

15/08/2022

Qty. | Description

1

NB 65-200/162 AASF2AESBQQENW1



Note! Product picture may differ from actual product

Date:

Product No.: 98979917

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

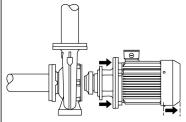
Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

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.



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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 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.

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 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.

## Further product details

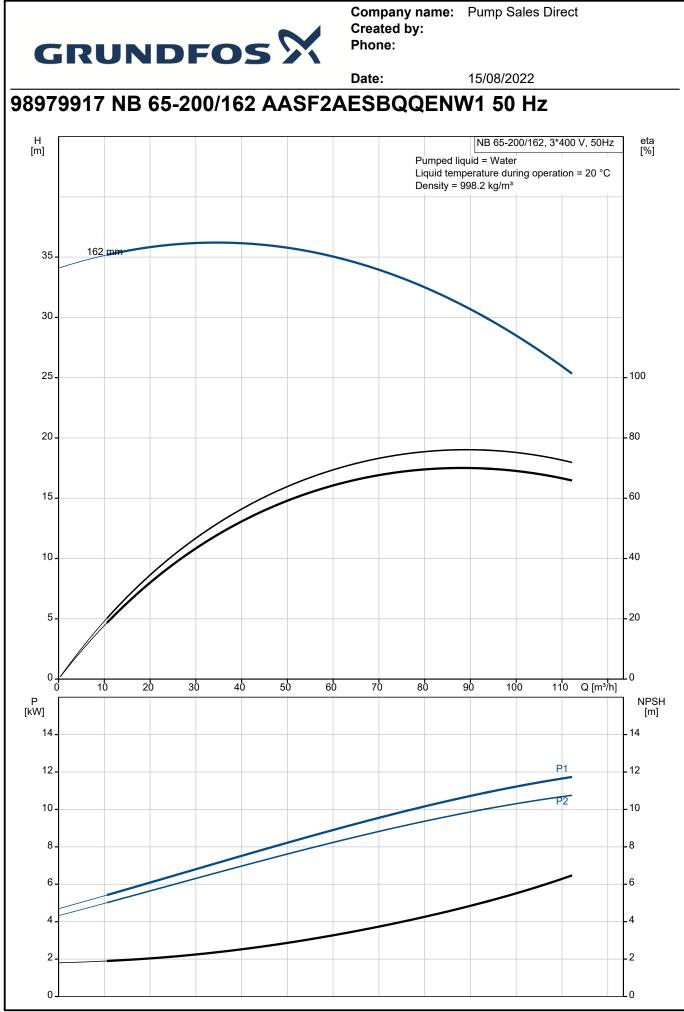
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

# **Technical data**

Controls: Frequency converter: Pressure sensor:	NONE N
Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -25 120 °C 20 °C 998.2 kg/m³
Technical: Pump speed on which pump data Rated flow: Rated head: Actual impeller diameter: Nominal impeller diameter: Shaft seal arrangement: Code for shaft seal: Curve tolerance: Bearing design:	are based: 2945 rpm 89.67 m³/h 30.63 m 162 mm 200 Single BQQE ISO9906:2012 3B Standard
Materials: Pump housing: Wear ring: Impeller:	Cast iron EN-GJL-250 ASTM class 35 Brass Cast iron EN-GJL-200
Internal pump house coating: Shaft:	ASTM class 30 CED Stainless steel EN 1.4301 AISI 304



		Date:	15/08/2022
Qty.	Description		
1	Installation: t max amb: Maximum operating pressure: Pipe connection standard: Size of inlet connection: Size of outlet connection: Pressure rating for connection: Bearing lubrication: Pump housing with feet: Support block (Yes/No): Electrical data: Motor type:	60 °C 16 bar EN 1092-2 DN 80 DN 65 PN 16 Grease No Y	
	IE Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current: Cos phi - power factor: Rated speed: Efficiency: Motor efficiency at full load: Motor efficiency at 3/4 load: Motor efficiency at 1/2 load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85): Motor No: Bearing insulation type N-end:	IE3 11 kW 50 Hz 3 x 380-415D/660-690Y V 20,8-19,8/12,0-11,8 A 660-780 % 0.88-0.84 2940-2950 rpm IE3 91,2% 91.2 % 91.2 % 91.8 % 91.3 % 2 55 Dust/Jetting F 87420028 STEEL BEARING	
	Others: Minimum efficiency index, MEI ≥: Net weight: Gross weight: Shipping volume: Danish VVS No.: Country of origin: Custom tariff no.:	0.70 150 kg 172 kg 0.509 m <sup>3</sup> 386063201 HU 84137051	



