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Company name: Created by: Phone:

Date: 16/06/2022 Description TPD 100-65/4 A-F-A-BQQE-GX3 Note! Product picture may differ from actual product Product No.: On request 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 16 DIN flanges (EN 1092-2 and ISO 7005-2). Each power head is fitted with a fan-cooled asynchronous motor of indentical size. 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. 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: Stub shaft 4: Pump head/motor stool 5: Wear rings The twin-head pump is designed with two parallel power-heads. A non-return 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. 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. Seal faces:

· Rotating seal ring material: silicon carbide (SiC)



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• Stationary seat material: silicon carbide (SiC)

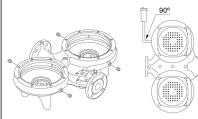
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Date:

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 pump housing has four Rp 1/8 tappings for mounting of automatic air vents. Fit an air vent to the upper pump housing if the twin-head pump is to be installed in a horizontal pipeline with horizontal pump shaft.



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 II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (11/1).

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

### 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:	NONE	
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:	are based: 54.82 m³/h 4.6 m 139 mm BQQE	1445 rpm



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Company name: Created by: Phone:

Date: 16/06/2022 Description Curve tolerance: ISO9906:2012 3B2 Materials: Pump housing: Cast iron EN-GJL-250 ASTM class 35 Impeller: Cast iron EN-GJL-200 ASTM class 30 Installation: Range of ambient temperature: -20 .. 55 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C Type of connection: DIN Size of connection: DN 100 Pressure rating for connection: PN 16 Port-to-port length: 550 mm Flange size for motor: FF165 Electrical data: SIEMENS Motor type: IE Efficiency class: IE3 Rated power - P2: 1.1 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-420Y V Rated current: 4.2/2.4 A Starting current: 690-690 % Cos phi - power factor: 0.78 1440 rpm Rated speed: IE3 84,1% Efficiency: Motor efficiency at full load: 84.1-84.1 % Motor efficiency at 3/4 load: 84.7-84.7 % Motor efficiency at 1/2 load: 83.4-83.4 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 83V02205 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 176 kg 196 kg Gross weight: Shipping volume: 0.518 m<sup>3</sup> Country of origin: HU Custom tariff no .: 84137065

