R3G190-RG19-24

EC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R3G190-RG19-24**	
Motor	**M3G055-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	min^{-1}	3090
Power consumption	W	70
Current draw	A	0.6
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

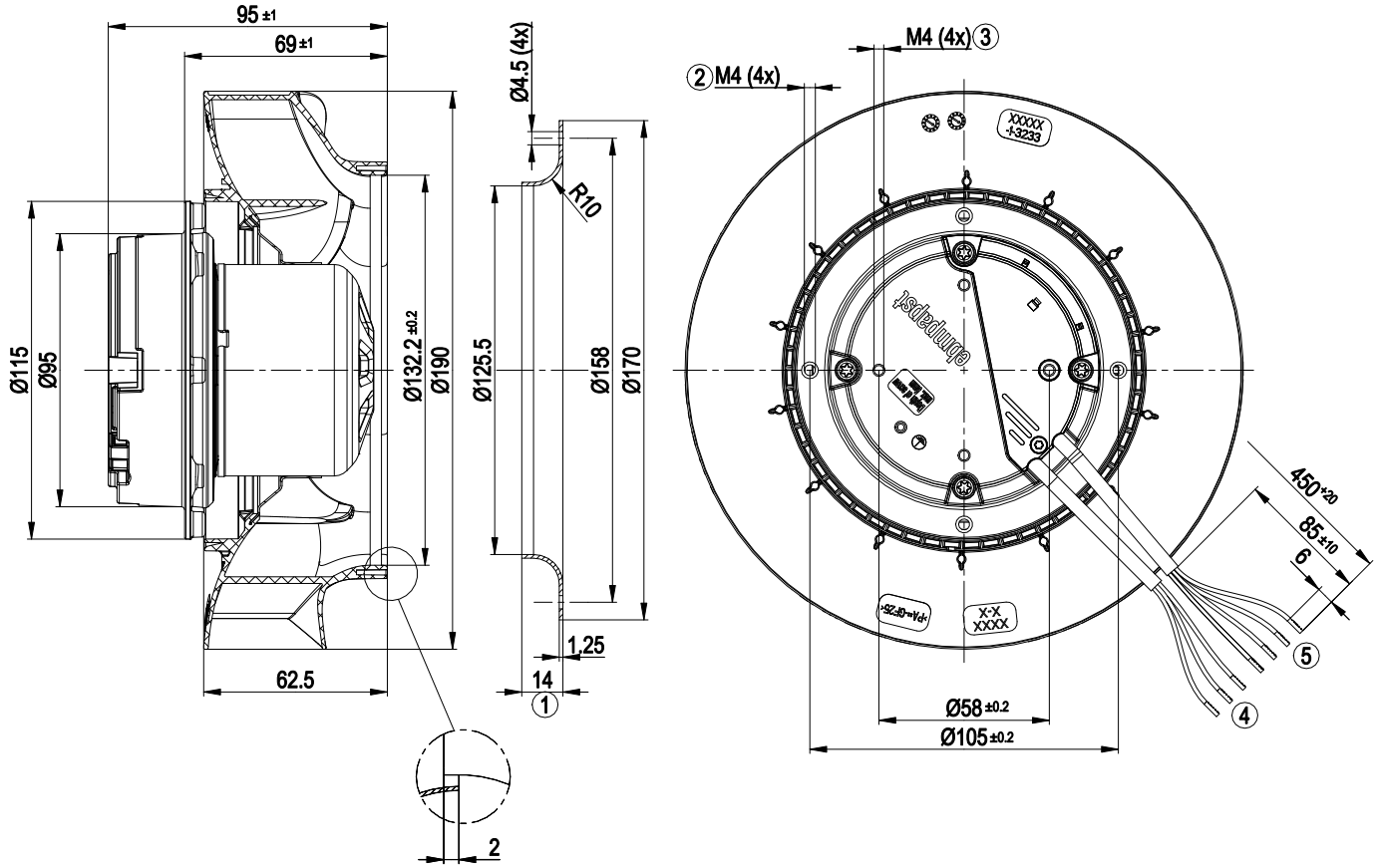
Weight	1.4 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - 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	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	EAC

