

Qty. | Description

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Date:

19/11/2020

TPE3 32-200 S-A-F-A-BQQE-FDC

Note! Product picture may differ from actual product

Product No.: 99272206

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 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, 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 combined temperature- and differential pressure sensor. The pump is suitable for applications requiring pressure or temperature control and offers following control modes:

- AUTOADAPT. This function continuously adjusts the proportional-pressure curve and automatically sets a more efficient curve without compromising comfort demands.
- FLOWADAPT. This control mode combines AUTOADAPT with a flow-limiting function. The pump continuously monitors the flow rate to ensure the desired maximum flow is not exceeded. This will save the cost of a separate pump-throttling valve.
- Constant differential pressure. The pump head is kept constant, independent of the flow in the system.
- Proportional pressure. The head of the pump will increase proportionally to the flow in the system to compensate for the large pressure losses in the distribution pipes.
- Constant temperature. The return-pipe temperature is kept constant. Note: If the pump is installed in the flow pipe, an external temperature sensor must be installed in the return pipe of the system.
- Constant differential temperature. The differential temperature can be measured by a differential-temperature sensor or two separate temperature sensors.
- Constant curve. The pump can be set to run at a constant speed in the range of 25 to 100 % of the maximum speed.

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.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions. The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".

Communication with the pump is also possible by means of 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".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:



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 "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)

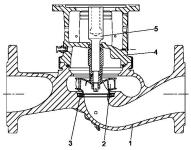
Date:

- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

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: Neck ring
- 4: Pump head/motor stool
- 5: Stub shaft

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 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.

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 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.

The terminal box holds terminals for these connections:

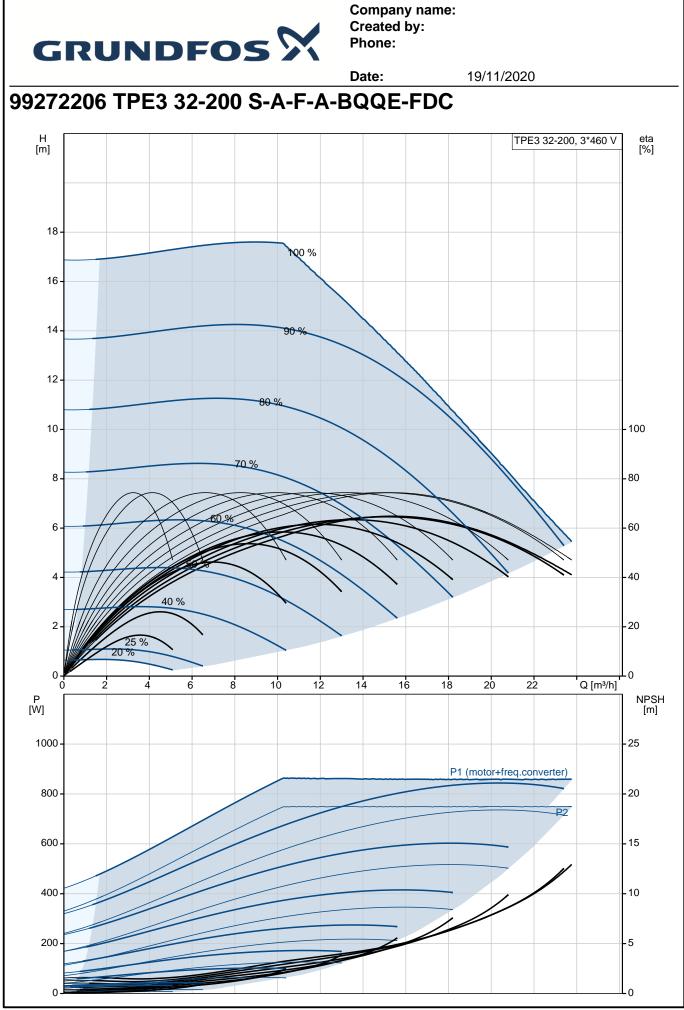
- one dedicated digital input
- two analog inputs, 0(4)-20 mA, 0-10 V
- one configurable digital input or open-collector output
- Grundfos combined temperature and differential pressure sensor (separate connected)



