

**Date:** 16/06/2022

#### Qty. | Description

#### 1 NKE 80-315/305 AA2F2AESBQQEOW3



Note! Product picture may differ from actual product

Product No.: On request

Non-self-priming, single-stage, centrifugal pump designed according to ISO 5199 with dimensions and rated performance according to EN 733. Flanges are PN 16 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.

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.

An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The operating panel has indicator lights for "Operation" and "Fault".

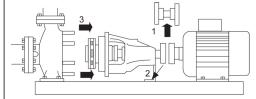
Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

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.

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

Rotating seal ring material: silicon carbide (SiC)



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Stationary seat material: silicon carbide (SiC)

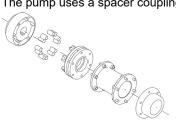
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

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 32 mm where the coupling is mounted.

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



#### **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 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:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, Imax = 5 mA
- one analog sensor input, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, Imax = 40 mA
- one digital input
- two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- RS-485 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: 1460 rpm

Rated flow: 125 m³/h

Pump with motor (Yes/No): Y
Rated head: 29 m
Actual impeller diameter: 305 mm
Nominal impeller diameter: 315



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### Qty. | Description

Code for shaft seal: BQQE Mechanical seal type: Single

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:

-20 .. 40 °C Range of ambient temperature: Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN DIN Type of outlet connection: **DN 100** Size of inlet connection: Size of outlet connection: **DN 80** Pressure rating for connection: PN 16

Coupling type: Flexible w/spacer

Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N

Electrical data:

Motor type: 160LB
IE Efficiency class: IE3
Rated power - P2: 15 kW
Mains frequency: 50 Hz
Rated voltage: 3 x 380-480 V
Rated current: 30.0-25.4 A

Cos phi - power factor:

Rated speed:

Efficiency:

Motor efficiency at full load:

Number of poles:

Enclosure class (IEC 34-5):

Insulation class (IEC 85):

O.90-0.85

240-1750 rpm
IE3 92,1%

92.1 %

IP55

IP55

F

Motor No: 86906223

Others:

Minimum efficiency index, MEI ≥: 0.70

Net weight: 406 kg

Gross weight: 433 kg

Shipping volume: 0.801 m³

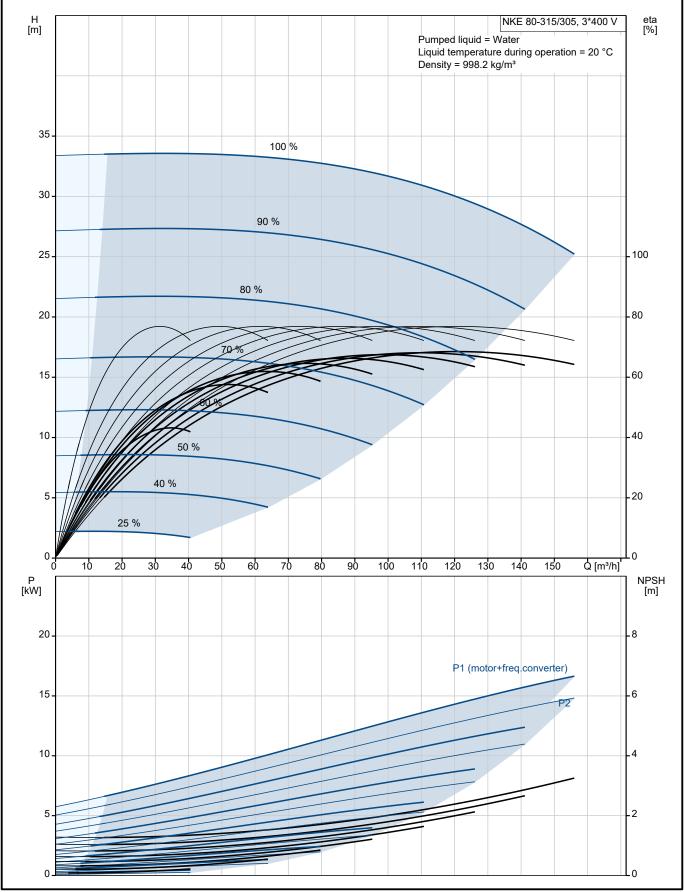
Country of origin: HU

Custom tariff no.: 84137059



**Date:** 16/06/2022

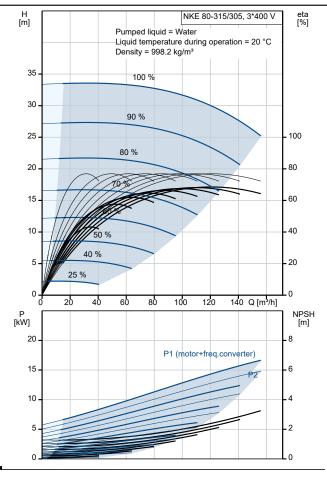
# On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz

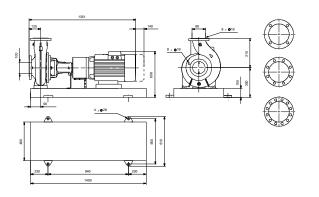


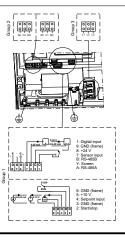


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Description         Value           General Information:         NKE 80-315/305 AA2F2AESBQOEOW3           Product name:         NKE 80-315/305 AA2F2AESBQOEOW3           Product No:         On request           EAN number:         On request           EAN number:         On request           Technical:         1460 rpm           Pump speed on which pump data are based:         1460 rpm           are based:         29 m           Actual impeller diameter:         305 mm           Nominal impeller diameter:         315           Shaft diameter:         32 mm           Code for shaft seal:         BQQE           Mechanical seal type:         Single           Cuve tolerance:         ISO9906:2012 3B2           Pump version:         A2           Bearing design:         Standard           Materials:         Cast iron           Pump housing:         Cast iron           Pump housing:         ASTM class 35           Wear ring:         Brass           Impeller:         Cast iron           Impeller:         ASTM class 30           Internal pump house coating:         CED           Material code:         A           Code for rubber:		
Product No:         NKE 80-315/305 AA2F2AESBQEOW3           Product No:         On request           EAN number:         On request           Technical:         On request           Pump speed on which pump data are based:         1460 rpm           Rated flow:         125 m³/h           Pump with motor (Yes/No):         Y           Rated head:         29 m           Actual impeller diameter:         305 mm           Nominal impeller diameter:         315           Shaft diameter:         32 mm           Code for shaft seal:         BQQE           Mechanical seal type:         Single           Curve tolerance:         ISO9906:2012 3B2           Pump version:         A2           Bearing design:         Standard           Materials:         Cast iron           Pump housing:         Cast iron           Pump housing:         Cast iron           Pump housing:         ASTM class 35           Wear ring:         Brass           Impeller:         Cast iron           Impeller:         ASTM class 30           Internal pump house coating:         CED           Material code:         A           Code for rubber:         E </th <th></th> <th>Value</th>		Value
Product No: On request EAN number: On request Technical:  Pump speed on which pump data are based: Rated flow: 125 m³/h Pump with motor (Yes/No): Y Rated head: 29 m Actual impeller diameter: 305 mm Nominal impeller diameter: 32 mm Code for shaft seal: BQQE Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard Materials:  Pump housing: Cast iron Pump housing: EN-GJL-250 Pump housing: BTN-GJL-250 Pump housing: ASTM class 35 Wear ring: Brass Impeller: Cast iron Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: One CED Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of outlet connection: DIN Type of outlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: DN 90 Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Hujuid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ ElEfficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	General information:	
EAN number: On request  Technical:  Pump speed on which pump data are based:  Rated flow: 125 m³/h  Pump with motor (Yes/No): Y  Rated head: 29 m  Actual impeller diameter: 305 mm  Nominal impeller diameter: 32 mm  Code for shaft seal: BQQE  Mechanical seal type: Single  Curve tolerance: ISO9906:2012 3B2  Pump version: A2  Bearing design: Standard  Materials:  Pump housing: Cast iron  Pump housing: EN-GJL-250  Pump housing: EN-GJL-250  Pump housing: Brass  Impeller: Cast iron  Impeller: EN-GJL-200  Impeller: ASTM class 35  Mear ring: Brass  Impeller: ASTM class 30  Internal pump house coating: CED  Material code: A  Code for rubber: E  Shaft: Stainless steel  Shaft: EN 1.4301  Shaft: AIS 304  Installation:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DIN  Size of outlet connection: DN 80  Pressure rating for connection: DN 80  Pressure rating for connection: DN 80  Pressure rating for connection: DN 100  Size of outlet connection: DN 80  Pressure rating for connect	Product name:	
Technical: Pump speed on which pump data are based: Rated flow: 125 m³/h Pump with motor (Yes/No): Y Rated head: 29 m Actual impeller diameter: 305 mm Nominal impeller diameter: 315 Shaft diameter: 32 mm Code for shaft seal: BQQE Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard Materials: Pump housing: Cast iron Pump housing: EN-GJL-250 Pump housing: Brass Impeller: Cast iron Impeller: EN-GJL-200 Impeller: EN-GJ	Product No:	On request
Pump speed on which pump data are based:         1460 rpm           Rated flow:         125 m³/h           Pump with motor (Yes/No):         Y           Rated head:         29 m           Actual impeller diameter:         305 mm           Nominal impeller diameter:         315           Shaft diameter:         32 mm           Code for shaft seal:         BQQE           Mechanical seal type:         Single           Curve tolerance:         ISO9906:2012 3B2           Pump version:         A2           Bearing design:         Standard           Materials:         Standard           Pump housing:         Cast iron           Pump housing:         Cast iron           Pump housing:         ASTM class 35           Wear ring:         Brass           Impeller:         Cast iron           Impeller:         Cast iron           Impeller:         ASTM class 35           Wear ring:         Brass           Impeller:         Cast iron           Impeller:         ASTM class 30           Internal pump house coating:         CED           Material code:         A           Code for rubber:         E           Shaft	EAN number:	On request
