

R3G190-RC05-29

EC centrifugal fan - RadiCal

backward-curved

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

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-RC05-29	
Motor	M3G055-BI	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	3255
Power consumption	W	84
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

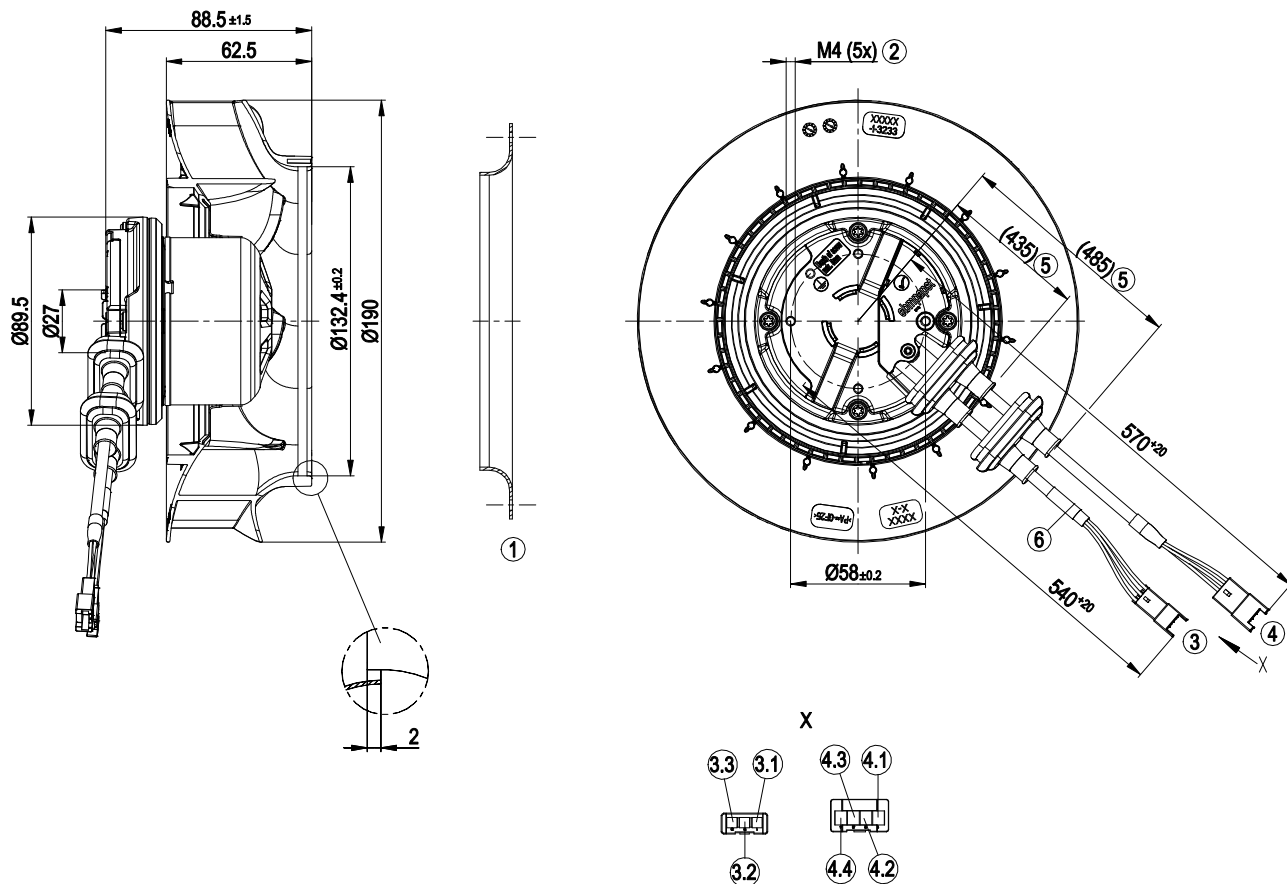
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

