

Date: 16/06/2022 Description Qty. TP 65-90/4 A-F-A-BQQE-FX3 1 Note! Product picture may differ from actual product 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. 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 3 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. 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.



tion

Date:

16/06/2022

# Qty. Description

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. 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 has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

### Further product details

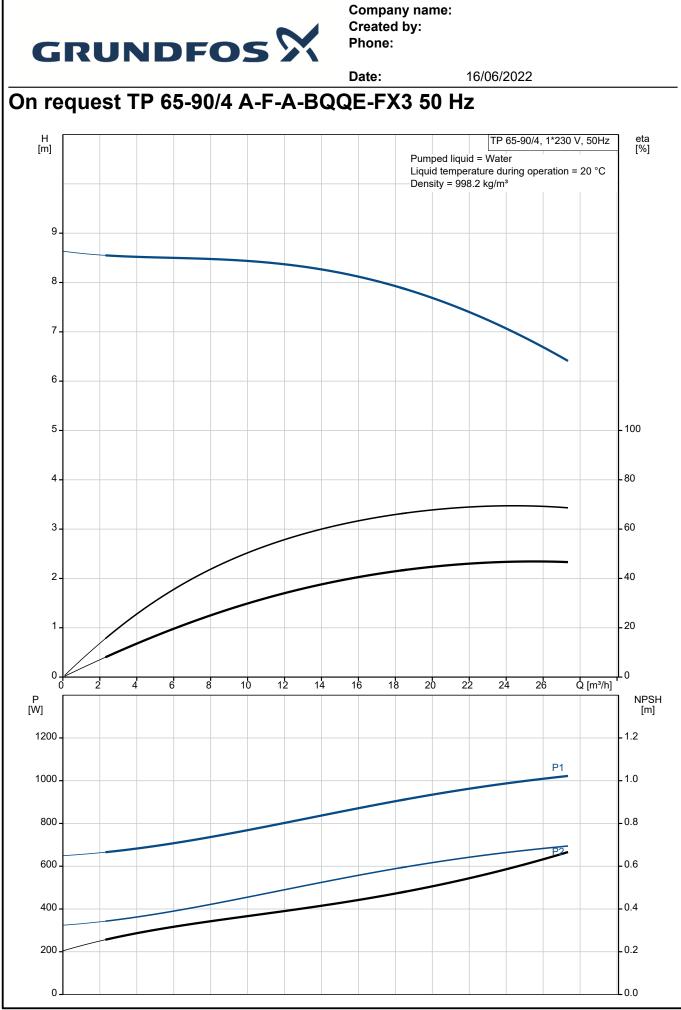
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

### **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 data Rated flow: Rated head: Actual impeller diameter: Code for shaft seal: Curve tolerance:	are based: 1400 rpm 25 m³/h 7.31 m 162 mm BQQE ISO9906:2012 3B2
Materials: Pump housing: Impeller:	Cast iron EN-GJL-250 ASTM class 35 Cast iron EN-GJL-200 ASTM class 30
Installation: Range of ambient temperature: Maximum operating pressure: Max pressure at stated temp:	-30 40 °C 16 bar 16 bar / 120 °C



16/06/2022 Date: Qty. Description Type of connection: DIN Size of connection: DN 65 Pressure rating for connection: PN 16 Port-to-port length: 360 mm Flange size for motor: FF165 Electrical data: Motor type: 90SA Rated power - P2: 0.75 kW Mains frequency: 50 Hz Rated voltage: 1 x 220-230 V Rated current: 5.45 A Starting current: 320 % Cos phi - power factor: 0.96 Rated speed: 1390-1410 rpm Number of poles: 4 Enclosure class (IEC 34-5): 55 Dust/Jetting F Insulation class (IEC 85): Motor No: 87200342 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 52.8 kg Gross weight: 64 kg Shipping volume: 0.22 m<sup>3</sup> Country of origin: ΗU Custom tariff no .: 84137051



Printed from Grundfos Product Centre [2022.26.009]



		Date:	16/06/2022
Description	Value	H [m]	TP 65-90/4, 1*230 V, 50Hz [%]
General information:	TUINV		Pumped liquid = Water
Product name:	TP 65-90/4	—	Liquid temperature during operation = 20 °C Density = 998.2 kg/m <sup>3</sup>
	A-F-A-BQQE-FX3	9 -	
Product No:	On request	8	
EAN number:	On request	Ű	
Technical:		7 -	
Pump speed on which pump data are based:	1400 rpm	6 -	
Rated flow:	25 m³/h		
Rated head:	7.31 m	5 -	- 100
Maximum head:	90 dm	4	- 80
Actual impeller diameter:	162 mm	4 -	- 80
Code for shaft seal:	BQQE	3	- 60
Curve tolerance:	ISO9906:2012 3B2		
Pump version:	А	2 -	40
Materials:			
Pump housing:	Cast iron	1	20
Pump housing:	EN-GJL-250	0	0
Pump housing:	ASTM class 35	o	5 10 15 20 Q [m³/h]
Impeller:	Cast iron	P [W]	NPSH [m]
Impeller:	EN-GJL-200	— · · · +—	
Impeller:	ASTM class 30	1000 -	P1 1.0
Material code:	А	800 -	-0.8
Installation:		800 -	-0.8
Range of ambient temperature:	-30 40 °C	600 -	- 0.6
Maximum operating pressure:	16 bar	400 -	0.4
Max pressure at stated temp:	16 bar / 120 °C		
Type of connection:	DIN	200 -	- 0.2
Size of connection:	DN 65	0	0.0
Pressure rating for connection:	PN 16	*	
Port-to-port length:	360 mm		200
Flange size for motor:	FF165	139	178
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³	65	
Electrical data:		142 124	380
Motor type:	90SA		M16
Rated power - P2:	0.75 kW		
Mains frequency:	50 Hz		
Rated voltage:	1 x 220-230 V		180
Rated current:	5.45 A		k <u></u>
Starting current:	320 %		
Cos phi - power factor:	0.96		ECTION OF ROTATION
Rated speed:	1390-1410 rpm	×	
Number of poles:	4		
Enclosure class (IEC 34-5):	55 Dust/Jetting	MAIN	(W2)-(U2) (V2)-z
Insulation class (IEC 85):	F		
Built-in motor protection:	PTO	BROW	
Motor No:	87200342		
Controls:			ECTION OF ROTATION
Frequency converter:	NONE		
Others:			
Minimum efficiency index, MEI ≥:	0.70		$(w_2)$ $(v_2)$ $(v_2)$ $-z$
Net weight:	52.8 kg	MAIN	
Gross weight:	64 kg	BROWN	
Shipping volume:	0.22 m <sup>3</sup>	@	

