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	**R3G160-RB33-17**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3850
Power consumption	W	64
Current draw	A	1.0
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

Size	160 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PP plastic
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
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	None, open rotor
Mode	S1
Motor bearing	Ball bearing; (sealed, without air gap)
Technical features	- Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

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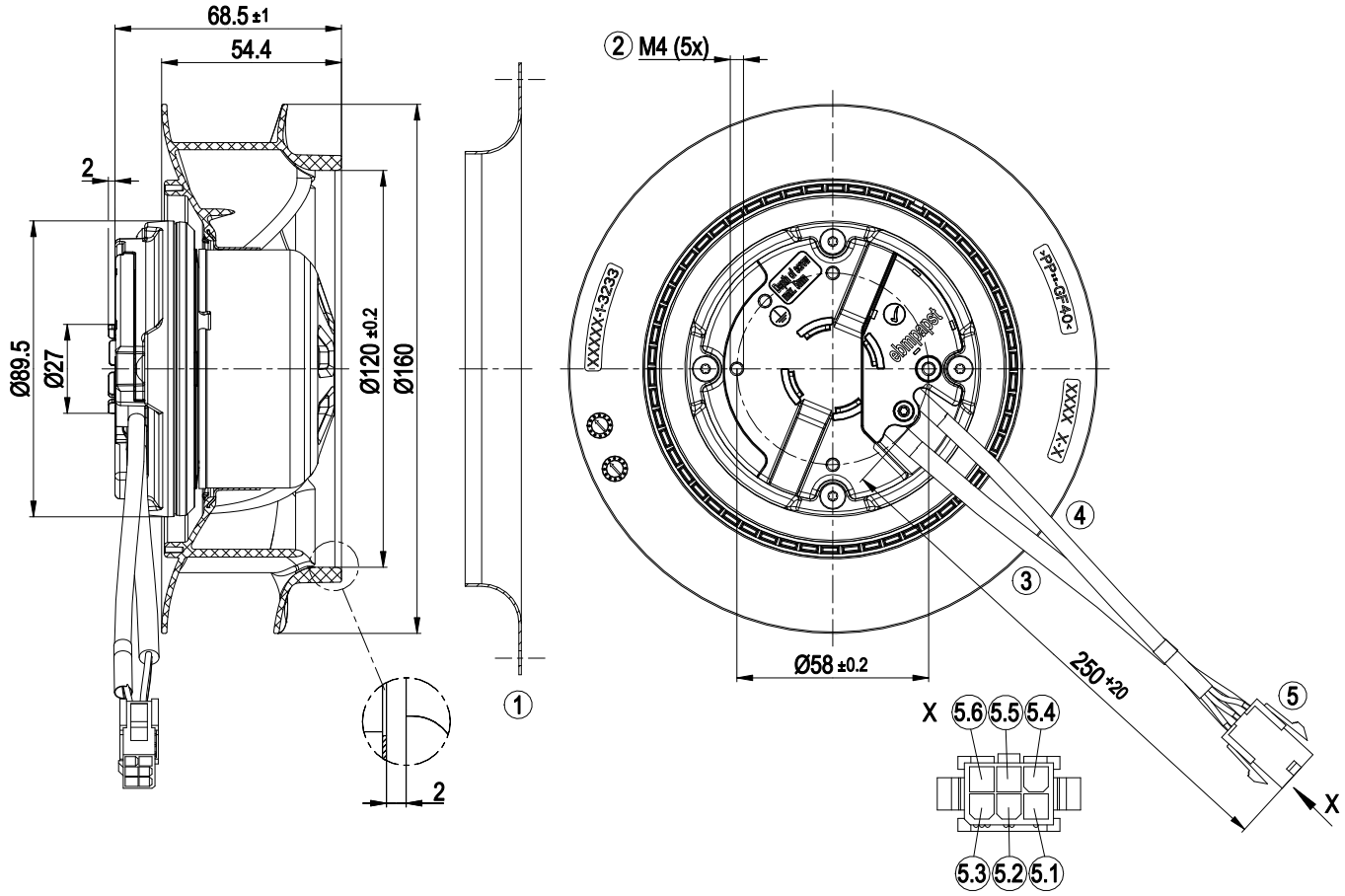
Product drawing



1	Accessory part: Inlet ring 09567-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC AWG20
4	Cable PVC AWG22
5	3-pole connector housing Molex 46993-0600
	6x plug pin Molex 39-00-0040
5.1	L
5.2	N
5.3	PE
5.4	Tach
5.5	GND
5.6	0-10 V

