EC centrifugal fan - RadiCal

backward-curved, single-intake

R3G190-RG19-19 ebmpapst Datasheet
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Nominal data

Type	**R3G190-RG19-19**
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	min^{-1}	3255
Power consumption	W	85
Current draw	A	0.75
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 15 VDC, max. 30 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
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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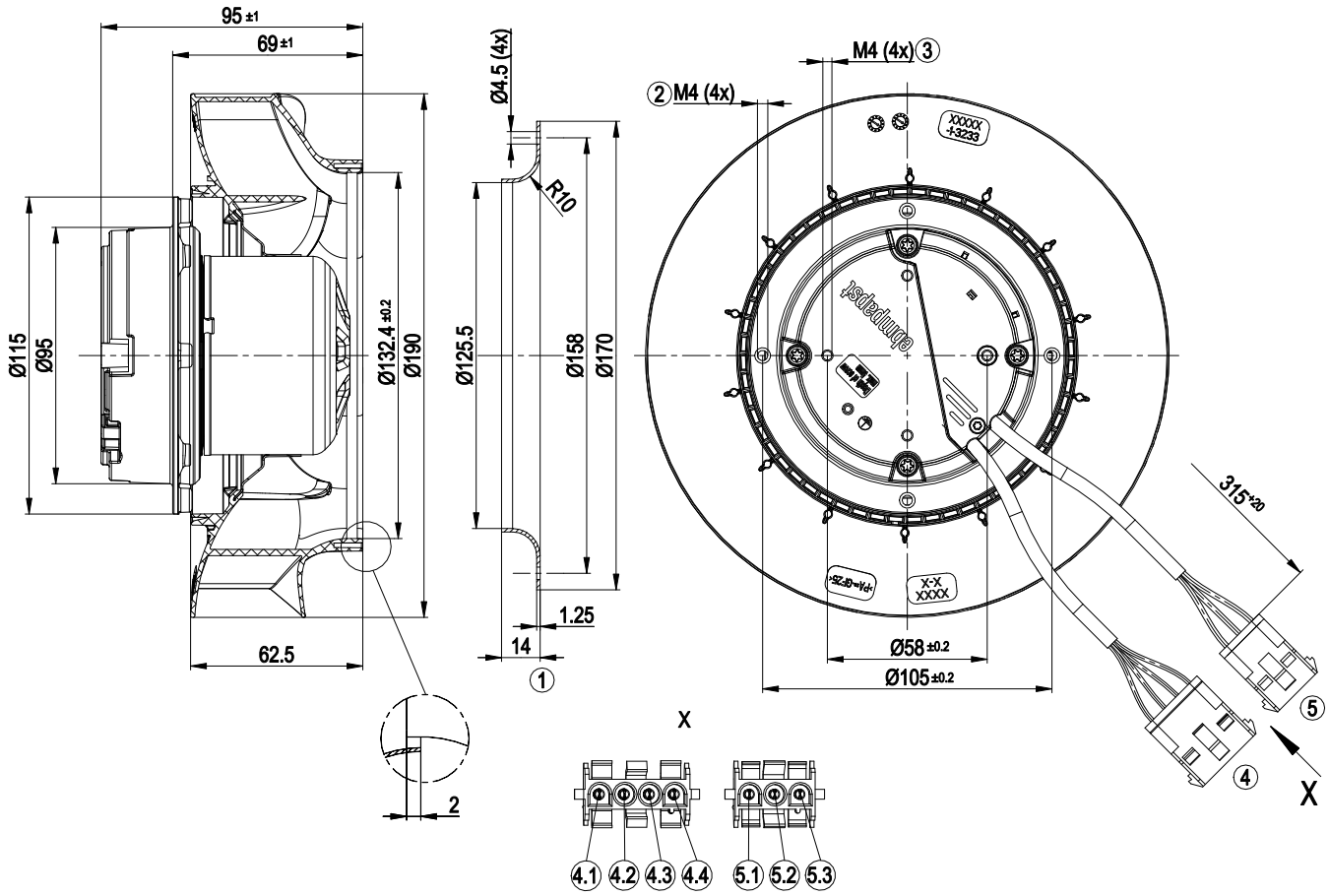
Product drawing



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 4x 0.25 mm², 1x 4-pole connector housing tyco 350780-1, 4x plug pin tyco 350706-1
4.1	+10 V (red)
4.2	GND (blue)
4.3	0-10 V PWM (yellow)
4.4	Tach (white)
5	Cable PVC 3G 0.5 mm², 1x 3-pole connector housing tyco 350767-1, 3x plug pin tyco 350706-1
5.1	brown
5.2	PE (green/yellow)
5.3	blue

