

Date:

29/08/2019

Qty. | Description

1 TPED 100-200/4-S A-F-A-BQQE



Product No.: 99132863

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.

TPED 100-200/4-S A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPED 100-200/4-S A-F-A-BQQETPED 100-200/4-S A-F-A-BQQETPED 100-200/4-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.

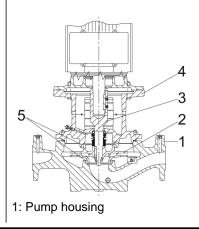
A control panel enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The control panel has indicator lights for "Operation" and "Fault".

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.

TPED 100-200/4-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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- 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



Company name: Created by:

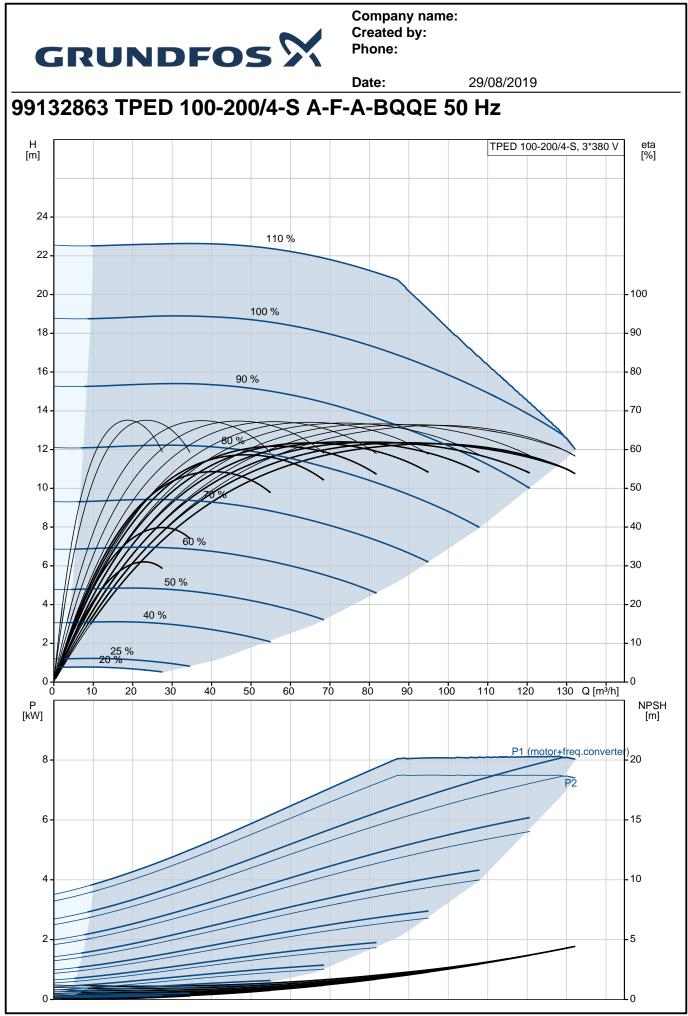
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			Date:	29/08/2019	
Description					
		potential-free contact			
		nmunicate via wireles	s GENlair or wi	red GENI connection	
- interfac	e for Grundfos Cl	M fieldbus module.			
Technical d	ata				
Controls:					
Frequency cor	verter:	Built-in			
1.1					
Liquid: Pumped liquid		Water			
Liquid tempera		-25 120 °C			
Selected liquid		20 °C			
		20 C erature: 998.2 kg/m ³			
Technical:					
	n which pump da	ta are based: 1455 r	pm		
Rated flow:		92 m³/h			
Rated head:		16.7 m			
Actual impeller		240 mm			
Primary shaft s		BQQE			
Curve tolerand	e:	ISO9906:2012 3B			
Materials:					
Pump housing	:	Cast iron			
1 0		EN-JL1040			
		ASTM A48-40 B			
Impeller:		Cast iron			
·		EN-JL1030			
		ASTM A48-30 B			
1					
Installation:	iont tomporatura:	20 50 °C			
	ient temperature: rating pressure:	-2050 C 16 bar			
	at stated temp:	16 bar / 120 °C			
Flange standa		DIN			
Pipe connectio		DN 100			
Pressure rating		PN 16			
Port-to-port ler		670 mm			
Flange size for		FF265			
Electrical data	a:				
Motor type:		132MH			
IE Efficiency cl		IE5			
Rated power -		7.5 kW			
Mains frequen		50 Hz			
Rated voltage:		3 x 380-500 V			
Rated current:		14.1-11.1 A			
Cos phi - powe	er ractor:	0.93-0.89			
Rated speed:		180-2200 rpm			
Efficiency:	w of full load	92.2%			
Motor efficience		92.2 %			
Enclosure clas		IP55			
Insulation clase Motor No:	S (IEU 00):	F 98971268			
		30311200			
Others:					
	ency index, MEI	: 0.45			
FrP status		FuP Standalone/Pro	. d		

EuP Standalone/Prod.

