

**Qty. Description**1 **NBE 80-400/347 AASF2AESBQQEPW3**

Note! Product picture may differ from actual product

Product No.: [99105337](#)

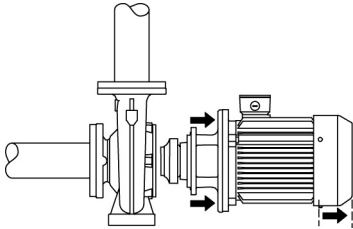
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar).

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 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.

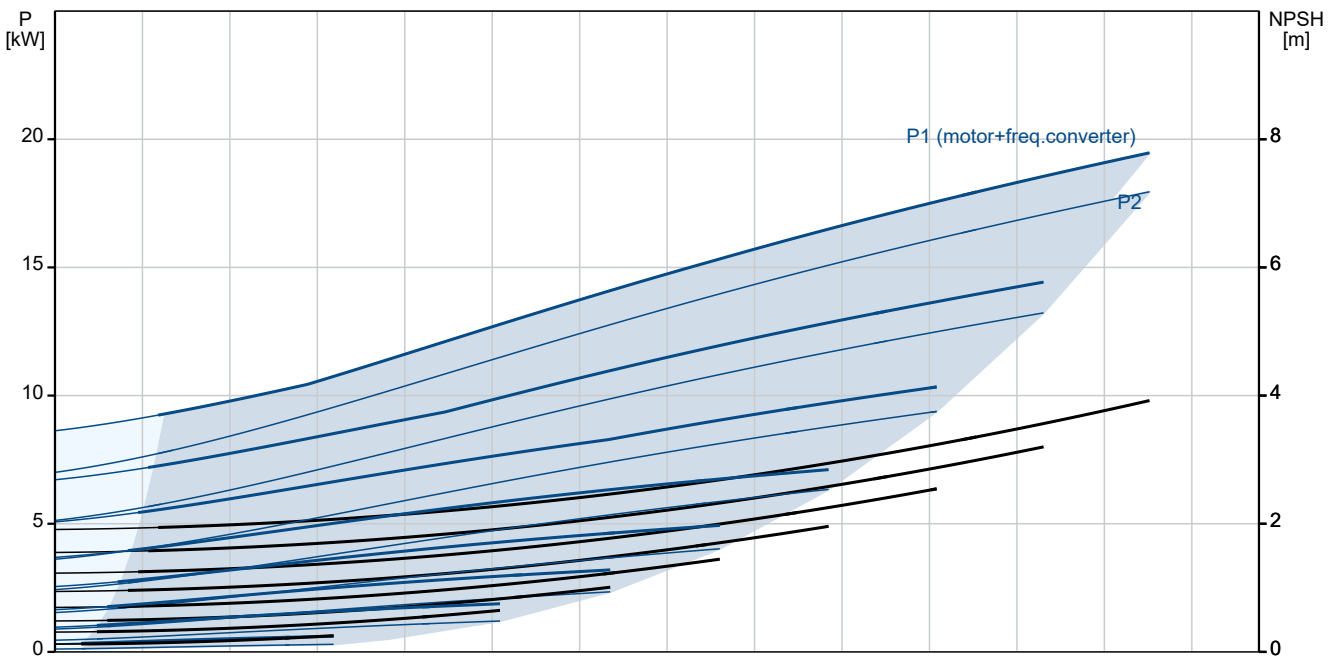
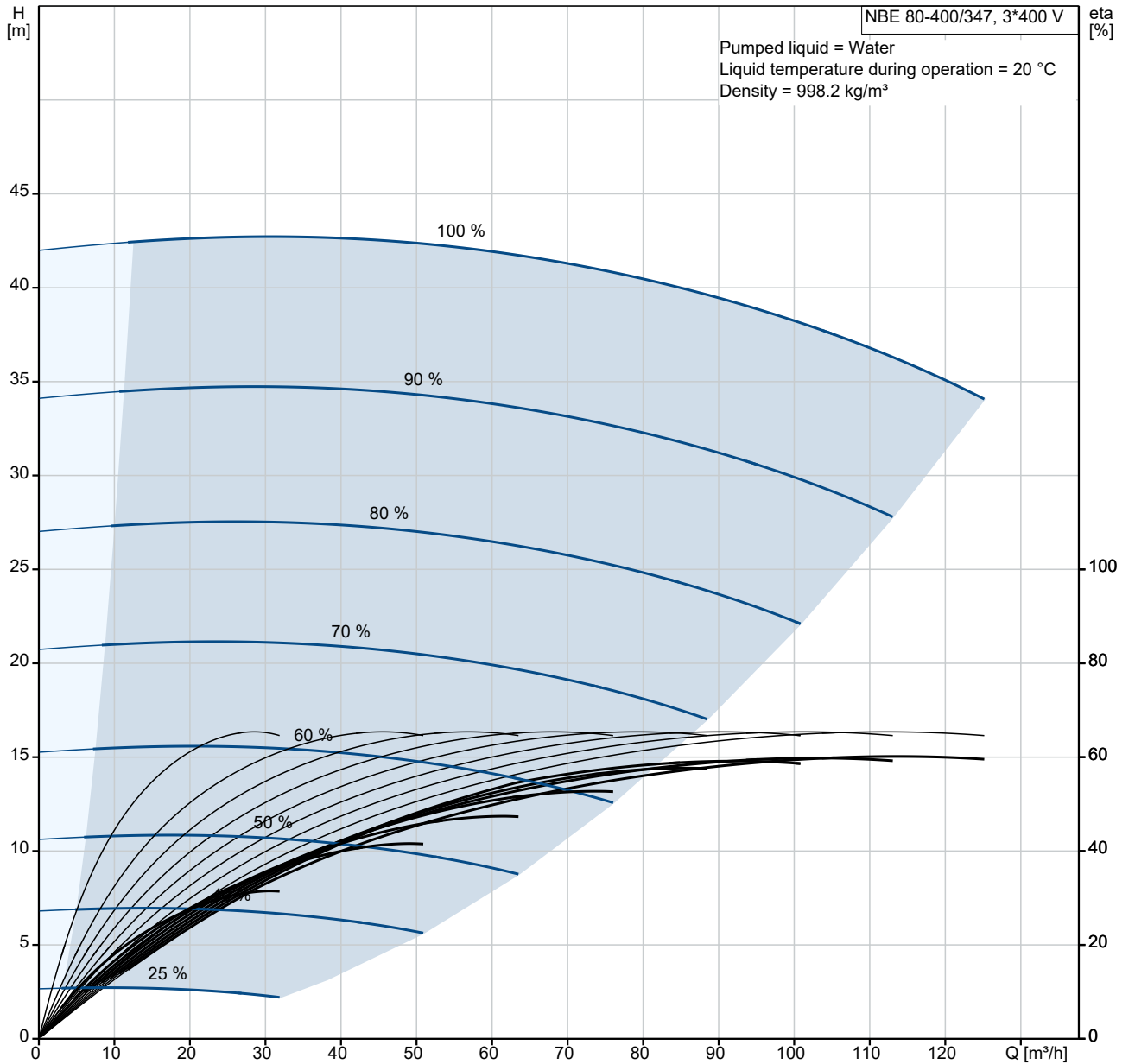
Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

