
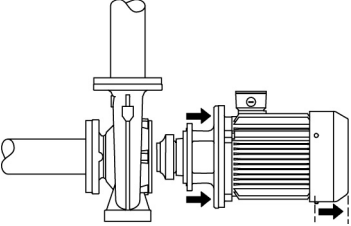


Qty.	Description
1	<p data-bbox="204 338 507 365">NB 80-160/177 AF2ABQQE</p>  <p data-bbox="204 663 464 689">Product No.: 97907876</p> <p data-bbox="204 723 1426 770">Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar).</p> <p data-bbox="204 779 1417 853">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="204 864 922 891">The unbalanced rubber bellows seal is according to DIN EN 12756.</p> <p data-bbox="204 898 890 925">The pump is close-coupled to a fan-cooled asynchronous motor.</p> <p data-bbox="204 931 1449 1005">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="204 1014 1382 1061">The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipes.</p>  <p data-bbox="204 1323 1453 1397">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="204 1435 284 1462">Pump</p> <p data-bbox="204 1471 1433 1545">The pump housing has both a priming and a drain hole closed by plugs. 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="204 1554 1023 1581">Wear rings used in pump housing and for impeller are made of bronze/brass.</p> <p data-bbox="204 1588 1433 1635">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="204 1673 1453 1742">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="204 1756 344 1783">Primary seal:</p> <ul data-bbox="240 1787 788 1843" style="list-style-type: none">• Rotating seal ring material: silicon carbide (SiC)• Stationary seat material: silicon carbide (SiC) <p data-bbox="204 1848 1449 1895">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 data-bbox="204 1904 852 1930">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="204 1937 1075 1964">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p> <p data-bbox="204 1971 501 1998">The pump housing has feet.</p> <p data-bbox="204 2022 284 2049">Motor</p>

Qty.	Description
	<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 IE3 in accordance with IEC 60034-30-1.</p> <p>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>The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.</p> <p>Further product details</p> <p>Technical data</p> <p>Controls:</p> <p>Frequency converter: NONE</p> <p>Pressure sensor: N</p> <p>Liquid:</p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -25 .. 120 °C</p> <p>Selected liquid temperature: 20 °C</p> <p>Density: 998.2 kg/m³</p> <p>Technical:</p> <p>Pump speed on which pump data are based: 1460 rpm</p> <p>Rated flow: 103.7 m³/h</p> <p>Rated head: 8.212 m</p> <p>Actual impeller diameter: 177 mm</p> <p>Nominal impeller diameter: 160</p> <p>Shaft seal arrangement: Single</p> <p>Code for shaft seal: BQQE</p> <p>Curve tolerance: ISO9906:2012 3B2</p> <p>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>Shaft: Stainless steel EN 1.4301 AISI 304</p> <p>Internal pump house coating: CED</p> <p>Installation:</p> <p>Maximum ambient temperature: 55 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Pipe connection standard: EN 1092-2</p> <p>Size of inlet connection: DN 100</p>

Qty.	Description
	<p>Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Bearing lubrication: Grease Pump housing with feet: Yes Support block: N</p> <p>Electrical data: Motor type: SIEMENS IE Efficiency class: IE3 Rated power - P2: 4 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 8,3-7,51/4,83-4,37 A Starting current: 710-710 % Cos phi - power factor: 0.82 Rated speed: 1460 rpm Efficiency: IE3 88,6% Motor efficiency at full load: 88.6-88.6 % Motor efficiency at 3/4 load: 89.2-89.2 % Motor efficiency at 1/2 load: 88.6-88.6 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 83V15213</p> <p>Others: Minimum efficiency index, MEI \geq: 0.70 Net weight: 79 kg Gross weight: 96 kg Shipping volume: 0.315 m³ Country of origin: HU Custom tariff no.: 84137051</p>



Company name:

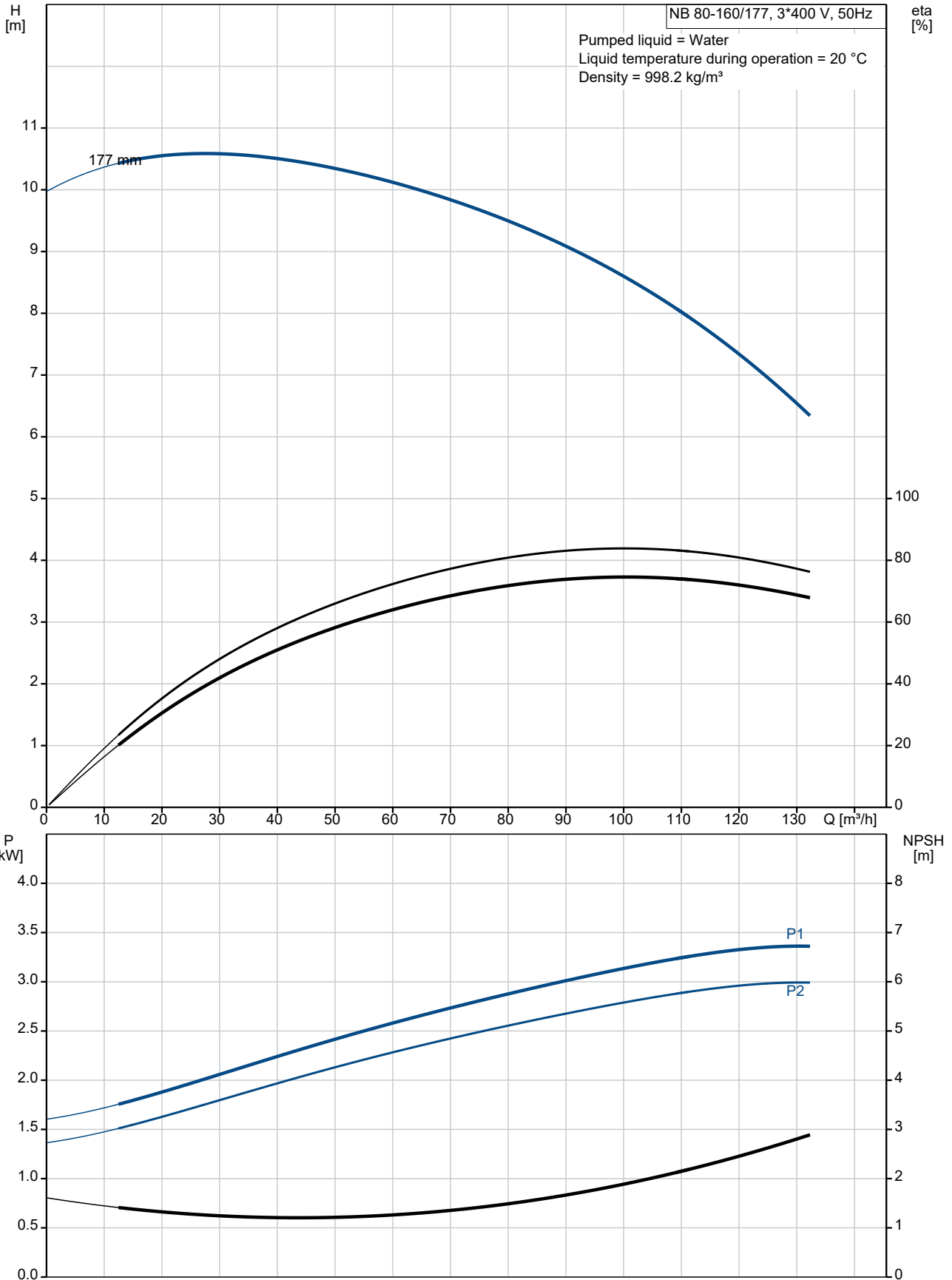
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