

R3G190-8317075823

EC centrifugal fan - RadiCal

backward-curved, single-intake



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Nominal data

Type	R3G190-8317075823	
Motor	M3G055-CF	
Phase		1~
Nominal voltage	VAC	220
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	3730
Power consumption	W	115
Current draw	A	1.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

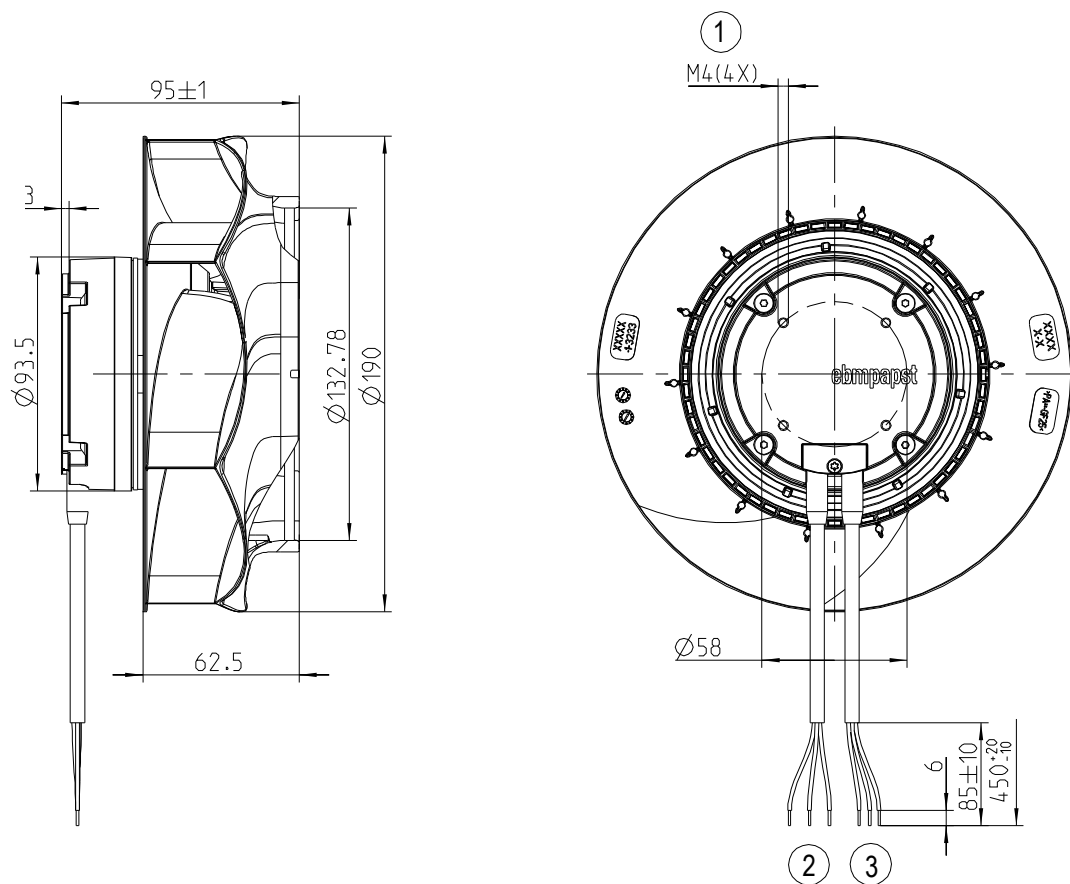
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

Weight	1.4 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44 (Air inlet upward or horizontal)
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	<ul style="list-style-type: none"> - Tach output - Motor current limit - Soft start - PWM control input
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	GB12350
Approval	CCC;