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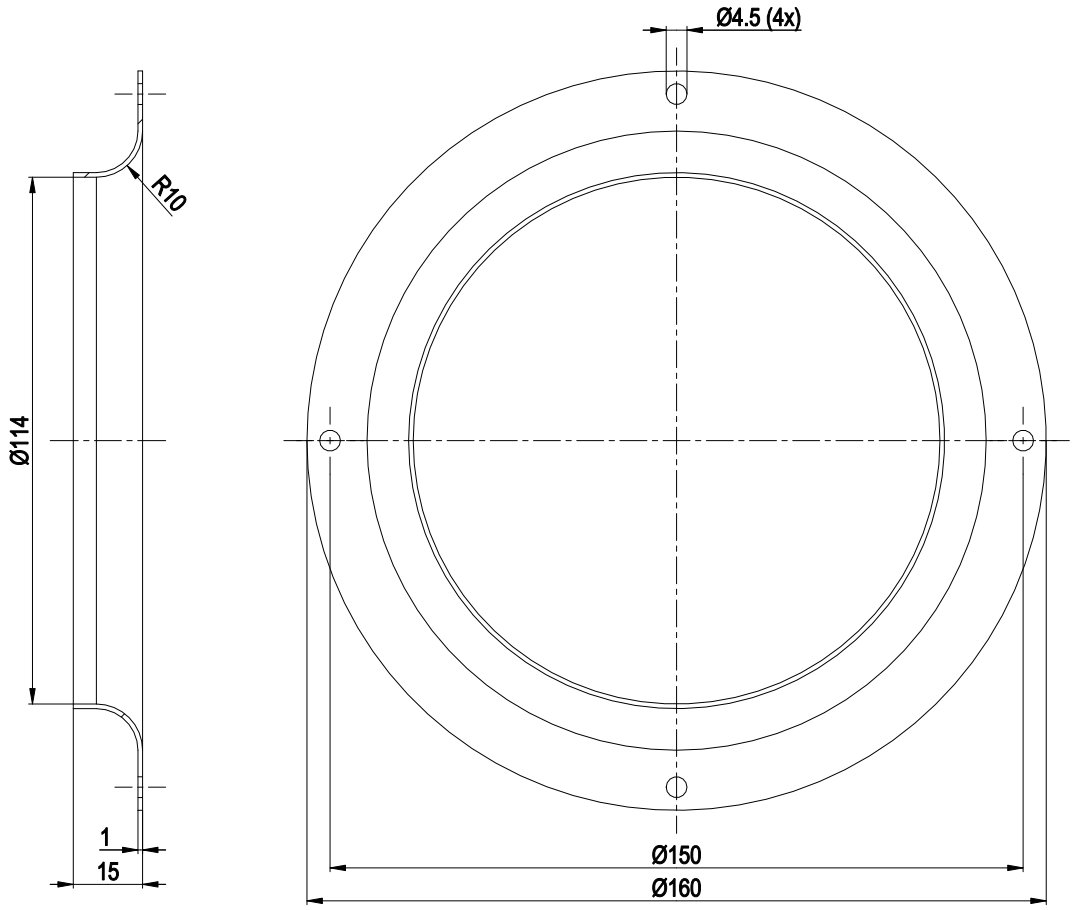
Accessory part



