R3G250-RE09-05

EC centrifugal fan - RadiCal

backward curved, single inlet

R3G250-RE09-05 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G250-RE09-05**
Motor	**M3G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	2510
Power input	W	170
Current draw	A	1.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+60

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		60.1	39.4	43.4
Efficiency grade N		78.7	58	62
Power input P_{ed}	kW	0.17		
Air flow q_v	m^3/h	1005		
Pressure increase p_{fs}	Pa	322		
Speed n	min^{-1}	2555		

Data established at point of optimum efficiency

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Technical features

Mass	1.78 kg
Size	250 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA6, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Speed adjustment input (230 V) - Motor current limit - Soft start - Over-temperature protected electronics / motor
Speed steps	2
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	EN 60335-1

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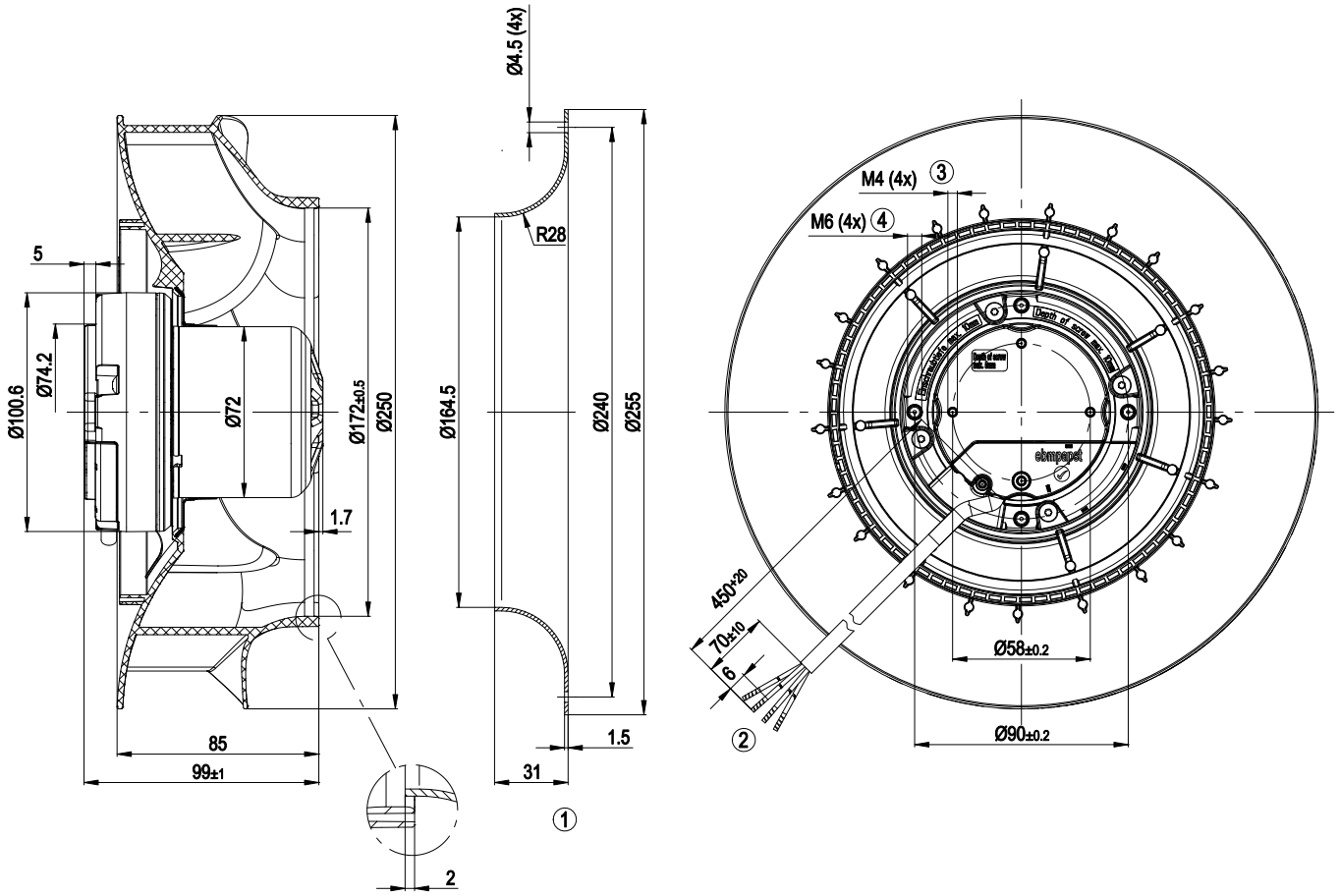
Product drawing



1	Accessory part: Inlet nozzle 96359-2-4013, not included in the standard scope of delivery
2	Connection line PVC 4G 0.5 mm², 4 x brass lead tips crimped
3	Depth of screw max. 5 mm
4	Depth of screw max. 10 mm

