TPE2 50-120-N-A-F-I-BQQE

Grundfos Pump 98416594



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https://www.lenntech.com/grundfos/TPE3NI/98416594/TPE2-50-120-N-A-F-I-BQQE.html

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Position	Qty.	Description
	1	**TPE2 50-120-N A-F-I-BQQE**



Product No.: 98416594

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 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.

Further product details

The stainless-steel pump housing makes the pump suitable for circulation of hot water.

A control 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 control panel provides visual indication of pump status:

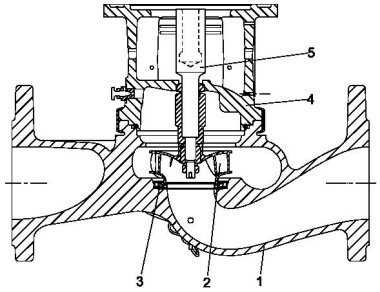
- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is possible by means of the 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".

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.

Pump

Pump housing and pump head are electrocoated to improve the corrosion resistance.
Electrocoating includes:
1) Alkaline-based cleaning.
2) Pretreatment with zinc phosphate coating.
3) Cathodic electrocoating (epoxy).
4) Curing of paint film at 200-250 °C.



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

Position	Qty.	Description

TWINPUMP=D}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 stainles 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.

Primary seal:

- 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 stub 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.

The terminal box holds terminals for these connections:

- one dedicated digital input
- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V
- 5 V voltage supply to potentiometer and sensor
- one configurable digital input or open-collector output
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal relay outputs (potential-free contacts)
- GENIbus connection
- interface for Grundfos CIM fieldbus module.

Technical data

Liquid:

Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³

Technical:

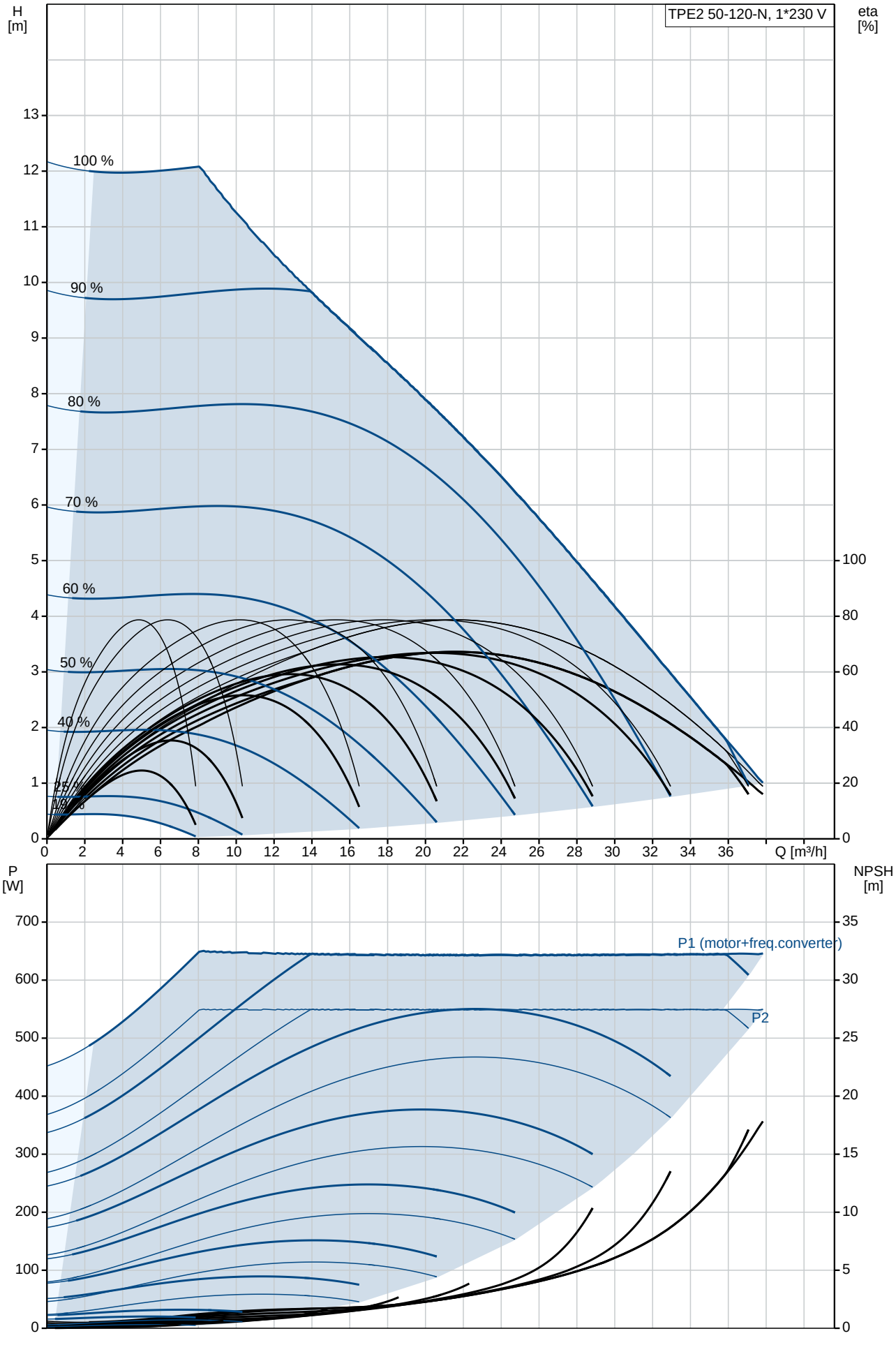
Speed for pump data:	3430 rpm
Rated flow:	20.6 m³/h
Rated head:	7.7 m
Actual impeller diameter:	74 mm
Primary shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump housing:	Stainless steel DIN W.-Nr. 1.4308 ASTM CF8
Impeller:	Composite PES/PP 30% GF

