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Date:

20/08/2019

#### Qty. | Description

1

### TPE 32-200/2 A-F-A-BQQE



Note! Product picture may differ from actual product

Product No.: 98514289

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 32-200/2 A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPE 32-200/2 A-F-A-BQQETPE 32-200/2 A-F-A-BQQETPE 32-200/2 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).

Pipework connection is via PN 16 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.

# Further product details

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".

An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is 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 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.

## 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.



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<ul> <li>3) Cathodic electrocoating (epoxy).</li> <li>4) Curing of paint film at 200-250 °C.</li> </ul>
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 aroun 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: <ul> <li>Rotating seal ring material: silicon carbide (SiC)</li> <li>Stationary seat material: silicon carbide (SiC)</li> </ul>
<ul> <li>Stationary seat material: silicon carbide (SiC)</li> <li>This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</li> </ul>
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 pun 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 I).
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- an quick-rising temperatures, e.g. constant overload and stalled conditions.

TPE 32-200/2 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 •



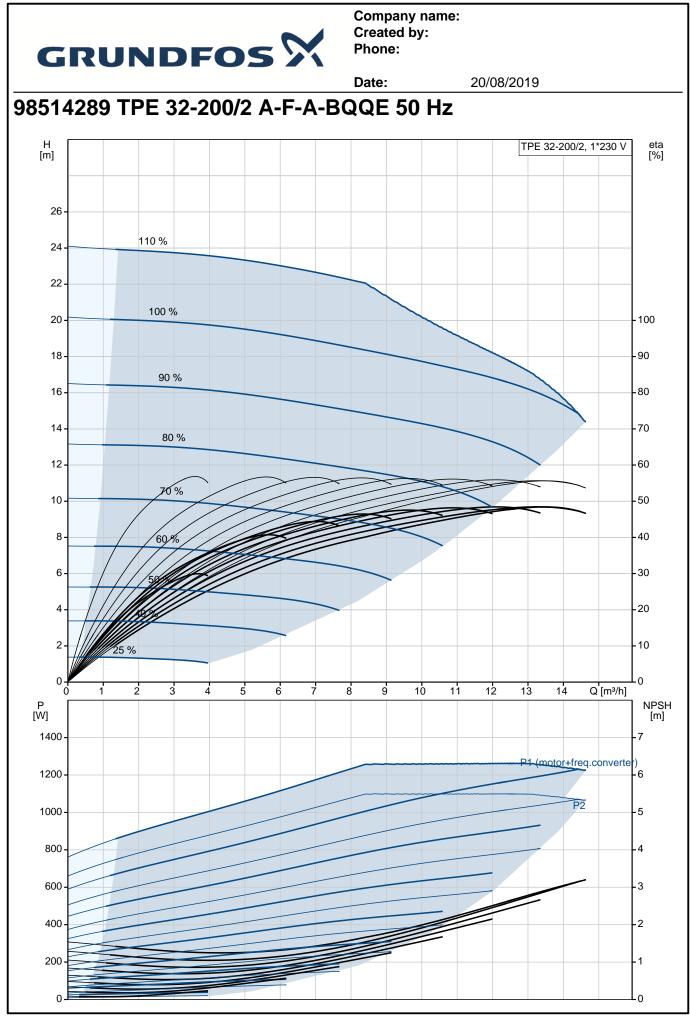
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	GRUNDFO	os X	Created by: Phone:			
			Date:	20/08/2019		
/.	Description					
	<ul> <li>5 V voltage supply to pote</li> <li>one configurable digital ir</li> <li>Grundfos Digital Sensor i</li> <li>24 V voltage supply for set two signal-relay outputs (</li> <li>GENIbus connection</li> <li>interface for Grundfos CII</li> </ul>	nput or open-collec nput and output ensors potential-free conta	tor output acts)			
	<ul> <li>TPE 32-200/2 A-F-A-BQQEThe terminal box holds terminals for these connections:</li> <li>one dedicated digital input</li> <li>two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V</li> <li>5 V voltage supply to potentiometer and sensor</li> <li>one configurable digital input or open-collector output</li> <li>Grundfos Digital Sensor input and output</li> <li>24 V voltage supply for sensors</li> <li>two signal relay outputs (potential-free contacts)</li> <li>the two power heads communicate via wireless GENIair or wired GENI connection</li> <li>interface for Grundfos CIM fieldbus module.</li> </ul>					
	Technical data					
	Controls: Frequency converter:	Built-in				
	Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density at selected liquid tempe	Water -25 120 °C 20 °C rature: 998.2 kg/n	n <sup>3</sup>			
	<b>Technical:</b> Pump speed on which pump dat Rated flow: Rated head: Actual impeller diameter: Primary shaft seal: Curve tolerance:	ta are based: 290 13.6 m³/h 16 m 129 mm BQQE ISO9906:2012 3E				
	<b>Materials:</b> Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B				
	Impeller:	Cast iron EN-JL1030 ASTM A48-30 B				
	Installation: Range of ambient temperature: Maximum operating pressure: Flange standard: Pipe connection: Pressure rating: Port-to-port length: Flange size for motor:	-20 50 °C 16 bar DIN DN 32 PN 16 340 mm FF165				
	<b>Electrical data:</b> Motor type: IE Efficiency class: Rated power - P2:	80B IE5 1.1 kW				



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Mains frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: Efficiency: Motor efficiency at full load: Enclosure class (IEC 34-5):	50 Hz 1 x 200-240 V 6.70-5.60 A 0.99 360-4000 rpm 86.9% 86.9 % IP55			
Insulation class (IEC 85): Motor No:	F 99390781			
Others: Minimum efficiency index, MEI	≥: 0.70			
ErP status: Net weight: Gross weight: Shipping volume:	EuP Standalone/P 41 kg 51 kg 0.134 m <sup>3</sup>	rod.		



