

Submittal Data

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

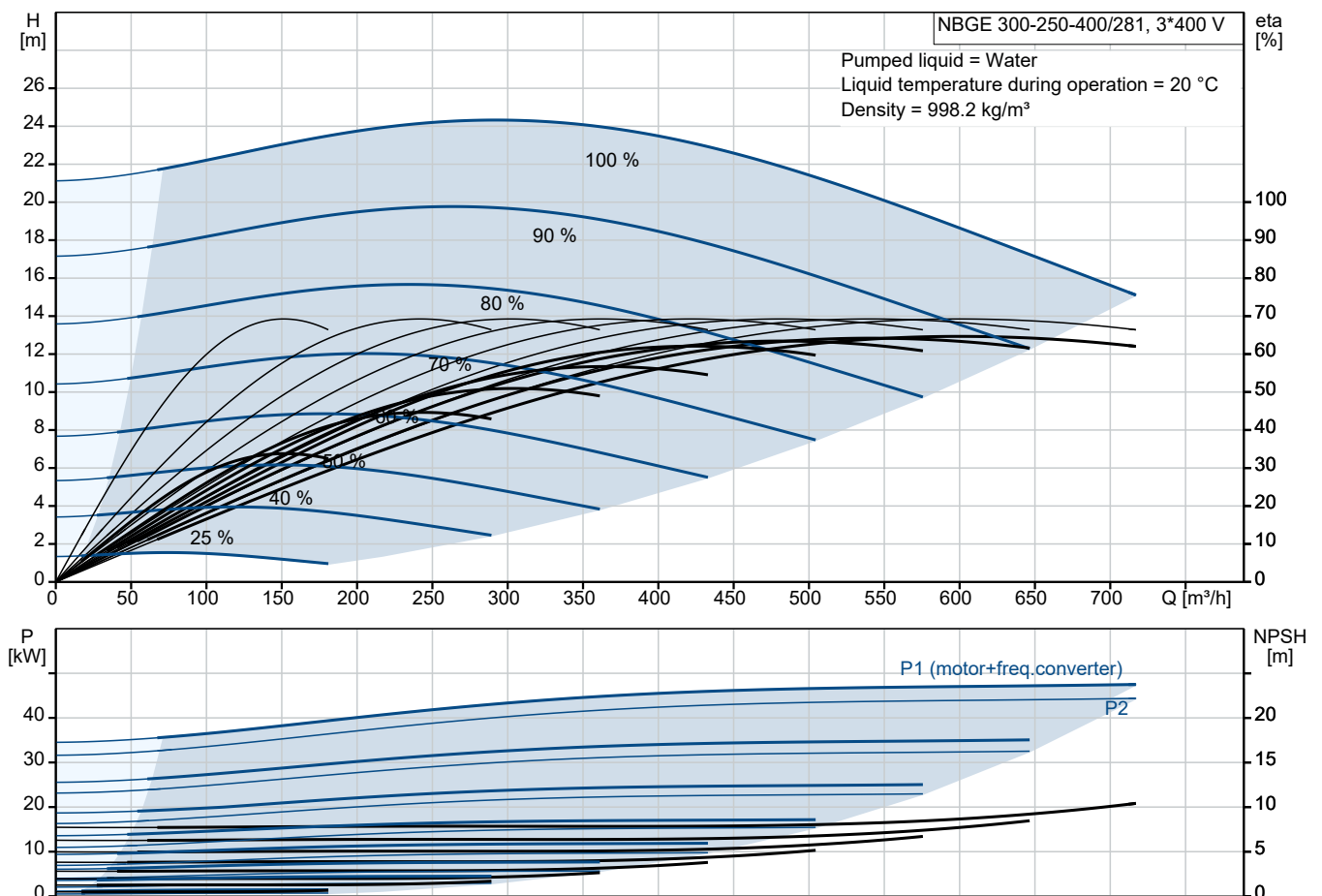


NBGE 300-250-400/281 AIASF2AVSBQQVTW3

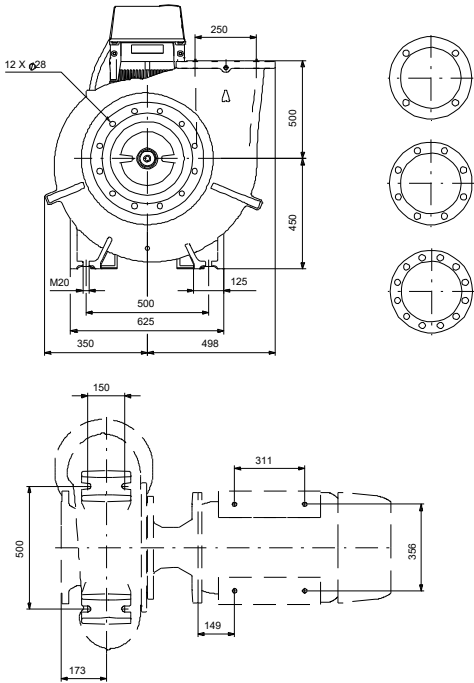
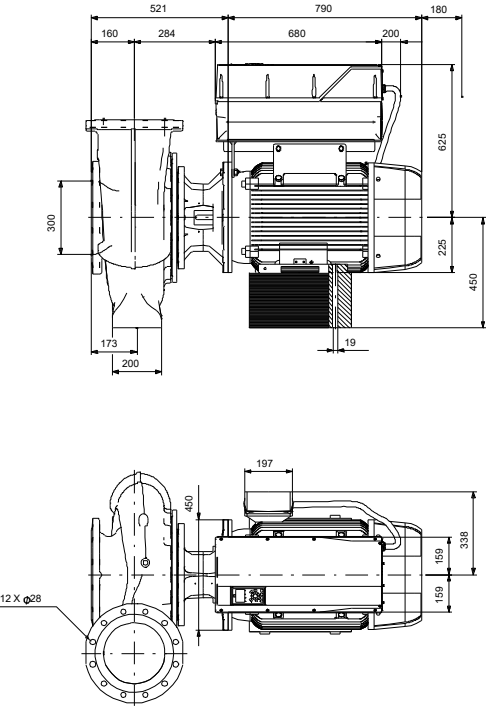
End-suction close-coupled pumps according to ISO 2858 with frequency-controlled motors.

Note! Product picture may differ from actual product

| Conditions of Service | Pump Data | Motor Data |
|-------------------------|--|------------------------------------|
| Liquid: Water | Liquid temperature range: -10 .. 90 °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: BQQV | Enclosure class: IP55 |
| | Product number: On request | Insulation class: F |
| | | Motor protection: PTC |
| | | Eta 1/1: 95.4 % |



Submittal Data



- Materials:**
- Pump housing: Cast iron
 - Pump housing: ASTM class 35
 - Impeller: Cast iron
 - Impeller: ASTM class 30
 - Impeller: EN-GJL-200
 - Material code: A
 - Code for rubber: V

Qty. Description

1 NBGE 300-250-400/281 AIASF2AVSBQQVTW3



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 1092-2. 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 back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipes.



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

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.

Motor stool and pump cover are made of cast iron (EN-GJL-250). 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: FKM (fluorocarbon rubber)

FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.

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 language on the pump nameplate is English.

Motor

Qty. Description

1 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

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:

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: -10 .. 90 °C
 Selected liquid temperature: 20 °C
 Density: 998.2 kg/m³

Technical:

Pump speed on which pump data are based: 1485 rpm
 Rated flow: 615.5 m³/h
 Rated head: 18.14 m
 Actual impeller diameter: 281 mm
 Nominal impeller diameter: 400
 Type of impeller: Standard
 Shaft seal arrangement: Single
 Code for shaft seal: BQQV
 Curve tolerance: ISO9906:2012 3B
 Bearing design: Standard

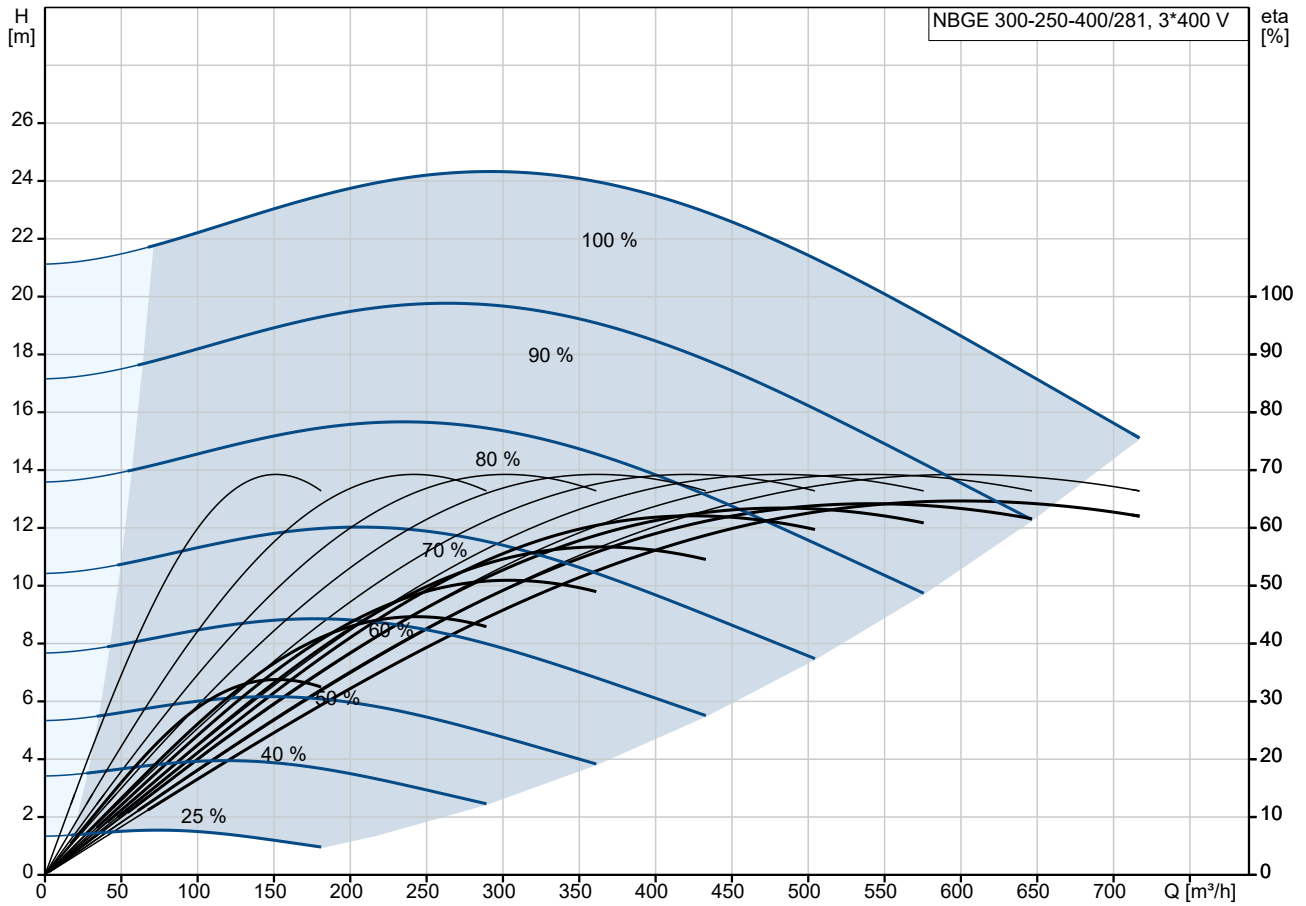
Materials:

Pump housing: Cast iron
 EN-GJL-250
 ASTM class 35
 Wear ring: Brass
 Impeller: Cast iron
 EN-GJL-200
 ASTM class 30
 Internal pump house coating: CED
 Shaft: Stainless steel
 EN 1.4301

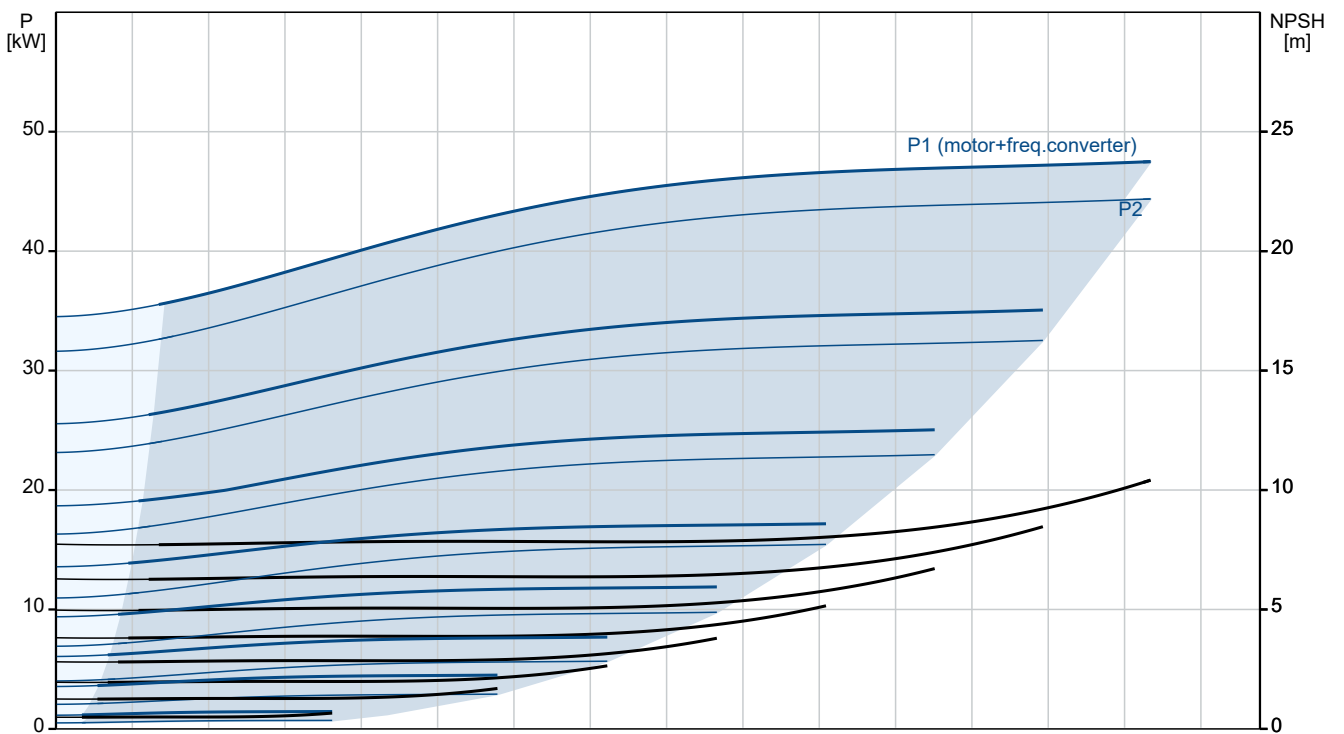
Qty. Description

| | |
|---|--|
| 1 | <p style="text-align: right;">AISI 304</p> <p>Installation:</p> <p>Range of ambient temperature: -10 .. 50 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Pipe connection standard: EN 1092-2</p> <p>Size of inlet connection: DN 300</p> <p>Size of outlet connection: DN 250</p> <p>Pressure rating for connection: PN 16</p> <p>Bearing lubrication: Grease</p> <p>Pump housing with feet: Yes</p> <p>Support block (Yes/No): Y</p> <p>Electrical data:</p> <p>Rated power - P2: 45 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-420D/660-725Y V</p> <p>Rated current: 81.0/47.0 A</p> <p>Starting current: 800 %</p> <p>Cos phi - power factor: 0.84</p> <p>Rated speed: 1485 rpm</p> <p>IE efficiency: IE4 95,4%</p> <p>IE Efficiency class: IE4</p> <p>Motor efficiency at full load: 95.4 %</p> <p>Motor efficiency at 3/4 load: 95.7 %</p> <p>Motor efficiency at 1/2 load: 95.4 %</p> <p>Number of poles: 4</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 92691594</p> <p>Bearing insulation type N-end: CERAMIC SHAFT COATING</p> <p>Others:</p> <p>Minimum efficiency index, MEI ≥: 0.50</p> <p>Net weight: 864 kg</p> <p>Gross weight: 966 kg</p> <p>Shipping volume: 2.59 m³</p> <p>Country of origin: HU</p> <p>Custom tariff no.: 84137051</p> <p>Language on pump nameplate: GB</p> |
|---|--|

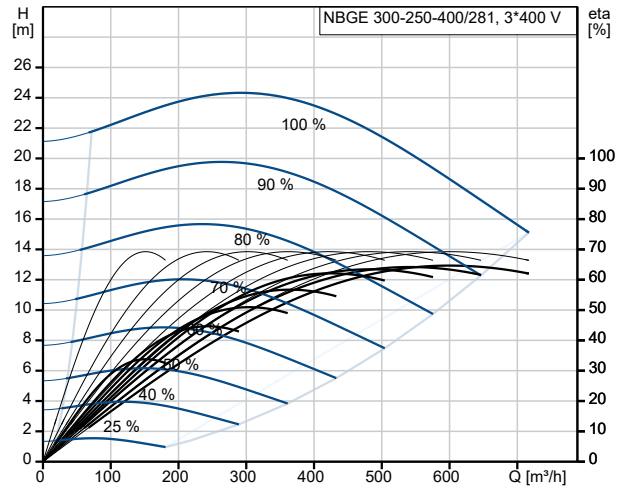
On request NBGE 300-250-400/281 AIASF2AVSBQQVTW3 50 Hz



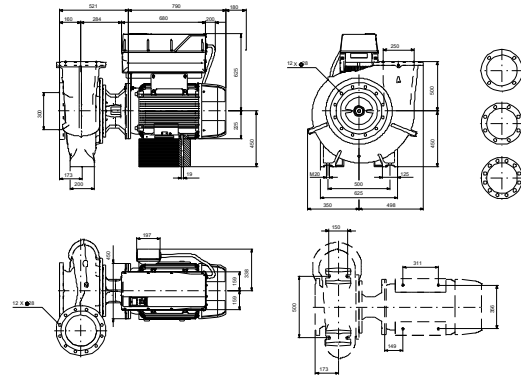
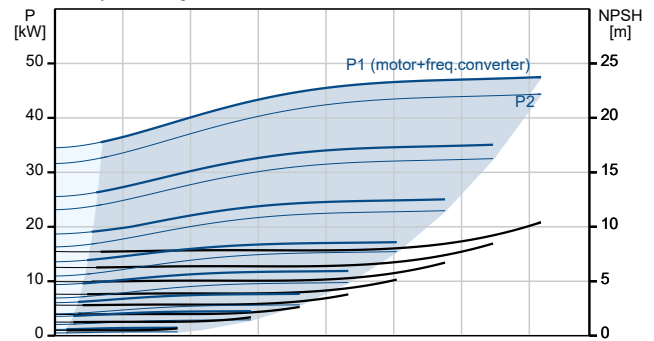
Pumped liquid = Water
 Liquid temperature during operation = 20 °C
 Density = 998.2 kg/m³



| Description | Value |
|--|--|
| General information: | |
| Product name: | NBGE 300-250-400/281 AIASF2AVSBQQVTW3 |
| Product No: | On request |
| EAN number: | On request |
| Technical: | |
| Pump speed on which pump data are based: | 1485 rpm |
| Rated flow: | 615.5 m ³ /h |
| Rated head: | 18.14 m |
| Actual impeller diameter: | 281 mm |
| Nominal impeller diameter: | 400 |
| Type of impeller: | Standard |
| Shaft seal arrangement: | Single |
| Shaft diameter: | 48 mm |
| Code for shaft seal: | BQQV |
| Curve tolerance: | ISO9906:2012 3B |
| Pump version: | AS |
| Bearing design: | Standard |
| Materials: | |
| Pump housing: | Cast iron |
| Pump housing: | EN-GJL-250 |
| Pump housing: | ASTM class 35 |
| Wear ring: | Brass |
| Impeller: | Cast iron |
| Impeller: | EN-GJL-200 |
| Impeller: | ASTM class 30 |
| Internal pump house coating: | CED |
| Material code: | A |
| Code for rubber: | V |
| Shaft: | Stainless steel |
| Shaft: | EN 1.4301 |
| Shaft: | AISI 304 |
| Installation: | |
| Range of ambient temperature: | -10 .. 50 °C |
| Maximum operating pressure: | 16 bar |
| Pipe connection standard: | EN 1092-2 |
| 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 |
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | -10 .. 90 °C |
| Selected liquid temperature: | 20 °C |
| Density: | 998.2 kg/m ³ |
| Electrical data: | |
| 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 % |
| Cos phi - power factor: | 0.84 |
| Rated speed: | 1485 rpm |
| IE efficiency: | IE4 95,4% |



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





Company name:

Created by:

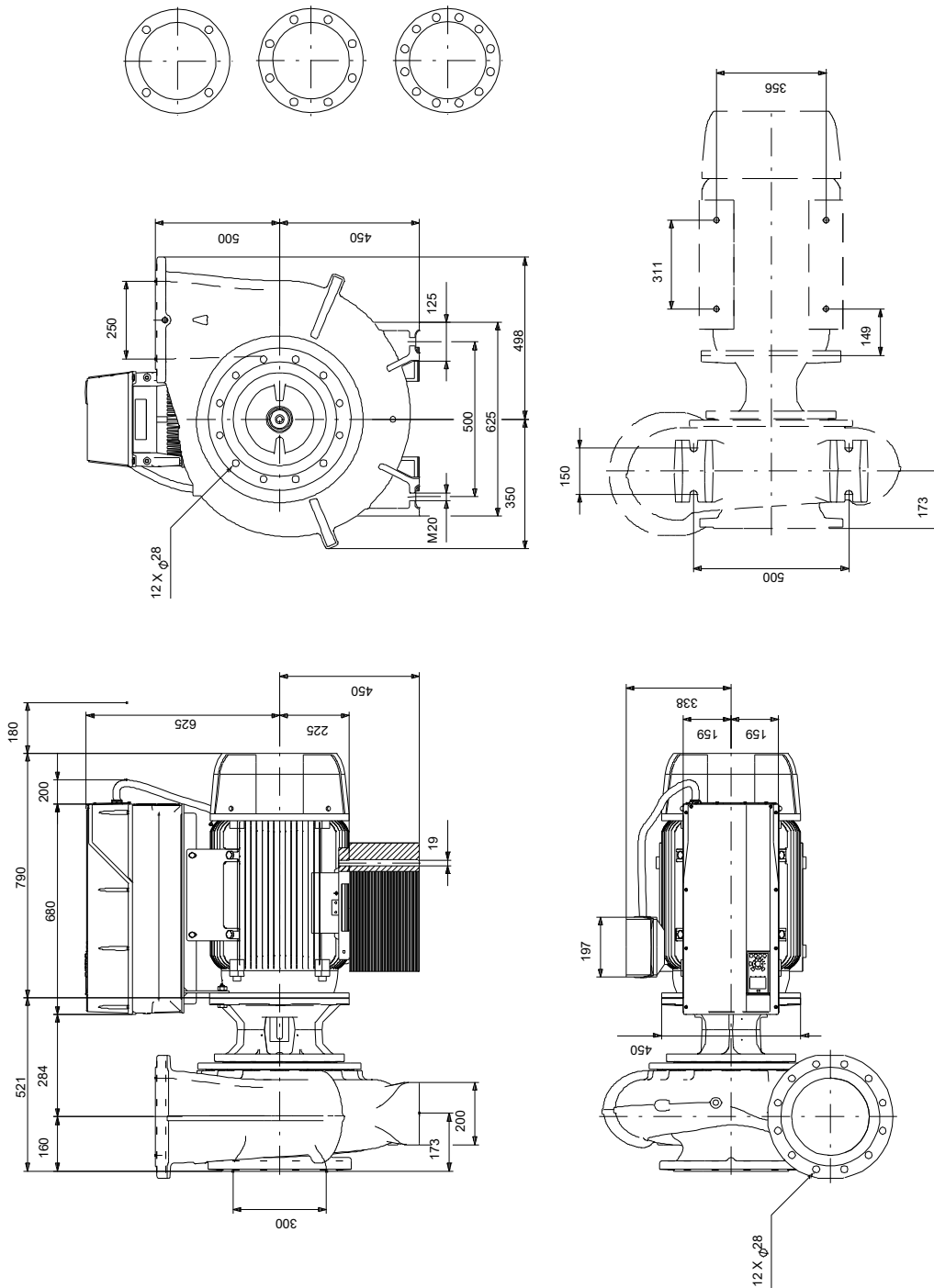
Phone:

Date:

25/10/2024

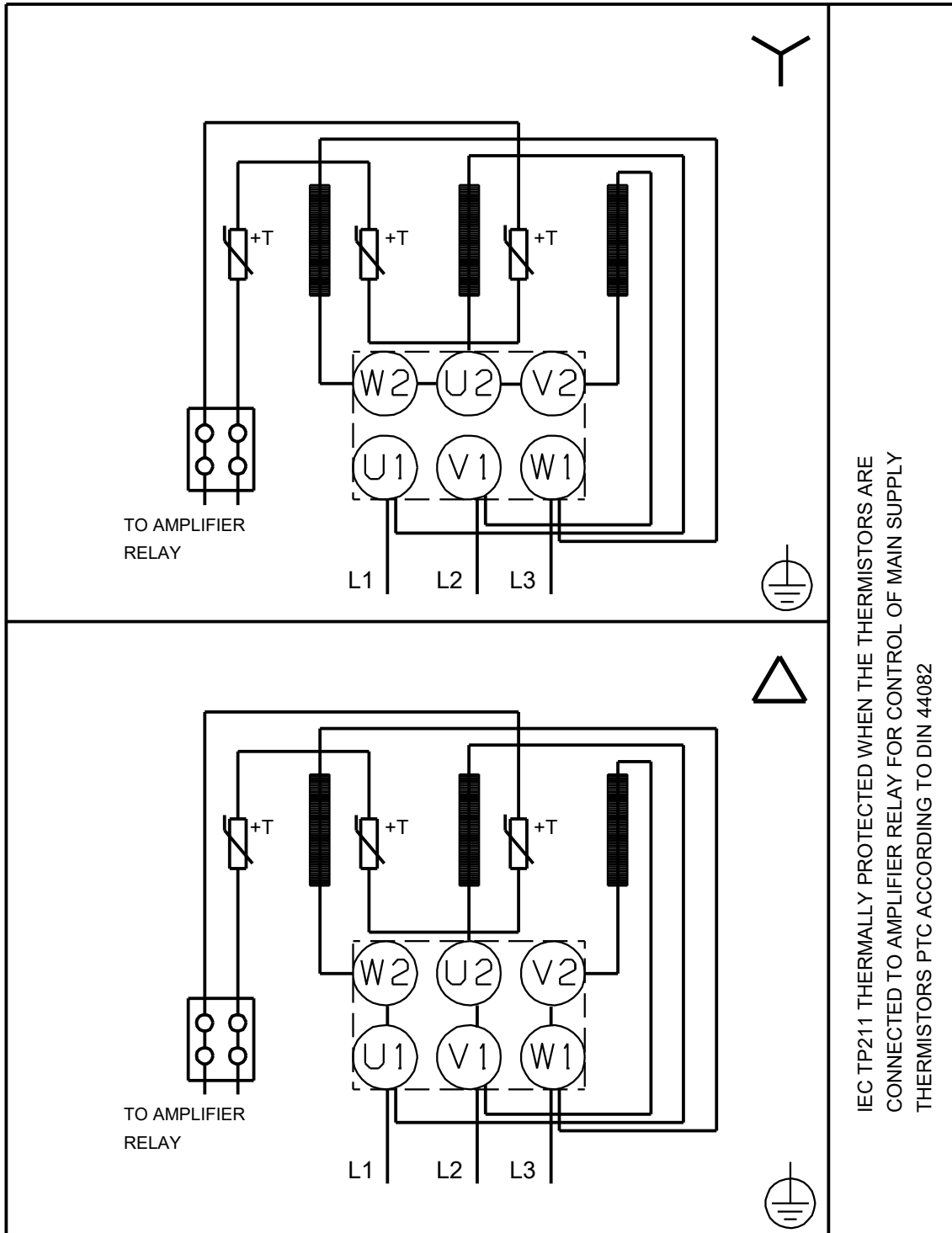
| Description | Value |
|----------------------------------|---------------------------------|
| IE Efficiency class: | IE4 |
| Motor efficiency at full load: | 95.4 % |
| Motor efficiency at 3/4 load: | 95.7 % |
| Motor efficiency at 1/2 load: | 95.4 % |
| Number of poles: | 4 |
| Enclosure class (IEC 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 |
| 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 |
| Others: | |
| Minimum efficiency index, MEI ≥: | 0.50 |
| Net weight: | 864 kg |
| Gross weight: | 966 kg |
| Shipping volume: | 2.59 m ³ |
| Country of origin: | HU |
| Custom tariff no.: | 84137051 |
| Language on pump nameplate: | GB |

On request NBGE 300-250-400/281 AIASF2AVSBQQVTW3 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 300-250-400/281 AIASF2AVSBQQVTW3 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.

