NB65-315/320 A-F2-A-GQQE

Grundfos pump 98305839

Thank you for your interest in our products. Please contact us for more information, or visit our website

https://www.lenntech.com/grundfos/NB000/98305839/NB-65-315-320-A-F2-A-E-GQQE.html

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Position	Qty.	Description
	1	**NB 65-315/320 A-F2-A-E-GQQE**

Product No.: On request

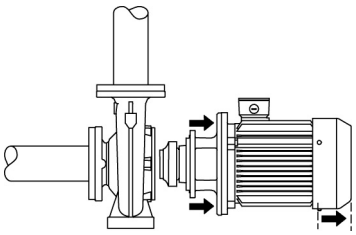
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar). Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

The unbalanced rubber bellows shaft seal with reduced seal face is according to DIN EN 12756.
The pump is close-coupled to a fan-cooled asynchronous motor.

Further product details

The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipe work.



Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

1) Alkaline-based cleaning.
2) Zinc phosphating.
3) Cathodic electro-deposition.
4) Curing to a dry film thickness 18-22 my m.

The colour code for the finished product is NCS 9000/RAL 9005.

Pump

The pump housing has both a priming and a drain hole closed by plugs.
The impeller is a closed impeller with double-curved blades with smooth surfaces. The impeller is statically balanced according to ISO 1940-1 class G6.3 and hydraulically balanced to compensate for axial thrust.

Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron.

Motor stool and pump cover are made of cast iron (EN-GJL-250). Coupling guards are fitted to the motor stool. The pump cover is provided with a manual air vent screw for venting of the pump housing and the shaft seal chamber.

The shaft seal is an unbalanced rubber bellows seal with reduced seal face. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft. The narrow seal face makes the seal perform well in high-viscosity and anti-freezing liquids.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Position	Qty.	Description

Secondary seal material: EPDM (ethylene-propylene rubber)
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.
The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

A variable speed drive makes adjustment of pump performance to any duty point possible. If the motor is to be connected to a variable speed drive, the pump must be ordered with an electrically insulated motor bearing.

Technical data

Liquid:

Pumped liquid:	Water
Liquid temperature range:	-25 .. 60 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³

Technical:

Rated flow:	198 m³/h
Rated head:	130.2 m
Actual impeller diameter:	320 mm
Impeller nom:	315 mm
Primary shaft seal:	GQQE
Secondary shaft seal:	NONE
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump housing:	Cast iron EN-GJL-250 ASTM A48-40 B
Impeller:	Cast iron EN-GJL-200 ASTM A48-30 B
Shaft:	Stainless steel 1.4301 304
Rubber:	EPDM
Wear ring mat.:	High alloy brass(CuZn34Mn3AI2

Installation:

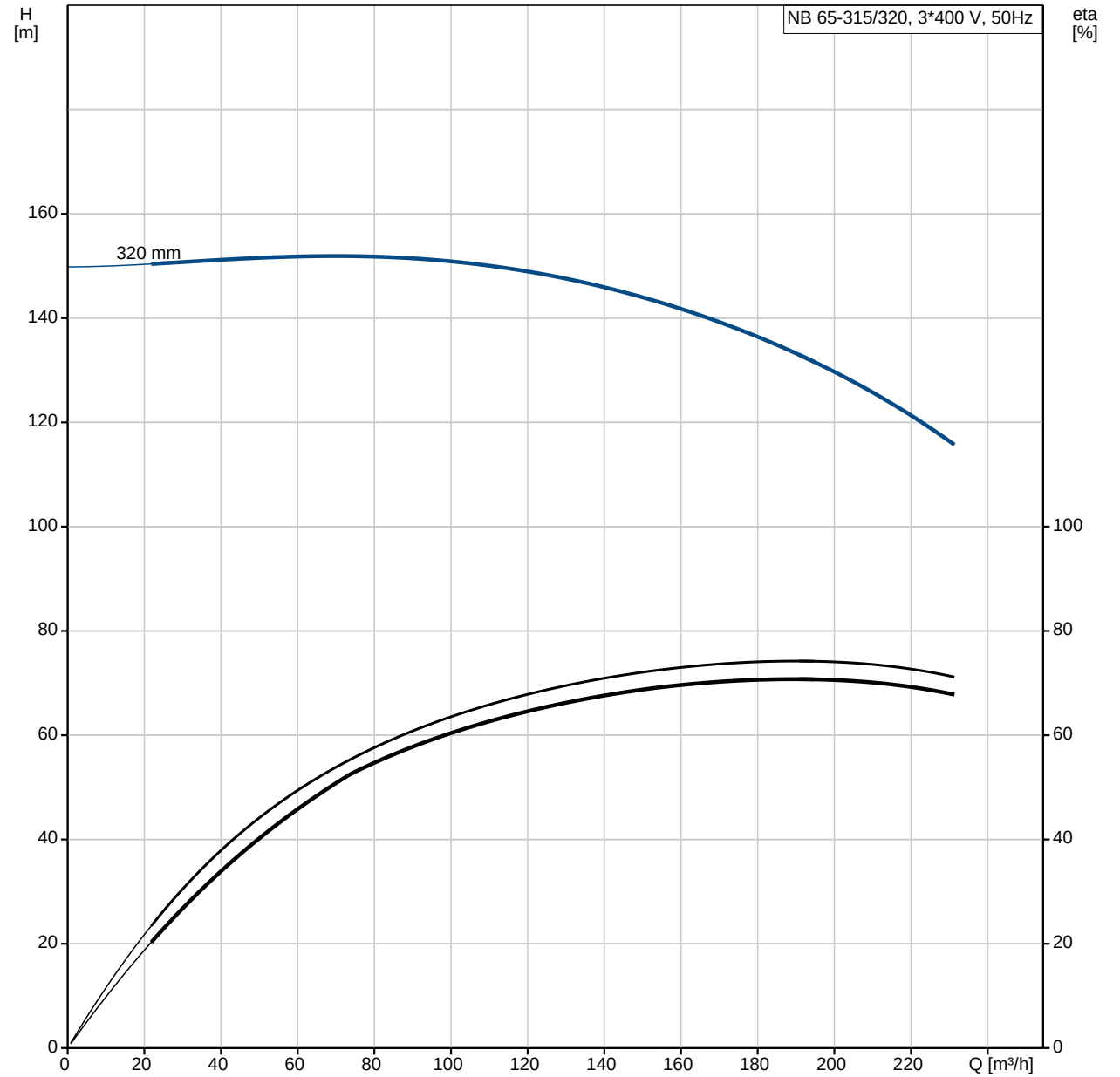
Maximum ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 80
Pump outlet:	DN 65
Pressure rating:	PN 16

