

EC centrifugal fan - RadiCal

backward-curved, single-intake



R3G225-8317075812 ebmpapst Datasheet
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Nominal data

Type	R3F225-8317075812	
Motor	M3G055-CF	
Phase		1~
Nominal voltage	VAC	220
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	2501
Power consumption	W	115
Current draw	A	1.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

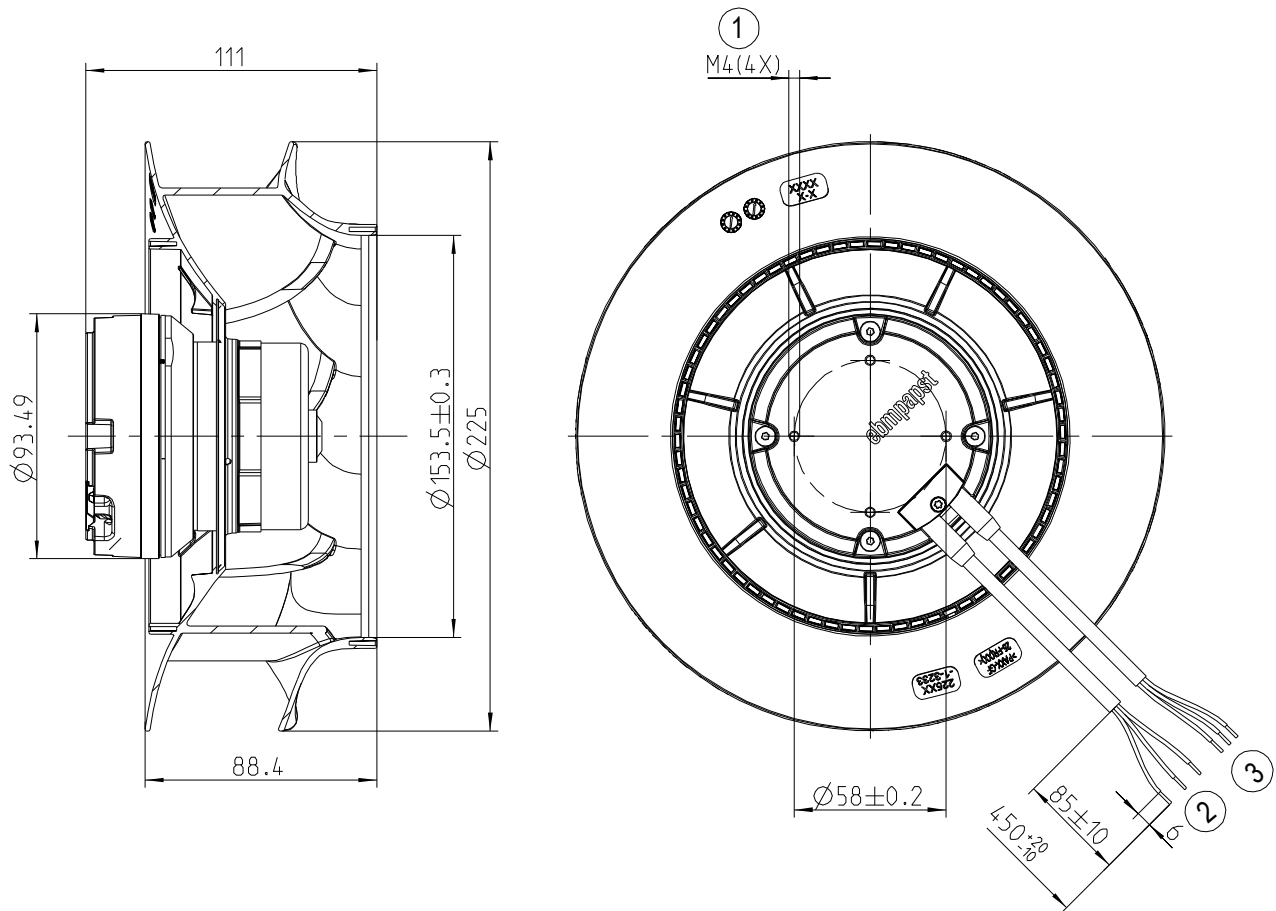
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

Weight	1.5 kg
Fan size	225 mm
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	IP44 (Air inlet upward or horizontal)
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 - Motor current limit - Soft start - PWM control input
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	GB12350
Approval	CCC;

