

EC centrifugal fan - RadiCal

backward curved



R3G175-8317075830 ebmpapst Datasheet
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Nominal data

Type	R3G175-8317075830	
Motor	M3G055-CF	
Phase		1~
Nominal voltage	VAC	220
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min ⁻¹	4136
Power input	W	115
Current draw	A	1.1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

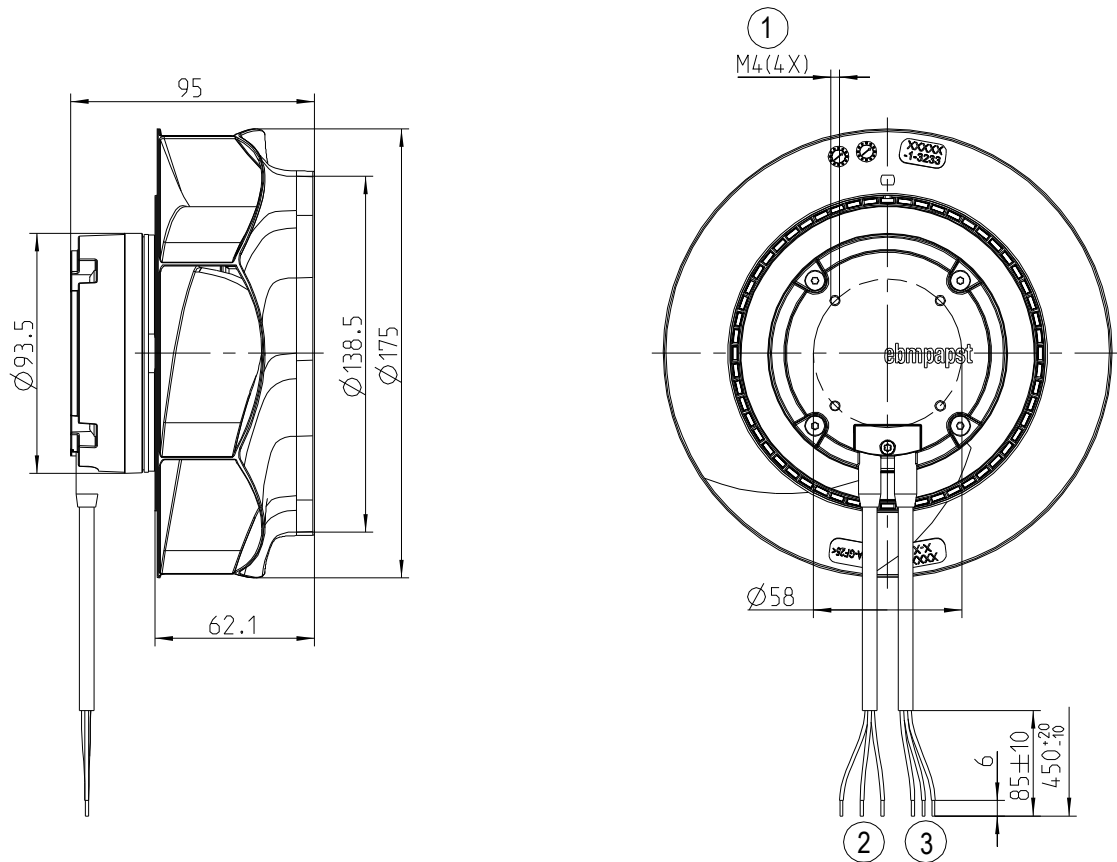
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



Technical features

Mass	1.4 kg
Size	175 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP44 (Air inlet upward or horizontal)
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensation drainage holes	None, open rotor
Operation 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 nozzle 09576-2-4013 not included in scope of delivery

