

29/08/2019

Qty. | Description

1

## TPED 125-130/4-S A-F-A-BQQE



Product No.: 99132865

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 125-130/4-S A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPED 125-130/4-S A-F-A-BQQETPED 125-130/4-S A-F-A-BQQETPED 125-130/4-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).

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.

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.

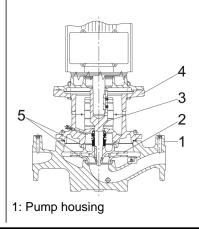
A control panel enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The control panel has indicator lights for "Operation" and "Fault".

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 125-130/4-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:

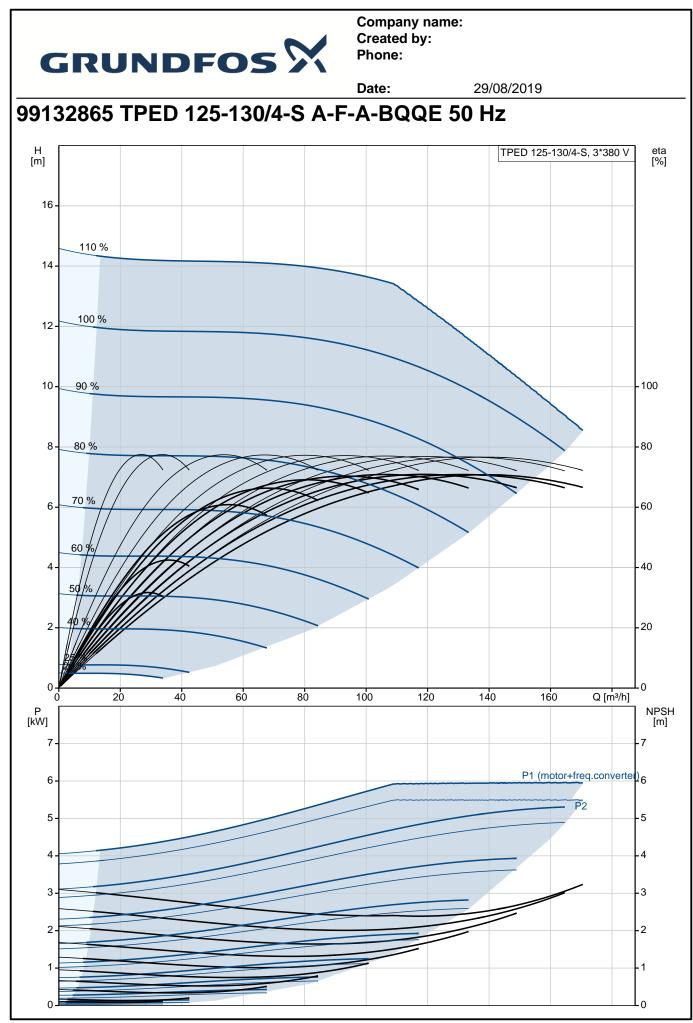
GRUN	DFC	J	Phone:		
			Date:	29/08/2019	
Description					
		potential-free contact		ired GENI connection	
		M fieldbus module.	S GEINIAII OI W	ITED GENI Connection	
Technical data					
Controls:					
Frequency converte	er:	Built-in			
Liquid:					
Pumped liquid:		Water			
Liquid temperature		-25 120 °C			
Selected liquid tem		20 °C			
Density at selected	liquid tempe	rature: 998.2 kg/m <sup>3</sup>			
Technical:					
Pump speed on wh	ich pump dat	ta are based: 1455 r	pm		
Rated flow:		125 m³/h			
Rated head:		10.6 m			
Actual impeller dian	neter:	197 mm			
Primary shaft seal:		BQQE			
Curve tolerance:		ISO9906:2012 3B			
Materials:					
Pump housing:		Cast iron			
		EN-JL1040			
		ASTM A48-40 B			
Impeller:		Cast iron			
		EN-JL1030			
		ASTM A48-30 B			
Installation:					
Range of ambient to	emperature:	-20 50 °C			
Maximum operating		16 bar			
Max pressure at sta		16 bar / 120 °C			
Flange standard:	·	DIN			
Pipe connection:		DN 125			
Pressure rating:		PN 16			
Port-to-port length:		620 mm			
Flange size for mot	or:	FF265			
Electrical data:					
Motor type:		132SG			
IE Efficiency class:		IE5			
Rated power - P2:		5.5 kW			
Mains frequency:		50 Hz			
Rated voltage:		3 x 380-500 V			
Rated current:		10.5-8.40 A			
Cos phi - power fac	tor:	0.92-0.88			
Rated speed:		180-2200 rpm			
Efficiency:		91.9%			
Motor efficiency at 1	ull load:	91.9 %			
Enclosure class (IE		IP55			
Insulation class (IE		F			
Motor No:		98971267			
Othere					
Others: Minimum efficiency	index. MFI	: 0.46			
FrP status:		FuP Standalone/Pro	d		

