

Submittal Data

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

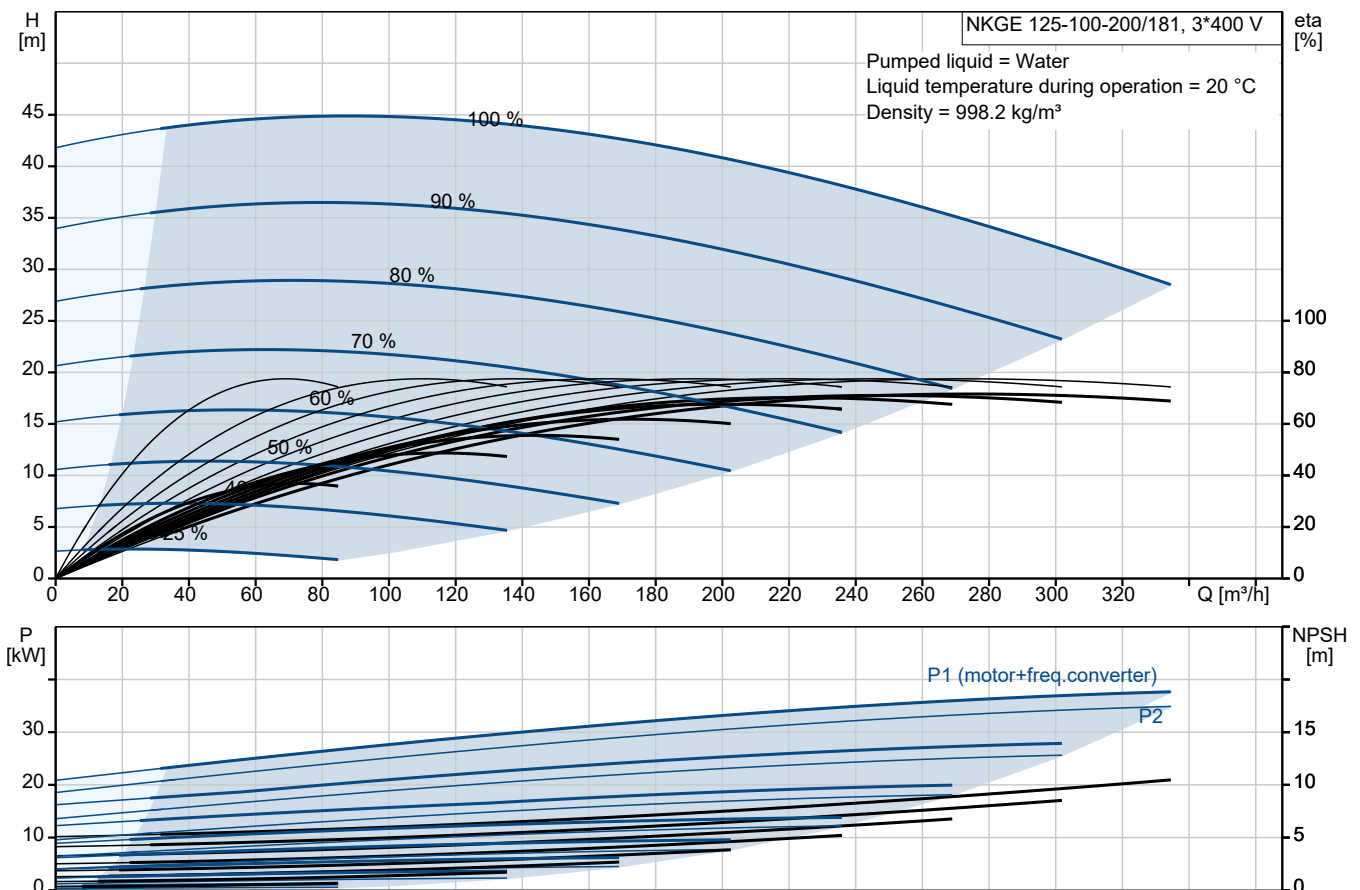
NKGE 125-100-200/181 AIA1F2AESBQQESW1



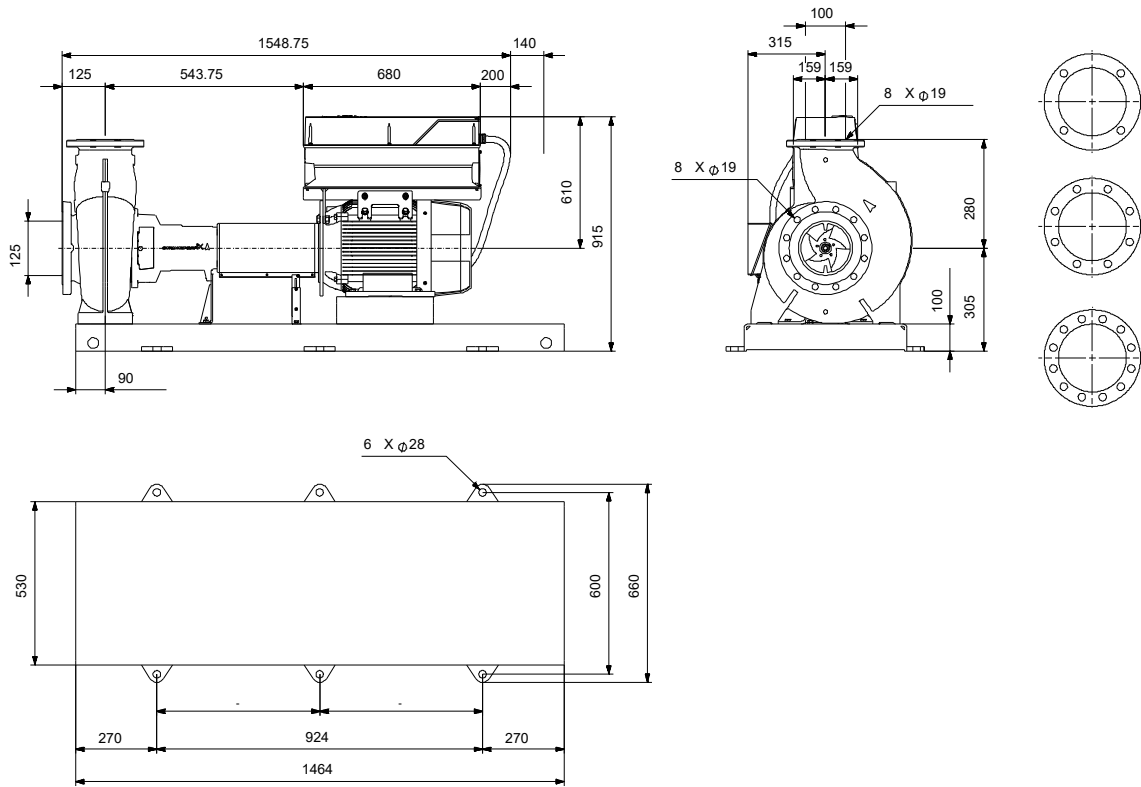
Standard pumps according to ISO 2858 with frequency-controlled motors

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 |
| | | Motor type: SIEMENS |
| | | Eta 1/1: 94.8 % |



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 NKGE 125-100-200/181 AIA1F2AESBQQESW1



Note! Product picture may differ from actual product

Product No.: On request

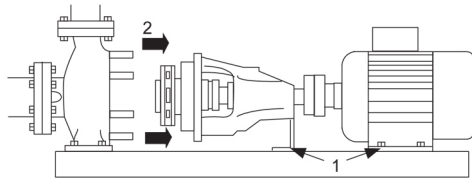
Non-self-priming, single-stage, centrifugal pump designed according to ISO 5199 with dimensions and rated performance according to ISO 2858. Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, a radial discharge port and horizontal shaft. It is of the back pull-out design enabling removal of the motor, coupling, bearing bracket and impeller without disturbing the pump housing or pipework.

