R3G500-AN34-72

EC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G500-AN34-72**	
Motor	**M3G084-FA**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	750
Power input	W	265
Current draw	A	1.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		52.8	41.4	45.4
Efficiency grade N		69.4	58	62
Power input P_{ed}	kW	0.26		
Air flow q_v	m^3/h	3010		
Pressure increase p_{fs}	Pa	149		
Speed n	min^{-1}	755		

Data established at point of optimum efficiency

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Technical features

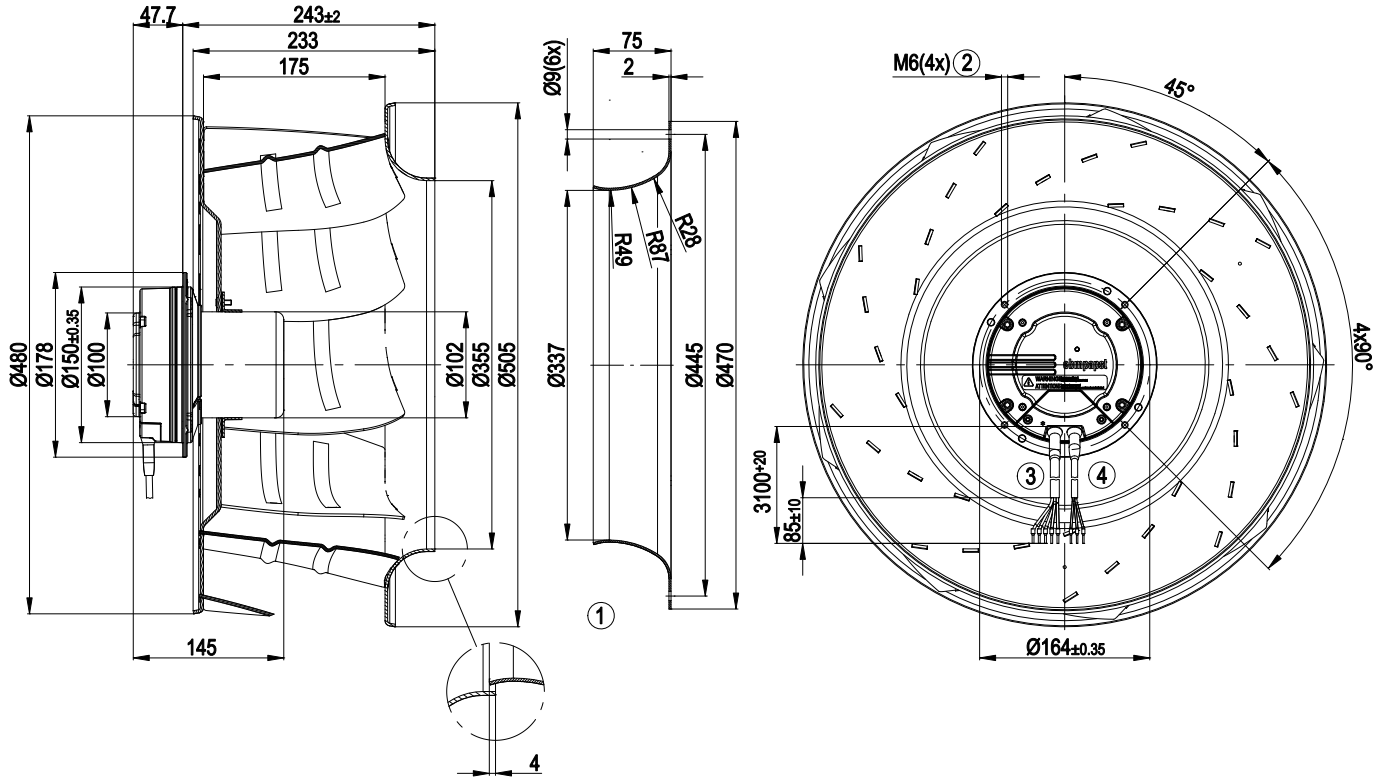
Mass	9.72 kg
Size	500 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	9
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54; Depending on installation and position
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Over-temperature protected electronics / motor - Alarm relay - Line undervoltage detection - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CSA C22.2 Nr.77; UL 2111

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Product drawing



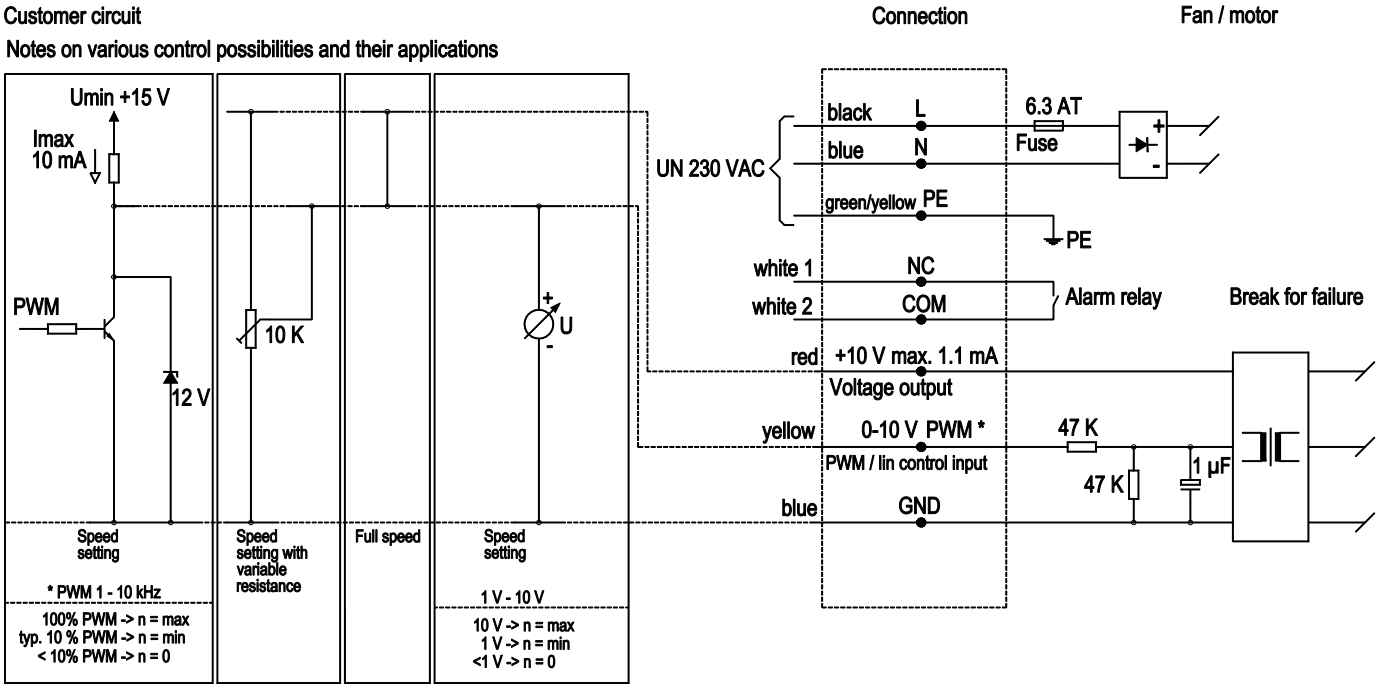
1	Accessory part: inlet nozzle 63072-2-4013 with a pressure tap not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw 8 - 10 mm
3	Connection line AWG 18, 5x crimped core-end sleeves
4	Connection line AWG 22, 3x crimped core-end sleeves

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Connection screen

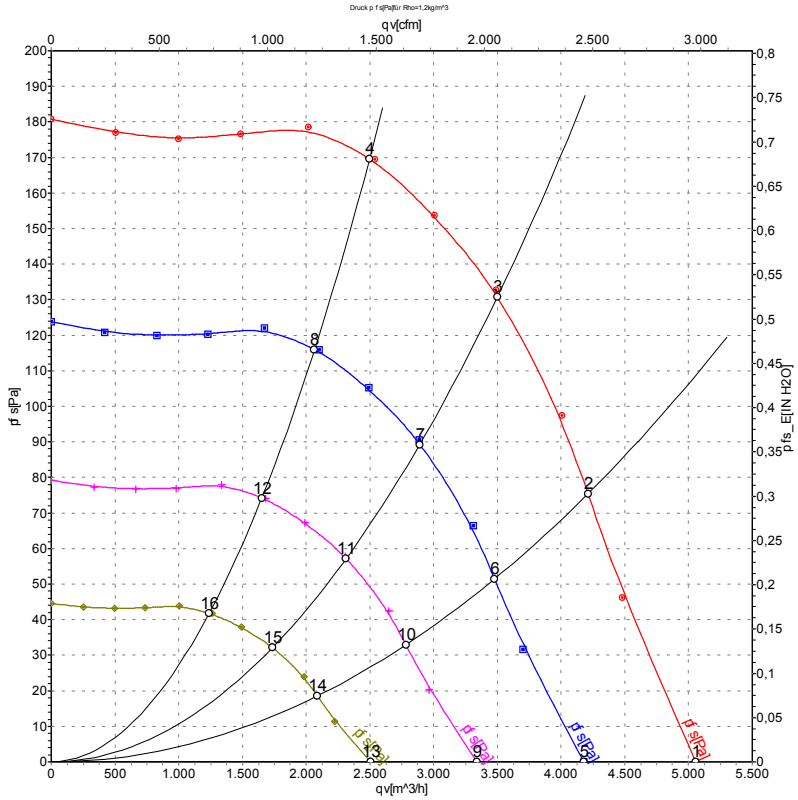


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Charts: Air flow 50 Hz



Measurement: LU-102374

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	750	174	1.11	62	72	74	5055	0
2	230	50	750	228	1.42	56	64	69	4210	75
3	230	50	750	265	1.60	52	60	66	3500	130
4	230	50	750	251	1.55	52	60	66	2495	170
5	230	50	625	98	0.63	58	67	70	4180	0
6	230	50	625	129	0.80	52	60	65	3480	52
7	230	50	625	150	0.92	48	56	62	2890	90
8	230	50	625	142	0.88	48	56	62	2065	116
9	230	50	500	50	0.32	53	63	65	3340	0
10	230	50	500	66	0.41	47	55	60	2785	33
11	230	50	500	77	0.47	44	51	57	2315	58
12	230	50	500	73	0.45	43	51	57	1650	74
13	230	50	375	21	0.14	46	56	59	2505	0
14	230	50	375	28	0.17	41	49	54	2085	18
15	230	50	375	32	0.20	37	45	51	1735	32
16	230	50	375	31	0.19	37	44	51	1240	42

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
qv = Air flow · p_{fs} = Pressure increase

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