are based:  Rated flow: 125 m³/h Pump with motor (Yes/No): Y Rated head: 29 m Actual impeller diameter: 305 mm Nominal impeller diameter: 315 Shaft diameter: 32 mm Code for shaft seal: BQQE Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Materials: Pump housing: Cast iron Pump housing: EN-GJL-250 Pump housing: Brass Impeller: Cast iron Impeller: EN-GJL-200 Impeller: EN-GJL-200 Impeller: ASTM class 35 Impeller: EN-GJL-200 Impeller: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature ange: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Technical:	
Pump with motor (Yes/No): Rated head: 29 m Actual impeller diameter: 305 mm Nominal impeller diameter: 315 Shaft diameter: 32 mm Code for shaft seal: BQQE Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard  Materials: Pump housing: Cast iron Pump housing:	Pump speed on which pump data are based:	1460 rpm
Rated head: 29 m  Actual impeller diameter: 305 mm  Nominal impeller diameter: 315  Shaft diameter: 32 mm  Code for shaft seal: BQQE  Mechanical seal type: Single  Curve tolerance: ISO9906:2012 3B2  Pump version: A2  Bearing design: Standard  Materials:  Pump housing: Cast iron  Pump housing: EN-GJL-250  Pump housing: Brass  Wear ring: Brass  Impeller: Cast iron  Impeller: ASTM class 35  Wear ring: Brass  Internal pump house coating: CED  Material code: A  Code for rubber: E  Shaft: Stainless steel  Shaft: Stainless steel  Shaft: AISI 304  Installation:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 80  Pressure rating for connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid: Water  Liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  Ile Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Rated flow:	125 m³/h
Actual impeller diameter: 305 mm  Nominal impeller diameter: 315  Shaft diameter: 32 mm  Code for shaft seal: BQQE  Mechanical seal type: Single  Curve tolerance: ISO9906:2012 3B2  Pump version: A2  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: EN-GJL-200  Impeller: ASTM class 30  Internal pump house coating: CED  Material code: A  Code for rubber: E  Shaft: Stainless steel  Shaft: Stainless steel  Shaft: AISI 304  Installation:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 80  Pressure rating for connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  Ite Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Pump with motor (Yes/No):	Υ
Nominal impeller diameter: 315 Shaft diameter: 32 mm Code for shaft seal: BQQE Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard Materials: Pump housing: Cast iron Pump housing: ASTM class 35 Wear ring: Brass Impeller: Cast iron Impeller: ASTM class 30 Impeller: ASTM class 35 Impeller:	Rated head:	29 m
Shaft diameter:         32 mm           Code for shaft seal:         BQQE           Mechanical seal type:         Single           Curve tolerance:         ISO9906:2012 3B2           Pump version:         A2           Bearing design:         Standard           Materials:         Standard           Pump housing:         Cast iron           Pump housing:         EN-GJL-250           Pump housing:         Brass           Impeller:         Cast iron           Impeller:         Cast iron           Impeller:         ASTM class 35           Impeller:         ASTM class 30           Internal pump house coating:         CED           Material code:         A           Code for rubber:         E           Shaft:         Stainless steel           Shaft:         AISI 304           Shaft:         AISI 304           Installation:         Range of ambient temperature:         -20 40 °C           Maximum operating pressure:         16 bar           Pipe connection standard:         EN 1092-2           Type of inlet connection:         DIN           Type of outlet connection:         DIN           Size of outlet connection:	Actual impeller diameter:	305 mm
Code for shaft seal:  Mechanical seal type:  Curve tolerance:  ISO9906:2012 3B2  Pump version:  A2  Bearing design:  Materials:  Pump housing:  Brass  Impeller:  Cast iron  Impeller:  EN-GJL-250  Impeller:  Cast iron  Impeller:  EN-GJL-200  Impeller:  ASTM class 35  Internal pump house coating:  CED  Material code:  A  Code for rubber:  E  Shaft:  Stainless steel  Shaft:  Stainless steel  Shaft:  AISI 304  Installation:  Range of ambient temperature:  Pipe connection standard:  Pipe connection standard:  Type of inlet connection:  DIN  Type of outlet connection:  DIN  Size of outlet connection:  DN 100  Size of outlet connection:  DN 80  Pressure rating for connection:  DN 80  Pressure rating for connection:  PN 16  Coupling type:  Base frame design:  EN/ISO  Code for base frame:  7  Grouting (Yes/No):  N  Connect code:  Liquid:  Pumped liquid:  Liquid temperature range:  -25 120 °C  Selected liquid temperature:  20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  15 kW  Mains frequency:  50 Hz  Rated power - P2:  15 kW  Mains frequency:  50 Hz  Rated power - P2:  15 kW	Nominal impeller diameter:	315
Mechanical seal type: Single Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard  Materials: Pump housing: EN-GJL-250 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: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Shaft diameter:	32 mm
