

Qty. Description1 **NBE 65-125/144 AASF2AESBQQENWB**

Note! Product picture may differ from actual product

Product No.: [99101763](#)

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.

The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

An external sensor can be connected if controlled pump operation is required for flow, differential pressure or temperature control.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions.

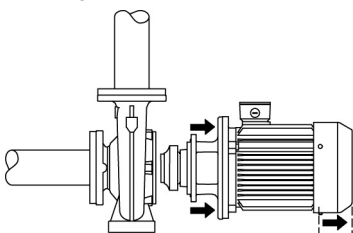
The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

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.

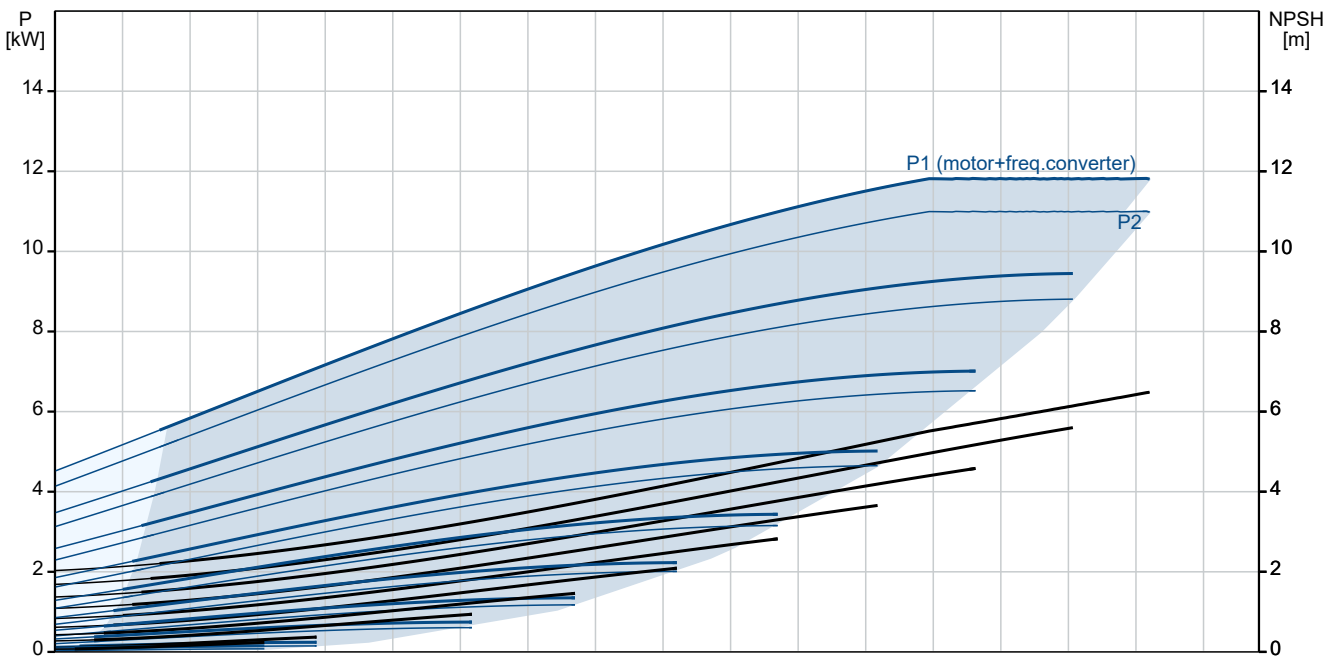
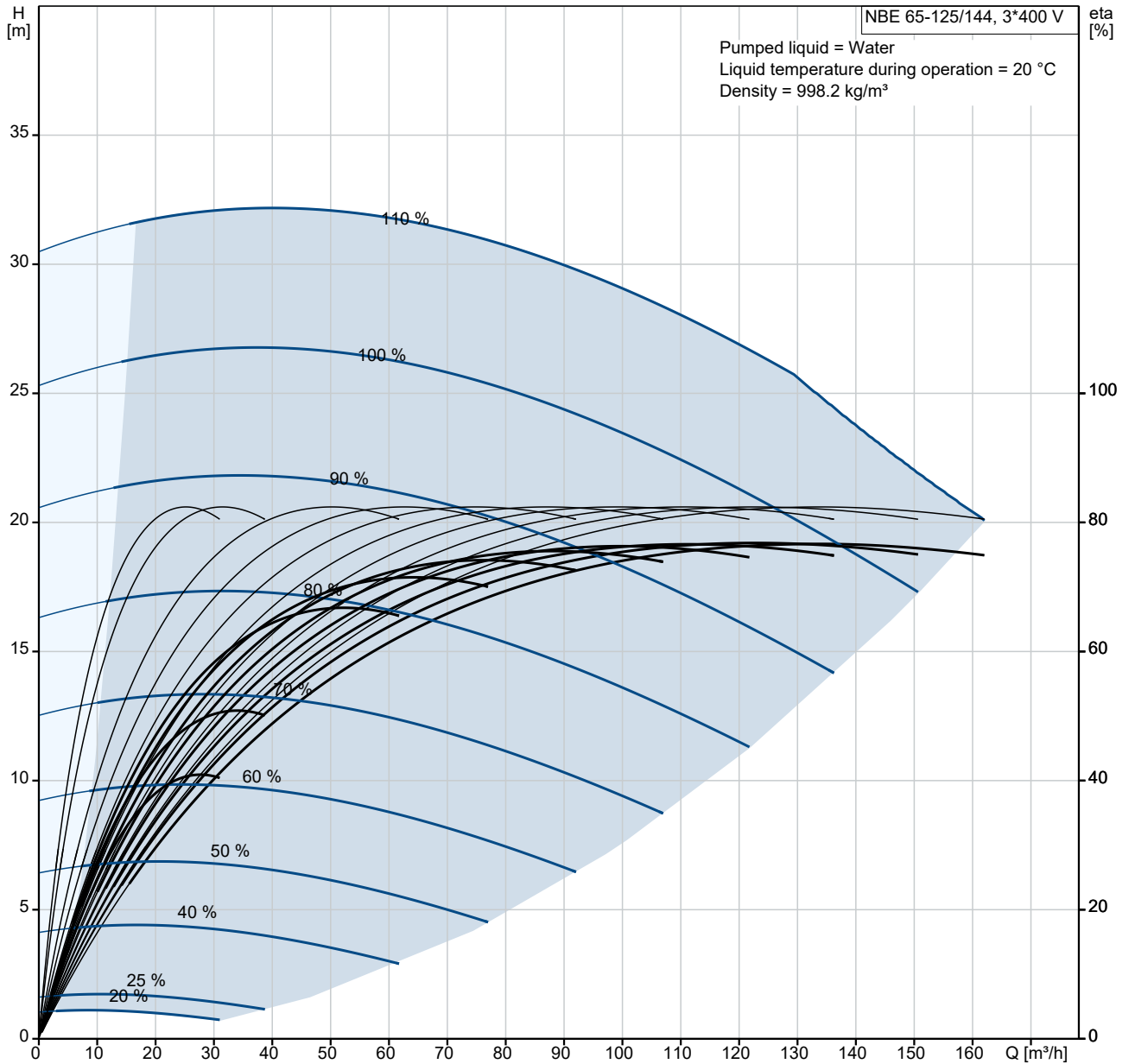
Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

