6	5.2	105	32.3	105	1.3	3.442	57.582	g500-H140	m550-U63/L4	3	13
2.5	103	5.0	108	31.3	108	0.9	3.333	59.505	g500-H100	m550-U63/L4	3	12
2.5	105	5.0	110	30.7	110	2.9	3.333	60.502	g500-H320	m550-U63/L4	3	13
2.5	107	4.9	112	30.5	112	1.3	3.279	60.938	g500-H210	m550-U63/L4	2	11
2.4	107	4.9	112	30.1	112	4.0	3.459	61.774	g500-H450	m550-U63/L4	3	17
2.4	108	4.8	113	29.9	113	1.9	3.328	62.160	g500-H210	m550-U63/L4	3	11
2.4	109	4.8	114	30.1	114	2.4	3.354	61.875	g500-H450	m550-U63/L4	2	16
2.4	108	4.8	114	29.7	114	4.8	3.699	62.566	g500-H600	m550-U63/L4	3	29
2.4	109	4.8	115	29.9	115	2.4	3.365	62.250	g500-H600	m550-U63/L4	2	28
2.4	110	4.7	115	29.3	115	1.2	3.441	63.582	g500-H140	m550-U63/L4	3	13
2.3	115	4.5	121	28.0	121	0.8	3.332	66.499	g500-H100	m550-U63/L4	3	12
2.2	119	4.4	125	27.1	125	2.6	3.331	68.726	g500-H320	m550-U63/L4	3	13
2.1	121	4.3	127	26.6	127	3.6	3.457	69.813	g500-H450	m550-U63/L4	3	17
2.1	123	4.3	129	26.6	129	2.4	3.361	69.911	g500-H600	m550-U63/L4	2	28
2.1	123	4.2	129	26.2	129	1.6	3.300	71.026	g500-H210	m550-U63/L4	3	11
2.0	127	4.1	133	25.3	133	1.1	3.439	73.447	g500-H140	m550-U63/L4	3	13
1.9	134	3.9	141	24.0	141	2.3	3.302	77.387	g500-H320	m550-U63/L4	3	13
1.9	136	3.8	143	23.6	143	3.2	3.396	78.794	g500-H450	m550-U63/L4	3	17
1.9	138	3.8	144	23.4	144	1.5	3.299	79.507	g500-H210	m550-U63/L4	3	11
1.8	147	3.5	154	22.0	154	0.9	3.333	84.732	g500-H140	m550-U63/L4	3	13
1.7	152	3.4	160	21.2	160	2.0	3.301	87.906	g500-H320	m550-U63/L4	3	13
1.7	154	3.4	161	20.9	161	3.7	3.457	88.826	g500-H600	m550-U63/L4	3	29
1.7	154	3.4	162	20.9	162	2.8	3.395	89.048	g500-H450	m550-U63/L4	3	17
1.6	160	3.3	167	20.2	167	1.3	3.282	92.205	g500-H210	m550-U63/L4	3	11
1.6	160	3.2	168	20.1	168	0.8	3.332	92.693	g500-H140	m550-U63/L4	3	13
1.6	167	3.1	175	19.3	175	2.6	3.358	96.522	g500-H450	m550-U63/L4	3	17
1.5	173	3.0	181	18.6	181	3.3	3.456	99.757	g500-H600	m550-U63/L4	3	29
1.5	174	3.0	182	18.5	182	1.8	3.284	100.462	g500-H320	m550-U63/L4	3	13
1.5	179	2.9	187	18.0	187	1.1	3.282	103.214	g500-H210	m550-U63/L4	3	11
1.4	189	2.8	198	17.1	198	2.3	3.357	109.083	g500-H450	m550-U63/L4	3	17
1.4	191	2.7	201	16.8	201	3.0	3.397	110.491	g500-H600	m550-U63/L4	3	29
1.3	197	2.6	207	16.3	207	1.5	3.283	114.118	g500-H320	m550-U63/L4	3	13
1.3	204	2.5	215	15.7	215	1.0	3.269	118.162	g500-H210	m550-U63/L4	3	11
1.2	210	2.5	220	15.3	220	2.0	3.319	121.342	g500-H450	m550-U63/L4	3	17
1.2	215	2.4	225	15.0	225	2.7	3.396	124.088	g500-H600	m550-U63/L4	3	29
1.2	223	2.3	234	14.4	234	1.4	3.270	128.743	g500-H320	m550-U63/L4	3	13
1.1	229	2.3	240	14.1	240	0.9	3.269	132.270	g500-H210	m550-U63/L4	3	11
1.1	234	2.2	246	13.7	246	3.4	3.493	135.373	g500-H850	m550-U63/L4	3	38
1.1	237	2.2	249	13.6	249	1.8	3.318	137.133	g500-H450	m550-U63/L4	3	17
1.0	247	2.1	260	13.0	260	2.3	3.338	142.988	g500-H600	m550-U63/L4	3	29
1.0	253	2.1	266	12.7	266	1.2	3.270	146.244	g500-H320	m550-U63/L4	3	13
1.0	262	2.0	275	12.3	275	3.1	3.492	151.262	g500-H850	m550-U63/L4	3	38
1.0	270	1.9	284	11.9	284	1.6	3.294	156.274	g500-H450	m550-U63/L4	3	17
0.9	278	1.9	292	11.6	292	2.1	3.338	160.585	g500-H600	m550-U63/L4	3	29
0.9	284	1.8	298	11.3	298	2.9	3.426	164.294	g500-H850	m550-U63/L4	3	38
0.9	288	1.8	302	11.2	302	1.1	3.261	166.541	g500-H320	m550-U63/L4	3	13
0.9	300	1.7	315	10.7	315	1.9	3.312	173.536	g500-H600	m550-U63/L4	3	29
0.8	306	1.7	321	10.5	321	1.4	3.294	176.611	g500-H450	m550-U63/L4	3	17



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
0.8	318	1.6	333	10.1	333	2.6	3.425	183.577	g500-H850	m550-U63/L4	3	38
0.8	327	1.6	344	9.8	344	0.9	3.260	189.179	g500-H320	m550-U63/L4	3	13
0.8	337	1.5	354	9.5	354	1.7	3.311	194.892	g500-H600	m550-U63/L4	3	29
0.8	339	1.5	356	9.3	356	1.7	3.464	198.970	g500-H600	m550-U63/L4	4	32
0.8	343	1.5	360	9.4	360	1.3	3.276	198.059	g500-H450	m550-U63/L4	3	17
0.7	346	1.5	363	9.2	363	4.8	4.753	203.178	g500-H3000	m550-U63/L4	4	116
0.7	347	1.5	364	9.1	364	4.1	3.963	203.537	g500-H1500	m550-U63/L4	4	71
0.7	359	1.4	376	8.8	376	2.3	3.504	210.484	g500-H850	m550-U63/L4	4	41
0.7	359	1.4	377	9.0	377	2.3	3.360	207.675	g500-H850	m550-U63/L4	3	38
0.7	375	1.4	393	8.6	393	0.8	3.254	216.683	g500-H320	m550-U63/L4	3	13
0.7	381	1.3	400	8.3	400	1.5	3.463	223.457	g500-H600	m550-U63/L4	4	32
0.7	384	1.4	403	8.4	403	1.3	3.286	221.794	g500-H600	m550-U63/L4	3	29
0.7	384	1.3	403	8.3	403	3.7	3.962	225.125	g500-H1500	m550-U63/L4	4	71
0.7	387	1.3	406	8.3	406	1.1	3.275	223.833	g500-H450	m550-U63/L4	3	17
0.6	399	1.3	419	7.9	419	2.0	3.428	234.319	g500-H850	m550-U63/L4	4	41
0.6	401	1.3	421	8.0	421	2.0	3.360	232.050	g500-H850	m550-U63/L4	3	38
0.6	429	1.2	451	7.5	451	1.0	3.265	248.200	g500-H450	m550-U63/L4	3	17
0.6	431	1.2	452	7.5	452	1.3	3.285	249.089	g500-H600	m550-U63/L4	3	29
0.6	432	1.2	454	7.3	454	1.3	3.454	253.789	g500-H600	m550-U63/L4	4	32
0.6	434	1.2	455	7.3	455	3.3	3.606	254.431	g500-H1500	m550-U63/L4	4	71
0.6	446	1.1	468	7.1	468	1.8	3.427	261.821	g500-H850	m550-U63/L4	4	41
0.5	480	1.1	503	6.6	503	3.0	3.606	281.416	g500-H1500	m550-U63/L4	4	71
0.5	485	1.1	509	6.6	509	0.9	3.265	280.500	g500-H450	m550-U63/L4	3	17
0.5	486	1.1	510	6.5	510	1.2	3.454	285.021	g500-H600	m550-U63/L4	4	32
0.5	502	1.0	526	6.3	526	1.6	3.472	294.334	g500-H850	m550-U63/L4	4	41
0.5	539	0.9	566	5.9	566	2.7	3.493	316.487	g500-H1500	m550-U63/L4	4	71
0.5	546	0.9	573	5.8	573	1.1	3.341	320.294	g500-H600	m550-U63/L4	4	32
0.5	560	0.9	588	5.7	588	1.5	3.471	328.881	g500-H850	m550-U63/L4	4	41
0.4	596	0.9	626	5.3	626	2.4	3.493	350.054	g500-H1500	m550-U63/L4	4	71
0.4	613	0.8	643	5.2	643	0.9	3.341	359.710	g500-H600	m550-U63/L4	4	32
0.4	627	0.8	658	5.1	658	1.3	3.324	368.019	g500-H850	m550-U63/L4	4	41
0.4	677	0.8	711	4.7	711	2.1	3.530	397.548	g500-H1500	m550-U63/L4	4	71
0.4	696	0.7	731	4.6	731	0.8	3.337	408.538	g500-H600	m550-U63/L4	4	32
0.4	701	0.7	735	4.5	735	1.2	3.324	411.213	g500-H850	m550-U63/L4	4	41
0.3	761	0.7	799	4.2	799	1.9	3.462	446.497	g500-H1500	m550-U63/L4	4	71
0.3	807	0.6	847	3.9	847	1.0	3.344	473.807	g500-H850	m550-U63/L4	4	41
0.3	835	0.6	876	3.8	876	3.4	3.646	489.908	g500-H3000	m550-U63/L4	4	116
0.3	843	0.6	884	3.8	884	1.7	3.444	494.511	g500-H1500	m550-U63/L4	4	71
0.3	902	0.6	947	3.5	947	0.9	3.344	529.418	g500-H850	m550-U63/L4	4	41
0.3	917	0.6	962	3.5	962	3.1	3.645	538.095	g500-H3000	m550-U63/L4	4	116
0.3	975	0.5	1024	3.2	1024	1.5	3.498	572.324	g500-H1500	m550-U63/L4	4	71
0.3	980	0.5	1028	3.2	1028	0.8	3.315	575.029	g500-H850	m550-U63/L4	4	41
0.3	1014	0.5	1064	3.1	1064	2.8	3.593	594.888	g500-H3000	m550-U63/L4	4	116
0.2	1081	0.5	1134	2.9	1134	1.3	3.482	634.184	g500-H1500	m550-U63/L4	4	71
0.2	1113	0.5	1169	2.8	1169	2.6	3.593	653.402	g500-H3000	m550-U63/L4	4	116
0.2	1195	0.4	1255	2.7	1255	1.2	3.481	701.446	g500-H1500	m550-U63/L4	4	71
0.2	1261	0.4	1323	2.5	1323	2.3	3.484	739.983	g500-H3000	m550-U63/L4	4	116
0.2	1344	0.4	1410	2.4	1410	2.1	3.411	788.632	g500-H3000	m550-U63/L4	4	116
0.2	1344	0.4	1411	2.4	1411	1.1	3.412	788.863	g500-H1500	m550-U63/L4	4	71
0.2	1476	0.3	1549	2.1	1549	1.9	3.411	866.202	g500-H3000	m550-U63/L4	4	116
0.2	1487	0.3	1561	2.1	1561	1.0	3.412	872.530	g500-H1500	m550-U63/L4	4	71
0.2	1570	0.3	1648	2.0	1648	0.9	3.354	921.302	g500-H1500	m550-U63/L4	4	71



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	1632	0.3	1713	1.9	1713	1.8	3.391	957.625	g500-H3000	m550-U63/L4	4	116
0.1	1739	0.3	1826	1.8	1826	0.8	3.348	1020.881	g500-H1500	m550-U63/L4	4	71
0.1	1792	0.3	1881	1.8	1881	1.6	3.391	1051.817	g500-H3000	m550-U63/L4	4	116
0.1	2112	0.2	2216	1.5	2216	1.4	3.370	1239.279	g500-H3000	m550-U63/L4	4	116
0.1	2319	0.2	2435	1.4	2435	1.2	3.370	1361.175	g500-H3000	m550-U63/L4	4	116
0.1	2563	0.2	2690	1.2	2690	1.1	3.333	1504.034	g500-H3000	m550-U63/L4	4	116
0.1	2815	0.2	2955	1.1	2955	1.0	3.333	1651.972	g500-H3000	m550-U63/L4	4	116
0.1	3110	0.2	3265	1.0	3265	0.9	3.325	1825.350	g500-H3000	m550-U63/L4	4	116
0.1	3416	0.1	3586	0.9	3586	0.8	3.325	2004.893	g500-H3000	m550-U63/L4	4	116



62 Hz: 0.55 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
57.8	6.7	116	7.1	716	7.1	2.4	9.010	2.597	g500-H45	m550-U71/M4	2	8.8
43.9	8.8	87.9	9.3	545	9.3	1.9	8.919	3.413	g500-H45	m550-U71/M4	2	8.8
34.3	11.3	68.7	12.0	426	12.0	1.7	8.867	4.368	g500-H45	m550-U71/M4	2	8.8
29.0	13.3	58.1	14.0	360	14.0	5.0	9.179	5.167	g500-H100	m550-U71/M4	2	11
28.2	13.7	56.5	14.0	350	14.0	1.7	8.929	5.312	g500-H45	m550-U71/M4	2	8.8
25.5	15.2	51.0	16.0	316	16.0	4.7	8.986	5.887	g500-H100	m550-U71/M4	2	11
25.1	15.4	50.3	16.0	312	16.0	1.7	8.923	5.965	g500-H45	m550-U71/M4	2	8.8
23.3	16.6	46.6	17.0	289	17.0	4.4	8.957	6.440	g500-H100	m550-U71/M4	2	11
21.5	18.0	43.0	19.0	266	19.0	1.5	8.872	6.982	g500-H45	m550-U71/M4	2	8.8
21.2	18.3	42.3	19.0	263	19.0	4.2	9.035	7.086	g500-H100	m550-U71/M4	2	11
20.6	18.8	41.3	20.0	256	20.0	5.0	9.255	7.269	g500-H140	m550-U71/M4	2	12
19.1	20.2	38.3	21.0	237	21.0	1.4	8.869	7.840	g500-H45	m550-U71/M4	2	8.8
18.8	20.6	37.5	22.0	233	22.0	4.7	8.961	8.000	g500-H140	m550-U71/M4	2	12
18.3	21.2	36.5	22.0	226	22.0	3.8	8.898	8.214	g500-H100	m550-U71/M4	2	11
16.8	23.1	33.6	24.0	208	24.0	1.3	8.839	8.935	g500-H45	m550-U71/M4	2	8.8
16.6	23.3	33.2	25.0	206	25.0	4.4	9.092	9.029	g500-H140	m550-U71/M4	2	12
16.5	23.4	33.1	25.0	205	25.0	3.6	8.955	9.068	g500-H100	m550-U71/M4	2	11
15.3	25.3	30.6	27.0	190	27.0	4.2	8.905	9.800	g500-H140	m550-U71/M4	2	12
15.0	25.9	29.9	27.0	185	27.0	1.2	8.836	10.033	g500-H45	m550-U71/M4	2	8.8
14.9	26.0	29.8	27.0	185	27.0	3.4	8.863	10.063	g500-H100	m550-U71/M4	2	11
13.2	29.3	26.4	31.0	164	31.0	3.0	8.925	11.360	g500-H100	m550-U71/M4	2	11
13.1	29.5	26.3	31.0	163	31.0	1.1	8.809	11.429	g500-H45	m550-U71/M4	2	8.8
13.0	29.8	26.0	31.0	161	31.0	3.8	8.990	11.554	g500-H140	m550-U71/M4	2	12
11.9	32.6	23.7	34.0	147	34.0	3.6	8.960	12.640	g500-H140	m550-U71/M4	2	12
11.9	32.7	23.7	34.0	147	34.0	2.7	8.882	12.653	g500-H100	m550-U71/M4	2	11
11.7	33.1	23.4	35.0	145	35.0	1.0	8.807	12.833	g500-H45	m550-U71/M4	2	8.8
10.7	36.0	21.5	38.0	133	38.0	3.3	8.951	13.957	g500-H140	m550-U71/M4	2	12
10.4	37.4	20.7	39.0	128	39.0	2.4	8.879	14.490	g500-H100	m550-U71/M4	2	11
10.1	38.3	20.2	40.0	125	40.0	0.9	8.791	14.836	g500-H45	m550-U71/M4	2	8.8
9.8	39.5	19.6	42.0	122	42.0	4.5	9.115	15.306	g500-H210	m550-U71/M4	2	13
9.7	40.0	19.4	42.0	120	42.0	2.2	8.852	15.500	g500-H100	m550-U71/M4	2	11
9.3	41.6	18.6	44.0	115	44.0	3.0	8.900	16.122	g500-H140	m550-U71/M4	2	12
9.0	43.0	18.0	45.0	112	45.0	0.9	8.790	16.660	g500-H45	m550-U71/M4	2	8.8
9.0	43.2	17.9	46.0	111	46.0	4.3	9.042	16.750	g500-H210	m550-U71/M4	2	13
8.5	45.8	16.9	48.0	105	48.0	1.9	8.850	17.750	g500-H100	m550-U71/M4	2	11
8.4	45.9	16.9	48.0	105	48.0	2.7	8.895	17.802	g500-H140	m550-U71/M4	2	12
8.2	47.1	16.4	50.0	102	50.0	4.7	9.088	18.250	g500-H320	m550-U71/M4	2	15
8.0	48.4	16.0	51.0	99.2	51.0	3.8	9.035	18.750	g500-H210	m550-U71/M4	2	13
7.9	49.1	15.8	52.0	97.8	52.0	0.8	8.778	19.013	g500-H45	m550-U71/M4	2	8.8
7.7	50.3	15.4	53.0	95.5	53.0	1.8	8.819	19.486	g500-H100	m550-U71/M4	2	11
7.6	51.0	15.2	54.0	94.2	54.0	2.4	8.864	19.750	g500-H140	m550-U71/M4	2	12
7.2	53.5	14.5	56.0	89.7	56.0	4.7	9.071	20.731	g500-H320	m550-U71/M4	2	15
6.9	56.3	13.8	59.0	85.3	59.0	2.2	8.861	21.808	g500-H140	m550-U71/M4	2	12
6.9	56.3	13.8	59.0	85.3	59.0	3.3	8.932	21.802	g500-H210	m550-U71/M4	2	13
6.8	57.2	13.5	60.0	83.9	60.0	4.7	9.277	22.170	g500-H450	m550-U71/M4	2	19
6.7	57.6	13.4	61.0	83.4	61.0	1.5	8.817	22.314	g500-H100	m550-U71/M4	2	11
6.3	61.3	12.6	65.0	78.3	65.0	4.2	8.959	23.754	g500-H320	m550-U71/M4	2	15
6.1	63.0	12.3	66.0	76.2	66.0	3.0	8.929	24.405	g500-H210	m550-U71/M4	2	13
6.0	64.1	12.1	67.0	74.9	67.0	1.9	8.827	24.829	g500-H140	m550-U71/M4	2	12
6.0	64.7	12.0	68.0	74.2	68.0	4.7	9.262	25.056	g500-H450	m550-U71/M4	2	19
6.0	64.8	12.0	68.0	74.1	68.0	1.4	8.798	25.095	g500-H100	m550-U71/M4	2	11



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	65.1	11.9	68.0	73.8	68.0	4.7	9.329	25.207	g500-H600	m550-U71/M4	2	30
5.6	69.6	11.1	73.0	68.9	73.0	4.4	8.950	26.983	g500-H320	m550-U71/M4	2	15
5.5	70.0	11.1	74.0	68.6	74.0	2.9	8.884	27.119	g500-H210	m550-U71/M4	2	13
5.5	70.8	10.9	74.0	67.8	74.0	1.9	8.824	27.415	g500-H140	m550-U71/M4	2	12
5.4	71.2	10.9	75.0	67.4	75.0	4.2	9.139	27.578	g500-H450	m550-U71/M4	2	19
5.3	73.1	10.6	77.0	65.7	77.0	5.0	9.307	28.310	g500-H600	m550-U71/M4	2	30
5.2	74.2	10.4	78.0	64.7	78.0	1.3	8.797	28.738	g500-H100	m550-U71/M4	2	11
5.1	76.3	10.2	80.0	62.9	80.0	3.8	8.902	29.548	g500-H320	m550-U71/M4	2	15
4.9	78.3	9.9	82.0	61.3	82.0	2.6	8.882	30.357	g500-H210	m550-U71/M4	2	13
4.8	80.4	9.6	85.0	59.7	85.0	4.2	9.129	31.167	g500-H450	m550-U71/M4	2	19
4.8	80.9	9.6	85.0	59.3	85.0	4.2	9.173	31.356	g500-H600	m550-U71/M4	2	30
4.7	82.5	9.4	87.0	58.2	87.0	1.6	8.803	31.976	g500-H140	m550-U71/M4	2	12
4.5	86.6	8.9	91.0	55.4	91.0	3.5	8.896	33.564	g500-H320	m550-U71/M4	2	15
4.3	90.6	8.5	95.0	53.0	95.0	2.2	8.835	35.095	g500-H210	m550-U71/M4	2	13
4.3	90.9	8.5	96.0	52.8	96.0	4.2	9.158	35.214	g500-H600	m550-U71/M4	2	30
4.2	91.1	8.5	96.0	52.7	96.0	1.5	8.801	35.308	g500-H140	m550-U71/M4	2	12
4.2	92.1	8.4	97.0	52.1	97.0	3.8	8.994	35.689	g500-H450	m550-U71/M4	2	19
4.0	96.0	8.1	101	50.0	101	4.2	9.469	37.190	g500-H850	m550-U71/M4	2	39
3.9	98.7	7.8	104	48.6	104	2.4	8.845	38.238	g500-H320	m550-U71/M4	2	15
3.8	101	7.6	107	47.3	107	2.0	8.833	39.286	g500-H210	m550-U71/M4	2	13
3.7	104	7.4	110	46.1	110	3.8	8.988	40.333	g500-H450	m550-U71/M4	2	19
3.7	105	7.4	110	45.8	110	3.8	9.014	40.578	g500-H600	m550-U71/M4	2	30
3.6	107	7.2	113	44.8	113	4.2	9.454	41.556	g500-H850	m550-U71/M4	2	39
3.5	110	7.0	116	43.7	116	1.6	8.812	42.593	g500-H210	m550-U71/M4	2	13
3.5	110	6.9	116	42.9	116	1.7	8.877	43.390	g500-H210	m550-U71/M4	3	14
3.4	111	6.9	117	42.6	117	4.8	9.408	43.676	g500-H600	m550-U71/M4	3	31
3.5	112	6.9	118	42.9	118	2.7	8.929	43.313	g500-H450	m550-U71/M4	2	19
3.5	112	6.9	118	42.8	118	2.4	8.842	43.436	g500-H320	m550-U71/M4	2	15
3.4	112	6.8	118	42.2	118	3.6	9.110	44.124	g500-H450	m550-U71/M4	3	19
3.3	117	6.6	123	41.2	123	3.7	9.281	45.136	g500-H850	m550-U71/M4	2	39
3.3	118	6.6	124	40.8	124	3.8	9.005	45.571	g500-H600	m550-U71/M4	2	30
3.2	120	6.5	126	40.1	126	1.7	8.820	46.407	g500-H320	m550-U71/M4	2	15
3.2	120	6.3	127	39.3	127	2.5	8.884	47.276	g500-H320	m550-U71/M4	3	15
3.1	123	6.3	130	39.0	130	1.6	8.811	47.679	g500-H210	m550-U71/M4	2	13
3.1	124	6.2	130	38.3	130	1.6	8.876	48.571	g500-H210	m550-U71/M4	3	14
3.1	125	6.1	131	37.9	131	4.6	9.400	49.051	g500-H600	m550-U71/M4	3	31
3.1	126	6.1	133	38.0	133	2.8	8.925	48.950	g500-H450	m550-U71/M4	2	19
3.0	127	6.0	133	37.3	133	3.4	9.106	49.867	g500-H450	m550-U71/M4	3	19
3.0	127	6.1	134	37.8	134	3.2	8.943	49.247	g500-H600	m550-U71/M4	2	30
3.0	130	5.9	137	36.9	137	3.7	9.272	50.433	g500-H850	m550-U71/M4	2	39
2.8	136	5.7	143	35.3	143	1.7	8.817	52.715	g500-H320	m550-U71/M4	2	15
2.8	137	5.6	144	34.6	144	2.2	8.881	53.703	g500-H320	m550-U71/M4	3	15
2.7	141	5.5	149	34.0	149	1.8	8.866	54.750	g500-H450	m550-U71/M4	2	19
2.7	141	5.4	149	33.5	149	1.4	8.838	55.529	g500-H210	m550-U71/M4	3	14
2.7	142	5.4	149	33.4	149	4.0	9.214	55.710	g500-H600	m550-U71/M4	3	31
2.7	143	5.4	150	33.6	150	3.2	8.937	55.307	g500-H600	m550-U71/M4	2	30
2.7	144	5.3	151	32.9	151	3.0	9.001	56.469	g500-H450	m550-U71/M4	3	19
2.6	146	5.2	154	32.3	154	0.9	8.952	57.582	g500-H140	m550-U71/M4	3	15
2.5	154	5.0	162	30.7	162	2.0	8.843	60.502	g500-H320	m550-U71/M4	3	15
2.4	157	4.9	165	30.1	165	2.7	8.969	61.774	g500-H450	m550-U71/M4	3	19
2.4	158	4.8	166	29.9	166	1.3	8.838	62.160	g500-H210	m550-U71/M4	3	14
2.4	159	4.8	167	29.7	167	3.6	9.209	62.566	g500-H600	m550-U71/M4	3	31



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
2.4	160	4.8	168	30.1	168	1.8	8.864	61.875	g500-H450	m550-U71/M4	2	19
2.4	161	4.8	169	29.9	169	1.8	8.875	62.250	g500-H600	m550-U71/M4	2	30
2.4	162	4.7	170	29.3	170	0.8	8.951	63.582	g500-H140	m550-U71/M4	3	15
2.2	174	4.4	183	27.3	183	3.3	9.101	68.244	g500-H600	m550-U71/M4	3	31
2.2	175	4.4	184	27.1	184	1.7	8.841	68.726	g500-H320	m550-U71/M4	3	15
2.1	178	4.3	187	26.6	187	2.4	8.967	69.813	g500-H450	m550-U71/M4	3	19
2.1	180	4.3	190	26.6	190	1.8	8.871	69.911	g500-H600	m550-U71/M4	2	30
2.1	181	4.2	190	26.2	190	1.1	8.810	71.026	g500-H210	m550-U71/M4	3	14
2.0	195	3.9	205	24.3	205	2.9	9.098	76.643	g500-H600	m550-U71/M4	3	31
1.9	197	3.9	207	24.0	207	1.6	8.812	77.387	g500-H320	m550-U71/M4	3	15
1.9	200	3.8	211	23.6	211	2.1	8.906	78.794	g500-H450	m550-U71/M4	3	19
1.9	202	3.8	213	23.4	213	1.0	8.809	79.507	g500-H210	m550-U71/M4	3	14
1.8	214	3.6	225	22.1	225	3.8	9.301	84.096	g500-H850	m550-U71/M4	3	40
1.7	224	3.4	235	21.2	235	1.4	8.811	87.906	g500-H320	m550-U71/M4	3	15
1.7	226	3.4	238	20.9	238	1.9	8.905	89.048	g500-H450	m550-U71/M4	3	19
1.7	226	3.4	238	20.9	238	2.5	8.967	88.826	g500-H600	m550-U71/M4	3	31
1.6	234	3.3	247	20.2	247	0.9	8.792	92.205	g500-H210	m550-U71/M4	3	14
1.6	239	3.2	251	19.8	251	3.4	9.299	93.966	g500-H850	m550-U71/M4	3	40
1.6	245	3.1	258	19.3	258	1.7	8.868	96.522	g500-H450	m550-U71/M4	3	19
1.5	254	3.0	267	18.6	267	2.3	8.966	99.757	g500-H600	m550-U71/M4	3	31
1.5	255	3.0	269	18.5	269	1.2	8.794	100.462	g500-H320	m550-U71/M4	3	15
1.4	266	2.9	280	17.8	280	3.0	9.155	104.607	g500-H850	m550-U71/M4	3	40
1.4	277	2.8	292	17.1	292	1.5	8.867	109.083	g500-H450	m550-U71/M4	3	19
1.4	281	2.7	296	16.8	296	2.0	8.907	110.491	g500-H600	m550-U71/M4	3	31
1.3	290	2.6	305	16.3	305	1.1	8.793	114.118	g500-H320	m550-U71/M4	3	15
1.3	297	2.6	313	15.9	313	2.7	9.153	116.884	g500-H850	m550-U71/M4	3	40
1.2	309	2.5	325	15.3	325	1.4	8.829	121.342	g500-H450	m550-U71/M4	3	19
1.2	315	2.4	332	15.0	332	1.8	8.906	124.088	g500-H600	m550-U71/M4	3	31
1.1	344	2.2	362	13.7	362	2.4	9.003	135.373	g500-H850	m550-U71/M4	3	40
1.1	349	2.2	367	13.6	367	1.2	8.828	137.133	g500-H450	m550-U71/M4	3	19
1.0	364	2.1	383	13.0	383	1.6	8.848	142.988	g500-H600	m550-U71/M4	3	31
1.0	385	2.0	405	12.3	405	2.1	9.002	151.262	g500-H850	m550-U71/M4	3	40
1.0	397	1.9	418	11.9	418	1.1	8.804	156.274	g500-H450	m550-U71/M4	3	19
0.9	408	1.9	430	11.6	430	1.4	8.848	160.585	g500-H600	m550-U71/M4	3	31
0.9	418	1.8	440	11.3	440	1.9	8.936	164.294	g500-H850	m550-U71/M4	3	40
0.9	441	1.7	464	10.7	464	1.3	8.822	173.536	g500-H600	m550-U71/M4	3	31
0.8	449	1.7	473	10.5	473	1.0	8.804	176.611	g500-H450	m550-U71/M4	3	19
0.8	465	1.6	489	10.2	489	3.1	9.428	182.844	g500-H1500	m550-U71/M4	3	70
0.8	467	1.6	491	10.1	491	1.7	8.935	183.577	g500-H850	m550-U71/M4	3	40
0.8	495	1.5	522	9.5	522	1.2	8.821	194.892	g500-H600	m550-U71/M4	3	31
0.8	498	1.5	524	9.3	524	1.1	8.974	198.970	g500-H600	m550-U71/M4	4	34
0.7	510	1.5	536	9.1	536	2.8	9.473	203.537	g500-H1500	m550-U71/M4	4	73
0.7	514	1.5	541	9.2	541	2.8	9.426	202.237	g500-H1500	m550-U71/M4	3	70
0.7	527	1.4	555	8.8	555	1.5	9.014	210.484	g500-H850	m550-U71/M4	4	43
0.7	528	1.4	556	9.0	556	1.5	8.870	207.675	g500-H850	m550-U71/M4	3	40
0.7	560	1.3	589	8.3	589	1.0	8.973	223.457	g500-H600	m550-U71/M4	4	34
0.7	564	1.3	593	8.3	593	2.5	9.472	225.125	g500-H1500	m550-U71/M4	4	73
0.7	564	1.4	594	8.4	594	2.5	9.253	221.907	g500-H1500	m550-U71/M4	3	70
0.7	567	1.3	597	8.2	597	4.4	9.802	226.604	g500-H3000	m550-U71/M4	4	118
0.6	587	1.3	618	7.9	618	1.4	8.938	234.319	g500-H850	m550-U71/M4	4	43
0.6	590	1.3	621	8.0	621	1.4	8.870	232.050	g500-H850	m550-U71/M4	3	40
0.6	623	1.2	656	7.5	656	4.5	9.800	248.893	g500-H3000	m550-U71/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
0.6	624	1.2	657	7.6	657	2.3	9.253	245.442	g500-H1500	m550-U71/M4	3	70
0.6	636	1.2	669	7.3	669	0.9	8.964	253.789	g500-H600	m550-U71/M4	4	34
0.6	637	1.2	671	7.3	671	2.2	9.116	254.431	g500-H1500	m550-U71/M4	4	73
0.6	656	1.1	690	7.1	690	1.2	8.937	261.821	g500-H850	m550-U71/M4	4	43
0.5	705	1.1	742	6.6	742	2.0	9.116	281.416	g500-H1500	m550-U71/M4	4	73
0.5	713	1.1	751	6.6	751	2.0	9.075	280.500	g500-H1500	m550-U71/M4	3	70
0.5	714	1.1	751	6.5	751	0.8	8.964	285.021	g500-H600	m550-U71/M4	4	34
0.5	732	1.0	771	6.4	771	3.9	9.969	292.511	g500-H3000	m550-U71/M4	4	118
0.5	737	1.0	776	6.3	776	1.1	8.982	294.334	g500-H850	m550-U71/M4	4	43
0.5	789	1.0	830	6.0	830	1.8	9.075	310.250	g500-H1500	m550-U71/M4	3	70
0.5	793	0.9	834	5.9	834	1.8	9.003	316.487	g500-H1500	m550-U71/M4	4	73
0.5	805	0.9	847	5.8	847	3.5	9.968	321.282	g500-H3000	m550-U71/M4	4	118
0.5	824	0.9	867	5.7	867	1.0	8.981	328.881	g500-H850	m550-U71/M4	4	43
0.4	877	0.9	923	5.3	923	1.6	9.003	350.054	g500-H1500	m550-U71/M4	4	73
0.4	922	0.8	970	5.1	970	0.9	8.834	368.019	g500-H850	m550-U71/M4	4	43
0.4	943	0.8	992	4.9	992	3.0	9.420	376.393	g500-H3000	m550-U71/M4	4	118
0.4	995	0.8	1048	4.7	1048	1.4	9.040	397.548	g500-H1500	m550-U71/M4	4	73
0.4	1035	0.7	1090	4.5	1090	2.8	9.419	413.415	g500-H3000	m550-U71/M4	4	118
0.3	1118	0.7	1177	4.2	1177	1.3	8.972	446.497	g500-H1500	m550-U71/M4	4	73
0.3	1144	0.7	1205	4.1	1205	2.5	9.331	457.048	g500-H3000	m550-U71/M4	4	118
0.3	1227	0.6	1291	3.8	1291	2.3	9.156	489.908	g500-H3000	m550-U71/M4	4	118
0.3	1238	0.6	1303	3.8	1303	1.2	8.954	494.511	g500-H1500	m550-U71/M4	4	73
0.3	1347	0.6	1418	3.5	1418	2.1	9.155	538.095	g500-H3000	m550-U71/M4	4	118
0.3	1433	0.5	1508	3.2	1508	1.0	9.008	572.324	g500-H1500	m550-U71/M4	4	73
0.3	1490	0.5	1568	3.1	1568	1.9	9.103	594.888	g500-H3000	m550-U71/M4	4	118
0.2	1588	0.5	1672	2.9	1672	0.9	8.992	634.184	g500-H1500	m550-U71/M4	4	73
0.2	1636	0.5	1722	2.8	1722	1.7	9.103	653.402	g500-H3000	m550-U71/M4	4	118
0.2	1756	0.4	1849	2.7	1849	0.8	8.991	701.446	g500-H1500	m550-U71/M4	4	73
0.2	1853	0.4	1950	2.5	1950	1.5	8.994	739.983	g500-H3000	m550-U71/M4	4	118
0.2	1975	0.4	2079	2.4	2079	1.4	8.921	788.632	g500-H3000	m550-U71/M4	4	118
0.2	2169	0.3	2283	2.1	2283	1.3	8.921	866.202	g500-H3000	m550-U71/M4	4	118
0.2	2398	0.3	2524	1.9	2524	1.2	8.901	957.625	g500-H3000	m550-U71/M4	4	118
0.1	2634	0.3	2772	1.8	2772	1.1	8.901	1051.817	g500-H3000	m550-U71/M4	4	118
0.1	3103	0.2	3266	1.5	3266	0.9	8.880	1239.279	g500-H3000	m550-U71/M4	4	118
0.1	3408	0.2	3588	1.4	3588	0.8	8.880	1361.175	g500-H3000	m550-U71/M4	4	118



