

Qty.

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Company name: Pump Sales Direct Created by: Phone:

		Date:	23/06/2022
Description			
TPE3 D 65-1	50 S-A-F-A-BQQE-GA	AB	
		Note! Product picture may differ from actua	ıl product
Product No.:	99272602		
Single-stage, twin-head pu	close-coupled, volute mp is designed with tw	twin-head pump with in-line suction a o parallel power-heads.	nd discharge ports of identical diameter
		gn, i.e. the power head (motor, pump ump housing remains in the pipework.	head and impeller) can be removed for
•		nbalanced rubber bellows seal. 2756. Pipework connection is via PN (	6/10 DIN flanges (EN 1092-2 and ISO
Each power h	nead is fitted with a fan	-cooled, permanent-magnet synchror	nous motor of identical size. 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 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.

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.

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

identical diameter. The



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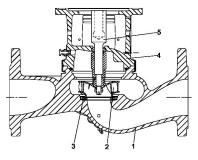
#### Qty. | Description

Communication with the pump is also 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".

Date:

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 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.

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.



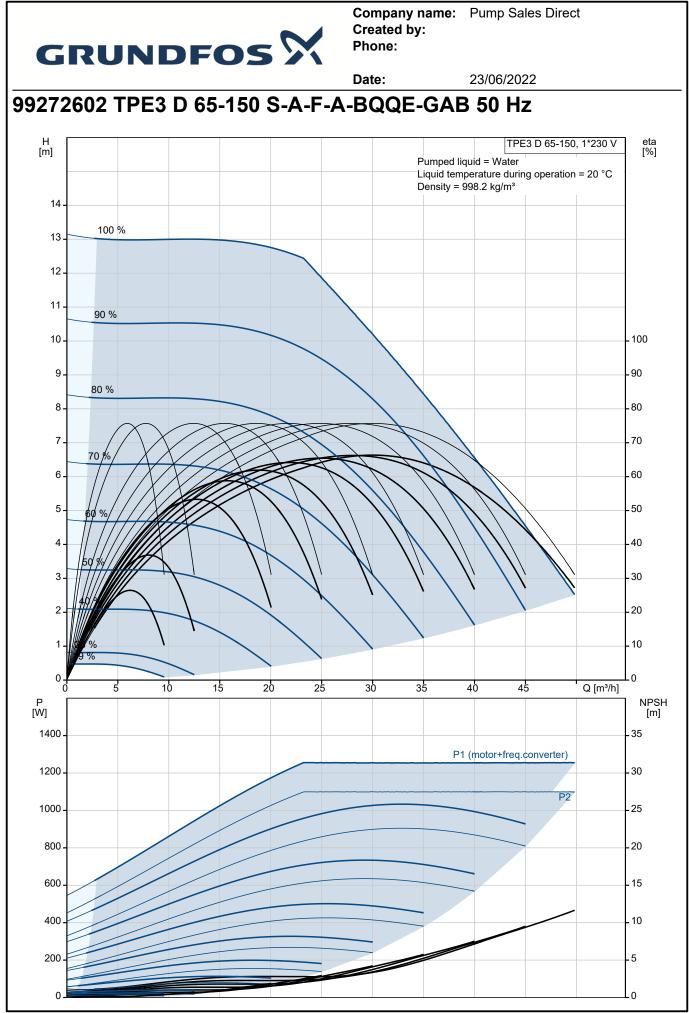
GRUND	FOSX	Created by: Phone:	
		Date:	23/06/2022
Description			
The motor requires no externation of the quick-rising temperatures,	ernal motor protection. Th e.g. constant overload ar	e motor control unit nd stalled conditions	incorporates protection against slow- an
The terminal box holds ter	minals for these connection	ons:	
<ul> <li>one dedicated digit</li> </ul>	al input		
- two analog inputs,	0(4)-20 mA, 0-10 V		
	gital input or open-collect	or output	
	d temperature and differe		r (separate connected)
- 24 V voltage supply		I	
	puts (potential-free conta	cts)	
	ds communicate via wirele		GENI connection
	fos CIM fieldbus module.		
The terminal box holds ter		ons:	
- one dedicated digit			
<ul> <li>two analog inputs,</li> </ul>	•		
	gital input or open-collect	or output	
	temperature and different		r (separate connected)
<ul> <li>24 V voltage supply</li> </ul>	•	liai pressure serise	
	puts (potential-free conta	ote)	
- GENIbus connection		015)	
	fos CIM fieldbus module.		
	ios cim neidods module.		
Technical data			
Controls:			
Frequency converter:	Built-in		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperatur			
Density:	998.2 kg/m³		
Technical:			
Pump speed on which pun	np data are based 400	0 rpm	
Rated flow:	31.4 m <sup>3</sup> /h		
Rated head:	9.4 m		
Actual impeller diameter:	78 mm		
Code for shaft seal:	BQQE		
Curve tolerance:	ISO9906:2012 3E	32	
Materials:			
Pump housing:	Cast iron		
Fump housing.	EN-GJL-250		
	ASTM class 35		
Impeller			
Impeller:	Composite PES+30% GF		
Installation:	Stures 00 50 °O		
Range of ambient tempera			
Maximum operating press			
Max pressure at stated ter Type of connection:	•		
I LUDO OT CONDOCTION	DIN		
Size of connection:	DN 65		

Size of connection:

DN 65



Port-to- Flange Electric Motor ty IE Effic Rated p Mains f Rated o Cos ph Rated s Efficien Motor e Enclose	ure rating for connection: -port length: e size for motor: cal data: type: ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	PN 6/10 340 mm 56C 80B IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99 360-4000 rpm		
Port-to- Flange Electric Motor ty IE Effic Rated p Mains f Rated o Cos ph Rated s Efficien Motor e Enclose Insulati Motor N	p-port length: e size for motor: cal data: type: ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	340 mm 56C 80B IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Flange Electric Motor ty IE Effic Rated p Mains f Rated o Rated o Cos ph Rated s Efficien Motor e Enclosu Insulati Motor N	e size for motor: cal data: type: ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	56C 80B IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Electric Motor to IE Effic Rated p Mains f Rated o Rated o Cos ph Rated s Efficien Motor e Enclosu Insulati Motor N	cal data: type: ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	80B IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Motor ty IE Effic Rated p Mains f Rated o Rated o Cos ph Rated s Efficien Motor e Enclose Insulati Motor N	type: ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
IE Effic Rated p Mains f Rated o Rated o Cos ph Rated s Efficien Motor e Insulati Motor N	ciency class: power - P2: frequency: voltage: current: ni - power factor: speed:	IE5 1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Rated p Mains f Rated o Rated o Cos ph Rated s Efficien Motor e Insulati Motor N	power - P2: frequency: voltage: current: ni - power factor: speed:	1.1 kW 50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Mains f Rated v Rated o Cos ph Rated s Efficien Motor e Enclosu Insulati Motor N	frequency: voltage: current: ni - power factor: speed:	50 Hz 1 x 200-240 V 6.70-5.60 A 0.99		
Rated of Rated of Cos ph Rated s Efficien Motor e Enclose Insulatio Motor N	voltage: current: ni - power factor: speed:	1 x 200-240 V 6.70-5.60 A 0.99		
Rated o Cos ph Rated s Efficien Motor e Enclosu Insulati Motor N	current: ni - power factor: speed:	6.70-5.60 A 0.99		
Cos ph Rated s Efficien Motor e Enclosu Insulati Motor N	ni - power factor: speed:	0.99		
Rated s Efficien Motor e Enclosu Insulati Motor N	speed:			
Efficien Motor e Enclosu Insulati Motor N		360-4000 rpm		
Motor e Enclosu Insulati Motor N				
Enclosu Insulati Motor N		86.9%		
Insulati Motor N	efficiency at full load:	86.9 %		
Insulati Motor N	sure class (IEC 34-5):	IP55		
	tion class (IEC 85):	F		
Others:	No:	99137987		
	8:			
Minimu	um efficiency index, MEI	≥: 0.70		
Net wei		53.1 kg		
Gross v	weight:	66.4 kg		
	ng volume:	0.252 m³		
Country	ry of origin:	HU		
Custom	ly of origin.	84137065		



