R3G220-RG05-11

EC centrifugal fan - RadiCal

backward curved

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Nominal data

Type	**R3G220-RG05-11**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	2550
Power input	W	60
Current draw	A	0.55
Min. ambient temperature	°C	-25
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

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Technical features

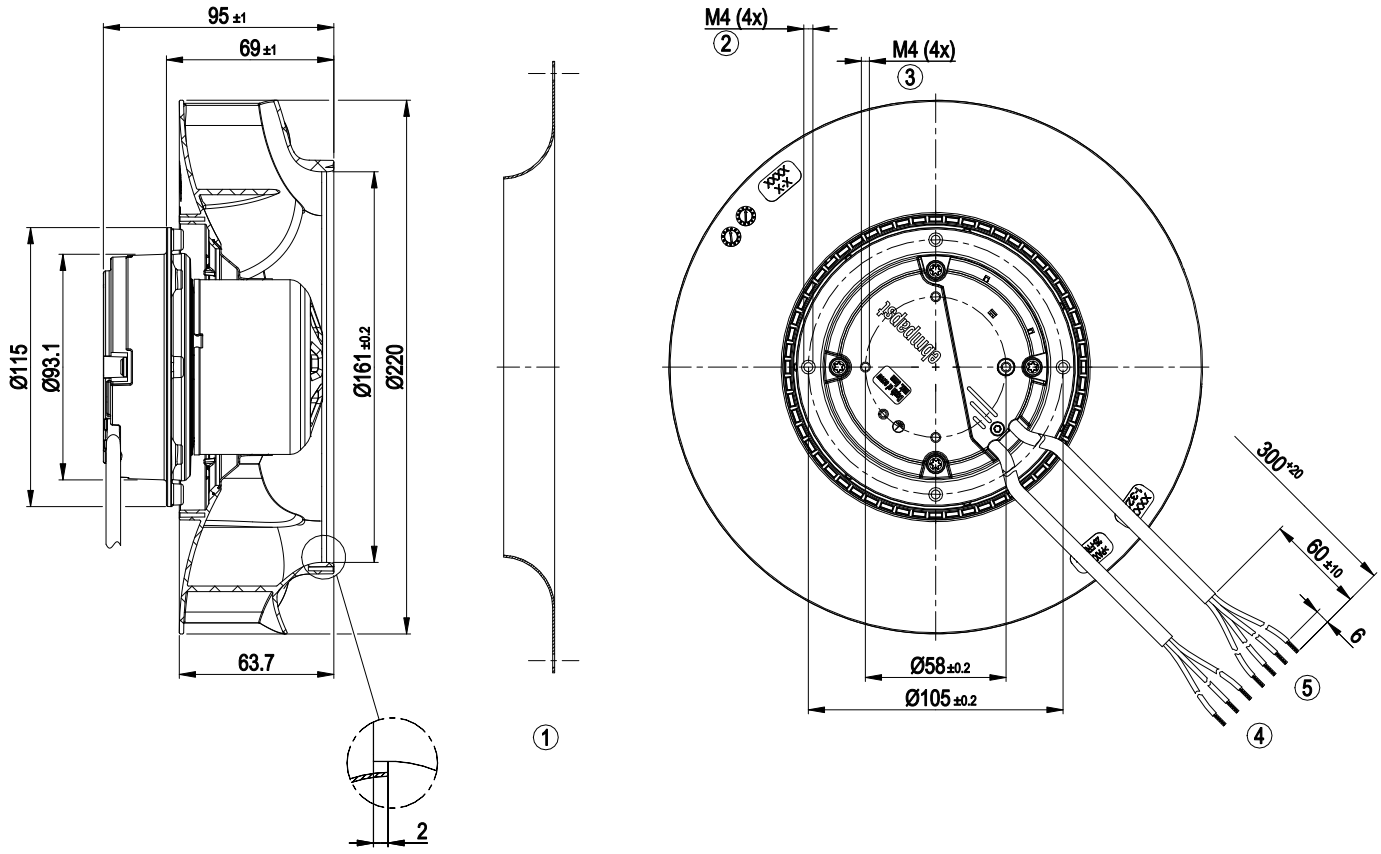
Mass	1.4 kg
Size	220 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ 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



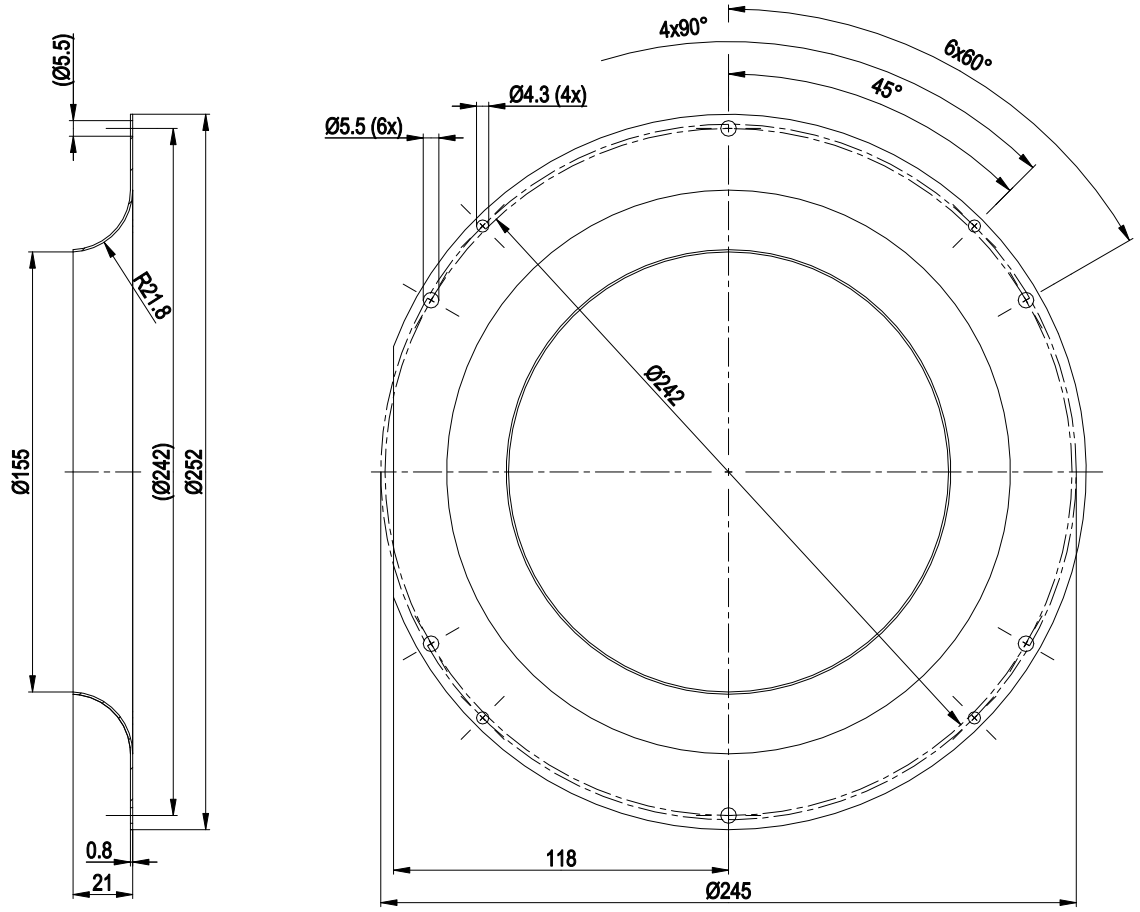
1	Accessory part: Inlet nozzle 09609-2-4013 not included in scope of delivery
2	Thread reach max. 6 mm
3	Thread reach max. 5 mm
4	Connection line PVC 3G 0.5 mm²; 3x lead tips crimped
5	Connection line PVC 4X 0.25 mm²; 4x lead tips crimped

