

Qty.	Description
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1	NBE 80-315/320 AASF2AESBQQEPW3
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Note! Product picture may differ from actual product

Product No.: [99150846](#)

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

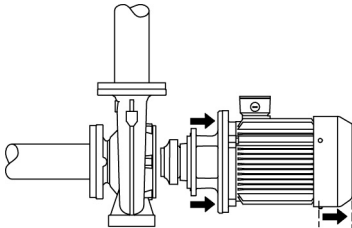
Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

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

The pump is close-coupled to a fan-cooled asynchronous motor.

The 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.

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 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.

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.

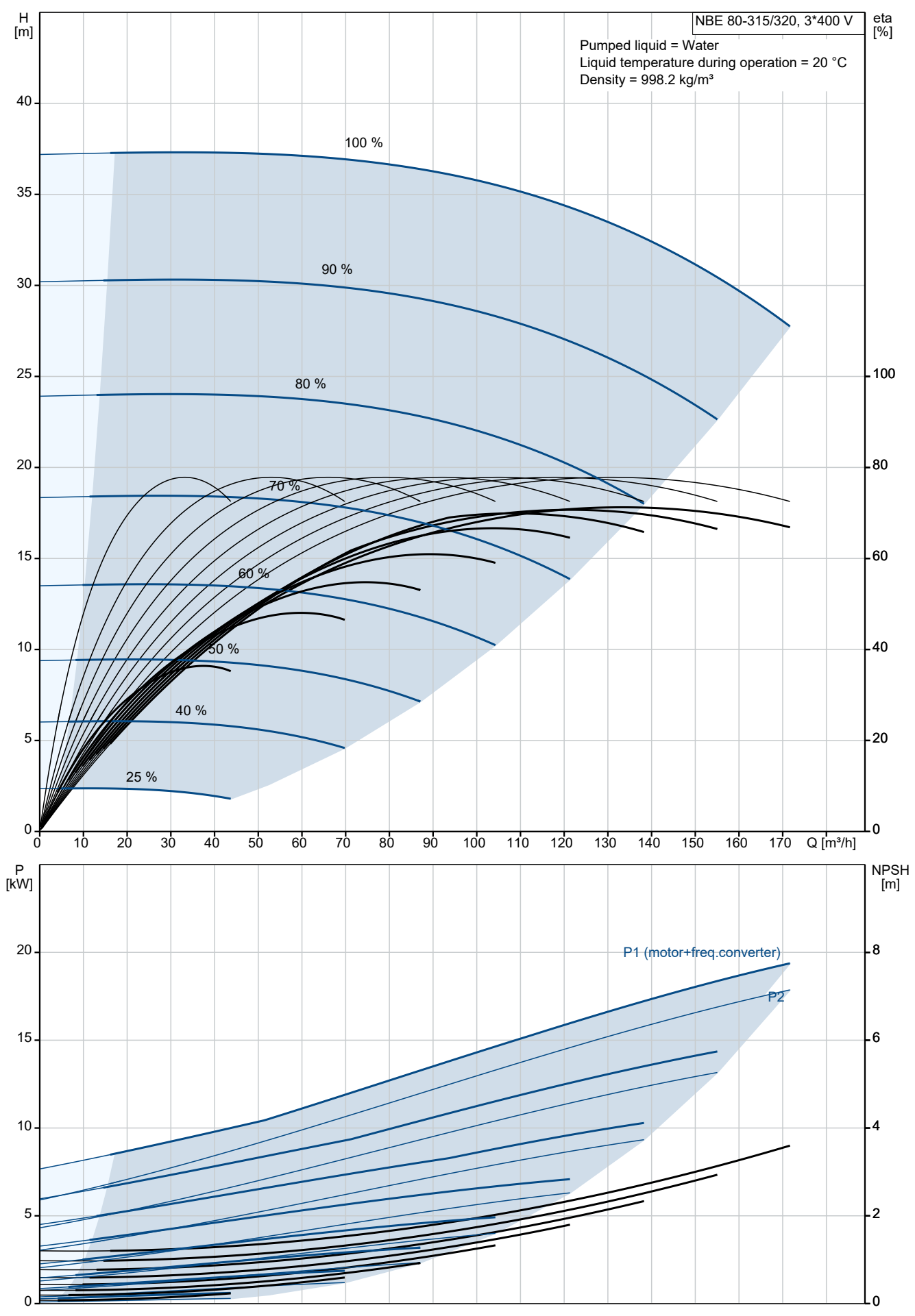
The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

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.

