

Created by: Phone:

**Date:** 15/08/2022

#### Qty. | Description

#### 1 NB 80-200/196 AAF2AESBQQEKW3



Product No.: 98042383

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

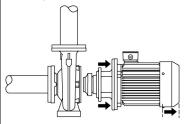
Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

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 feet.

## Motor



Created by: Phone:

**Date:** 15/08/2022

### Qty. | Description

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: NONE 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: 1460 rpm

Rated flow: 92.13 m³/h
Rated head: 11.05 m
Actual impeller diameter: 196 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:

t max amb: 55 °C

Maximum operating pressure: 16 bar

Pipe connection standard: EN 1092-2

Size of inlet connection: DN 100



Created by: Phone:

**Date:** 15/08/2022

# Qty. | Description

1 Size of outlet connection: DN 80
Pressure rating for connection: PN 16
Bearing lubrication: Grease
Pump housing with feet: Yes
Support block (Yes/No): N

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: 7.9/4.6 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

Bearing insulation type N-end: N

Others:

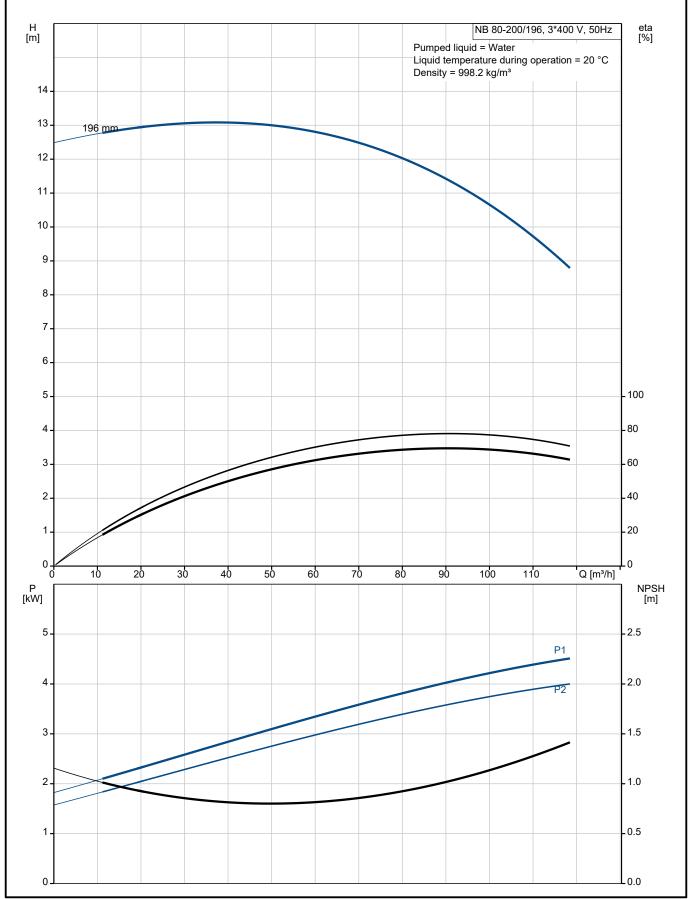
Minimum efficiency index, MEI ≥: 0.70 Net weight: 98 kg Gross weight: 115 kg Shipping volume:  $0.315 \text{ m}^3$  Danish VVS No.: 386064205 Country of origin: HU Custom tariff no.: 84137051



Created by: Phone:

**Date:** 15/08/2022

# 98042383 NB 80-200/196 AAF2AESBQQEKW3 50 Hz

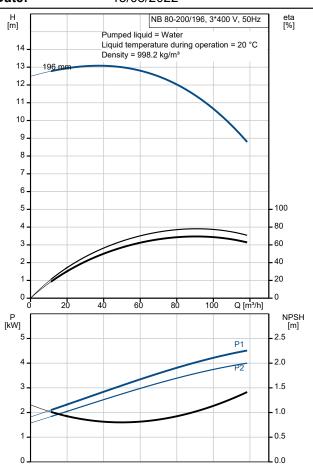


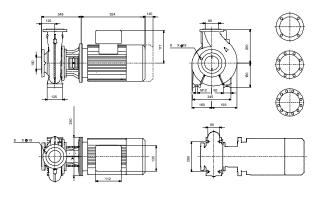


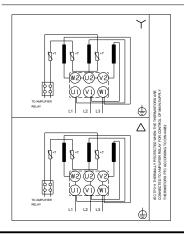
Created by: Phone:

**Date:** 15/08/2022

Description	Value		
General information:			
Product name:	NB 80-200/196 AAF2AESBQQEKW3		
Product No:	98042383		
EAN number:	5710627984496		
Technical:	J. 10021007700		
Pump speed on which pump data are	1460 rpm		
based:	•		
Rated flow:	92.13 m³/h		
Rated head:	11.05 m		
Actual impeller diameter:	196 mm		
Nominal impeller diameter:	200		
Shaft seal arrangement:	Single		
Shaft diameter:	32 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		
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		
Installation:			
t max amb:	55 °C		
Maximum operating pressure:	16 bar		
Pipe connection standard:	EN 1092-2		
Size of inlet connection:	DN 100		
Size of inlet connection:	DN 80		
Pressure rating for connection:	PN 16		
Bearing lubrication:	Grease		
Pump housing with feet:	Yes		
Support block (Yes/No):	N		
Connect code:	F2		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
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		
_	7.9/4.6 A		
Rated current:			
	710-710 %		
Starting current:	710-710 % 0.82		
Rated current: Starting current: Cos phi - power factor: Rated speed:	710-710 % 0.82 1460 rpm		









Created by: Phone:

**Date:** 15/08/2022

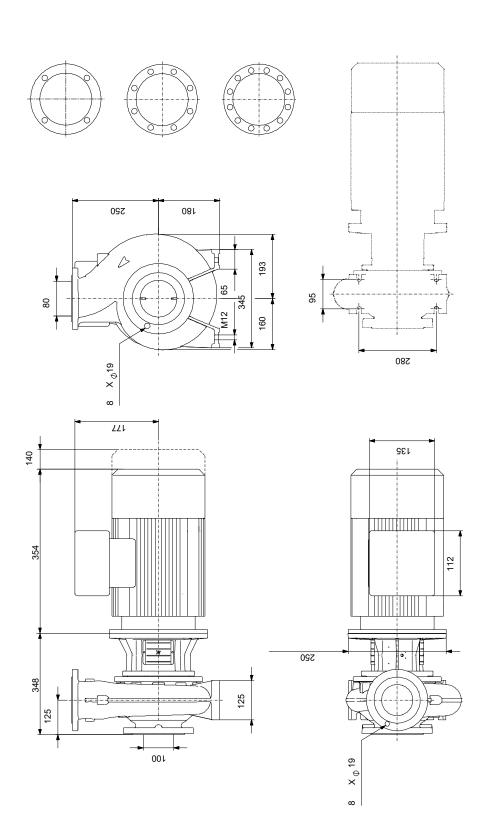
Description	Value
•	88 6-88 6 %
Motor efficiency at full load:	00.0 00.0 70
Motor efficiency at 3/4 load:	89.2-89.2 %
Motor efficiency at 1/2 load:	88.6-88.6 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	83V15213
Mount. design. acc. IEC 34-7:	IM V1
Bearing insulation type N-end:	N
Controls:	
Frequency converter:	NONE
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	98 kg
Gross weight:	115 kg
Shipping volume:	0.315 m³
Danish VVS No.:	386064205
Country of origin:	HU
Custom tariff no.:	84137051



Created by: Phone:

15/08/2022 Date:

# 98042383 NB 80-200/196 AAF2AESBQQEKW3 50 Hz



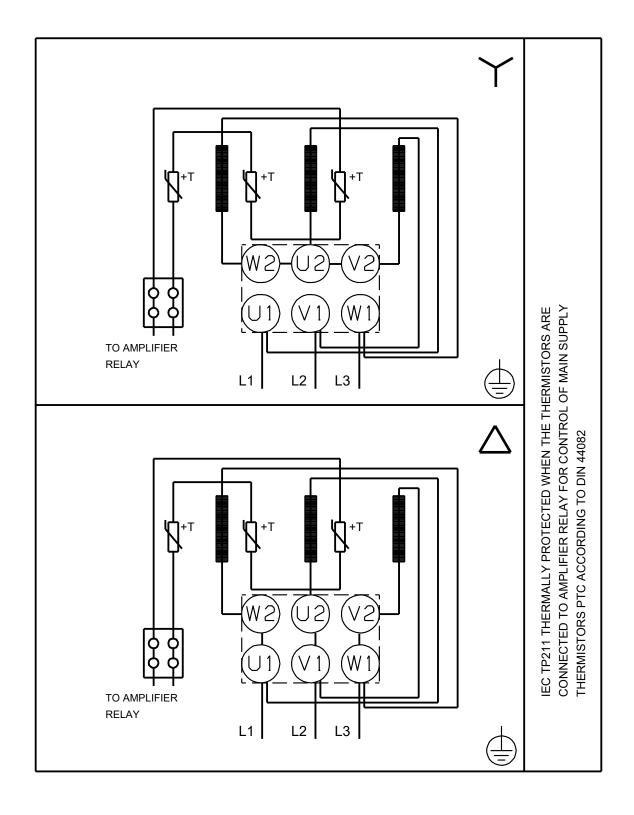
Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Created by: Phone:

**Date:** 15/08/2022

# 98042383 NB 80-200/196 AAF2AESBQQEKW3 50 Hz



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



Created by: Phone:

**Date:** 15/08/2022

# Order Data:

Position	Your pos.	Product name		Product No	Total
	-	NB 80-200/196	1	98042383	Price on
					request