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
71.1	7.6	142	8.0	882	8.0	4.6	11.700	2.108	g500-H100	m550-U71/L4	2	12
57.8	9.3	116	9.8	716	9.8	1.7	11.360	2.597	g500-H45	m550-U71/L4	2	10
45.9	11.8	91.8	12.0	569	12.0	4.0	12.002	3.267	g500-H140	m550-U71/L4	2	13
44.7	12.1	89.4	13.0	555	13.0	4.0	11.625	3.354	g500-H100	m550-U71/L4	2	12
44.3	12.2	88.5	13.0	549	13.0	4.6	12.630	3.389	g500-H210	m550-U71/L4	2	15
44.3	12.2	88.5	13.0	549	13.0	4.6	12.325	3.389	g500-H320	m550-U71/L4	2	16
43.9	12.3	87.9	13.0	545	13.0	1.4	11.269	3.413	g500-H45	m550-U71/L4	2	10
34.3	15.7	68.7	17.0	426	17.0	1.2	11.217	4.368	g500-H45	m550-U71/L4	2	10
33.5	16.1	67.0	17.0	415	17.0	4.0	11.636	4.480	g500-H140	m550-U71/L4	2	13
32.6	16.6	65.2	17.0	404	17.0	3.9	11.435	4.600	g500-H100	m550-U71/L4	2	12
29.0	18.6	58.1	20.0	360	20.0	3.6	11.529	5.167	g500-H100	m550-U71/L4	2	12
28.2	19.1	56.5	20.0	350	20.0	1.3	11.279	5.312	g500-H45	m550-U71/L4	2	10
26.9	20.1	53.7	21.0	333	21.0	4.6	12.343	5.583	g500-H210	m550-U71/L4	2	15
26.2	20.6	52.3	22.0	324	22.0	3.7	11.459	5.733	g500-H140	m550-U71/L4	2	13
25.5	21.2	51.0	22.0	316	22.0	3.4	11.336	5.887	g500-H100	m550-U71/L4	2	12
25.1	21.5	50.3	23.0	312	23.0	1.2	11.273	5.965	g500-H45	m550-U71/L4	2	10
24.7	21.9	49.3	23.0	306	23.0	4.6	12.755	6.083	g500-H320	m550-U71/L4	2	16
24.0	22.5	48.0	24.0	298	24.0	4.6	12.284	6.250	g500-H210	m550-U71/L4	2	15
23.9	22.6	47.8	24.0	297	24.0	3.7	11.409	6.272	g500-H140	m550-U71/L4	2	13
23.3	23.2	46.6	24.0	289	24.0	3.2	11.307	6.440	g500-H100	m550-U71/L4	2	12
21.7	24.9	43.4	26.0	269	26.0	4.6	12.609	6.910	g500-H320	m550-U71/L4	2	16
21.5	25.1	43.0	26.0	266	26.0	1.1	11.222	6.982	g500-H45	m550-U71/L4	2	10
21.2	25.5	42.3	27.0	263	27.0	3.0	11.385	7.086	g500-H100	m550-U71/L4	2	12
20.6	26.2	41.3	28.0	256	28.0	3.6	11.605	7.269	g500-H140	m550-U71/L4	2	13
19.1	28.2	38.3	30.0	237	30.0	1.0	11.219	7.840	g500-H45	m550-U71/L4	2	10
18.8	28.8	37.5	30.0	233	30.0	3.4	11.311	8.000	g500-H140	m550-U71/L4	2	13
18.3	29.6	36.5	31.0	226	31.0	2.8	11.248	8.214	g500-H100	m550-U71/L4	2	12
16.8	32.2	33.6	34.0	208	34.0	0.9	11.189	8.935	g500-H45	m550-U71/L4	2	10
16.6	32.5	33.2	34.0	206	34.0	3.2	11.442	9.029	g500-H140	m550-U71/L4	2	13
16.5	32.6	33.1	34.0	205	34.0	2.6	11.305	9.068	g500-H100	m550-U71/L4	2	12
15.3	35.3	30.6	37.0	190	37.0	3.0	11.255	9.800	g500-H140	m550-U71/L4	2	13
15.3	35.3	30.6	37.0	190	37.0	4.0	11.689	9.799	g500-H210	m550-U71/L4	2	15
15.0	36.1	29.9	38.0	185	38.0	0.9	11.186	10.033	g500-H45	m550-U71/L4	2	10
14.9	36.2	29.8	38.0	185	38.0	2.4	11.213	10.063	g500-H100	m550-U71/L4	2	12
14.0	38.4	28.1	40.0	174	40.0	4.0	11.823	10.677	g500-H320	m550-U71/L4	2	16
14.0	38.6	28.0	41.0	174	41.0	4.0	11.613	10.720	g500-H210	m550-U71/L4	2	15
13.2	40.9	26.4	43.0	164	43.0	2.2	11.275	11.360	g500-H100	m550-U71/L4	2	12
13.0	41.6	26.0	44.0	161	44.0	2.7	11.340	11.554	g500-H140	m550-U71/L4	2	13
12.8	42.0	25.7	44.0	159	44.0	4.0	11.725	11.680	g500-H320	m550-U71/L4	2	16
12.5	43.2	25.0	45.0	155	45.0	3.8	11.597	12.000	g500-H210	m550-U71/L4	2	15
12.4	43.7	24.7	46.0	153	46.0	4.0	11.776	12.128	g500-H320	m550-U71/L4	2	16
11.9	45.5	23.7	48.0	147	48.0	2.6	11.310	12.640	g500-H140	m550-U71/L4	2	13
11.9	45.5	23.7	48.0	147	48.0	1.9	11.232	12.653	g500-H100	m550-U71/L4	2	12
11.3	47.8	22.6	50.0	140	50.0	4.0	11.686	13.268	g500-H320	m550-U71/L4	2	16
11.0	49.2	21.9	52.0	136	52.0	3.6	11.475	13.673	g500-H210	m550-U71/L4	2	15
10.8	50.1	21.6	53.0	134	53.0	4.0	12.306	13.905	g500-H450	m550-U71/L4	2	20
10.7	50.2	21.5	53.0	133	53.0	2.4	11.301	13.957	g500-H140	m550-U71/L4	2	13
10.4	52.2	20.7	55.0	128	55.0	1.7	11.229	14.490	g500-H100	m550-U71/L4	2	12
10.1	53.6	20.1	56.0	125	56.0	3.7	11.544	14.898	g500-H320	m550-U71/L4	2	16
9.8	55.1	19.6	58.0	122	58.0	3.2	11.465	15.306	g500-H210	m550-U71/L4	2	15
9.7	55.8	19.4	59.0	120	59.0	1.6	11.202	15.500	g500-H100	m550-U71/L4	2	12



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
9.5	56.6	19.1	59.0	118	59.0	4.0	12.269	15.714	g500-H450	m550-U71/L4	2	20
9.5	56.9	19.0	60.0	118	60.0	4.0	12.440	15.810	g500-H600	m550-U71/L4	2	31
9.3	58.0	18.6	61.0	115	61.0	2.1	11.250	16.122	g500-H140	m550-U71/L4	2	13
9.0	60.3	17.9	63.0	111	63.0	3.1	11.392	16.750	g500-H210	m550-U71/L4	2	15
8.9	60.9	17.7	64.0	110	64.0	3.7	11.520	16.923	g500-H320	m550-U71/L4	2	16
8.5	63.9	16.9	67.0	105	67.0	1.4	11.200	17.750	g500-H100	m550-U71/L4	2	12
8.4	63.9	16.9	67.0	105	67.0	4.0	12.383	17.755	g500-H600	m550-U71/L4	2	31
8.4	64.1	16.9	67.0	105	67.0	1.9	11.245	17.802	g500-H140	m550-U71/L4	2	13
8.2	65.7	16.4	69.0	102	69.0	3.3	11.438	18.250	g500-H320	m550-U71/L4	2	16
8.0	67.5	16.0	71.0	99.2	71.0	2.8	11.385	18.750	g500-H210	m550-U71/L4	2	15
7.7	70.1	15.4	74.0	95.5	74.0	1.3	11.169	19.486	g500-H100	m550-U71/L4	2	12
7.6	71.1	15.2	75.0	94.2	75.0	1.7	11.214	19.750	g500-H140	m550-U71/L4	2	13
7.2	74.6	14.5	78.0	89.7	78.0	3.3	11.421	20.731	g500-H320	m550-U71/L4	2	16
6.9	78.5	13.8	82.0	85.3	82.0	2.4	11.282	21.802	g500-H210	m550-U71/L4	2	15
6.9	78.5	13.8	83.0	85.3	83.0	1.6	11.211	21.808	g500-H140	m550-U71/L4	2	13
6.8	79.8	13.5	84.0	83.9	84.0	3.3	11.627	22.170	g500-H450	m550-U71/L4	2	20
6.7	80.3	13.4	84.0	83.4	84.0	1.1	11.167	22.314	g500-H100	m550-U71/L4	2	12
6.3	85.5	12.6	90.0	78.3	90.0	3.0	11.309	23.754	g500-H320	m550-U71/L4	2	16
6.1	87.8	12.3	92.0	76.2	92.0	2.1	11.279	24.405	g500-H210	m550-U71/L4	2	15
6.0	89.4	12.1	94.0	74.9	94.0	1.4	11.177	24.829	g500-H140	m550-U71/L4	2	13
6.0	90.2	12.0	95.0	74.2	95.0	3.3	11.612	25.056	g500-H450	m550-U71/L4	2	20
6.0	90.3	12.0	95.0	74.1	95.0	1.0	11.148	25.095	g500-H100	m550-U71/L4	2	12
6.0	90.7	11.9	95.0	73.8	95.0	3.3	11.679	25.207	g500-H600	m550-U71/L4	2	31
5.6	97.1	11.1	102	68.9	102	3.1	11.300	26.983	g500-H320	m550-U71/L4	2	16
5.5	97.6	11.1	103	68.6	103	2.1	11.234	27.119	g500-H210	m550-U71/L4	2	15
5.5	98.7	10.9	104	67.8	104	1.4	11.174	27.415	g500-H140	m550-U71/L4	2	13
5.4	99.3	10.9	104	67.4	104	3.0	11.489	27.578	g500-H450	m550-U71/L4	2	20
5.3	102	10.6	107	65.7	107	3.6	11.657	28.310	g500-H600	m550-U71/L4	2	31
5.2	103	10.4	109	64.7	109	0.9	11.147	28.738	g500-H100	m550-U71/L4	2	12
5.1	106	10.2	112	62.9	112	2.8	11.252	29.548	g500-H320	m550-U71/L4	2	16
4.9	109	9.9	115	61.3	115	1.8	11.232	30.357	g500-H210	m550-U71/L4	2	15
4.8	112	9.6	118	59.7	118	3.0	11.479	31.167	g500-H450	m550-U71/L4	2	20
4.8	113	9.6	119	59.3	119	3.0	11.523	31.356	g500-H600	m550-U71/L4	2	31
4.7	115	9.4	121	58.2	121	1.2	11.153	31.976	g500-H140	m550-U71/L4	2	13
4.5	121	8.9	127	55.4	127	2.5	11.246	33.564	g500-H320	m550-U71/L4	2	16
4.3	126	8.5	133	53.0	133	1.6	11.185	35.095	g500-H210	m550-U71/L4	2	15
4.3	127	8.5	133	52.8	133	3.0	11.508	35.214	g500-H600	m550-U71/L4	2	31
4.2	127	8.5	134	52.7	134	1.1	11.151	35.308	g500-H140	m550-U71/L4	2	13
4.2	129	8.4	135	52.1	135	2.8	11.344	35.689	g500-H450	m550-U71/L4	2	20
4.0	134	8.1	141	50.0	141	3.0	11.819	37.190	g500-H850	m550-U71/L4	2	40
3.9	138	7.8	145	48.6	145	1.7	11.195	38.238	g500-H320	m550-U71/L4	2	16
3.8	141	7.6	149	47.3	149	1.4	11.183	39.286	g500-H210	m550-U71/L4	2	15
3.8	142	7.5	149	46.6	149	3.8	11.862	39.925	g500-H600	m550-U71/L4	3	32
3.7	145	7.4	153	46.1	153	2.8	11.338	40.333	g500-H450	m550-U71/L4	2	20
3.7	146	7.4	154	45.8	154	2.8	11.364	40.578	g500-H600	m550-U71/L4	2	31
3.6	150	7.2	157	44.8	157	3.0	11.804	41.556	g500-H850	m550-U71/L4	2	40
3.5	153	7.0	161	43.7	161	1.1	11.162	42.593	g500-H210	m550-U71/L4	2	15
3.5	154	6.9	162	42.9	162	1.2	11.227	43.390	g500-H210	m550-U71/L4	3	15
3.4	155	6.9	163	42.6	163	3.4	11.758	43.676	g500-H600	m550-U71/L4	3	32
3.5	156	6.9	164	42.9	164	2.0	11.279	43.313	g500-H450	m550-U71/L4	2	20
3.5	156	6.9	164	42.8	164	1.7	11.192	43.436	g500-H320	m550-U71/L4	2	16
3.4	156	6.8	164	42.2	164	2.6	11.460	44.124	g500-H450	m550-U71/L4	3	20



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
3.3	163	6.6	171	41.2	171	2.7	11.631	45.136	g500-H850	m550-U71/L4	2	40
3.3	164	6.6	172	40.8	172	2.8	11.355	45.571	g500-H600	m550-U71/L4	2	31
3.2	167	6.5	176	40.1	176	1.2	11.170	46.407	g500-H320	m550-U71/L4	2	16
3.2	168	6.3	176	39.3	176	1.8	11.234	47.276	g500-H320	m550-U71/L4	3	17
3.1	172	6.3	180	39.0	180	1.1	11.161	47.679	g500-H210	m550-U71/L4	2	15
3.1	172	6.2	181	38.3	181	1.2	11.226	48.571	g500-H210	m550-U71/L4	3	15
3.1	174	6.1	183	37.9	183	3.3	11.750	49.051	g500-H600	m550-U71/L4	3	32
3.1	176	6.1	185	38.0	185	2.0	11.275	48.950	g500-H450	m550-U71/L4	2	20
3.0	177	6.1	186	37.8	186	2.3	11.293	49.247	g500-H600	m550-U71/L4	2	31
3.0	177	6.0	186	37.3	186	2.4	11.456	49.867	g500-H450	m550-U71/L4	3	20
3.0	182	5.9	191	36.9	191	2.7	11.622	50.433	g500-H850	m550-U71/L4	2	40
2.8	187	5.7	197	35.3	197	4.3	12.369	52.743	g500-H850	m550-U71/L4	3	41
2.8	190	5.7	199	35.3	199	1.2	11.167	52.715	g500-H320	m550-U71/L4	2	16
2.8	190	5.6	200	34.6	200	1.6	11.231	53.703	g500-H320	m550-U71/L4	3	17
2.7	197	5.5	207	34.0	207	1.3	11.216	54.750	g500-H450	m550-U71/L4	2	20
2.7	197	5.4	207	33.5	207	1.0	11.188	55.529	g500-H210	m550-U71/L4	3	15
2.7	198	5.4	208	33.4	208	2.9	11.564	55.710	g500-H600	m550-U71/L4	3	32
2.7	199	5.4	209	33.6	209	2.3	11.287	55.307	g500-H600	m550-U71/L4	2	31
2.7	200	5.3	210	32.9	210	2.1	11.351	56.469	g500-H450	m550-U71/L4	3	20
2.5	209	5.1	220	31.6	220	3.9	12.363	58.933	g500-H850	m550-U71/L4	3	41
2.5	215	5.0	225	30.7	225	1.4	11.193	60.502	g500-H320	m550-U71/L4	3	17
2.4	219	4.9	230	30.1	230	2.0	11.319	61.774	g500-H450	m550-U71/L4	3	20
2.4	220	4.8	232	29.9	232	0.9	11.188	62.160	g500-H210	m550-U71/L4	3	15
2.4	222	4.8	233	29.7	233	2.6	11.559	62.566	g500-H600	m550-U71/L4	3	32
2.4	223	4.8	234	30.1	234	1.3	11.214	61.875	g500-H450	m550-U71/L4	2	20
2.4	224	4.8	236	29.9	236	1.3	11.225	62.250	g500-H600	m550-U71/L4	2	31
2.2	242	4.4	254	27.3	254	2.4	11.451	68.244	g500-H600	m550-U71/L4	3	32
2.2	244	4.4	256	27.1	256	1.3	11.191	68.726	g500-H320	m550-U71/L4	3	17
2.1	248	4.3	260	26.6	260	1.7	11.317	69.813	g500-H450	m550-U71/L4	3	20
2.1	252	4.3	265	26.6	265	1.3	11.221	69.911	g500-H600	m550-U71/L4	2	31
2.0	272	3.9	286	24.3	286	2.1	11.448	76.643	g500-H600	m550-U71/L4	3	32
1.9	274	3.9	288	24.0	288	1.1	11.162	77.387	g500-H320	m550-U71/L4	3	17
1.9	279	3.8	294	23.6	294	1.5	11.256	78.794	g500-H450	m550-U71/L4	3	20
1.8	298	3.6	313	22.1	313	2.7	11.651	84.096	g500-H850	m550-U71/L4	3	41
1.7	312	3.4	328	21.2	328	1.0	11.161	87.906	g500-H320	m550-U71/L4	3	17
1.7	315	3.4	331	20.9	331	1.8	11.317	88.826	g500-H600	m550-U71/L4	3	32
1.7	316	3.4	332	20.9	332	1.4	11.255	89.048	g500-H450	m550-U71/L4	3	20
1.6	333	3.2	350	19.8	350	2.4	11.649	93.966	g500-H850	m550-U71/L4	3	41
1.6	342	3.1	360	19.3	360	1.3	11.218	96.522	g500-H450	m550-U71/L4	3	20
1.5	354	3.0	372	18.6	372	1.6	11.316	99.757	g500-H600	m550-U71/L4	3	32
1.5	356	3.0	374	18.5	374	0.9	11.144	100.462	g500-H320	m550-U71/L4	3	17
1.4	371	2.9	390	17.8	390	2.2	11.505	104.607	g500-H850	m550-U71/L4	3	41
1.4	387	2.8	407	17.1	407	1.1	11.217	109.083	g500-H450	m550-U71/L4	3	20
1.4	392	2.7	412	16.8	412	1.5	11.257	110.491	g500-H600	m550-U71/L4	3	32
1.3	414	2.6	436	15.9	436	2.0	11.503	116.884	g500-H850	m550-U71/L4	3	41
1.2	430	2.5	452	15.3	452	1.0	11.179	121.342	g500-H450	m550-U71/L4	3	20
1.2	440	2.4	462	15.0	462	1.3	11.256	124.088	g500-H600	m550-U71/L4	3	32
1.1	480	2.2	505	13.7	505	1.7	11.353	135.373	g500-H850	m550-U71/L4	3	41
1.1	486	2.2	511	13.6	511	0.9	11.178	137.133	g500-H450	m550-U71/L4	3	20
1.0	507	2.1	533	13.0	533	1.1	11.198	142.988	g500-H600	m550-U71/L4	3	32
1.0	536	2.0	564	12.3	564	1.5	11.352	151.262	g500-H850	m550-U71/L4	3	41
0.9	569	1.9	599	11.6	599	1.0	11.198	160.585	g500-H600	m550-U71/L4	3	32



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
0.9	583	1.8	612	11.3	612	1.4	11.286	164.294	g500-H850	m550-U71/L4	3	41
0.9	615	1.7	647	10.7	647	0.9	11.172	173.536	g500-H600	m550-U71/L4	3	32
0.8	648	1.6	681	10.2	681	2.2	11.778	182.844	g500-H1500	m550-U71/L4	3	72
0.8	651	1.6	684	10.1	684	1.2	11.285	183.577	g500-H850	m550-U71/L4	3	41
0.8	691	1.5	726	9.5	726	0.8	11.171	194.892	g500-H600	m550-U71/L4	3	32
0.8	695	1.5	730	9.3	730	0.8	11.324	198.970	g500-H600	m550-U71/L4	4	35
0.7	710	1.5	746	9.2	746	3.8	12.613	203.178	g500-H3000	m550-U71/L4	4	120
0.7	711	1.5	747	9.1	747	2.0	11.823	203.537	g500-H1500	m550-U71/L4	4	75
0.7	717	1.5	754	9.2	754	2.0	11.776	202.237	g500-H1500	m550-U71/L4	3	72
0.7	735	1.4	773	8.8	773	1.1	11.364	210.484	g500-H850	m550-U71/L4	4	44
0.7	736	1.4	774	9.0	774	1.1	11.220	207.675	g500-H850	m550-U71/L4	3	41
0.7	786	1.3	826	8.3	826	1.8	11.822	225.125	g500-H1500	m550-U71/L4	4	75
0.7	787	1.4	827	8.4	827	1.8	11.603	221.907	g500-H1500	m550-U71/L4	3	72
0.7	791	1.3	832	8.2	832	3.2	12.152	226.604	g500-H3000	m550-U71/L4	4	120
0.6	818	1.3	860	7.9	860	1.0	11.288	234.319	g500-H850	m550-U71/L4	4	44
0.6	823	1.3	865	8.0	865	1.0	11.220	232.050	g500-H850	m550-U71/L4	3	41
0.6	869	1.2	914	7.5	914	3.2	12.150	248.893	g500-H3000	m550-U71/L4	4	120
0.6	870	1.2	915	7.6	915	1.6	11.603	245.442	g500-H1500	m550-U71/L4	3	72
0.6	889	1.2	934	7.3	934	1.6	11.466	254.431	g500-H1500	m550-U71/L4	4	75
0.6	914	1.1	961	7.1	961	0.9	11.287	261.821	g500-H850	m550-U71/L4	4	44
0.5	983	1.1	1033	6.6	1033	1.5	11.466	281.416	g500-H1500	m550-U71/L4	4	75
0.5	995	1.1	1045	6.6	1045	1.4	11.425	280.500	g500-H1500	m550-U71/L4	3	72
0.5	1022	1.0	1074	6.4	1074	2.8	12.319	292.511	g500-H3000	m550-U71/L4	4	120
0.5	1100	1.0	1156	6.0	1156	1.3	11.425	310.250	g500-H1500	m550-U71/L4	3	72
0.5	1105	0.9	1162	5.9	1162	1.3	11.353	316.487	g500-H1500	m550-U71/L4	4	75
0.5	1122	0.9	1179	5.8	1179	2.5	12.318	321.282	g500-H3000	m550-U71/L4	4	120
0.4	1223	0.9	1285	5.3	1285	1.2	11.353	350.054	g500-H1500	m550-U71/L4	4	75
0.4	1315	0.8	1382	4.9	1382	2.2	11.770	376.393	g500-H3000	m550-U71/L4	4	120
0.4	1388	0.8	1459	4.7	1459	1.0	11.390	397.548	g500-H1500	m550-U71/L4	4	75
0.4	1444	0.7	1518	4.5	1518	2.0	11.769	413.415	g500-H3000	m550-U71/L4	4	120
0.3	1559	0.7	1639	4.2	1639	0.9	11.322	446.497	g500-H1500	m550-U71/L4	4	75
0.3	1596	0.7	1678	4.1	1678	1.8	11.681	457.048	g500-H3000	m550-U71/L4	4	120
0.3	1711	0.6	1799	3.8	1799	1.7	11.506	489.908	g500-H3000	m550-U71/L4	4	120
0.3	1727	0.6	1815	3.8	1815	0.8	11.304	494.511	g500-H1500	m550-U71/L4	4	75
0.3	1879	0.6	1975	3.5	1975	1.5	11.505	538.095	g500-H3000	m550-U71/L4	4	120
0.3	2078	0.5	2184	3.1	2184	1.4	11.453	594.888	g500-H3000	m550-U71/L4	4	120
0.2	2282	0.5	2399	2.8	2399	1.3	11.453	653.402	g500-H3000	m550-U71/L4	4	120
0.2	2584	0.4	2717	2.5	2717	1.1	11.344	739.983	g500-H3000	m550-U71/L4	4	120
0.2	2754	0.4	2895	2.4	2895	1.0	11.271	788.632	g500-H3000	m550-U71/L4	4	120
0.2	3025	0.3	3180	2.1	3180	0.9	11.271	866.202	g500-H3000	m550-U71/L4	4	120
0.2	3344	0.3	3516	1.9	3516	0.9	11.251	957.625	g500-H3000	m550-U71/L4	4	120



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
71.1	10.3	213	11.0	882	11.0	4.0	21.700	2.108	g500-H100	m550-U80/M4	2	14
45.9	16.0	138	18.0	569	18.0	3.5	22.002	3.267	g500-H140	m550-U80/M4	2	15
44.7	16.4	134	18.0	555	18.0	3.2	21.625	3.354	g500-H100	m550-U80/M4	2	14
44.3	16.6	133	18.0	549	18.0	4.0	22.630	3.389	g500-H210	m550-U80/M4	2	17
44.3	16.6	133	18.0	549	18.0	4.0	22.325	3.389	g500-H320	m550-U80/M4	2	19
33.5	21.9	100	24.0	415	24.0	3.5	21.636	4.480	g500-H140	m550-U80/M4	2	15
32.6	22.5	97.8	25.0	404	25.0	2.7	21.435	4.600	g500-H100	m550-U80/M4	2	14
29.0	25.3	87.1	28.0	360	28.0	2.5	21.529	5.167	g500-H100	m550-U80/M4	2	14
26.9	27.3	80.6	30.0	333	30.0	4.0	22.343	5.583	g500-H210	m550-U80/M4	2	17
26.2	28.0	78.5	31.0	324	31.0	3.1	21.459	5.733	g500-H140	m550-U80/M4	2	15
25.5	28.8	76.4	32.0	316	32.0	2.4	21.336	5.887	g500-H100	m550-U80/M4	2	14
24.7	29.7	74.0	33.0	306	33.0	4.0	22.755	6.083	g500-H320	m550-U80/M4	2	19
24.0	30.6	72.0	34.0	298	34.0	4.0	22.284	6.250	g500-H210	m550-U80/M4	2	17
23.9	30.7	71.7	34.0	297	34.0	2.9	21.409	6.272	g500-H140	m550-U80/M4	2	15
23.3	31.5	69.9	35.0	289	35.0	2.2	21.307	6.440	g500-H100	m550-U80/M4	2	14
21.7	33.8	65.1	38.0	269	38.0	4.0	22.609	6.910	g500-H320	m550-U80/M4	2	19
21.2	34.6	63.5	38.0	263	38.0	2.1	21.385	7.086	g500-H100	m550-U80/M4	2	14
20.6	35.5	61.9	39.0	256	39.0	2.5	21.605	7.269	g500-H140	m550-U80/M4	2	15
18.8	39.1	56.3	43.0	233	43.0	2.5	21.311	8.000	g500-H140	m550-U80/M4	2	15
18.3	40.2	54.8	45.0	226	45.0	1.9	21.248	8.214	g500-H100	m550-U80/M4	2	14
16.6	44.1	49.8	49.0	206	49.0	2.2	21.442	9.029	g500-H140	m550-U80/M4	2	15
16.5	44.3	49.6	49.0	205	49.0	1.8	21.305	9.068	g500-H100	m550-U80/M4	2	14
15.3	47.9	45.9	53.0	190	53.0	2.2	21.255	9.800	g500-H140	m550-U80/M4	2	15
15.3	47.9	45.9	53.0	190	53.0	3.2	21.689	9.799	g500-H210	m550-U80/M4	2	17
14.9	49.2	44.7	55.0	185	55.0	1.7	21.213	10.063	g500-H100	m550-U80/M4	2	14
14.0	52.2	42.1	58.0	174	58.0	3.5	21.823	10.677	g500-H320	m550-U80/M4	2	19
14.0	52.4	42.0	58.0	174	58.0	3.0	21.613	10.720	g500-H210	m550-U80/M4	2	17
13.2	55.5	39.6	62.0	164	62.0	1.5	21.275	11.360	g500-H100	m550-U80/M4	2	14
13.0	56.5	38.9	63.0	161	63.0	1.9	21.340	11.554	g500-H140	m550-U80/M4	2	15
12.8	57.1	38.5	63.0	159	63.0	3.5	21.725	11.680	g500-H320	m550-U80/M4	2	19
12.5	58.7	37.5	65.0	155	65.0	2.7	21.597	12.000	g500-H210	m550-U80/M4	2	17
12.4	59.3	37.1	66.0	153	66.0	3.5	21.776	12.128	g500-H320	m550-U80/M4	2	19
11.9	61.8	35.6	69.0	147	69.0	1.8	21.310	12.640	g500-H140	m550-U80/M4	2	15
11.9	61.9	35.6	69.0	147	69.0	1.4	21.232	12.653	g500-H100	m550-U80/M4	2	14
11.3	64.9	33.9	72.0	140	72.0	3.4	21.686	13.268	g500-H320	m550-U80/M4	2	19
11.0	66.9	32.9	74.0	136	74.0	2.5	21.475	13.673	g500-H210	m550-U80/M4	2	17
10.8	68.0	32.4	76.0	134	76.0	3.5	22.306	13.905	g500-H450	m550-U80/M4	2	22
10.7	68.2	32.2	76.0	133	76.0	1.7	21.301	13.957	g500-H140	m550-U80/M4	2	15
10.4	70.9	31.1	79.0	128	79.0	1.2	21.229	14.490	g500-H100	m550-U80/M4	2	14
10.1	72.9	30.2	81.0	125	81.0	3.3	21.544	14.898	g500-H320	m550-U80/M4	2	19
9.8	74.8	29.4	83.0	122	83.0	2.2	21.465	15.306	g500-H210	m550-U80/M4	2	17
9.7	75.8	29.0	84.0	120	84.0	1.1	21.202	15.500	g500-H100	m550-U80/M4	2	14
9.5	76.8	28.6	85.0	118	85.0	3.5	22.269	15.714	g500-H450	m550-U80/M4	2	22
9.5	77.3	28.5	86.0	118	86.0	3.5	22.440	15.810	g500-H600	m550-U80/M4	2	33
9.3	78.8	27.9	88.0	115	88.0	1.5	21.250	16.122	g500-H140	m550-U80/M4	2	15
9.0	81.9	26.9	91.0	111	91.0	2.2	21.392	16.750	g500-H210	m550-U80/M4	2	17
8.9	82.8	26.6	92.0	110	92.0	2.9	21.520	16.923	g500-H320	m550-U80/M4	2	19
8.5	86.8	25.4	96.0	105	96.0	1.0	21.200	17.750	g500-H100	m550-U80/M4	2	14
8.4	86.8	25.3	96.0	105	96.0	3.5	22.383	17.755	g500-H600	m550-U80/M4	2	33
8.4	87.1	25.3	97.0	105	97.0	1.4	21.245	17.802	g500-H140	m550-U80/M4	2	15
8.2	89.2	24.7	99.0	102	99.0	2.9	21.438	18.250	g500-H320	m550-U80/M4	2	19



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
8.0	91.7	24.0	102	99.2	102	1.9	21.385	18.750	g500-H210	m550-U80/M4	2	17
7.7	95.3	23.1	106	95.5	106	0.9	21.169	19.486	g500-H100	m550-U80/M4	2	14
7.6	96.6	22.8	107	94.2	107	1.2	21.214	19.750	g500-H140	m550-U80/M4	2	15
7.2	101	21.7	113	89.7	113	2.5	21.421	20.731	g500-H320	m550-U80/M4	2	19
6.9	107	20.6	118	85.3	118	1.1	21.211	21.808	g500-H140	m550-U80/M4	2	15
6.9	107	20.6	118	85.3	118	1.7	21.282	21.802	g500-H210	m550-U80/M4	2	17
6.8	108	20.3	120	83.9	120	2.9	21.627	22.170	g500-H450	m550-U80/M4	2	22
6.3	116	18.9	129	78.3	129	2.3	21.309	23.754	g500-H320	m550-U80/M4	2	19
6.1	119	18.4	133	76.2	133	1.5	21.279	24.405	g500-H210	m550-U80/M4	2	17
6.0	121	18.1	135	74.9	135	1.0	21.177	24.829	g500-H140	m550-U80/M4	2	15
6.0	123	18.0	136	74.2	136	2.9	21.612	25.056	g500-H450	m550-U80/M4	2	22
6.0	123	17.9	137	73.8	137	2.9	21.679	25.207	g500-H600	m550-U80/M4	2	33
5.6	132	16.7	147	68.9	147	2.2	21.300	26.983	g500-H320	m550-U80/M4	2	19
5.5	133	16.6	147	68.6	147	1.4	21.234	27.119	g500-H210	m550-U80/M4	2	17
5.5	134	16.4	149	67.8	149	0.9	21.174	27.415	g500-H140	m550-U80/M4	2	15
5.4	135	16.3	150	67.4	150	2.6	21.489	27.578	g500-H450	m550-U80/M4	2	22
5.3	138	15.9	154	65.7	154	3.1	21.657	28.310	g500-H600	m550-U80/M4	2	33
5.1	145	15.2	161	62.9	161	2.0	21.252	29.548	g500-H320	m550-U80/M4	2	19
4.9	148	14.8	165	61.3	165	1.3	21.232	30.357	g500-H210	m550-U80/M4	2	17
4.8	152	14.4	169	59.7	169	2.6	21.479	31.167	g500-H450	m550-U80/M4	2	22
4.8	153	14.4	170	59.3	170	2.6	21.523	31.356	g500-H600	m550-U80/M4	2	33
4.7	156	14.1	174	58.2	174	0.8	21.153	31.976	g500-H140	m550-U80/M4	2	15
4.5	164	13.4	182	55.4	182	1.8	21.246	33.564	g500-H320	m550-U80/M4	2	19
4.3	172	12.8	191	53.0	191	1.1	21.185	35.095	g500-H210	m550-U80/M4	2	17
4.3	172	12.8	191	52.8	191	2.6	21.508	35.214	g500-H600	m550-U80/M4	2	33
4.2	175	12.6	194	52.1	194	2.3	21.344	35.689	g500-H450	m550-U80/M4	2	22
4.0	182	12.1	202	50.0	202	2.6	21.819	37.190	g500-H850	m550-U80/M4	2	42
3.9	187	11.8	208	48.6	208	1.2	21.195	38.238	g500-H320	m550-U80/M4	2	19
3.8	192	11.5	213	47.3	213	1.0	21.183	39.286	g500-H210	m550-U80/M4	2	17
3.8	192	11.3	214	46.6	214	2.6	21.862	39.925	g500-H600	m550-U80/M4	3	34
3.7	197	11.2	219	46.1	219	2.1	21.338	40.333	g500-H450	m550-U80/M4	2	22
3.7	198	11.1	220	45.8	220	2.4	21.364	40.578	g500-H600	m550-U80/M4	2	33
3.6	203	10.8	226	44.8	226	2.6	21.804	41.556	g500-H850	m550-U80/M4	2	42
3.5	209	10.4	232	42.9	232	0.8	21.227	43.390	g500-H210	m550-U80/M4	3	17
3.4	210	10.3	234	42.6	234	2.4	21.758	43.676	g500-H600	m550-U80/M4	3	34
3.5	212	10.4	235	42.9	235	1.4	21.279	43.313	g500-H450	m550-U80/M4	2	22
3.5	212	10.4	236	42.8	236	1.2	21.192	43.436	g500-H320	m550-U80/M4	2	19
3.4	213	10.2	236	42.2	236	1.8	21.460	44.124	g500-H450	m550-U80/M4	3	22
3.3	221	10.0	245	41.2	245	2.3	21.631	45.136	g500-H850	m550-U80/M4	2	42
3.3	223	9.9	248	40.8	248	2.4	21.355	45.571	g500-H600	m550-U80/M4	2	33
3.2	227	9.7	252	40.1	252	0.9	21.170	46.407	g500-H320	m550-U80/M4	2	19
3.2	228	9.5	253	39.3	253	1.3	21.234	47.276	g500-H320	m550-U80/M4	3	19
3.1	233	9.4	259	39.0	259	0.8	21.161	47.679	g500-H210	m550-U80/M4	2	17
3.1	234	9.3	260	38.3	260	0.8	21.226	48.571	g500-H210	m550-U80/M4	3	17
3.1	236	9.2	263	37.9	263	2.3	21.750	49.051	g500-H600	m550-U80/M4	3	34
3.1	239	9.2	266	38.0	266	1.4	21.275	48.950	g500-H450	m550-U80/M4	2	22
3.0	240	9.0	267	37.3	267	1.7	21.456	49.867	g500-H450	m550-U80/M4	3	22
3.0	241	9.1	268	37.8	268	1.7	21.293	49.247	g500-H600	m550-U80/M4	2	33
3.0	247	8.9	274	36.9	274	2.3	21.622	50.433	g500-H850	m550-U80/M4	2	42
2.8	254	8.5	282	35.3	282	3.0	22.369	52.743	g500-H850	m550-U80/M4	3	43
2.8	258	8.5	286	35.3	286	0.9	21.167	52.715	g500-H320	m550-U80/M4	2	19
2.8	259	8.4	287	34.6	287	1.1	21.231	53.703	g500-H320	m550-U80/M4	3	19



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
2.7	268	8.2	297	34.0	297	0.9	21.216	54.750	g500-H450	m550-U80/M4	2	22
2.7	268	8.1	298	33.4	298	2.0	21.564	55.710	g500-H600	m550-U80/M4	3	34
2.7	270	8.1	300	33.6	300	1.7	21.287	55.307	g500-H600	m550-U80/M4	2	33
2.7	272	8.0	302	32.9	302	1.5	21.351	56.469	g500-H450	m550-U80/M4	3	22
2.5	284	7.6	315	31.6	315	2.7	22.363	58.933	g500-H850	m550-U80/M4	3	43
2.5	291	7.4	324	30.7	324	1.0	21.193	60.502	g500-H320	m550-U80/M4	3	19
2.4	298	7.3	331	30.1	331	1.4	21.319	61.774	g500-H450	m550-U80/M4	3	22
2.4	301	7.2	335	29.7	335	1.8	21.559	62.566	g500-H600	m550-U80/M4	3	34
2.4	303	7.3	336	30.1	336	0.9	21.214	61.875	g500-H450	m550-U80/M4	2	22
2.4	304	7.2	338	29.9	338	1.1	21.225	62.250	g500-H600	m550-U80/M4	2	33
2.2	329	6.6	365	27.3	365	1.6	21.451	68.244	g500-H600	m550-U80/M4	3	34
2.2	331	6.5	368	27.1	368	0.9	21.191	68.726	g500-H320	m550-U80/M4	3	19
2.1	336	6.4	374	26.6	374	1.2	21.317	69.813	g500-H450	m550-U80/M4	3	22
2.1	342	6.4	380	26.6	380	1.1	21.221	69.911	g500-H600	m550-U80/M4	2	33
2.0	369	5.9	410	24.3	410	1.5	21.448	76.643	g500-H600	m550-U80/M4	3	34
1.9	380	5.7	422	23.6	422	1.1	21.256	78.794	g500-H450	m550-U80/M4	3	22
1.8	405	5.4	450	22.1	450	1.9	21.651	84.096	g500-H850	m550-U80/M4	3	43
1.7	428	5.1	475	20.9	475	1.3	21.317	88.826	g500-H600	m550-U80/M4	3	34
1.7	429	5.1	477	20.9	477	0.9	21.255	89.048	g500-H450	m550-U80/M4	3	22
1.6	453	4.8	503	19.8	503	1.7	21.649	93.966	g500-H850	m550-U80/M4	3	43
1.6	465	4.7	517	19.3	517	0.9	21.218	96.522	g500-H450	m550-U80/M4	3	22
1.5	481	4.5	534	18.6	534	1.1	21.316	99.757	g500-H600	m550-U80/M4	3	34
1.4	504	4.3	560	17.8	560	1.5	21.505	104.607	g500-H850	m550-U80/M4	3	43
1.4	532	4.1	591	16.8	591	1.0	21.257	110.491	g500-H600	m550-U80/M4	3	34
1.3	563	3.8	626	15.9	626	1.4	21.503	116.884	g500-H850	m550-U80/M4	3	43
1.2	598	3.6	664	15.0	664	0.9	21.256	124.088	g500-H600	m550-U80/M4	3	34
1.1	652	3.3	724	13.7	724	1.2	21.353	135.373	g500-H850	m550-U80/M4	3	43
1.0	729	3.0	810	12.3	810	1.1	21.352	151.262	g500-H850	m550-U80/M4	3	43
0.9	791	2.7	879	11.3	879	1.0	21.286	164.294	g500-H850	m550-U80/M4	3	43
0.8	881	2.5	979	10.2	979	1.5	21.778	182.844	g500-H1500	m550-U80/M4	3	74
0.8	884	2.5	982	10.1	982	0.9	21.285	183.577	g500-H850	m550-U80/M4	3	43
0.7	964	2.2	1071	9.2	1071	2.7	22.613	203.178	g500-H3000	m550-U80/M4	4	122
0.7	966	2.2	1073	9.1	1073	1.4	21.823	203.537	g500-H1500	m550-U80/M4	4	77
0.7	974	2.2	1082	9.2	1082	1.4	21.776	202.237	g500-H1500	m550-U80/M4	3	74
0.7	1068	2.0	1187	8.3	1187	1.3	21.822	225.125	g500-H1500	m550-U80/M4	4	77
0.7	1069	2.0	1188	8.4	1188	1.3	21.603	221.907	g500-H1500	m550-U80/M4	3	74
0.7	1075	2.0	1195	8.2	1195	2.2	22.152	226.604	g500-H3000	m550-U80/M4	4	122
0.6	1181	1.8	1312	7.5	1312	2.3	22.150	248.893	g500-H3000	m550-U80/M4	4	122
0.6	1182	1.8	1314	7.6	1314	1.1	21.603	245.442	g500-H1500	m550-U80/M4	3	74
0.6	1207	1.8	1341	7.3	1341	1.1	21.466	254.431	g500-H1500	m550-U80/M4	4	77
0.5	1335	1.6	1483	6.6	1483	1.0	21.466	281.416	g500-H1500	m550-U80/M4	4	77
0.5	1351	1.6	1501	6.6	1501	1.0	21.425	280.500	g500-H1500	m550-U80/M4	3	74
0.5	1388	1.5	1542	6.4	1542	2.0	22.319	292.511	g500-H3000	m550-U80/M4	4	122
0.5	1494	1.5	1660	6.0	1660	0.9	21.425	310.250	g500-H1500	m550-U80/M4	3	74
0.5	1502	1.4	1668	5.9	1668	0.9	21.353	316.487	g500-H1500	m550-U80/M4	4	77
0.5	1524	1.4	1694	5.8	1694	1.8	22.318	321.282	g500-H3000	m550-U80/M4	4	122
0.4	1661	1.3	1845	5.3	1845	0.8	21.353	350.054	g500-H1500	m550-U80/M4	4	77
0.4	1786	1.2	1984	4.9	1984	1.5	21.770	376.393	g500-H3000	m550-U80/M4	4	122
0.4	1961	1.1	2179	4.5	2179	1.4	21.769	413.415	g500-H3000	m550-U80/M4	4	122
0.3	2168	1.0	2409	4.1	2409	1.3	21.681	457.048	g500-H3000	m550-U80/M4	4	122
0.3	2324	0.9	2583	3.8	2583	1.2	21.506	489.908	g500-H3000	m550-U80/M4	4	122
0.3	2553	0.8	2837	3.5	2837	1.1	21.505	538.095	g500-H3000	m550-U80/M4	4	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
0.3	2822	0.8	3136	3.1	3136	1.0	21.453	594.888	g500-H3000	m550-U80/M4	4	122
0.2	3100	0.7	3444	2.8	3444	0.9	21.453	653.402	g500-H3000	m550-U80/M4	4	122