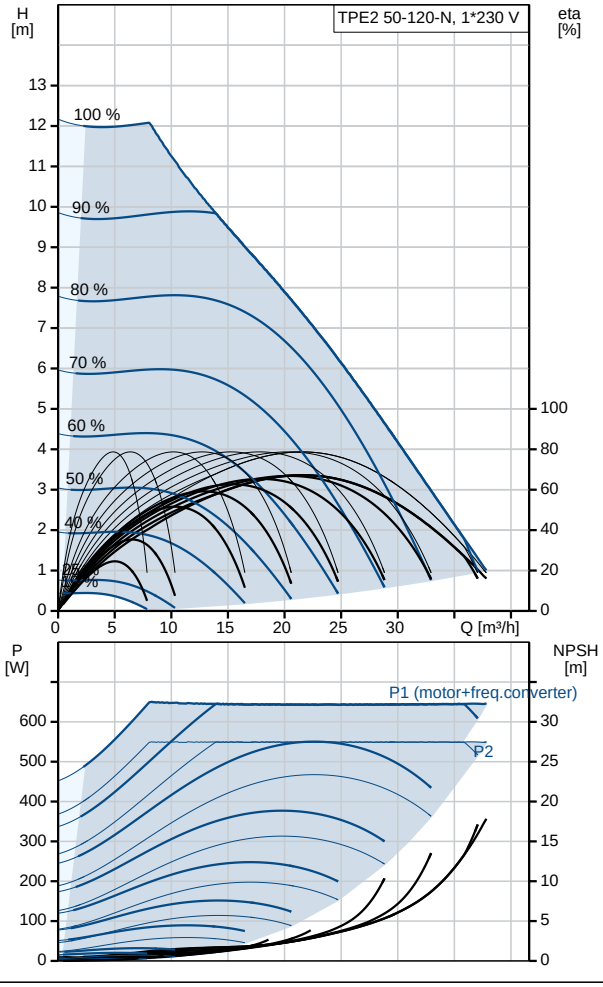
Position	Qty.	Description
		Installation:
		Range of ambient temperature: -20 .. 50 °C
		Maximum operating pressure: 10 bar
		Flange standard: DIN
		Pipe connection: DN 50
		Pressure rating: PN 6/10
		Flange size for motor: 56C
		Electrical data:
		Motor type: 71A
		IE Efficiency class: IE5
		Rated power - P2: 0.55 kW
		Mains frequency: 50 Hz
		Rated voltage: 1 x 200-240 V
		Rated current: 3,45-2,90 A
		Cos phi - power factor: 0,98
		Rated speed: 360-4000 rpm
		Efficiency: 85,3%
		Enclosure class (IEC 34-5): IP55
		Insulation class (IEC 85): F
		Others:
		Minimum efficiency index, MEI ≥: 0.7
		Net weight: 25 kg
		Gross weight: 32.2 kg
		Shipping volume: 0.1 m^3

