

TPE2 100-180-N-A-F-A-GQQE

Grundfos pump 98416974



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<https://www.lenntech.com/grundfos/TPE00/98416974/TPE2-100-180-N-A-F-A-GQQE.html>

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Position	Qty.	Description
	1	TPE2 100-180-N A-F-A-GQQE  Product No.: On request 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 16 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 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". 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

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 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 shaft seal is an unbalanced rubber bellows seal with reduced seal face. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft. The narrow seal face makes the seal perform well in high-viscosity and anti-freezing liquids.

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 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 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 .. 60 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m ³

Technical:

Rated flow:	50.8 m ³ /h
Rated head:	12.6 m
Actual impeller diameter:	90 mm
Primary shaft seal:	GQQE
Curve tolerance:	ISO9906:2012 3B

Materials:

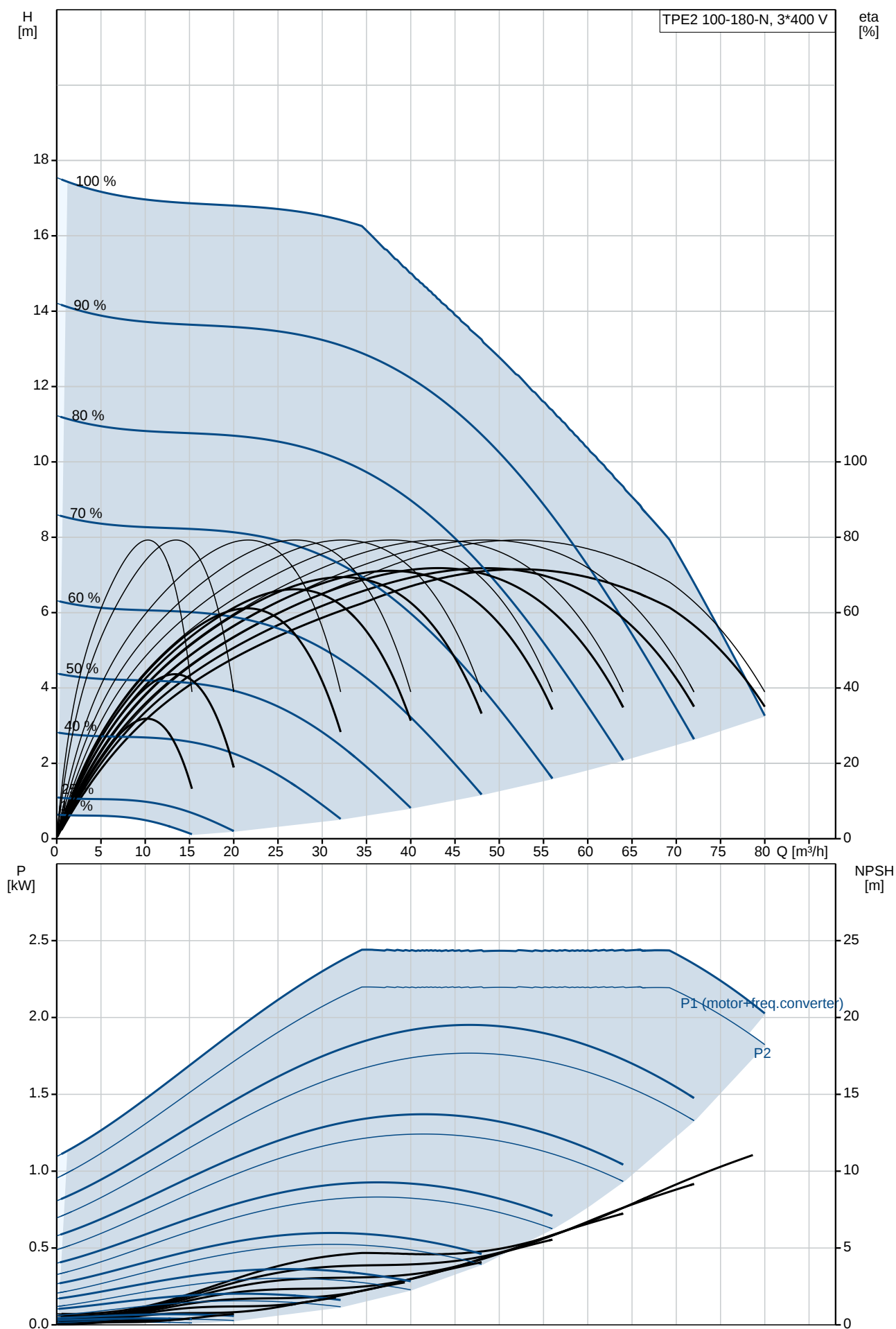
Pump housing:	Cast iron
Impeller:	Composite PES/PP 30% GF

