Submittal Data

PROJECT:	UNIT TAG:	QUANTITY:
	TYPE OF SERVICE:	
REPRESENTATIVE:	SUBMITTED BY:	DATE:
ENGINEER:	APPROVED BY:	DATE:
CONTRACTOR:	ORDER NO.:	DATE:

Note! Product picture may differ from actual product

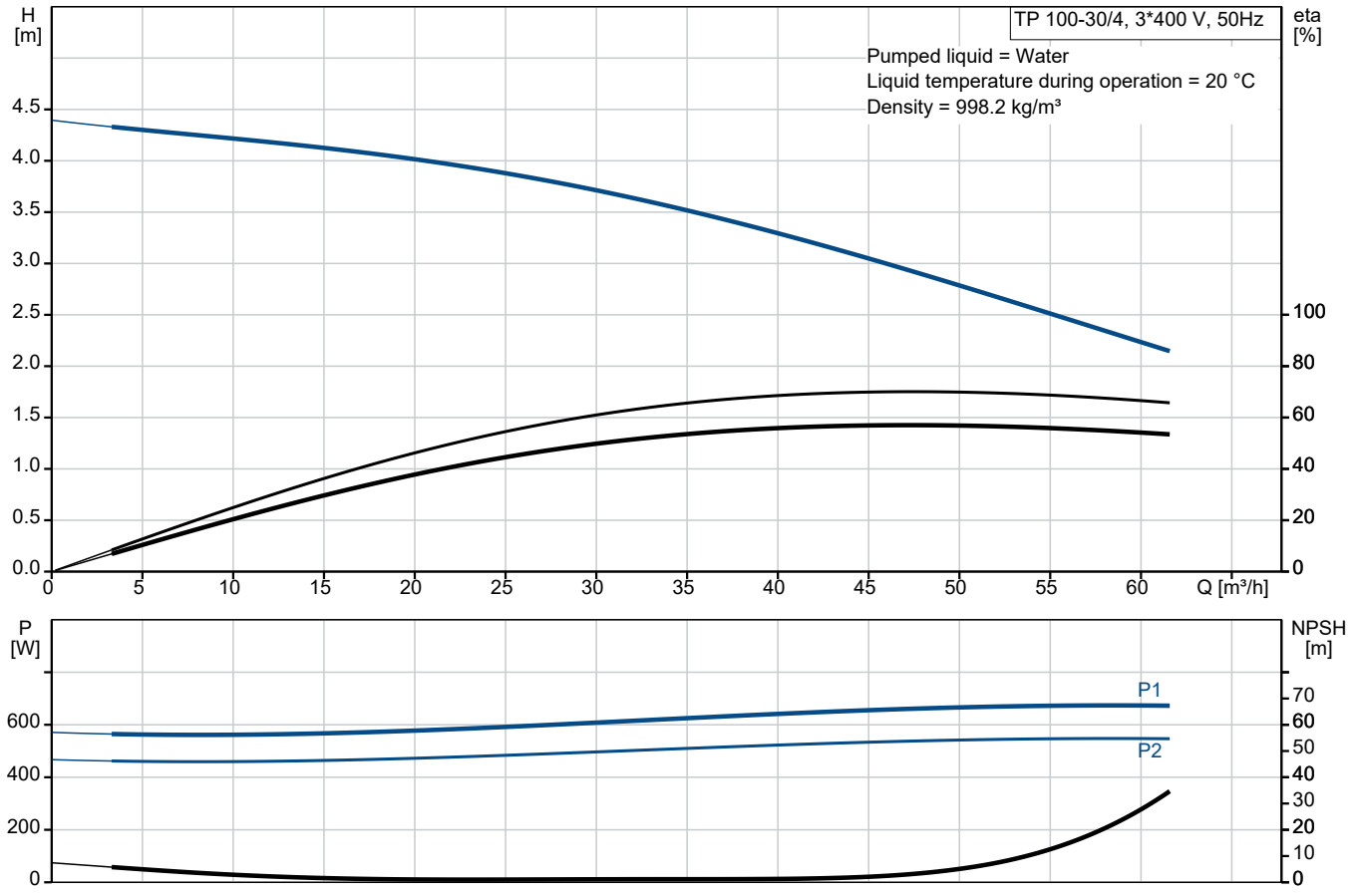
TP 100-30/4 AI-F-A-BQBE-EW3

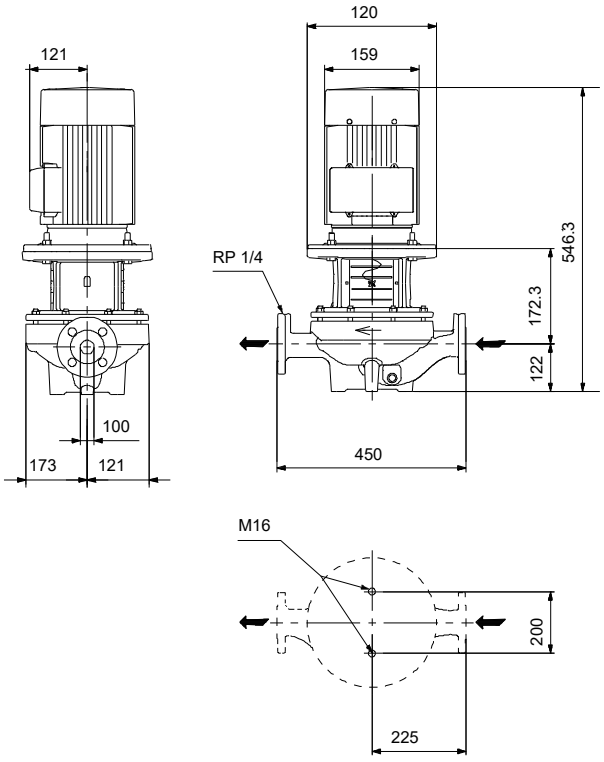
Grundfos TP pumps are single-stage, close-coupled in-line centrifugal pumps with mechanical shaft seal and primely for applications such as heating/cooling/district energy. The pumps are fitted with fixed speed motors.

Conditions of Service

Pump Data	
Max pressure at stated temp:	6 bar / 140 °C
Liquid temperature range:	0 .. 140 °C
Maximum ambient temperature:	55 °C
Shaft seal:	BQBE
Product number:	On request

Motor Data	
Rated voltage:	220-240D/380-420Y V
Mains frequency:	50 Hz
Enclosure class:	IP55
Insulation class:	F
Motor protection:	NONE
Motor type:	SIEMENS
Eta 1/1:	80.8-80.8 %





Materials:

Pump housing:	Cast iron
Pump housing:	ASTM class 35
Impeller:	Stainless steel
Impeller:	AISI 304
Impeller:	EN 1.4301
Material code:	A

Company name:
Created by:
Phone:

Date: 01/12/2023

Qty.	Description
1	**TP 100-30/4 AI-F-A-BQBE-EW3**

Note! Product picture may differ from actual product

Product No.: On request

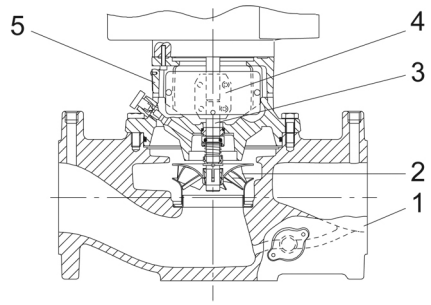
Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.

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

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

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: carbon graphite, resin-impregnated

This material pairing has a very good corrosion resistance and is especially suitable for water up to 90 °C.

The seal life will be reduced significantly at temperatures above 90 °C.

