R3G250-RO06-79

EC centrifugal fan - RadiCal

backward curved

R3G250-RO06-79 ebmpapst Datasheet
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County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G250-RO06-79**
Motor	**M3G084-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3400
Power input	W	385
Current draw	A	2.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		56.9	43.1	47.1
Efficiency grade N		71.8	58	62
Power input P_{ed}	kW	0.38		
Air flow q_v	m^3/h	1180		
Pressure increase p_{fs}	Pa	601		
Speed n	min^{-1}	3395		

Data established at point of optimum efficiency

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Technical features

Mass	3.9 kg
Size	250 mm
Surface of rotor	Coated in black
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	IP 54
Insulation class	"B"
Humidity class	F3-1
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 top; rotor on bottom on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	UL 2111; CSA C22.2 Nr.77

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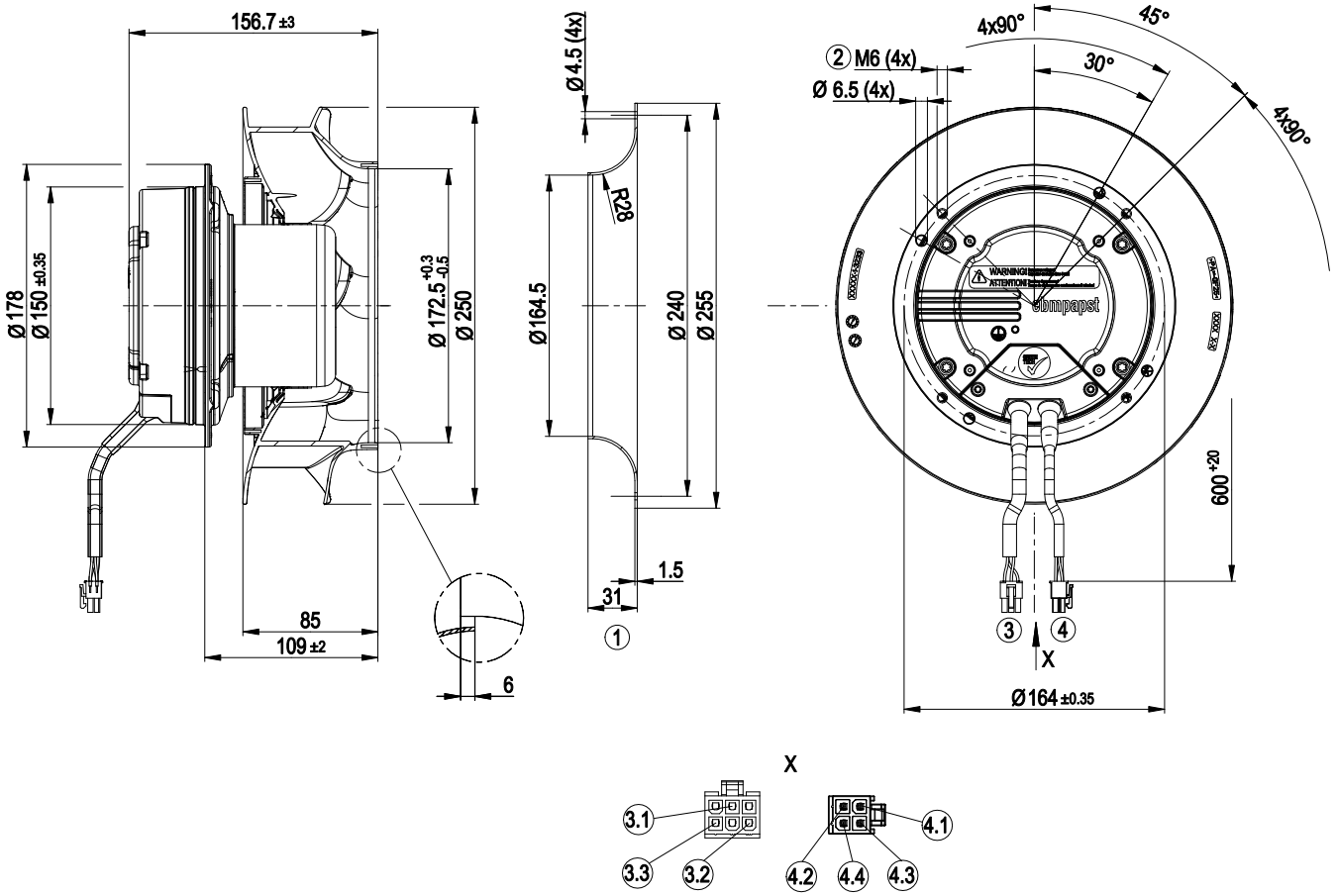
Product drawing



1	Accessory part: inlet nozzle 96359-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Depth of screw 8 - 10 mm
3	Connection line PVC AWG 18 with connector shell 6-pole Molex 39-01-2065 with female terminal 39-00-0059
3.1	PE (yellow-green)
3.2	N (blue)
3.3	L (black)
4	Connection line PVC AWG 22 with connector shell 4-pole Molex 39-01-2045 with Molex female terminal 39-00-0059
4.1	0-10V (yellow)
4.2	Tach output (white)
4.3	+10 VDC (red)
4.4	GND (blue)

