

**Date:** 25/10/2024

Qty. | Description

TP 50-120/2 A-F-A-BQQE-FW1



Note! Product picture may differ from actual product

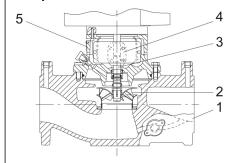
Product No.: 98279255

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.

### **Pump**



- 1: Pump housing
- 2: Impeller
- 3: Shaft
- 4: Coupling
- 5: Pump head

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.

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.

#### Seal faces:

- 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.



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## Qty. | Description

#### 1 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).

## **Further product details**

#### **Technical data**

Controls:

Frequency converter: None

Liquid:

Pumped liquid: Water
Liquid temperature range: -25 .. 120 °C
Selected liquid temperature: 20 °C
Density: 998.2 kg/m³

Technical:

Pump speed on which pump data are based: 2890 rpm

Rated flow: 17.3 m³/h
Rated head: 8.1 m
Actual impeller diameter: 87 mm
Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B2

Materials:

Pump housing: Cast iron

EN-GJL-250 ASTM class 35

Impeller: Stainless steel

EN 1.4301 AISI 304

Installation:

Range of ambient temperature: -30 .. 60 °C Maximum operating pressure: 10 bar

Max pressure at stated temp: 10 bar / 120 °C

Type of connection: DIN
Size of connection: DN 50
Pressure rating for connection: PN 6/10
Port-to-port length: 280 mm
Flange size for motor: FT100

Electrical data:

Motor type: 80A Rated power - P2: 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 %



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1 Cos phi - power factor: 0.81-0.71 Rated speed: 2840-2870 rpm

IE Efficiency class: IE3

Motor efficiency at full load: 80.7 %

Motor efficiency at 3/4 load: 82.7-80.9 %

Motor efficiency at 1/2 load: 81.7-77.9 %

Number of poles:

Enclosure class (IEC 34-5): 55 Dust/Jetting

Insulation class (IEC 85):

Motor No: 85U05104

Others:

Minimum efficiency index, MEI ≥: 0.45
Net weight: 28 kg
Gross weight: 31.5 kg
Shipping volume: 0.08 m³
Danish VVS No.: 38 1813.120
Finnish LVI No.: 4616049
Norwegian NRF no.: 9043559



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Description	Value		
General information:			
Product name:	TP 50-120/2 A-F-A-BQQE-FW1		
Product No:	98279255		
EAN number:	5711492356500		
Technical:			
Pump speed on which pump data are based:	2890 rpm		
Rated flow:	17.3 m³/h		
Rated head:	8.1 m		
Maximum head:	120 dm		
Actual impeller diameter:	87 mm		
Code for shaft seal:	BQQE		
Curve tolerance:	ISO9906:2012 3B2		
Pump version:	A		
Materials:			
Pump housing:	Cast iron		
Pump housing:	EN-GJL-250		
Pump housing:	ASTM class 35		
Impeller:	Stainless steel		
Impeller:	EN 1.4301		
Impeller:	AISI 304		
Material code:	Α		
Installation:			
Range of ambient temperature:	-30 60 °C		
Maximum operating pressure:	10 bar		
Max pressure at stated temp:	10 bar / 120 °C		
Type of connection:	DIN		
Size of connection:	DN 50		
Pressure rating for connection:	PN 6/10		
Port-to-port length:	280 mm		
Flange size for motor:	FT100		
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
Electrical data:			
Motor type:	80A		
Rated power - P2:	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		
IE Efficiency class:	IE3		
Motor efficiency at full load:	80.7 %		
Motor efficiency at 3/4 load:	82.7-80.9 %		
Motor efficiency at 1/2 load:	81.7-77.9 %		
Number of poles:	2		
Enclosure class (IEC 34-5):	55 Dust/Jetting		
Insulation class (IEC 85):	F		
Built-in motor protection:	NONE		
Motor No:	85U05104		
Controls:	None		
Frequency converter:	None		

		Т	P 50-120/2, 3	3*400 V, 50Hz
		_		
5	10	15	20	Q [m³/h]

Density = 998.2 kg/m³

P
[W]

800

P1

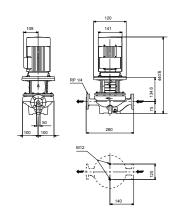
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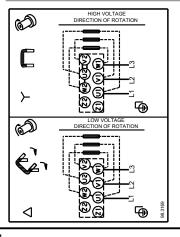
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400

200

0







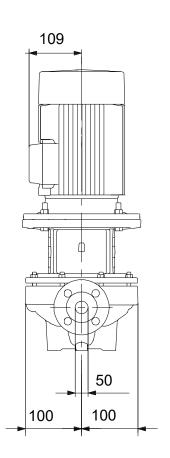
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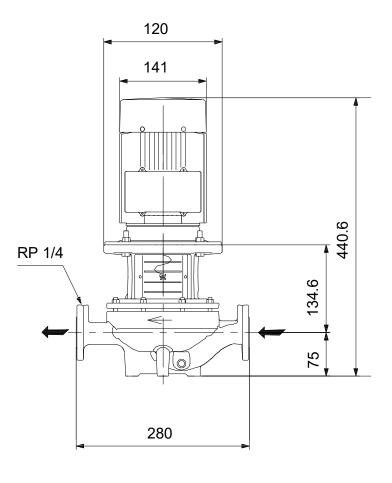
Description	Value
Others:	
Minimum efficiency index, MEI ≥:	0.45
Net weight:	28 kg
Gross weight:	31.5 kg
Shipping volume:	0.08 m³
Danish VVS No.:	38 1813.120
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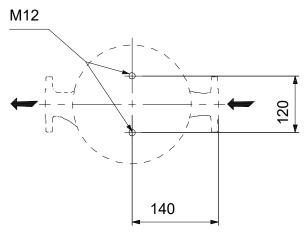


25/10/2024 Date:

# 98279255 TP 50-120/2 A-F-A-BQQE-FW1 50 Hz







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