The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face.

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 flanges have tappings for mounting of pressure gauges.

Qty.	Description
1	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 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 (I1/1). **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: Liquid temperature range: 0 .. 140 °C Technical: Pump speed on which pump data are based: 1440 rpm Rated flow: 46.1 m³/h Rated head: 2.8 m Actual impeller diameter: 119 mm Code for shaft seal: BQBE Curve tolerance: ISO9906:2012 3B2 Materials: Pump housing: Cast iron EN-GJL-250 ASTM class 35 Impeller: Stainless steel EN 1.4301 AISI 304 Installation: Range of ambient temperature: -20 .. 55 °C Maximum operating pressure: 6 bar Max pressure at stated temp: 6 bar / 140 °C Type of connection: DIN Size of connection: DN 100 Pressure rating for connection: PN 6 Port-to-port length: 450 mm Flange size for motor: FT100 Electrical data:

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Qty.	Description	
1	Motor type:	SIEMENS
	Rated power - P2:	0.55 kW
	Mains frequency:	50 Hz
	Rated voltage:	3 x 220-240D/380-420Y V
	Rated current:	2.2/1.26 A
	Starting current:	590-590 %
	Cos phi - power factor:	0.78
	Rated speed:	1440 rpm
	IE efficiency:	IE3 80,8%
	IE Efficiency class:	IE3
	Motor efficiency at full load:	80.8-80.8 %
	Motor efficiency at 3/4 load:	81.1-81.1 %
	Motor efficiency at 1/2 load:	79.3-79.3 %
	Number of poles:	4
	Enclosure class (IEC 34-5):	IP55
	Insulation class (IEC 85):	F
	Motor No:	99900479
	Others:	
	Minimum efficiency index, MEI ≥:	0.45
	Net weight:	50.2 kg
	Gross weight:	58.8 kg
	Shipping volume:	0.204 m³
	Country of origin:	HU
	Custom tariff no.:	84137051