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.

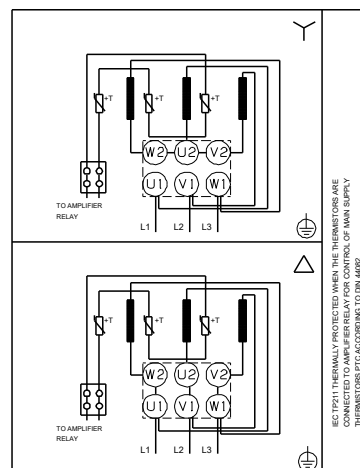
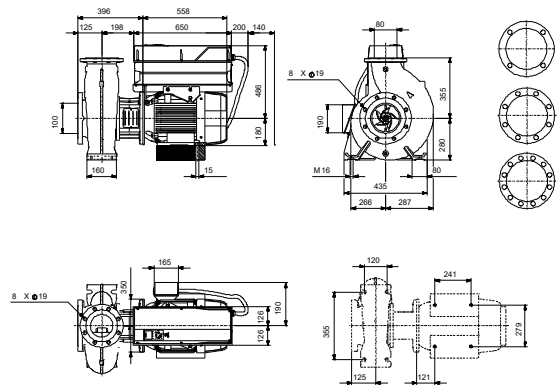
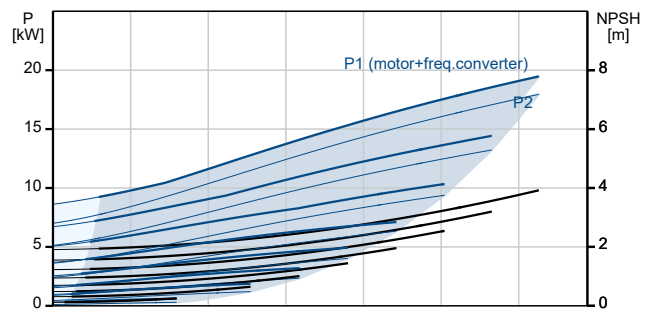
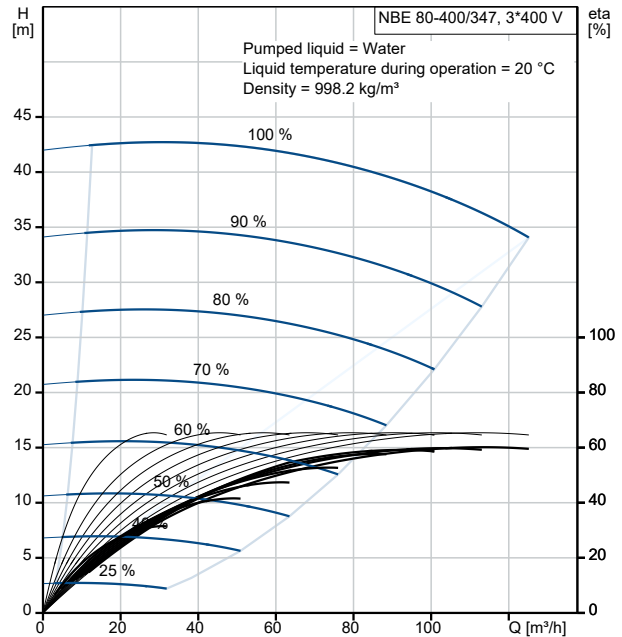
Qty.	Description
1	<p data-bbox="201 163 1453 208">The motor is equipped with bearing current protection. This protects the bearings from failure due to bearing currents, which can be caused e.g. by the high-frequency switching of a variable frequency drive.</p> <p data-bbox="201 282 512 309"><b>Further product details</b></p> <p data-bbox="201 315 1453 387">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 data-bbox="201 461 400 488"><b>Technical data</b></p> <p data-bbox="201 524 300 551">Controls:</p> <p data-bbox="201 557 948 696"> 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 data-bbox="201 732 276 759">Liquid:</p> <p data-bbox="201 766 703 878"> Pumped liquid: Water  Liquid temperature range: -25 .. 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m<sup>3</sup> </p> <p data-bbox="201 913 312 940">Technical:</p> <p data-bbox="201 947 820 1202"> Pump speed on which pump data are based: 1470 rpm  Rated flow: 114 m<sup>3</sup>/h  Rated head: 35.97 m  Actual impeller diameter: 347 mm  Nominal impeller diameter: 400  Shaft seal arrangement: Single  Code for shaft seal: BQQE  Curve tolerance: ISO9906:2012 3B  Bearing design: Standard </p> <p data-bbox="201 1238 308 1265">Materials:</p> <p data-bbox="201 1272 730 1352"> Pump housing: Cast iron  EN-GJL-250  ASTM class 35 </p> <p data-bbox="201 1359 632 1386">Wear ring: Brass</p> <p data-bbox="201 1393 730 1473"> Impeller: Cast iron  EN-GJL-200  ASTM class 30 </p> <p data-bbox="201 1480 724 1592"> Internal pump house coating: CED  Shaft: Stainless steel  EN 1.4301  AISI 304 </p> <p data-bbox="201 1628 325 1655">Installation:</p> <p data-bbox="201 1662 691 1917"> 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 data-bbox="201 1953 360 1980">Electrical data:</p> <p data-bbox="201 1986 847 2098"> IE Efficiency class: IE4  Rated power - P2: 18.5 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-420D/660-725Y V </p>

Qty.	Description
1	<p>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 ≥: 0.44  Net weight: 412 kg  Gross weight: 493 kg  Shipping volume: 1.6 m<sup>3</sup>  Country of origin: HU  Custom tariff no.: 84137051</p>

# 99105337 NBE 80-400/347 AASF2AESBQQEPW3 50 Hz

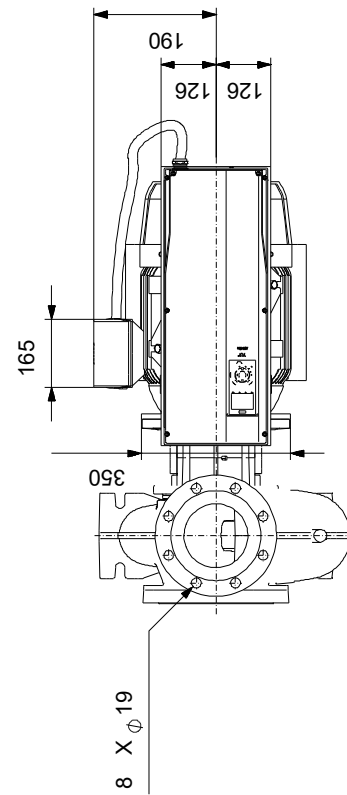
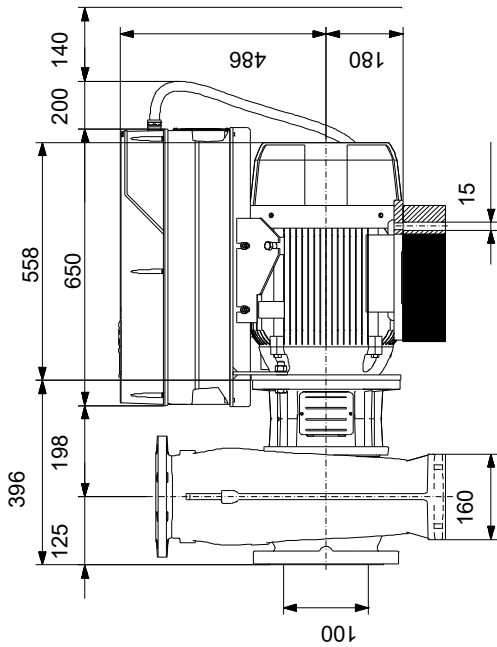
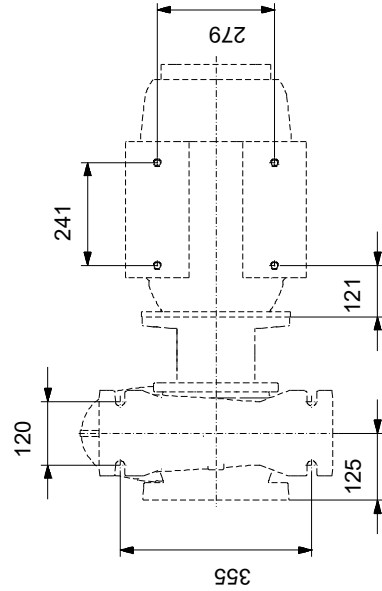
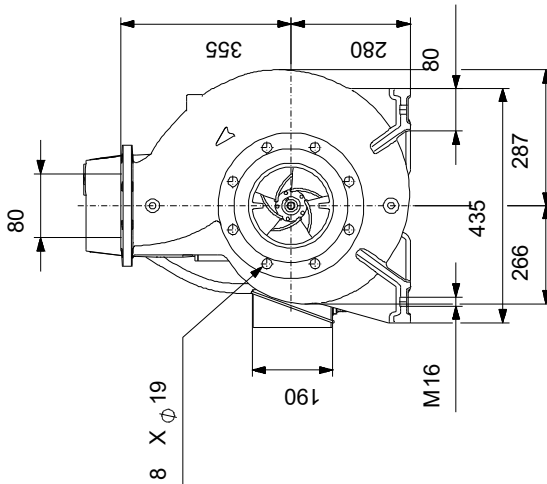
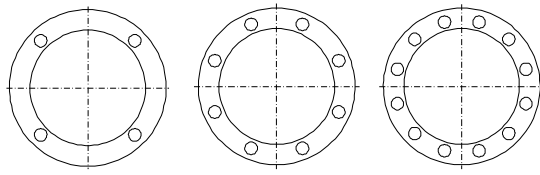


Description	Value
<b>General information:</b>	
Product name:	NBE 80-400/347 AASF2AESBQQEPW3
Product No:	99105337
EAN number:	5712606853120
<b>Technical:</b>	
Pump speed on which pump data are based:	1470 rpm
Rated flow:	114 m <sup>3</sup> /h
Rated head:	35.97 m
Actual impeller diameter:	347 mm
Nominal impeller diameter:	400
Shaft seal arrangement:	Single
Shaft diameter:	42 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	AS
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 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
<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>	
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