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
71.1	14.2	213	16.0	882	16.0	2.9	36.400	2.108	g500-H100	m550-U90/M4	2	17
45.9	22.0	138	24.0	569	24.0	3.1	36.702	3.267	g500-H140	m550-U90/M4	2	19
44.7	22.6	134	25.0	555	25.0	2.3	36.325	3.354	g500-H100	m550-U90/M4	2	17
44.3	22.8	133	25.0	549	25.0	4.6	37.330	3.389	g500-H210	m550-U90/M4	2	20
33.5	30.1	100	33.0	415	33.0	2.6	36.336	4.480	g500-H140	m550-U90/M4	2	19
32.6	30.9	97.8	34.0	404	34.0	2.0	36.135	4.600	g500-H100	m550-U90/M4	2	17
32.3	31.2	96.8	35.0	400	35.0	3.8	36.777	4.648	g500-H210	m550-U90/M4	2	20
29.0	34.7	87.1	39.0	360	39.0	1.8	36.229	5.167	g500-H100	m550-U90/M4	2	17
26.9	37.5	80.6	42.0	333	42.0	3.6	37.043	5.583	g500-H210	m550-U90/M4	2	20
26.2	38.5	78.5	43.0	324	43.0	2.2	36.159	5.733	g500-H140	m550-U90/M4	2	19
25.5	39.6	76.4	44.0	316	44.0	1.7	36.036	5.887	g500-H100	m550-U90/M4	2	17
24.7	40.9	74.0	45.0	306	45.0	4.7	37.455	6.083	g500-H320	m550-U90/M4	2	22
24.0	42.0	72.0	47.0	298	47.0	3.2	36.984	6.250	g500-H210	m550-U90/M4	2	20
23.9	42.2	71.7	47.0	297	47.0	2.1	36.109	6.272	g500-H140	m550-U90/M4	2	19
23.3	43.3	69.9	48.0	289	48.0	1.6	36.007	6.440	g500-H100	m550-U90/M4	2	17
21.7	46.5	65.1	52.0	269	52.0	3.9	37.309	6.910	g500-H320	m550-U90/M4	2	22
21.2	47.6	63.5	53.0	263	53.0	1.5	36.085	7.086	g500-H100	m550-U90/M4	2	17
20.6	48.9	61.9	54.0	256	54.0	1.8	36.305	7.269	g500-H140	m550-U90/M4	2	19
19.6	51.5	58.8	57.0	243	57.0	2.8	36.625	7.657	g500-H210	m550-U90/M4	2	20
18.8	53.8	56.3	60.0	233	60.0	1.8	36.011	8.000	g500-H140	m550-U90/M4	2	19
18.3	55.2	54.8	61.0	226	61.0	1.4	35.948	8.214	g500-H100	m550-U90/M4	2	17
18.0	56.1	53.9	62.0	223	62.0	3.7	36.844	8.343	g500-H320	m550-U90/M4	2	22
17.5	57.6	52.5	64.0	217	64.0	2.5	36.593	8.571	g500-H210	m550-U90/M4	2	20
16.6	60.7	49.8	67.0	206	67.0	1.6	36.142	9.029	g500-H140	m550-U90/M4	2	19
16.5	61.0	49.6	68.0	205	68.0	1.3	36.005	9.068	g500-H100	m550-U90/M4	2	17
15.8	63.7	47.5	71.0	196	71.0	3.1	36.766	9.477	g500-H320	m550-U90/M4	2	22
15.3	65.9	45.9	73.0	190	73.0	1.6	35.955	9.800	g500-H140	m550-U90/M4	2	19
15.3	65.9	45.9	73.0	190	73.0	2.3	36.389	9.799	g500-H210	m550-U90/M4	2	20
15.1	67.0	45.2	74.0	187	74.0	4.8	37.609	9.965	g500-H450	m550-U90/M4	2	25
14.9	67.7	44.7	75.0	185	75.0	1.2	35.913	10.063	g500-H100	m550-U90/M4	2	17
14.0	71.8	42.1	80.0	174	80.0	3.1	36.523	10.677	g500-H320	m550-U90/M4	2	22
14.0	72.1	42.0	80.0	174	80.0	2.2	36.313	10.720	g500-H210	m550-U90/M4	2	20
13.3	75.7	40.0	84.0	165	84.0	4.4	37.537	11.262	g500-H450	m550-U90/M4	2	25
13.2	76.4	39.6	85.0	164	85.0	1.1	35.975	11.360	g500-H100	m550-U90/M4	2	17
13.0	77.7	38.9	86.0	161	86.0	1.4	36.040	11.554	g500-H140	m550-U90/M4	2	19
12.8	78.5	38.5	87.0	159	87.0	2.9	36.425	11.680	g500-H320	m550-U90/M4	2	22
12.5	80.7	37.5	90.0	155	90.0	1.9	36.297	12.000	g500-H210	m550-U90/M4	2	20
12.4	81.5	37.1	91.0	153	91.0	2.6	36.476	12.128	g500-H320	m550-U90/M4	2	22
12.2	82.8	36.5	92.0	151	92.0	4.2	37.363	12.320	g500-H450	m550-U90/M4	2	25
11.9	85.0	35.6	94.0	147	94.0	1.3	36.010	12.640	g500-H140	m550-U90/M4	2	19
11.9	85.1	35.6	95.0	147	95.0	1.0	35.932	12.653	g500-H100	m550-U90/M4	2	17
11.3	89.2	33.9	99.0	140	99.0	2.5	36.386	13.268	g500-H320	m550-U90/M4	2	22
11.0	91.9	32.9	102	136	102	1.8	36.175	13.673	g500-H210	m550-U90/M4	2	20
10.8	93.5	32.4	104	134	104	3.8	37.006	13.905	g500-H450	m550-U90/M4	2	25
10.7	93.8	32.2	104	133	104	1.2	36.001	13.957	g500-H140	m550-U90/M4	2	19
10.4	97.4	31.1	108	128	108	0.9	35.929	14.490	g500-H100	m550-U90/M4	2	17
10.1	100	30.2	111	125	111	2.5	36.244	14.898	g500-H320	m550-U90/M4	2	22
9.8	103	29.4	114	122	114	1.6	36.165	15.306	g500-H210	m550-U90/M4	2	20
9.7	104	29.0	116	120	116	0.8	35.902	15.500	g500-H100	m550-U90/M4	2	17
9.5	106	28.6	117	118	117	3.5	36.969	15.714	g500-H450	m550-U90/M4	2	25
9.5	106	28.5	118	118	118	4.7	37.140	15.810	g500-H600	m550-U90/M4	2	36



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
9.3	108	27.9	120	115	120	1.1	35.950	16.122	g500-H140	m550-U90/M4	2	19
9.0	113	26.9	125	111	125	1.6	36.092	16.750	g500-H210	m550-U90/M4	2	20
8.9	114	26.6	126	110	126	2.1	36.220	16.923	g500-H320	m550-U90/M4	2	22
8.8	115	26.4	127	109	127	3.3	36.749	17.033	g500-H450	m550-U90/M4	2	25
8.4	119	25.3	133	105	133	4.2	37.083	17.755	g500-H600	m550-U90/M4	2	36
8.4	120	25.3	133	105	133	1.0	35.945	17.802	g500-H140	m550-U90/M4	2	19
8.2	123	24.7	136	102	136	2.1	36.138	18.250	g500-H320	m550-U90/M4	2	22
8.0	126	24.0	140	99.2	140	1.4	36.085	18.750	g500-H210	m550-U90/M4	2	20
7.8	129	23.4	144	96.6	144	2.9	36.725	19.250	g500-H450	m550-U90/M4	2	25
7.7	130	23.2	145	96.0	145	3.9	36.838	19.367	g500-H600	m550-U90/M4	2	36
7.6	133	22.8	148	94.2	148	0.9	35.914	19.750	g500-H140	m550-U90/M4	2	19
7.2	139	21.7	155	89.7	155	1.8	36.121	20.731	g500-H320	m550-U90/M4	2	22
6.9	146	20.7	162	85.5	162	3.4	36.800	21.750	g500-H600	m550-U90/M4	2	36
6.9	147	20.6	163	85.3	163	0.8	35.911	21.808	g500-H140	m550-U90/M4	2	19
6.9	147	20.6	163	85.3	163	1.2	35.982	21.802	g500-H210	m550-U90/M4	2	20
6.8	149	20.3	166	83.9	166	2.5	36.327	22.170	g500-H450	m550-U90/M4	2	25
6.5	155	19.5	173	80.5	173	4.3	37.453	23.103	g500-H850	m550-U90/M4	2	45
6.3	160	18.9	177	78.3	177	1.7	36.009	23.754	g500-H320	m550-U90/M4	2	22
6.1	164	18.4	182	76.2	182	1.1	35.979	24.405	g500-H210	m550-U90/M4	2	20
6.0	169	18.0	187	74.2	187	2.2	36.312	25.056	g500-H450	m550-U90/M4	2	25
6.0	170	17.9	188	73.8	188	3.0	36.379	25.207	g500-H600	m550-U90/M4	2	36
5.8	174	17.4	193	72.1	193	4.1	37.415	25.815	g500-H850	m550-U90/M4	2	45
5.6	181	16.7	202	68.9	202	1.6	36.000	26.983	g500-H320	m550-U90/M4	2	22
5.5	182	16.6	203	68.6	203	1.0	35.934	27.119	g500-H210	m550-U90/M4	2	20
5.4	185	16.3	206	67.4	206	2.2	36.189	27.578	g500-H450	m550-U90/M4	2	25
5.3	190	15.9	211	65.7	211	2.8	36.357	28.310	g500-H600	m550-U90/M4	2	36
5.3	190	15.9	212	65.7	212	3.8	36.941	28.315	g500-H850	m550-U90/M4	2	45
5.1	199	15.2	221	62.9	221	1.5	35.952	29.548	g500-H320	m550-U90/M4	2	22
4.9	204	14.8	227	61.3	227	0.9	35.932	30.357	g500-H210	m550-U90/M4	2	20
4.8	207	14.4	230	59.6	230	2.4	36.908	31.197	g500-H600	m550-U90/M4	3	37
4.8	210	14.4	233	59.7	233	1.9	36.179	31.167	g500-H450	m550-U90/M4	2	25
4.8	211	14.4	234	59.3	234	2.6	36.223	31.356	g500-H600	m550-U90/M4	2	36
4.7	213	14.2	236	58.8	236	3.6	36.916	31.639	g500-H850	m550-U90/M4	2	45
4.6	217	13.9	241	57.6	241	3.8	38.163	32.267	g500-H1500	m550-U90/M4	2	75
4.5	226	13.4	251	55.4	251	1.3	35.946	33.564	g500-H320	m550-U90/M4	2	22
4.3	232	12.8	258	53.1	258	2.2	36.893	35.037	g500-H600	m550-U90/M4	3	37
4.3	237	12.8	263	52.8	263	2.3	36.208	35.214	g500-H600	m550-U90/M4	2	36
4.2	240	12.6	267	52.1	267	1.7	36.044	35.689	g500-H450	m550-U90/M4	2	25
4.2	240	12.6	267	52.1	267	3.8	38.125	35.689	g500-H1500	m550-U90/M4	2	75
4.0	250	12.1	278	50.0	278	3.1	36.519	37.190	g500-H850	m550-U90/M4	2	45
4.0	250	11.9	278	49.2	278	2.8	37.732	37.799	g500-H850	m550-U90/M4	3	46
3.8	263	11.5	293	47.5	293	3.3	37.537	39.160	g500-H1500	m550-U90/M4	2	75
3.8	264	11.3	294	46.6	294	1.9	36.562	39.925	g500-H600	m550-U90/M4	3	37
3.7	271	11.2	301	46.1	301	1.5	36.038	40.333	g500-H450	m550-U90/M4	2	25
3.7	273	11.1	303	45.8	303	1.8	36.064	40.578	g500-H600	m550-U90/M4	2	36
3.6	274	10.9	304	45.0	304	2.6	37.526	41.350	g500-H850	m550-U90/M4	3	46
3.6	279	10.8	310	44.8	310	2.7	36.504	41.556	g500-H850	m550-U90/M4	2	45
3.4	289	10.3	321	42.6	321	1.7	36.458	43.676	g500-H600	m550-U90/M4	3	37
3.5	291	10.4	324	42.9	324	1.0	35.979	43.313	g500-H450	m550-U90/M4	2	25
3.5	291	10.4	324	42.9	324	3.3	37.511	43.313	g500-H1500	m550-U90/M4	2	75
3.4	292	10.2	325	42.2	325	1.3	36.160	44.124	g500-H450	m550-U90/M4	3	26
3.3	304	10.0	337	41.2	337	2.5	36.331	45.136	g500-H850	m550-U90/M4	2	45



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
3.3	306	9.9	340	40.8	340	1.8	36.055	45.571	g500-H600	m550-U90/M4	2	36
3.2	306	9.7	340	40.3	340	2.5	37.515	46.204	g500-H850	m550-U90/M4	3	46
3.1	325	9.2	361	37.9	361	1.7	36.450	49.051	g500-H600	m550-U90/M4	3	37
3.1	329	9.2	366	38.0	366	1.0	35.975	48.950	g500-H450	m550-U90/M4	2	25
3.0	330	9.0	367	37.3	367	1.2	36.156	49.867	g500-H450	m550-U90/M4	3	26
3.0	331	9.1	368	37.8	368	1.2	35.993	49.247	g500-H600	m550-U90/M4	2	36
3.0	333	9.1	370	37.6	370	2.6	36.950	49.500	g500-H1500	m550-U90/M4	2	75
3.0	339	8.9	377	36.9	377	2.3	36.322	50.433	g500-H850	m550-U90/M4	2	45
2.8	349	8.5	388	35.3	388	2.2	37.069	52.743	g500-H850	m550-U90/M4	3	46
2.7	368	8.2	409	34.0	409	2.6	36.934	54.750	g500-H1500	m550-U90/M4	2	75
2.7	369	8.1	410	33.4	410	1.5	36.264	55.710	g500-H600	m550-U90/M4	3	37
2.7	372	8.1	413	33.6	413	1.2	35.987	55.307	g500-H600	m550-U90/M4	2	36
2.7	374	8.0	416	32.9	416	1.1	36.051	56.469	g500-H450	m550-U90/M4	3	26
2.5	390	7.6	434	31.6	434	2.0	37.063	58.933	g500-H850	m550-U90/M4	3	46
2.4	409	7.3	455	30.1	455	1.0	36.019	61.774	g500-H450	m550-U90/M4	3	26
2.4	414	7.2	460	29.7	460	1.3	36.259	62.566	g500-H600	m550-U90/M4	3	37
2.3	428	7.0	475	28.8	475	1.8	36.792	64.610	g500-H850	m550-U90/M4	3	46
2.2	452	6.6	502	27.3	502	1.2	36.151	68.244	g500-H600	m550-U90/M4	3	37
2.1	462	6.4	514	26.6	514	0.9	36.017	69.813	g500-H450	m550-U90/M4	3	26
2.1	472	6.3	524	26.1	524	2.9	38.591	71.238	g500-H1500	m550-U90/M4	3	77
2.1	478	6.2	531	25.8	531	1.6	36.787	72.193	g500-H850	m550-U90/M4	3	46
2.0	508	5.9	564	24.3	564	1.1	36.148	76.643	g500-H600	m550-U90/M4	3	37
1.9	522	5.7	580	23.6	580	2.6	38.583	78.794	g500-H1500	m550-U90/M4	3	77
1.8	557	5.4	619	22.1	619	1.4	36.351	84.096	g500-H850	m550-U90/M4	3	46
1.7	588	5.1	654	20.9	654	0.9	36.017	88.826	g500-H600	m550-U90/M4	3	37
1.6	622	4.8	691	19.8	691	1.2	36.349	93.966	g500-H850	m550-U90/M4	3	46
1.5	661	4.5	734	18.6	734	0.8	36.016	99.757	g500-H600	m550-U90/M4	3	37
1.4	693	4.3	770	17.8	770	1.1	36.205	104.607	g500-H850	m550-U90/M4	3	46
1.3	752	4.0	836	16.4	836	1.8	37.475	113.585	g500-H1500	m550-U90/M4	3	77
1.3	774	3.8	860	15.9	860	1.0	36.203	116.884	g500-H850	m550-U90/M4	3	46
1.2	832	3.6	924	14.8	924	1.6	37.472	125.632	g500-H1500	m550-U90/M4	3	77
1.1	897	3.3	996	13.7	996	0.9	36.053	135.373	g500-H850	m550-U90/M4	3	46
1.1	922	3.2	1024	13.4	1024	1.5	36.870	139.211	g500-H1500	m550-U90/M4	3	77
1.0	1020	2.9	1133	12.1	1133	1.3	36.868	153.976	g500-H1500	m550-U90/M4	3	77
0.9	1119	2.7	1244	11.0	1244	2.4	38.061	168.993	g500-H3000	m550-U90/M4	3	122
0.8	1211	2.5	1345	10.2	1345	1.1	36.478	182.844	g500-H1500	m550-U90/M4	3	77
0.8	1229	2.4	1366	10.0	1366	2.2	38.057	185.615	g500-H3000	m550-U90/M4	3	122
0.7	1325	2.2	1473	9.2	1473	1.9	37.313	203.178	g500-H3000	m550-U90/M4	4	125
0.7	1328	2.2	1475	9.1	1475	1.0	36.523	203.537	g500-H1500	m550-U90/M4	4	80
0.7	1339	2.2	1488	9.2	1488	1.0	36.476	202.237	g500-H1500	m550-U90/M4	3	77
0.7	1358	2.2	1509	9.1	1509	2.0	37.467	205.096	g500-H3000	m550-U90/M4	3	122
0.7	1469	2.0	1632	8.3	1632	0.9	36.522	225.125	g500-H1500	m550-U90/M4	4	80
0.7	1470	2.0	1633	8.4	1633	0.9	36.303	221.907	g500-H1500	m550-U90/M4	3	77
0.7	1478	2.0	1642	8.2	1642	1.6	36.852	226.604	g500-H3000	m550-U90/M4	4	125
0.7	1492	2.0	1658	8.3	1658	1.8	37.465	225.269	g500-H3000	m550-U90/M4	3	122
0.6	1624	1.8	1804	7.5	1804	1.6	36.850	248.893	g500-H3000	m550-U90/M4	4	125
0.6	1626	1.8	1806	7.6	1806	0.8	36.303	245.442	g500-H1500	m550-U90/M4	3	77
0.6	1660	1.8	1844	7.3	1844	0.8	36.166	254.431	g500-H1500	m550-U90/M4	4	80
0.6	1717	1.7	1908	7.2	1908	1.6	36.907	259.250	g500-H3000	m550-U90/M4	3	122
0.5	1886	1.6	2095	6.5	2095	1.4	36.905	284.750	g500-H3000	m550-U90/M4	3	122
0.5	1908	1.5	2120	6.4	2120	1.4	37.019	292.511	g500-H3000	m550-U90/M4	4	125
0.5	2096	1.4	2329	5.8	2329	1.3	37.018	321.282	g500-H3000	m550-U90/M4	4	125



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
0.4	2455	1.2	2728	4.9	2728	1.1	36.470	376.393	g500-H3000	m550-U90/M4	4	125
0.4	2697	1.1	2997	4.5	2997	1.0	36.469	413.415	g500-H3000	m550-U90/M4	4	125
0.3	2982	1.0	3313	4.1	3313	0.9	36.381	457.048	g500-H3000	m550-U90/M4	4	125
0.3	3196	0.9	3551	3.8	3551	0.8	36.206	489.908	g500-H3000	m550-U90/M4	4	125



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
71.1	20.9	213	23.0	882	23.0	2.0	46.500	2.108	g500-H100	m550-U90/L4	2	20
45.9	32.3	138	36.0	569	36.0	2.1	46.802	3.267	g500-H140	m550-U90/L4	2	21
44.7	33.2	134	37.0	555	37.0	1.6	46.425	3.354	g500-H100	m550-U90/L4	2	20
44.3	33.5	133	37.0	549	37.0	3.2	47.430	3.389	g500-H210	m550-U90/L4	2	22
44.3	33.5	133	37.0	549	37.0	3.5	47.125	3.389	g500-H320	m550-U90/L4	2	24
33.5	44.3	100	49.0	415	49.0	1.8	46.436	4.480	g500-H140	m550-U90/L4	2	21
32.6	45.5	97.8	50.0	404	50.0	1.3	46.235	4.600	g500-H100	m550-U90/L4	2	20
32.3	46.0	96.8	51.0	400	51.0	2.6	46.877	4.648	g500-H210	m550-U90/L4	2	22
32.3	46.0	96.8	51.0	400	51.0	3.5	46.715	4.648	g500-H320	m550-U90/L4	2	24
29.0	51.1	87.1	57.0	360	57.0	1.2	46.329	5.167	g500-H100	m550-U90/L4	2	20
26.9	55.3	80.6	61.0	333	61.0	2.4	47.143	5.583	g500-H210	m550-U90/L4	2	22
26.2	56.7	78.5	63.0	324	63.0	1.5	46.259	5.733	g500-H140	m550-U90/L4	2	21
26.2	56.7	78.5	63.0	324	63.0	3.5	48.766	5.733	g500-H600	m550-U90/L4	2	39
25.5	58.3	76.4	65.0	316	65.0	1.2	46.136	5.887	g500-H100	m550-U90/L4	2	20
24.8	59.8	74.4	66.0	308	66.0	3.5	48.131	6.045	g500-H450	m550-U90/L4	2	27
24.7	60.2	74.0	67.0	306	67.0	3.2	47.555	6.083	g500-H320	m550-U90/L4	2	24
24.0	61.9	72.0	69.0	298	69.0	2.2	47.084	6.250	g500-H210	m550-U90/L4	2	22
23.9	62.1	71.7	69.0	297	69.0	1.4	46.209	6.272	g500-H140	m550-U90/L4	2	21
23.3	63.7	69.9	71.0	289	71.0	1.1	46.107	6.440	g500-H100	m550-U90/L4	2	20
22.7	65.4	68.0	73.0	281	73.0	3.5	47.876	6.613	g500-H450	m550-U90/L4	2	27
21.7	68.4	65.1	76.0	269	76.0	2.7	47.409	6.910	g500-H320	m550-U90/L4	2	24
21.2	70.1	63.5	78.0	263	78.0	1.0	46.185	7.086	g500-H100	m550-U90/L4	2	20
20.6	71.9	61.9	80.0	256	80.0	1.2	46.405	7.269	g500-H140	m550-U90/L4	2	21
19.6	75.8	58.8	84.0	243	84.0	1.9	46.725	7.657	g500-H210	m550-U90/L4	2	22
18.8	79.2	56.3	88.0	233	88.0	1.2	46.111	8.000	g500-H140	m550-U90/L4	2	21
18.3	81.3	54.8	90.0	226	90.0	1.0	46.048	8.214	g500-H100	m550-U90/L4	2	20
18.0	82.6	53.9	91.0	223	91.0	2.5	46.944	8.343	g500-H320	m550-U90/L4	2	24
17.5	84.8	52.5	94.0	217	94.0	1.7	46.693	8.571	g500-H210	m550-U90/L4	2	22
16.6	89.3	49.8	99.0	206	99.0	1.1	46.242	9.029	g500-H140	m550-U90/L4	2	21
16.5	89.7	49.6	99.0	205	99.0	0.9	46.105	9.068	g500-H100	m550-U90/L4	2	20
15.8	93.8	47.5	104	196	104	2.1	46.866	9.477	g500-H320	m550-U90/L4	2	24
15.3	97.0	45.9	107	190	107	1.1	46.055	9.800	g500-H140	m550-U90/L4	2	21
15.3	97.0	45.9	107	190	107	1.6	46.489	9.799	g500-H210	m550-U90/L4	2	22
15.1	98.6	45.2	109	187	109	3.3	47.709	9.965	g500-H450	m550-U90/L4	2	27
14.9	99.6	44.7	110	185	110	0.8	46.013	10.063	g500-H100	m550-U90/L4	2	20
14.0	106	42.1	117	174	117	2.1	46.623	10.677	g500-H320	m550-U90/L4	2	24
14.0	106	42.0	118	174	118	1.5	46.413	10.720	g500-H210	m550-U90/L4	2	22
13.3	112	40.0	123	165	123	3.0	47.637	11.262	g500-H450	m550-U90/L4	2	27
13.2	112	39.7	124	164	124	3.5	47.969	11.330	g500-H600	m550-U90/L4	2	39
13.0	114	38.9	127	161	127	0.9	46.140	11.554	g500-H140	m550-U90/L4	2	21
12.8	116	38.5	128	159	128	2.0	46.525	11.680	g500-H320	m550-U90/L4	2	24
12.5	119	37.5	132	155	132	1.3	46.397	12.000	g500-H210	m550-U90/L4	2	22
12.4	120	37.1	133	153	133	1.8	46.576	12.128	g500-H320	m550-U90/L4	2	24
12.2	122	36.5	135	151	135	2.8	47.463	12.320	g500-H450	m550-U90/L4	2	27
12.1	123	36.3	136	150	136	3.5	47.741	12.395	g500-H600	m550-U90/L4	2	39
11.9	125	35.6	139	147	139	0.9	46.110	12.640	g500-H140	m550-U90/L4	2	21
11.3	131	33.9	145	140	145	1.7	46.486	13.268	g500-H320	m550-U90/L4	2	24
11.0	135	32.9	150	136	150	1.3	46.275	13.673	g500-H210	m550-U90/L4	2	22
10.8	138	32.4	152	134	152	2.6	47.106	13.905	g500-H450	m550-U90/L4	2	27
10.8	138	32.3	153	134	153	3.5	47.647	13.920	g500-H600	m550-U90/L4	2	39
10.7	138	32.2	153	133	153	0.8	46.101	13.957	g500-H140	m550-U90/L4	2	21



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
10.4	143	31.1	159	128	159	3.5	48.961	14.490	g500-H850	m550-U90/L4	2	47
10.1	147	30.2	163	125	163	1.7	46.344	14.898	g500-H320	m550-U90/L4	2	24
9.8	152	29.4	168	122	168	1.1	46.265	15.306	g500-H210	m550-U90/L4	2	22
9.5	156	28.6	172	118	172	2.4	47.069	15.714	g500-H450	m550-U90/L4	2	27
9.5	157	28.5	173	118	173	3.2	47.240	15.810	g500-H600	m550-U90/L4	2	39
9.3	160	27.8	178	115	178	3.5	48.867	16.190	g500-H850	m550-U90/L4	2	47
9.0	166	26.9	184	111	184	1.1	46.192	16.750	g500-H210	m550-U90/L4	2	22
8.9	168	26.6	186	110	186	1.4	46.320	16.923	g500-H320	m550-U90/L4	2	24
8.8	169	26.4	187	109	187	2.2	46.849	17.033	g500-H450	m550-U90/L4	2	27
8.4	176	25.3	195	105	195	2.9	47.183	17.755	g500-H600	m550-U90/L4	2	39
8.2	181	24.7	200	102	200	1.5	46.238	18.250	g500-H320	m550-U90/L4	2	24
8.0	186	24.0	206	99.2	206	1.0	46.185	18.750	g500-H210	m550-U90/L4	2	22
7.8	191	23.4	211	96.6	211	2.0	46.825	19.250	g500-H450	m550-U90/L4	2	27
7.7	192	23.2	212	96.0	212	2.6	46.938	19.367	g500-H600	m550-U90/L4	2	39
7.2	205	21.7	227	89.7	227	1.2	46.221	20.731	g500-H320	m550-U90/L4	2	24
6.9	215	20.7	238	85.5	238	2.3	46.900	21.750	g500-H600	m550-U90/L4	2	39
6.9	216	20.6	239	85.3	239	0.8	46.082	21.802	g500-H210	m550-U90/L4	2	22
6.8	219	20.3	243	83.9	243	1.7	46.427	22.170	g500-H450	m550-U90/L4	2	27
6.5	229	19.5	253	80.5	253	2.9	47.553	23.103	g500-H850	m550-U90/L4	2	47
6.3	235	18.9	260	78.3	260	1.1	46.109	23.754	g500-H320	m550-U90/L4	2	24
6.0	248	18.0	275	74.2	275	1.5	46.412	25.056	g500-H450	m550-U90/L4	2	27
6.0	250	17.9	276	73.8	276	2.0	46.479	25.207	g500-H600	m550-U90/L4	2	39
5.8	256	17.4	283	72.1	283	2.8	47.515	25.815	g500-H850	m550-U90/L4	2	47
5.6	267	16.7	296	68.9	296	1.1	46.100	26.983	g500-H320	m550-U90/L4	2	24
5.4	273	16.3	302	67.4	302	1.5	46.289	27.578	g500-H450	m550-U90/L4	2	27
5.3	280	15.9	310	65.7	310	1.9	46.457	28.310	g500-H600	m550-U90/L4	2	39
5.3	280	15.9	310	65.7	310	2.6	47.041	28.315	g500-H850	m550-U90/L4	2	47
5.1	292	15.2	324	62.9	324	1.0	46.052	29.548	g500-H320	m550-U90/L4	2	24
4.8	304	14.4	337	59.6	337	1.7	47.008	31.197	g500-H600	m550-U90/L4	3	39
4.8	308	14.4	342	59.7	342	1.3	46.279	31.167	g500-H450	m550-U90/L4	2	27
4.8	310	14.4	344	59.3	344	1.8	46.323	31.356	g500-H600	m550-U90/L4	2	39
4.7	313	14.2	347	58.8	347	2.5	47.016	31.639	g500-H850	m550-U90/L4	2	47
4.6	319	13.9	354	57.6	354	2.6	48.263	32.267	g500-H1500	m550-U90/L4	2	78
4.5	332	13.4	368	55.4	368	0.9	46.046	33.564	g500-H320	m550-U90/L4	2	24
4.3	342	12.8	378	53.1	378	1.5	46.993	35.037	g500-H600	m550-U90/L4	3	39
4.3	349	12.8	386	52.8	386	1.6	46.308	35.214	g500-H600	m550-U90/L4	2	39
4.2	353	12.6	391	52.1	391	1.2	46.144	35.689	g500-H450	m550-U90/L4	2	27
4.2	353	12.6	391	52.1	391	2.6	48.225	35.689	g500-H1500	m550-U90/L4	2	78
4.0	368	12.1	408	50.0	408	2.1	46.619	37.190	g500-H850	m550-U90/L4	2	47
4.0	369	11.9	408	49.2	408	1.9	47.832	37.799	g500-H850	m550-U90/L4	3	49
3.8	388	11.5	429	47.5	429	2.3	47.637	39.160	g500-H1500	m550-U90/L4	2	78
3.8	389	11.3	431	46.6	431	1.3	46.662	39.925	g500-H600	m550-U90/L4	3	39
3.7	399	11.2	442	46.1	442	1.0	46.138	40.333	g500-H450	m550-U90/L4	2	27
3.7	402	11.1	445	45.8	445	1.3	46.164	40.578	g500-H600	m550-U90/L4	2	39
3.6	403	10.9	447	45.0	447	1.8	47.626	41.350	g500-H850	m550-U90/L4	3	49
3.6	411	10.8	456	44.8	456	1.9	46.604	41.556	g500-H850	m550-U90/L4	2	47
3.4	426	10.3	472	42.6	472	1.2	46.558	43.676	g500-H600	m550-U90/L4	3	39
3.5	429	10.4	475	42.9	475	2.3	47.611	43.313	g500-H1500	m550-U90/L4	2	78
3.4	430	10.2	477	42.2	477	0.9	46.260	44.124	g500-H450	m550-U90/L4	3	28
3.3	447	10.0	495	41.2	495	1.7	46.431	45.136	g500-H850	m550-U90/L4	2	47
3.2	450	9.7	499	40.3	499	1.7	47.615	46.204	g500-H850	m550-U90/L4	3	49
3.3	451	9.9	500	40.8	500	1.2	46.155	45.571	g500-H600	m550-U90/L4	2	39



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
3.1	478	9.2	530	37.9	530	1.1	46.550	49.051	g500-H600	m550-U90/L4	3	39
3.0	486	9.0	539	37.3	539	0.8	46.256	49.867	g500-H450	m550-U90/L4	3	28
3.0	487	9.1	540	37.8	540	0.8	46.093	49.247	g500-H600	m550-U90/L4	2	39
3.0	490	9.1	543	37.6	543	1.7	47.050	49.500	g500-H1500	m550-U90/L4	2	78
3.0	499	8.9	553	36.9	553	1.5	46.422	50.433	g500-H850	m550-U90/L4	2	47
2.8	514	8.5	570	35.3	570	1.5	47.169	52.743	g500-H850	m550-U90/L4	3	49
2.7	542	8.2	600	34.0	600	1.7	47.034	54.750	g500-H1500	m550-U90/L4	2	78
2.7	543	8.1	602	33.4	602	1.0	46.364	55.710	g500-H600	m550-U90/L4	3	39
2.7	547	8.1	606	33.6	606	0.9	46.087	55.307	g500-H600	m550-U90/L4	2	39
2.5	575	7.6	636	31.6	636	1.3	47.163	58.933	g500-H850	m550-U90/L4	3	49
2.4	610	7.2	676	29.7	676	0.9	46.359	62.566	g500-H600	m550-U90/L4	3	39
2.3	630	7.0	698	28.8	698	1.2	46.892	64.610	g500-H850	m550-U90/L4	3	49
2.2	665	6.6	737	27.3	737	0.8	46.251	68.244	g500-H600	m550-U90/L4	3	39
2.1	694	6.3	769	26.1	769	2.0	48.691	71.238	g500-H1500	m550-U90/L4	3	79
2.1	704	6.2	780	25.8	780	1.1	46.887	72.193	g500-H850	m550-U90/L4	3	49
1.9	768	5.7	851	23.6	851	1.8	48.683	78.794	g500-H1500	m550-U90/L4	3	79
1.8	820	5.4	908	22.1	908	0.9	46.451	84.096	g500-H850	m550-U90/L4	3	49
1.6	916	4.8	1015	19.8	1015	0.8	46.449	93.966	g500-H850	m550-U90/L4	3	49
1.3	1107	4.0	1227	16.4	1227	1.2	47.575	113.585	g500-H1500	m550-U90/L4	3	79
1.2	1225	3.6	1357	14.8	1357	1.1	47.572	125.632	g500-H1500	m550-U90/L4	3	79
1.1	1357	3.2	1503	13.4	1503	1.0	46.970	139.211	g500-H1500	m550-U90/L4	3	79
1.0	1501	2.9	1663	12.1	1663	0.9	46.968	153.976	g500-H1500	m550-U90/L4	3	79
0.9	1647	2.7	1825	11.0	1825	1.6	48.161	168.993	g500-H3000	m550-U90/L4	3	124
0.8	1809	2.4	2004	10.0	2004	1.5	48.157	185.615	g500-H3000	m550-U90/L4	3	124
0.7	1951	2.2	2161	9.2	2161	1.3	47.413	203.178	g500-H3000	m550-U90/L4	4	127
0.7	1999	2.2	2215	9.1	2215	1.4	47.567	205.096	g500-H3000	m550-U90/L4	3	124
0.7	2176	2.0	2410	8.2	2410	1.1	46.952	226.604	g500-H3000	m550-U90/L4	4	127
0.7	2196	2.0	2433	8.3	2433	1.2	47.565	225.269	g500-H3000	m550-U90/L4	3	124
0.6	2390	1.8	2647	7.5	2647	1.1	46.950	248.893	g500-H3000	m550-U90/L4	4	127
0.6	2527	1.7	2800	7.2	2800	1.1	47.007	259.250	g500-H3000	m550-U90/L4	3	124
0.5	2776	1.6	3075	6.5	3075	1.0	47.005	284.750	g500-H3000	m550-U90/L4	3	124
0.5	2809	1.5	3111	6.4	3111	1.0	47.119	292.511	g500-H3000	m550-U90/L4	4	127
0.5	3085	1.4	3418	5.8	3418	0.9	47.118	321.282	g500-H3000	m550-U90/L4	4	127