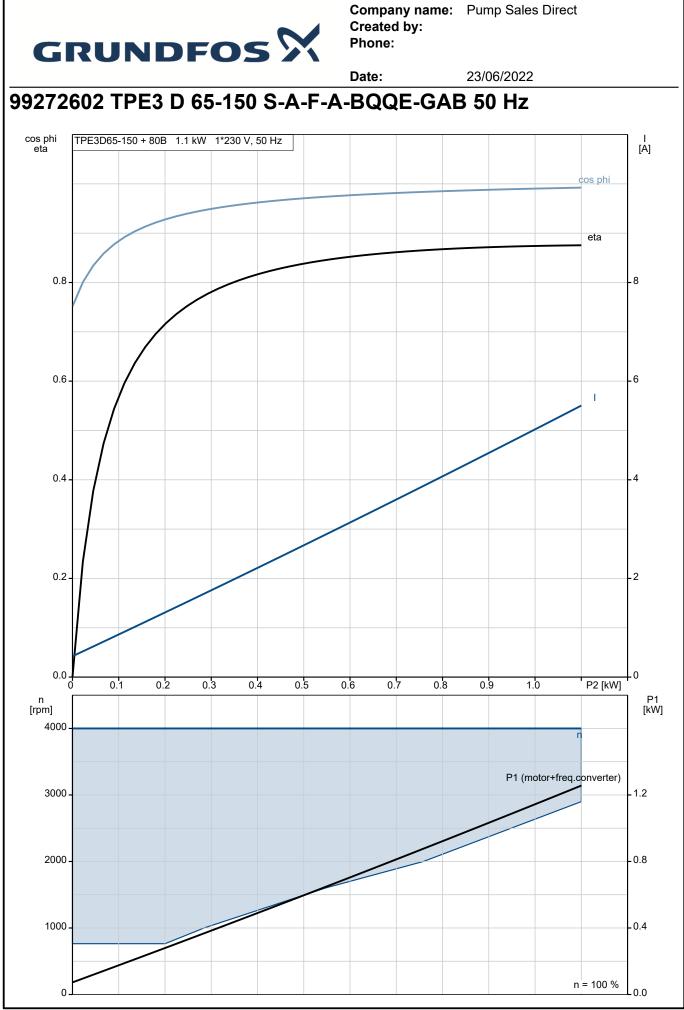


		.".	TPE3 D 65-150, 1*230 V
Description General information:	Value	[m]	Pumped liquid = Water [%
	TDE2 D 65 150	14	Liquid temperature during operation = 20 °C Density = 998.2 kg/m <sup>3</sup>
Product name:	TPE3 D 65-150 S-A-F-A-BQQE-GAB	13 - 100 %	b Density = 996.2 kg/m <sup>2</sup>
Product No:	99272602	12 -	
EAN number:	5713826367558	11 - 90 %	
Fechnical:		10 -	100
Pump speed on which pump data a based:	are 4000 rpm	9 - 80 %	-90
Rated flow:	31.4 m³/h	8-	
Rated head:	9.4 m	7	-70
Maximum head:	150 dm	6 - 70 %	60
Actual impeller diameter:	78 mm		
Code for shaft seal:	BQQE	5-60///	
Curve tolerance:	ISO9906:2012 3B2	4 - 50/9	
Pump version:	А	3	<b>↑                    </b>
Materials:		2-	20
Pump housing:	Cast iron	1	
Pump housing:	EN-GJL-250	0	
Pump housing:	ASTM class 35	0 5	10 15 20 25 30 35 40 45 Q [m³/h]
Impeller:	Composite	P [W]	NP [r
Impeller:	PES+30% GF	L	P1 (motor+freq.converter)
Material code:	A	1200 -	30
Installation:		1000 -	P2 _25
Range of ambient temperature:	-20 50 °C	800 -	20
Maximum operating pressure:	10 bar		
Max pressure at stated temp:	10 bar / 120 °C	600 -	15
Type of connection:	DIN	400 -	10
Size of connection:	DN 65	200 -	5
Pressure rating for connection:	PN 6/10	0	
Port-to-port length:	340 mm	*	
Flange size for motor:	56C	317.4	317.4
Connect code:	F	260	
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m <sup>3</sup>		
Electrical data:		228	240 340
Motor type:	80B		218
IE Efficiency class:	IE5	106	
Rated power - P2:	1.1 kW		
Mains frequency:	50 Hz		
Rated voltage:	1 x 200-240 V		
Rated current:	6.70-5.60 A	t	M12 92
Cos phi - power factor:	0.99		
Rated speed:	360-4000 rpm		
Efficiency:	86.9%	$\sim$	
Motor efficiency at full load:	86.9 %		
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Built-in motor protection:	ELEC		
Motor No:	99137987	C	
Controls:	00101001	<u> </u>	
Control panel:	HMI300 - Graphical		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in	<u></u>	
Others:	Duilt-III		[A] Isolasia A           GDBasa Y           Si GDBasa S
Otners: Minimum efficiency index, MEI ≥:	0.70		1 0000 1 040 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
-		-arr (0 -arr (0 - arr (- arr (	
Net weight:	53.1 kg		