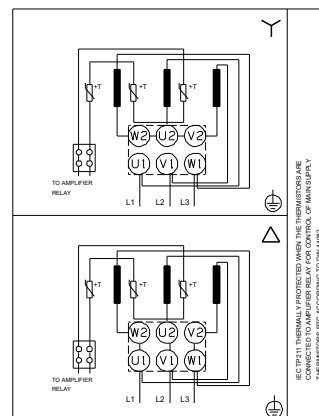
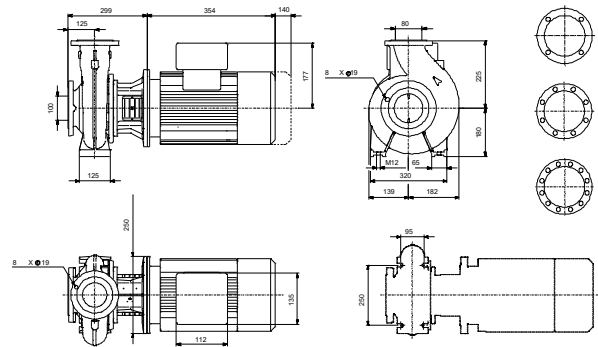
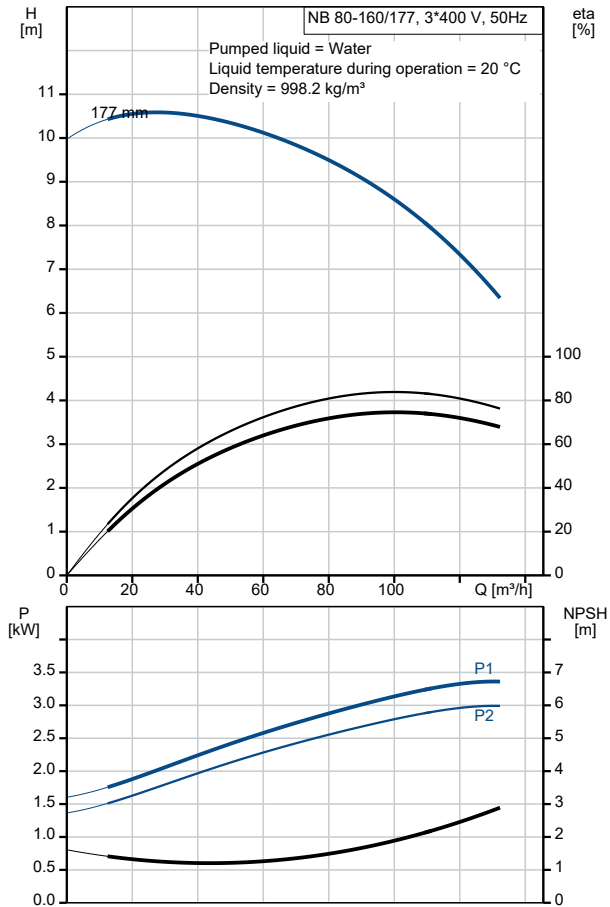
Date:

12/08/2021

97907876 NB 80-160/177 AF2ABQQE 50 Hz



Description	Value
General information:	
Product name:	NB 80-160/177 AF2ABQQE
Product No:	97907876
EAN number:	5710626184729
Price:	GBP 2254
Technical:	
Pump speed on which pump data are based:	1460 rpm
Rated flow:	103.7 m ³ /h
Rated head:	8.212 m
Actual impeller diameter:	177 mm
Nominal impeller diameter:	160
Shaft seal arrangement:	Single
Shaft diameter:	24 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A
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
Shaft:	Stainless steel
Shaft:	EN 1.4301
Shaft:	AISI 304
Internal pump house coating:	CED
Material code:	A
Code for rubber:	E
Installation:	
Maximum ambient temperature:	55 °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:	N
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:	
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	4 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	8,3-7,51/4,83-4,37 A
Starting current:	710-710 %
Cos phi - power factor:	0.82





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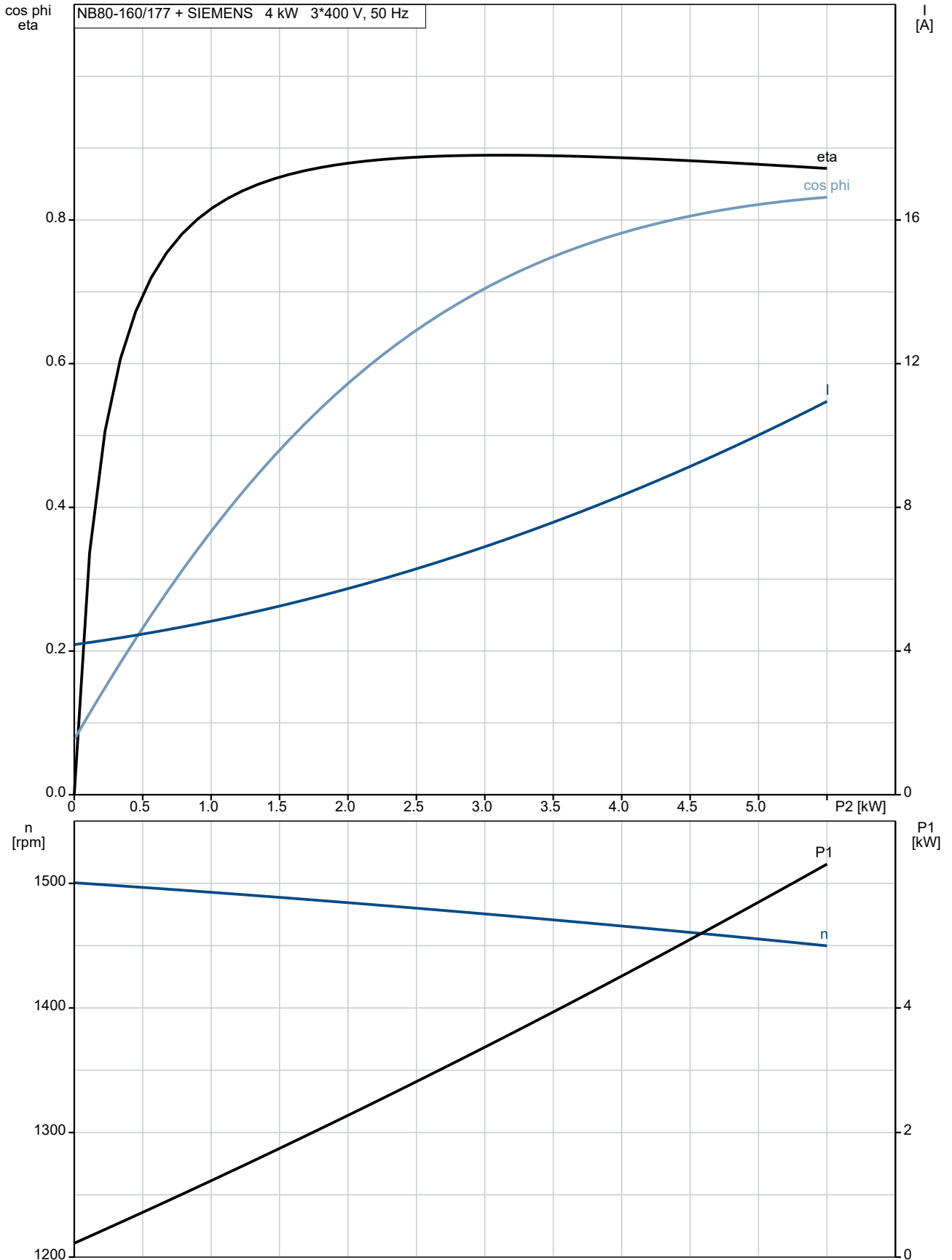
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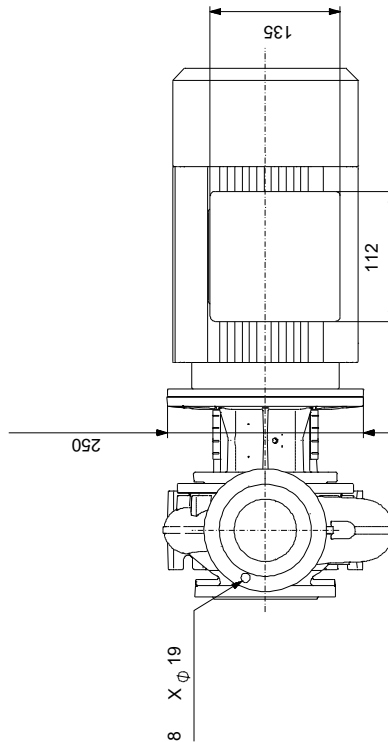
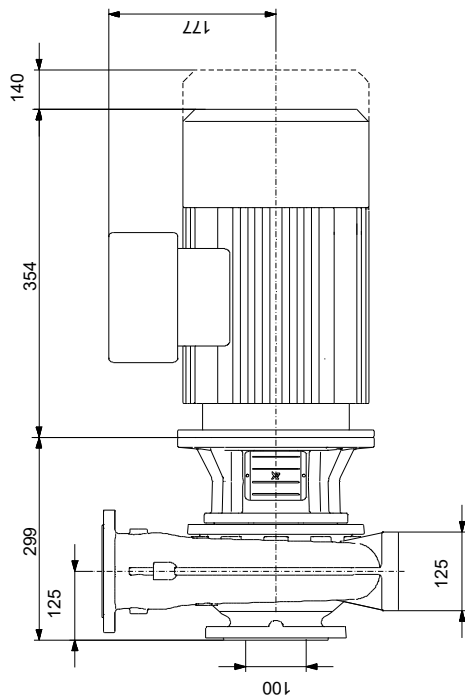
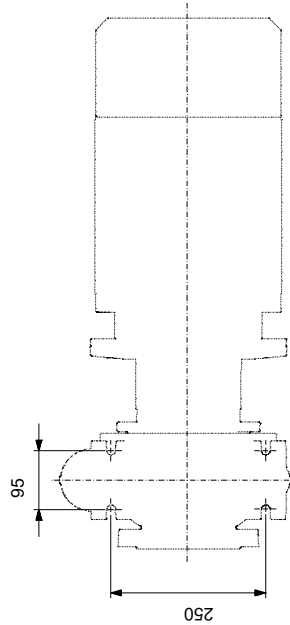
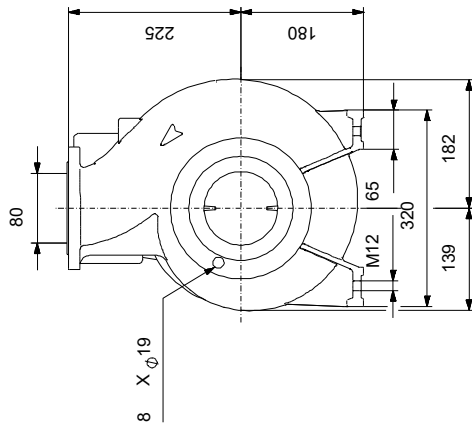
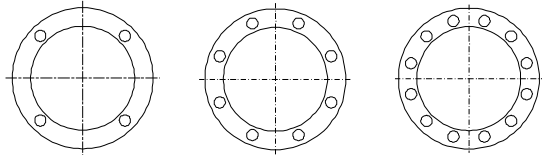
12/08/2021

Description	Value
Rated speed:	1460 rpm
Efficiency:	IE3 88,6%
Motor efficiency at full load:	88.6-88.6 %
Motor efficiency at 3/4 load:	89.2-89.2 %
Motor efficiency at 1/2 load:	88.6-88.6 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	83V15213
Mount. design. acc. IEC 34-7:	IM V1
Controls:	
Frequency converter:	NONE
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI \geq :	0.70
Net weight:	79 kg
Gross weight:	96 kg
Shipping volume:	0.315 m ³
Country of origin:	HU
Custom tariff no.:	84137051

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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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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.