	<b>GRUNDFOS</b>	Company na Created by: Phone:	ame:
	Description	Date:	29/08/2019
<b>Qty</b> .	Description		
·	TPED 32-230/2-S A-F-A-BQQE		
	Product No.: 99133613 Single-stage, close-coupled, volute pump with in-line is of the top-pull-out design, i.e. the power head (mot maintenance or service while the pump housing rema TPED 32-230/2-S A-F-A-BQQEThe pump is fitted wit A-F-A-BQQETPED 32-230/2-S A-F-A-BQQETPED 3	or, pump head a ains in the pipewo th an unbalanced 2-230/2-S A-F-A	nd impeller) can be removed for ork. I rubber bellows seal. TPED 32-230/2-S BQQEThe shaft seal is according to EN
	12756. Pipework connection is via PN 6/10 DIN flang	, i	
	Pipework connection is via PN 6/10 DIN flanges (EN The pump is fitted with a fan-cooled, permanent-mag IE5 in accordance with IEC 60034-30-2.		
	The motor includes a frequency converter and PI corvariable control of the motor speed, which again enal	troller in the moto bles adaptation o	or terminal box. This enables continuously f 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 pressu transmitter registering the differential pressure across proportional-pressure control of the pump.	ure control. The p s the pump and e	oump is fitted with a differential-pressure mabling constant pressure or
	A control panel enables setting of required setpoint a "Stop". The control panel has indicator lights for "Ope	s well as setting eration" and "Fau	of pump to "Min." or "Max." operation or to lt".
	Communication with the pump is possible by means enables further settings as well as reading out of a nu input" and total "Power consumption".		
	The operating panel on the motor terminal box featur Eye indicator.	es a four-inch TF	T display, push-buttons and the Grundfos

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:

- "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).

## Pump

Pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

1) Alkaline-based cleaning.



Company name: Created by:

<ul> <li>Description</li> <li>Pretreatment with zinc phosphate coating.</li> <li>2) Pretreatment with zinc phosphate coating.</li> <li>3) Cathodic electrocoating (epoxy).</li> <li>4) Curing of paint film at 200-250 °C.</li> <li>Implement and the second s</li></ul>	1	Description		
<ul> <li>a) Cathodic electrocoating (epoxy).</li> <li>d) Curing of paint film at 200-250 °C.</li> <li>Subset if it at 200-250 °C.</li> <li>Subset if it at 200-250 °C.</li> <li>Subset if it at 200-250 °C.</li> <li>Pump housing</li> <li>Pump housing</li> <li>Pump housing</li> <li>Shaft</li> <li>Coupling</li> <li>Pump head</li> <li>The pump housing is provided with a replaceable stainles 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 with a split cone wit nut.</li> <li>The pump housing is provided with a replaceable stainles 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 with a split cone wit nut.</li> <li>The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and arco 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.</li> <li>Primary seal: <ul> <li>Rotating seal ring material: silicon carbide (SiC)</li> <li>Stationary seat material: silicon carbide (SiC)</li> <li>Stationary seat material: silicon carbide (SiC)</li> <li>Stationary seat material: PDM (ethylene-propylene rubber)</li> </ul> </li> <li>EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</li> <li>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 mouning of pressure gauges.</li> <li>The motor stool forms connection between the pump housing and the motor, and is equipped with a manual ai pump housing is an 0-ring.</li> <li>Motor</li> <li>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electric tolerances comply with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (Cill).</li> <li>The motor efficiency is classified as IE5 in accordance with IEC 60034-3</li></ul>	-	•		
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<ul> <li>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.</li> <li>The central part of the motor stool is provided with guards for protection against the shaft and coupling. Motor pump shaft are connected via a shell coupling.</li> <li><b>Motor</b></li> <li>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electric tolerances comply with IEC 60034.</li> <li>The motor is flange-mounted with tapped-hole flange (FT).</li> <li>Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (C II).</li> <li>The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</li> <li>The motor requires no external motor protection. The motor control unit incorporates protection against slow- a quick-rising temperatures, e.g. constant overload and stalled conditions.</li> </ul>				-
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pump shaft are connected via a shell coupling.         Motor         The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electric tolerances comply with IEC 60034.         The motor is flange-mounted with tapped-hole flange (FT).         Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (C 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- a quick-rising temperatures, e.g. constant overload and stalled conditions.	•		de for proto	tection against the shaft and counling. Motor
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<ul> <li>II).</li> <li>The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</li> <li>The motor requires no external motor protection. The motor control unit incorporates protection against slow- a quick-rising temperatures, e.g. constant overload and stalled conditions.</li> </ul>				
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The motor requires no external motor protection. The motor control unit incorporates protection against slow- a quick-rising temperatures, e.g. constant overload and stalled conditions.	-	The motor efficiency is classified as IE5 in accordance	with IEC 60	0034-30-2.
quick-rising temperatures, e.g. constant overload and stalled conditions.		•		
TPED 32-230/2-S A-F-A-BQQEThe terminal box holds terminals for these connections:				
TPED 32-230/2-S A-F-A-BQQEThe terminal box holds terminals for these connections:				
	-	TPED 32-230/2-S A-F-A-BQQEThe terminal box holds	terminals fo	for these connections:



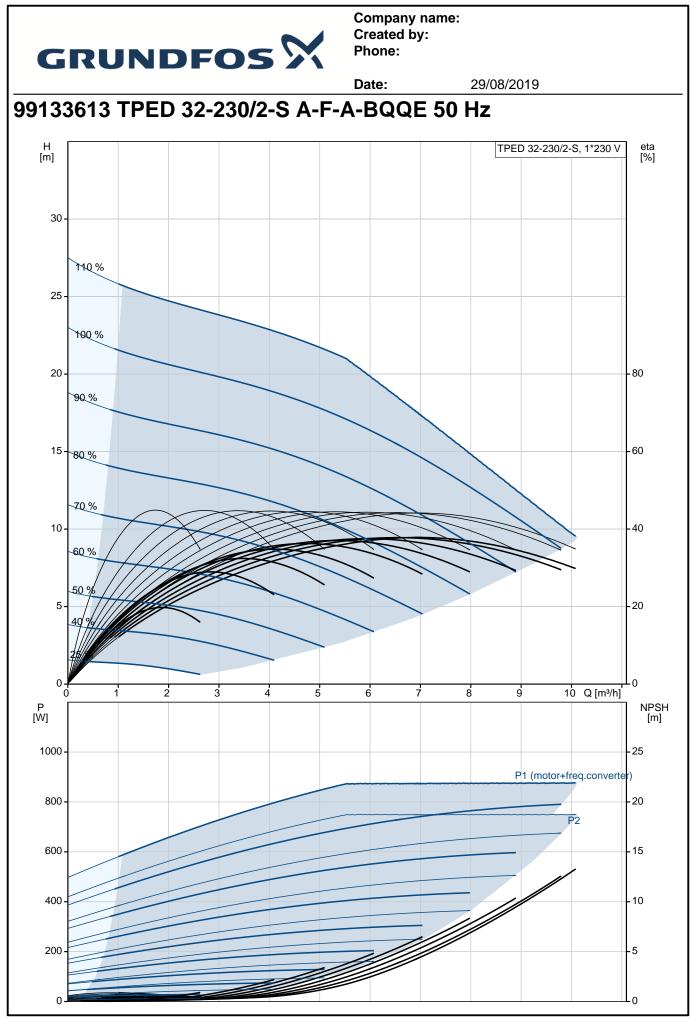
Qty.	Description
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Description	
two analog inputs, 0 one of these inputs	(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected
	o potentiometer and sensor
	ital input or open-collector output
<ul> <li>Grundfos Digital Se</li> <li>24 V voltage supply</li> </ul>	nsor input and output
	buts (potential-free contacts)
- GENIbus connection	
<ul> <li>interface for Grundfer</li> </ul>	os CIM fieldbus module.
	QQEThe terminal box holds terminals for these connections:
<ul> <li>one dedicated digita</li> </ul>	
<ul> <li>two analog inputs, to one of these inputs</li> </ul>	(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected
	o potentiometer and sensor
	jital input or open-collector output nsor input and output
- 24 V voltage supply	
	outs (potential-free contacts)
	s communicate via wireless GENIair or wired GENI connection
- interface for Grundf	os CIM fieldbus module.
Technical data	
Controls:	
Frequency converter:	Built-in
Liquid:	
Pumped liquid:	Water
Liquid temperature range: Selected liquid temperature	-25 120 °C e: 20 °C
Density at selected liquid temperature	
Technical:	
	ip data are based: 2855 rpm
Rated flow:	7.1 m³/h
Rated head:	15 m
Actual impeller diameter:	136 mm BQQE
Primary shaft seal: Curve tolerance:	ISO9906:2012 3B
Materials: Pump housing:	Cast iron
i amp nedenigi	EN-JL1040
	ASTM A48-40 B
Impeller:	Stainless steel
	DIN WNr. 1.4301 AISI 304
Installation:	
Range of ambient tempera	ture: -20 50 °C
Maximum operating pressu	ire: 10 bar
Max pressure at stated ten	•
Flange standard:	DIN
Pipe connection: Pressure rating:	DN 32 PN 6/10
Port-to-port length:	280 mm
Flange size for motor:	FT100
from Grundfos Product Centre [	2010 04 0021