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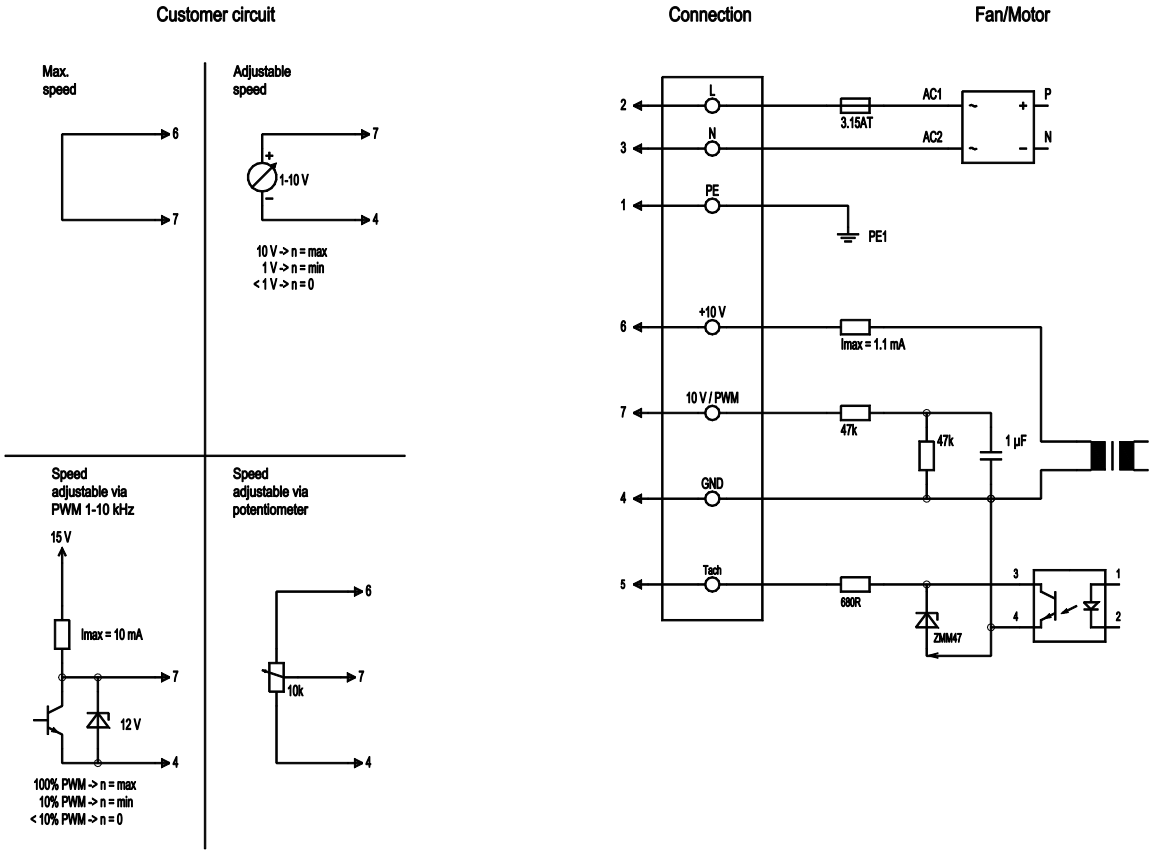
Connection diagram



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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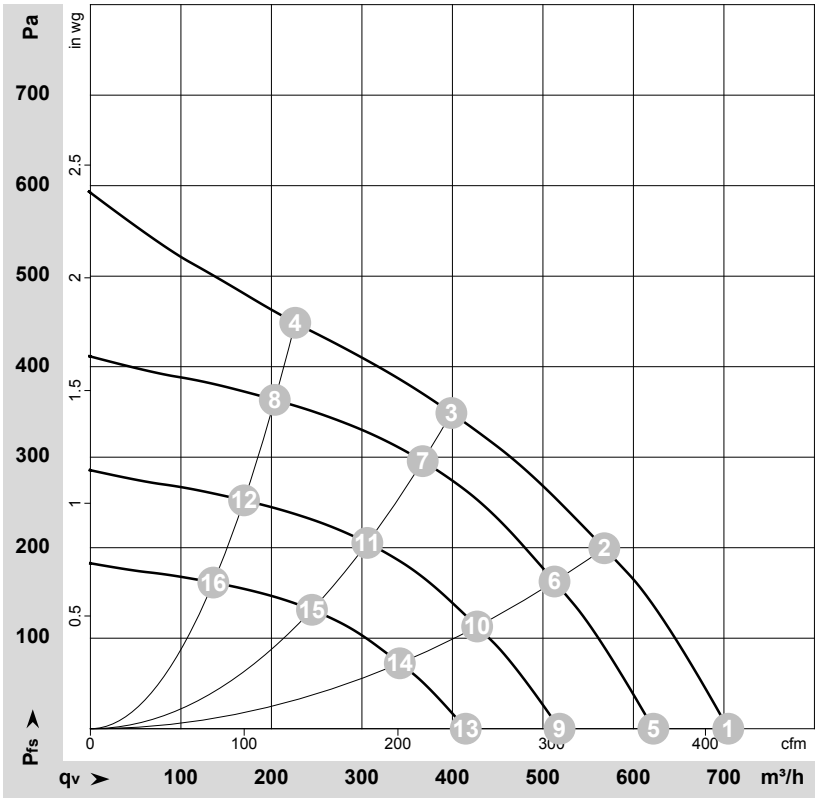
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171588

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	3400	72	0.64	705	0
2	230	50	3320	80	0.70	570	200
3	230	50	3255	85	0.75	400	350
4	230	50	3330	78	0.68	225	450
5	230	50	3000	50	0.44	620	0
6	230	50	3000	59	0.51	515	163
7	230	50	3000	66	0.58	365	296
8	230	50	3000	57	0.50	205	363
9	230	50	2500	29	0.25	520	0
10	230	50	2500	34	0.30	425	113
11	230	50	2500	38	0.33	305	205
12	230	50	2500	33	0.29	170	252
13	230	50	2000	15	0.13	415	0
14	230	50	2000	17	0.15	340	72
15	230	50	2000	20	0.17	245	131
16	230	50	2000	17	0.15	135	162

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