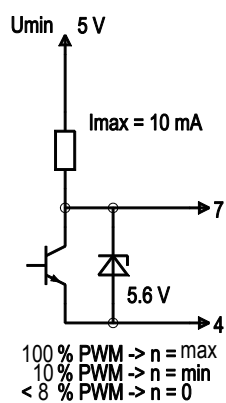
1 Thread reach max. 5 mm

2 Cable PVC 3x 0.25 mm²

3 Cable PVC 3x 0.5 mm²

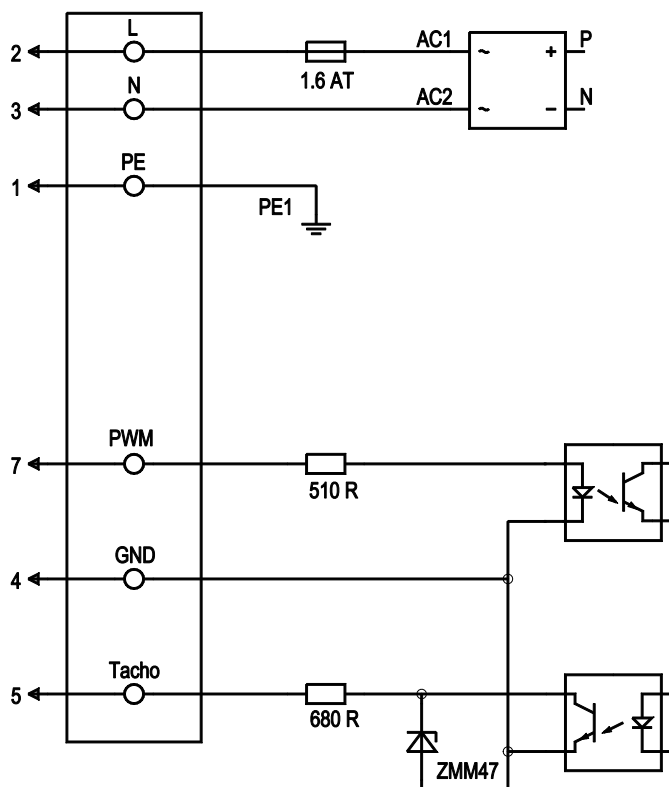
Connection screen

Customer circuit

Speed setting via
PWM 1~10 kHz

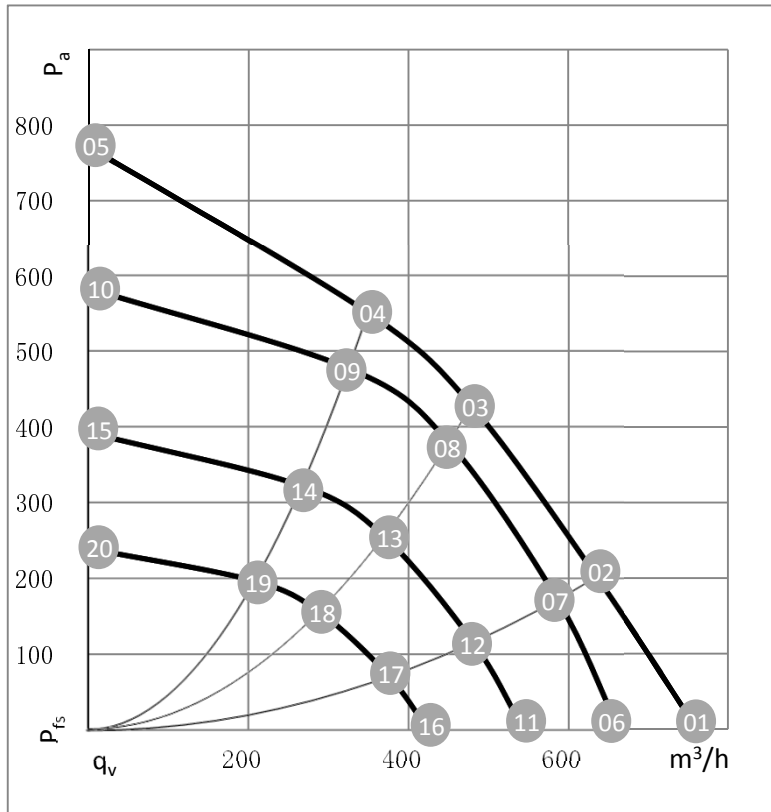
Connection

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

Charts: Air flow 50 Hz


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

Test ID: 8562

Air performance measured as per ISO 5801
Installation category A. For detailed
information on the measuring set-up,
please contact ebm-papst. Suction-side
noise levels: LwA measured as per ISO
13347 / LpA measured with 1m distance to
fan axis. The values given are valid under
the measuring conditions mentioned above
and may vary according to the actual
installation situation. With any deviation
from the standard set-up, the specific
values have to be checked and reviewed
with the unit installed.

Measured values

Index	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
01	220	50	4479	114	1.08	73	79	761	0	448	0.00
02	220	50	4229	116	1.13	68	75	636	200	374	0.80
03	220	50	4145	115	1.10	64	71	479	428	282	1.72
04	220	50	4186	116	1.13	62	69	352	549	207	2.20
05	220	50	4486	72	0.60			0	771	0	3.10
06	220	50	3900	75	0.71	69	75	663	0	390	0.00
07	220	50	3900	91	0.89	65	72	586	171	345	0.69
08	220	50	3900	96	0.92	62	69	450	379	265	1.52
09	220	50	3900	94	0.91	60	67	328	476	193	1.91
10	220	50	3900	47	0.39			0	583	0	2.34
11	220	50	3200	42	0.39	64	70	544	0	320	0.00
12	220	50	3200	50	0.49	60	67	481	115	283	0.46
13	220	50	3200	53	0.51	57	64	370	255	217	1.02
14	220	50	3200	52	0.50	55	62	264	323	156	1.30
15	220	50	3200	26	0.22			0	392	0	1.58
16	220	50	2500	20	0.19	58	64	425	0	250	0.00
17	220	50	2500	24	0.24	54	61	374	73	220	0.29
18	220	50	2500	25	0.24	51	58	289	156	170	0.63
19	220	50	2500	25	0.24	49	56	207	197	122	0.79
20	220	50	2500	12	0.10			0	240	0	0.96

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