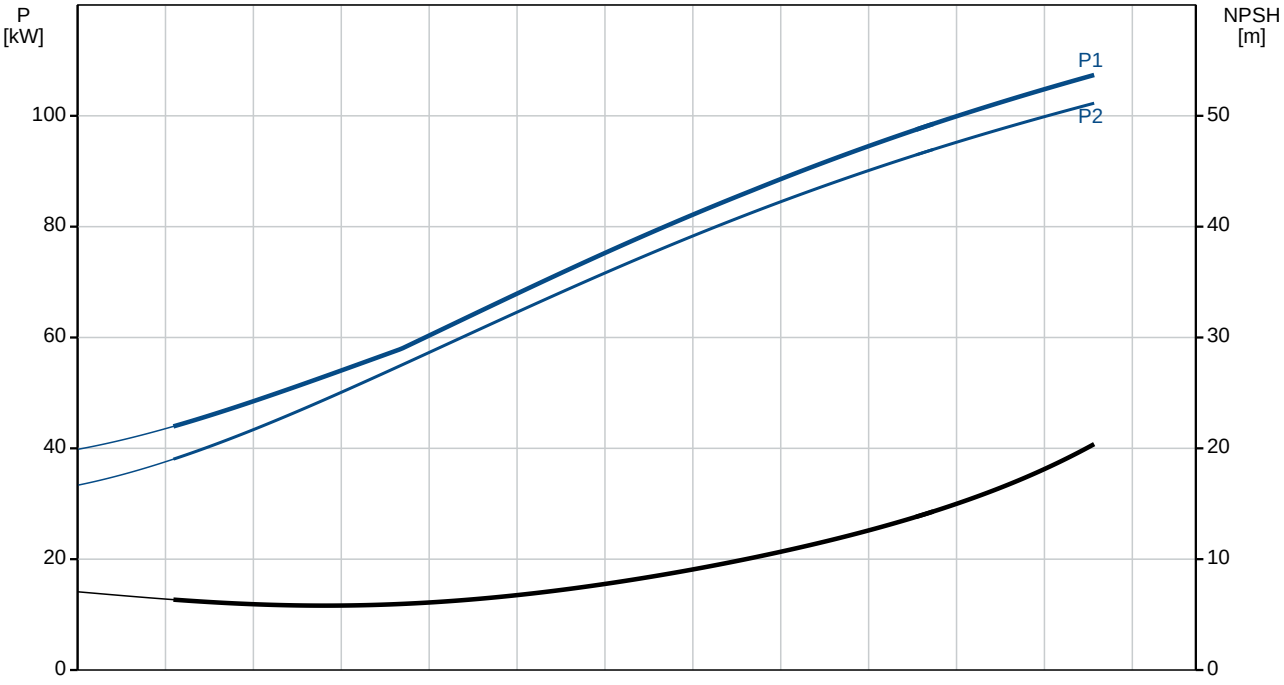
Electrical data:

Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	110 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	192-176/110-102 A

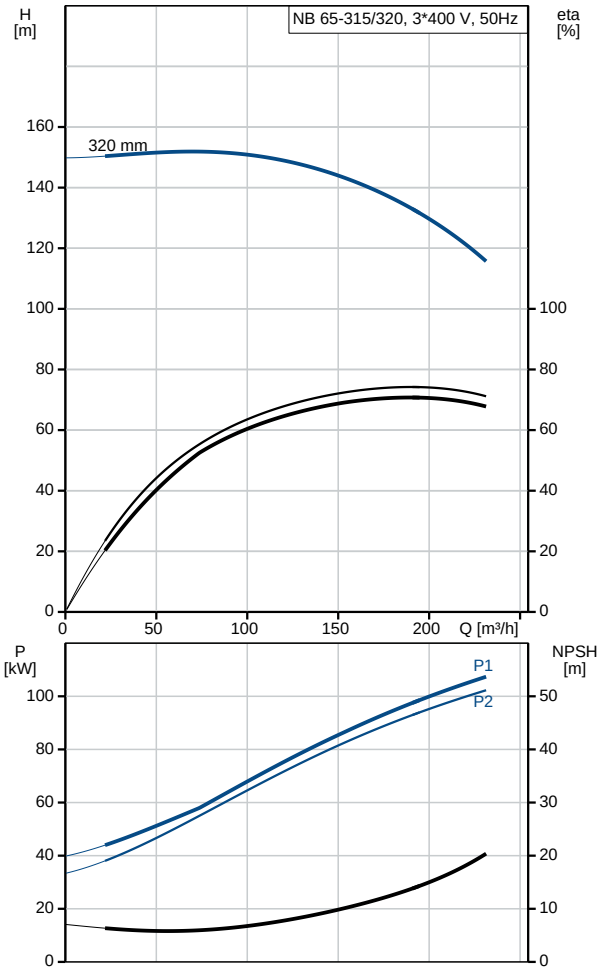
Position	Qty.	Description
		Starting current: 710-710 % Cos phi - power factor: 0.91 Rated speed: 2980 rpm Efficiency: IE3 95,2% Motor efficiency at full load: 95.2-95.2 % Motor efficiency at 3/4 load: 95.4-95.4 % Motor efficiency at 1/2 load: 94.9-94.9 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Lubricant type: Grease **Others:** Minimum efficiency index, MEI ≥: 0.70 ErP status: EuP Standalone/Prod. Net weight: 943 kg Gross weight: 1020 kg Shipping volume: 1.73 m^3