EuP Standalone/Prod.

ErP status:



	GRUND	FUS 2	Date:	29/08/2019		
Qty.	Description		Date.	29/00/2019		
	Net weight: Gross weight: Shipping volume:	411 kg 494 kg 1.53 m³				





		Date:	29/08/2019
Description	Value	H [m]	TPED 125-130/4-S, 3*380 V [%]
General information:			
Product name:	TPED 125-130/4-S A-F-A-BQQE	16 -	
Product No:	99132865	14 -	
EAN number:	5712607355562	—	
	5712607355562	12 - 100 %	
Technical:	51 12001 000002		
Pump speed on which pump data are	4455	10 - 90 %	- 100
based:	1455 rpm		
Rated flow:	125 m³/h	8 - 80 %	- 80
Rated head:	10.6 m		
Head max:	130 dm	6 70 %	-60
Actual impeller diameter:	197 mm	60%	
Primary shaft seal:	BQQE	4 - 50 4	40
Curve tolerance:	ISO9906:2012 3B	510 9/4	
Pump version:	А	2	-20
Model:	A		
Materials:		0	
Pump housing:	Cast iron	0 20 P	40 60 80 100 120 140 Q [m³/h]
	EN-JL1040	[kW]	
	ASTM A48-40 B		P1 (motor+freq.con/erter)
Impeller:	Cast iron	6 -	
	EN-JL1030	5 -	P2 -5
	ASTM A48-30 B	4-	-4
Material code:	А	3	-3
Installation:			
Range of ambient temperature:	-20 50 °C	2-	
Maximum operating pressure:	16 bar	1-	-1
Max pressure at stated temp:	16 bar / 120 °C	0	0
Flange standard:	DIN	504	
Pipe connection:	DN 125	=591  =591    =591	
Pressure rating:	PN 16		
Port-to-port length:	620 mm		
Flange size for motor:	FF265		
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C	537 518	
Selected liquid temperature:	20 °C	<del>• 173• • 173</del> • <b> </b> • 173• • 1	
Density at selected liquid temperature	998.2 kg/m³		
Electrical data:	-		
Electrical data:	12280		
Motor type:	132SG	1	MIS
IE Efficiency class:	IE5		<u> e 300 el 84  e -</u>
Rated power - P2:	5.5 kW		
Mains frequency:	50 Hz	2	÷ -
Rated voltage:	3 x 380-500 V		
Rated current:	10.5-8.40 A	PE	
Cos phi - power factor:	0.92-0.88		
Rated speed: Efficiency:	180-2200 rpm		
Motor efficiency at full load:	91.9%		
-	91.9 % IP55	-34 V <sup>4</sup>	
Enclosure class (IEC 34-5):		- <u></u>	
Insulation class (IEC 85):	F YES		A GENbras A   Y GENbras A   B GENbras B
Motor protec:			3 (cub 15 +24 V
Motor No:	98971267		
Controls:		-241V \$	
Control panel:	HMI300 - Advanced	LL	
Function Module:	FM300 - Advanced		

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	Date	e:
Description Value		
Frequency converter: Built-in		
Others:		
Minimum efficiency index, MEI : 0.46		
ErP status: EuP Standald	one/Prod.	
Net weight: 411 kg		
Gross weight: 494 kg		
Shipping volume: 1.53 m <sup>3</sup>		
Config. file no: 99139898		