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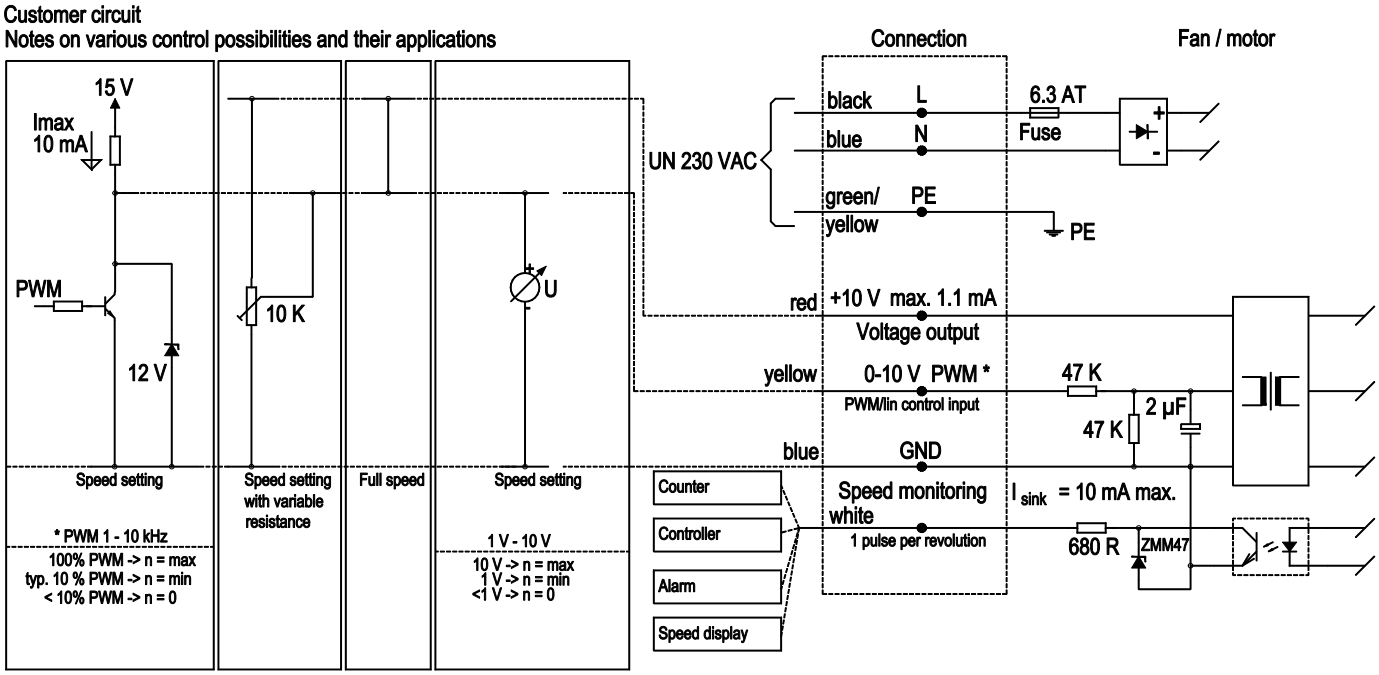
Connection screen



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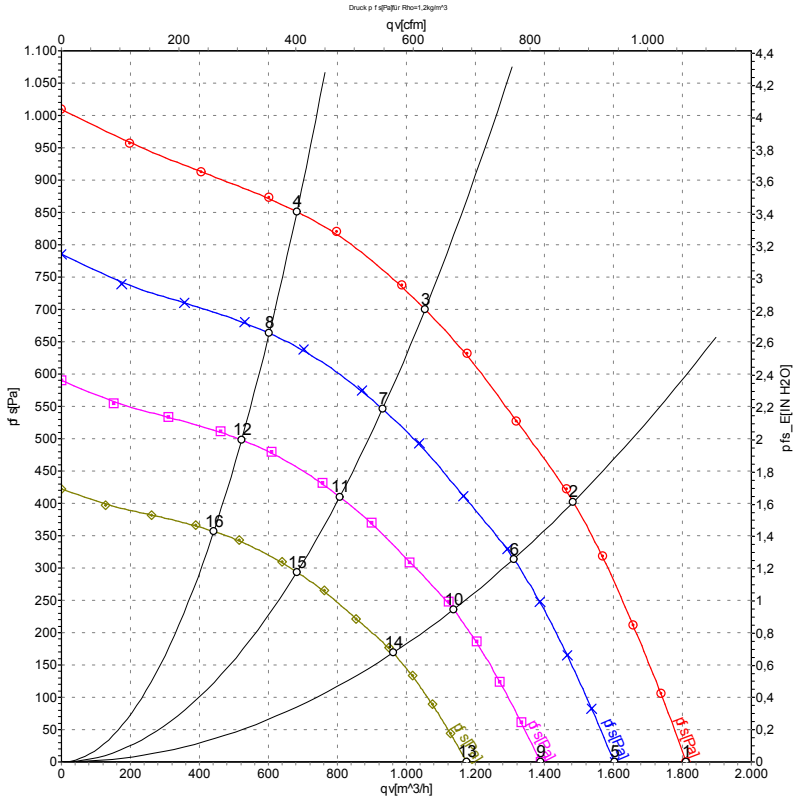
Charts: Air flow 50 Hz



Measurement: LU-130950

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	3400	302	1.98	1810	0
2	230	50	3400	360	2.36	1485	400
3	230	50	3400	385	2.50	1055	700
4	230	50	3400	346	2.27	680	850
5	230	50	3000	209	1.37	1605	0
6	230	50	3000	249	1.63	1310	315
7	230	50	3000	262	1.71	930	546
8	230	50	3000	238	1.56	600	663
9	230	50	2600	136	0.89	1390	0
10	230	50	2600	162	1.06	1135	237
11	230	50	2600	171	1.11	805	410
12	230	50	2600	155	1.01	520	498
13	230	50	2200	83	0.54	1175	0
14	230	50	2200	98	0.64	960	170
15	230	50	2200	103	0.67	685	294
16	230	50	2200	94	0.61	440	357

U = Supply voltage · f = Frequency · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase