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	**R3G225-RH21-06**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2200
Power consumption	W	94
Current draw	A	1.3
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

Fan size	225 mm
Rotor surface	Cast in PA plastic
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
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	None, open rotor
Cooling hole/opening	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
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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1
Approval	CSA C22.2 No. 77; UL 2111

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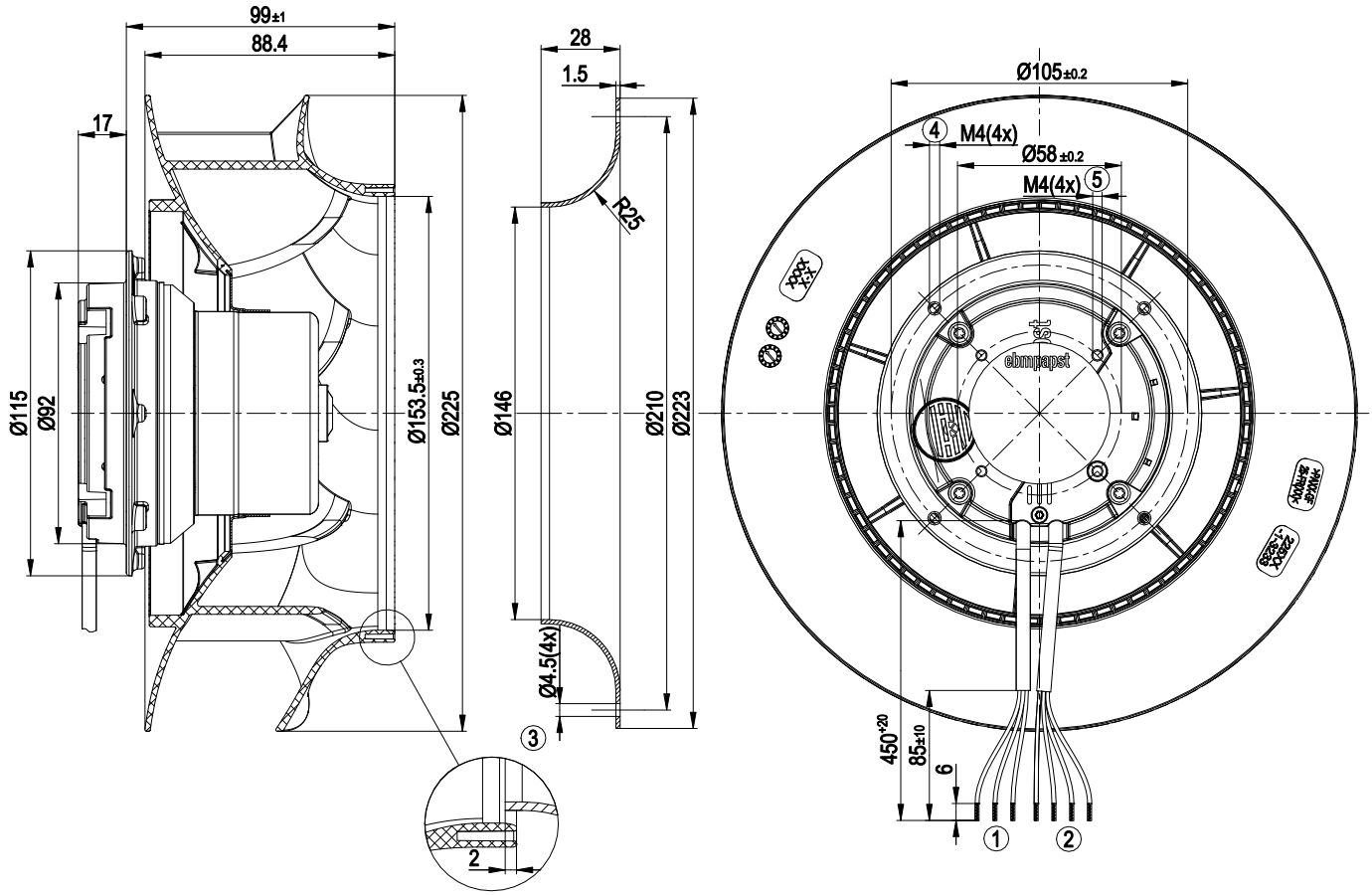
Product drawing



1	Cable PVC 3G 0.5 mm², 3x crimped splices
2	Cable PVC 4 x 0.25 mm²; 4x crimped splices
3	Accessory part: inlet ring 96358-2-4013 not included in scope of delivery
4	Max. clearance for screw 6 mm
5	Max. clearance for screw 6 mm

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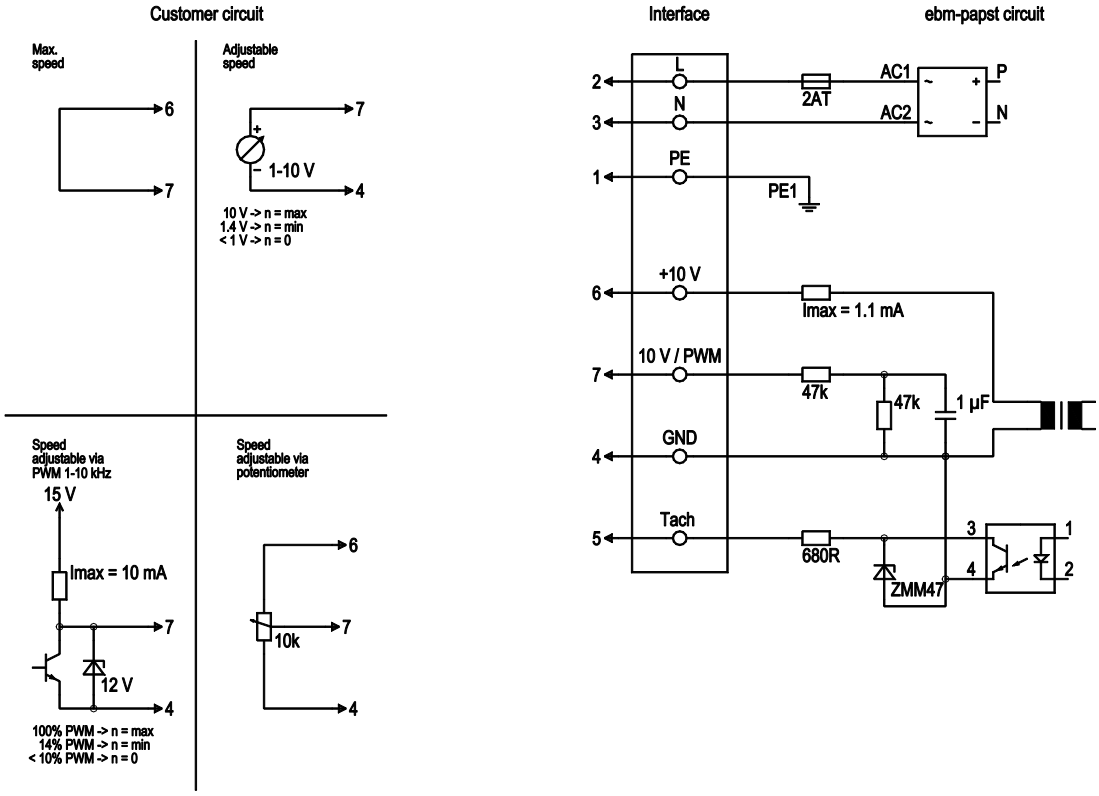
Connection diagram



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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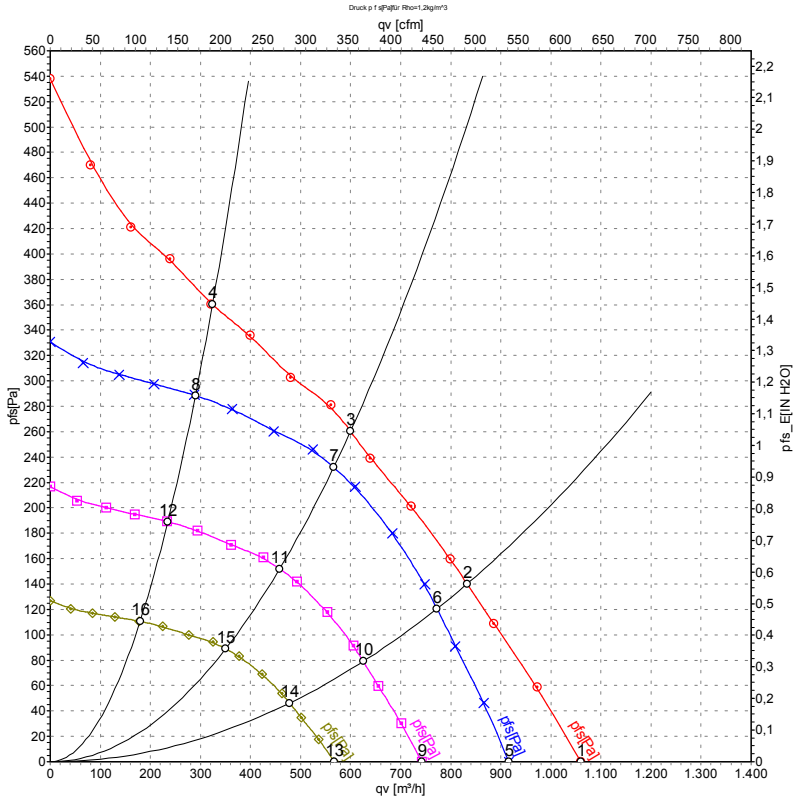
Curves: Air performance 50 Hz



Measurement: LU-135440-1

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	2430	81	1.12	1060	0	625	0.00
2	115	50	2265	88	1.23	835	140	490	0.56
3	115	50	2200	94	1.30	600	260	355	1.04
4	115	50	2345	85	1.18	325	360	190	1.45
5	115	50	2100	52	0.73	915	0	540	0.00
6	115	50	2100	71	0.98	770	121	455	0.49
7	115	50	2100	78	1.08	565	232	335	0.93
8	115	50	2100	61	0.85	290	289	170	1.16
9	115	50	1700	28	0.39	740	0	435	0.00
10	115	50	1700	37	0.52	625	79	370	0.32
11	115	50	1700	42	0.57	460	152	270	0.61
12	115	50	1700	32	0.45	235	189	140	0.76
13	115	50	1300	12	0.17	565	0	335	0.00
14	115	50	1300	17	0.23	480	46	280	0.18
15	115	50	1300	19	0.26	350	89	205	0.36
16	115	50	1300	14	0.20	180	111	105	0.45

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