

CM5-3 A-R-A-E-AVBE C-A-A-N

Grundfos pump 96806812



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https://www.lenntech.com/grundfos/CMBASIS/96806812/CM5-3-A-R-A-E-AVBE.html

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Position | Qty. | Description

1

CM5-3 A-R-A-E-AVBE



Product No.: On request

Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial discharge port. The shaft, impellers and chambers are made of stainless steel. The inlet and discharge parts are made of cast iron. The mechanical shaft seal is a special designed, unbalanced O-ring seal. Pipework connection is via internal Whitworth pipe threads, Rp (ISO 7/1).

The pump is fitted with a 1-phase, foot-mounted, fan-cooled asynchronous motor.

Further product details

Pump and motor are integrated in a compact and user-friendly design. The pump is fitted to a low base plate, making it ideal for installation in systems where compactness is important.

The state-of-the-art design and materials of the shaft seal ensure high wear resistance, improved sticking and dry-running capabilities and long operating life.

Servicing the pump requires no special service tools. Service parts are in stock for quick delivery and are available as kits, single parts or bulk. Service videos are available on www.youtube.com.

Pump

A combination of a stop ring and a Nord-lock® washer secures a tight and reliable fixation of the impeller spacing pipes to the splined pump shaft. It is possible to remove and fit the hydraulic parts from the pump side. The inlet part, chambers and discharge part are hold together by four staybolts.

The pump is fitted with an unbalanced O-ring seal with a rigid torque-transmission system. It has a fixed seal driver ensuring a reliable rotation of all parts. The dynamic secondary seal is an O-ring.

Primary seal:

- Rotating seal ring material: aluminium oxide (alumina)
- Stationary seat material: carbon graphite, resin-impregnated

Carbon graphite against alumina is a good all-round seal for not too demanding applications. The corrosion resistance is often limited in water to a range between pH 5 and pH 10. Usage in liquids above 90 °C is not recommended. The seal can handle dry-running conditions for short periods.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The pump shaft is connected to the motor shaft through a left thread and tight fit. The shaft cannot be dismantled

Motor

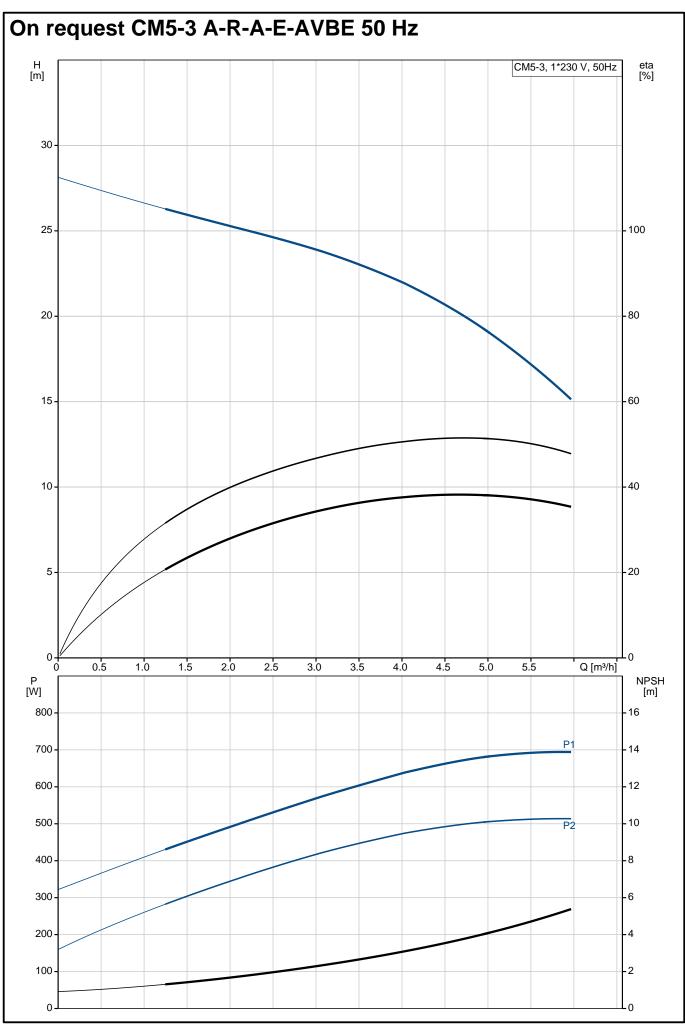
The motor is a totally enclosed, fan-cooled motor with principal dimensions to EN 50347. Electrical tolerances comply with EN 60034.

