

Company name: Created by:	national pumps and boilers
Phone:	01539 729395
Email:	info@nationlapumpsandboilers.co.uk
Date:	29/12/2023
Client:	
Client Number:	
Contact:	

Project:

Reference Number:

Description Qty. TPE3 32-80 S-A-F-I-BQQE-CYB 1 Note! Product picture may differ from actual product Product No.: 98416384 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. The shaft seal is according to EN 12756. Pipework connection is via PN 6/10 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 combined temperature- and differential pressure sensor. The stainless-steel pump housing makes the pump suitable for circulation of hot water. The pump is suitable for applications requiring pressure or temperature control and offers following control modes: AUTOADAPT. This function continuously adjusts the proportional-pressure curve and automatically sets a more efficient curve without compromising comfort demands. FLOWADAPT. This control mode combines AUTOADAPT with a flow-limiting function. The pump continuously monitors the flow rate to ensure the desired maximum flow is not exceeded. This will save the cost of a separate pump-throttling valve. Constant differential pressure. The pump head is kept constant, independent of the flow in the system. Proportional pressure. The head of the pump will increase proportionally to the flow in the system to compensate for the large pressure losses in the distribution pipes. Constant temperature. The return-pipe temperature is kept constant. Note: If the pump is installed in the flow pipe, an external temperature sensor must be installed in the return pipe of the system. Constant differential temperature. The differential temperature can be measured by a differential-temperature sensor or two separate temperature sensors. Constant curve. The pump can be set to run at a constant speed in the range of 25 to 100 % of the maximum speed. 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 The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator. 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". 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 liahts) "Alarm": Motor has stopped (flashing red indicator lights).

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Qty.	Description		
1	Communication with the pump is also possible by mea enables further settings as well as reading out of a nur input" and total "Power consumption". Cast-iron parts have an epoxy-based coating made in high-quality dip-painting process where an electrical fie a thin, well-controlled layer on the surface.	nber of parameters su a cathodic electro-dep	nch as "Actual value", "Speed", "Power position (CED) process. CED is a
	Pump		
	 Pump housing Impeller Neck ring Pump head/motor stool Stub shaft The pump housing is provided with a replaceable stain running from the discharge side of the impeller to the s The impeller is secured to the shaft with a nut. The pump is fitted with an unbalanced rubber bellows is bellows. Due to the bellows, the seal does not wear the on the shaft. 	suction side. seal with torque transr	nission across the spring and around the
	 Seal faces: Rotating seal ring material: silicon carbide (SiC) Stationary seat material: silicon carbide (SiC) This material pairing is used where higher corrosion re offers good resistance against abrasive particles. Secondary seal material: EPDM (ethylene-propylene re EPDM has excellent resistance to hot water. EPDM is 	sistance is required. T ubber)	
	The motor stool forms connection between the pump h screw for venting of the pump housing and the shaft se housing is an O-ring. The central part of the motor stool is provided with gua shaft is fastened directly on the motor shaft with key ar	eal chamber. The seal	ing between motor stool and pump
	Motor The motor is a totally enclosed, fan-cooled motor with tolerances comply with IEC 60034.		
	The motor efficiency is classified as IE5 in accordance The motor requires no external motor protection. The r quick-rising temperatures, e.g. constant overload and s The terminal box holds terminals for these connections	notor control unit inco stalled conditions.	
	 one dedicated digital input two analog inputs, 0(4)-20 mA, 0-10 V one configurable digital input or open-collector of Grundfos combined temperature and differentia 24 V voltage supply for sensors 	I pressure sensor (sep	parate connected)
	 two signal relay outputs (potential-free contacts)	

