R3G250-RO40-78

EC centrifugal fan - RadiCal

backward-curved, single-intake

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Nominal data

Type	**R3G250-RO40-78**
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}	3370
Power consumption	W	380
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}	%	57.7	47.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		72.6	62
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.37
09 Air flow q_v	m^3/h	1200
09 Pressure increase p_{fs}	Pa	585
10 Speed (rpm) n	min^{-1}	3390
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-177204

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Technical description

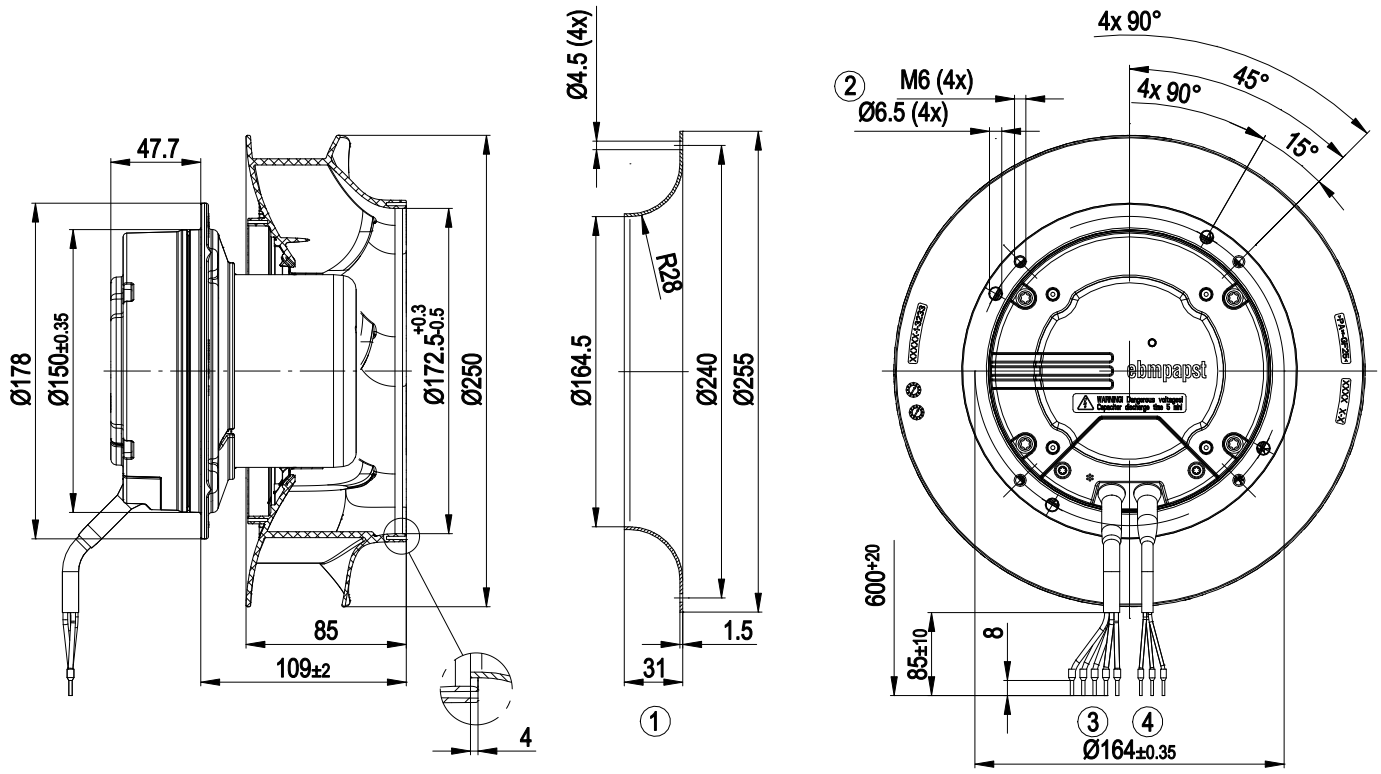
Weight	3.8 kg
Size	250 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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 the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
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
Approval	EAC

