NB32-160/163 A-F2-A-BAQE

Grundfos pump 97839205

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

https://www.lenntech.com/grundfos/NB000/97839205/NB-32-160-163-A-F2-A-E-BAQE.html

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Position	Qty.	Description
	1	**NB 32-160/163 A-F2-A-E-BAQE**

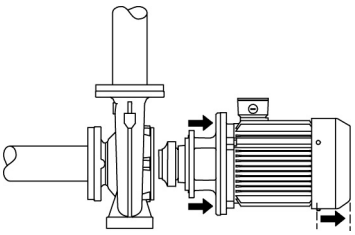
Product No.: On request

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 seal is according to DIN EN 12756.
The pump is close-coupled to a fan-cooled asynchronous motor.

Further product details

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 pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.

Primary seal:

- Rotating seal ring material: carbon graphite, metal-impregnated
- Stationary seat material: silicon carbide (SiC)

This material pairing has a very good corrosion resistance and is especially suitable for water up to 120 °C. However, seal life will be reduced at temperatures above 90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face.

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

Position	Qty.	Description

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.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

Technical data

Liquid:

Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³

Technical:

Rated flow:	29.3 m³/h
Rated head:	28.8 m
Actual impeller diameter:	163 mm
Impeller nom:	160 mm
Primary shaft seal:	BAQE
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(CuZn34Mn3Al2

Installation:

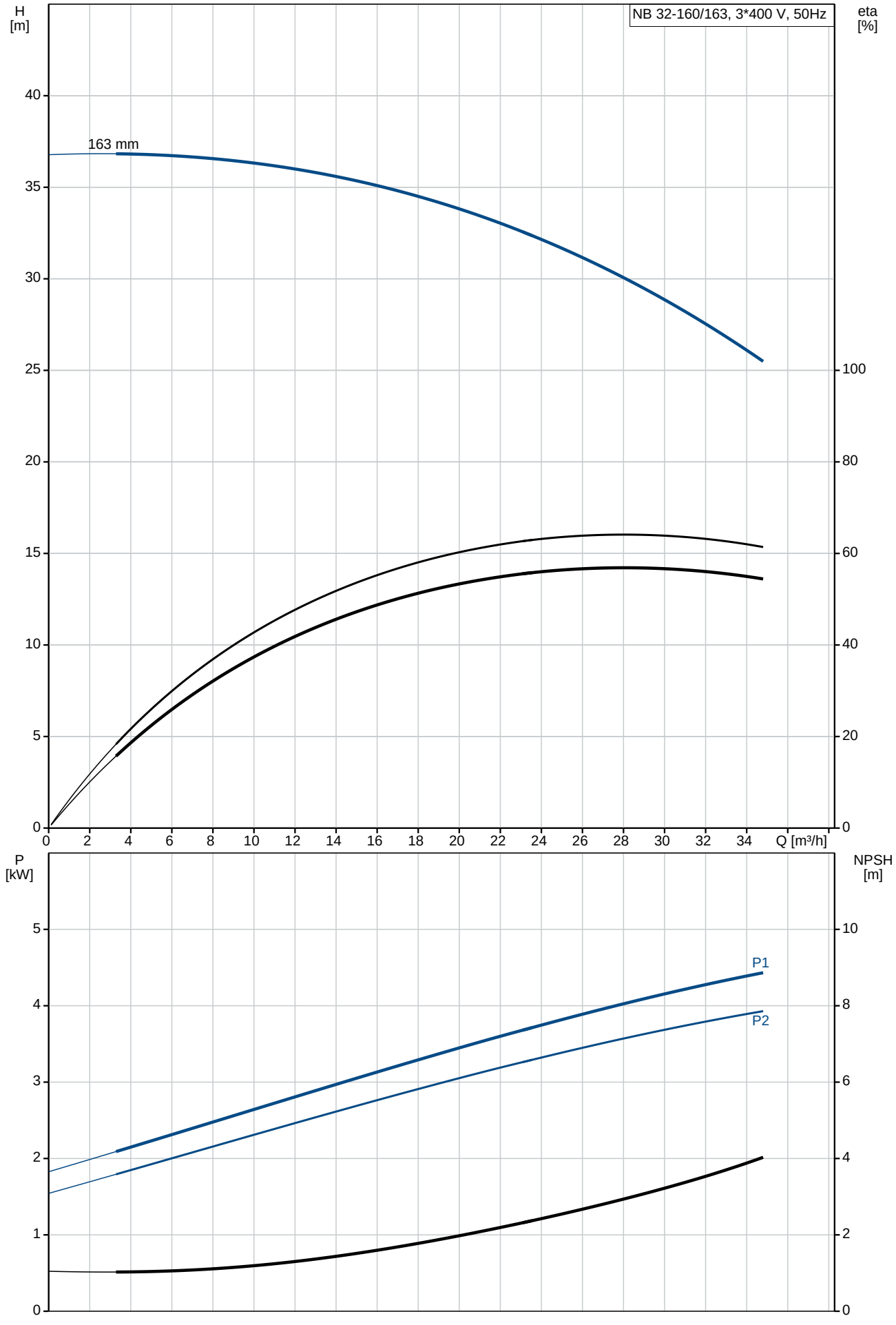
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 50
Pump outlet:	DN 32
Pressure rating:	PN 16

