R3G175-RF07-11

EC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R3G175-RF07-11**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3000
Power consumption	W	45
Current draw	A	0.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

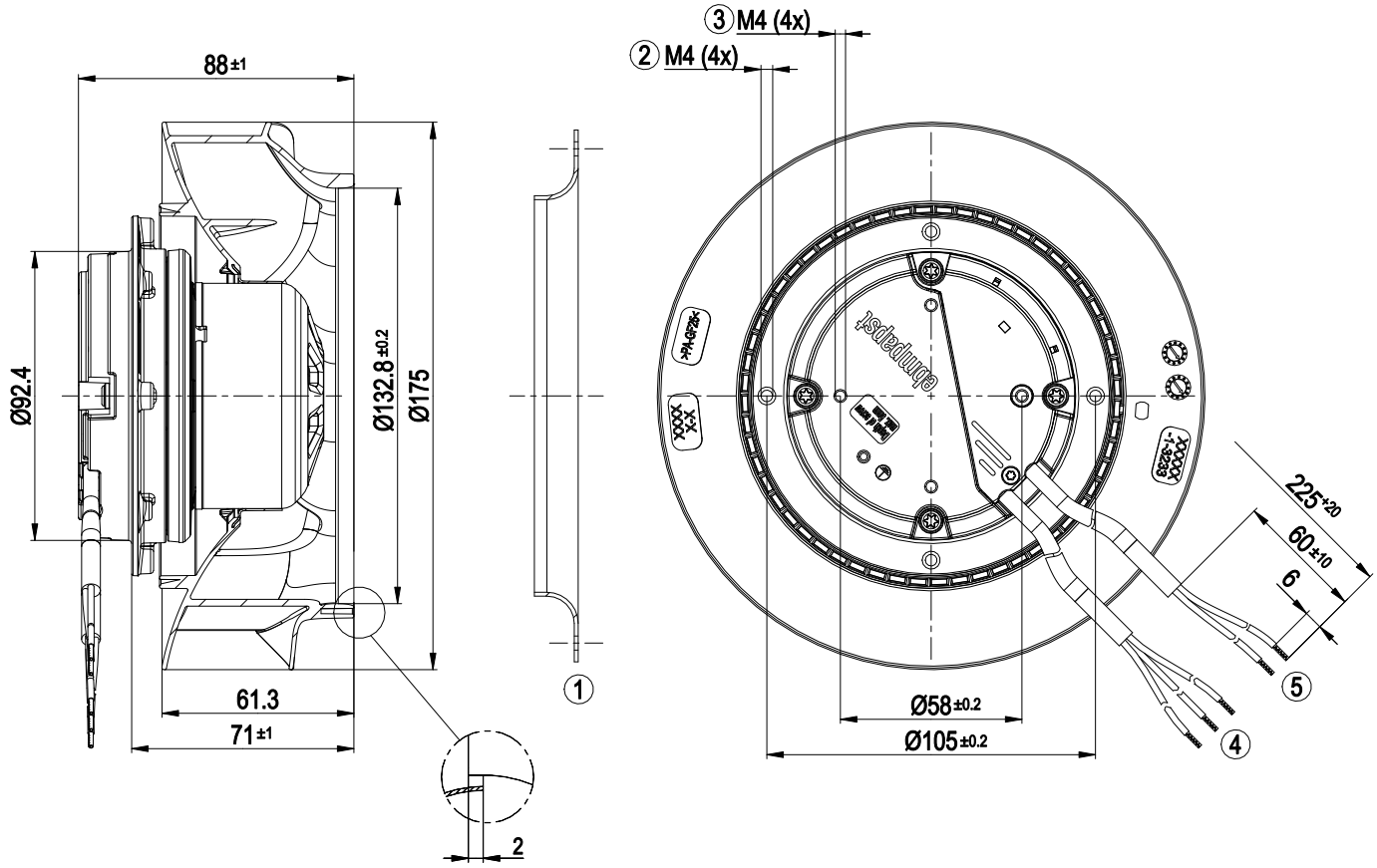
Weight	1.4 kg
Fan size	175 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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Product drawing



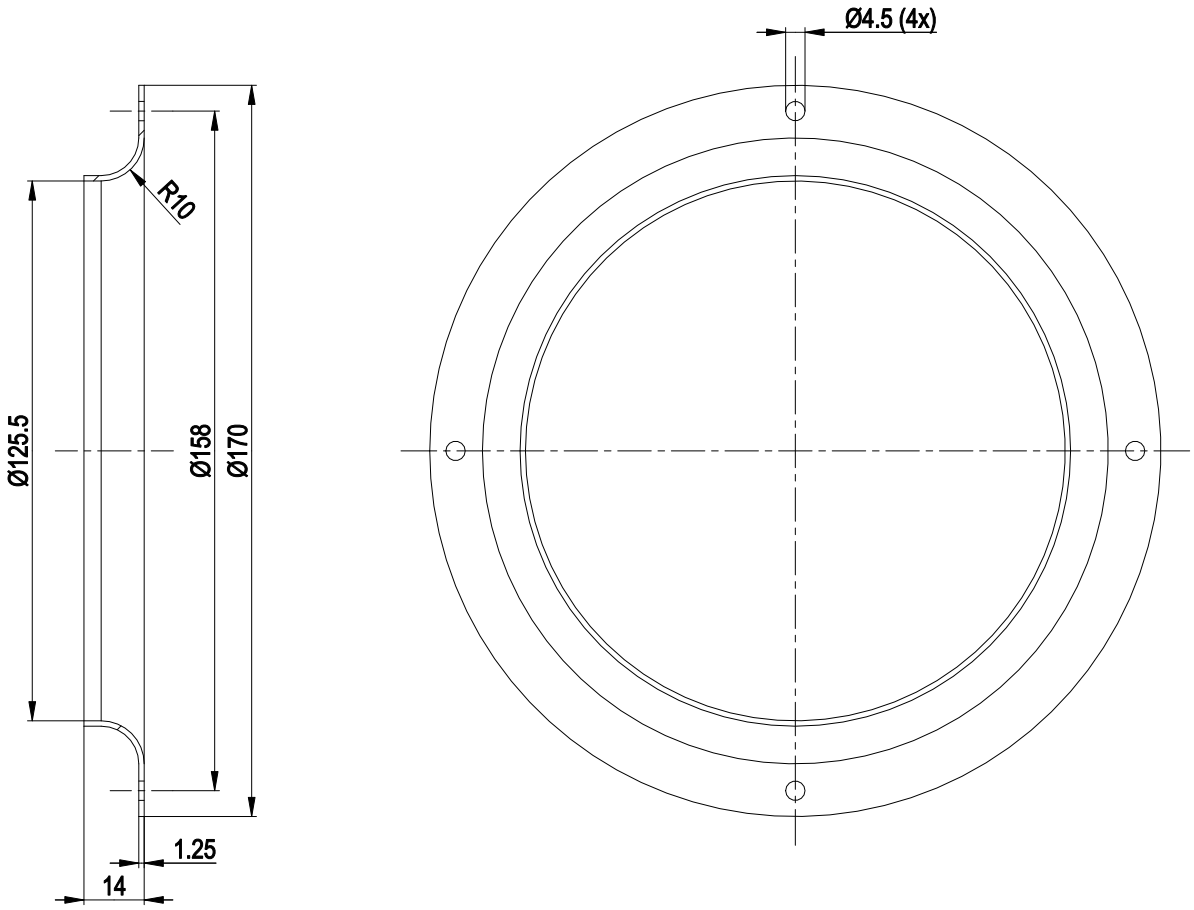
1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 5 mm
4	Cable PVC 3G 0.5 mm², 3x crimped splices
5	Cable PVC 2x 0.25 mm², 2x crimped splices

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Accessory part



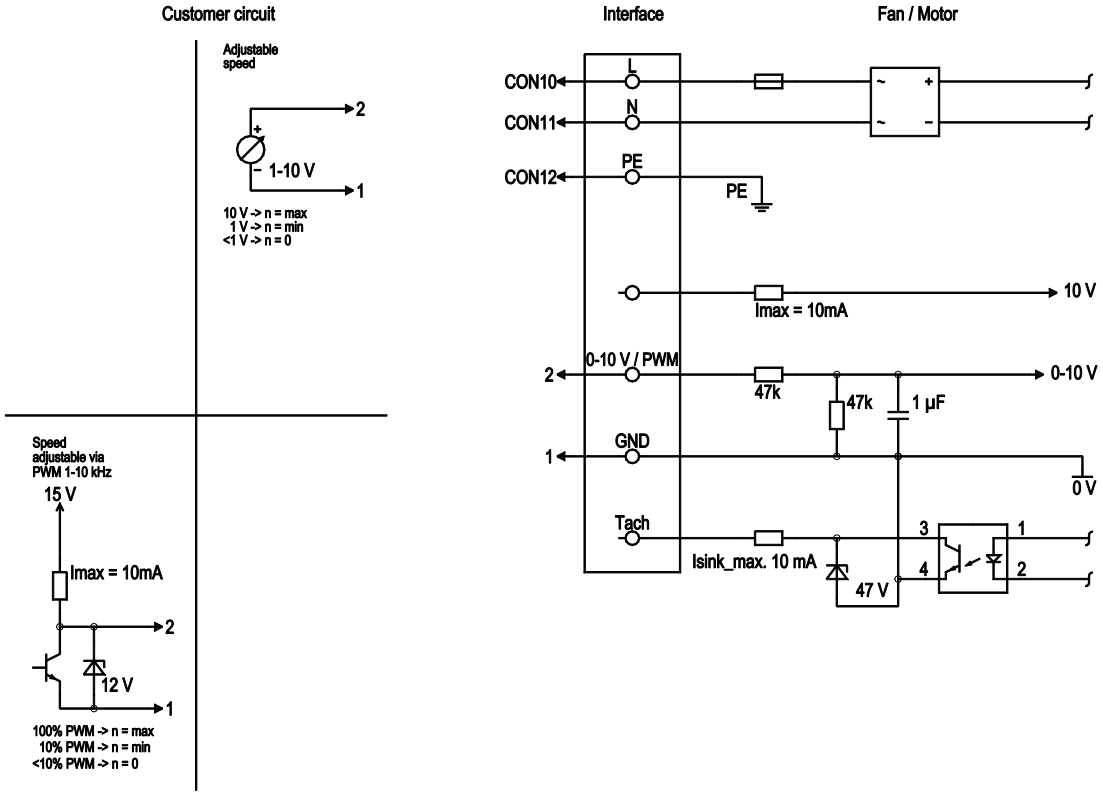
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Connection diagram



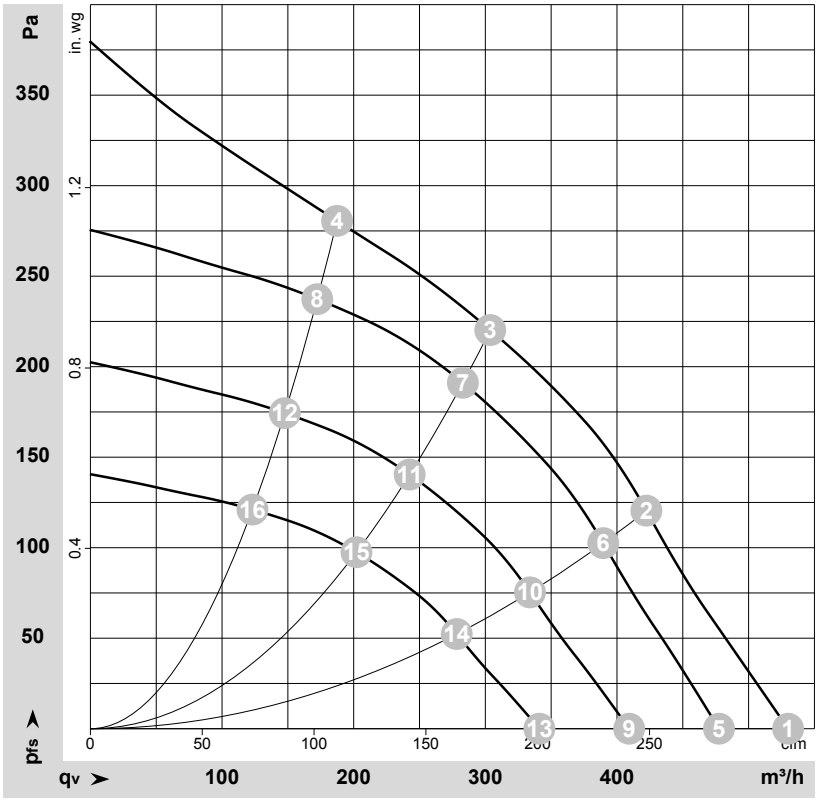
No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	1	GND	blue	Reference ground for control interface, SELV

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-187895-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	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	in. wg
1	1~	230	50	3110	39	0.36	60	68	530	0	310	0.00
2	1~	230	50	3035	43	0.39	57	65	420	120	250	0.48
3	1~	230	50	3000	45	0.40	54	62	305	220	180	0.88
4	1~	230	50	3045	42	0.39	56	64	185	280	110	1.12
5	1~	230	50	2800	29	0.26	58	65	475	0	280	0.00
6	1~	230	50	2800	33	0.31	55	63	390	103	230	0.41
7	1~	230	50	2800	36	0.33	52	60	285	192	165	0.77
8	1~	230	50	2800	33	0.30	54	62	170	237	100	0.95
9	1~	230	50	2400	18	0.17	54	62	410	0	240	0.00
10	1~	230	50	2400	21	0.19	51	59	335	75	195	0.30
11	1~	230	50	2400	23	0.21	48	56	245	141	145	0.57
12	1~	230	50	2400	21	0.19	50	58	150	174	85	0.70
13	1~	230	50	2000	10.0	0.10	49	57	340	0	200	0.00
14	1~	230	50	2000	12	0.11	46	54	280	52	165	0.21
15	1~	230	50	2000	13	0.12	44	52	200	98	120	0.39
16	1~	230	50	2000	12	0.11	45	53	125	121	70	0.49

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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