Product drawing



Accessory part: inlet ring 96358-2-4013 not included in scope of delivery

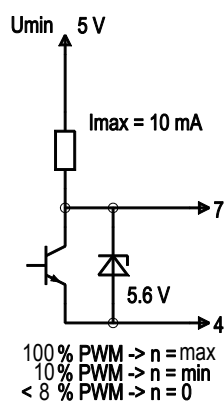
1 Max. clearance for screw 6 mm

2 Cable PVC 3x 0.25 mm²

3 Cable PVC 3x 0.5 mm²

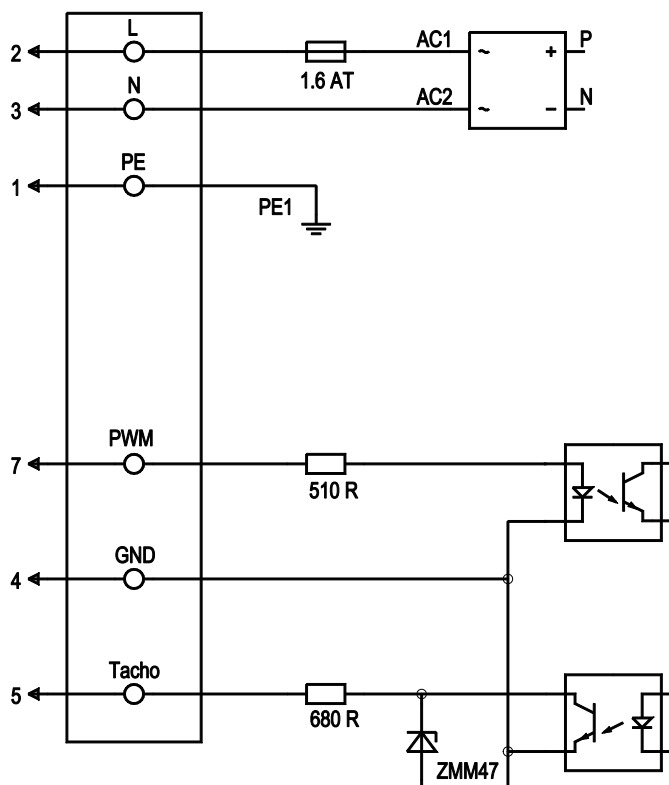
Connection diagram

Customer circuit

Speed setting via
PWM 1~10 kHz

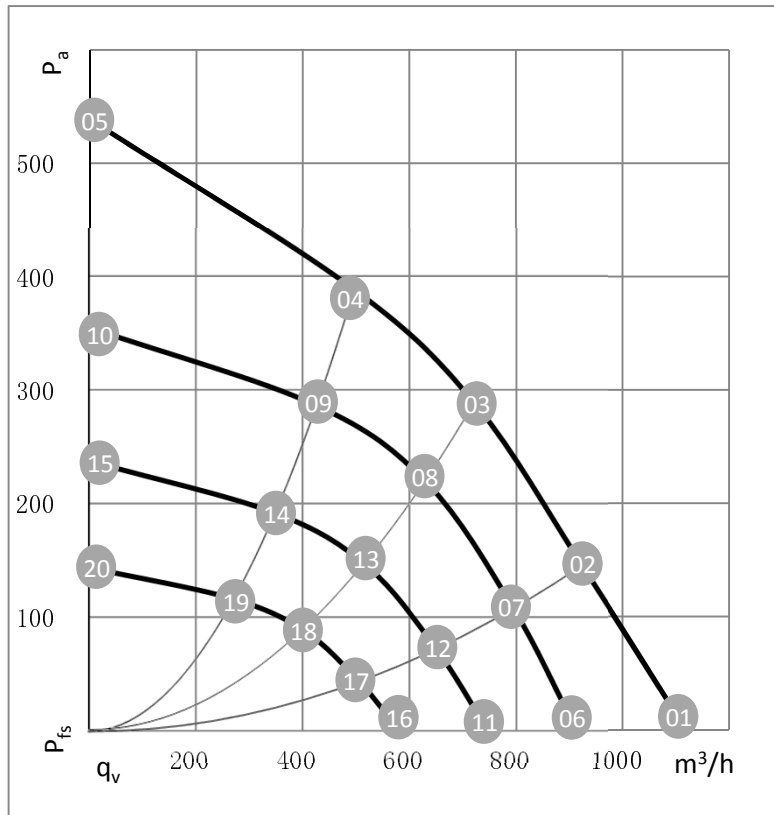
Connection

Fan / motor



Line	No.	Signal	Colour	Function / assignment
	1	PE	green/yellow	Protective earth
	2	L	brown	Power supply 220 VAC, 50 - 60 Hz
	3	N	blue	Neutral conductor
	4	GND	blue	GND - Connection for control interface
	5	Tacho	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
	7	PWM	yellow	PWM control input, electrically isolated

Curves: Air performance 50 Hz


 $\rho = 1.2 \text{ kg/m}^3 \pm 2 \%$

Test ID:8244

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

Index	U v	f Hz	n min ⁻¹	P _{ed} W	I A	LpA _{out} dB(A)	LwA _{out} dB(A)	q _v m ³ /h	P _{fs} Pa	q _v cfm	P _{fs} in.wg
01	220	50	2697	108	1.04	66	79	1119	0	658	0.00
02	220	50	2558	115	1.16	65	77	924	145	543	0.58
03	220	50	2521	116	1.16	61	73	725	286	427	1.15
04	220	50	2563	116	1.16	59	71	494	389	291	1.56
05	220	50	2708	62	0.58			9	536	5	2.15
06	220	50	2200	59	0.57	61	74	913	0	537	0.00
07	220	50	2200	74	0.74	61	73	794	108	467	0.43
08	220	50	2200	77	0.77	58	70	633	218	372	0.87
09	220	50	2200	73	0.74	55	67	425	287	250	1.15
10	220	50	2200	33	0.31			7	354	4	1.42
11	220	50	1800	32	0.31	56	69	747	0	439	0.00
12	220	50	1800	40	0.41	56	68	650	72	382	0.29
13	220	50	1800	42	0.42	53	65	520	145	306	0.58
14	220	50	1800	40	0.40	50	62	347	192	204	0.77
15	220	50	1800	18	0.17			6	237	4	0.95
16	220	50	1400	15	0.15	50	62	581	0	342	0.00
17	220	50	1400	19	0.19	49	62	505	44	297	0.18
18	220	50	1400	20	0.20	46	58	403	88	237	0.35
19	220	50	1400	19	0.19	44	56	265	117	156	0.47
20	220	50	1400	9	0.08			5	143	3	0.58

U = Power supply · 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

