R1G220-AB35-83

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	**R1G220-AB35-83**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed (rpm)	min^{-1}	3150
Power input	W	106
Current draw	A	5
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

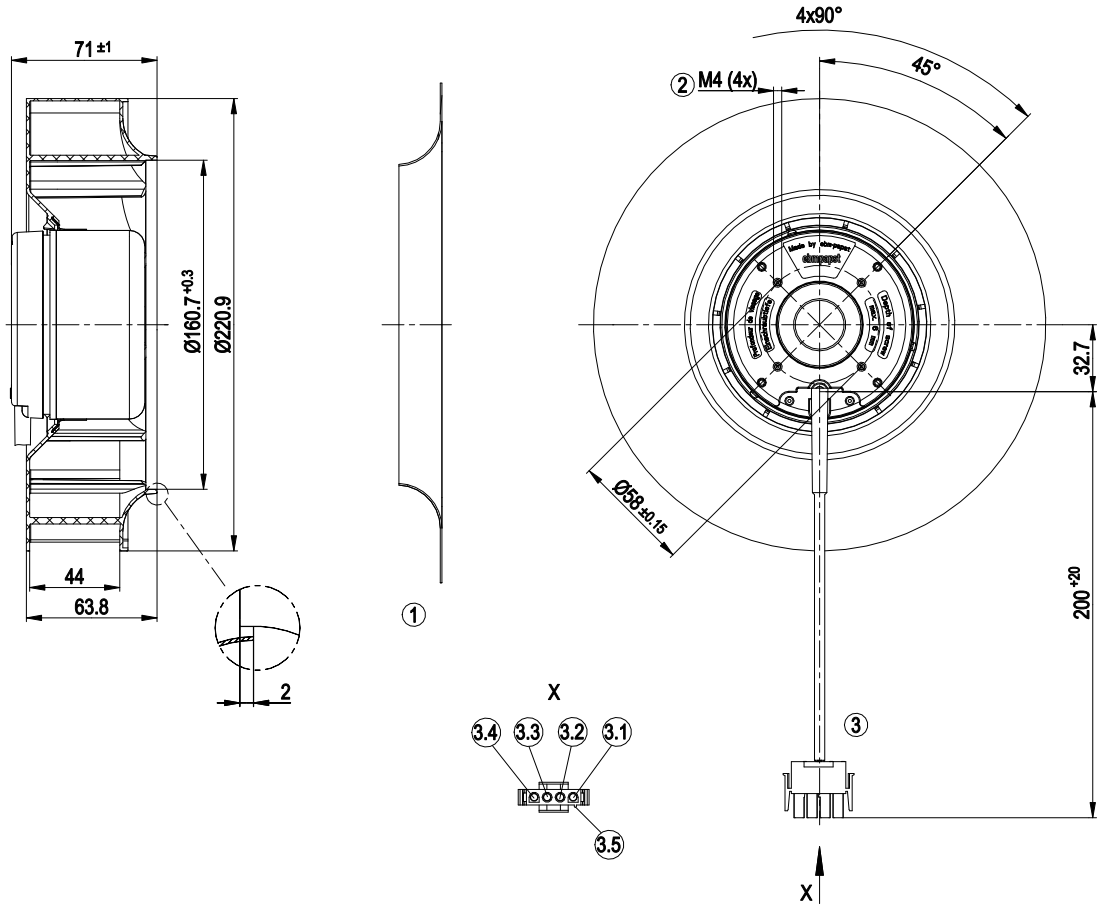
Mass	1.4 kg
Size	220 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42; Depending on installation and position
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F0
Max. permissible 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)
Electrical leads	With plug
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 No.77