Qty.	Description																																						
1	<p>This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p>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 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.</p> <p>Motor</p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p>The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <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>The terminal box holds terminals for these connections:</p> <ul style="list-style-type: none"> - one dedicated digital input - two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V - 5 V voltage supply to potentiometer and sensor - one configurable digital input or open-collector output - Grundfos Digital Sensor input and output - 24 V voltage supply for sensors - two signal-relay outputs (potential-free contacts) - GENbus connection - interface for Grundfos CIM fieldbus module. <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> <table data-bbox="204 1234 639 1290"> <tr> <td>Frequency converter:</td> <td>Built-in</td> </tr> <tr> <td>Pressure sensor:</td> <td>N</td> </tr> </table> <p>Liquid:</p> <table data-bbox="204 1357 703 1469"> <tr> <td>Pumped liquid:</td> <td>Water</td> </tr> <tr> <td>Liquid temperature range:</td> <td>-25 .. 120 °C</td> </tr> <tr> <td>Selected liquid temperature:</td> <td>20 °C</td> </tr> <tr> <td>Density:</td> <td>998.2 kg/m³</td> </tr> </table> <p>Technical:</p> <table data-bbox="204 1536 815 1794"> <tr> <td>Pump speed on which pump data are based:</td> <td>2901 rpm</td> </tr> <tr> <td>Rated flow:</td> <td>124.8 m³/h</td> </tr> <tr> <td>Rated head:</td> <td>20.41 m</td> </tr> <tr> <td>Actual impeller diameter:</td> <td>144 mm</td> </tr> <tr> <td>Nominal impeller diameter:</td> <td>125</td> </tr> <tr> <td>Shaft seal arrangement:</td> <td>Single</td> </tr> <tr> <td>Code for shaft seal:</td> <td>BQQE</td> </tr> <tr> <td>Curve tolerance:</td> <td>ISO9906:2012 3B</td> </tr> <tr> <td>Bearing design:</td> <td>Standard</td> </tr> </table> <p>Materials:</p> <table data-bbox="204 1861 727 2094"> <tr> <td>Pump housing:</td> <td>Cast iron EN-GJL-250 ASTM class 35</td> </tr> <tr> <td>Wear ring:</td> <td>Brass</td> </tr> <tr> <td>Impeller:</td> <td>Cast iron EN-GJL-200 ASTM class 30</td> </tr> <tr> <td>Internal pump house coating:</td> <td>CED</td> </tr> </table>	Frequency converter:	Built-in	Pressure sensor:	N	Pumped liquid:	Water	Liquid temperature range:	-25 .. 120 °C	Selected liquid temperature:	20 °C	Density:	998.2 kg/m ³	Pump speed on which pump data are based:	2901 rpm	Rated flow:	124.8 m ³ /h	Rated head:	20.41 m	Actual impeller diameter:	144 mm	Nominal impeller diameter:	125	Shaft seal arrangement:	Single	Code for shaft seal:	BQQE	Curve tolerance:	ISO9906:2012 3B	Bearing design:	Standard	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
Frequency converter:	Built-in																																						
Pressure sensor:	N																																						
Pumped liquid:	Water																																						
Liquid temperature range:	-25 .. 120 °C																																						
Selected liquid temperature:	20 °C																																						
Density:	998.2 kg/m ³																																						
Pump speed on which pump data are based:	2901 rpm																																						
Rated flow:	124.8 m ³ /h																																						
Rated head:	20.41 m																																						
Actual impeller diameter:	144 mm																																						
Nominal impeller diameter:	125																																						
Shaft seal arrangement:	Single																																						
Code for shaft seal:	BQQE																																						
Curve tolerance:	ISO9906:2012 3B																																						
Bearing design:	Standard																																						
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																																						

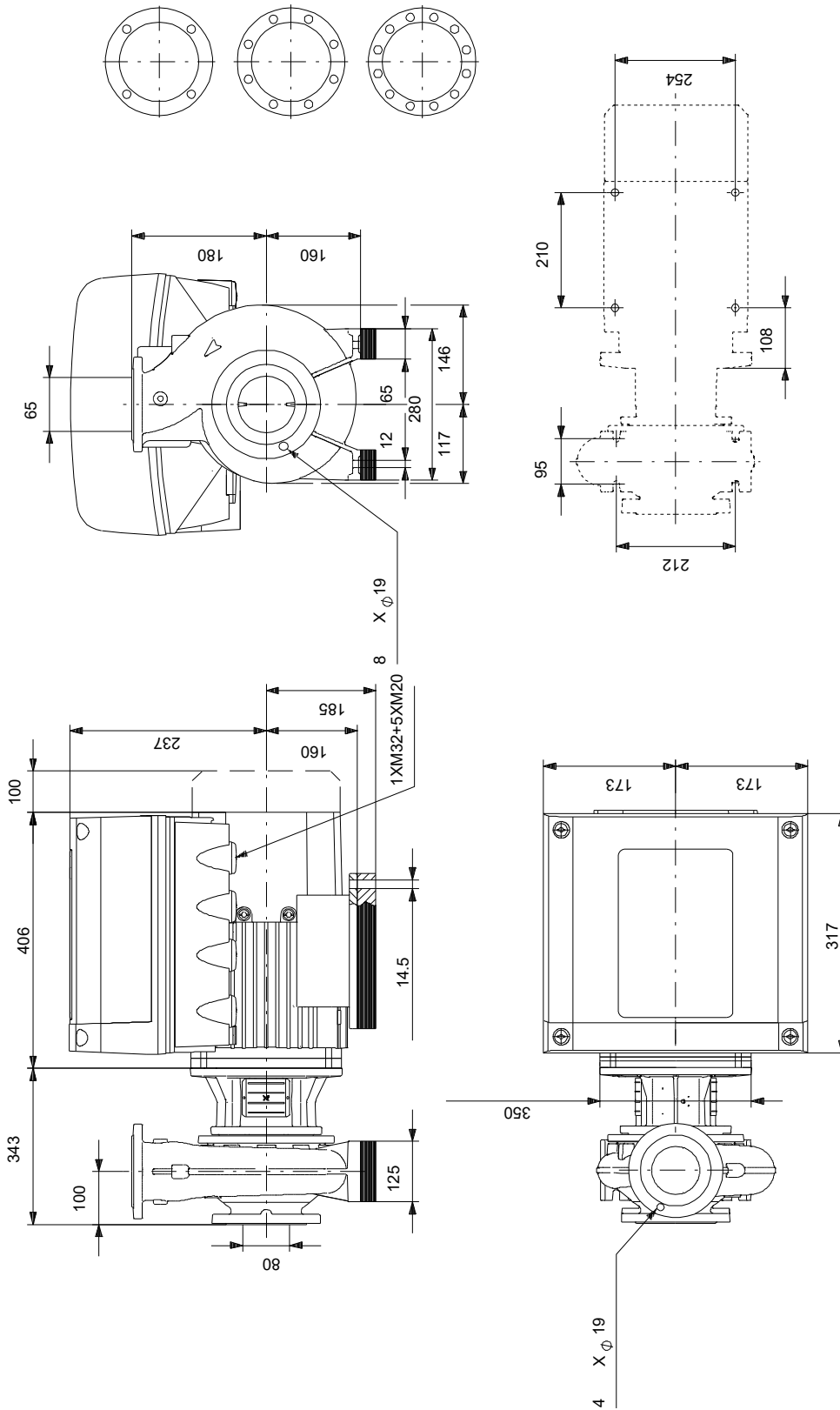
Qty.	Description
1	<p data-bbox="204 163 724 248">Shaft: Stainless steel EN 1.4301 AISI 304</p> <p data-bbox="204 282 687 577">Installation: Range of ambient temperature: -20 .. 50 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Size of inlet connection: DN 80 Size of outlet connection: DN 65 Pressure rating for connection: PN 16 Bearing lubrication: Grease Pump housing with feet: Yes Support block (Yes/No): Y</p> <p data-bbox="204 611 759 1048">Electrical data: IE Efficiency class: IE5 Rated power - P2: 11 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 20.3-16.0 A Cos phi - power factor: 0.93-0.90 Rated speed: 360-4000 rpm Efficiency: 93.1% Motor efficiency at full load: 93.1 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 99306732 Bearing insulation type N-end: STEEL BEARING</p> <p data-bbox="204 1081 687 1317">Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 116 kg Gross weight: 137 kg Shipping volume: 0.509 m³ Danish VVS No.: 386103131 Country of origin: HU Custom tariff no.: 84139100</p>

99101763 NBE 65-125/144 AASF2AESBQQENWB 50 Hz



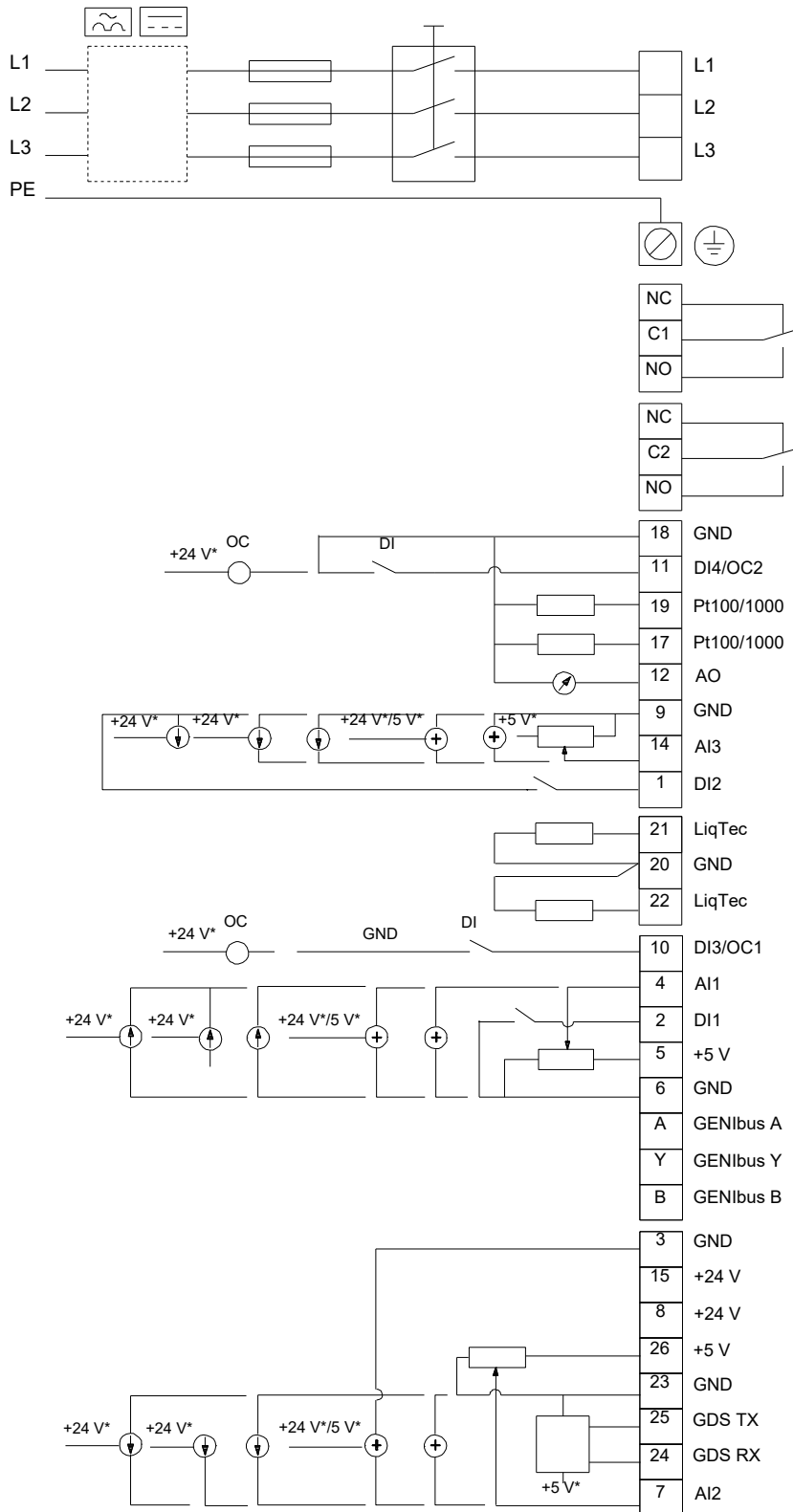
Description	Value
Bearing insulation type N-end:	STEEL BEARING
Controls:	
Control panel:	HMI300 - Advanced
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	116 kg
Gross weight:	137 kg
Shipping volume:	0.509 m ³
Danish VVS No.:	386103131
Country of origin:	HU
Custom tariff no.:	84139100

99101763 NBE 65-125/144 AASF2AESBQQENWB 50 Hz



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

99101763 NBE 65-125/144 AASF2AESBQQENWB 50 Hz



Note! All units are in [mm] unless others are stated.

