

## TP 80-520/2-A-F-A-BAQE 400D 50HZ Grundfos pump 96108704




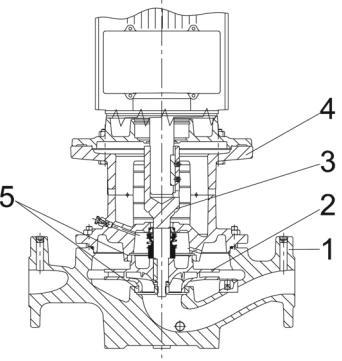
Thank you for your interest in our products. Please contact us for more information, or visit our website

<https://www.lenntech.com/grundfos/TP000/96108704/TP-80-520-2-A-F-A-BAQE.html>

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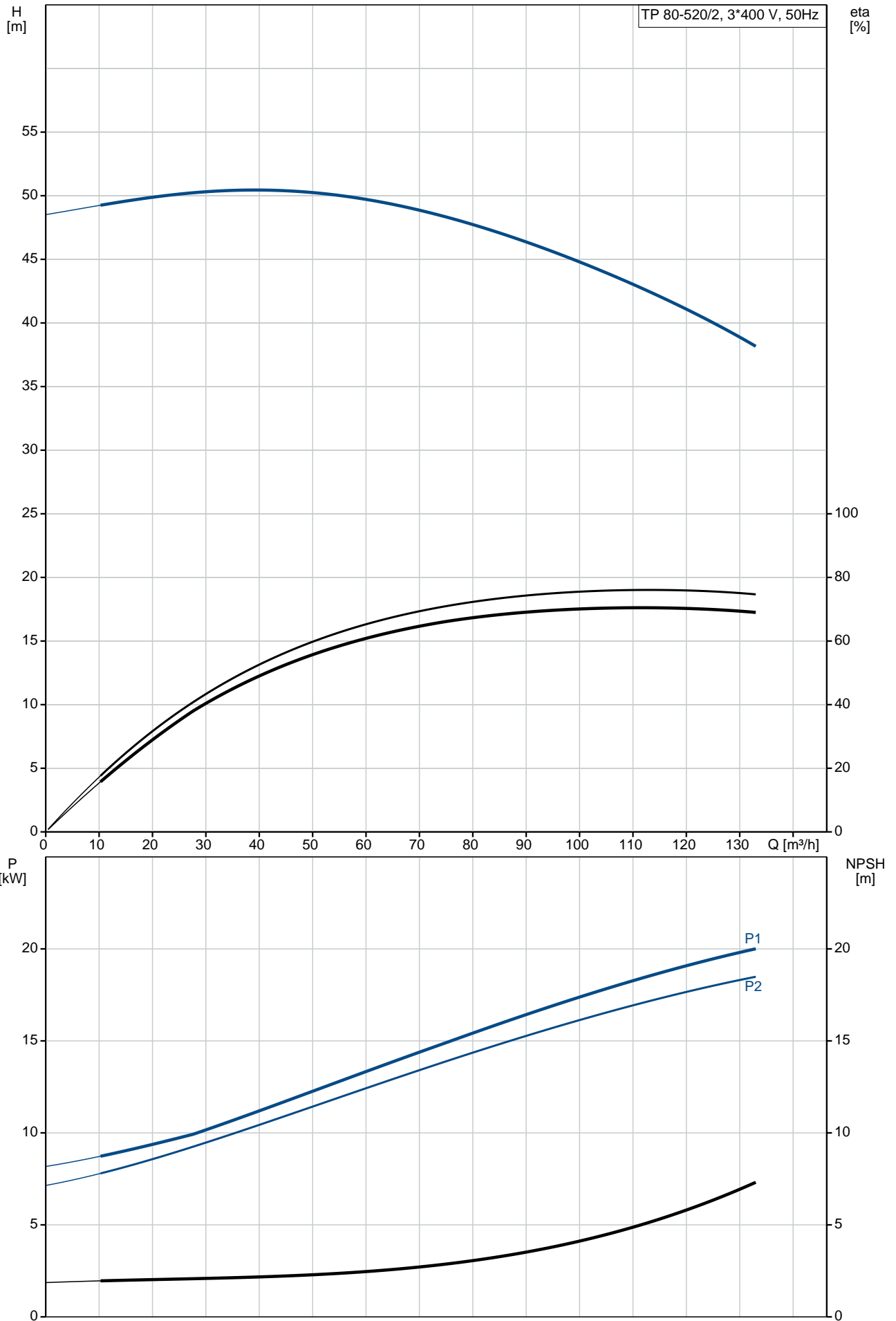
fax. +31 152 616 289

