G3G160-RG53-03

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

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	**G3G160-RG53-03**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	4950
Power consumption	W	115
Current draw	A	1.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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	1.8 kg
Size	160 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PP plastic
Housing material	PP 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	- Output 10 VDC, max. 10 mA - 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 - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

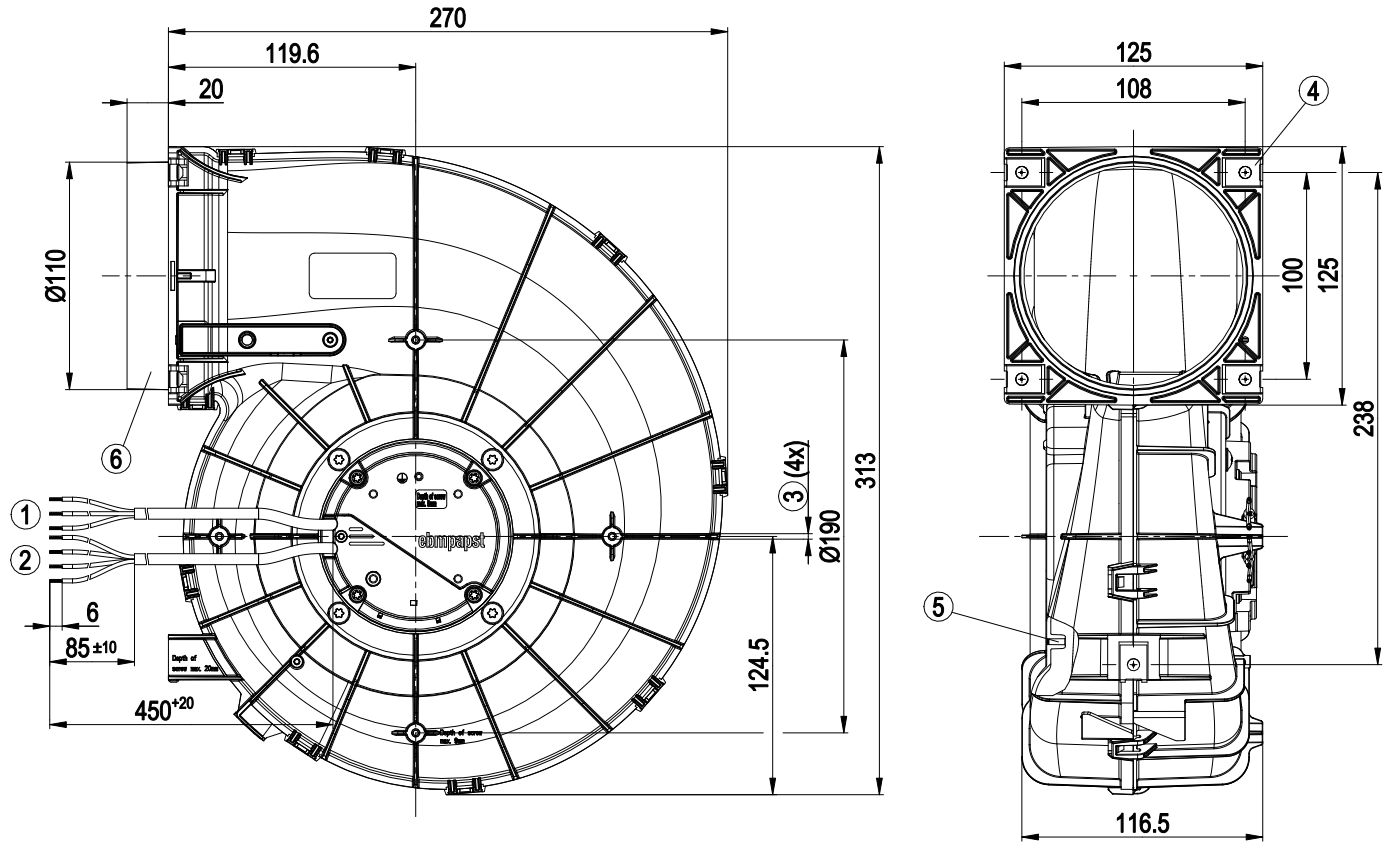
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Product drawing



1	Cable PVC AWG20
	3x splice
2	Cable PVC AWG22
	4x splice
3	Tapping hole prepared for self-tapping screw for fastening plastics (Remform) dia. 4 mm, screw-in depth max. 9 mm, torque is to be determined on the basis of the screw.
4	5x sheet metal nut for thread EN ISO 1478-ST4.8 (max. screw length 20 mm plus thickness of mounting material)
5	Screw-on domes are only permissible for Flowgrid!
6	Connecting sleeve not suitable for installation with pipe clamps