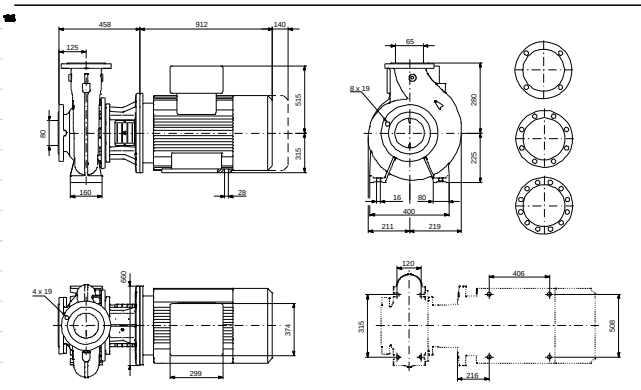
On request NB 65-315/320 A-F2-A-E-GQQE 50 Hz

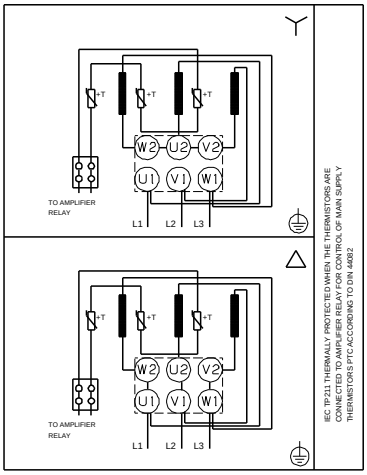




Description	Value
General information:	
Product name:	NB 65-315/320 A-F2-A-E-GQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	198 m³/h
Rated head:	130.2 m
Actual impeller diameter:	320 mm
Impeller nom:	315 mm
Primary shaft seal:	GQQE
Secondary shaft seal:	NONE
Shaft diameter:	32 mm
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Materials:	
Pump housing:	Cast iron
	EN-GJL-250
	ASTM A48-40 B
Impeller:	Cast iron
	EN-GJL-200
	ASTM A48-30 B
Shaft:	Stainless steel
	1.4301
	304
Material code:	A
Rubber:	EPDM
Code for rubber:	E
Wear ring mat.:	High alloy brass(CuZn34Mn3Al2
Installation:	
Maximum ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 80
Pump outlet:	DN 65
Pressure rating:	PN 16
Wear ring(s):	neckring(s)
Connect code:	F2
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 60 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	110 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	192-176/110-102 A
Starting current:	710-710 %
Cos phi - power factor:	0.91
Rated speed:	2980 rpm
Efficiency:	IE3 95,2%
Motor efficiency at full load:	95.2-95.2 %
Motor efficiency at 3/4 load:	95.4-95.4 %
Motor efficiency at 1/2 load:	94.9-94.9 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	83U15444
Mount. design. acc. IEC 34-7:	IM B35