Company name:
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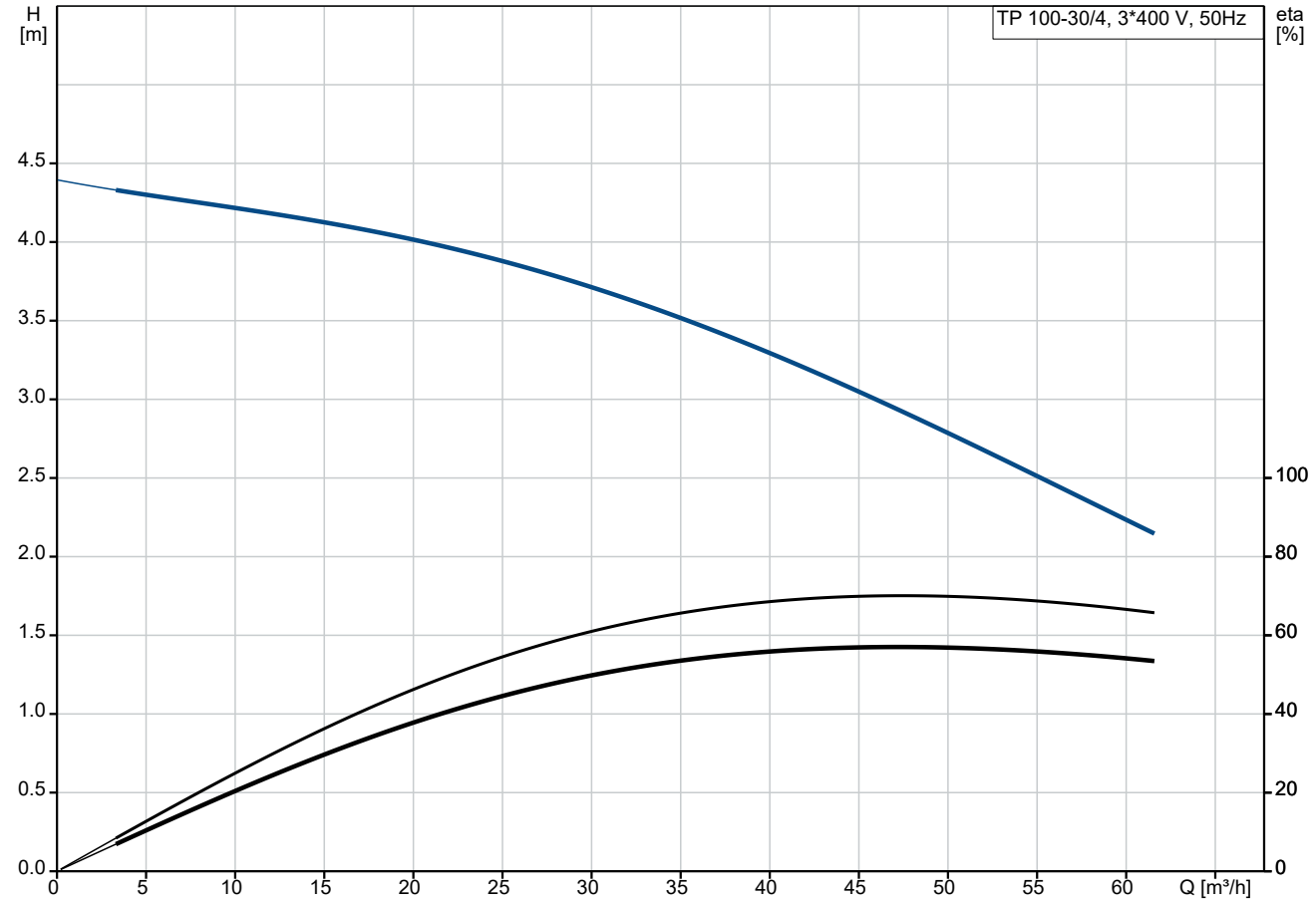
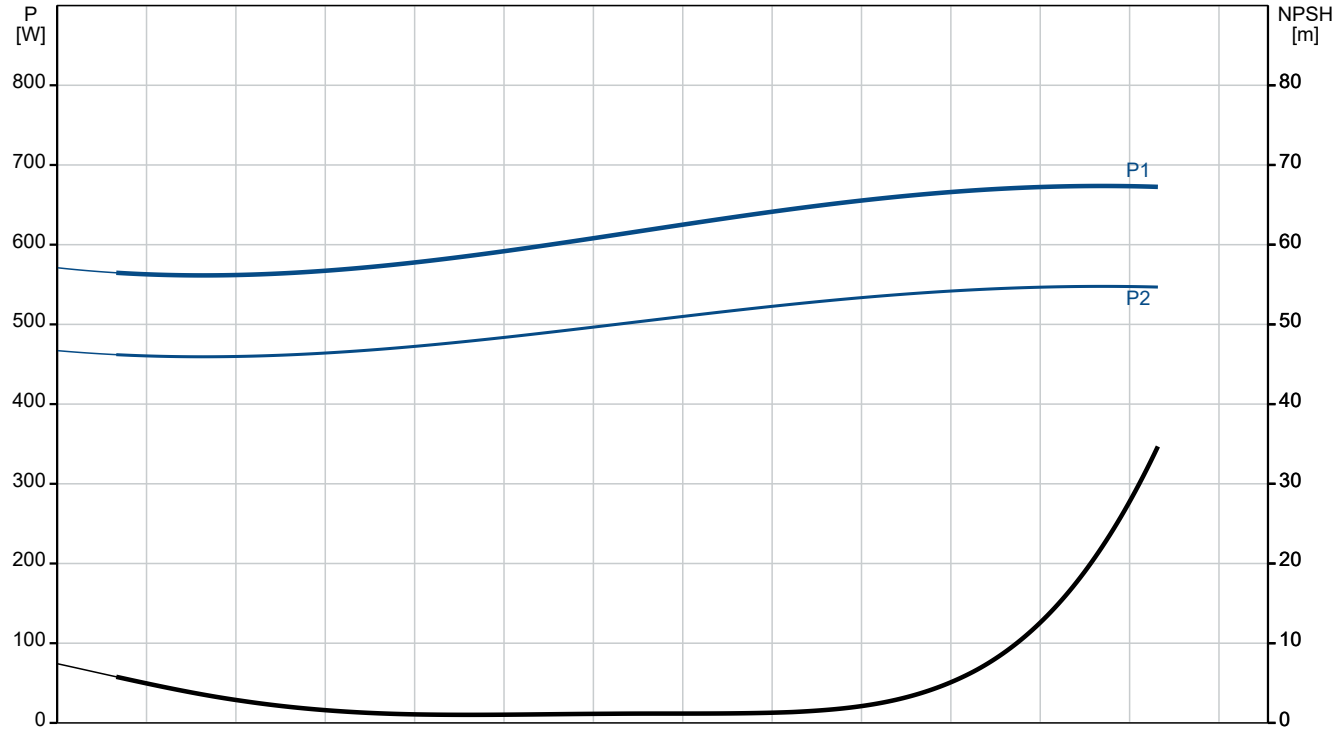
Phone:

Date: 01/12/2023

On request TP 100-30/4 AI-F-A-BQBE-EW3 50 Hz



Pumped liquid = Water
Liquid temperature during operation = 20 °C
Density = 998.2 kg/m³



Company name:
Created by:
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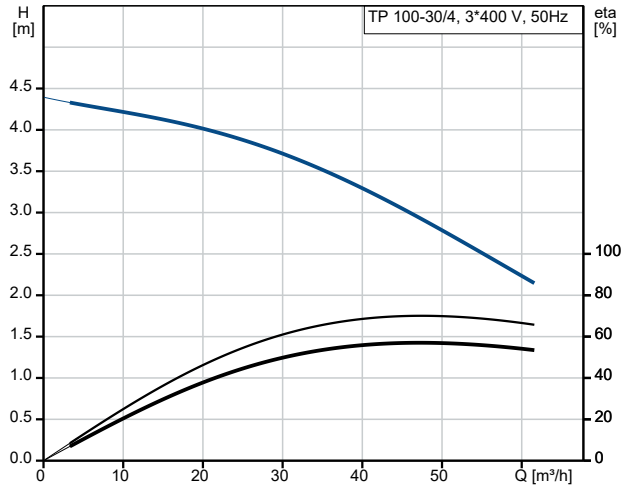
Date: 01/12/2023

