R1G220-AB13-12

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R1G220-AB13-12**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Type of data definition		fa
State		prelim.
Speed	min^{-1}	2750
Power input	W	70
Current draw	A	1.6
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

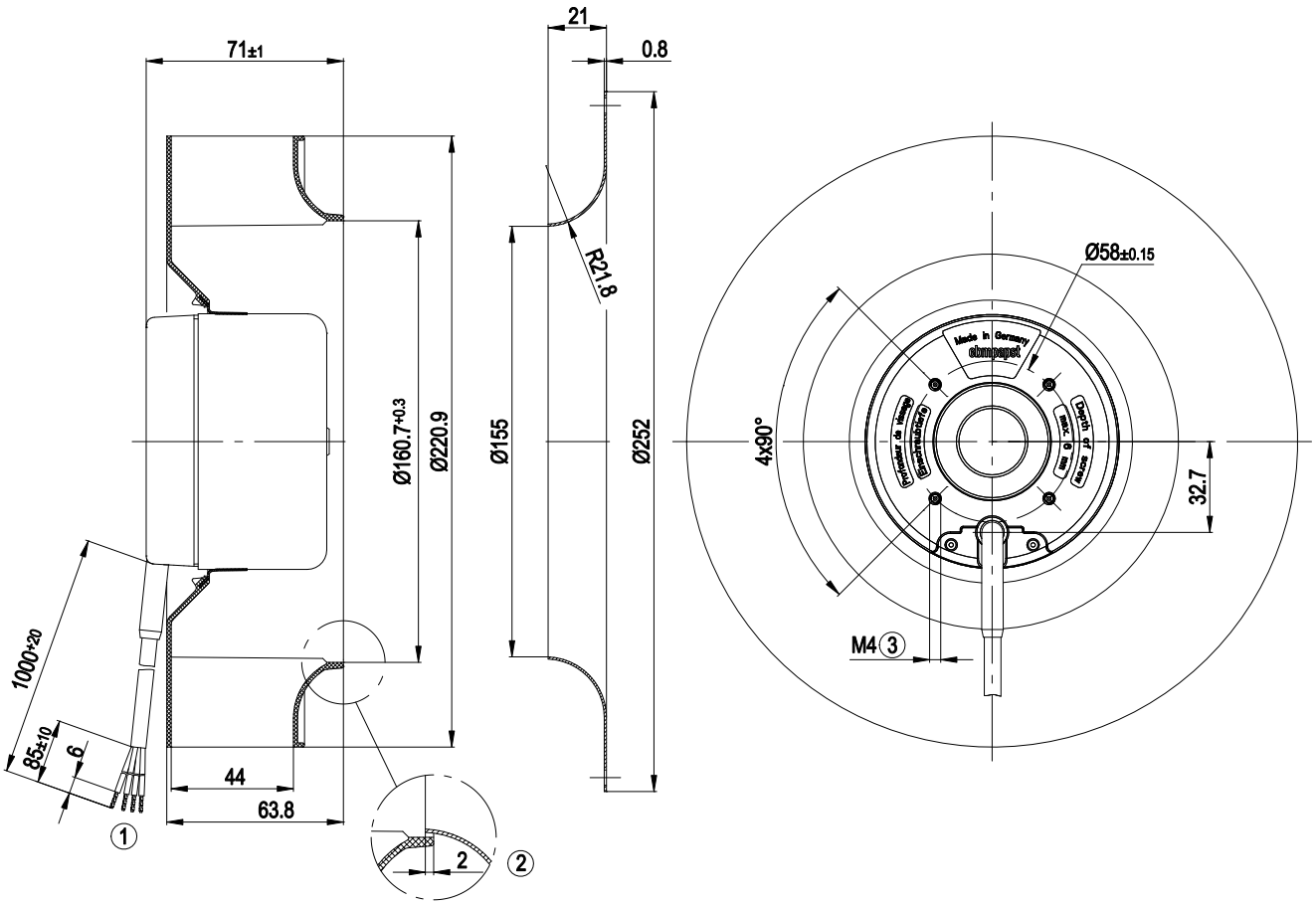
Mass	1.4 kg
Size	220 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible 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 - PWM control input
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



