R1G180-AT73-52

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R1G180-AT73-52**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 56
Type of data definition		fa
Speed	min-1	2950
Power input	W	106
Current draw	A	2.6
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

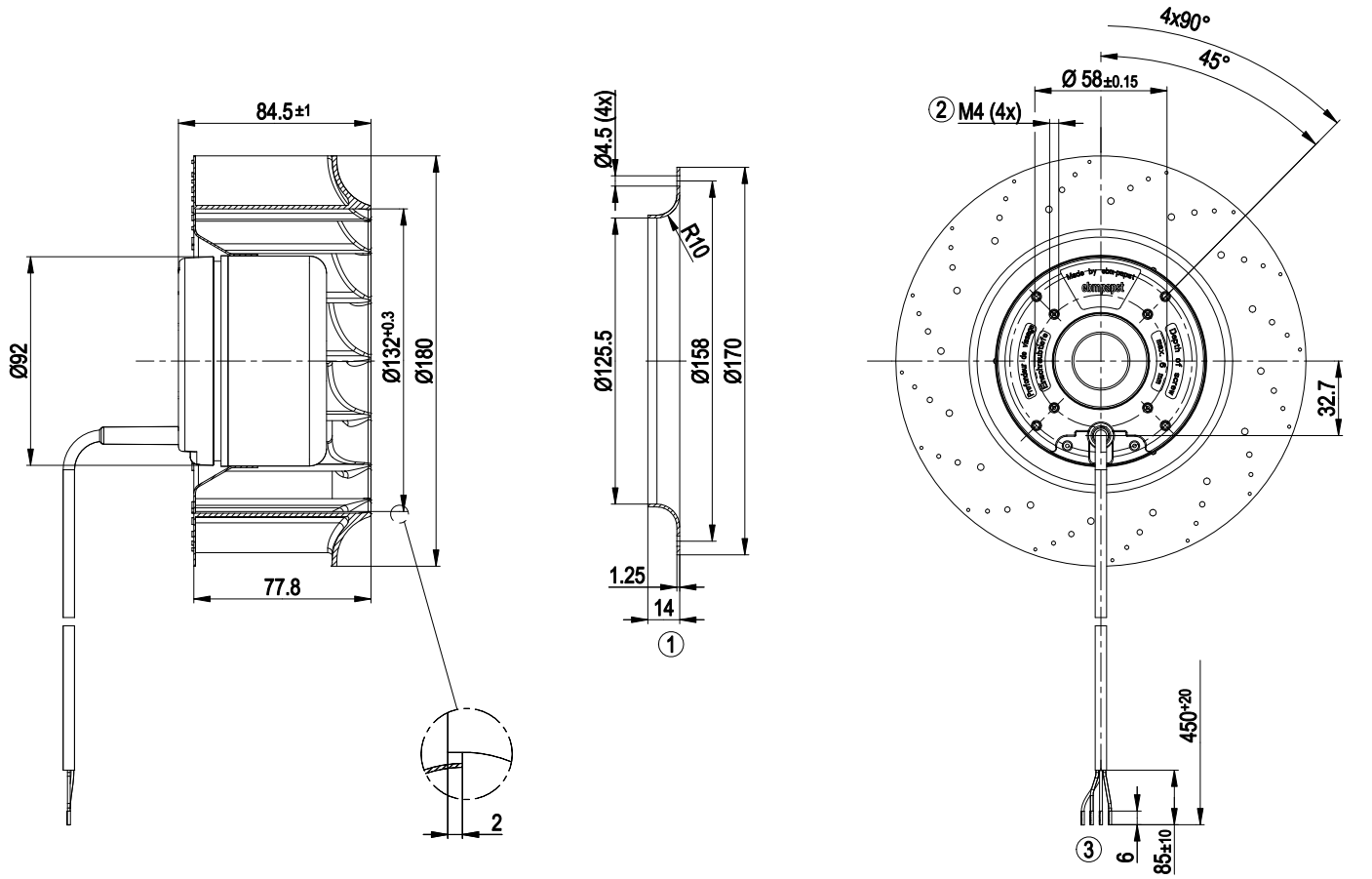
Mass	1.5 kg
Size	180 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient 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, household environment)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Approval	UL 1004-1; CSA C22.2 Nr.77

