EC centrifugal fan - RadiCal

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Nominal data

Type	**R3G225-RH19-19**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2580
Power input	W	115
Current draw	A	1.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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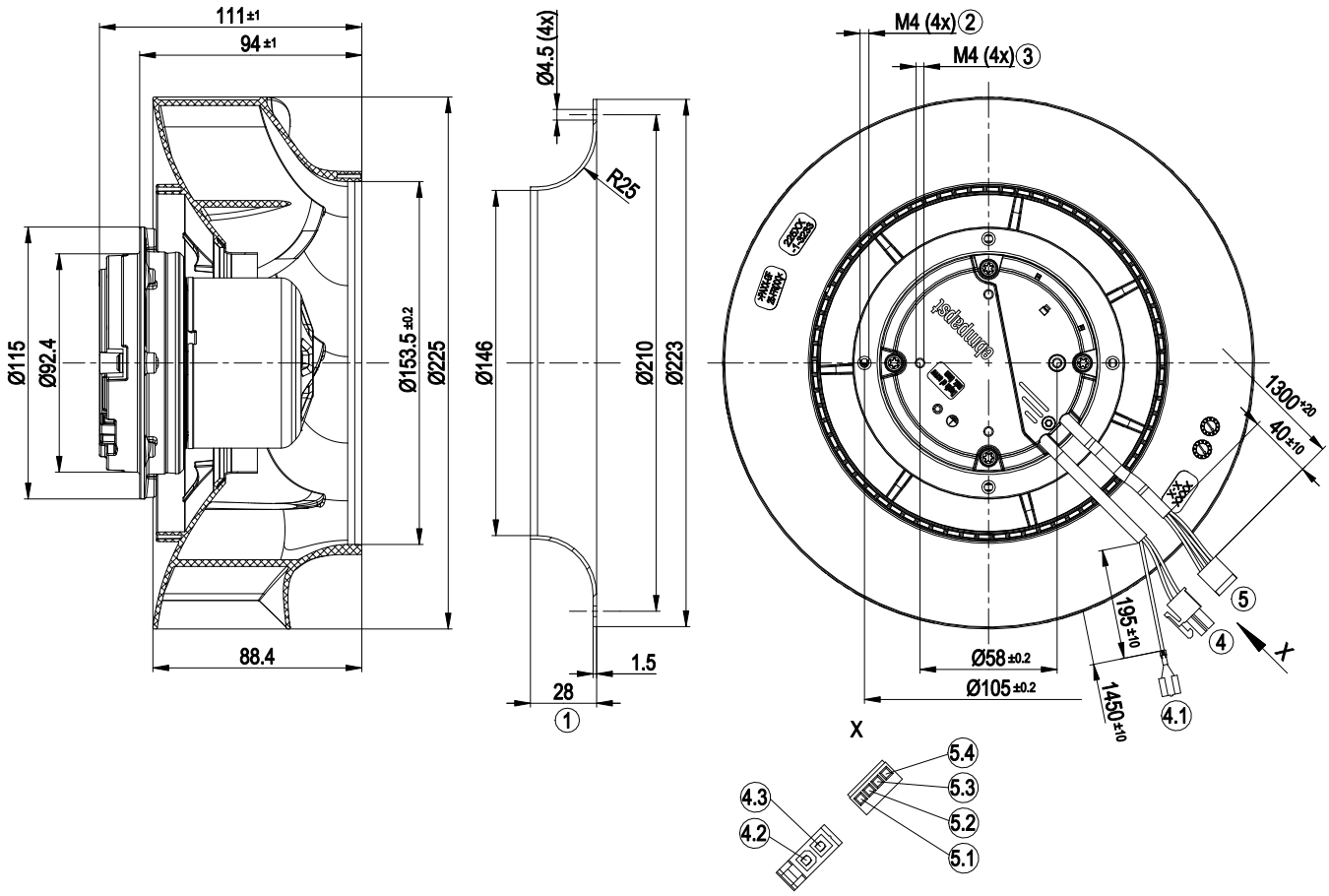
Technical features

Mass	1.5 kg
Size	225 mm
Surface of rotor	Thick layer passivated
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - 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	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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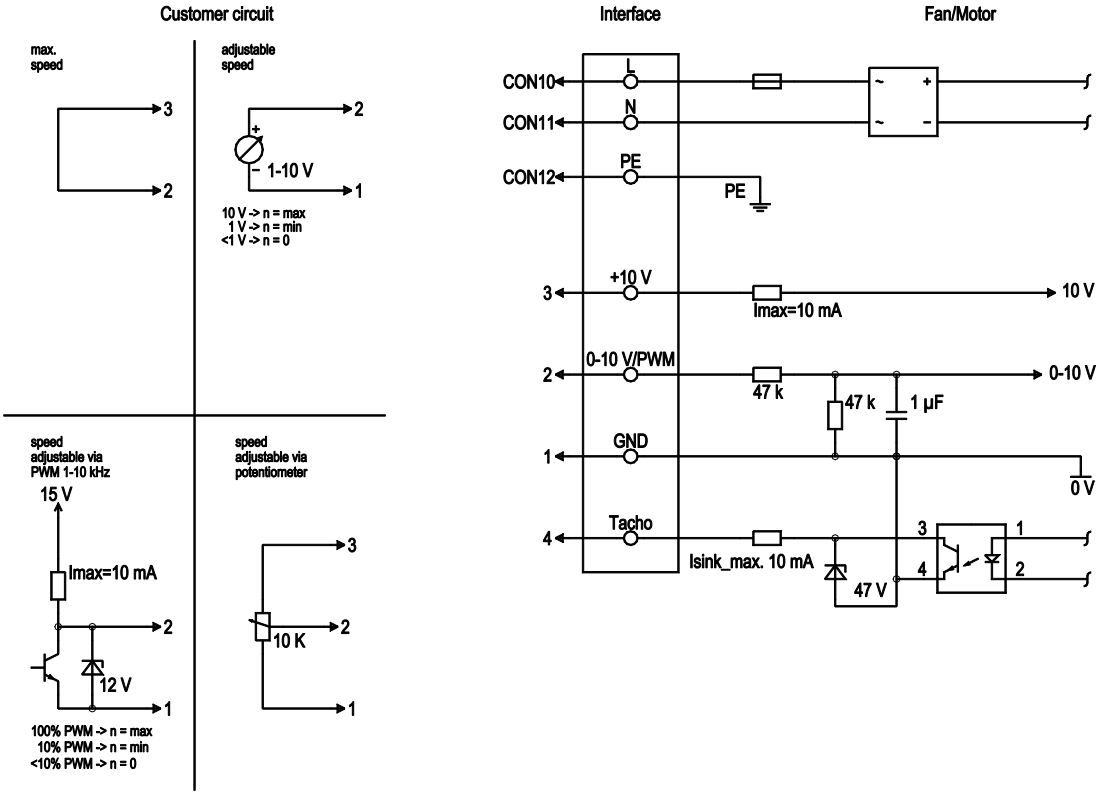
Product drawing



1	Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery
2	Thread reach max. 6 mm
3	Thread reach max. 6 mm
4	Connection line PVC 3G 0.5 mm², connector housing 2-pole Molex 46992-0210, 2x plug pin Molex 39-00-0059
4.1	PE (green/yellow), threaded pin 6.3x0.8
4.2	N (blue)
4.3	L (brown)
5	Connection line PVC 4x 0.25 mm², connector housing 4-pole Molex 10-11-2043, 4x plug pin Molex 08-50-0004
5.1	Tach (white)
5.2	0-10 V PWM (yellow)
5.3	+10 V (red)
5.4	GND (blue)

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Connection screen

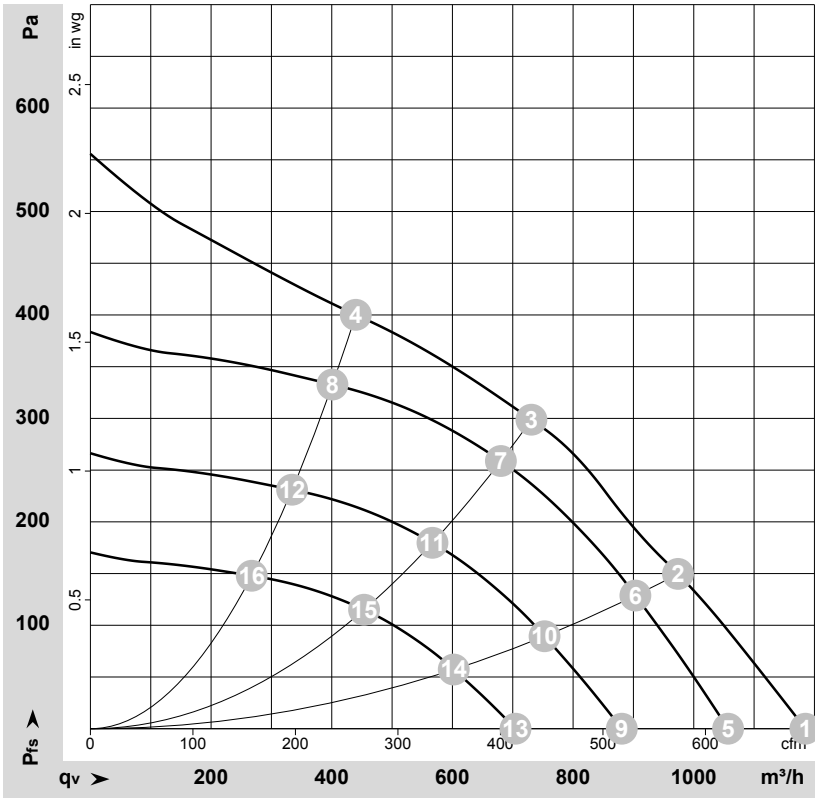


No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-178182-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2690	104	0.87	66	74	1185	0	695	0.00
2	230	50	2590	117	0.98	63	70	975	150	575	0.60
3	230	50	2580	115	1.00	59	67	730	300	430	1.20
4	230	50	2630	112	0.94	63	70	440	400	260	1.61
5	230	50	2400	74	0.62	63	71	1055	0	620	0.00
6	230	50	2400	93	0.78	61	68	905	129	530	0.52
7	230	50	2400	97	0.80	57	65	680	259	400	1.04
8	230	50	2400	85	0.71	61	68	400	333	235	1.34
9	230	50	2000	43	0.36	58	66	880	0	520	0.00
10	230	50	2000	54	0.45	56	64	755	89	445	0.36
11	230	50	2000	56	0.47	53	60	565	180	335	0.72
12	230	50	2000	49	0.41	56	63	335	231	195	0.93
13	230	50	1600	22	0.18	53	60	705	0	415	0.00
14	230	50	1600	28	0.23	51	58	600	57	355	0.23
15	230	50	1600	29	0.24	47	54	455	115	265	0.46
16	230	50	1600	25	0.21	50	58	265	148	155	0.59

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

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