3/8



Date: 29/08/2019 Qty. Description **Electrical data:** 80A Motor type: IE Efficiency class: IE5 Rated power - P2: 0.75 kW Mains frequency: 50 Hz Rated voltage: 1 x 200-240 V Rated current: 4.70-3.90 A Cos phi - power factor: 0.99 Rated speed: 360-4000 rpm Efficiency: 85.2% Motor efficiency at full load: 85.2 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98362272 Others: Minimum efficiency index, MEI : 0.64 ErP status: EuP Standalone/Prod. Net weight: 59.4 kg Gross weight: 68.9 kg Shipping volume: 0.067 m<sup>3</sup>



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		Date:	29/08/	2019		
Description	Value	H [m]		TPED 32-230/	2-S, 1*230 V	eta [%]
General information:	, and					
Product name:	TPED 32-230/2-S A-F-A-BQQE	30 -				
Product No:	99133613	110 %				
EAN number:	5712607367138	25 -				
	5712607367138	100 %				
Price:	4.840,00 GBP					
Technical:	4.040,00 ODI	20 -			- 80	)
Pump speed on which pump data are		90 %				
based:	2855 rpm	15 - 80 %			- 60	, ,
Rated flow:	7.1 m³/h	13-00 %			- 80	
Rated head:	15 m	70 %				
Head max:	230 dm	10-	$\rightarrow$	all .	-40	)
Actual impeller diameter:	136 mm	60 %		All a		
Primary shaft seal:	BQQE	50%				
Curve tolerance:	ISO9906:2012 3B	5-40			- 20	)
Pump version:	A					
Model:	A	/0				
Materials:		0	2 4	6 8	Q [m³/h]	
Pump housing:	Cast iron	P [W]			N	NPS
p hodolig.	EN-JL1040	1000 -			- 25	[m] 5
	ASTM A48-40 B	—		P1 (r	notor+freq.corverte	
Impeller:	Stainless steel	800 -				,
	DIN WNr. 1.4301				P2	
	AISI 304	600 -			- 15	
Material code:	AISI 304 A	400			10	)
Installation:	~			//		
	-20 50 °C	200 -			- 5	
Range of ambient temperature:	-20 50 °C					
Maximum operating pressure:				1	<b>L</b> 0	
Max pressure at stated temp:	10 bar / 120 °C DIN	307 307		122		
Flange standard:			┓╎┍╴┢╴			
Pipe connection:	DN 32		11			
Pressure rating:	PN 6/10			Rp 1/4		
Port-to-port length:	280 mm					
Flange size for motor:	FT100	— ( <u></u> , <u>, , , , , , , , , , , , , , , , , ,</u>		╤╇╤╂		
Connect code:	F		Rp 1/4	<del>Y i L l</del> l		
Liquid:	Motor	222 222		280		
Pumped liquid:	Water	106 106 106	106	103 82		
Liquid temperature range:	-25 120 °C					
Selected liquid temperature:	20 °C	┝─┼┶╬┷┶┼				
Density at selected liquid temperature:	998.2 kg/m³					
Electrical data:	004					
Motor type:	80A		<u> </u>			
IE Efficiency class:	IE5		<u>M12</u>	· · · · · · · · · · · · · · · · · · ·		
Rated power - P2:	0.75 kW					
Mains frequency:	50 Hz	~				
Rated voltage:	1 x 200-240 V		- FI			
Rated current:	4.70-3.90 A	PR	<u></u> Ø⊕			
Cos phi - power factor:	0.99					
Rated speed:	360-4000 rpm					
Efficiency:	85.2%					
Motor efficiency at full load:	85.2 %	221 V Q 121 V Q 121 V Q 121 V Q				
Enclosure class (IEC 34-5):	IP55		6 GND A GENbos A			
Insulation class (IEC 85):	F		B GENbus B			
Motor protec:	YES		* GND 15 +24 V 8 +24 V			
Motor No:	98362272					
Controls:			24 GDS RX +5V* 7 AI2			
Control panel:	HMI300 - Graphical					
Function Module:	FM300 - Advanced					

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			Date:
		_	Date.
Description	Value		
Frequency converter:	Built-in		
Others:			
Minimum efficiency index, MEI :	0.64		
ErP status:	EuP Standalone/Prod.		
Net weight:	59.4 kg		
Gross weight:	68.9 kg		
Shipping volume:	0.067 m <sup>3</sup>		
Config. file no:	99145773		