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Product drawing



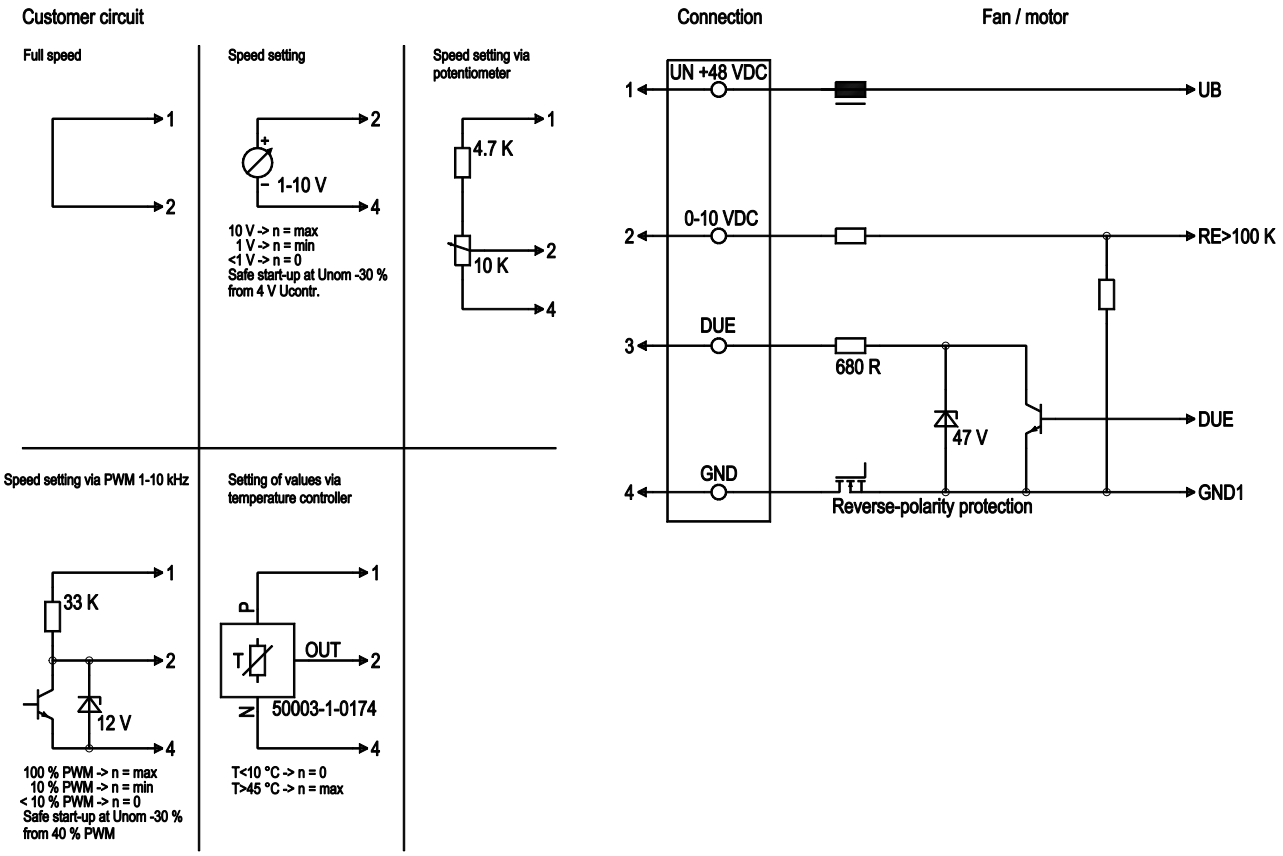
1	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery.
2	Depth of screw max. 6 mm
3	Connection line PVC AWG20, 4x brass lead tips crimped

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Connection screen



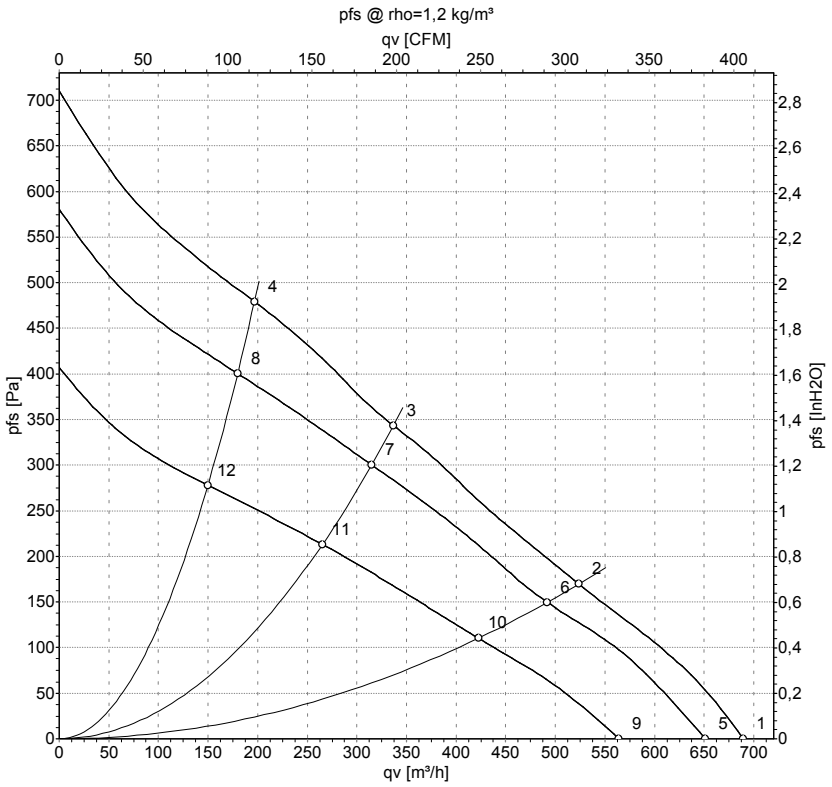
Line	No.	Signal	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100 K
1	3	Tach	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-47905
Measurement: LU-47904
Measurement: LU-47906

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	3125	127	2.79	690	0
2	56	3180	126	2.75	525	169
3	56	3520	120	2.51	335	343
4	56	3860	114	2.31	195	479
5	48	2950	106	2.60	650	0
6	48	2990	105	2.55	490	150
7	48	3290	99	2.33	315	300
8	48	3535	88	2.04	180	400
9	36	2555	69	2.14	565	0
10	36	2590	67	2.09	425	110
11	36	2770	59	1.83	265	214
12	36	2950	51	1.61	150	278

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

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