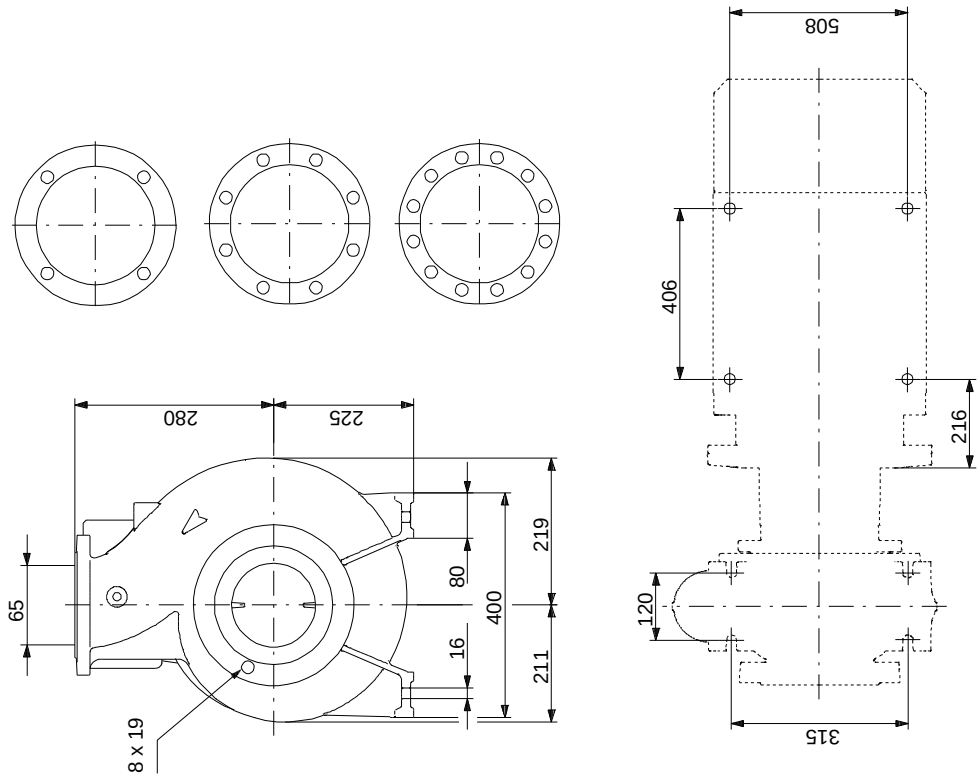


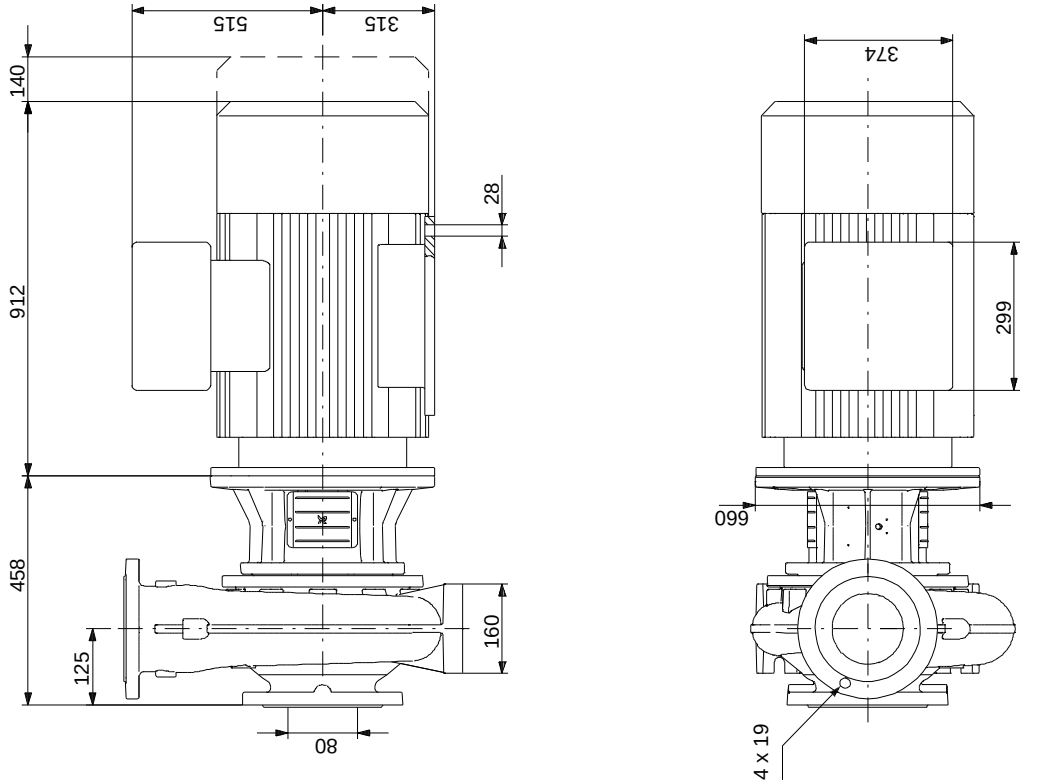




Description	Value
Lubricant type:	Grease
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	943 kg
Gross weight:	1020 kg
Shipping volume:	1.73 m^3