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
73.1	27.7	219	31.0	906	31.0	1.9	77.000	2.053	g500-H140	m550-U100/M4	2	26
51.5	39.3	155	44.0	639	44.0	1.8	76.900	2.912	g500-H140	m550-U100/M4	2	26
45.9	44.1	138	49.0	569	49.0	4.6	82.800	3.267	g500-H600	m550-U100/M4	2	44
44.3	45.7	133	51.0	549	51.0	2.3	77.430	3.389	g500-H210	m550-U100/M4	2	28
44.3	45.7	133	51.0	549	51.0	3.0	77.125	3.389	g500-H320	m550-U100/M4	2	30
43.5	46.5	131	51.0	540	51.0	4.6	80.843	3.444	g500-H450	m550-U100/M4	2	33
33.5	60.4	100	67.0	415	67.0	4.1	80.153	4.480	g500-H600	m550-U100/M4	2	44
32.3	62.7	96.8	69.0	400	69.0	1.9	76.877	4.648	g500-H210	m550-U100/M4	2	28
32.3	62.7	96.8	69.0	400	69.0	2.5	76.715	4.648	g500-H320	m550-U100/M4	2	30
31.8	63.7	95.3	71.0	394	71.0	3.9	79.113	4.724	g500-H450	m550-U100/M4	2	33
27.9	72.4	83.8	80.0	347	80.0	5.0	82.288	5.368	g500-H850	m550-U100/M4	2	53
26.9	75.3	80.6	83.0	333	83.0	1.8	77.143	5.583	g500-H210	m550-U100/M4	2	28
26.4	76.6	79.3	85.0	328	85.0	3.5	79.543	5.678	g500-H450	m550-U100/M4	2	33
26.2	77.3	78.5	86.0	324	86.0	3.7	78.766	5.733	g500-H600	m550-U100/M4	2	44
24.8	81.5	74.4	90.0	308	90.0	3.3	78.131	6.045	g500-H450	m550-U100/M4	2	33
24.7	82.0	74.0	91.0	306	91.0	2.3	77.555	6.083	g500-H320	m550-U100/M4	2	30
24.0	84.3	72.0	93.0	298	93.0	1.6	77.084	6.250	g500-H210	m550-U100/M4	2	28
23.2	87.1	69.7	96.0	288	96.0	3.9	80.344	6.456	g500-H600	m550-U100/M4	2	44
22.7	89.2	68.0	99.0	281	99.0	3.2	77.876	6.613	g500-H450	m550-U100/M4	2	33
21.7	93.2	65.1	103	269	103	2.0	77.409	6.910	g500-H320	m550-U100/M4	2	30
20.7	97.8	62.1	108	257	108	3.7	80.001	7.250	g500-H600	m550-U100/M4	2	44
19.6	103	58.8	114	243	114	1.4	76.725	7.657	g500-H210	m550-U100/M4	2	28
19.3	105	57.8	116	239	116	2.8	78.421	7.787	g500-H450	m550-U100/M4	2	33
18.0	113	53.9	125	223	125	1.9	76.944	8.343	g500-H320	m550-U100/M4	2	30
17.5	116	52.5	128	217	128	1.2	76.693	8.571	g500-H210	m550-U100/M4	2	28
17.0	119	51.1	131	211	131	2.6	78.304	8.800	g500-H450	m550-U100/M4	2	33
16.9	119	50.8	132	210	132	3.4	78.847	8.853	g500-H600	m550-U100/M4	2	44
15.8	128	47.5	142	196	142	1.6	76.866	9.477	g500-H320	m550-U100/M4	2	30
15.3	132	45.9	146	190	146	1.2	76.489	9.799	g500-H210	m550-U100/M4	2	28
15.1	134	45.3	149	187	149	3.2	78.665	9.943	g500-H600	m550-U100/M4	2	44
15.1	134	45.2	149	187	149	2.4	77.709	9.965	g500-H450	m550-U100/M4	2	33
14.8	137	44.4	152	183	152	4.1	81.029	10.143	g500-H850	m550-U100/M4	2	53
14.0	144	42.1	160	174	160	1.6	76.623	10.677	g500-H320	m550-U100/M4	2	30
14.0	145	42.0	160	174	160	1.1	76.413	10.720	g500-H210	m550-U100/M4	2	28
13.3	152	40.0	168	165	168	2.2	77.637	11.262	g500-H450	m550-U100/M4	2	33
13.2	153	39.7	169	164	169	3.0	77.969	11.330	g500-H600	m550-U100/M4	2	44
13.2	153	39.6	170	164	170	3.8	80.123	11.360	g500-H850	m550-U100/M4	2	53
12.8	158	38.5	175	159	175	1.5	76.525	11.680	g500-H320	m550-U100/M4	2	30
12.5	162	37.5	179	155	179	1.0	76.397	12.000	g500-H210	m550-U100/M4	2	28
12.4	164	37.1	181	153	181	1.3	76.576	12.128	g500-H320	m550-U100/M4	2	30
12.2	166	36.5	184	151	184	2.1	77.463	12.320	g500-H450	m550-U100/M4	2	33
12.1	167	36.3	185	150	185	2.8	77.741	12.395	g500-H600	m550-U100/M4	2	44
11.8	171	35.5	190	147	190	3.6	79.969	12.693	g500-H850	m550-U100/M4	2	53
11.3	179	33.9	198	140	198	1.2	76.486	13.268	g500-H320	m550-U100/M4	2	30
11.0	184	32.9	204	136	204	0.9	76.275	13.673	g500-H210	m550-U100/M4	2	28
10.8	188	32.4	208	134	208	1.9	77.106	13.905	g500-H450	m550-U100/M4	2	33
10.8	188	32.3	208	134	208	2.6	77.647	13.920	g500-H600	m550-U100/M4	2	44
10.4	195	31.1	216	128	216	3.3	78.961	14.490	g500-H850	m550-U100/M4	2	53
10.1	201	30.2	223	125	223	1.2	76.344	14.898	g500-H320	m550-U100/M4	2	30
9.8	206	29.4	229	122	229	0.8	76.265	15.306	g500-H210	m550-U100/M4	2	28
9.5	212	28.6	235	118	235	1.8	77.069	15.714	g500-H450	m550-U100/M4	2	33



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
9.5	213	28.5	236	118	236	2.4	77.240	15.810	g500-H600	m550-U100/M4	2	44
9.3	218	27.8	242	115	242	3.1	78.867	16.190	g500-H850	m550-U100/M4	2	53
8.9	228	26.6	253	110	253	1.0	76.320	16.923	g500-H320	m550-U100/M4	2	30
8.8	230	26.4	255	109	255	1.7	76.849	17.033	g500-H450	m550-U100/M4	2	33
8.4	239	25.3	265	105	265	2.1	77.183	17.755	g500-H600	m550-U100/M4	2	44
8.5	239	25.4	265	105	265	2.9	78.287	17.750	g500-H850	m550-U100/M4	2	53
8.2	246	24.7	273	102	273	1.1	76.238	18.250	g500-H320	m550-U100/M4	2	30
7.8	260	23.4	288	96.6	288	1.5	76.825	19.250	g500-H450	m550-U100/M4	2	33
7.7	261	23.2	289	96.0	289	1.9	76.938	19.367	g500-H600	m550-U100/M4	2	44
7.6	268	22.7	296	93.8	296	2.6	78.224	19.833	g500-H850	m550-U100/M4	2	53
7.3	277	21.9	307	90.6	307	3.6	80.760	20.533	g500-H1500	m550-U100/M4	2	83
7.2	280	21.7	310	89.7	310	0.9	76.221	20.731	g500-H320	m550-U100/M4	2	30
6.9	293	20.7	325	85.5	325	1.7	76.900	21.750	g500-H600	m550-U100/M4	2	44
6.8	299	20.3	331	83.9	331	1.3	76.427	22.170	g500-H450	m550-U100/M4	2	33
6.6	306	19.8	339	81.9	339	3.6	80.666	22.711	g500-H1500	m550-U100/M4	2	83
6.5	312	19.5	345	80.5	345	2.3	77.553	23.103	g500-H850	m550-U100/M4	2	53
6.0	336	18.0	373	74.6	373	3.1	79.590	24.933	g500-H1500	m550-U100/M4	2	83
6.0	338	18.0	374	74.2	374	1.1	76.412	25.056	g500-H450	m550-U100/M4	2	33
6.0	340	17.9	377	73.8	377	1.5	76.479	25.207	g500-H600	m550-U100/M4	2	44
5.8	348	17.4	386	72.1	386	2.1	77.515	25.815	g500-H850	m550-U100/M4	2	53
5.4	372	16.3	412	67.4	412	1.1	76.289	27.578	g500-H450	m550-U100/M4	2	33
5.4	372	16.3	412	67.4	412	3.3	79.527	27.578	g500-H1500	m550-U100/M4	2	83
5.3	382	15.9	423	65.7	423	1.4	76.457	28.310	g500-H600	m550-U100/M4	2	44
5.3	382	15.9	423	65.7	423	2.0	77.041	28.315	g500-H850	m550-U100/M4	2	53
5.1	392	15.2	435	63.0	435	1.8	78.623	29.536	g500-H850	m550-U100/M4	3	54
5.0	402	15.1	446	62.4	446	3.3	83.204	29.822	g500-H3000	m550-U100/M4	2	125
4.8	414	14.4	459	59.6	459	1.2	77.008	31.197	g500-H600	m550-U100/M4	3	45
4.8	420	14.4	466	59.7	466	1.0	76.279	31.167	g500-H450	m550-U100/M4	2	33
4.8	423	14.4	468	59.3	468	1.3	76.323	31.356	g500-H600	m550-U100/M4	2	44
4.7	427	14.2	473	58.8	473	1.8	77.016	31.639	g500-H850	m550-U100/M4	2	53
4.6	435	13.9	482	57.6	482	2.6	78.263	32.267	g500-H1500	m550-U100/M4	2	83
4.5	438	13.6	486	56.4	486	1.6	78.601	33.003	g500-H850	m550-U100/M4	3	54
4.6	442	13.7	489	56.8	489	3.3	83.103	32.756	g500-H3000	m550-U100/M4	2	125
4.3	465	12.8	516	53.1	516	1.1	76.993	35.037	g500-H600	m550-U100/M4	3	45
4.3	475	12.8	526	52.8	526	1.1	76.308	35.214	g500-H600	m550-U100/M4	2	44
4.2	481	12.6	533	52.1	533	2.6	78.225	35.689	g500-H1500	m550-U100/M4	2	83
4.1	488	12.4	541	51.4	541	2.7	81.277	36.193	g500-H3000	m550-U100/M4	2	125
4.0	502	12.1	556	50.0	556	1.5	76.619	37.190	g500-H850	m550-U100/M4	2	53
4.0	502	11.9	556	49.2	556	1.4	77.832	37.799	g500-H850	m550-U100/M4	3	54
3.8	528	11.5	585	47.5	585	2.2	77.637	39.160	g500-H1500	m550-U100/M4	2	83
3.8	530	11.3	588	46.6	588	1.0	76.662	39.925	g500-H600	m550-U100/M4	3	45
3.8	536	11.3	594	46.8	594	2.7	81.208	39.753	g500-H3000	m550-U100/M4	2	125
3.6	549	10.9	609	45.0	609	1.3	77.626	41.350	g500-H850	m550-U100/M4	3	54
3.6	560	10.8	621	44.8	621	1.4	76.604	41.556	g500-H850	m550-U100/M4	2	53
3.4	580	10.3	643	42.6	643	0.9	76.558	43.676	g500-H600	m550-U100/M4	3	45
3.5	584	10.4	647	42.9	647	2.2	77.611	43.313	g500-H1500	m550-U100/M4	2	83
3.3	609	10.0	674	41.2	674	1.3	76.431	45.136	g500-H850	m550-U100/M4	2	53
3.2	614	9.7	680	40.3	680	1.3	77.615	46.204	g500-H850	m550-U100/M4	3	54
3.3	617	9.8	684	40.7	684	2.2	79.443	45.750	g500-H3000	m550-U100/M4	2	125
3.1	652	9.2	722	37.9	722	0.8	76.550	49.051	g500-H600	m550-U100/M4	3	45
3.0	662	9.0	734	37.3	734	2.0	80.863	49.867	g500-H1500	m550-U100/M4	3	85
3.0	668	9.1	740	37.6	740	1.7	77.050	49.500	g500-H1500	m550-U100/M4	2	83



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
3.0	678	9.0	751	37.0	751	2.2	79.400	50.250	g500-H3000	m550-U100/M4	2	125
3.0	680	8.9	754	36.9	754	1.1	76.422	50.433	g500-H850	m550-U100/M4	2	53
2.8	701	8.5	776	35.3	776	1.1	77.169	52.743	g500-H850	m550-U100/M4	3	54
2.7	738	8.2	818	34.0	818	1.7	77.034	54.750	g500-H1500	m550-U100/M4	2	83
2.7	742	8.1	822	33.3	822	1.8	80.069	55.851	g500-H1500	m550-U100/M4	3	85
2.5	783	7.6	867	31.6	867	1.0	77.163	58.933	g500-H850	m550-U100/M4	3	54
2.4	821	7.3	909	30.1	909	1.7	80.057	61.774	g500-H1500	m550-U100/M4	3	85
2.3	858	7.0	951	28.8	951	0.9	76.892	64.610	g500-H850	m550-U100/M4	3	54
2.3	860	7.0	953	28.7	953	3.2	85.527	64.744	g500-H3000	m550-U100/M4	3	130
2.1	945	6.3	1047	26.2	1047	2.9	85.506	71.112	g500-H3000	m550-U100/M4	3	130
2.1	946	6.3	1048	26.1	1048	1.4	78.691	71.238	g500-H1500	m550-U100/M4	3	85
2.1	959	6.2	1062	25.8	1062	0.8	76.887	72.193	g500-H850	m550-U100/M4	3	54
1.9	1047	5.7	1160	23.6	1160	1.3	78.683	78.794	g500-H1500	m550-U100/M4	3	85
1.7	1159	5.2	1284	21.3	1284	1.2	78.107	87.267	g500-H1500	m550-U100/M4	3	85
1.6	1282	4.7	1421	19.3	1421	1.1	78.102	96.522	g500-H1500	m550-U100/M4	3	85
1.4	1429	4.2	1583	17.3	1583	1.9	80.508	107.541	g500-H3000	m550-U100/M4	3	130
1.3	1509	4.0	1672	16.4	1672	0.9	77.575	113.585	g500-H1500	m550-U100/M4	3	85
1.3	1569	3.8	1738	15.7	1738	1.7	80.500	118.119	g500-H3000	m550-U100/M4	3	130
1.2	1669	3.6	1849	14.8	1849	0.8	77.572	125.632	g500-H1500	m550-U100/M4	3	85
1.1	1735	3.4	1922	14.2	1922	1.6	79.419	130.585	g500-H3000	m550-U100/M4	3	130
1.0	1905	3.1	2111	13.0	2111	1.4	79.414	143.430	g500-H3000	m550-U100/M4	3	130
0.9	2245	2.7	2487	11.0	2487	1.2	78.161	168.993	g500-H3000	m550-U100/M4	3	130
0.8	2466	2.4	2732	10.0	2732	1.1	78.157	185.615	g500-H3000	m550-U100/M4	3	130
0.7	2659	2.2	2945	9.2	2945	1.0	77.413	203.178	g500-H3000	m550-U100/M4	4	133
0.7	2725	2.2	3018	9.1	3018	1.0	77.567	205.096	g500-H3000	m550-U100/M4	3	130
0.7	2965	2.0	3285	8.2	3285	0.8	76.952	226.604	g500-H3000	m550-U100/M4	4	133
0.7	2992	2.0	3315	8.3	3315	0.9	77.565	225.269	g500-H3000	m550-U100/M4	3	130
0.6	3257	1.8	3608	7.5	3608	0.8	76.950	248.893	g500-H3000	m550-U100/M4	4	133



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
73.1	36.9	219	41.0	906	41.0	1.4	98.600	2.053	g500-H140	m550-U100/L4	2	30
51.5	52.3	155	58.0	639	58.0	1.3	98.500	2.912	g500-H140	m550-U100/L4	2	30
45.9	58.6	138	65.0	569	65.0	3.4	104.400	3.267	g500-H600	m550-U100/L4	2	48
44.3	60.8	133	67.0	549	67.0	1.7	99.030	3.389	g500-H210	m550-U100/L4	2	32
44.3	60.8	133	67.0	549	67.0	2.3	98.725	3.389	g500-H320	m550-U100/L4	2	34
43.5	61.8	131	69.0	540	69.0	3.5	102.443	3.444	g500-H450	m550-U100/L4	2	37
33.5	80.4	100	89.0	415	89.0	3.1	101.753	4.480	g500-H600	m550-U100/L4	2	48
32.3	83.4	96.8	92.0	400	92.0	1.4	98.477	4.648	g500-H210	m550-U100/L4	2	32
32.3	83.4	96.8	92.0	400	92.0	1.9	98.315	4.648	g500-H320	m550-U100/L4	2	34
31.8	84.8	95.3	94.0	394	94.0	2.9	100.713	4.724	g500-H450	m550-U100/L4	2	37
27.9	96.4	83.8	107	347	107	3.7	103.888	5.368	g500-H850	m550-U100/L4	2	57
26.9	100	80.6	111	333	111	1.3	98.743	5.583	g500-H210	m550-U100/L4	2	32
26.4	102	79.3	113	328	113	2.6	101.143	5.678	g500-H450	m550-U100/L4	2	37
26.2	103	78.5	114	324	114	2.8	100.366	5.733	g500-H600	m550-U100/L4	2	48
24.8	109	74.4	120	308	120	2.5	99.731	6.045	g500-H450	m550-U100/L4	2	37
24.7	109	74.0	121	306	121	1.8	99.155	6.083	g500-H320	m550-U100/L4	2	34
24.0	112	72.0	124	298	124	1.2	98.684	6.250	g500-H210	m550-U100/L4	2	32
23.2	116	69.7	128	288	128	2.9	101.944	6.456	g500-H600	m550-U100/L4	2	48
22.7	119	68.0	132	281	132	2.4	99.476	6.613	g500-H450	m550-U100/L4	2	37
21.7	124	65.1	137	269	137	1.5	99.009	6.910	g500-H320	m550-U100/L4	2	34
20.7	130	62.1	144	257	144	2.8	101.601	7.250	g500-H600	m550-U100/L4	2	48
19.6	137	58.8	152	243	152	1.1	98.325	7.657	g500-H210	m550-U100/L4	2	32
19.3	140	57.8	155	239	155	2.1	100.021	7.787	g500-H450	m550-U100/L4	2	37
18.0	150	53.9	166	223	166	1.4	98.544	8.343	g500-H320	m550-U100/L4	2	34
17.5	154	52.5	170	217	170	0.9	98.293	8.571	g500-H210	m550-U100/L4	2	32
17.0	158	51.1	175	211	175	2.0	99.904	8.800	g500-H450	m550-U100/L4	2	37
16.9	159	50.8	176	210	176	2.6	100.447	8.853	g500-H600	m550-U100/L4	2	48
15.8	170	47.5	188	196	188	1.2	98.466	9.477	g500-H320	m550-U100/L4	2	34
15.3	176	45.9	195	190	195	0.9	98.089	9.799	g500-H210	m550-U100/L4	2	32
15.1	179	45.3	198	187	198	2.4	100.265	9.943	g500-H600	m550-U100/L4	2	48
15.1	179	45.2	198	187	198	1.8	99.309	9.965	g500-H450	m550-U100/L4	2	37
14.8	182	44.4	202	183	202	3.1	102.629	10.143	g500-H850	m550-U100/L4	2	57
14.0	192	42.1	212	174	212	1.2	98.223	10.677	g500-H320	m550-U100/L4	2	34
14.0	192	42.0	213	174	213	0.8	98.013	10.720	g500-H210	m550-U100/L4	2	32
13.3	202	40.0	224	165	224	1.7	99.237	11.262	g500-H450	m550-U100/L4	2	37
13.2	203	39.7	225	164	225	2.2	99.569	11.330	g500-H600	m550-U100/L4	2	48
13.2	204	39.6	226	164	226	2.9	101.723	11.360	g500-H850	m550-U100/L4	2	57
12.8	210	38.5	232	159	232	1.1	98.125	11.680	g500-H320	m550-U100/L4	2	34
12.4	218	37.1	241	153	241	1.0	98.176	12.128	g500-H320	m550-U100/L4	2	34
12.2	221	36.5	245	151	245	1.6	99.063	12.320	g500-H450	m550-U100/L4	2	37
12.1	222	36.4	246	151	246	3.8	107.822	12.362	g500-H1500	m550-U100/L4	2	87
12.1	223	36.3	247	150	247	2.1	99.341	12.395	g500-H600	m550-U100/L4	2	48
11.8	228	35.5	252	147	252	2.7	101.569	12.693	g500-H850	m550-U100/L4	2	57
11.3	238	33.9	264	140	264	0.9	98.086	13.268	g500-H320	m550-U100/L4	2	34
11.0	245	32.9	272	136	272	3.8	107.563	13.673	g500-H1500	m550-U100/L4	2	87
10.8	250	32.4	277	134	277	1.4	98.706	13.905	g500-H450	m550-U100/L4	2	37
10.8	250	32.3	277	134	277	1.9	99.247	13.920	g500-H600	m550-U100/L4	2	48
10.4	260	31.1	288	128	288	2.5	100.561	14.490	g500-H850	m550-U100/L4	2	57
10.1	267	30.2	296	125	296	0.9	97.944	14.898	g500-H320	m550-U100/L4	2	34
9.5	282	28.6	313	118	313	1.3	98.669	15.714	g500-H450	m550-U100/L4	2	37
9.5	284	28.5	314	118	314	1.8	98.840	15.810	g500-H600	m550-U100/L4	2	48



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
9.3	291	27.8	322	115	322	2.3	100.467	16.190	g500-H850	m550-U100/L4	2	57
8.8	306	26.4	339	109	339	1.2	98.449	17.033	g500-H450	m550-U100/L4	2	37
8.4	319	25.3	353	105	353	1.6	98.783	17.755	g500-H600	m550-U100/L4	2	48
8.5	319	25.4	353	105	353	2.2	99.887	17.750	g500-H850	m550-U100/L4	2	57
8.2	328	24.7	363	102	363	0.8	97.838	18.250	g500-H320	m550-U100/L4	2	34
7.8	346	23.4	383	96.6	383	1.1	98.425	19.250	g500-H450	m550-U100/L4	2	37
7.7	348	23.2	385	96.0	385	1.5	98.538	19.367	g500-H600	m550-U100/L4	2	48
7.6	356	22.7	394	93.8	394	2.0	99.824	19.833	g500-H850	m550-U100/L4	2	57
7.3	369	21.9	408	90.6	408	2.7	102.360	20.533	g500-H1500	m550-U100/L4	2	87
6.9	390	20.7	433	85.5	433	1.3	98.500	21.750	g500-H600	m550-U100/L4	2	48
6.8	398	20.3	441	83.9	441	1.0	98.027	22.170	g500-H450	m550-U100/L4	2	37
6.6	408	19.8	452	81.9	452	2.7	102.266	22.711	g500-H1500	m550-U100/L4	2	87
6.5	415	19.5	460	80.5	460	1.7	99.153	23.103	g500-H850	m550-U100/L4	2	57
6.0	448	18.0	496	74.6	496	2.3	101.190	24.933	g500-H1500	m550-U100/L4	2	87
6.0	450	18.0	498	74.2	498	0.8	98.012	25.056	g500-H450	m550-U100/L4	2	37
6.0	453	17.9	501	73.8	501	1.1	98.079	25.207	g500-H600	m550-U100/L4	2	48
5.8	463	17.4	513	72.1	513	1.5	99.115	25.815	g500-H850	m550-U100/L4	2	57
5.4	495	16.3	549	67.4	549	0.8	97.889	27.578	g500-H450	m550-U100/L4	2	37
5.4	495	16.3	549	67.4	549	2.5	101.127	27.578	g500-H1500	m550-U100/L4	2	87
5.3	508	15.9	563	65.7	563	1.1	98.057	28.310	g500-H600	m550-U100/L4	2	48
5.3	508	15.9	563	65.7	563	1.5	98.641	28.315	g500-H850	m550-U100/L4	2	57
5.1	522	15.2	579	63.0	579	1.4	100.223	29.536	g500-H850	m550-U100/L4	3	58
5.0	535	15.1	593	62.4	593	2.5	104.804	29.822	g500-H3000	m550-U100/L4	2	129
4.8	552	14.4	611	59.6	611	0.9	98.608	31.197	g500-H600	m550-U100/L4	3	49
4.8	563	14.4	624	59.3	624	1.0	97.923	31.356	g500-H600	m550-U100/L4	2	48
4.7	568	14.2	629	58.8	629	1.4	98.616	31.639	g500-H850	m550-U100/L4	2	57
4.6	579	13.9	642	57.6	642	2.0	99.863	32.267	g500-H1500	m550-U100/L4	2	87
4.5	584	13.6	647	56.4	647	1.2	100.201	33.003	g500-H850	m550-U100/L4	3	58
4.6	588	13.7	651	56.8	651	2.5	104.703	32.756	g500-H3000	m550-U100/L4	2	129
4.3	619	12.8	686	53.1	686	0.8	98.593	35.037	g500-H600	m550-U100/L4	3	49
4.3	632	12.8	700	52.8	700	0.9	97.908	35.214	g500-H600	m550-U100/L4	2	48
4.2	641	12.6	710	52.1	710	2.0	99.825	35.689	g500-H1500	m550-U100/L4	2	87
4.1	650	12.4	720	51.4	720	2.1	102.877	36.193	g500-H3000	m550-U100/L4	2	129
4.0	668	12.1	740	50.0	740	1.2	98.219	37.190	g500-H850	m550-U100/L4	2	57
4.0	668	11.9	741	49.2	741	1.1	99.432	37.799	g500-H850	m550-U100/L4	3	58
3.8	703	11.5	779	47.5	779	1.7	99.237	39.160	g500-H1500	m550-U100/L4	2	87
3.8	714	11.3	791	46.8	791	2.1	102.808	39.753	g500-H3000	m550-U100/L4	2	129
3.6	731	10.9	810	45.0	810	1.0	99.226	41.350	g500-H850	m550-U100/L4	3	58
3.6	746	10.8	827	44.8	827	1.0	98.204	41.556	g500-H850	m550-U100/L4	2	57
3.5	777	10.4	861	42.9	861	1.7	99.211	43.313	g500-H1500	m550-U100/L4	2	87
3.3	810	10.0	898	41.2	898	1.0	98.031	45.136	g500-H850	m550-U100/L4	2	57
3.2	817	9.7	905	40.3	905	0.9	99.215	46.204	g500-H850	m550-U100/L4	3	58
3.3	821	9.8	910	40.7	910	1.7	101.043	45.750	g500-H3000	m550-U100/L4	2	129
3.0	882	9.0	977	37.3	977	1.5	102.463	49.867	g500-H1500	m550-U100/L4	3	89
3.0	889	9.1	985	37.6	985	1.3	98.650	49.500	g500-H1500	m550-U100/L4	2	87
3.0	902	9.0	999	37.0	999	1.7	101.000	50.250	g500-H3000	m550-U100/L4	2	129
3.0	905	8.9	1003	36.9	1003	0.9	98.022	50.433	g500-H850	m550-U100/L4	2	57
2.8	933	8.5	1033	35.3	1033	0.8	98.769	52.743	g500-H850	m550-U100/L4	3	58
2.7	983	8.2	1089	34.0	1089	1.3	98.634	54.750	g500-H1500	m550-U100/L4	2	87
2.7	987	8.1	1094	33.3	1094	1.4	101.669	55.851	g500-H1500	m550-U100/L4	3	89
2.4	1092	7.3	1210	30.1	1210	1.2	101.657	61.774	g500-H1500	m550-U100/L4	3	89
2.3	1145	7.0	1268	28.7	1268	2.4	107.127	64.744	g500-H3000	m550-U100/L4	3	134



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
2.1	1257	6.3	1393	26.2	1393	2.2	107.106	71.112	g500-H3000	m550-U100/L4	3	134
2.1	1260	6.3	1396	26.1	1396	1.1	100.291	71.238	g500-H1500	m550-U100/L4	3	89
1.9	1393	5.7	1544	23.6	1544	1.0	100.283	78.794	g500-H1500	m550-U100/L4	3	89
1.7	1543	5.2	1710	21.3	1710	0.9	99.707	87.267	g500-H1500	m550-U100/L4	3	89
1.4	1901	4.2	2107	17.3	2107	1.4	102.108	107.541	g500-H3000	m550-U100/L4	3	134
1.3	2088	3.8	2314	15.7	2314	1.3	102.100	118.119	g500-H3000	m550-U100/L4	3	134
1.1	2309	3.4	2558	14.2	2558	1.2	101.019	130.585	g500-H3000	m550-U100/L4	3	134
1.0	2536	3.1	2810	13.0	2810	1.1	101.014	143.430	g500-H3000	m550-U100/L4	3	134
0.9	2988	2.7	3311	11.0	3311	0.9	99.761	168.993	g500-H3000	m550-U100/L4	3	134
0.8	3282	2.4	3636	10.0	3636	0.8	99.757	185.615	g500-H3000	m550-U100/L4	3	134



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
51.4	63.7	223	80.0	638	80.0	2.6	159.800	2.917	g500-H600	m550-U112/M4	2	54
47.7	68.7	207	86.0	591	86.0	3.3	165.897	3.147	g500-H850	m550-U112/M4	2	63
45.9	71.3	199	89.0	569	89.0	2.5	158.700	3.267	g500-H600	m550-U112/M4	2	54
44.3	74.0	192	93.0	549	93.0	1.7	153.025	3.389	g500-H320	m550-U112/M4	2	40
43.5	75.2	189	94.0	540	94.0	2.5	156.743	3.444	g500-H450	m550-U112/M4	2	43
34.4	95.2	149	119	426	119	3.0	160.586	4.362	g500-H850	m550-U112/M4	2	63
33.5	97.8	145	123	415	123	2.3	156.053	4.480	g500-H600	m550-U112/M4	2	54
32.3	102	140	127	400	127	1.4	152.615	4.648	g500-H320	m550-U112/M4	2	40
31.8	103	138	129	394	129	2.1	155.013	4.724	g500-H450	m550-U112/M4	2	43
27.9	117	121	147	347	147	2.7	158.188	5.368	g500-H850	m550-U112/M4	2	63
26.4	124	115	155	328	155	1.9	155.443	5.678	g500-H450	m550-U112/M4	2	43
26.2	125	113	157	324	157	2.0	154.666	5.733	g500-H600	m550-U112/M4	2	54
25.2	130	109	163	313	163	3.2	162.232	5.946	g500-H850	m550-U112/M4	2	63
24.8	132	108	165	308	165	1.8	154.031	6.045	g500-H450	m550-U112/M4	2	43
24.7	133	107	166	306	166	1.3	153.455	6.083	g500-H320	m550-U112/M4	2	40
24.0	136	104	171	298	171	4.1	170.663	6.245	g500-H1500	m550-U112/M4	2	93
23.2	141	101	177	288	177	2.1	156.244	6.456	g500-H600	m550-U112/M4	2	54
22.7	144	98.3	181	281	181	1.7	153.776	6.613	g500-H450	m550-U112/M4	2	43
22.6	145	97.8	182	280	182	3.0	161.669	6.644	g500-H850	m550-U112/M4	2	63
21.7	151	94.1	189	269	189	1.1	153.309	6.910	g500-H320	m550-U112/M4	2	40
20.7	158	89.7	198	257	198	2.0	155.901	7.250	g500-H600	m550-U112/M4	2	54
19.3	170	83.5	213	239	213	1.6	154.321	7.787	g500-H450	m550-U112/M4	2	43
18.2	180	78.9	225	226	225	2.5	158.678	8.241	g500-H850	m550-U112/M4	2	63
18.0	182	77.9	228	223	228	1.0	152.844	8.343	g500-H320	m550-U112/M4	2	40
17.0	192	73.9	241	211	241	1.4	154.204	8.800	g500-H450	m550-U112/M4	2	43
16.9	193	73.4	242	210	242	1.9	154.747	8.853	g500-H600	m550-U112/M4	2	54
16.6	197	72.1	247	206	247	4.1	168.850	9.010	g500-H1500	m550-U112/M4	2	93
16.3	201	70.6	252	202	252	2.4	158.385	9.208	g500-H850	m550-U112/M4	2	63
15.8	207	68.6	259	196	259	0.9	152.766	9.477	g500-H320	m550-U112/M4	2	40
15.1	217	65.4	272	187	272	1.7	154.565	9.943	g500-H600	m550-U112/M4	2	54
15.1	218	65.2	273	187	273	1.3	153.609	9.965	g500-H450	m550-U112/M4	2	43
14.8	221	64.1	278	183	278	2.2	156.929	10.143	g500-H850	m550-U112/M4	2	63
14.6	224	63.3	281	181	281	3.8	164.982	10.267	g500-H1500	m550-U112/M4	2	93
14.0	233	60.9	292	174	292	0.8	152.523	10.677	g500-H320	m550-U112/M4	2	40
13.3	246	57.7	308	165	308	1.2	153.537	11.262	g500-H450	m550-U112/M4	2	43
13.2	247	57.4	310	164	310	1.6	153.869	11.330	g500-H600	m550-U112/M4	2	54
13.2	248	57.2	311	164	311	3.8	164.606	11.356	g500-H1500	m550-U112/M4	2	93
13.2	248	57.2	311	164	311	2.1	156.023	11.360	g500-H850	m550-U112/M4	2	63
12.9	254	55.9	318	160	318	4.1	182.115	11.619	g500-H3000	m550-U112/M4	2	135
12.2	269	52.8	337	151	337	1.1	153.363	12.320	g500-H450	m550-U112/M4	2	43
12.1	270	52.6	338	151	338	3.3	162.122	12.362	g500-H1500	m550-U112/M4	2	93
12.1	271	52.4	339	150	339	1.5	153.641	12.395	g500-H600	m550-U112/M4	2	54
11.8	277	51.2	347	147	347	1.9	155.869	12.693	g500-H850	m550-U112/M4	2	63
11.8	279	50.9	349	146	349	4.1	181.449	12.762	g500-H3000	m550-U112/M4	2	135
11.0	299	47.5	374	136	374	3.3	161.863	13.673	g500-H1500	m550-U112/M4	2	93
10.8	304	46.7	380	134	380	1.0	153.006	13.905	g500-H450	m550-U112/M4	2	43
10.8	304	46.7	381	134	381	1.4	153.547	13.920	g500-H600	m550-U112/M4	2	54
10.4	316	44.9	396	128	396	1.8	154.861	14.490	g500-H850	m550-U112/M4	2	63
9.9	331	42.9	415	123	415	2.8	159.806	15.156	g500-H1500	m550-U112/M4	2	93
9.5	343	41.4	430	118	430	1.0	152.969	15.714	g500-H450	m550-U112/M4	2	43
9.5	345	41.1	433	118	433	1.3	153.140	15.810	g500-H600	m550-U112/M4	2	54



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
9.3	353	40.1	443	115	443	1.7	154.767	16.190	g500-H850	m550-U112/M4	2	63
8.9	366	38.8	459	111	459	2.8	159.634	16.763	g500-H1500	m550-U112/M4	2	93
8.8	372	38.2	466	109	466	0.9	152.749	17.033	g500-H450	m550-U112/M4	2	43
8.4	388	36.6	486	105	486	1.2	153.083	17.755	g500-H600	m550-U112/M4	2	54
8.5	388	36.6	486	105	486	1.6	154.187	17.750	g500-H850	m550-U112/M4	2	63
8.0	409	34.7	513	99.2	513	2.8	167.000	18.752	g500-H3000	m550-U112/M4	2	135
7.7	423	33.6	530	96.0	530	1.1	152.838	19.367	g500-H600	m550-U112/M4	2	54
7.6	433	32.8	543	93.8	543	1.4	154.124	19.833	g500-H850	m550-U112/M4	2	63
7.3	448	31.7	562	90.6	562	2.2	156.660	20.533	g500-H1500	m550-U112/M4	2	93
7.3	450	31.6	564	90.3	564	2.8	166.745	20.596	g500-H3000	m550-U112/M4	2	135
6.9	475	29.9	595	85.5	595	0.9	152.800	21.750	g500-H600	m550-U112/M4	2	54
6.6	496	28.6	621	81.9	621	2.2	156.566	22.711	g500-H1500	m550-U112/M4	2	93
6.5	503	28.2	631	80.7	631	2.4	163.150	23.044	g500-H3000	m550-U112/M4	2	135
6.5	504	28.1	632	80.5	632	1.3	153.453	23.103	g500-H850	m550-U112/M4	2	63
6.0	544	26.1	682	74.6	682	1.9	155.490	24.933	g500-H1500	m550-U112/M4	2	93
6.0	550	25.8	690	73.8	690	0.8	152.379	25.207	g500-H600	m550-U112/M4	2	54
5.9	553	25.7	693	73.5	693	2.4	162.981	25.311	g500-H3000	m550-U112/M4	2	135
5.8	564	25.2	706	72.1	706	1.1	153.415	25.815	g500-H850	m550-U112/M4	2	63
5.4	602	23.6	755	67.4	755	2.0	155.427	27.578	g500-H1500	m550-U112/M4	2	93
5.3	618	23.0	775	65.7	775	1.1	152.941	28.315	g500-H850	m550-U112/M4	2	63
5.1	635	22.0	796	63.0	796	1.0	154.523	29.536	g500-H850	m550-U112/M4	3	64
5.0	651	21.8	816	62.4	816	2.0	159.104	29.822	g500-H3000	m550-U112/M4	2	135
4.7	691	20.5	866	58.8	866	1.0	152.916	31.639	g500-H850	m550-U112/M4	2	63
4.6	704	20.1	883	57.6	883	1.6	154.163	32.267	g500-H1500	m550-U112/M4	2	93
4.5	710	19.7	889	56.4	889	0.9	154.501	33.003	g500-H850	m550-U112/M4	3	64
4.6	715	19.8	896	56.8	896	2.0	159.003	32.756	g500-H3000	m550-U112/M4	2	135
4.2	779	18.2	976	52.1	976	1.5	154.125	35.689	g500-H1500	m550-U112/M4	2	93
4.1	790	18.0	990	51.4	990	1.7	157.177	36.193	g500-H3000	m550-U112/M4	2	135
3.8	855	16.6	1071	47.5	1071	1.4	153.537	39.160	g500-H1500	m550-U112/M4	2	93
3.8	868	16.4	1088	46.8	1088	1.7	157.108	39.753	g500-H3000	m550-U112/M4	2	135
3.7	871	16.0	1092	45.9	1092	1.3	158.228	40.517	g500-H1500	m550-U112/M4	3	95
3.5	946	15.0	1185	42.9	1185	1.3	153.511	43.313	g500-H1500	m550-U112/M4	2	93
3.3	964	14.5	1208	41.5	1208	1.2	158.204	44.814	g500-H1500	m550-U112/M4	3	95
3.3	999	14.2	1252	40.7	1252	1.4	155.343	45.750	g500-H3000	m550-U112/M4	2	135
3.2	1015	13.8	1272	39.4	1272	2.2	167.542	47.186	g500-H3000	m550-U112/M4	3	140
3.0	1072	13.0	1344	37.3	1344	1.1	156.763	49.867	g500-H1500	m550-U112/M4	3	95
3.0	1097	12.9	1375	37.0	1375	1.4	155.300	50.250	g500-H3000	m550-U112/M4	2	135
2.9	1114	12.5	1397	35.9	1397	2.1	167.502	51.828	g500-H3000	m550-U112/M4	3	140
2.8	1156	12.1	1449	34.6	1449	2.0	163.974	53.770	g500-H3000	m550-U112/M4	3	140
2.7	1201	11.6	1505	33.3	1505	1.0	155.969	55.851	g500-H1500	m550-U112/M4	3	95
2.5	1270	11.0	1592	31.5	1592	1.9	163.943	59.059	g500-H3000	m550-U112/M4	3	140
2.4	1328	10.5	1665	30.1	1665	0.9	155.957	61.774	g500-H1500	m550-U112/M4	3	95
2.3	1392	10.0	1745	28.7	1745	1.7	161.427	64.744	g500-H3000	m550-U112/M4	3	140
2.1	1529	9.1	1916	26.2	1916	1.6	161.406	71.112	g500-H3000	m550-U112/M4	3	140
1.9	1707	8.2	2139	23.4	2139	1.4	159.344	79.375	g500-H3000	m550-U112/M4	3	140
1.7	1875	7.5	2350	21.3	2350	1.3	159.330	87.183	g500-H3000	m550-U112/M4	3	140
1.4	2312	6.0	2898	17.3	2898	1.0	156.408	107.541	g500-H3000	m550-U112/M4	3	140
1.3	2540	5.5	3183	15.7	3183	0.9	156.400	118.119	g500-H3000	m550-U112/M4	3	140
1.1	2808	5.0	3519	14.2	3519	0.9	155.319	130.585	g500-H3000	m550-U112/M4	3	140



