

# Submittal Data

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

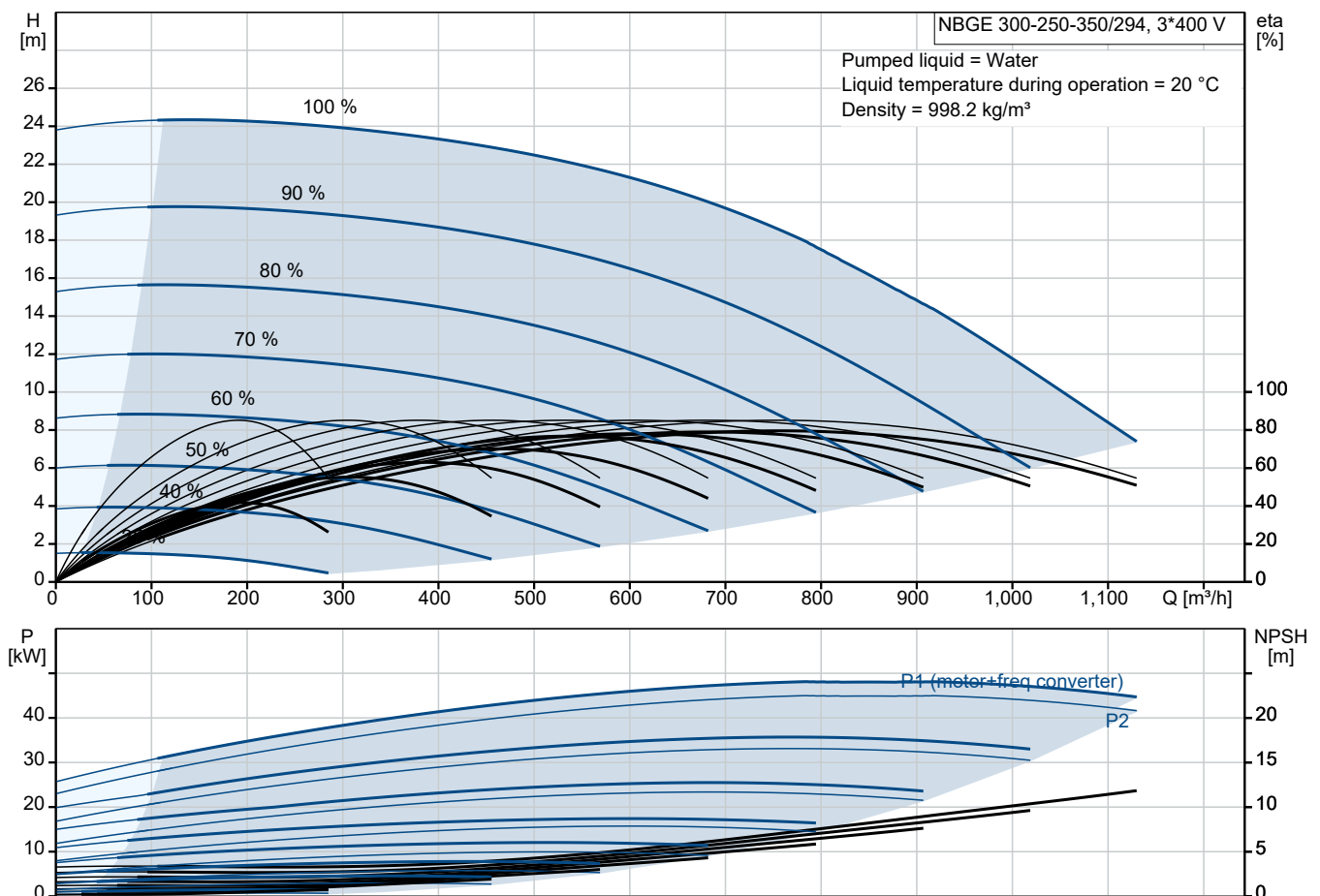


## NBGE 300-250-350/294 AIASF2LESBQQETW3

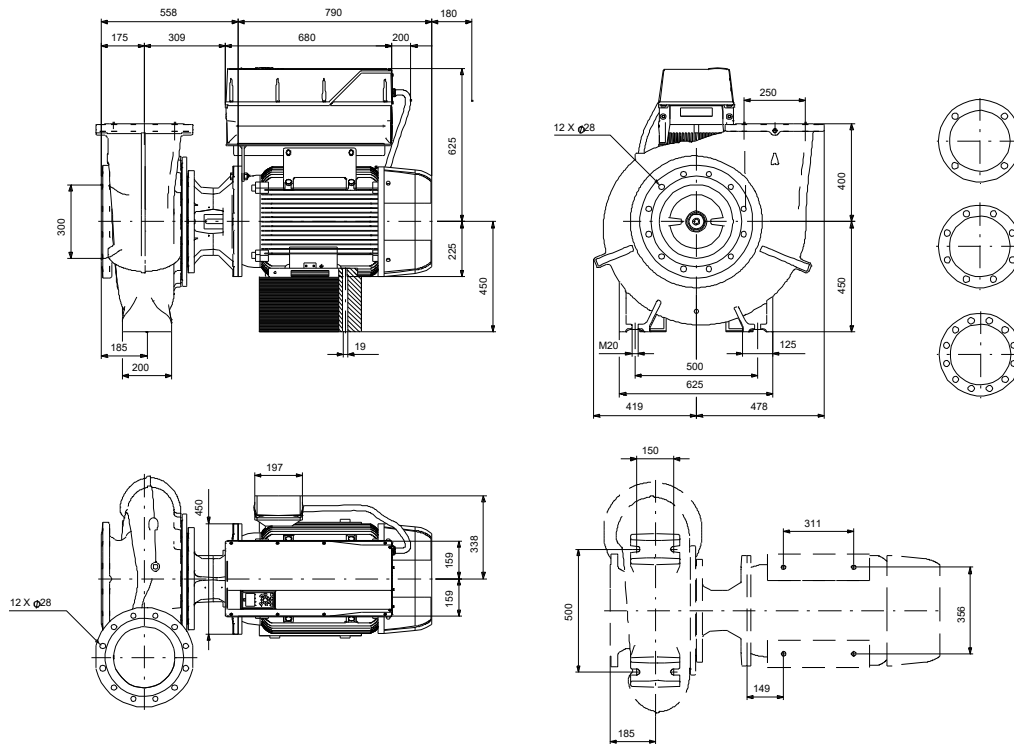
End-suction close-coupled pumps according to ISO 2858 with frequency-controlled motors.

Note! Product picture may differ from actual product

Conditions of Service	Pump Data	Motor Data
Liquid: Water	Liquid temperature range: -25 .. 120 °C	Rated voltage: 380-420D/660-725Y V
Temperature: 20 °C	Maximum ambient temperature: 50 °C	Mains frequency: 50 Hz
Specific Gravity: 1.000	Shaft seal: BQQE	Enclosure class: IP55
	Product number: On request	Insulation class: F
		Motor protection: PTC
		Eta 1/1: 95.4 %



# Submittal Data



## Materials:

Pump housing: Stainless steel  
Pump housing: ASTM CD4MCuN  
Impeller: Stainless steel  
Impeller: ASTM CD4MCuN  
Impeller: EN 1.4517  
Material code: L  
Code for rubber: E

Qty. Description

1 NBGE 300-250-350/294 AIASF2LESBQQETW3



Note! Product picture may differ from actual product

Product No.: On request

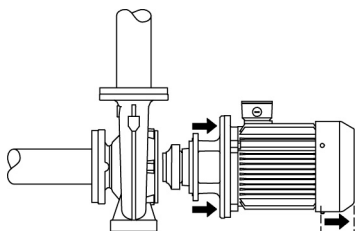
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to ISO 2858 (16 bar). Flanges are PN 16 with dimensions according to EN 1092-1. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

The unbalanced rubber bellows seal is according to DIN EN 12756.

The pump is close-coupled to a fan-cooled asynchronous motor.

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 back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipes.



## Pump

The pump housing has both a priming and a drain hole closed by plugs. The impeller is a closed impeller with double-curved blades with smooth surfaces. The impeller is statically balanced according to ISO 1940-1 class G6.3 and hydraulically balanced to compensate for axial thrust.

The motor stool is made of cast iron (EN-GJL-250) and the pump cover is made of stainless steel (EN 1.4517). Coupling guards are fitted to the motor stool.

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.

The pump housing has feet.

The pump is to be secured to the foundation with bolts through the pump housing feet and motor feet. The pump is delivered with steel support blocks. The support blocks provide horizontal alignment of the pump and ensure clearance between the motor stool/motor flange and the foundation.

The pump has loose flanges.

The loose flanges are made of cast iron (EN-GJS-500-7/ASTM 70-50-05).

The language on the pump nameplate is English.

**Qty. Description**

1

**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 IE4 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

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 motor is equipped with bearing current protection. This protects the bearings from failure due to bearing currents, which can be caused e.g. by the high-frequency switching of a variable frequency drive.

**Further product details**
**Technical data**
**Controls:**

VFD product number: 99616825  
 Frequency converter: Built-in  
 Type of frequency converter: CUE 3X380-500V IP55 RUG 45KW  
 Appr. for VFD: CE, CULUS, C-TICK  
 Pressure sensor: N

**Liquid:**

Pumped liquid: Water  
 Liquid temperature range: -25 .. 120 °C  
 Selected liquid temperature: 20 °C  
 Density: 998.2 kg/m<sup>3</sup>

**Technical:**

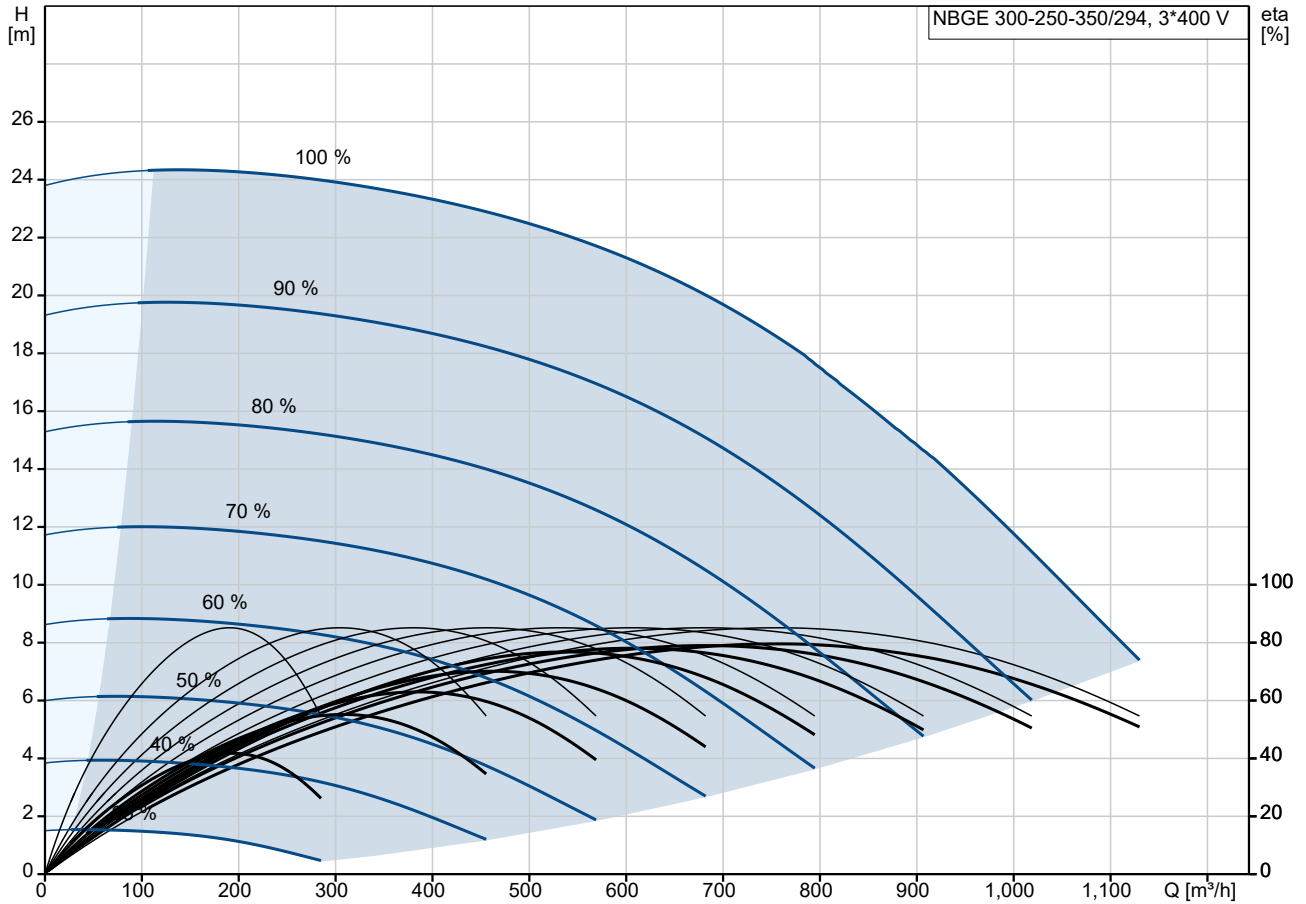
Pump speed on which pump data are based: 1485 rpm  
 Rated flow: 752.7 m<sup>3</sup>/h  
 Rated head: 18.57 m  
 Actual impeller diameter: 294 mm  
 Nominal impeller diameter: 350  
 Type of impeller: Standard  
 Shaft seal arrangement: Single  
 Code for shaft seal: BQQE  
 Curve tolerance: ISO9906:2012 3B  
 Bearing design: Standard

