

**Qty. Description**

1 NB 150-200/218-202 AAF1AESBQQEWW1

Product No.: [98974648](#)

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 10 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.

## 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 IE3 in accordance with IEC 60034-30-1.

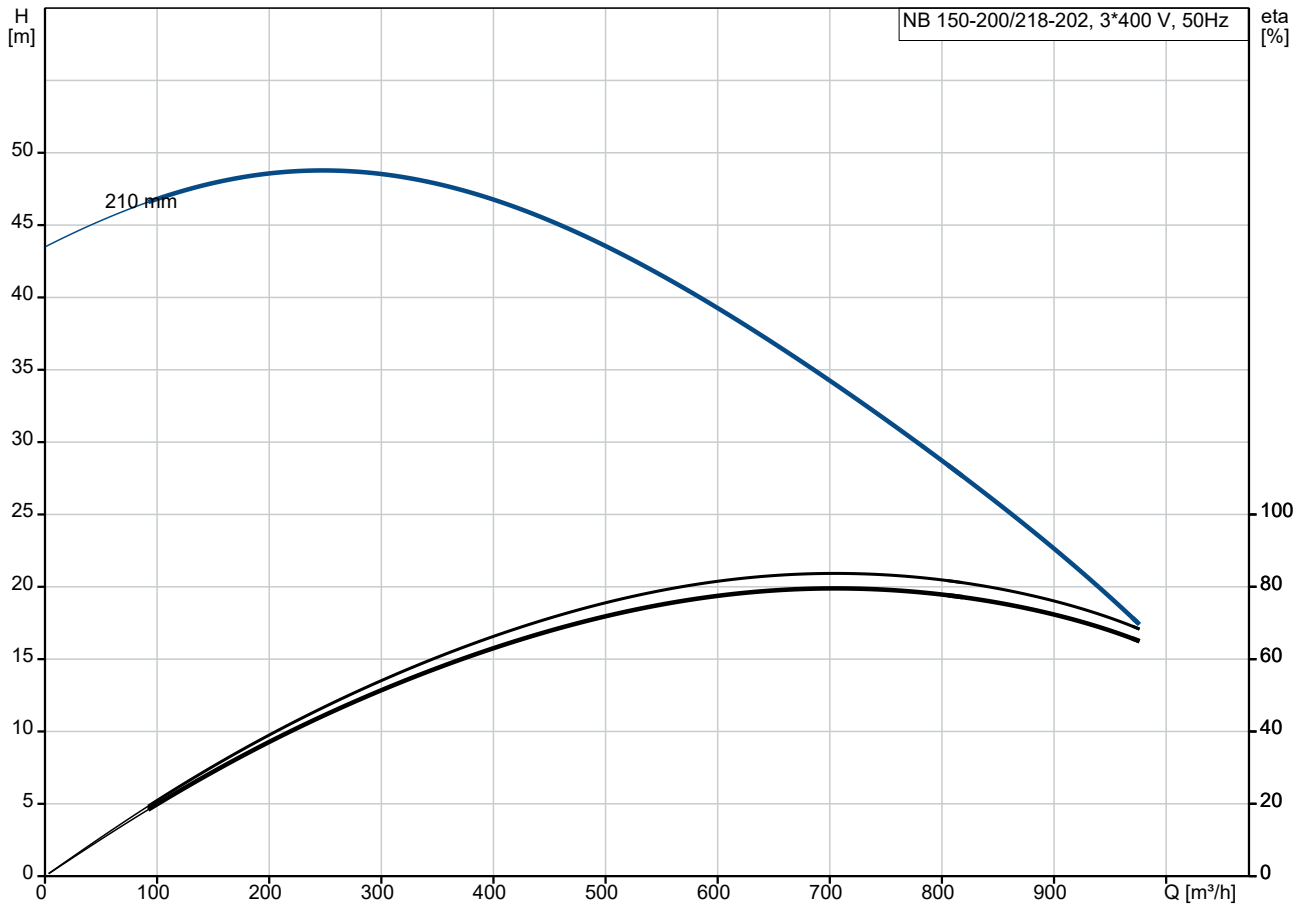
The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

