

05/08/2022

Date:

Qty. | Description

1

# TPE2 D 40-240 N-A-F-A-BQQE-HDC



Note! Product picture may differ from actual product

Product No.: 98438135

Single-stage, close-coupled, volute twin-head pump with in-line suction and discharge ports of identical diameter. The twin-head pump is designed with two parallel power-heads.

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.

Each power head is fitted with an unbalanced rubber bellows seal.

The shaft seal is according to EN 12756. Pipework connection is via PN 6/10 DIN flanges (EN 1092-2 and ISO 7005-2).

Each power head is fitted with a fan-cooled, permanent-magnet synchronous motor of identical size. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

Wireless communication between the two power heads is quickly and easily obtained. The pump heads can be set to cascade mode, alternating mode or duty/standby.

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.

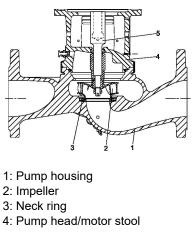
An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "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 lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is 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".

Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

## Pump





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### 1 5: Stub shaft

The twin-head pump is designed with two parallel power-heads. A flap valve in the common discharge port is opened by the flow of the pumped liquid and prevents backflow of liquid into the idle pump head.

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The pump housing is provided with a replaceable stainless 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 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.

Seal faces:

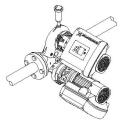
- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

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.

Twin-head pumps installed in horizontal pipes must be fitted with an automatic air vent in the upper part of the pump housing. The automatic air vent is not supplied with the pump.



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 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.

## Further product details

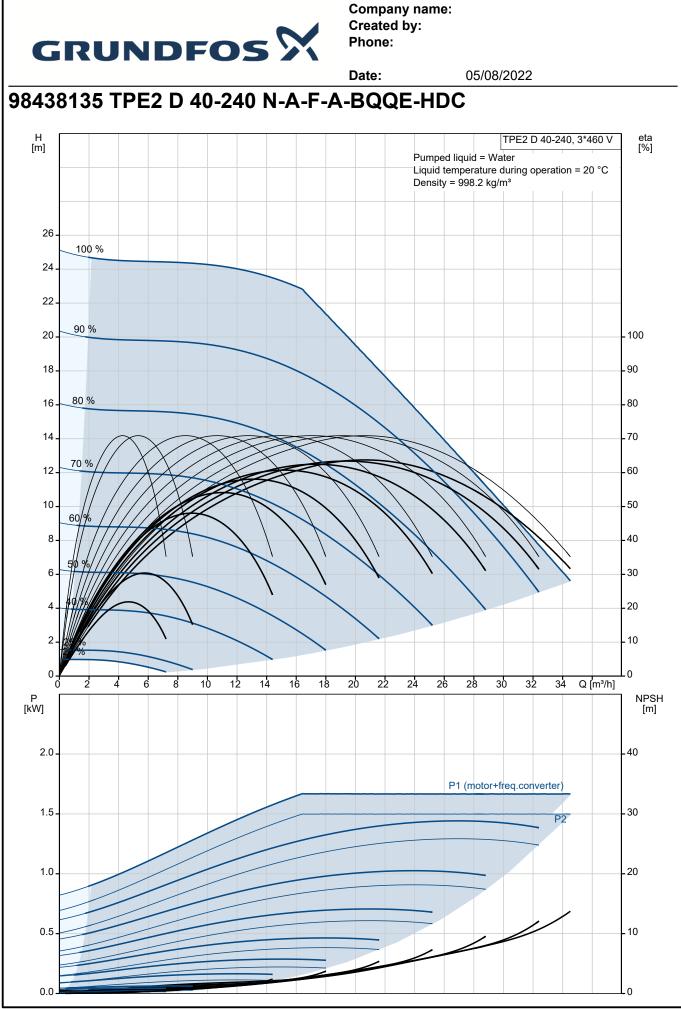
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

## **Technical data**

Controls: Frequency converter:	Built-in	
	Water -25 120 °C 20 °C 998.2 kg/m³	
Technical: Pump speed on which pump data Rated flow:	are based: 20.3 m³/h	5500 rpm



