EC centrifugal fan - RadiCal

backward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G190-RG15-30**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3230
Power consumption	W	85
Current draw	A	1.2
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	1.3 kg
Fan size	190 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic, galvanized sheet-metal plate
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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 - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	> 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Approval	UL 2111; CSA C22.2 No. 77

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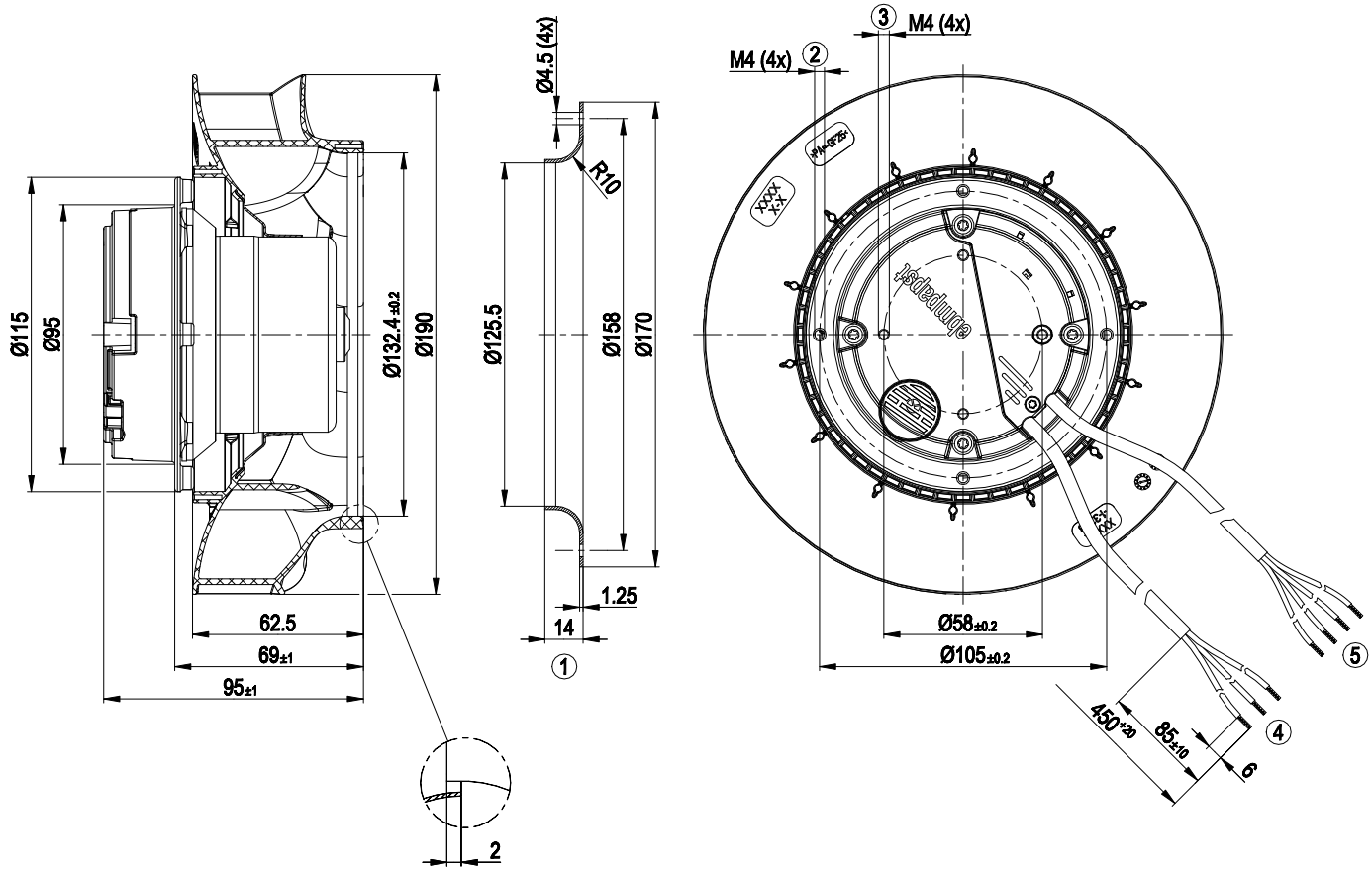
Product drawing



