R1G250-RA05-12

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R1G250-RA05-12**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
Speed	min^{-1}	2400
Power input	W	105
Current draw	A	2.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+65

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

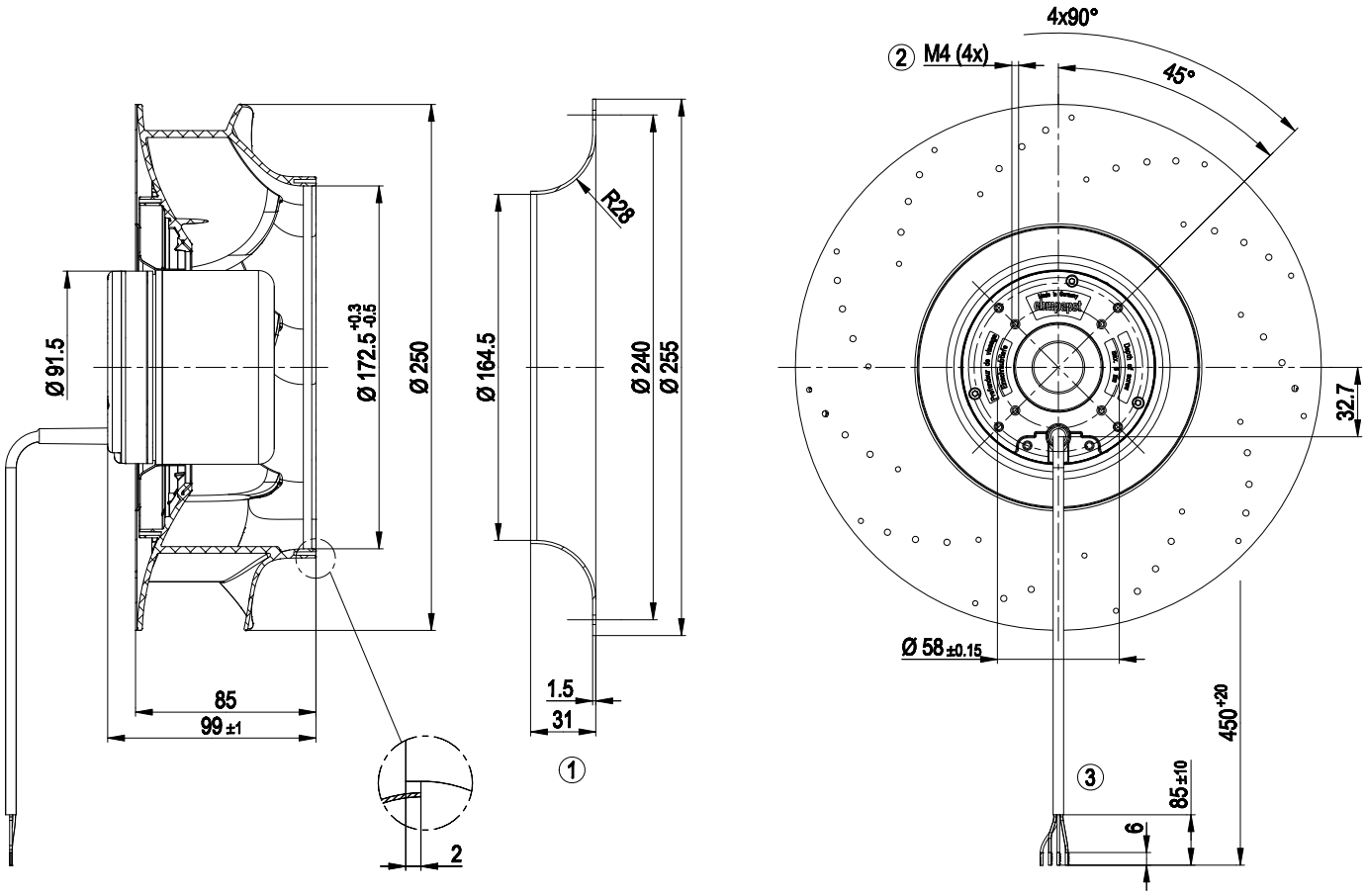
Mass	2.1 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, coated in black
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F4-2
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	UL 1004-1; CSA C22.2 Nr.77

