R3G250-RO40-78

EC centrifugal fan - RadiCal

backward curved, single inlet

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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
Type of data definition		ml
Speed (rpm)	min^{-1}	3370
Power input	W	380
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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	57.7	34.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		66.8	44
05 Variable speed drive		Yes	

09 Power input 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 definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-177204

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Technical features

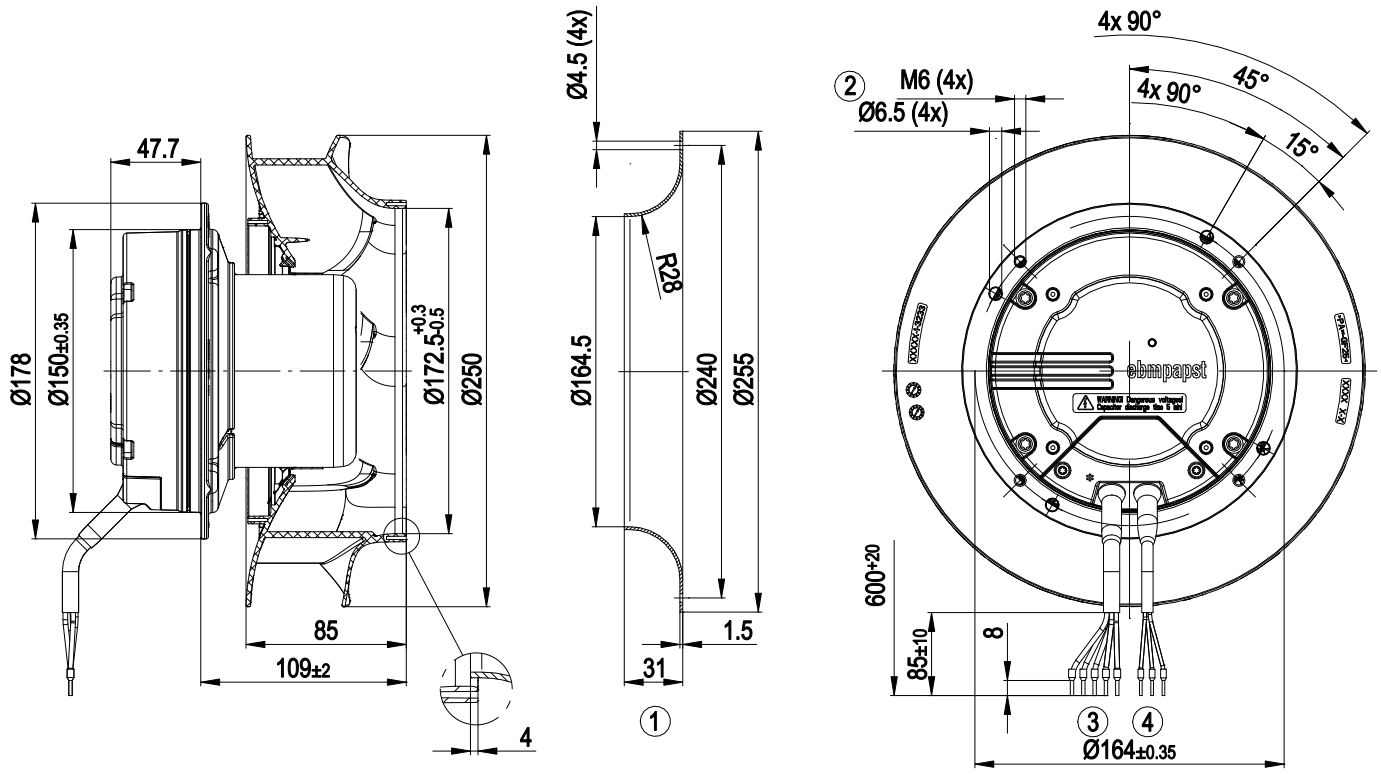
Mass	3.9 kg
Size	250 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	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 - Alarm relay - 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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
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	EAC

