EC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R3G225-RH17-12**
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}	2200
Power consumption	W	81
Current draw	A	0.64
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

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Technical description

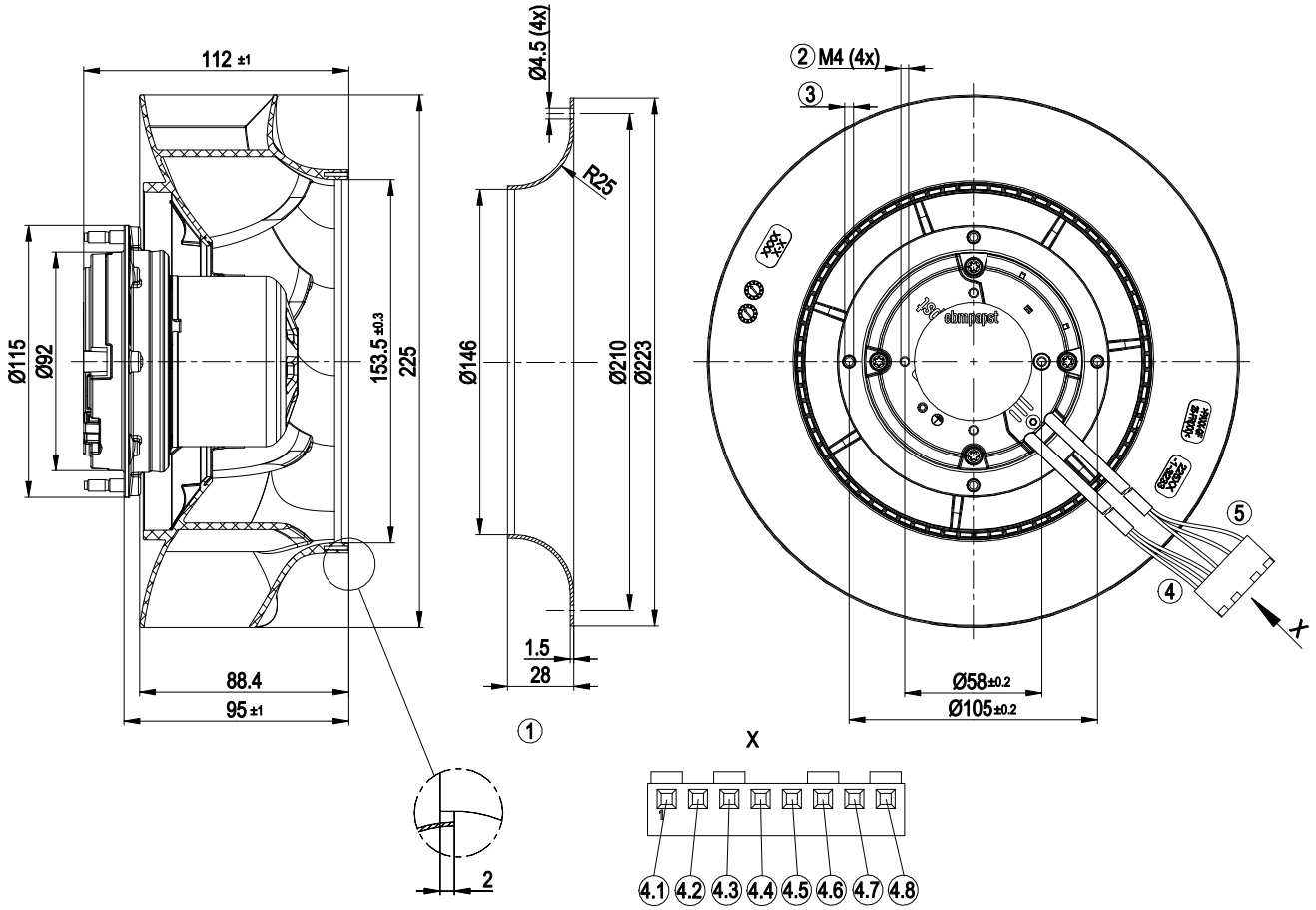
Weight	1.5 kg
Fan size	225 mm
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. 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 - Motor current limitation - Soft start - PWM control input - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
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	With plug
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CSA C22.2 No. 77; UL 1004-7 + 60730; CCC

