R3G190-RG01-18

EC centrifugal fan - RadiCal®

backward curved, single inlet

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Nominal data

Type	**R3G190-RG01-18**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3535
Power input	W	106
Current draw	A	0.9
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

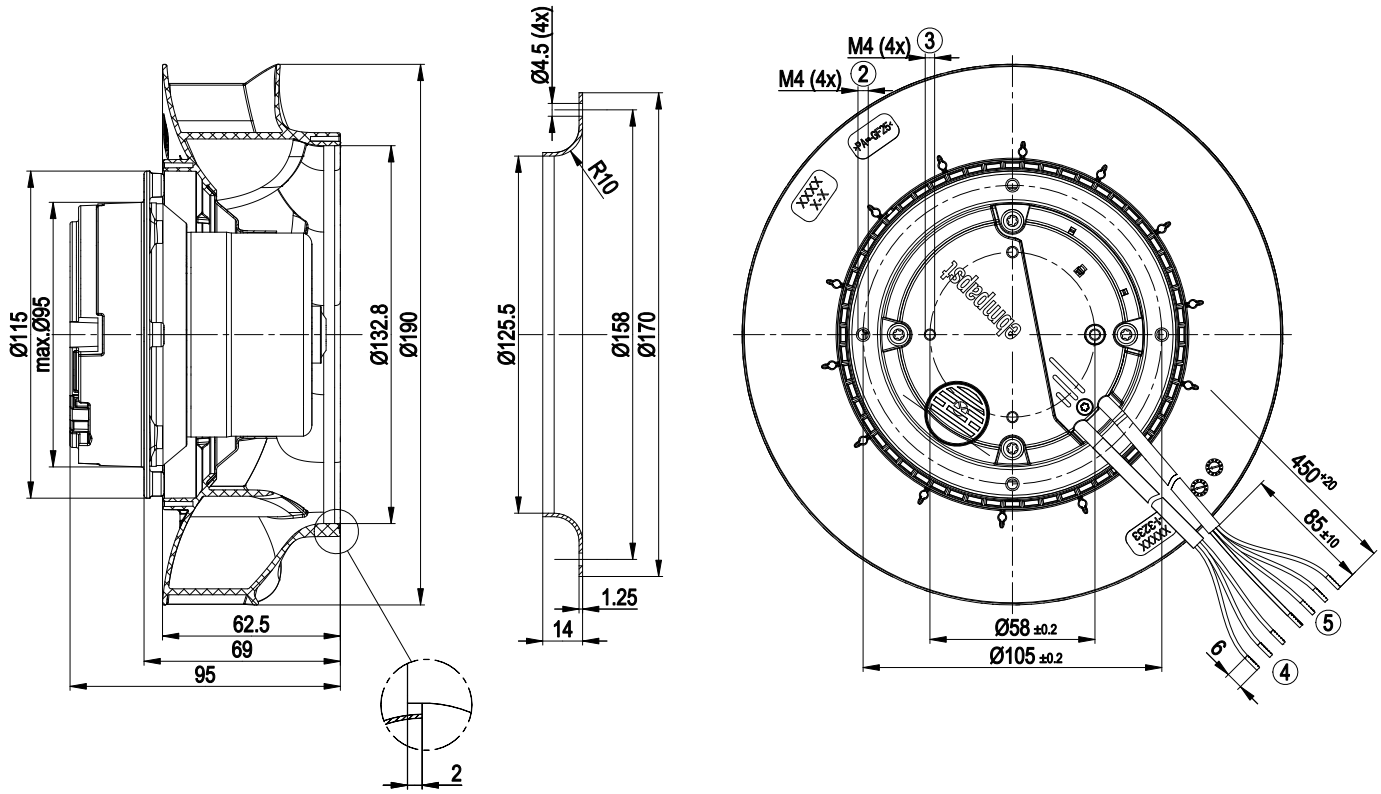
Mass	1.4 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
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
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1

