TP 150-520/4-A-F-A-BAQE 400D 50HZ

Grundfos pump 95046263

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https://www.lenntech.com/grundfos/TP000/95046263/TP-150-520-4-A-F-A-BAQE.html

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Position	Qty.	Description
	1	**TP 150-520/4 A-F-A-BAQE**

Product No.: On request

Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.

The pump is fitted with an unbalanced rubber bellows seal. The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).

The pump is fitted with a fan-cooled asynchronous motor.

Further product details

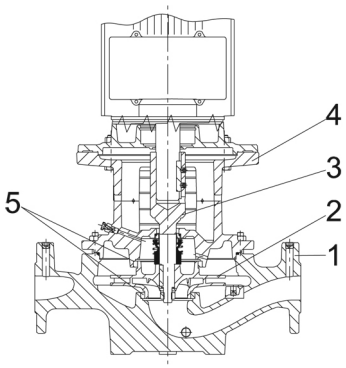
The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

Pump

Pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

1) Alkaline-based cleaning.
2) Pretreatment with zinc phosphate coating.
3) Cathodic electrocoating (epoxy).
4) Curing of paint film at 200-250 °C.



1: Pump housing
2: Impeller
3: Stub shaft
4: Pump head/motor stool
5: Wear rings

The pump housing is provided with a replaceable brass neck ring to reduce the amount of liquid running from the outlet side of the impeller to the inlet side. The impeller is secured to the shaft with a nut.

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)

Position	Qty.	Description

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

The flanges have tappings for mounting of pressure gauges.

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. The pump shaft is fastened directly on the motor shaft with key and set screws.

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 is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).

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:	317 m³/h
Rated head:	46 m
Actual impeller diameter:	382 mm
Primary shaft seal:	BAQE
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Cast iron EN-JL1030 ASTM A48-30 B

Installation:

Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 150
Pump inlet:	DN 150
Pump outlet:	DN 150
Pressure rating:	PN 16
(@):	1000 mm
Flange size for motor:	FF500

Position	Qty.	Description

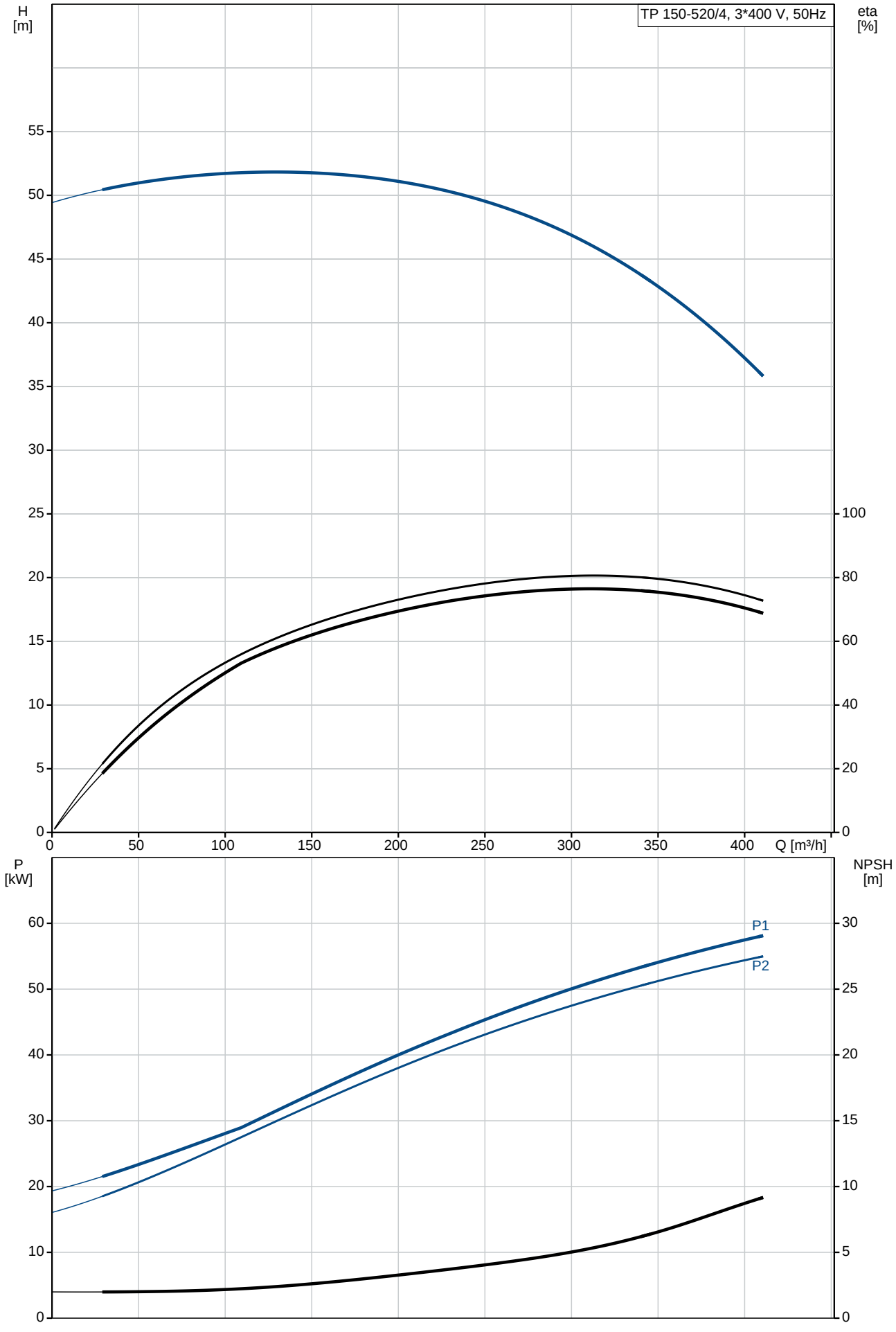
Electrical data:

Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	55 kW
Power (P2) required by pump:	55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	100-93,0/58,0-54,0 A
Starting current:	680-680 %
Cos phi - power factor:	0.87
Rated speed:	1480 rpm
Efficiency:	IE3 94,6%
Motor efficiency at full load:	94.6-94.6 %
Motor efficiency at 3/4 load:	95.1-95.1 %
Motor efficiency at 1/2 load:	95.0-95.0 %
Number of poles:	4
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F

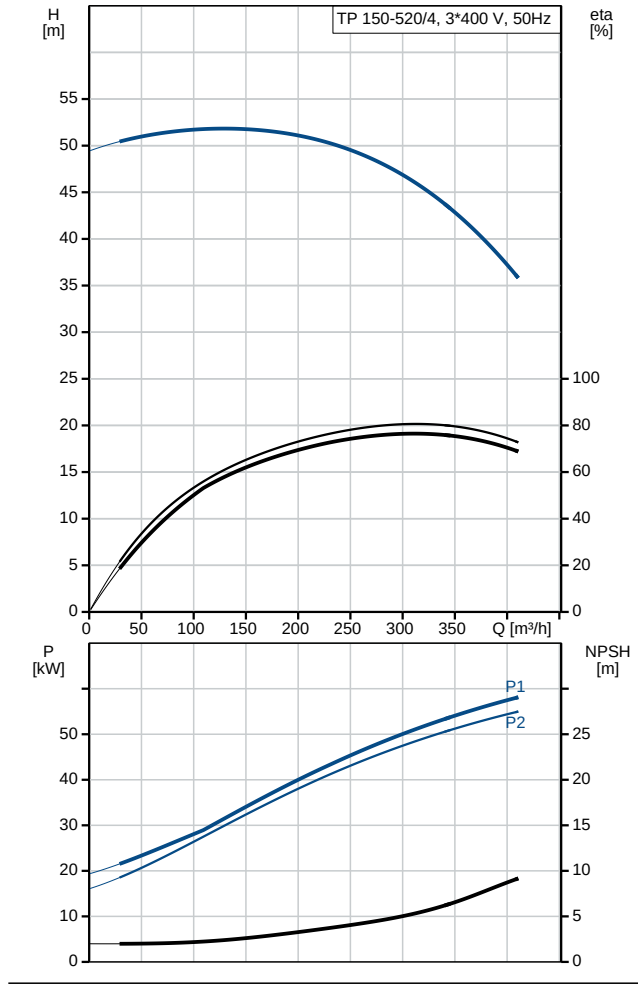
Others:

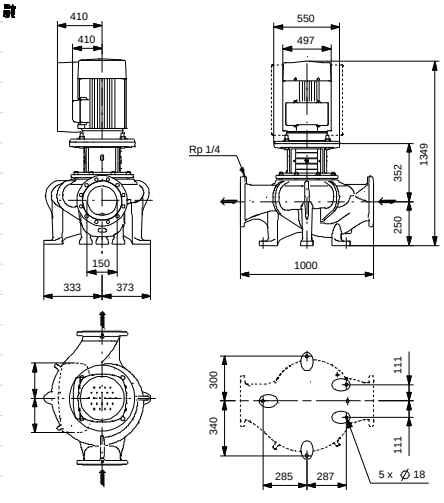
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	774 kg
Gross weight:	818 kg
Shipping volume:	3.13 m³
Danish VVS No.:	382581524

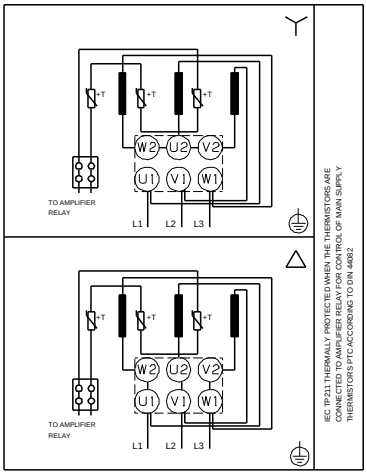
On request TP 150-520/4 A-F-A-BAQE 50 Hz



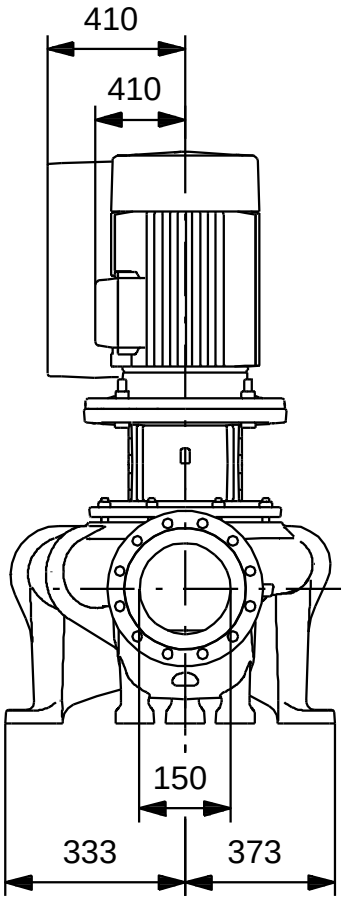
Description	Value
General information:	
Product name:	TP 150-520/4 A-F-A-BAQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	317 m³/h
Rated head:	46 m
Head max:	520 dm
Actual impeller diameter:	382 mm
Primary shaft seal:	BAQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Cast iron
	EN-JL1040
	ASTM A48-40 B
Impeller:	Cast iron
	EN-JL1030
	ASTM A48-30 B
Material code:	A
Installation:	
Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 150
Pump inlet:	DN 150
Pump outlet:	DN 150
Pressure rating:	PN 16
(@)	1000 mm
Flange size for motor:	FF500
Connect code:	F
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
Power (P2) required by pump:	55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	100-93,0/58,0-54,0 A
Starting current:	680-680 %
Cos phi - power factor:	0.87
Rated speed:	1480 rpm
Efficiency:	IE3 94,6%
Motor efficiency at full load:	94.6-94.6 %
Motor efficiency at 3/4 load:	95.1-95.1 %
Motor efficiency at 1/2 load:	95.0-95.0 %
Number of poles:	4
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	99032127
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	774 kg
Gross weight:	818 kg
Shipping volume:	3.13 m³
Danish VVS No.:	382581524