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
51.4	104	103	109	638	109	1.9	328.400	2.917	g500-H600	m550-U132/M4	2	73
47.7	112	95.3	118	591	118	2.4	334.497	3.147	g500-H850	m550-U132/M4	2	82
45.9	116	91.8	122	569	122	1.8	327.300	3.267	g500-H600	m550-U132/M4	2	73
43.5	122	87.1	129	540	129	1.9	325.343	3.444	g500-H450	m550-U132/M4	2	62
34.4	155	68.8	163	426	163	2.2	329.186	4.362	g500-H850	m550-U132/M4	2	82
33.5	159	67.0	167	415	167	1.7	324.653	4.480	g500-H600	m550-U132/M4	2	73
31.8	168	63.5	176	394	176	1.6	323.613	4.724	g500-H450	m550-U132/M4	2	62
31.5	169	63.1	178	391	178	4.8	348.088	4.758	g500-H1500	m550-U132/M4	2	112
27.9	191	55.9	201	347	201	2.0	326.788	5.368	g500-H850	m550-U132/M4	2	82
27.8	192	55.6	202	344	202	4.7	353.150	5.400	g500-H1500	m550-U132/M4	2	112
26.4	202	52.8	212	328	212	1.4	324.043	5.678	g500-H450	m550-U132/M4	2	62
26.2	204	52.3	214	324	214	1.5	323.266	5.733	g500-H600	m550-U132/M4	2	73
25.2	211	50.5	222	313	222	2.3	330.832	5.946	g500-H850	m550-U132/M4	2	82
24.8	215	49.6	226	308	226	1.3	322.631	6.045	g500-H450	m550-U132/M4	2	62
24.0	222	48.0	233	298	233	4.4	339.263	6.245	g500-H1500	m550-U132/M4	2	112
23.2	229	46.5	241	288	241	1.6	324.844	6.456	g500-H600	m550-U132/M4	2	73
22.7	235	45.4	247	281	247	1.3	322.376	6.613	g500-H450	m550-U132/M4	2	62
22.6	236	45.2	248	280	248	2.2	330.269	6.644	g500-H850	m550-U132/M4	2	82
21.9	244	43.7	256	271	256	4.2	344.965	6.864	g500-H1500	m550-U132/M4	2	112
20.7	257	41.4	271	257	271	1.5	324.501	7.250	g500-H600	m550-U132/M4	2	73
19.8	270	39.5	284	245	284	4.0	344.124	7.592	g500-H1500	m550-U132/M4	2	112
19.3	277	38.5	291	239	291	1.1	322.921	7.787	g500-H450	m550-U132/M4	2	62
18.2	293	36.4	308	226	308	1.9	327.278	8.241	g500-H850	m550-U132/M4	2	82
17.0	313	34.1	329	211	329	1.1	322.804	8.800	g500-H450	m550-U132/M4	2	62
16.9	314	33.9	331	210	331	1.4	323.347	8.853	g500-H600	m550-U132/M4	2	73
16.6	320	33.3	337	206	337	3.7	337.450	9.010	g500-H1500	m550-U132/M4	2	112
16.3	327	32.6	344	202	344	1.8	326.985	9.208	g500-H850	m550-U132/M4	2	82
15.1	353	30.2	371	187	371	1.3	323.165	9.943	g500-H600	m550-U132/M4	2	73
15.1	354	30.1	372	187	372	1.0	322.209	9.965	g500-H450	m550-U132/M4	2	62
14.8	360	29.6	379	183	379	1.6	325.529	10.143	g500-H850	m550-U132/M4	2	82
14.6	365	29.2	383	181	383	3.4	333.582	10.267	g500-H1500	m550-U132/M4	2	112
13.3	400	26.6	421	165	421	0.9	322.137	11.262	g500-H450	m550-U132/M4	2	62
13.2	402	26.5	423	164	423	1.2	322.469	11.330	g500-H600	m550-U132/M4	2	73
13.2	403	26.4	424	164	424	3.1	333.206	11.356	g500-H1500	m550-U132/M4	2	112
13.2	403	26.4	424	164	424	1.5	324.623	11.360	g500-H850	m550-U132/M4	2	82
12.2	438	24.4	460	151	460	0.8	321.963	12.320	g500-H450	m550-U132/M4	2	62
12.1	439	24.3	462	151	462	2.9	330.722	12.362	g500-H1500	m550-U132/M4	2	112
12.1	440	24.2	463	150	463	1.1	322.241	12.395	g500-H600	m550-U132/M4	2	73
11.8	451	23.6	474	147	474	1.4	324.469	12.693	g500-H850	m550-U132/M4	2	82
11.8	453	23.5	477	146	477	4.8	350.049	12.762	g500-H3000	m550-U132/M4	2	154
11.0	486	21.9	511	136	511	2.6	330.463	13.673	g500-H1500	m550-U132/M4	2	112
10.8	494	21.6	520	134	520	1.0	322.147	13.920	g500-H600	m550-U132/M4	2	73
10.5	505	21.1	532	131	532	4.4	343.935	14.233	g500-H3000	m550-U132/M4	2	154
10.4	515	20.7	541	128	541	1.3	323.461	14.490	g500-H850	m550-U132/M4	2	82
9.9	538	19.8	566	123	566	2.4	328.406	15.156	g500-H1500	m550-U132/M4	2	112
9.6	555	19.2	584	119	584	4.2	343.492	15.633	g500-H3000	m550-U132/M4	2	154
9.5	561	19.0	591	118	591	1.0	321.740	15.810	g500-H600	m550-U132/M4	2	73
9.3	575	18.5	605	115	605	1.2	323.367	16.190	g500-H850	m550-U132/M4	2	82
8.9	595	17.9	626	111	626	2.2	328.234	16.763	g500-H1500	m550-U132/M4	2	112
8.4	631	16.9	663	105	663	0.8	321.683	17.755	g500-H600	m550-U132/M4	2	73
8.5	630	16.9	663	105	663	1.1	322.787	17.750	g500-H850	m550-U132/M4	2	82



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
8.0	666	16.0	700	99.2	700	3.7	335.600	18.752	g500-H3000	m550-U132/M4	2	154
7.6	704	15.1	741	93.8	741	1.1	322.724	19.833	g500-H850	m550-U132/M4	2	82
7.3	729	14.6	767	90.6	767	1.8	325.260	20.533	g500-H1500	m550-U132/M4	2	112
7.3	731	14.6	769	90.3	769	3.4	335.345	20.596	g500-H3000	m550-U132/M4	2	154
6.6	807	13.2	848	81.9	848	1.7	325.166	22.711	g500-H1500	m550-U132/M4	2	112
6.5	818	13.0	861	80.7	861	3.1	331.750	23.044	g500-H3000	m550-U132/M4	2	154
6.5	820	13.0	863	80.5	863	0.9	322.053	23.103	g500-H850	m550-U132/M4	2	82
6.0	885	12.0	931	74.6	931	1.5	324.090	24.933	g500-H1500	m550-U132/M4	2	112
5.9	899	11.9	945	73.5	945	2.9	331.581	25.311	g500-H3000	m550-U132/M4	2	154
5.8	917	11.6	964	72.1	964	0.8	322.015	25.815	g500-H850	m550-U132/M4	2	82
5.4	979	10.9	1030	67.4	1030	1.5	324.027	27.578	g500-H1500	m550-U132/M4	2	112
5.0	1059	10.1	1114	62.4	1114	2.7	327.704	29.822	g500-H3000	m550-U132/M4	2	154
4.6	1163	9.2	1224	56.8	1224	2.5	327.603	32.756	g500-H3000	m550-U132/M4	2	154
4.1	1285	8.3	1352	51.4	1352	2.2	325.777	36.193	g500-H3000	m550-U132/M4	2	154
3.8	1412	7.5	1485	46.8	1485	2.0	325.708	39.753	g500-H3000	m550-U132/M4	2	154
3.7	1417	7.4	1491	45.9	1491	0.9	326.828	40.517	g500-H1500	m550-U132/M4	3	114
3.3	1568	6.7	1649	41.5	1649	0.9	326.804	44.814	g500-H1500	m550-U132/M4	3	114
3.2	1651	6.4	1736	39.4	1736	1.6	336.142	47.186	g500-H3000	m550-U132/M4	3	159
3.0	1744	6.0	1835	37.3	1835	0.8	325.363	49.867	g500-H1500	m550-U132/M4	3	114
2.9	1813	5.8	1907	35.9	1907	1.5	336.102	51.828	g500-H3000	m550-U132/M4	3	159
2.8	1881	5.6	1978	34.6	1978	1.5	332.574	53.770	g500-H3000	m550-U132/M4	3	159
2.5	2066	5.1	2173	31.5	2173	1.4	332.543	59.059	g500-H3000	m550-U132/M4	3	159
2.3	2265	4.6	2382	28.7	2382	1.3	330.027	64.744	g500-H3000	m550-U132/M4	3	159
2.1	2487	4.2	2616	26.2	2616	1.2	330.006	71.112	g500-H3000	m550-U132/M4	3	159
1.9	2776	3.8	2920	23.4	2920	1.0	327.944	79.375	g500-H3000	m550-U132/M4	3	159
1.7	3049	3.4	3208	21.3	3208	0.9	327.930	87.183	g500-H3000	m550-U132/M4	3	159



62 Hz: 11 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
51.4	128	223	160	638	160	1.3	424.200	2.917	g500-H600	m550-U132/L4	2	83
47.7	138	207	173	591	173	1.7	430.297	3.147	g500-H850	m550-U132/L4	2	92
45.9	143	199	179	569	179	1.3	423.100	3.267	g500-H600	m550-U132/L4	2	83
43.5	151	189	189	540	189	1.3	421.143	3.444	g500-H450	m550-U132/L4	2	72
40.1	164	174	205	497	205	3.5	453.996	3.743	g500-H1500	m550-U132/L4	2	122
34.4	191	149	239	426	239	1.5	424.986	4.362	g500-H850	m550-U132/L4	2	92
33.5	197	145	246	415	246	1.1	420.453	4.480	g500-H600	m550-U132/L4	2	83
31.8	207	138	259	394	259	1.1	419.413	4.724	g500-H450	m550-U132/L4	2	72
31.5	209	137	261	391	261	3.3	443.888	4.758	g500-H1500	m550-U132/L4	2	122
27.9	235	121	294	347	294	1.4	422.588	5.368	g500-H850	m550-U132/L4	2	92
27.8	237	120	296	344	296	3.2	448.950	5.400	g500-H1500	m550-U132/L4	2	122
26.4	249	115	311	328	311	0.9	419.843	5.678	g500-H450	m550-U132/L4	2	72
26.2	251	113	314	324	314	1.0	419.066	5.733	g500-H600	m550-U132/L4	2	83
25.2	261	109	326	313	326	1.6	426.632	5.946	g500-H850	m550-U132/L4	2	92
24.8	265	108	331	308	331	0.9	418.431	6.045	g500-H450	m550-U132/L4	2	72
24.0	274	104	342	298	342	3.0	435.063	6.245	g500-H1500	m550-U132/L4	2	122
23.2	283	101	354	288	354	1.1	420.644	6.456	g500-H600	m550-U132/L4	2	83
22.7	290	98.3	363	281	363	0.9	418.176	6.613	g500-H450	m550-U132/L4	2	72
22.6	291	97.8	364	280	364	1.5	426.069	6.644	g500-H850	m550-U132/L4	2	92
21.9	301	94.7	376	271	376	2.9	440.765	6.864	g500-H1500	m550-U132/L4	2	122
20.7	318	89.7	397	257	397	1.0	420.301	7.250	g500-H600	m550-U132/L4	2	83
19.8	333	85.6	416	245	416	2.7	439.924	7.592	g500-H1500	m550-U132/L4	2	122
18.2	361	78.9	452	226	452	1.3	423.078	8.241	g500-H850	m550-U132/L4	2	92
16.9	388	73.4	485	210	485	0.9	419.147	8.853	g500-H600	m550-U132/L4	2	83
16.6	395	72.1	494	206	494	2.5	433.250	9.010	g500-H1500	m550-U132/L4	2	122
16.3	404	70.6	505	202	505	1.2	422.785	9.208	g500-H850	m550-U132/L4	2	92
15.1	436	65.4	545	187	545	0.9	418.965	9.943	g500-H600	m550-U132/L4	2	83
15.0	439	65.0	548	186	548	3.9	456.819	10.005	g500-H3000	m550-U132/L4	2	164
14.8	445	64.1	556	183	556	1.1	421.329	10.143	g500-H850	m550-U132/L4	2	92
14.6	450	63.3	563	181	563	2.3	429.382	10.267	g500-H1500	m550-U132/L4	2	122
13.2	497	57.4	621	164	621	0.8	418.269	11.330	g500-H600	m550-U132/L4	2	83
13.2	498	57.2	622	164	622	2.1	429.006	11.356	g500-H1500	m550-U132/L4	2	122
13.2	498	57.2	623	164	623	1.0	420.423	11.360	g500-H850	m550-U132/L4	2	92
12.9	510	55.9	637	160	637	3.5	446.515	11.619	g500-H3000	m550-U132/L4	2	164
12.1	542	52.6	678	151	678	2.0	426.522	12.362	g500-H1500	m550-U132/L4	2	122
11.8	557	51.2	696	147	696	1.0	420.269	12.693	g500-H850	m550-U132/L4	2	92
11.8	560	50.9	700	146	700	3.3	445.849	12.762	g500-H3000	m550-U132/L4	2	164
11.0	600	47.5	750	136	750	1.8	426.263	13.673	g500-H1500	m550-U132/L4	2	122
10.5	624	45.7	780	131	780	3.0	439.735	14.233	g500-H3000	m550-U132/L4	2	164
10.4	635	44.9	794	128	794	0.9	419.261	14.490	g500-H850	m550-U132/L4	2	92
9.9	665	42.9	831	123	831	1.6	424.206	15.156	g500-H1500	m550-U132/L4	2	122
9.6	686	41.6	857	119	857	2.8	439.292	15.633	g500-H3000	m550-U132/L4	2	164
9.3	710	40.1	888	115	888	0.8	419.167	16.190	g500-H850	m550-U132/L4	2	92
8.9	735	38.8	919	111	919	1.5	424.034	16.763	g500-H1500	m550-U132/L4	2	122
8.0	822	34.7	1028	99.2	1028	2.5	431.400	18.752	g500-H3000	m550-U132/L4	2	164
7.3	901	31.7	1126	90.6	1126	1.2	421.060	20.533	g500-H1500	m550-U132/L4	2	122
7.3	903	31.6	1129	90.3	1129	2.3	431.145	20.596	g500-H3000	m550-U132/L4	2	164
6.6	996	28.6	1245	81.9	1245	1.1	420.966	22.711	g500-H1500	m550-U132/L4	2	122
6.5	1011	28.2	1263	80.7	1263	2.1	427.550	23.044	g500-H3000	m550-U132/L4	2	164
6.0	1093	26.1	1367	74.6	1367	1.0	419.890	24.933	g500-H1500	m550-U132/L4	2	122
5.9	1110	25.7	1387	73.5	1387	2.0	427.381	25.311	g500-H3000	m550-U132/L4	2	164



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
5.4	1209	23.6	1512	67.4	1512	1.0	419.827	27.578	g500-H1500	m550-U132/L4	2	122
5.0	1308	21.8	1635	62.4	1635	1.8	423.504	29.822	g500-H3000	m550-U132/L4	2	164
4.6	1437	19.8	1796	56.8	1796	1.7	423.403	32.756	g500-H3000	m550-U132/L4	2	164
4.1	1587	18.0	1984	51.4	1984	1.5	421.577	36.193	g500-H3000	m550-U132/L4	2	164
3.8	1743	16.4	2179	46.8	2179	1.4	421.508	39.753	g500-H3000	m550-U132/L4	2	164
3.2	2038	13.8	2548	39.4	2548	1.1	431.942	47.186	g500-H3000	m550-U132/L4	3	169
2.9	2239	12.5	2798	35.9	2798	1.0	431.902	51.828	g500-H3000	m550-U132/L4	3	169
2.8	2323	12.1	2903	34.6	2903	1.0	428.374	53.770	g500-H3000	m550-U132/L4	3	169
2.5	2551	11.0	3189	31.5	3189	0.9	428.343	59.059	g500-H3000	m550-U132/L4	3	169
2.3	2797	10.0	3496	28.7	3496	0.9	425.827	64.744	g500-H3000	m550-U132/L4	3	169



7.7 Dimensions

Notes on the basic dimensions

Gearbox	Without pre-stage	With pre-stage
g500-H45	2-stage	-
g500-H100 ... g500-H140	2-stage	3-stage
g500-H210 ... g500-H3000	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](#) 143

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



The dimensions shown in the dimensional drawings for the solid shafts with featherkey (V□□) also apply for solid shafts without a keyway (G□□).

Please observe the available output shaft designs!

▶ [The modular system](#) 13



If the mounting area (foot support) towards the motor is longer than the gearbox foot, some motors collide with the mounting area!

For an accurate check of the geometrical data, Lenze recommends the use of the »Product Finder« at www.Lenze.com.



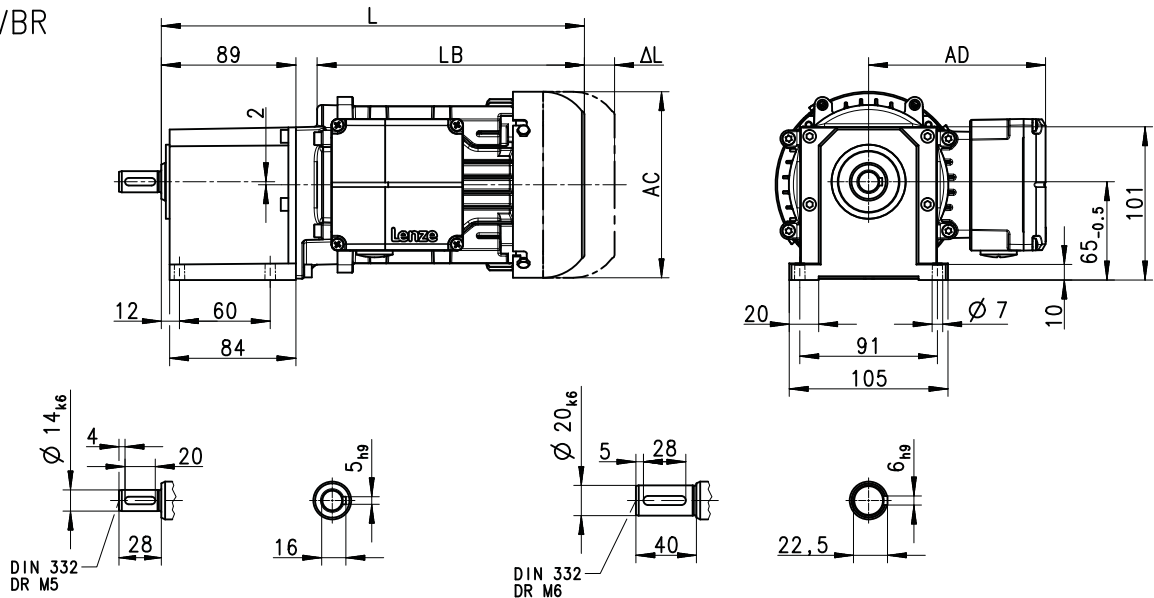
7.7.1 Basic dimensions

g500-H45, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway $\varnothing 20 \times 40$ (G□□)!

VBR



8801151-00

Motor series			m550-U	
Motor			063L04	071M04 071L04
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths 146

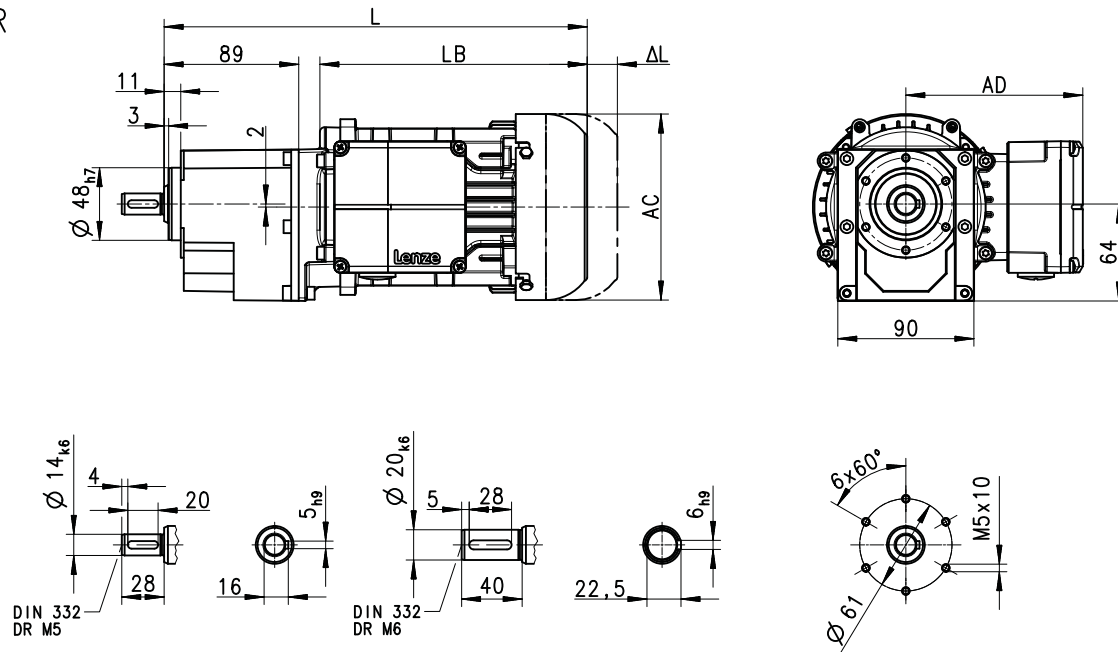


g500-H45, 2-stage

Gearbox design: Solid shaft, with centering (VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 20 \times 40$ (G□□)!

VCR



8801153-00

Motor series			m550-U	
Motor			063L04	071M04 071L04
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths 146

Technical data

Dimensions
Basic dimensions

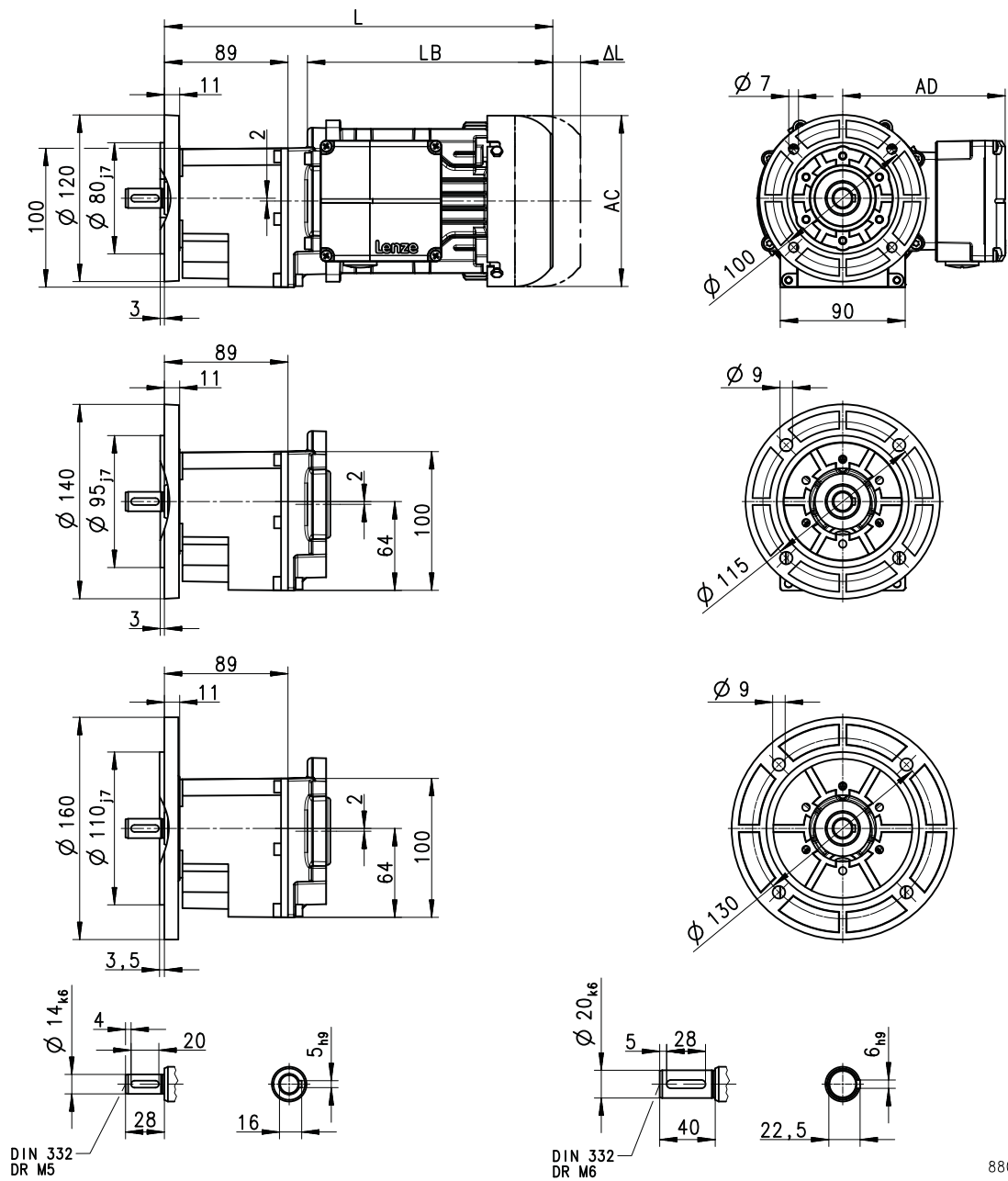


g500-H45, 2-stage

Gearbox design: Solid shaft, with flange (VCK)

The dimensions also apply for solid shafts without a keyway $\varnothing 20 \times 40$ (G□□)!

VCK



8801152-00

Motor series			m550-U	
Motor			063L04	071M04 071L04
Total length	L	mm	280	315
Motor length	LB	mm	188	217
Motor diameter	AC	mm	123	139
Motor/connection distance	AD	mm	117	129

Δ L ▶ Additional lengths 146



The dimensions also apply for solid shafts without a keyway (G□□)!

Technical drawing of a VBR motor showing front, side, and detail views with dimensions.

Front View Dimensions:

- Overall length: L
- Distance from mounting flange to center of motor: 143
- Distance from center of motor to end flange: LB
- End flange thickness: ΔL
- Motor body width: 4.8
- Mounting flange width: 26
- Distance from mounting flange to center of motor: 110
- Distance from mounting flange to end flange: 131
- Mounting flange thickness: 18
- End flange thickness: 27
- Motor body width: AC

Side View Dimensions:

- Overall width: AD
- Distance from mounting flange to center of motor: 28
- Distance from center of motor to end flange: 110
- End flange thickness: 16
- End flange width: $\varnothing 9$
- Motor body width: 75 $_{-0,5}$
- End flange width: 130

Detail View Dimensions:

- Mounting flange width: 5
- Distance from mounting flange to center of motor: 28
- Mounting flange thickness: 40
- End flange thickness: 22,5
- End flange width: 6_{H9}

Other Dimensions:

- Mounting flange diameter: $\varnothing 20_{k6}$
- End flange diameter: $\varnothing 9$

Standards:

- DIN 332
- DR M6

Motor series			m550-U			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	332	361	385	428
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

111

Technical data

Dimensions
Basic dimensions

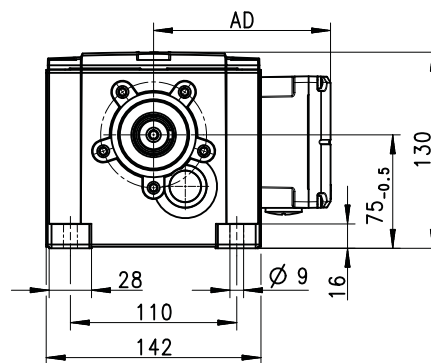
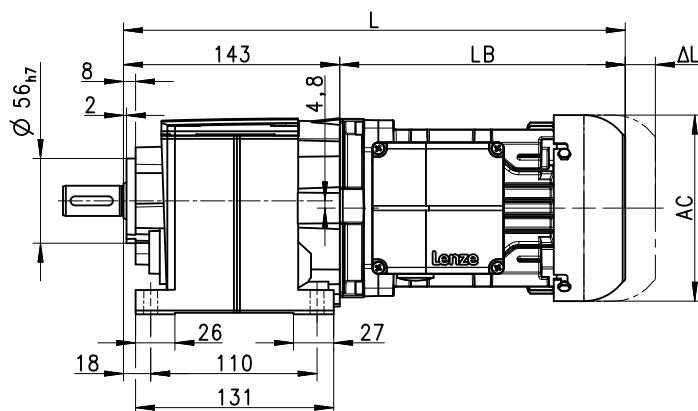


g500-H100, 2-stage

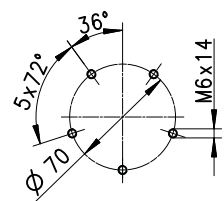
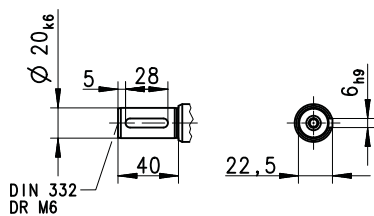
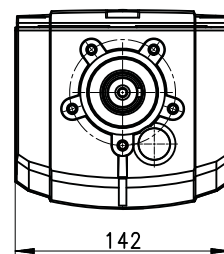
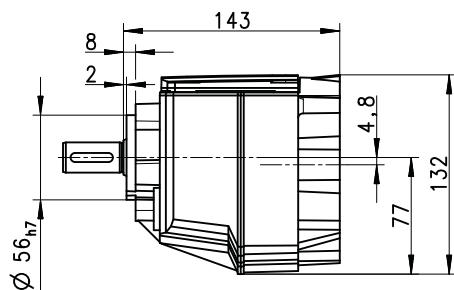
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801156-00

Motor series			m550-U			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	332	361	385	428
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 146

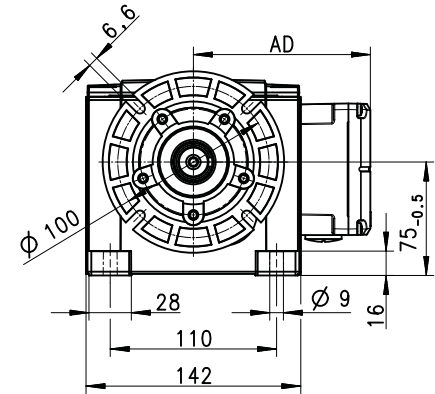
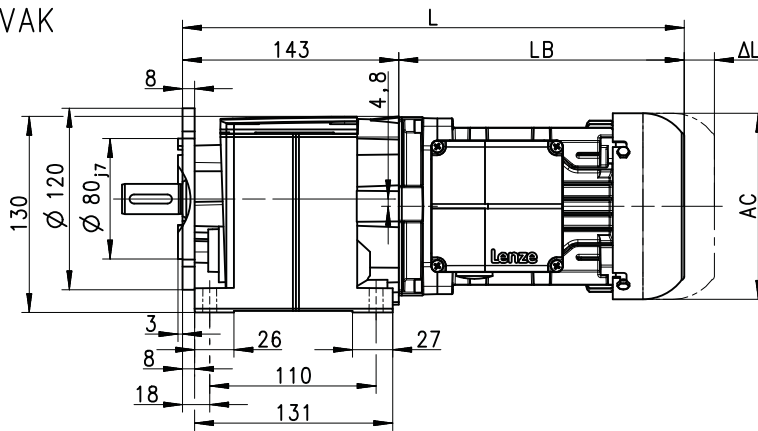


g500-H100, 2-stage

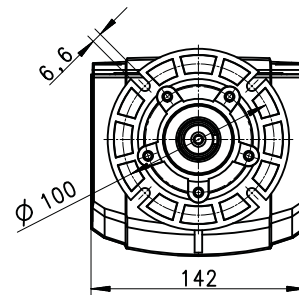
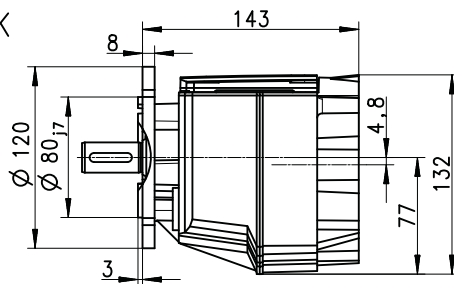
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

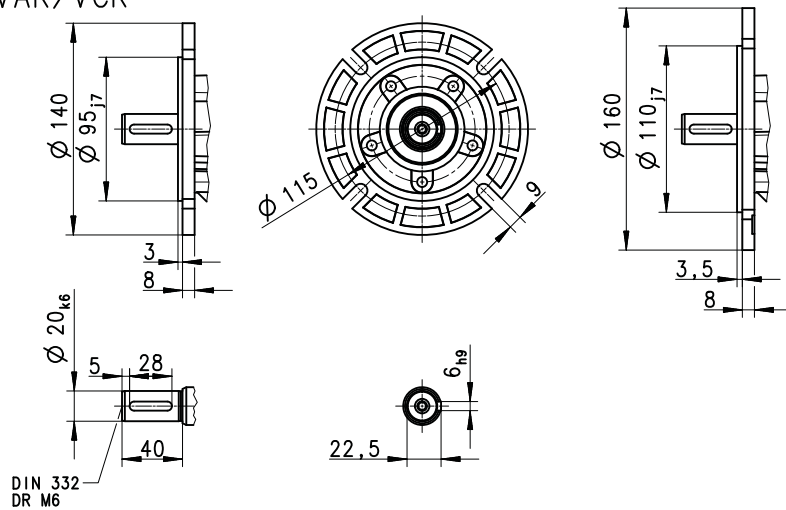
VAK



VCK



VAK/VCK



DIN 332
DR M6

8801155-00

Motor series			m550-U			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	332	361	385	428
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 146

Technical data

Dimensions
Basic dimensions

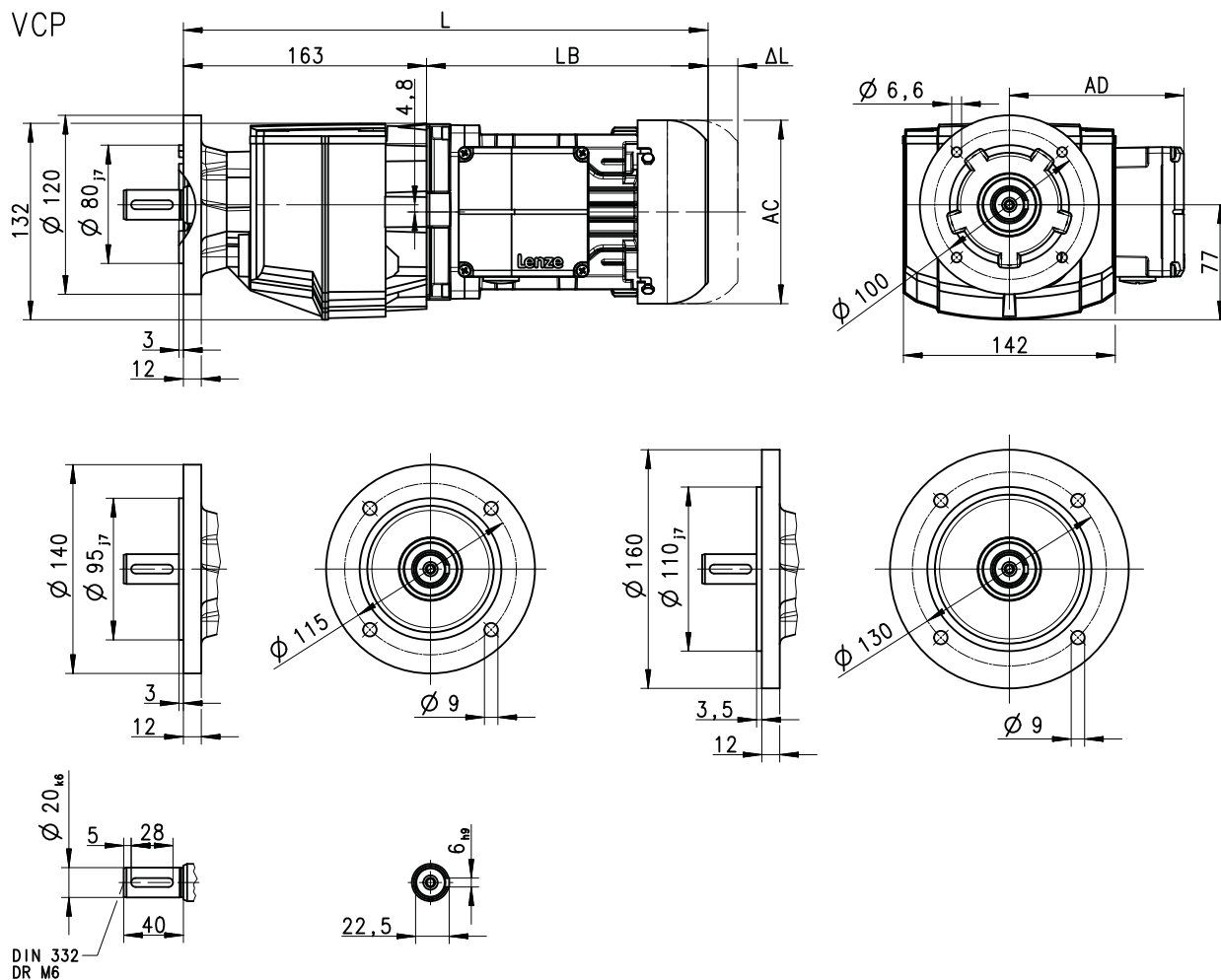


g500-H100, 2-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801157-00

Motor series			m550-U			
Motor			063L04	071M04 071L04	080M04	090M04 090L04
Total length	L	mm	352	381	405	448
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 146

