R1G220-AB35-52

EC centrifugal fan

backward-curved, single-intake

R1G220-AB35-52 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

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

EC centrifugal fan

backward-curved, single-intake

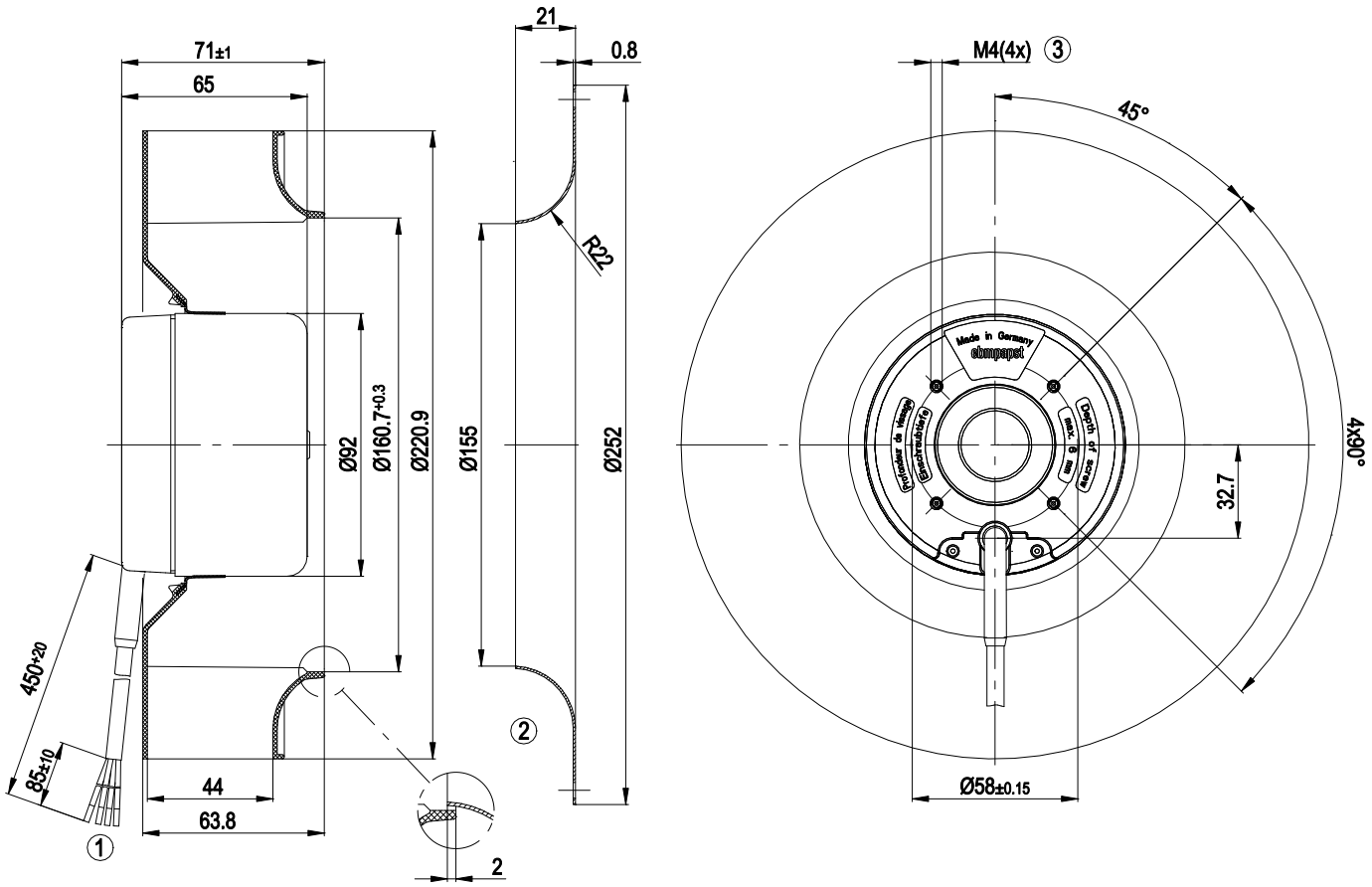
Technical description

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	H0 - dry environment
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 bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 55022 (Class B)
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 62368-1
Approval	CSA C22.2 No. 77; EAC; UL 1004-1

