

## TP 40-190/2-A-F-A-BQQE 400Y 50HZ

Grundfos pump 98294231




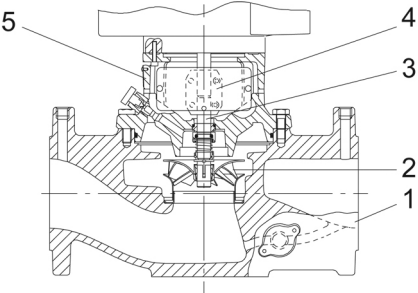
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<https://www.lenntech.com/grundfos/TP000/98294231/TP-40-190-2-A-F-A-BQQE.html>

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Position	Qty.	Description
	1	<p data-bbox="320 163 614 194"><b>TP 40-190/2 A-F-A-BQQE</b></p>  <p data-bbox="320 483 600 515">Product No.: On request</p> <p data-bbox="320 544 1445 620">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="320 629 1422 680">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="320 687 951 719">The pump is fitted with a fan-cooled asynchronous motor.</p> <p data-bbox="320 745 639 777"><b>Further product details</b></p> <p data-bbox="320 781 403 813"><b>Pump</b></p> <p data-bbox="320 817 1257 848">Pump housing and pump head are electrocoated to improve the corrosion resistance.</p> <p data-bbox="320 853 584 884">Electrocoating includes:</p> <ol data-bbox="320 889 810 994" 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="320 1328 509 1473" style="list-style-type: none"> <li>1: Pump housing</li> <li>2: Impeller</li> <li>3: Shaft</li> <li>4: Coupling</li> <li>5: Pump head</li> </ol> <p data-bbox="320 1503 1458 1579">The pump housing is provided with a replaceable stainless steel/PTFE neck ring to reduce the amount of liquid running from the discharge side of the impeller to the suction side. The impeller is secured with a split cone with nut.</p> <p data-bbox="320 1619 1441 1695">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="320 1704 467 1736">Primary seal:</p> <ul data-bbox="357 1738 919 1794" style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p data-bbox="320 1796 1426 1848">This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p data-bbox="320 1852 986 1883">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="320 1888 1219 1919">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p> <p data-bbox="320 1946 1442 1998">A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.</p> <p data-bbox="320 2002 983 2033">The flanges have tappings for mounting of pressure gauges.</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.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. Motor and pump shaft are connected via a shell coupling.

### 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 tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (Code II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

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/m<sup>3</sup>

#### Technical:

Rated flow: 10.5 m<sup>3</sup>/h  
Rated head: 13.2 m  
Actual impeller diameter: 124 mm  
Primary shaft seal: BQQE  
Curve tolerance: ISO9906:2012 3B

#### Materials:

Pump housing: Cast iron  
EN-JL1040  
ASTM A48-40 B  
Impeller: Stainless steel  
DIN W.-Nr. 1.4301  
AISI 304

