Company name:
Created by:
Phone:

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".

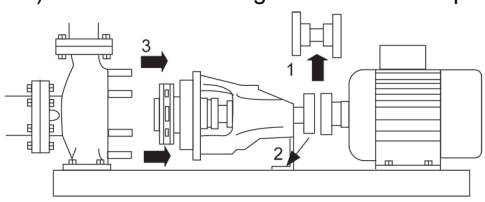
Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

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)

Qty.	Description

- Stationary seat material: silicon carbide (SiC)

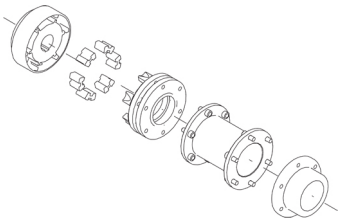
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

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

GRUNDFOS

Company name:
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Date: 16/06/2022

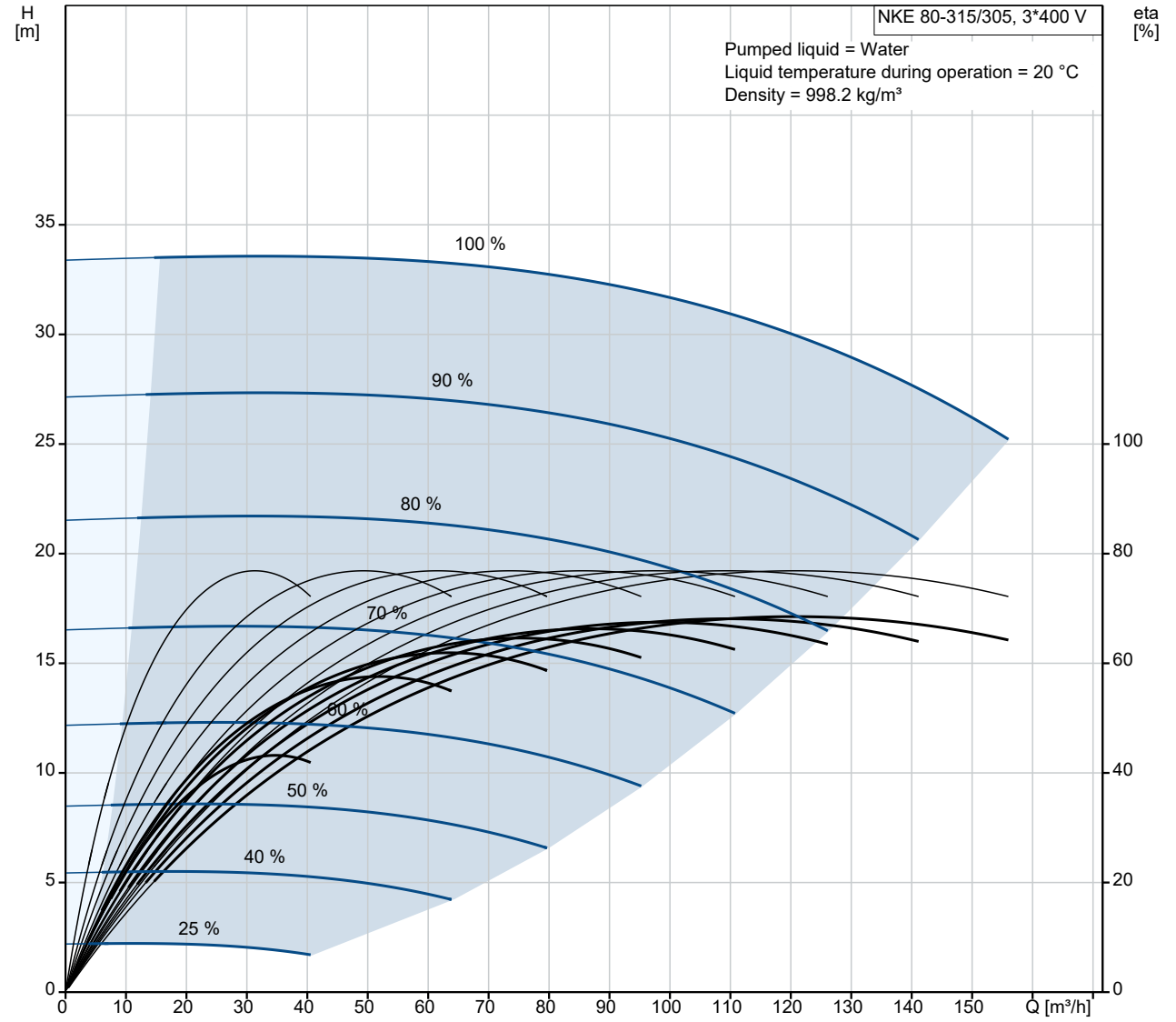
Qty.	Description	
	Code for shaft seal:	BQQE
	Mechanical seal type:	Single
	Curve tolerance:	ISO9906:2012 3B2
	Bearing design:	Standard
	Materials:	
	Pump housing:	Cast iron EN-GJL-250 ASTM class 35
	Wear ring:	Brass
	Impeller:	Cast iron EN-GJL-200 ASTM class 30
	Internal pump house coating:	CED
	Shaft:	Stainless steel EN 1.4301 AISI 304
	Installation:	
	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
	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:	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
	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