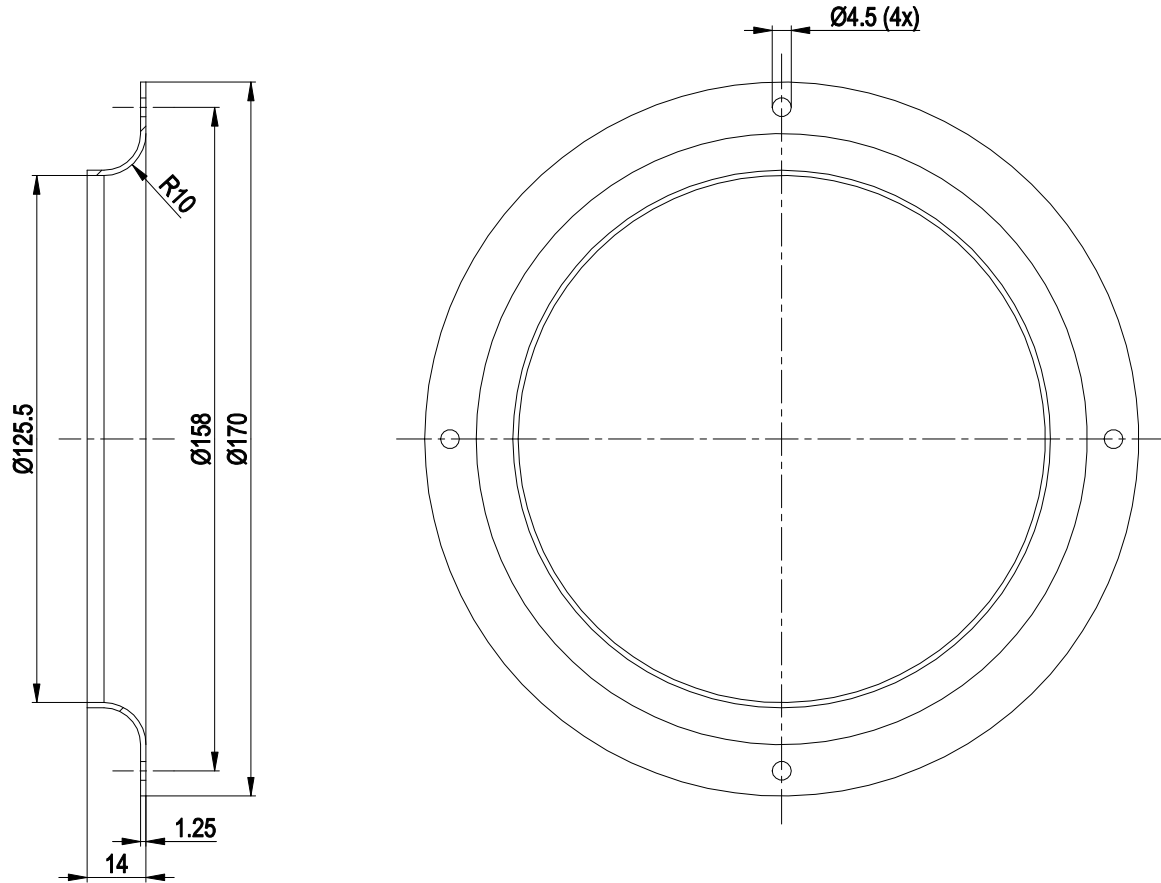
Weight	1.1 kg
Size	190 mm
Motor size	55
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) 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
Technical features	- Tach output - Power limiter - Motor current limitation - Soft start - Control input 10-0 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

Product drawing



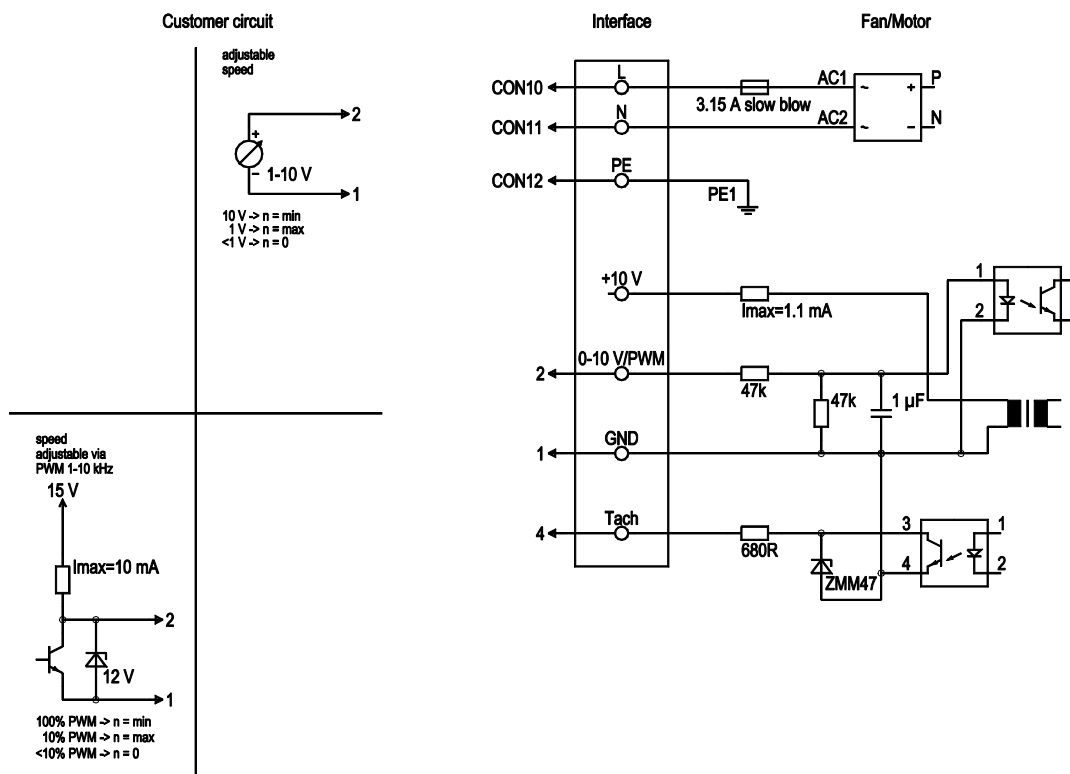
1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC AWG20, 3-pole connector housing JST XARR-03VF-WGT4, 3x plug pin JST SXAM-01T-P0.6
3.1	L (black)
3.2	N (blue)
3.3	PE (green/yellow)
4	Cable PVC AWG22, connector housing 4-pole JST XARR-04VF, 3x plug pin JST SXAM-01T-P0.6
4.1	0-10 V PWM (yellow)
4.2	GND (blue)
4.3	Tach (white)
4.4	not used
5	The exact position of the grommet cannot be confirmed
6	Heat shrink tube, yellow