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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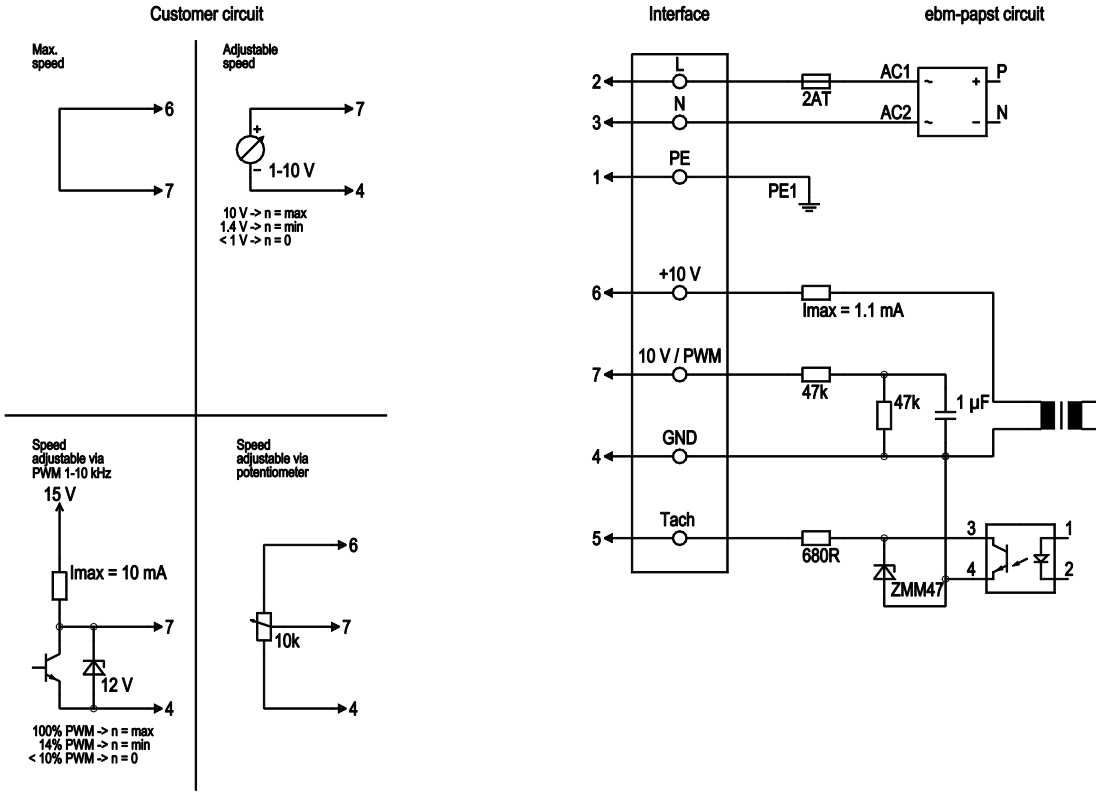
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	PE	green/yellow	Protective earth
	2	L	brown	Power supply 115 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	4	GND	blue	GND connection for control interface
	5	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	6	10V/ max. 1,1mA	red	Voltage output 10 V / 1.1mA, electrically isolated
	7	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated

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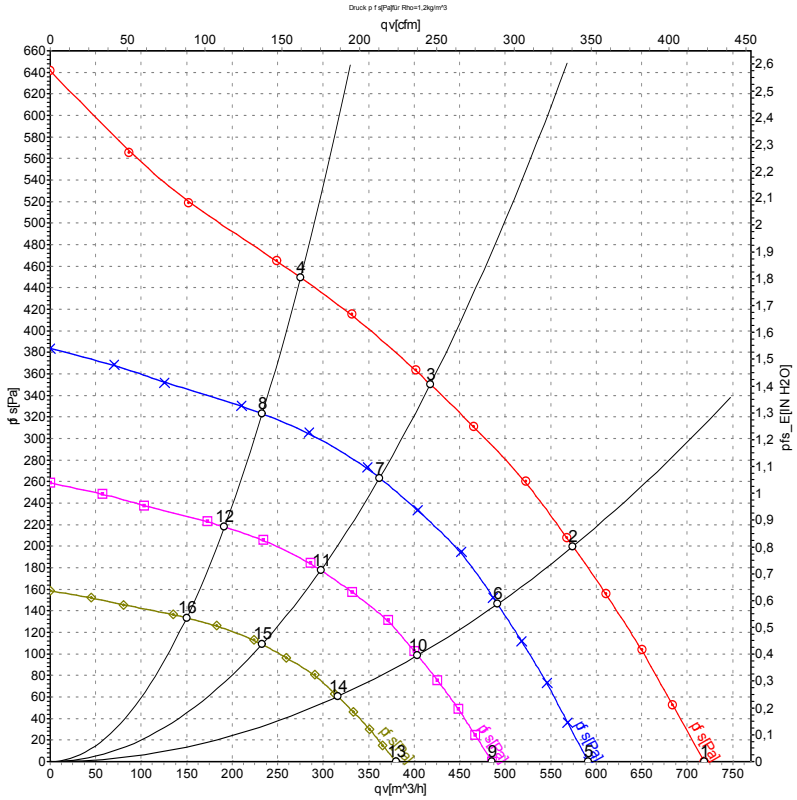
Curves: Air performance 50 Hz



Measurement: LU-128296-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	115	50	3405	71	1.01	720	0	425	0.00
2	115	50	3270	82	1.14	575	200	340	0.80
3	115	50	3230	85	1.20	420	350	245	1.41
4	115	50	3300	81	1.12	275	450	160	1.81
5	115	50	2800	40	0.56	590	0	350	0.00
6	115	50	2800	51	0.71	490	146	290	0.59
7	115	50	2800	56	0.77	360	264	215	1.06
8	115	50	2800	50	0.68	235	323	135	1.30
9	115	50	2300	22	0.31	485	0	285	0.00
10	115	50	2300	28	0.40	405	99	240	0.40
11	115	50	2300	31	0.43	295	178	175	0.71
12	115	50	2300	28	0.38	190	218	115	0.88
13	115	50	1800	10	0.15	380	0	225	0.00
14	115	50	1800	14	0.19	315	60	185	0.24
15	115	50	1800	15	0.21	235	109	135	0.44
16	115	50	1800	13	0.18	150	134	90	0.54

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