

15/08/2022

Qty. | Description

1

NB 50-250/254 AASF2AESBQQERW1



Note! Product picture may differ from actual product

Product No.: 98979797

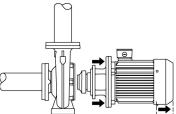
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733 (10 bar).

Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework.

The unbalanced rubber bellows seal is according to DIN EN 12756.

The pump is close-coupled to a fan-cooled asynchronous motor.

The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipes.



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.

## 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.

Motor stool and pump cover are made of cast iron (EN-GJL-250). Coupling guards are fitted to the motor stool. The pump cover is provided with a manual air vent screw for venting of the pump housing and the shaft seal chamber.

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.

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 pump housing has no feet.

The pump is to be secured to the foundation with bolts through the pump housing feet and motor feet. The pump is delivered with steel support blocks. The support blocks provide horizontal alignment of the pump and ensure clearance between the motor stool/motor flange and the foundation.



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#### 1 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**

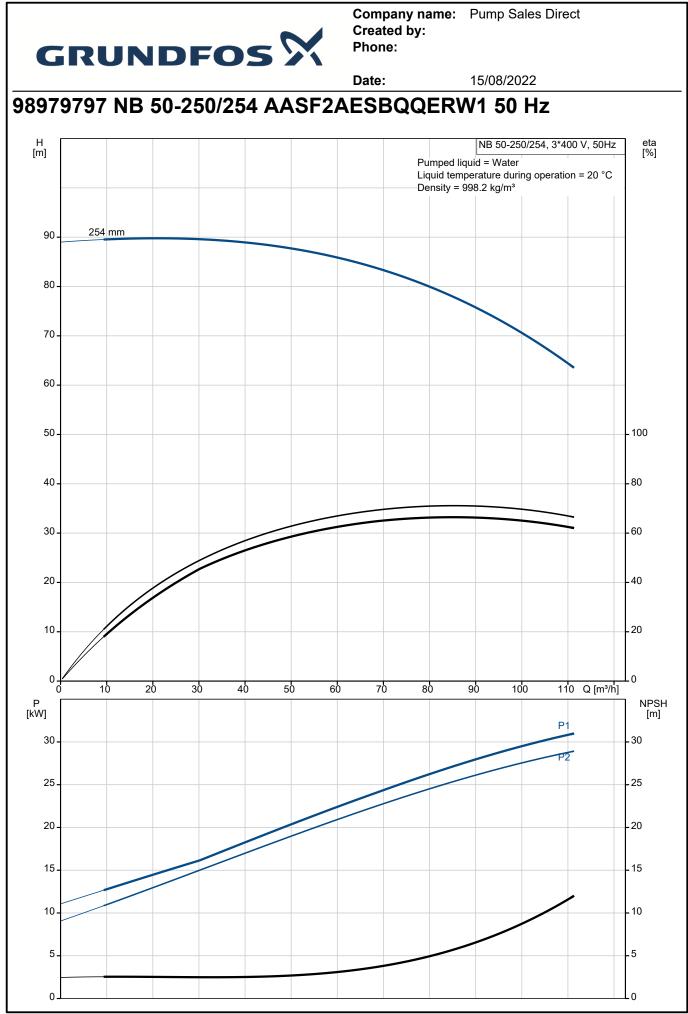
Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

### **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: Rated head: Actual impeller diameter: Nominal impeller diameter: Shaft seal arrangement: Code for shaft seal: Curve tolerance: Bearing design:	are based: 2955 rpm 91.2 m³/h 74.86 m 254 mm 250 Single BQQE ISO9906:2012 3B Standard
Materials: Pump housing: Wear ring: Impeller:	Cast iron EN-GJL-250 ASTM class 35 Brass Cast iron EN-GJL-200 ASTM class 30 CED
Internal pump house coating: Shaft:	Stainless steel EN 1.4301 AISI 304
Installation: t max amb: Maximum operating pressure: Pipe connection standard:	55 °C 16 bar EN 1092-2