#### Installation:

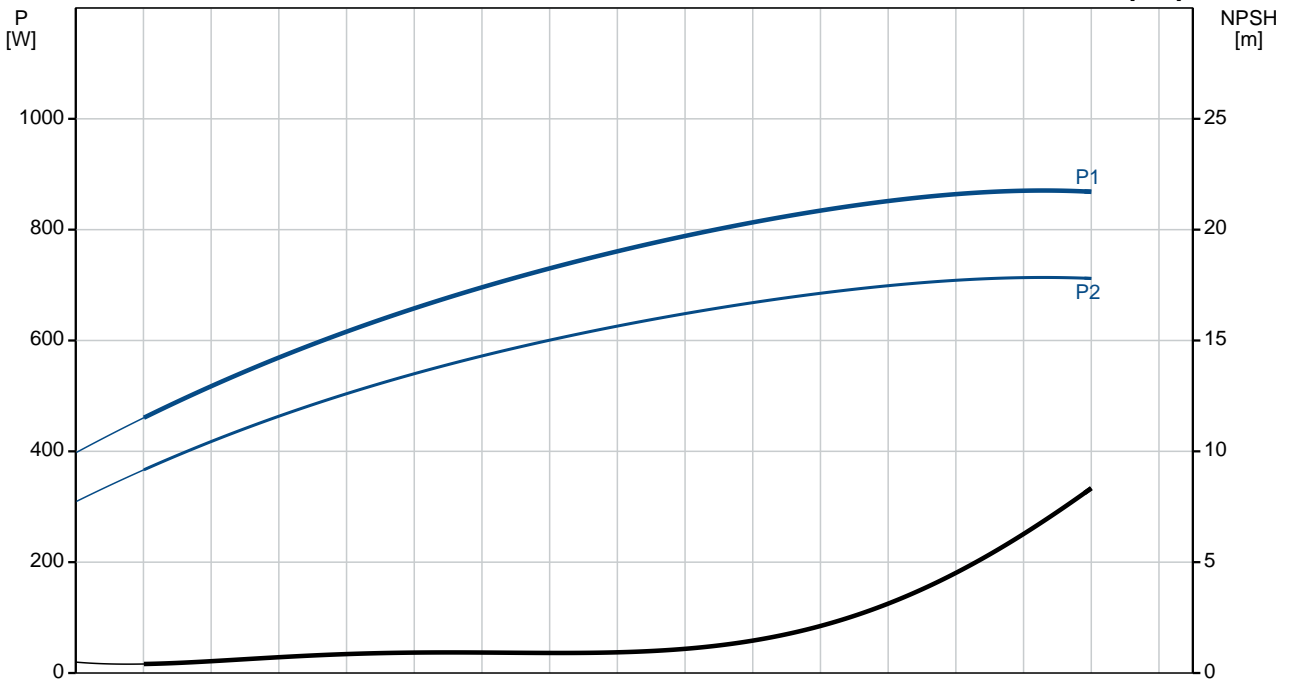
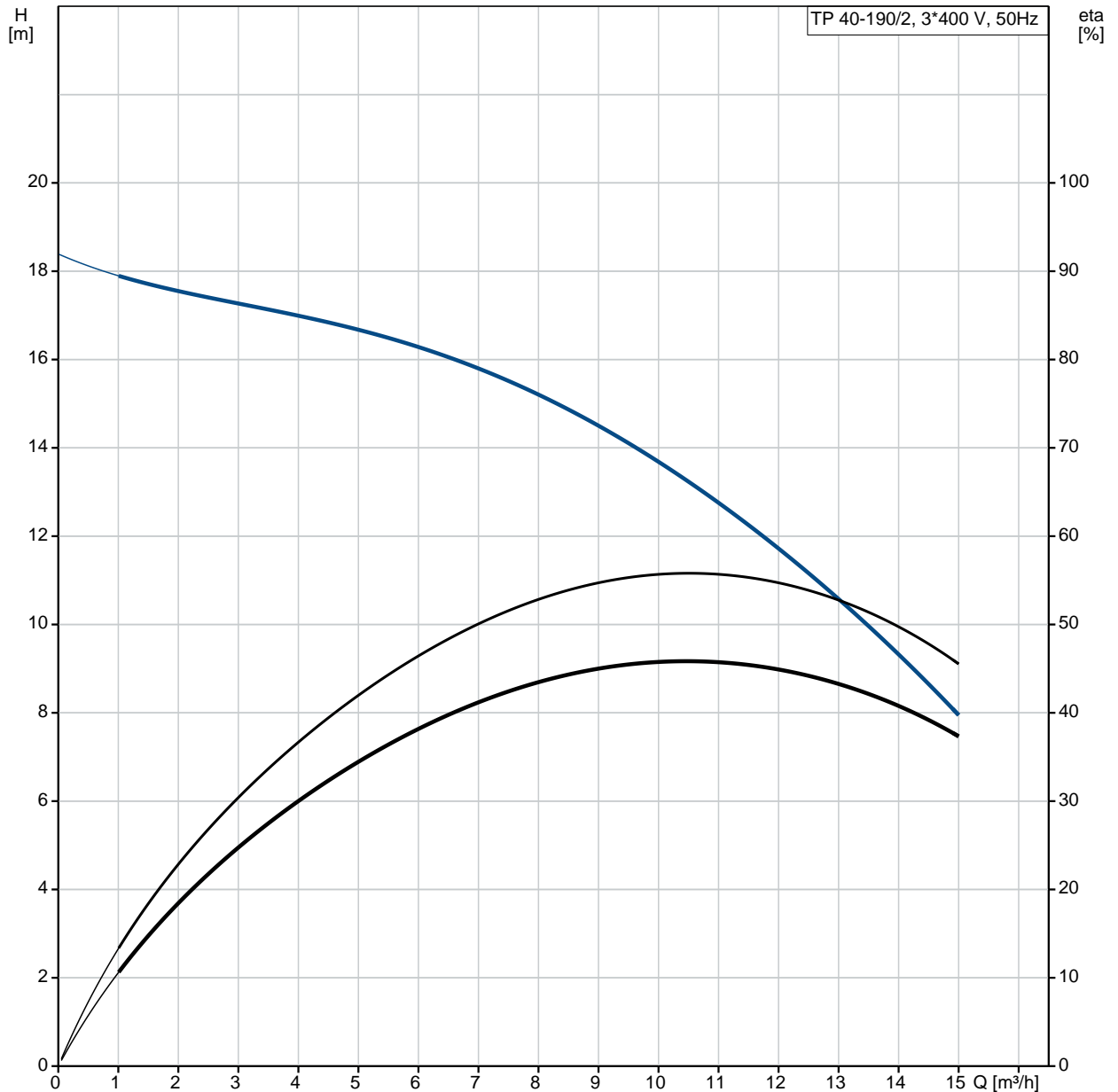
Range of ambient temperature: -30 .. 60 °C  
Maximum operating pressure: 16 bar  
Flange standard: DIN  
Pipe connection: DN 40  
Pump inlet: DN 40  
Pump outlet: DN 40  
Pressure rating: PN 16  
(@): 320 mm  
Flange size for motor: FT100