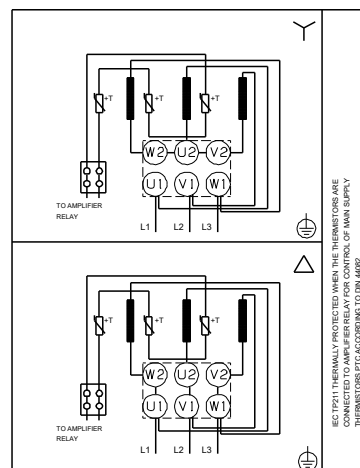
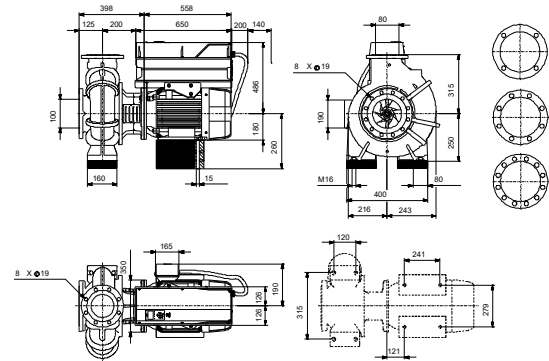
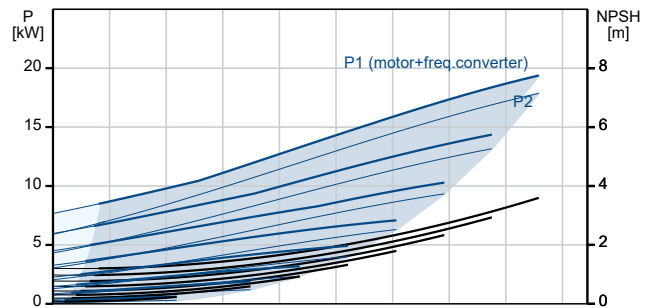
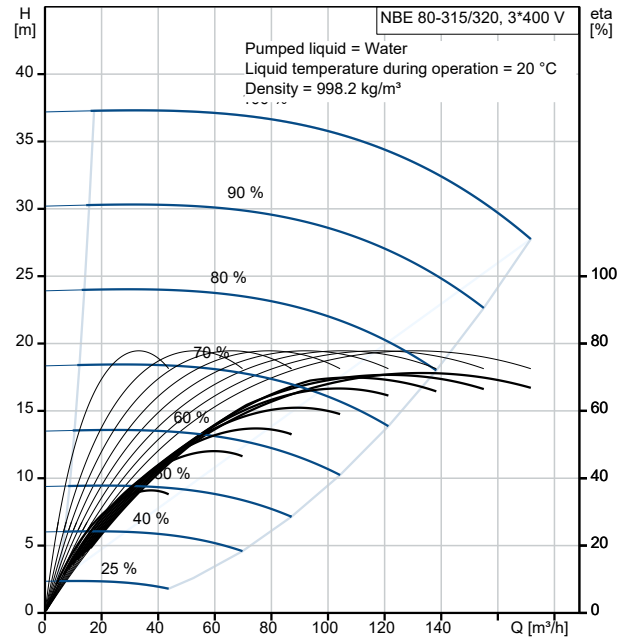
Qty.	Description
1	<p>The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.</p> <p>The motor is equipped with bearing current protection. This protects the bearings from failure due to bearing currents, which can be caused e.g. by the high-frequency switching of a variable frequency drive.</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: 99616822 Frequency converter: Built-in Type of frequency converter: CUE 3X380-500V IP55 RUG 22KW 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: 1470 rpm Rated flow: 138.2 m³/h Rated head: 32.38 m Actual impeller diameter: 320 mm Nominal impeller diameter: 315 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 Support block (Yes/No): Y</p> <p>Electrical data:</p> <p>IE Efficiency class: IE4 Rated power - P2: 18.5 kW</p>

Qty.	Description
1	<p>Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 36,5-34,0/21,0-19,4 A Starting current: 820-820 % Cos phi - power factor: 0.81 Rated speed: 1470 rpm Efficiency: IE4 94,2% Motor efficiency at full load: 94.2-94.2 % Motor efficiency at 3/4 load: 94.7-94.7 % Motor efficiency at 1/2 load: 94.6-94.6 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 92582379 Bearing insulation type N-end: HYBRID BEARING</p> <p>Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 352 kg Gross weight: 433 kg Shipping volume: 1.6 m³ Country of origin: HU Custom tariff no.: 84137051</p>

