

### TP 50-120/2-A-F-A-BQQE 400Y 50HZ

Grundfos pump 98279255



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https://www.lenntech.com/grundfos/TP000/98279255/TP-50-120-2-A-F-A-BQQE.html

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#### Position | Qty. | Description

1

#### TP 50-120/2 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 6/10 DIN flanges (EN 1092-2 and ISO 7005-2).

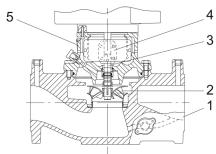
The pump is fitted with a fan-cooled asynchronous motor.

## 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: Shaft
- 4: Coupling
- 5: Pump head

The pump housing is provided with a replaceable stainles 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.

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.

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/m³

#### Technical:

Rated flow: 17.3 m³/h
Rated head: 8.1 m
Actual impeller diameter: 87 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: 10 bar Flange standard: DIN Pipe connection: **DN 50** Pump inlet: **DN 50** Pump outlet: DN 50 Pressure rating: PN 6/10 280 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

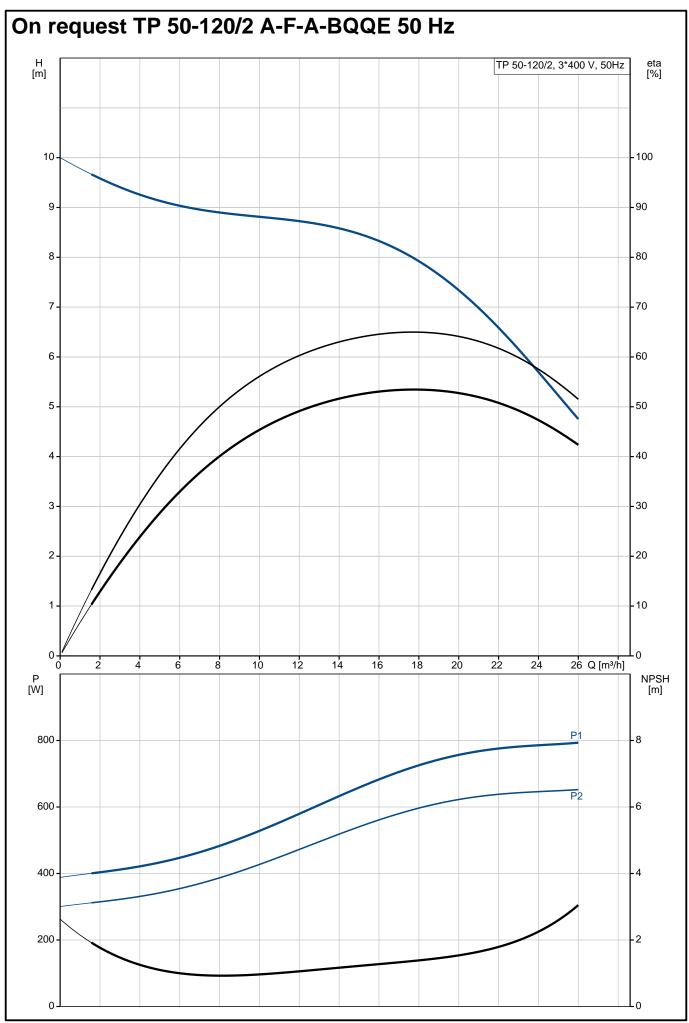
 Starting current:
 580-620 %

 Cos phi - power factor:
 0.81-0.71

 Rated speed:
 2840-2870 rpm

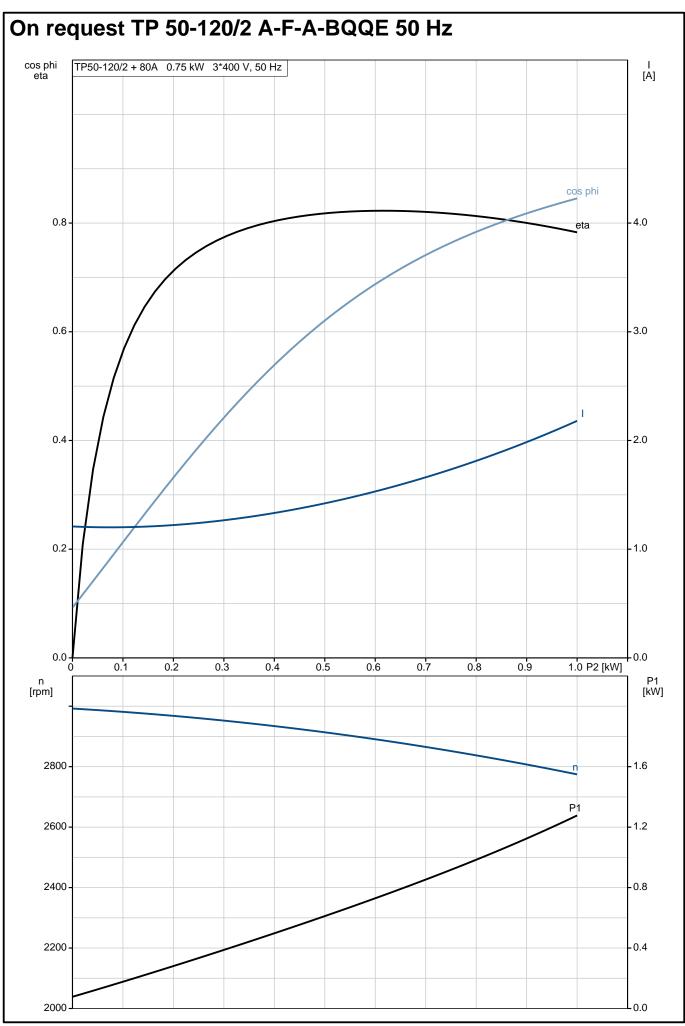
 Efficiency:
 IE3 80,7%

Position	Qty.	Description	
		Motor efficiency at full load: Motor efficiency at 3/4 load: Motor efficiency at 1/2 load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85):	80.7 % 82.7 % 81.7 % 2 55 Dust/Jetting F
		Others: Minimum efficiency index, MEI ErP status: Net weight: Gross weight: Shipping volume: Danish VVS No.: Norwegian NRF no.:	: 0.45 EuP Standalone/Prod. 29.6 kg 33.1 kg 0.06 m³ 38 1813.120 9043559

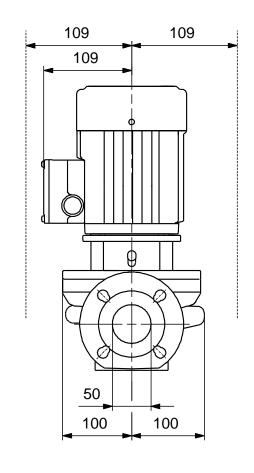


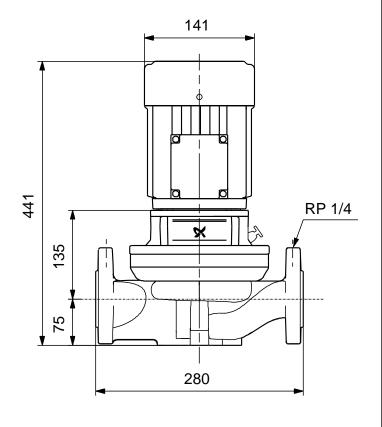
Description	Value	H [m]	TP 50-120/2, 3*400 V, 50Hz	eta [%]
General information:				
Product name:	TP 50-120/2 A-F-A-BQQE	10	- 100	Ω
Product No:	On request			
EAN number:	On request	9 -	-90	
