NB125-200/196-166 EUP AS-F2-A-BAQE

Grundfos pump 98744081

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https://www.lenntech.com/grundfos/NB000/98744081/NB-125-200-196-166-EUP-AS-F2-A-E-BAQE.html

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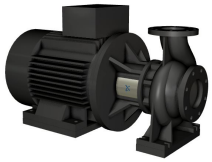
Position	Qty.	Description
	1	**NB 125-200/196-166 EUP AS-F2-A-E-BAQE**



Product No.: On request

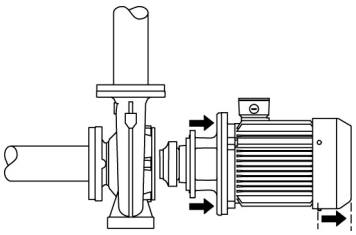
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar). Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out 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 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.



The pump is to be secured to the foundation with bolts through the pump housing feet and motor feet. The pump is delivered with steel support blocks enabling horizontal alignment of the pump and ensuring a minimum clearence of 5 mm between the motor stool/motor flange and the foundation.

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)

Position	Qty.	Description

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.

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

Technical:

Rated flow:	421 m³/h
Rated head:	38 m
Actual impeller diameter:	196-166 EUP mm
Impeller nom:	200 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(CuZn34Mn3AI2

Installation:

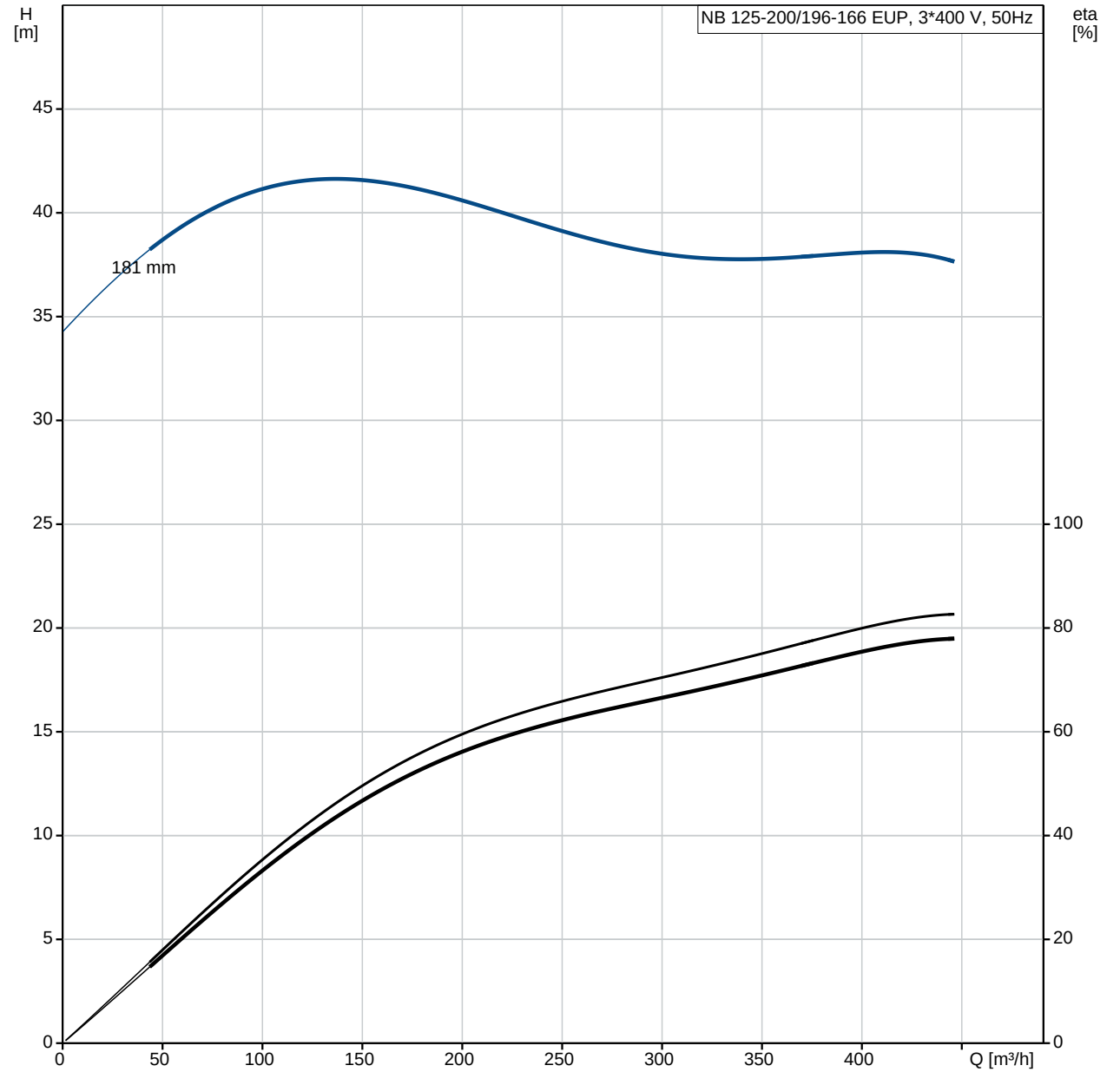
Maximum ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 150
Pump outlet:	DN 125
Pressure rating:	PN 16