Inlet ring 09567-2-4013

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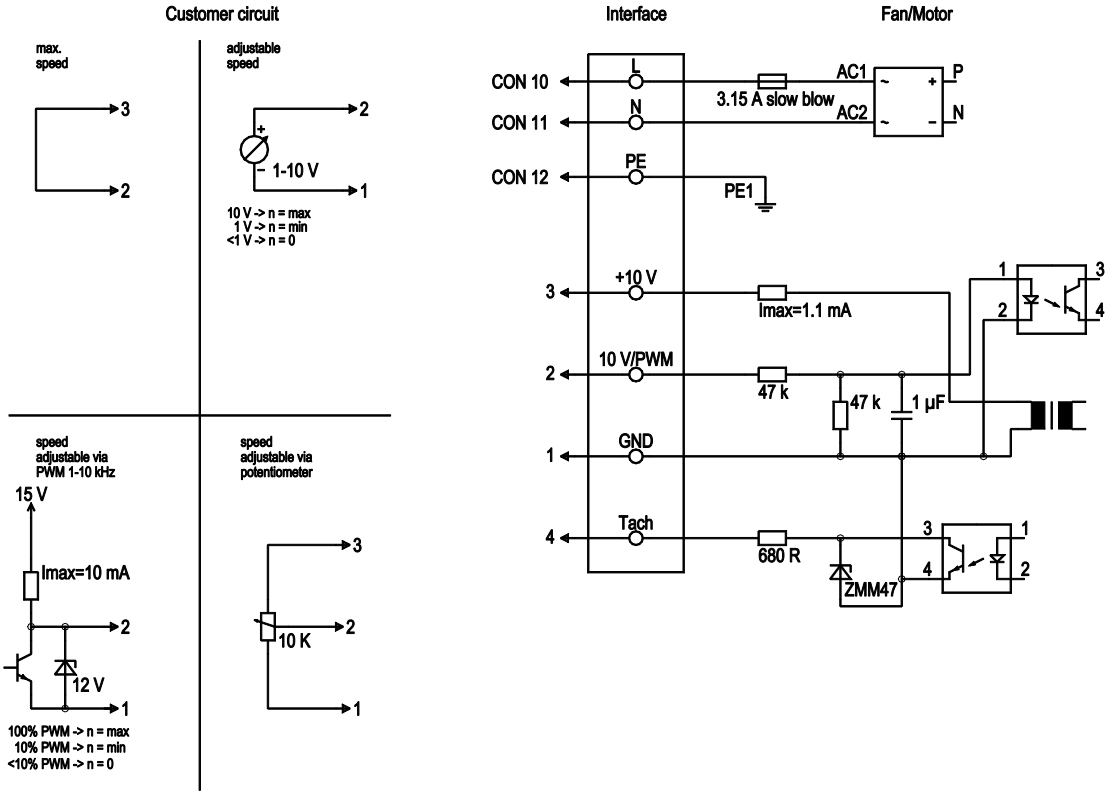
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 115 VAC, 50 - 60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	2	0- 10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	1	GND	blue	GND connection for control interface
	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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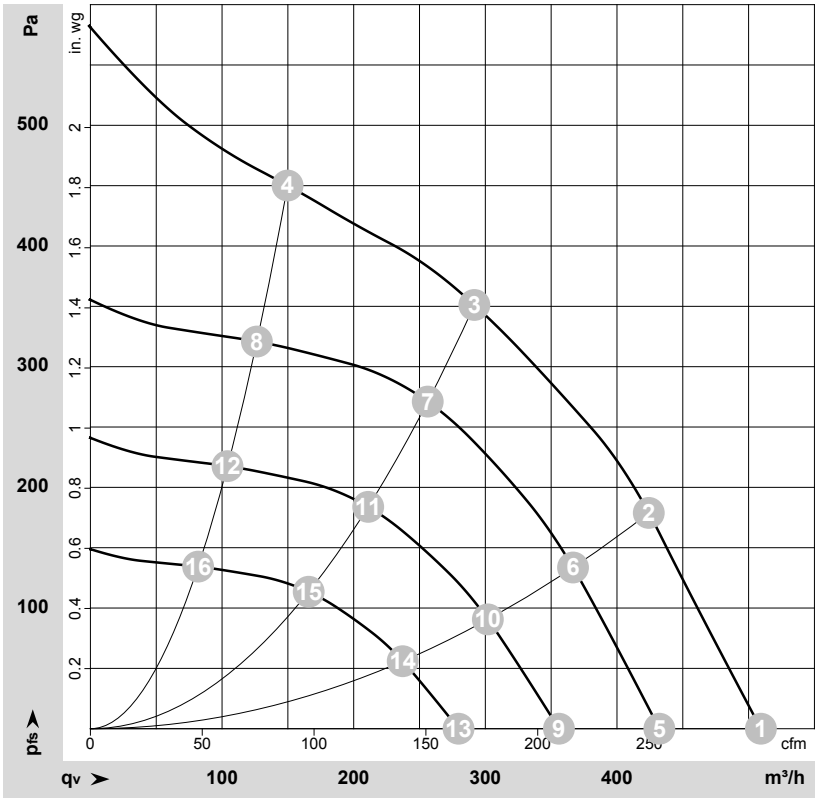
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-199333-1

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

	Wired	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	115	50	4005	60	0.95	510	0	300	0.00
2	1~	115	50	3935	63	0.99	425	180	250	0.72
3	1~	115	50	3850	64	1.00	290	350	170	1.41
4	1~	115	50	4025	59	0.94	150	450	90	1.81
5	1~	115	50	3400	37	0.58	430	0	255	0.00
6	1~	115	50	3400	41	0.64	365	134	215	0.54
7	1~	115	50	3400	43	0.68	255	272	150	1.09
8	1~	115	50	3400	36	0.57	125	321	75	1.29
9	1~	115	50	2800	21	0.33	355	0	210	0.00
10	1~	115	50	2800	23	0.36	300	91	180	0.37
11	1~	115	50	2800	24	0.38	210	184	125	0.74
12	1~	115	50	2800	20	0.32	105	218	60	0.88
13	1~	115	50	2200	10.0	0.16	280	0	165	0.00
14	1~	115	50	2200	11	0.17	235	56	140	0.22
15	1~	115	50	2200	12	0.19	165	114	100	0.46
16	1~	115	50	2200	10.0	0.15	80	134	50	0.54

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