

16/06/2022

Qty. | Description

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#### NK 65-315/282 AA2F2AESBQQEMW3



#### Note! Product picture may differ from actual product

Product No.: 98973497

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 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.

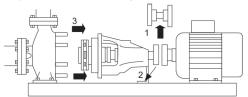
Pump and motor are mounted on a common steel base frame in accordance with ISO 3661.

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.

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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.

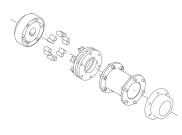
The shaft is made of stainless steel and has a diameter of 32 mm where the coupling is mounted.

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



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## 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**

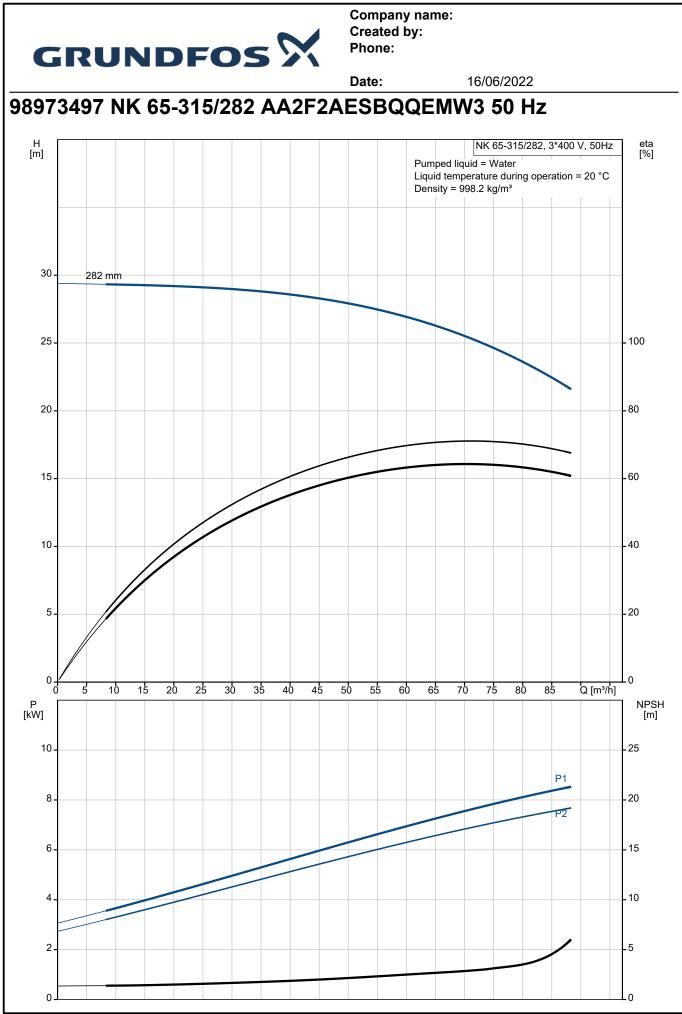
Controls: Frequency converter: Pressure sensor:	NONE N
Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -25 120 °C 20 °C 998.2 kg/m³
Technical: Pump speed on which pump data Rated flow: Pump with motor (Yes/No): Rated head: Actual impeller diameter: Nominal impeller diameter: Code for shaft seal: Mechanical seal type: Curve tolerance: Bearing design:	a are based: 1465 rpm 70.62 m³/h Y 25.11 m 282 mm 315 BQQE Single ISO9906:2012 3B2 Standard
Materials: Pump housing:	Cast iron EN-GJL-250
Wear ring: Impeller:	ASTM class 35 Brass Cast iron EN-GJL-200



Date:

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/.	Description				
		ASTM class 30			
	Internal pump house coating:	CED			
	Shaft:	Stainless steel			
	Shan.				
		EN 1.4301			
		AISI 304			
	Installation				
	Installation: t max amb:	55 °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			
	Size of outlet connection:	DN 65			
	Pressure rating for connection:	PN 16			
	Coupling type:	Flexible w/spacer			
	Base frame design:	EN/ISO			
	Code for base frame:	7			
	Grouting (Yes/No):	Ν			
	3 ( )				
	Electrical data:				
	Motor type:	SIEMENS			
	IE Efficiency class:	IE3			
	Rated power - P2:	7.5 kW			
	Mains frequency:	50 Hz			
	Rated voltage:	3 x 380-420D/660-72	5Y V		
	Rated current:	14.3/8.3 A			
	Starting current:	820-820 %			
	Cos phi - power factor:	0.84			
	Rated speed:	1465 rpm			
	Efficiency:	IE3 90,4%			
	Motor efficiency at full load:	90.4-90.4 %			
	Motor efficiency at 3/4 load:	91.1-91.1 %			
	Motor efficiency at 1/2 load:	90.8-90.8 %			
	Number of poles:	4			
	Enclosure class (IEC 34-5):	IP55			
	Insulation class (IEC 85):	F			
	Motor No:	98957793			
	Bearing insulation type N-end:	Ν			
	Others:				
	Minimum efficiency index, MEI ≥:				
	Net weight:	287 kg			
	Gross weight:	315 kg			
	Shipping volume:	0.742 m³			
	Country of origin:	HU			
	Custom tariff no.:	84137059			



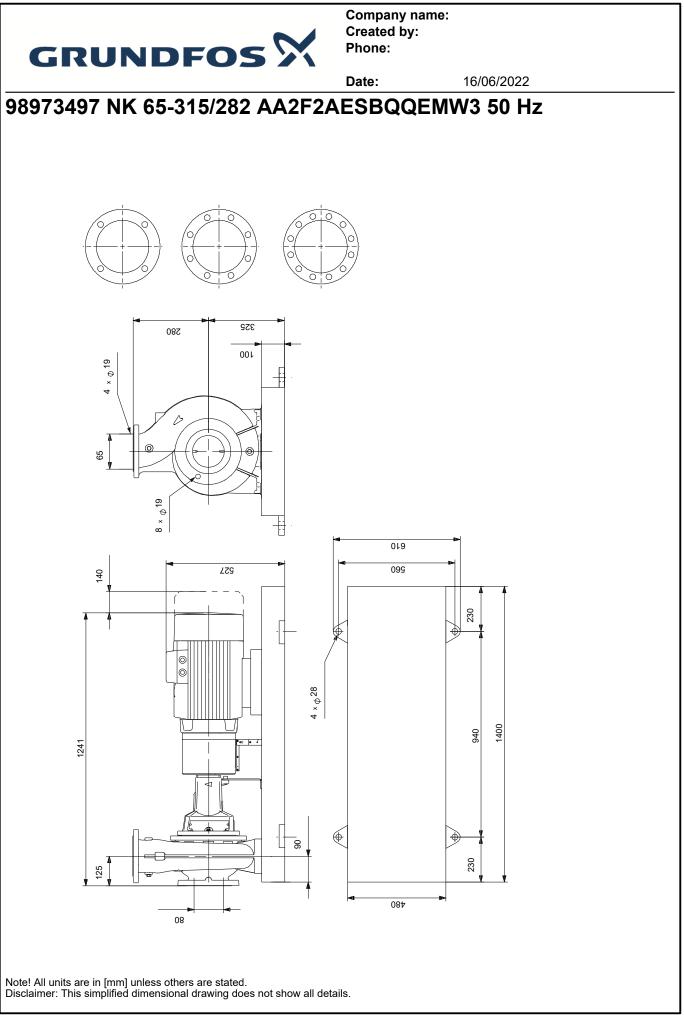


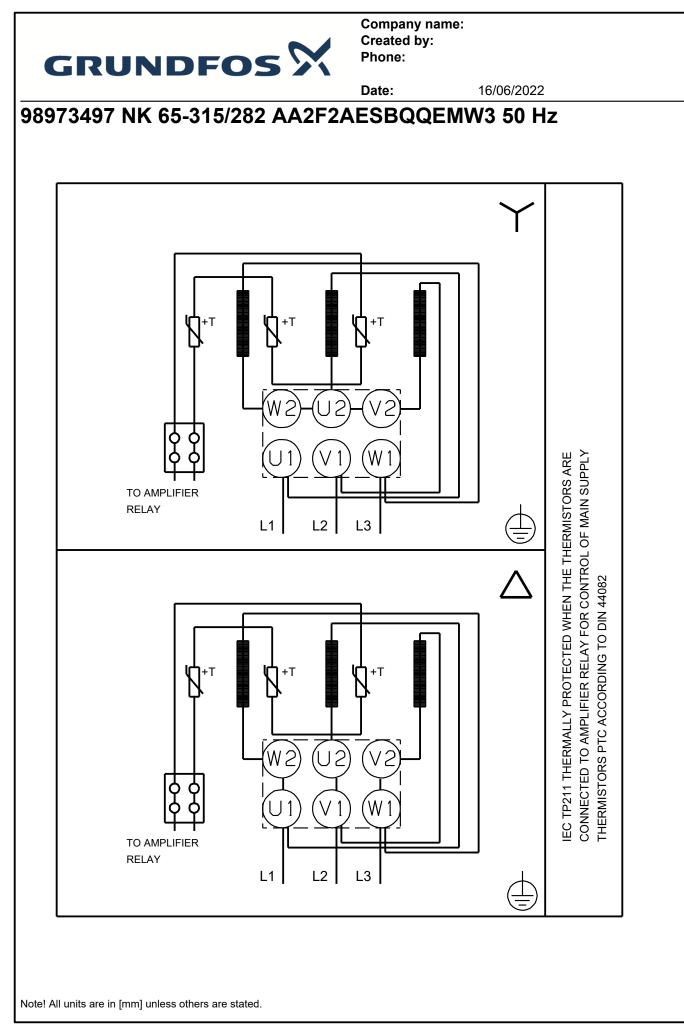
		Date:	16/06/2022	
Description	Value	H [m]	NK 65-315/282, 3*400 V, 50Hz	eta [%]
General information:	- uuu		Pumped liquid = Water Liquid temperature during operation = 20 °C	
Product name:	NK 65-315/282 AA2F2AESBQQEMW3		Density = 998.2 kg/m <sup>3</sup>	
Product No:	98973497	30 <b>–</b> 282 m	m	
EAN number:	5712604506646			
Technical:		25 -		- 100
Pump speed on which pump data are based:	1465 rpm	25-		- 100
Rated flow:	70.62 m³/h	20 -		- 80
Pump with motor (Yes/No):	Y			
Rated head:	25.11 m	15 -		- 60
Actual impeller diameter:	282 mm			- 00
Nominal impeller diameter:	315			
Shaft diameter:	32 mm	10 -		- 40
Code for shaft seal:	BQQE			
Mechanical seal type:	Single	5		- 20
Curve tolerance:	ISO9906:2012 3B2			
Pump version:	A2			
Bearing design:	Standard	0 10	20 30 40 50 60 70 80 Q [m³/h]	-
Materials:		P [kW]		NPSH [m]
Pump housing:	Cast iron	10 -		- 25
Pump housing:	EN-GJL-250		P1	
Pump housing:	ASTM class 35	8-		- 20
Wear ring:	Brass	6 -	12	<b>-</b> 15
Impeller:	Cast iron			
Impeller:	EN-GJL-200	4		- 10
Impeller:	ASTM class 30	_		
Internal pump house coating:	CED	2 -		- 5
Material code:	Α			Lo
Code for rubber:	E	-		
Shaft:	Stainless steel			
Shaft:	EN 1.4301		1241	$\Rightarrow$
Shaft:	AISI 304	125		$\rightarrow$
Installation:				
t max amb:	55 °C	╴┊┼╎╷╽╗╸		200
Maximum operating pressure:	16 bar	──────		50
Pipe connection standard:	EN 1092-2			
Type of inlet connection:	DIN	90	4 , •• 28	
Type of outlet connection:	DIN	<b>^</b>		000