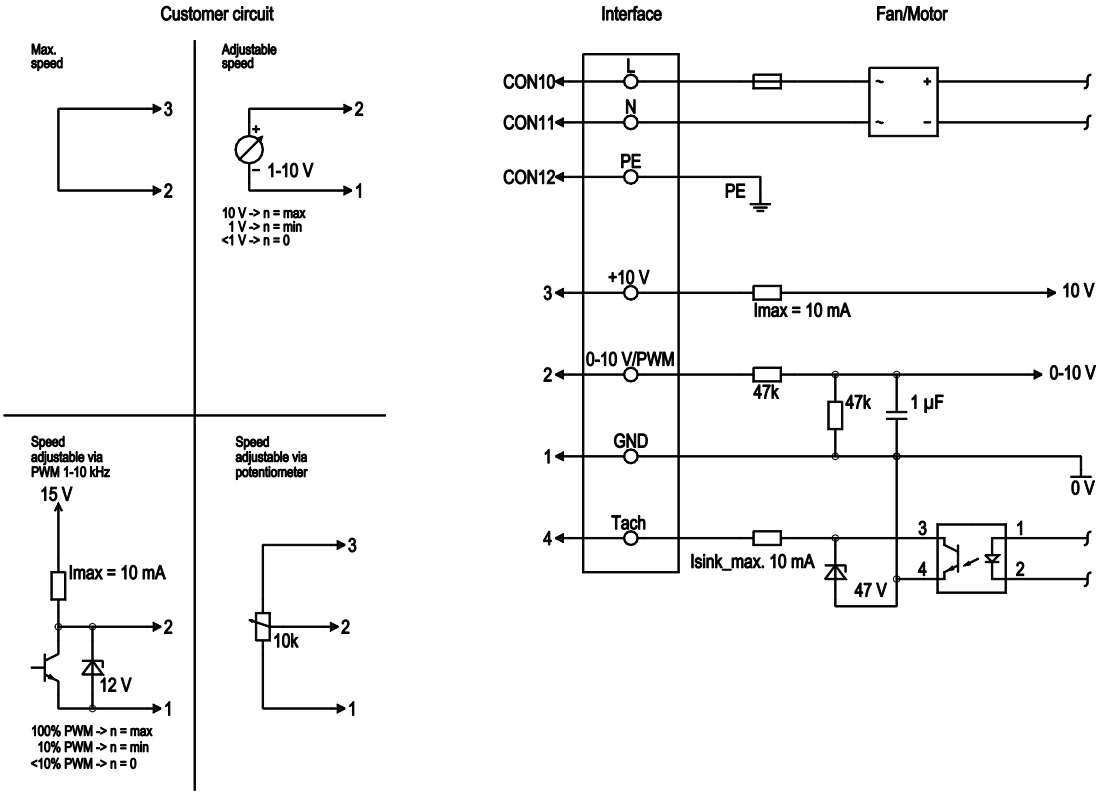
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

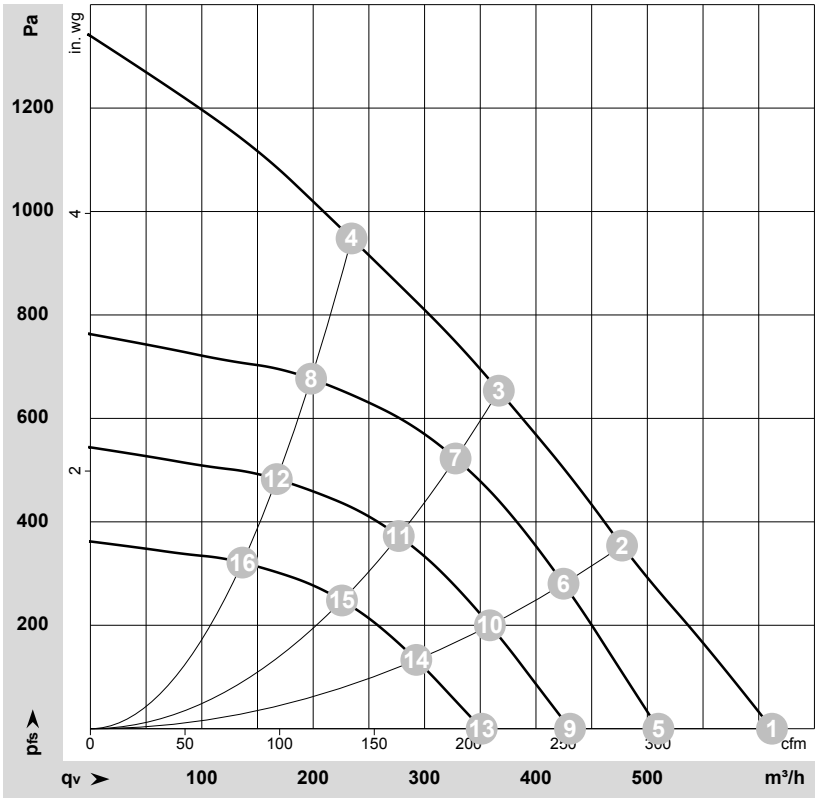
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-198657-1

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	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
1	1~	230	50	5400	115	1.00	76	82	610	0	360	0.00
2	1~	230	50	5055	115	1.00	70	76	475	350	280	1.41
3	1~	230	50	4950	115	1.00	67	73	365	650	215	2.61
4	1~	230	50	5325	115	1.00	72	78	235	950	140	3.81
5	1~	230	50	4500	70	0.57	72	78	510	0	300	0.00
6	1~	230	50	4500	83	0.69	67	73	425	281	250	1.13
7	1~	230	50	4500	86	0.71	64	70	330	523	195	2.10
8	1~	230	50	4500	72	0.60	68	74	200	677	115	2.72
9	1~	230	50	3800	42	0.35	67	73	430	0	255	0.00
10	1~	230	50	3800	50	0.41	63	69	360	200	210	0.80
11	1~	230	50	3800	51	0.43	60	66	275	373	165	1.50
12	1~	230	50	3800	44	0.36	63	70	165	483	100	1.94
13	1~	230	50	3100	23	0.19	62	68	350	0	205	0.00
14	1~	230	50	3100	27	0.23	58	64	295	133	170	0.53
15	1~	230	50	3100	28	0.23	55	61	225	248	135	1.00
16	1~	230	50	3100	24	0.20	58	65	135	321	80	1.29

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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