Curve tolerance: ISO9906:2012 3B2 Pump version: A2 Bearing design: Standard  Materials: Pump housing: Cast iron 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: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Code for shaft seal:	BQQE
Pump version: A2 Bearing design: Standard  Materials: Pump housing: EN-GJL-250 Pump housing: ASTM class 35 Wear ring: Brass Impeller: Cast iron Impeller: EN-GJL-200 Impeller: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Size of inlet connection: DIN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature: 20 °C Selected liquid temperature:	Mechanical seal type:	Single
Bearing design: Standard  Materials: Pump housing: Cast iron Pump housing: EN-GJL-250 Pump housing: Brass Wear ring: Brass Impeller: Cast iron Impeller: EN-GJL-200 Impeller: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: Stainless steel Shaft: AISI 304  Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³  Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Curve tolerance:	ISO9906:2012 3B2
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: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³  Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Pump version:	A2
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: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Bearing design:	Standard
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: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Materials:	
Pump housing: 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: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Pump housing:	Cast iron
Wear ring:BrassImpeller:Cast ironImpeller:EN-GJL-200Impeller:ASTM class 30Internal pump house coating:CEDMaterial code:ACode for rubber:EShaft:Stainless steelShaft:EN 1.4301Shaft:EN 1.4304Installation:EN 1.4304Range of ambient temperature:-20 40 °CMaximum operating pressure:16 barPipe connection standard:EN 1092-2Type of inlet connection:DINSize of inlet connection:DN 100Size of outlet connection:DN 80Pressure rating for connection:PN 16Coupling type:Flexible w/spacerBase frame design:EN/ISOCode for base frame:7Grouting (Yes/No):NConnect code:FLiquid:WaterPumped liquid:WaterLiquid temperature range:-25 120 °CSelected liquid temperature:20 °CDensity:998.2 kg/m³Electrical data:Motor type:160LBIE Efficiency class:IE3Rated power - P2:15 kWMains frequency:50 HzRated voltage:3 x 380-480 V	Pump housing:	EN-GJL-250
Impeller: EN-GJL-200 Impeller: EN-GJL-200 Impeller: ASTM class 30 Internal pump house coating: CED Material code: A Code for rubber: E Shaft: Stainless steel Shaft: Stainless steel Shaft: AISI 304 Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Pump housing:	ASTM class 35
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: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DN 100 Size of inlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Wear ring:	Brass
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:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DIN  Size of inlet connection: DN 100  Size of outlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Impeller:	Cast iron
Internal pump house coating:  Material code: A Code for rubber: E Shaft: Shaft: Shaft: EN 1.4301 Shaft: AISI 304  Installation: Range of ambient temperature: Pipe connection standard: Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Base frame design: Code for base frame: Grouting (Yes/No): Connect code: F Liquid: Pumped liquid: Water Liquid temperature: Do C Selected liquid tempera	Impeller:	EN-GJL-200
Material code: Code for rubber: E Shaft: Sha	Impeller:	ASTM class 30
Code for rubber:  Shaft:  Shaft:  Shaft:  Shaft:  EN 1.4301  Shaft:  AISI 304  Installation:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: Type of inlet connection: DIN  Type of outlet connection: DIN  Size of inlet connection: DN 100  Size of outlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Base frame design: Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid: Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Internal pump house coating:	CED
Shaft: Stainless steel Shaft: EN 1.4301 Shaft: AISI 304  Installation: Range of ambient temperature: -20 40 °C Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DN 100 Size of outlet connection: DN 80 Pressure rating for connection: PN 16 Coupling type: Flexible w/spacer Base frame design: EN/ISO Code for base frame: 7 Grouting (Yes/No): N Connect code: F  Liquid: Pumped liquid: Water Liquid temperature range: -25 120 °C Density: 998.2 kg/m³  Electrical data: Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	Material code:	A
Shaft: AISI 304  Installation: Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar Pipe connection standard: EN 1092-2  Type of inlet connection: DIN Type of outlet connection: DN 100 Size of inlet connection: DN 80 Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid: Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Code for rubber:	E
Shaft: AISI 304  Installation: Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 100  Size of inlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Shaft:	Stainless steel
Installation:  Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 100  Size of inlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Shaft:	EN 1.4301
Range of ambient temperature: -20 40 °C  Maximum operating pressure: 16 bar  Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 100  Size of inlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Shaft:	AISI 304
