

Date:

29/08/2019

Qty. | Description

1 TPE 150-70/4-S A-F-A-BQQE



Product No.: 99114732

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.

TPE 150-70/4-S A-F-A-BQQEThe pump is fitted with an unbalanced rubber bellows seal. TPE 150-70/4-S A-F-A-BQQETPE 150-70/4-S A-F-A-BQQETPE 150-70/4-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".

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.

Pump

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

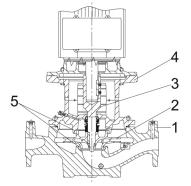
Electrocoating includes:

- 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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- 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.

TPE 150-70/4-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



Qty.

Description

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Controls:

Liquid: Pumped liquid:

Technical:

Rated flow:

Rated head:

Materials: Pump housing:

Impeller:

Curve tolerance:

Company name: Created by:

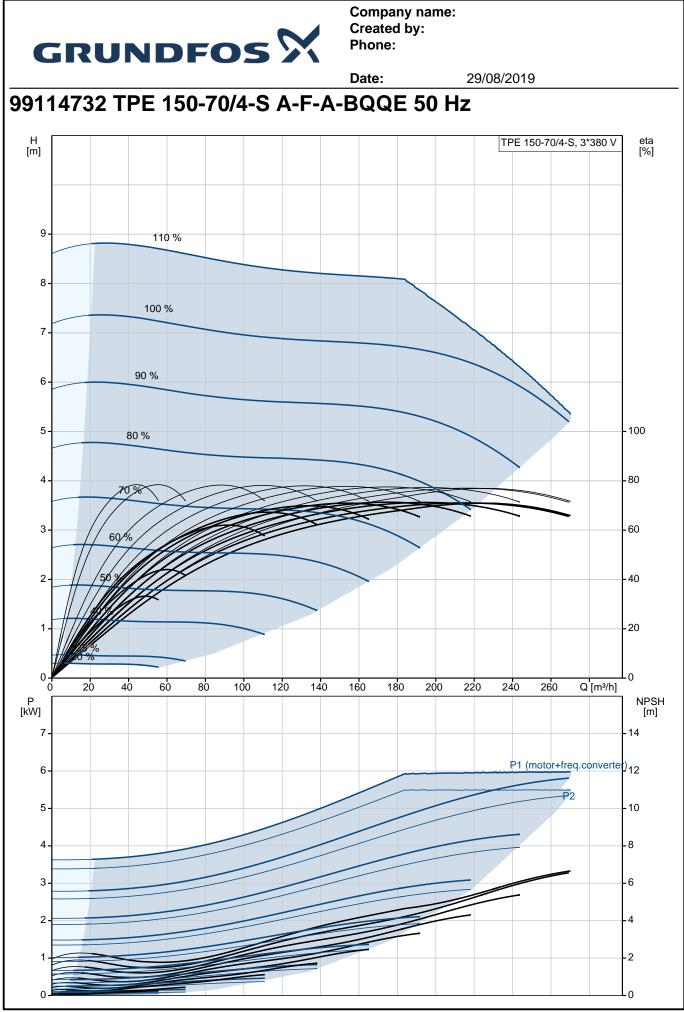
Phone: Date: 29/08/2019 Grundfos Digital Sensor input and output 24 V voltage supply for sensors two signal relay outputs (potential-free contacts) **GENIbus** connection interface for Grundfos CIM fieldbus module. TPE 150-70/4-S A-F-A-BQQEThe terminal box holds terminals for these connections: one dedicated 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) the two power heads communicate via wireless GENIair or wired GENI connection interface for Grundfos CIM fieldbus module. **Technical data** Frequency converter: **Built-in** Water Liquid temperature range: -25 .. 120 °C 20 °C Selected liquid temperature: Density at selected liquid temperature: 998.2 kg/m³ Pump speed on which pump data are based: 1460 rpm 220 m3/h 6.3 m Actual impeller diameter: 172-150 mm Primary shaft seal: BQQE ISO9906:2012 3B Cast iron EN-JL1040 ASTM A48-40 B Cast iron EN- II 1030

	EN-JL1030 ASTM A48-30 B
Installation:	
Range of ambient temperature:	-20 50 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 150
Pressure rating:	PN 16
Port-to-port length:	800 mm
Flange size for motor:	FF265
Electrical data:	
Motor type:	132SG
IE Efficiency class:	IE5
Rated power - P2:	5.5 kW
Mains frequency:	50 Hz



Company name: Created by:

GRUNDFO		Date:	29/08/2019	
Description				
Rated voltage: Rated current: Cos phi - power factor: Rated speed: Efficiency: Motor efficiency at full load: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor No:	3 x 380-500 V 10.5-8.40 A 0.92-0.88 180-2200 rpm 91.9% 91.9 % IP55 F 98971267			
Others: Minimum efficiency index, MEI ErP status: Net weight: Gross weight: Shipping volume: Danish VVS No.:	: 0.7 EuP Standalone/Proc 224 kg 320 kg 1.68 m ³ 381958070	l.		
Danish VVS No.:				