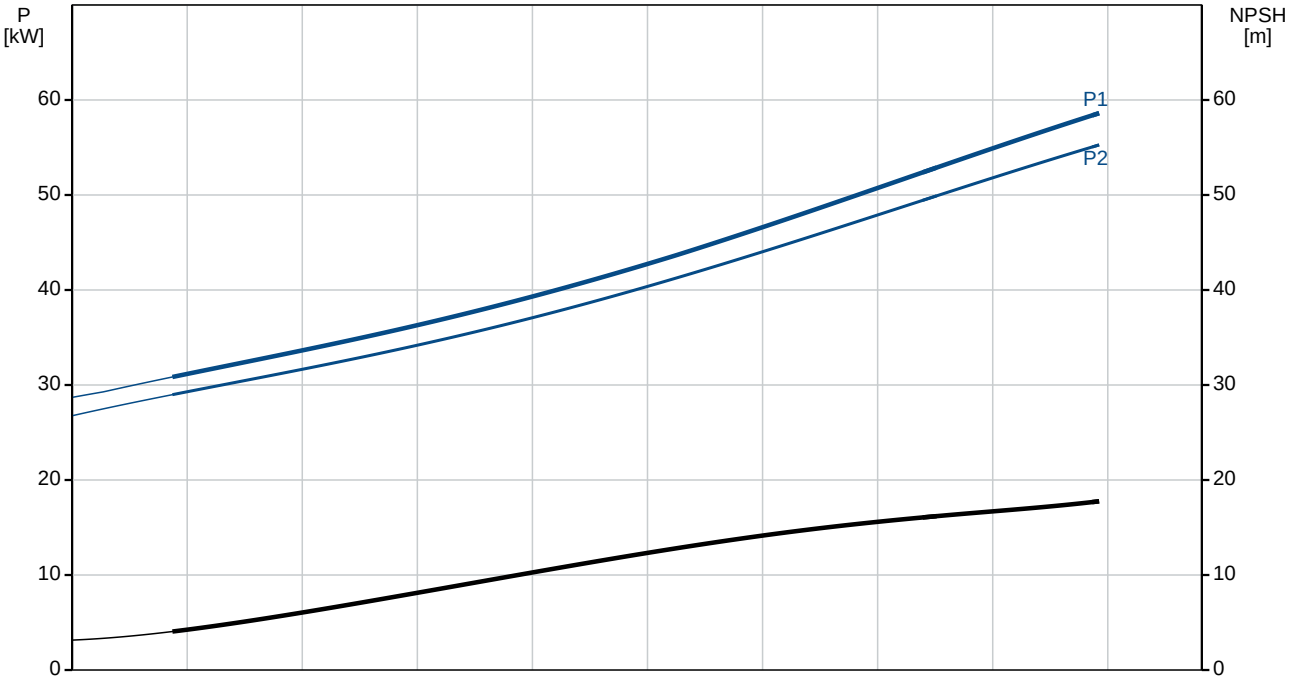
Electrical data:

Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	55 kW

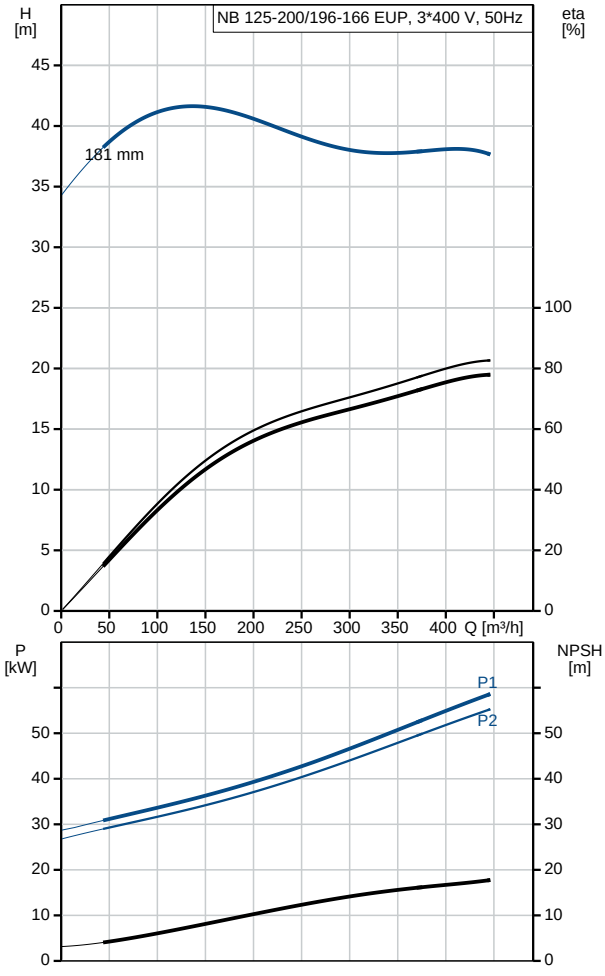
Position	Qty.	Description
		Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 99,0-92,0/57,0-53,0 A Starting current: 670-670 % Cos phi - power factor: 0.89 Rated speed: 2975 rpm Efficiency: IE3 94,3% Motor efficiency at full load: 94.3-94.3 % Motor efficiency at 3/4 load: 94.5-94.5 % Motor efficiency at 1/2 load: 93.9-93.9 % 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: 558 kg Gross weight: 584 kg Shipping volume: 0.821 m^3

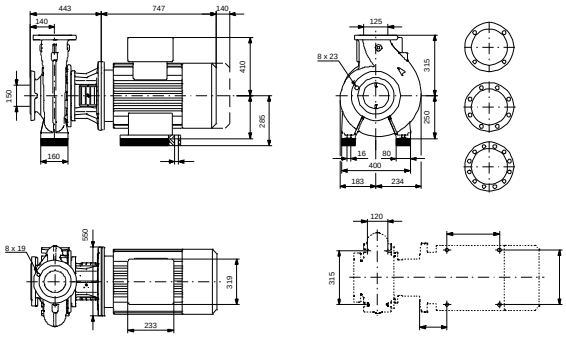
On request NB 125-200/196-166 EUP AS-F2-A-E-BAQE 50 Hz

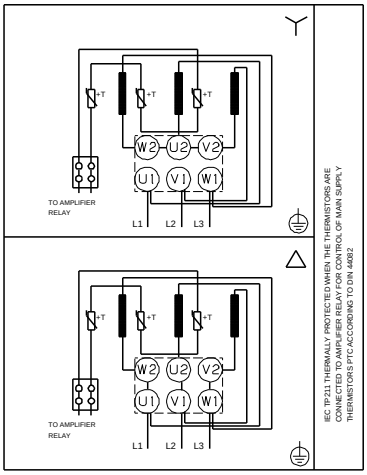




Description	Value
General information:	
Product name:	NB 125-200/196-166 EUP AS-F2-A-E-BAQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	421 m³/h
Rated head:	38 m
Actual impeller diameter:	196-166 EUP mm
Impeller nom:	200 mm
Primary shaft seal:	BAQE
Secondary shaft seal:	NONE
Shaft diameter:	32 mm
Curve tolerance:	ISO9906:2012 3B
Pump version:	AS
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 150
Pump outlet:	DN 125
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:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	99,0-92,0/57,0-53,0 A
Starting current:	670-670 %
Cos phi - power factor:	0.89
Rated speed:	2975 rpm
Efficiency:	IE3 94,3%
Motor efficiency at full load:	94.3-94.3 %
Motor efficiency at 3/4 load:	94.5-94.5 %
Motor efficiency at 1/2 load:	93.9-93.9 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	99032151
Mount. design. acc. IEC 34-7:	IM B35

