

29/08/2019

Qty. | Description

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## TPE 100-200/2-S A-F-A-BQQE



Product No.: 99114837

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.

TPE 100-200/2-S A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPE 100-200/2-S A-F-A-BQQETPE 100-200/2-S A-F-A-BQQETPE 100-200/2-S A-F-A-BQQEThe shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).

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The pump is fitted with a fan-cooled, permanent-magnet synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

The pump is fitted with a differential-pressure sensor.

# Further product details

The pump is suitable for applications requiring pressure control. The pump is fitted with a differential-pressure transmitter registering the differential pressure across the pump and enabling constant pressure or proportional-pressure control of the pump.

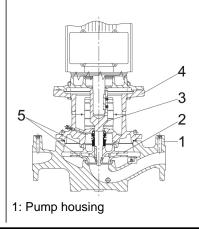
A control panel enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The control panel has indicator lights for "Operation" and "Fault".

Communication with the pump is possible by means of the Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

#### 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.





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- 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.

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. 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 efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

TPE 100-200/2-S A-F-A-BQQEThe terminal box holds terminals for these connections:

- one dedicated digital input
- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 3.5 V; the factory-fitted pressure sensor is connected to one of these inputs
- 5 V voltage supply to potentiometer and sensor
- one configurable digital input or open-collector output
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal relay outputs (potential-free contacts)
- GENIbus connection
- interface for Grundfos CIM fieldbus module.

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- 24 V voltage supply for sensors

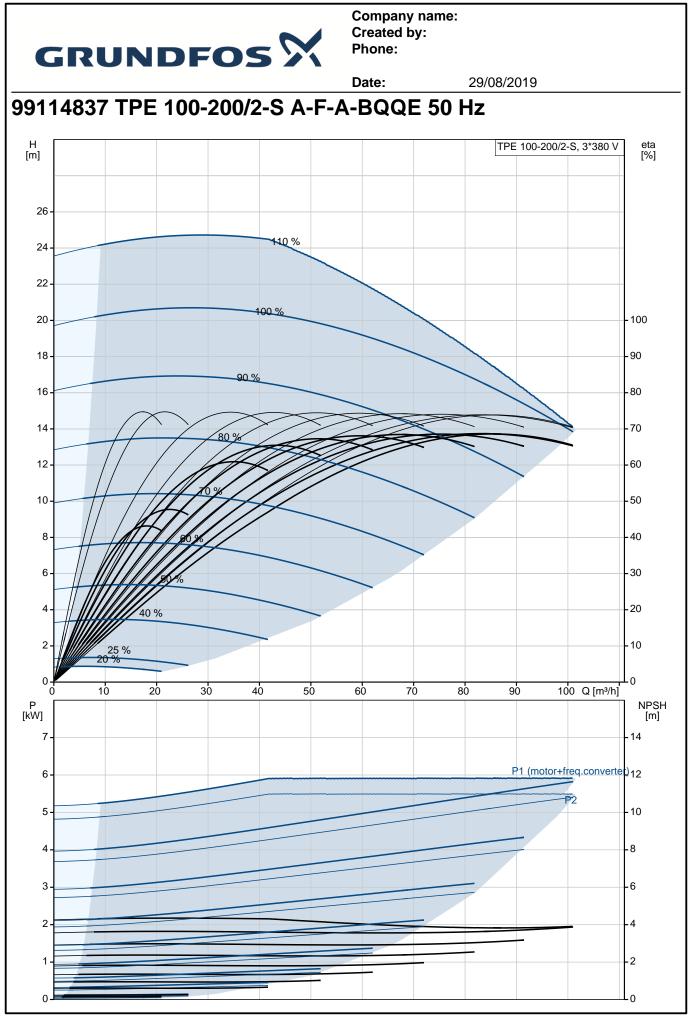


Company name: Created by:

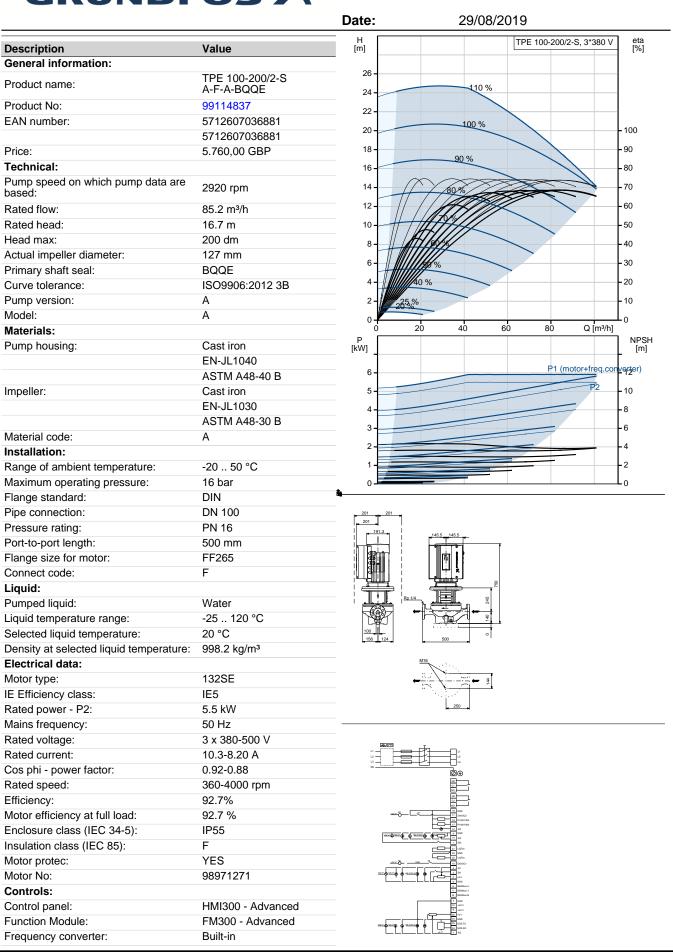
GRUNDFO	J5 21	Phone:		
		Date:	29/08/2019	
Description				
<ul> <li>two signal relay outputs (</li> <li>the two power heads con</li> <li>interface for Grundfos CI</li> </ul>	nmunicate via wireles		red GENI connection	
Technical data				
Controls:				
Frequency converter:	Built-in			
Liquid:				
Pumped liquid:	Water			
Liquid temperature range:	-25 120 °C			
Selected liquid temperature:	20 °C			
Density at selected liquid tempe				
Technical:				
Pump speed on which pump dat	ta are based: 2920 r	pm		
Rated flow:	85.2 m³/h			
Rated head:	16.7 m			
Actual impeller diameter:	127 mm			
Primary shaft seal:	BQQE			
Curve tolerance:	ISO9906:2012 3B			
Materials:				
Pump housing:	Cast iron			
Tump nousing.	EN-JL1040			
	ASTM A48-40 B			
Impeller:	Cast iron			
	EN-JL1030			
	ASTM A48-30 B			
Installation:				
Range of ambient temperature:	-20 50 °C			
Maximum operating pressure:	16 bar			
Flange standard:	DIN			
Pipe connection:	DN 100			
Pressure rating:	PN 16			
Port-to-port length:	500 mm			
Flange size for motor:	FF265			
Electrical data:	10005			
Motor type:	132SE			
IE Efficiency class:	IE5			
Rated power - P2:	5.5 kW			
Mains frequency:	50 Hz			
Rated voltage:	3 x 380-500 V			
Rated current:	10.3-8.20 A			
Cos phi - power factor:	0.92-0.88			
Rated speed:	360-4000 rpm			
	-			
Efficiency:	92.7%			
Motor efficiency at full load:	92.7 %			
Enclosure class (IEC 34-5):	IP55			
Insulation class (IEC 85):	F			
Motor No:	98971271			
Others:				
	: 0.58			
Others:	: 0.58 EuP Standalone/Pro	od.		



	GRUNDFO		Phone:	
			Date:	29/08/2019
/.	Description			
	Gross weight: Shipping volume:	120 kg 1.14 m³		
	Shipping volume: Danish VVS No.:	381946200		
	Norwegian NRF no.:	9043639		







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GRUND			
		Date:	29/08/2019
Description	Value		
Others:			
Minimum efficiency index, MEI :	0.58		
ErP status:	EuP Standalone/Prod.		
Net weight:	101 kg		
Gross weight:	120 kg		
Shipping volume:	1.14 m³		
Config. file no:	99137778		
Danish VVS No.:	381946200		
Norwegian NRF no.:	9043639		

