## Qty. | Description

## 1 NBE 32-160.1/177 AAF2AESBQQEKWB



Note! Product picture may differ from actual product

Product No.: 99101960

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, permanent-magnet synchronous motor.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

Controls:

Frequency converter: Built-in 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: 2901 rpm

Rated flow: 22.51 m³/h
Rated head: 34.12 m
Actual impeller diameter: 177 mm
Nominal impeller diameter: 160.1
Shaft seal arrangement: Single
Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B2

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

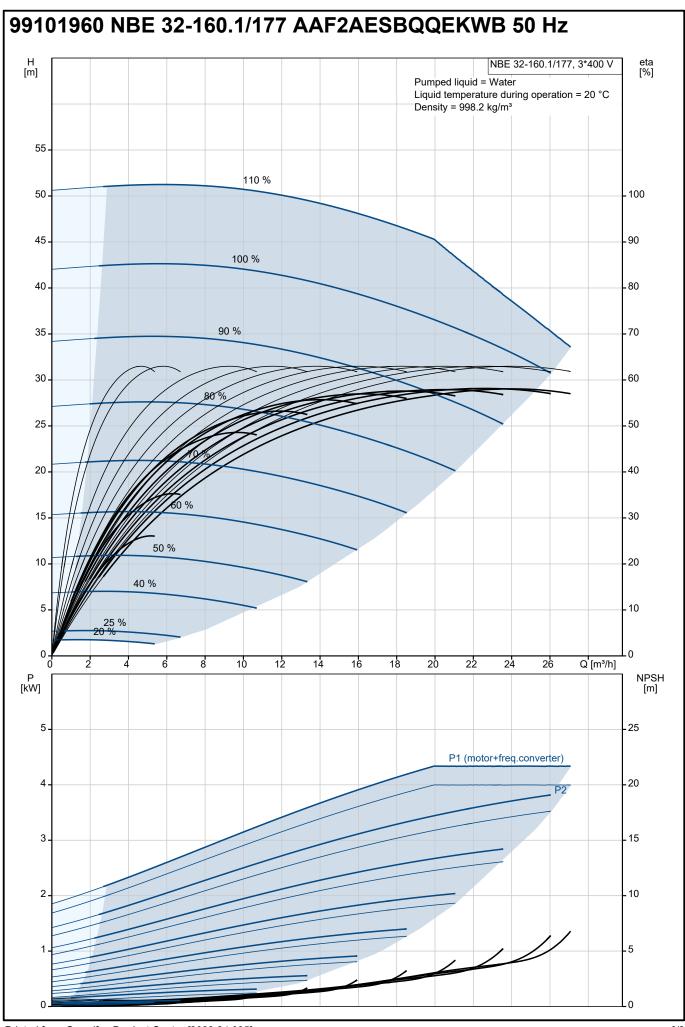
Shaft: Stainless steel

EN 1.4301 AISI 304

Installation:

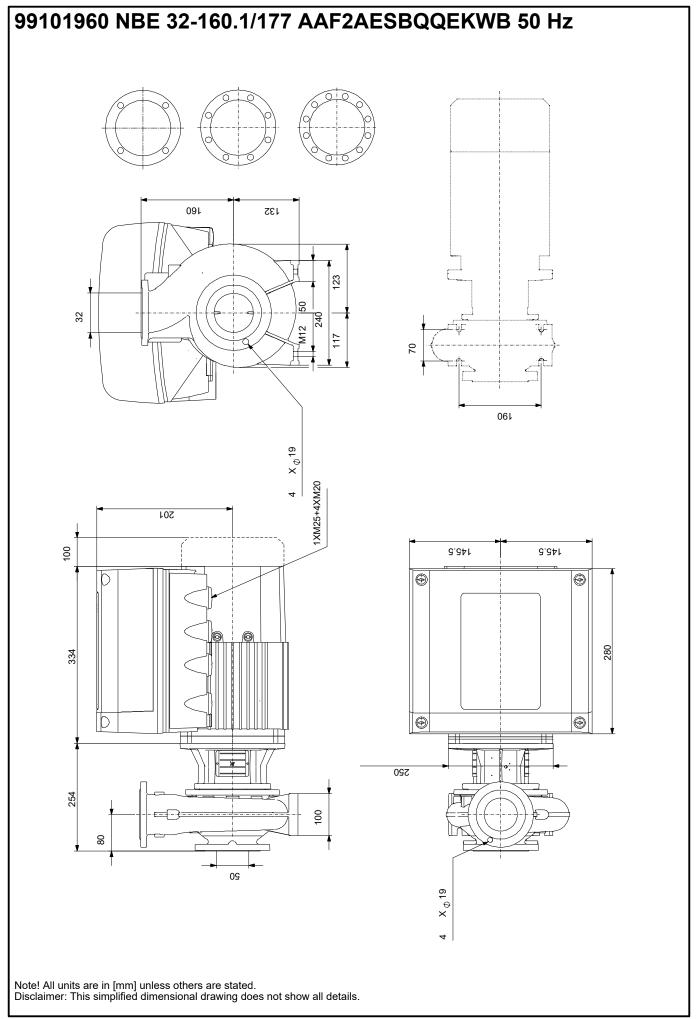
Range of ambient temperature: -20 .. 50 °C
Maximum operating pressure: 16 bar
Pipe connection standard: EN 1092-2
Size of inlet connection: DN 50
Size of outlet connection: DN 32
Pressure rating for connection: PN 16

## Qty. Description Bearing lubrication: Grease Pump housing with feet: Yes Support block (Yes/No): Ν Electrical data: IE5 IE Efficiency class: Rated power - P2: 4 kW 50 Hz Mains frequency: 3 x 380-500 V Rated voltage: Rated current: 7.60-6.20 A Cos phi - power factor: 0.92-0.87 Rated speed: 360-4000 rpm Efficiency: 92.2% Motor efficiency at full load: 92.2 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98971270 Bearing insulation type N-end: STEEL BEARING Minimum efficiency index, MEI ≥: 0.70 Net weight: 56 kg Gross weight: 66 kg Shipping volume: 0.178 m<sup>3</sup> Danish VVS No.: 386100183 Country of origin: HU Custom tariff no.: 84137051



| Description                              | Value                              | H<br>[m]               | NBE 32-160.1/177, 3*400 V  | eta<br>[%]              |
|--|------------------------------------|------------------------|--|-------------------------|
| General information:                     | value                              | - ""  _                | Pumped liquid = Water  | [70]                    |
| Product name:                            | NBE 32-160.1/177<br>AAF2AESBQQEKWB | 55 -                   | Liquid temperature during operation = 20 °C  Density = 998.2 kg/m³   |                         |
| Product No:                              | 99101960                           | 50 -                   | 110 %  | <b>-</b> 100            |
| EAN number:                              | 5712606792108                      |                        |  |                         |
| Technical:                               |                                    | 45                     | 100 %  | - 90                    |
| Pump speed on which pump data are based: | 2901 rpm                           | 40                     |  | - 80                    |
| Rated flow:                              | 22.51 m³/h                         | 35 -                   | 90 %   | <b>-</b> 70             |
| Rated head:                              | 34.12 m                            | 30                     |  | - 60                    |
| Actual impeller diameter:                | 177 mm                             | 30 -                   | 80%  | - 00                    |
| Nominal impeller diameter:               | 160.1                              | 25 -                   |  | - 50                    |
| Shaft seal arrangement:                  | Single                             | 20 -                   |  | - 40                    |
| Shaft diameter:                          | 24 mm                              | 20 1                   | ///////////////////////////////////////  | -40                     |
| Code for shaft seal:                     | BQQE                               | 15 🚽 🦷                 | // J/J/J/50 %  | - 30                    |
| Curve tolerance:                         | ISO9906:2012 3B2                   | - <sub>40</sub>     // | 50 %   | 20                      |
| Pump version:                            | A                                  | 10                     | 40 %   | - 20                    |
| Bearing design:                          | Standard                           | 5 -                    | 25 %   | <b>-</b> 10             |
| Materials:                               |                                    |                        | 265%   |                         |
| Pump housing:                            | Cast iron                          | _ 0 <del> </del>       | 5 10 15 20 Q [m³/h]  | -0                      |
| Pump housing:                            | EN-GJL-250                         | P                      |  | NPSH                    |
| Pump housing:                            | ASTM class 35                      | [kW]                   |  | [m]<br>- 25             |
| Wear ring:                               | Brass                              | _ 3                    | P1 (motor+freq.converter)  | - 23                    |
| Impeller:                                | Cast iron                          | 4 -                    |  | - 20                    |
| Impeller:                                | EN-GJL-200                         | _                      | 182  |                         |
| Impeller:                                | ASTM class 30                      | 3                      |  | <b>-</b> 15             |
| Internal pump house coating:             | CED                                |                        |  |                         |
| Material code:                           | A                                  | 2-                     |  | <b>-</b> 10             |
| Code for rubber:                         | E                                  |                        | //   | -5                      |
| Shaft:                                   | Stainless steel                    | - '-                   |  | - 0                     |
| Shaft:                                   | EN 1.4301                          | 0                      |  | -0                      |
| Shaft:                                   | AISI 304                           |                        |  |                         |
| Installation:                            |                                    |                        | 254 334 100  |                         |
| Range of ambient temperature:            | -20 50 °C                          | 80                     |  |                         |
| Maximum operating pressure:              | 16 bar                             | _                      |  | (+)                     |
| Pipe connection standard:                | EN 1092-2                          |                        |  |                         |
| Size of inlet connection:                | DN 50                              | - s <u>†</u> [}        |  |                         |
| Size of outlet connection:               | DN 32                              | _ ' ' ' ' ' '          |  | ( ) ( ) ( ) ( ) ( ) ( ) |
| Pressure rating for connection:          | PN 16                              |                        | 100 100M25+40M20 240   | 0000                    |
| Bearing lubrication:                     | Grease                             |                        | <del> </del>   | 0000                    |
| Pump housing with feet:                  | Yes                                |                        | 70   |                         |
| Support block (Yes/No):                  | N                                  | 4 X • 19               |  |                         |
| Connect code:                            | F2                                 | - <u>N</u>             |  |                         |
| Liquid:                                  |                                    | _ [F                   |  |                         |
| Pumped liquid:                           | Water                              |                        |  |                         |
| Liquid temperature range:                | -25 120 °C                         |                        | 280  |                         |
| Selected liquid temperature:             | 20 °C                              |                        |  |                         |
| Density:                                 | 998.2 kg/m³                        |                        |  |                         |
| Electrical data:                         |                                    |                        |  |                         |
| IE Efficiency class:                     | IE5                                | _                      |  |                         |
| Rated power - P2:                        | 4 kW                               |                        | Li Li  |                         |
| Mains frequency:                         | 50 Hz                              |                        |  |                         |
| Rated voltage:                           | 3 x 380-500 V                      |                        |  |                         |
| Rated current:                           | 7.60-6.20 A                        |                        |  |                         |
| Cos phi - power factor:                  | 0.92-0.87                          |                        | 11 000   |                         |
| Rated speed:                             | 360-4000 rpm                       |                        | 11 04025<br>12 Priorition<br>17 Priorition   |                         |
| Efficiency:                              | 92.2%                              |                        | 3 000 ml /ml /ml /ml /ml /ml /ml /ml /ml /ml   |                         |
| Motor efficiency at full load:           | 92.2 %                             |                        | 1 D0 11 LuTes 23 Gays  |                         |
| Number of poles:                         | 2                                  |                        |  |                         |
| Enclosure class (IEC 34-5):              | IP55                               | 48.17                  | 2 DH 2 3 av  |                         |
| ,  | F                                  |                        | - GAO A GENEVA A V CICKNEW A   |                         |
| Insulation class (IEC 85):               |                                    |                        |  |                         |
| · · · · · · · · · · · · · · · · · · ·    | ELEC                               |                        | 5 GCNbox B<br>3 GNO<br>55 -24 V  |                         |
| Insulation class (IEC 85):               |                                    |                        | 500ml   100ml   100m |                         |

| Description                      | Value             |  |  |
|----------------------------------|-------------------|--|--|
| Bearing insulation type N-end:   | STEEL BEARING     |  |  |
| Controls:                        |                   |  |  |
| Control panel:                   | HMI300 - Advanced |  |  |
| Function Module:                 | FM300 - Advanced  |  |  |
| Frequency converter:             | Built-in          |  |  |
| Pressure sensor:                 | N                 |  |  |
| Others:                          |                   |  |  |
| Minimum efficiency index, MEI ≥: | 0.70              |  |  |
| Net weight:                      | 56 kg             |  |  |
| Gross weight:                    | 66 kg             |  |  |
| Shipping volume:                 | 0.178 m³          |  |  |
| Danish VVS No.:                  | 386100183         |  |  |
| Country of origin:               | HU                |  |  |
| Custom tariff no.:               | 84137051          |  |  |



## 99101960 NBE 32-160.1/177 AAF2AESBQQEKWB 50 Hz L1 L2 L2 L3 PΕ NC C1 NO NC C2 NO GND 18 DI4/OC2 Pt100/1000 19 Pt100/1000 17 12 AO GND AI3 DI2 21 LiqTec GND 20 22 LiqTec +24 V\* OC GND DI3/OC1 10 AI1 +24 V\*/5 V\* +24 V\* 2 DI1 5 +5 V 6 GND GENIbus A **GENIbus** Y GENIbus B GND +24 V 15 +24 V 26 +5 V GND 25 GDS TX 24 GDS RX +5 V\* Al2 Note! All units are in [mm] unless others are stated.

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