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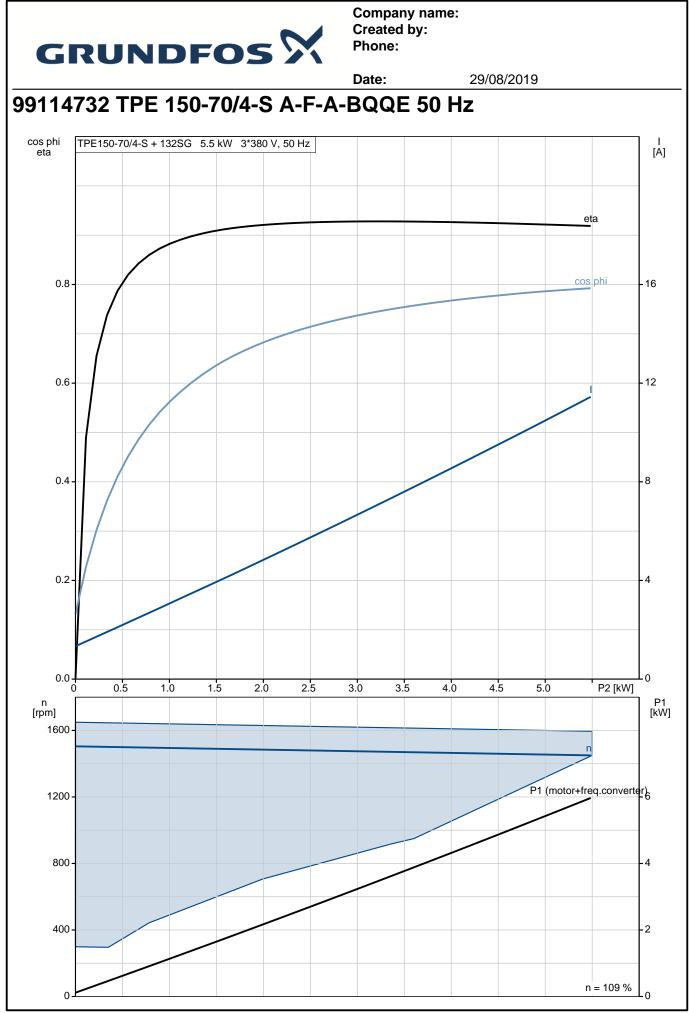


		Date:	29/08/	2019	
Description	Value	H [m]		TPE 150-70/4-S,	3*380 V eta [%]
General information:	Taluc				[70]
Product name:	TPE 150-70/4-S A-F-A-BQQE	9-	110 %		
Product No:	99114732	_			
EAN number:	5712607034887	8-	100 %		
	5712607034887	7-	100 %		
Price:	7.516,00 GBP	— ']			
Technical:		6-	90 %		
Pump speed on which pump data are		_			
based:	1460 rpm	5-	80 %		100
Rated flow:	220 m³/h				- 80
Rated head:	6.3 m	4-	70%	T	< ⁰⁰
Head max:	70 dm	3- //	60%		- 60
Actual impeller diameter:	172-150 mm				
Primary shaft seal:	BQQE	2- //5			- 40
Curve tolerance:	ISO9906:2012 3B				
Pump version:	Α		10		- 20
Model:	Α		0		0
Materials:		0	50 100 15	50 200	Q [m³/h]
Pump housing:	Cast iron	P [kW]			NP: [m
	EN-JL1040	-		D1 (motor	+freq.converter)
	ASTM A48-40 B	6 -		PT (motor	
Impeller:	Cast iron	5 -			P2 10
	EN-JL1030	4 -			-8
	ASTM A48-30 B	3-			- 6
Material code:	Α				
Installation:		2-			- 4
Range of ambient temperature:	-20 50 °C	1-			-2
Maximum operating pressure:	16 bar	0			0
Flange standard:	DIN	R			
Pipe connection:	DN 150	237	254.9		
Pressure rating:	PN 16				
Port-to-port length:	800 mm	-			
Flange size for motor:	FF265				
Connect code:	F			33 83 83 7	
Liquid:		KOR			
Pumped liquid:	Water			5 280	
Liquid temperature range:	-25 120 °C	150	800	•	
Selected liquid temperature:	20 °C	295 240	4		
Density at selected liquid temperature:	998.2 kg/m ³	र्मन		0	
Electrical data:		ETA		2 2	
Motor type:	132SG			<u></u>	
IE Efficiency class:	IE5		Te and the	120	
Rated power - P2:	5.5 kW	t t	= 220 = 220 =	5 × Ø 18	
Mains frequency:	50 Hz				
Rated voltage:	3 x 380-500 V	a			
Rated current:	10.5-8.40 A				
Cos phi - power factor:	0.92-0.88	PE			
Rated speed:	180-2200 rpm		80 65		
Efficiency:	91.9%				
Motor efficiency at full load:	91.9 %	Ö.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11 BMOC2 11 DMOC2 12 P1001000		
Enclosure class (IEC 34-5):	IP55				
Insulation class (IEC 85):	F		1 bu 1 Lufenc 11 Lufenc 10 Lufenc		
Motor protec:	YES	ō			
Motor No:	98971267				
Controls:			A GENERA V GENERA B GENERA GENERA		
Control panel:	HMI300 - Advanced		2 GND 15 -34V 11 -34V		
Function Module:	FM300 - Advanced				
Frequency converter:	Built-in				

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		Date:	29/08/2019
Description	Value		
Others:		_	
Minimum efficiency index, MEI :	0.7		
ErP status:	EuP Standalone/Prod.		
Net weight:	224 kg		
Gross weight:	320 kg		
Shipping volume:	1.68 m³		
Config. file no:	99139899		
Danish VVS No.:	381958070		



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