Position	Qty.	Description
	1	<p data-bbox="323 163 614 197"><b>TP 80-520/2 A-F-A-BAQE</b></p>  <p data-bbox="323 488 598 521">Product No.: On request</p> <p data-bbox="323 548 1444 622">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.</p> <p data-bbox="323 633 1420 685">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).</p> <p data-bbox="323 689 949 723">The pump is fitted with a fan-cooled asynchronous motor.</p> <p data-bbox="323 750 638 784"><b>Further product details</b></p> <p data-bbox="323 788 1428 862">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.</p> <p data-bbox="323 900 406 934"><b>Pump</b></p> <p data-bbox="323 938 1252 972">Pump housing and pump head are electrocoated to improve the corrosion resistance.</p> <p data-bbox="323 976 582 1010">Electrocoating includes:</p> <ol data-bbox="323 1014 805 1115" style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Pretreatment with zinc phosphate coating.</li> <li>3) Cathodic electrocoating (epoxy).</li> <li>4) Curing of paint film at 200-250 °C.</li> </ol>  <ol data-bbox="323 1518 606 1668" style="list-style-type: none"> <li>1: Pump housing</li> <li>2: Impeller</li> <li>3: Stub shaft</li> <li>4: Pump head/motor stool</li> <li>5: Wear rings</li> </ol> <p data-bbox="323 1697 1460 1749">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.</p> <p data-bbox="323 1814 1444 1888">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.</p> <p data-bbox="323 1899 470 1933">Primary seal:</p> <ul data-bbox="359 1937 1093 1989" style="list-style-type: none"> <li>• Rotating seal ring material: carbon graphite, metal-impregnated</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p data-bbox="323 1993 1452 2067">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.</p> <p data-bbox="323 2072 981 2105">Secondary seal material: EPDM (ethylene-propylene rubber)</p>