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Product drawing



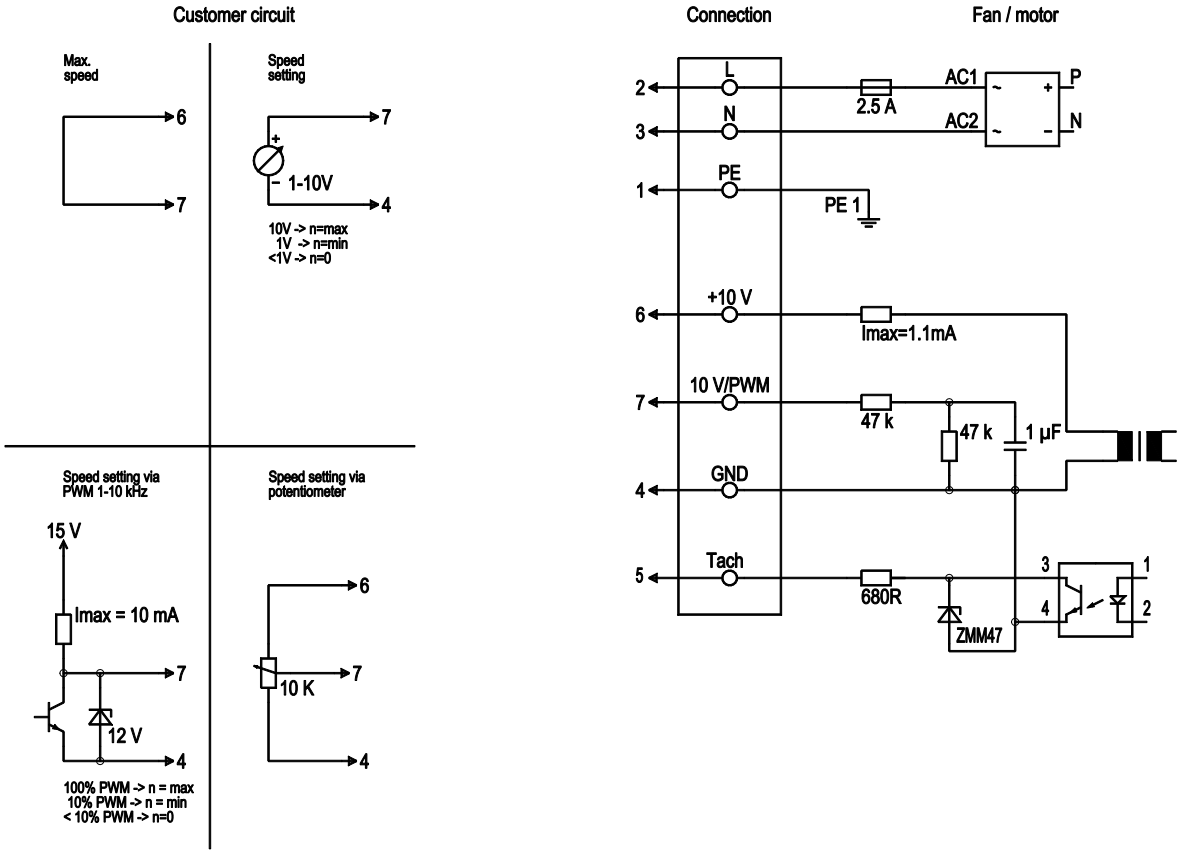
1	Accessory part: inlet nozzle 09576-2-4013, not included in standard scope of delivery
2	Depth of screw max. 6 mm
3	Depth of screw max. 6 mm
4	Connection line PVC 3G 0.5 mm²; 3x lead tips crimped
5	Connection line PVC 4X 0.25 mm²; 4x lead tips crimped

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Connection screen



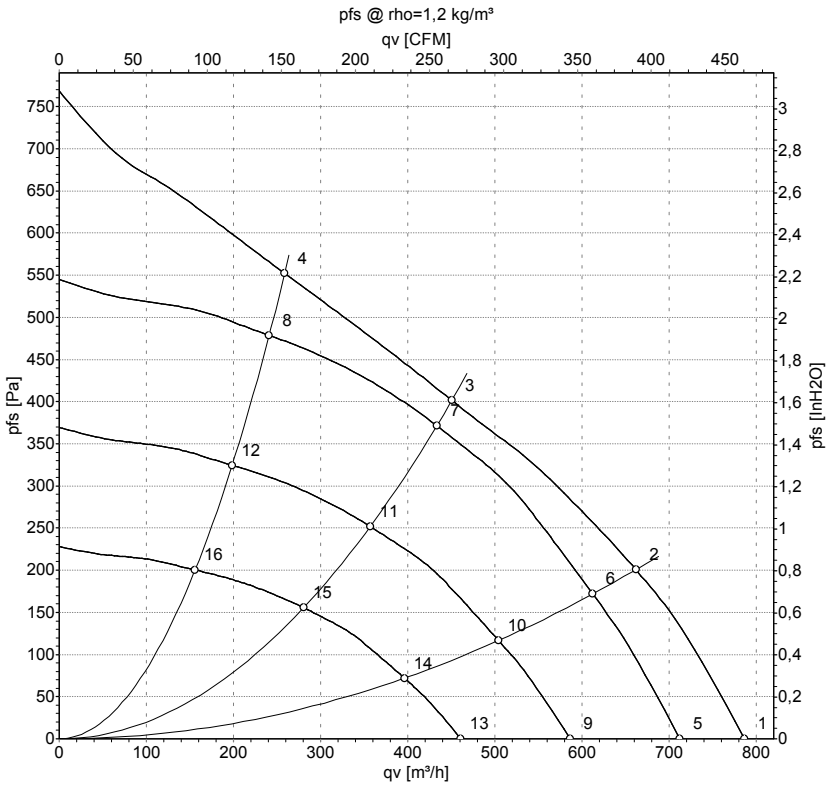
Line	No.	Signal	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
	6	10V / max. 1.1 mA	red	Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND - Connection for control interface

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Charts: Air flow 50 Hz



Measurement: LU-153088

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	3755	94	0.79	785	0
2	230	50	3680	99	0.83	660	200
3	230	50	3535	106	0.90	450	400
4	230	50	3650	101	0.86	260	550
5	230	50	3400	69	0.58	710	0
6	230	50	3400	78	0.66	610	172
7	230	50	3400	94	0.79	435	371
8	230	50	3400	81	0.69	240	478
9	230	50	2800	39	0.33	585	0
10	230	50	2800	44	0.37	505	117
11	230	50	2800	52	0.44	355	252
12	230	50	2800	45	0.39	200	324
13	230	50	2200	19	0.16	460	0
14	230	50	2200	21	0.18	395	72
15	230	50	2200	25	0.21	280	155
16	230	50	2200	22	0.19	155	200

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

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