Description	Value
General information:	
Product name:	TP 100-30/4 AI-F-A-BQBE-EW3
Product No:	On request
EAN number:	On request
Technical:	
Pump speed on which pump data are based:	1440 rpm
Rated flow:	46.1 m³/h
Rated head:	2.8 m
Maximum head:	30 dm
Actual impeller diameter:	119 mm
Code for shaft seal:	BQBE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	AI
Materials:	
Pump housing:	Cast iron
Pump housing:	EN-GJL-250
Pump housing:	ASTM class 35
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	A
Installation:	
Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	6 bar
Max pressure at stated temp:	6 bar / 140 °C
Type of connection:	DIN
Size of connection:	DN 100
Pressure rating for connection:	PN 6
Port-to-port length:	450 mm
Flange size for motor:	FT100
Connect code:	F
Liquid:	
Liquid temperature range:	0 .. 140 °C
Electrical data:	
Motor type:	SIEMENS
Rated power - P2:	0.55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-420Y V
Rated current:	2.2/1.26 A
Starting current:	590-590 %
Cos phi - power factor:	0.78
Rated speed:	1440 rpm
IE efficiency:	IE3 80,8%
IE Efficiency class:	IE3
Motor efficiency at full load:	80.8-80.8 %
Motor efficiency at 3/4 load:	81.1-81.1 %
Motor efficiency at 1/2 load:	79.3-79.3 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	99900479
Controls:	
Frequency converter:	None
Others:	
Minimum efficiency index, MEI ≥:	0.45



Pumped liquid = Water
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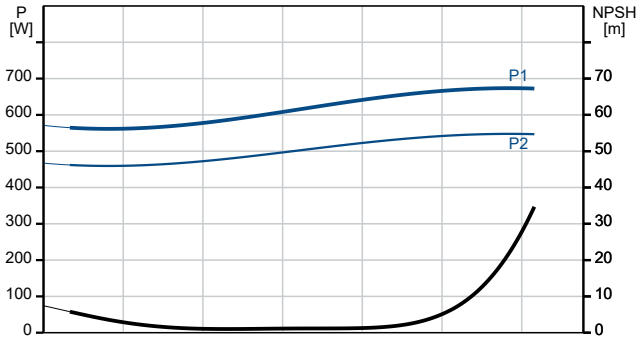

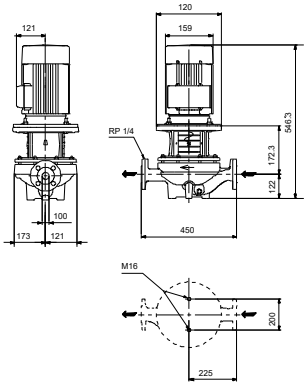

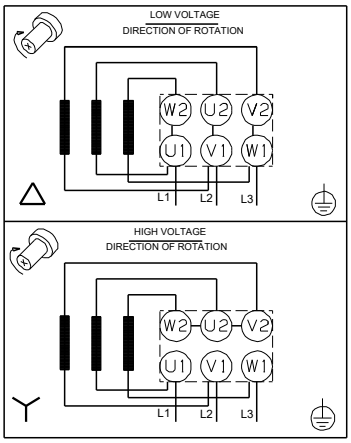

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Company name:
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Phone:

Date: 01/12/2023

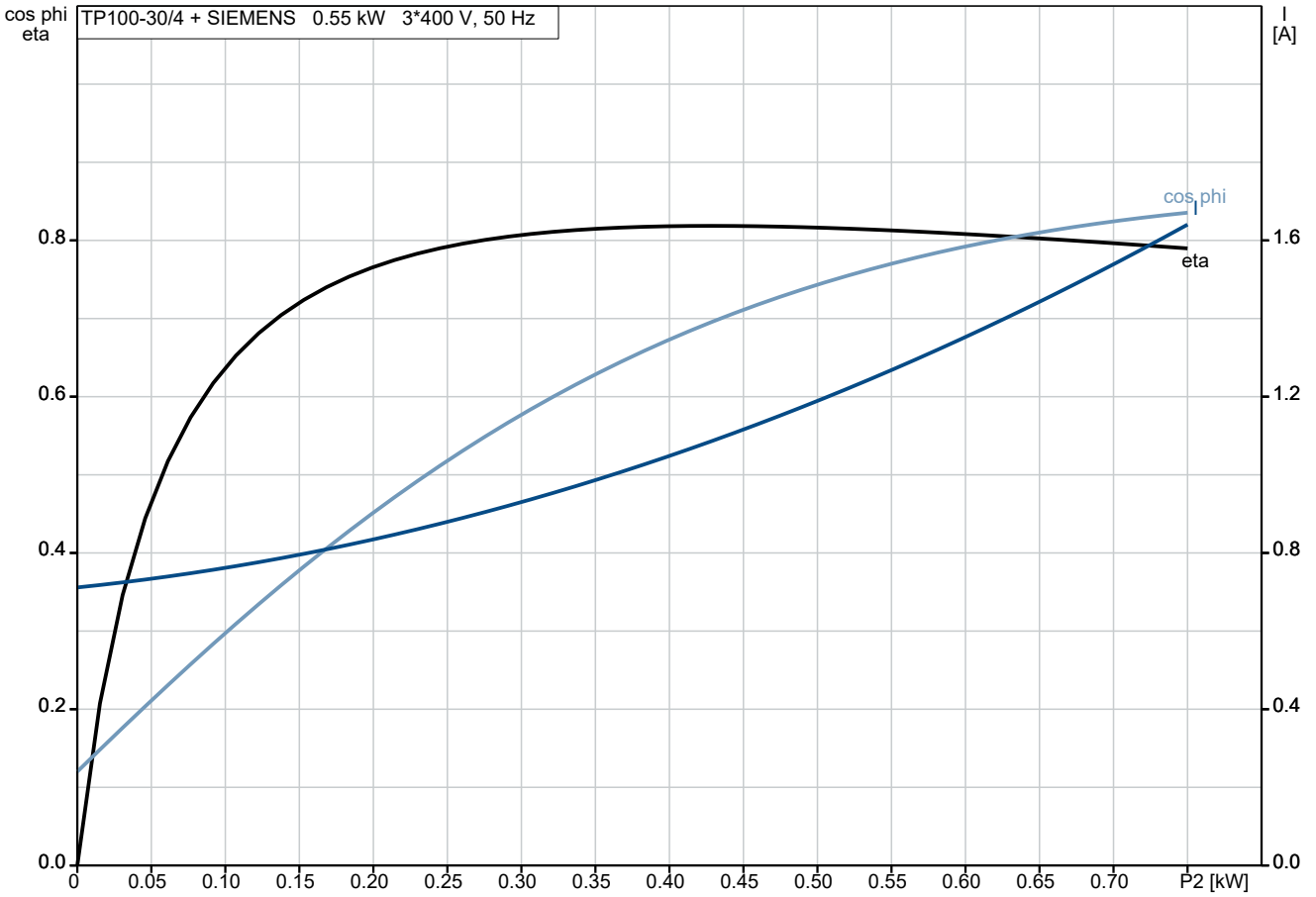
Description	Value
Net weight:	50.2 kg
Gross weight:	58.8 kg
Shipping volume:	0.204 m³
Country of origin:	HU
Custom tariff no.:	84137051