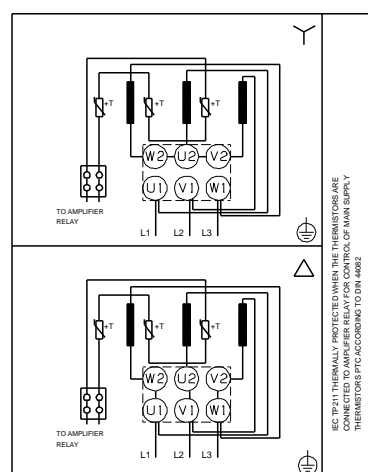
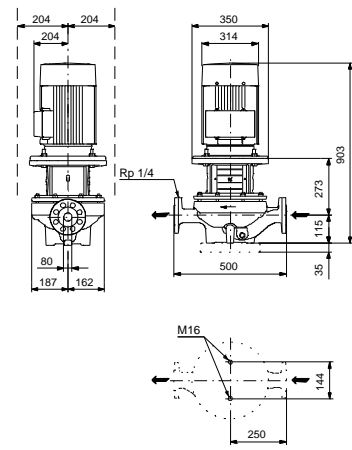
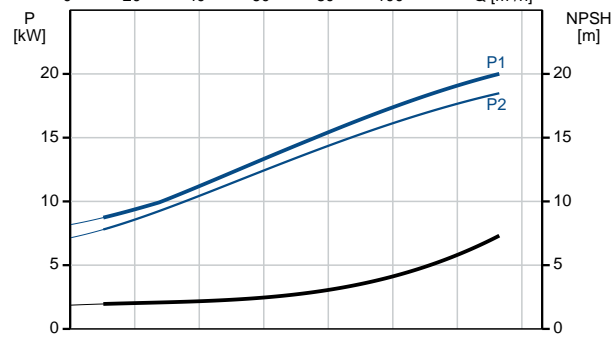
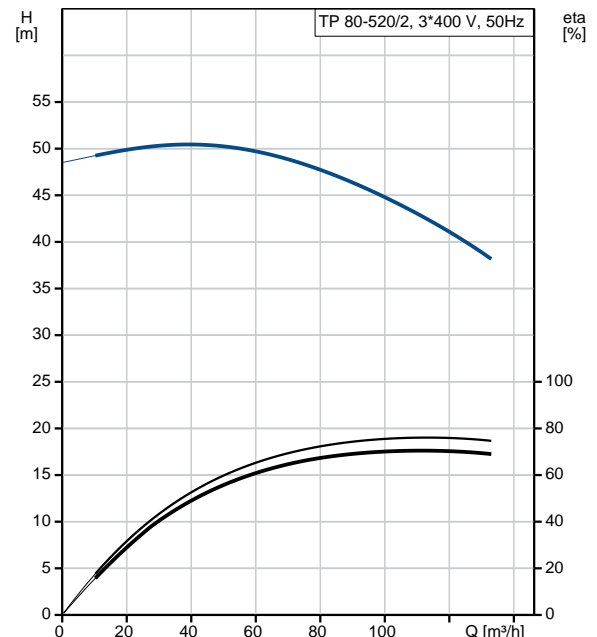
Position	Qty.	Description
		<p>EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p> <p>A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.</p> <p>The flanges have tappings for mounting of pressure gauges.</p> <p>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.</p> <p>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.</p> <p><b>Motor</b></p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p>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).</p> <p>The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><b>Technical data</b></p> <p><b>Liquid:</b>  Pumped liquid: Water  Liquid temperature range: 0 .. 120 °C  Liquid temperature during operation: 20 °C  Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b>  Rated flow: 113 m<sup>3</sup>/h  Rated head: 42.4 m  Actual impeller diameter: 190 mm  Primary shaft seal: BAQE  Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b>  Pump housing: Cast iron  EN-JL1040  ASTM A48-40 B  Impeller: Cast iron  EN-JL1030  ASTM A48-30 B</p> <p><b>Installation:</b>  Range of ambient temperature: -30 .. 60 °C  Maximum operating pressure: 16 bar  Flange standard: DIN  Pipe connection: DN 80  Pump inlet: DN 80  Pump outlet: DN 80  Pressure rating: PN 16  (@): 500 mm  Flange size for motor: FF300</p>

Position	Qty.	Description
		<p><b>Electrical data:</b></p> <p>Motor type: 160LB</p> <p>IE Efficiency class: IE3</p> <p>Rated power - P2: 18.5 kW</p> <p>Power (P2) required by pump: 18.5 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-415D/660-690Y V</p> <p>Rated current: 34,5-32,5/20,0-18,8 A</p> <p>Starting current: 830-980 %</p> <p>Cos phi - power factor: 0.89-0.85</p> <p>Rated speed: 2940-2950 rpm</p> <p>Efficiency: IE3 92,4%</p> <p>Motor efficiency at full load: 92.4 %</p> <p>Motor efficiency at 3/4 load: 93.2 %</p> <p>Motor efficiency at 1/2 load: 93.2 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): 55 Dust/Jetting</p> <p>Insulation class (IEC 85): F</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI : 0.70</p> <p>ErP status: EuP Standalone/Prod.</p> <p>Net weight: 183 kg</p> <p>Gross weight: 212 kg</p> <p>Shipping volume: 1.12 m<sup>3</sup></p> <p>Danish VVS No.: 382764521</p>

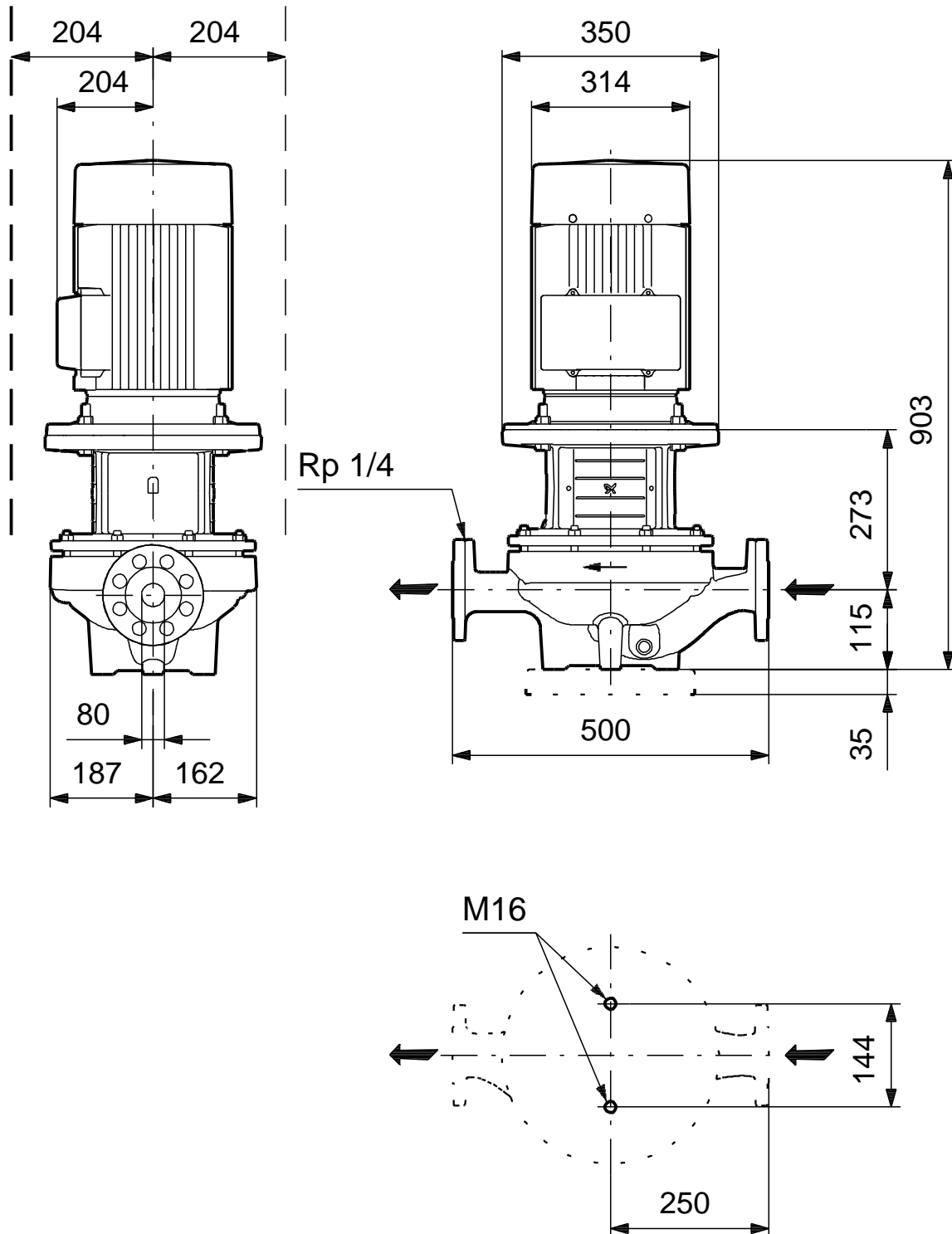
# On request TP 80-520/2 A-F-A-BAQE 50 Hz



Description	Value
<b>General information:</b>	
Product name:	TP 80-520/2 A-F-A-BAQE
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Rated flow:	113 m <sup>3</sup> /h
Rated head:	42.4 m
Head max:	520 dm
Actual impeller diameter:	190 mm
Primary shaft seal:	BAQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
<b>Materials:</b>	
Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Cast iron EN-JL1030 ASTM A48-30 B
Material code:	A
<b>Installation:</b>	
Range of ambient temperature:	-30 .. 60 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 80
Pump inlet:	DN 80
Pump outlet:	DN 80
Pressure rating:	PN 16
(@)	500 mm
Flange size for motor:	FF300
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor type:	160LB
IE Efficiency class:	IE3
Rated power - P2:	18.5 kW
Power (P2) required by pump:	18.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D/660-690Y V
Rated current:	34,5-32,5/20,0-18,8 A
Starting current:	830-980 %
Cos phi - power factor:	0.89-0.85
Rated speed:	2940-2950 rpm
Efficiency:	IE3 92,4%
Motor efficiency at full load:	92.4 %
Motor efficiency at 3/4 load:	93.2 %
Motor efficiency at 1/2 load:	93.2 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	87420023
<b>Others:</b>	
Minimum efficiency index, MEI :	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	183 kg
Gross weight:	212 kg
Shipping volume:	1.12 m <sup>3</sup>
Danish VVS No.:	382764521