Accessory part



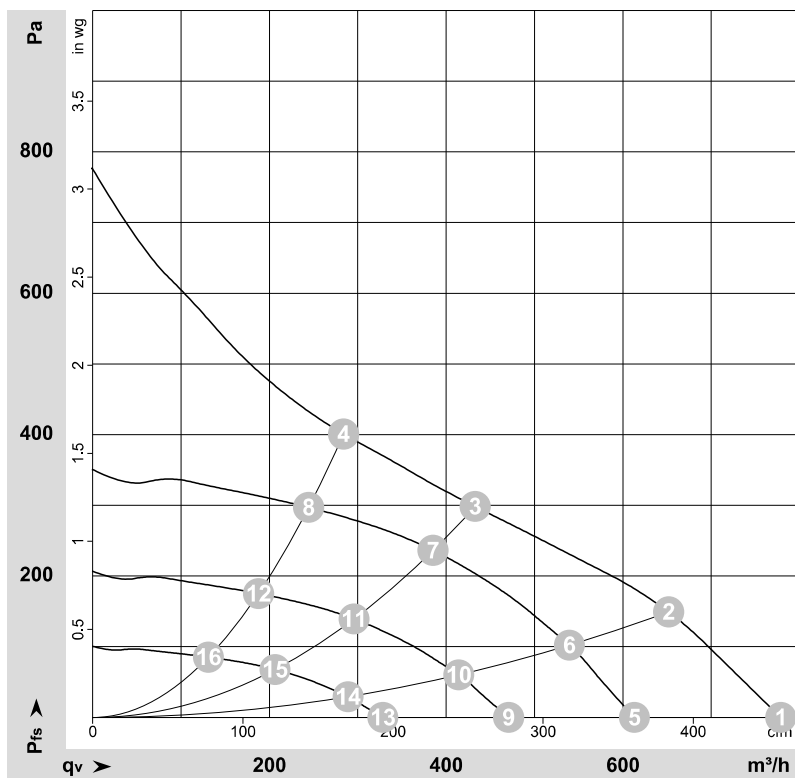
1 Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	Control interface GND connection
	2	0-10V PWM	yellow	Control input 0 -10 V or PWM, electrically isolated
	4	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, I _{sink_max} = 10 mA

Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-167087-1

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	q _v	P _{fs}	q _v	P _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	in. wg
1	230	50	3555	84	0.75	780	0	460	0.00
2	230	50	3385	84	0.75	650	150	385	0.60
3	230	50	3255	84	0.75	435	300	255	1.20
4	230	50	3250	84	0.75	285	400	165	1.61
5	230	50	2800	40	0.36	615	0	360	0.00
6	230	50	2800	47	0.41	540	103	315	0.41
7	230	50	2800	58	0.51	385	237	225	0.95
8	230	50	2800	54	0.47	245	297	145	1.19
9	230	50	2150	18	0.16	470	0	275	0.00
10	230	50	2150	21	0.19	415	61	245	0.24
11	230	50	2150	26	0.23	295	140	175	0.56
12	230	50	2150	24	0.21	190	175	110	0.70
13	230	50	1500	6.0	0.05	330	0	195	0.00
14	230	50	1500	7.0	0.06	290	29	170	0.12
15	230	50	1500	9.0	0.08	205	68	120	0.27
16	230	50	1500	8.0	0.07	130	85	75	0.34

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