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1	high-quality dip-painting process	ased coating made in a where an electrical fie	a cathodic electro-dep ld around the product	position (CED) process. CED is a ts ensures deposition of paint particles as
	a thin, well-controlled layer on the	e surface.		
	Technical uala			
	Controls: Frequency converter:	Built-in		
	Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -25 120 °C 20 °C 998.2 kg/m³		
	Technical: Pump speed on which pump data Rated flow: Rated head: Actual impeller diameter: Code for shaft seal: Curve tolerance:	a are based: 3450 r 10.7 m³/h 5.9 m 62 mm BQQE ISO9906:2012 3B2	pm	
	Materials:			
	Pump housing:	Stainless steel EN 1.4308 ASTM CF8		
	Impeller:	Composite PES+30% GF		
	Installation: Range of ambient temperature: Maximum operating pressure: Max pressure at stated temp: Type of connection: Size of connection: Pressure rating for connection: Port-to-port length: Flange size for motor:	-20 50 °C 10 bar 10 bar / 120 °C DIN DN 32 PN 6/10 220 mm 56C		
	Electrical data: Motor type: Rated power - P2: Mains frequency: Rated voltage: Rated current: Cos phi - power factor: Rated speed: IE Efficiency class: Motor efficiency at full load:	71A 0.25 kW 50 / 60 Hz 3 x 380-500 V 0.90-0.75 A 0.58-0.50 360-4000 rpm IE5 81.2 %		

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Qty. | Description 1 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 99137997 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 23.6 kg Gross weight: 31.1 kg Shipping volume: 0.104 m³ Danish VVS No.: 382150080 Finnish LVI No.: 4616320 Country of origin: ΗU Custom tariff no .: 84137051

Project:

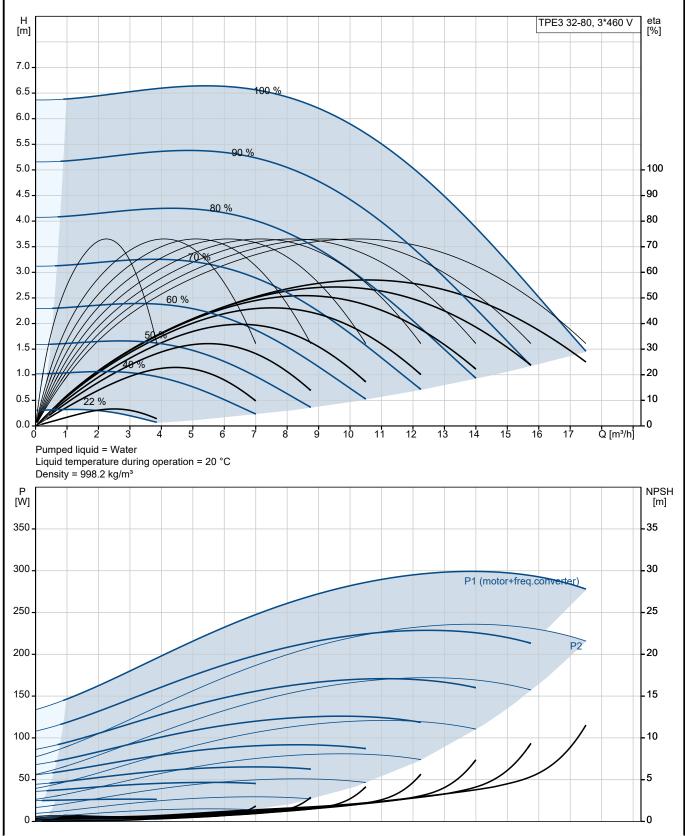
Reference Number:



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		l l l l l l l l l l l l l l l l l l l
	H [m]	TPE3 32-80, 3*460 V eta [%]
	7.0	
	6.5	100 %
E-CYB	6.0 -	
	5.5	90 %
941	5.0	100
0.11	4.5	90
	4.0	- 80
	3.5-	-70
	3.0 - / / / / / / / / / / / / / / / / / /	-60
	2.5 - 60 %	-50
	2.0 - 50	
	1.5	
	1.0	20
	0.5 - 22 %	10
12 3B2		5 8 10 12 14 16 Q [m³/h]
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	Pumped liquid = Water Liquid temperature duri	ng operation = 20 °C
el	Density = 998.2 kg/m ³	
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		Et (motor med.conventer)
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Project: Reference Number:

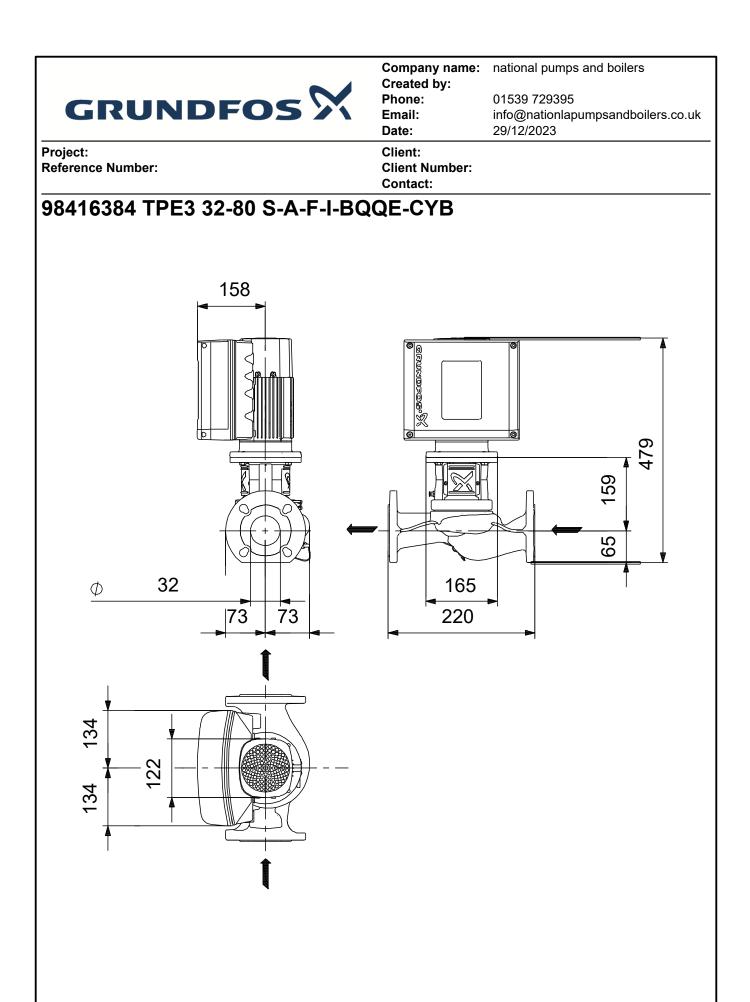
Description	Value
General information:	
Product name:	TPE3 32-80
	S-A-F-I-BQQE-CYB
Product No:	98416384
EAN number:	5711494650941
Technical:	
Pump speed on which pump data are based:	3450 rpm
Rated flow:	10.7 m³/h
Rated head:	5.9 m
Maximum head:	80 dm
Actual impeller diameter:	62 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A
Materials:	
Pump housing:	Stainless steel
Pump housing:	EN 1.4308
Pump housing:	ASTM CF8
Impeller:	Composite
Impeller:	PES+30% GF
Material code:	I
Installation:	
Range of ambient temperature:	-20 50 °C
Maximum operating pressure:	10 bar
Max pressure at stated temp:	10 bar / 120 °C
Type of connection:	DIN
Size of connection:	DN 32
Pressure rating for connection:	PN 6/10
Port-to-port length:	220 mm
Flange size for motor:	56C
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	71A
Rated power - P2:	0.25 kW
Mains frequency:	50 / 60 Hz
Rated voltage:	3 x 380-500 V
Rated current:	0.90-0.75 A
Cos phi - power factor:	0.58-0.50
Rated speed:	360-4000 rpm
IE Efficiency class:	IE5
Motor efficiency at full load:	81.2 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	ELEC
Motor No:	99137997
Controls:	
Control panel:	HMI300 - Graphical
Function Module:	FM300 - Advanced
Frequency converter:	Built-in



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Description	Value
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	23.6 kg
Gross weight:	31.1 kg
Shipping volume:	0.104 m ³
Config. file no:	98484758
Danish VVS No.:	382150080
Finnish LVI No.:	4616320
Country of origin:	HU
Custom tariff no.:	84137051



Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.