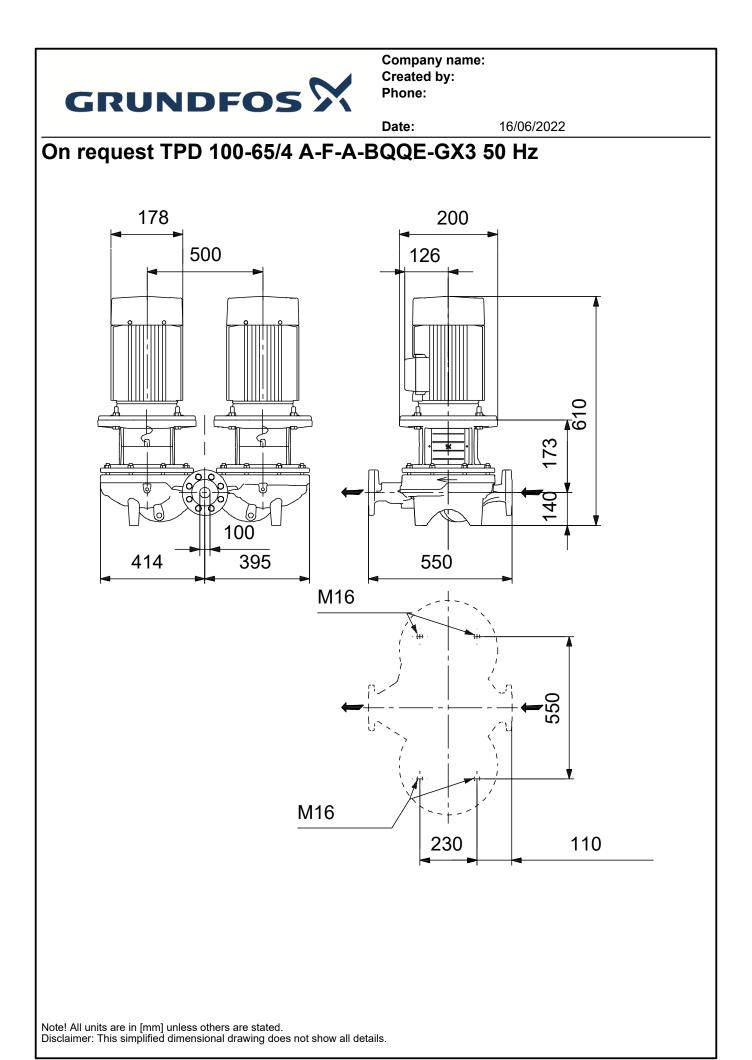


		Date:			
Description	Value	H [m]			/4, 3*400 V, 50Hz
Seneral information:		-	Pumped liquid Liquid temper		peration = 20 °C
Product name:	TPD 100-65/4 A-F-A-BQQE-GX3	6.0 <b>-</b> 5.5 <b>-</b>	Density = 998		
Product No:	On request	5.5			
AN number:	On request	5.0 -			
echnical:	•	4.5			
ump speed on which pump data are ased:	1445 rpm	4.0 -			
ated flow:	54.82 m³/h	3.5 -			
ated head:	4.6 m	_			
faximum head:	65 dm	3.0 -			
ctual impeller diameter:	139 mm	2.5 -			
Code for shaft seal:	BQQE	2.0			
Curve tolerance:	ISO9906:2012 3B2	_			
Pump version:	A	1.5 -			
laterials:	n	1.0	//		
Pump housing:	Cast iron	0.5			
ump housing:	EN-GJL-250				
ump housing:	ASTM class 35	0.0	10 20 30	0 40	50 Q [m³/h
	Cast iron	- P			00 Q [ ,
npeller: npeller:	EN-GJL-200	[Ŵ]			P1
	ASTM class 30	1200 -			
npeller: laterial code:	ASTM class 30	1000 -			P7
istallation:	A	-			12
		800 -			
ange of ambient temperature:	-20 55 °C	600 -			
aximum operating pressure:	16 bar	400			
ax pressure at stated temp:	16 bar / 120 °C	200 -			
ype of connection:	DIN DN 400	_			
ze of connection:	DN 100	0			
ressure rating for connection:	PN 16	178	200		
ort-to-port length:	550 mm	500	126		
ange size for motor:	FF165				
onnect code:	F				
iquid:				6	
umped liquid:	Water		I III.	173	
iquid temperature range:	-25 120 °C	- Dec Car	▁ ←┠─────	<u>+</u>	
elected liquid temperature:	20 °C			- <b>-</b>	
ensity:	998.2 kg/m³		<u>M16</u>		
lectrical data:				-	
Notor type:	SIEMENS			220	
E Efficiency class:	IE3		1	Ω.	
ated power - P2:	1.1 kW		X+1++	t	
lains frequency:	50 Hz		M16	110	
ated voltage:	3 x 220-240D/380-420Y V		<del> a     a</del>		
ated current:	4.2/2.4 A		LOW VOLTAGE		
arting current:	690-690 %		ECTION OF ROTATION		
os phi - power factor:	0.78				
ated speed:	1440 rpm				
fficiency:	IE3 84,1%				
otor efficiency at full load:	84.1-84.1 %	│ ♥♥♥			
otor efficiency at 3/4 load:	84.7-84.7 %				
lotor efficiency at 1/2 load:	83.4-83.4 %				
lumber of poles:	4		IGH VOLTAGE ION OF ROTATION		
nclosure class (IEC 34-5):	IP55				
nsulation class (IEC 85):	F				
Built-in motor protection:	NONE		<u>(w3-03-03</u> )		
Notor No:	83V02205	╴│  ┋┋┋	๛๛๛		
ontrols:		- _/   └┴			
requency converter:	NONE				

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16/06/2022 Date: Description Value Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 176 kg Gross weight: 196 kg Shipping volume: 0.518 m<sup>3</sup> Country of origin: ΗU Custom tariff no .: 84137065





16/06/2022

# Order Data:

Product name:TPD 100-65/4Amount:1Product No:On request

Total: Price on request