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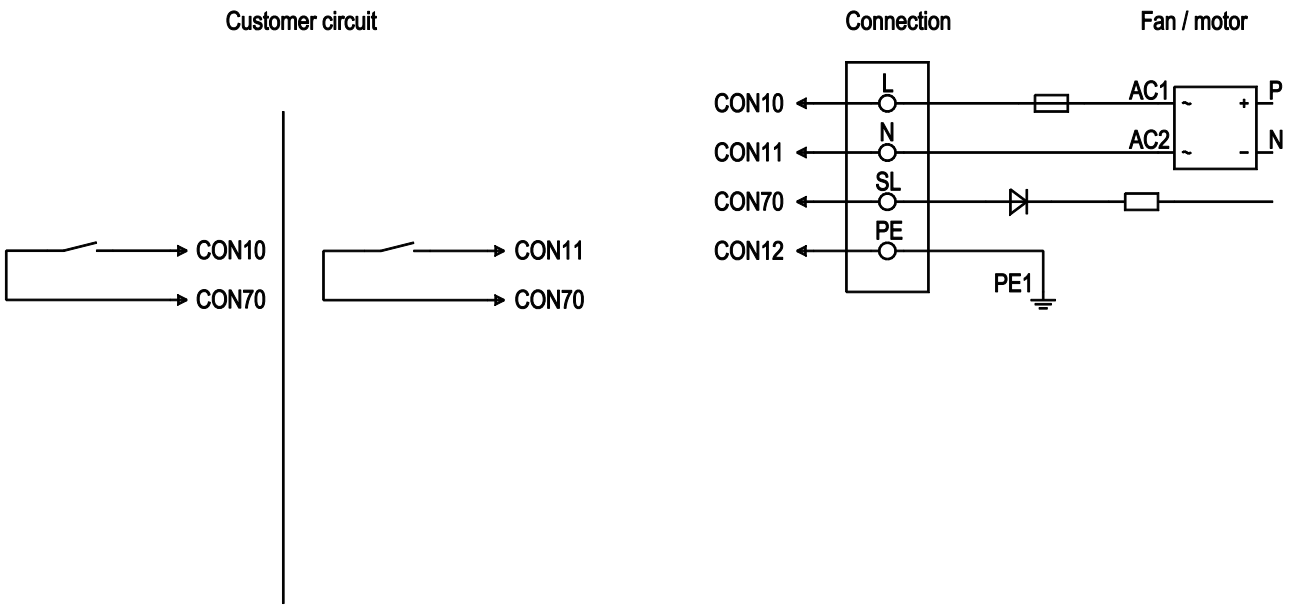
Connection screen



Line	No.	Signal	Colour	Function / assignment
	CON 10	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2

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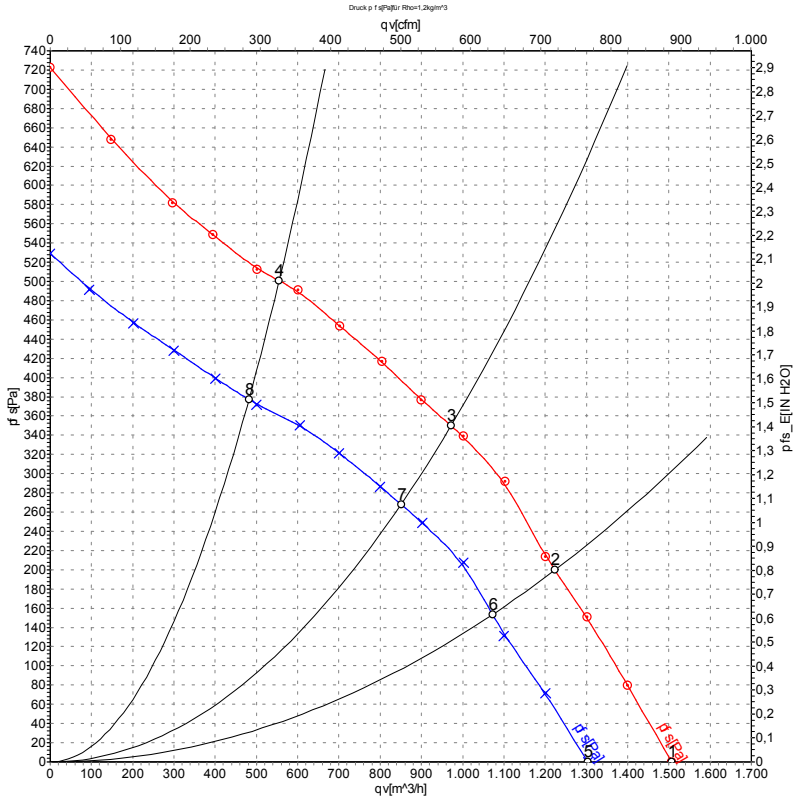
Charts: Air flow 50 Hz



Measurement: LU-128144
Measurement: LU-128147

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

	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	230	50	2680	146	1.17	68	76	1505	0
2	230	50	2565	170	1.40	63	71	1225	200
3	230	50	2510	170	1.40	59	67	970	350
4	230	50	2610	160	1.28	65	73	555	500
5	230	50	2330	96	0.80	64	72	1305	0
6	230	50	2265	112	0.92	59	67	1075	153
7	230	50	2250	116	0.96	56	64	850	268
8	230	50	2285	109	0.93	60	68	480	377

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