

TP 50-90/4-A-F-A-BQQE 400Y 50HZ

Grundfos pump 96087117



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<https://www.lenntech.com/grundfos/TP000/96087117/TP-50-90-4-A-F-A-BQQE.html>

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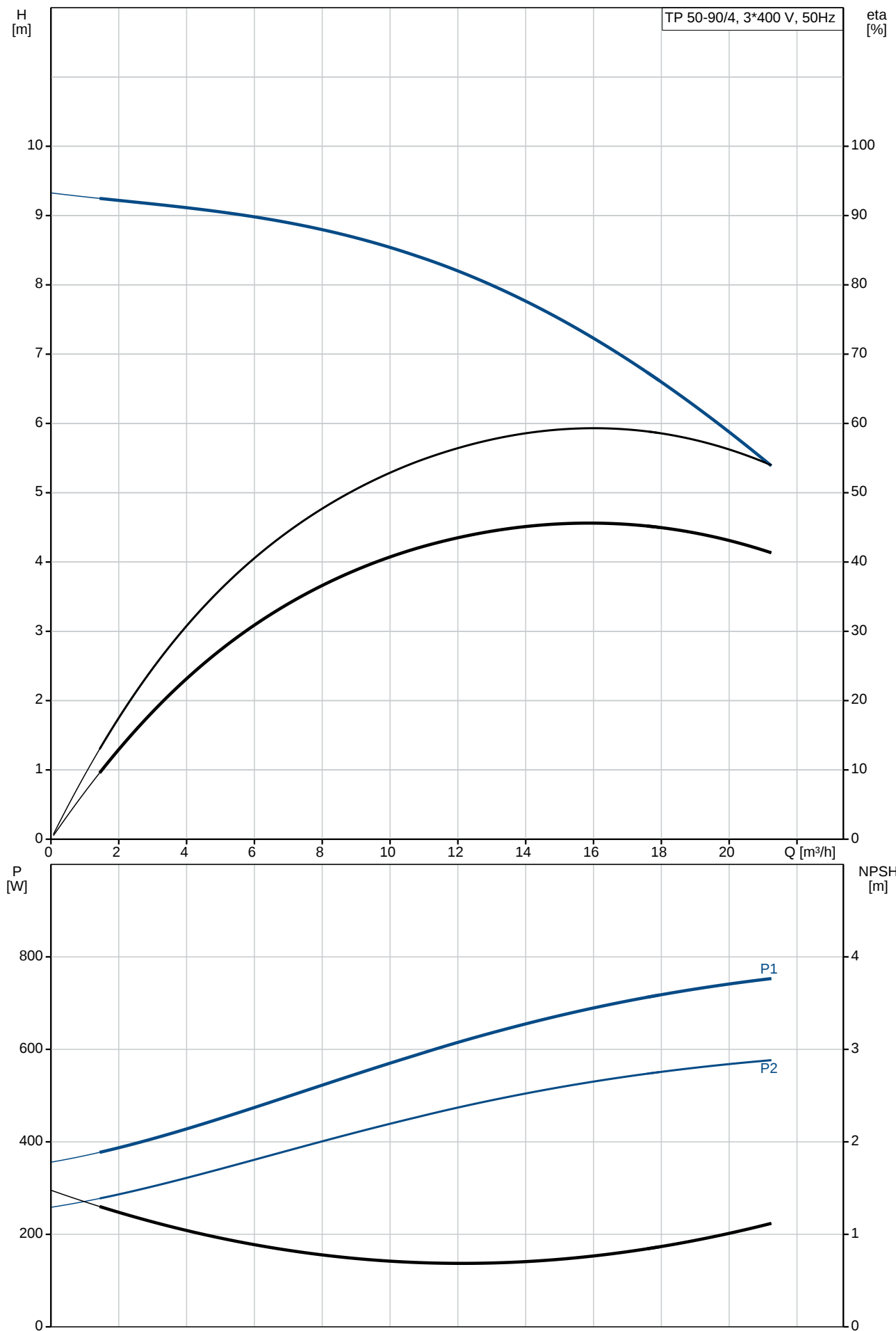
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Position	Qty.	Description
	1	TP 50-90/4 A-F-A-BQQE  Product No.: On request Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, 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 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: 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. Secondary seal material: EPDM (ethylene-propylene rubber) 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.

