R3G190-RG19-05

EC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R3G190-RG19-05**
Motor	**M3G055-CF**

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}	3635
Power consumption	W	115
Current draw	A	0.9
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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

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Technical description

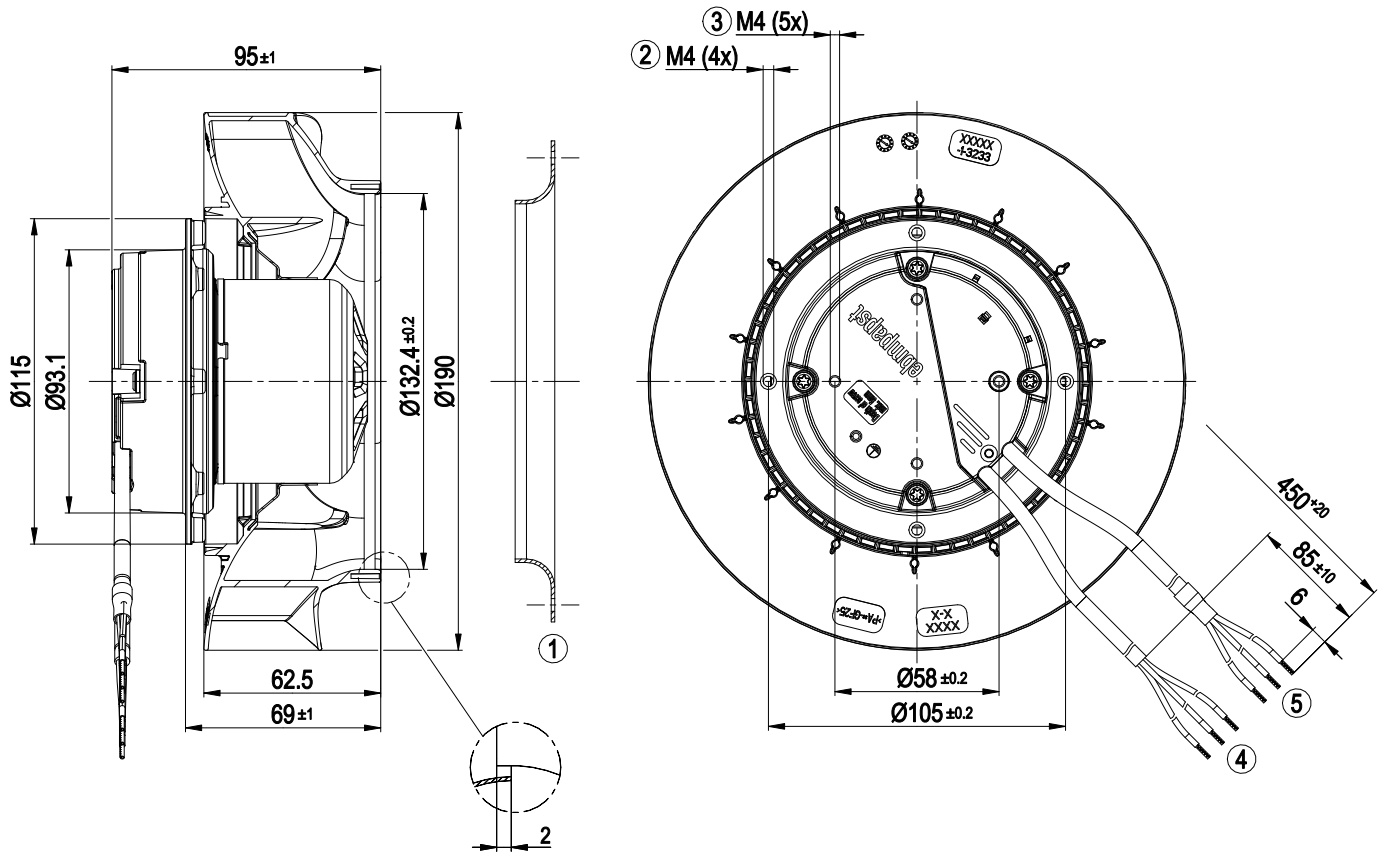
Weight	1.4 kg
Size	190 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Power limiter - Soft start - PWM control input - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
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



