

# Submittal Data

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

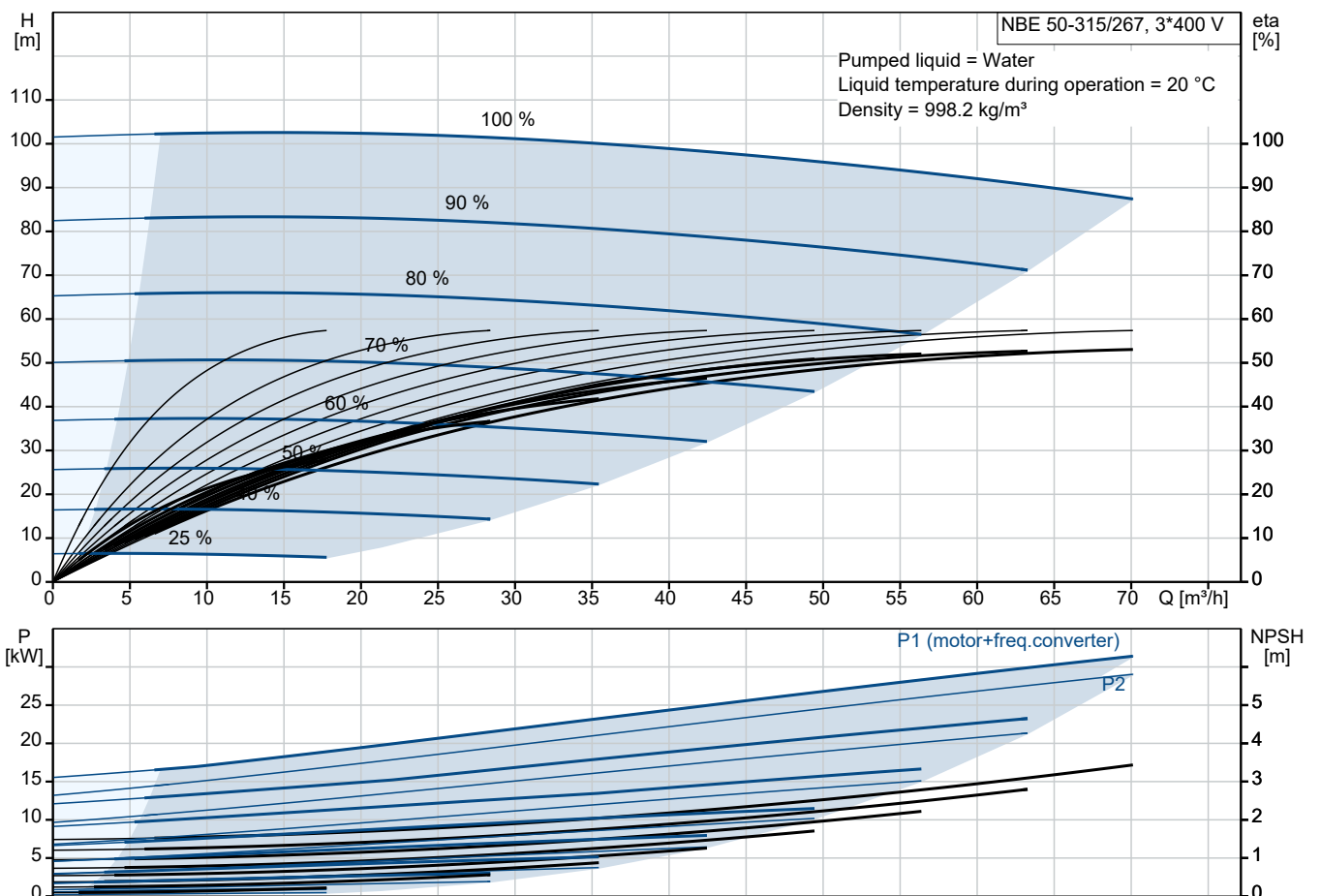


## NBE 50-315/267 AIAF2AESBQQERW1

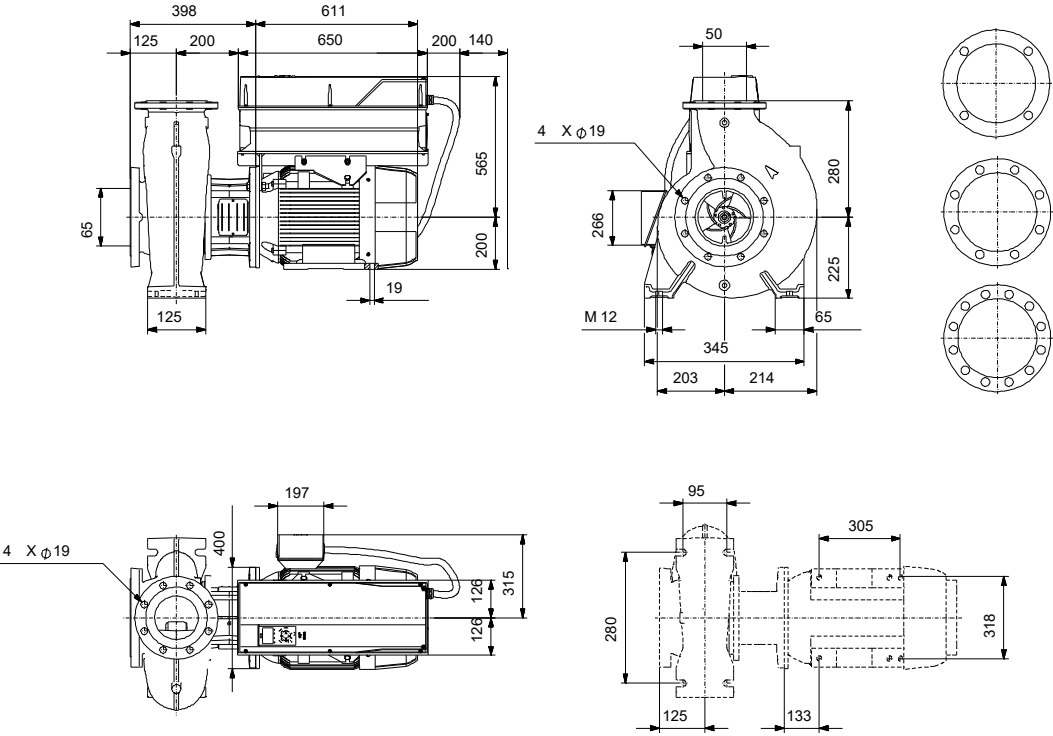
End-suction close-coupled pumps according to EN733 with frequency-controlled motors.

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: 94.5 %                    |



# 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 50-315/267 AIAF2AESBQQERW1



Note! Product picture may differ from actual product

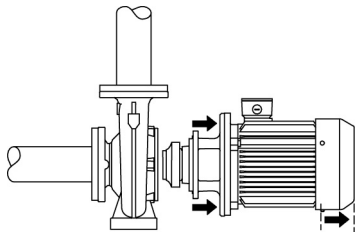
Product No.: On request

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 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.

**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: 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

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: 2955 rpm  
 Rated flow: 70.1 m<sup>3</sup>/h  
 Rated head: 87.32 m  
 Actual impeller diameter: 267 mm  
 Nominal impeller diameter: 315  
 Shaft seal arrangement: Single  
 Code for shaft seal: BQQE  
 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  
 AISI 304

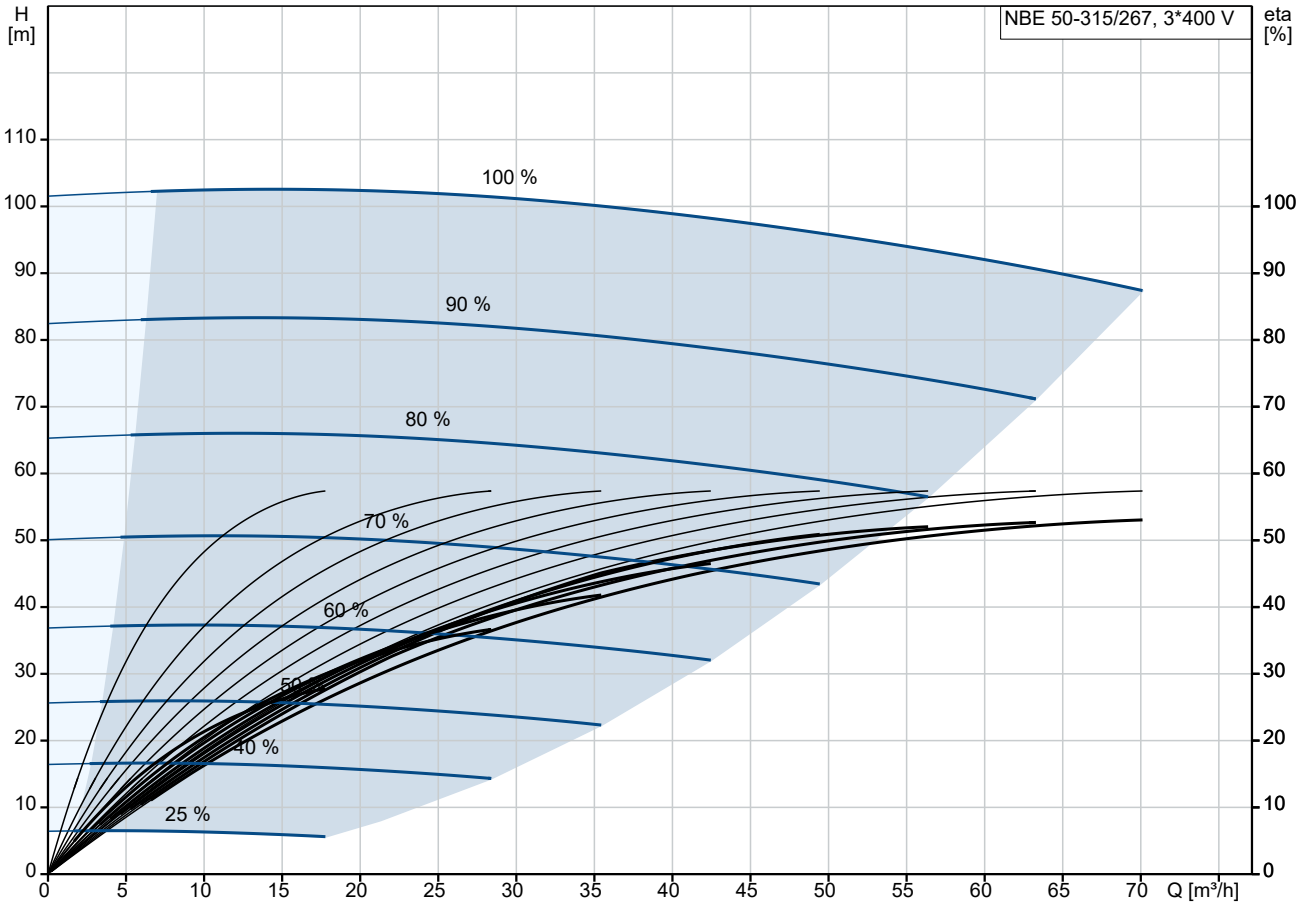
Installation:

Range of ambient temperature: -10 .. 50 °C  
 Maximum operating pressure: 16 bar  
 Pipe connection standard: EN 1092-2  
 Size of inlet connection: DN 65  
 Size of outlet connection: DN 50  
 Pressure rating for connection: PN 16  
 Bearing lubrication: Grease  
 Pump housing with feet: Yes

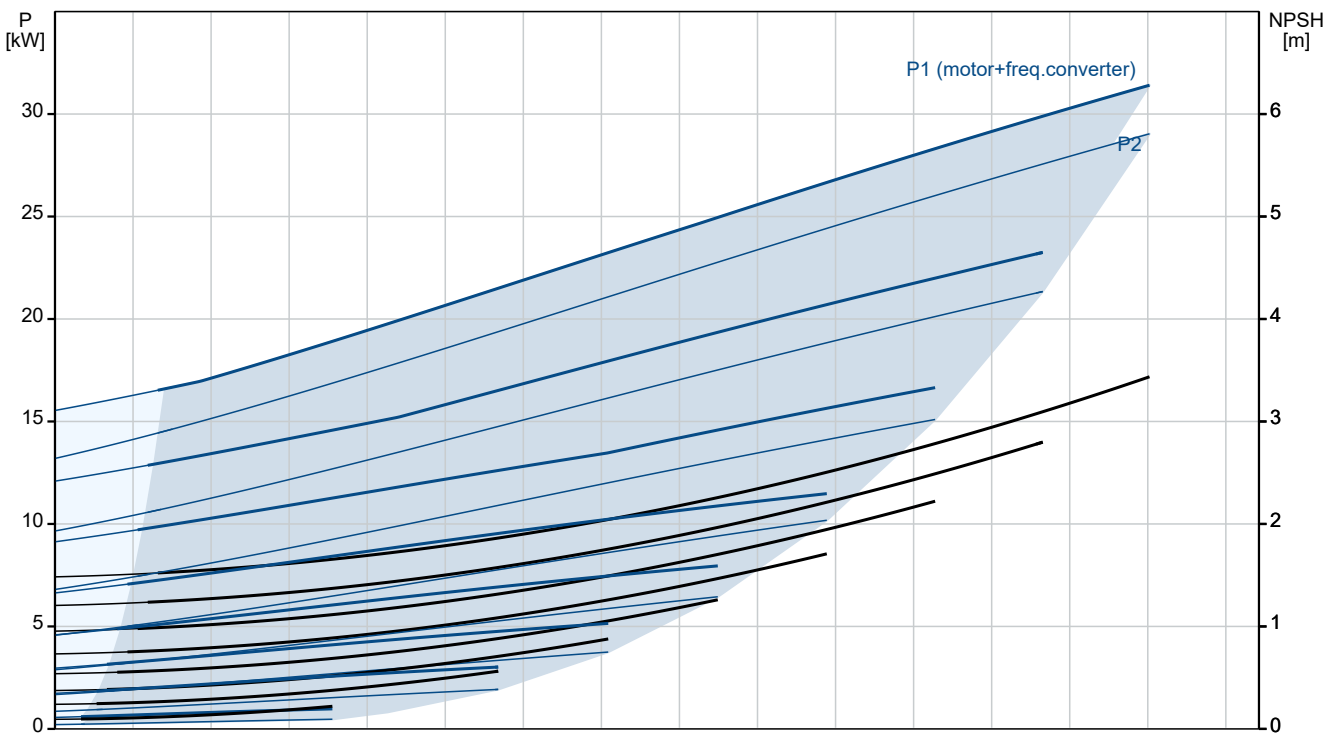
**Qty. Description**

|   |                                  |                         |
|---|----------------------------------|-------------------------|
| 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:                   | 54/31.5 A               |
|   | Starting current:                | 790 %                   |
|   | Cos phi - power factor:          | 0.85                    |
|   | Rated speed:                     | 2955 rpm                |
|   | IE efficiency:                   | IE4 94,5%               |
|   | IE Efficiency class:             | IE4                     |
|   | Motor efficiency at full load:   | 94.5 %                  |
|   | Motor efficiency at 3/4 load:    | 94.8 %                  |
|   | Motor efficiency at 1/2 load:    | 94.4 %                  |
|   | Number of poles:                 | 2                       |
|   | Enclosure class (IEC 34-5):      | IP55                    |
|   | Insulation class (IEC 85):       | F                       |
|   | Motor No:                        | 92779349                |
|   | Bearing insulation type N-end:   | COATED RING             |
|   | Others:                          |                         |
|   | Minimum efficiency index, MEI ≥: | 0.56                    |
|   | Net weight:                      | 373 kg                  |
|   | Gross weight:                    | 454 kg                  |
|   | Shipping volume:                 | 1.6 m <sup>3</sup>      |
|   | Country of origin:               | HU                      |
|   | Custom tariff no.:               | 84137051                |
|   | Language on pump nameplate:      | GB                      |

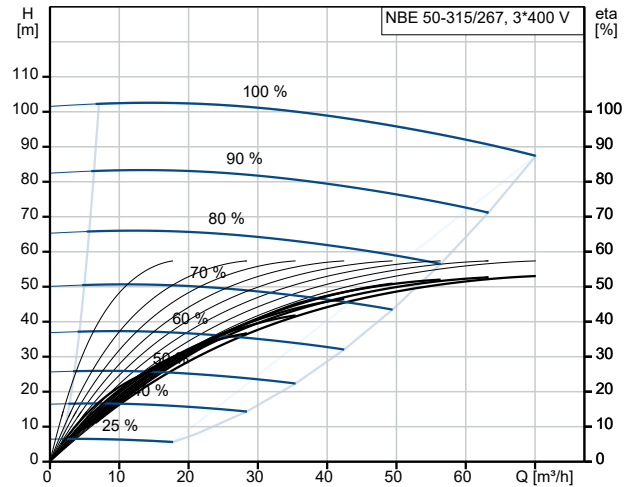
## On request NBE 50-315/267 AIAF2AESBQQERW1 50 Hz



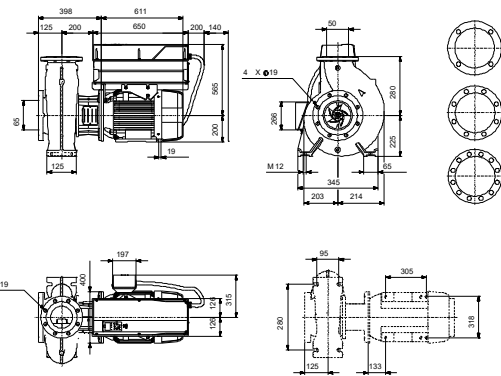
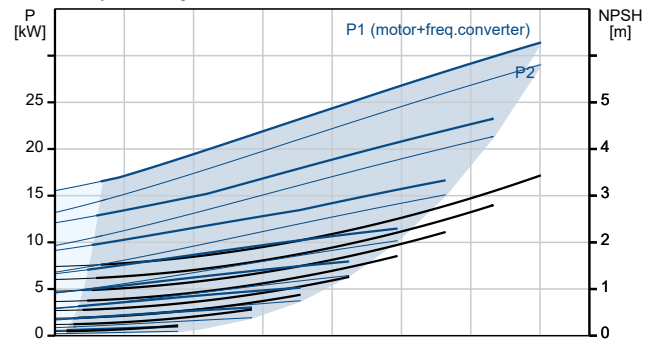
Pumped liquid = Water  
Liquid temperature during operation = 20 °C  
Density = 998.2 kg/m³



| Description                              | Value                             |
|--|-----------------------------------|
| <b>General information:</b>              |                                   |
| Product name:                            | NBE 50-315/267<br>AIAF2AESBQQERW1 |
| Product No:                              | On request                        |
| EAN number:                              | On request                        |
| <b>Technical:</b>                        |                                   |
| Pump speed on which pump data are based: | 2955 rpm                          |
| Rated flow:                              | 70.1 m <sup>3</sup> /h            |
| Rated head:                              | 87.32 m                           |
| Actual impeller diameter:                | 267 mm                            |
| Nominal impeller diameter:               | 315                               |
| Shaft seal arrangement:                  | Single                            |
| Shaft diameter:                          | 32 mm                             |
| Code for shaft seal:                     | BQQE                              |
| Curve tolerance:                         | ISO9906:2012 3B                   |
| Pump version:                            | A                                 |
| Bearing design:                          | Standard                          |
| <b>Materials:</b>                        |                                   |
| 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                          |
| <b>Installation:</b>                     |                                   |
| Range of ambient temperature:            | -10 .. 50 °C                      |
| Maximum operating pressure:              | 16 bar                            |
| Pipe connection standard:                | EN 1092-2                         |
| Size of inlet connection:                | DN 65                             |
| Size of outlet connection:               | DN 50                             |
| Pressure rating for connection:          | PN 16                             |
| Bearing lubrication:                     | Grease                            |
| Pump housing with feet:                  | Yes                               |
| Support block (Yes/No):                  | N                                 |
| 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:                        | 30 kW                             |
| Mains frequency:                         | 50 Hz                             |
| Rated voltage:                           | 3 x 380-420D/660-725Y V           |
| Rated current:                           | 54/31.5 A                         |
| Starting current:                        | 790 %                             |
| Cos phi - power factor:                  | 0.85                              |
| Rated speed:                             | 2955 rpm                          |
| IE efficiency:                           | IE4 94,5%                         |
| IE Efficiency class:                     | IE4                               |



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





Company name:

Created by:

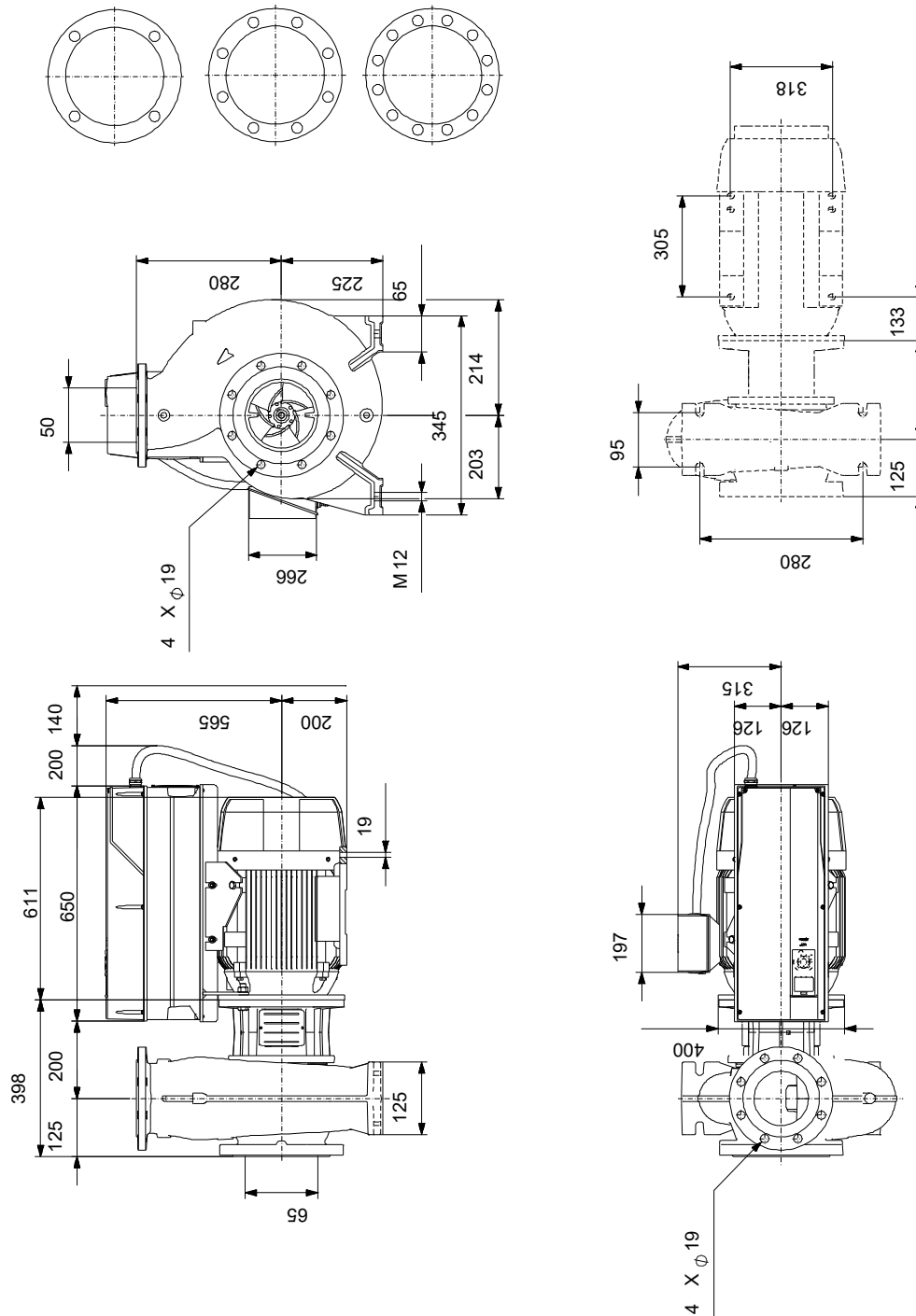
Phone:

Date:

22/10/2024

| Description                      | Value                           |
|----------------------------------|---------------------------------|
| Motor efficiency at full load:   | 94.5 %                          |
| Motor efficiency at 3/4 load:    | 94.8 %                          |
| Motor efficiency at 1/2 load:    | 94.4 %                          |
| Number of poles:                 | 2                               |
| Enclosure class (IEC 34-5):      | IP55                            |
| Insulation class (IEC 85):       | F                               |
| Built-in motor protection:       | PTC                             |
| Motor No:                        | 92779349                        |
| Mount. design. acc. IEC 34-7:    | IM B35                          |
| Bearing insulation type N-end:   | COATED RING                     |
| <b>Controls:</b>                 |                                 |
| VFD product number:              | 99616823                        |
| Frequency converter:             | Built-in                        |
| Type of frequency converter:     | CUE 3X380-500V IP55 RUG<br>30KW |
| Appr. for VFD:                   | CE, CULUS, C-TICK               |
| Pressure sensor:                 | N                               |
| <b>Others:</b>                   |                                 |
| Minimum efficiency index, MEI ≥: | 0.56                            |
| Net weight:                      | 373 kg                          |
| Gross weight:                    | 454 kg                          |
| Shipping volume:                 | 1.6 m <sup>3</sup>              |
| Country of origin:               | HU                              |
| Custom tariff no.:               | 84137051                        |
| Language on pump nameplate:      | GB                              |

## On request NBE 50-315/267 AIAF2AESBQQERW1 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 50-315/267 AIAF2AESBQQERW1 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.