#### Electrical data:

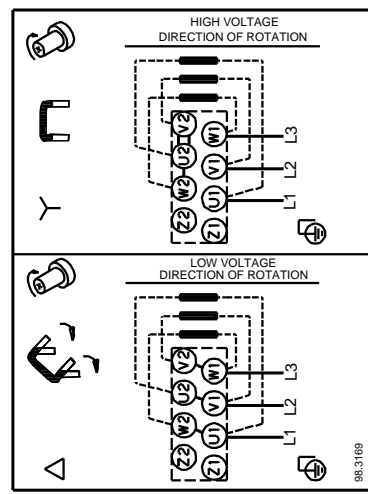
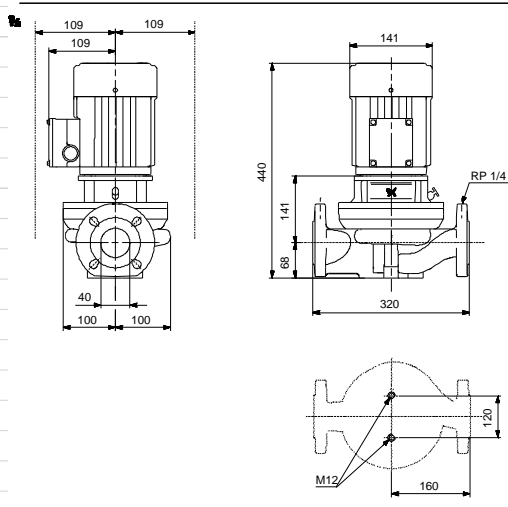
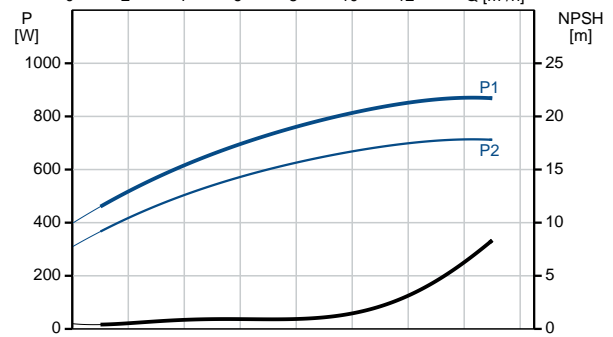
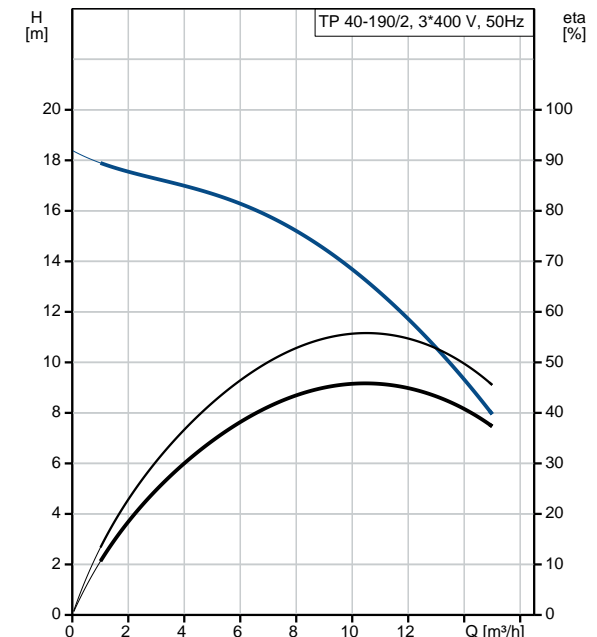
Motor type: 80A  
IE Efficiency class: IE3  
Rated power - P2: 0.75 kW  
Power (P2) required by pump: 0.75 kW  
Mains frequency: 50 Hz  
Rated voltage: 3 x 220-240D/380-415Y V  
Rated current: 3.30/1.90 A  
Starting current: 580-620 %  
Cos phi - power factor: 0.81-0.71  
Rated speed: 2840-2870 rpm  
Efficiency: IE3 80,7%

