R3G250-RO26-93

EC centrifugal fan - RadiCal

backward curved, single inlet

for railway applications

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Nominal data

Type	**R3G250-RO26-93**	
Motor	**M3G084-DF**	
Nominal voltage	VDC	110
Nominal voltage range	VDC	77 .. 145
Type of data definition		ml
Speed (rpm)	min-1	3260
Power input	W	360
Current draw	A	3.3
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

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Technical features

Mass	4.1 kg
Size	250 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
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)	F4-1
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; (sealed)
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - Run monitoring - 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 - Over-temperature protected motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
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

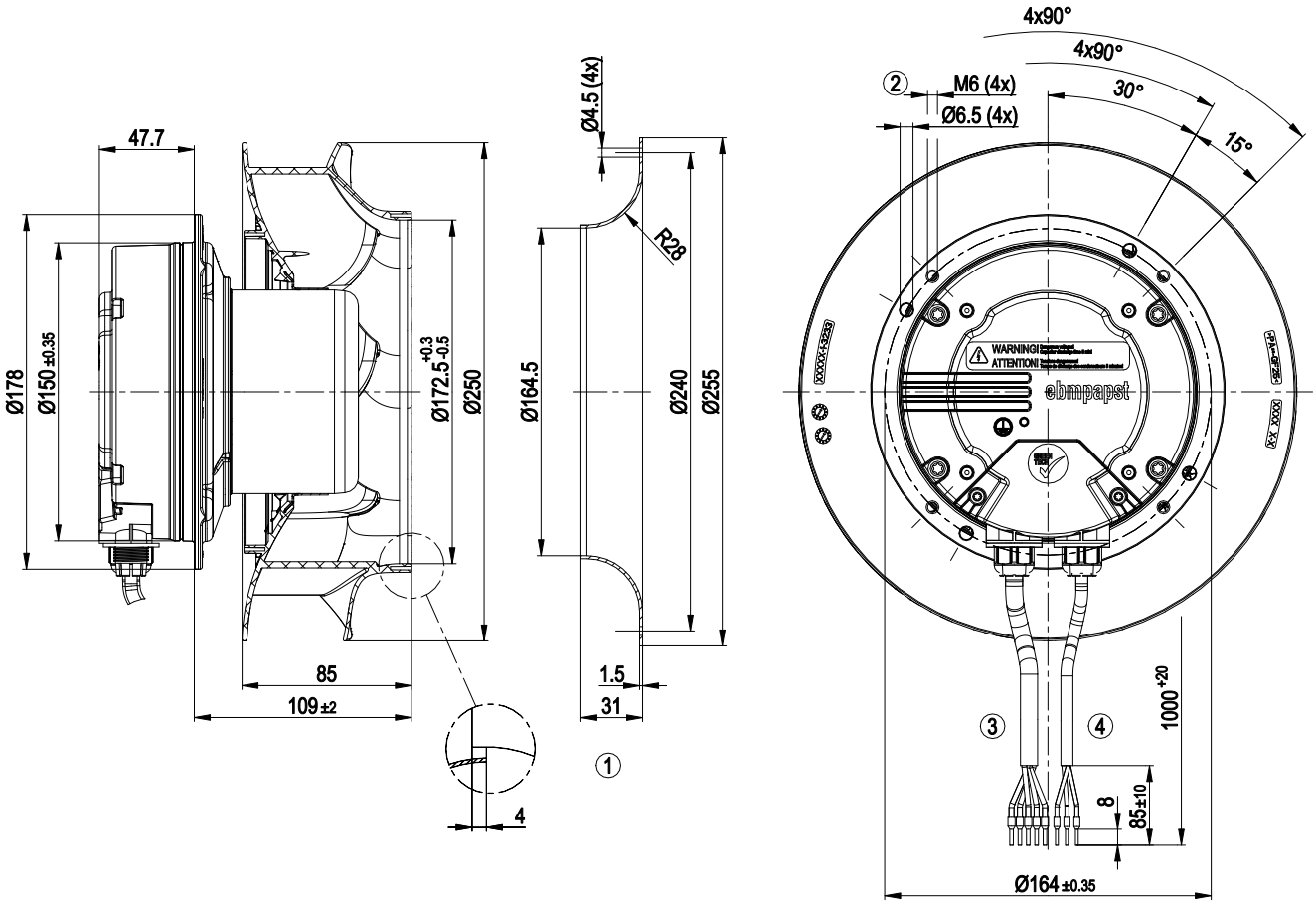
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Product drawing