Electrical data:

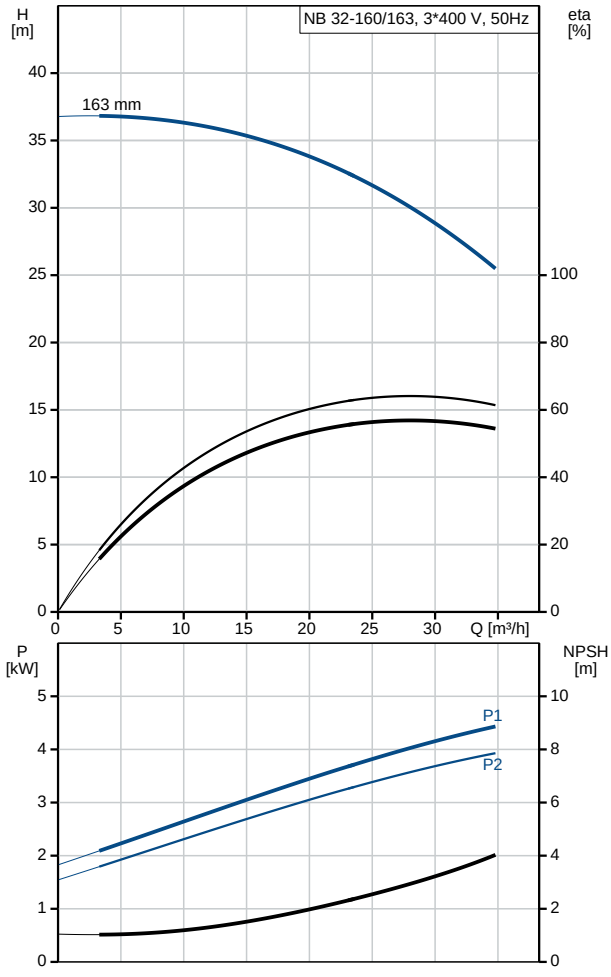
Motor type:	112MC
IE Efficiency class:	IE3
Rated power - P2:	4 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D V
Rated current:	7.9 A
Starting current:	1000-1110 %
Cos phi - power factor:	0.87-0.87
Rated speed:	2920-2940 rpm