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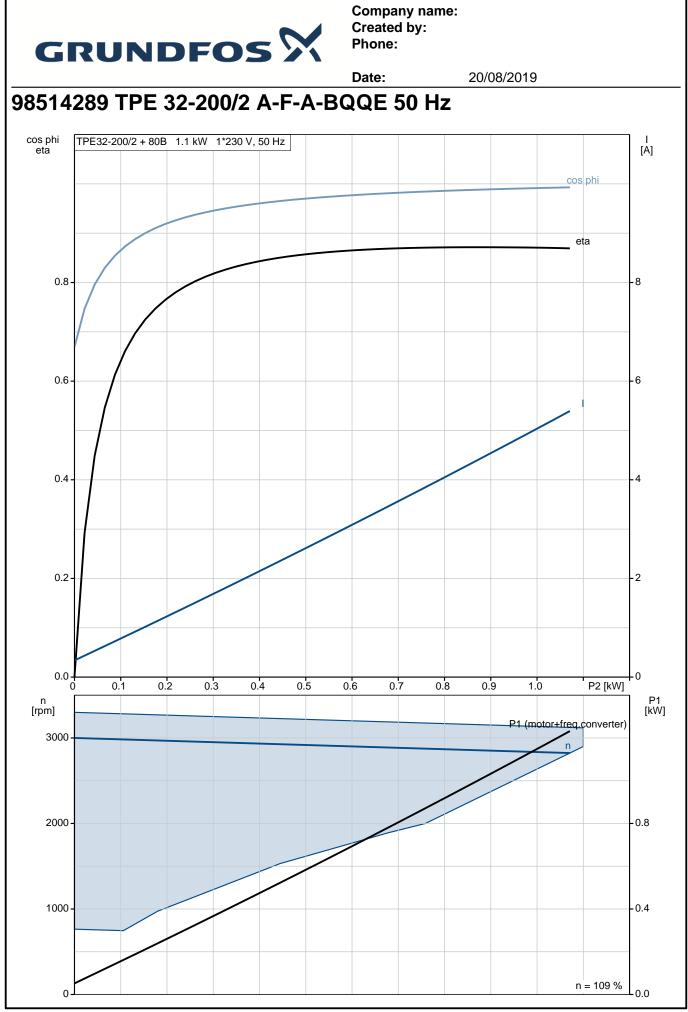
		Date:	20/0	8/2019		
Description	Value	H [m]		TPE 32-2	00/2, 1*230 V	eta [%]
General information:						
Product name:	TPE 32-200/2 A-F-A-BQQE	26 - 24 -	110 %			
Product No:	98514289					
EAN number:	5711496402951	22				
EAN NUMBER:	5711496402951	20 -	100 %		·	100
Technical:		18 -	90 %			90
Pump speed on which pump data are based:	2900 rpm	16 -				80
Rated flow:	13.6 m³/h	14 -	80 %			70
Rated head:	16 m	12 -			- (	60
Head max:	200 dm	10 -	70 %			50
Actual impeller diameter:	129 mm	8 -				40
Primary shaft seal:	BQQE	°-				
Curve tolerance:	ISO9906:2012 3B	6-				30
Pump version:	A	4/				20
Model:	A	2				10
Materials:	n.	<b>/</b>	25 %			
	Castiron	0	2 4 6	8 10 12	Q [m³/h]	0
Pump housing:	Cast iron	— Р Г				NPSH
	EN-JL1040	P [W]				[m]
	ASTM A48-40 B	1200 -		P1 (	motor+freq.conve	erter) 6
Impeller:	Cast iron					
	EN-JL1030	1000 -			P2 - {	5
	ASTM A48-30 B	800 -				4
Material code:	A	600 -				3
Installation:						
Range of ambient temperature:	-20 50 °C	400 -				2
Maximum operating pressure:	16 bar	200 -				1
Flange standard:	DIN	0				0
Pipe connection:	DN 32	158 158				
Pressure rating:	PN 16	158 158	-=			
Port-to-port length:	340 mm					
Flange size for motor:	FF165					
Connect code:	F					
Liquid:	•			8		
Pumped liquid:	Water		Rp 1/4	*		
Liquid temperature range:	-25 120 °C			22		
Selected liquid temperature:	20 °C					
		32	(			
Density at selected liquid temperature:	998.2 kg/m³	125 117	340	I		
Electrical data:	000		<b>1</b> 84 C			
Motor type:	80B		····			
IE Efficiency class:	IE5		← <u>:::::\</u>	← <sup>4</sup> / <sub>4</sub>		
Rated power - P2:	1.1 kW		바지, 노가			
Mains frequency:	50 Hz		170			
Rated voltage:	1 x 200-240 V					
Rated current:	6.70-5.60 A		-			
Cos phi - power factor:	0.99					
Rated speed:	360-4000 rpm	ь рб	<u></u> Ø⊕			
Efficiency:	86.9%					
Motor efficiency at full load:	86.9 %					
Enclosure class (IEC 34-5):	IP55					
Insulation class (IEC 85):	F		19 Price 1000			
Motor protec:	YES	211-47				
Motor No:	99390781		21 LigTac 20 GND 22 LigTac			
Controls:	-					
Control panel:	HMI200 - Standard					
Function Module:	FM300 - Advanced		Y GENbus V B GENbus B			
Frequency converter:	Built-in		55 +34 V 8 +34 V 36 -44 V			
Others:		L				

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Description	Value		
Minimum efficiency index, MEI ≥:	0.70	-	
ErP status:	EuP Standalone/Prod.		
Net weight:	41 kg		
Gross weight:	51 kg		
Shipping volume:	0.134 m <sup>3</sup>		
Config. file no:	98478803		



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