EC centrifugal fan - RadiCal

backward-curved, single-intake

R3G225-RH15-13 ebmpapst Datasheet
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Nominal data

Type	**R3G225-RH15-13**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Speed	min^{-1}	2200
Power consumption	W	85
Current draw	A	1.23
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	2 kg
Fan size	225 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
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	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-5 VDC / PWM - Thermal overload protection for electronics/motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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

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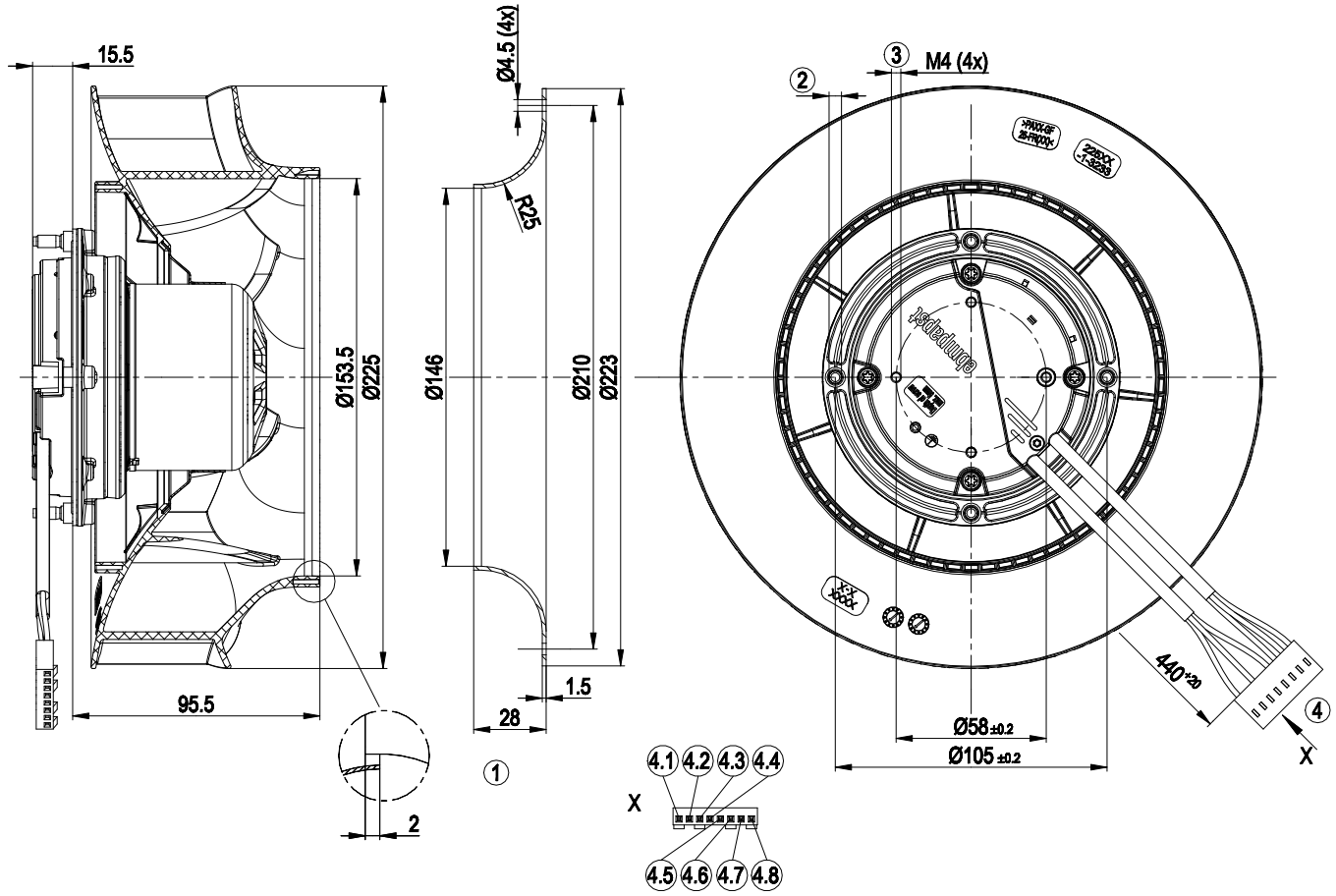
Product drawing



1	Accessory part: inlet ring 96358-2-4013 not included in scope of delivery
2	Thread on threaded pin: 10-24 UNC
3	Max. clearance for screw 5 mm
4	Cable PVC with Molex connector housing 09-50-8081 with 6x plug pin 08-50-0105
4.1	L (brown)
4.2	not used
4.3	N (blue)
4.4	not used
4.5	PE (green/yellow)
4.6	PWM (yellow)
4.7	Tach (white)
4.8	GND (blue)

