

Submittal Data

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

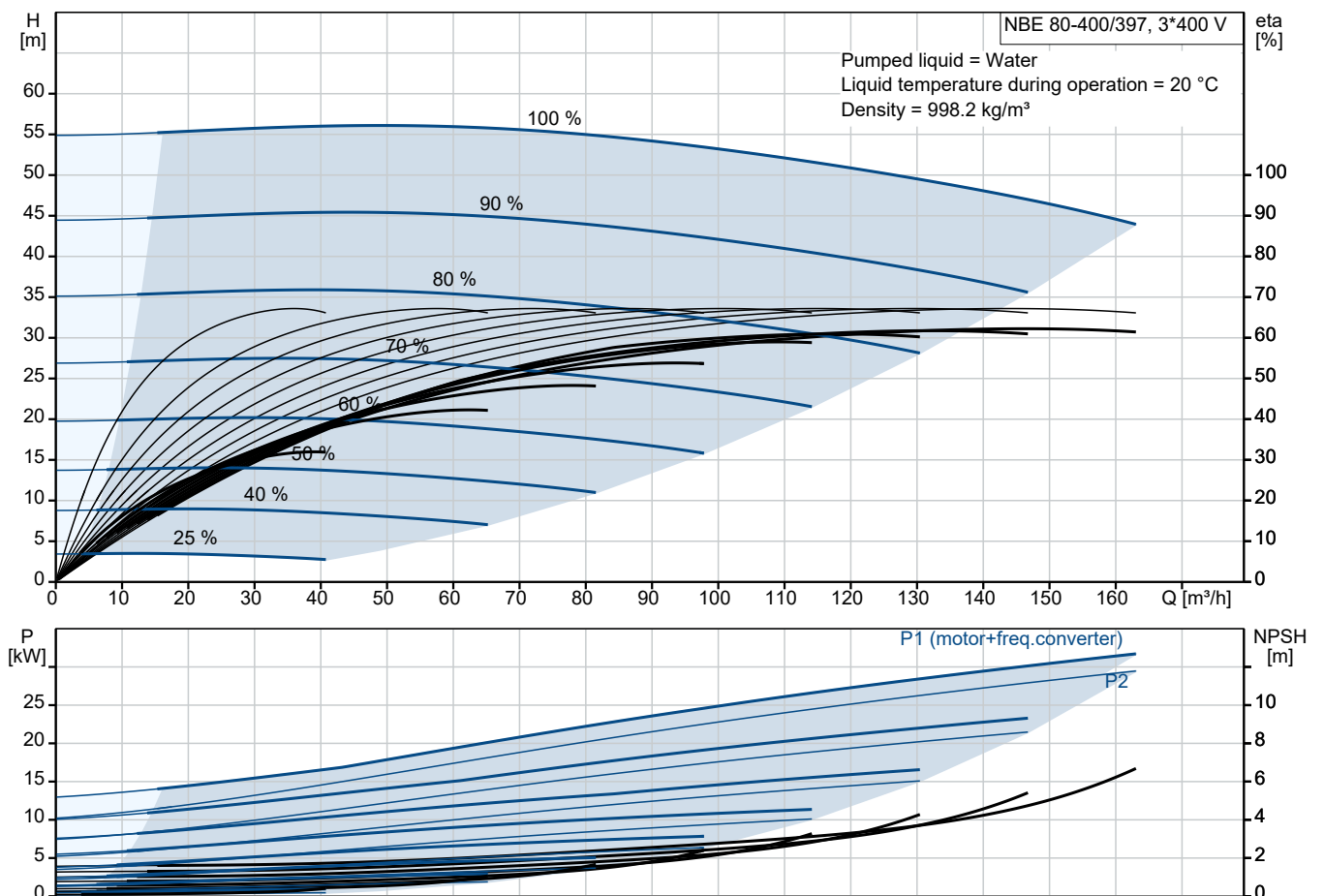


NBE 80-400/397 AIAF2AESBQQERW3

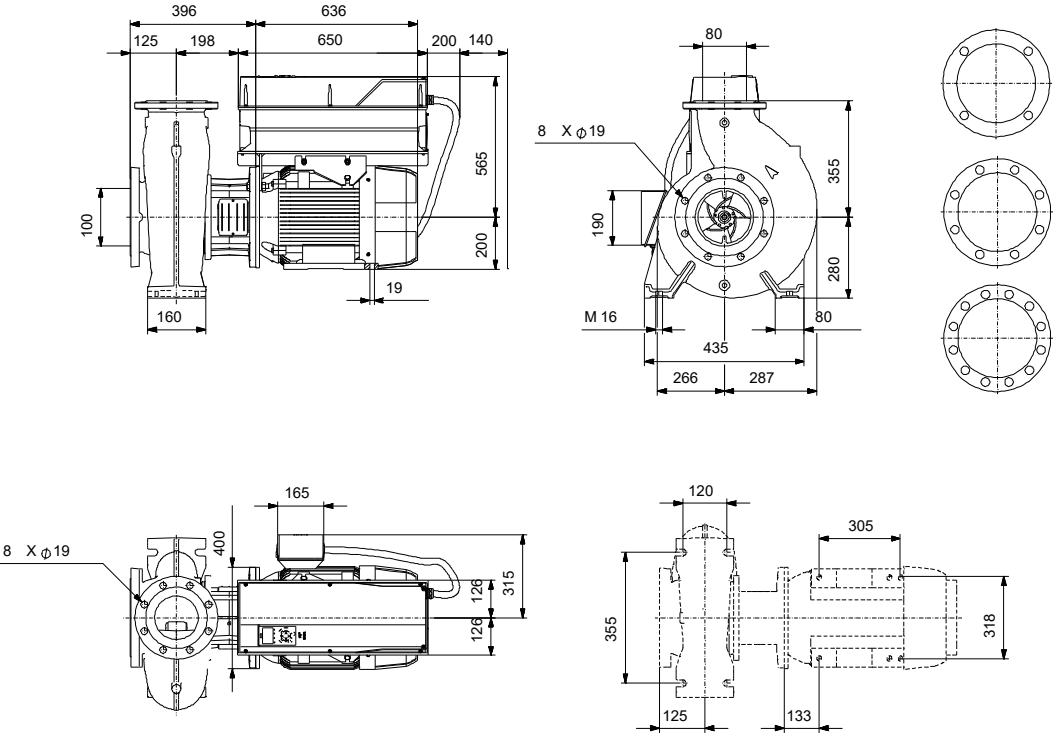
End-suction close-coupled pumps according to EN733 with frequency-controlled motors.

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: 94.9 % |



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: E

Qty. Description

1 NBE 80-400/397 AIAF2AESBQQERW3



Note! Product picture may differ from actual product

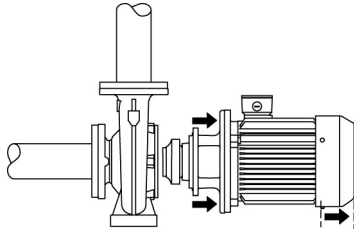
Product No.: On request

Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 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

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: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The pump housing has feet.

The language on the pump nameplate is English.

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.

| Qty. | Description |
|------|---|
| 1 | <p>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.</p> <p>Further product details</p> <p>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.</p> <p>Technical data</p> <p>Controls:</p> <p>VFD product number: 99616823 Frequency converter: Built-in Type of frequency converter: CUE 3X380-500V IP55 RUG 30KW Appr. for VFD: CE, CULUS, C-TICK Pressure sensor: N</p> <p>Liquid:</p> <p>Pumped liquid: Water Liquid temperature range: -25 .. 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³</p> <p>Technical:</p> <p>Pump speed on which pump data are based: 1475 rpm Rated flow: 148.6 m³/h Rated head: 46.67 m Actual impeller diameter: 397 mm Nominal impeller diameter: 400 Shaft seal arrangement: Single Code for shaft seal: BQQE Curve tolerance: ISO9906:2012 3B Bearing design: Standard</p> <p>Materials:</p> <p>Pump housing: Cast iron EN-GJL-250 ASTM class 35</p> <p>Wear ring: Brass</p> <p>Impeller: Cast iron EN-GJL-200 ASTM class 30</p> <p>Internal pump house coating: CED</p> <p>Shaft: Stainless steel EN 1.4301 AISI 304</p> <p>Installation:</p> <p>Range of ambient temperature: -10 .. 50 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Size of inlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Bearing lubrication: Grease Pump housing with feet: Yes</p> |



Company name:

Created by:

Phone:

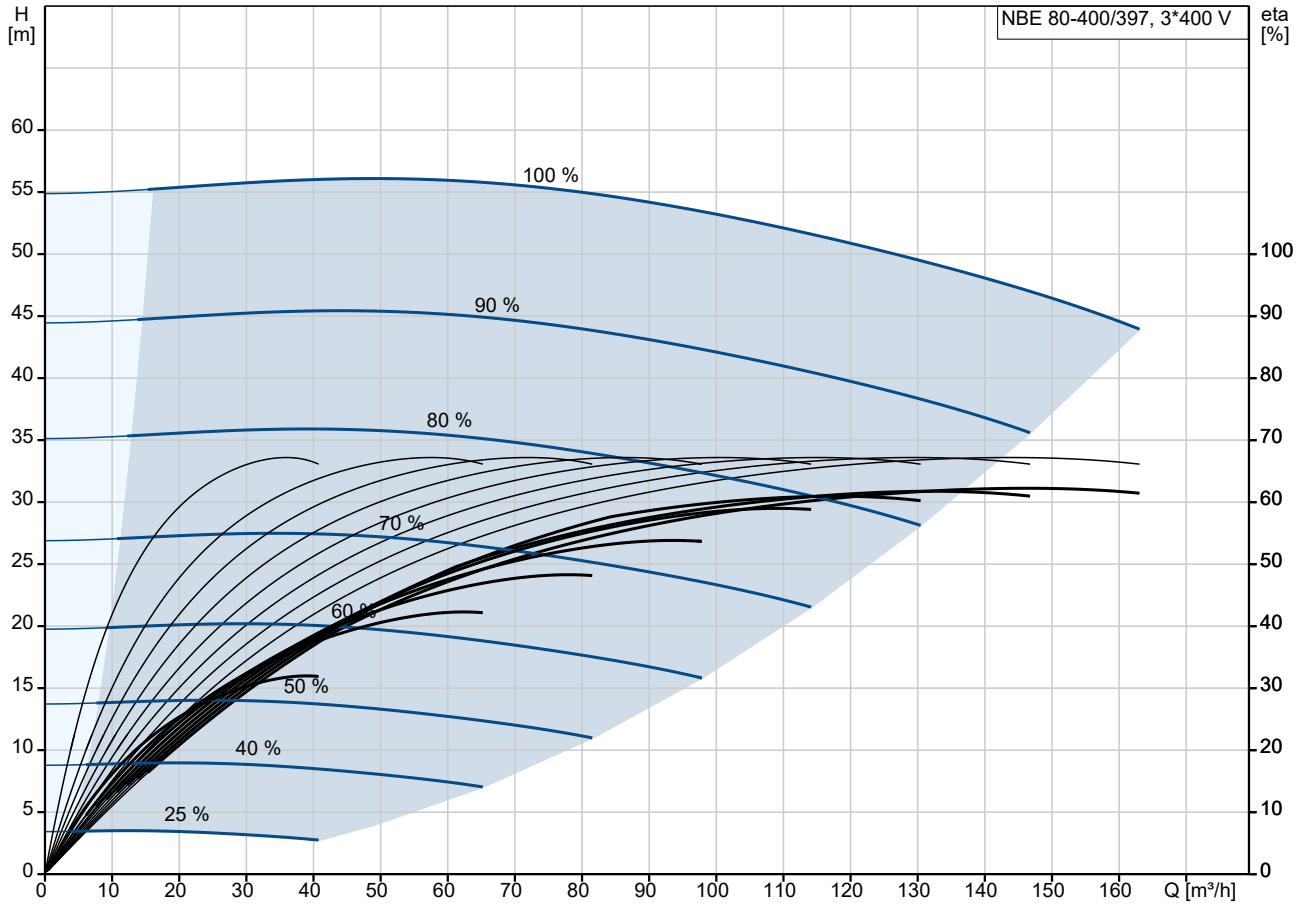
Date:

22/10/2024

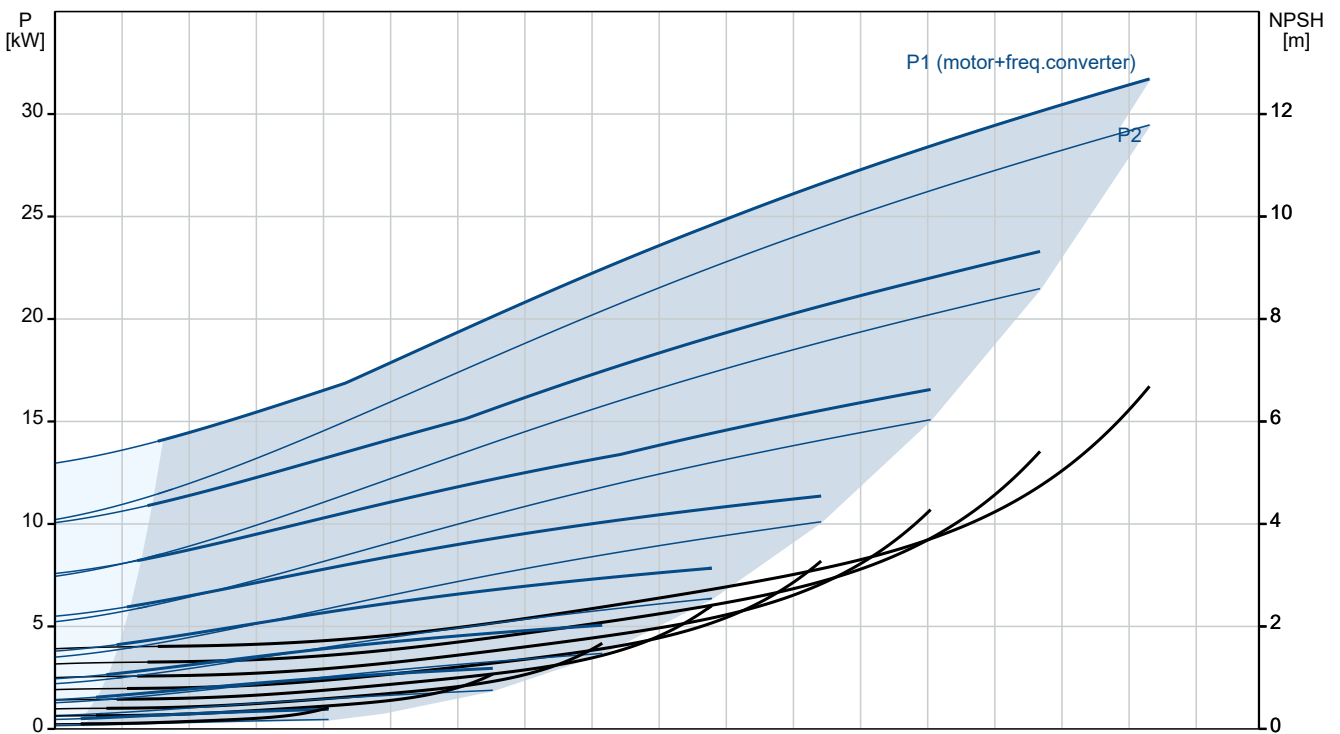
Qty. Description

| | | |
|---|----------------------------------|-------------------------|
| 1 | Support block (Yes/No): | N |
| | Electrical data: | |
| | Rated power - P2: | 30 kW |
| | Mains frequency: | 50 Hz |
| | Rated voltage: | 3 x 380-420D/660-725Y V |
| | Rated current: | 56.0/32.5 A |
| | Starting current: | 730 % |
| | Cos phi - power factor: | 0.81 |
| | Rated speed: | 1475 rpm |
| | IE efficiency: | IE4 94,9% |
| | IE Efficiency class: | IE4 |
| | Motor efficiency at full load: | 94.9 % |
| | Motor efficiency at 3/4 load: | 95.2 % |
| | Motor efficiency at 1/2 load: | 94.9 % |
| | Number of poles: | 4 |
| | Enclosure class (IEC 34-5): | IP55 |
| | Insulation class (IEC 85): | F |
| | Motor No: | 92691562 |
| | Bearing insulation type N-end: | COATED RING |
| | Others: | |
| | Minimum efficiency index, MEI ≥: | 0.44 |
| | Net weight: | 547 kg |
| | Gross weight: | 628 kg |
| | Shipping volume: | 1.6 m ³ |
| | Country of origin: | HU |
| | Custom tariff no.: | 84137051 |
| | Language on pump nameplate: | GB |

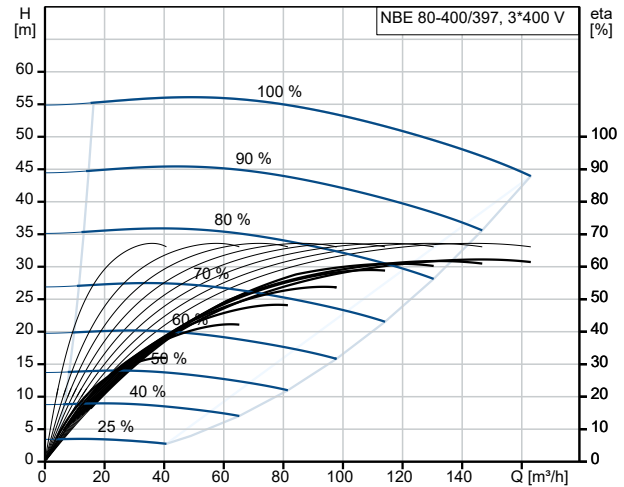
On request NBE 80-400/397 AIAF2AESBQQERW3 50 Hz



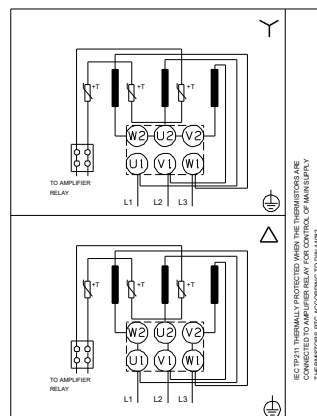
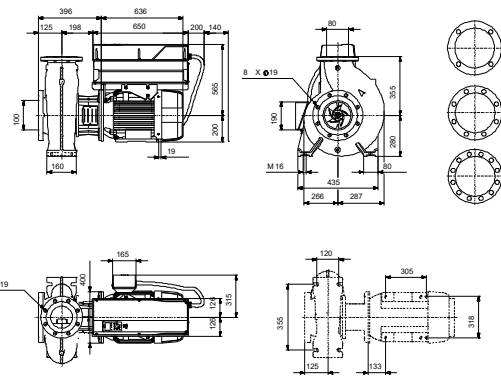
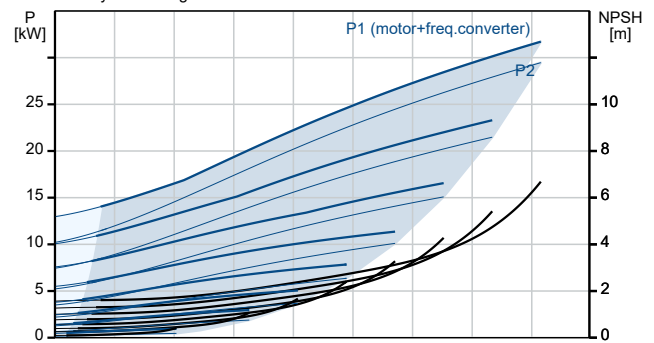
Pumped liquid = Water
Liquid temperature during operation = 20 °C
Density = 998.2 kg/m³



| Description | Value |
|--|-----------------------------------|
| General information: | |
| Product name: | NBE 80-400/397 AIAF2AESBQQERW3 |
| Product No: | On request |
| EAN number: | On request |
| Technical: | |
| Pump speed on which pump data are based: | 1475 rpm |
| Rated flow: | 148.6 m ³ /h |
| Rated head: | 46.67 m |
| Actual impeller diameter: | 397 mm |
| Nominal impeller diameter: | 400 |
| Shaft seal arrangement: | Single |
| Shaft diameter: | 42 mm |
| Code for shaft seal: | BQQE |
| Curve tolerance: | ISO9906:2012 3B |
| Pump version: | A |
| 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: | E |
| 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 100 |
| Size of outlet connection: | DN 80 |
| Pressure rating for connection: | PN 16 |
| Bearing lubrication: | Grease |
| Pump housing with feet: | Yes |
| Support block (Yes/No): | N |
| Connect code: | F2 |
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | -25 .. 120 °C |
| Selected liquid temperature: | 20 °C |
| Density: | 998.2 kg/m ³ |
| Electrical data: | |
| Rated power - P2: | 30 kW |
| Mains frequency: | 50 Hz |
| Rated voltage: | 3 x 380-420D/660-725Y V |
| Rated current: | 56.0/32.5 A |
| Starting current: | 730 % |
| Cos phi - power factor: | 0.81 |
| Rated speed: | 1475 rpm |
| IE efficiency: | IE4 94,9% |
| IE Efficiency class: | IE4 |



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





Company name:

Created by:

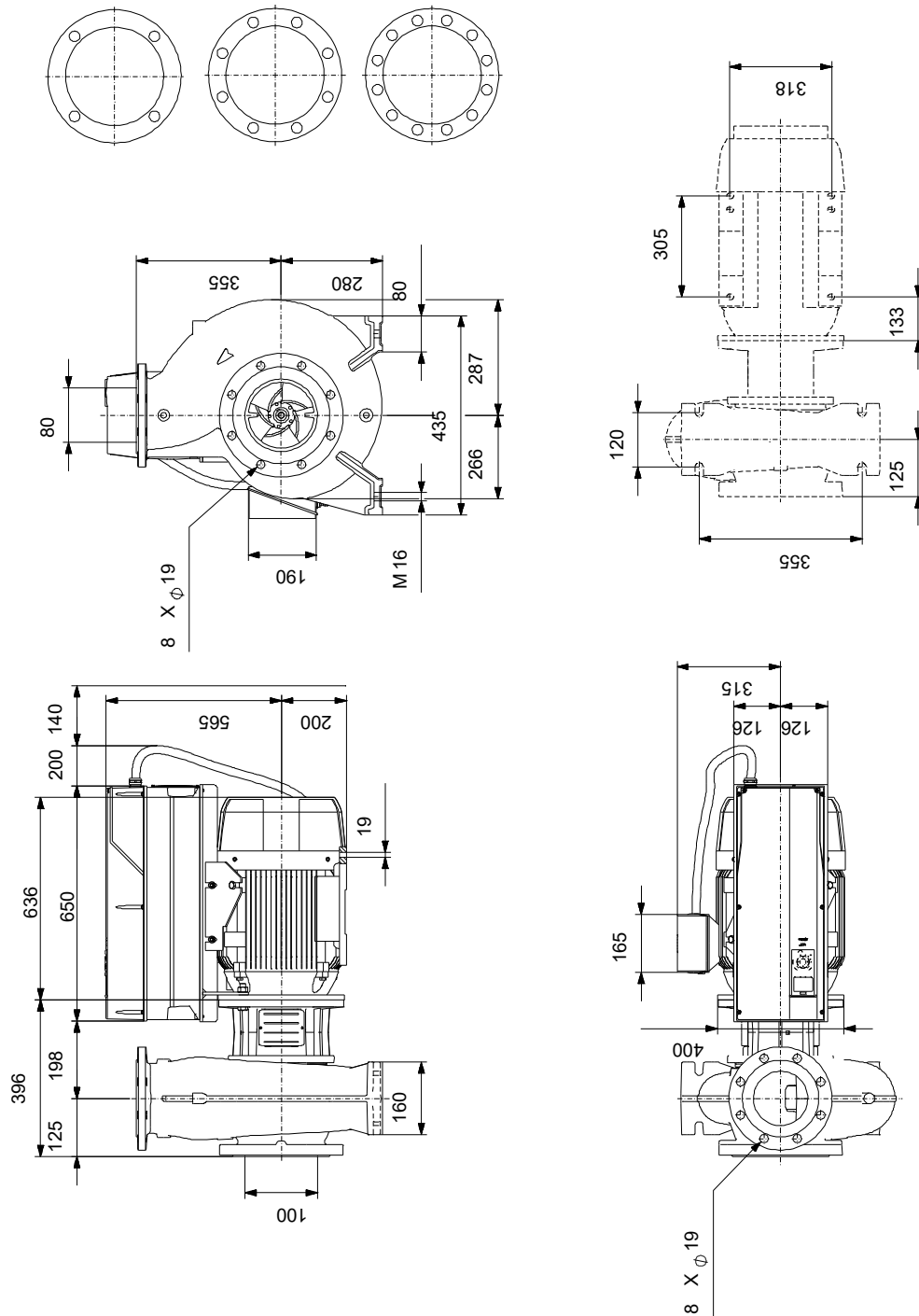
Phone:

Date:

22/10/2024

| Description | Value |
|--|---------------------------------|
| Motor efficiency at full load: | 94.9 % |
| Motor efficiency at 3/4 load: | 95.2 % |
| Motor efficiency at 1/2 load: | 94.9 % |
| Number of poles: | 4 |
| Enclosure class (IEC 34-5): | IP55 |
| Insulation class (IEC 85): | F |
| Built-in motor protection: | PTC |
| Motor No: | 92691562 |
| Mount. design. acc. IEC 34-7: | IM B35 |
| Bearing insulation type N-end: | COATED RING |
| Controls: | |
| VFD product number: | 99616823 |
| Frequency converter: | Built-in |
| Type of frequency converter: | CUE 3X380-500V IP55 RUG 30KW |
| Appr. for VFD: | CE, CULUS, C-TICK |
| Pressure sensor: | N |
| Others: | |
| Minimum efficiency index, MEI \geq : | 0.44 |
| Net weight: | 547 kg |
| Gross weight: | 628 kg |
| Shipping volume: | 1.6 m ³ |
| Country of origin: | HU |
| Custom tariff no.: | 84137051 |
| Language on pump nameplate: | GB |

On request NBE 80-400/397 AIAF2AESBQQERW3 50 Hz



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

On request NBE 80-400/397 AIAF2AESBQQERW3 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.