The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

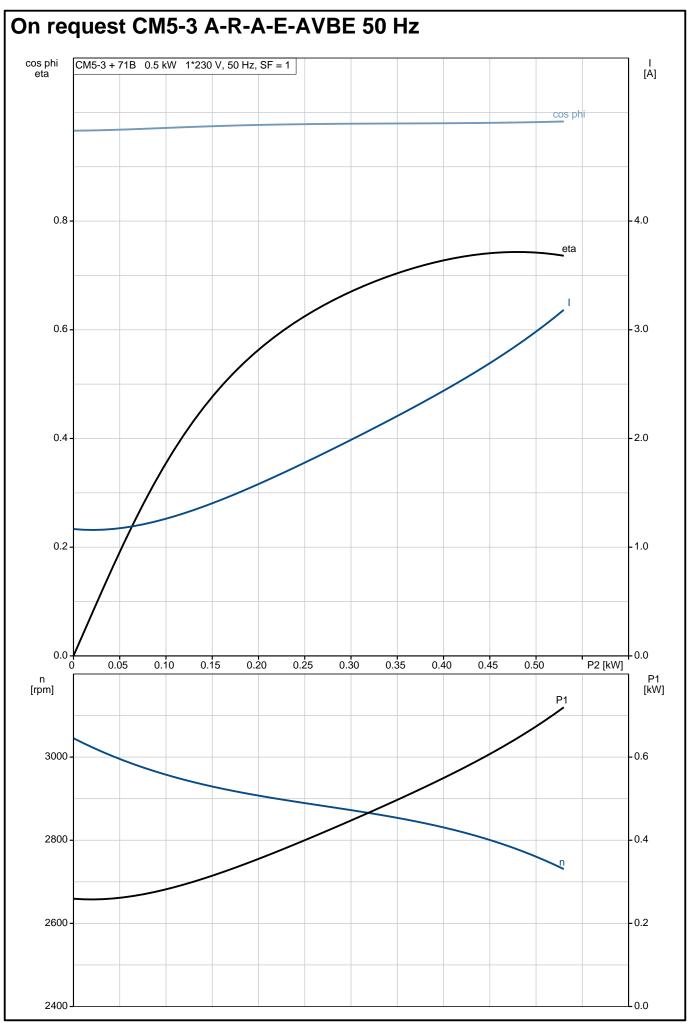
As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

Technical data

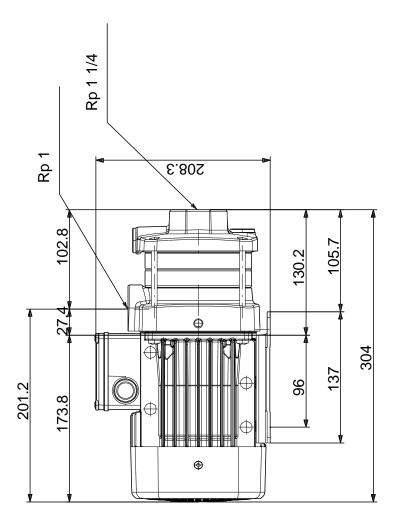
Position	Qty.	Description		
		Liquid:		
		Pumped liquid:	Water	
		Liquid temperature range:	-20 90 °C	
		Liquid temperature during opera	tion: 20 °C	
		Density:	998.2 kg/m³	
		Technical: Rated flow:	4.7 m³/h	
		Rated head:	22.8 m	
		Primary shaft seal:	AVBE	
		Approvals on nameplate:	CE,WRAS,ACS,TR,EAC	
		Curve tolerance:	ISO9906:2012 3B	
		Materials:		
		Pump housing:	Cast iron EN-JL1030 ASTM 30 B	
		Impeller:	Stainless steel DIN WNr. 1.4301	
		Rubber:	AISI 304 EPDM	
		Installation: Maximum ambient temperature:	55 °C	
		Maximum operating pressure:	10 bar	
		Max pressure at stated temp:	6 bar / 90 °C	
		, , , , , , , , , , , , , , , , , , , ,	10 bar / 40 °C	
		Flange standard:	WHITWORTH THREAD RP	
		Pump inlet:	Rp 1 1/4	
		Pump outlet:	Rp 1	
		Electrical data: Motor type:	71B	
		Rated power - P2:	0.5 kW	
		Mains frequency:	50 Hz	
		Rated voltage:	1 x 220-240 V	
		Service factor:	1	
		Rated current:	3.1-2.8 A	
		Starting current:	530 %	
		Rated speed:	2730-2740 rpm	
		Enclosure class (IEC 34-5):	IP55	
		Insulation class (IEC 85):	F	
		Others: Minimum efficiency index, MEI	• 0.7	
		Net weight:	11.9 kg	
		Gross weight:	14.4 kg	
	l	l		

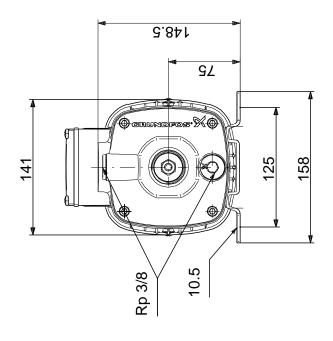


Value	[m]	[%]
CM5-3 A-R-A-E-AVBE	30 -	
On request		
<u> </u>	25 -	100
4.7 m³/h		
	20 -	80
	15 -	- 60
	10	-40
Cast iron		
	5	20
	0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0	Q [m³/h]
	P	NPSH
	[vv]	[m]
	700	P1 - 14
<u> </u>	600 -	- 12
55.00		
		F2
	400	-8
	300	-6
	200	4
	100	-2
R	201.2	
	141 173.8 27.4 102	2.8 Rp 1
		Rp 1 1/4
		208. 88.
998.2 kg/m³	10.5	
	125 96 130.2	
	304	
1 x 220-240 V		
1		
530 %		
2730-2740 rpm		
IP55		
F		
TP211		
	[
0.7	AUX	
11.9 kg		
14.4 kg		
	MAIN Z EN EN E	
	On request On request 4.7 m³/h 22.8 m 3 AVBE CE,WRAS,ACS,TR,EAC ISO9906:2012 3B A A Cast iron EN-JL1030 ASTM 30 B Stainless steel DIN WNr. 1.4301 AISI 304 A EPDM E 55 °C 10 bar 6 bar / 90 °C 10 bar / 40 °C WHITWORTH THREAD RP Rp 1 1/4 Rp 1 R Water -20 90 °C 20 °C 998.2 kg/m³ 71B 0.5 kW 50 Hz 1 x 220-240 V 1 3.1-2.8 A 530 % 2730-2740 rpm IP55 F TP211	On request On request On request 4.7 m³/h 22.8 m 3 AVBE CE.WRAS.ACS.TR.EAC ISO9906:2012 3B A A Cast iron EN-JL1030 ASTM 30 B Stainless steel DIN WNr. 1.4301 AISI 304 A EPDM E 655 °C 10 bar / 40 °C WHITWORTH THREAD RP Rp 1 1/4 Rp 1 R Water -20 . 90 °C 20 °C 300 300 300 100 100 100 100 100 100 100

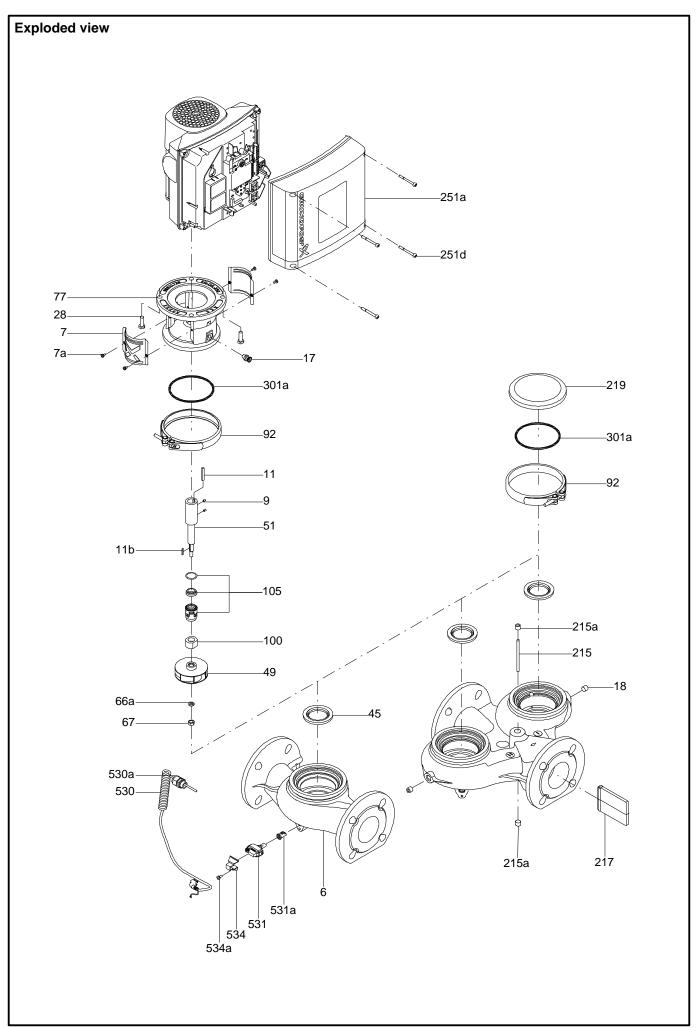


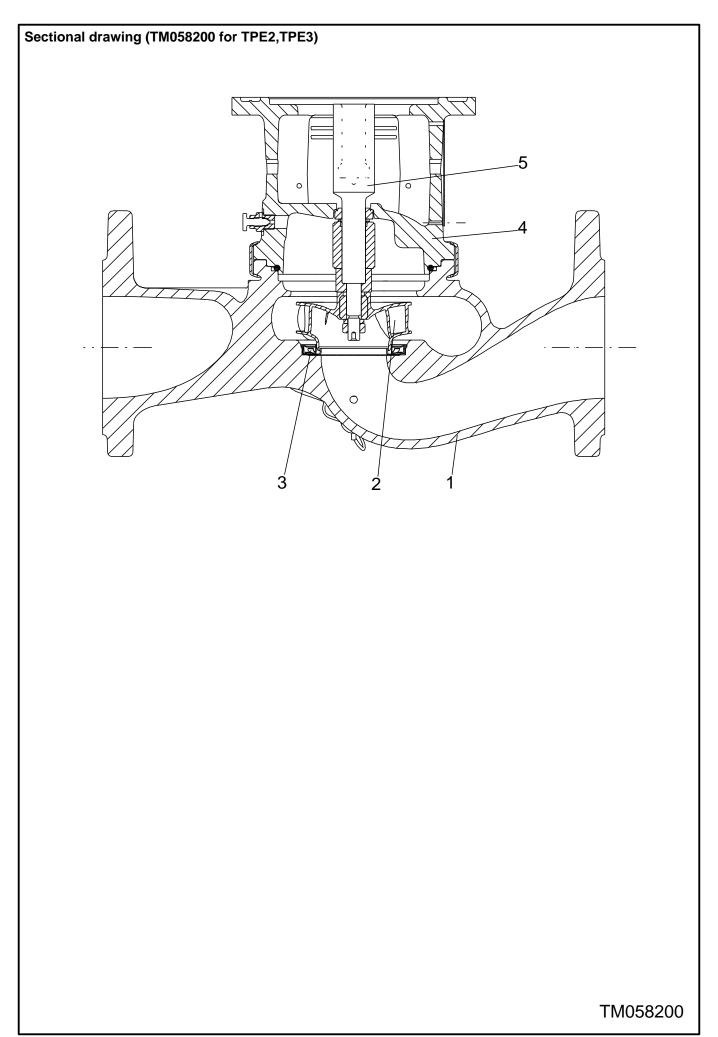
On request CM5-3 A-R-A-E-AVBE 50 Hz

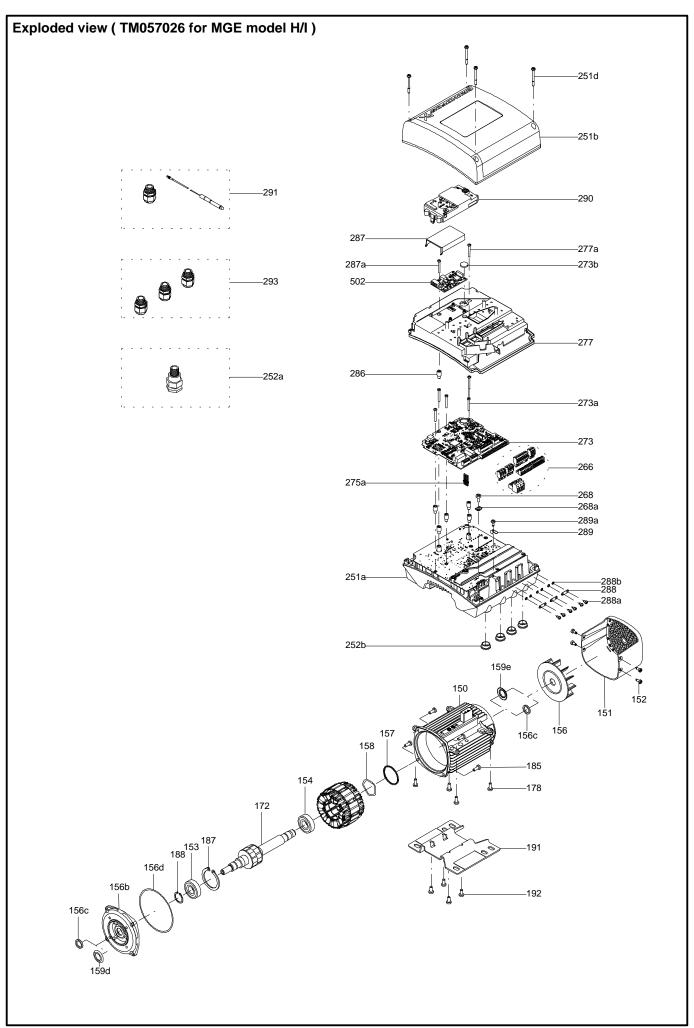




Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.







Parts list CM5-3, Product No. On request Valid from 2.7.2009 (0927)

Pos	Description MG71B	Annotation	Données de classification	Vereience	1	
	Cross recess countersunk screw				4	pcs
4						pcs
4	Chamber cpl. Guide vane				1	pcs
					6	
	Plate				1	
	Retainer				1	
	Intermediate chamber				1	
	Vane				1	
45	Neck ring				1	
65	Retainer				1	
4.f	Chamber				1	pcs
	Guide vane				6	
	Plate				1	
	Plate				1	
	Retainer				1	
45	Neck ring				1	
65	Retainer				1	
5a	Chamber cpl.				1	pcs
	Retainer				1	
	Intermediate chamber				1	
	Vane				1	
45	Neck ring				1	
65	Retainer				1	
6	Inlet part				1	pcs
25	Drain plug cpl.				2	pcs
11	O-ring		Diameter: 18,5		1	
			Material type: EPDM			
			Thickness: 2			
25	Plug				1	
26	Hex socket head cap screw		Length (mm): 75		4	pcs
			Thread: M06			
36	Lock nut		Thread: M8		1	pcs
49	Impeller cpl.				3	pcs
51	Pump shaft		Diameter: D12		1	pcs
64	Spacing pipe				2	pcs
64.c	Clamp				1	pcs
66	Wedge lock washer				1	pcs
76	Nameplate				2	pcs
105	Shaft seal				1	pcs
102	O-ring		Diameter: 17,86			- 55
	- 3		Material type: EPDM		•	
			Thickness: 2,62			
103	Seal ring, stationary				1	
104	Seal ring, rotating				1	
107	O-ring				1	
107	Compression spring				1	
111	Retainer				1	
112	Driver for shaft seal				1	
	Stop ring				1	ncc
139.b	· -		Internal diameter: 102		4	pcs
	Gaskei		Internal diameter: 103		4	pcs
			Outer diameter: 110			
454			Thickness: 0,25		4	
151	Fan cover				1	pcs
152	Pan head thread forming screw				2	pcs
156	Fan				1	pcs
191	Base plate				1	pcs

Disclaimer: The information about the Grundfos pump in this document may be outdated. Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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