

Date: 16/06/2022

Qty. | Description

1 NK 200-450/391 AA2F1AESBQQEWW3



Note! Product picture may differ from actual product

Product No.: 98973094

Non-self-priming, single-stage, centrifugal pump designed according to ISO 5199 with dimensions and rated performance according to EN 733. Flanges are PN 10 with dimensions according to EN 1092-2. The pump has an axial suction port, a radial discharge port and horizontal shaft. It is of the back pull-out design enabling removal of the coupling, bearing bracket and impeller without disturbing the motor, pump housing or pipework.

The unbalanced rubber bellows seal is according to DIN EN 12756.

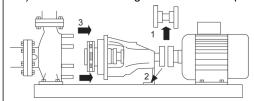
The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

Pump and motor are mounted on a common steel base frame in accordance with ISO 3661.

The back pull-out design together with a spacer coupling makes it possible to service the pump without dismantling the pump housing and motor from the base frame.

This saves realignment of pump and motor after service.

- 1) Remove coupling.
- 2) Remove the bolts in the bearing bracket support foot.
- 3) Remove the bearing bracket from the pump housing.



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.

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.

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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)

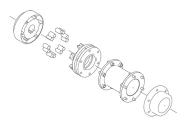
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The shaft is made of stainless steel and has a diameter of 48 mm where the coupling is mounted.

The pump uses a spacer coupling between the pump and motor shaft.



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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.

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.

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:

Liquid:

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

Technical:

Pump speed on which pump data are based: 1485 rpm

Υ

Rated flow: 509.7 m³/h

Pump with motor (Yes/No):

Rated head: 47.41 m Actual impeller diameter: 391 mm Nominal impeller diameter: 450 Code for shaft seal: **BQQE** Mechanical seal type: Single

Curve tolerance: ISO9906:2012 3B

Bearing design: Standard

Materials:

Pump housing: Cast iron

> EN-GJL-250 **ASTM class 35**

Brass

Wear ring: Impeller: Cast iron EN-GJL-200



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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: 10 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 250 Size of outlet connection: **DN 200** Pressure rating for connection: PN 10

Coupling type: Flexible w/spacer

Base frame design: EN/ISO
Code for base frame: 10D
Grouting (Yes/No): N

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: 157/91 A 720-720 % Starting current: Cos phi - power factor: 0.87 Rated speed: 1485 rpm IE3 95,2% Efficiency: Motor efficiency at full load: 95.2-95.2 % Motor efficiency at 3/4 load: 95.5-95.5 % Motor efficiency at 1/2 load: 95.3-95.3 %

Number of poles: 4
Enclosure class (IEC 34-5): IP55
Insulation class (IEC 85): F

Motor No: 98957825

Bearing insulation type N-end: STEEL BEARING

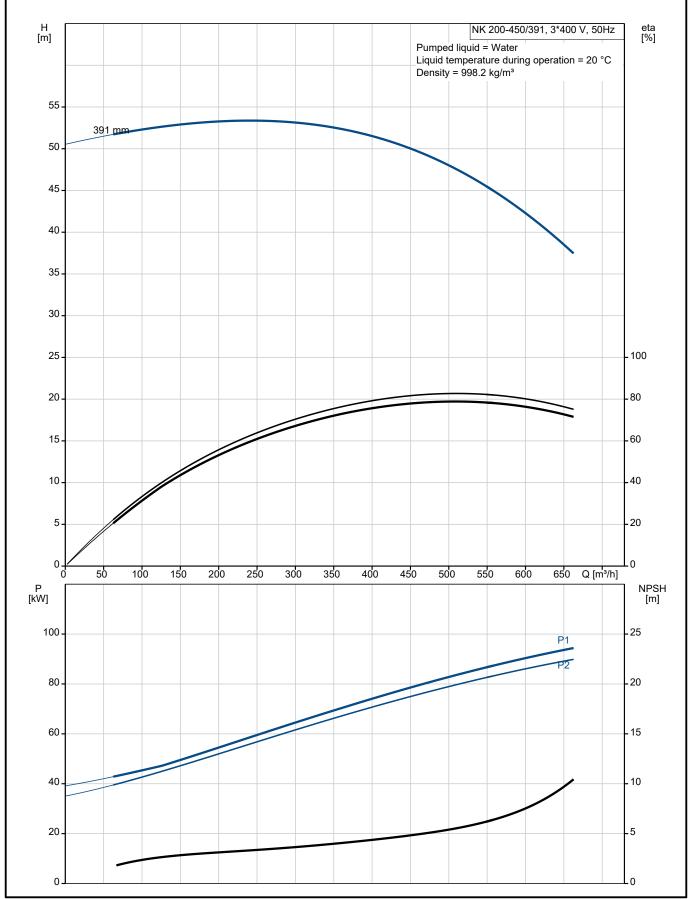
Others:

Minimum efficiency index, MEI ≥: 0.40
Net weight: 1530 kg
Gross weight: 1630 kg
Shipping volume: 2.78 m³
Country of origin: HU
Custom tariff no.: 84137059



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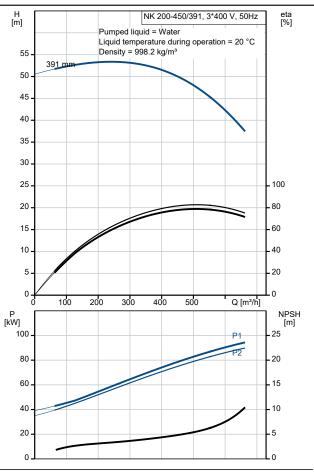
98973094 NK 200-450/391 AA2F1AESBQQEWW3 50 Hz