Printed from Grundfos Product Centre [2022.26.009]

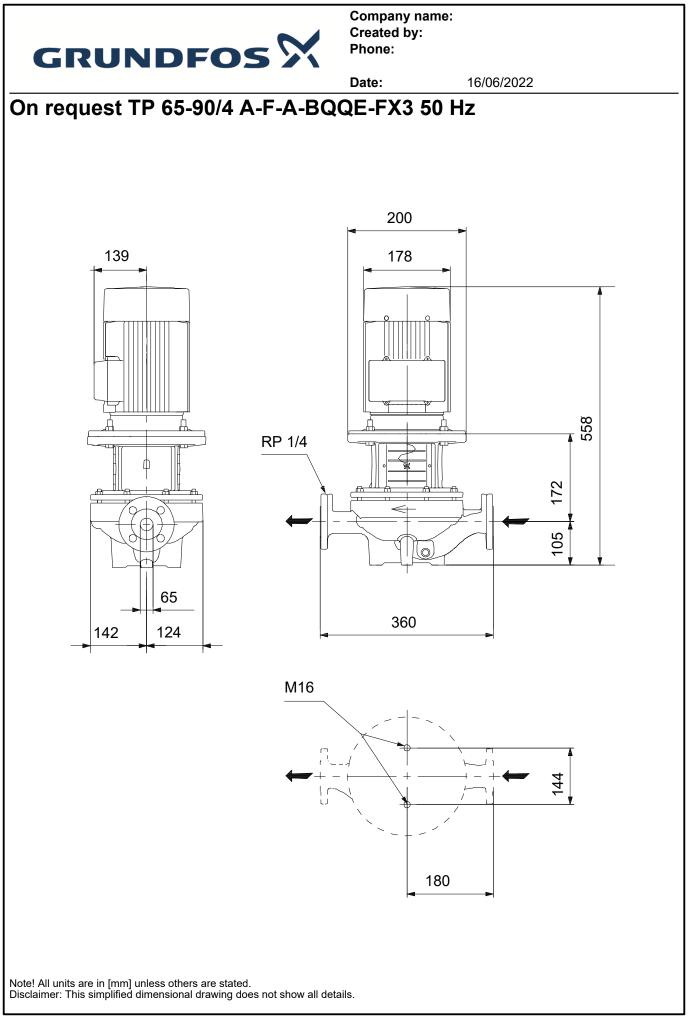


16/06/2022

Description Country of origin: Custom tariff no.:

HU 84137051

Value

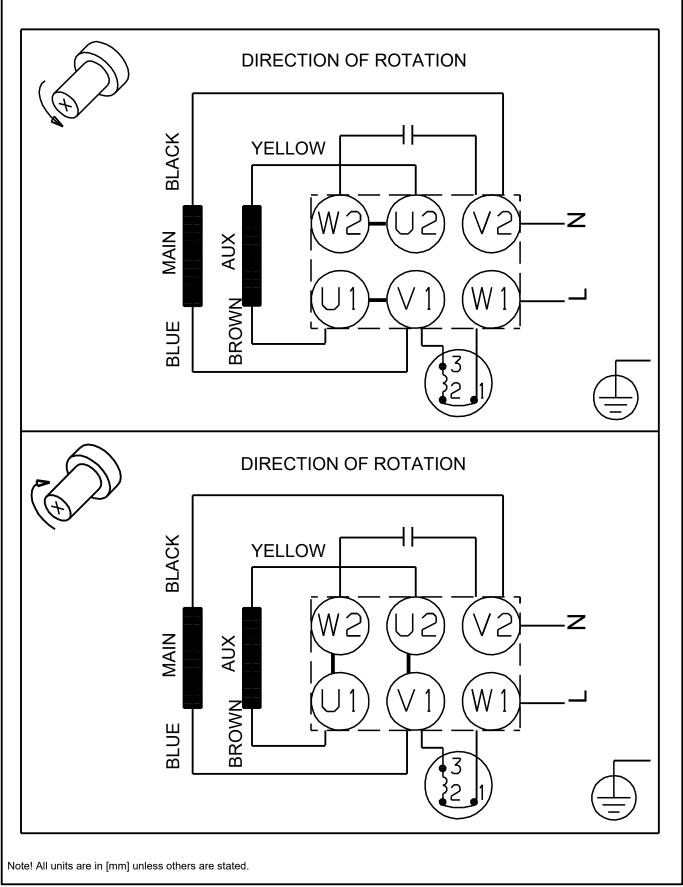




Date:

16/06/2022

On request TP 65-90/4 A-F-A-BQQE-FX3 50 Hz





16/06/2022

Order	Data:
Oldel	Dala.

Product name:TP 65-90/4Amount:1Product No:On request

Total: Price on request