

## NB80-200/222 A-F2-A-BAQE

Grundfos Pump 97836811



**Thank you for your interest in our products**


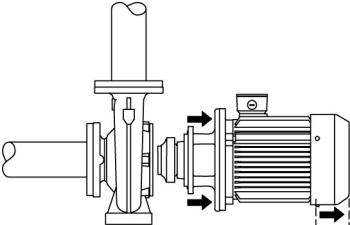
Please contact us for more information, or visit our website

<https://www.lenntech.com/grundfos/NB000/97836811/NB-80-200-222-A-F2-A-E-BAQE.html>

[info@lenntech.com](mailto:info@lenntech.com)

tel. +31-15-261.09.00

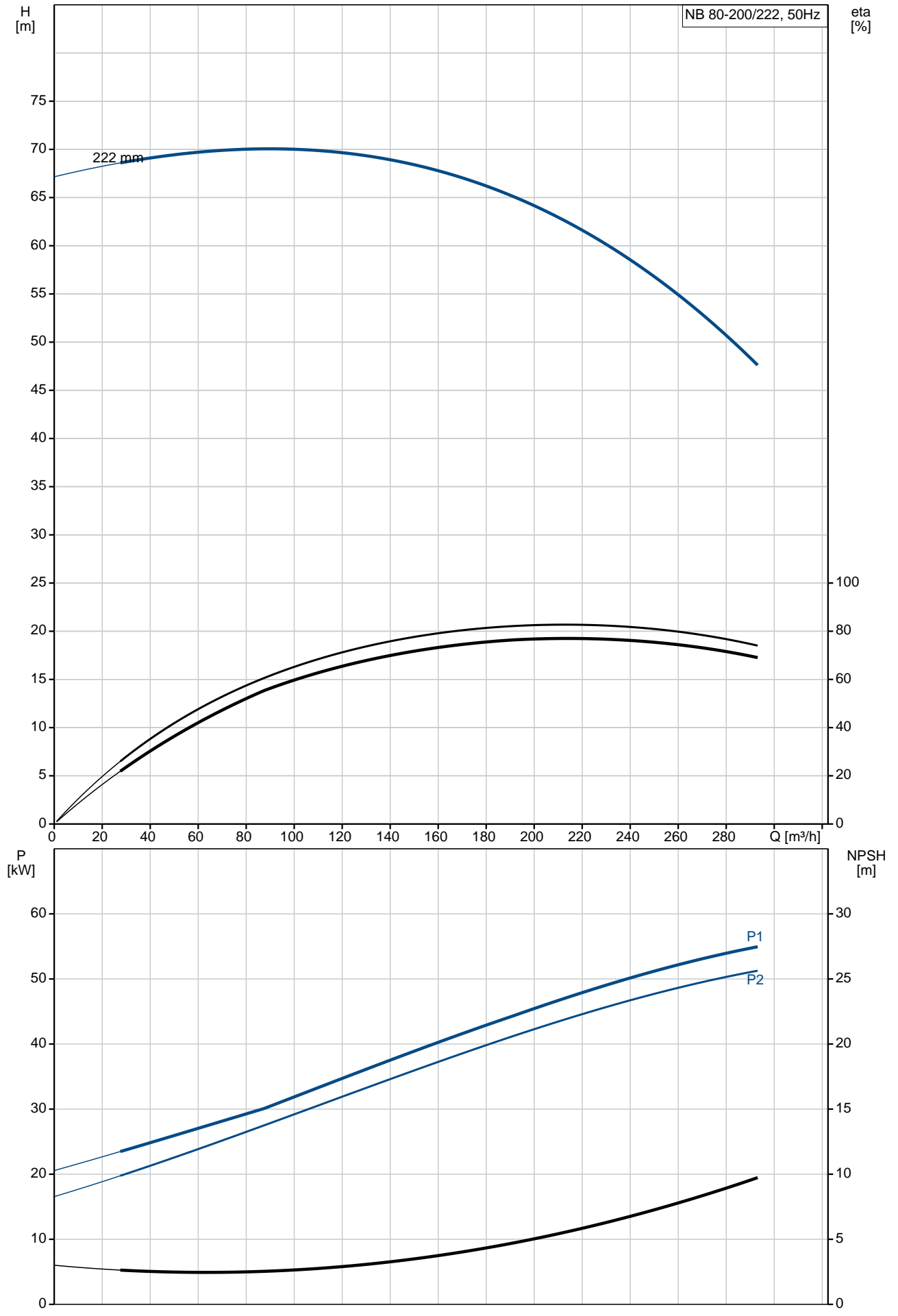
fax. +31-15-261.62.89

Position	Qty.	Description
	1	<p data-bbox="320 163 683 194"><b>NB 80-200/222 A-F2-A-E-BAQE</b></p>  <p data-bbox="320 483 584 510">Product No.: <a href="#">97836811</a></p> <p data-bbox="320 544 1457 667">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.</p> <p data-bbox="320 685 1059 712">The unbalanced rubber bellows seal is according to DIN EN 12756.</p> <p data-bbox="320 714 1026 741">The pump is close-coupled to a fan-cooled asynchronous motor.</p> <p data-bbox="320 772 639 799"><b>Further product details</b></p> <p data-bbox="320 808 1426 882">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.</p> <p data-bbox="320 922 1422 974">The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipe work.</p>  <p data-bbox="320 1234 1409 1335">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. An integral part of the process is a pretreatment. The entire process consists of these elements:</p> <ol data-bbox="320 1346 815 1462" style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Zinc phosphating.