Technical:				
Rated flow:	17.3 m³/h	8-	-80	
Rated head:	8.1 m	7	70	
Head max:	120 dm	′ ]		
Actual impeller diameter:	87 mm	6 -	60	
Primary shaft seal:	BQQE			
Curve tolerance:	ISO9906:2012 3B	5-	50	
Pump version:	A	4 -	40	
Model:	A	7]		
Materials:		3-	30	
Pump housing:	Cast iron	-		
	EN-JL1040	2-	-20	
	ASTM A48-40 B			
Impeller:	Stainless steel	1 1 //	10	
	DIN WNr. 1.4301	· • •	0	
	AISI 304	Ö	5 10 15 20 Q [m³/h]	DOLL
Material code:	A	P [W]		PSH [m]
Installation:		800 -	P1 8	
Range of ambient temperature:	-30 60 °C		°	
Maximum operating pressure:	10 bar		P2 6	
Flange standard:	DIN	600 -	6	
Pipe connection:	DN 50	-		
Pump inlet:	DN 50	400 -	4	
Pump outlet:	DN 50			
Pressure rating:	PN 6/10	200 -	2	
(@)	280 mm	-		
Flange size for motor:	FT100	_ L <sub>0</sub>	L <sub>0</sub>	
Connect code:	F	109	109 ;	
Liquid:		109	141	
Pumped liquid:	Water			
Liquid temperature range:	-25 120 °C			
Liquid temperature during operation:	20 °C			
Density:	998.2 kg/m³	18	RP 1/4	
Electrical data:			\$ P 1/4	
Motor type:	80A			
IE Efficiency class:	IE3			
Rated power - P2:	0.75 kW	50	280	
Power (P2) required by pump:	0.75 kW	100 1	100	
Mains frequency:	50 Hz		,	
Rated voltage:	3 x 220-240D/380-415Y V		n / l	
Rated current:	3.30/1.90 A		1 8	
Starting current:	580-620 %			
Cos phi - power factor:	0.81-0.71		M12 140	
Rated speed:	2840-2870 rpm		— 14U <u>—</u>	
Efficiency:	IE3 80,7%			
Motor efficiency at full load:	80.7 %	60	HIGH VOLTAGE DIRECTION OF ROTATION	
Motor efficiency at 3/4 load:	82.7 %	100		
Motor efficiency at 1/2 load:	81.7 %	·	- [	
Number of poles:	2		<b> </b>	
Enclosure class (IEC 34-5):	55 Dust/Jetting			
Insulation class (IEC 85):	F	-		
Motor protec:	NONE	-		
Motor No:	85U05104	·		
Others:		6	LOW VOLTAGE DIRECTION OF ROTATION	
Minimum efficiency index, MEI :	0.45	1/18/2		
ErP status:	EuP Standalone/Prod.	ا در ا	- <del>  -   -   -   -   -   -   -   -   -</del>	
Net weight:	29.6 kg	E T		
Gross weight:	33.1 kg			
Shipping volume:	0.06 m <sup>3</sup>	-		
Danish VVS No.:	38 1813.120			
Darmon V V O 110	55 1010.120	.   ⊲		