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Product drawing



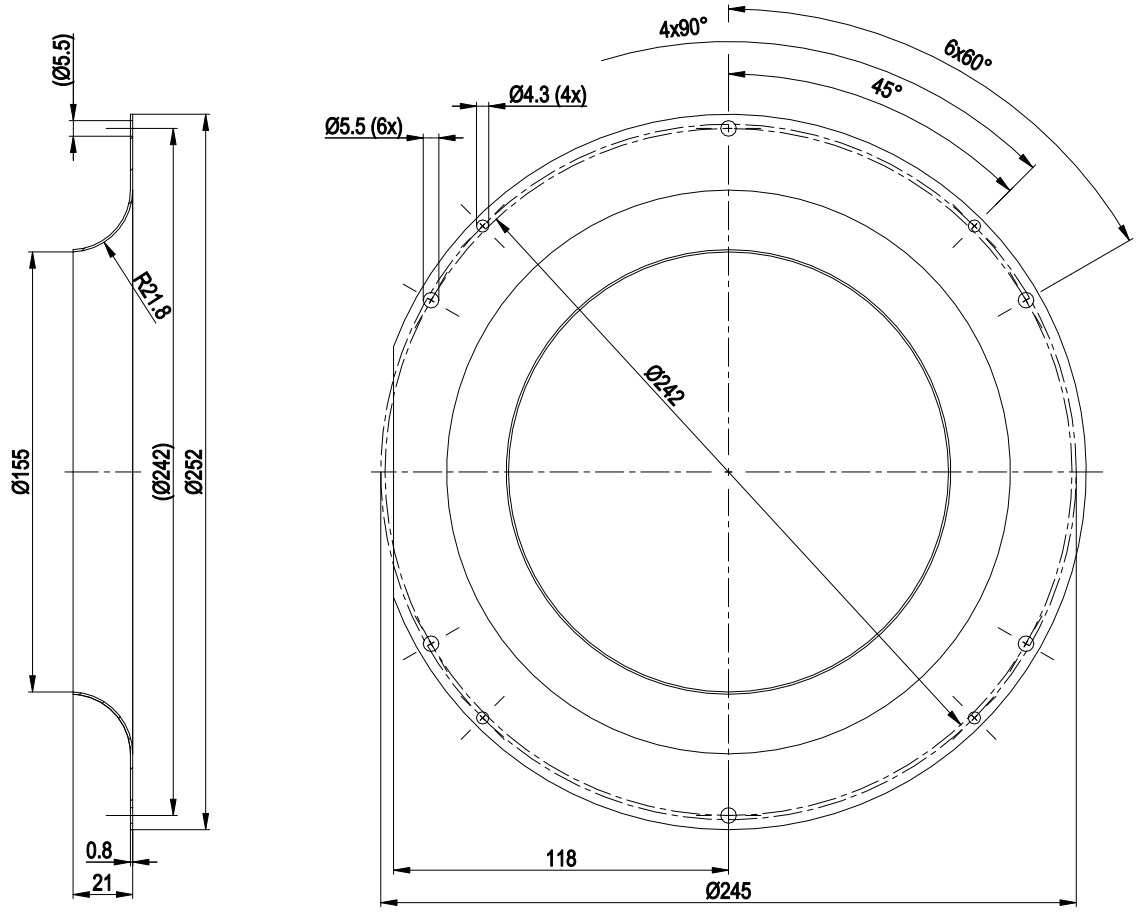
1	Accessory part: inlet nozzle 09609-2-4013 not included in scope of delivery
2	Depth of screw max. 6 mm
3	Connection line PVC AWG20 with connector housing 4-pole AMP 350779-1, 4x plug pin AMP 926883-1
3.1	Tach (white)
3.2	GND (blue)
3.3	UN +24 VDC (red)
3.4	Control input (yellow)
3.5	Polarising rib