</li> <li>3) Cathodic electro-deposition.</li> <li>4) Curing to a dry film thickness 18-22 my m.</li> </ol> <p data-bbox="320 1464 1027 1491">The colour code for the finished product is NCS 9000/RAL 9005.</p> <p data-bbox="320 1525 403 1552"><b>Pump</b></p> <p data-bbox="320 1561 1106 1588">The pump housing has both a priming and a drain hole closed by plugs.</p> <p data-bbox="320 1590 1430 1664">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.</p> <p data-bbox="320 1675 1294 1702">Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron.</p> <p data-bbox="320 1736 1437 1809">Motor stool and pump cover are made of cast iron (EN-GJL-250). Coupling guards are fitted to the motor stool. The pump cover is provided with a manual air vent screw for venting of the pump housing and the shaft seal chamber.</p> <p data-bbox="320 1850 1441 1924">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.</p> <p data-bbox="320 1935 467 1962">Primary seal:</p> <ul data-bbox="357 1966 1098 2022" style="list-style-type: none"> <li>- Rotating seal ring material: Carbon graphite, metal-impregnated</li> <li>- Stationary seat material: Silicon carbide (SiC)</li> </ul> <p data-bbox="320 2027 1434 2101">This material pairing has a very good corrosion resistance and is especially suitable for water up to +120 °C. However, seal life will be reduced at temperatures above +90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face.</p>