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Product drawing



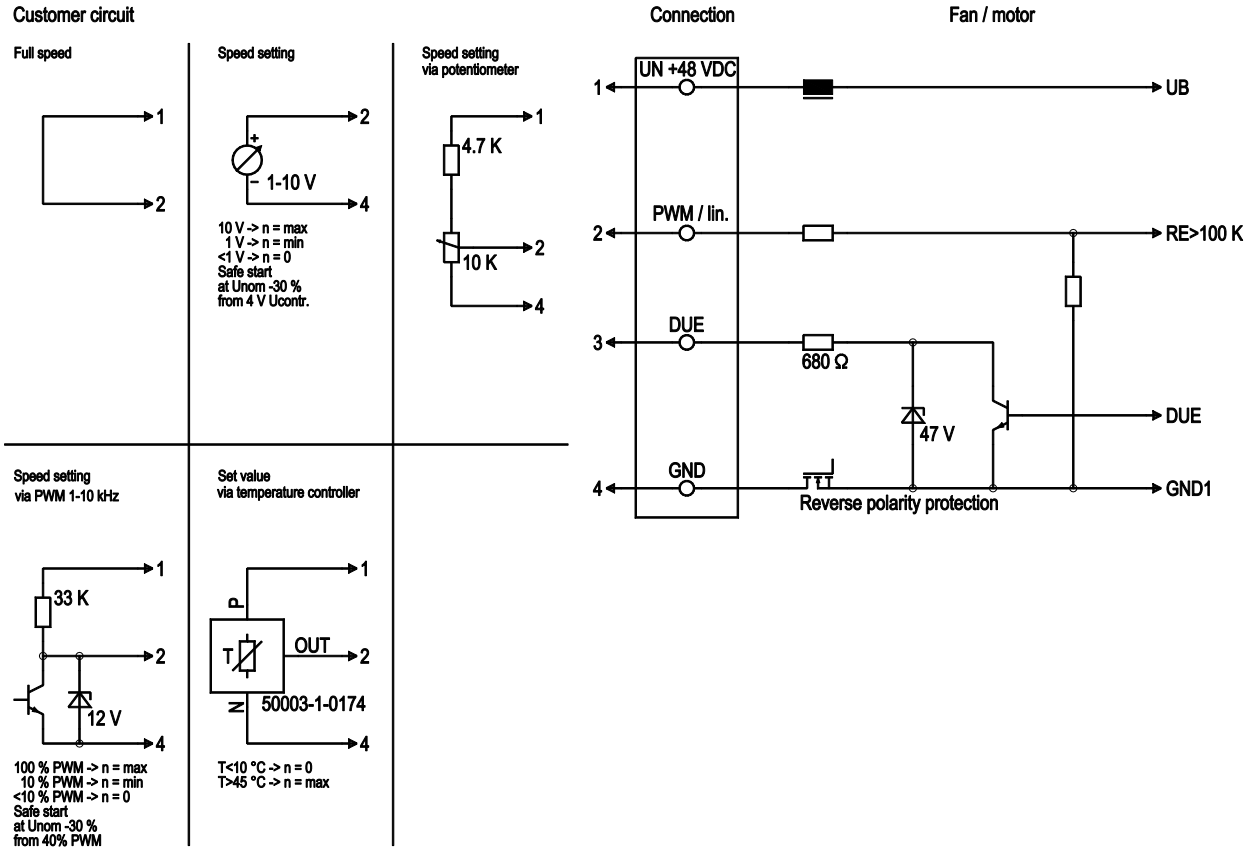
1	Accessory part: Inlet nozzle 96359-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Connection line PVC AWG20, 4x brass lead tips crimped

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Connection screen



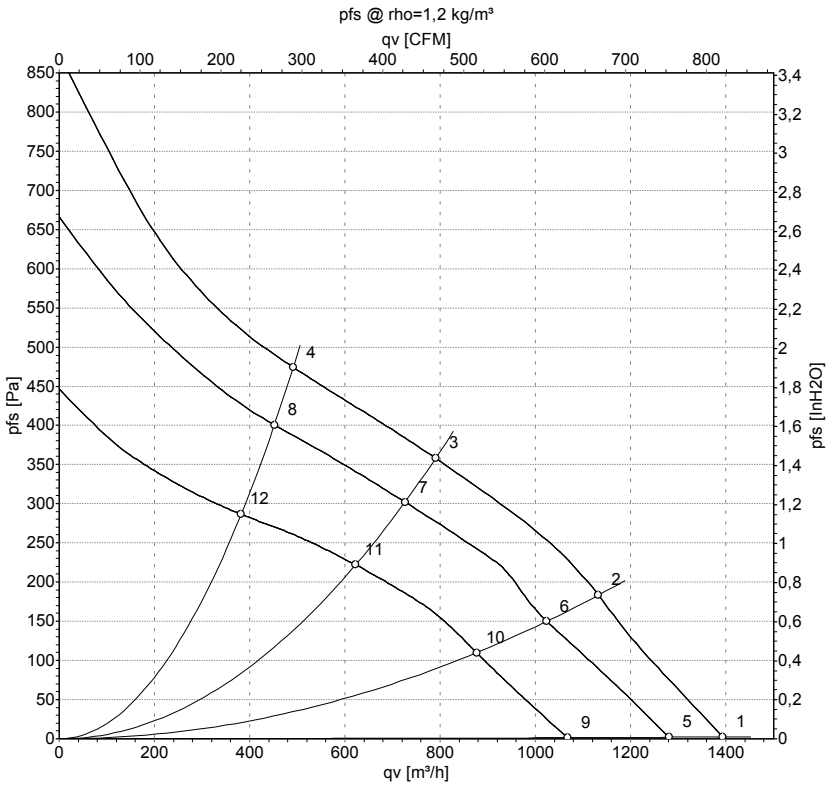
Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin. control input, 0-10 V
1	3	Tach	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-143123
Measurement: LU-143035
Measurement: LU-143107

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	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa
1	60	2665	139	2.76	1395	0
2	60	2525	142	2.90	1130	184
3	60	2455	145	2.99	790	358
4	60	2550	141	2.86	490	474
5	48	2400	105	2.40	1280	0
6	48	2275	108	2.59	1025	150
7	48	2255	109	2.61	725	300
8	48	2340	107	2.53	450	400
9	36	2035	63	1.94	1065	0
10	36	1960	69	2.11	875	110
11	36	1940	70	2.16	620	222
12	36	1990	66	2.04	380	287

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

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