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

The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

Pump and motor are mounted on a common steel base frame in accordance with ISO 3661. The back pull-out design makes it possible to service the pump when the pump housing is still connected to the inlet and discharge pipes.

- 1) Remove the bolts in the bearing bracket support foot and motor foot.
- 2) Remove the bearing bracket and the motor from the pump housing.



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 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)

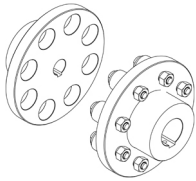
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The shaft is made of stainless steel and has a diameter of 32 mm where the coupling is mounted.

The pump uses a standard coupling between the pump and motor shaft.

Qty. Description

1



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.

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: 99616824
 Frequency converter: Built-in
 Type of frequency converter: CUE 3X380-500V IP55 RUG 37KW
 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/m³

Technical:

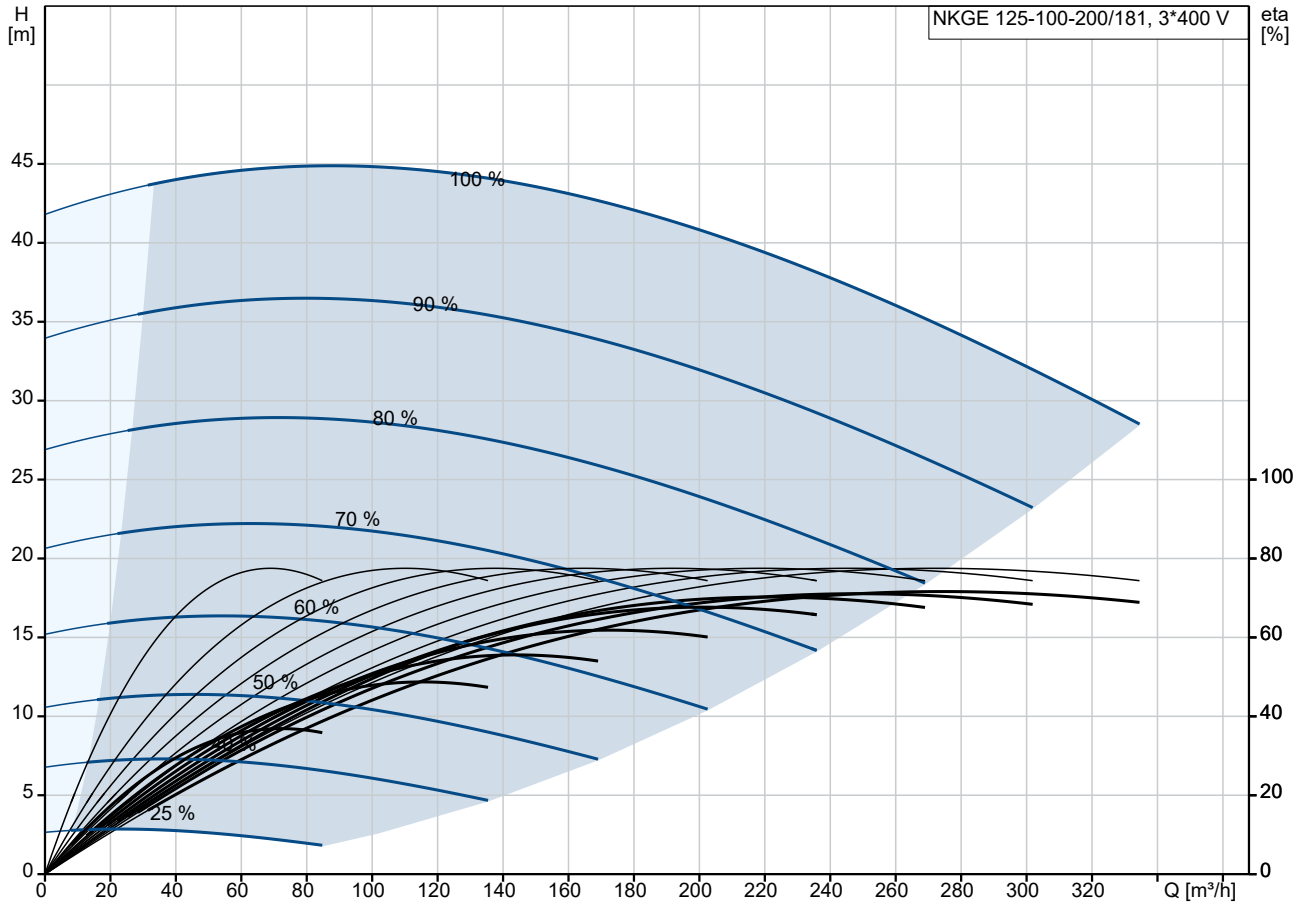
Pump speed on which pump data are based: 2955 rpm
 Rated flow: 284.8 m³/h
 Pump with motor (Yes/No): Y
 Rated head: 33.54 m
 Actual impeller diameter: 181 mm
 Nominal impeller diameter: 200
 Type of impeller: Standard
 Code for shaft seal: BQQE
 Mechanical seal type: Single
 Curve tolerance: ISO9906:2012 3B
 Bearing design: Standard

