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agnet synchronous motor. Pump and motor are
motor terminal box. This enables continuously on of the performance to a given requirement.
o 0.70. This is by the Commission Regulation (EU) pump available on the market as from 1 January
is required for flow, differential pressure or
n TFT display, push-buttons and the Grundfos Eye
tions. e to access pump and performance data on site and /in." or "Max." operation or to "Stop".
l indication of pump status:) or not running (permanently green indicator lights)
ghts) or has stopped (permanently yellow indicator
lfos GO Remote (accessory). The remote control ameters such as "Actual value", "Speed", "Power
ccordance with ISO 3661. possible to service the pump without dismantling



16/06/2022

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.

{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 24 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

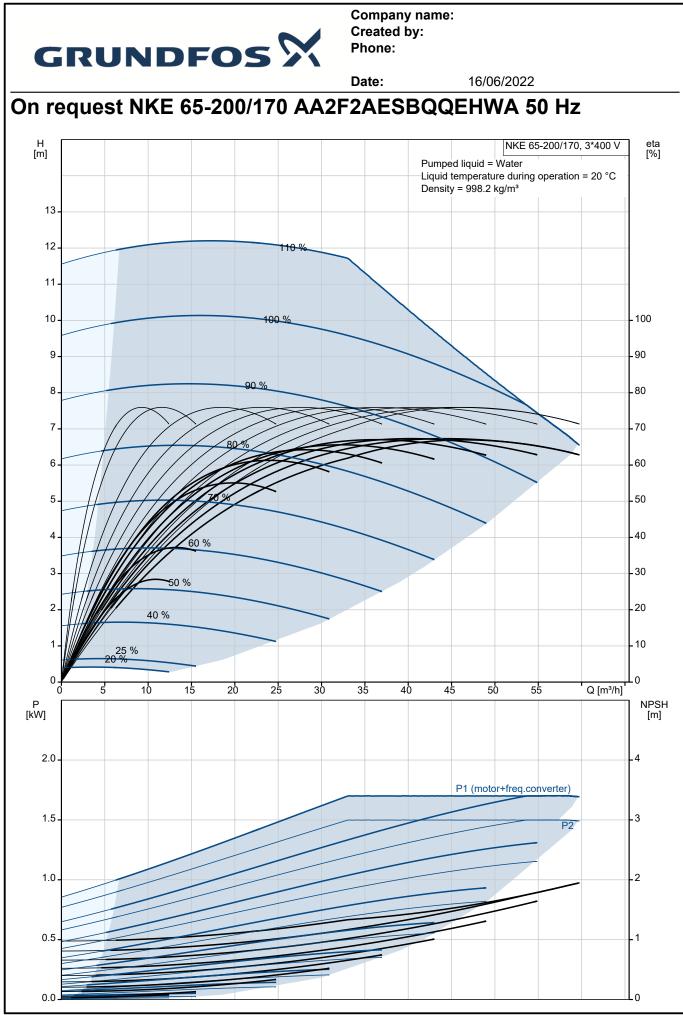
Controls: Frequency converter: Pressure sensor:	Built-in N
Liquid: Pumped liquid: Liquid temperature range:	Water -25 120 °C



			Date:	16/06/2022
C	Description			
S	Selected liquid temperature:	20 °C		
	Density:	998.2 kg/m³		
		C C		
	Fechnical:			
	Pump speed on which pump data		rpm	
	Rated flow:	46.63 m³/h		
	Pump with motor (Yes/No):	Y		
	Rated head:	8.428 m		
	Actual impeller diameter:	170 mm		
	Nominal impeller diameter:	200		
	Code for shaft seal:	BQQE		
	Mechanical seal type:	Single		
	Curve tolerance:	ISO9906:2012 3B2		
b	Bearing design:	Standard		
Ν	Materials:			
	Pump housing:	Cast iron		
		EN-GJL-250		
		ASTM class 35		
١	Near ring:	Brass		
I	mpeller:	Cast iron		
		EN-GJL-200		
		ASTM class 30		
	nternal pump house coating:	CED		
S	Shaft:	Stainless steel		
		EN 1.4301		
		AISI 304		
ı	nstallation:			
	Range of ambient temperature:	-20 50 °C		
	Maximum operating pressure:	16 bar		
	Pipe connection standard:	EN 1092-2		
	Type of inlet connection:	DIN		
	Type of outlet connection:	DIN		
S	Size of inlet connection:	DN 80		
S	Size of outlet connection:	DN 65		
F	Pressure rating for connection:	PN 16		
	Coupling type:	Flexible w/spacer		
	Base frame design:	EN/ISO		
	Code for base frame:	5		
(Grouting (Yes/No):	Ν		
F	Electrical data:			
	Motor type:	90LE		
	E Efficiency class:	IE5		
F	Rated power - P2:	1.5 kW		
	Mains frequency:	50 Hz		
	Rated voltage:	3 x 380-500 V		
	Rated current:	2.90-2.50 A		
	Cos phi - power factor:	0.93		
	Rated speed:	180-2000 rpm		
	Efficiency:	88.0%		
	Notor efficiency at full load:	88.0 %		
	Number of poles:	4		
	Enclosure class (IEC 34-5):	IP55		
	nsulation class (IEC 85):	F		
	Motor No:	99305879		
	Bearing insulation type N-end:	STEEL BEARING		