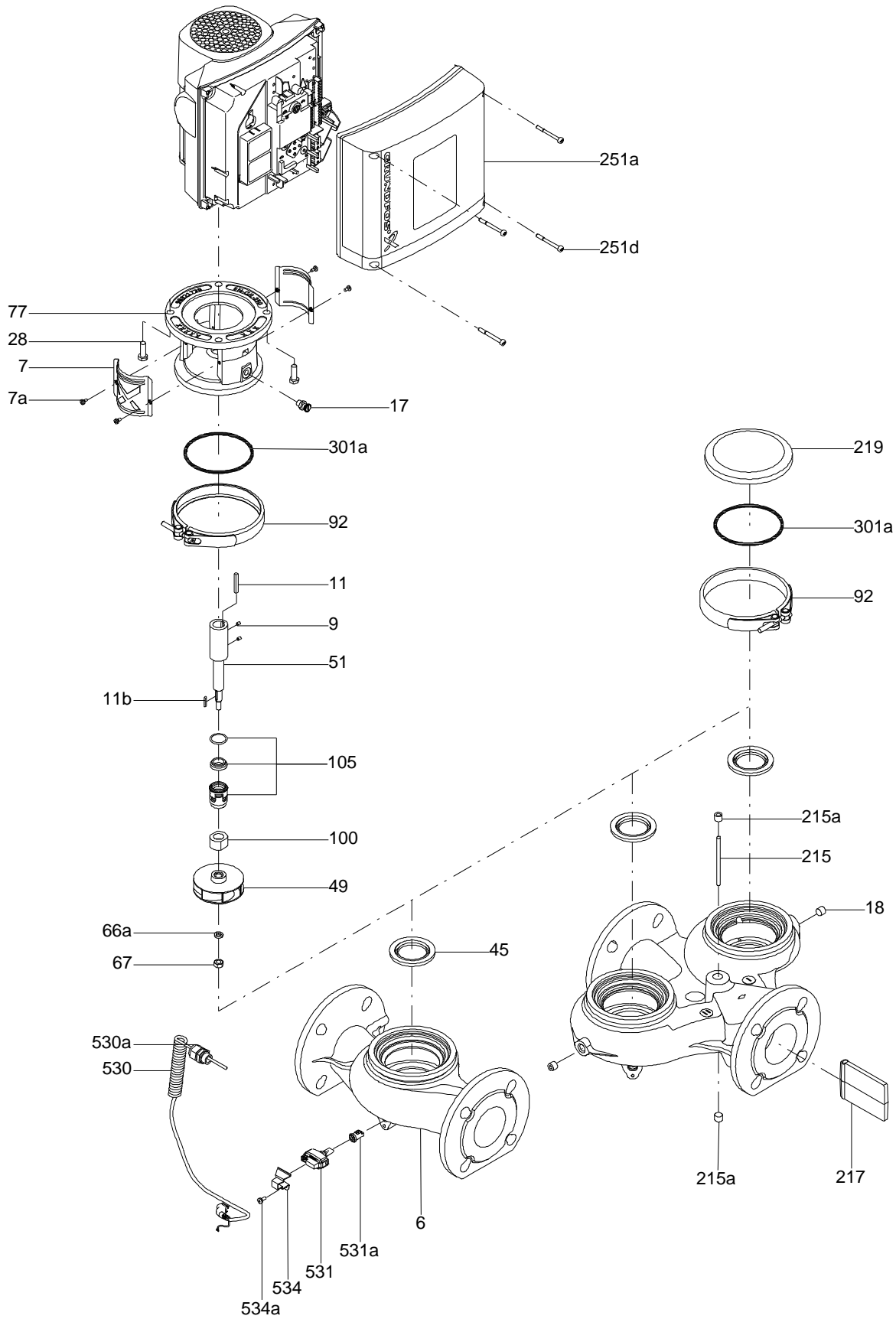


**On request TP 80-520/2 A-F-A-BAQE 50 Hz**



