

08/08/2022

Qty. | Description

1

#### TP 80-60/4 AI-F-Z-BQQE-FX3



Note! Product picture may differ from actual product

Product No.: 98585195

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.

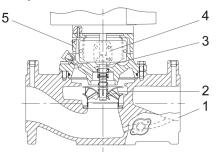
The shaft seal is according to EN 12756. Pipework connection is via PN 6 DIN flanges (EN 1092-2 and ISO 7005-2).

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

The bronze pump housing and stainless-steel impeller make the pump suitable for circulation of hot water. 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.

Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

#### 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.



08/08/2022

# Description

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

Qty.

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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

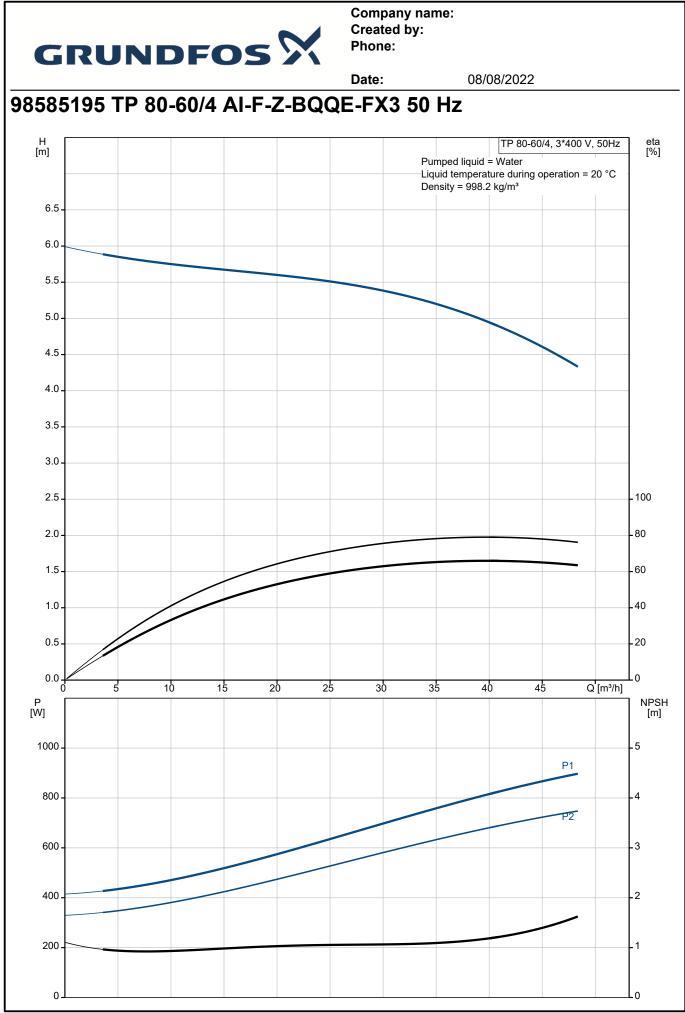
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

## **Technical data**

Controls: Frequency converter:	NONE
Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -25 120 °C 20 °C 998.2 kg/m³
Technical: Pump speed on which pump dat Rated flow: Rated head: Actual impeller diameter: Code for shaft seal: Curve tolerance:	a are based: 1420 rpm 39.1 m³/h 4.97 m 133 mm BQQE ISO9906:2012 3B2
Materials: Pump housing: Impeller:	Bronze CuSn10 ASTM B505 Stainless steel EN 1.4301 AISI 304
Installation: Range of ambient temperature: Maximum operating pressure: Max pressure at stated temp: Type of connection: Size of connection: Pressure rating for connection:	-20 55 °C 6 bar 6 bar / 120 °C DIN DN 80 PN 6



			Date:	08/08/2022	
Qty.	Description				
1	Port-to-port length:	360 mm			
	Flange size for motor:	FT100			
	Electrical data:				
	Motor type:	SIEMENS			
	IE Efficiency class:	IE3			
	Rated power - P2:	0.75 kW			
	Mains frequency:	50 Hz			
	Rated voltage:	3 x 220-240D/380	-420Y V		
	Rated current:	3.05/1.75 A			
	Starting current:	710-710 %			
	Cos phi - power factor:	0.75			
	Rated speed:	1450 rpm			
	Efficiency:	IE3 82,5%			
	Motor efficiency at full load: Motor efficiency at 3/4 load:	82.5-82.5 % 82.3-82.3 %			
	Motor efficiency at 1/2 load:	79.3-79.3 %			
	Number of poles:	4			
	Enclosure class (IEC 34-5):	IP55			
	Insulation class (IEC 85):	F			
	Motor No:	99900480			
	Others:	N 0 70			
	Minimum efficiency index, MEI Net weight:	≥: 0.70 51.7 kg			
	Gross weight:	60.3 kg			
	Shipping volume:	0.204 m <sup>3</sup>			
	Country of origin:	HU			
	Custom tariff no.:	84137051			