GRUN	IDFOS >>	Filone.		
		Date:	16/06/2022	
. Description				
Others:				
	y index, MEI ≥: 0.70			
Net weight:	141 kg			
Gross weight:	162 kg 0.44 m³			
Shipping volume: Country of origin:	HU			
Custom tariff no.:	84137059			



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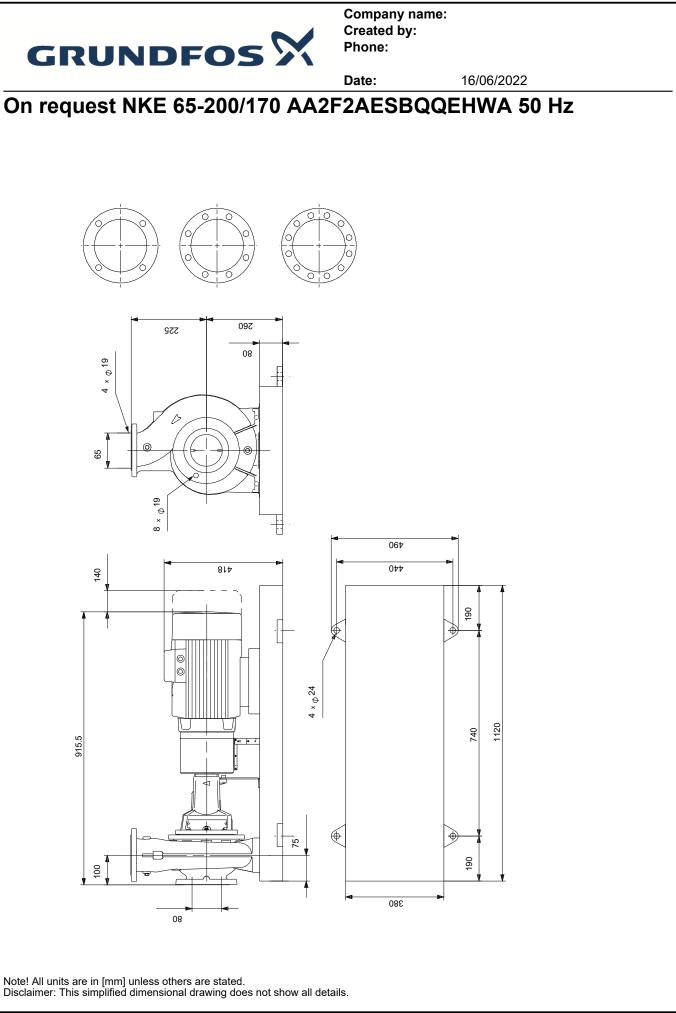
GRUND		Date: 16/06/2022	
		H NKE 65-200/170	3*400 V eta
Description	Value	[m] Pumped liquid = Water	[%]
General information:		Liquid temperature during operation =	20 °C
Product name:	NKE 65-200/170 AA2F2AESBQQEHWA	Density = 998.2 kg/m ³ 12	
Product No:	On request	11-	
EAN number:	On request	10 100 %	_ 100
Technical:			
Pump speed on which pump data are based:	1470 rpm	9-	- 90
Rated flow:	46.63 m³/h		70
Pump with motor (Yes/No):	Y	7-	
Rated head:	8.428 m	6-	- 60
Actual impeller diameter:	170 mm	5-	_ 50
Nominal impeller diameter:	200	4	40
Shaft diameter:	24 mm		
Code for shaft seal:	BQQE	3- 50 %	_ 30
Mechanical seal type:	Single	2 - 40 %	_ 20
Curve tolerance:	ISO9906:2012 3B2	1225,%	10
Pump version:	A2	0	0
Bearing design:	Standard	0 10 20 30 40 50	Q [m³/h]
Materials:		P [kW]	NPSH [m]
Pump housing:	Cast iron	2.0	4
Pump housing:	EN-GJL-250	P1 (motor+freq.converte	
Pump housing:	ASTM class 35	1.5	3
Wear ring:	Brass	1.0	P2
Impeller:	Cast iron	1.0	2
Impeller:	EN-GJL-200		
Impeller:	ASTM class 30	0.5	1
Internal pump house coating:	CED		· · ·
Material code:	Α	0.0	0
Code for rubber:	E		
Shaft:	Stainless steel		
Shaft:	EN 1.4301	915.5	
Shaft:	AISI 304		(<u>()</u>)
Installation:			
Range of ambient temperature:	-20 50 °C		
Maximum operating pressure:	16 bar		
Pipe connection standard:	EN 1092-2		
Type of inlet connection:	DIN	4,024	
Type of outlet connection:	DIN		000
Size of inlet connection:	DN 80	88 94 92 94 94 94 94 94 94 94 94 94 94 94 94 94	
Size of outlet connection:	DN 65		
Pressure rating for connection:	PN 16		
Coupling type:	Flexible w/spacer	1120	
Base frame design:	EN/ISO		
Code for base frame:	5		
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/m ³		
Electrical data:			
Motor type:	90LE		
IE Efficiency class:	IE5		
Rated power - P2:	1.5 kW		
Mains frequency:	50 Hz	■ doma a 1 doo 1 doo	
Rated voltage:	3 x 380-500 V		
Rated current:	2.90-2.50 A		
	2.00 2.00 A		

