R3G250-RO06-71

EC centrifugal fan - RadiCal

backward-curved

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Nominal data

Type	**R3G250-RO06-71**
Motor	**M3G084-DF**

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

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

Data according to Commission Regulation (EU) 327/2011 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	57.2	47
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		72.2	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.37
09 Air flow q_v	m^3/h	1055
09 Pressure increase p_{fs}	Pa	652
10 Speed (rpm) n	min^{-1}	3390
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

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

LU-172693

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

Weight	3.9 kg
Size	250 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
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	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE; UKCA
Approval	CCC; EAC; UL 1004-3 + 60730-1; CSA C22.2 No. 77 + CAN/CSA-E60730-1

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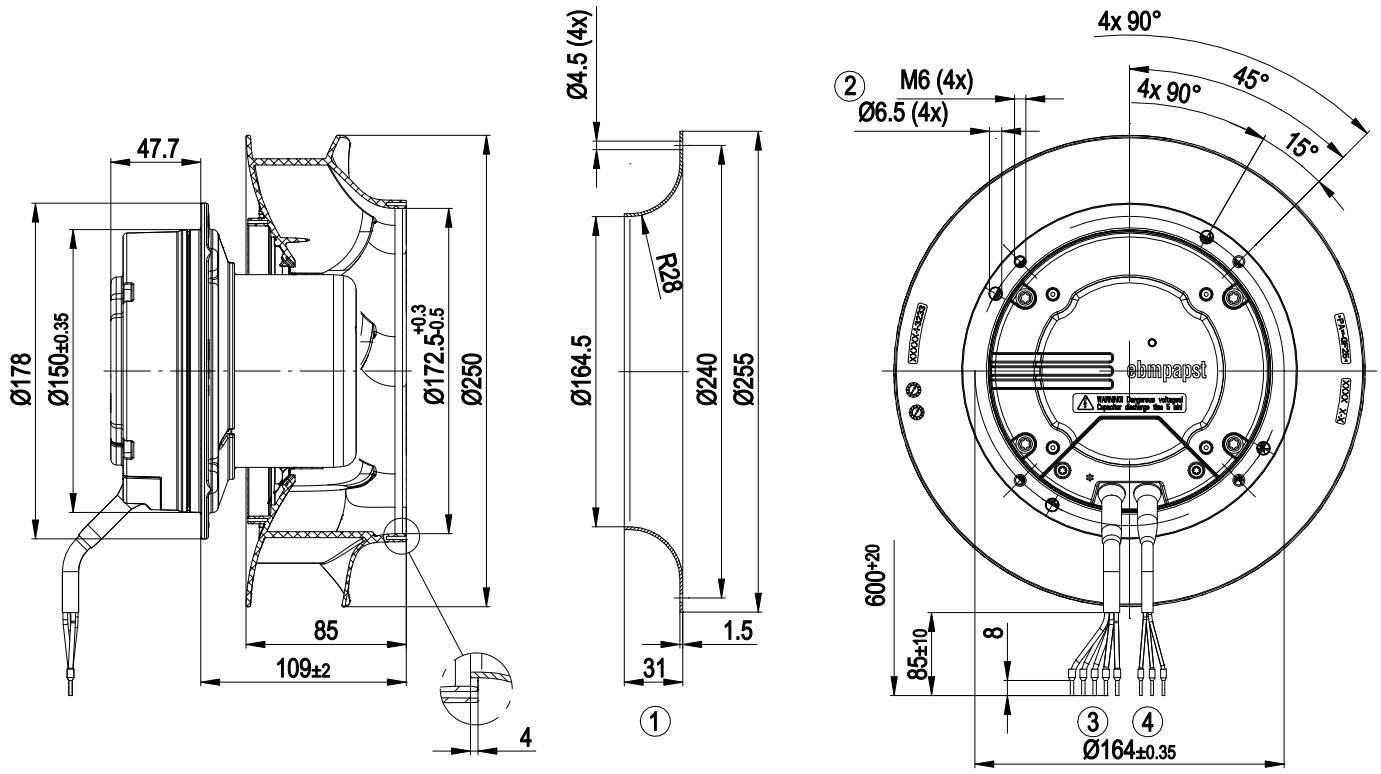
Product drawing



1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG18, 5x crimped ferrules
4	Cable PVC AWG22, 3x crimped ferrules