99150846 NBE 80-315/320 AASF2AESBQQEPW3 50 Hz

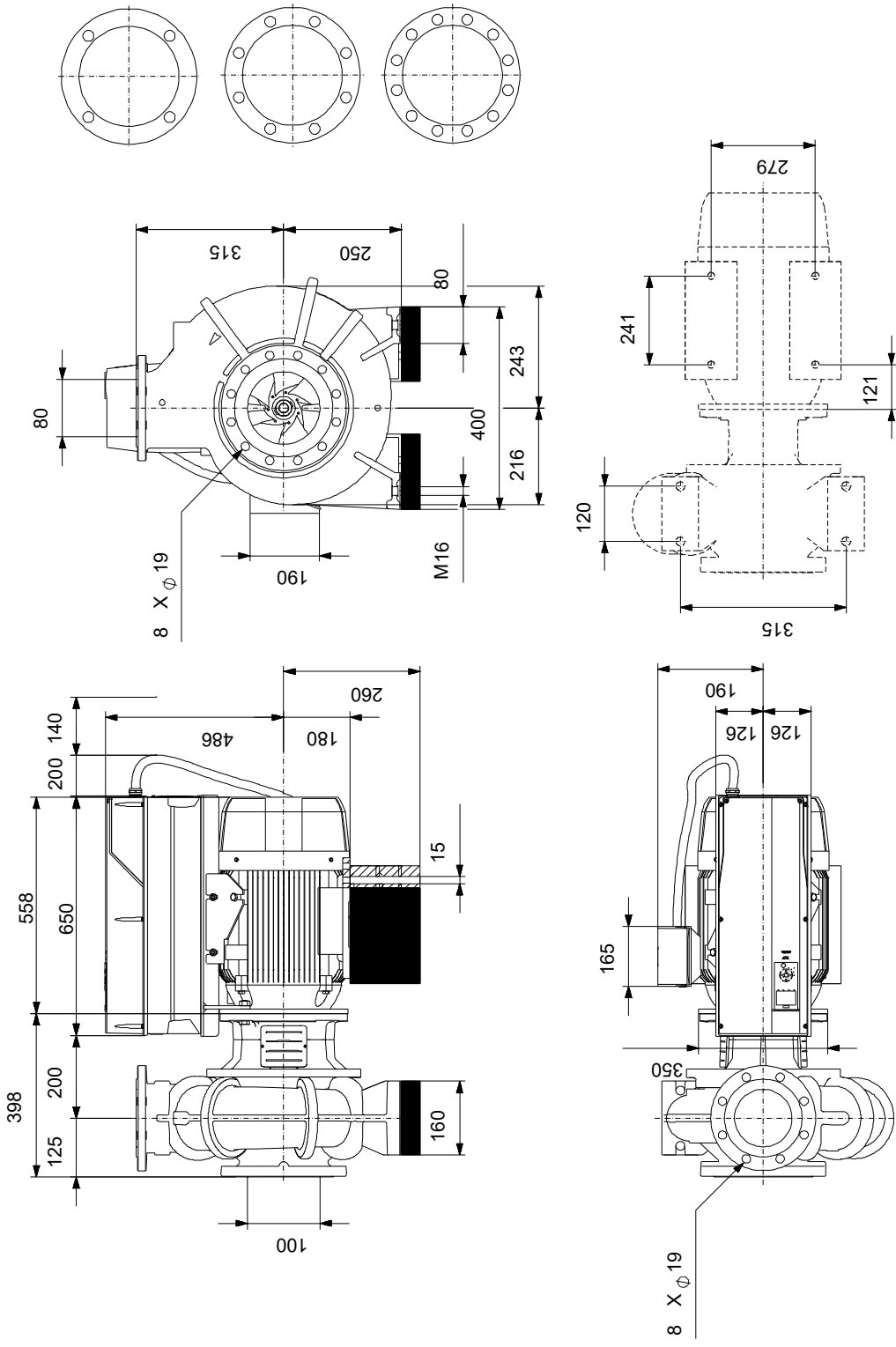


Description	Value
General information:	
Product name:	NBE 80-315/320 AASF2AESBQQEPW3
Product No:	99150846
EAN number:	5712607697037
Technical:	
Pump speed on which pump data are based:	1470 rpm
Rated flow:	138.2 m ³ /h
Rated head:	32.38 m
Actual impeller diameter:	320 mm
Nominal impeller diameter:	315
Shaft seal arrangement:	Single
Shaft diameter:	32 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	AS
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):	Y
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:	
IE Efficiency class:	IE4
Rated power - P2:	18.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	36.5-34.0/21.0-19.4 A
Starting current:	820-820 %
Cos phi - power factor:	0.81
Rated speed:	1470 rpm
Efficiency:	IE4 94,2%
Motor efficiency at full load:	94.2-94.2 %
Motor efficiency at 3/4 load:	94.7-94.7 %
Motor efficiency at 1/2 load:	94.6-94.6 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F



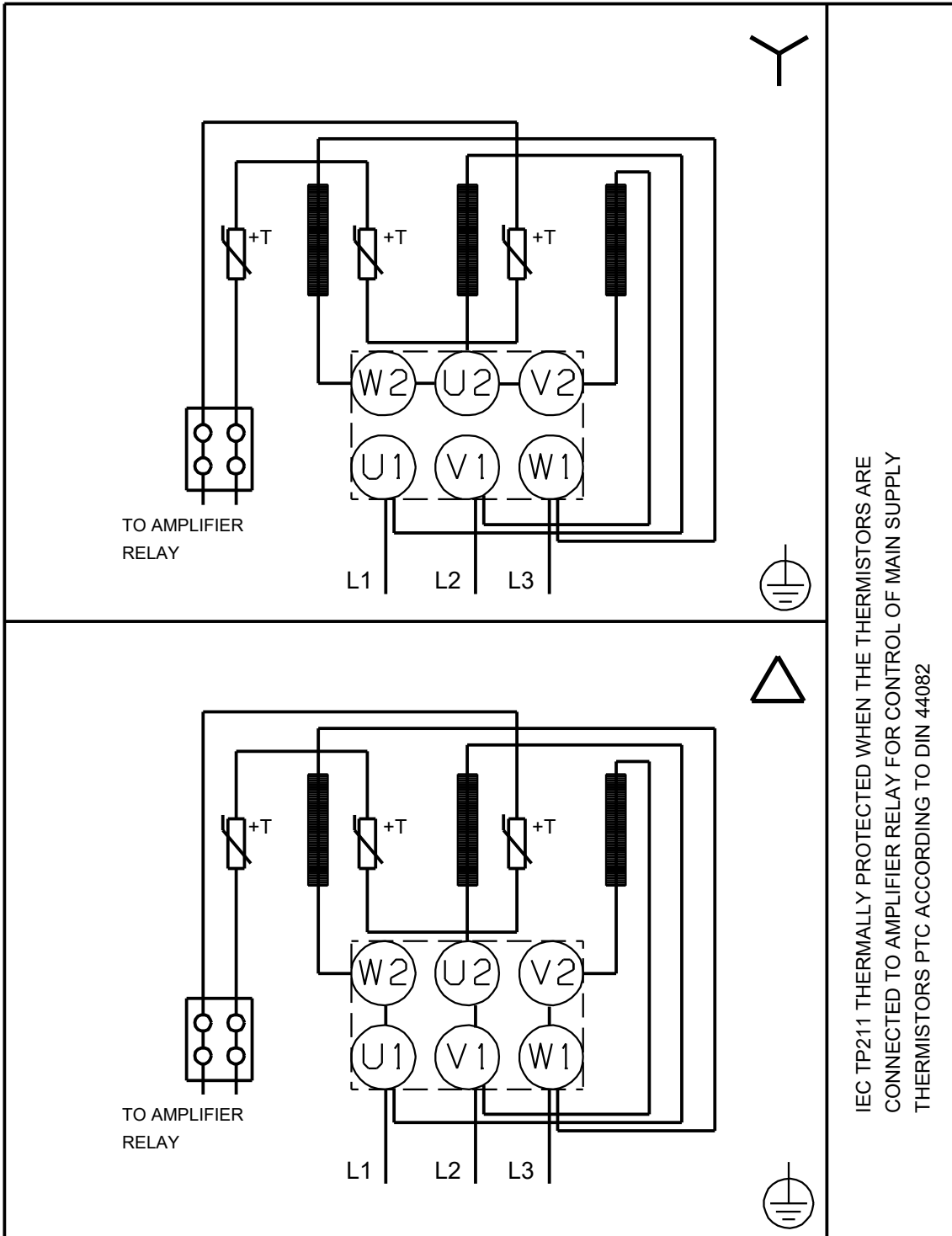
Description	Value
Built-in motor protection:	PTC
Motor No:	92582379
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	HYBRID BEARING
Controls:	
VFD product number:	99616822
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 22KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	352 kg
Gross weight:	433 kg
Shipping volume:	1.6 m ³
Country of origin:	HU
Custom tariff no.:	84137051

99150846 NBE 80-315/320 AASF2AESBQQEPW3 50 Hz



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

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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.