Description Size of inlet connection: Size of outlet connection: Pressure rating for connection: Dearing lubrication: Pump housing with feet: Support block (Yes/No): Electrical data: Motor type: E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	DN 65 DN 50 PN 16 Grease No Y SIEMENS IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V 53/31 A	
Size of outlet connection: Pressure rating for connection: Bearing lubrication: Pump housing with feet: Support block (Yes/No): Electrical data: Motor type: E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	DN 50 PN 16 Grease No Y SIEMENS IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V	
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Pump housing with feet: Support block (Yes/No): Electrical data: Motor type: E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	No Y SIEMENS IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V	
Support block (Yes/No): Electrical data: Motor type: E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	Y SIEMENS IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V	
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Notor type: E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V	
E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	IE3 30 kW 50 Hz 3 x 380-420D/660-725Y V	
E Efficiency class: Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	30 kW 50 Hz 3 x 380-420D/660-725Y V	
Rated power - P2: Mains frequency: Rated voltage: Rated current: Starting current:	30 kW 50 Hz 3 x 380-420D/660-725Y V	
Mains frequency: Rated voltage: Rated current: Starting current:	50 Hz 3 x 380-420D/660-725Y V	
Rated voltage: Rated current: Starting current:	3 x 380-420D/660-725Y V	
Rated current: Starting current:		
Starting current:	53/31 A	
	700-700 %	
Cos phi - power factor:	0.87	
Rated speed:		
fficiency:	IE3 93,3%	
Notor efficiency at full load:		
earing insulation type N-end:	STEEL BEARING	
Others:		
/inimum efficiency index, MEI ≥:	0.67	
ustom tariff no.:	84137051	
	ated speed: fficiency: lotor efficiency at full load: lotor efficiency at 3/4 load: lotor efficiency at 1/2 load: lumber of poles: nclosure class (IEC 34-5): asulation class (IEC 85): lotor No: earing insulation type N-end: thers:	Lated speed:2955 rpmfficiency:IE3 93,3%lotor efficiency at full load: $93.3-93.3$ %lotor efficiency at 3/4 load: $93.5-93.5$ %lotor efficiency at 1/2 load: $92.9-92.9$ %lumber of poles:2nclosure class (IEC 34-5):IP55nsulation class (IEC 85):Flotor No:99032145earing insulation type N-end:STEEL BEARINGvthers:0.67let weight:302 kgGross weight:327 kghipping volume:0.707 m³lanish VVS No.:386062256country of origin:HU





			NB 50-250/254, 3*400 V,	50Hz eta
Description	Value	[m]	Pumped liquid = Water	[%]
General information:			Liquid temperature during operation = 2	20 °C
Product name:	NB 50-250/254 AASF2AESBQQERW1	90 -	254 mm	
Product No:	98979797	80 -		
EAN number:	5712604618769			
Fechnical:		70 -		
Pump speed on which pump data are based:	2955 rpm	60 -		
Rated flow:	91.2 m³/h			
Rated head:	74.86 m	50 -		100
Actual impeller diameter:	254 mm	40 -		- 80
Nominal impeller diameter:	250	40 -		- 80
Shaft seal arrangement:	Single	30 -		= 60
Shaft diameter:	24 mm			
Code for shaft seal:	BQQE	20 -		- 40
Curve tolerance:	ISO9906:2012 3B			
Pump version:	AS	10		- 20
Bearing design:	Standard			0
Materials:		0 <u>/</u>	20 40 60 80 100 Q	[m³/h]
Pump housing:	Cast iron	P [kW]	P	NPSH
Pump housing:	EN-GJL-250			
Pump housing:	ASTM class 35	25 -		2 _ 25
Wear ring:	Brass			
Impeller:	Cast iron	20 -		- 20
Impeller:	EN-GJL-200	15		_ 15
Impeller:	ASTM class 30			
Internal pump house coating:	CED	10 -		10
Material code:	A	5 -		- 5
Code for rubber:	E			0
Shaft:	Stainless steel			<b>0</b>
Shaft:	EN 1.4301			
Shaft:	AISI 304			
Installation:	AISI 504			
t max amb:	55 °C			
Maximum operating pressure:	16 bar	*		P
Pipe connection standard:	EN 1092-2		19 164 180	
Size of inlet connection:	DN 65	4 X <b>o</b> 19	· · · · ·	305
Size of outlet connection:	DN 50			
	PN 16			38
Pressure rating for connection:				·
Bearing lubrication:	Grease			
Pump housing with feet:	No Y			
Support block (Yes/No):				
Connect code:	F2			
Liquid:	Water			
Pumped liquid:	Water			
Liquid temperature range:	-25 120 °C		Υ	
Selected liquid temperature:	20 °C			
Density:	998.2 kg/m³	\B++	т §-т §-т	
Electrical data:				
Motor type:	SIEMENS	<u>0</u>		
IE Efficiency class:	IE3	TO AMPLIFIER		
Rated power - P2:	30 kW	RELAY		
Mains frequency:	50 Hz			
Rated voltage:	3 x 380-420D/660-725Y V			
Rated current:	53/31 A	\$		
Starting current:	700-700 %			
Cos phi - power factor:	0.87	69	HEALE HEALE	
Rated speed:	2955 rpm	TO AMPLIFIER RELAY		
Efficiency:	IE3 93,3%			

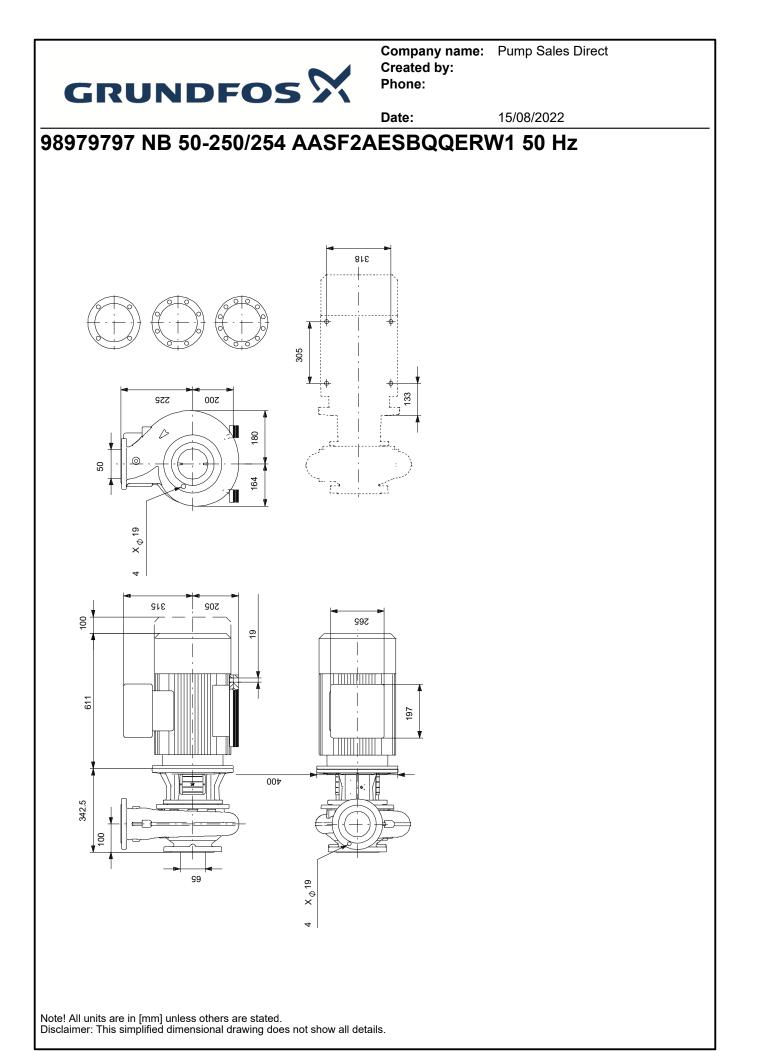
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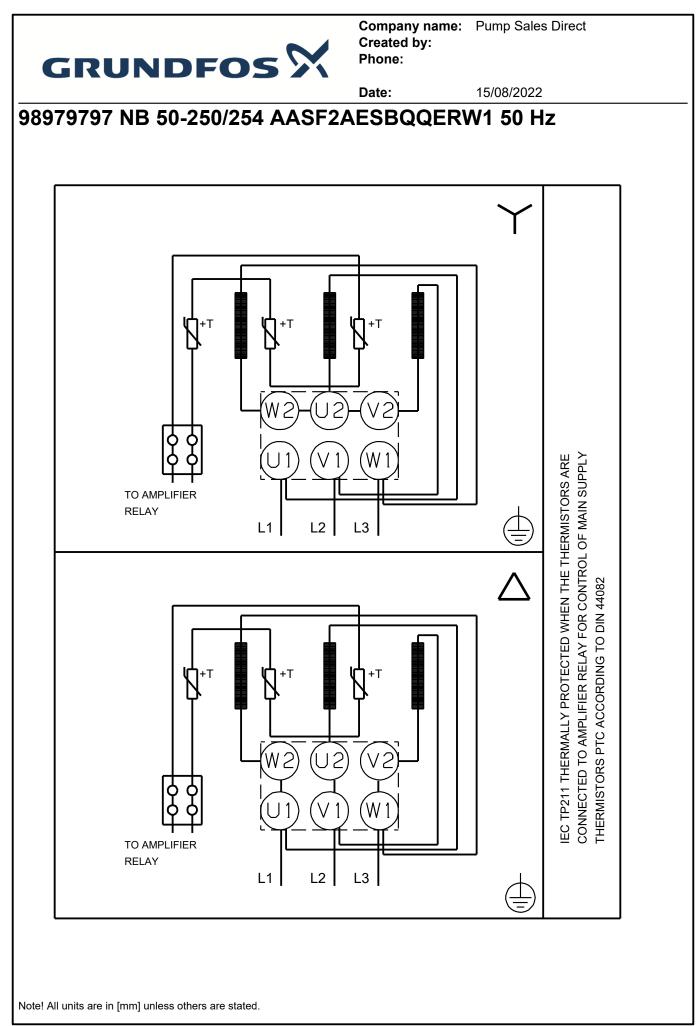


Date:

15/08/2022

Description	Value
Motor efficiency at full load:	93.3-93.3 %
Motor efficiency at 3/4 load:	93.5-93.5 %
Motor efficiency at 1/2 load:	92.9-92.9 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	99032145
Mount. design. acc. IEC 34-7:	IM B35
Bearing insulation type N-end:	STEEL BEARING
Controls:	
Frequency converter:	NONE
Pressure sensor:	Ν
Others:	
Minimum efficiency index, MEI ≥:	0.67
Net weight:	302 kg
Gross weight:	327 kg
Shipping volume:	0.707 m³
Danish VVS No.:	386062256
Country of origin:	HU
Custom tariff no.:	84137051







			Date:	5/08/2022	
Order Data:					
Position	Your pos.	Product name	Amount	Product No	Total
		NB 50-250/254	1	98979797	Price on request