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Product drawing



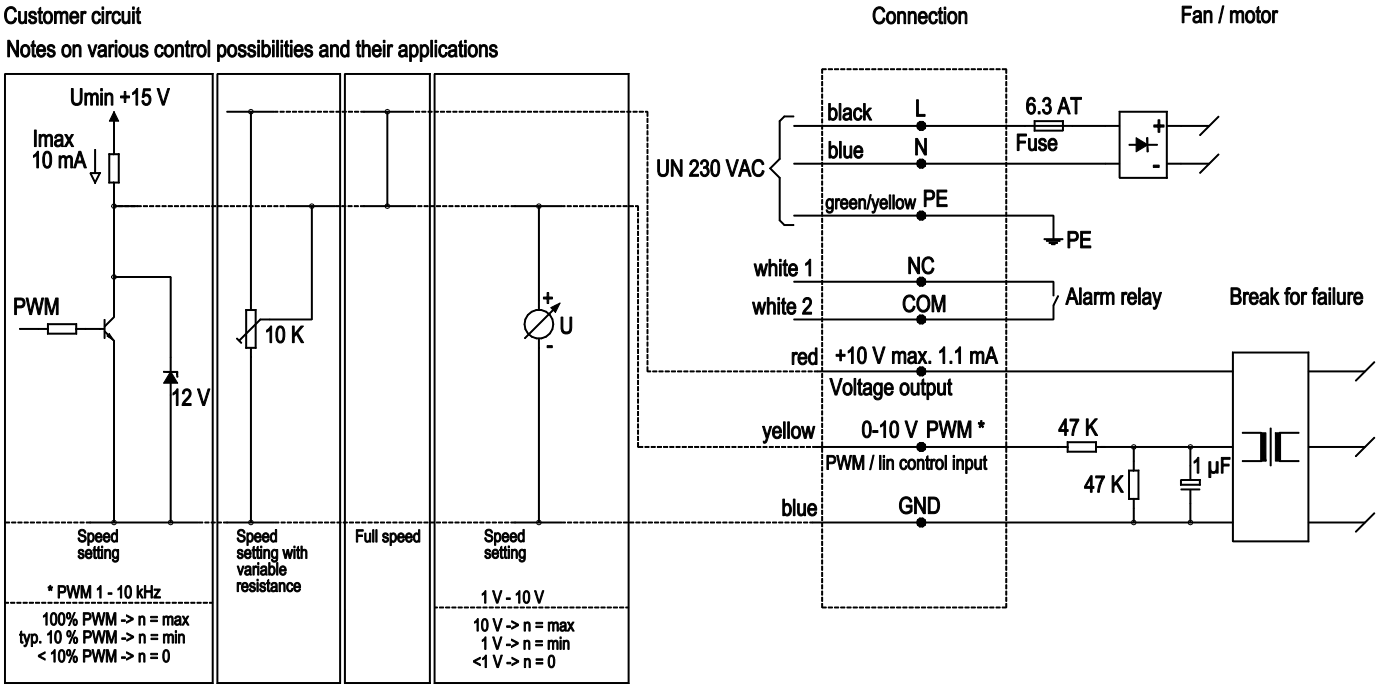
1	Accessory part: Inlet nozzle 96359-2-4013 not included in scope of delivery
2	Thread reach max. 10 mm
3	Connection line PVC AWG 18, 5x crimped core-end sleeves
4	Connection line PVC AWG 22, 3x crimped core-end sleeves

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Connection screen

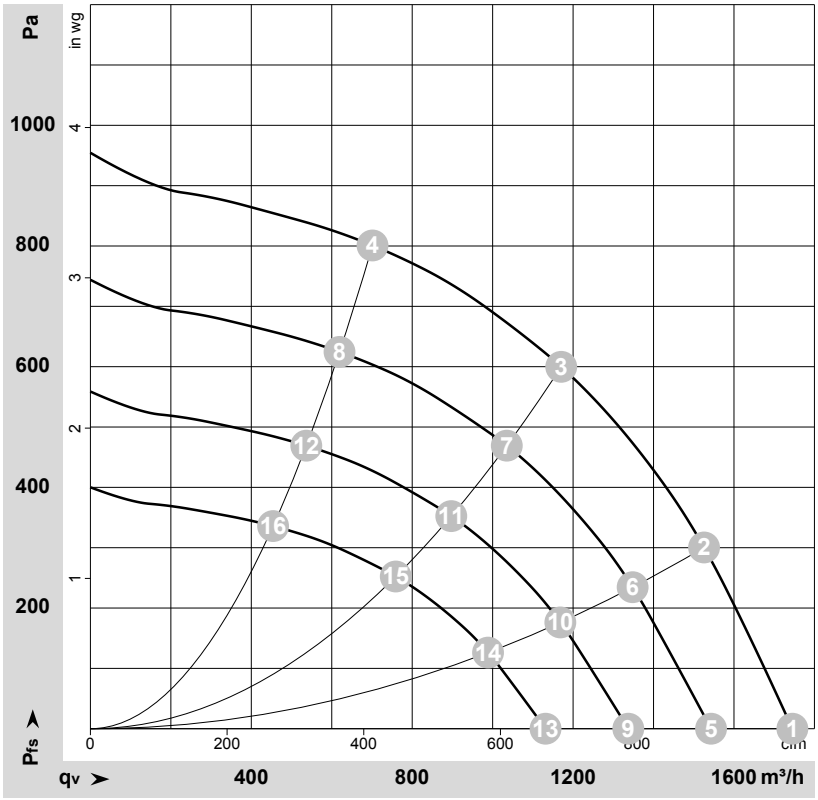


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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-177204-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
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 = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

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