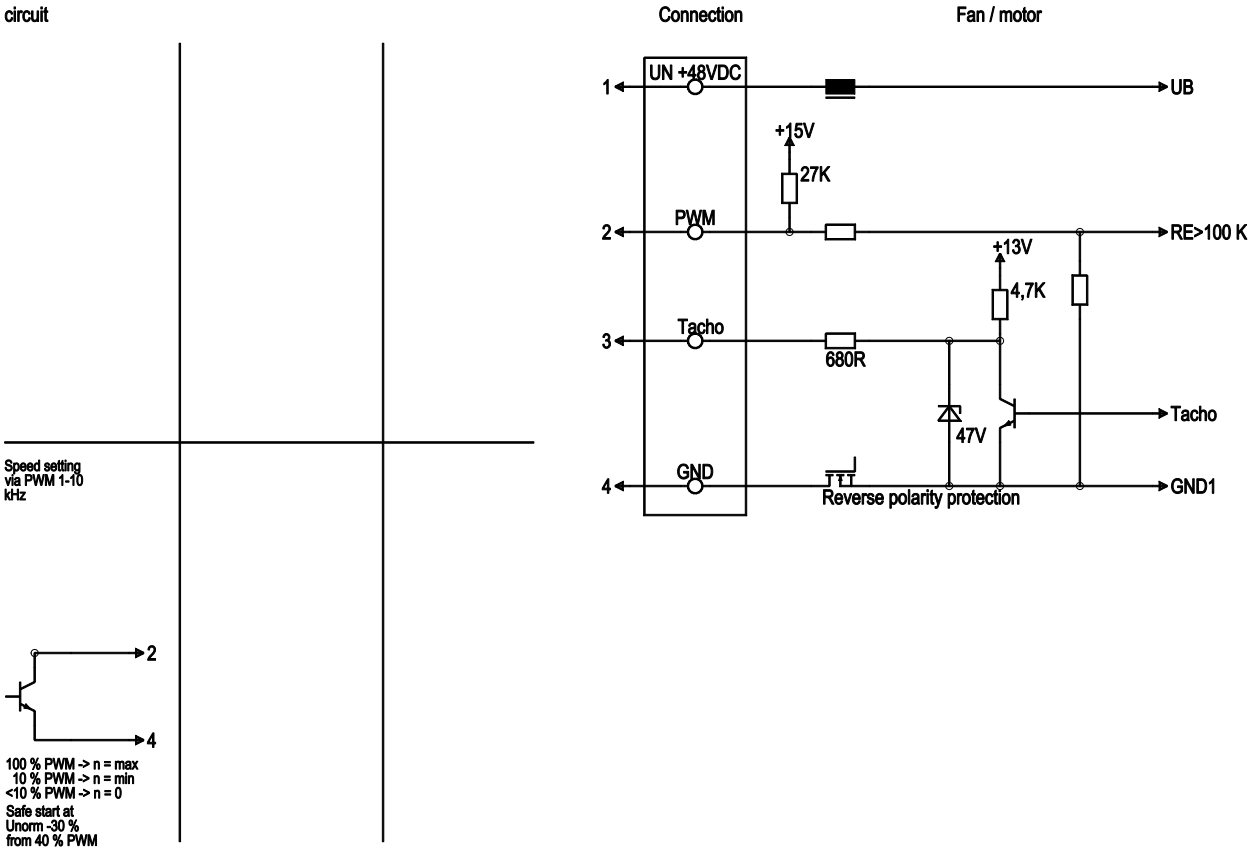
1	Connection line PVC AWG20, 4 x brass lead tips crimped
2	Accessory part: Inlet nozzle 09609-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

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Connection screen



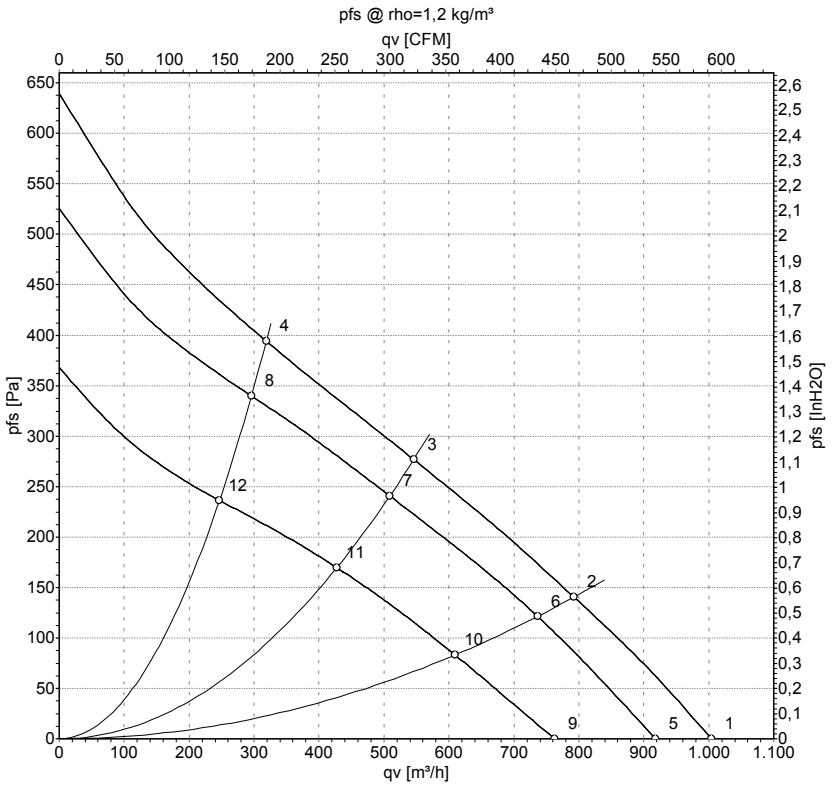
Line	No.	Signal	Colour	Function / assignment
	1	Un +48 VDC	red	Power supply 48 VDC, for voltage range refer to rating plate, residual ripple 3.5%
	2	PWM	black	PWM control input
	3	Tach	orange	Tacho output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	brown	Reference ground

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Charts: Air flow



Measurement: LU-47466
Measurement: LU-47465
Measurement: LU-47467

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	56	3005	90	1.80	1005	0
2	56	2815	94	1.93	790	140
3	56	2700	96	1.99	545	277
4	56	2795	95	1.94	320	394
5	48	2750	70	1.60	920	0
6	48	2605	75	1.75	735	120
7	48	2520	79	1.85	510	240
8	48	2590	75	1.76	295	340
9	36	2285	41	1.28	760	0
10	36	2175	45	1.40	610	83
11	36	2120	47	1.46	425	170
12	36	2180	45	1.39	245	236

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

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