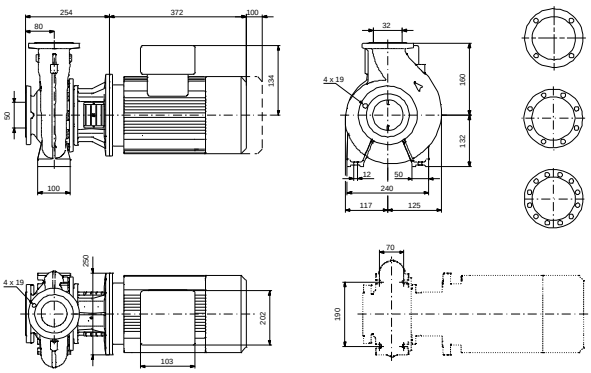
Position	Qty.	Description	
		Efficiency:	IE3 88,1%
		Motor efficiency at full load:	88.1 %
		Motor efficiency at 3/4 load:	88.6 %
		Motor efficiency at 1/2 load:	85.2 %
		Number of poles:	2
		Enclosure class (IEC 34-5):	55 Dust/Jetting
		Insulation class (IEC 85):	F
		Lubricant type:	Grease
		Others:	
		Minimum efficiency index, MEI ≥:	0.59
		ErP status:	EuP Standalone/Prod.
		Net weight:	64 kg
		Gross weight:	74 kg
		Shipping volume:	0.178 m³

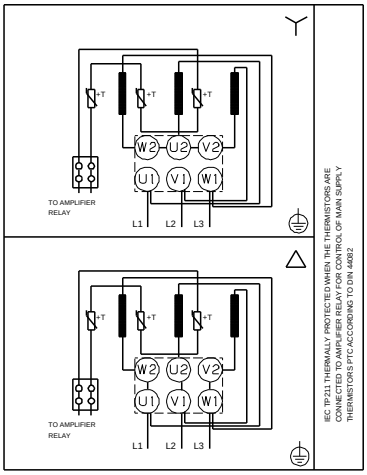
On request NB 32-160/163 A-F2-A-E-BAQE 50 Hz



Description	Value
General information:	
Product name:	NB 32-160/163 A-F2-A-E-BAQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	29.3 m³/h
Rated head:	28.8 m
Actual impeller diameter:	163 mm
Impeller nom:	160 mm
Primary shaft seal:	BAQE
Secondary shaft seal:	NONE
Shaft diameter:	24 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:	60 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 50
Pump outlet:	DN 32
Pressure rating:	PN 16
Wear ring(s):	neckring(s)
Connect code:	F2
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	112MC
IE Efficiency class:	IE3
Rated power - P2:	4 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D V
Rated current:	7.9 A
Starting current:	1000-1110 %
Cos phi - power factor:	0.87-0.87
Rated speed:	2920-2940 rpm
Efficiency:	IE3 88,1%
Motor efficiency at full load:	88.1 %
Motor efficiency at 3/4 load:	88.6 %
Motor efficiency at 1/2 load:	85.2 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	87322303
Mount. design. acc. IEC 34-7:	IM V1/B5

