

**Date:** 02/11/2022

Qty. | Description

1 NK 150-250/226-214 BA2F1AESBQQEOW3



Note! Product picture may differ from actual product

Product No.: 98918826

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.

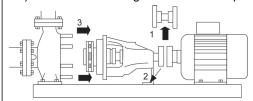
The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

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 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.

{IMG Filename: GRALON\_NB-NK-G\_SHAFTSEAL\_Bxxx.gif }

Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

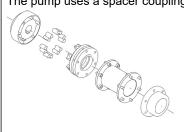
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

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 42 mm where the coupling is mounted.

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





**Date:** 02/11/2022

### Qty. | Description

#### 1 | 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: 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: 1475 rpm

Rated flow: 376.5 m<sup>3</sup>/h

Pump with motor (Yes/No): Y

Rated head: 10.24 m
Actual impeller diameter: 220 mm
Nominal impeller diameter: 250
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

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: 10 bar



**Date:** 02/11/2022

### Qty. | Description

1 Pipe connection standard: EN 1092-2

Type of inlet connection:

Type of outlet connection:

Size of inlet connection:

DIN

DIN

DN 200

Size of outlet connection:

DN 150

Pressure rating for connection:

PN 10

Coupling type: Flexible w/spacer

Base frame design: EN/ISO
Code for base frame: 9
Grouting (Yes/No): N

Electrical data:

Motor type: SIEMENS
IE Efficiency class: IE3
Rated power - P2: 15 kW
Mains frequency: 50 Hz

Rated voltage: 3 x 380-420D/660-725Y V

Rated current: 28.5/16.6 A Starting current: 850-850 % Cos phi - power factor: 0.82 Rated speed: 1475 rpm Efficiency: IE3 92,1% Motor efficiency at full load: 92.1-92.1 % Motor efficiency at 3/4 load: 92.3-92.3 % Motor efficiency at 1/2 load: 91.5-91.5 %

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

Motor No: 98957800

Bearing insulation type N-end: N

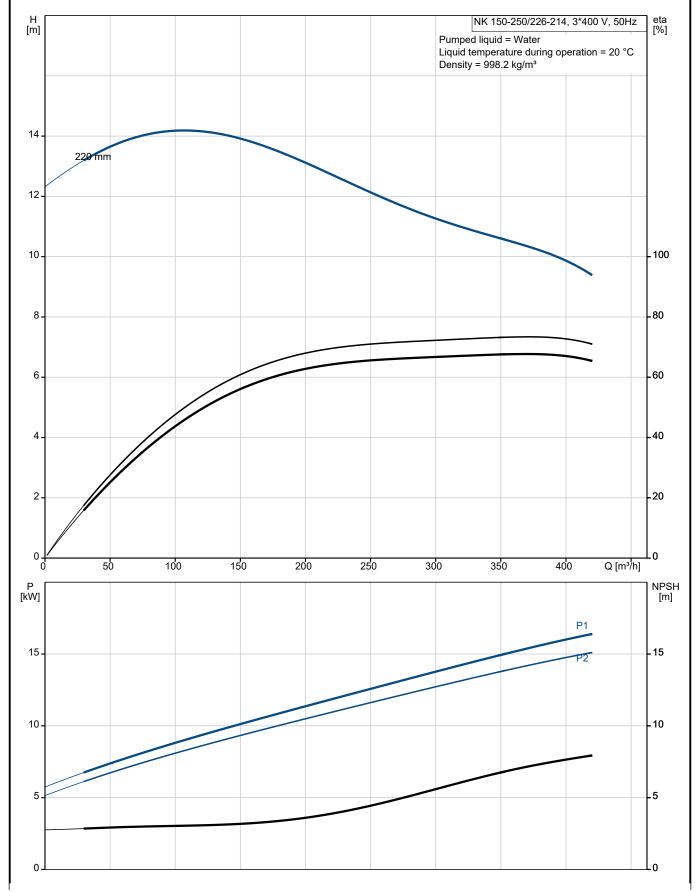
Others:

Minimum efficiency index, MEI ≥: 0.63 Net weight: 461 kg Gross weight: 529 kg Shipping volume: 1.52 m³



**Date:** 02/11/2022

# 98918826 NK 150-250/226-214 BA2F1AESBQQEOW3 50 Hz





### Company name: Created by: Phone:

|                                       | Da |
|---------------------------------------|----|
| Value                                 | [m |
|                                       |    |
| NK 150-250/226-214<br>BA2F1AESBQQEOW3 |    |
| 98918826                              | 14 |
| 5712603572901                         |    |
| 1475 rpm                              |    |
| 1473 Ipili                            | 10 |
| 376.5 m³/h                            |    |
| Υ                                     |    |
| 10.24 m                               |    |
| 220 mm                                |    |
|                                       |    |

| Pump speed on which pump data 14 are based: | 175 rpm |
|---|---------|

Description

Product name: Product No:

EAN number:

Technical:

General information:

| Rated flow:               | 376.5 m³/h |
|---------------------------|------------|
| Pump with motor (Yes/No): | Υ          |
| Rated head:               | 10.24 m    |
| Actual impeller diameter: | 220 mm     |

Nominal impeller diameter: 250 Shaft diameter: 42 mm BQQE Code for shaft seal: Mechanical seal type: Single

ISO9906:2012 3B Curve tolerance: Α2 Pump version:

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: Α Code for rubber: Ε

Shaft: Stainless steel Shaft: EN 1.4301 Shaft: AISI 304

Installation: t max amb:

55 °C 10 bar Maximum operating pressure: EN 1092-2 Pipe connection standard: DIN Type of inlet connection: DIN

Type of outlet connection: Size of inlet connection: DN 200 DN 150 Size of outlet connection: PN 10 Pressure rating for connection:

Coupling type: Flexible w/spacer Base frame design: EN/ISO

9 Code for base frame: Grouting (Yes/No): Ν F Connect code:

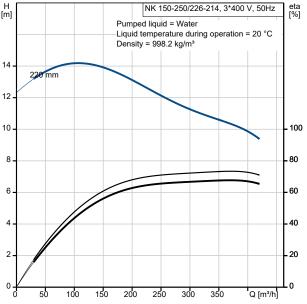
Liquid:

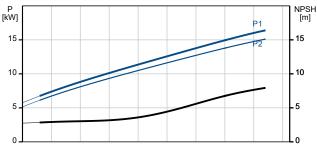
Pumped liquid: Water Liquid temperature range: -25 .. 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m<sup>3</sup>

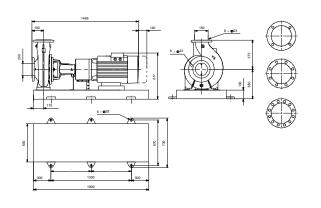
Electrical data: Motor type: SIEMENS IE3 IE Efficiency class: Rated power - P2: 15 kW Mains frequency: 50 Hz

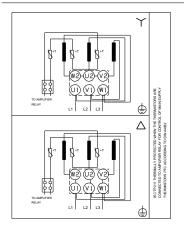
Rated voltage: 3 x 380-420D/660-725Y V 28.5/16.6 A Rated current:

02/11/2022 ate:











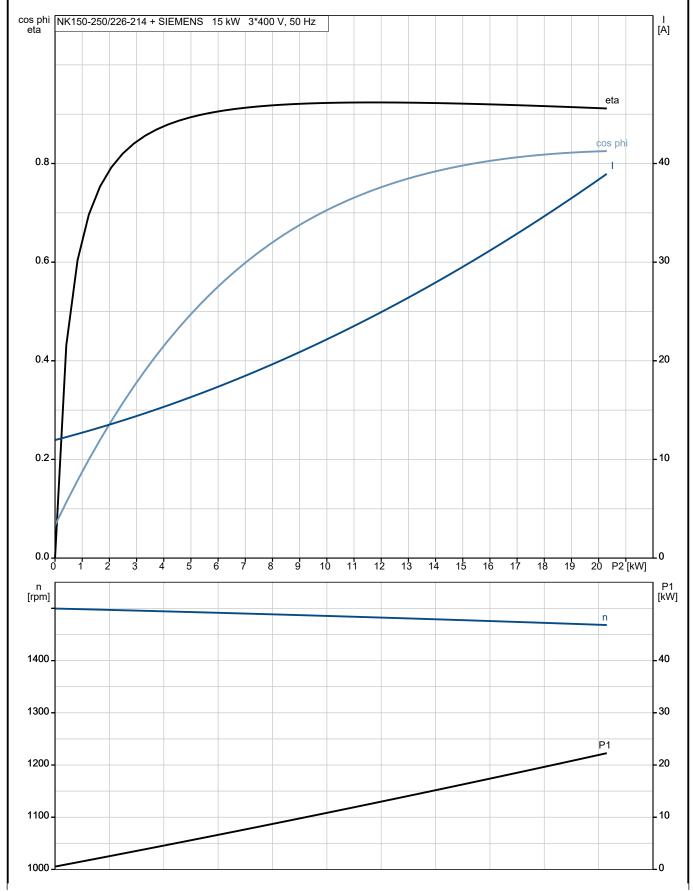
**Date:** 02/11/2022

| Description                      | Value       |
|----------------------------------|-------------|
| Starting current:                | 850-850 %   |
| Cos phi - power factor:          | 0.82        |
|                                  | * · * =     |
| Rated speed:                     | 1475 rpm    |
| Efficiency:                      | IE3 92,1%   |
| Motor efficiency at full load:   | 92.1-92.1 % |
| Motor efficiency at 3/4 load:    | 92.3-92.3 % |
| Motor efficiency at 1/2 load:    | 91.5-91.5 % |
| Number of poles:                 | 4           |
| Enclosure class (IEC 34-5):      | IP55        |
| Insulation class (IEC 85):       | F           |
| Built-in motor protection:       | PTC         |
| Motor No:                        | 98957800    |
| Bearing insulation type N-end:   | N           |
| Controls:                        |             |
| Frequency converter:             | NONE        |
| Pressure sensor:                 | N           |
| Others:                          |             |
| Minimum efficiency index, MEI ≥: | 0.63        |
| Net weight:                      | 461 kg      |
| Gross weight:                    | 529 kg      |
| Shipping volume:                 | 1.52 m³     |



**Date:** 02/11/2022

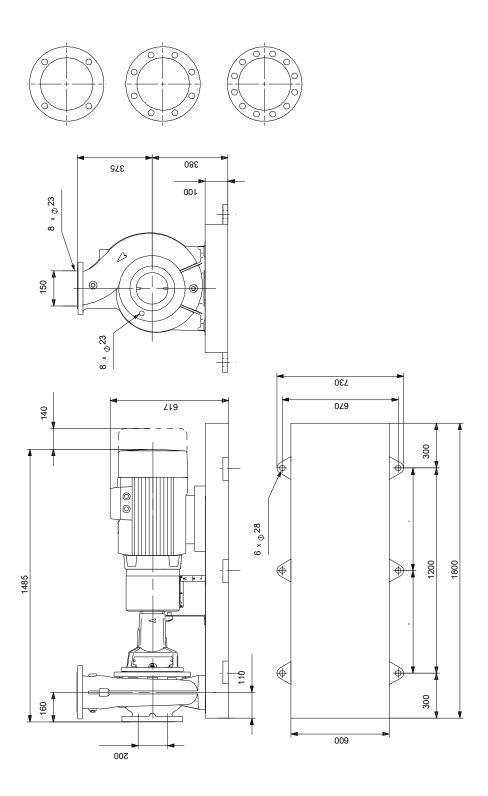
## 98918826 NK 150-250/226-214 BA2F1AESBQQEOW3 50 Hz





**Date:** 02/11/2022

### 98918826 NK 150-250/226-214 BA2F1AESBQQEOW3 50 Hz



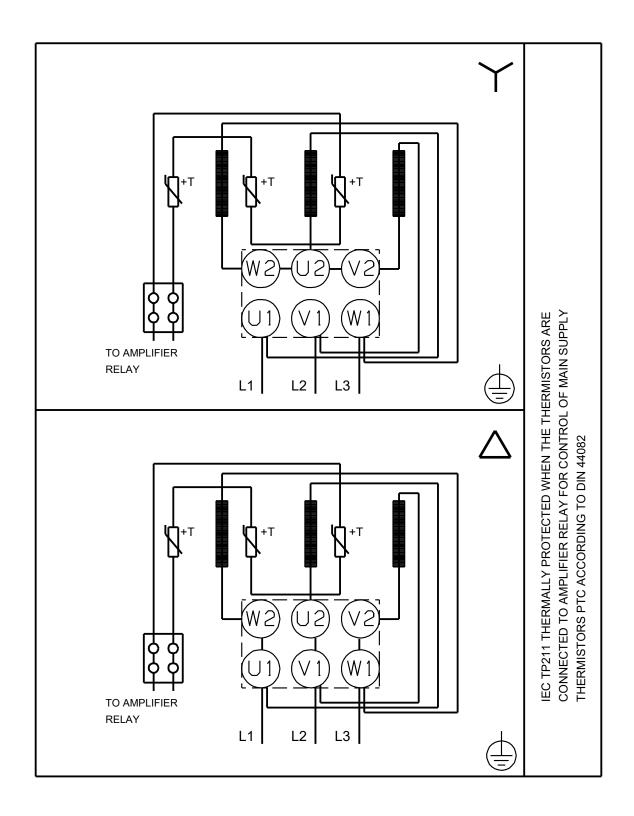
Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Date:

02/11/2022

## 98918826 NK 150-250/226-214 BA2F1AESBQQEOW3 50 Hz



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



**Date:** 02/11/2022

### Order Data:

| Position | Your pos. | Product name       |   | Product No | Total    |
|----------|-----------|--------------------|---|------------|----------|
|          | -         | NK 150-250/226-214 | 1 |            | Price on |
|          |           |                    |   |            | request  |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          |           |                    |   |            |          |
|          | I         | I                  | I | l l        |          |