R3G225-AH54-01

EC centrifugal fan

backward curved, single inlet

for forced air ventilation



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G225-AH54-01**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	2920
Power input	W	170
Current draw	A	1.27
Max. ambient temperature	°C	60

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}		49.4	39.1	43.1
Efficiency grade N		68.3	58	62
Power input P_{ed}	kW	0.16		
Air flow q_v	m^3/h	705		
Pressure increase p_{fs}	Pa	363		
Speed n	min^{-1}	2890		

Data established at point of optimum efficiency

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Technical features

Mass	2.25 kg
Size	225 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic 6.6, fiberglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
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	- Control input 0-10 VDC / PWM - Output 10 VDC max. 1.1 mA - Tach output - Over-temperature protected electronics / motor
EMC interference immunity	Acc. to EN 61000-6-2
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3
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; EN 61800-5-1; EN 60950-1; CE
Approval	CCC; UL 2111; CSA C22.2 Nr.77

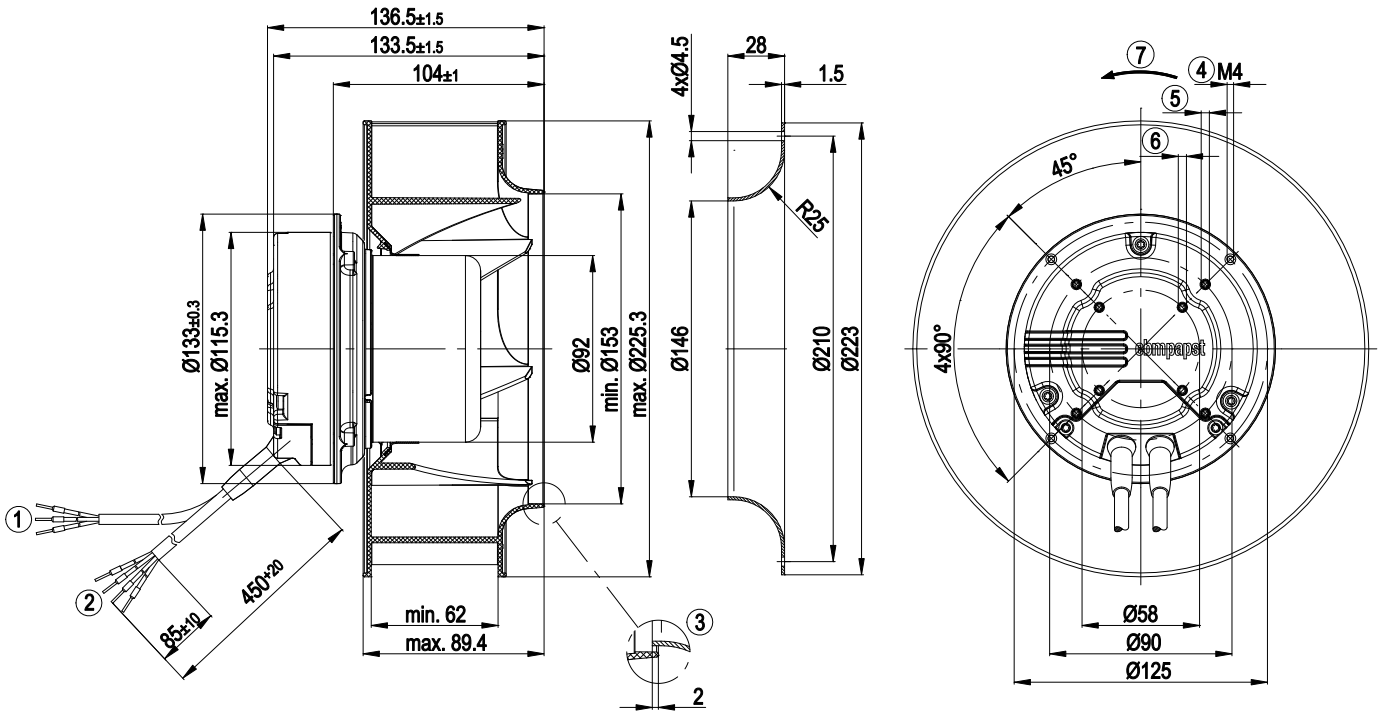
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Product drawing



1	Connecting line AWG18, 3 x crimped core-end sleeves
2	Connecting line AWG22, 4 x crimped core-end sleeves
3	Accessory part: Inlet nozzle 96358-2-4013, not included in the standard scope of delivery
4	Depth of screw 8 -10 mm; tightening torque 2.5±0.2 Nm; gluing the screws is recommended
5	Pilot hole prepared for self-tapping screw M4, depth of screw max. 6 mm
6	Pilot hole prepared for self-tapping screw M4, depth of screw max. 8 mm
7	Direction of rotation clockwise, seen on rotor

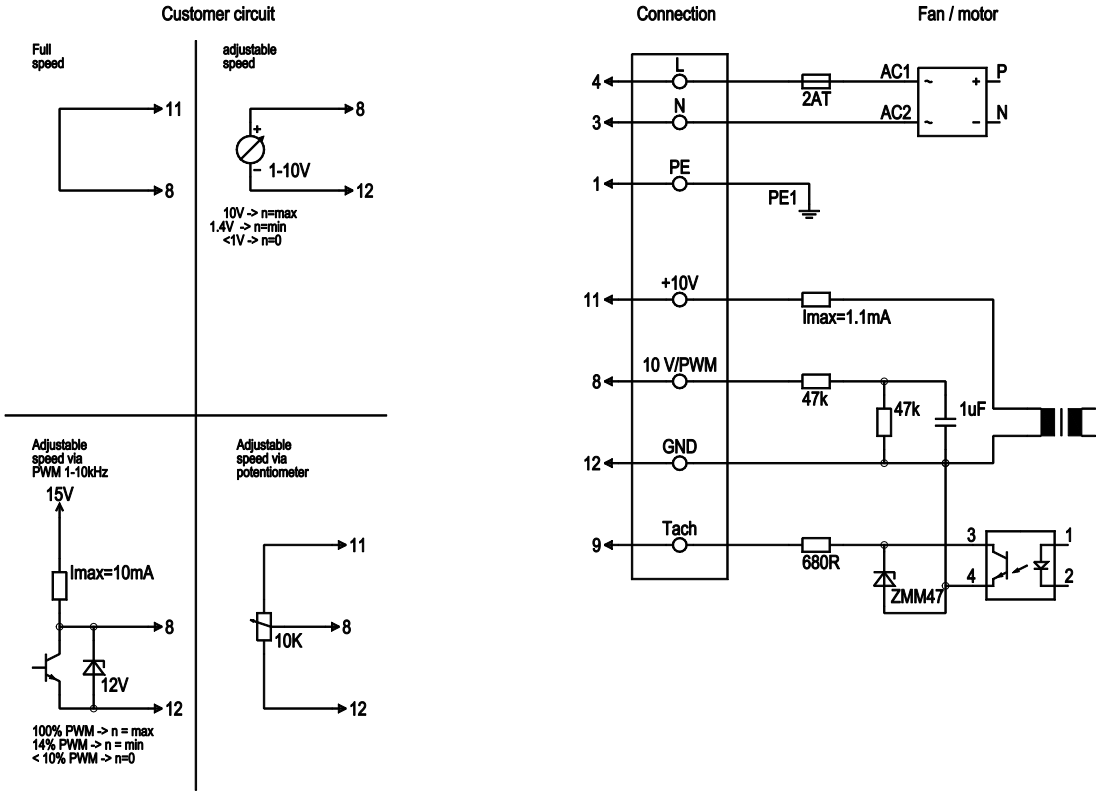
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Connection screen



Line	No.	Signal	Colour	Function / assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V / max. 1.1 mA, electrically isolated
	12	GND	blue	GND - Connection for control interface

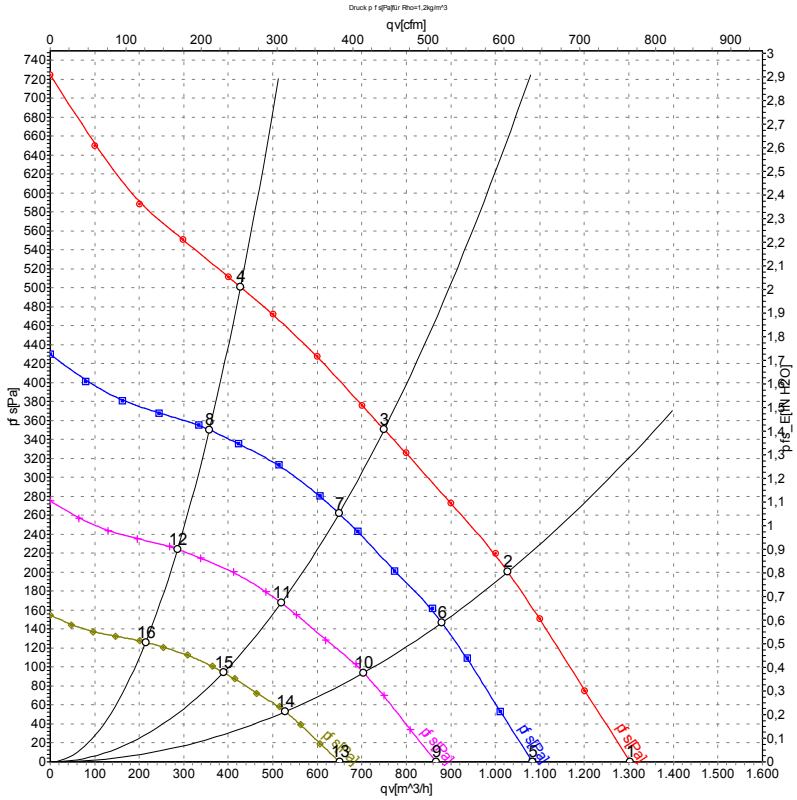
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Charts: Air flow 50 Hz



Measurement: LU-111834

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.

The technical data was measured with the end plate attached.

Measured values

	U	f	n	P_{ed}	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	3005	149	1.11	1305	0
2	230	50	2920	170	1.27	1030	201
3	230	50	2890	164	1.24	750	350
4	230	50	2990	162	1.21	425	501
5	230	50	2500	86	0.64	1085	0
6	230	50	2500	106	0.79	880	147
7	230	50	2500	106	0.80	650	262
8	230	50	2500	95	0.71	355	350
9	230	50	2000	44	0.33	865	0
10	230	50	2000	54	0.41	705	94
11	230	50	2000	54	0.41	520	168
12	230	50	2000	48	0.36	285	224
13	230	50	1500	19	0.14	650	0
14	230	50	1500	23	0.17	530	53
15	230	50	1500	23	0.17	390	94
16	230	50	1500	20	0.15	215	126

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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