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Accessory part

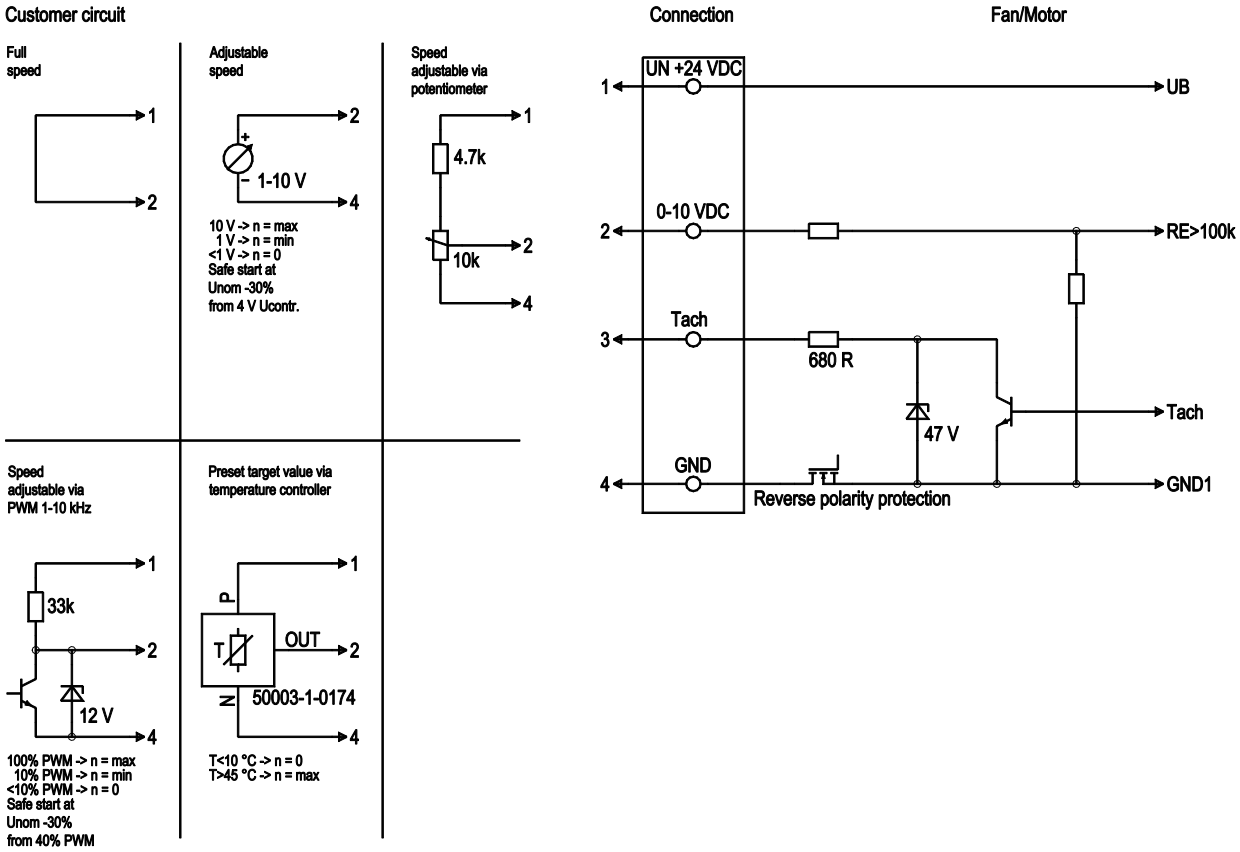


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Connection screen



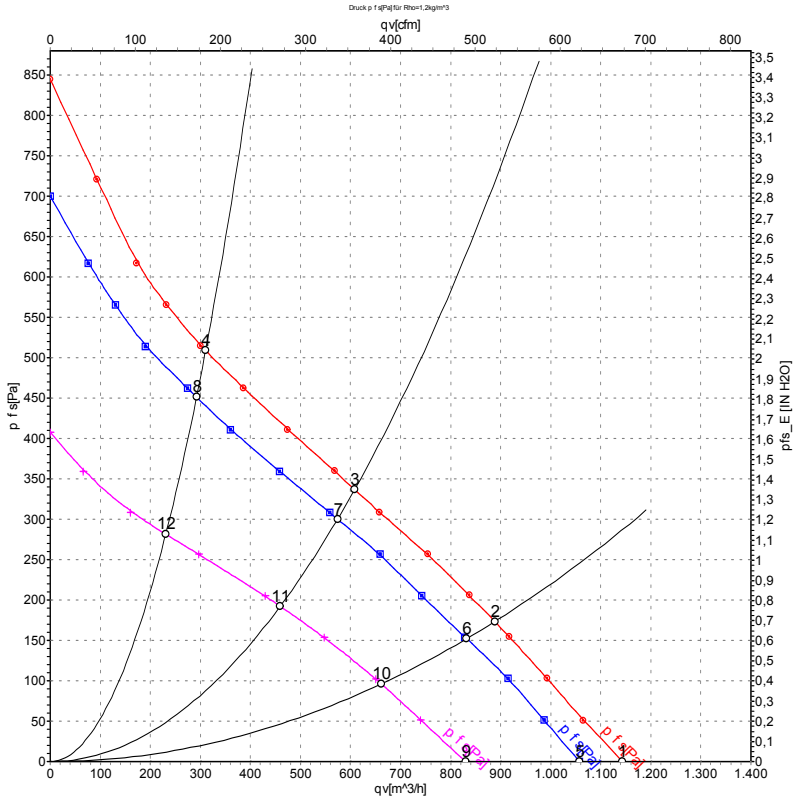
No.	Conn.	Designation	Colour	Function / assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100 K
1	3	Tach	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



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

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	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
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 = Supply voltage · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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