

Created by: Phone:

Date: 15/08/2022

Qty. | Description

NBE 65-200/219 AAF2AESBQQEKWA



Note! Product picture may differ from actual product

Product No.: 99101750

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, permanent-magnet synchronous motor.

The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement.

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.

An external sensor can be connected if controlled pump operation is required for flow, differential pressure or temperature control.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions.

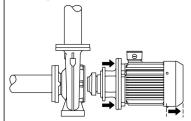
The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

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



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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 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 IE5 in accordance with IEC 60034-30-2.

The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

The terminal box holds terminals for these connections:

- one dedicated digital input
- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 3.5 V
- 5 V voltage supply to potentiometer and sensor
- one configurable digital input or open-collector output
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal-relay outputs (potential-free contacts)
- GENIbus connection
- interface for Grundfos CIM fieldbus module.

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: Built-in Pressure sensor: N

Liquid:

Pumped liquid: Water
Liquid temperature range: -25 .. 120 °C
Selected liquid temperature: 20 °C
Density: 998.2 kg/m³

Technical:

Pump speed on which pump data are based: 1450 rpm

Rated flow: 65.1 m³/h Rated head: 14.5 m



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1 Actual impeller diameter: 219 mm
Nominal impeller diameter: 200
Shaft seal arrangement: Single
Code for shaft seal: BQQE

Curve tolerance: ISO9906:2012 3B2

Bearing design: Standard

Materials:

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

Installation:

Range of ambient temperature: -20 .. 50 °C Maximum operating pressure: 16 bar EN 1092-2 Pipe connection standard: Size of inlet connection: **DN 80** Size of outlet connection: **DN 65** Pressure rating for connection: PN 16 Bearing lubrication: Grease Pump housing with feet: Yes Support block (Yes/No): Ν

Electrical data:

IE Efficiency class: IE5
Rated power - P2: 4 kW
Mains frequency: 50 Hz

 Rated voltage:
 3 x 380-500 V

 Rated current:
 7.70-6.00 A

 Cos phi - power factor:
 0.92-0.87

 Rated speed:
 180-2200 rpm

 Efficiency:
 90.3%

Efficiency: 90.3%

Motor efficiency at full load: 90.3 %

Number of poles: 4

Enclosure class (IEC 34-5): IP55

Insulation class (IEC 85): F

Motor No: 98971266

Bearing insulation type N-end: STEEL BEARING

Others:

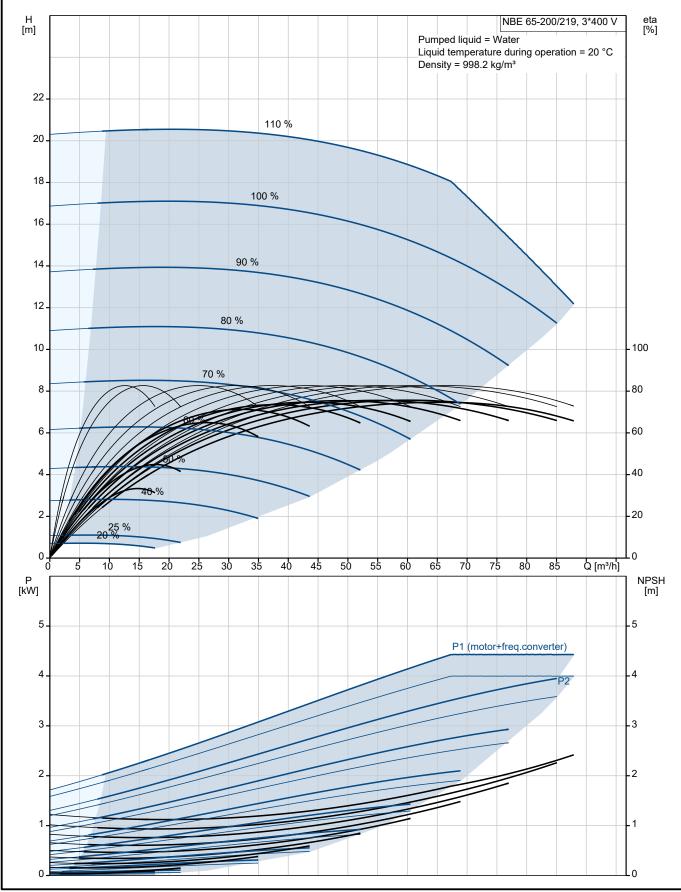
Minimum efficiency index, MEI ≥: 0.70 Net weight: 75 kg Gross weight: 92 kg Shipping volume: 0.315 m^3 Danish VVS No.: 386103208 Country of origin: HU Custom tariff no.: 84137051



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99101750 NBE 65-200/219 AAF2AESBQQEKWA 50 Hz

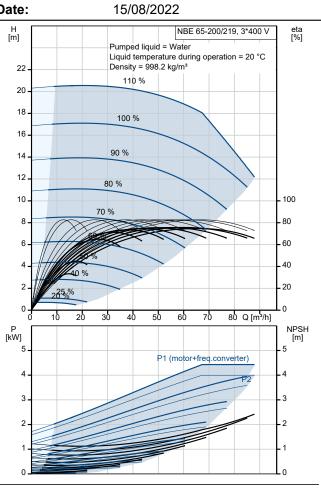


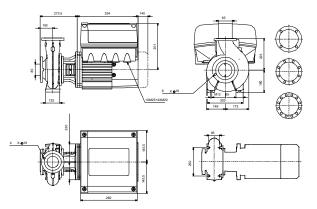


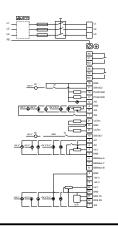
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Date:

Description	Value		
eneral information:			
roduct name:	NBE 65-200/219 AAF2AESBQQEKWA		
Product No:	99101750		
AN number:	5712606787890		
echnical:			
rump speed on which pump data re based:	1450 rpm		
Rated flow:	65.1 m³/h		
Rated head:	14.5 m		
Actual impeller diameter:	219 mm		
lominal impeller diameter:	200		
Shaft seal arrangement:	Single		
Shaft diameter:	24 mm		
Code for shaft seal:	BQQE		
Curve tolerance:	ISO9906:2012 3B2		
Pump version:	Α		
Bearing design:	Standard		
Materials:			
Pump housing:	Cast iron		
Pump housing:	EN-GJL-250		
Pump housing:	ASTM class 35		
Vear ring:	Brass		
mpeller:	Cast iron		
mpeller:	EN-GJL-200		
mpeller:	ASTM class 30		
nternal pump house coating:	CED		
Material code:	A		
Code for rubber:	F		
Shaft:	Stainless steel		
Shaft:	EN 1.4301		
Shaft:			
	AISI 304		
nstallation:	-20 50 °C		
Range of ambient temperature:			
Maximum operating pressure:	16 bar		
Pipe connection standard:	EN 1092-2		
Size of inlet connection:	DN 80		
Size of outlet connection:	DN 65		
Pressure rating for connection:	PN 16		
Bearing lubrication:	Grease		
Pump housing with feet:	Yes		
Support block (Yes/No):	N		
Connect code:	F2		
_iquid:			
Pumped liquid:	Water		
iquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
Electrical data:			
E Efficiency class:	IE5		
Rated power - P2:	4 kW		
Mains frequency:	50 Hz		
Rated voltage:	3 x 380-500 V		
Rated current:	7.70-6.00 A		
Cos phi - power factor:	0.92-0.87		
Rated speed:	180-2200 rpm		
Efficiency:	90.3%		
Motor efficiency at full load:	90.3 %		
lumber of poles:	4		
Tallibol of poles.	-r		









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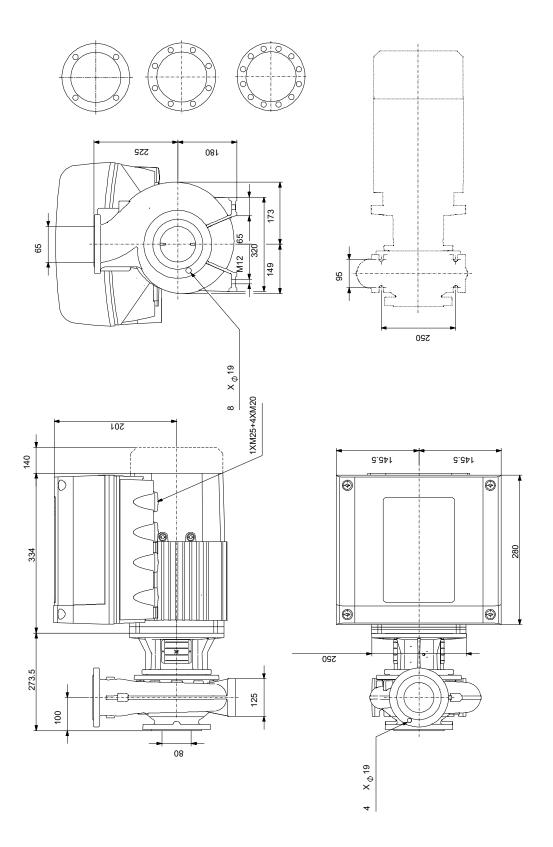
Description	Value
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	ELEC
Motor No:	98971266
Mount. design. acc. IEC 34-7:	IM V1/B5
Bearing insulation type N-end:	STEEL BEARING
Controls:	
Control panel:	HMI300 - Advanced
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	75 kg
Gross weight:	92 kg
Shipping volume:	0.315 m³
Danish VVS No.:	386103208
Country of origin:	HU
Custom tariff no.:	84137051



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99101750 NBE 65-200/219 AAF2AESBQQEKWA 50 Hz



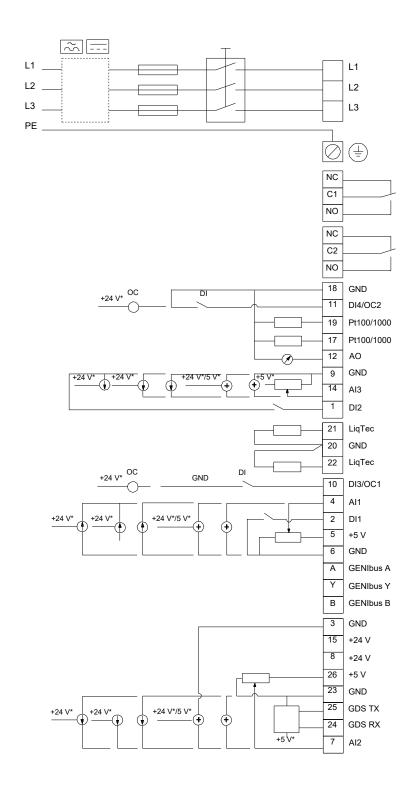
Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



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99101750 NBE 65-200/219 AAF2AESBQQEKWA 50 Hz



Note! All units are in [mm] unless others are stated.



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Order Data:

Position	Your pos.	Product name		Product No	Total
	-	NBE 65-200/219	1		Price on
					request
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