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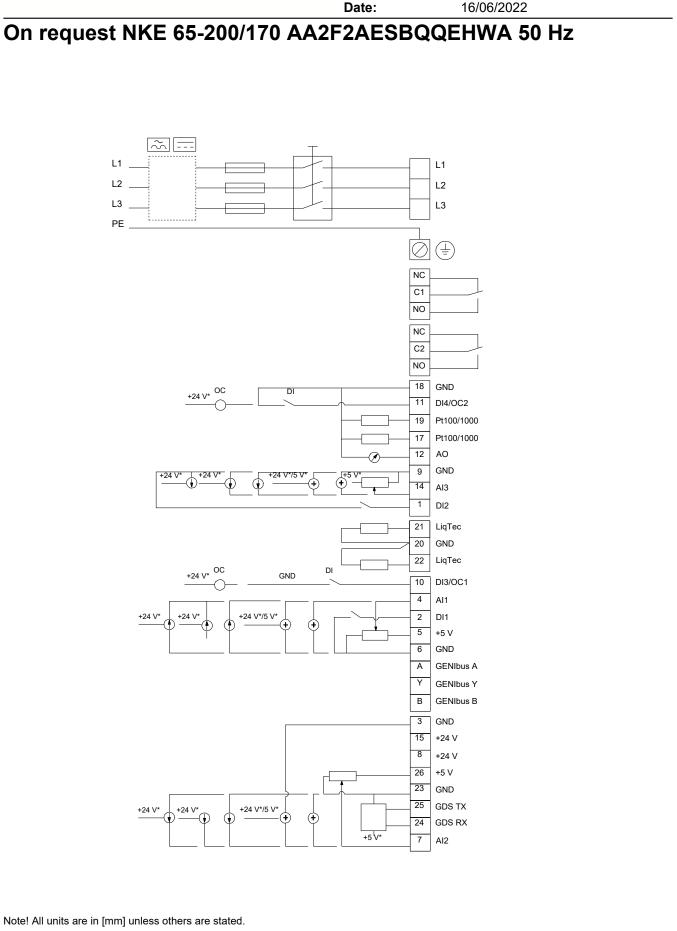
16/06/2022

		Date:
Description	Value	
Cos phi - power factor:	0.93	
Rated speed:	180-2000 rpm	
Efficiency:	88.0%	
Motor efficiency at full load:	88.0 %	
Number of poles:	4	
Enclosure class (IEC 34-5):	IP55	
Insulation class (IEC 85):	F	
Built-in motor protection:	ELEC	
Motor No:	99305879	
Bearing insulation type N-end:	STEEL BEARING	
Controls:		
Control panel:	HMI300 - Graphical	
Function Module:	FM300 - Advanced	
Frequency converter:	Built-in	
Pressure sensor:	Ν	
Others:		
Minimum efficiency index, MEI ≥:	0.70	
Net weight:	141 kg	
Gross weight:	162 kg	
Shipping volume:	0.44 m³	
Country of origin:	HU	
Custom tariff no.:	84137059	





16/06/2022





16/06/2022

Order Data:

Product name:NKE 65-200/170Amount:1Product No:On request

Total: Price on request