Installation:

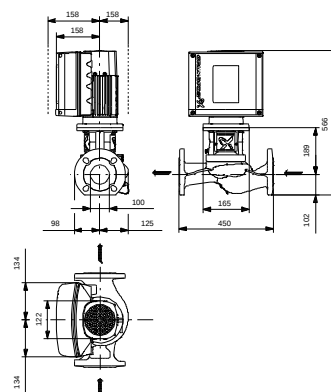
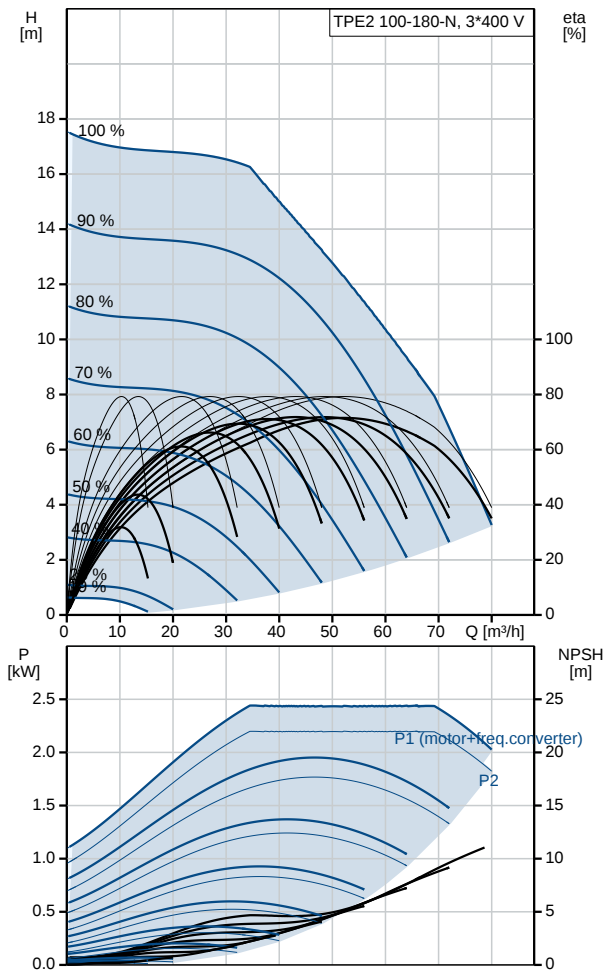
Range of ambient temperature:	-20 .. 50 °C
Maximum operating pressure:	16 bar

Position	Qty.	Description
		Flange standard: DIN Pipe connection: DN 100 Pressure rating: PN 16 (@): 450 mm Flange size for motor: 56C Electrical data: Motor type: 90LD Rated power - P2: 2.2 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 4.15-3.40 A Cos phi - power factor: 0.93-0.87 Rated speed: 360-4000 rpm Efficiency: 90.1% Motor efficiency at full load: 90.1 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Others: Minimum efficiency index, MEI $\geq$: 0.7 ErP status: EuP Standalone/Prod. Net weight: 42.4 kg Gross weight: 51.2 kg Shipping volume: 0.16 m³