1	Accessory part: inlet nozzle 96359-2-4013 not included in scope of delivery
2	Depth of screw max. 10 mm
3	Connection line halogen-free, XLPE / XLPO 5G 1.00 mm², 5x crimped core-end sleeves
4	Connection line halogen-free, XLPE / XLPO 3x 0.33 mm², 3x crimped core-end sleeves

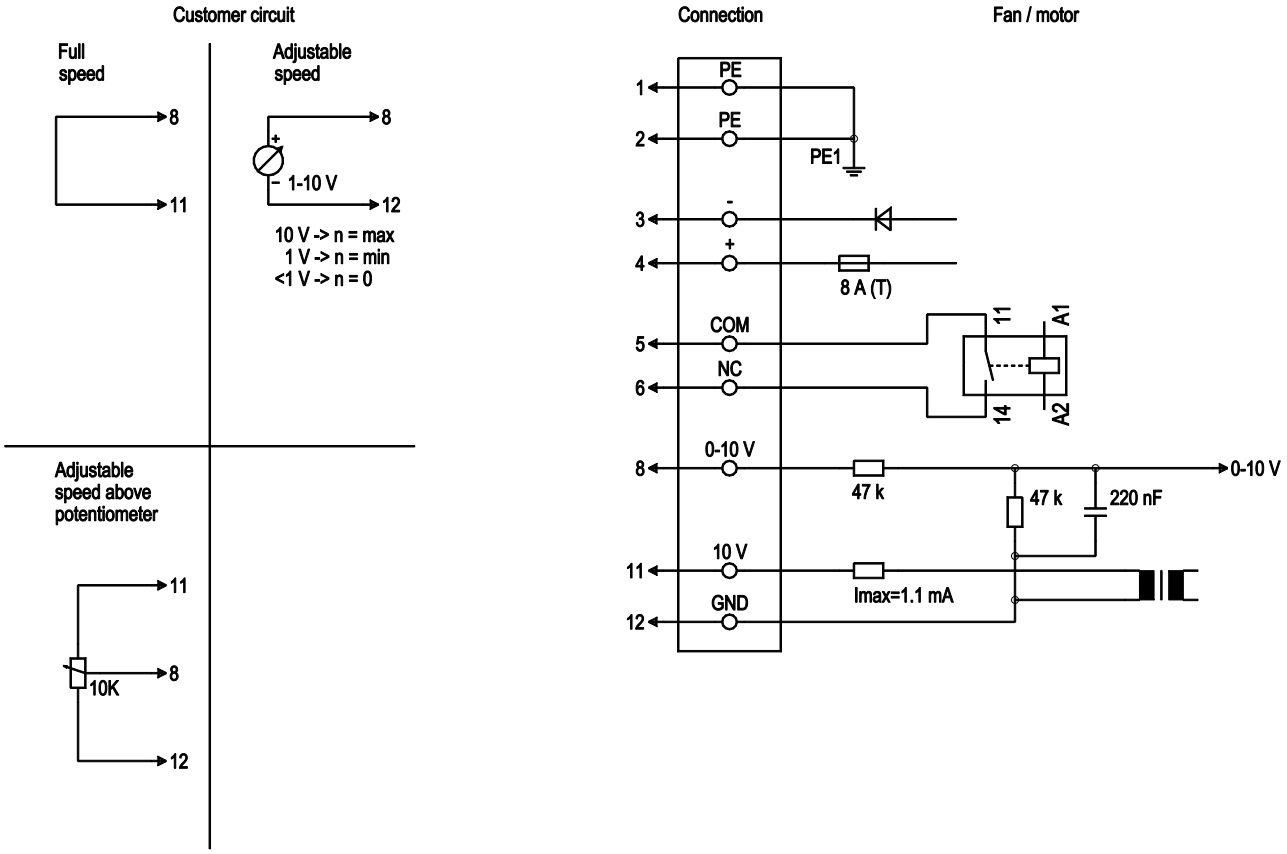
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	-	blue	Supply voltage, GND (110 VDC)
1	4	+	red	Supply voltage, 110 VDC
1	5	COM	white 1	Floating status contact, normally closed for error (0.6 A-110 VDC, 1 A-80 VDC, 3 A-30 VDC)
1	6	NC	white 2	Floating status contact, normally closed for run monitor error message
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	11	10 VDC	red	Voltage output 10 VDC (+/-3%), max. 1.1 mA, power supply for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Signal ground for control interface, SELV