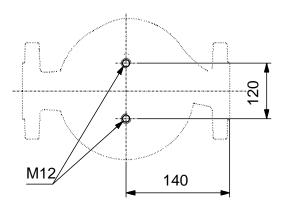
Norwegian NRF no.: 9043359	<b>Description</b> Norwegian NRF no.:	<b>Value</b> 9043559
	Norwegian NRF no.:	9043559



## On request TP 50-120/2 A-F-A-BQQE 50 Hz

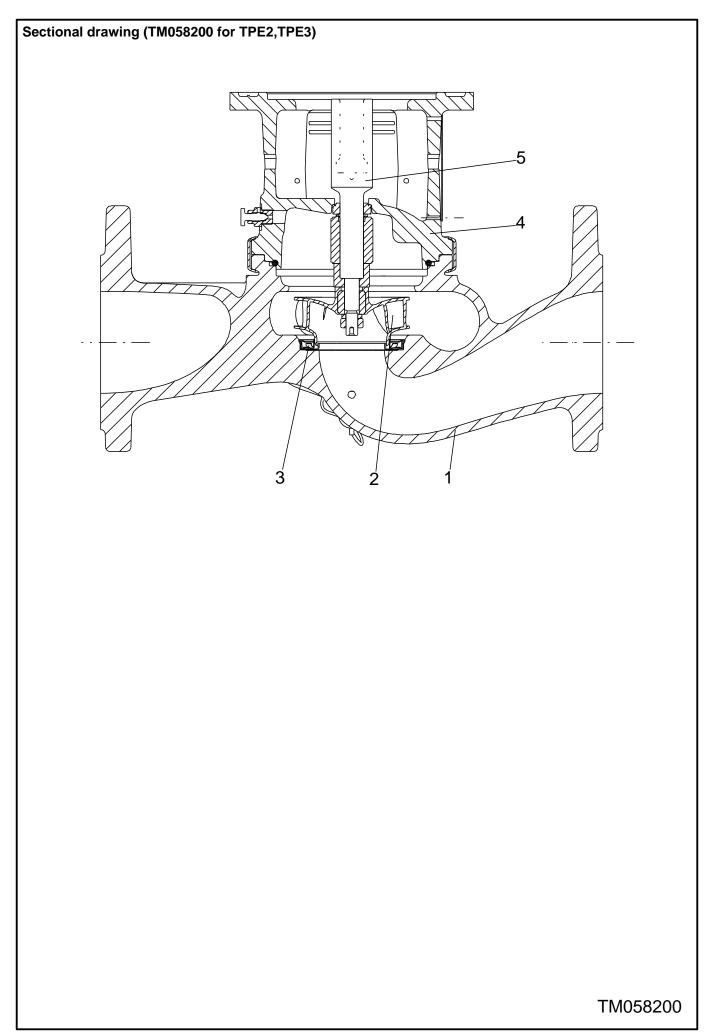






Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.







# Parts list TP 50-120/2, 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	
65	Teflon 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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