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		Date:	15/08/2022
Description	Value	H [m]	NB 65-200/162, 3*400 V, 50Hz eta [%]
General information:	Fuido		Pumped liquid = Water
Product name:	NB 65-200/162 AASF2AESBQQENW1		Liquid temperature during operation = 20 °C Density = 998.2 kg/m <sup>3</sup>
Product No:	98979917	35 - 162 m	in the second seco
EAN number:	5712604621189		
Technical:	3712004021103	30 -	
Pump speed on which pump data are based:	2945 rpm	25 -	100
Rated flow	89.67 m³/h		
Rated head:	30.63 m	20 -	- 80
Actual impeller diameter:	162 mm		
Nominal impeller diameter:	200	15	60
Shaft seal arrangement:	Single		
Shaft diameter:	24 mm	10 -	40
Code for shaft seal:	BQQE	— ' <b>`</b> ]	F40
Curve tolerance:	ISO9906:2012 3B		
Pump version:	AS	5-	- 20
Bearing design:	Standard		
Materials:			20 40 60 80 100 Q [m³/h]
Pump housing:	Cast iron	P [kW]	NPS
Pump housing:	EN-GJL-250		[m]
Pump housing:	ASTM class 35	12	P1 12
Wear ring:	Brass	10	P2 10
Impeller:	Cast iron		
Impeller:	EN-GJL-200	8 -	-8
Impeller:	ASTM class 30	6-	6
Internal pump house coating:	CED	4	- 4
Material code:	A	2	2
Code for rubber:	E		
Shaft:	E Stainless steel	0 <u> </u>	· · · · · · · · · · · · · · · · · · ·
Shaft:	EN 1.4301		
Shaft:	AISI 304	100	
Installation:	AI3I 304		
installation:	60 °C		
Maximum operating pressure:	16 bar	*+₩	
		Ψ	
Pipe connection standard: Size of inlet connection:	EN 1092-2 DN 80	4 X g 19	~ <del>  210  </del>
Size of outlet connection:	DN 65		
Pressure rating for connection:	PN 16		
•		Ū.	
Bearing lubrication: Pump housing with feet:	Grease		
Support block (Yes/No):	No Y		
Support block (Yes/No): Connect code:	F2		
	ΓZ		
L <b>iquid:</b> Pumped liquid:	Water		
	Water		
Liquid temperature range:	-25 120 °C		Ύ
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³	₿ <sup>,</sup>	•T <b>15</b> •T
Electrical data:	160MD		
Motor type:	160MB		
IE Efficiency class:	IE3	TO AMPLIFIER RELAY	
Rated power - P2:	11 kW	L1	68
Mains frequency:	50 Hz		
Rated voltage:	3 x 380-415D/660-690Y V		
Rated current:	20,8-19,8/12,0-11,8 A	₽ <sup>,+</sup> ₽ ₽	
Starting current:	660-780 %		
Cos phi - power factor:	0.88-0.84		
Rated speed:	2940-2950 rpm	TO AMPLIFIER RELAY	
Efficiency:	IE3 91,2%		