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Product drawing



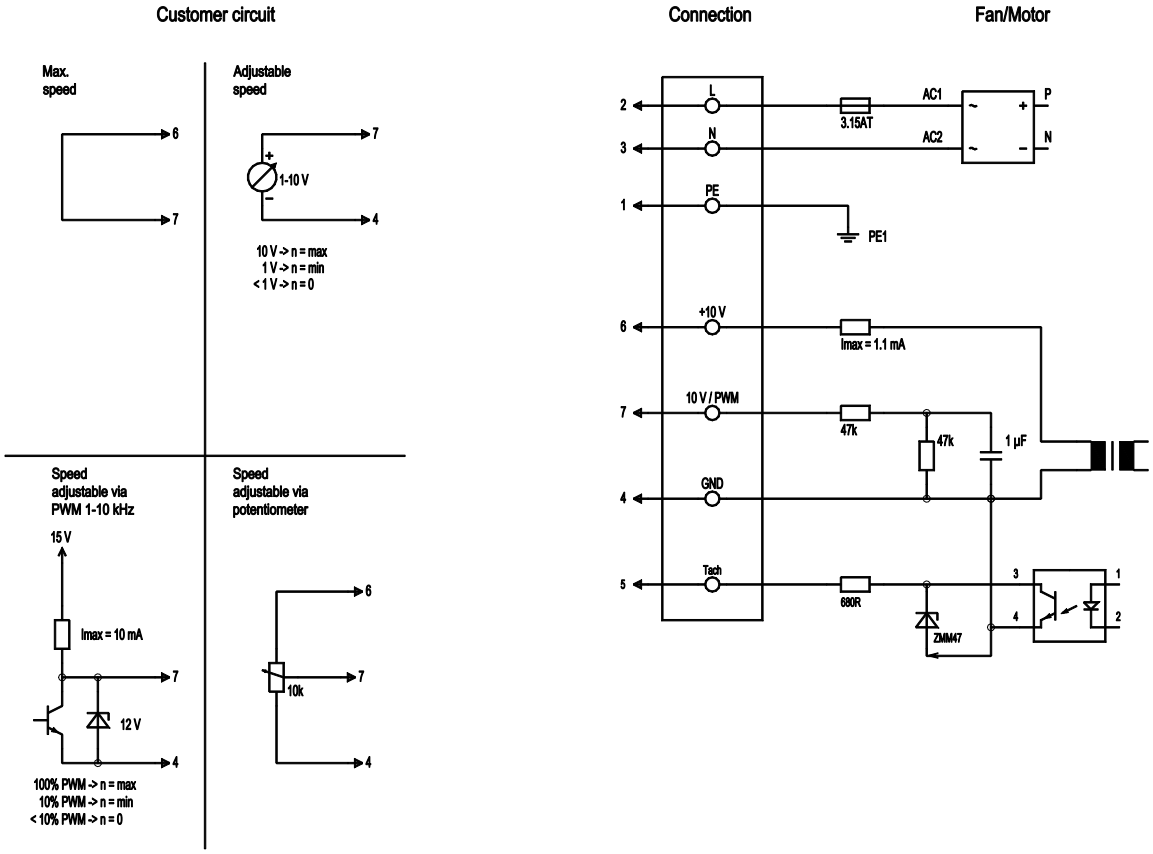
1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 6 mm
4	Cable PVC 3G 0.5 mm², 3x crimped splices
5	Cable PVC 4x 0.25 mm², 4x crimped splices

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Connection diagram



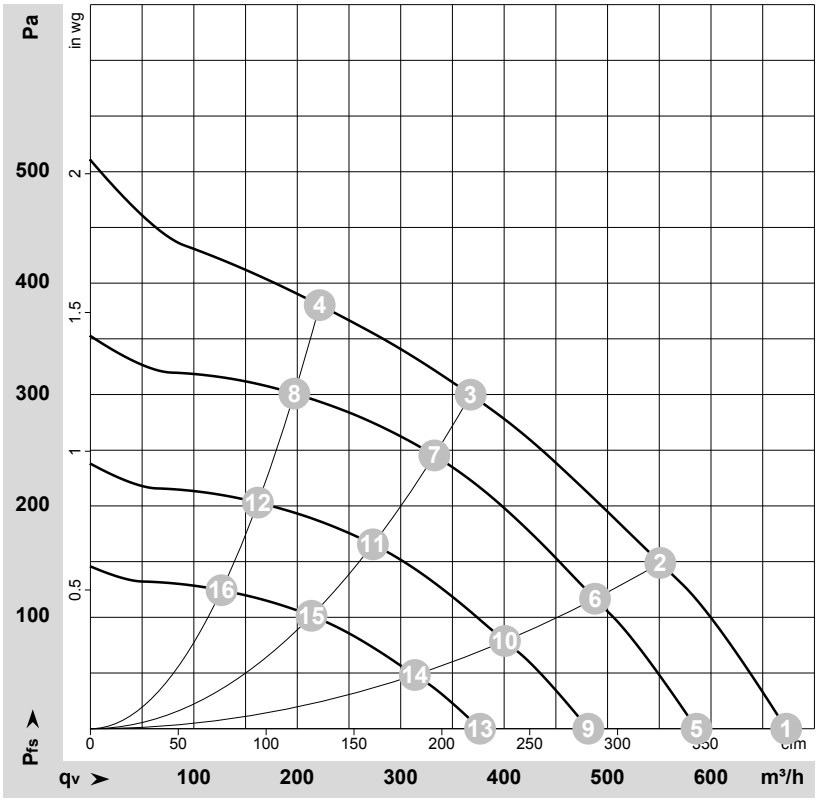
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max = 10 mA
	6	10 V / max. 1,1 mA	red	Voltage output 10 V, 1.1 mA, electrically isolated
	4	GND	blue	GND connection for control interface

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-172197

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	3215	59	0.53	675	0
2	230	50	3165	64	0.56	550	150
3	230	50	3090	70	0.60	370	300
4	230	50	3150	65	0.57	220	380
5	230	50	2800	39	0.35	585	0
6	230	50	2800	44	0.39	490	117
7	230	50	2800	52	0.45	330	246
8	230	50	2800	46	0.40	195	301
9	230	50	2300	22	0.19	480	0
10	230	50	2300	25	0.22	400	79
11	230	50	2300	29	0.25	275	166
12	230	50	2300	25	0.22	160	203
13	230	50	1800	10.0	0.09	375	0
14	230	50	1800	12	0.10	315	48
15	230	50	1800	14	0.12	215	102
16	230	50	1800	12	0.11	125	124

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

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