Materials:

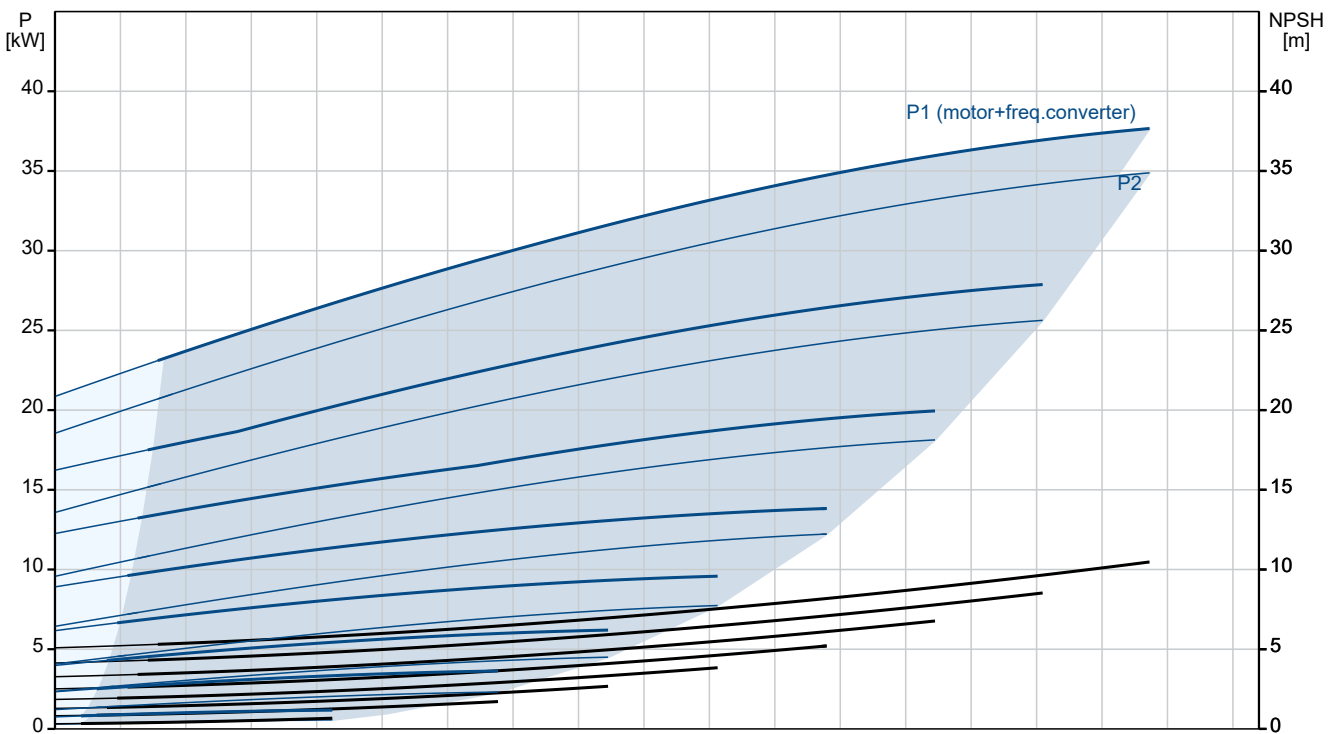
Pump housing: Cast iron

| Qty. | Description |
|------|---|
| 1 | <p>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</p> <p>Installation: Range of ambient temperature: -10 .. 50 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 125 Size of outlet connection: DN 100 Pressure rating for connection: PN 16 Coupling type: Flexible w/o spacer Base frame design: EN/ISO Code for base frame: 8 ST Grouting (Yes/No): N</p> <p>Electrical data: Motor type: SIEMENS Rated power - P2: 37 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 64/37 A Starting current: 780 % Cos phi - power factor: 0.88 Rated speed: 2955 rpm IE efficiency: IE4 94,8% IE Efficiency class: IE4 Motor efficiency at full load: 94.8 % Motor efficiency at 3/4 load: 95.1 % Motor efficiency at 1/2 load: 94.9 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 92779387 Bearing insulation type N-end: COATED RING</p> <p>Others: Minimum efficiency index, MEI ≥: 0.62 Net weight: 587 kg Gross weight: 643 kg Shipping volume: 1.68 m³ Country of origin: HU Custom tariff no.: 84137059 Language on pump nameplate: GB</p> |

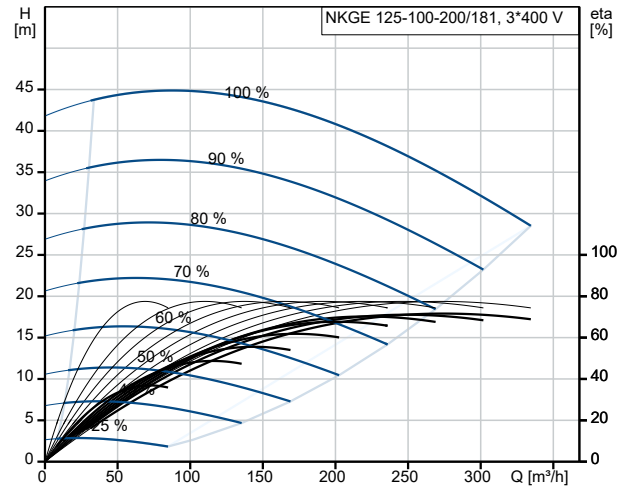
On request NKGE 125-100-200/181 AIA1F2AESBQQESW1 50 Hz



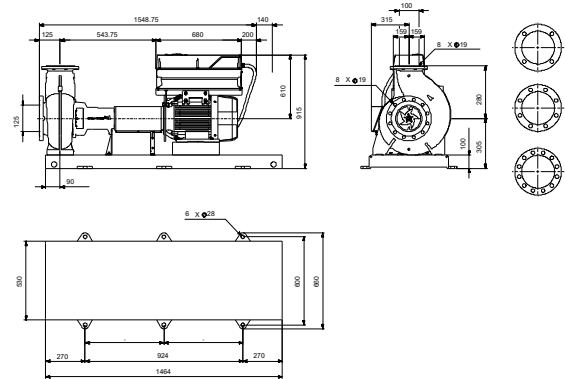
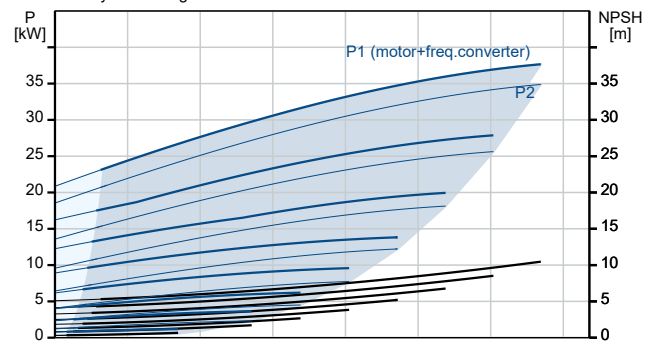
Pumped liquid = Water
 Liquid temperature during operation = 20 °C
 Density = 998.2 kg/m³



| Description | Value |
|--|--|
| General information: | |
| Product name: | NKGE 125-100-200/181 AIA1F2AESBQQESW1 |
| Product No: | On request |
| EAN number: | On request |
| Technical: | |
| Pump speed on which pump data are based: | 2955 rpm |
| Rated flow: | 284.8 m ³ /h |
| Pump with motor (Yes/No): | Y |
| Rated head: | 33.54 m |
| Actual impeller diameter: | 181 mm |
| Nominal impeller diameter: | 200 |
| Type of impeller: | Standard |
| Shaft diameter: | 32 mm |
| Code for shaft seal: | BQQE |
| Mechanical seal type: | Single |
| Curve tolerance: | ISO9906:2012 3B |
| Pump version: | A1 |
| 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 |
| Type of inlet connection: | DIN |
| Type of outlet connection: | DIN |
| Size of inlet connection: | DN 125 |
| Size of outlet connection: | DN 100 |
| Pressure rating for connection: | PN 16 |
| Coupling type: | Flexible w/o spacer |
| Base frame design: | EN/ISO |
| Code for base frame: | 8 ST |
| Grouting (Yes/No): | N |
| Connect code: | F |
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | -25 .. 120 °C |
| Selected liquid temperature: | 20 °C |
| Density: | 998.2 kg/m ³ |
| Electrical data: | |
| Motor type: | SIEMENS |
| Rated power - P2: | 37 kW |
| Mains frequency: | 50 Hz |
| Rated voltage: | 3 x 380-420D/660-725Y V |



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





Company name:

Created by:

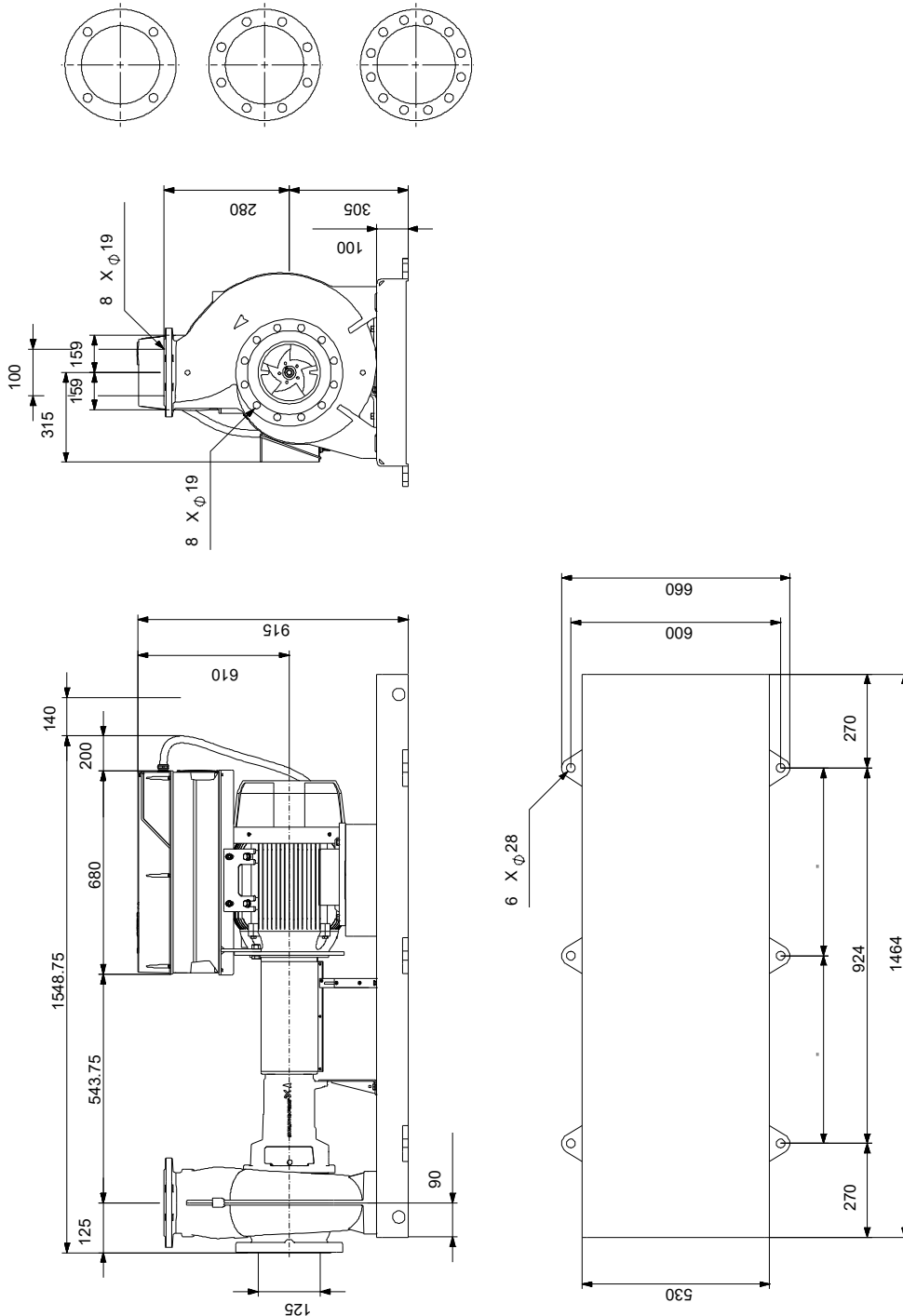
Phone:

Date:

23/10/2024

| Description | Value |
|--|---------------------------------|
| Rated current: | 64/37 A |
| Starting current: | 780 % |
| Cos phi - power factor: | 0.88 |
| Rated speed: | 2955 rpm |
| IE efficiency: | IE4 94,8% |
| IE Efficiency class: | IE4 |
| Motor efficiency at full load: | 94.8 % |
| Motor efficiency at 3/4 load: | 95.1 % |
| Motor efficiency at 1/2 load: | 94.9 % |
| Number of poles: | 2 |
| Enclosure class (IEC 34-5): | IP55 |
| Insulation class (IEC 85): | F |
| Built-in motor protection: | PTC |
| Motor No: | 92779387 |
| Bearing insulation type N-end: | COATED RING |
| Controls: | |
| VFD product number: | 99616824 |
| Frequency converter: | Built-in |
| Type of frequency converter: | CUE 3X380-500V IP55 RUG 37KW |
| Appr. for VFD: | CE, CULUS, C-TICK |
| Pressure sensor: | N |
| Others: | |
| Minimum efficiency index, MEI \geq : | 0.62 |
| Net weight: | 587 kg |
| Gross weight: | 643 kg |
| Shipping volume: | 1.68 m ³ |
| Country of origin: | HU |
| Custom tariff no.: | 84137059 |
| Language on pump nameplate: | GB |

On request NKGE 125-100-200/181 AIA1F2AESBQQESW1 50 Hz



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

On request NKGE 125-100-200/181 AIA1F2AESBQQESW1 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.