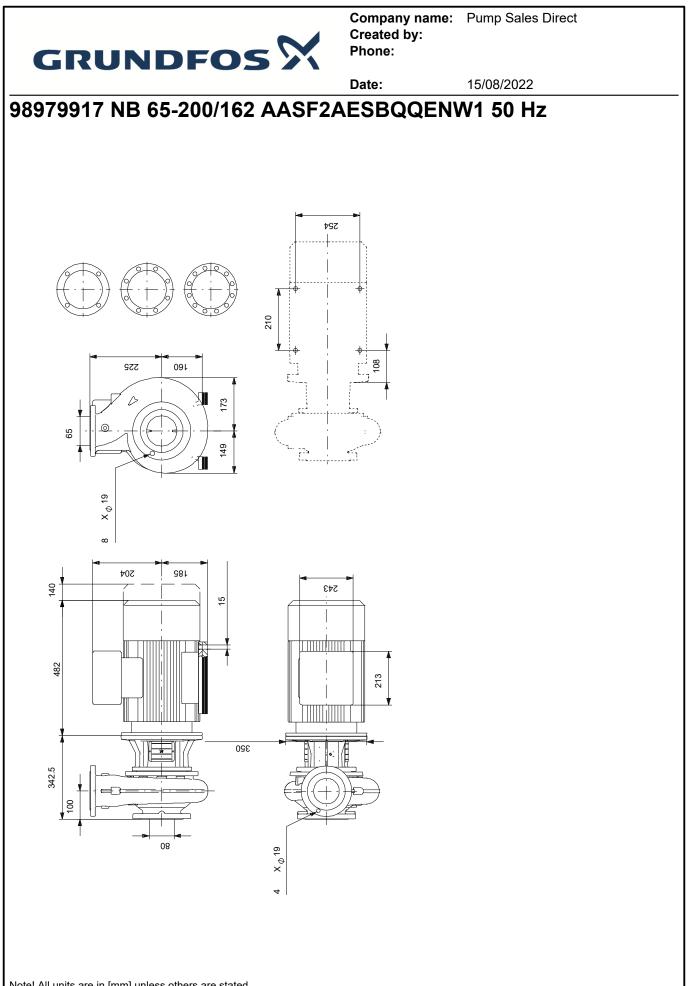
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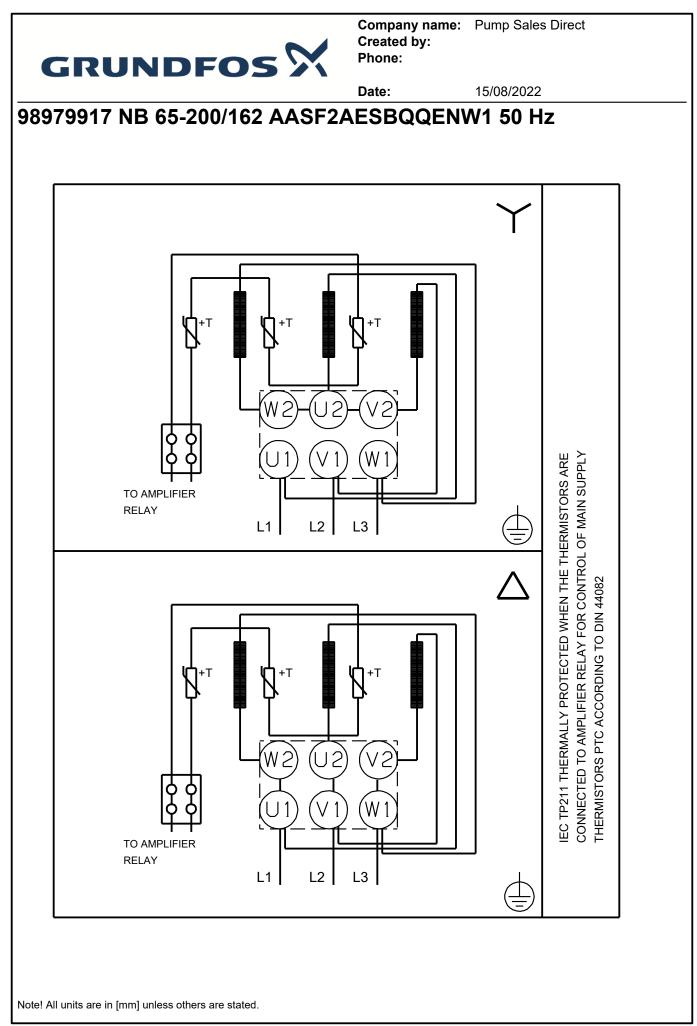
Date:

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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:	Ν
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	150 kg
Gross weight:	172 kg
Shipping volume:	0.509 m³
Danish VVS No.:	386063201
Country of origin:	HU
Custom tariff no.:	84137051



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





		Da		5/08/2022		
Order Data:						
Position	Your pos.	Product name	Amount	Product No	Total	
		NB 65-200/162	1	98979917	Price c reque	