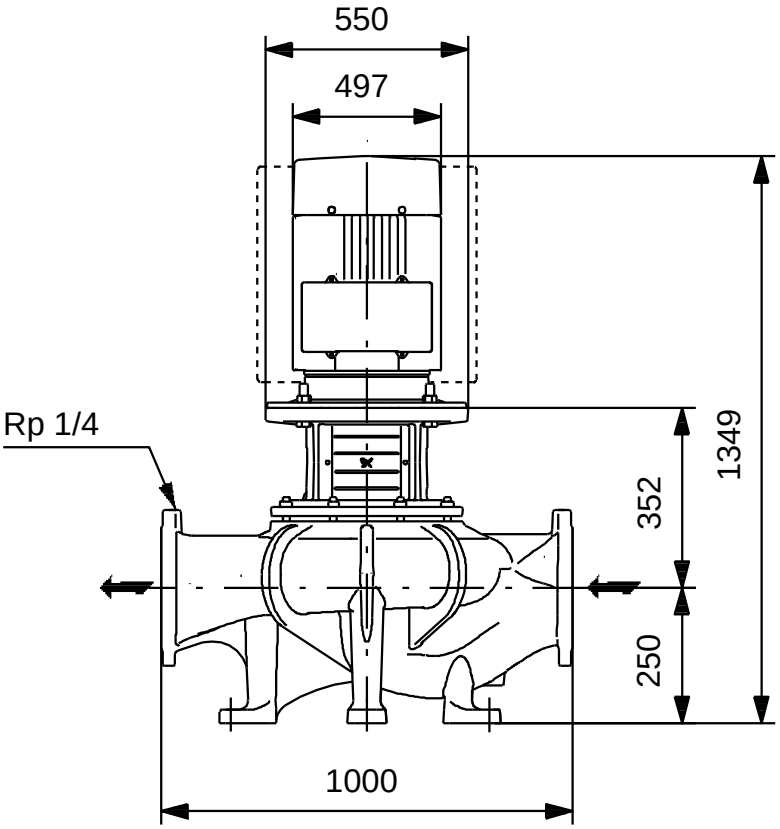


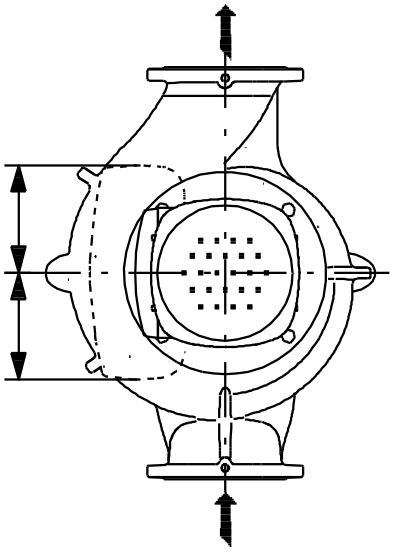


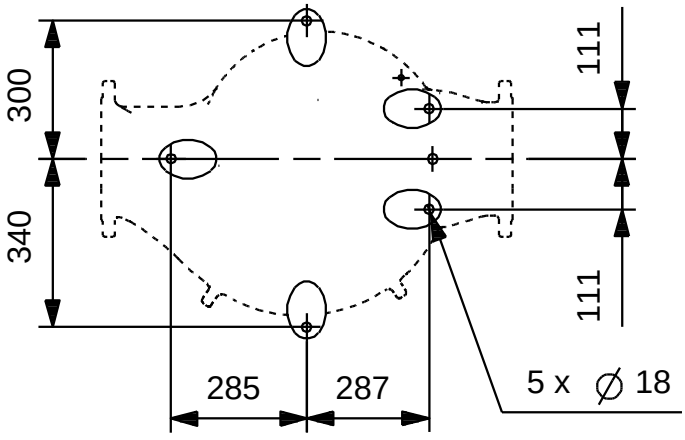


On request TP 150-520/4 A-F-A-BAQE 50 Hz



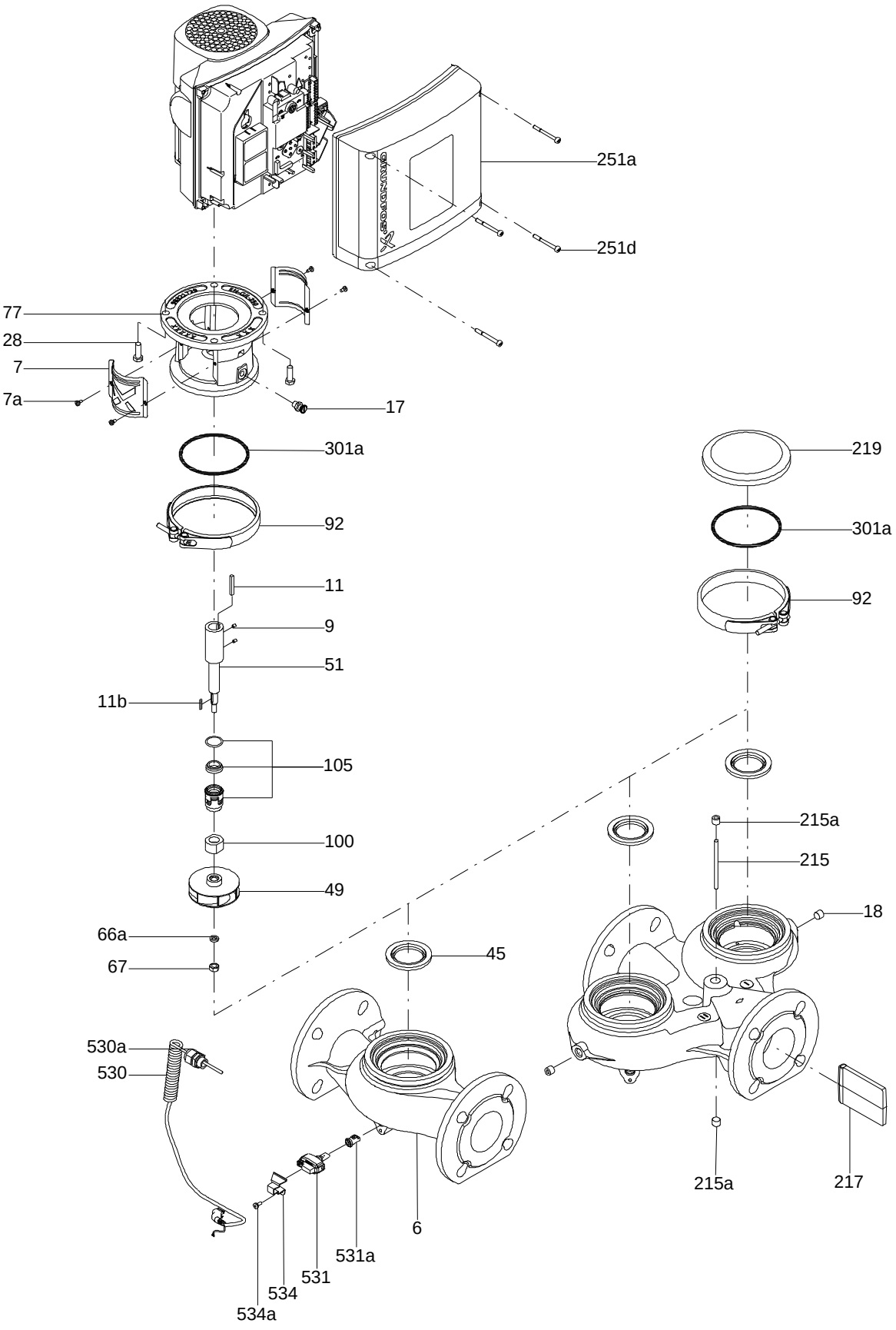




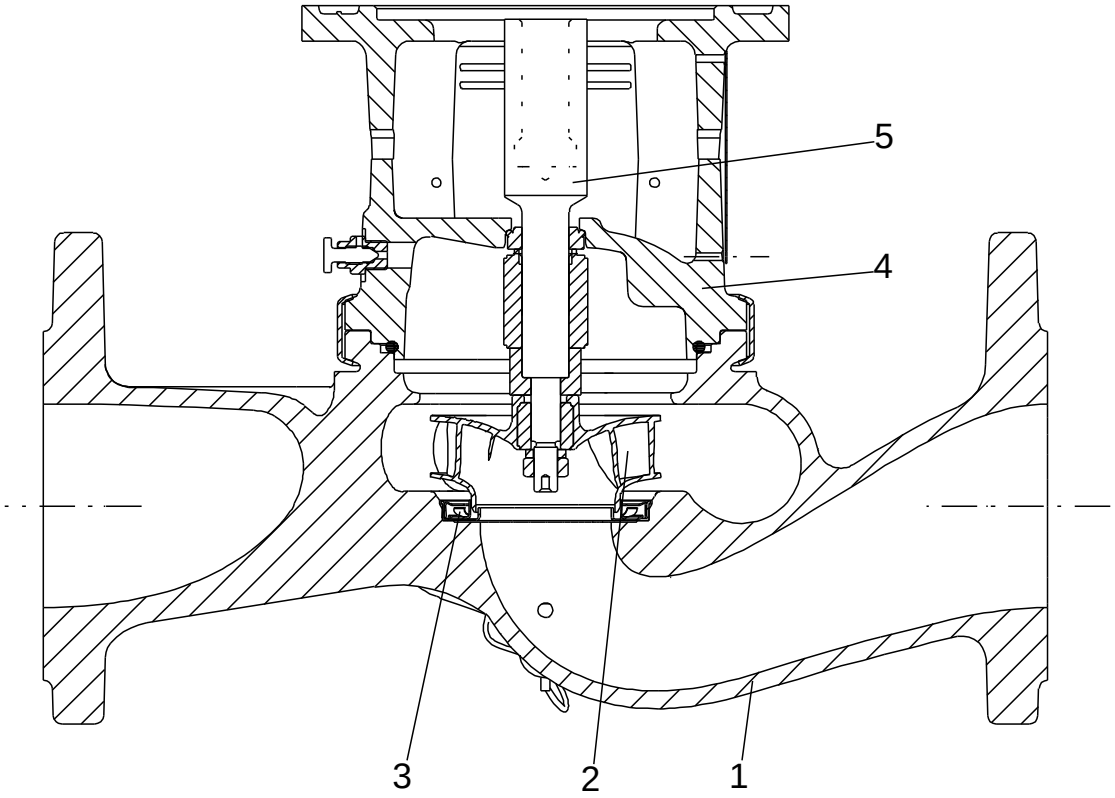


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