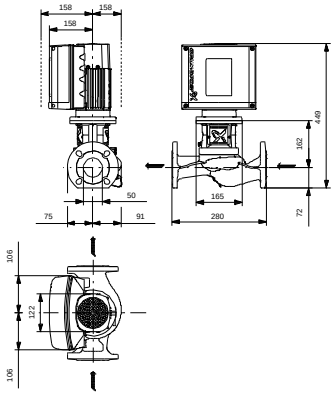
98416594 TPE2 50-120-N 50 Hz

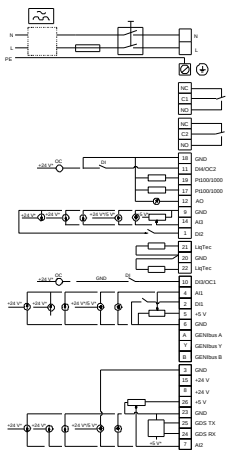


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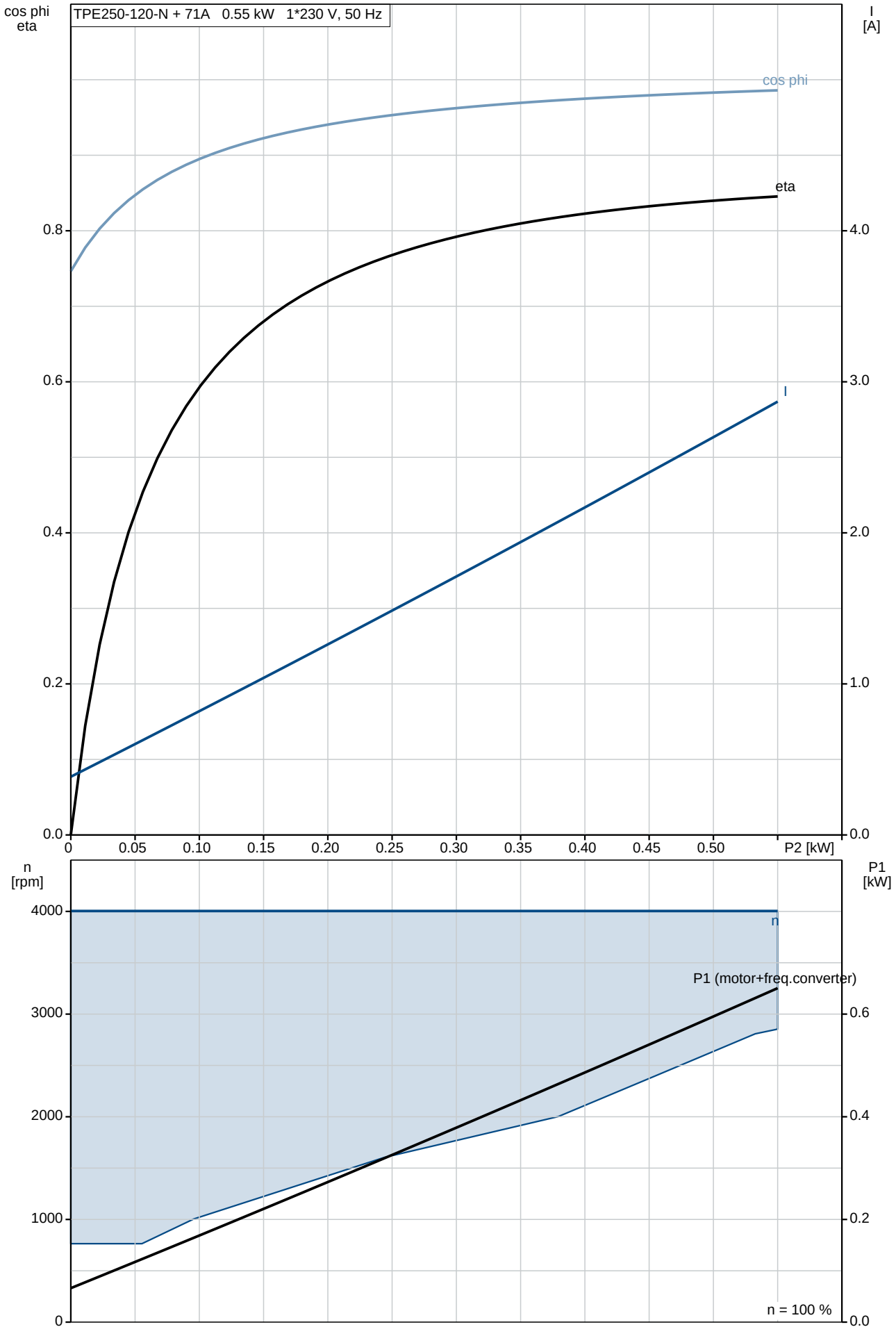
Description	Value
General information:	
Product name:	TPE2 50-120-N A-F-I-BQQE
Product No:	98416594
EAN number:	5711494653522
Technical:	
Speed for pump data:	3430 rpm
Rated flow:	20.6 m³/h
Rated head:	7.7 m
Head max:	120 dm
Actual impeller diameter:	74 mm
Primary shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Stainless steel
	DIN W.-Nr. 1.4308
	ASTM CF8
Impeller:	Composite PES/PP 30% GF
Material code:	I
Installation:	
Range of ambient temperature:	-20 .. 50 °C
Maximum operating pressure:	10 bar
Flange standard:	DIN
Connect code:	F
Pipe connection:	DN 50
Pressure rating:	PN 6/10
Flange size for motor:	56C
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	71A
IE Efficiency class:	IE5
Rated power - P2:	0.55 kW
Mains frequency:	50 Hz
Rated voltage:	1 x 200-240 V
Rated current:	3,45-2,90 A
Cos phi - power factor:	0,98
Rated speed:	360-4000 rpm
Efficiency:	85,3%
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	YES
Motor No:	99137993
Controls:	
Control panel:	HMI200 - Standard
Function Module:	FM300 - Advanced
Others:	
Minimum efficiency index, MEI ≥:	0.7
Net weight:	25 kg
Gross weight:	32.2 kg
Shipping volume:	0.1 m³
Config. file no:	98819211