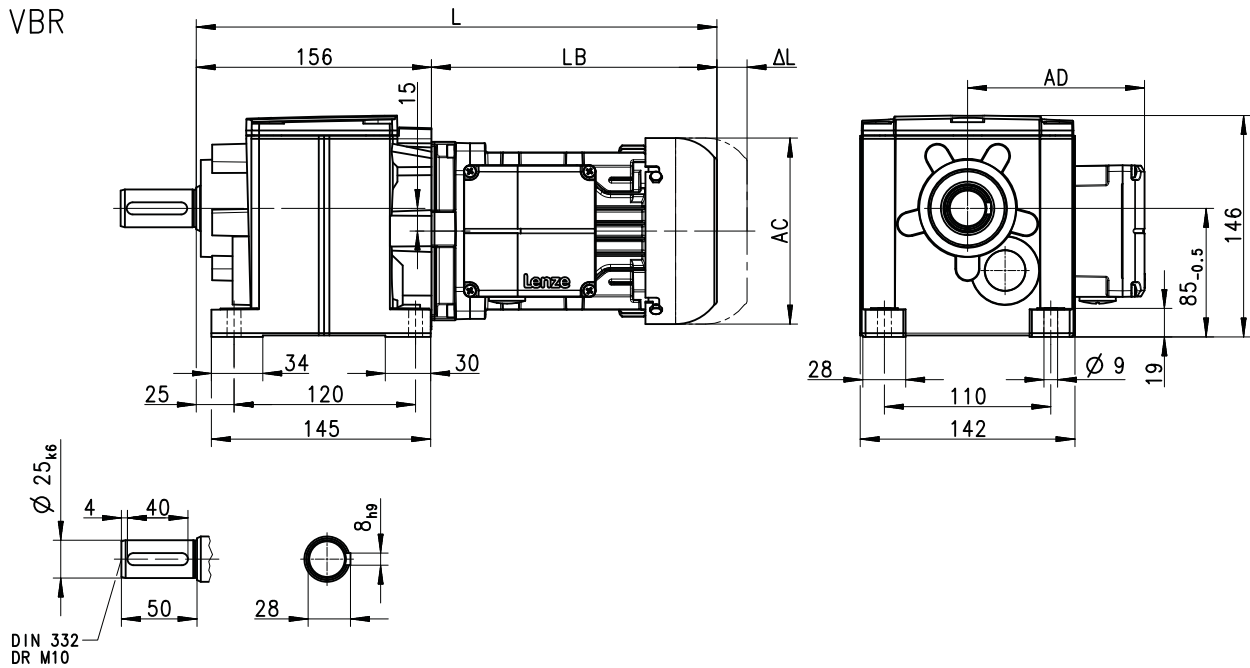


g500-H140, 2-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801159-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	345	374	398	441	504
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 146

Technical data

Dimensions
Basic dimensions

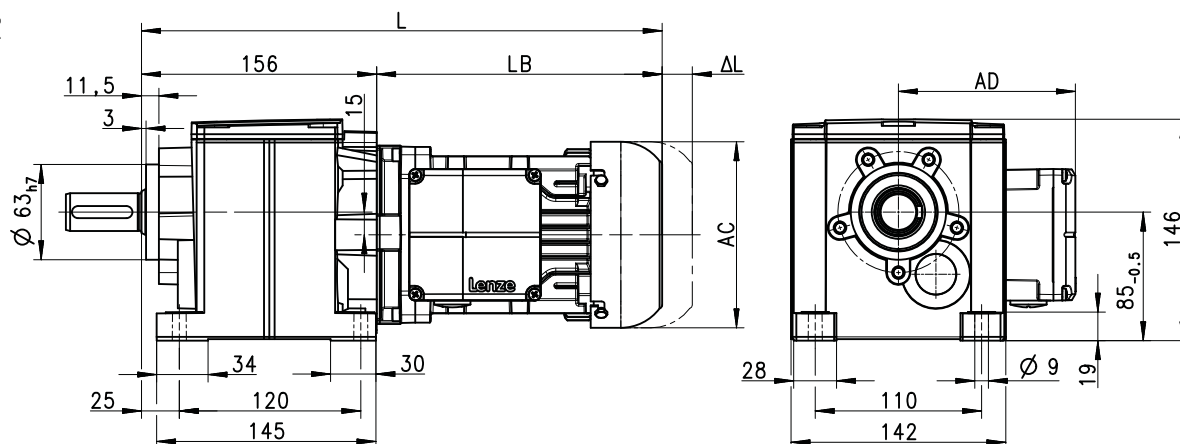


g500-H140, 2-stage

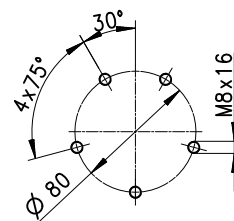
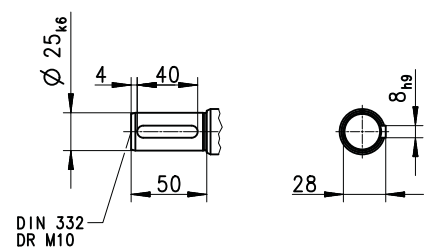
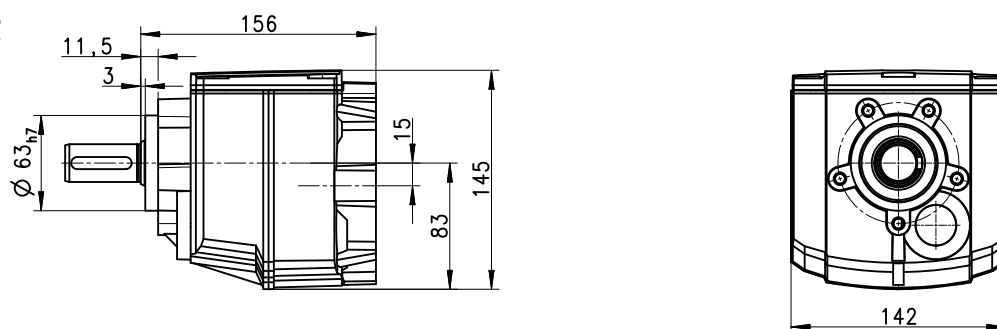
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801161-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	345	374	398	441	504
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 146

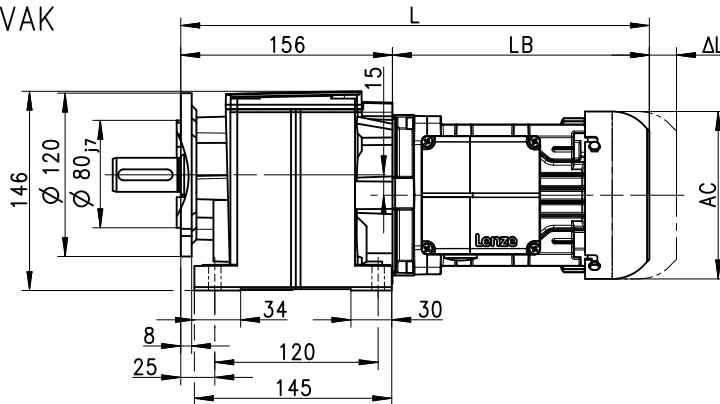


g500-H140, 2-stage

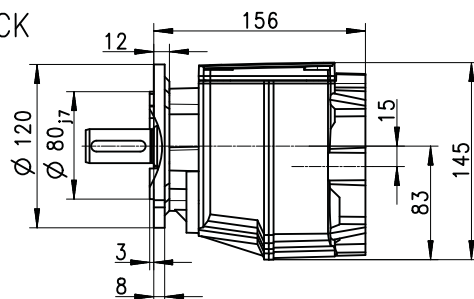
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

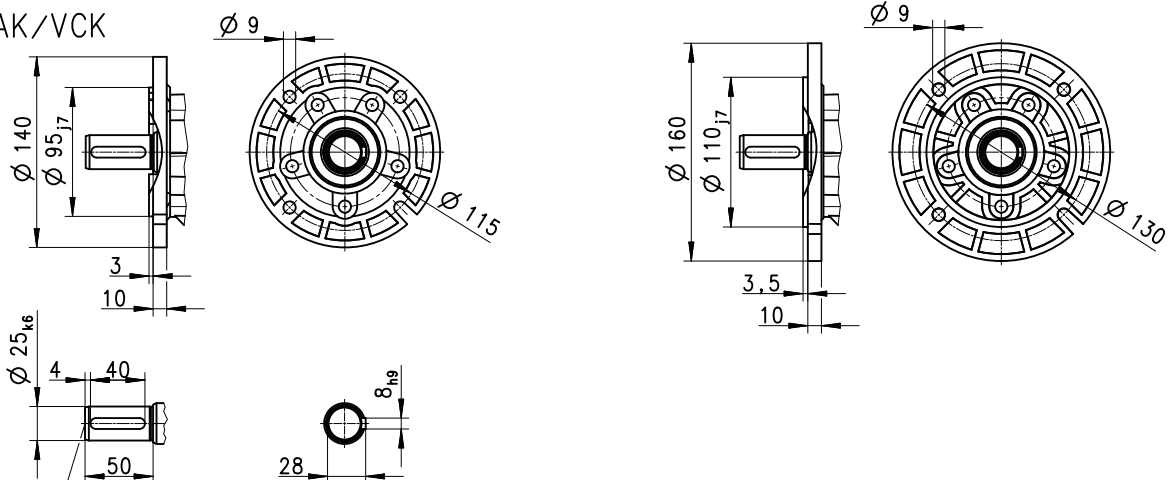
VAK



VCK



VAK/VCK



DIN 332
DR M10

8801160-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	345	374	398	441	504
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 146

Technical data

Dimensions
Basic dimensions

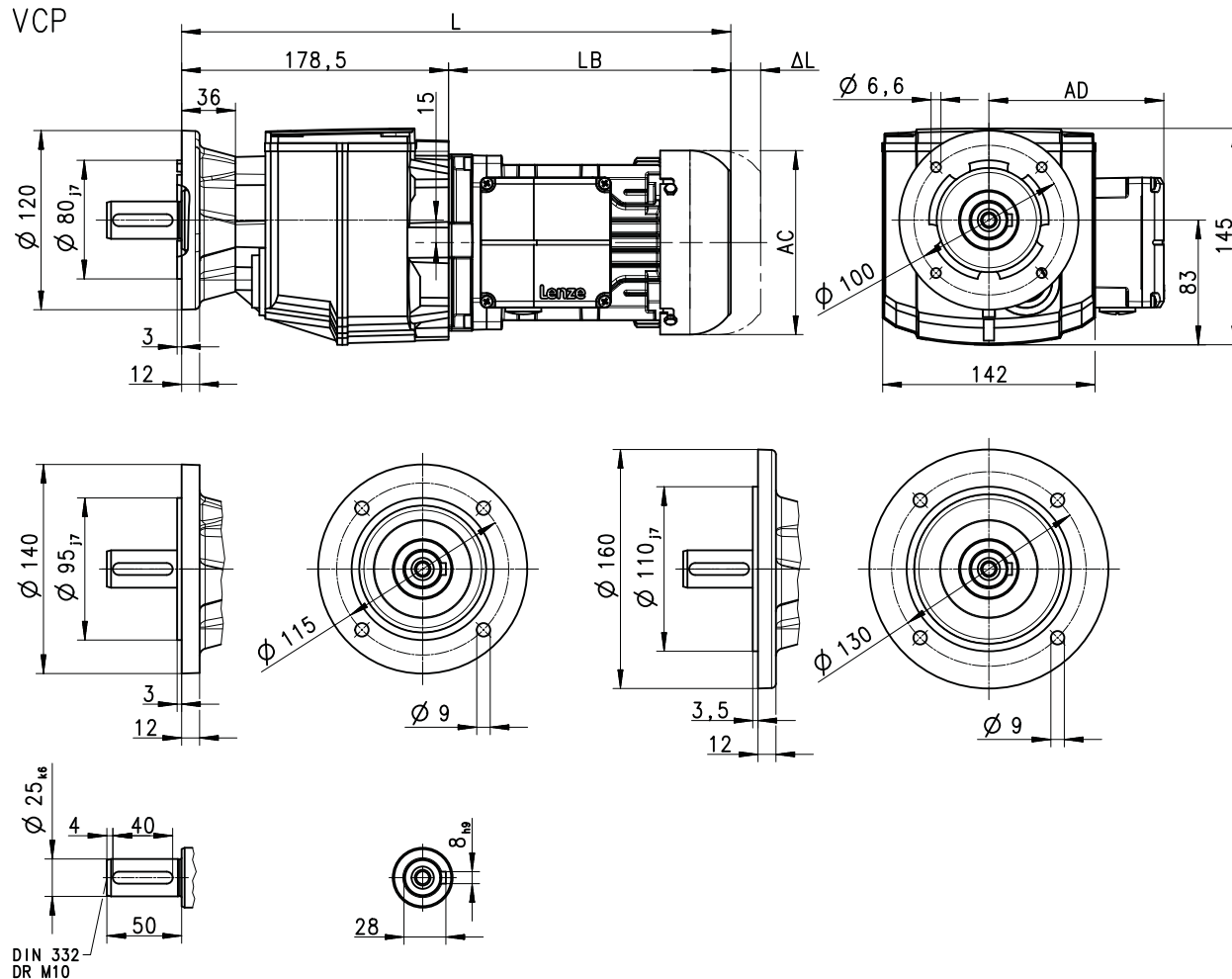


g500-H140, 2-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801162-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	367	397	421	463	527
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 [146](#)



The dimensions also apply for solid shafts without a keyway (G□□)!

Technical drawing of a 1000W three-phase asynchronous motor, showing the side view and a detail view of the terminal box.

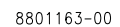
Side View Dimensions:

- Overall length: L
- Length to the end of the terminal box: LB
- Terminal box width: 180
- Terminal box height: 10.2
- Terminal box mounting flange diameter: 25
- Terminal box mounting flange thickness: 37
- Terminal box mounting flange hole diameter: 28
- Terminal box mounting flange hole offset: 130
- Terminal box mounting flange hole offset: 160
- Terminal box mounting flange hole offset: 130
- Terminal box mounting flange hole offset: 160
- Terminal box mounting flange hole offset: 130
- Terminal box mounting flange hole offset: 160

Detail View Dimensions (Terminal Box Mounting Flange):

- Terminal box mounting flange diameter: $\varnothing 25_{k6}$
- Terminal box mounting flange thickness: 4
- Terminal box mounting flange hole diameter: 40
- Terminal box mounting flange hole offset: 50
- Terminal box mounting flange hole offset: 28
- Terminal box mounting flange hole offset: 28

Terminal Box Mounting Flange: DIN 332 DR M10



Δ L ▶ Additional lengths  146

Technical data

Dimensions
Basic dimensions

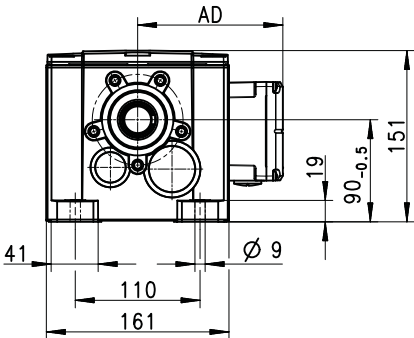
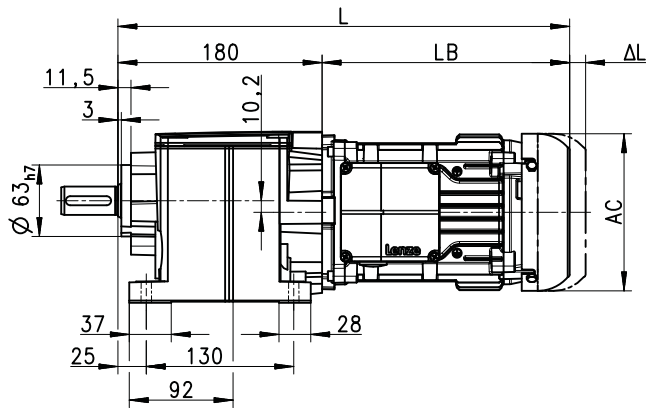


g500-H210, 2-/3-stage

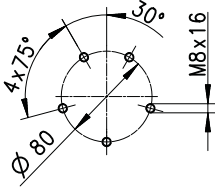
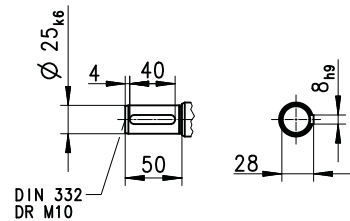
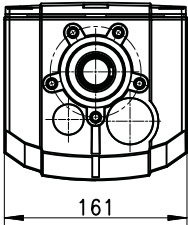
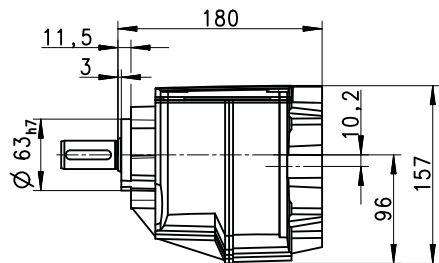
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801165-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	369	398	422	465	528
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 146



Technical data

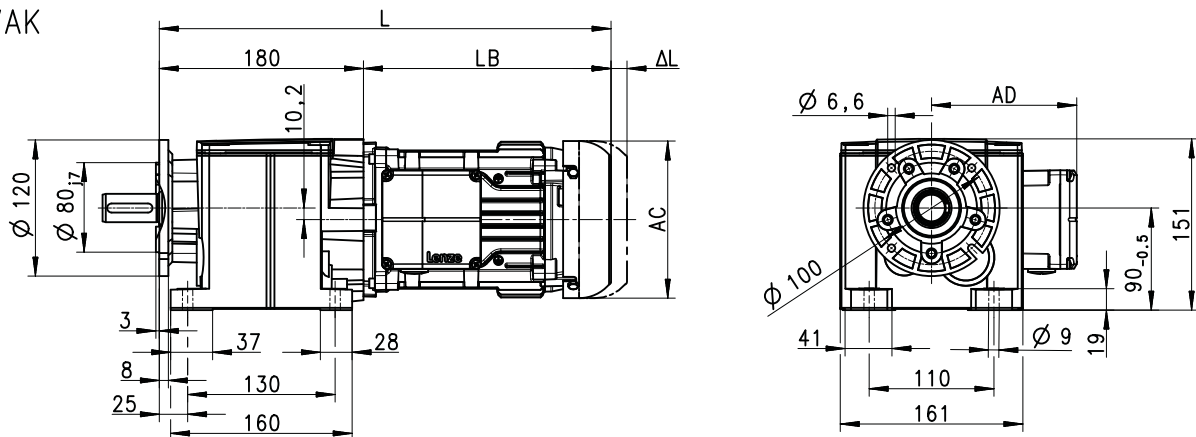
Dimensions
Basic dimensions

g500-H210, 2-/3-stage

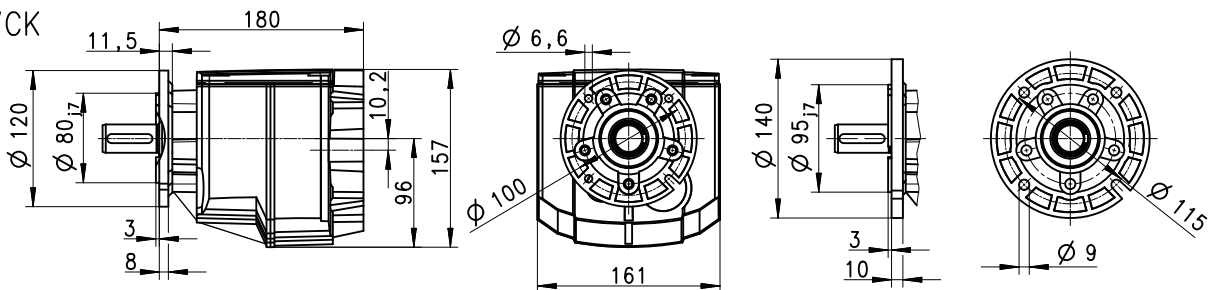
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions are also valid for solid shafts without a keyway (G□□)!

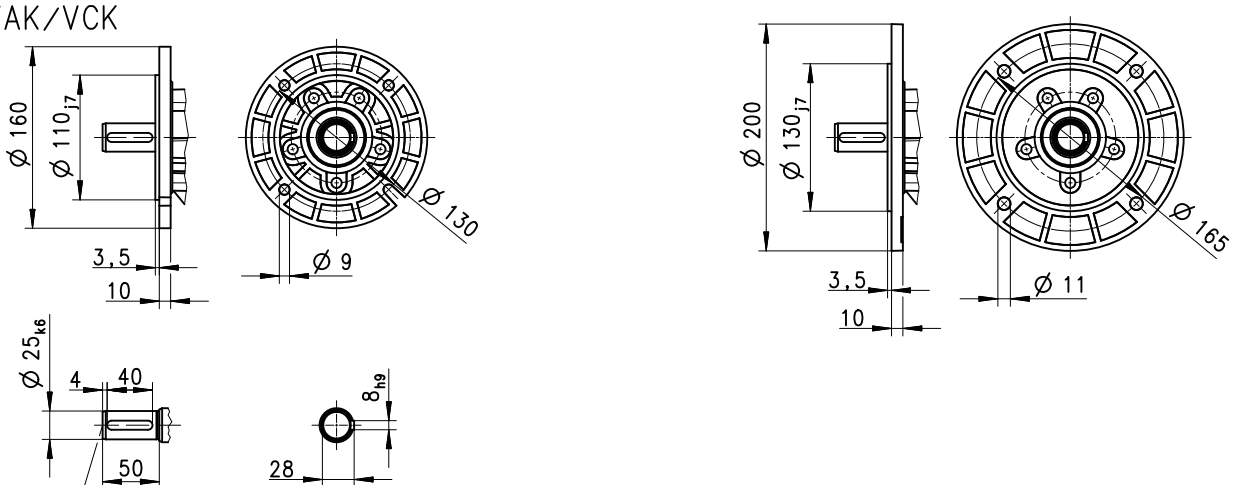
VAK



VCK



VAK/VCK



DIN 332
DR M10

8801164-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	369	398	422	465	528
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 146

Technical data

Dimensions
Basic dimensions

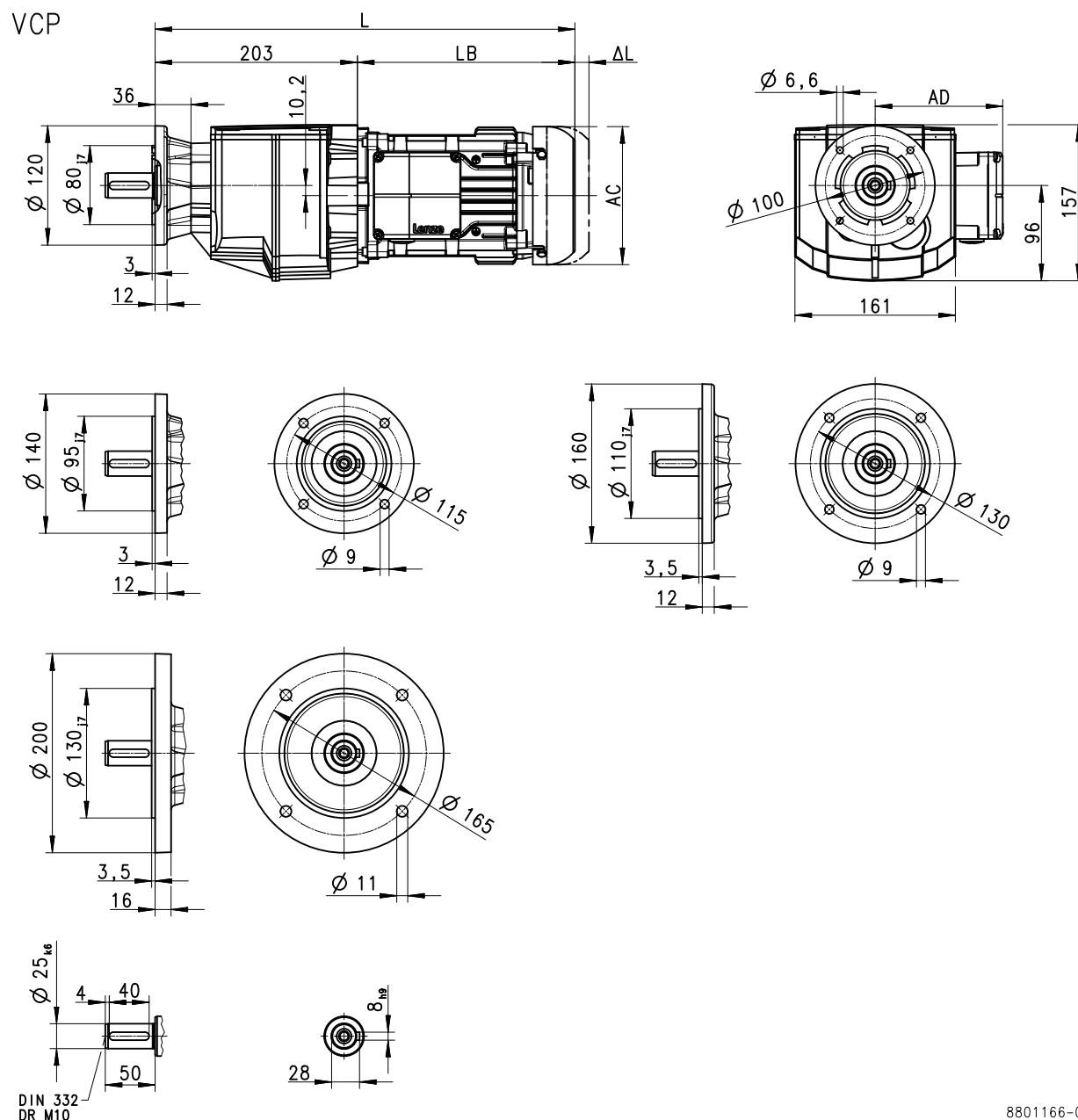


g500-H210, 2-/3-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway (G□□)!

VCP



8801166-00

Motor series			m550-U				
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04
Total length	L	mm	392	421	445	488	551
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 [146](#)

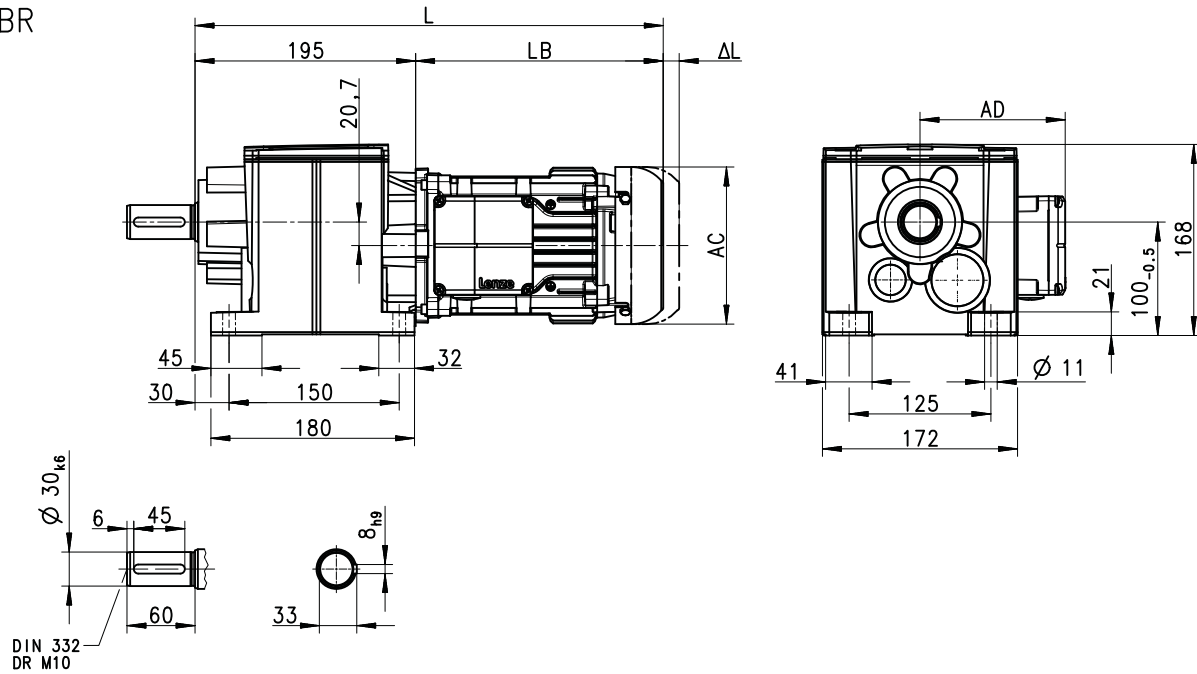


g500-H320, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801167-00

Motor series			m550-U					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	384	413	437	480	543	556
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](#) 146

Technical data

Dimensions
Basic dimensions

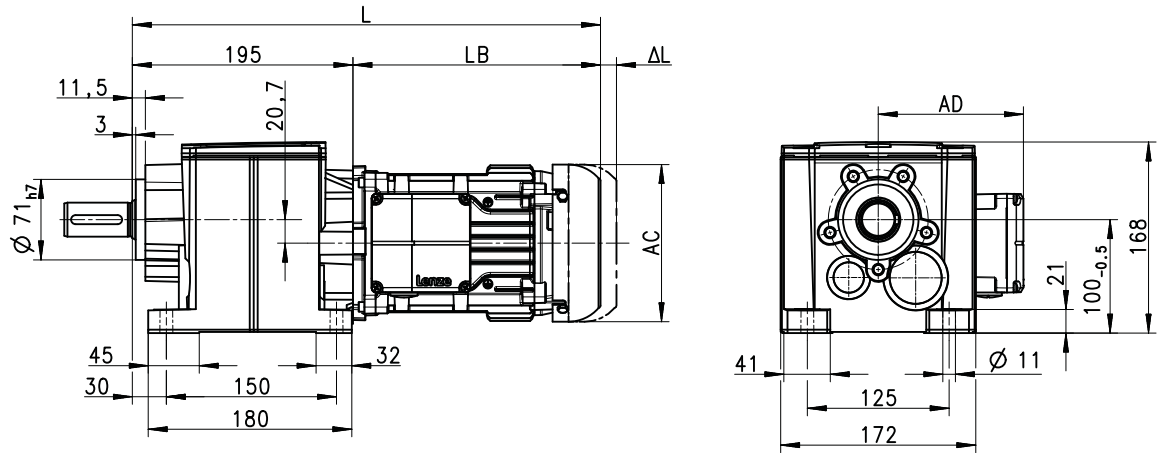


g500-H320, 2-/3-stage

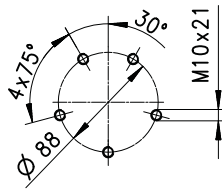
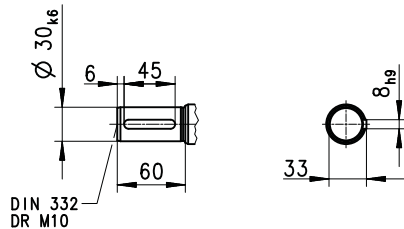
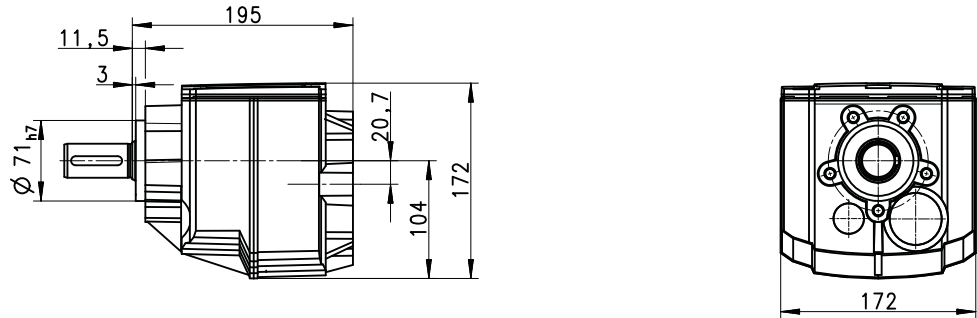
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801169-00

Motor series			m550-U					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	384	413	437	480	543	556
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 146



Dimensions

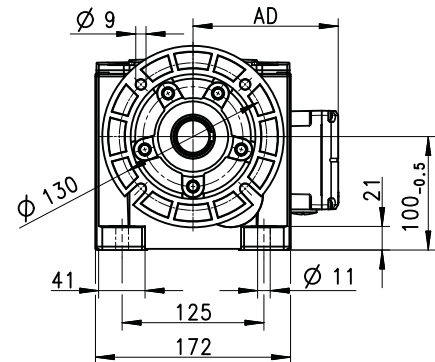
Basic dimensions

g500-H320, 2-/3-stage

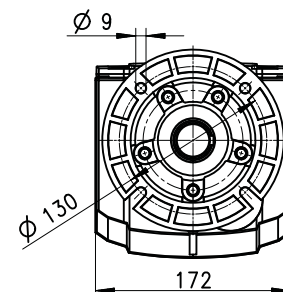
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

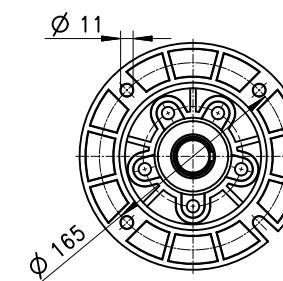
VAK



VCK



VAK/VCK



8801168-00

Motor series			m550-U					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	384	413	437	480	543	556
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 146

The dimensions also apply for solid shafts without a keyway (G□□)!