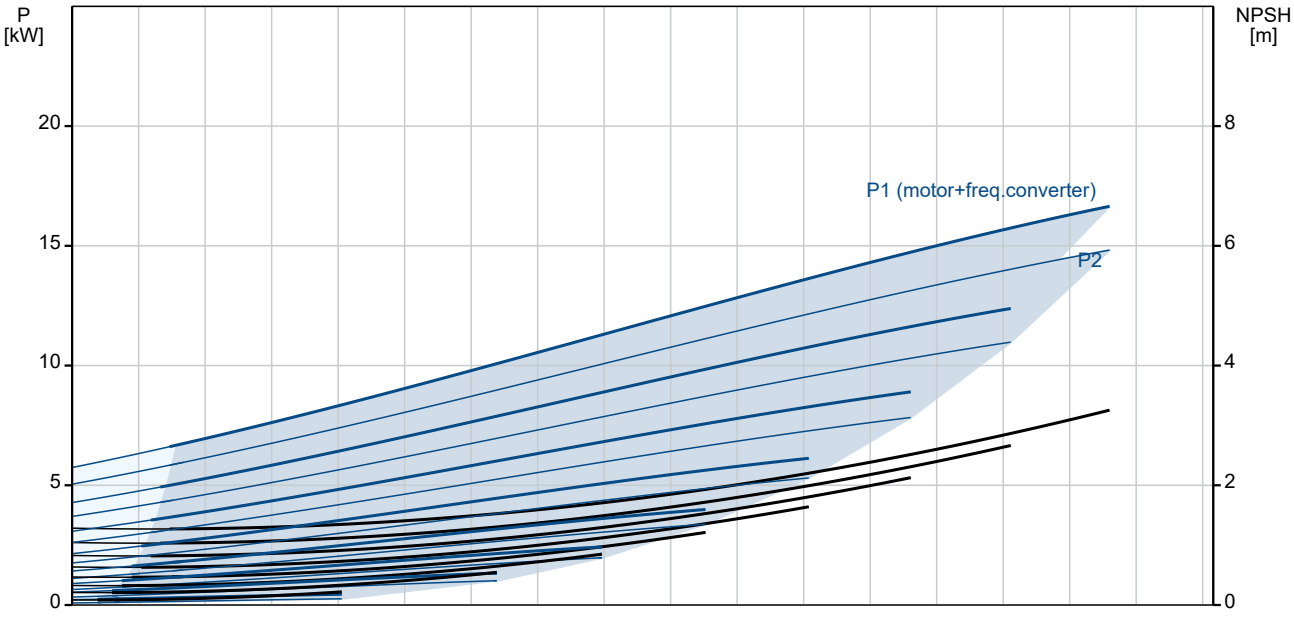
GRUNDFOS

Company name:
Created by:
Phone:

Date: 16/06/2022

On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz

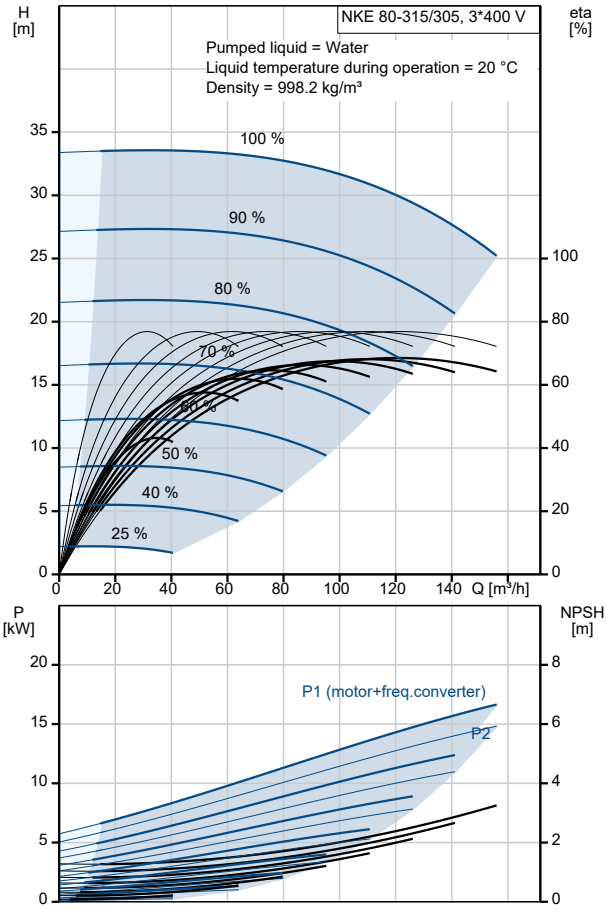


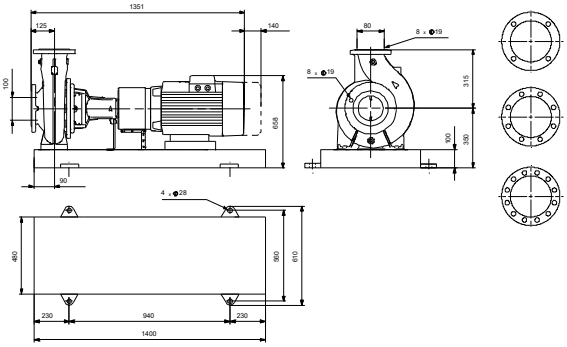


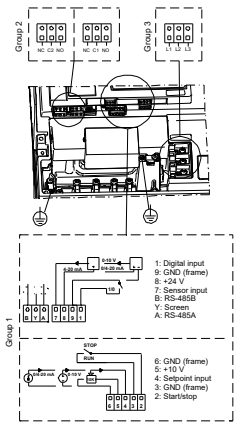
Company name:
Created by:
Phone:

Date: 16/06/2022

Description	Value
General information:	
Product name:	NKE 80-315/305 AA2F2AESBQQEOW3
Product No:	On request
EAN number:	On request
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
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:	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
Rated current:	30.0-25.4 A







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Company name:
Created by:
Phone:

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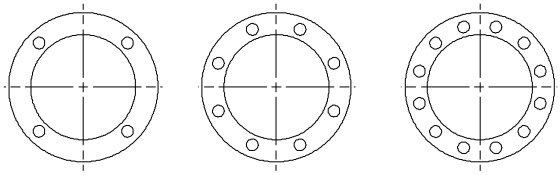
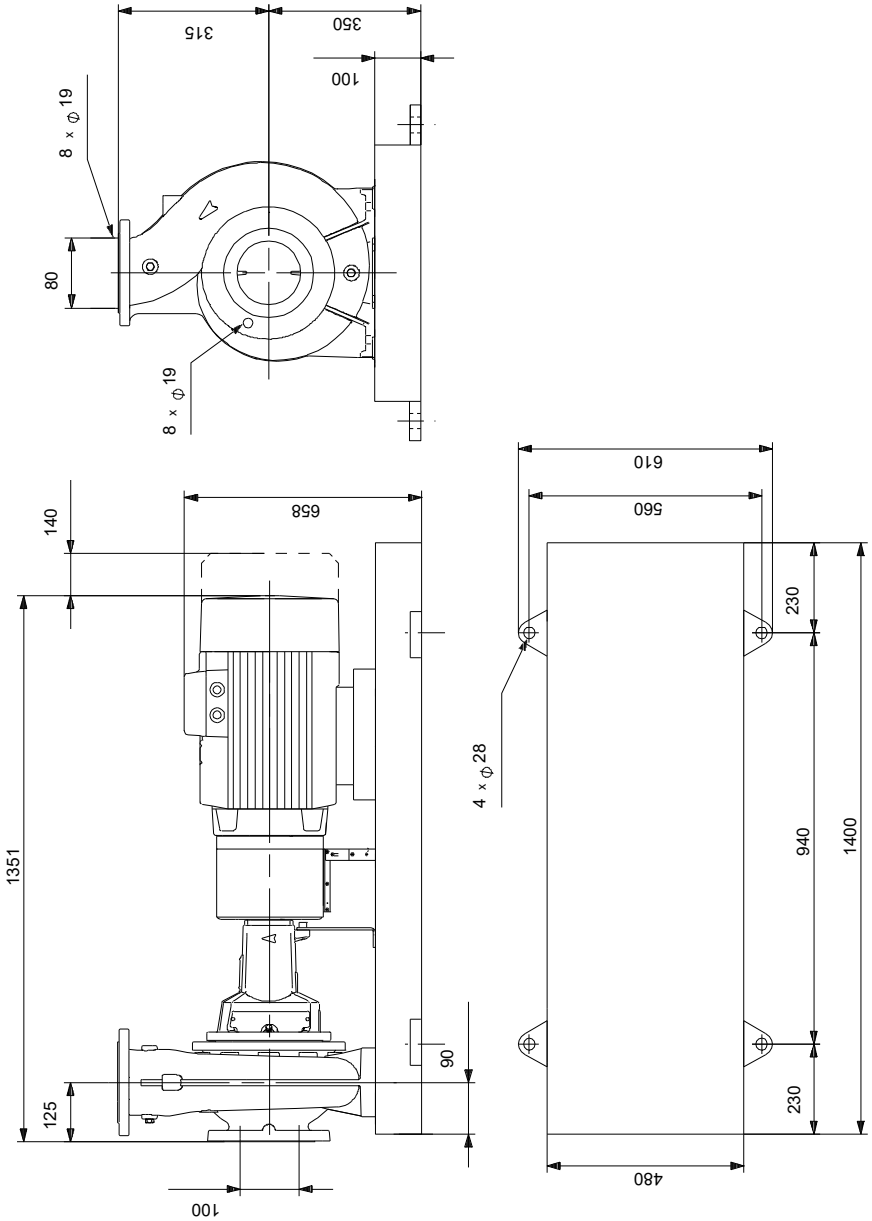
Description	Value
Cos phi - power factor:	0.90-0.85
Rated speed:	240-1750 rpm
Efficiency:	IE3 92,1%
Motor efficiency at full load:	92.1 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	YES
Motor No:	86906223
Controls:	
Control panel:	Standard
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

Company name:
Created by:
Phone:

Date: 16/06/2022

On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz





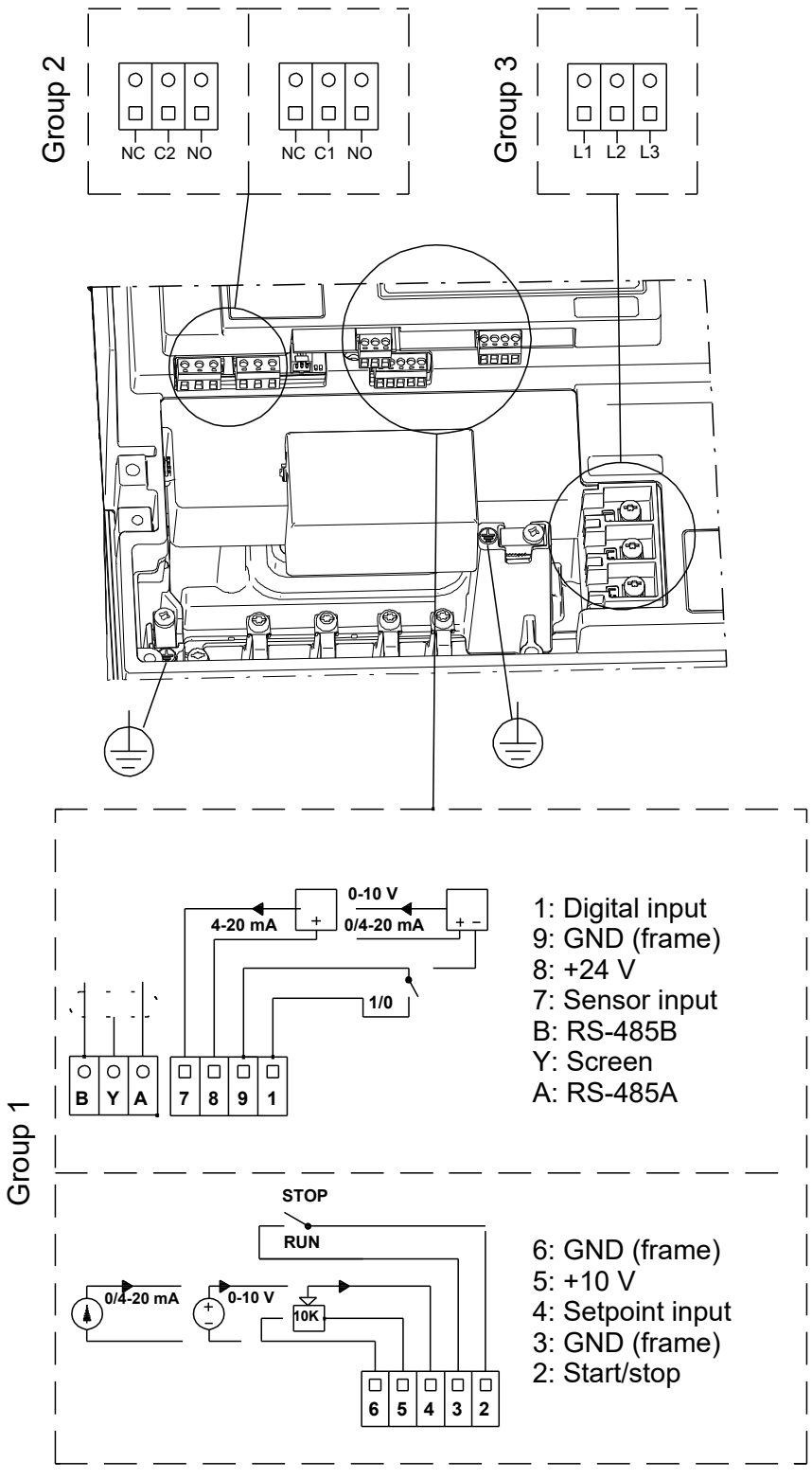
Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

GRUNDFOS

Company name:
Created by:
Phone:

Date: 16/06/2022

On request NKE 80-315/305 AA2F2AESBQQEOW3 50 Hz



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

Company name:
Created by:
Phone:

Date: 16/06/2022

Order Data:

Product name: NKE 80-315/305
Amount: 1
Product No: On request

Total: Price on request