R1G220-AB35-52

EC centrifugal fan

backward-curved, single-intake



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Nominal data

Type	**R1G220-AB35-52**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3150
Power consumption	W	106
Current draw	A	5.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

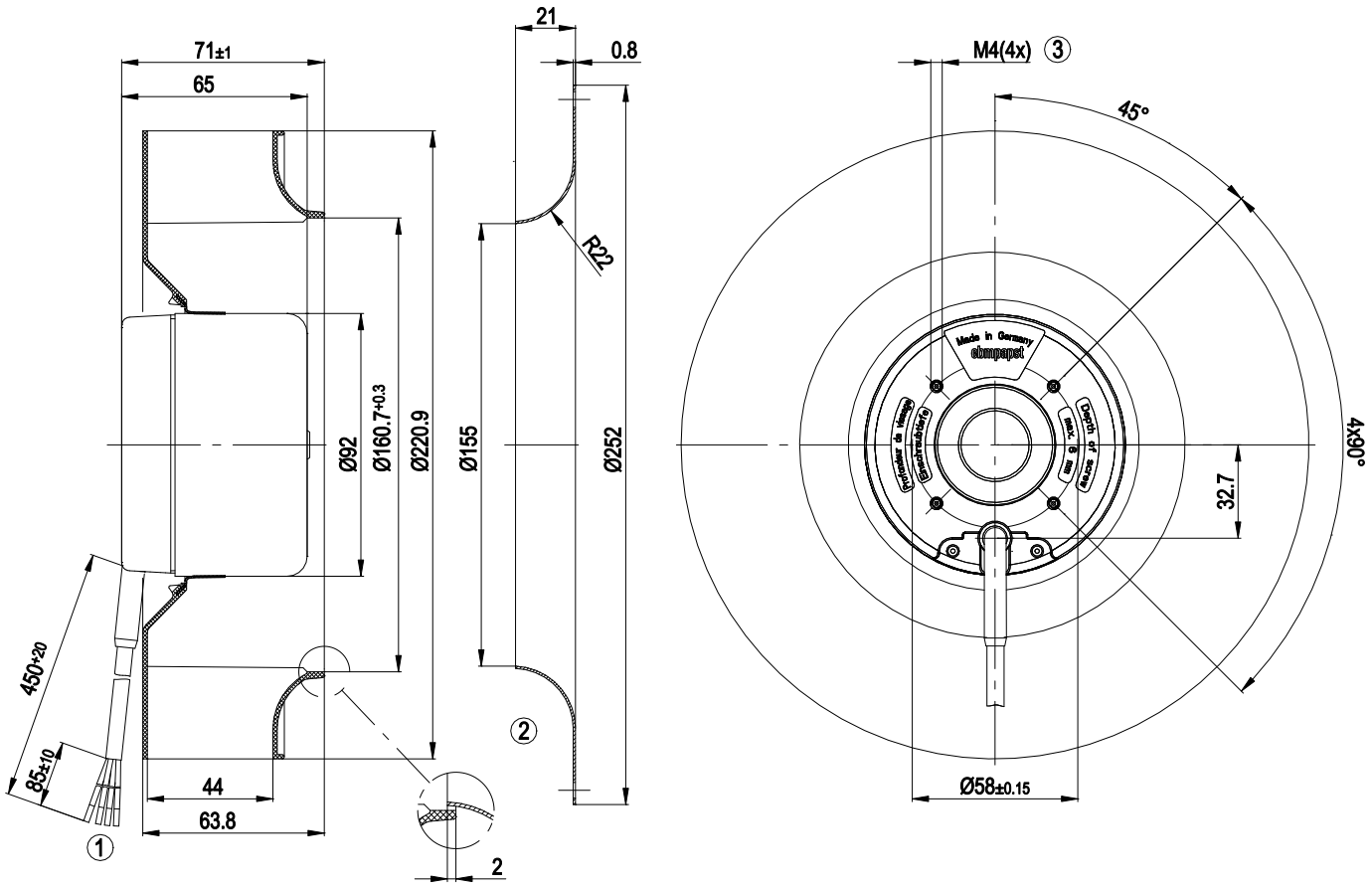
Weight	1.4 kg
Size	220 mm
Motor size	74
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor mounting	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limitation - Soft start
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Conformity with standards	EN 60950-1
Approval	EAC; UL 1004-1; CSA C22.2 No. 77

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Product drawing



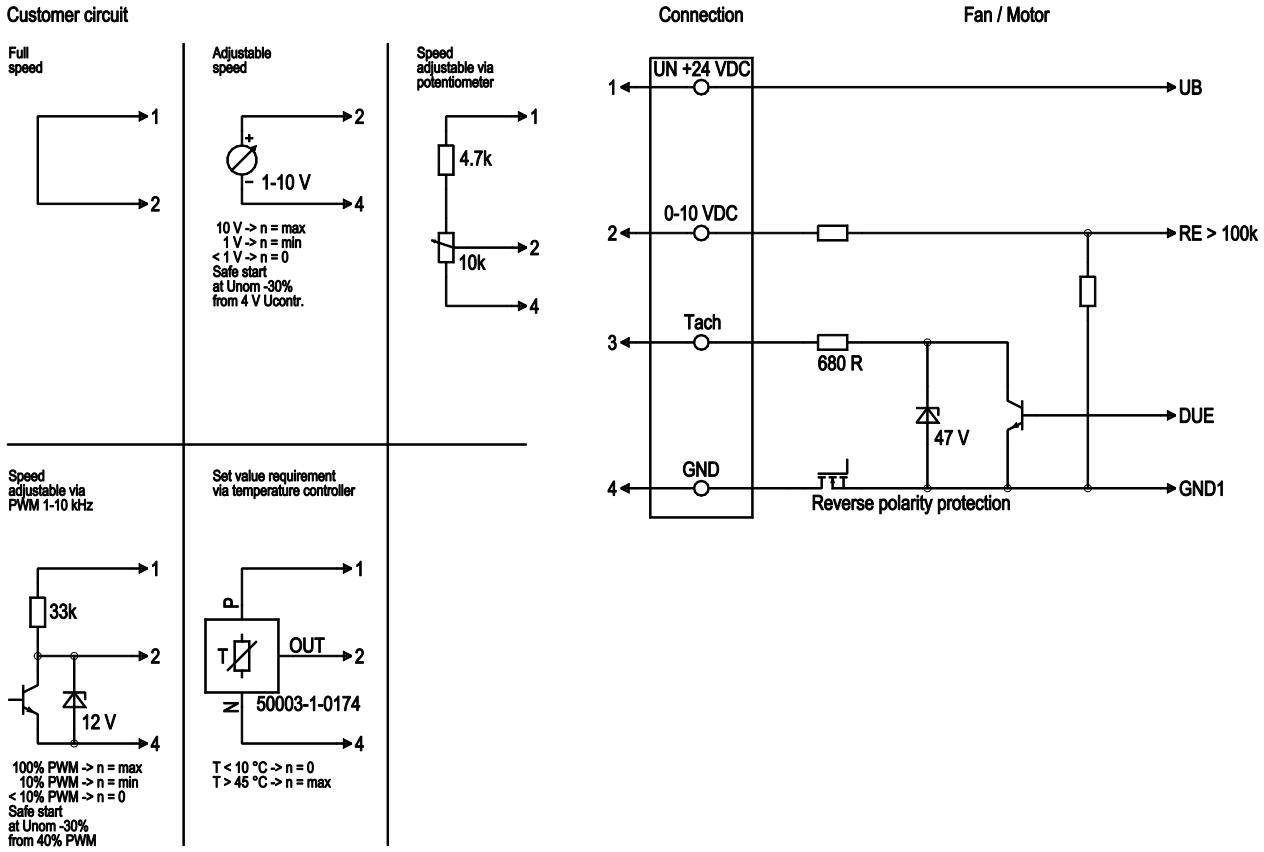
1	Cable AWG20, 4x crimped splices
2	Accessory part: inlet ring 09609-2-4013 not included in scope of delivery
3	Max. clearance for screw 6 mm

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Connection diagram



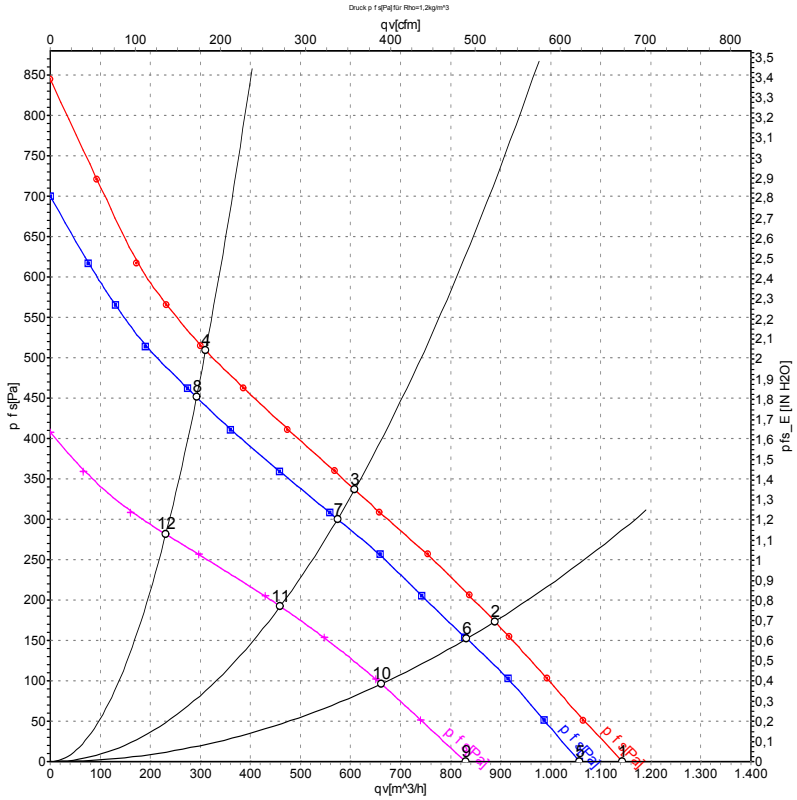
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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Curves: Air performance



Measurement: LU-48202-1
Measurement: LU-48200-1
Measurement: LU-48201-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	28	3405	129	5.33	1145	0	675	0.00
2	28	3135	134	5.71	890	173	525	0.69
3	28	2985	137	5.96	610	337	360	1.35
4	28	3175	133	5.63	310	508	180	2.04
5	24	3150	106	5.00	1055	0	620	0.00
6	24	2930	112	5.32	830	150	490	0.60
7	24	2810	114	5.52	575	300	340	1.20
8	24	2980	111	5.25	290	450	170	1.81
9	16	2460	50	3.50	830	0	490	0.00
10	16	2330	56	3.88	660	97	390	0.39
11	16	2260	59	4.11	460	192	270	0.77
12	16	2360	55	3.81	230	282	135	1.13

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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