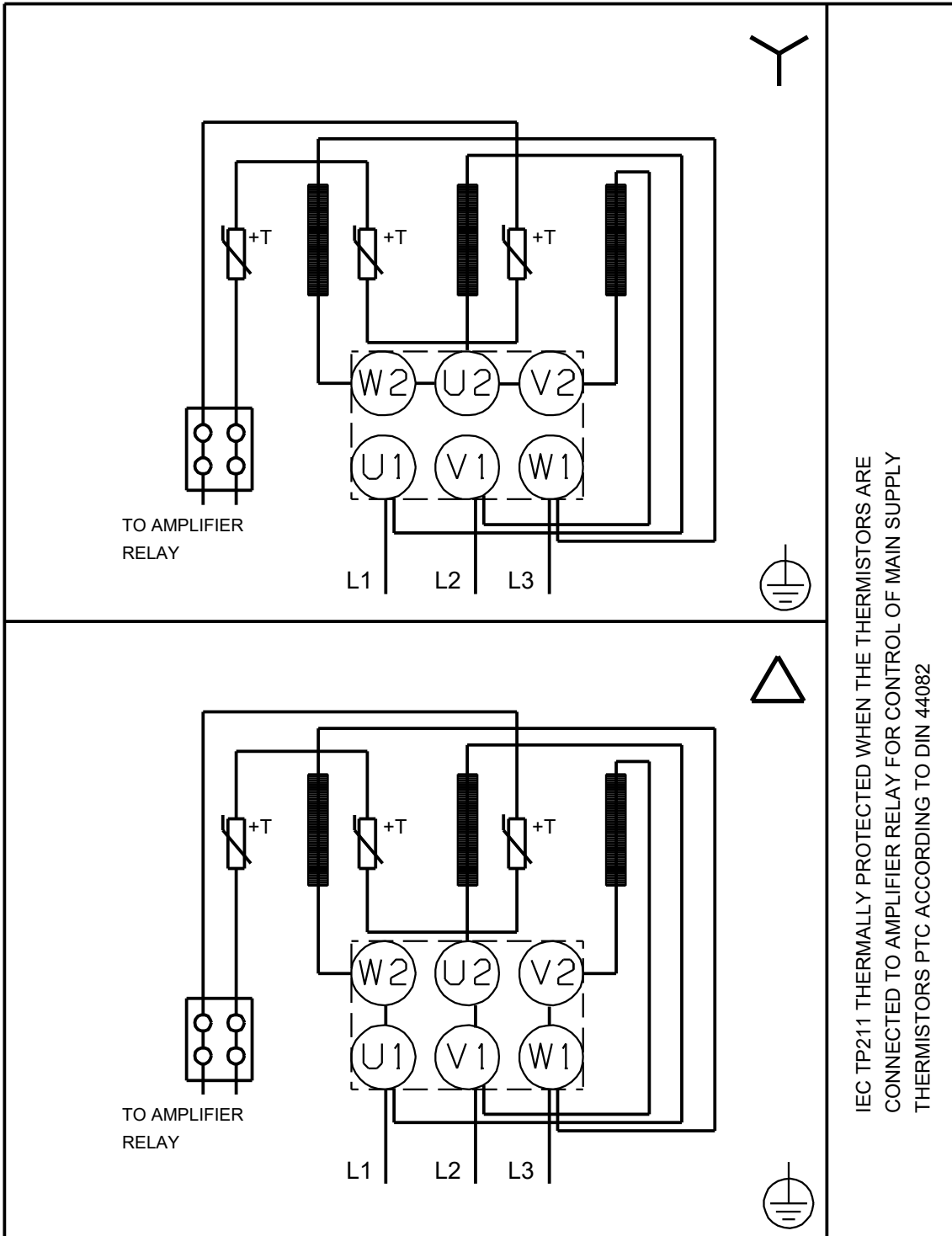
Description	Value
Built-in motor protection:	PTC
Motor No:	92582379
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	HYBRID BEARING
<b>Controls:</b>	
VFD product number:	99616822
Frequency converter:	Built-in
Type of frequency converter:	CUE 3X380-500V IP55 RUG 22KW
Appr. for VFD:	CE, CULUS, C-TICK
Pressure sensor:	N
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.44
Net weight:	412 kg
Gross weight:	493 kg
Shipping volume:	1.6 m <sup>3</sup>
Country of origin:	HU
Custom tariff no.:	84137051

# 99105337 NBE 80-400/347 AASF2AESBQQEPW3 50 Hz



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

**99105337 NBE 80-400/347 AASF2AESBQQEPW3 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.