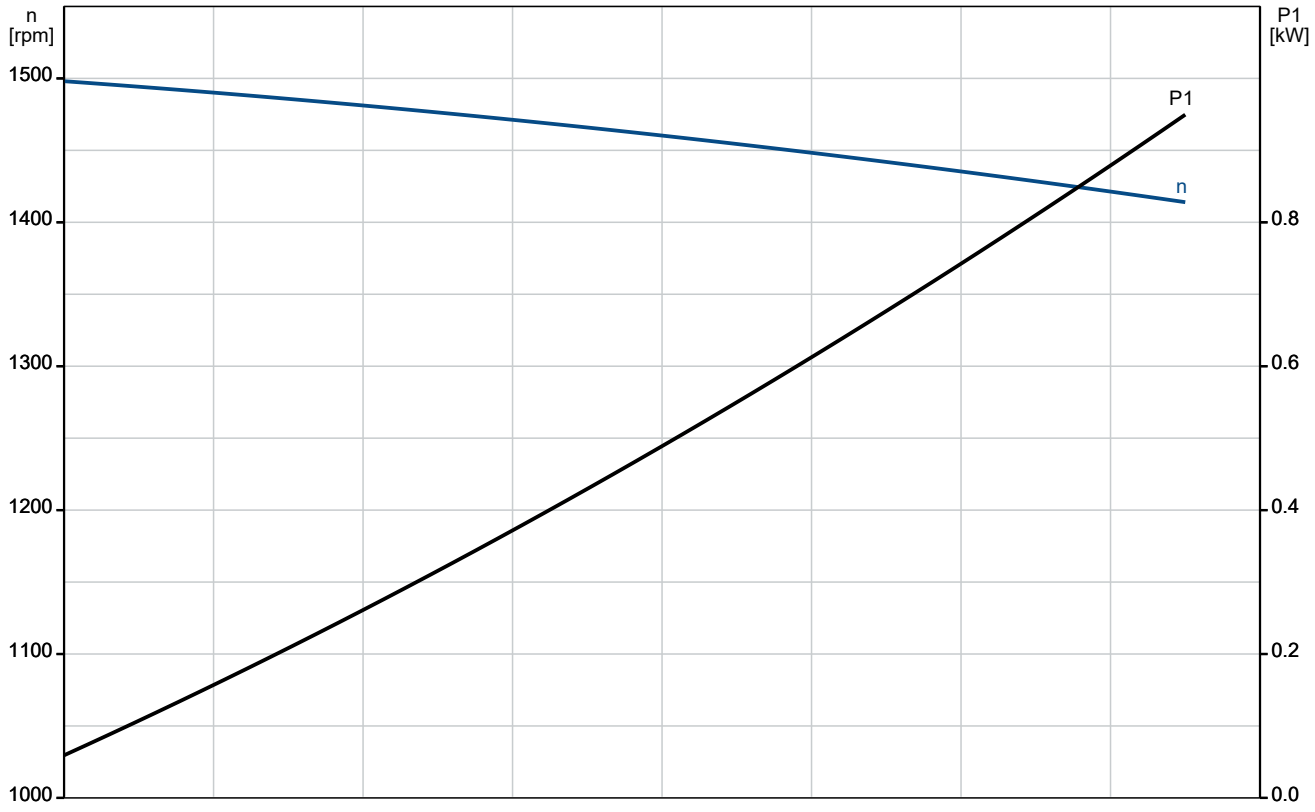
GRUNDFOS

Company name:
Created by:
Phone:

Date: 01/12/2023

On request TP 100-30/4 AI-F-A-BQBE-EW3 50 Hz

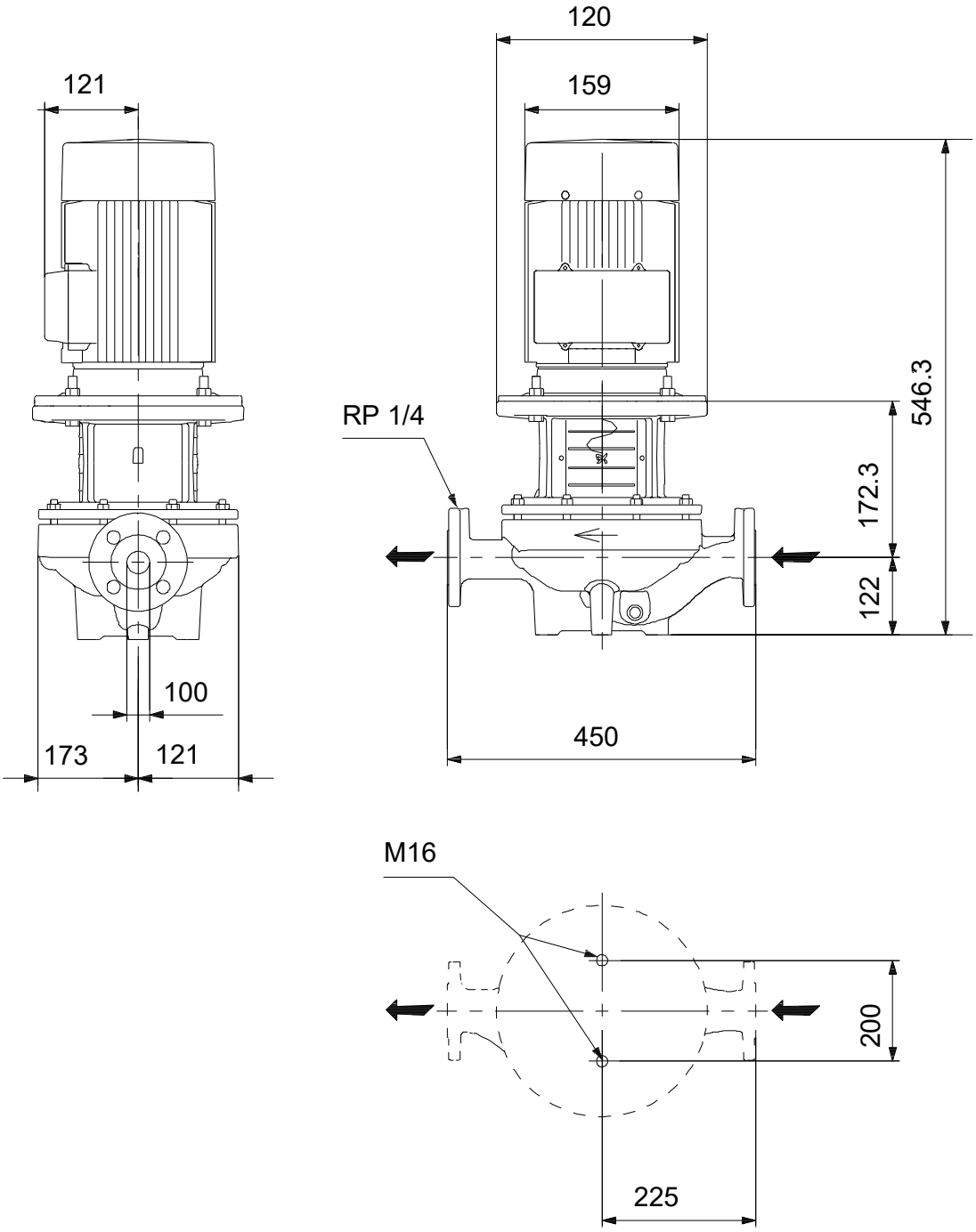




Company name:
Created by:
Phone:

Date: 01/12/2023

On request TP 100-30/4 AI-F-A-BQBE-EW3 50 Hz



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

Company name:
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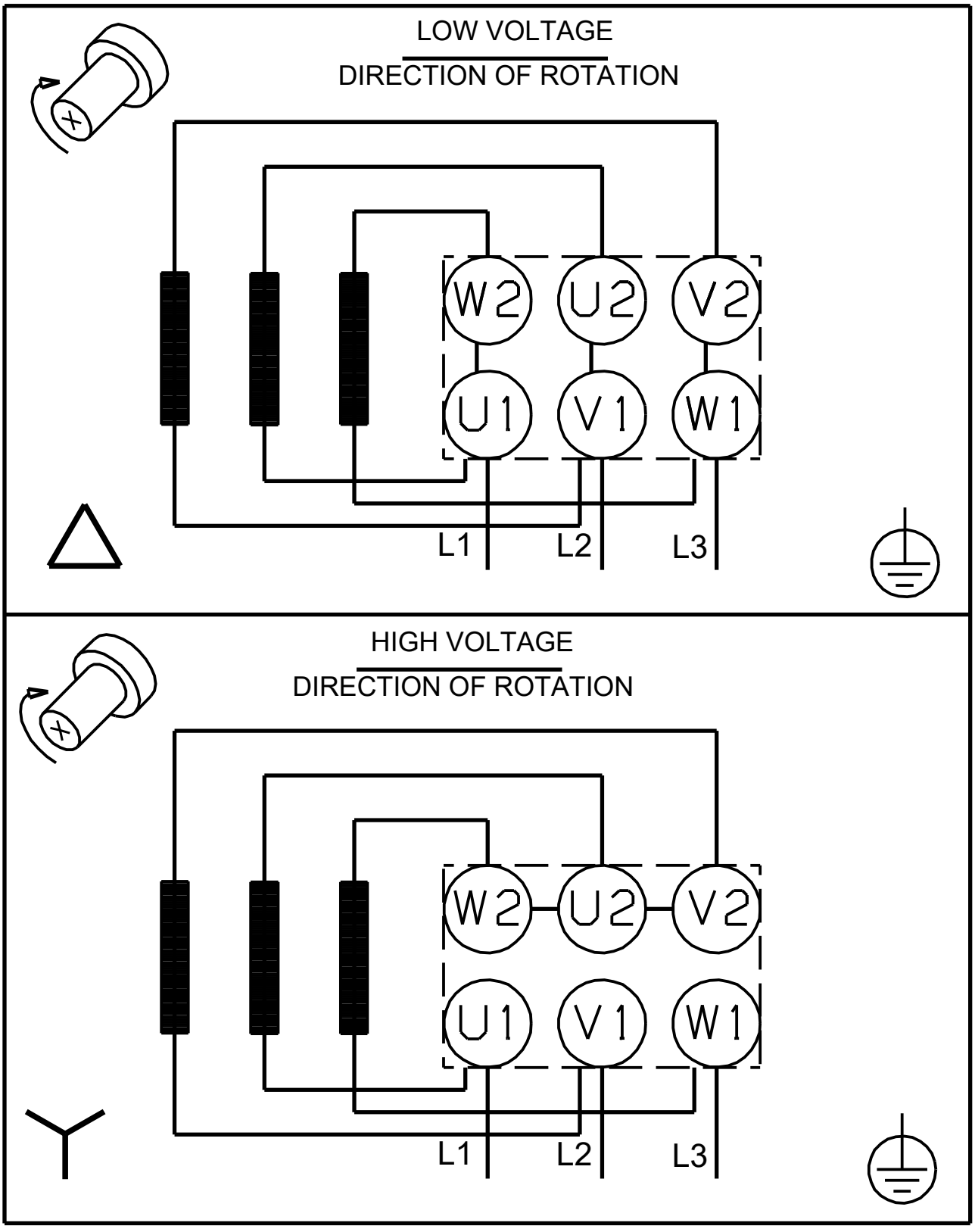
Phone:

Date: 01/12/2023

On request TP 100-30/4 AI-F-A-BQBE-EW3 50 Hz



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

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Company name:
Created by:
Phone:

Date: 01/12/2023

Order Data:

Position	Your pos.	Product name	Amount	Product No	Total
		TP 100-30/4	1	On request	Price on request