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Product drawing



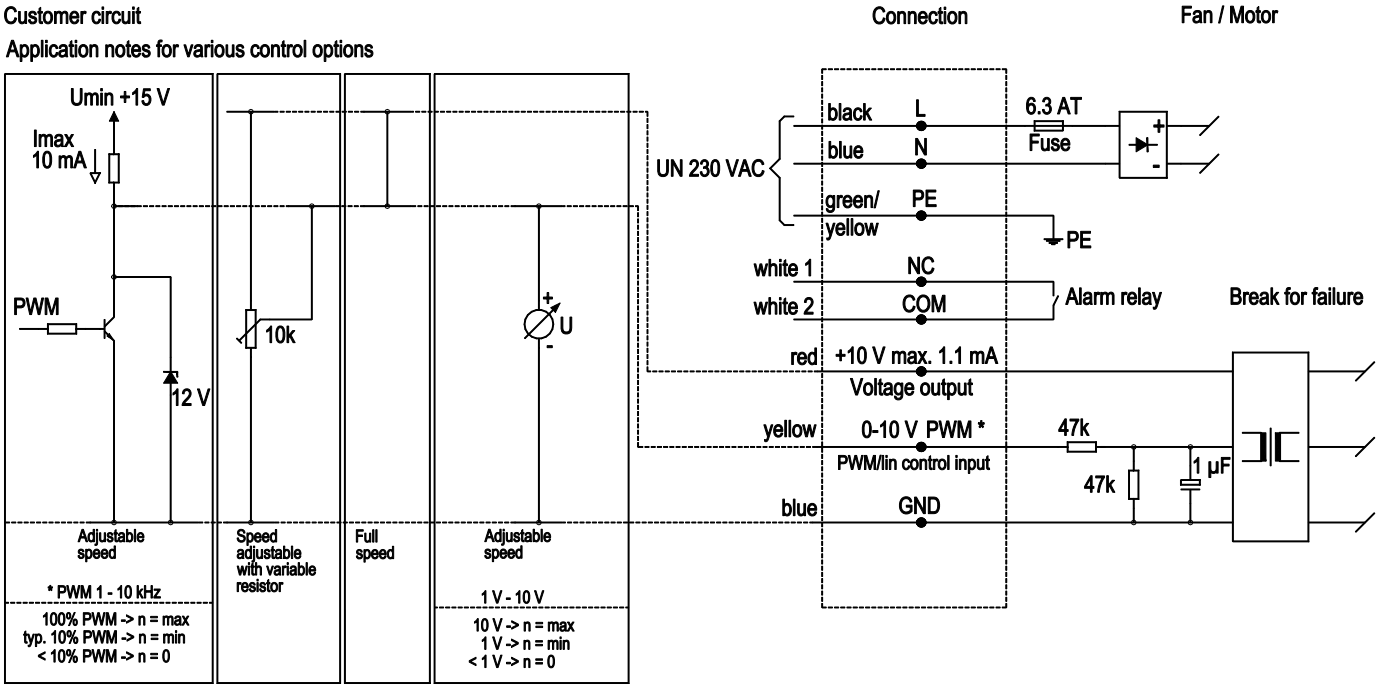
1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Max. clearance for screw 10 mm
3	Cable PVC AWG 18, 5x crimped ferrules
4	Cable PVC AWG 22, 3x crimped ferrules

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Connection diagram

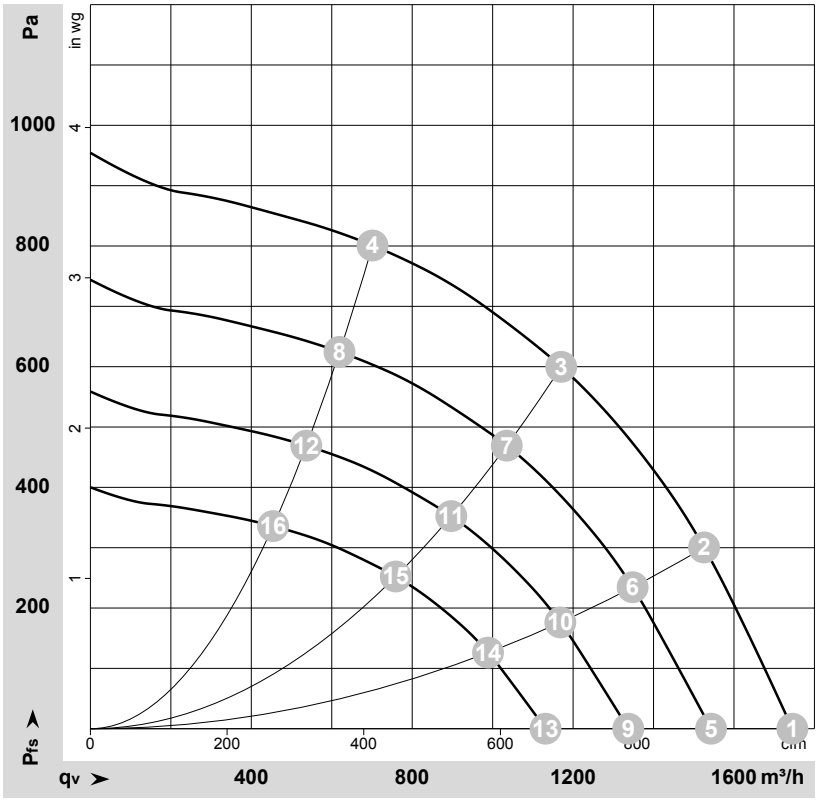


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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-177204-1

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	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
1	230	50	3370	304	1.98	76	84	1745	0	1025	0.00
2	230	50	3370	339	2.21	72	79	1525	300	900	1.20
3	230	50	3370	380	2.50	67	75	1170	600	690	2.41
4	230	50	3370	344	2.24	71	80	700	800	415	3.21
5	230	50	3000	210	1.37	73	81	1545	0	910	0.00
6	230	50	3000	234	1.53	69	76	1350	238	795	0.96
7	230	50	3000	261	1.70	64	72	1035	470	610	1.89
8	230	50	3000	237	1.54	68	76	620	625	365	2.51
9	230	50	2600	137	0.89	70	77	1335	0	785	0.00
10	230	50	2600	152	0.99	65	73	1170	179	685	0.72
11	230	50	2600	170	1.11	61	68	895	353	530	1.42
12	230	50	2600	154	1.00	65	73	535	469	315	1.88
13	230	50	2200	83	0.54	65	73	1130	0	665	0.00
14	230	50	2200	92	0.60	61	69	990	128	580	0.51
15	230	50	2200	103	0.67	57	64	760	253	445	1.02
16	230	50	2200	93	0.61	60	69	455	336	265	1.35

U = Voltage · 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

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