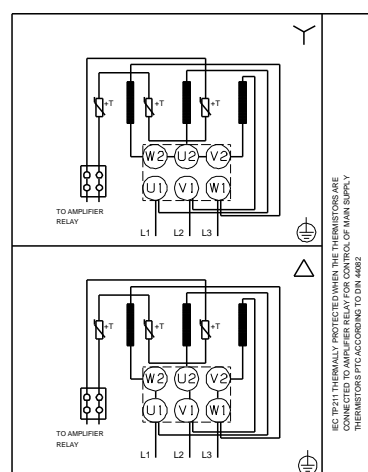
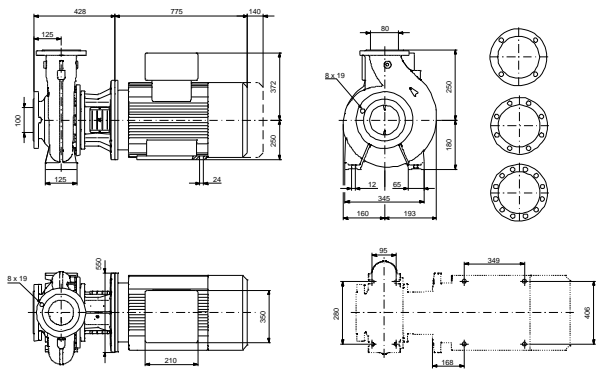
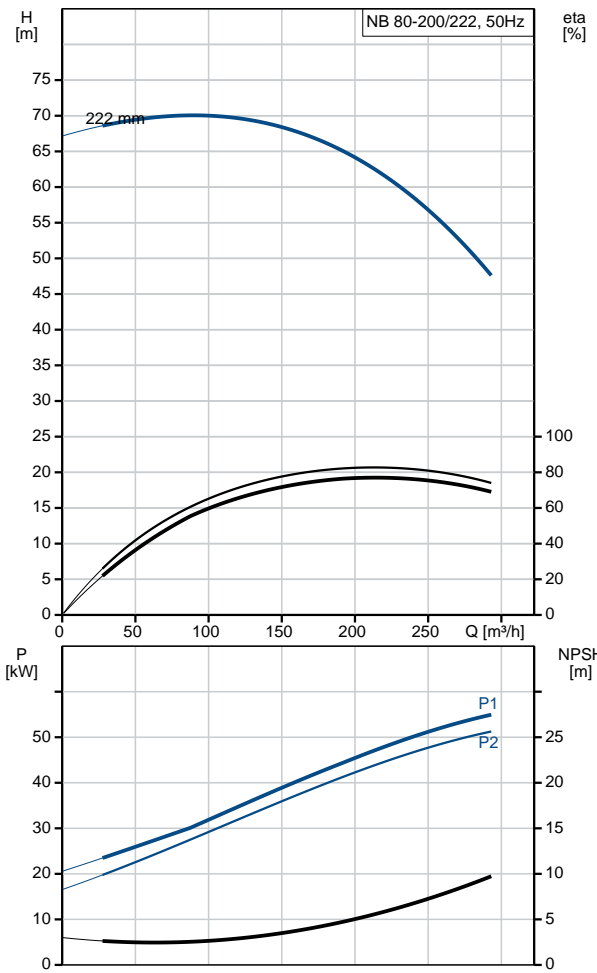
Position	Qty.	Description
		<p>Secondary seal material: EPDM (ethylene-propylene rubber) EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p> <p><b>Motor</b></p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p>The motor efficiency is classified as IE2 in accordance with IEC 60034-30. 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.</p> <p>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.</p> <p>A variable speed drive makes adjustment of pump performance to any duty point possible. If the motor is to be connected to a variable speed drive, the pump should be ordered with an electrically insulated motor bearing.</p> <p><b>Technical data</b></p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water Liquid temperature range: 0 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b></p> <p>Speed for pump data: 2970 rpm Rated flow: 228 m<sup>3</sup>/h Rated head: 60.3 m Actual impeller diameter: 222 mm Impeller nom: 200 mm Primary shaft seal: BAQE Secondary shaft seal: NONE Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b></p> <p>Pump housing: Cast iron EN-GJL-250 ASTM A48-40 B</p> <p>Impeller: Cast iron EN-GJL-200 ASTM A48-30 B</p> <p>Shaft: Stainless steel 1.4301 304</p> <p>Rubber: EPDM Wear ring mat.: High alloy brass(CuZn34Mn3Al2)</p> <p><b>Installation:</b></p> <p>Maximum ambient temperature: 60 °C Maximum operating pressure: 16 bar Flange standard: EN 1092-2 Pump inlet: DN 100 Pump outlet: DN 80 Pressure rating: PN 16</p> <p><b>Electrical data:</b></p> <p>Motor type: MMG250MA IE Efficiency class: IE2 Rated power - P2: 55 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 99,5-90,0/57,0-52,0 A</p>

Position	Qty.	Description
		<p>Starting current: 750-750 %</p> <p>Cos phi - power factor: 0,9</p> <p>Rated speed: 2970 rpm</p> <p>Efficiency: IE2 93,4%</p> <p>Motor efficiency at full load: 93.4-93.4 %</p> <p>Motor efficiency at 3/4 load: 93.0-93.0 %</p> <p>Motor efficiency at 1/2 load: 91.4-91.4 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): 55 (Protect. water jets/dust)</p> <p>Insulation class (IEC 85): F</p> <p>Lubricant type: Grease</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI : 0.70</p> <p>ErP status: EuP Standalone/Prod.</p> <p>Net weight: 486 kg</p> <p>Gross weight: 511 kg</p> <p>Shipping volume: 0.783 m<sup>3</sup></p>

# 97836811 NB 80-200/222 50 Hz

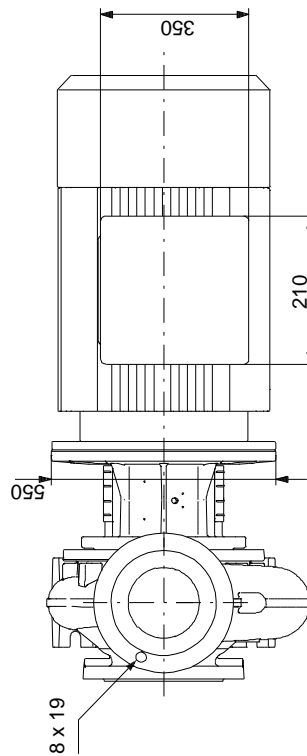
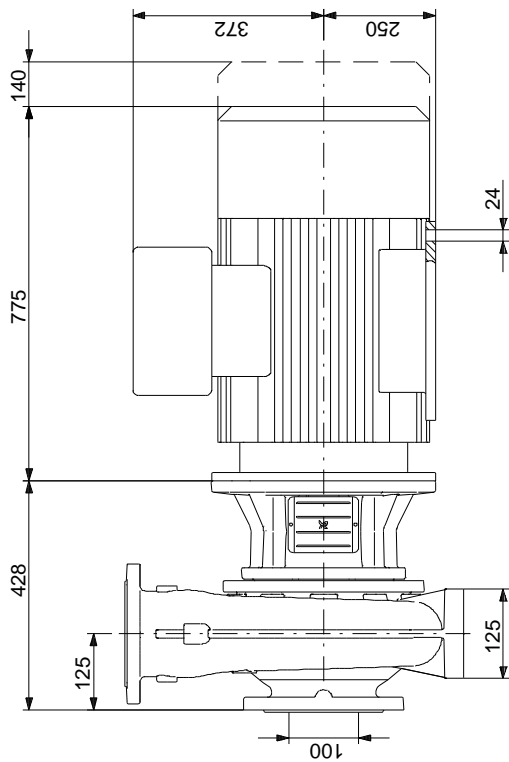
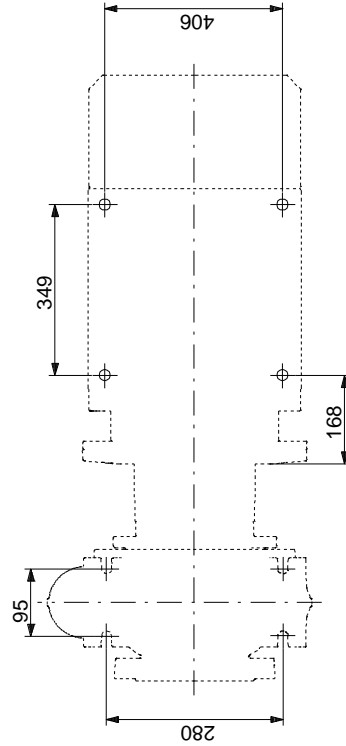
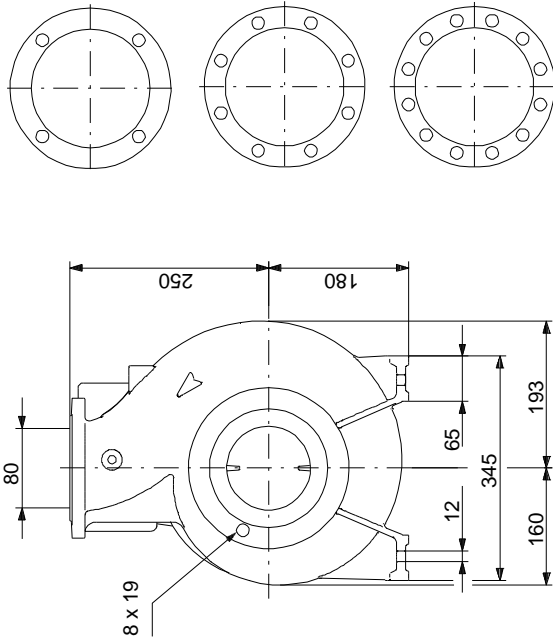


Description	Value
<b>General information:</b>	
Product name:	NB 80-200/222 A-F2-A-E-BAQE
Product No:	97836811
EAN number:	5710625487531
<b>Technical:</b>	
Speed for pump data:	2970 rpm
Rated flow:	228 m <sup>3</sup> /h
Rated head:	60.3 m
Actual impeller diameter:	222 mm
Impeller nom:	200 mm
Primary shaft seal:	BAQE
Secondary shaft seal:	NONE
Shaft diameter:	32 mm
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
<b>Materials:</b>	
Pump housing:	Cast iron EN-GJL-250 ASTM A48-40 B
Impeller:	Cast iron EN-GJL-200 ASTM A48-30 B
Shaft:	Stainless steel 1.4301 304
Material code:	A
Rubber:	EPDM
Code for rubber:	E
Wear ring mat.:	High alloy brass(CuZn34Mn3Al2)
<b>Installation:</b>	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Connect code:	F2
Pump inlet:	DN 100
Pump outlet:	DN 80
Pressure rating:	PN 16
Wear ring(s):	neckring(s)
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor type:	MMG250MA
IE Efficiency class:	IE2
Rated power - P2:	55 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725 Y V
Rated current:	99,5-90,0/57,0-52,0 A
Starting current:	750-750 %
Cos phi - power factor:	0,9
Rated speed:	2970 rpm
Efficiency:	IE2 93,4%
Motor efficiency at full load:	93.4-93.4 %
Motor efficiency at 3/4 load:	93.0-93.0 %
Motor efficiency at 1/2 load:	91.4-91.4 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 (Protect. water jets/dust)
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	83K15438



Description	Value
Mount. design. acc. IEC 34-7:	IM B35
Lubricant type:	Grease
<b>Others:</b>	
Minimum efficiency index, MEI :	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	486 kg
Gross weight:	511 kg
Shipping volume:	0.783 m <sup>3</sup>

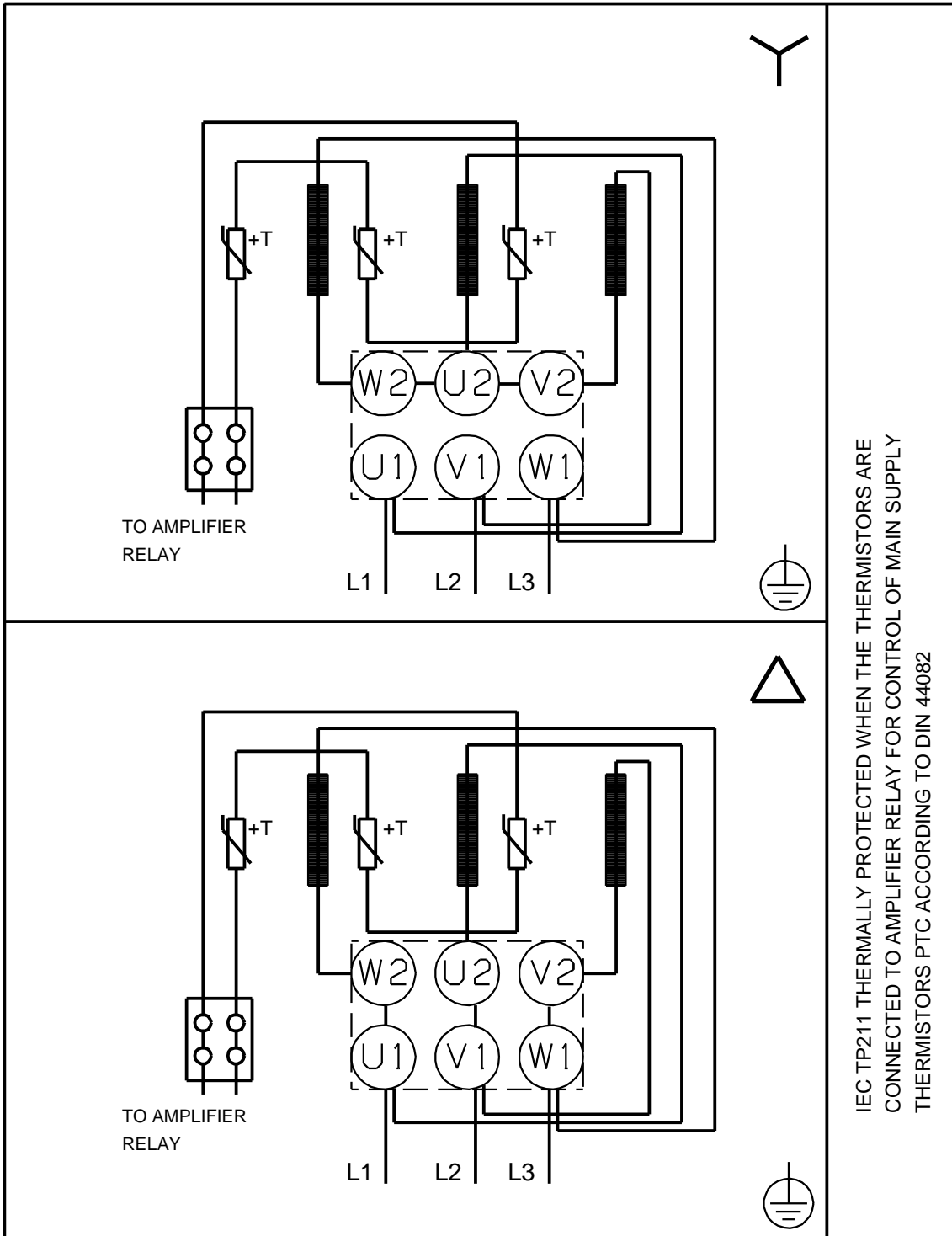
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Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.



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*Disclaimer: The information about the Grundfos pump in this document may be outdated.  
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[info@lenntech.com](mailto:info@lenntech.com)

[www.lenntech.com](http://www.lenntech.com)

tel. +31-15-261.09.00

fax. +31-15-261.62.89