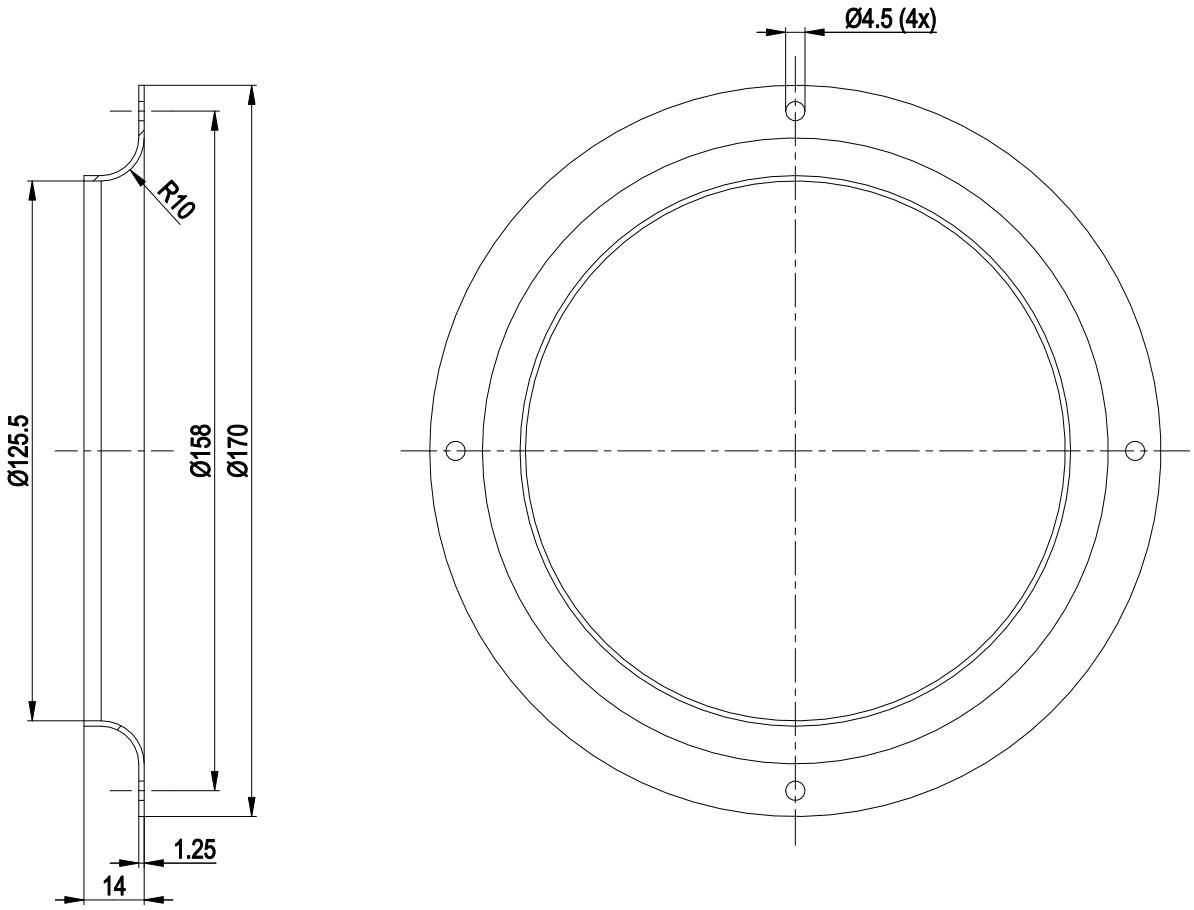
1	Accessory part: Inlet ring 09576-2-4013, not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Max. clearance for screw 5 mm
4	Cable PVC AWG20
	3x splice
5	Cable PVC AWG22
	3x splice

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Accessory part



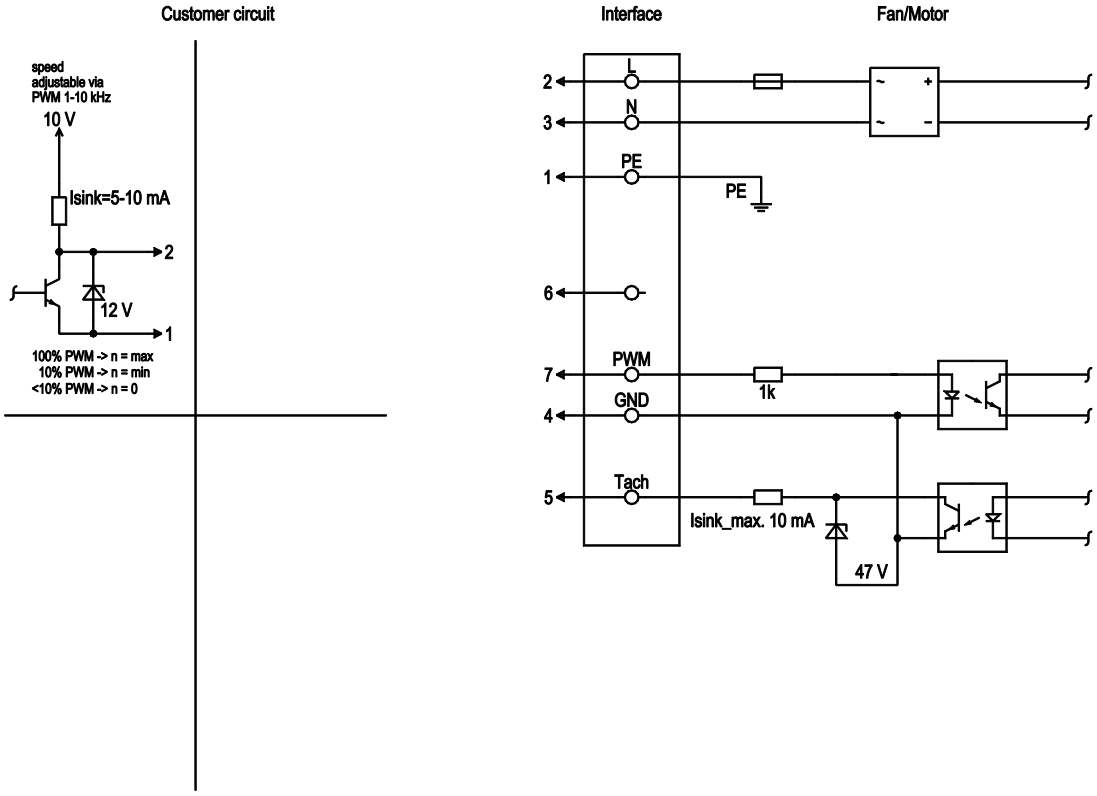
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Connection diagram