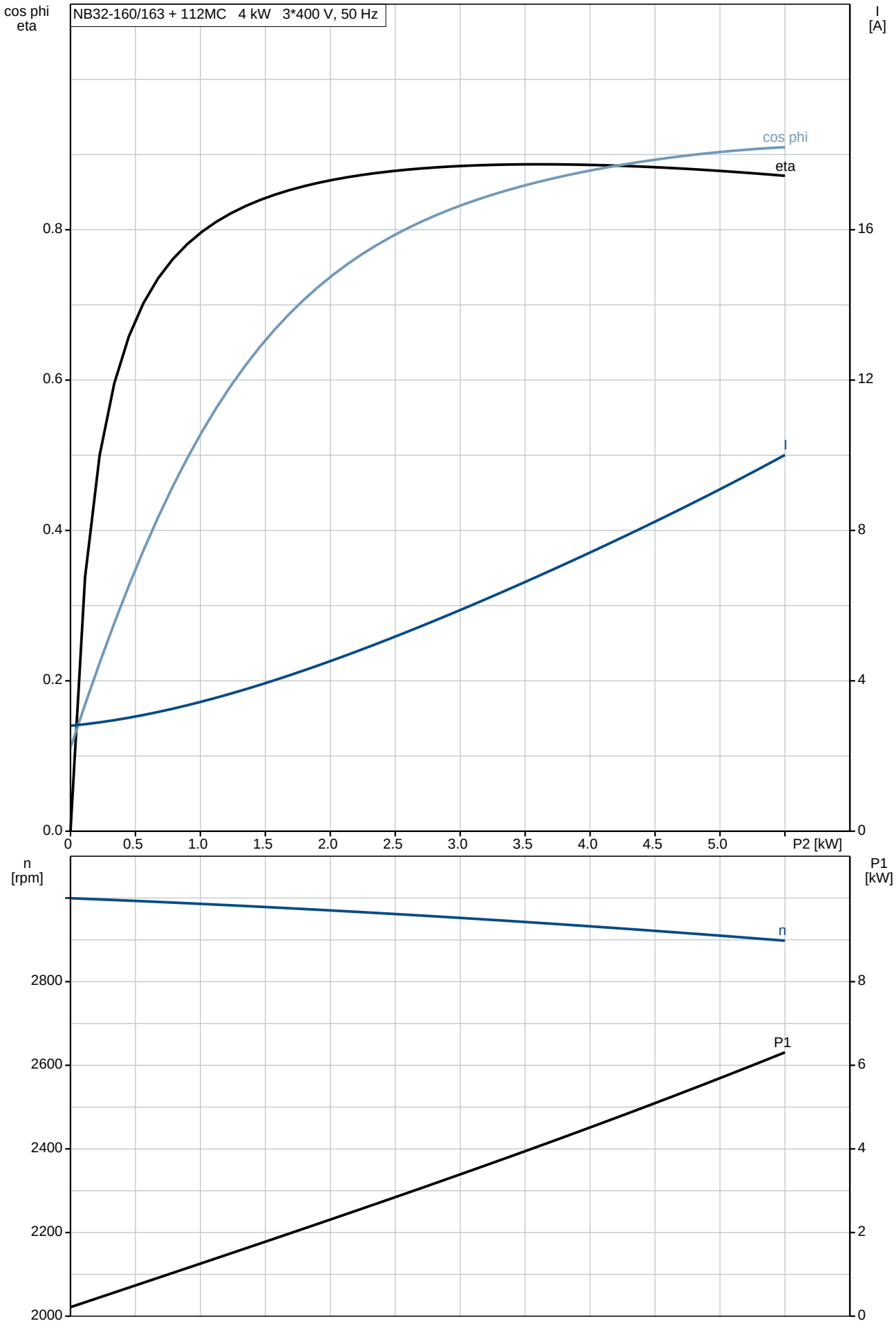




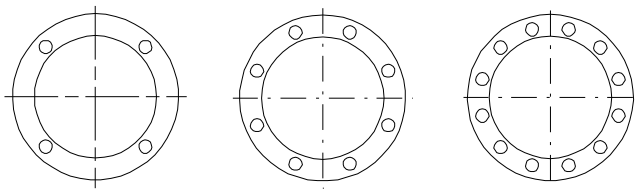


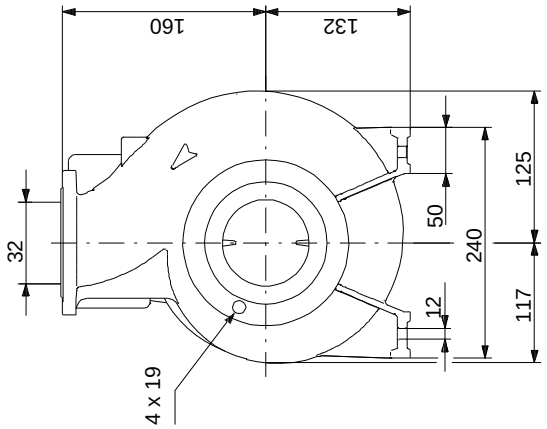
Description	Value
Lubricant type:	Grease
Others:	
Minimum efficiency index, MEI ≥:	0.59
ErP status:	EuP Standalone/Prod.
Net weight:	64 kg
Gross weight:	74 kg
Shipping volume:	0.178 m³