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Accessory part

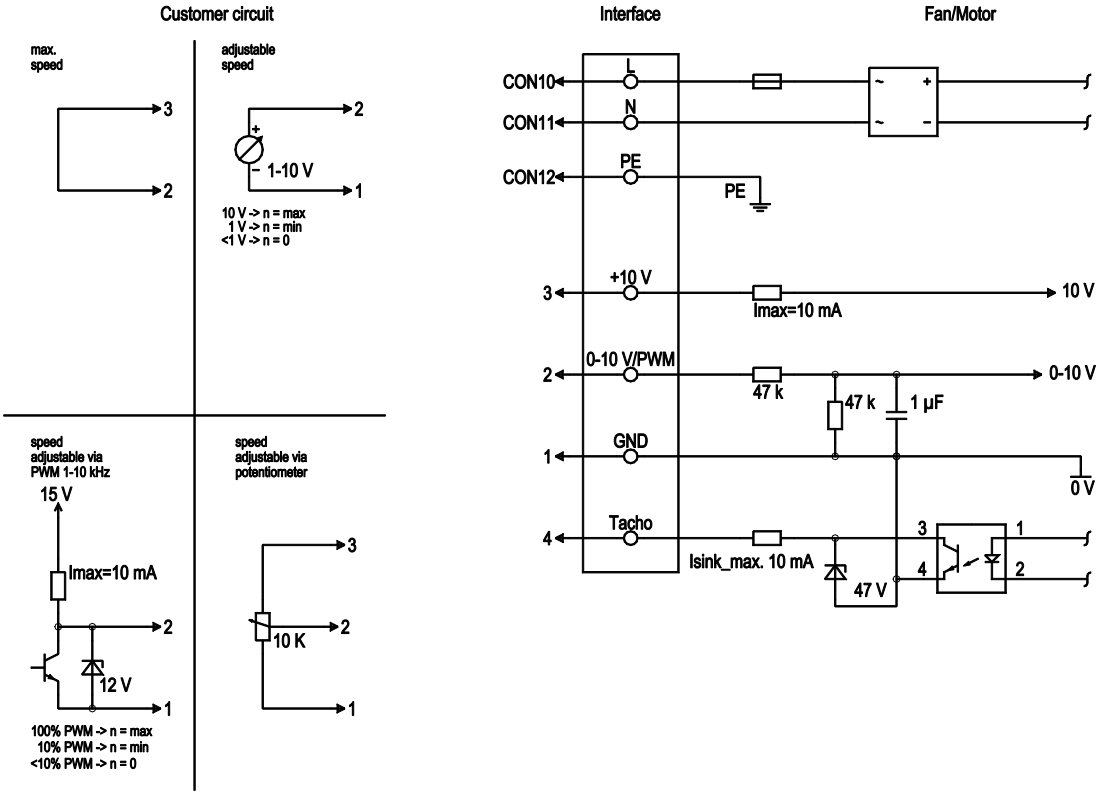


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Connection screen



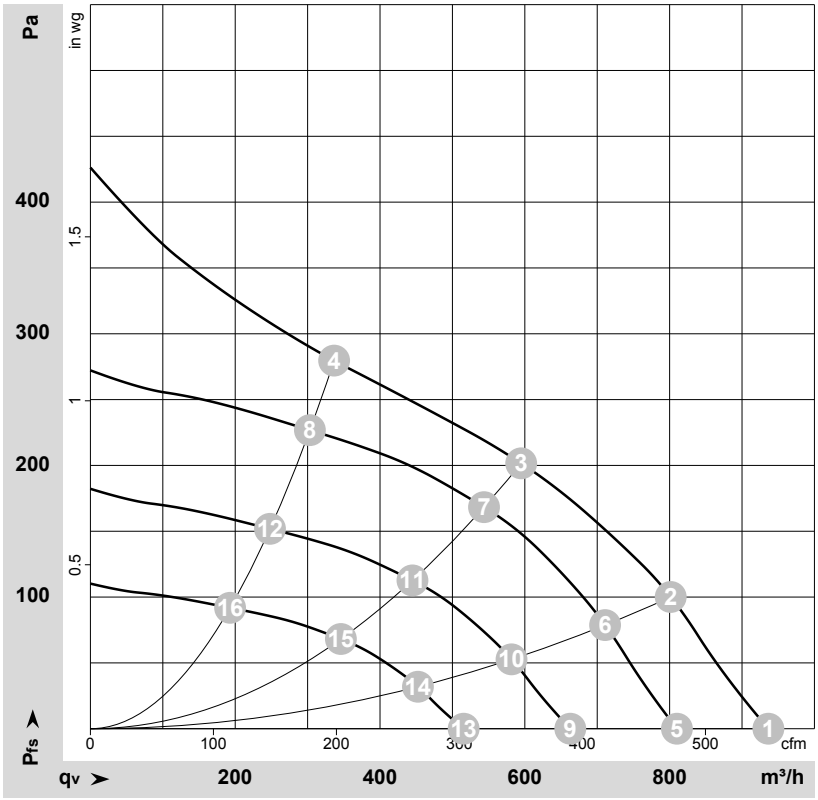
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 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-174755-1

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	2550	60	0.55	61	69	935	0	550	0.00
2	230	50	2485	65	0.57	57	65	800	100	470	0.40
3	230	50	2410	71	0.62	54	62	595	200	350	0.80
4	230	50	2440	67	0.59	57	65	335	280	200	1.12
5	230	50	2200	39	0.35	57	65	810	0	475	0.00
6	230	50	2200	45	0.40	54	62	710	81	420	0.33
7	230	50	2200	54	0.47	52	60	545	168	320	0.67
8	230	50	2200	49	0.43	53	62	305	227	180	0.91
9	230	50	1800	21	0.19	52	60	665	0	390	0.00
10	230	50	1800	25	0.22	49	57	580	54	345	0.22
11	230	50	1800	29	0.26	47	55	445	113	260	0.45
12	230	50	1800	27	0.24	48	57	250	152	145	0.61
13	230	50	1400	10.0	0.09	46	53	515	0	305	0.00
14	230	50	1400	12	0.10	42	50	450	33	265	0.13
15	230	50	1400	14	0.12	40	48	345	68	205	0.27
16	230	50	1400	13	0.11	42	50	195	92	115	0.37

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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