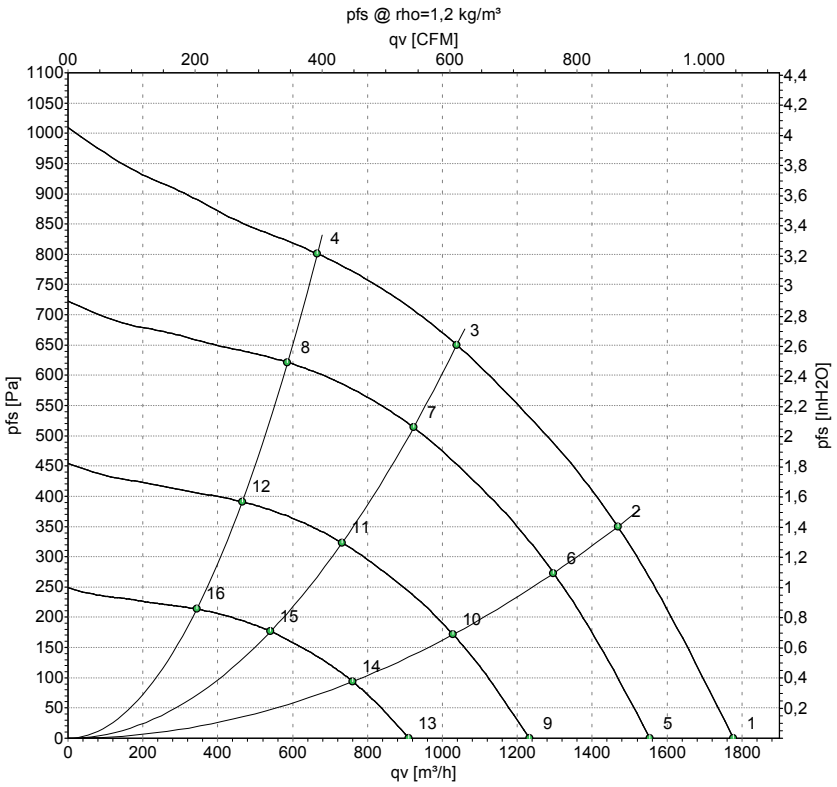
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Charts: Air flow



Measurement: LU-152196-1

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	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	110	3320	281	2.54	73	81	1780	0	1045	0.00
2	110	3285	329	2.97	68	76	1470	350	865	1.41
3	110	3260	360	3.30	66	74	1040	650	610	2.61
4	110	3290	323	2.92	70	79	665	800	390	3.21
5	110	2900	188	1.70	70	78	1555	0	915	0.00
6	110	2900	227	2.05	65	73	1295	274	765	1.10
7	110	2900	246	2.22	63	71	925	515	545	2.07
8	110	2900	221	2.00	67	76	585	621	345	2.49
9	110	2300	94	0.85	64	72	1230	0	725	0.00
10	110	2300	113	1.02	59	67	1030	172	605	0.69
11	110	2300	122	1.11	57	65	730	324	430	1.30
12	110	2300	110	1.00	61	70	465	391	275	1.57
13	110	1700	38	0.34	56	64	910	0	535	0.00
14	110	1700	46	0.41	52	60	760	94	445	0.38
15	110	1700	49	0.45	49	58	540	177	320	0.71
16	110	1700	45	0.40	54	63	345	214	200	0.86

U = Supply voltage · 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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