Maximum operating pressure: Pipe connection standard: EN 1092-2 Type of inlet connection: DIN Type of outlet connection: DIN Size of inlet connection: DIN 80 Pressure rating for connection: PN 16 Coupling type: Base frame design: Code for base frame: Grouting (Yes/No): Connect code: F Liquid: Pumped liquid: Water Liquid temperature range: Liquid temperature: Density: De	Installation:	
Pipe connection standard: EN 1092-2  Type of inlet connection: DIN  Type of outlet connection: DN 100  Size of inlet connection: DN 80  Pressure rating for connection: PN 16  Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Range of ambient temperature:	
Type of inlet connection:  Type of outlet connection:  DIN  Size of inlet connection:  DN 100  Size of outlet connection:  DN 80  Pressure rating for connection:  PN 16  Coupling type:  Base frame design:  Code for base frame:  Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Uiquid temperature range:  Selected liquid temperature:  Density:  Density:  Density:  Pumped:  Belectrical data:  Motor type:  IE Efficiency class:  Rated power - P2:  Mains frequency:  Rated voltage:  DN 100  N 00  N 00  EN 00  EN 00  Pumped liquid:  Water  20 °C  Density:  Density:	Maximum operating pressure:	16 bar
Type of outlet connection:  Size of inlet connection:  DN 100  Size of outlet connection:  DN 80  Pressure rating for connection:  PN 16  Coupling type:  Base frame design:  Code for base frame:  Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Liquid temperature range:  Liquid temperature:  20 °C  Selected liquid temperature:  20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Rated voltage:  3 x 380-480 V	•	EN 1092-2
Size of inlet connection:  Size of outlet connection:  DN 80  Pressure rating for connection:  PN 16  Coupling type:  Base frame design:  Code for base frame:  Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Liquid temperature range:  -25 120 °C  Selected liquid temperature:  20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Name of inlet connection:  DN 100  N 0  N 0  Connect code:  F  Liquid:  Pumped liquid:  Water  Liquid temperature:  20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Sfliciency class:  Rated power - P2:  15 kW  Mains frequency:  So Hz  Rated voltage:  3 x 380-480 V	Type of inlet connection:	DIN
Size of outlet connection:  Pressure rating for connection:  Coupling type:  Base frame design:  Code for base frame:  Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Liquid temperature range:  Liquid temperature:  20 °C  Selected liquid temperature:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Rated voltage:  3 x 380-480 V	Type of outlet connection:	DIN
Pressure rating for connection:  Coupling type:  Base frame design:  Code for base frame:  Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Liquid temperature range:  Selected liquid temperature:  Density:  Pest 20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Rated voltage:  3 x 380-480 V	Size of inlet connection:	DN 100
Coupling type: Flexible w/spacer  Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Size of outlet connection:	DN 80
Base frame design: EN/ISO  Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Pressure rating for connection:	
Code for base frame: 7  Grouting (Yes/No): N  Connect code: F  Liquid:  Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V		
Grouting (Yes/No):  Connect code:  F  Liquid:  Pumped liquid:  Liquid temperature range:  Selected liquid temperature:  Density:  998.2 kg/m³  Electrical data:  Motor type:  IE Efficiency class:  Rated power - P2:  Mains frequency:  Rated voltage:  N  Vater  20 °C  998.2 kg/m³  Electrical data:  IE3  Rated power - P2:  15 kW  Mains frequency:  So Hz  Rated voltage:  3 x 380-480 V	Base frame design:	EN/ISO
Connect code: F  Liquid: Pumped liquid: Water  Liquid temperature range: -25 120 °C  Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Code for base frame:	7
Liquid:  Pumped liquid:  Liquid temperature range:  Selected liquid temperature:  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Mains frequency:  So Hz  Rated voltage:  3 x 380-480 V	Grouting (Yes/No):	N
Pumped liquid: Water Liquid temperature range: -25 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 15 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V		F
Liquid temperature range:  Selected liquid temperature:  20 °C  Density:  998.2 kg/m³  Electrical data:  Motor type:  160LB  IE Efficiency class:  Rated power - P2:  Mains frequency:  So Hz  Rated voltage:  3 x 380-480 V	•	
Selected liquid temperature: 20 °C  Density: 998.2 kg/m³  Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	·	Water
Density:       998.2 kg/m³         Electrical data:       Motor type:         Motor type:       160LB         IE Efficiency class:       IE3         Rated power - P2:       15 kW         Mains frequency:       50 Hz         Rated voltage:       3 x 380-480 V	· · · · · · · · · · · · · · · · · · ·	
Electrical data:  Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V		
Motor type: 160LB  IE Efficiency class: IE3  Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	-	998.2 kg/m³
IE Efficiency class: Rated power - P2: Mains frequency: So Hz Rated voltage: 3 x 380-480 V	Electrical data:	
Rated power - P2: 15 kW  Mains frequency: 50 Hz  Rated voltage: 3 x 380-480 V	Motor type:	160LB
Mains frequency: 50 Hz Rated voltage: 3 x 380-480 V	IE Efficiency class:	IE3
Rated voltage: 3 x 380-480 V	Rated power - P2:	15 kW
•	Mains frequency:	50 Hz
Rated current: 30.0-25.4 A	Rated voltage:	3 x 380-480 V
	Rated current:	30.0-25.4 A