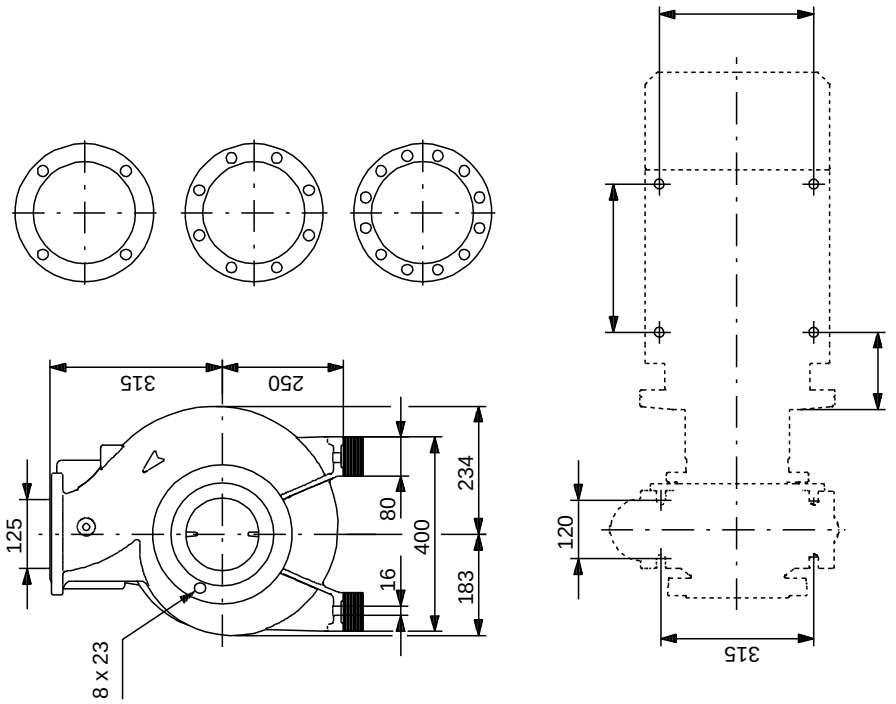


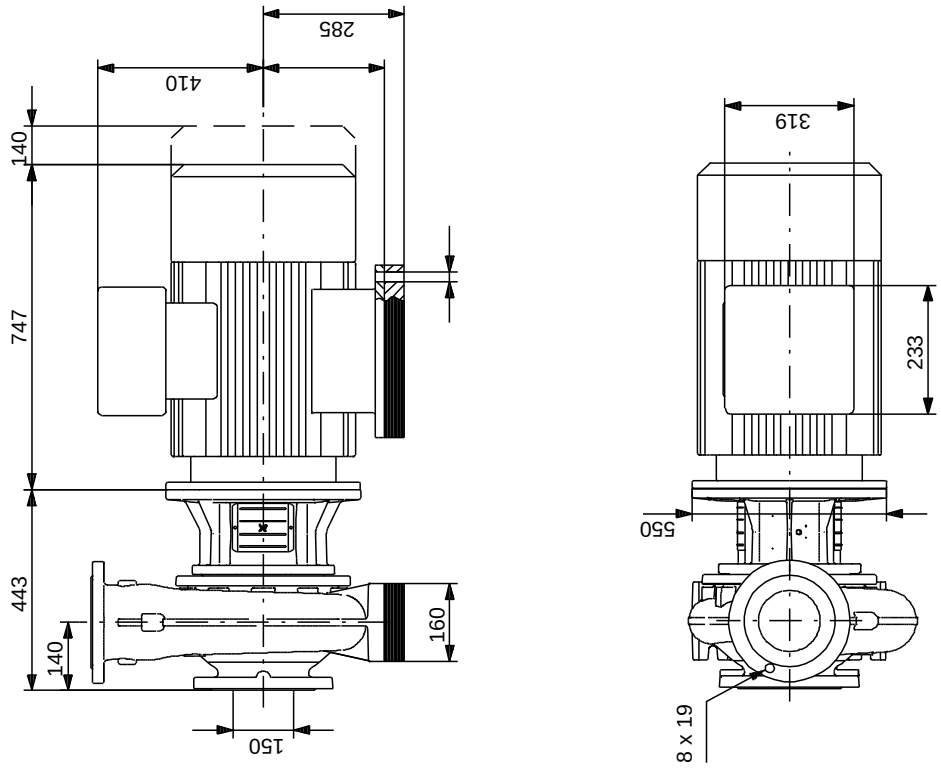




Description	Value
Lubricant type:	Grease
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	558 kg
