

Qty. Description

1 NB 80-160/147-127 AASF2AESBQQENW1



Product No.: [98447791](#)

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

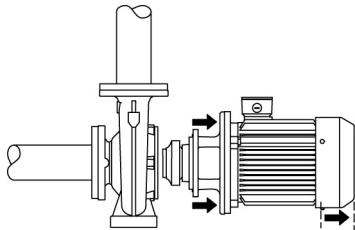
Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

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

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.

Wear rings used in pump housing and for impeller are made of bronze/brass.

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.

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 no 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.

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1	<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 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>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="204 996 638 1052"> <tr> <td>Frequency converter:</td> <td>NONE</td> </tr> <tr> <td>Pressure sensor:</td> <td>N</td> </tr> </table> <p>Liquid:</p> <table data-bbox="204 1115 702 1232"> <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 1294 821 1556"> <tr> <td>Pump speed on which pump data are based:</td> <td>2945 rpm</td> </tr> <tr> <td>Rated flow:</td> <td>163.5 m³/h</td> </tr> <tr> <td>Rated head:</td> <td>17.12 m</td> </tr> <tr> <td>Actual impeller diameter:</td> <td>137 mm</td> </tr> <tr> <td>Nominal impeller diameter:</td> <td>160</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 1619 734 1944"> <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> <tr> <td>Shaft:</td> <td>Stainless steel EN 1.4301 AISI 304</td> </tr> </table> <p>Installation:</p> <table data-bbox="204 2007 686 2089"> <tr> <td>t max amb:</td> <td>60 °C</td> </tr> <tr> <td>Maximum operating pressure:</td> <td>16 bar</td> </tr> <tr> <td>Pipe connection standard:</td> <td>EN 1092-2</td> </tr> </table>	Frequency converter:	NONE	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:	2945 rpm	Rated flow:	163.5 m ³ /h	Rated head:	17.12 m	Actual impeller diameter:	137 mm	Nominal impeller diameter:	160	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	Shaft:	Stainless steel EN 1.4301 AISI 304	t max amb:	60 °C	Maximum operating pressure:	16 bar	Pipe connection standard:	EN 1092-2
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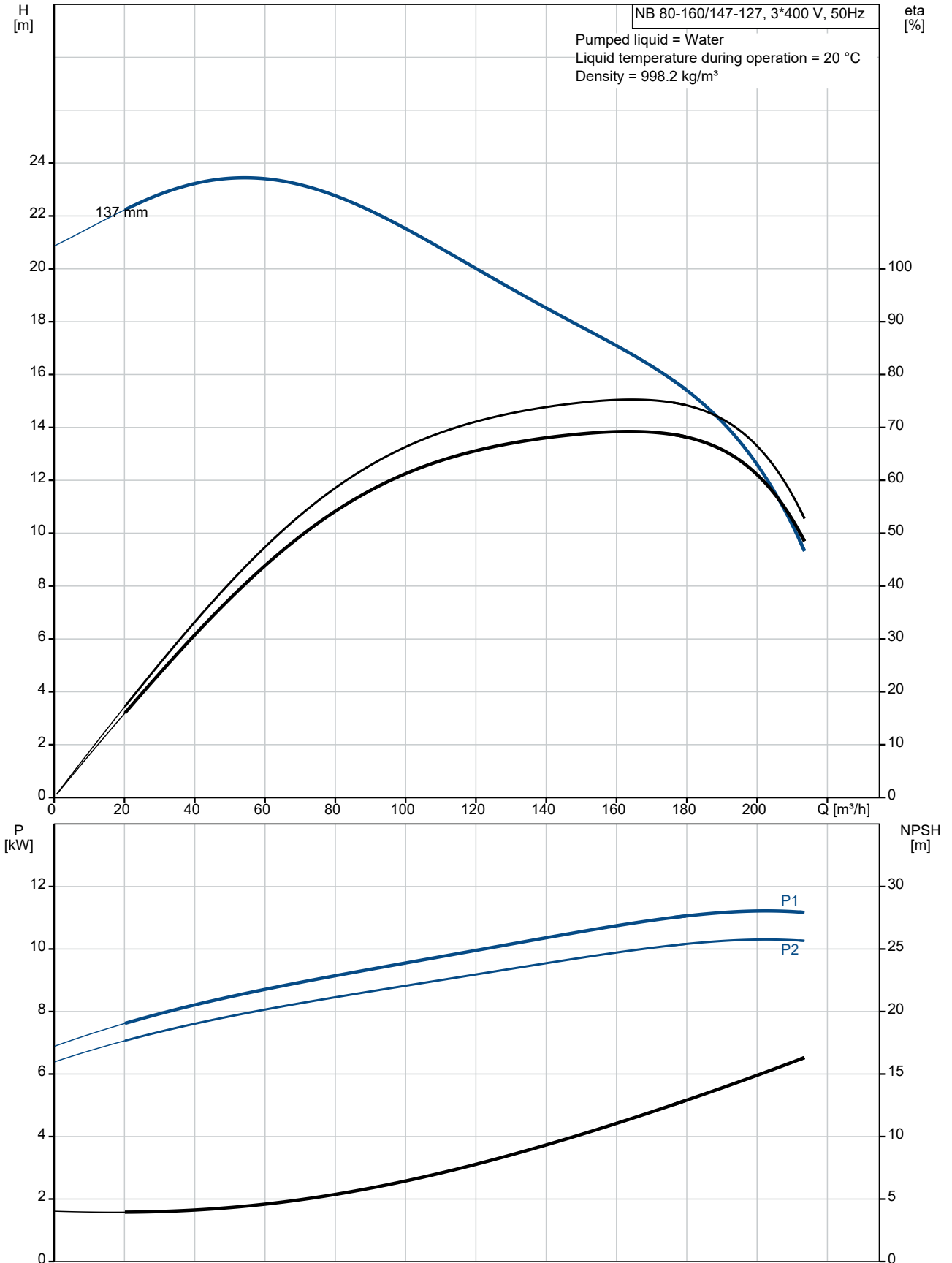
1	Size of inlet connection: DN 100
	Size of outlet connection: DN 80
	Pressure rating for connection: PN 16
	Bearing lubrication: Grease
	Pump housing with feet: No
	Support block (Yes/No): Y
	Electrical data:
	Motor type: 160MB
	IE Efficiency class: IE3
	Rated power - P2: 11 kW
	Mains frequency: 50 Hz
	Rated voltage: 3 x 380-415D/660-690Y V
	Rated current: 20,8-19,8/12,0-11,8 A
	Starting current: 660-780 %
	Cos phi - power factor: 0.88-0.84
	Rated speed: 2940-2950 rpm
	Efficiency: IE3 91,2%
	Motor efficiency at full load: 91.2 %
	Motor efficiency at 3/4 load: 91.8 %
	Motor efficiency at 1/2 load: 91.3 %
	Number of poles: 2
	Enclosure class (IEC 34-5): 55 Dust/Jetting
	Insulation class (IEC 85): F
	Motor No: 87420028
	Bearing insulation type N-end: STEEL BEARING
	Others:
	Minimum efficiency index, MEI \geq : 0.70
	Net weight: 153 kg
	Gross weight: 177 kg
	Shipping volume: 0.707 m ³
	Danish VVS No.: 386064162
	Country of origin: HU
	Custom tariff no.: 84137051



Company name: Pump Sales Direct
Created by:
Phone:

Date: 15/08/2022

98447791 NB 80-160/147-127 AASF2AESBQQENW1 50 Hz





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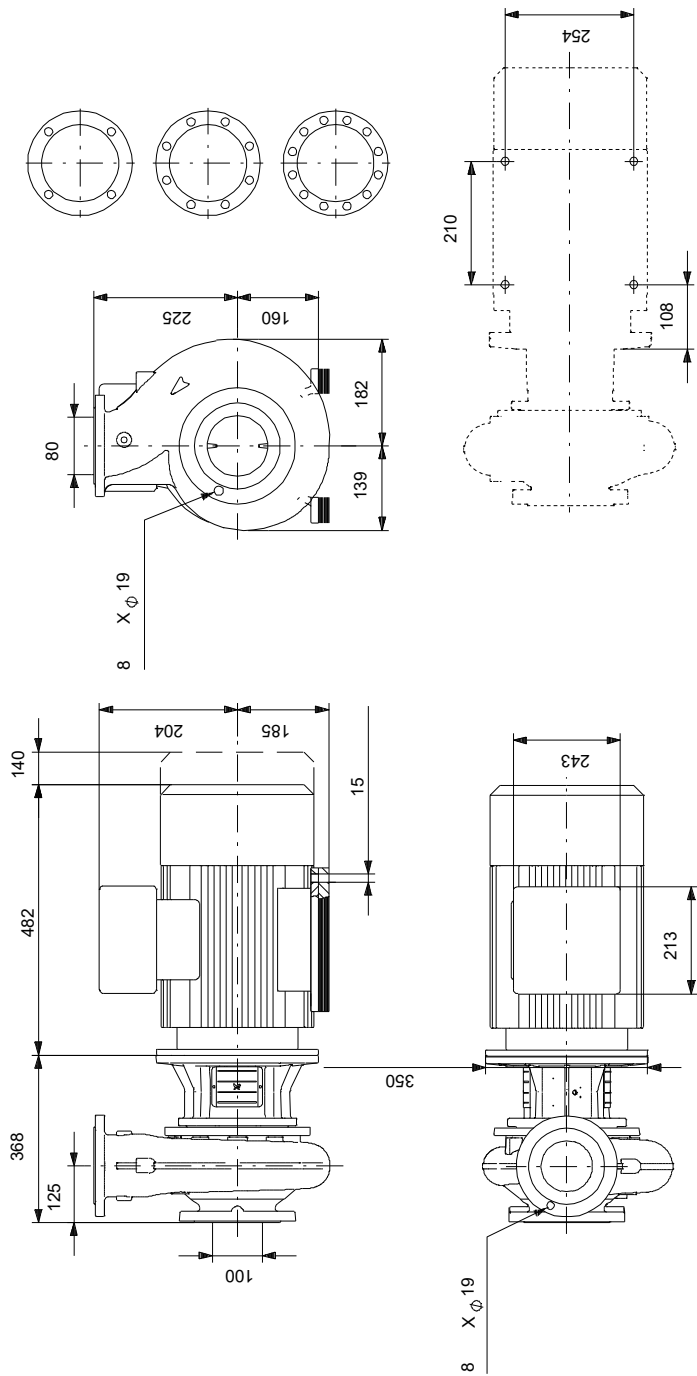
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Description	Value
Motor efficiency at full load:	91.2 %
Motor efficiency at 3/4 load:	91.8 %
Motor efficiency at 1/2 load:	91.3 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	87420028
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	STEEL BEARING
Controls:	
Frequency converter:	NONE
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI \geq :	0.70
Net weight:	153 kg
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Shipping volume:	0.707 m ³
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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.