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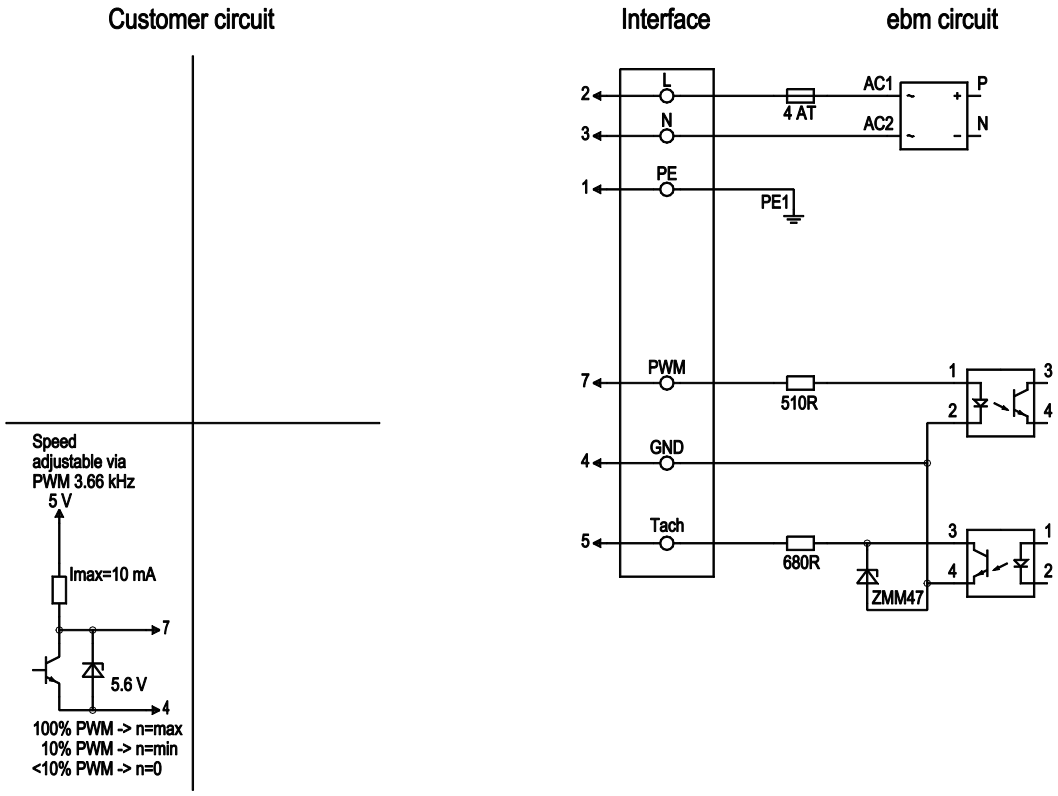
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 115 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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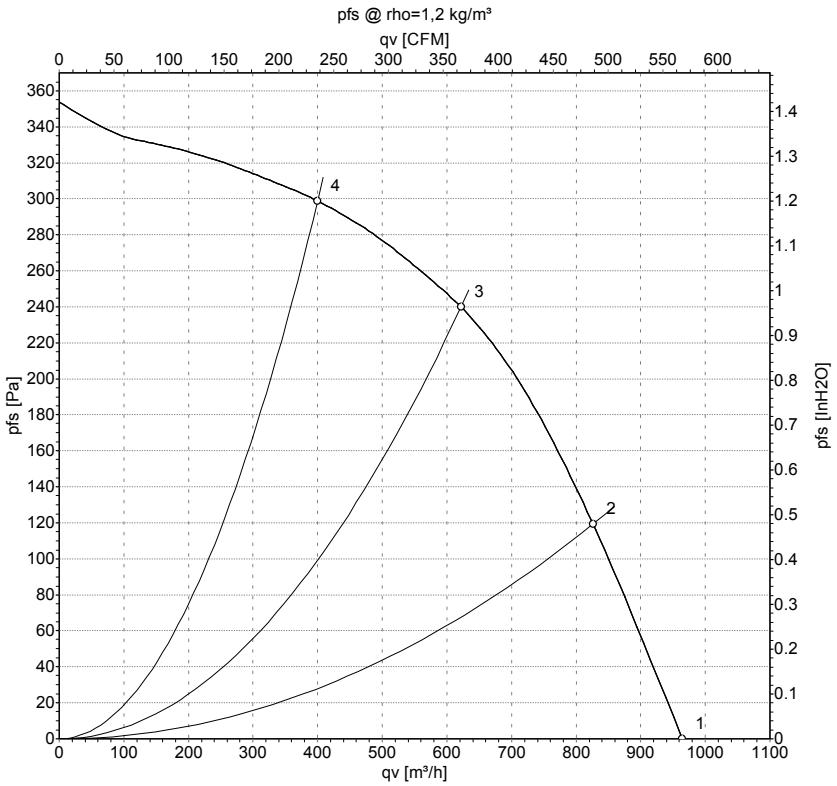
Curves: Air performance 50 Hz



Measurement: LU-143604-1

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	115	50	2210	65	0.96	62	69	965	0
2	115	50	2205	79	1.14	58	65	825	120
3	115	50	2200	85	1.23	53	61	620	240
4	115	50	2205	75	1.10	57	65	400	300

U = Power supply · f = Frequency · n = Speed · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase