R3G500-RP34-73

EC centrifugal fan - RadiCal

backward curved



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G500-RP34-73**	
Motor	**M3G084-FA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	730
Power input	W	260
Current draw	A	1.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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}		53.8	41.2	45.2
Efficiency grade N		70.6	58	62
Power input P_{ed}	kW	0.25		
Air flow q_v	m^3/h	2955		
Pressure increase p_{fs}	Pa	150		
Speed n	min^{-1}	730		

Data established at point of optimum efficiency

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Technical features

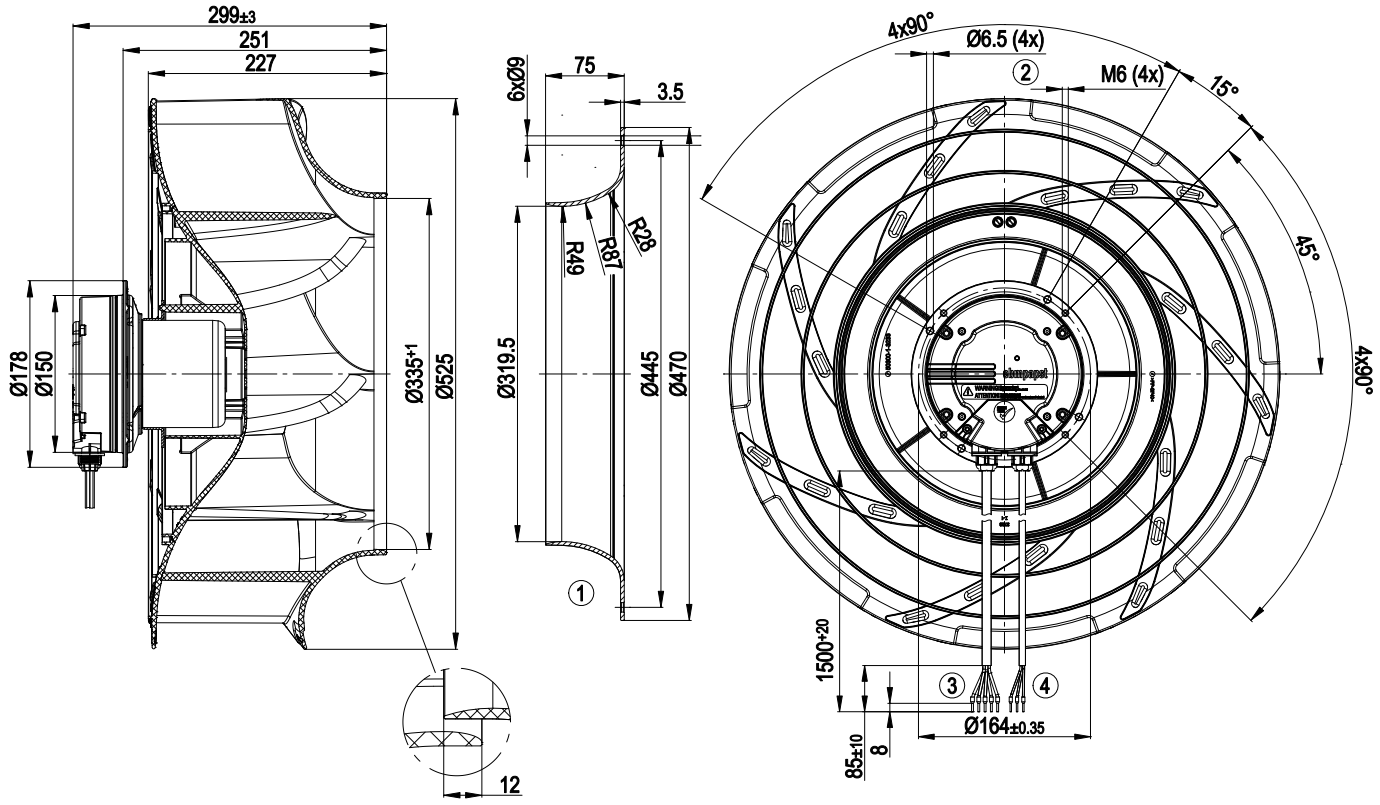
Mass	8.8 kg
Size	500 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PP-GF40 plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected electronics / motor - Line undervoltage detection
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 60335-1

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Product drawing



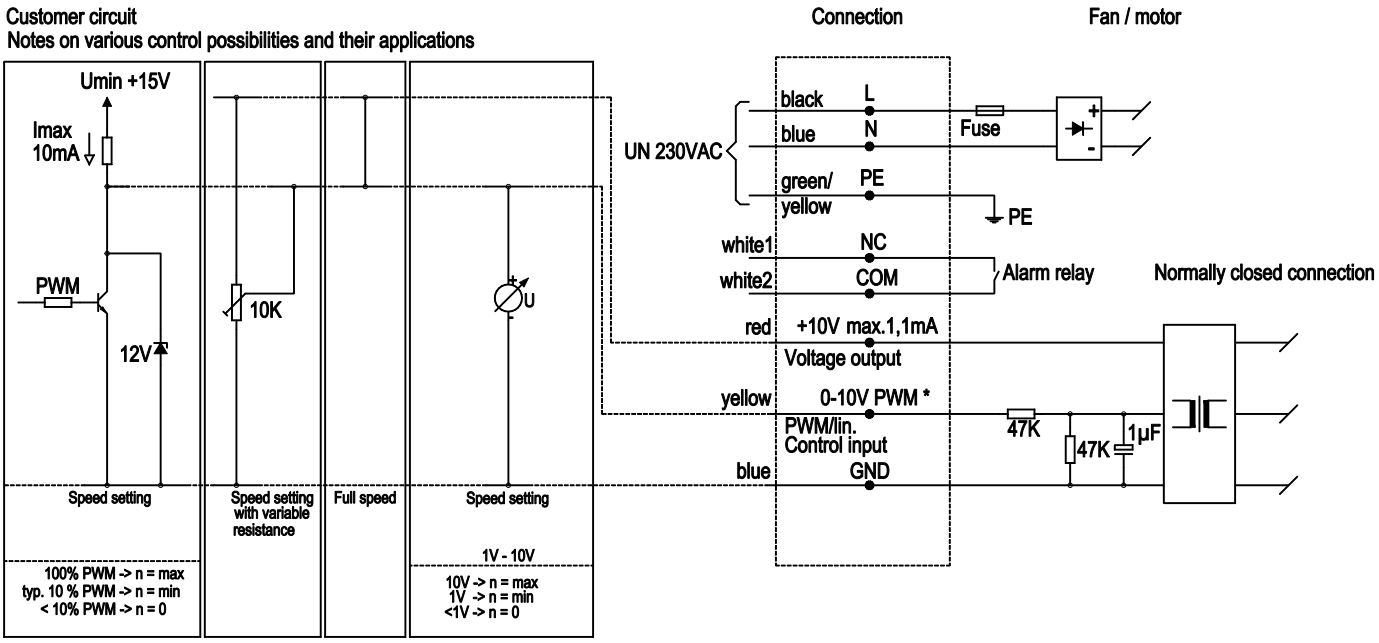
1	Accessory part: Inlet nozzle 50901-2-2943, not included in the standard scope of delivery
2	Depth of screw min. 8 mm, max. 10 mm
3	Connection line PVC AWG18 5x crimped core-end sleeves
4	Connection line PVC AWG22 3x crimped core-end sleeves

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Connection screen

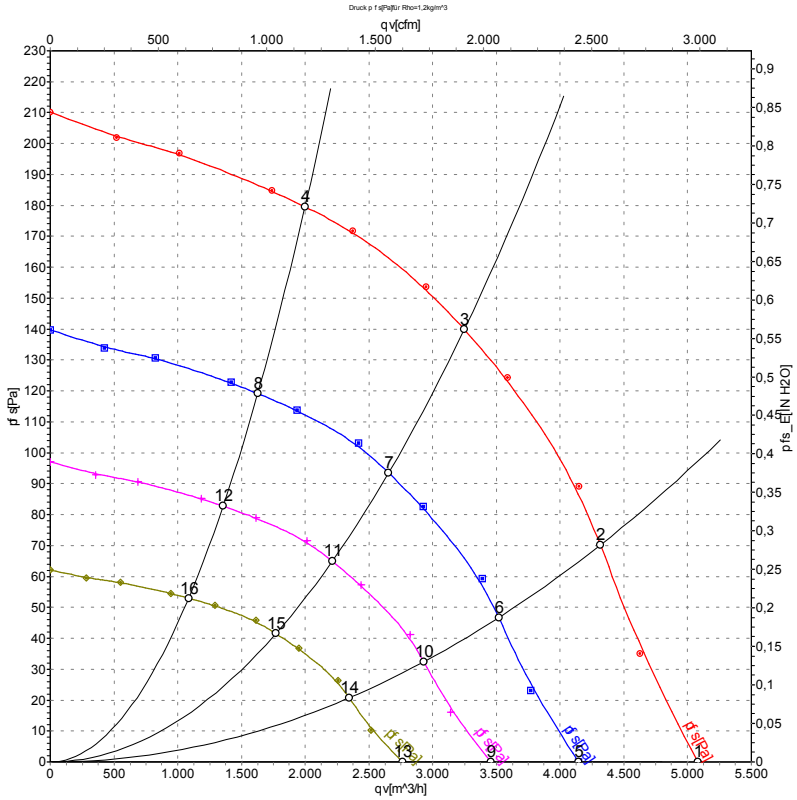


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Charts: Air flow 50 Hz



Measurement: LU-124867

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	730	168	1.06	56	63	70	5080	0
2	230	50	730	228	1.41	53	60	67	4315	70
3	230	50	730	260	1.60	50	57	62	3250	140
4	230	50	730	227	1.40	49	55	61	2000	180
5	230	50	600	91	0.58	52	59	65	4145	0
6	230	50	600	124	0.77	48	56	62	3520	47
7	230	50	600	140	0.86	45	53	58	2655	94
8	230	50	600	123	0.76	45	51	56	1630	119
9	230	50	500	53	0.33	48	55	61	3455	0
10	230	50	500	72	0.44	44	52	58	2930	33
11	230	50	500	81	0.50	42	49	54	2210	65
12	230	50	500	71	0.44	41	47	52	1355	83
13	230	50	400	27	0.17	43	50	56	2765	0
14	230	50	400	37	0.23	40	47	53	2345	21
15	230	50	400	41	0.25	37	44	49	1770	42
16	230	50	400	36	0.22	36	42	47	1085	53

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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