			Date:	05/08/202	<u> </u>
•	Description				
	Rated head:	19.8 m			
	Actual impeller diameter:	74 mm			
	Code for shaft seal:	BQQE			
	Curve tolerance:	ISO9906:2012 3B2			
	Materials:	O a at in a n			
	Pump housing:	Cast iron			
		EN-GJL-250			
		ASTM class 35			
	Impeller:	Composite			
		PES+30% GF			
	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 40			
	Pressure rating for connection:	PN 6/10			
	Port-to-port length:	250 mm			
	Flange size for motor:	56C			
	Electrical data:				
	Motor type:	90SB			
	IE Efficiency class:	IE5			
	Rated power - P2:	1.5 kW			
	Mains frequency:	50 / 60 Hz			
	Rated voltage:	3 x 380-500 V			
	Rated current:	3.05-2.50 A			
	Cos phi - power factor:	0.90-0.83			
	Rated speed:	480-5900 rpm			
	Efficiency:	89.1%			
	Motor efficiency at full load:	89.1 %			
	Enclosure class (IEC 34-5):	IP55			
	Insulation class (IEC 85):				
		F			
	Motor No:	99138045			
	Others:				
	Minimum efficiency index, MEI ≥				
	Net weight:	52.2 kg			
	Gross weight:	65.5 kg			
	Shipping volume:	0.252 m <sup>3</sup>			
	Country of origin:	HU			
	Custom tariff no .:	84137065			



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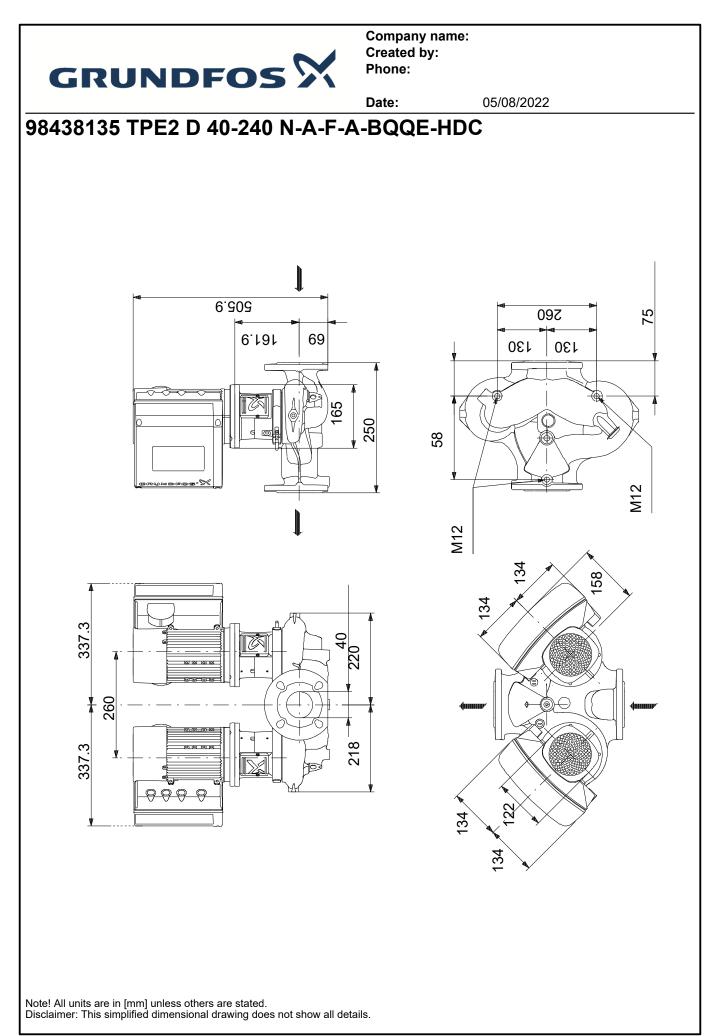
		Date:
Description	Value	H [m]
General information:	Value	[]
Product name:	TPE2 D 40-240 N-A-F-A-BQQE-HDC	26 - 400 %
Product No:	98438135	24
EAN number:	5711495014841	22
Technical:		90 %
Pump speed on which pump data are based:	5500 rpm	20 - 18 -
Rated flow:	20.3 m³/h	16 - 80 %
Rated head:	19.8 m	14
Maximum head:	240 dm	12 70 %
Actual impeller diameter:	74 mm	
Code for shaft seal:	BQQE	10 - 60 %
Curve tolerance:	ISO9906:2012 3B2	8-
Pump version:	Α	6
Materials:		4
Pump housing:	Cast iron	2 2 %
Pump housing:	EN-GJL-250	0 %
Pump housing:	ASTM class 35	
Impeller:	Composite	P [kW]
Impeller:	PES+30% GF	
Material code:	A	2.0 -
Installation:		-
Range of ambient temperature:	-20 50 °C	1.5 -
Maximum operating pressure:	10 bar	
Max pressure at stated temp:	10 bar / 120 °C	1.0
Type of connection:	DIN	
Size of connection:	DN 40	0.5
Pressure rating for connection:	PN 6/10	
Port-to-port length:	250 mm	0.0
Flange size for motor:	56C	
Connect code:	F	337.3 337.3 260
Liquid:	Γ	
Pumped liquid:	Water	
Liquid temperature range:	-25 120 °C	
Selected liquid temperature:	20 °C	
	998.2 kg/m <sup>3</sup>	TISPOIP
Density: Electrical data:	990.2 Kg/III	218 220
Motor type:	90SB	
IE Efficiency class:	IE5	134
Rated power - P2:	1.5 kW	134 122
Mains frequency:	50 / 60 Hz	
Rated voltage:	3 x 380-500 V	
Rated current:	3.05-2.50 A	- <b>t</b>
Cos phi - power factor:	0.90-0.83	
	480-5900 rpm	
Rated speed:	89.1%	
Efficiency: Motor efficiency at full load:	89.1 %	
Enclosure class (IEC 34-5):	IP55	
	F	
Insulation class (IEC 85):	-	
Built-in motor protection: Motor No:	ELEC	
	99138045	
Controls:	UMI200 Standard	
Control panel: Function Module:	HMI200 - Standard FM300 - Advanced	
		────────────────
Frequency converter:	Built-in	
Others:	0.70	
Minimum efficiency index, MEI ≥:	0.70	
Net weight:	52.2 kg	

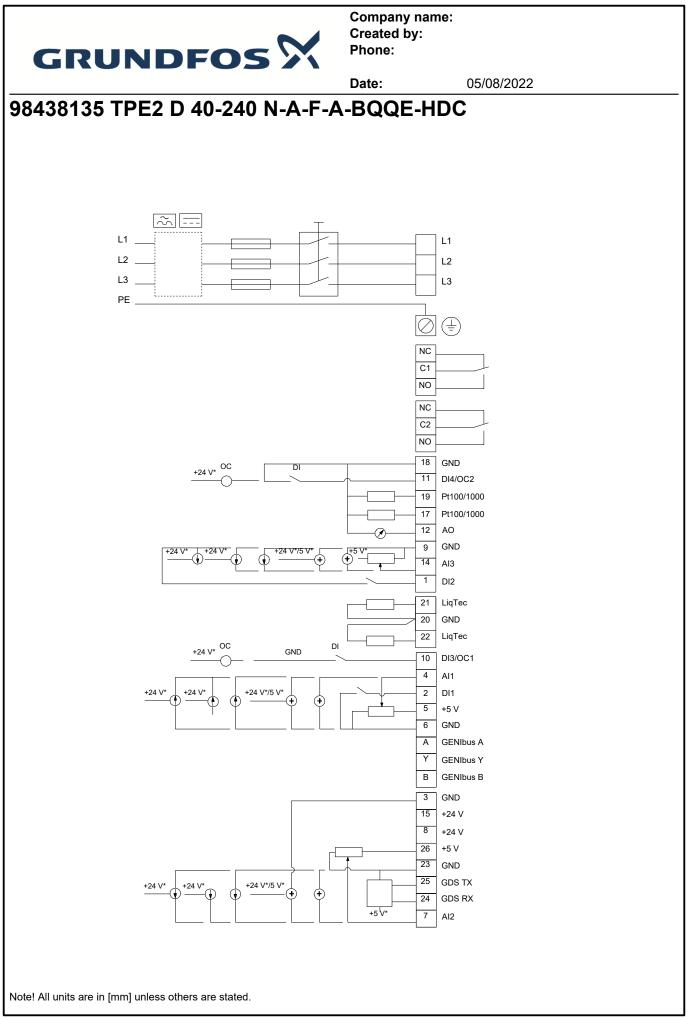
05/08/2022 TPE2 D 40-240, 3\*460 V eta [%] Pumped liquid = Water Liquid temperature during operation = 20 °C Density = 998.2 kg/m<sup>3</sup> 100 90 80 - 70 - 60 50 40 .30 20 10 0 10 30 Q [m³/h] 15 20 25 NPSH [m] 40 P1 (motor+freq.converter) 30 - 20 **-** 10 -0 M1

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		Date:	05/08/2022	
Description	Value			
Gross weight:	65.5 kg			
Shipping volume:	0.252 m³			
Config. file no:	98819256			
Country of origin:	HU			
Custom tariff no .:	84137065			







Company name: Created by:

		FOS X Pho Date	e: (	)5/08/2022		
Order Data:						
Position	Your pos.	Product name	Amount	Product No	Total	
		TPE2 D 40-240	1	98438135	Price or reques	