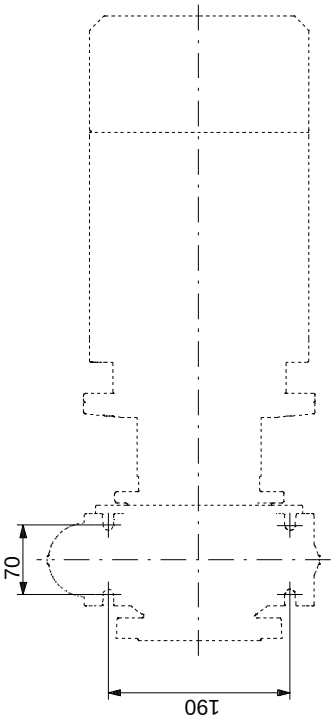
On request NB 32-160/163 A-F2-A-E-BAQE 50 Hz

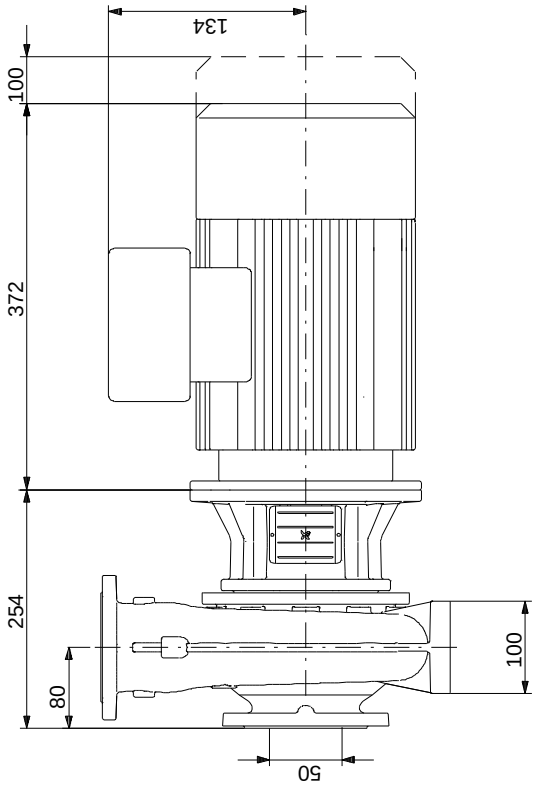


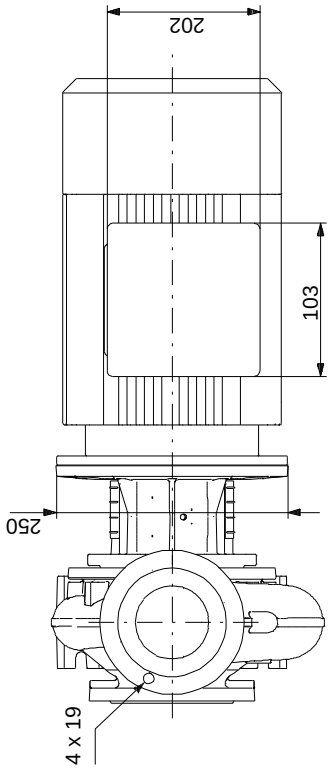
On request NB 32-160/163 A-F2-A-E-BAQE 50 Hz