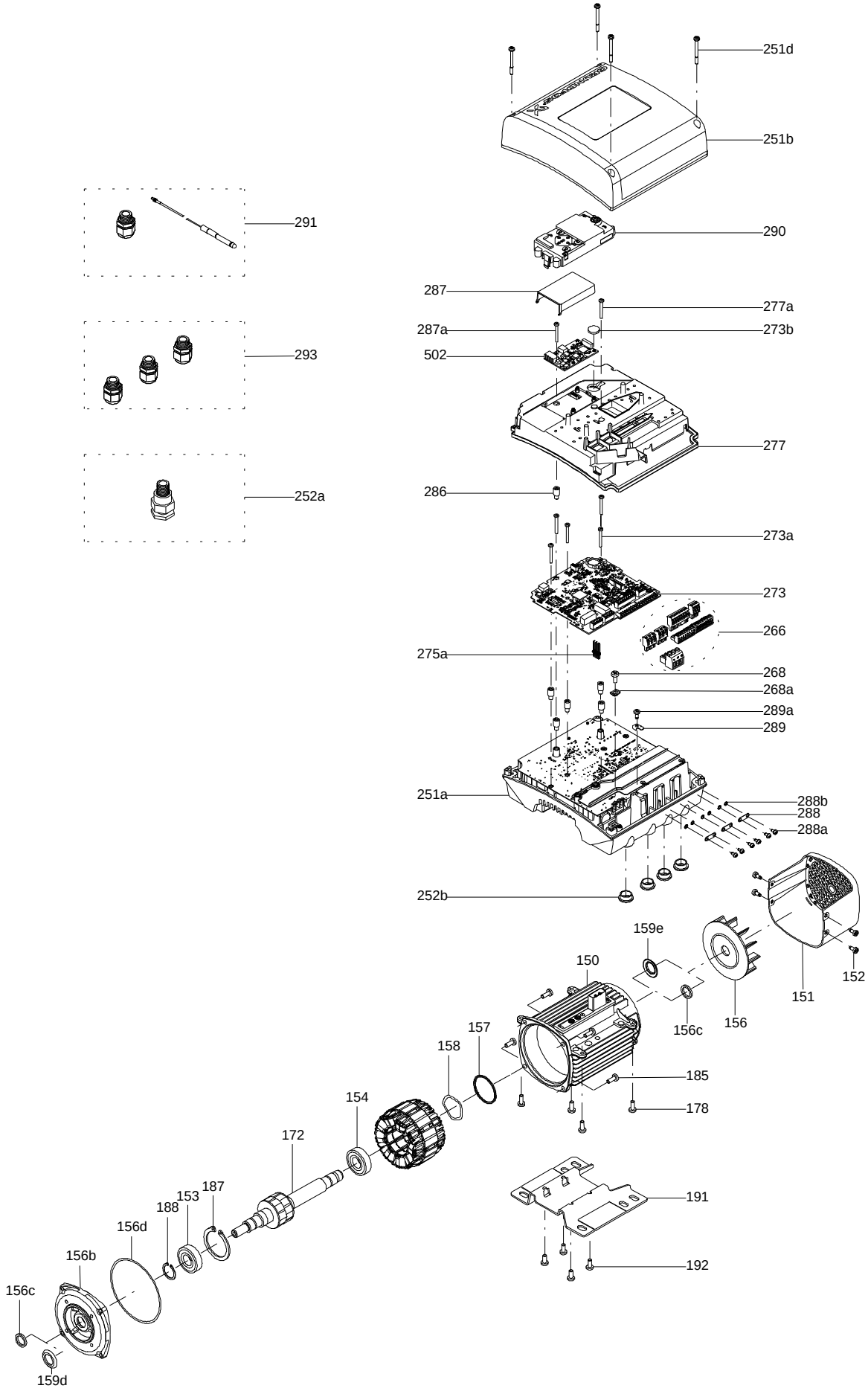


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list TP 150-520/4, Product No. On request
Valid from 19.3.2012 (1212)

	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: M25		1	
-		Motor stool cpl.				1	pcs
	2	Motor stool				1	
	7	Coupling guard				2	
	77a	Pan head screw				4	
-		Cover cpl.				1	pcs
	77	Cover f/mech. seal				1	
-		Pump housing cpl.				1	pcs
	6	Pump housing				1	
	66a	Nut		Thread: M12		16	
-		Shaft seal cpl.		Material type: BAQE		1	pcs
	72a	O-ring		Diameter: 66		1	
				Material type: RUBBER			
				Thickness: 3,53			
	105	Shaft seal		Material type: BAQE 48 MM SHAFT		1	
-		Shaft cpl.				1	pcs
	10	Socket set screw		Length (mm): 10		3	
				Thread: M8			
	11	Key				1	
	51	Stub shaft				1	
	19	Plug				2	pcs
	49	Impeller				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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