Product drawing



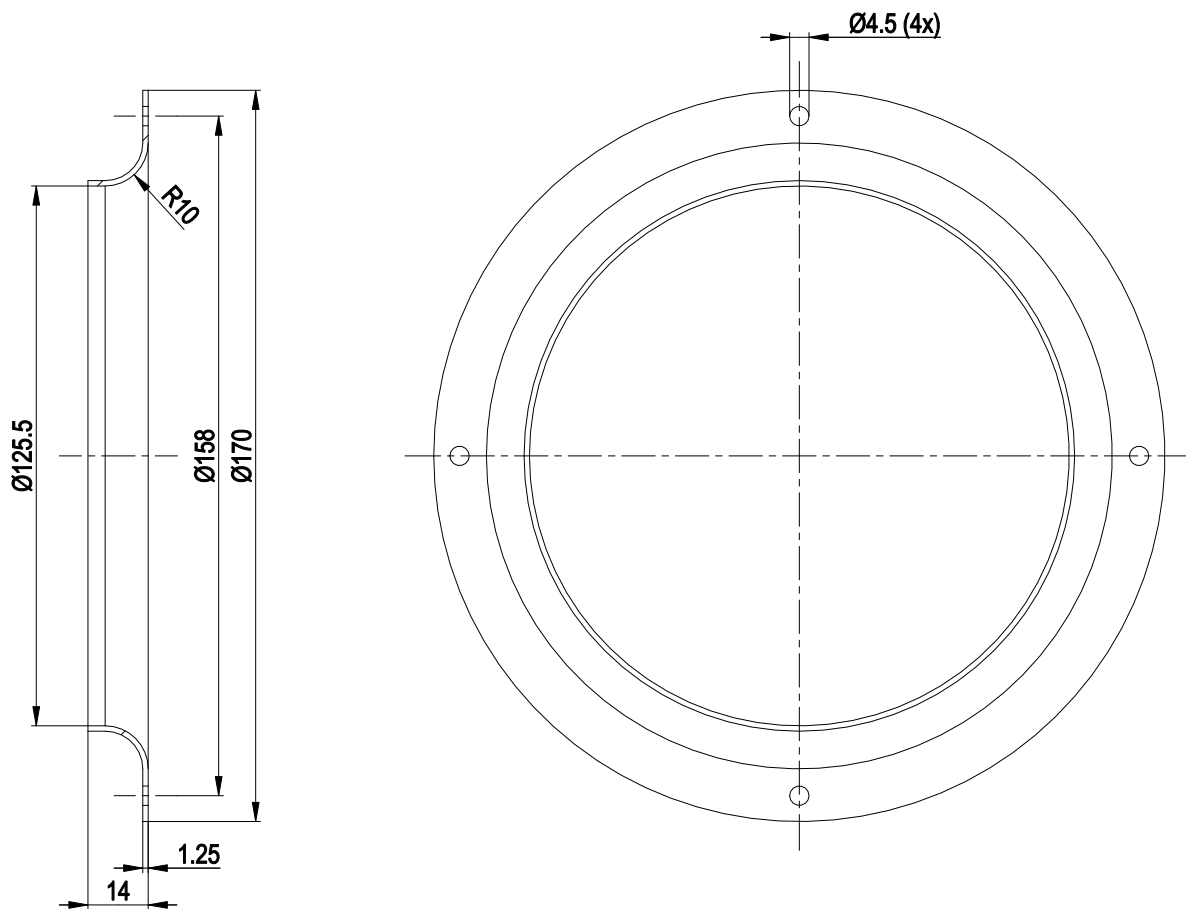
Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