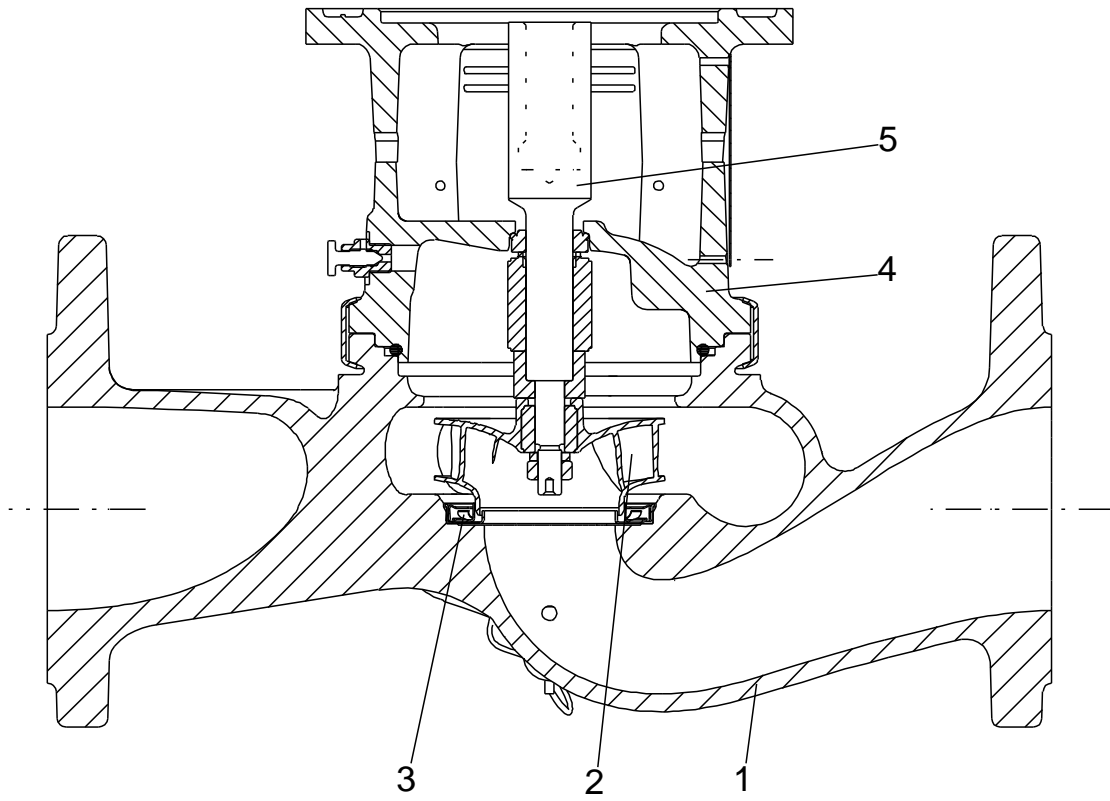
Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view