Size of inlet connection:	DN 80	ŝ	8 8	
Size of outlet connection:	DN 65			
Pressure rating for connection:	PN 16	230	940 <b>1</b> 230	
Coupling type:	Flexible w/spacer		1400	
Base frame design:	EN/ISO			
Code for base frame:	7			
Grouting (Yes/No):	Ν		$\mathbf{Y}$	
Connect code:	F		'	
Liquid:				
Pumped liquid:	Water	—    Ÿ. <b>■</b> Ÿ.		
Liquid temperature range:	-25 120 °C	—   L		
Selected liquid temperature:	20 °C			
Density:	998.2 kg/m³	TO AMPLIFIER RELAY		
Electrical data:	-			
Motor type:	SIEMENS			
IE Efficiency class:	IE3	₿ <sup>+1</sup> ₿-		
Rated power - P2:	7.5 kW			
Mains frequency:	50 Hz			
		¥¥ Ľ		
Rated voltage:	3 x 380-420D/660-725Y V	TO AMPLIFIER BFLAY		

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		Date:	16/06/2022
Description	Value		
Starting current:	820-820 %		
Cos phi - power factor:	0.84		
Rated speed:	1465 rpm		
Efficiency:	IE3 90,4%		
Motor efficiency at full load:	90.4-90.4 %		
Motor efficiency at 3/4 load:	91.1-91.1 %		
Motor efficiency at 1/2 load:	90.8-90.8 %		
Number of poles:	4		
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Built-in motor protection:	PTC		
Motor No:	98957793		
Bearing insulation type N-end:	Ν		
Controls:			
Frequency converter:	NONE		
Pressure sensor:	Ν		
Others:			
Minimum efficiency index, MEI ≥:	0.70		
Net weight:	287 kg		
Gross weight:	315 kg		
Shipping volume:	0.742 m³		
Country of origin:	HU		
Custom tariff no.:	84137059		







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# Order Data:

Product name:NK 65-315/282Amount:1Product No:98973497

Total: Price on request