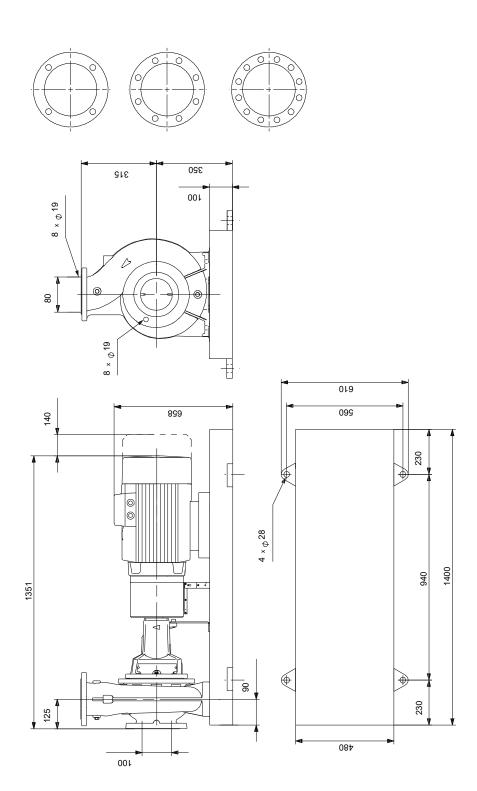
**Date:** 16/06/2022

Description	Value
Cos phi - power factor:	0.90-0.85
Rated speed:	240-1750 rpm
Efficiency:	IE3 92,1%
Motor efficiency at full load:	92.1 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	YES
Motor No:	86906223
Controls:	
Control panel:	Standard
Function Module:	PUMP I/O
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	406 kg
Gross weight:	433 kg
Shipping volume:	0.801 m³
Country of origin:	HU
Custom tariff no.:	84137059



16/06/2022 Date:

# On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz

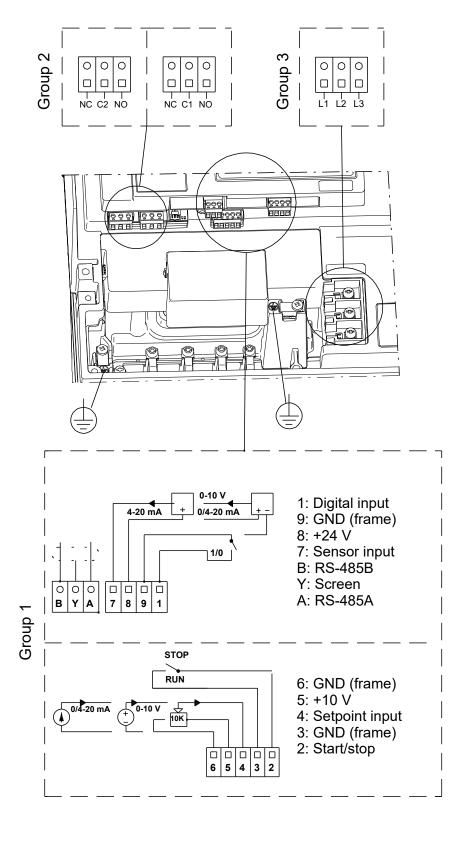


Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 16/06/2022

# On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz



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



**Date:** 16/06/2022

Order Data:

Product name: NKE 80-315/305

Amount: 1

Product No: On request

Total: Price on request