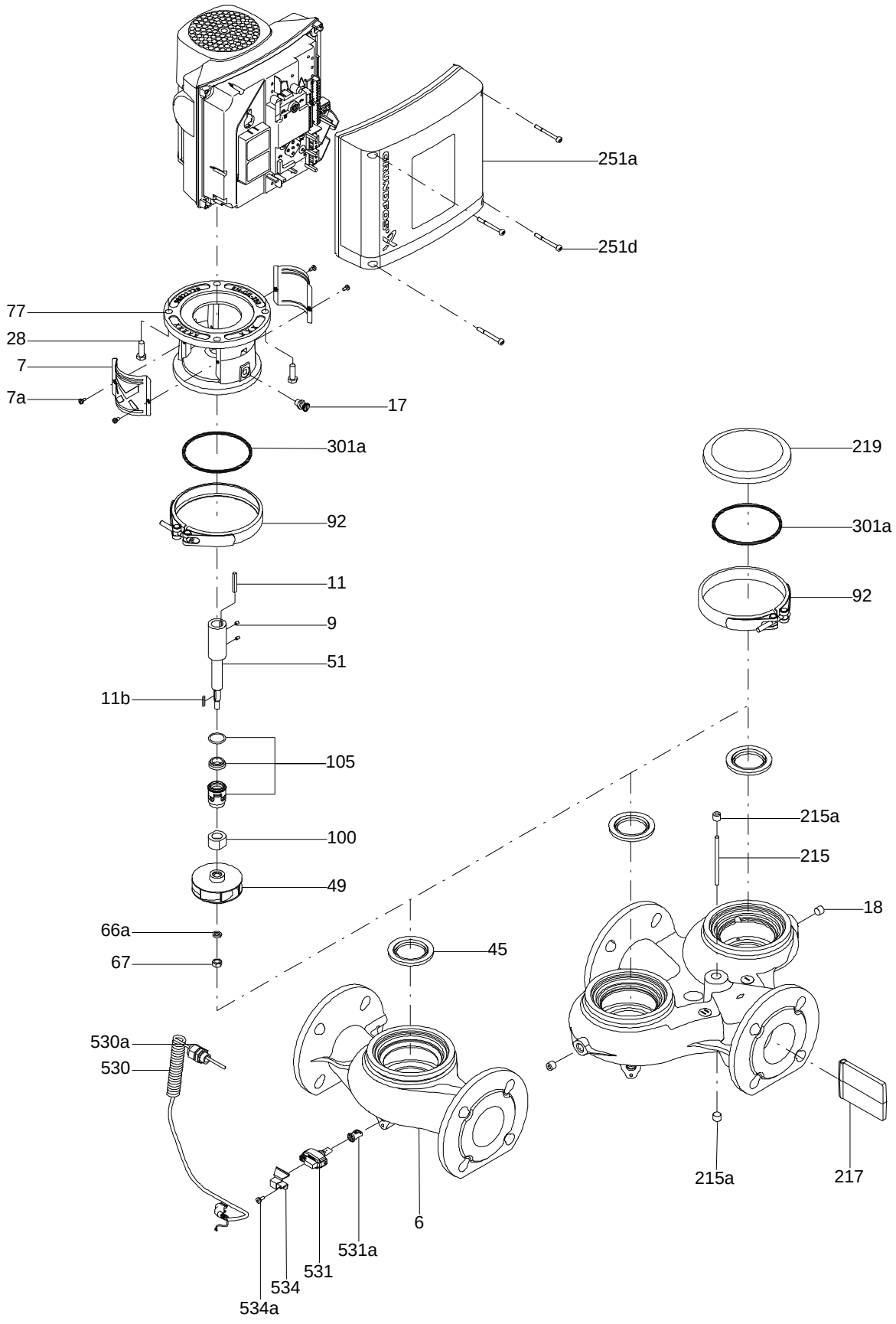




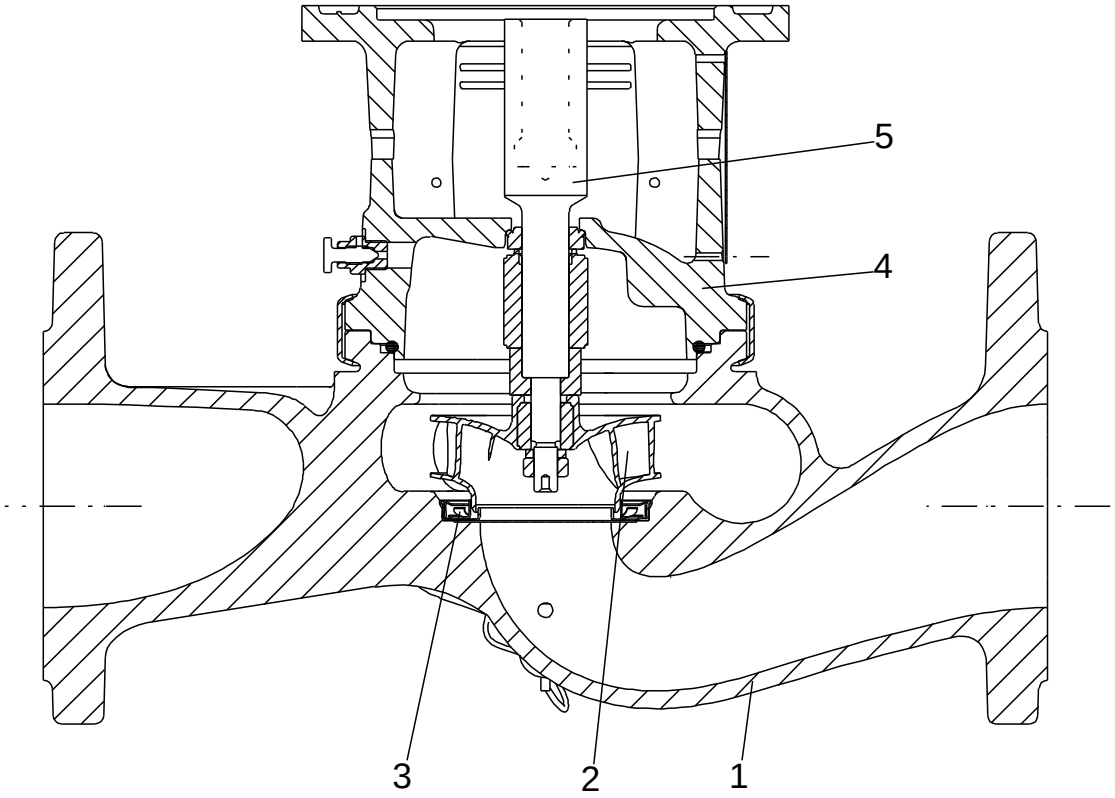


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

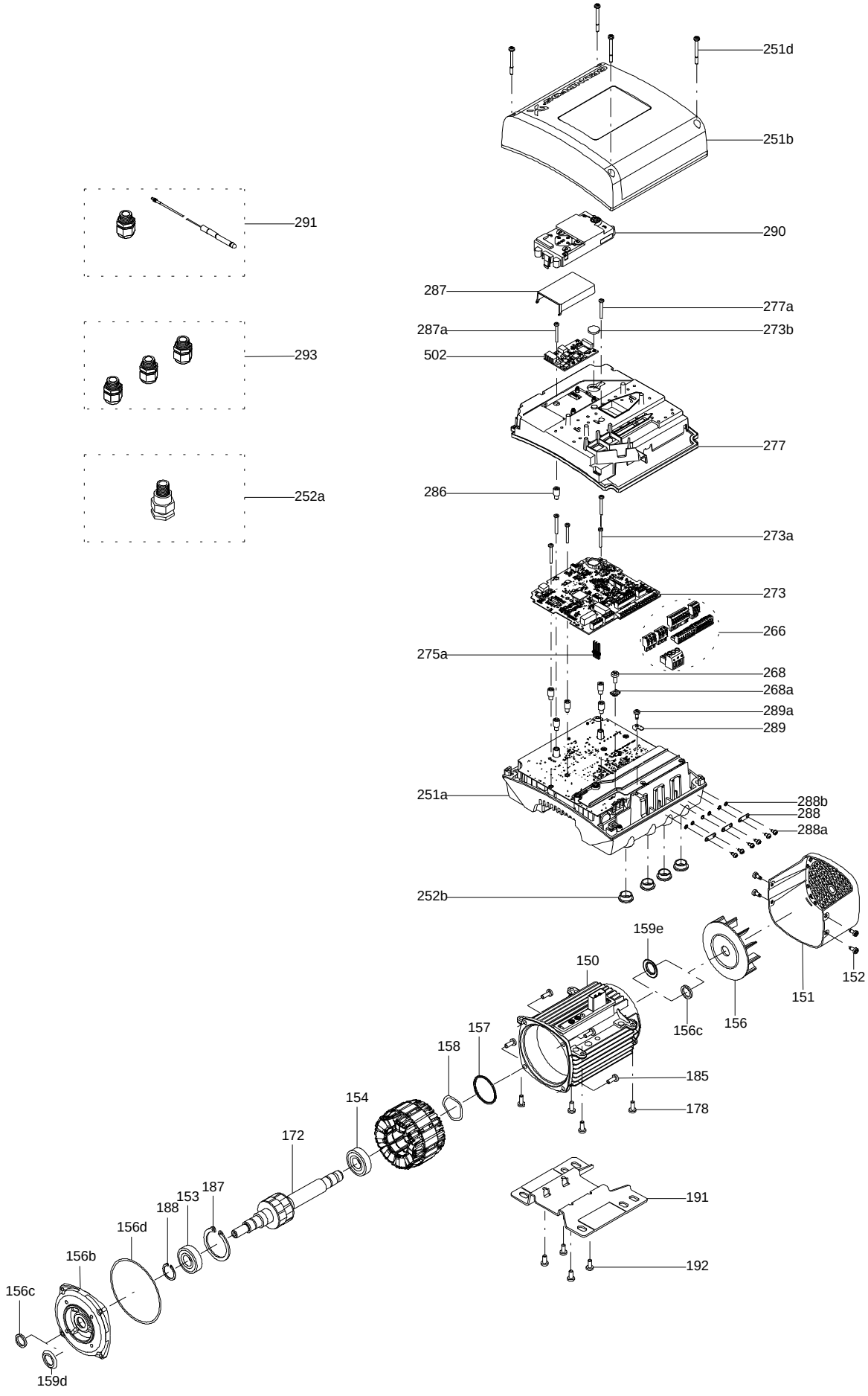


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list NB 32-160/163, Product No. On request
Valid from 1.3.2011 (1109)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+		Motor				1	pcs
-		Nut				1	pcs
	66	Washer				1	
	66a	Spring lock washer				1	
	67	Nut		Thread: M14		1	
-		Motor stool cpl.				1	pcs
	1a	Motor stool				1	
	7	Coupling guard				2	
	77a	Pan head screw				4	
-		Pump housing cpl.				1	pcs
	6	Pump housing				1	
	36	Nut		Thread: M10		6	
-		Stub shaft				1	pcs
	9	Socket set screw		Length (mm): 6		2	
				Thread: M8			
	11	Parallel key		Dimension: 6X6X35		1	
	51	Pump shaft				1	
	17	Air vent screw				1	pcs
-	20	Plug				1	pcs
	19	Pipe plug		Thread: R 3/8		2	
	49	Impeller		Outer diameter: 163		1	pcs
	72a	O-ring		Diameter: 177,39		1	pcs
				Material type: EPDM			
				Thickness: 3,53			
	105	Shaft seal		Material type: BAQE		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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