ErP status:



	GRUND		Date:	29/08/2019	
Qty.	Description		Duto.	20/00/2010	
	Net weight: Gross weight: Shipping volume:	452 kg 535 kg 1.53 m³			



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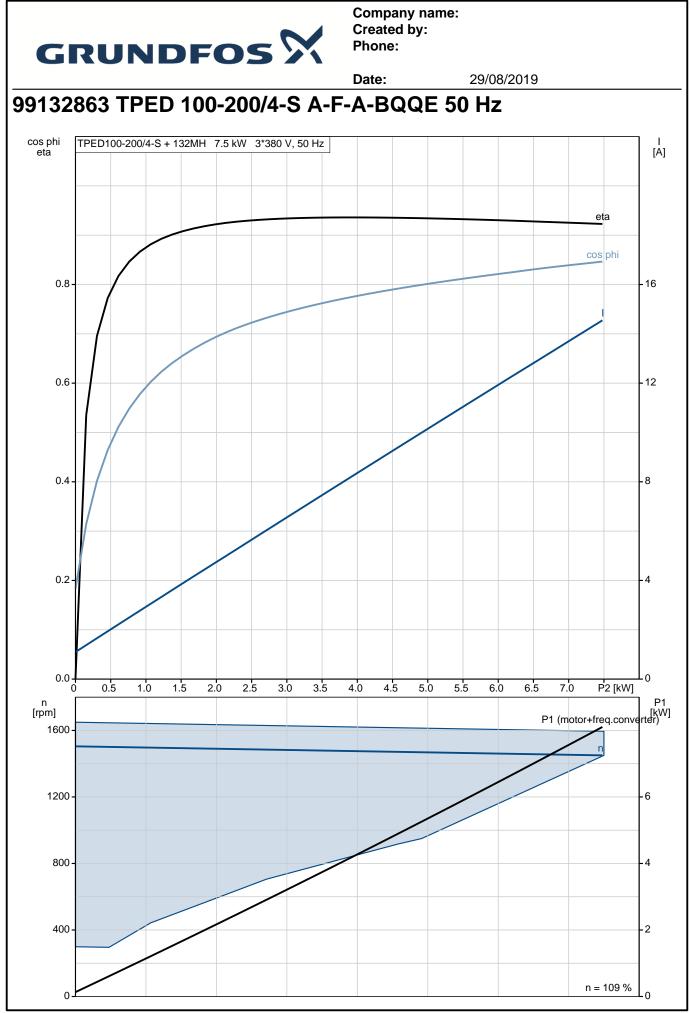


		Date:	29/08/2019	
Description	Value	H [m]	TPED 100-200/4-S, 3*380 V	eta [%]
General information:	TPED 100-200/4-S	24 -		
Product name:	A-F-A-BQQE	22 -	110 %	
Product No:	99132863	20 -	100	0
EAN number:	5712607355524	20-	100 %	J
	5712607355524	18 -	90	
Technical:		16 -	90 %	
Pump speed on which pump data are based:	1455 rpm	14 -	70	
Rated flow:	92 m³/h	12-	80%	
Rated head:	16.7 m	'²] // /		
Head max:	200 dm	10-	50	
Actual impeller diameter:	240 mm	8-	40	
Primary shaft seal:	BQQE	6-	-30	
Curve tolerance:	ISO9906:2012 3B	°1/////	50 %	
Pump version:	A	4 -	40 %	
Model:	A	2-	%	
Materials:		0		
Pump housing:	Cast iron	0 20) 40 60 80 100 Q [m ³ /h]	
	EN-JL1040	P [kW]		IPSH [m]
	ASTM A48-40 B		P1 (motor+freq.converte	er)
Impeller:	Cast iron	8-	P2 20	
	EN-JL1030	6 -	15	
	ASTM A48-30 B	0		
Material code:	A	4-	10	
Installation:		4		
Range of ambient temperature:	-20 50 °C	2	-5	
Maximum operating pressure:	16 bar		°	
Max pressure at stated temp:	16 bar / 120 °C	0		
Flange standard:	DIN	4		
Pipe connection:	DN 100	591 591		
Pressure rating:	PN 16		- 237 -	
Port-to-port length:	670 mm			
Flange size for motor:	FF265			
Connect code:	F			
Liquid:				
Pumped liquid:	Water	- KARA		
Liquid temperature range:	-25 120 °C	579 561		
Selected liquid temperature:	20 °C	470 470 4	<u>M16</u>	
Density at selected liquid temperature:				
Electrical data:				
Motor type:	132MH			
IE Efficiency class:	IE5	t	M16 1 350 110	
Rated power - P2:	7.5 kW			
Mains frequency:	50 Hz			
Rated voltage:	3 x 380-500 V			
Rated current:	14.1-11.1 A	12		
Cos phi - power factor:	0.93-0.89	PE		
Rated speed:	180-2200 rpm			
Efficiency:	92.2%			
Motor efficiency at full load:	92.2 %	+24		
Enclosure class (IEC 34-5):	IP55	+24 V		
Insulation class (IEC 85):	F	[
Motor protec:	YES		Y GENbus Y B GENbus B	
Motor No:	98971268		3 (RD) 15 -24 V 6 -24 V	
Controls:				
Control panel:	HMI300 - Advanced	+24 V (***********************************		
Function Module:	FM300 - Advanced			

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		D	ate:
Description	Value		
Frequency converter:	Built-in	_	
Others:			
Minimum efficiency index, MEI :	0.45		
ErP status:	EuP Standalone/Prod.		
Net weight:	452 kg		
Gross weight:	535 kg		
Shipping volume:	1.53 m³		
Config. file no:	99139893		



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