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1	<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 must be ordered with an electrically insulated motor bearing.</p> <p><b>Further product details</b></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><b>Technical data</b></p> <p>Controls:</p> <p>Frequency converter:                    NONE                      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/m<sup>3</sup></p> <p>Technical:</p> <p>Pump speed on which pump data are based:    2975 rpm                      Rated flow:                                786.4 m<sup>3</sup>/h                      Rated head:                                32.94 m                      Actual impeller diameter:            210 mm                      Nominal impeller diameter:         200                      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>Max. ambient temperature:            55 °C                      Maximum operating pressure:        10 bar                      Pipe connection standard:            EN 1092-2                      Size of inlet connection:             DN 200                      Size of outlet connection:            DN 150                      Pressure rating for connection:     PN 10                      Bearing lubrication:                    Grease                      Pump housing with feet:                Yes                      Support block (Yes/No):                N</p>

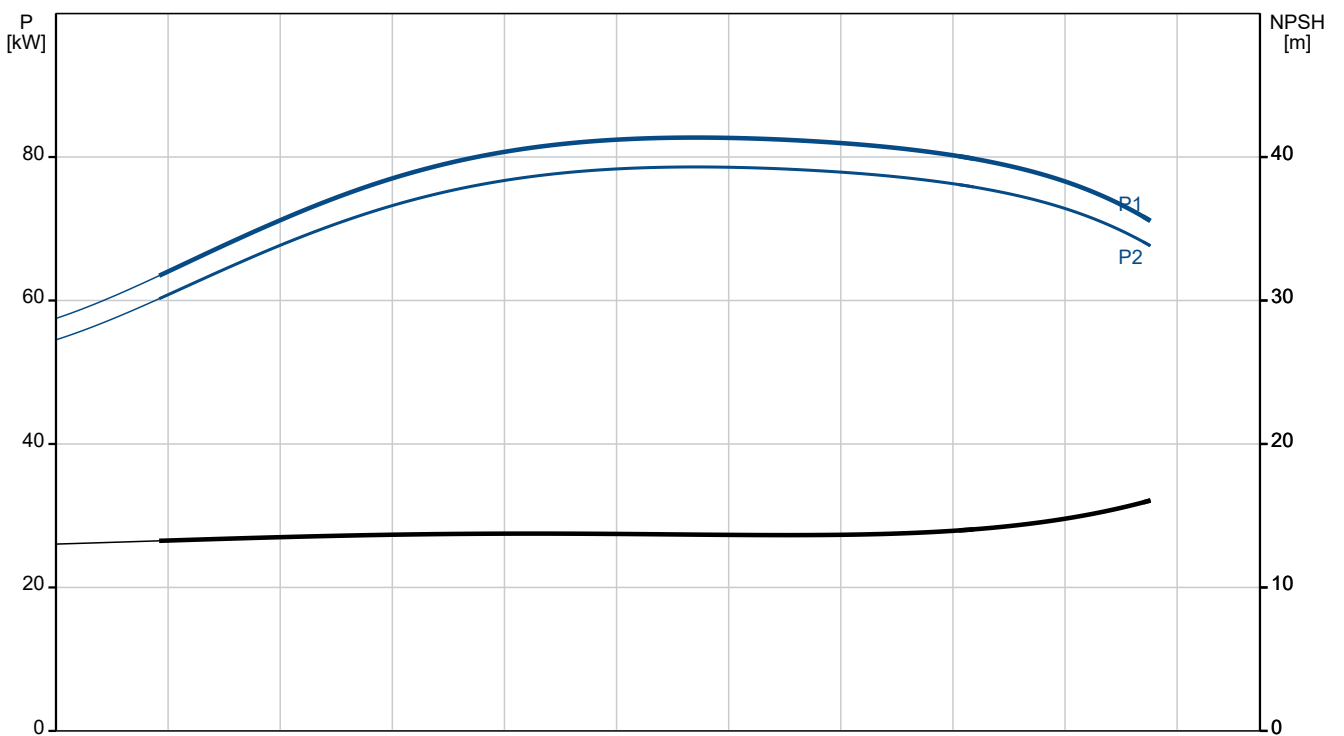
Qty.	Description
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1	Electrical data: Motor type: SIEMENS IE Efficiency class: IE3 Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 152/88 A Starting current: 720-720 % Cos phi - power factor: 0.90 Rated speed: 2975 rpm Efficiency: IE3 95,0% Motor efficiency at full load: 95.0-95.0 % Motor efficiency at 3/4 load: 95.1-95.1 % Motor efficiency at 1/2 load: 94.6-94.6 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 83U15442 Bearing insulation type N-end: STEEL BEARING  Others: Minimum efficiency index, MEI $\geq$ : 0.70 Net weight: 809 kg Gross weight: 834 kg Shipping volume: 0.848 m <sup>3</sup> Danish VVS No.: 386067205 Country of origin: HU Custom tariff no.: 84137051
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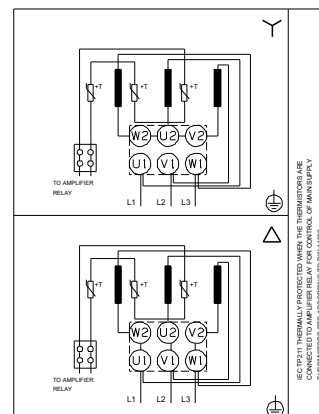
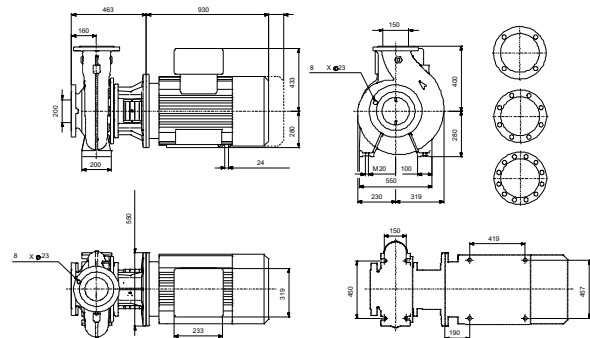
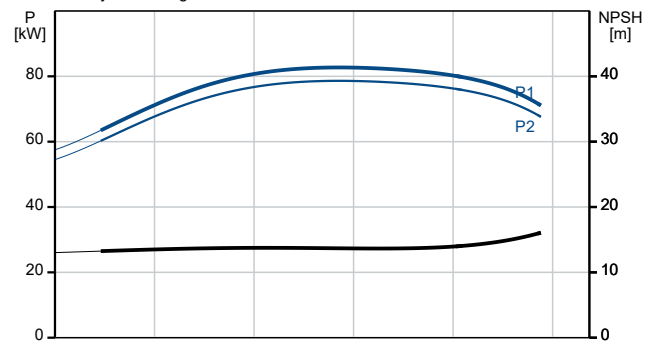
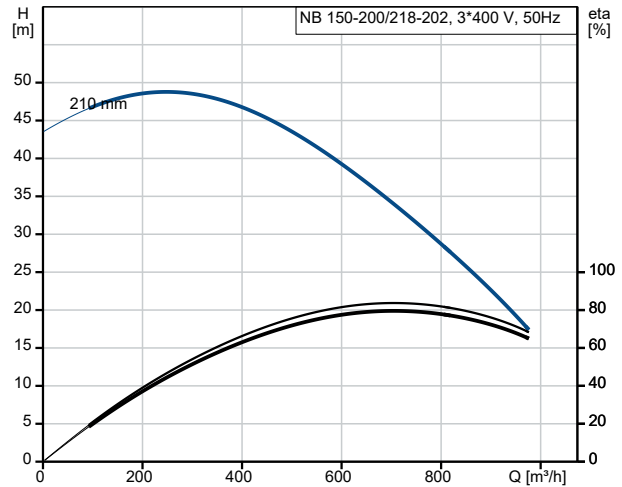
## 98974648 NB 150-200/218-202 AAF1AESBQQEWW1 50 Hz