Gross weight:	584 kg
Shipping volume:	0.821 m³

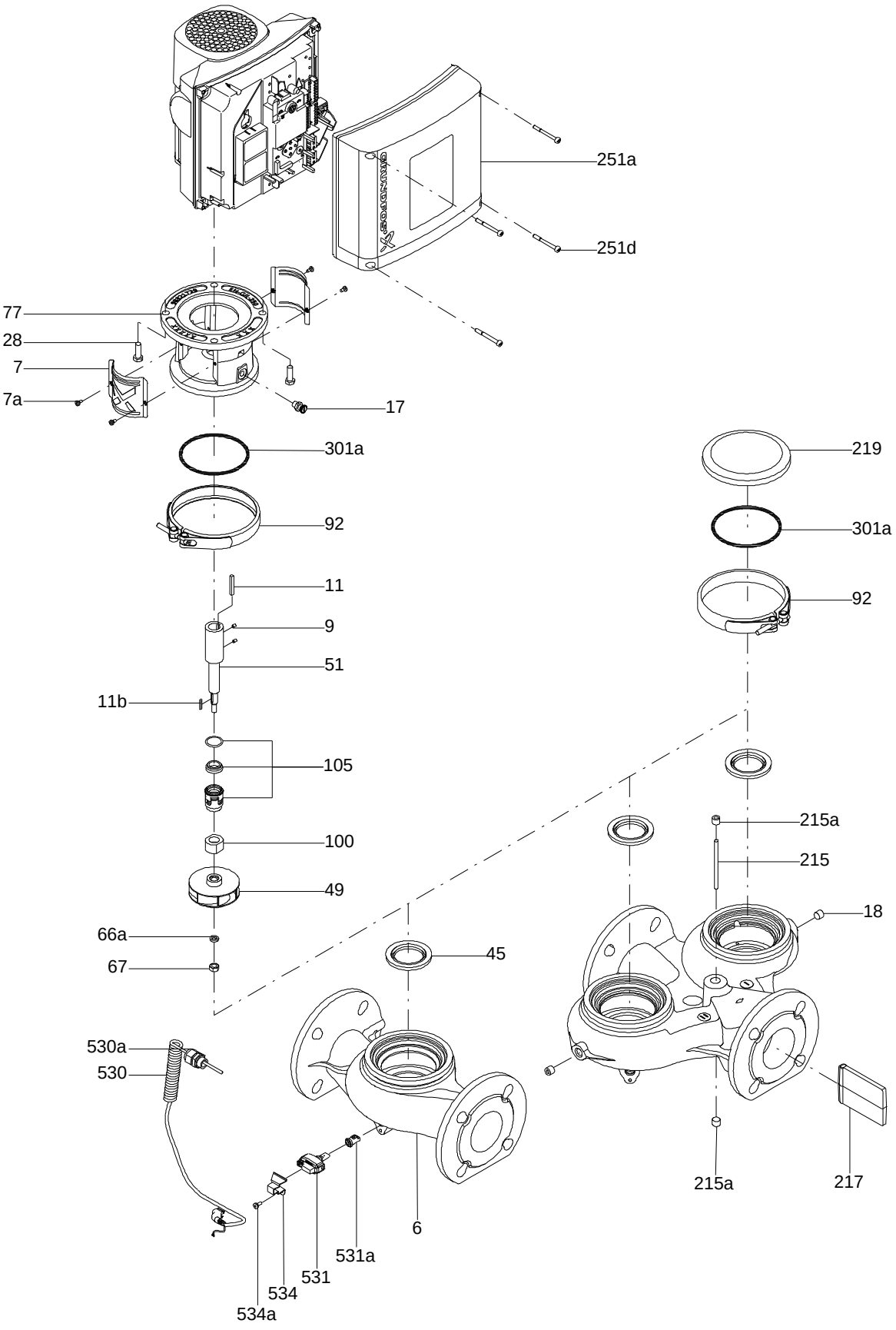
On request NB 125-200/196-166 EUP AS-F2-A-E-BAQE 50 Hz



