

29/08/2019

Qty. | Description

1

#### . TPED 32-460/2-S A-F-A-BQQE



Note! Product picture may differ from actual product

Product No.: 99132804

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.

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

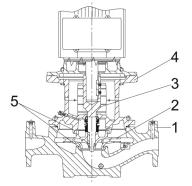
Pump housing and pump head are electrocoated to improve the corrosion resistance.

- 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.



Date:

29/08/2019



- 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 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- and quick-rising temperatures, e.g. constant overload and stalled conditions.

TPED 32-460/2-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



Qty.

**Company name:** Created by:

Phone: Date: 29/08/2019 Description 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. TPED 32-460/2-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) the two power heads communicate via wireless GENIair or wired GENI connection \_ interface for Grundfos CIM fieldbus module. **Technical data** Controls: Frequency converter: **Built-in** Liquid: Pumped liquid: Water Liquid temperature range: -25 .. 120 °C 20 °C Selected liquid temperature: Density at selected liquid temperature: 998.2 kg/m<sup>3</sup> **Technical:** Pump speed on which pump data are based: 2920 rpm Rated flow: 17.3 m<sup>3</sup>/h Rated head: 34.6 m Actual impeller diameter: 188 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 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: 440 mm Flange size for motor: FF215

112MC

IE5

4 kW

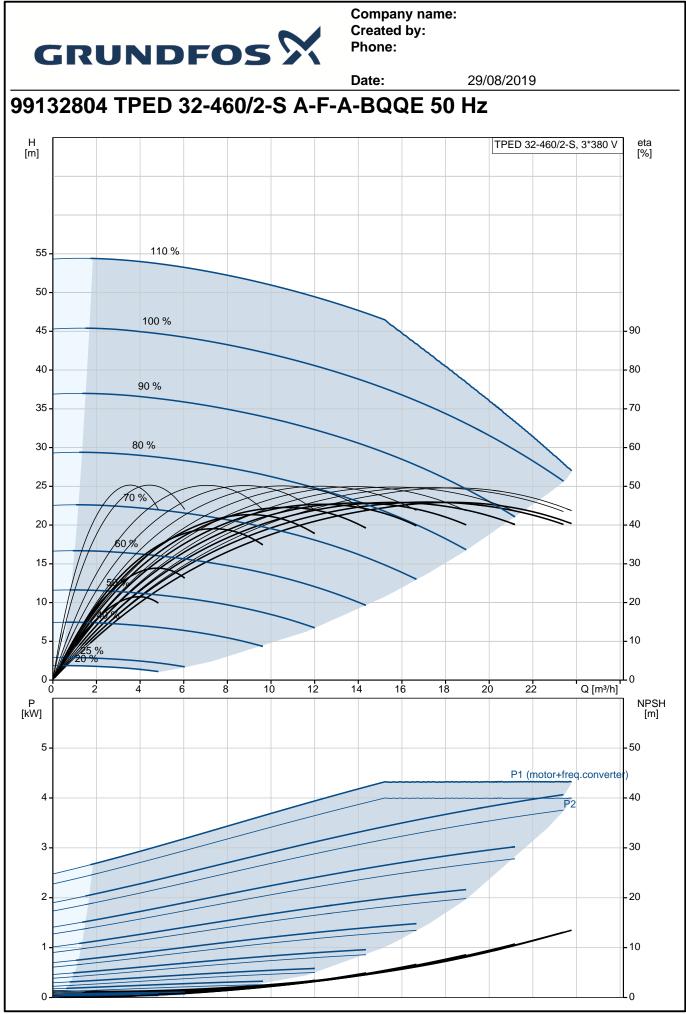
**Electrical data:** Motor type:

IE Efficiency class:

Rated power - P2:

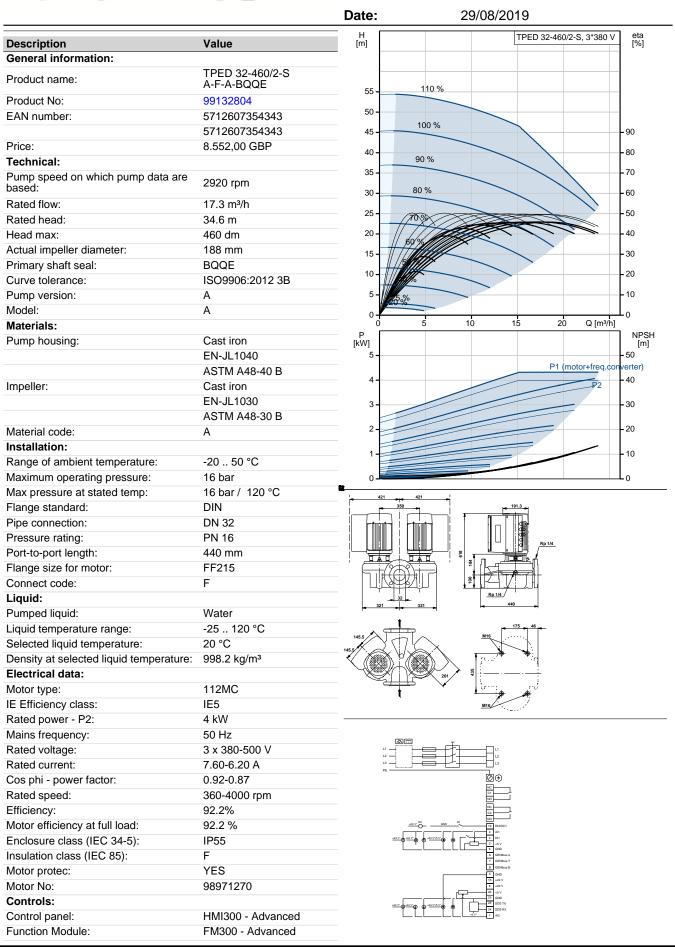


DescriptionMains frequency:50 HzRated voltage:3 x 380-500 VRated current:7.60-6.20 ACos phi - power factor:0.92-0.87Rated speed:360-4000 rpmEfficiency:92.2%Motor efficiency at full load:92.2 %Enclosure class (IEC 34-5):IP55Insulation class (IEC 85):FMotor No:98971270Others:EuP Standalone/Prod.Net weight:138 kgGross weight:169 kgShipping volume:1.14 m³				Date:	29/08/2019
Rated voltage:3 x 380-500 VRated current:7.60-6.20 ACos phi - power factor:0.92-0.87Rated speed:360-4000 rpmEfficiency:92.2%Motor efficiency at full load:92.2 %Enclosure class (IEC 34-5):IP55Insulation class (IEC 85):FMotor No:98971270Others:Minimum efficiency index, MEI : 0.50ErP status:EuP Standalone/Prod.Net weight:138 kgGross weight:169 kg	<b>/</b> .	Description			
Motor No:  98971270    Others:		Rated voltage: Rated current: Cos phi - power factor: Rated speed: Efficiency: Motor efficiency at full load: Enclosure class (IEC 34-5):	3 x 380-500 V 7.60-6.20 A 0.92-0.87 360-4000 rpm 92.2% 92.2 % IP55		
Minimum efficiency index, MEI: 0.50ErP status:EuP Standalone/Prod.Net weight:138 kgGross weight:169 kg					
Minimum efficiency index, MEI: 0.50ErP status:EuP Standalone/Prod.Net weight:138 kgGross weight:169 kg		Others:			
Shipping volume: 1.14 m <sup>2</sup>		Minimum efficiency index, MEI ErP status: Net weight: Gross weight:	EuP Standalone/Prod. 138 kg 169 kg		



Printed from Grundfos Product Centre [2019.04.002]





Printed from Grundfos Product Centre [2019.04.002]



		<b>D</b> (	
		Date:	
Description	Value		
Frequency converter:	Built-in	_	
Others:			
Minimum efficiency index, MEI :	0.50		
ErP status:	EuP Standalone/Prod.		
Net weight:	138 kg		
Gross weight:	169 kg		
Shipping volume:	1.14 m³		
Config. file no:	99247702		