Pumped liquid = Water  
 Liquid temperature during operation = 20 °C  
 Density = 998.2 kg/m³



Description	Value
<b>General information:</b>	
Product name:	NB 150-200/218-202 AAF1AESBQQEWW1
Product No:	98974648
EAN number:	5712604528181
<b>Technical:</b>	
Pump speed on which pump data are based:	2975 rpm
Rated flow:	786.4 m <sup>3</sup> /h
Rated head:	32.94 m
Actual impeller diameter:	210 mm
Nominal impeller diameter:	200
Shaft seal arrangement:	Single
Shaft diameter:	32 mm
Code for shaft seal:	BQQE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
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>	
Max. ambient temperature:	55 °C
Maximum operating pressure:	10 bar
Pipe connection standard:	EN 1092-2
Size of inlet connection:	DN 200
Size of outlet connection:	DN 150
Pressure rating for connection:	PN 10
Bearing lubrication:	Grease
Pump housing with feet:	Yes
Support block (Yes/No):	N
Connect code:	F1
<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>	
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	90 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	152/88 A
Starting current:	720-720 %
Cos phi - power factor:	0.90
Rated speed:	2975 rpm
Efficiency:	IE3 95,0%





Company name:

Created by:

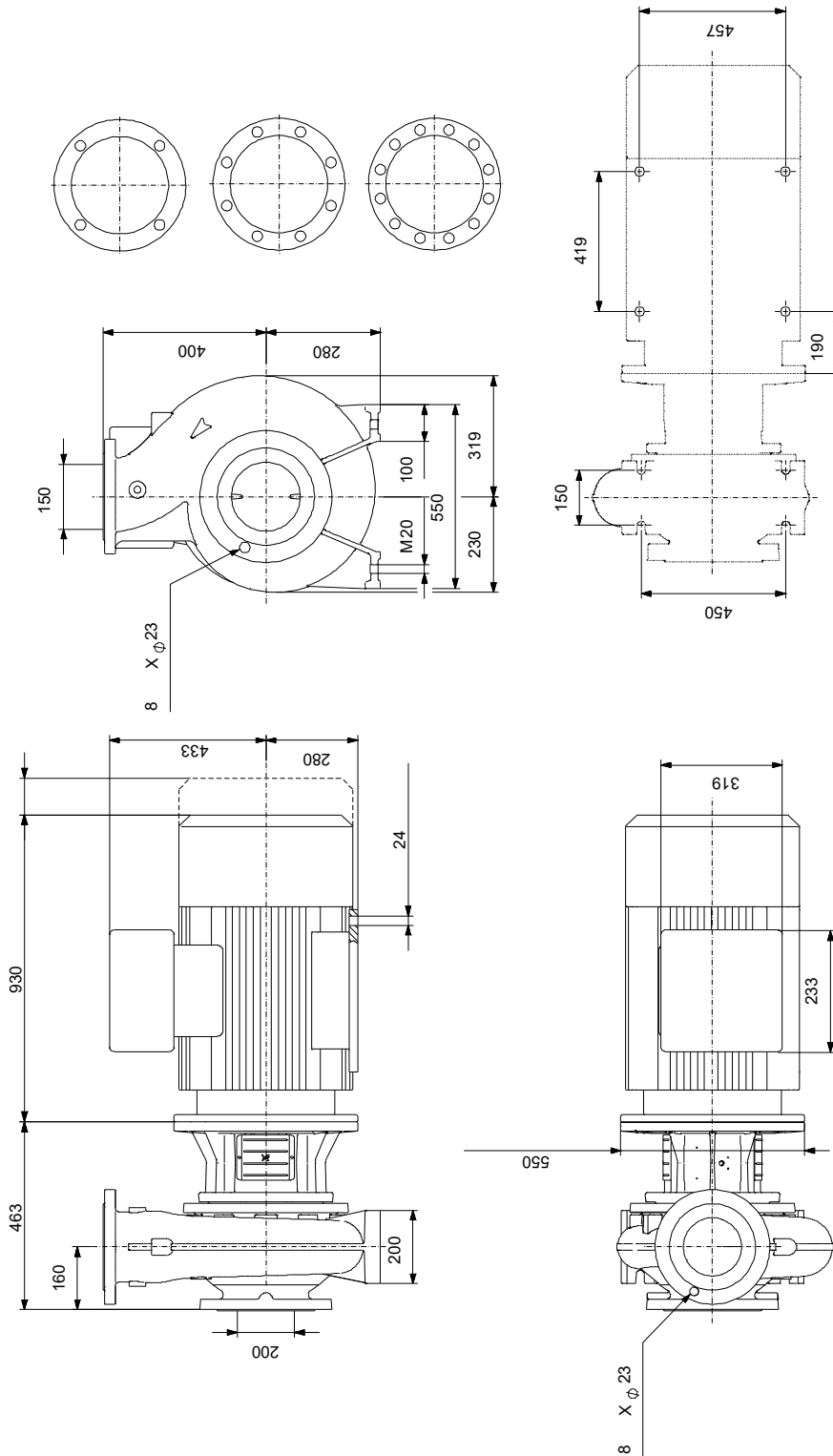
Phone:

Date:

22/12/2022

Description	Value
Motor efficiency at full load:	95.0-95.0 %
Motor efficiency at 3/4 load:	95.1-95.1 %
Motor efficiency at 1/2 load:	94.6-94.6 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	83U15442
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	STEEL BEARING
<b>Controls:</b>	
Frequency converter:	NONE
Pressure sensor:	N
<b>Others:</b>	
Minimum efficiency index, MEI $\geq$ :	0.70
Net weight:	809 kg
Gross weight:	834 kg
Shipping volume:	0.848 m <sup>3</sup>
Danish VVS No.:	386067205
Country of origin:	HU
Custom tariff no.:	84137051

## 98974648 NB 150-200/218-202 AAF1AESBQQEWW1 50 Hz



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

## 98974648 NB 150-200/218-202 AAF1AESBQQEWW1 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.