**Materials:**

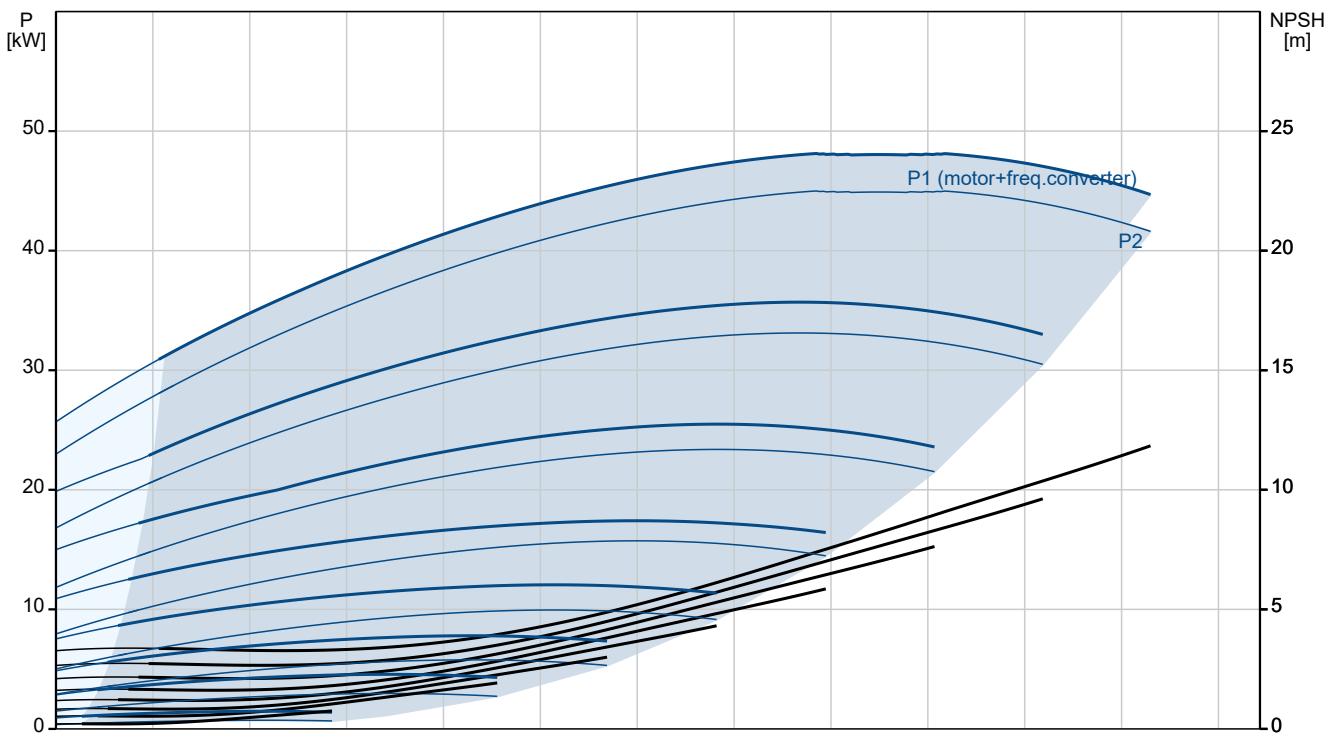
Pump housing: Stainless steel  
 EN 1.4517  
 ASTM CD4MCuN  
 Wear ring: Stainless steel  
 Flange: Cast iron  
 EN-GJS-500-7  
 ASTM 70-50-05  
 Impeller: Stainless steel  
 EN 1.4517  
 ASTM CD4MCuN  
 Internal pump house coating: No coating  
 Shaft: Stainless steel

Qty.	Description
1	<p data-bbox="564 338 683 371">EN 1.4462</p> <p data-bbox="564 371 683 405">SAF 2205</p> <p data-bbox="196 432 328 465">Installation:</p> <p data-bbox="196 465 691 499">Range of ambient temperature: -10 .. 50 °C</p> <p data-bbox="196 499 636 533">Maximum operating pressure: 16 bar</p> <p data-bbox="196 533 683 566">Pipe connection standard: EN 1092-1</p> <p data-bbox="196 566 651 600">Size of inlet connection: DN 300</p> <p data-bbox="196 600 651 633">Size of outlet connection: DN 250</p> <p data-bbox="196 633 636 667">Pressure rating for connection: PN 16</p> <p data-bbox="196 667 651 701">Bearing lubrication: Grease</p> <p data-bbox="196 701 611 734">Pump housing with feet: Yes</p> <p data-bbox="196 734 584 768">Support block (Yes/No): Y</p> <p data-bbox="196 768 363 801">Electrical data:</p> <p data-bbox="196 801 636 835">Rated power - P2: 45 kW</p> <p data-bbox="196 835 636 869">Mains frequency: 50 Hz</p> <p data-bbox="196 869 847 902">Rated voltage: 3 x 380-420D/660-725Y V</p> <p data-bbox="196 902 691 936">Rated current: 81.0/47.0 A</p> <p data-bbox="196 936 636 969">Starting current: 800 %</p> <p data-bbox="196 969 611 1003">Cos phi - power factor: 0.84</p> <p data-bbox="196 1003 671 1037">Rated speed: 1485 rpm</p> <p data-bbox="196 1037 683 1070">IE efficiency: IE4 95,4%</p> <p data-bbox="196 1070 603 1104">IE Efficiency class: IE4</p> <p data-bbox="196 1104 651 1137">Motor efficiency at full load: 95.4 %</p> <p data-bbox="196 1137 651 1171">Motor efficiency at 3/4 load: 95.7 %</p> <p data-bbox="196 1171 651 1205">Motor efficiency at 1/2 load: 95.4 %</p> <p data-bbox="196 1205 584 1238">Number of poles: 4</p> <p data-bbox="196 1238 611 1272">Enclosure class (IEC 34-5): IP55</p> <p data-bbox="196 1272 584 1305">Insulation class (IEC 85): F</p> <p data-bbox="196 1305 671 1339">Motor No: 92691594</p> <p data-bbox="196 1339 882 1373">Bearing insulation type N-end: CERAMIC SHAFT COATING</p> <p data-bbox="196 1373 284 1406">Others:</p> <p data-bbox="196 1406 636 1440">Minimum efficiency index, MEI ≥: 0.70</p> <p data-bbox="196 1440 651 1473">Net weight: 965 kg</p> <p data-bbox="196 1473 659 1507">Gross weight: 1070 kg</p> <p data-bbox="196 1507 651 1541">Shipping volume: 2.59 m<sup>3</sup></p> <p data-bbox="196 1541 603 1574">Country of origin: HU</p> <p data-bbox="196 1574 671 1608">Custom tariff no.: 84137051</p> <p data-bbox="196 1608 603 1641">Language on pump nameplate: GB</p>

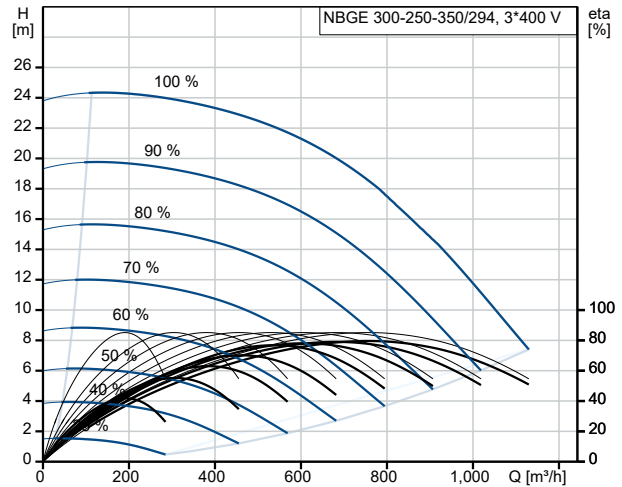
## On request NBGE 300-250-350/294 AIASF2LESBQQETW3 50 Hz



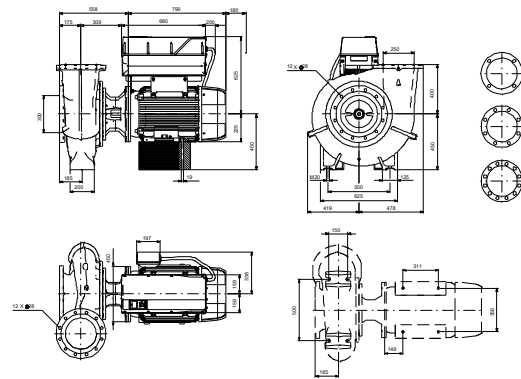
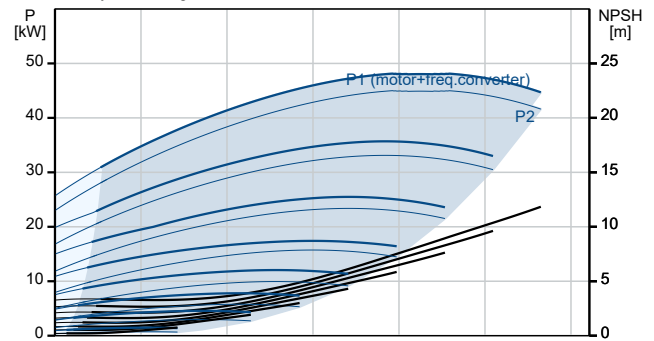
Pumped liquid = Water  
 Liquid temperature during operation = 20 °C  
 Density = 998.2 kg/m³



Description	Value
<b>General information:</b>	
Product name:	NBGE 300-250-350/294 AIASF2LESBQQETW3
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Pump speed on which pump data are based:	1485 rpm
Rated flow:	752.7 m <sup>3</sup> /h
Rated head:	18.57 m
Actual impeller diameter:	294 mm
Nominal impeller diameter:	350
Type of impeller:	Standard
Shaft seal arrangement:	Single
Shaft diameter:	48 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	AS
Bearing design:	Standard
<b>Materials:</b>	
Pump housing:	Stainless steel
Pump housing:	EN 1.4517
Pump housing:	ASTM CD4MCuN
Wear ring:	Stainless steel
Flange:	Cast iron
Flange:	EN-GJS-500-7
Flange:	ASTM 70-50-05
Impeller:	Stainless steel
Impeller:	EN 1.4517
Impeller:	ASTM CD4MCuN
Internal pump house coating:	No coating
Material code:	L
Code for rubber:	E
Shaft:	Stainless steel
Shaft:	EN 1.4462
Shaft:	SAF 2205
<b>Installation:</b>	
Range of ambient temperature:	-10 .. 50 °C
Maximum operating pressure:	16 bar
Pipe connection standard:	EN 1092-1
Size of inlet connection:	DN 300
Size of outlet connection:	DN 250
Pressure rating for connection:	PN 16
Bearing lubrication:	Grease
Pump housing with feet:	Yes
Support block (Yes/No):	Y
Connect code:	F2
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Rated power - P2:	45 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	81.0/47.0 A
Starting current:	800 %



Pumped liquid = Water  
Liquid temperature during operation = 20 °C  
Density = 998.2 kg/m<sup>3</sup>





Company name:

Created by:

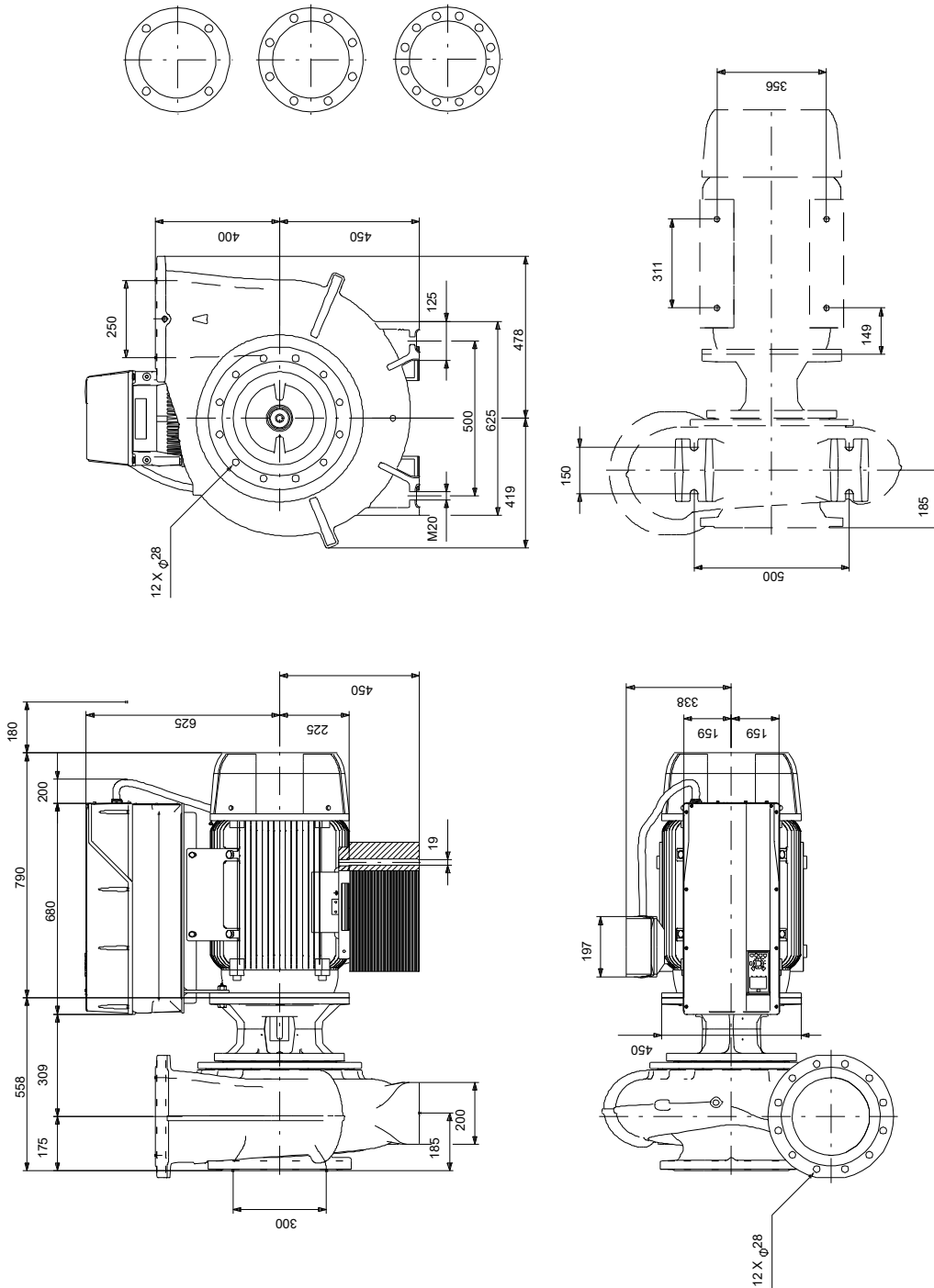
Phone:

Date:

24/10/2024

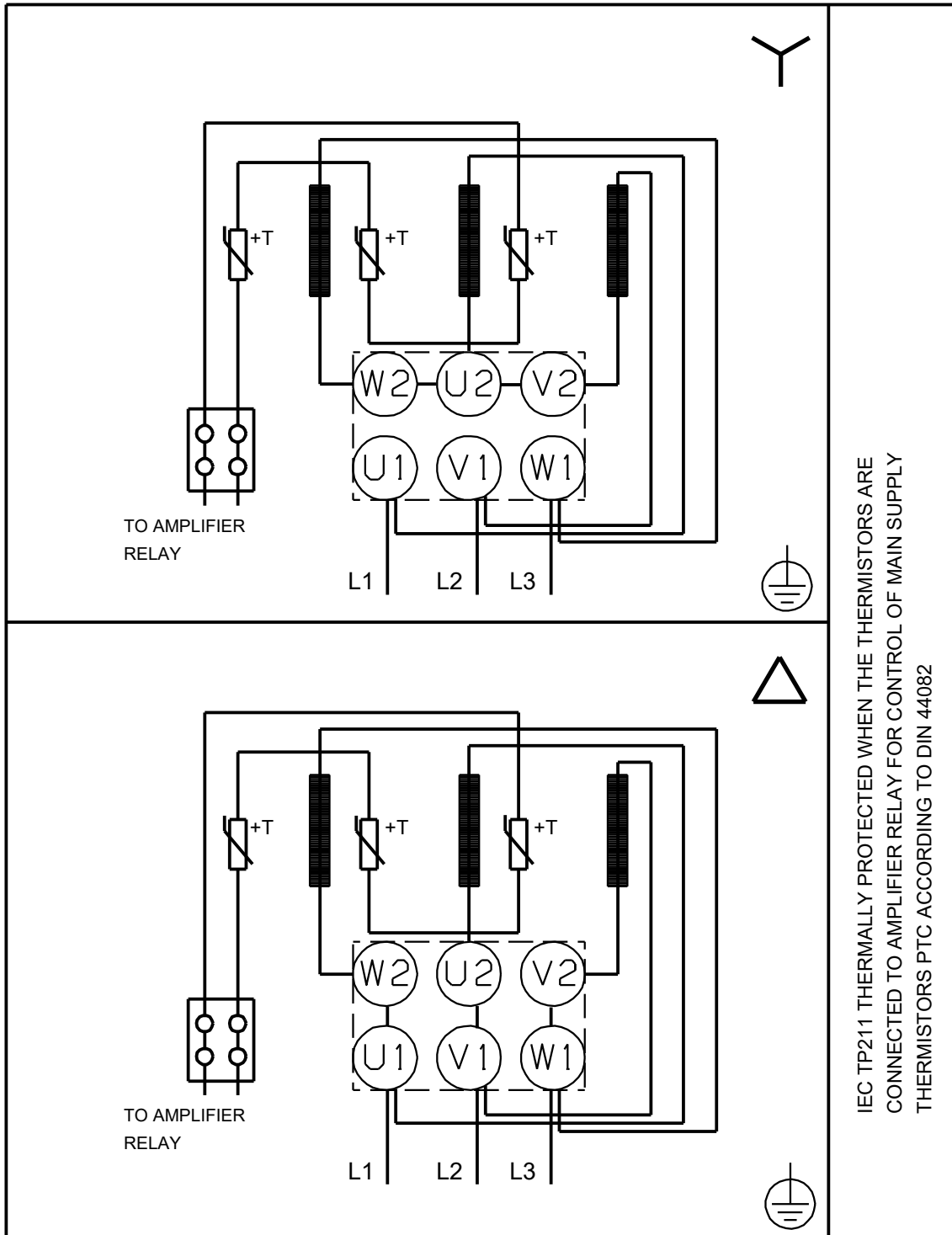
Description	Value
Cos phi - power factor:	0.84
Rated speed:	1485 rpm
IE efficiency:	IE4 95,4%
IE Efficiency class:	IE4
Motor efficiency at full load:	95.4 %
Motor efficiency at 3/4 load:	95.7 %
Motor efficiency at 1/2 load:	95.4 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	92691594
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	CERAMIC SHAFT COATING
<b>Controls:</b>	
VFD product number:	99616825
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 45KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	965 kg
Gross weight:	1070 kg
Shipping volume:	2.59 m <sup>3</sup>
Country of origin:	HU
Custom tariff no.:	84137051
Language on pump nameplate:	GB

## On request NBGE 300-250-350/294 AIASF2LESBQQETW3 50 Hz



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

## On request NBGE 300-250-350/294 AIASF2LESBQQETW3 50 Hz



IEC TP211 THERMALLY PROTECTED WHEN THE THERMISTORS ARE  
CONNECTED TO AMPLIFIER RELAY FOR CONTROL OF MAIN SUPPLY  
THERMISTORS PTC ACCORDING TO DIN 44082

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

