

05/08/2022

Qty. | Description

1

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



Note! Product picture may differ from actual product

Product No.: 98438355

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.

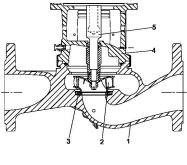
An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "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.



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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

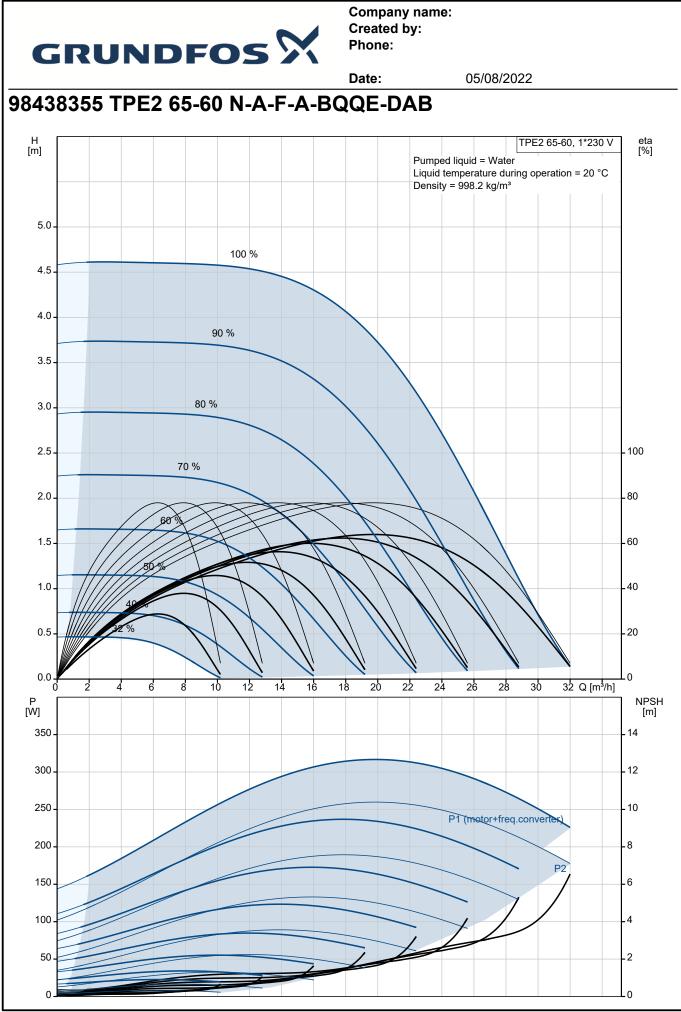
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