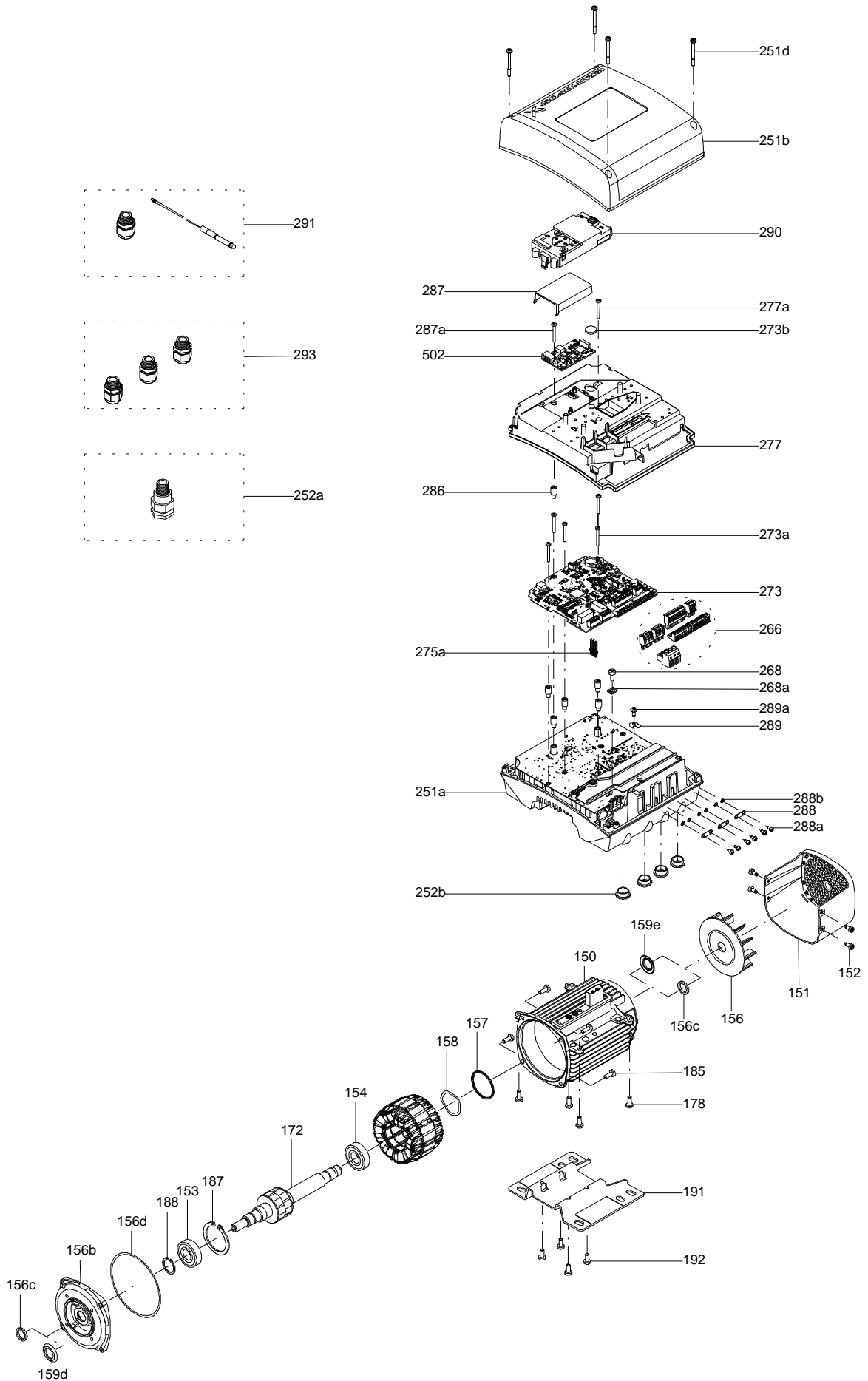


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view ( TM057026 for MGE model H/I )



**Parts list TP 80-520/2, Product No. On request**  
**Valid from 1.1.2011 (1152)**

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	
19	Plug				1	
20	Plug				1	
36	Nut		Thread: M10		8	
-	Kit, Base plate				1	pcs
28g	Hex head screw				2	
56	Base plate				1	
-	Shaft seal cpl.				1	pcs
72.a	O-ring		Diameter: 221,84 Material type: EPDM Thickness: 3,53		1	
105	Shaft seal		Material type: BAQE		1	
-	Stub shaft				1	pcs
9	Socket set screw		Length (mm): 6 Thread: M8		2	
11	Parallel key		Dimension: 6X6X35		1	
51	Pump shaft				1	
-	Base plate cpl.				1	pcs
28g	Hex head cap screw		Length (mm): 30 MM Thread: M16		2	
56	Base plate				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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