

05/08/2022

Qty. | Description

1

#### TPE2 65-60 N-A-F-A-BQQE-DDB



Note! Product picture may differ from actual product

Product No.: 98437898

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 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.

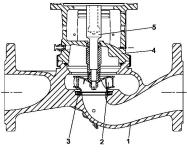
An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "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



- 1: Pump housing
- 2: Impeller
- 3: Neck ring
- 4: Pump head/motor stool
- 5: Stub shaft

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.



05/08/2022

#### Qty. | Description

1

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.

Date:

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.

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

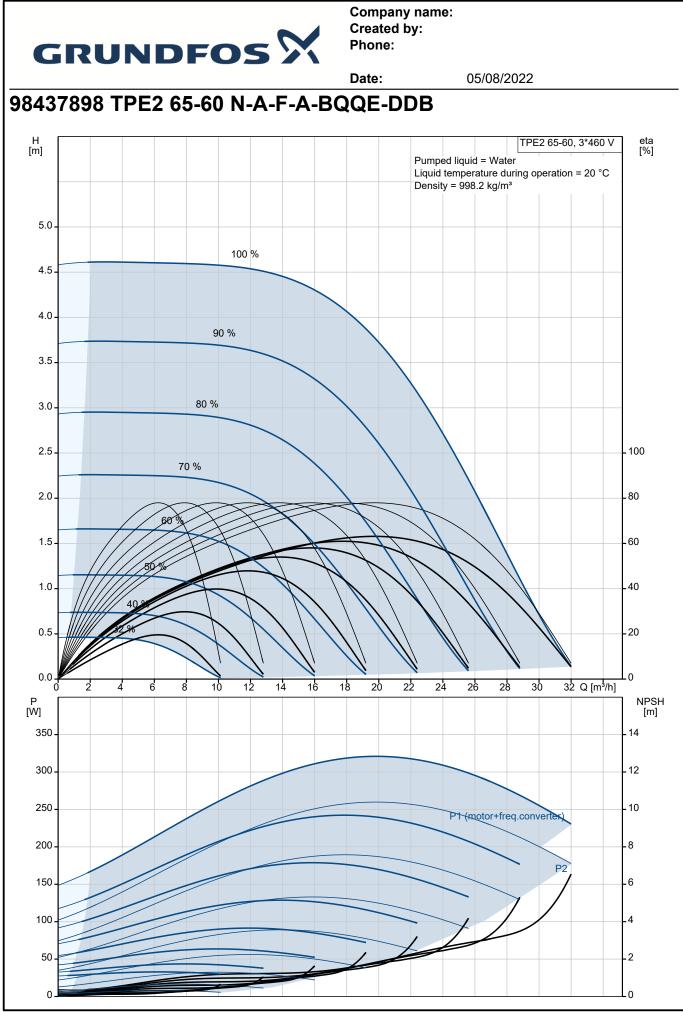
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

### **Technical data**

Controls: Frequency converter:	Built-in
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 da Rated flow: Rated head: Actual impeller diameter: Code for shaft seal: Curve tolerance:	ta are based: 2400 rpm 19.7 m³/h 3.8 m 78 mm BQQE ISO9906:2012 3B2
Materials: Pump housing: Impeller:	Cast iron EN-GJL-250 ASTM class 35 Composite PES+30% GF
Installation: Range of ambient temperature: Maximum operating pressure: Max pressure at stated temp:	-20 50 °C 10 bar 10 bar / 120 °C



			Date:	05/08/2022	
у.	Description				
	Type of connection:	DIN			
	Size of connection:	DN 65			
	Pressure rating for connection:	PN 6/10			
	Port-to-port length:	340 mm			
	Flange size for motor:	56C			
	Electrical data:				
	Motor type:	71A			
	IE Efficiency class:	IE5			
	Rated power - P2:	0.37 kW			
	Mains frequency:	50 / 60 Hz			
	Rated voltage:	3 x 380-500 V			
	Rated current:	1.05-1.00 A			
	Cos phi - power factor:	0.68-0.54			
	Rated speed:	360-4000 rpm			
	Efficiency:	84.5%			
	Motor efficiency at full load:	84.5 %			
	Enclosure class (IEC 34-5):	IP55			
	Insulation class (IEC 85):	F			
	Motor No:	99138015			
		33100010			
	Others:				
	Minimum efficiency index, MEI ≥:	0.70			
	Net weight:	28.9 kg			
	Gross weight:	37.6 kg			
	Shipping volume:	0.164 m <sup>3</sup>			
	Finnish LVI No.:	4616299			
	Country of origin:	HU			
	Custom tariff no.:	84137051			