### **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



DescriptionType of connection:DINSize of connection:DN 65Pressure rating for connection:PN 6/10Port-to-port length:340 mmFlange size for motor:56CElectrical data:		05/08/2022	
Size of connection:DN 65Pressure rating for connection:PN 6/10Port-to-port length:340 mmFlange size for motor:56CElectrical data:			
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Port-to-port length:340 mmFlange size for motor:56CElectrical data:	ection: DN 6		
Port-to-port length:340 mmFlange size for motor:56CElectrical data:Motor type:Motor type:71AIE Efficiency class:IE5Rated power - P2:0.37 kWMains frequency:50 / 60 HzRated voltage:1 x 200-240 VRated current:2.40-2.10 ACos phi - power factor:0.96Rated speed:360-4000 rpmEfficiency:84.0%Motor efficiency at full load:84.0 %Enclosure class (IEC 34-5):IP55Insulation class (IEC 85):FMotor No:99137991Others:0.70Minimum efficiency index, MEI ≥:0.70Net weight:27.2 kgGross weight:35.9 kgShipping volume:0.164 m³Finnish LVI No.:4616229Country of origin:HU	ting for connection: PN 6		
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Finnish LVI No.: 4616229 Country of origin: HU			
Country of origin: HU			
Custom tariff no.: 84137051			
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General information:         Product name:       T         Product No:       9         EAN number:       5         Technical:       7         Pump speed on which pump data are based:       2         Rated flow:       1         Rated head:       3         Maximum head:       6         Actual impeller diameter:       7         Code for shaft seal:       B         Curve tolerance:       15         Pump version:       A	<b>Value</b> PE2 65-60 I-A-F-A-BQQE-DAB 8438355 711495017231 400 rpm 9.7 m³/h 8.8 m 0 dm 8 mm 30QE	H [m] 5.0 4.5 4.0 3.5 3.0 2.5	Liquid	d liquid = W temperature y = 998.2 kg	ater during op	2 65-60, peration =	1
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Product Name:NProduct No:9EAN number:5Technical:9Pump speed on which pump data are based:2Rated flow:1Rated head:3Maximum head:6Actual impeller diameter:7Code for shaft seal:BCurve tolerance:15Pump version:AMaterials:	I-A-F-A-BQQE-DAB 8438355 711495017231 400 rpm 9.7 m³/h 8.8 m 10 dm 8 mm	4.5 4.0 3.5 3.0	90 %	/ = 998.2 kg			
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Rated head:3Maximum head:6Actual impeller diameter:7Code for shaft seal:BCurve tolerance:ISPump version:AMaterials:	8.8 m 60 dm 78 mm		80 %				
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Code for shaft seal:BCurve tolerance:ISPump version:AMaterials:			70 %		$\langle \rangle$	\	
Curve tolerance: IS Pump version: A Materials:	BQQE	2.0 -	and	-		$\setminus$	
Pump version: A Materials:		1.5	60%	$\Box I$	14		
Materials:	SO9906:2012 3B2	1.3	150.%	1	11		
	١	1.0 -		V V	$\mathcal{A}$	//	
Pump housing:				(N)		//	1
	Cast iron	0.5 -	~ N/N				1
1 5	EN-GJL-250	0.0	1.1	11 11	11		
1 5	STM class 35	0	5 10	15 20	) 25	i	Q [m³/h]
Impeller: C	Composite	P [W]					
Impeller: P	PES+30% GF						
Material code: A	١	300 -					
Installation:		250 -		P1 (n	notor+freq	convert	en
Range of ambient temperature: -2	20 50 °C	200 -					$\sum$
Maximum operating pressure: 1	0 bar	150 -					P2
Max pressure at stated temp: 1	0 bar / 120 °C					. 7	/
Type of connection: D	DIN	100				$\mathcal{I}$	/
Size of connection: D	DN 65	50 -				-	
Pressure rating for connection: P	PN 6/10	0					
Port-to-port length: 3	40 mm						
Flange size for motor: 5	6C	158	4				
Connect code: F	:			-			
Liquid:							
1 1	Vater				4.8		
1 1 5	25 120 °C	l			458.4		
Selected liquid temperature: 2	0 °C						
Density: 9	98.2 kg/m³	φ 65		165			
Electrical data:		81		340			
51	′1A		t				
-	E5		t t				
-	.37 kW		<u> </u>				
	0 / 60 Hz		R.				
6	x 200-240 V		<u>+</u>				
	40-2.10 A		l				
	.96						
•	60-4000 rpm						
,	4.0%						
5	4.0 %		<u>→ ⊦∠</u> ⊥−□` Ø⊕				
( )	P55		NC C1 NO	-			
Insulation class (IEC 85): F							
•	ELEC						
Motor No: 9	9137991	STO DAY					
Controls:		<u> </u>					
•	IMI200 - Standard	-381/ <sup>2</sup> 0C					
Function Module: F	M300 - Advanced						
Frequency converter: B	Built-in		A GENBUR A				
Others:			2 GENELIK B 3 GND 35 +36 V				
	.70						
Net weight: 2	.7.2 kg	······································					