		19/11/2020		
Description				
 24 V voltage supply for set 				
 two signal relay outputs (potential-free contacts)			
 GENIbus connection 				
 interface for Grundfos CII 	VI fieldbus module.			
Further product details				
Technical data				
Controls:				
Frequency converter:	Built-in			
Linuide				
Liquid:	Mater.			
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 dat	a are based: 5200 mm			
Rated flow:	•			
	14.9 m ³ /h			
Rated head:	13.8 m			
Actual impeller diameter:	62 mm			
Code for shaft seal:	BQQE			
Curve tolerance:	ISO9906:2012 3B2			
Materiala				
Materials:	Oratizza			
Pump housing:	Cast iron			
	EN-GJL-250			
	ASTM class 35			
Impeller:	Composite			
	PES+30% GF			
Installation:				
Range of ambient temperature:	-20 50 °C			
Maximum operating pressure:	10 bar			
Max pressure at stated temp:				
Type of connection:	DIN			
Size of connection:	DN 32			
Pressure rating for connection:	PN 6/10			
Port-to-port length:	220 mm			
Flange size for motor:	56C			
Floatrical data:				
Electrical data:	904			
Motor type:	80A			
IE Efficiency class:	IE5			
Rated power - P2:	0.75 kW			
Mains frequency:	50 / 60 Hz			
Rated voltage:	3 x 380-500 V			
Rated current:	1.70-1.60 A			
Cos phi - power factor:	0.82-0.66			
Rated speed:	480-5900 rpm			
Efficiency:	88.1%			
Motor efficiency at full load:	88.1 %			
Enclosure class (IEC 34-5):	IP55			
Insulation class (IEC 85):	F			
Motor No:	99138035			
Others:				



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			Date:	19/11/2020	
Qty.	Description				
	Net weight: Gross weight: Shipping volume: Danish VVS No.: Finnish LVI No.: Country of origin: Custom tariff no.:	24.5 kg 32 kg 0.1 m ³ 381620200 4616249 HU 84137051			