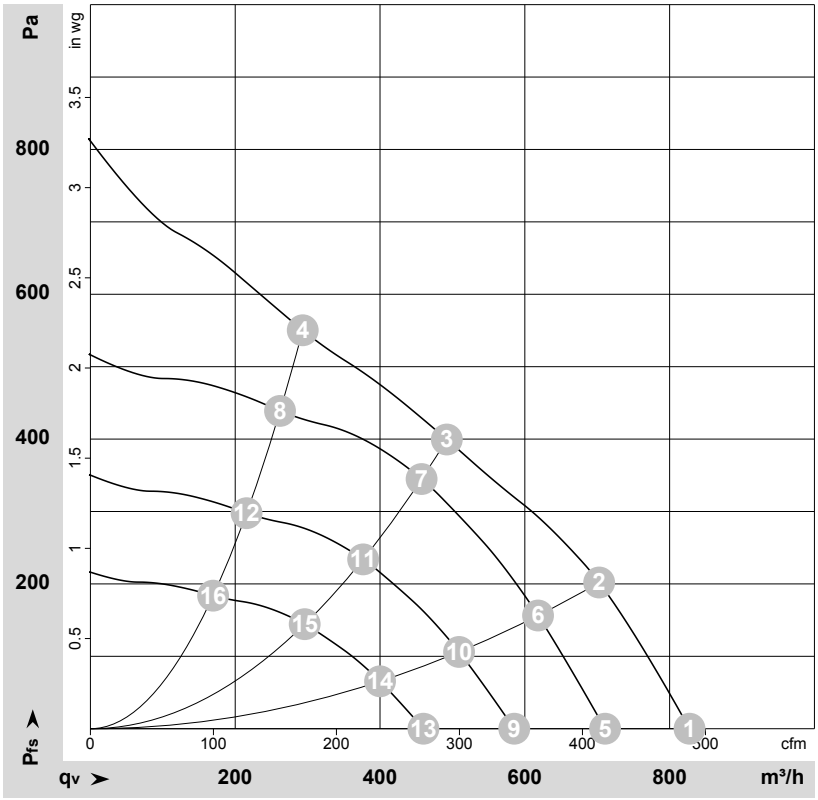
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply, phase, see nameplate for voltage range
	3	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	1	PE	green/yellow	Protective earth
	7	PWM	yellow	Control input PWM, Isink = 5-10 mA, SELV, adjustable curve
	5	Tacho	white	Tach output: open collector, 1 pulse per revolution, SELV
	6	leer		not used
	4	GND	blue	Reference ground for interface, SELV

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-168963-1

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

	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	230	50	3960	110	0.90	69	77	825	0	485	0.00
2	230	50	3870	115	0.90	65	73	705	200	415	0.80
3	230	50	3635	115	0.90	62	70	490	400	290	1.61
4	230	50	3805	115	0.90	67	74	295	550	170	2.21
5	230	50	3400	69	0.59			710	0	420	0.00
6	230	50	3400	78	0.65			620	157	365	0.63
7	230	50	3400	96	0.79			455	347	270	1.39
8	230	50	3400	85	0.71			260	439	155	1.76
9	230	50	2800	39	0.33			585	0	345	0.00
10	230	50	2800	43	0.36			510	107	300	0.43
11	230	50	2800	54	0.44			375	235	220	0.94
12	230	50	2800	47	0.40			215	297	125	1.19
13	230	50	2200	19	0.16			460	0	270	0.00
14	230	50	2200	21	0.18			400	66	235	0.26
15	230	50	2200	26	0.21			295	145	175	0.58
16	230	50	2200	23	0.19			170	184	100	0.74

U = Voltage · 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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