[illegible]

Motor series			m550-U					
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04
Total length	L	mm	403	433	457	499	563	575
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

126

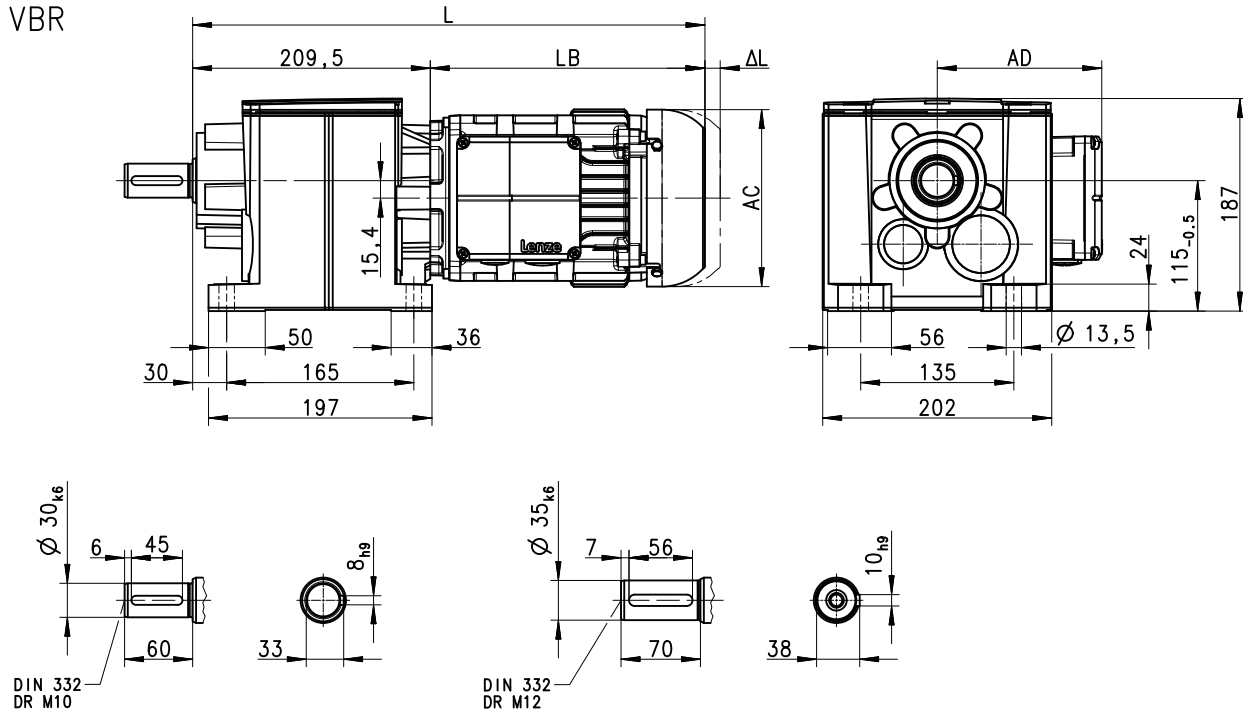


g500-H450, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VBR



8801171-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	398	428	452	494	558	570	634
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 146

Technical data

Dimensions
Basic dimensions

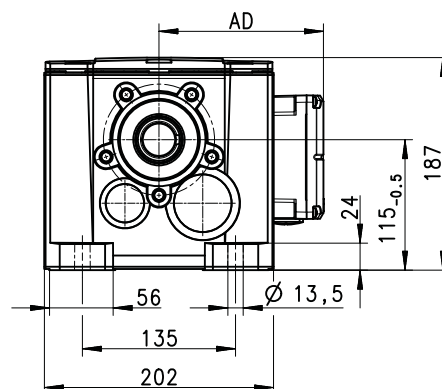
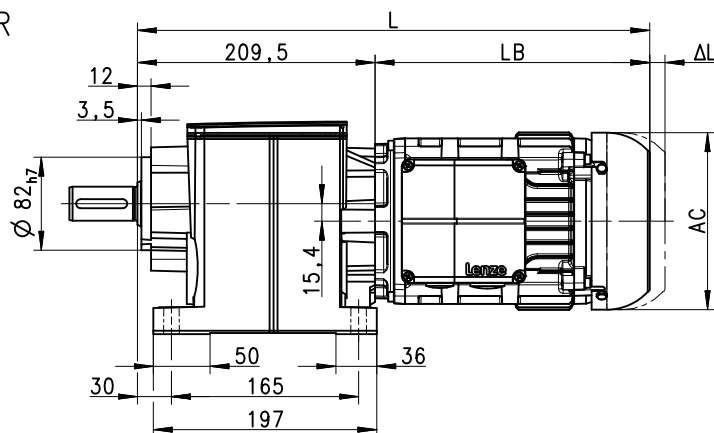


g500-H450, 2-/3-stage

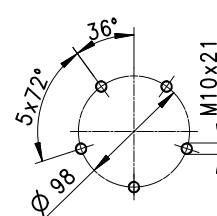
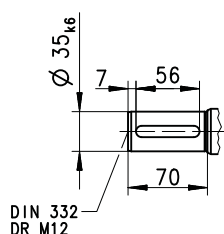
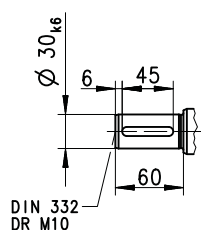
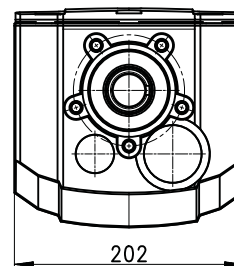
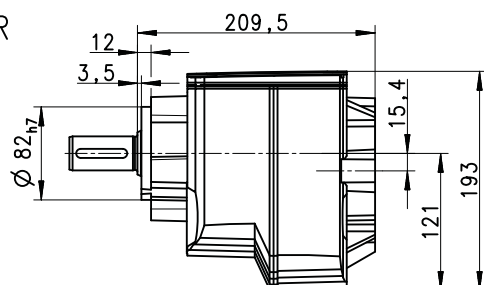
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VAR



VCR



8801173-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	398	428	452	494	558	570	634
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 146



Technical data

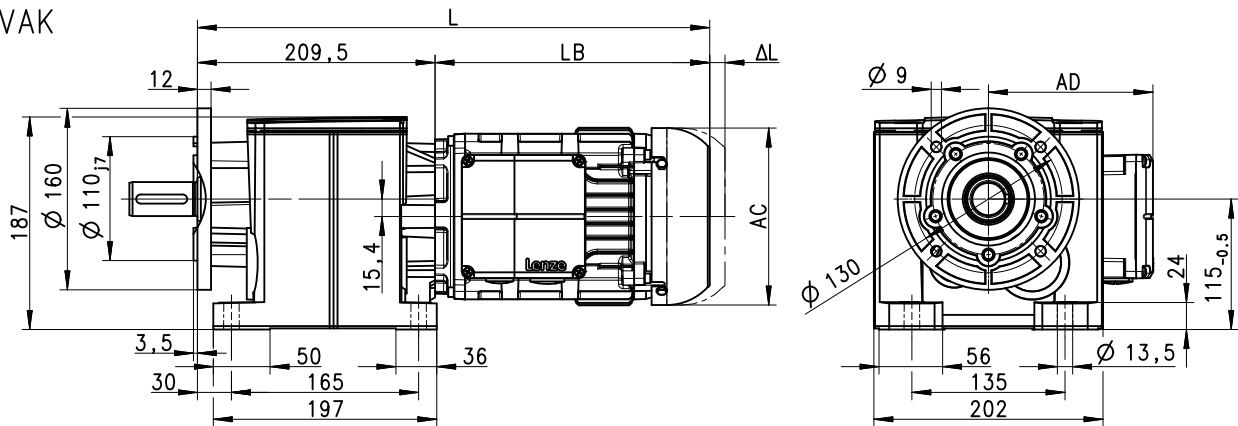
Dimensions
Basic dimensions

g500-H450, 2-/3-stage

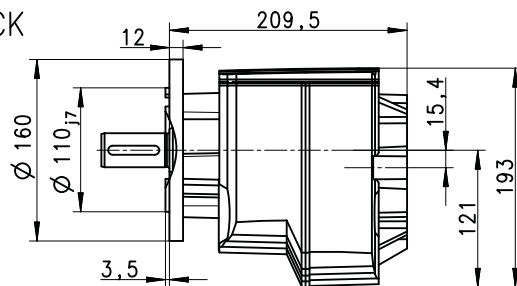
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

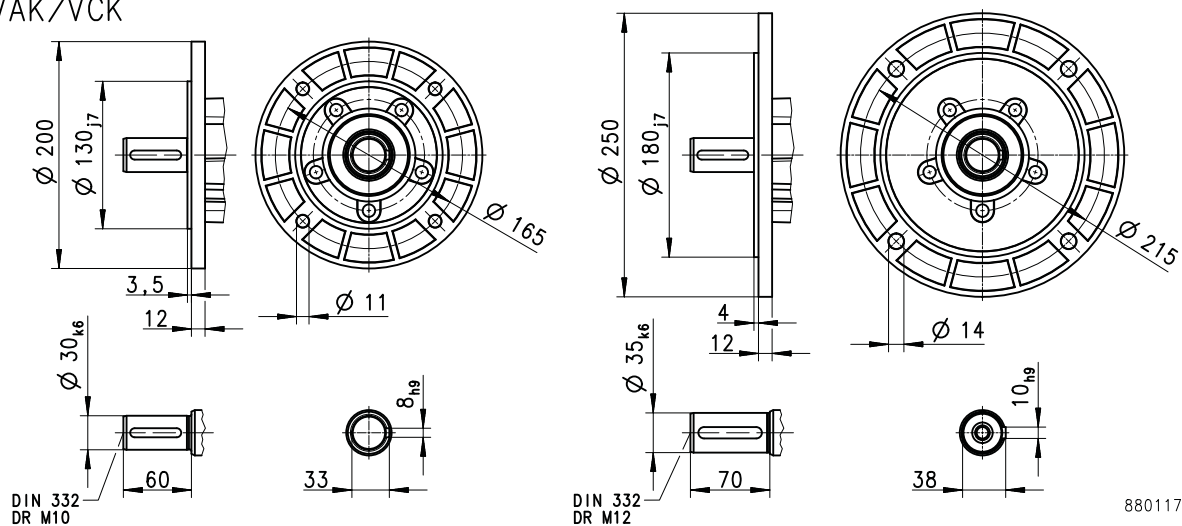
VAK



VCK



VAK/VCK



8801172-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	398	428	452	494	558	570	634
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 146

Technical data

Dimensions
Basic dimensions

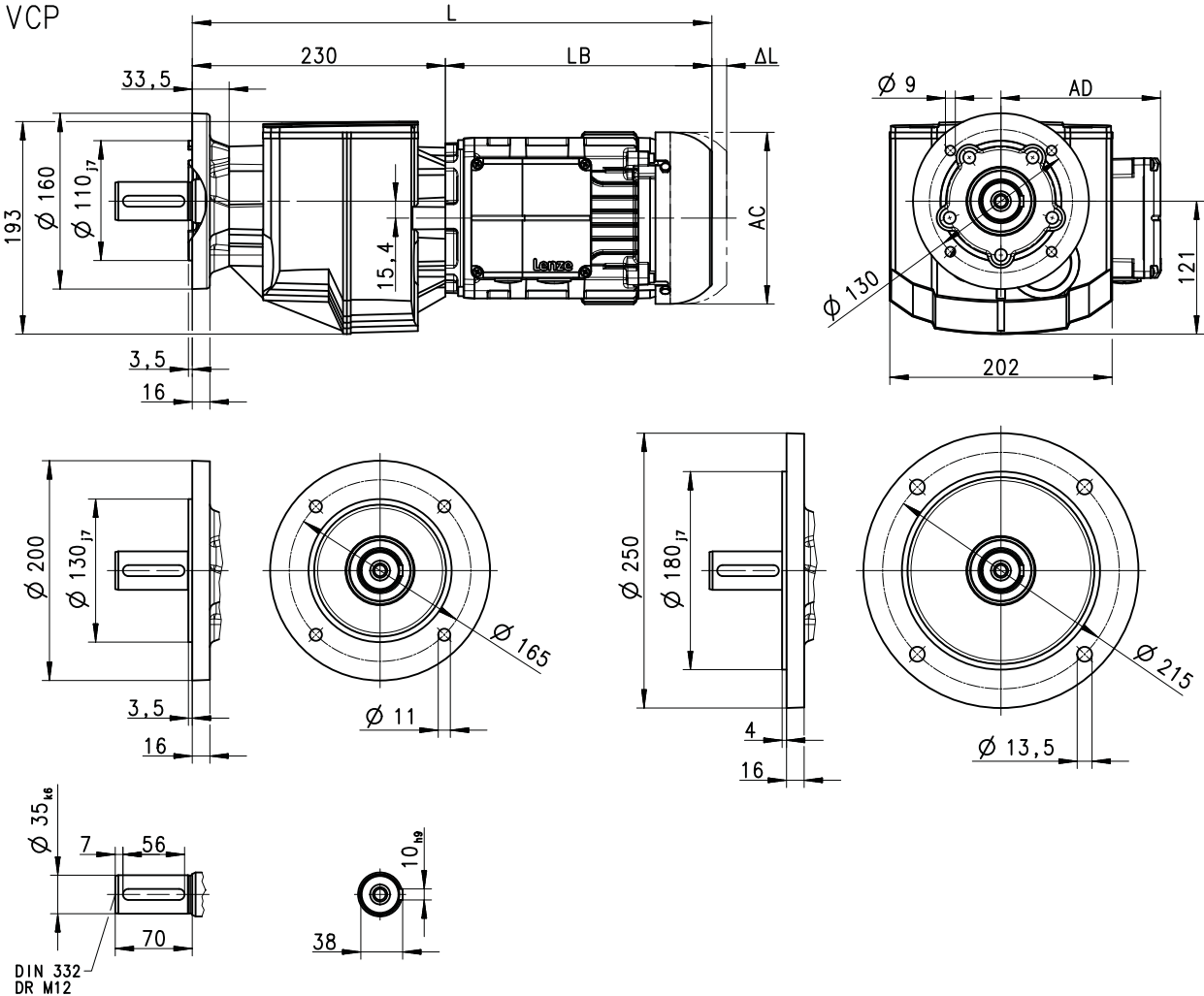


g500-H450, 2-/3-stage

Gearbox design: Solid shaft, with flange in reinforced design (VCP)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VCP



8801174-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	419	448	472	515	578	591	655
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 146



The dimensions also apply for solid shafts without a keyway Ø35 x 70 (G□□)!

[illegible]

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	420	449	473	516	579	592	656
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

131

Technical data

Dimensions
Basic dimensions

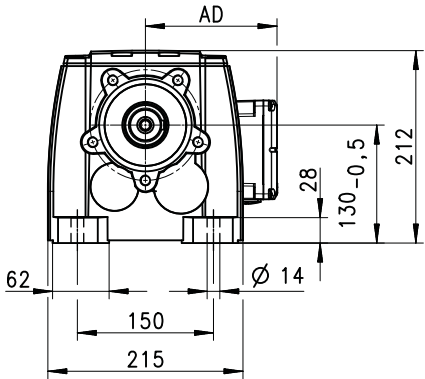
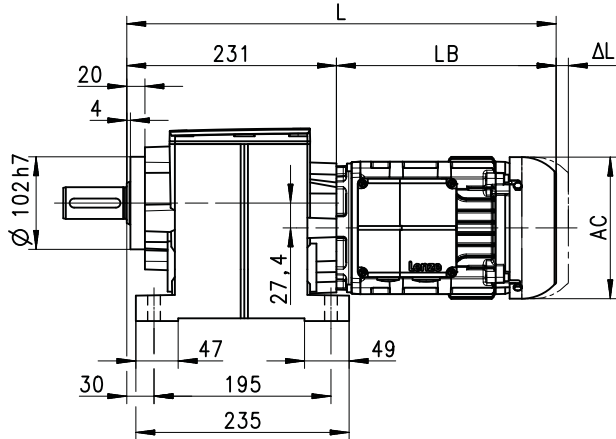


g500-H600, 2-/3-stage

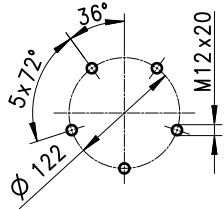
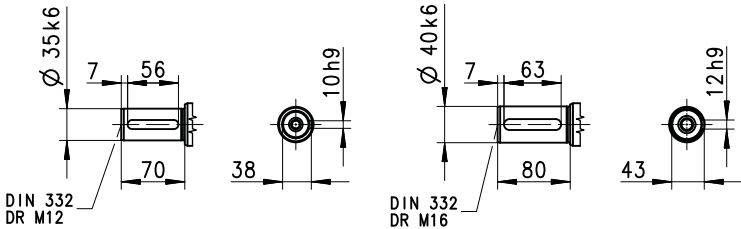
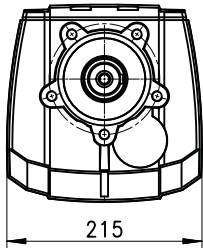
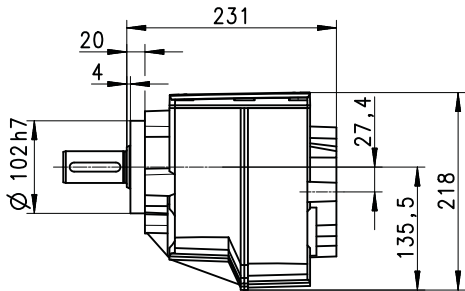
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway $\varnothing 35 \times 70$ (G□□)!

VAR



VCR



8801176-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	420	449	473	516	579	592	656
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 146

Technical data

Dimensions
Basic dimensions

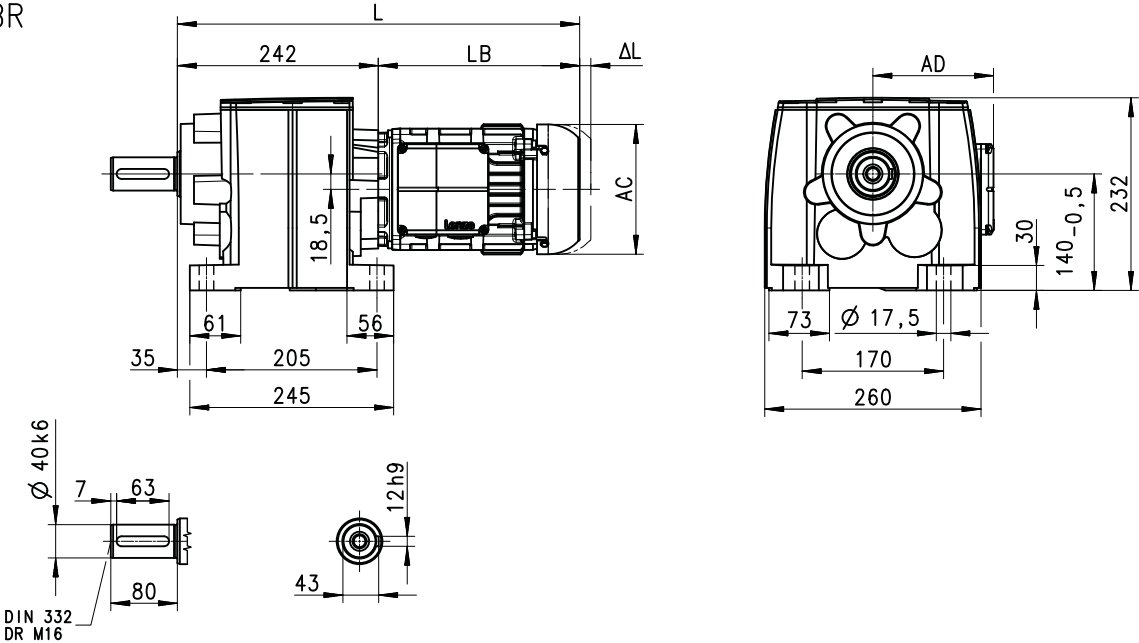


g500-H850, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801178-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	431	460	484	527	590	603	667
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 146

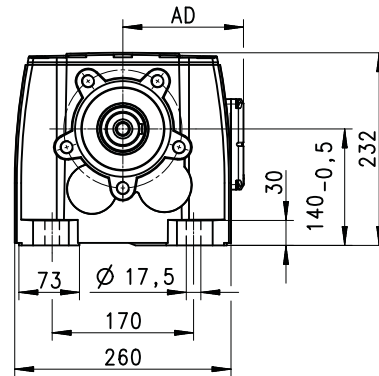
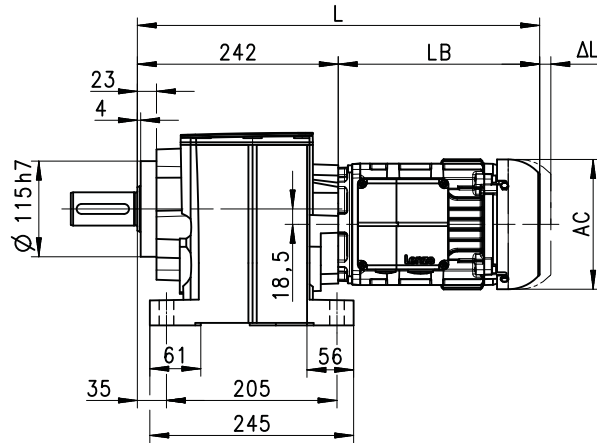


g500-H850, 2-/3-stage

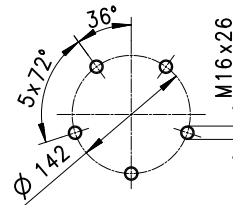
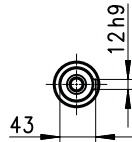
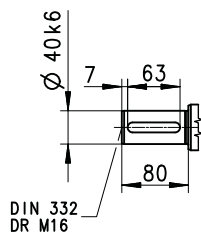
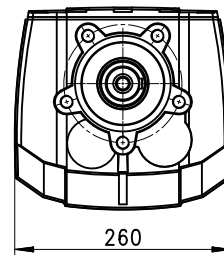
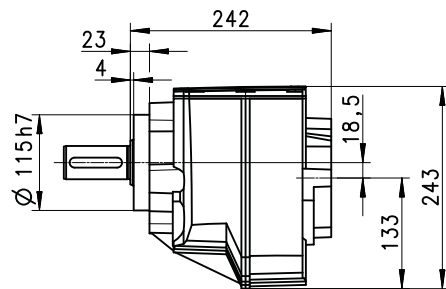
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801179-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	431	460	484	527	590	603	667
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 146

Technical data

Dimensions
Basic dimensions

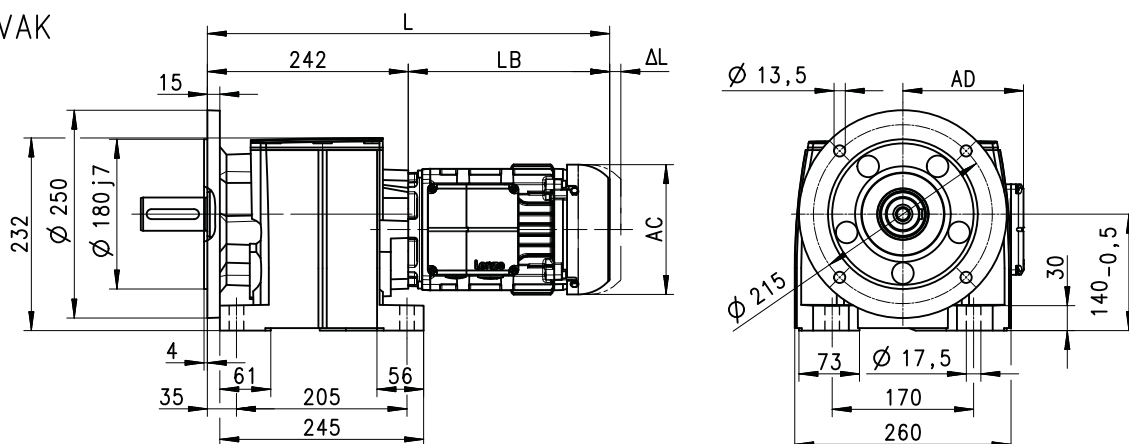


g500-H850, 2-/3-stage

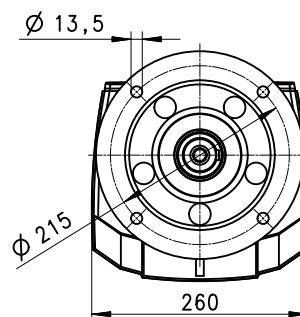
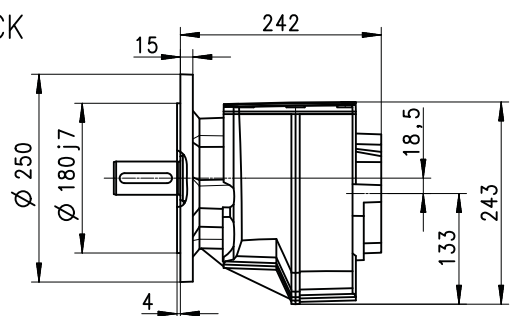
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

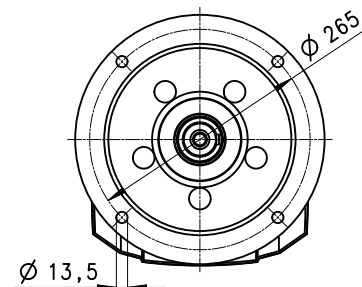
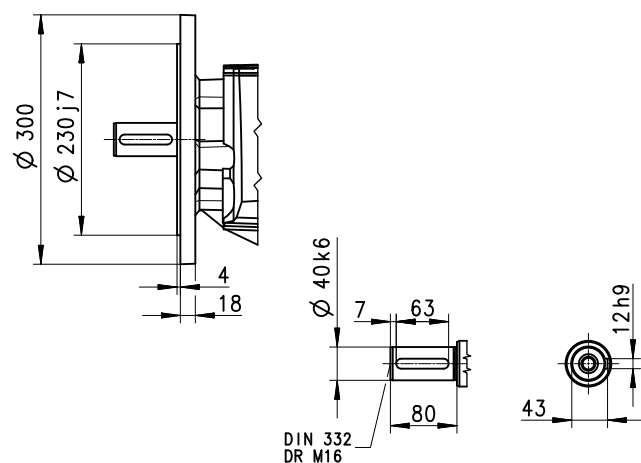
VAK



VCK



VAK/VCK



8801180-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	431	460	484	527	590	603	667
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 □ 146

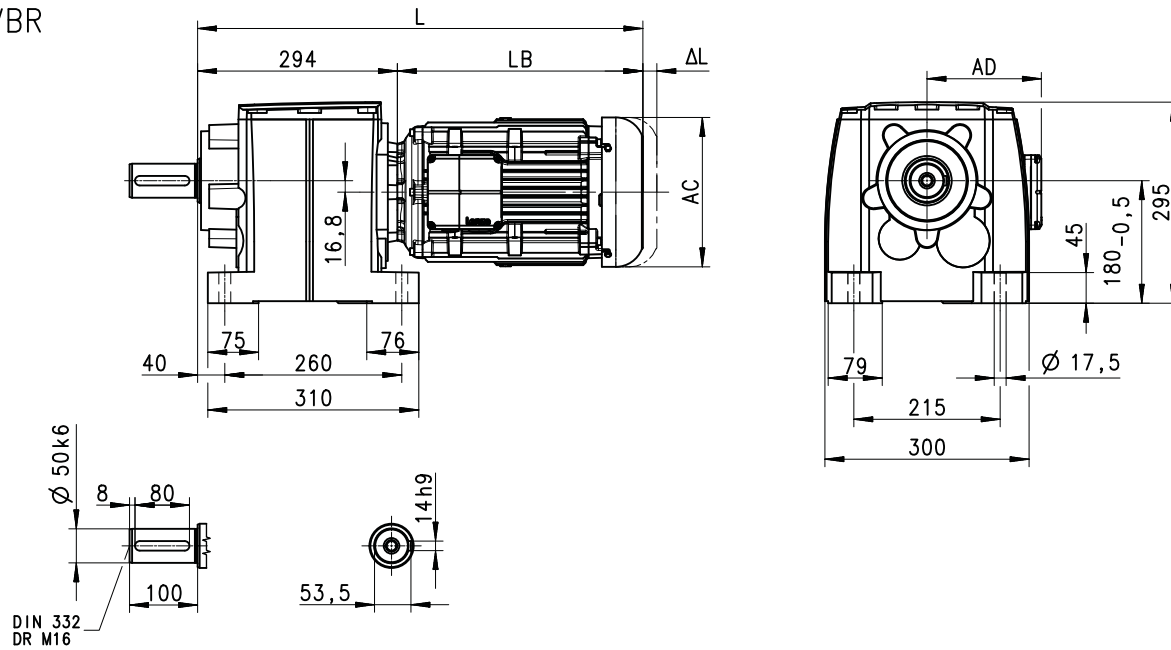


g500-H1500, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801181-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	483	512	536	579	642	655	719
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 146

Technical data

Dimensions
Basic dimensions

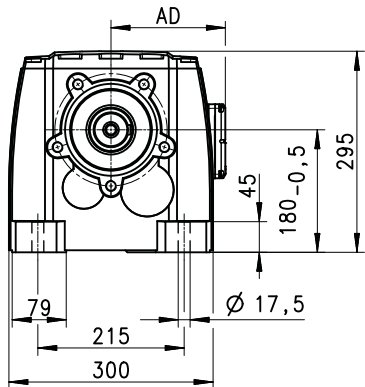
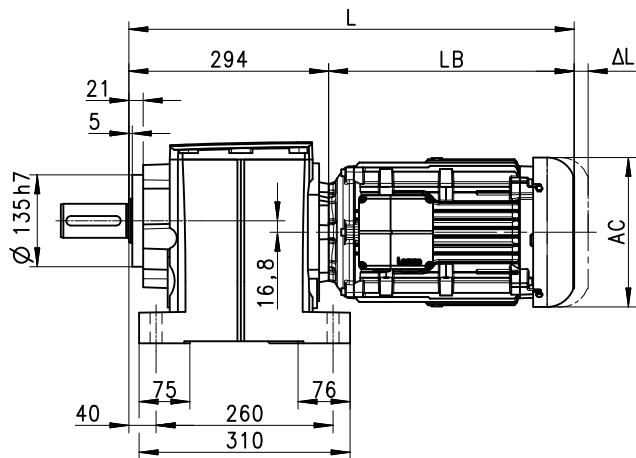


g500-H1500, 2-/3-stage

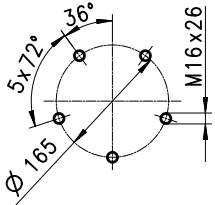
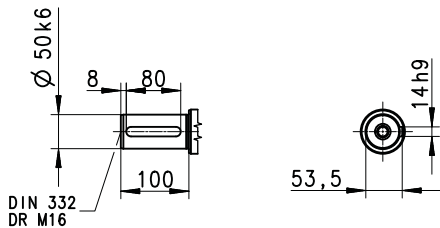
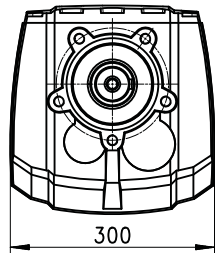
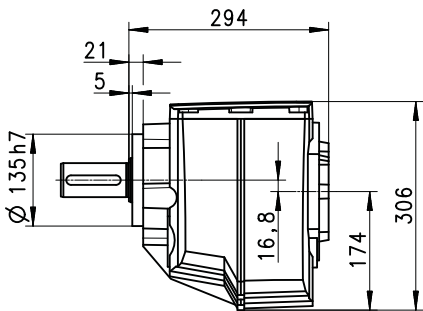
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801182-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	483	512	536	579	642	655	719
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 146

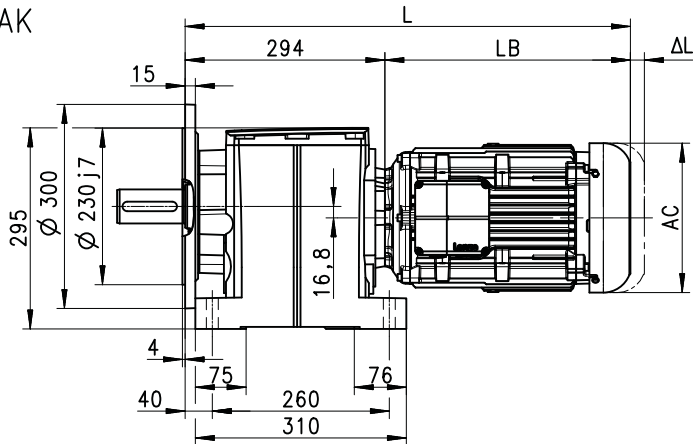


g500-H1500, 2-/3-stage

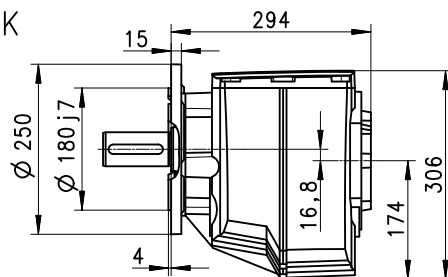
Gearbox design: Solid shaft, with flange (VAK/VCK)

The dimensions also apply for solid shafts without a keyway (G□□)!

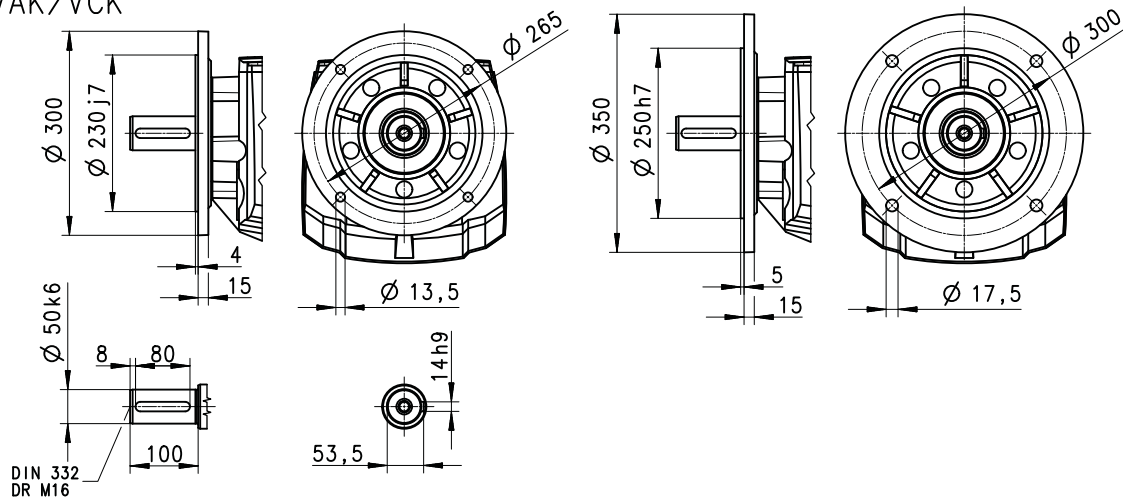
VAK



VCK



VAK/VCK



8801183-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	483	512	536	579	642	655	719
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 146

Technical data

Dimensions
Basic dimensions

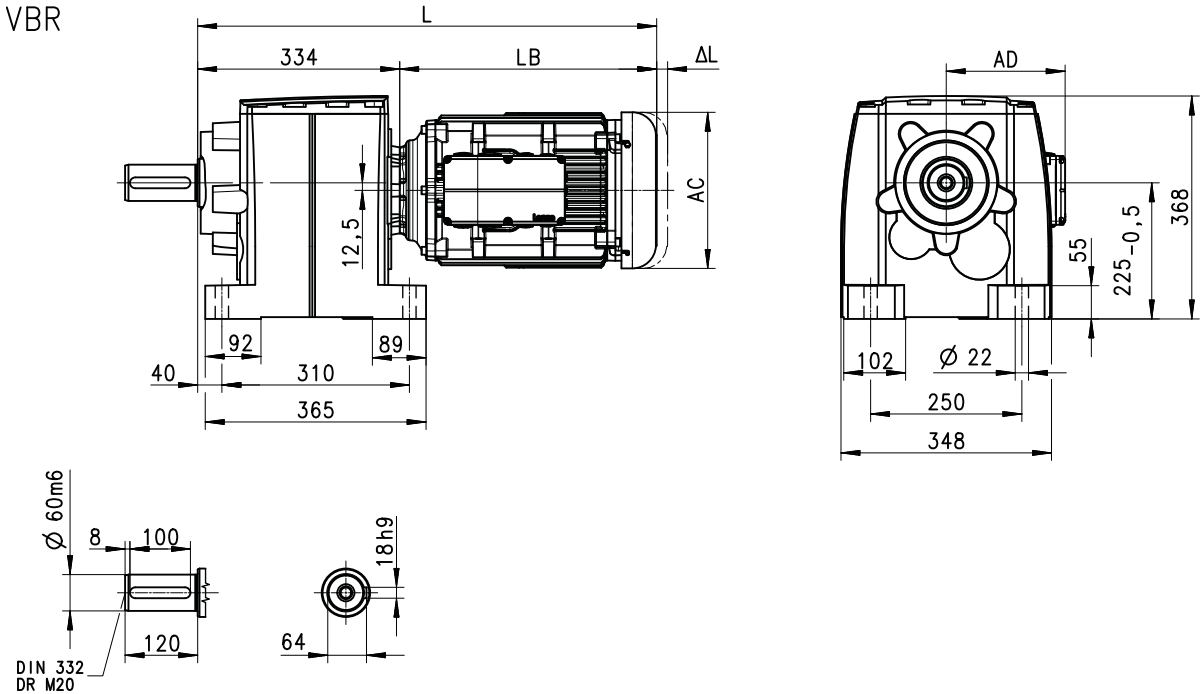


g500-H3000, 2-/3-stage

Gearbox design: Solid shaft, with foot (VBR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VBR



8801184-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	523	552	576	619	682	695	759
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 146

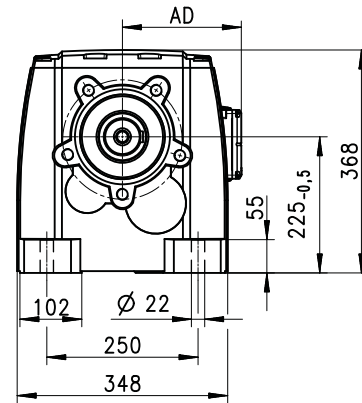
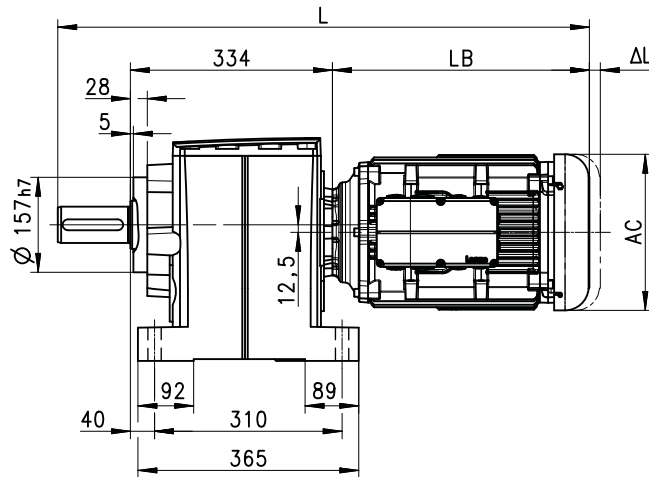


g500-H3000, 2-/3-stage

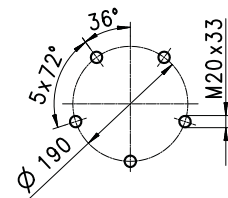
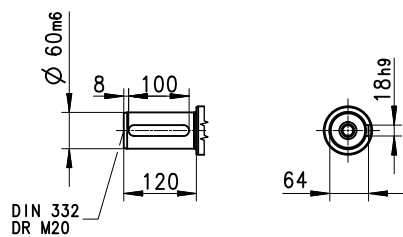
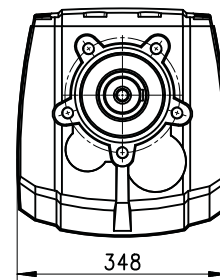
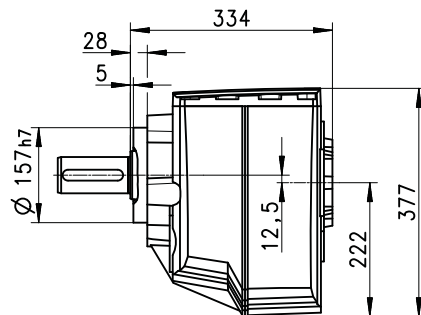
Gearbox design: Solid shaft, with centering (VAR/VCR)

The dimensions also apply for solid shafts without a keyway (G□□)!

VAR



VCR



8801185-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	523	552	576	619	682	695	759
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 146

Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage

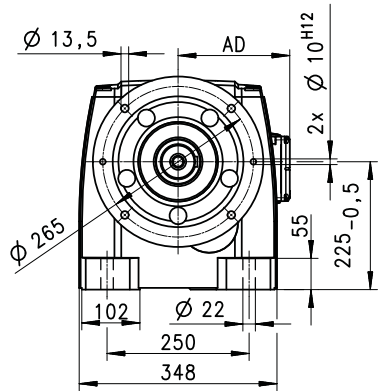
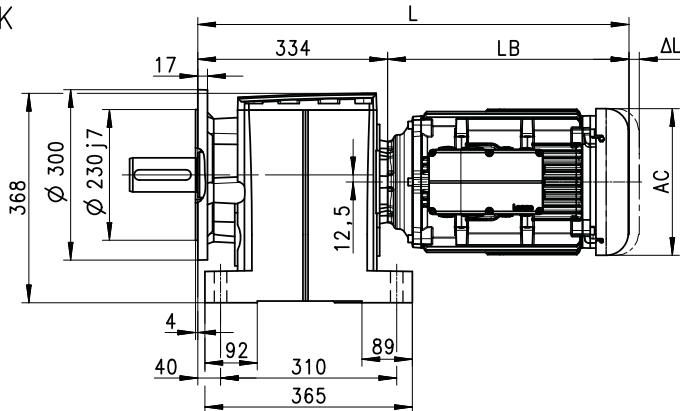
Gearbox design: Solid shaft with flange (VAK/VCK)

The dimensions are also valid for solid shaft without keyway (G□□)!

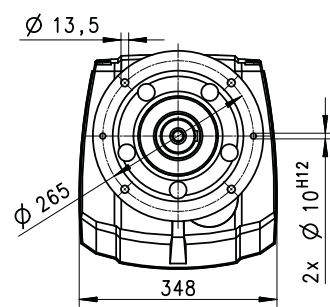
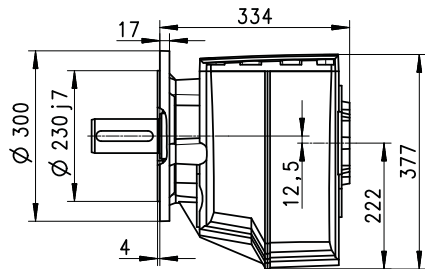
NOTICE

► Additionally secure the $\varnothing 300$ output flange with two spiral pins.

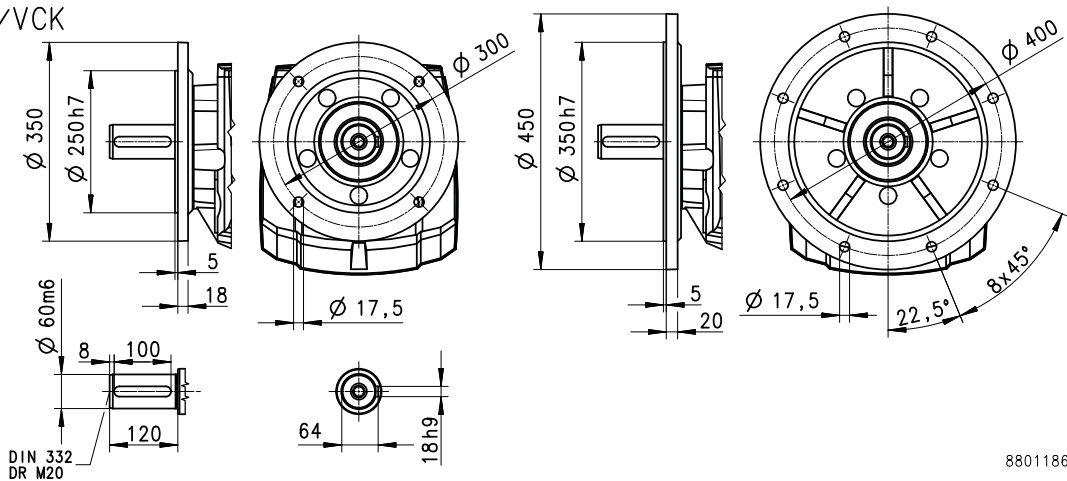
VAK



VCK



VAK/VCK



8801186-00

Motor series			m550-U						
Motor			063L04	071M04 071L04	080M04	090M04 090L04	100M04 100L04	112M04	132M04 132L04
Total length	L	mm	523	552	576	619	682	695	759
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 146



7.7.2 Gearbox with pre-stage

g500-H100 ... H140, 3-stage

g500-H210 ... H3000, 4-stage

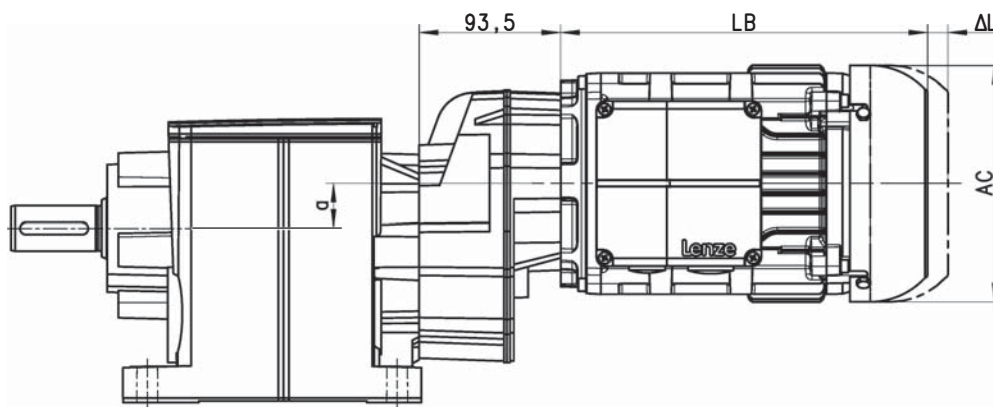


The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#) 108

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

Observe the altered center distance "a" between the gearbox and motor shaft.



8801279-00

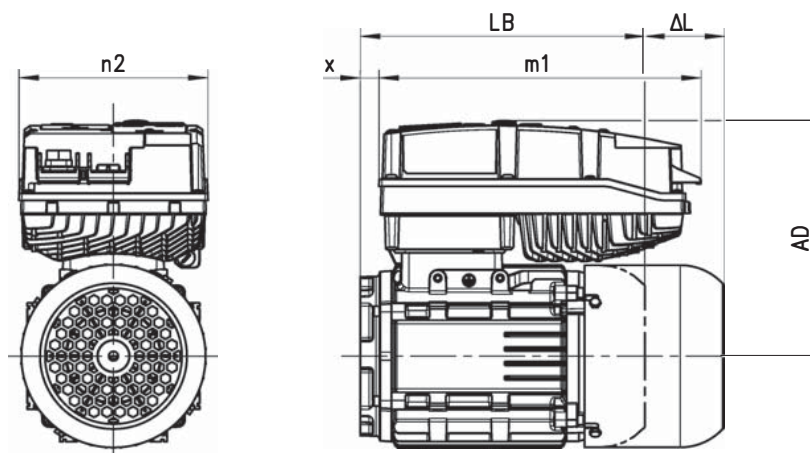
Gearboxes			g500-H100	g500-H140	g500-H210	g500-H320	g500-H450	g500-H600	g500-H850	g500-H1500	g500-H3000
			3-stage		4-stage						
Center distance	a	mm	40.2	30	34.8	24.3	29.6	17.6	26.5	28.2	32.5



7.7.3 Integrated inverters

i550/i650 motec

Supply voltage 3x 400/480 V



8801826-01

Rated frequency 62 Hz

Motor	i550 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-U63/L4	i550-M0.37/400-3	179	265	160	11
m550-U71/M4	i550-M0.55/400-3	190	265	160	21
m550-U71/M4	i550-M0.37/400-3	190	265	160	21
m550-U71/L4	i550-M0.75/400-3	190	265	160	21
m550-U71/L4	i550-M1.1/400-3	190	265	160	21
m550-U71/L4	i550-M0.55/400-3	190	265	160	21
m550-U80/M4	i550-M1.1/400-3	203	265	160	25
m550-U80/M4	i550-M1.5/400-3	203	265	160	25
m550-U80/M4	i550-M0.75/400-3	203	265	160	25
m550-U90/M4	i550-M1.5/400-3	211	265	160	44
m550-U90/M4	i550-M2.2/400-3	211	265	160	44
m550-U90/M4	i550-M1.1/400-3	211	265	160	44
m550-U90/L4	i550-M2.2/400-3	211	265	160	44
m550-U90/L4	i550-M1.5/400-3	211	265	160	44
m550-U90/L4	i550-M3.0/400-3	229	265	160	44
m550-U100/M4	i550-M2.2/400-3	221	265	160	34
m550-U100/M4	i550-M4.0/400-3	239	265	160	34
m550-U100/M4	i550-M3.0/400-3	239	265	160	34
m550-U100/L4	i550-M5.5/400-3	239	265	160	34
m550-U100/L4	i550-M4.0/400-3	239	265	160	34
m550-U100/L4	i550-M3.0/400-3	239	265	160	34
m550-U112/M4	i550-M5.5/400-3	244	265	160	50
m550-U112/M4	i550-M4.0/400-3	244	265	160	50
m550-U112/M4	i550-M7.5/400-3	269	362	211	39
m550-U132/M4	i550-M5.5/400-3	264	265	160	59
m550-U132/M4	i550-M11/400-3	289	362	211	48
m550-U132/M4	i550-M7.5/400-3	289	362	211	48
m550-U132/L4	i550-M11/400-3	289	362	211	48
m550-U132/L4	i550-M7.5/400-3	289	362	211	48
m550-U132/L4	i550-M15/400-3	341	443	280	27



Motor	i650 motec	AD	m1	n2	x
		g_1	m_1	n_2	x
		mm	mm	mm	mm
m550-U63/L4	i650-M0.37/400-3	179	265	160	11
m550-U71/M4	i650-M0.55/400-3	190	265	160	21
m550-U71/M4	i650-M0.37/400-3	190	265	160	21
m550-U71/L4	i650-M0.75/400-3	190	265	160	21
m550-U71/L4	i650-M1.1/400-3	190	265	160	21
m550-U71/L4	i650-M0.55/400-3	190	265	160	21
m550-U80/M4	i650-M1.1/400-3	203	265	160	25
m550-U80/M4	i650-M1.5/400-3	203	265	160	25
m550-U80/M4	i650-M0.75/400-3	203	265	160	25
m550-U90/M4	i650-M1.5/400-3	211	265	160	44
m550-U90/M4	i650-M2.2/400-3	211	265	160	44
m550-U90/M4	i650-M1.1/400-3	211	265	160	44
m550-U90/L4	i650-M3.0/400-3	229	265	160	44
m550-U90/L4	i650-M2.2/400-3	211	265	160	44
m550-U90/L4	i650-M1.5/400-3	211	265	160	44
m550-U100/M4	i650-M4.0/400-3	239	265	160	34
m550-U100/M4	i650-M3.0/400-3	239	265	160	34
m550-U100/M4	i650-M2.2/400-3	221	265	160	34
m550-U100/L4	i650-M5.5/400-3	239	265	160	34
m550-U100/L4	i650-M4.0/400-3	239	265	160	34
m550-U100/L4	i650-M3.0/400-3	239	265	160	34
m550-U112/M4	i650-M5.5/400-3	244	265	160	50
m550-U112/M4	i650-M7.5/400-3	269	362	211	39
m550-U112/M4	i650-M4.0/400-3	244	265	160	50
m550-U132/M4	i650-M11/400-3	289	362	211	48
m550-U132/M4	i650-M7.5/400-3	289	362	211	48
m550-U132/M4	i650-M5.5/400-3	264	265	160	59
m550-U132/L4	i650-M15/400-3	341	443	280	27
m550-U132/L4	i650-M11/400-3	289	362	211	48
m550-U132/L4	i650-M7.5/400-3	289	362	211	48

Dimensions LB and ΔL ▶ [Basic dimensions](#) 108



7.7.4 Additional lengths

Self-ventilated motors

Motor			m550-U						
			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](#) 70

Observe ► [Additional weights](#) 147!

7.8.2 Additional weights



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

Gearbox

Gearbox			g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Foot	m	kg	0.1	0.1	0.2	0.1	0.1	0.2
Flange	m	kg	0.3	0.4	0.6	0.6	0.8	0.9
Flange (VCP)	m	kg		2.0	3.9	3.9	4.1	6.1

Gearbox			g500-H600	g500-H850	g500-H1500	g500-H3000
Foot	m	kg	2.0	2.8	4.3	5.8
Flange	m	kg	4.3	7.6	8.3	20
Flange (VCP)	m	kg				

Motors

Motor				m550-U						
				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 Motor connection

8.1.1 Connection options

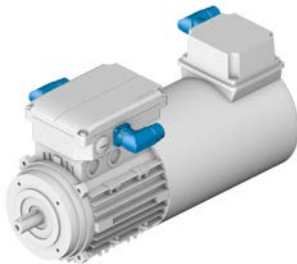


The motors are equipped with a terminal box as standard.

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:

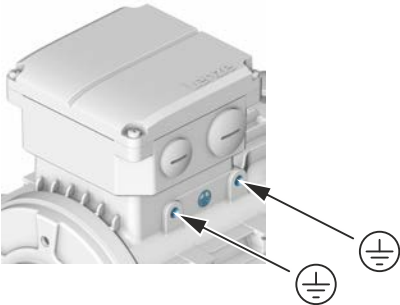
Rated frequency	Rated voltage	Circuit
Hz	V	
62	400	Y
124		

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](#) 44

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.

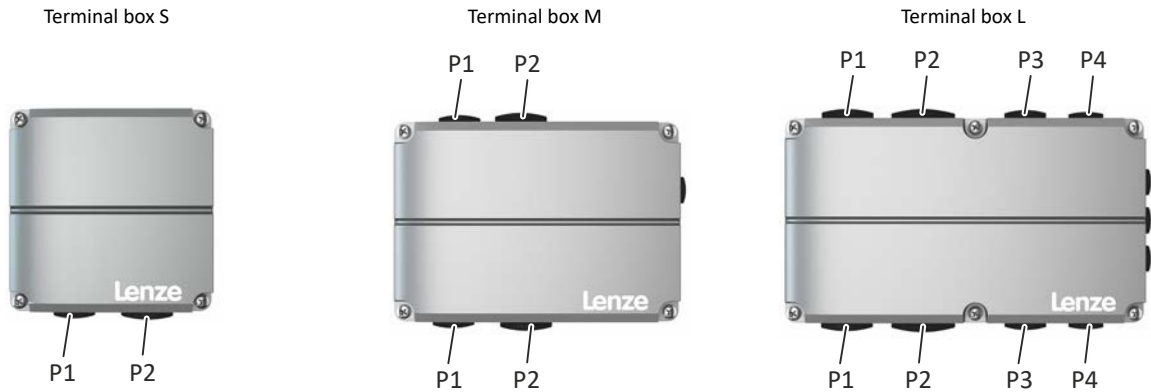
The dimensioning of the grounding is done by the customer.



8.1.2 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-U						
	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

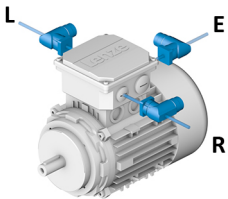
Product extensions

Motor connection
Assignment of the terminal boxes



Positions of the connectors

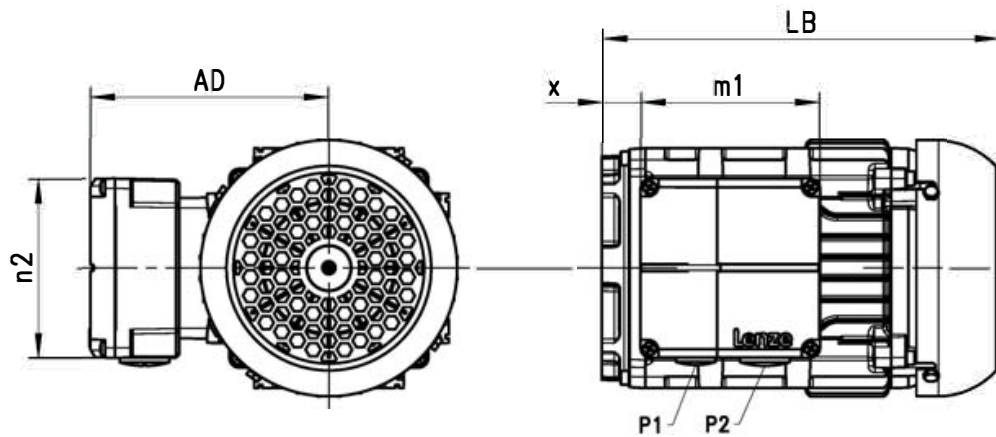
Positions on the motor terminal box



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	



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](#) 108

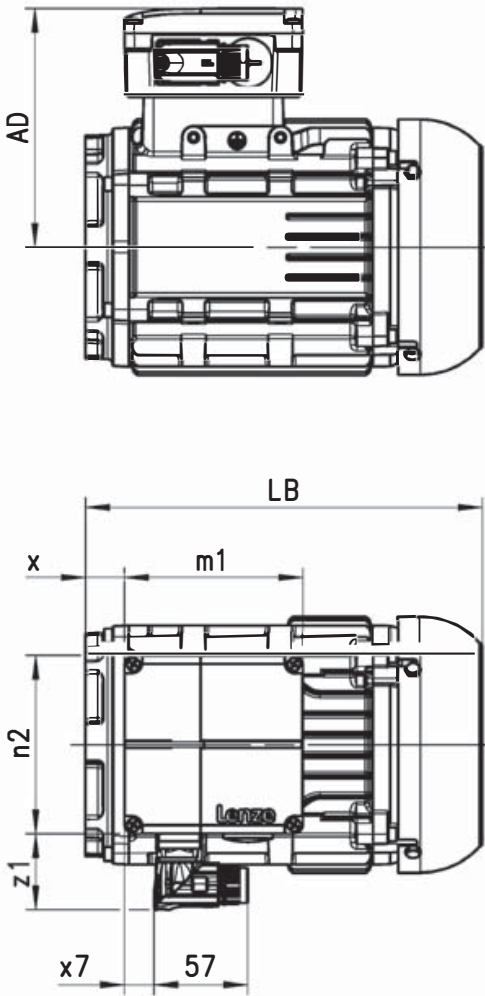
Dimensions Δ L ► [Additional lengths](#) 146

Product extensions

Motor connection
Assignment of the terminal boxes



Dimensions of "S" power terminal box with M23 connector



8801787-00

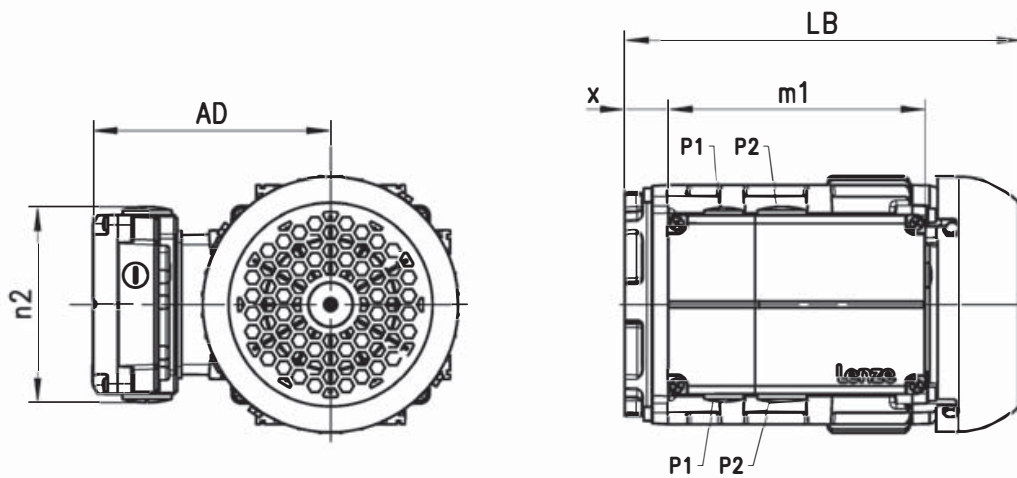
Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	117	128	145	153	163	168
x	mm	22	17	24	30	39	45
m ₁	mm	87	87	109	109	109	109
n ₂	mm	87	87	109	109	109	109
M23 connector Power							
x ₇	mm	13	13	18	18	18	18
z ₁	mm	42	42	42	42	42	42

Dimensions LB ▶ [Basic dimensions](#) 108

Dimensions Δ L ▶ [Additional lengths](#) 146



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](#) 108

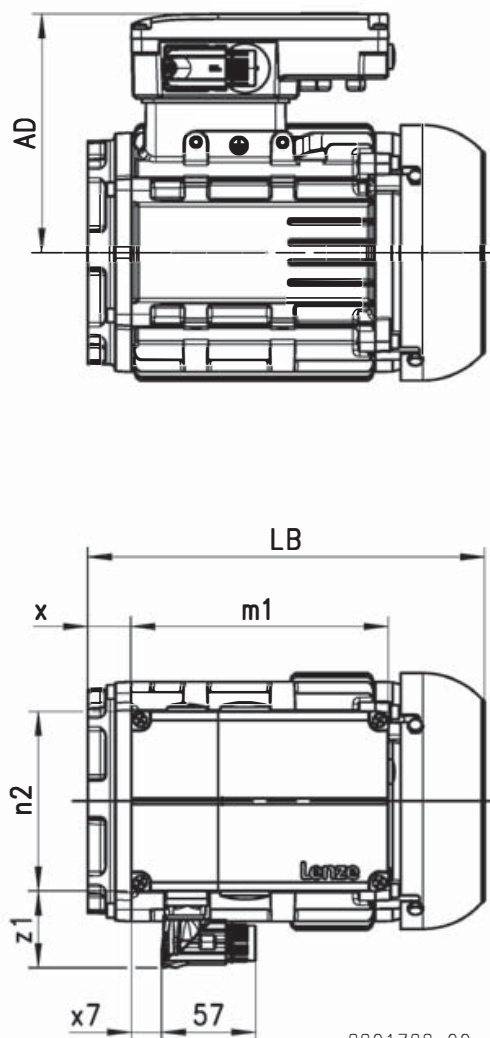
Dimensions Δ L ▶ [Additional lengths](#) 146

Product extensions

Motor connection
Assignment of the terminal boxes



Dimensions of "M" power terminal box with M23 connector



8801788-00

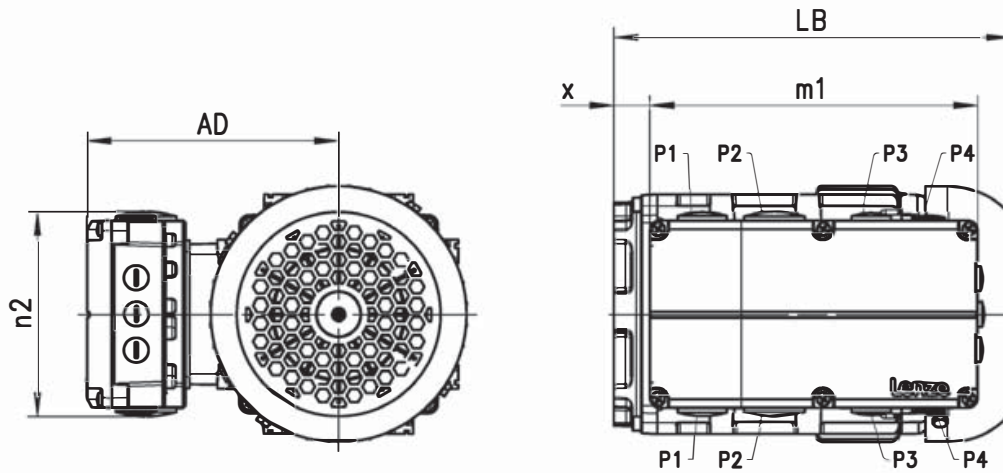
Motor		m550-U m550-V					
		63/L4	71/M4 71/L4	80/M4	90/M4 90/L4	100/M4 100/L4	112/M4
Motor terminal box							
AD	mm	113	124	145	153	163	168
x	mm	21	16	27	34	43	49
m ₁	mm	141	141	157	157	157	157
n ₂	mm	110	110	110	110	110	110
M23 connector Power/brake							
x ₇	mm	45.3	45.3	18	18	18	18
z ₁	mm	42	42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



Dimensions LB ▶ [Basic dimensions](#) 108

Dimensions Δ L ▶ [Additional lengths](#) 146

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](#) 108

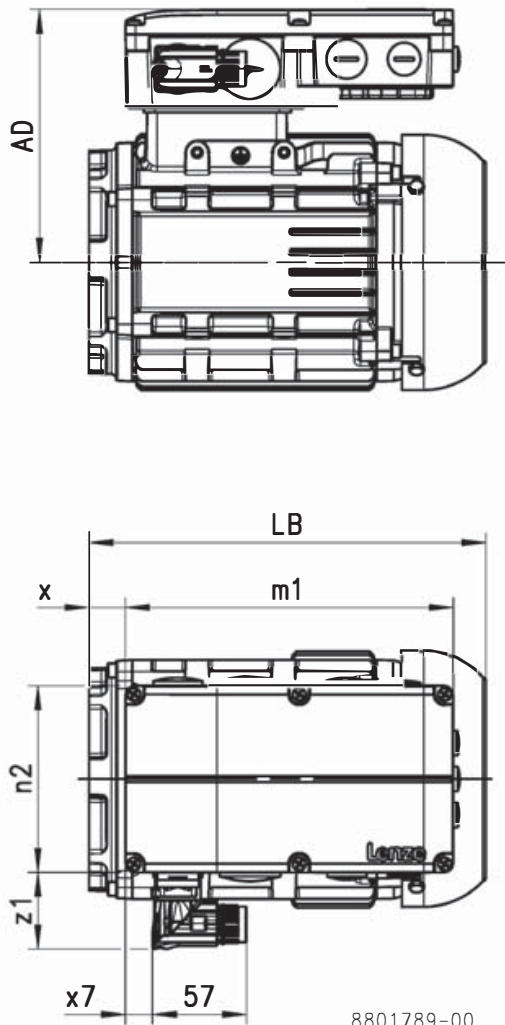
Dimensions Δ L ▶ [Additional lengths](#) 146

Product extensions

Motor connection
Assignment of the terminal boxes



Dimensions of "L" power terminal box with M23 connector



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](#) 108

Dimensions Δ L ▶ [Additional lengths](#) 146



8.1.3 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-U						
	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

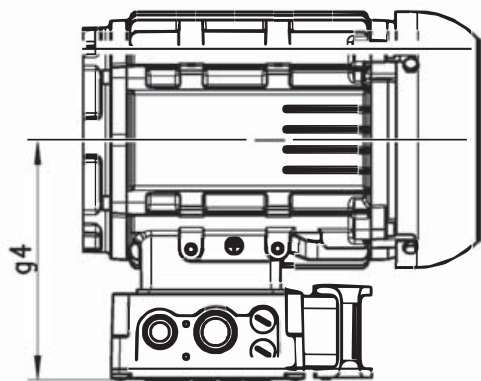
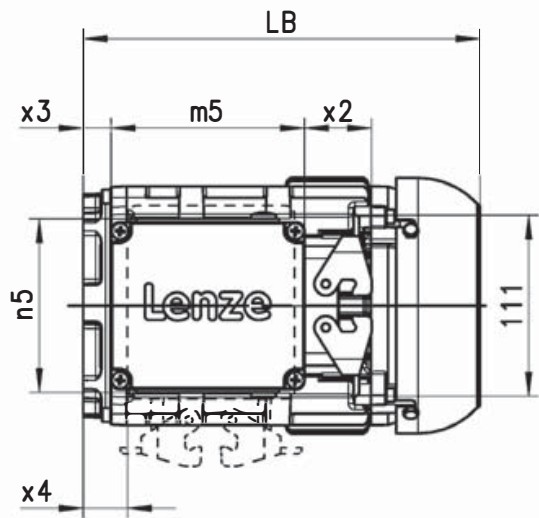


Product extensions

Motor connection
Assignment of the connectors Han



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](#) 108

Dimensions Δ L ▶ [Additional lengths](#) 146



8.1.4 Connection via terminal box

Cable glands

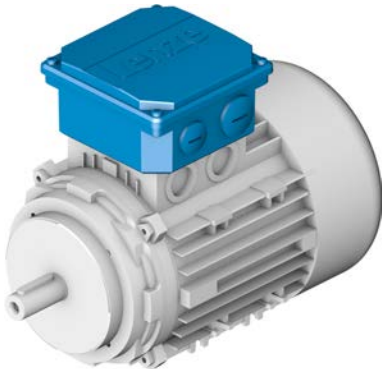


The opening cutouts for the cable glands are closed with plugs.

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

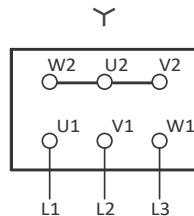
Motor connection
Connection via terminal box



Power connections

Bridge arrangement

Y circuit

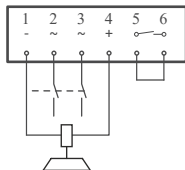


Terminal box, power		
Contact	Name	Meaning
PE	PE	PE conductor
U1	L1	Motor winding phase
V1	L2	
W1	L3	

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		



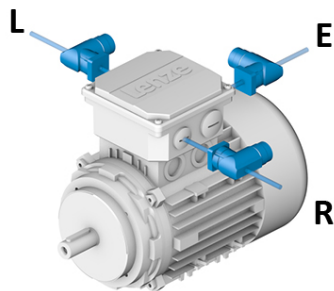
8.1.5 Connection via connector



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

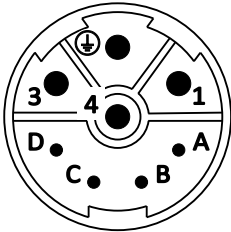
Motor connection
Connection via connector



Power and brake connection

M23 connector assignment

8-pole



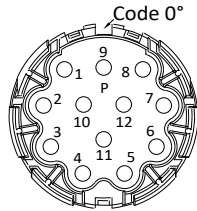
M23 8-pole		
Contact	Name	Meaning
PE	PE	PE conductor
A	TB1	Temperature monitoring: TCO
B	TB2	Temperature monitoring: TCO
C	BD1 / BA1	Brake DC +/-AC ≤ 230 V
D	BD2 / BA2	Brake DC-/AC ≤ 230V
1	U	Power phase U
3	W	Power phase W
4	V	Power phase V



Feedback and temperature monitoring connection

ICN-M23 connector assignment

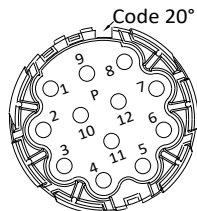
Resolver



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

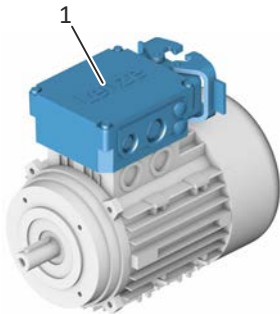
Product extensions

Motor connection
Connection via Han connector



8.1.6 Connection via Han connector

Position of the connections



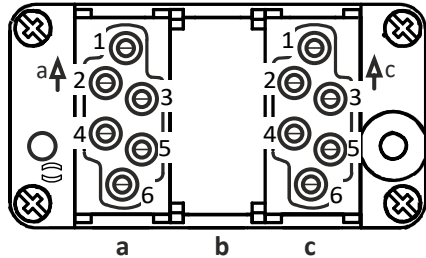
Position	Meaning
1	Power connection Brake connection PE connection Temperature monitoring connection
	Additionally for the Han-Modular: Rectifier connection

Han-Modular connector



The motor circuit is defined in the terminal box.

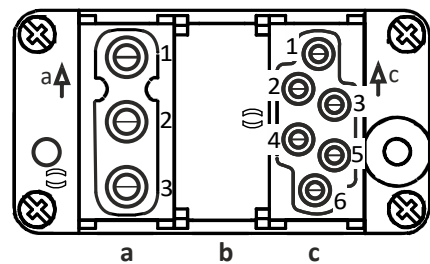
Han-Modular 16 A connector assignment



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
	5		
	6	TKO	Temperature monitoring



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



8.2 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



8.2.1 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.



8.2.2 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.

8.2.2.1 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-U63/L4	4				
m550-U71/M4					
m550-U71/L4					
m550-U80/M4		8			
m550-U90/M4					
m550-U90/L4		16			
m550-U100/M4		23			
m550-U100/L4					
m550-U112/M4			32		
m550-U132/M4					
m550-U132/L4				60	

8.2.2.2 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

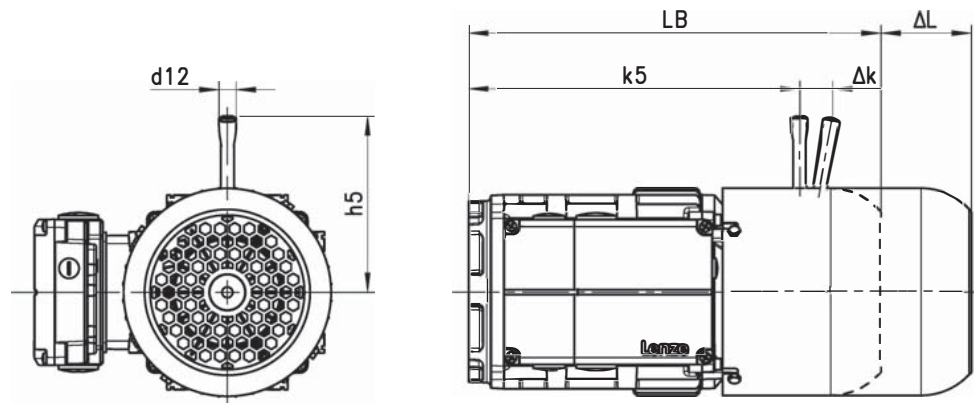
Spring-applied brakes
Spring-applied holding brake



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-U63/L4	HBR 06	193	25	107	13
m550-U71/M4 m550-U71/L4	HBR 06	211	25	107	13
m550-U80/M4	HBR 08	231	27	116	13
m550-U90/M4	HBR 08	270	27	116	13
m550-U90/L4	HBR 10	286	23	131	13
m550-U100/M4 m550-U100/L4	HBR 10	344	23	131	13
m550-U112/M4	HBR 12	345	37	161	13
m550-U132/M4 m550-U132/L4	HBR 14	408	53	229	20

Dimensions LB ▶ [Basic dimensions](#) 108

Dimensions ΔL ▶ [Additional lengths](#) 146



8.3 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)



8.3.1 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



8.3.2 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



8.3.3 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



8.4 Temperature monitoring



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

8.4.1 Thermal contacts TCO

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 Product codes

Gearbox product code

Example		G	50	A	H	045	M	V	C	R	2	C	1A
Product type	Gearboxes	G											
Product family			50										
Generation				A B									
Gearbox type	Helical gearbox				H								
Output torque	45 Nm					045							
	100 Nm					110							
	140 Nm					114							
	210 Nm					121							
	320 Nm					132							
	450 Nm					145							
	600 Nm					160							
	850 Nm					185							
	1500 Nm					215							
	3000 Nm					230							
	5000 Nm					250							
	8000 Nm					280							
	14000 Nm					314							
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	Solid shaft with featherkey							V					
	Solid shaft without featherkey							G					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	With centering								C				
Flange mounting	Without flange									R			
	Flange with through holes									K			
	Reinforced flange with through holes									P			
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	
	Servomotor adapter with plug-in hollow shaft											S	
	Servomotor 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



10 Motor data

10.1 Rated data

Motor			m550-U				
			63/L4	71/M4	71/L4	80/M4	90/M4
Rated power	P_{rated}	kW	0.37	0.55	0.75	1.1	1.5
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	308	298	298	304	315
Rated current	I_{rated}	A	0.900	1.35	1.72	2.51	3.20
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	1.90	2.80	3.90	5.60	7.70
Standstill torque	M_0	Nm	2.10	3.45	4.70	6.00	9.30
Max. torque	M_{max}	Nm	4.75	7.1	9.9	14.2	19.4
Power factor	$\cos \phi$		0.96	0.96	0.95	0.95	0.97
Efficiency							
at 50% P_{rated}	η		0.873	0.884	0.921	0.887	0.896
at 75% P_{rated}	η		0.848	0.856	0.894	0.900	0.915
at 100% P_{rated}	η		0.795	0.827	0.846	0.862	0.874
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	$P_V(n; M)$	%	1.6	1.5	0.9	1.6	1.9
25; 100	$P_V(n; M)$	%	19.7	14.4	10.5	11.6	12.2
50; 25	$P_V(n; M)$	%	2.2	2.2	1.3	2.5	3.2
50; 50	$P_V(n; M)$	%	5.9	4.7	3.3	4.6	5.3
50; 100	$P_V(n; M)$	%	20.3	15.3	11.1	12.6	13.5
90; 50	$P_V(n; M)$	%	7.3	6.5	4.3	6.4	7.9
90; 100	$P_V(n; M)$	%	20.8	17.1	12.8	11.5	16.3
100; 100	$P_V(n; M)$	%	22.4	18.7	12.5	14.6	16.8
Power losses							
25; 25	$P_V(n; M)$	W	6	8	7	18	21
25; 100	$P_V(n; M)$	W	73	79	79	128	134
50; 25	$P_V(n; M)$	W	8	12	10	28	35
50; 50	$P_V(n; M)$	W	22	26	25	51	58
50; 100	$P_V(n; M)$	W	75	84	83	139	149
90; 50	$P_V(n; M)$	W	27	36	32	70	87
90; 100	$P_V(n; M)$	W	77	98	91	159	179
100; 100	$P_V(n; M)$	W	83	103	94	161	185



Motor data

Rated data

Motor			m550-U				
			90/L4	100/M4	100/L4	112/M4	132/M4
Rated power	P_{rated}	kW	2.2	3	4	5.5	7.5
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	310	320	310	330	330
Rated current	I_{rated}	A	4.70	6.45	8.60	10.7	14.4
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	11.3	15.4	20.5	28.2	38.5
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	96.25
Power factor	$\cos \phi$		0.97	0.95	0.96	0.97	0.96
Efficiency							
at 50% P_{rated}	η		0.910	0.938	0.940	0.928	0.955
at 75% P_{rated}	η		0.925	0.922	0.934	0.948	0.946
at 100% P_{rated}	η		0.889	0.899	0.907	0.916	0.924
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	$P_V(n; M)$	%	1.2	0.7	0.7	0.8	0.5
25; 100	$P_V(n; M)$	%	8.6	7.0	6.4	6.0	4.1
50; 25	$P_V(n; M)$	%	2.0	1.1	1.1	1.4	0.8
50; 50	$P_V(n; M)$	%	3.5	2.5	2.3	2.5	1.5
50; 100	$P_V(n; M)$	%	9.5	7.5	7.0	6.7	4.5
90; 50	$P_V(n; M)$	%	4.9	3.3	3.2	3.9	2.4
90; 100	$P_V(n; M)$	%	9.8	8.6	7.8	6.7	5.9
100; 100	$P_V(n; M)$	%	11.3	8.9	8.2	8.7	6.4
Power losses							
25; 25	$P_V(n; M)$	W	26	22	27	42	34
25; 100	$P_V(n; M)$	W	190	209	256	329	304
50; 25	$P_V(n; M)$	W	43	34	43	77	57
50; 50	$P_V(n; M)$	W	77	74	91	135	115
50; 100	$P_V(n; M)$	W	209	226	278	367	339
90; 50	$P_V(n; M)$	W	108	100	127	212	177
90; 100	$P_V(n; M)$	W	242	250	312	443	409
100; 100	$P_V(n; M)$	W	247.7	266	329	477.3	481



Motor			m550-U
			132/L4
Rated power	P_{rated}	kW	11
Rated speed	n_{rated}	rpm	1860
Max. speed	n_{max}	rpm	3200
Rated voltage	V_{rated}	V	338
Rated current	I_{rated}	A	21.1
Standstill current	I_0	A	21.9
Max. current	I_{max}	A	58.7
Rated torque	M_{rated}	Nm	56.5
Standstill torque	M_0	Nm	57.7
Max. torque	M_{max}	Nm	141.9
Power factor	$\cos \phi$		0.95
Efficiency			
at 50% P_{rated}	η		0.960
at 75% P_{rated}	η		0.947
at 100% P_{rated}	η		0.932
Moment of inertia	J	kgcm ²	416.2
Weight	m	kg	60.8
Power losses			
25; 25	$P_V(n; M)$	%	0.4
25; 100	$P_V(n; M)$	%	3.8
50; 25	$P_V(n; M)$	%	0.7
50; 50	$P_V(n; M)$	%	1.4
50; 100	$P_V(n; M)$	%	4.2
90; 50	$P_V(n; M)$	%	2.1
90; 100	$P_V(n; M)$	%	5.3
100; 100	$P_V(n; M)$	%	5.7
Power losses			
25; 25	$P_V(n; M)$	W	42
25; 100	$P_V(n; M)$	W	422
50; 25	$P_V(n; M)$	W	76
50; 50	$P_V(n; M)$	W	155
50; 100	$P_V(n; M)$	W	464
90; 50	$P_V(n; M)$	W	231
90; 100	$P_V(n; M)$	W	544
100; 100	$P_V(n; M)$	W	623



11 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>



12 Appendix

12.1 Good to know

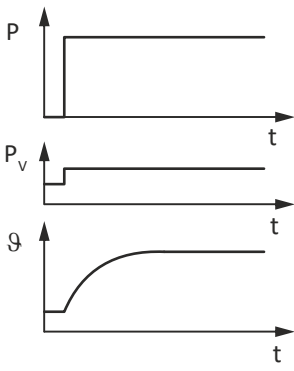
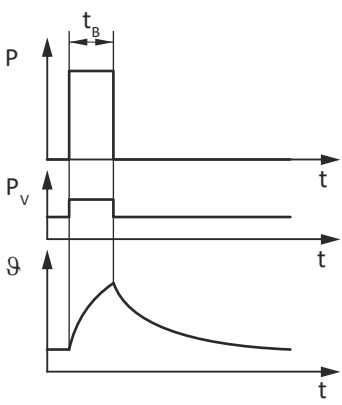
12.1.1 Operating modes of the motor

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

12.1.2 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).

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