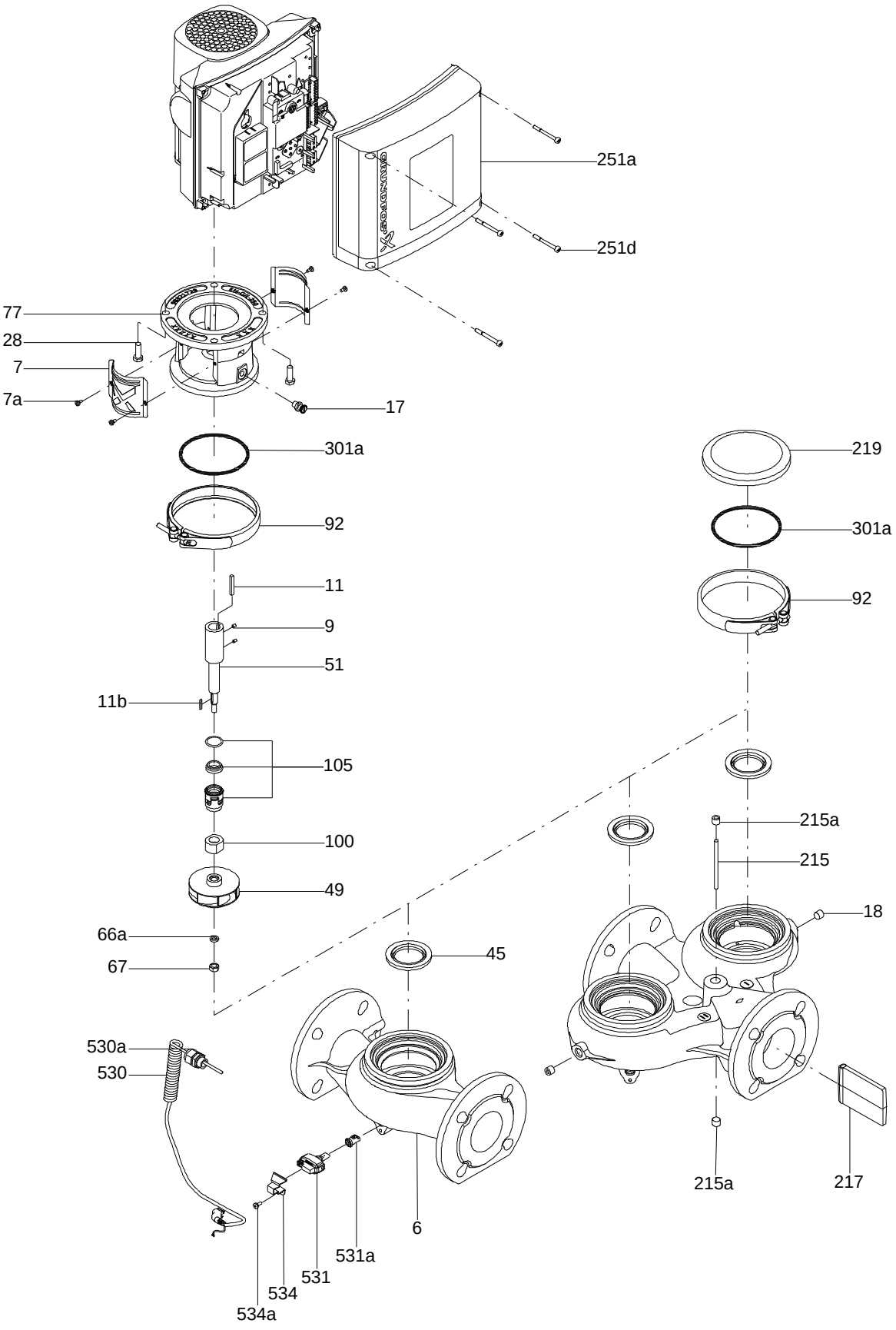
On request NB 65-315/320 A-F2-A-E-GQQE 50 Hz