1 Max. clearance for screw 6 mm

2 Cable PVC 3x 0.25 mm²

3 Cable PVC 3x 0.5 mm²

Accessory part

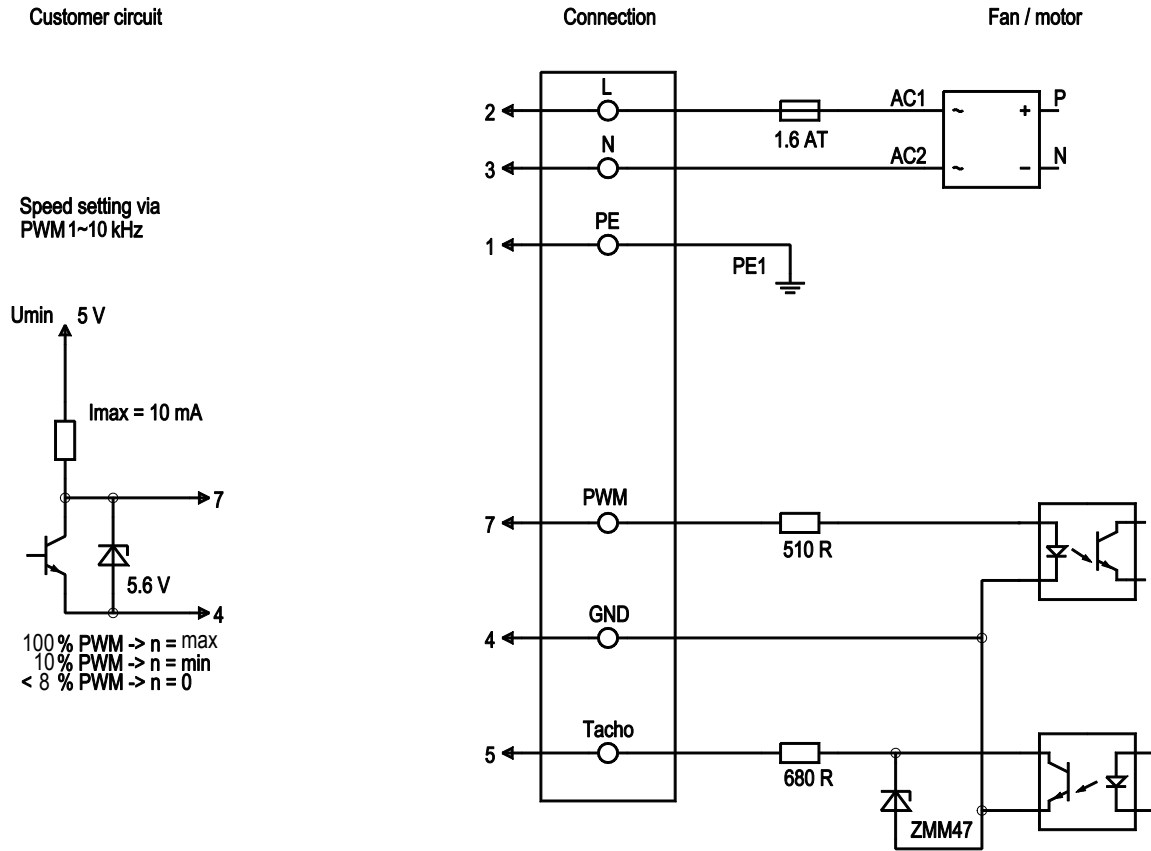


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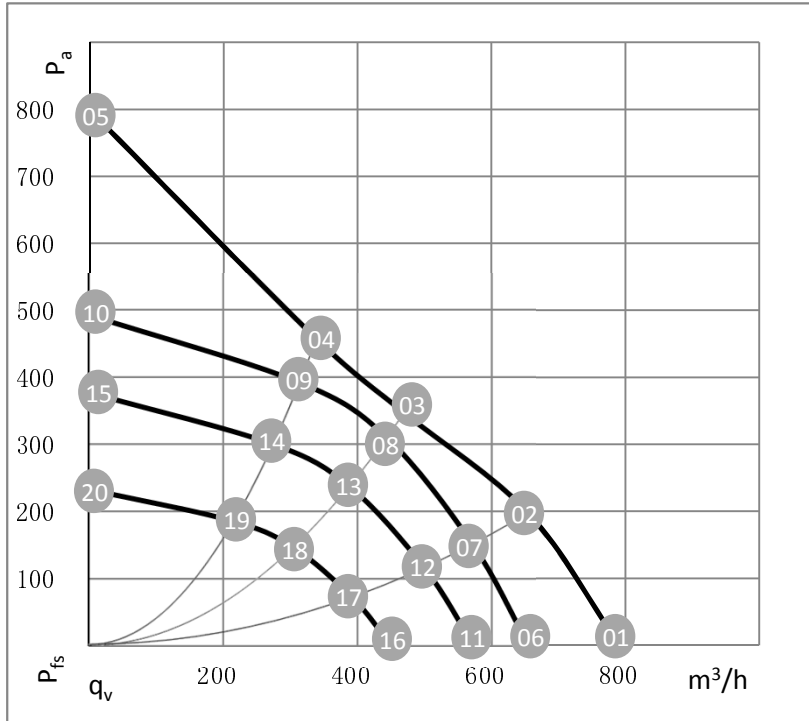
Connection diagram



Line	No.	Signal	Colour	Function / assignment
	1	PE	green/yellow	Protective earth
	2	L	brown	Power supply 220 VAC, 50 - 60 Hz
	3	N	blue	Neutral conductor
	4	GND	blue	GND - Connection for control interface
	5	Tacho	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
	7	PWM	yellow	PWM control input, electrically isolated



Curves: Air performance 50 Hz



$\rho = 1.2 \text{ kg/m}^3 \pm 2 \%$

Test ID:8554

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

Index	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
01	220	50	3863	110	1.04	69	77	791	1	465	0.00
02	220	50	3668	106	1.00	66	74	655	197	385	0.79
03	220	50	3387	99	0.92	63	70	470	346	276	1.39
04	220	50	3458	101	0.94	62	69	337	459	198	1.84
05	220	50	4076	73	0.61			0	799	0	3.21
06	220	50	3200	63	0.59	65	72	655	1	385	0.00
07	220	50	3200	70	0.66	62	70	571	151	336	0.61
08	220	50	3200	84	0.78	60	68	444	310	261	1.24
09	220	50	3200	80	0.75	60	67	312	393	183	1.58
10	220	50	3200	35	0.30			0	492	0	1.98
11	220	50	2800	42	0.40	61	69	573	1	337	0.00
12	220	50	2800	47	0.44	59	66	500	116	294	0.46
13	220	50	2800	56	0.52	57	64	388	237	228	0.95
14	220	50	2800	54	0.50	56	64	273	301	161	1.21
15	220	50	2800	24	0.20			0	377	0	1.51
16	220	50	2200	20	0.19	55	63	450	0	265	0.00
17	220	50	2200	23	0.22	53	60	393	71	231	0.29
18	220	50	2200	27	0.25	51	58	302	148	178	0.60
19	220	50	2200	26	0.24	50	58	208	187	122	0.75
20	220	50	2200	11	0.10			0	233	0	0.93

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