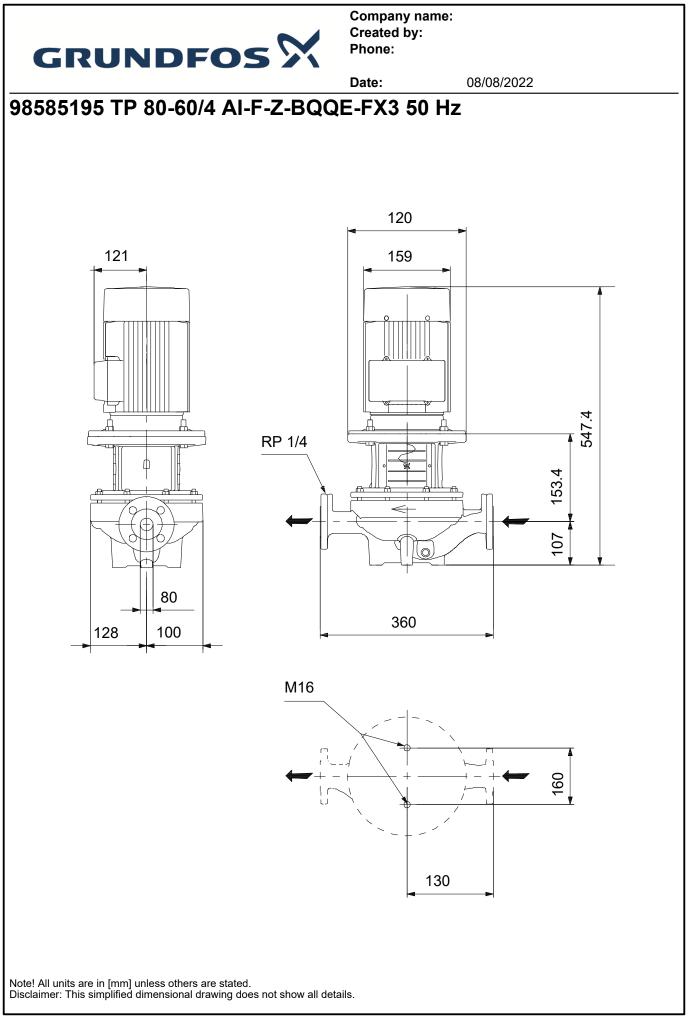




		Date:		8/08/20	,			
Description	Value	H [m]			TP 80-	60/4, 3*	400 V, 50Hz	z
General information:				mped liquid				
Product name:	TP 80-60/4 AI-F-Z-BQQE-FX3	6.5 -		nsity = 998.		g operat	tion = 20 °C	
Product No:		6.0 -						
	98585195	5.5						
EAN number: Technical:	5711497669261							
		5.0 -						
Pump speed on which pump data are based:	1420 rpm	4.5 -						
Rated flow:	39.1 m³/h	4.0 -						
Rated head:	4.97 m	3.5						
Maximum head:	60 dm	3.0						
Actual impeller diameter:	133 mm	3.0 -						
Code for shaft seal:	BQQE	2.5 -			_			- 10
Curve tolerance:	ISO9906:2012 3B2	2.0 -						- 80
Pump version:	AI	-						
Materials:		1.5 -						- 60
Pump housing:	Bronze	1.0 -						- 40
Pump housing:	CuSn10	0.5						20
Pump housing:	ASTM B505	0.0						
Impeller:	Stainless steel	0.0	10 15	20 25	30 35	5 40	Q [m³/h	
Impeller:	EN 1.4301	P 0 5	10 15	20 25	30 35	, 40	ر (m²/h	ון ר ר
Impeller:	AISI 304	[W]						
-		1000 -					P1	- 5
Material code:	Z	_						
Installation:		800 -						-4
Range of ambient temperature:	-20 55 °C	600 -					P2	3
Maximum operating pressure:	6 bar	600 -						- °
Max pressure at stated temp:	6 bar / 120 °C	400						2
Type of connection:	DIN						/	<b></b>
Size of connection:	DN 80	200						1
Pressure rating for connection:	PN 6							
Port-to-port length:	360 mm	0						0
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:	SIEMENS							
IE Efficiency class:	IE3							
Rated power - P2:	0.75 kW							
Mains frequency:	50 Hz							
Rated voltage:	3 x 220-240D/380-420Y V							
Rated current:	3.05/1.75 A							
Starting current:	710-710 %							
Cos phi - power factor:	0.75							
Rated speed:	1450 rpm							
Efficiency:	IE3 82,5%							
Motor efficiency at full load:	82.5-82.5 %							
Motor efficiency at 3/4 load:	82.3-82.3 %							
Motor efficiency at 1/2 load:	79.3-79.3 %							
Number of poles:	4							
Enclosure class (IEC 34-5):	4 IP55							
Insulation class (IEC 85):	F							
Built-in motor protection:	NONE							
Motor No: Controls:	99900480							



		Date:	08/08/2022
cription	Value		
equency converter:	NONE		
thers:			
/inimum efficiency index, MEI ≥:	0.70		
et weight:	51.7 kg		
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pping volume:	0.204 m <sup>3</sup>		
ountry of origin:	HU		
ustom tariff no.:	84137051		





08/08/2022 Date: 98585195 TP 80-60/4 AI-F-Z-BQQE-FX3 50 Hz