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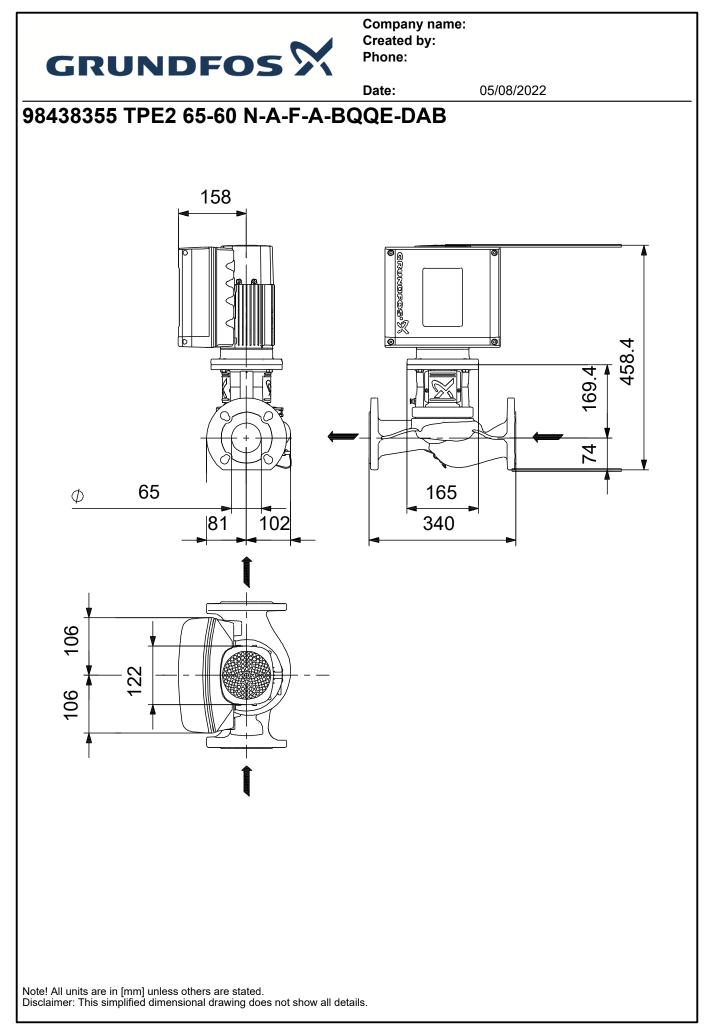
NPSH [m]

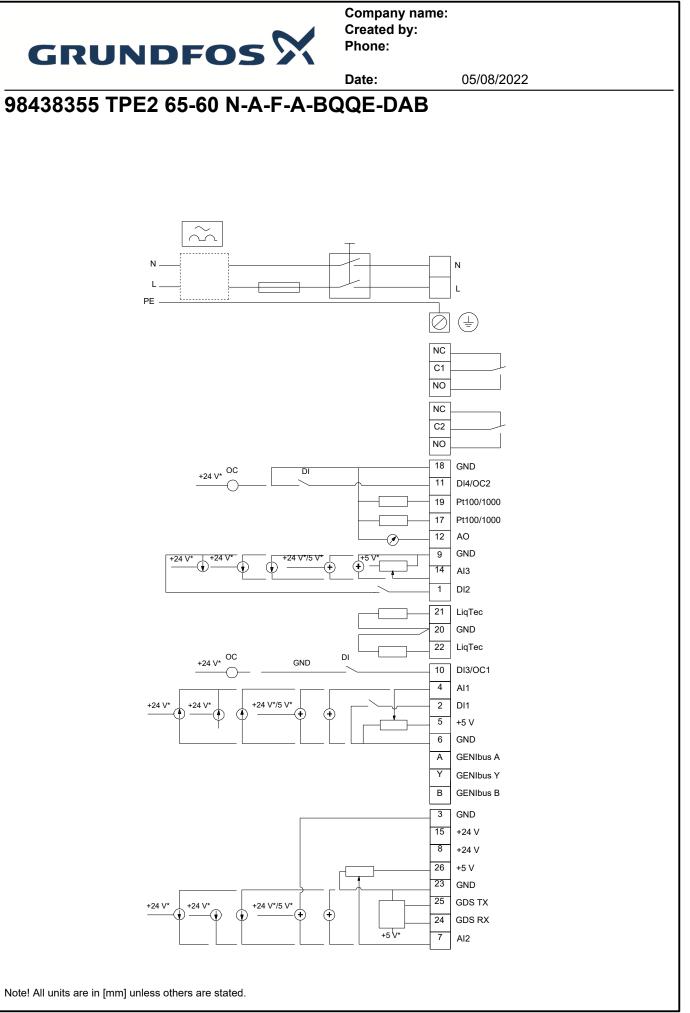
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- 8 -6 4 -2 Lo



Date: 05/08/2022 Value Description Gross weight: 35.9 kg Shipping volume: 0.164 m<sup>3</sup> Config. file no: 98819179 Finnish LVI No.: 4616229 Country of origin: ΗU Custom tariff no .: 84137051







Position

Company name: Created by: Phone:

05/08/2022 Date: **Order Data:** Your pos. **Product name** Amount **Product No** Total TPE2 65-60 1 98438355 Price on request