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Rated head: Rated head: Rated head: Rated head: Maximum head: Code for shaft seal: Code for shaft seal: Curve tolerance: Pump version: Pump housing: Pump housing: Pump housing: Pump housing: Pump housing: Pump housing: Pump housing: Pump housing: Rated head: Pump housing: Pump housing: Pump housing: Pump housing: Rated head: Pump housing: Pump housing: P		Date:	19/11/20	20		
General information: TPE3 32-200 Product Name: S-AF-A-BQOE-FDC Poduct Name: S-AF-A-BQOE-FDC EAN number: S-FAF-A-BQOE-FDC Product Name: GBP 3229 Technical: GBP 3229 Technical: GDP 3229 Technical: Source Pump speed on which pump data are 5200 rpm Rated Inv: 14.9 m/h Rated Inv: 13.8 m Maximum head: 200 dm Actual impeller diameter: 62 mm Code for shaft seat: BQOE Pump housing: Cast Iron Pump housing: 20 °C Partice-port length: 20 °C Partice-port length: 20 °C Donnet code: F </th <th>Description</th> <th>Value</th> <th>H</th> <th></th> <th>TPE3 32-200, 3*460</th> <th>V</th>	Description	Value	H		TPE3 32-200, 3*460	V
Product name: PFE3 32-200 Product No: 9972706 EAN number: G71382830030 Price: GBP 3228 Technical: Pump speed on which pump data are saded: 13.8 m Maximum haad: 200 dm Actual impeller diameter: 62 mm Code for shaft seal: BOOE Course tolerance: ISO9006.2012 382 Pump version: A Materials: Pump housing: Cast iron Pump di liquid: Water Liquid temperature range: 25. 12° C Density: B90.2 kg/m² Electrical data: Motor prote: S0 / 0 dh kz Rated voltage: 3 x 380-500 V Rated current: 1.70-1.60 A Corpored: B1// Not Motor Poticiency at full hoad: B3.1 % Enclosure data (IC 24-5): F Motor volt: S9138035 Control is Control panel: HMI300 - Graphical Function Module: FM300		Tuluc				
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EAN number: 57/3326360030 Price: GBP 3228 Technical: Pump speed on which pump data are 5200 rpm Rated flow: 14.9 m/h Rated head: 13.8 m Maximum head: 200 d/m Actual impelier diameter: 62 mm Code for shaft seal: BOQ0E Curve tolerance: ISO9006:2012 3B2 Pump housing: EN-GJL-250 Pump housing: EN-GJL-250 Pump housing: EN-GJL-250 Pump housing: ASTM class 35 impelier: Composite impelier: PES-30% GF Materials: 00 bar / 120 °C Type of connection: DIN 32 Prossure rating for connection: PN 6/10 Proft-port legoht fundit: Water Liquid temperature: 20 °C Donsity: 988.2 kg/m ³ Electrical data: Motor type: 80A Materiales: LE5 Finaled curve: 1.70 °L to A Selected liquid temperature: 20 °C Donsity: 988.2 kg/m ³ Electrical data: Motor type: 80A Materiales: LE5 Rated power - P2: 0.75 KW Material date: 1.70 °L to A Selected liquid temperature: 20 °C Donsity: 998.2 kg/m ³ Electrical data: Motor type: 80A Materiales: LE5 Rated power - P2: 0.75 KW Material date: 1.70 °L to A Selected liquid temperature: 20 °C Donsity: 998.2 kg/m ³ Electrical data: Motor type: 80A Material discode: F Eleficiency: 50 / 60 Hz Rated current: 1.70 °L to A Cos phi - power factor: 0.82.0.66 Rated speed: 480-5900 rpm Eleficiency at full load: 88,1% Enclosure dass: ELEC Motor No: 99138035 Controls: Controls: Controls: Controls: Controls: Controls: Controls: Fuguenty converter: Built-in	Product No:	99272206	10	00 //		
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Implement PLSPONGLY Material code: A Installation: -2050 °C Range of ambient temperature: -2050 °C Maximum operating pressure: 10 bar Maximum operating pressure: 10 bar / 120 °C Type of connection: DIN Size of connection: DIN 32 Pressure rating for connection: DN 82 Port-oport length: 220 mm Flange size for motor: 56C Connect code: F Liquid: Water Liquid temperature rating: -25 120 °C Selected liquid temperature: 20 °C Stated power - P2: 0.75 kW Mains frequency: 50 / 60 Hz Rated ourrent: 1.70-1.60 A Cos phi - power factor: 0.82-0.66 Rated speed: 480-5900 rpm Efficiency: 88.1% Enclosure class (IEC 34-5): IP55 <td>•</td> <td></td> <td>1000 -</td> <td></td> <td></td> <td>- 25</td>	•		1000 -			- 25
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Installation: Range of ambient temperature: -20 50 °C Maximum operating pressure: 10 bar / 120 °C Type of connection: DIN Max pressure at stated temp: 10 bar / 120 °C Type of connection: DIN 32 Pressure rating for connection: PN 6/10 Port-to-port length: 220 mm Flange size for motor: 56C Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m ³ Electrical data: Motor type: 80A IE Efficiency class: IE5 Rated power - P2: 0.75 kW Mains frequency: 50 / 60 Hz Rated soltage: 3 x 380-500 V Rated current: 1.70-1.60 A Cos phi - power factor: 0.82-0.66 Rated speed: 480-5900 rpm Efficiency: 88.1% Motor efficiency at full load: 88.1% Enclosure class (IEC 85): F Motor protec: ELEC Motor prote: ELEC Motor prote: 9138035 Controls: Control panel: HM300 - Graphical Function Module: FM300 - Advanced Frequency converter: Built-in	Material code:	A	800-	1-	P9	- 20
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Control panel: HMI300 - Graphical Function Module: FM300 - Advanced Frequency converter: Built-in			<u></u>			
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Frequency converter: Built-in				4 GND A GONDus A V GONDus Y		
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		DUIII-III				
Minimum efficiency index, MEI ≥: 0.7				1 400 28 406 TX 34 406 RX 34 406 RX		

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		Date:	19/11/2020	
Description	Value			
Net weight:	24.5 kg			
Gross weight:	32 kg			
Shipping volume:	0.1 m ³			
Config. file no:	98484772			
Danish VVS No.:	381620200			
Finnish LVI No.:	4616249			
Country of origin:	HU			
Custom tariff no .:	84137051			