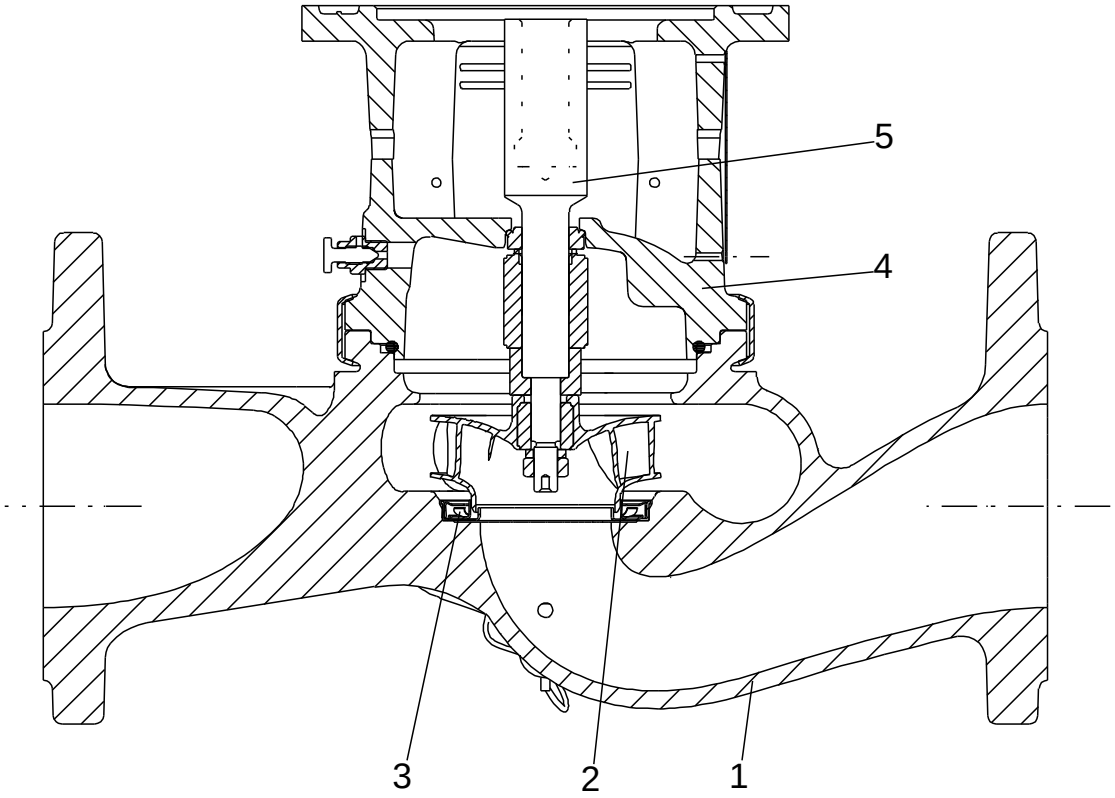


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

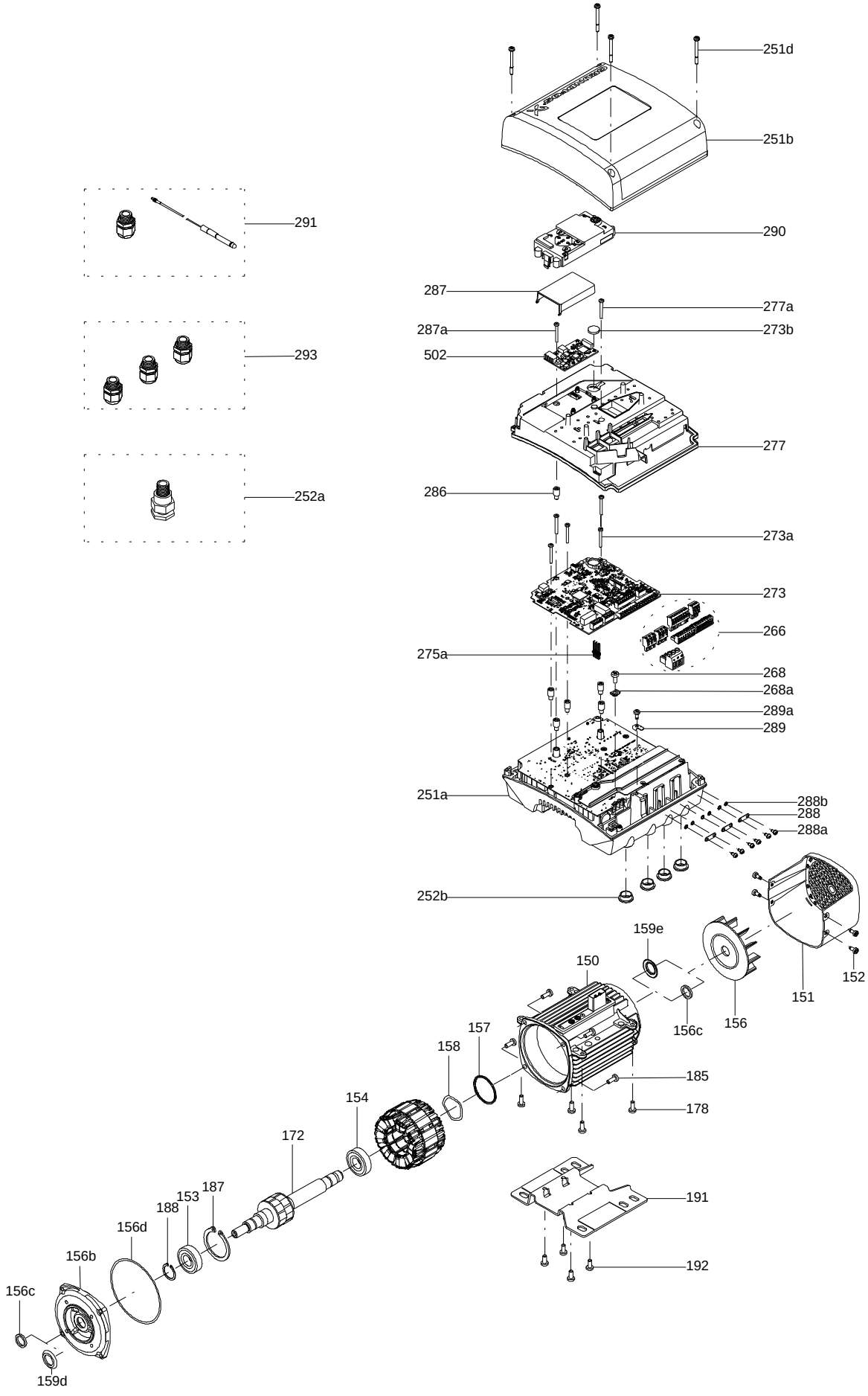


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list NB 65-315/320, Product No. On request
Valid from 1.3.2010 (1009)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+		Motor				1	pcs
-		Nut				1	pcs
	66	Washer		Designation: DIN 125 A2		1	
				Internal diameter: 19			
				Outer diameter: 34			
				Thickness: 3			
	66a	Spring lock washer				1	
	67	Nut		Thread: M18		1	
		Sticker				1	pcs
-		Motor stool cpl.				1	pcs
	1.a	Motor stool				1	
	7	Coupling guard				2	
	77a	Pan head screw				4	
-		Pump housing cpl.				1	pcs
	6	Pump housing				1	
	66a	Nut		Thread: M12		14	
-		Shaft cpl.				1	pcs
	11	Parallel key				1	
	51	Stub shaft				1	
	89.a	Socket set screw		Length (mm): 10		3	
				Thread: M8			
	49	Impeller				1	pcs
	72.a	O-ring		Diameter: 329,79		1	pcs
				Material type: EPDM			
				Thickness: 3,53			
-	77	Cover				1	pcs
	36	Nut		Thread: M10		8	
	77	Cover				1	
	105	Shaft seal		Material type: GQQE		1	pcs
	105b	Spacer				1	pcs

Disclaimer: The information about the Grundfos pump in this document may be outdated.
Data may be subject to alterations without further notice.
Please contact us to verify the data above is still accurate/up-to-date.

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