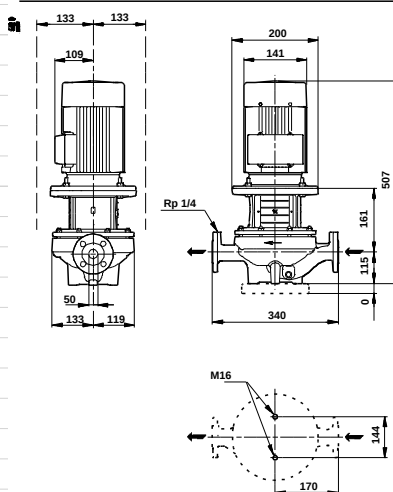
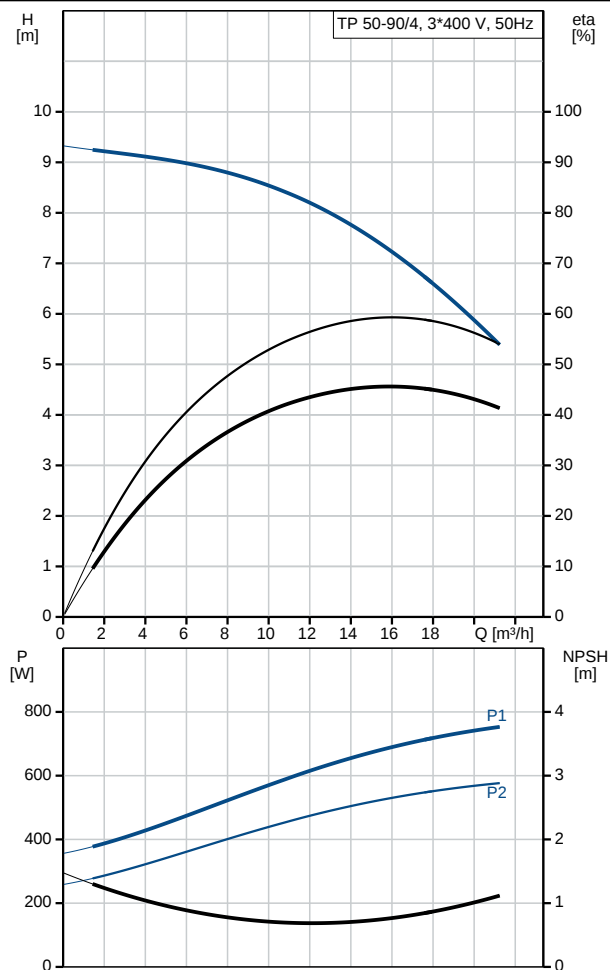
Position	Qty.	Description
		The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring. The central part of the motor stool 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 does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1). Technical data Liquid: Pumped liquid: Water Liquid temperature range: -25 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Rated flow: 15.8 m³/h Rated head: 7.1 m Actual impeller diameter: 169 mm Primary shaft seal: BQQE 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: -30 .. 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 50 Pump inlet: DN 50 Pump outlet: DN 50 Pressure rating: PN 16 (@): 340 mm Flange size for motor: FF165 Electrical data: Motor type: 80A Rated power - P2: 0.55 kW Power (P2) required by pump: 0.55 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-415Y V Rated current: 2.60/1.50 A Starting current: 430-470 % Cos phi - power factor: 0.79-0.70 Rated speed: 1390-1410 rpm Efficiency: 70.0% Motor efficiency at full load: 70.0 % Motor efficiency at 3/4 load: 79 %

Position	Qty.	Description
		Motor efficiency at 1/2 load: 78.1 % Number of poles: 4 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Others: Minimum efficiency index, MEI $\geq$ 0.50 ErP status: EuP Standalone/Prod. Net weight: 43 kg Gross weight: 57 kg Shipping volume: 0.13 m³ Danish VVS No.: 381713090 Norwegian NRF no.: 9043556

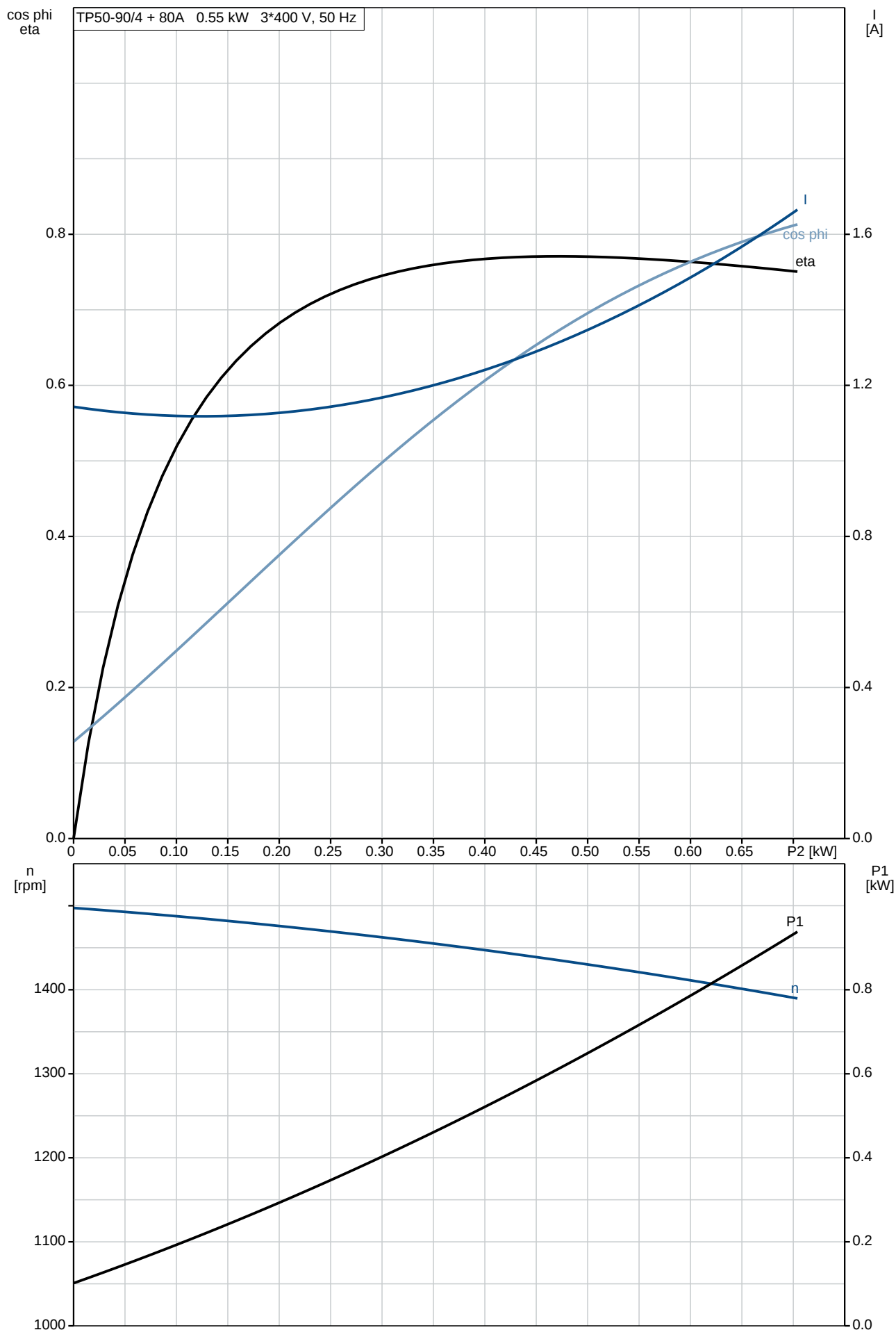
On request TP 50-90/4 A-F-A-BQQE 50 Hz



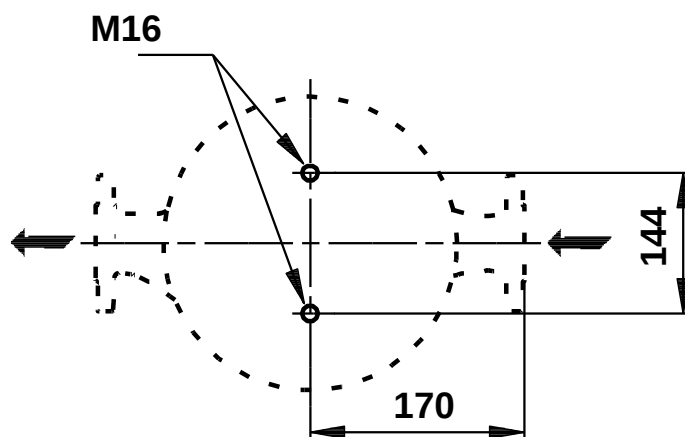
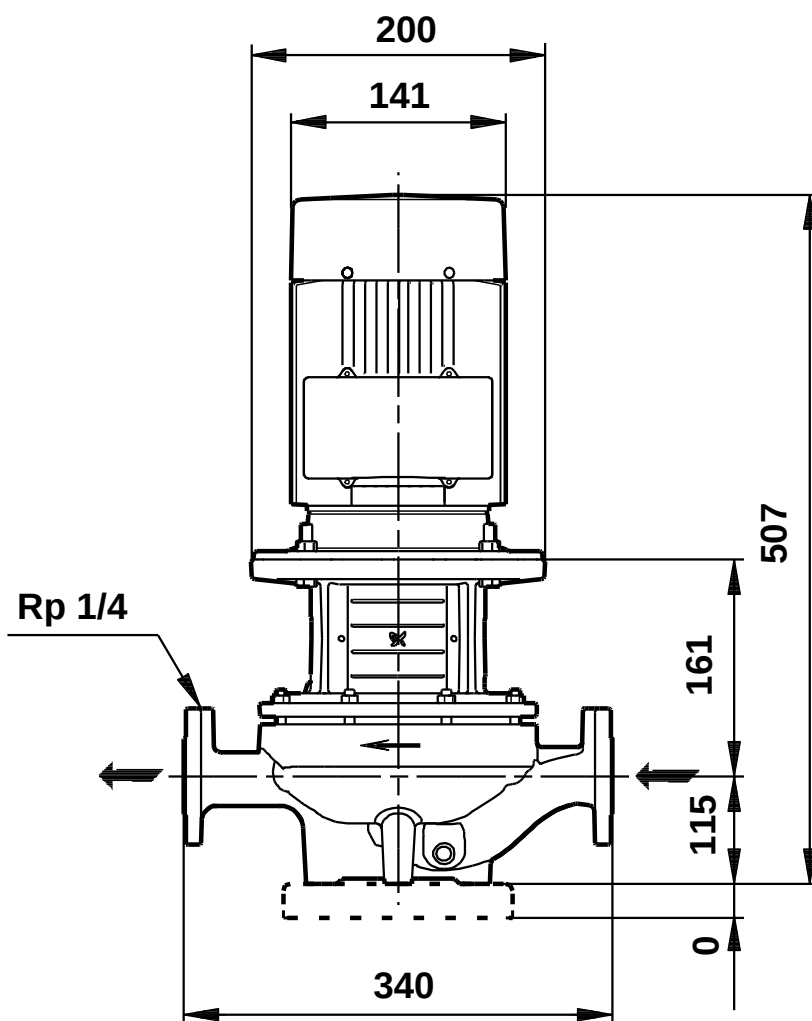
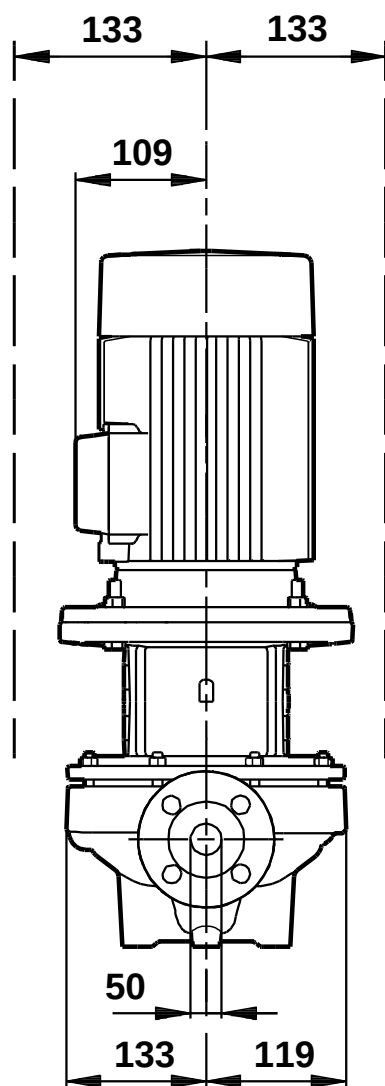
Description	Value
General information:	
Product name:	TP 50-90/4 A-F-A-BQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	15.8 m³/h
Rated head:	7.1 m
Head max:	90 dm
Actual impeller diameter:	169 mm
Primary shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	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:	-30 .. 40 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 50
Pump inlet:	DN 50
Pump outlet:	DN 50
Pressure rating:	PN 16
(@)	340 mm
Flange size for motor:	FF165
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	80A
Rated power - P2:	0.55 kW
Power (P2) required by pump:	0.55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	2.60/1.50 A
Starting current:	430-470 %
Cos phi - power factor:	0.79-0.70
Rated speed:	1390-1410 rpm
Efficiency:	70.0 %
Motor efficiency at full load:	70.0 %
Motor efficiency at 3/4 load:	79 %
Motor efficiency at 1/2 load:	78.1 %
Number of poles:	4
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	87100310
Others:	
Minimum efficiency index, MEI ≥:	0.50
ErP status:	EuP Standalone/Prod.
Net weight:	43 kg
Gross weight:	57 kg
Shipping volume:	0.13 m³
Danish VVS No.:	381713090
Norwegian NRF no.:	9043556



On request TP 50-90/4 A-F-A-BQQE 50 Hz



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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 50-90/4, Product No. On request
Valid from 20.6.2010 (1024)

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	
9	Hex socket head cap screw		Length (mm): 30		4	
			Thread: M10			
77a	Pan head screw				4	
-	Pump housing cpl.				1	pcs
6	Pump housing				1	
36	Nut		Thread: M10		6	
-	Shaft seal cpl.				1	pcs
72a	O-ring		Diameter: 177,39		1	
			Material type: EPDM			
			Thickness: 3,53			
105	Shaft seal				1	
-	Stub shaft				1	pcs
9	Socket set screw		Length (mm): 6		2	
			Thread: M6			
11	Parallel key		Dimension: 6X6X35		1	
51	Pump shaft				1	
19	Plug				2	pcs
49	Impeller		Outer diameter: 169		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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