Company name:
Created by:
Phone:

Date: 08/08/2022

Qty.	Description
1	**TP 50-180/2 A-F-Z-BQQE-FX1**

Note! Product picture may differ from actual product

Product No.: 98610035

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.

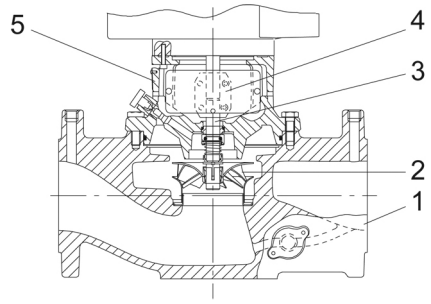
The pump is fitted with an unbalanced rubber bellows seal.
The shaft seal is according to EN 12756. Pipework connection is via PN 6/10 DIN flanges (EN 1092-2 and ISO 7005-2).

The pump is fitted with a fan-cooled asynchronous motor.

The bronze pump housing and stainless-steel impeller make the pump suitable for circulation of hot water.
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: Shaft
4: Coupling
5: 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 with a split cone with 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.

Qty.	Description
1	A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal. 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. Motor and pump shaft are connected via a shell coupling.

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 tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (Code II).

The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

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:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Technical:	
Pump speed on which pump data are based:	2850 rpm
Rated flow:	18.3 m³/h
Rated head:	10.2 m
Actual impeller diameter:	100 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Materials:	
Pump housing:	Bronze CuSn10 ASTM B505
Impeller:	Stainless steel EN 1.4301 AISI 304
Installation:	
Range of ambient temperature:	-30 .. 40 °C
Maximum operating pressure:	10 bar
Max pressure at stated temp:	10 bar / 120 °C
Type of connection:	DIN
Size of connection:	DN 50

GRUNDFOS

Company name:
Created by:
Phone:

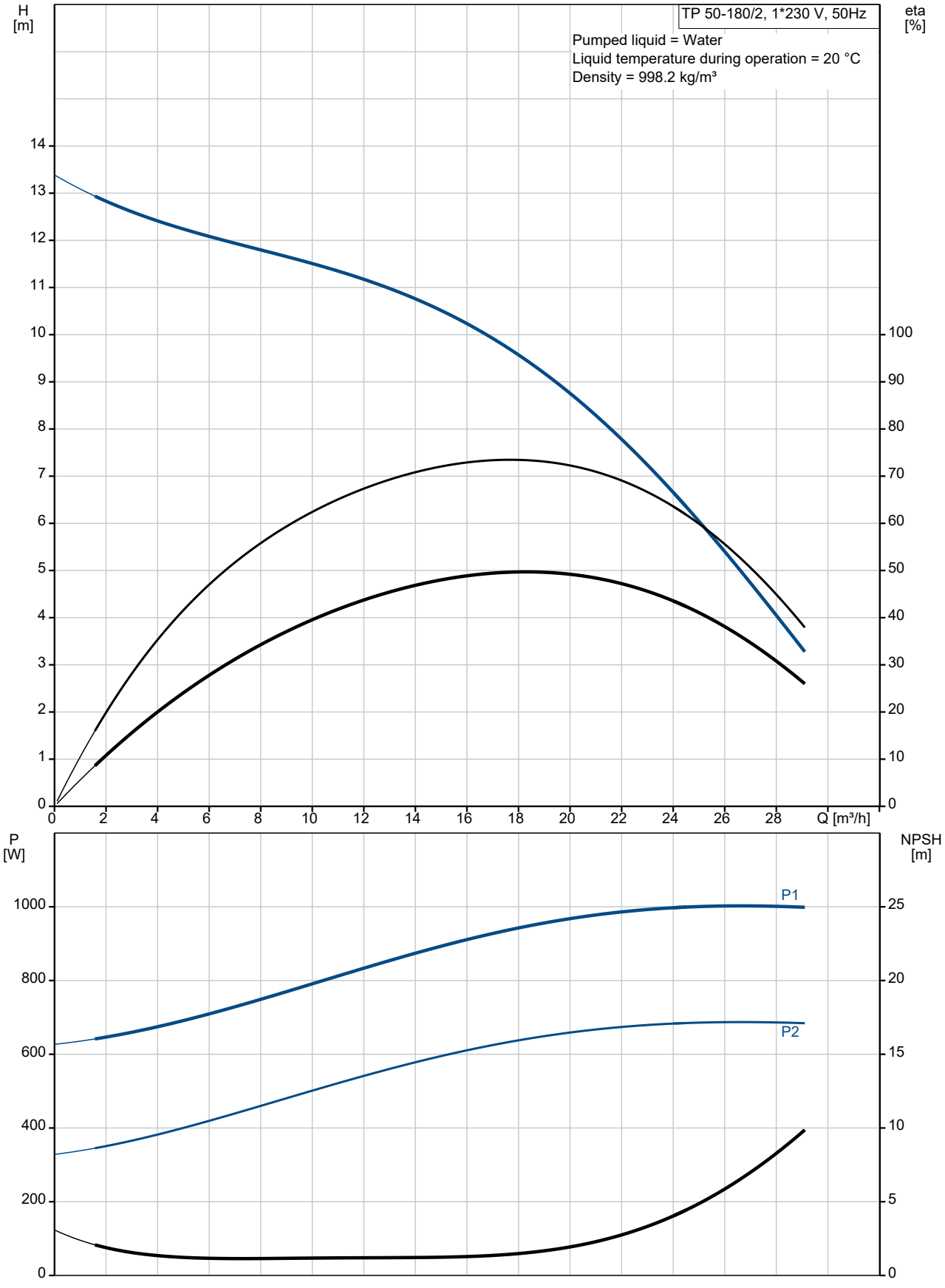
Date: 08/08/2022

Qty.	Description	
1	Pressure rating for connection:	PN 6/10
	Port-to-port length:	280 mm
	Flange size for motor:	FT100
	Electrical data:	
	Motor type:	80B
	Rated power - P2:	0.75 kW
	Mains frequency:	50 Hz
	Rated voltage:	1 x 220-230/240 V
	Rated current:	5.10/4.75 A
	Starting current:	300 %
	Cos phi - power factor:	0.99
	Rated speed:	2780 rpm
	Efficiency:	72.1%
	Motor efficiency at full load:	72.1 %
	Number of poles:	2
	Enclosure class (IEC 34-5):	55 Dust/Jetting
	Insulation class (IEC 85):	F
	Motor No:	85215104
	Others:	
	Minimum efficiency index, MEI ≥:	0.70
	Net weight:	32.5 kg
	Gross weight:	36 kg
	Shipping volume:	0.08 m³
	Country of origin:	HU
	Custom tariff no.:	84137051

Company name:
Created by:
Phone:

Date: 08/08/2022

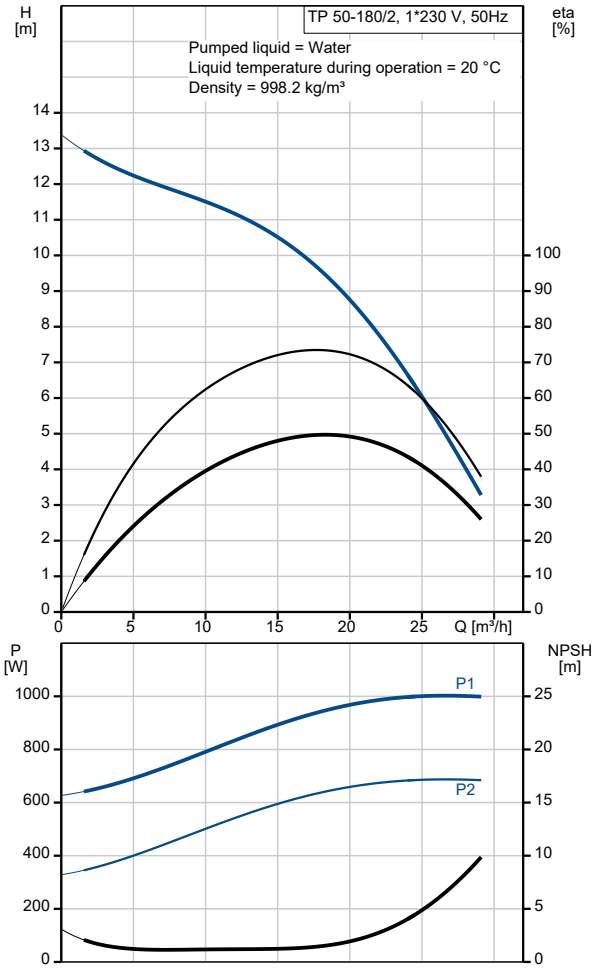
98610035 TP 50-180/2 A-F-Z-BQQE-FX1 50 Hz



Company name:
Created by:
Phone:

Date: 08/08/2022

Description	Value
General information:	
Product name:	TP 50-180/2 A-F-Z-BQQE-FX1
Product No:	98610035
EAN number:	5711498173156
Technical:	
Pump speed on which pump data are based:	2850 rpm
Rated flow:	18.3 m³/h
Rated head:	10.2 m
Maximum head:	180 dm
Actual impeller diameter:	100 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A
Materials:	
Pump housing:	Bronze
Pump housing:	CuSn10
Pump housing:	ASTM B505
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	Z
Installation:	
Range of ambient temperature:	-30 .. 40 °C
Maximum operating pressure:	10 bar
Max pressure at stated temp:	10 bar / 120 °C
Type of connection:	DIN
Size of connection:	DN 50
Pressure rating for connection:	PN 6/10
Port-to-port length:	280 mm
Flange size for motor:	FT100
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	80B
Rated power - P2:	0.75 kW
Mains frequency:	50 Hz
Rated voltage:	1 x 220-230/240 V
Rated current:	5.10/4.75 A
Starting current:	300 %
Cos phi - power factor:	0.99
Rated speed:	2780 rpm
Efficiency:	72.1%
Motor efficiency at full load:	72.1 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Built-in motor protection:	PTO
Motor No:	85215104
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	32.5 kg



GRUNDFOS

Company name:
Created by:
Phone:

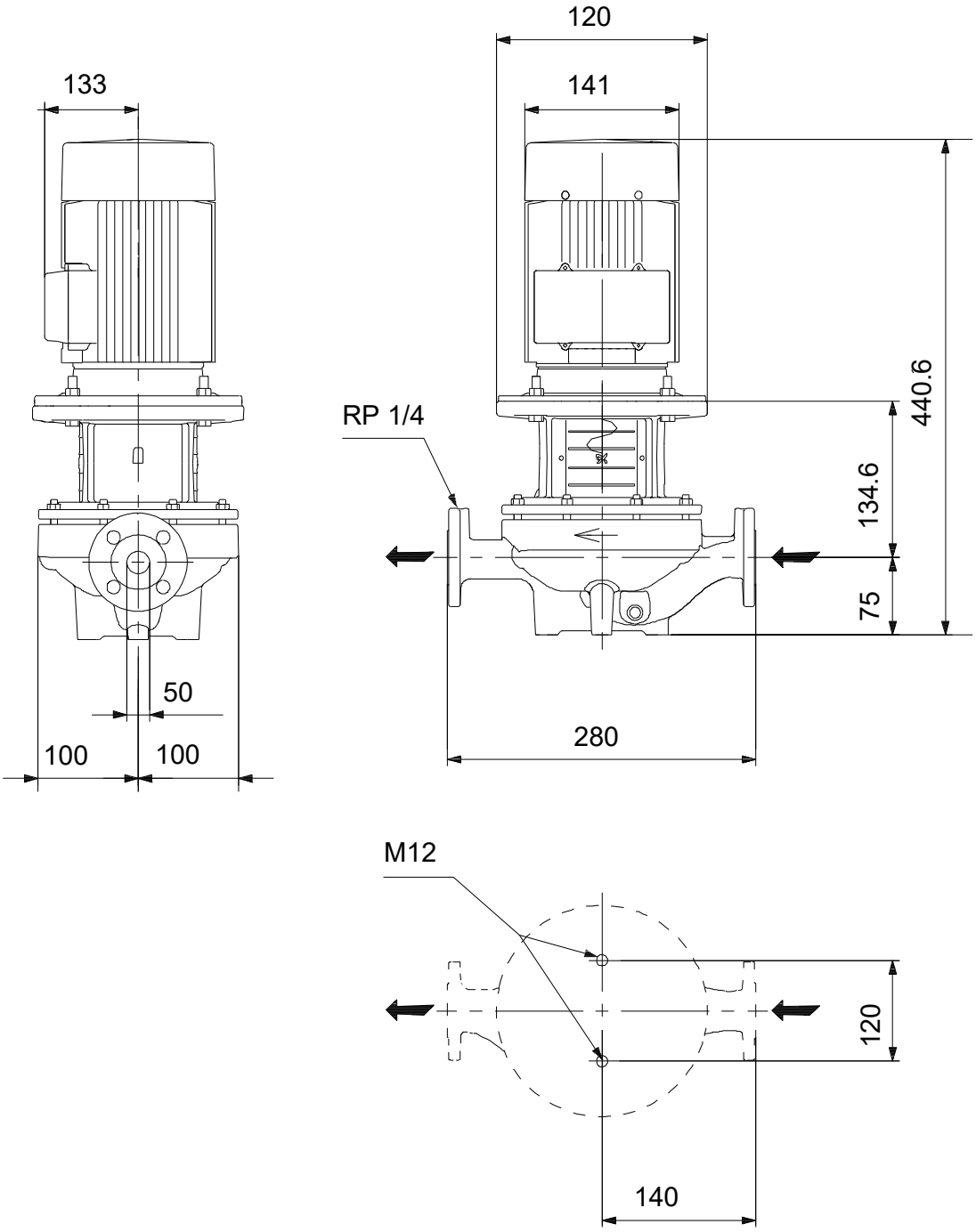
Date: 08/08/2022

Description	Value
Gross weight:	36 kg
Shipping volume:	0.08 m³
Country of origin:	HU
Custom tariff no.:	84137051