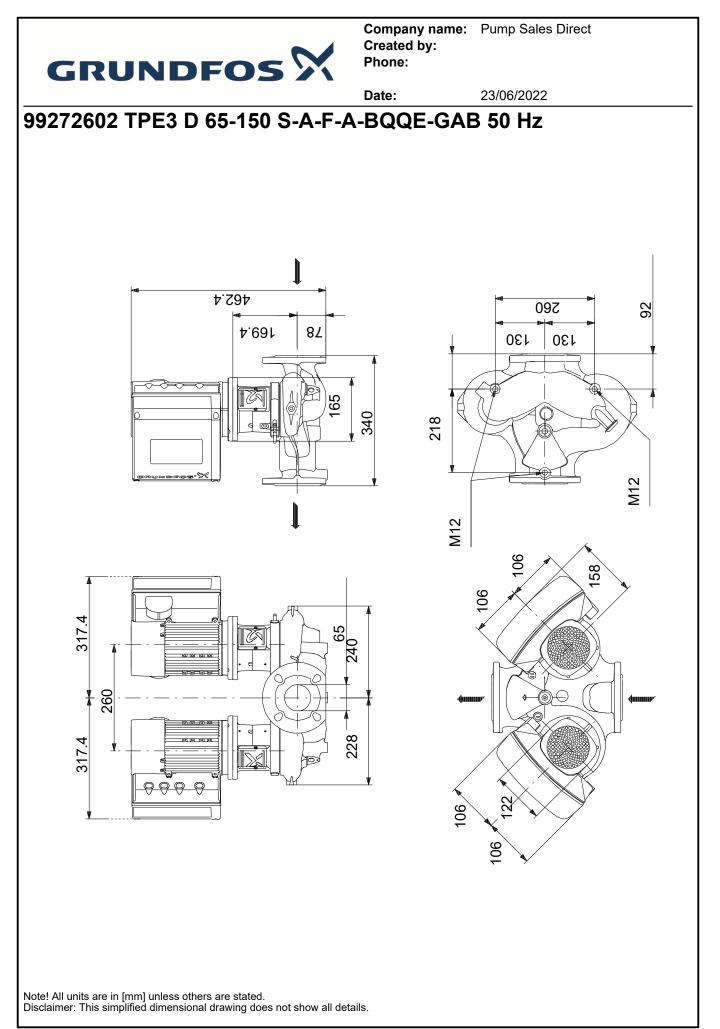
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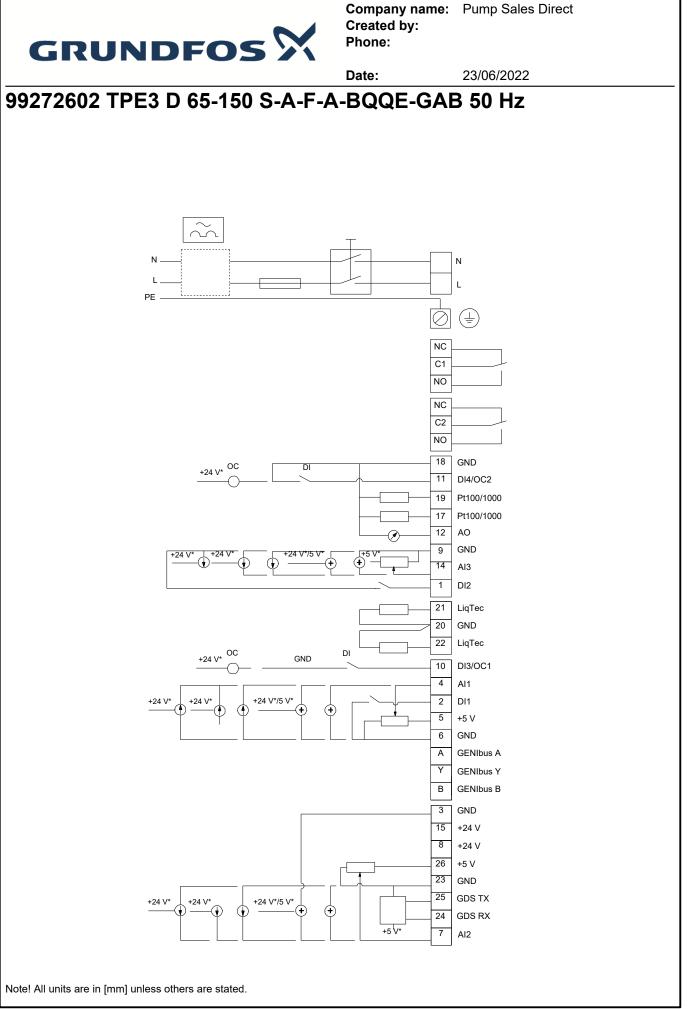


		Date:	23/06/2022
Description	Value		
Gross weight:	66.4 kg	_	
Shipping volume:	0.252 m³		
Config. file no:	98481470		
Country of origin:	HU		
Custom tariff no.:	84137065		



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23/06/2022

# Order Data:

Product name:TPE3 D 65-150Amount:1Product No:99272602

Total: Price on request