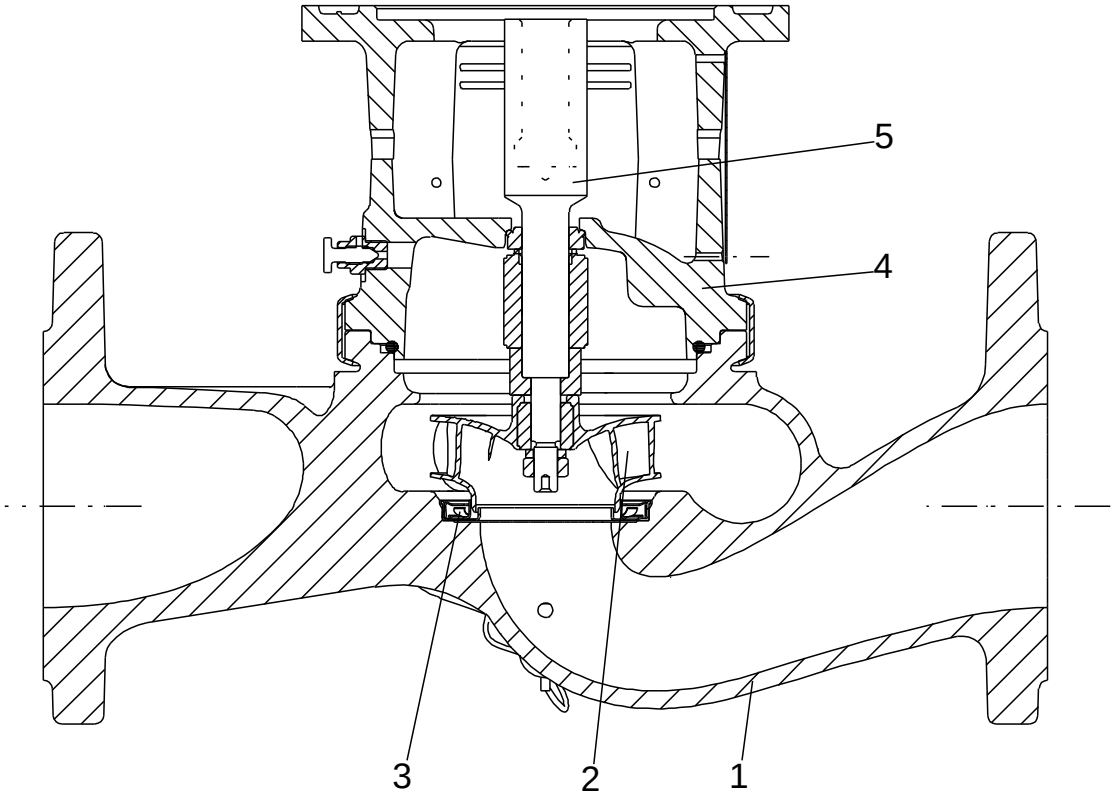


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

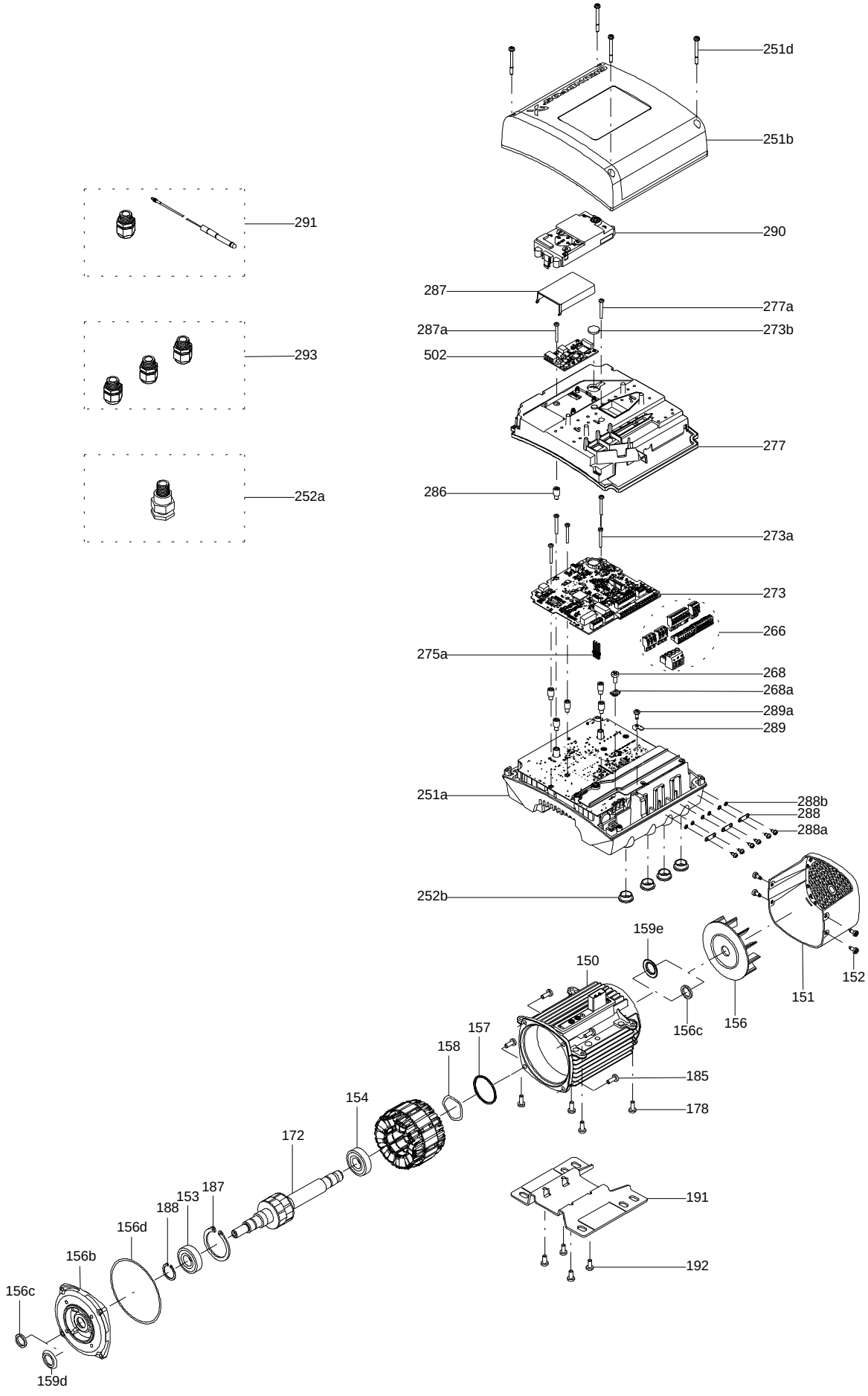


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list NB 125-200/196-166 EUP, Product No. On request
Valid from 1.3.2010 (1009)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
-		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	
-		Motor stool cpl.				1	pcs
	1.a	Motor stool				1	
	7	Coupling guard				2	
	77a	Pan head screw				4	
-		Cover cpl.				1	pcs
	77	Cover				1	
-		Pump housing cpl.				1	pcs
	6	Pump housing				1	
	36	Nut		Thread: M10		8	
-		Stub shaft				1	pcs
	9	Socket set screw		Length (mm): 10		2	
				Thread: M8			
	11	Parallel key				1	
	51	Pump shaft				1	
	17	Air vent screw				1	pcs
-	20	Plug				1	pcs
	20	Plug				2	
	49	Impeller				1	pcs
	72.a	O-ring		Diameter: 221,84		1	pcs
				Material type: EPDM			
				Thickness: 3,53			
	105	Shaft seal		Material type: BAQE		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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