Company name:
Created by:
Phone:

Date: 08/08/2022

98610035 TP 50-180/2 A-F-Z-BQQE-FX1 50 Hz



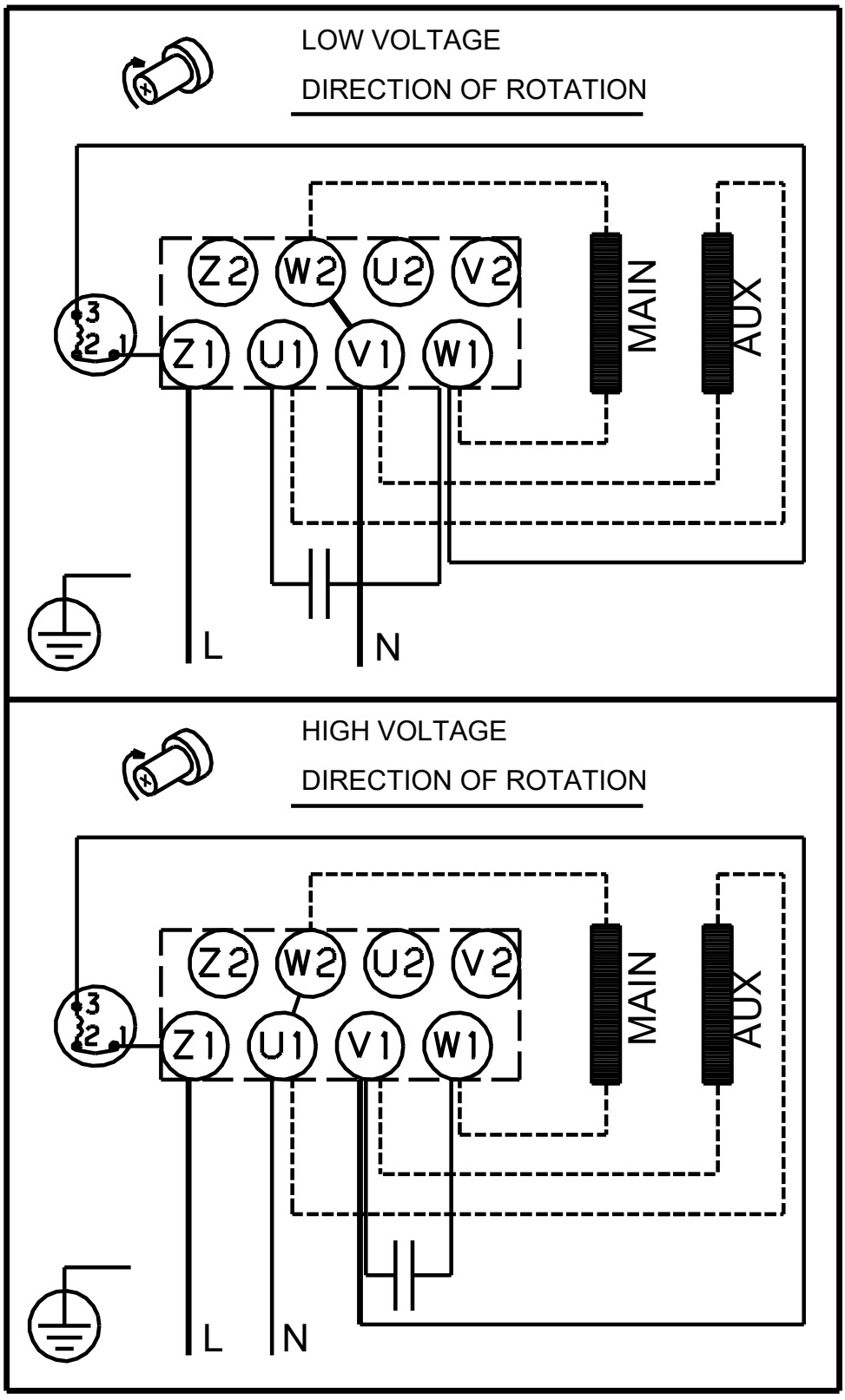
Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

GRUNDFOS

Company name:
Created by:
Phone:

Date: 08/08/2022

98610035 TP 50-180/2 A-F-Z-BQQE-FX1 50 Hz



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