Position	Qty.	Description
		Motor efficiency at full load: 80.7 % Motor efficiency at 3/4 load: 82.7 % Motor efficiency at 1/2 load: 81.7 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F  <b>Others:</b> Minimum efficiency index, MEI : 0.44 ErP status: EuP Standalone/Prod. Net weight: 27.3 kg Gross weight: 30.8 kg Shipping volume: 0.06 m <sup>3</sup> Danish VVS No.: 381812190 Norwegian NRF no.: 9043545

# On request TP 40-190/2 A-F-A-BQQE 50 Hz



Description	Value
<b>General information:</b>	
Product name:	TP 40-190/2 A-F-A-BQQE
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Rated flow:	10.5 m <sup>3</sup> /h
Rated head:	13.2 m
Head max:	190 dm
Actual impeller diameter:	124 mm
Primary shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
<b>Materials:</b>	
Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Stainless steel DIN W.-Nr. 1.4301 AISI 304
Material code:	A
<b>Installation:</b>	
Range of ambient temperature:	-30 .. 60 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 40
Pump inlet:	DN 40
Pump outlet:	DN 40
Pressure rating:	PN 16
(@)	320 mm
Flange size for motor:	FT100
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor type:	80A
IE Efficiency class:	IE3
Rated power - P2:	0.75 kW
Power (P2) required by pump:	0.75 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	3.30/1.90 A
Starting current:	580-620 %
Cos phi - power factor:	0.81-0.71
Rated speed:	2840-2870 rpm
Efficiency:	IE3 80,7%
Motor efficiency at full load:	80.7 %
Motor efficiency at 3/4 load:	82.7 %
Motor efficiency at 1/2 load:	81.7 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U05104
<b>Others:</b>	
Minimum efficiency index, MEI :	0.44
ErP status:	EuP Standalone/Prod.
Net weight:	27.3 kg
Gross weight:	30.8 kg
Shipping volume:	0.06 m <sup>3</sup>
Danish VVS No.:	381812190



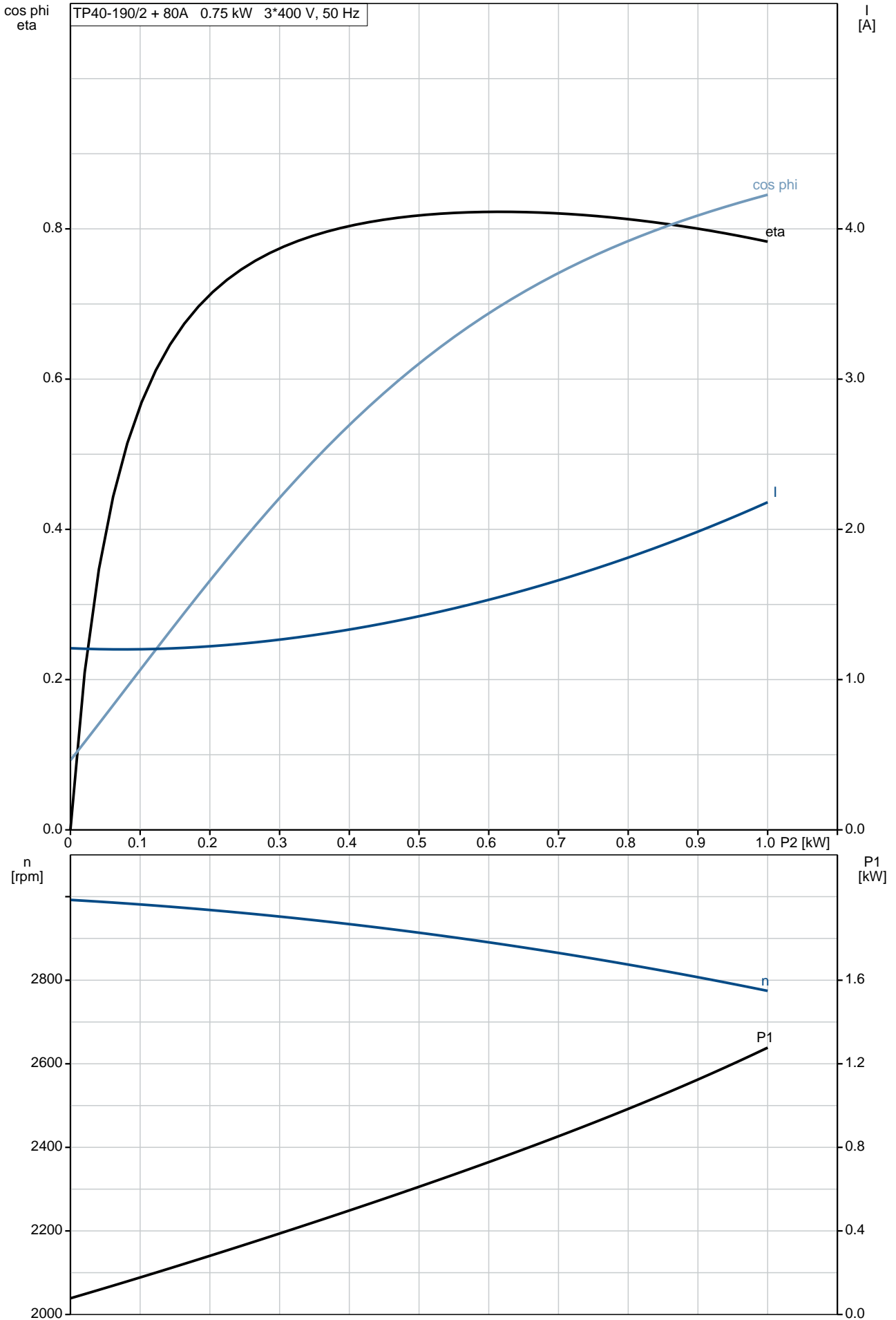
**Description****Value**

Norwegian NRF no.:

9043545

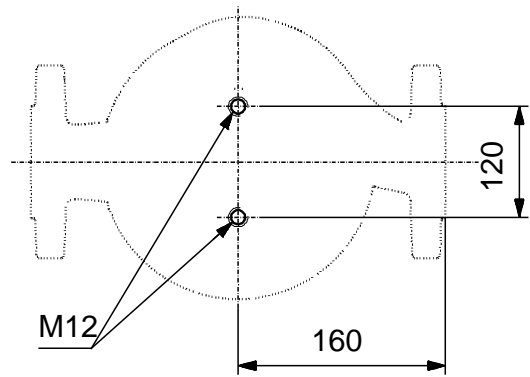
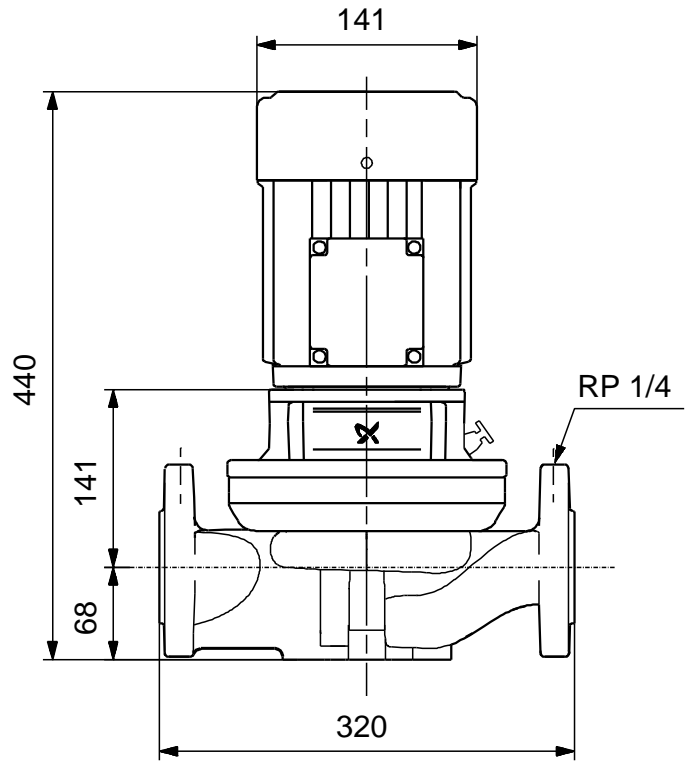
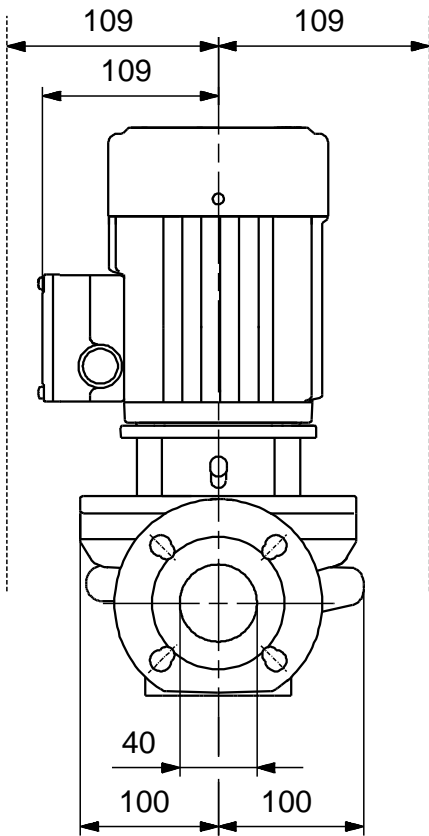
# On request TP 40-190/2 A-F-A-BQQE 50 Hz

TP40-190/2 + 80A 0.75 kW 3\*400 V, 50 Hz





# On request TP 40-190/2 A-F-A-BQQE 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 40-190/2, Product No. On request**  
**Valid from 1.1.2011 (1152)**

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Coupling cpl.				1	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 20			
			Thread: M6			
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
10a	Coupling half				2	
-	Motor stool cpl.				1	pcs
2	Motor stool				1	
26	Hex head screw		Length (mm): 25		8	
			Thread: M10			
28	Hex head screw				4	
-	Pump housing cpl.				1	pcs
-	6 Pump housing				1	
					1	
45	Neck ring				1	
-	Coupling guard cpl.				1	pcs
7	Coupling guard				2	
7a	Pan head screw				4	
-	Shaft seal cpl.				1	pcs
105	Shaft seal				1	
-	Shaft w/impeller cpl.				1	pcs
49	Impeller cpl.				1	
49b	Split cone				1	
49b	Split cone nut				1	
51	Pump shaft				1	
18	Air vent screw		Thread: 1/4"		1	pcs
19	Plug				2	pcs
72a	O-ring		Diameter: 154		1	pcs
			Material type: EPDM			
			Thickness: 4			

*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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