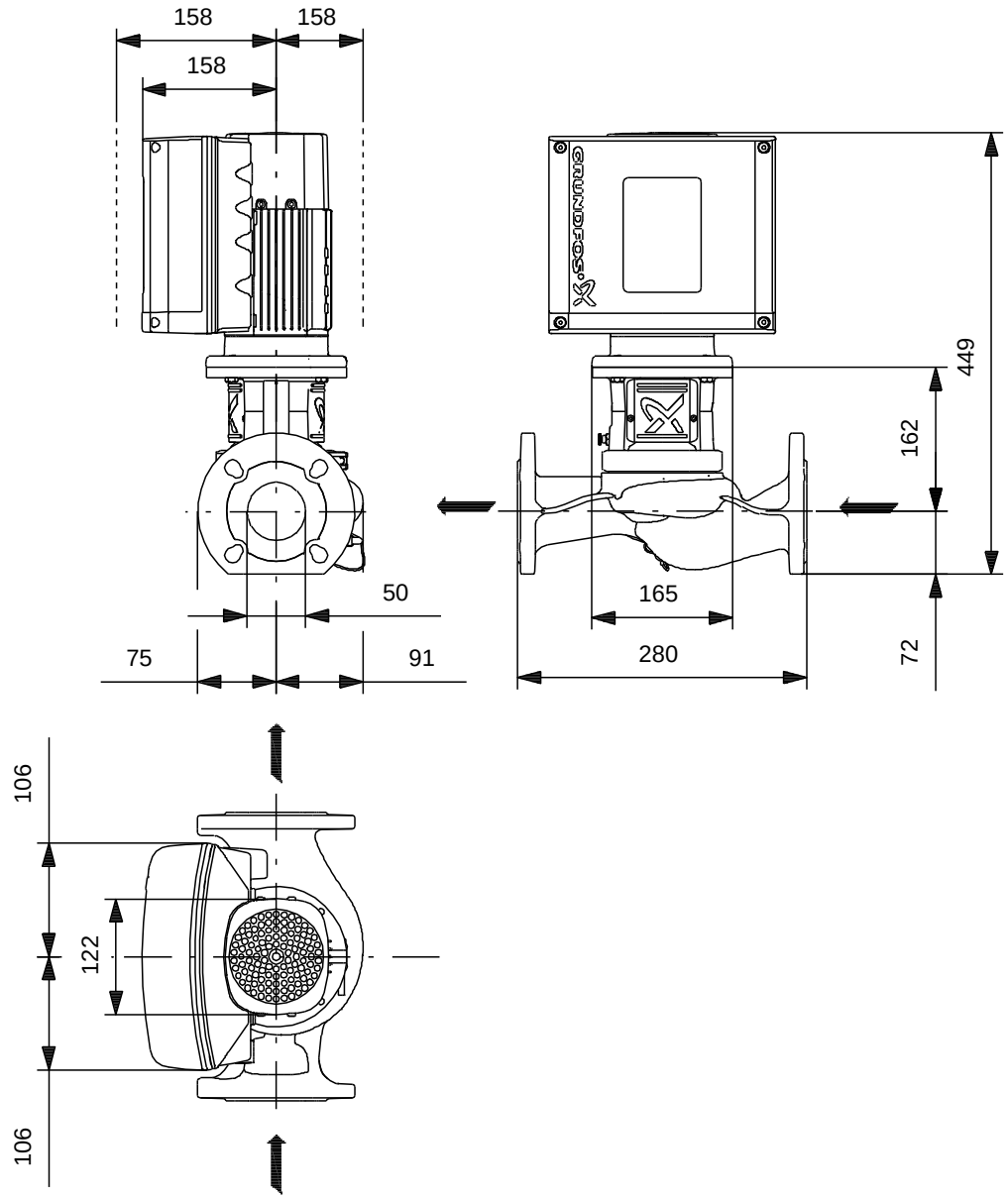


98416594 TPE2 50-120-N 50 Hz



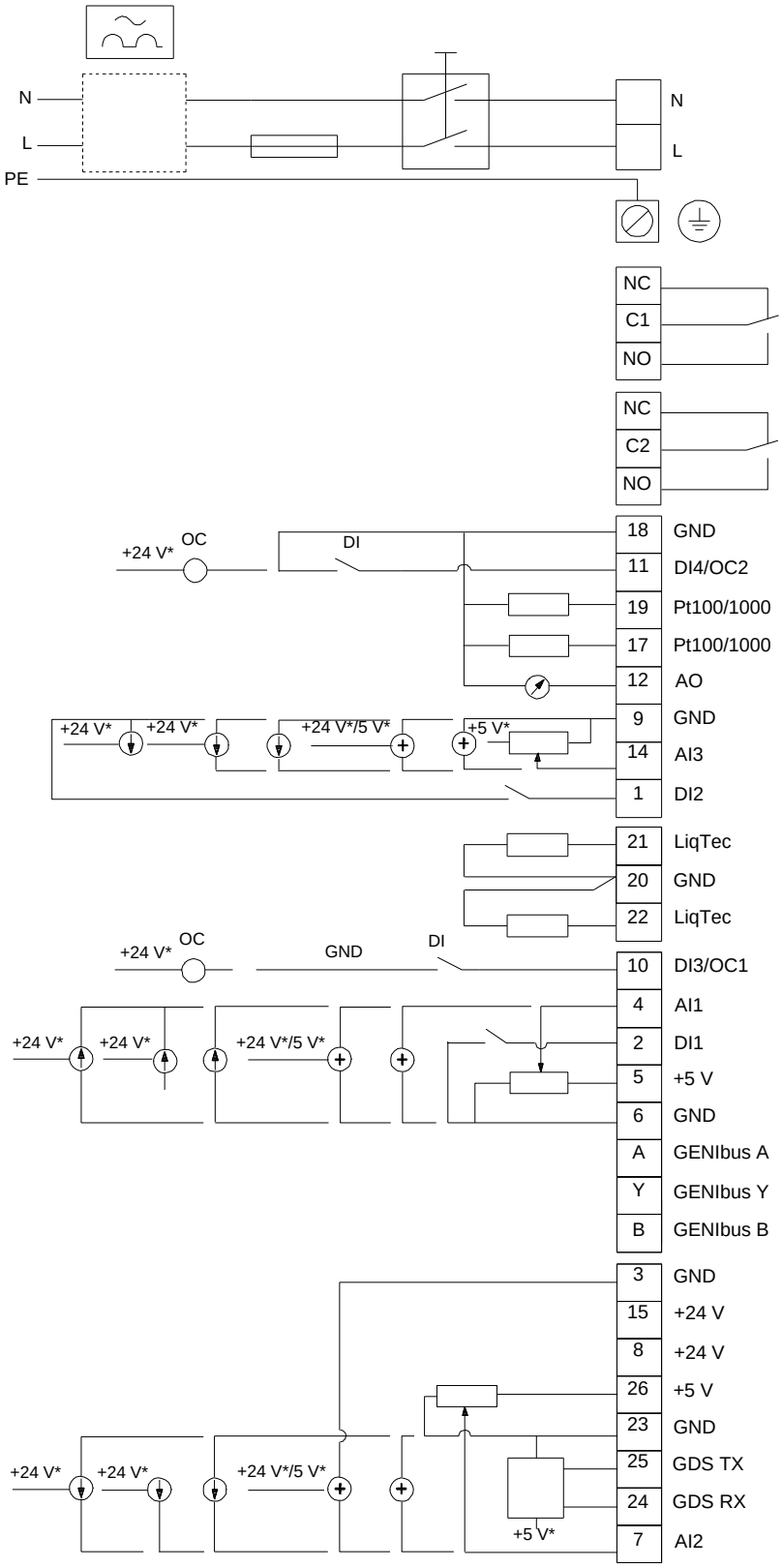
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98416594 TPE2 50-120-N 50 Hz



Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

98416594 TPE2 50-120-N 50 Hz



Note! All units are in [mm] unless others are stated.

Disclaimer: The information about the Grundfos pump in this document may be outdated.
Data may be subject to alterations without further notice.
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