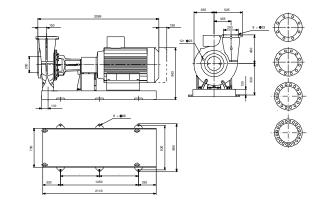


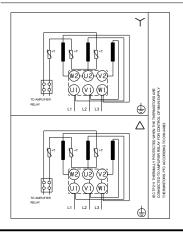


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General information: Product name: Product No: 98973094 EAN number: Pump speed on which pump data are based: Rated flow: Pump with motor (Yes/No): Rated head: Actual impeller diameter: Nominal impeller diameter: Code for shaft seal: Mechanical seal type: Curve tolerance: Pump version: Searing design: Materials: Pump housing: Cast iron Pump housing: NK 200-450/391 ANK 200-450/491 ANK 200-45	Description	Value
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Density: 998.2 kg/m³ Electrical data: Motor type: SIEMENS E Efficiency class: IE3 Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V		
Electrical data: Motor type: SIEMENS E Efficiency class: IE3 Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V	· ·	
Motor type: SIEMENS E Efficiency class: IE3 Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V	-	990.2 kg/III-
E Efficiency class: IE3 Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V		CIEMENIC
Rated power - P2: 90 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V		
Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V	-	
Rated voltage: 3 x 380-420D/660-725Y V	•	
Rated current: 157/91 A		
	Rated current:	15//91 A









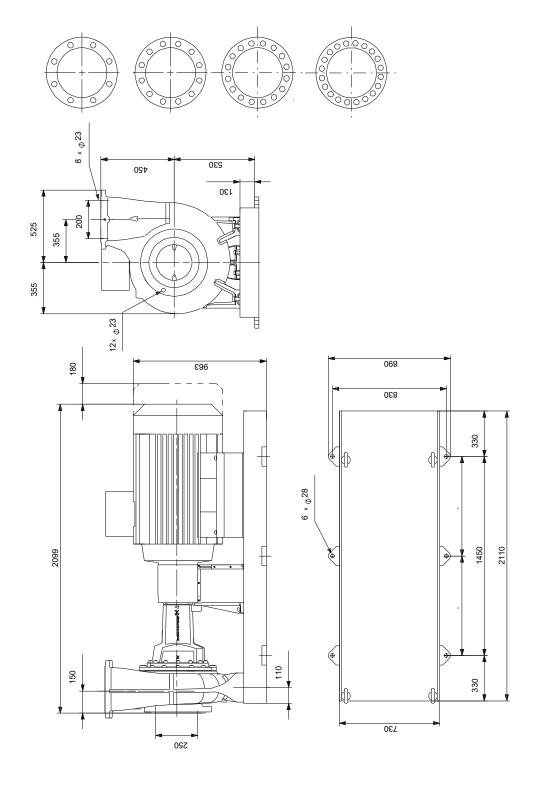
Date: 16/06/2022

Description	Value
Starting current:	720-720 %
Cos phi - power factor:	0.87
Rated speed:	1485 rpm
Efficiency:	IE3 95,2%
Motor efficiency at full load:	95.2-95.2 %
Motor efficiency at 3/4 load:	95.5-95.5 %
Motor efficiency at 1/2 load:	95.3-95.3 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	98957825
Bearing insulation type N-end:	STEEL BEARING
Controls:	
Frequency converter:	NONE
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.40
Net weight:	1530 kg
Gross weight:	1630 kg
Shipping volume:	2.78 m³
Country of origin:	HU
Custom tariff no.:	84137059



16/06/2022 Date:

98973094 NK 200-450/391 AA2F1AESBQQEWW3 50 Hz

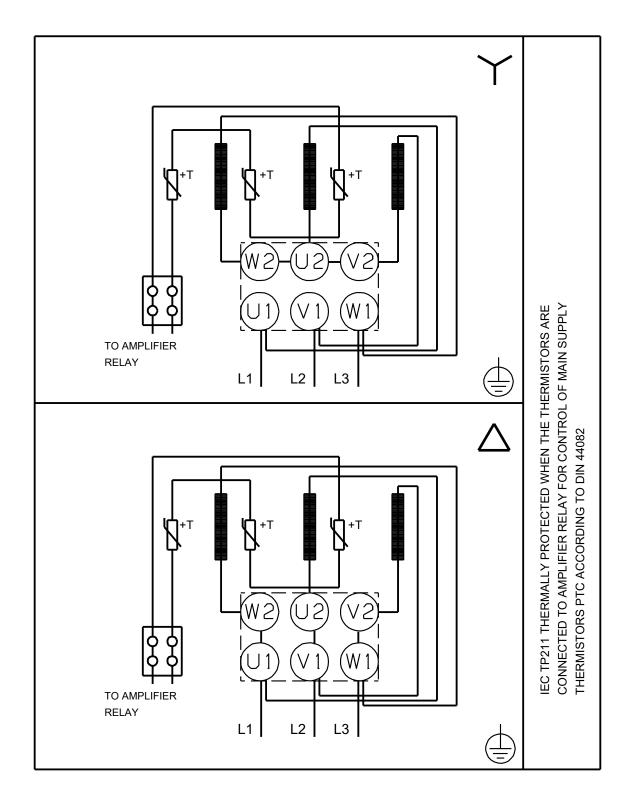


Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Date: 16/06/2022

98973094 NK 200-450/391 AA2F1AESBQQEWW3 50 Hz



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



Date: 16/06/2022

Order Data:

Product name: NK 200-450/391

Amount: 1

Product No: 98973094

Total: Price on request