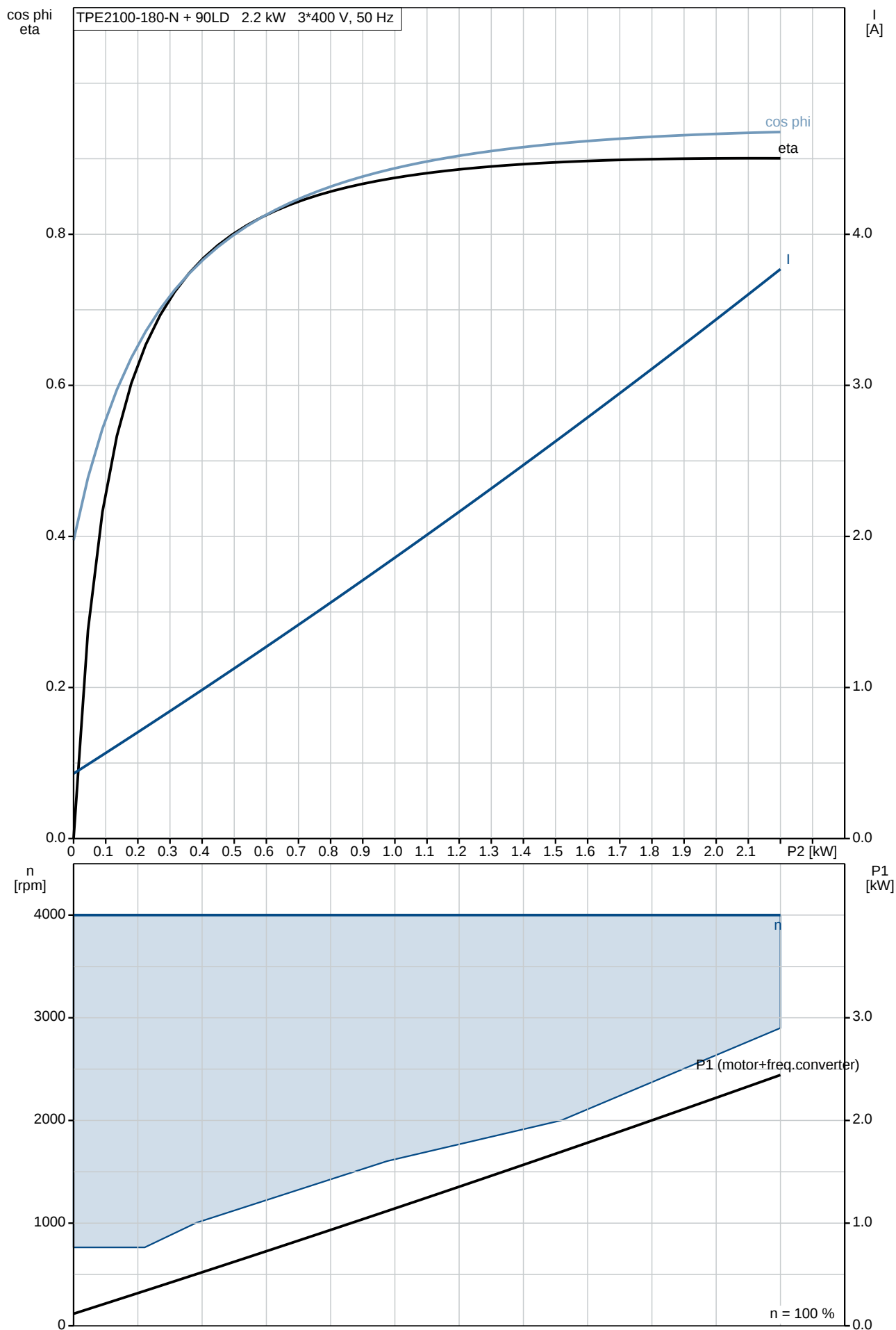
On request TPE2 100-180-N A-F-A-GQQE 50 Hz