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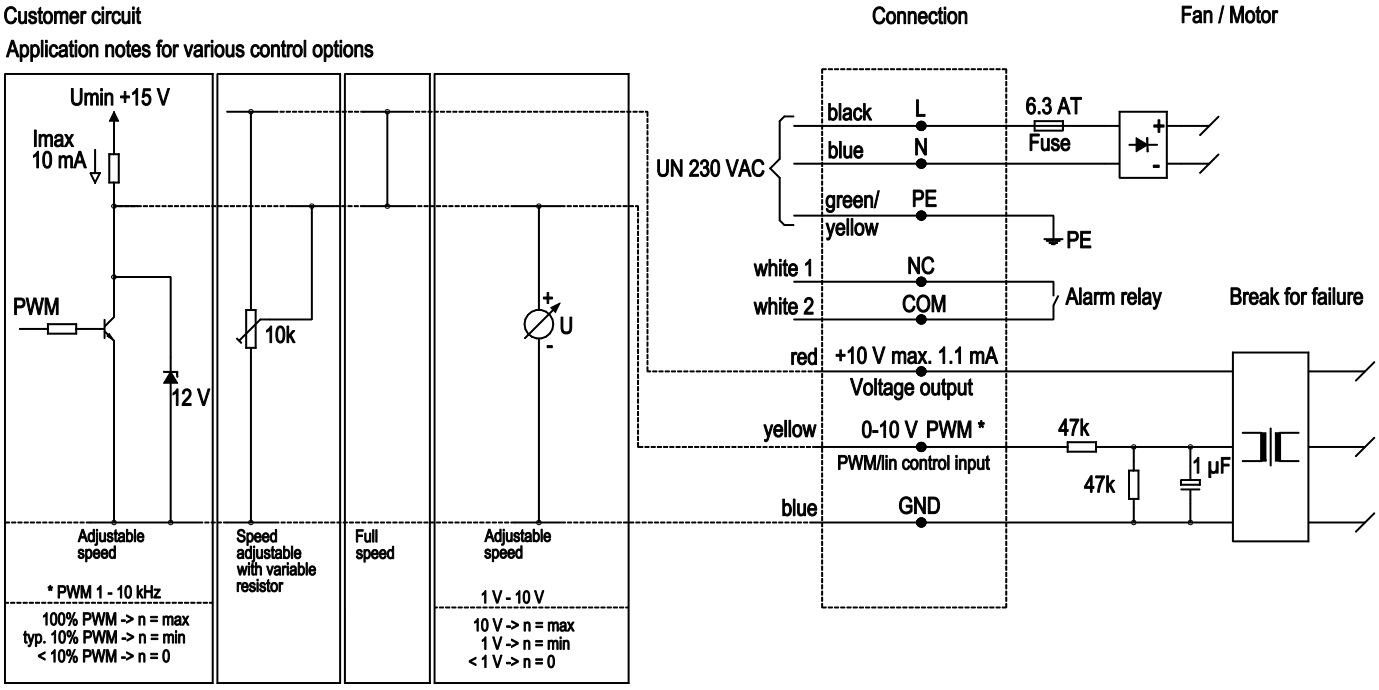
Connection diagram



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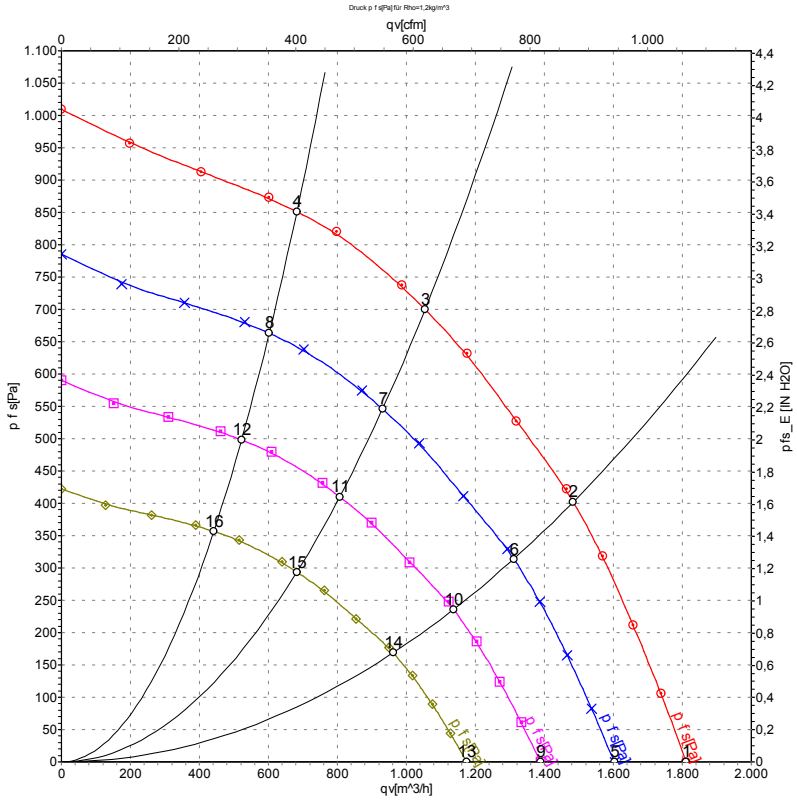
Curves: Air performance 50 Hz



Measurement: LU-130950-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	3400	302	1.98	1810	0	1065	0.00
2	230	50	3400	360	2.36	1485	400	875	1.61
3	230	50	3400	385	2.50	1055	700	620	2.81
4	230	50	3400	346	2.27	680	850	400	3.41
5	230	50	3000	209	1.37	1605	0	945	0.00
6	230	50	3000	249	1.63	1310	315	770	1.26
7	230	50	3000	262	1.71	930	546	550	2.19
8	230	50	3000	238	1.56	600	663	355	2.66
9	230	50	2600	136	0.89	1390	0	820	0.00
10	230	50	2600	162	1.06	1135	237	670	0.95
11	230	50	2600	171	1.11	805	410	475	1.65
12	230	50	2600	155	1.01	520	498	305	2.00
13	230	50	2200	83	0.54	1175	0	690	0.00
14	230	50	2200	98	0.64	960	170	565	0.68
15	230	50	2200	103	0.67	685	294	400	1.18
16	230	50	2200	94	0.61	440	357	260	1.43

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

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