


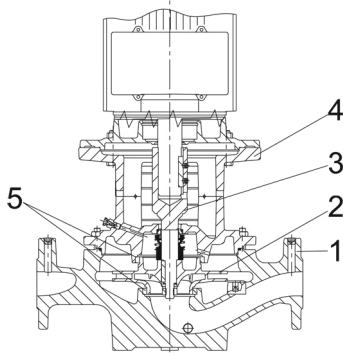
Qty.	Description
1	<p data-bbox="204 342 555 369"><b>TPED 32-320/2-S A-F-A-BQQE</b></p>  <p data-bbox="204 663 467 689">Product No.: <a href="#">99133593</a></p> <p data-bbox="204 723 1445 797">Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The 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.</p> <p data-bbox="204 808 1406 882">TPED 32-320/2-S A-F-A-BQQE The pump is fitted with an unbalanced rubber bellows seal. TPED 32-320/2-S A-F-A-BQQE The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).</p> <p data-bbox="204 893 1034 920">Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).</p> <p data-bbox="204 931 1437 972">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.</p> <p data-bbox="204 983 1426 1032">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.</p> <p data-bbox="204 1066 783 1093">The pump is fitted with a differential-pressure sensor.</p> <p data-bbox="204 1126 520 1153"><b>Further product details</b></p> <p data-bbox="204 1164 1401 1238">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.</p> <p data-bbox="204 1249 1426 1299">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".</p> <p data-bbox="204 1332 1453 1406">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".</p> <p data-bbox="204 1440 1426 1503">The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.</p> <p data-bbox="204 1536 1442 1610">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".</p> <p data-bbox="204 1644 1458 1727">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".</p> <p data-bbox="204 1760 1214 1794">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="240 1798 1417 1939" style="list-style-type: none"><li>• "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)</li><li>• "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)</li><li>• "Alarm": Motor has stopped (flashing red indicator lights).</li></ul> <p data-bbox="204 1973 1422 2047">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.</p> <p data-bbox="204 2058 284 2085"><b>Pump</b></p>

**Qty. Description**

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: 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).

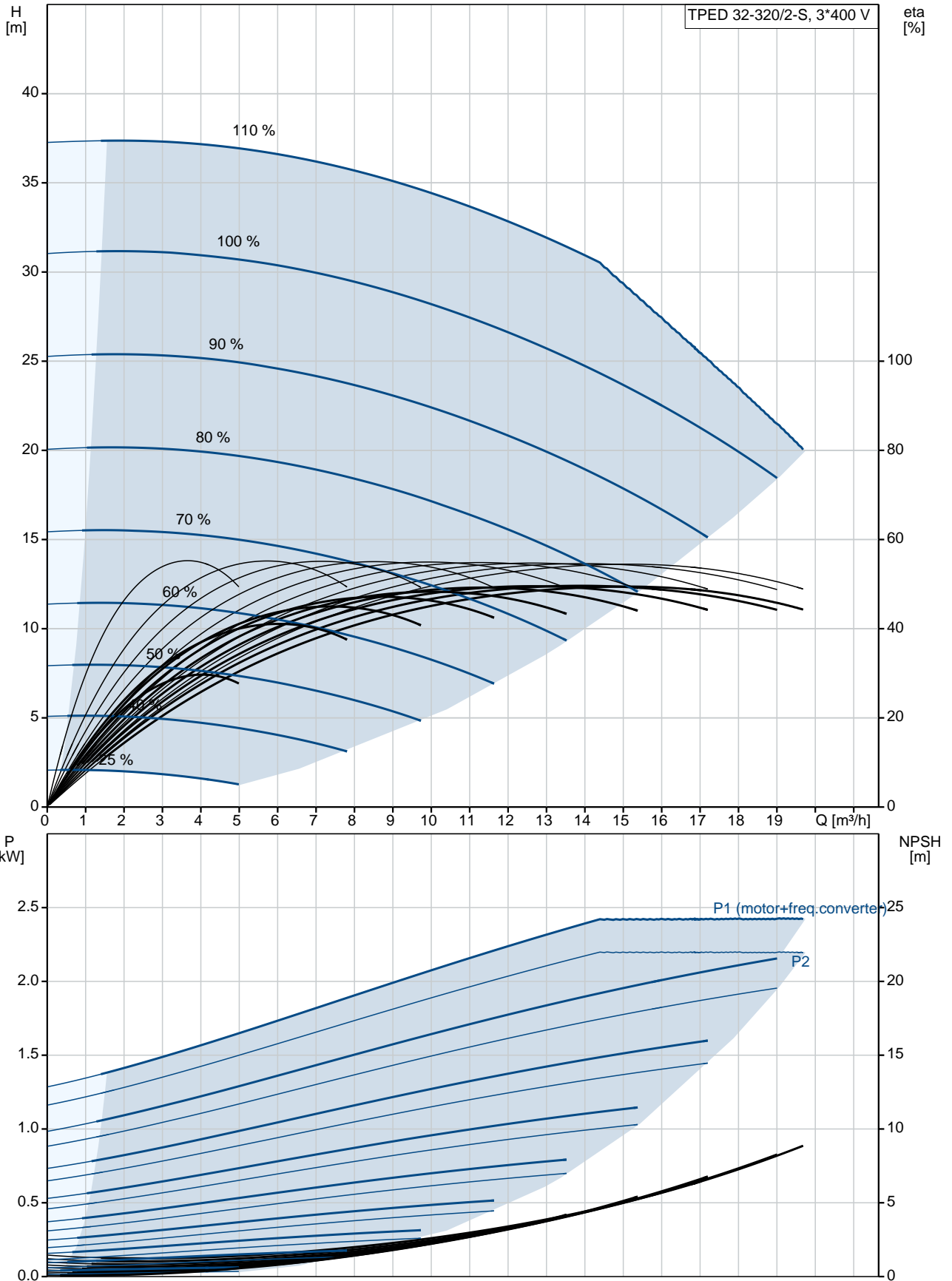
The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

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.

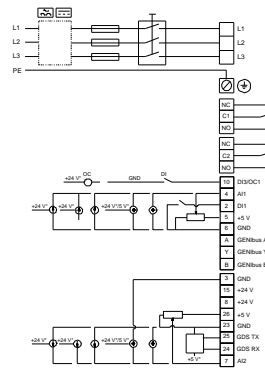
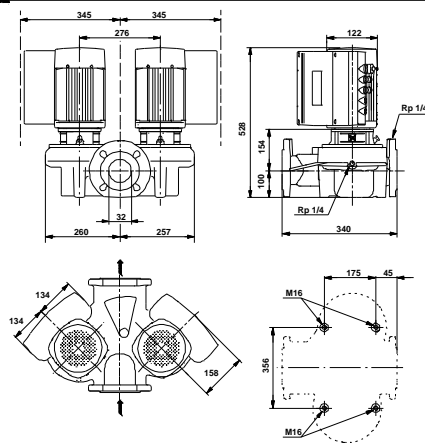
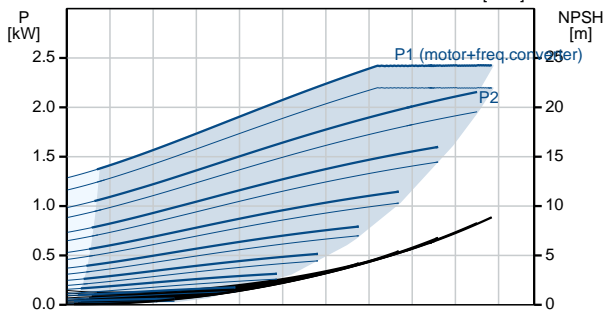
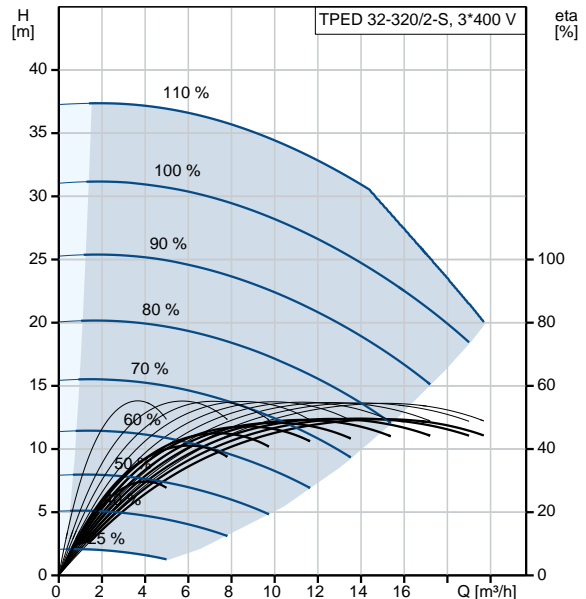
Qty.	Description
	<p>TPED 32-320/2-S A-F-A-BQQE The terminal box holds terminals for these connections:</p> <ul style="list-style-type: none"> <li>- one dedicated digital input</li> <li>- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V; the factory-fitted pressure sensor is connected to one of these inputs</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>- GENIbus connection</li> <li>- interface for Grundfos CIM fieldbus module.</li> </ul> <p>TPED 32-320/2-S A-F-A-BQQE The terminal box holds terminals for these connections:</p> <ul style="list-style-type: none"> <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; the factory-fitted pressure sensor is connected to one of these inputs</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> <p><b>Technical data</b></p> <p><b>Controls:</b>            Frequency converter: Built-in</p> <p><b>Liquid:</b>            Pumped liquid: Water            Liquid temperature range: -25 .. 120 °C            Selected liquid temperature: 20 °C            Density at selected liquid temperature: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b>            Pump speed on which pump data are based: 2900 rpm            Rated flow: 17 m<sup>3</sup>/h            Rated head: 21.8 m            Actual impeller diameter: 155 mm            Primary shaft seal: BQQE            Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b>            Pump housing: Cast iron                              EN-JL1040                              ASTM A48-40 B            Impeller: Cast iron                              EN-JL1030                              ASTM A48-30 B</p> <p><b>Installation:</b>            Range of ambient temperature: -20 .. 50 °C            Maximum operating pressure: 16 bar            Max pressure at stated temp: 16 bar / 120 °C            Flange standard: DIN            Pipe connection: DN 32            Pressure rating: PN 16            Port-to-port length: 340 mm</p>

Qty.	Description
	<p data-bbox="204 338 639 365">Flange size for motor: FF165</p> <p data-bbox="204 398 379 425"><b>Electrical data:</b></p> <p data-bbox="204 430 628 456">Motor type: 90LD</p> <p data-bbox="204 461 603 488">IE Efficiency class: IE5</p> <p data-bbox="204 492 644 519">Rated power - P2: 2.2 kW</p> <p data-bbox="204 524 635 551">Mains frequency: 50 Hz</p> <p data-bbox="204 555 721 582">Rated voltage: 3 x 380-500 V</p> <p data-bbox="204 586 695 613">Rated current: 4.15-3.40 A</p> <p data-bbox="204 618 673 645">Cos phi - power factor: 0.93-0.87</p> <p data-bbox="204 649 721 676">Rated speed: 360-4000 rpm</p> <p data-bbox="204 680 635 707">Efficiency: 90.1%</p> <p data-bbox="204 712 644 739">Motor efficiency at full load: 90.1 %</p> <p data-bbox="204 743 619 770">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="204 775 580 801">Insulation class (IEC 85): F</p> <p data-bbox="204 806 676 833">Motor No: 98719485</p> <p data-bbox="204 866 293 893"><b>Others:</b></p> <p data-bbox="204 898 635 925">Minimum efficiency index, MEI : 0.70</p> <p data-bbox="204 929 810 956">ErP status: EuP Standalone/Prod.</p> <p data-bbox="204 960 628 987">Net weight: 94 kg</p> <p data-bbox="204 992 644 1019">Gross weight: 108 kg</p> <p data-bbox="204 1023 667 1050">Shipping volume: 0.128 m<sup>3</sup></p>

## 99133593 TPED 32-320/2-S A-F-A-BQQE 50 Hz



Description	Value
<b>General information:</b>	
Product name:	TPED 32-320/2-S A-F-A-BQQE
Product No:	99133593
EAN number:	5712607366704
Price:	7.102,00 GBP
<b>Technical:</b>	
Pump speed on which pump data are based:	2900 rpm
Rated flow:	17 m³/h
Rated head:	21.8 m
Head max:	320 dm
Actual impeller diameter:	155 mm
Primary shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
<b>Materials:</b>	
Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Cast iron EN-JL1030 ASTM A48-30 B
Material code:	A
<b>Installation:</b>	
Range of ambient temperature:	-20 .. 50 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
Flange standard:	DIN
Pipe connection:	DN 32
Pressure rating:	PN 16
Port-to-port length:	340 mm
Flange size for motor:	FF165
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density at selected liquid temperature:	998.2 kg/m³
<b>Electrical data:</b>	
Motor type:	90LD
IE Efficiency class:	IE5
Rated power - P2:	2.2 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-500 V
Rated current:	4.15-3.40 A
Cos phi - power factor:	0.93-0.87
Rated speed:	360-4000 rpm
Efficiency:	90.1%
Motor efficiency at full load:	90.1%
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	YES
Motor No:	98719485
<b>Controls:</b>	
Control panel:	HMI300 - Graphical
Function Module:	FM300 - Advanced





Company name:

Created by:

Phone:

Date:

29/08/2019

Description	Value
Frequency converter:	Built-in
<b>Others:</b>	
Minimum efficiency index, MEI :	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	94 kg
Gross weight:	108 kg
Shipping volume:	0.128 m <sup>3</sup>
Config. file no:	99140383

## 99133593 TPED 32-320/2-S A-F-A-BQQE 50 Hz