Printed from Grundfos Product Centre [2022.33.001]

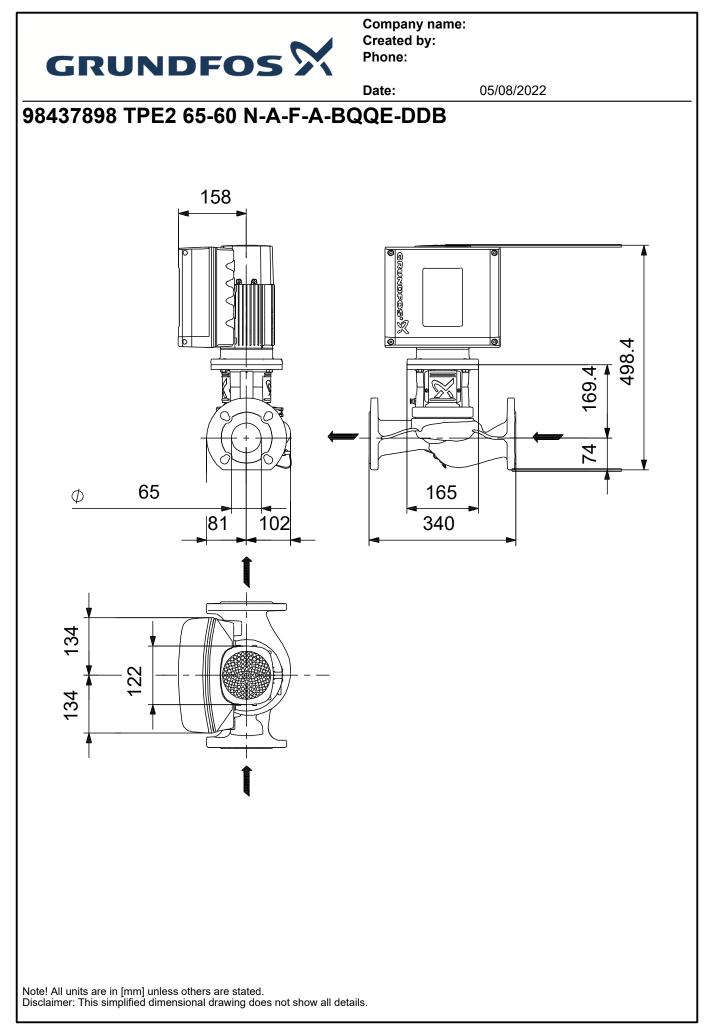


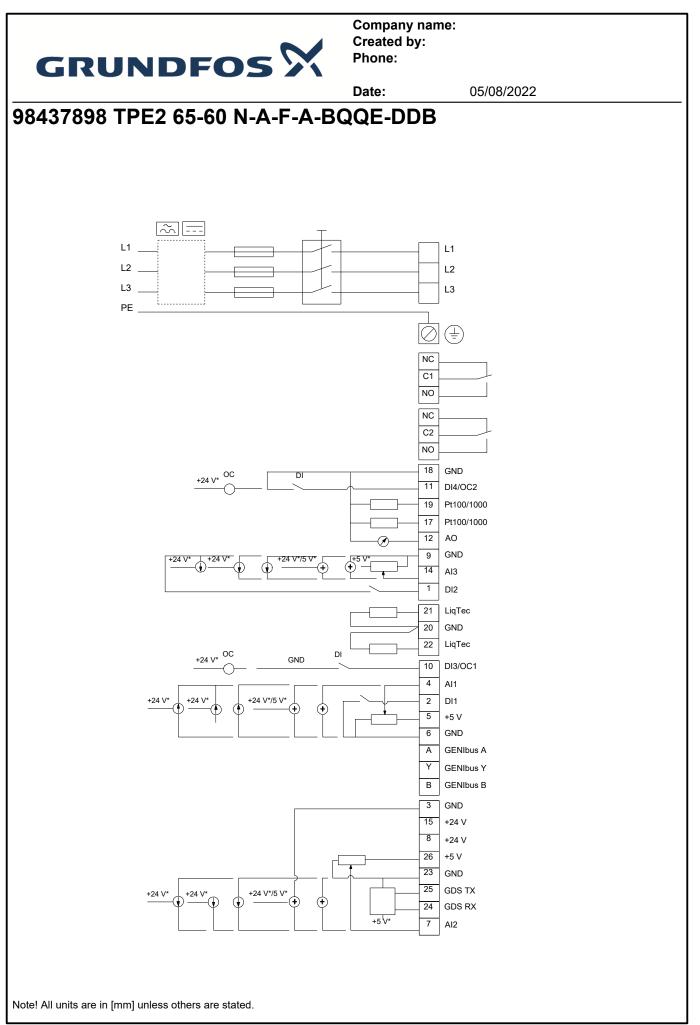
		н	
Description	Value	[m]	TPE2 65-60, 3*460 V
General information:			Pumped liquid = Water Liquid temperature during operation = 20 °C
Product name:	TPE2 65-60 N-A-F-A-BQQE-DDB	5.0 -	Density = 998.2 kg/m <sup>3</sup>
Product No:	98437898	4.5	100 %
EAN number:	5711495010942		
Fechnical:		4.0	90 %
Pump speed on which pump data are based:	2400 rpm	3.5 -	
Rated flow:	19.7 m³/h	3.0	80 %
Rated head:	3.8 m	_	
Maximum head:	60 dm	2.5 -	70 %
Actual impeller diameter:	78 mm	2.0	-80
Code for shaft seal:	BQQE		68.98
Curve tolerance:	ISO9906:2012 3B2	1.5 -	-60
Pump version:	A		50%
Materials:	7	1.0 -	40
Pump housing:	Cast iron	0.5 -	-20
	EN-GJL-250		
Pump housing:		0.0	5 10 15 20 25 Q [m³/h]
Pump housing:	ASTM class 35	P [W]	N
Impeller:	Composite	[W]	
Impeller:	PES+30% GF	300 -	12
Material code:	A		
Installation:		250 -	P1 (motor+freq converter) -10
Range of ambient temperature:	-20 50 °C	200 -	-8
Maximum operating pressure:	10 bar	150 -	P2/ -6
Max pressure at stated temp:	10 bar / 120 °C	100	
Type of connection:	DIN		
Size of connection:	DN 65	50 -	-2
Pressure rating for connection:	PN 6/10	0	0
Port-to-port length:	340 mm	*	
Flange size for motor:	56C	158	•
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C	H	
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³	φ 65	
Electrical data:		Φ 65  81	
Motor type:	71A		• <u>••</u> ••••
IE Efficiency class:	IE5		
Rated power - P2:	0.37 kW	- 5 ·	
Mains frequency:	50 / 60 Hz		
Rated voltage:	3 x 380-500 V		
Rated current:	1.05-1.00 A	— · 1	t
Cos phi - power factor:	0.68-0.54		
Rated speed:	360-4000 rpm		
Efficiency:	84.5%		
Motor efficiency at full load:	84.5 %		
-			Ø⊕ ■
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Built-in motor protection:	ELEC	O	
Motor No:	99138015	<u></u>	
Controls:	-		
Control panel:	HMI200 - Standard		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in		Λ 0400 μa Λ   Υ 0400 μa Λ   Ξ 0400 μa β
Others:			2 000 17 Jav 1 - Jav
Minimum efficiency index, MEI ≥:	0.70	2117 0117 01171 01171	
Net weight:	28.9 kg	YY	

Printed from Grundfos Product Centre [2022.33.001]



Date: 05/08/2022 Description Value Gross weight: 37.6 kg Shipping volume: 0.164 m<sup>3</sup> Config. file no: 98819262 Finnish LVI No.: 4616299 Country of origin: ΗU Custom tariff no .: 84137051







Company name:

GR	RUND	FOSX	Created Phone:	d by:				
			Date:	С	5/08/2022			
Order Data:								
Position	Your pos.	Product name		Amount		Total		
		TPE2 65-60		1	98437898	Price or reques		