

	Description
	NKE 50-315/303 AA2F2AESBQQELWA
	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 axial suction port, a radial discharge port and horizontal shaft. It is of the back pull-out design enabling removal 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, permanent-magnet synchronous motor. Pump and motor ar- 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 considered as an indicative benchmark for best-performing water pump available on the market as from 1 Janua 2013.
	An external sensor can be connected if controlled pump operation is required for flow, differential pressure or temperature control.
	The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos indicator.
	The display gives an intuitive and user-friendly interface to all functions. The push-buttons are used to navigate through the menu structure to access pump and performance data on si enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".
	<ul> <li>The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</li> <li>"Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator</li> </ul>
	<ul> <li>"Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indic lights)</li> </ul>
	<ul> <li>"Alarm": Motor has stopped (flashing red indicator lights).</li> <li>Communication with the pump is also possible by means of Grundfos GO Remote (accessory). The remote con enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Pov input" and total "Power consumption".</li> </ul>
	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 dismant the pump housing and motor from the base frame.
	This saves realignment of pump and motor after service. 1) Remove coupling.
	<ul> <li>2) Remove the bolts in the bearing bracket support foot.</li> <li>3) Remove the bearing bracket from the pump housing.</li> </ul>
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Qty. | Description

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.

Date:

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 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 IE5 in accordance with IEC 60034-30-2.

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:

- one dedicated digital input

- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 3.5 V
- 5 V voltage supply to potentiometer and sensor
- one configurable digital input or open-collector output
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal-relay outputs (potential-free contacts)
- 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 Pressure sensor:	: Built-in N
Liquid: Pumped liquid: Liquid temperature ra	Water ange: -25 120 °C



Qty.

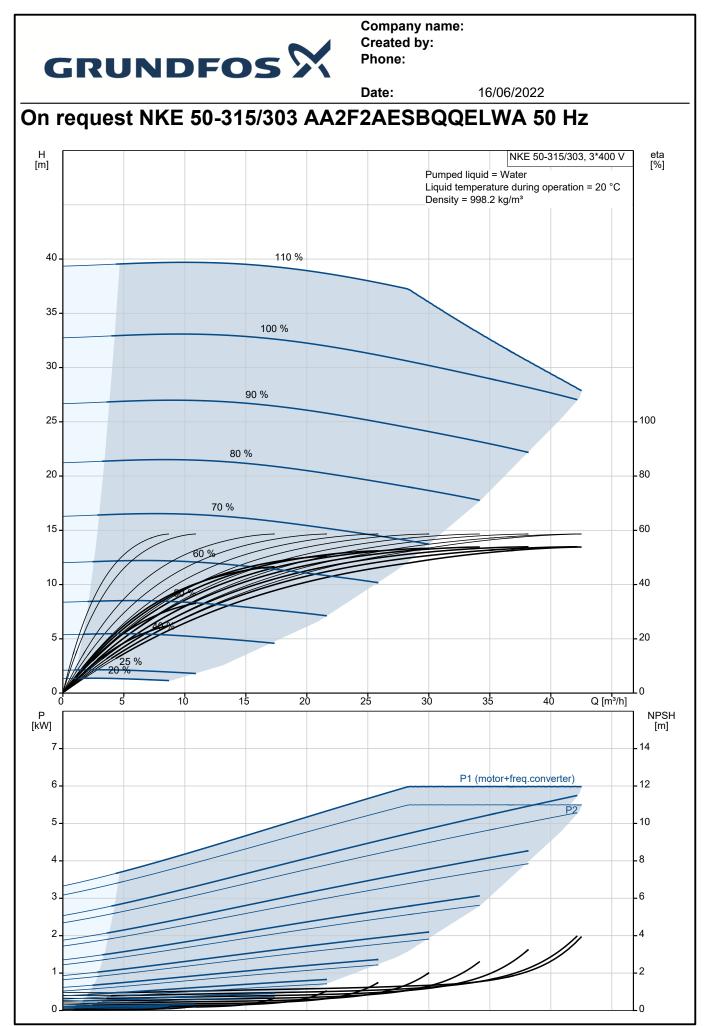
Company name: Created by: Phone:

GRUNDF	os X	Phone:		
		Date:	16/06/2022	
Description				
Selected liquid temperature:	20 °C			
Density:	998.2 kg/m³			
Technical:				
Pump speed on which pump dat	a are based: 1450 ı	pm		
Rated flow:	42.2 m³/h			
Pump with motor (Yes/No):	Y			
Rated head:	27.1 m			
Actual impeller diameter: Nominal impeller diameter:	303 mm 315			
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: Impeller:	Brass 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 50 °C			
Maximum operating pressure:	16 bar			
Pipe connection standard:	EN 1092-2			
Type of inlet connection: Type of outlet connection:	DIN DIN			
Size of inlet connection:	DN 65			
Size of outlet connection:	DN 50			
Pressure rating for connection:	PN 16			
Coupling type:	Flexible w/spacer			
Base frame design: Code for base frame:	EN/ISO 6			
Grouting (Yes/No):	N			
Electrical data:	40000			
Motor type: IE Efficiency class:	132SG IE5			
Rated power - P2:	5.5 kW			
Mains frequency:	50 Hz			
Rated voltage:	3 x 380-500 V			
Rated current:	10.5-8.40 A			
Cos phi - power factor:	0.92-0.88			
Rated speed: Efficiency:	180-2200 rpm 91.9%			
Motor efficiency at full load:	91.9 <i>%</i> 91.9 %			
Number of poles:	4			
Enclosure class (IEC 34-5):	IP55			
Insulation class (IEC 85):	F			
Motor No: Bearing insulation type N and:	99305893 STEEL BEADING			

Bearing insulation type N-end: STEEL BEARING



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		Date:	16/06/2022
Description			
Others: Minimum efficiency index, MEI ≥: Net weight:			
Gross weight: Shipping volume:	260 kg 0.574 m³		
Custom tariff no.:	84137059		
	Description Others: Minimum efficiency index, MEI ≥: Net weight: Gross weight: Shipping volume: Country of origin:	Description         Others:         Minimum efficiency index, MEI ≥:       0.70         Net weight:       245 kg         Gross weight:       260 kg         Shipping volume:       0.574 m³         Country of origin:       HU	Date:         Description         Others:         Minimum efficiency index, MEI ≥:       0.70         Net weight:       245 kg         Gross weight:       260 kg         Shipping volume:       0.574 m³         Country of origin:       HU



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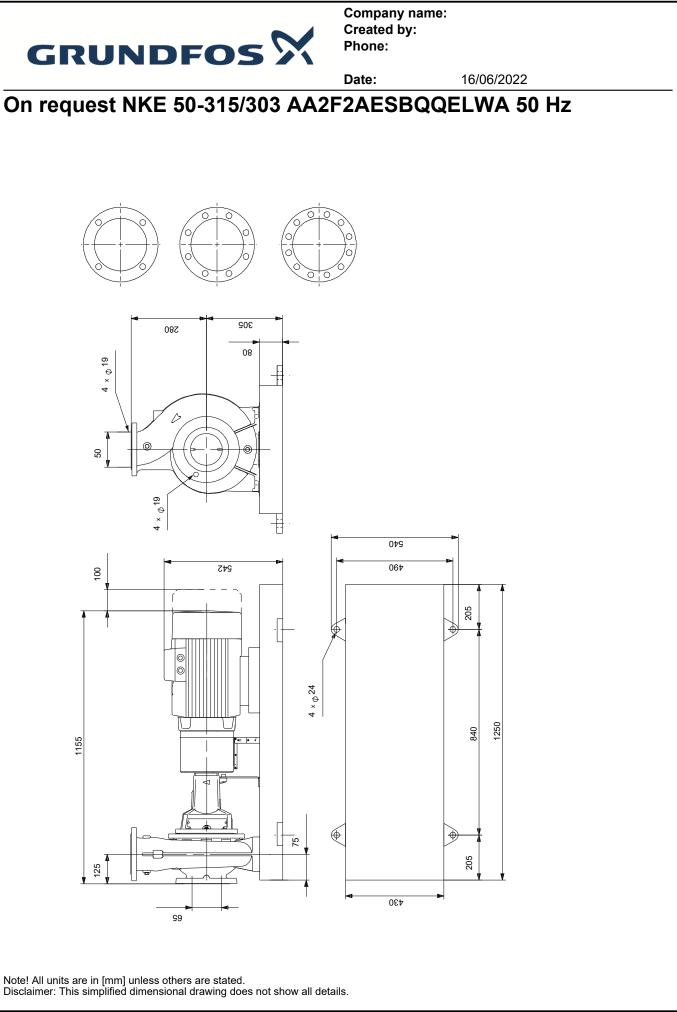


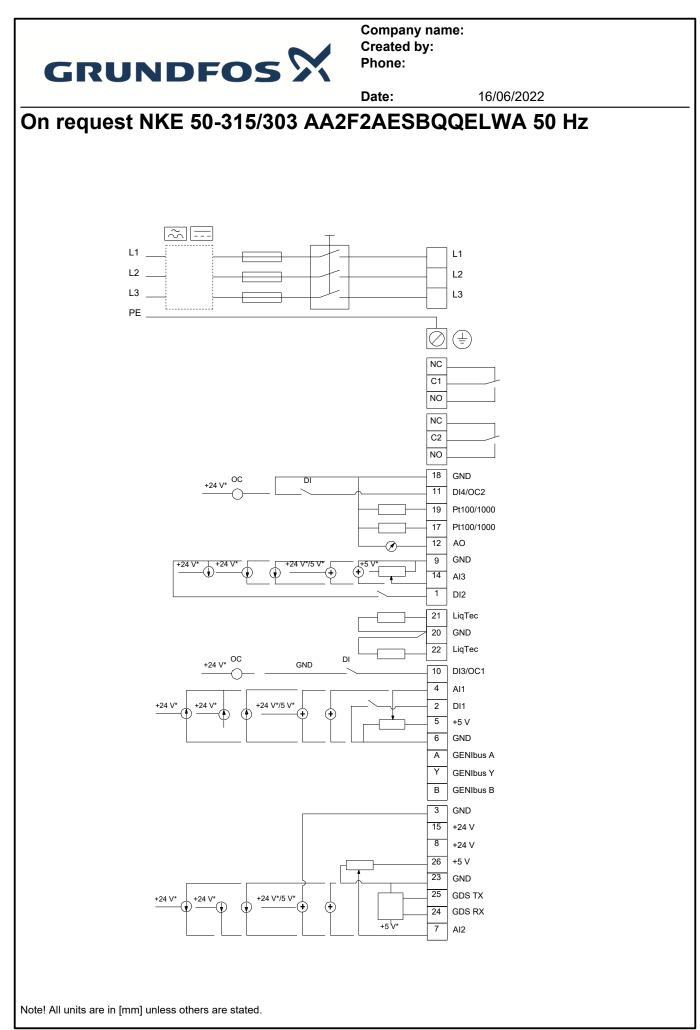
		Date:	16/06/2022
Description	Value	H [m]	NKE 50-315/303, 3*400 V eta
General information:	Value	[11]	Pumped liquid = Water
Product name:	NKE 50-315/303 AA2F2AESBQQELWA	40 -	Liquid temperature during operation = 20 °C Density = 998.2 kg/m <sup>3</sup> 110 %
Product No:	On request		
EAN number:	On request	35 -	
Technical:	•		100 %
Pump speed on which pump data are based:	1450 rpm	30 -	90 %
Rated flow:	42.2 m³/h	25 -	100
Pump with motor (Yes/No):	Υ		80 %
Rated head:	27.1 m	20 -	80
Actual impeller diameter:	303 mm		70 %
Nominal impeller diameter:	315	15 -	-60
Shaft diameter:	32 mm		80.70
Code for shaft seal:	BQQE	10 -	40
Mechanical seal type:	Single		
Curve tolerance:	ISO9906:2012 3B2	5-	20
Pump version:	A2	0	
Bearing design:	Standard	0 5	10 15 20 25 30 35 Q[m³/h]
Materials:		P [kW]	NPSH [m]
Pump housing:	Cast iron		
Pump housing:	EN-GJL-250	6 -	P1 (motor+freq.converter) 12
Pump housing:	ASTM class 35	5	P2 10
Wear ring:	Brass	4 -	8
Impeller:	Cast iron		
Impeller:	EN-GJL-200	3-	6
Impeller:	ASTM class 30	2	4
Internal pump house coating:	CED	1_	2
Material code:	A	0	
Code for rubber:	E	4	
Shaft:	Stainless steel		
Shaft:	EN 1.4301		1155
Shaft:	AISI 304	125	
Installation:			
Range of ambient temperature:	-20 50 °C	╶╴┊┼╏╢╟╖╾	
Maximum operating pressure:	16 bar	──────────	
Pipe connection standard:	EN 1092-2		
Type of inlet connection:	DIN	75	4.024
Type of outlet connection:	DIN		
Size of inlet connection:	DN 65		<b>8</b>
Size of outlet connection:	DN 50		
Pressure rating for connection:	PN 16	205	
Coupling type:	Flexible w/spacer		1250
Base frame design:	EN/ISO		
Code for base frame:	6		
Grouting (Yes/No):	Ν		
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-25 120 °C		
Selected liquid temperature:	20 °C	-11/2 <sup>00</sup>	
Density:	998.2 kg/m³	·····	
Electrical data:	-		
Motor type:	132SG		
IE Efficiency class:	IE5	-31" <b>q</b> att <b>q</b> att	
Rated power - P2:	5.5 kW		
Mains frequency:	50 Hz		
Rated voltage:	3 x 380-500 V		
Rated current:	10.5-8.40 A		

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		Date:	16/06/2022
Description	Value		
Cos phi - power factor:	0.92-0.88	-	
Rated speed:	180-2200 rpm		
Efficiency:	91.9%		
Motor efficiency at full load:	91.9 %		
Number of poles:	4		
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Built-in motor protection:	ELEC		
Motor No:	99305893		
Bearing insulation type N-end:	STEEL BEARING		
Controls:			
Control panel:	HMI300 - Advanced		
Function Module:	FM300 - Advanced		
Frequency converter:	Built-in		
Pressure sensor:	Ν		
Others:			
Minimum efficiency index, MEI ≥:	0.70		
Net weight:	245 kg		
Gross weight:	260 kg		
Shipping volume:	0.574 m³		
Country of origin:	HU		
Custom tariff no.:	84137059		







16/06/2022

# Order Data:

Product name:NKE 50-315/303Amount:1Product No:On request

Total: Price on request