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Product drawing



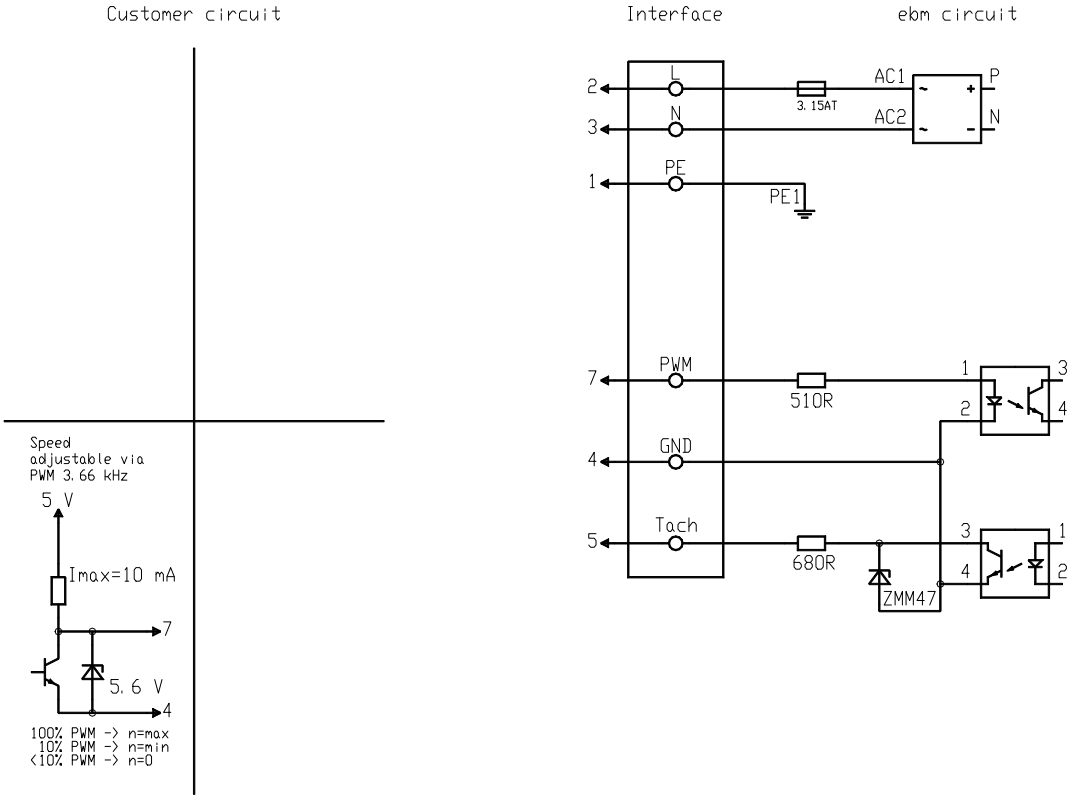
No.	Conn.	Designation	Color	Function/assignment
		1		Accessory part: inlet ring 96358-2-4013 not included in scope of delivery
		2		Max. clearance for screw 6 mm
		3		Thread on threaded pin: 10-24 UNC
		4		Cable AWG20, 3x plug pin Molex 08-50-0105 crimped
		5		Cable AWG 22, 3x plug pin Molex 08-50-0105 crimped, with connector housing Molex 09-50-8081
		5.1	brown	AC 230 V/115 V
		5.2		not used
		5.3	light blue	AC neutral
		5.4		not used
		5.5	green/yellow	Ground
		5.6	yellow	speed control
		5.7	white	tach output
		5.8	blue	signal ground

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Connection diagram



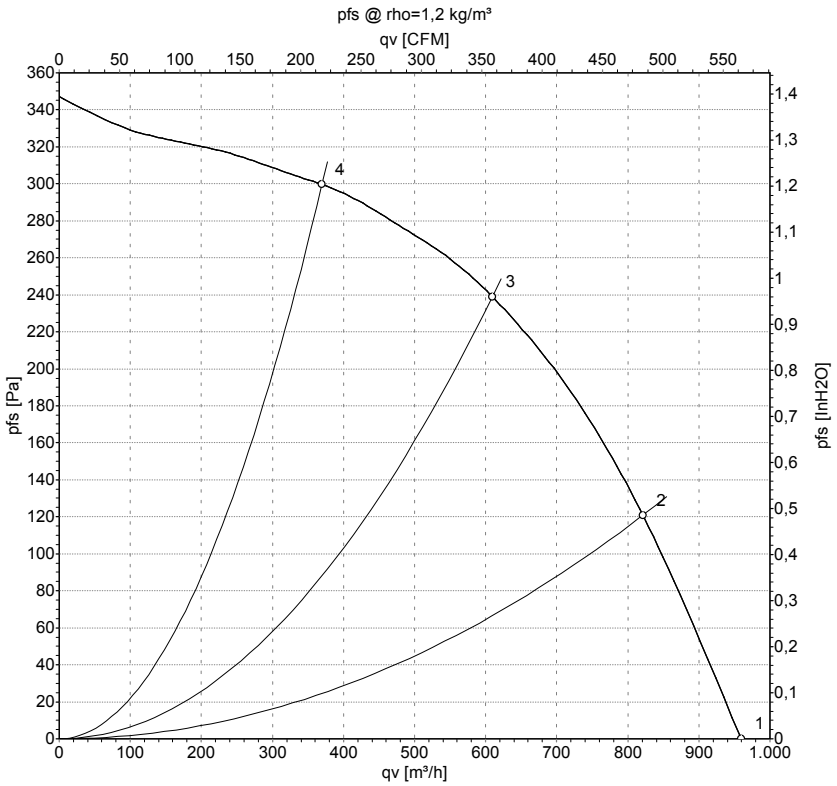
No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	PWM	yellow	Control input PWM, electrically isolated
	5	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max = 10 mA
	4	GND	blue	GND connection for control interface

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Curves: Air performance 50 Hz



Measurement: LU-144891-1

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	inH2O
1	230	50	2200	60	0.42	960	0	565	0.00
2	230	50	2205	79	0.63	820	120	485	0.48
3	230	50	2200	81	0.64	610	240	360	0.96
4	230	50	2200	69	0.56	370	300	220	1.20

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

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