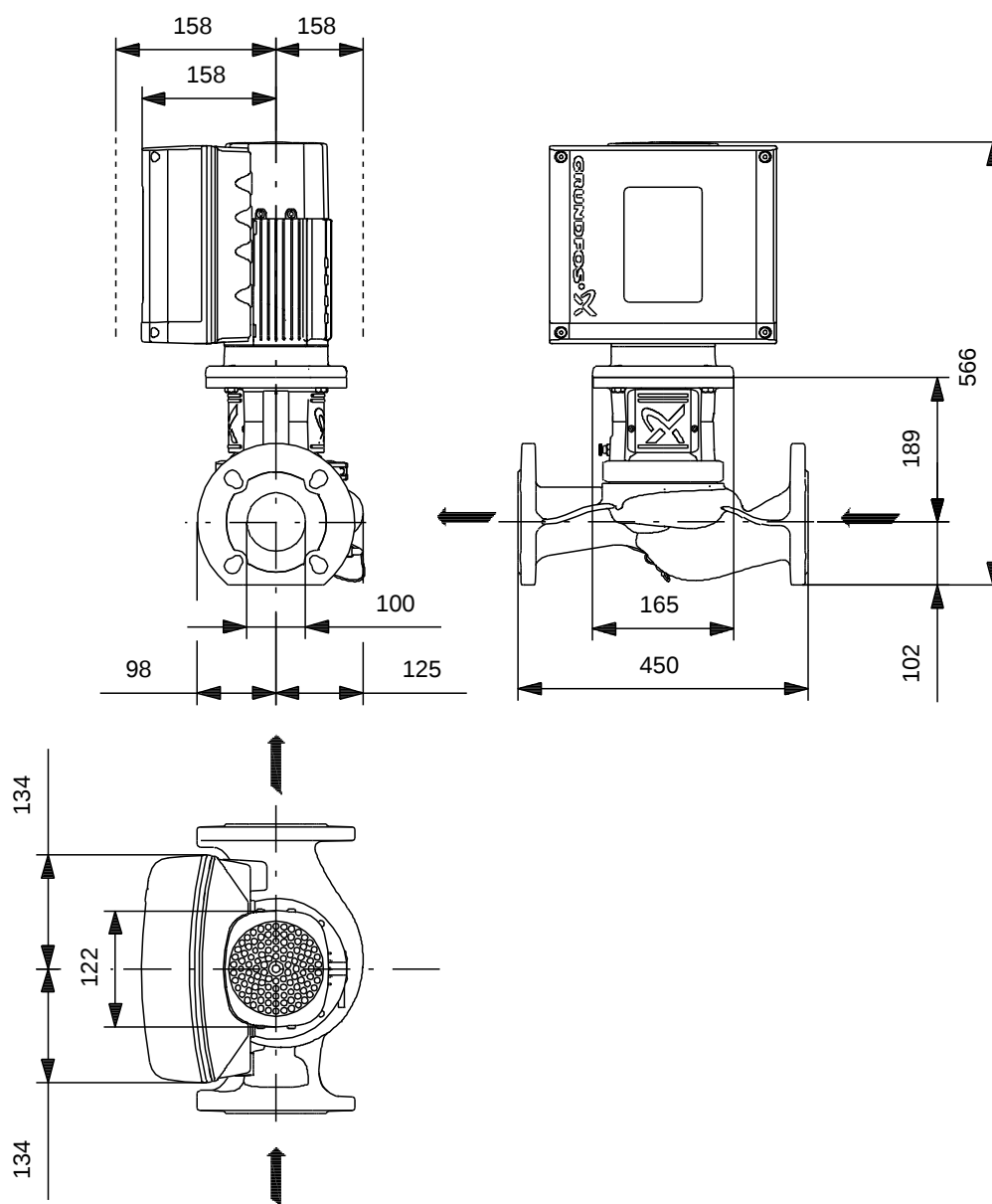
Description	Value
General information:	
Product name:	TPE2 100-180-N
Product No:	A-F-A-GQQE
EAN number:	On request
Technical:	
Rated flow:	50.8 m³/h
Rated head:	12.6 m
Head max:	180 dm
Actual impeller diameter:	90 mm
Primary shaft seal:	GQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Cast iron
Impeller:	Composite PES/PP 30% GF
Material code:	A
Installation:	
Range of ambient temperature:	-20 .. 50 °C
Maximum operating pressure:	16 bar
Flange standard:	DIN
Pipe connection:	DN 100
Pressure rating:	PN 16
(@)	450 mm
Flange size for motor:	56C
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 60 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	90LD
Rated power - P2:	2.2 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-500 V
Rated current:	4.15-3.40 A
Cos phi - power factor:	0.93-0.87
Rated speed:	360-4000 rpm
Efficiency:	90.1%
Motor efficiency at full load:	90.1 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	YES
Motor No:	98362387
Controls:	
Control panel:	HMI200 - Standard
Function Module:	FM200 - Standard
Others:	
Minimum efficiency index, MEI ≥:	0.7
ErP status:	EuP Standalone/Prod.
Net weight:	42.4 kg
Gross weight:	51.2 kg
Shipping volume:	0.16 m³
Config. file no:	98819284



On request TPE2 100-180-N A-F-A-GQQE 50 Hz



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

Exploded view



Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Disclaimer: The information about the Grundfos pump in this document may be outdated.

Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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