EC centrifugal fan

backward-curved, single-intake

Product drawing

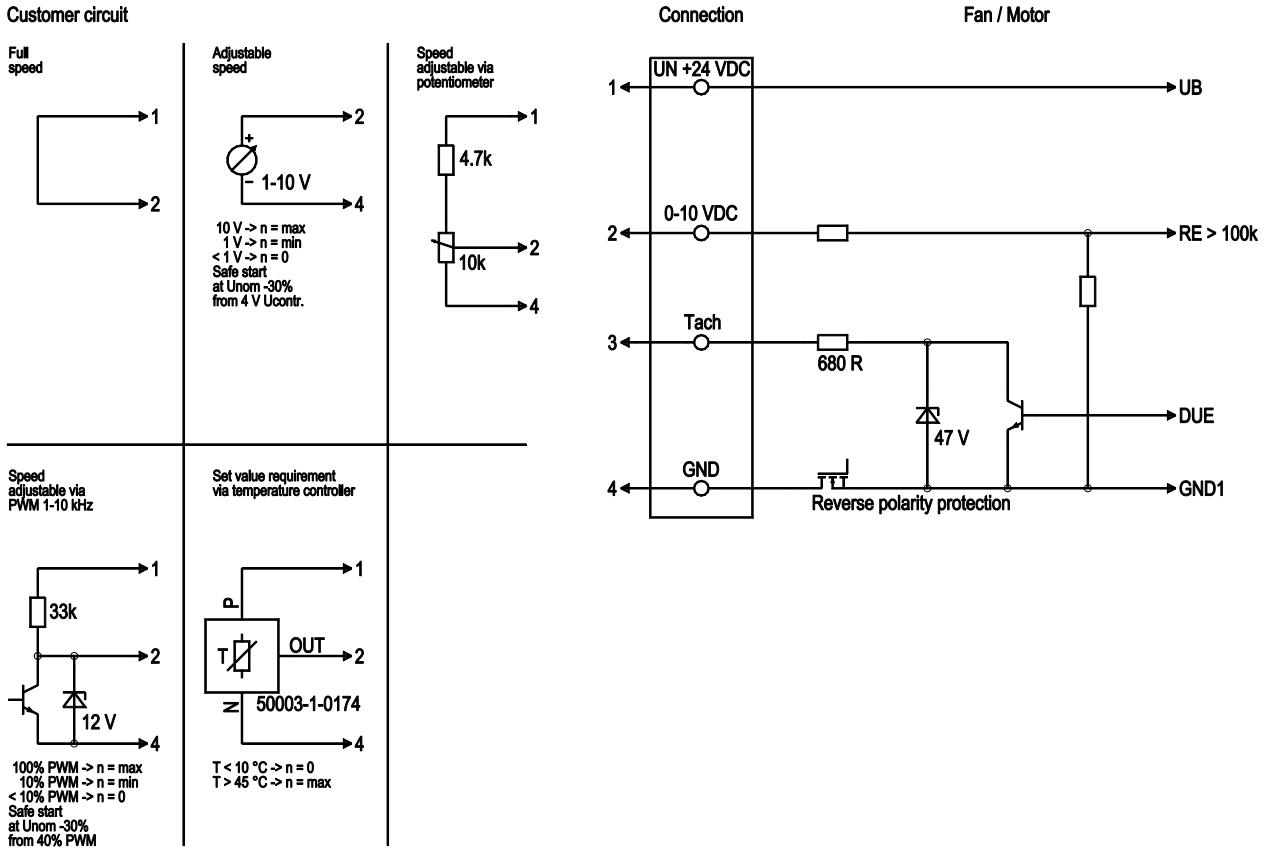


1	Cable AWG20, 4x crimped splices
2	Accessory part: inlet ring 09609-2-4013 not included in scope of delivery
3	Max. clearance for screw 6 mm

EC centrifugal fan

backward-curved, single-intake

Connection diagram

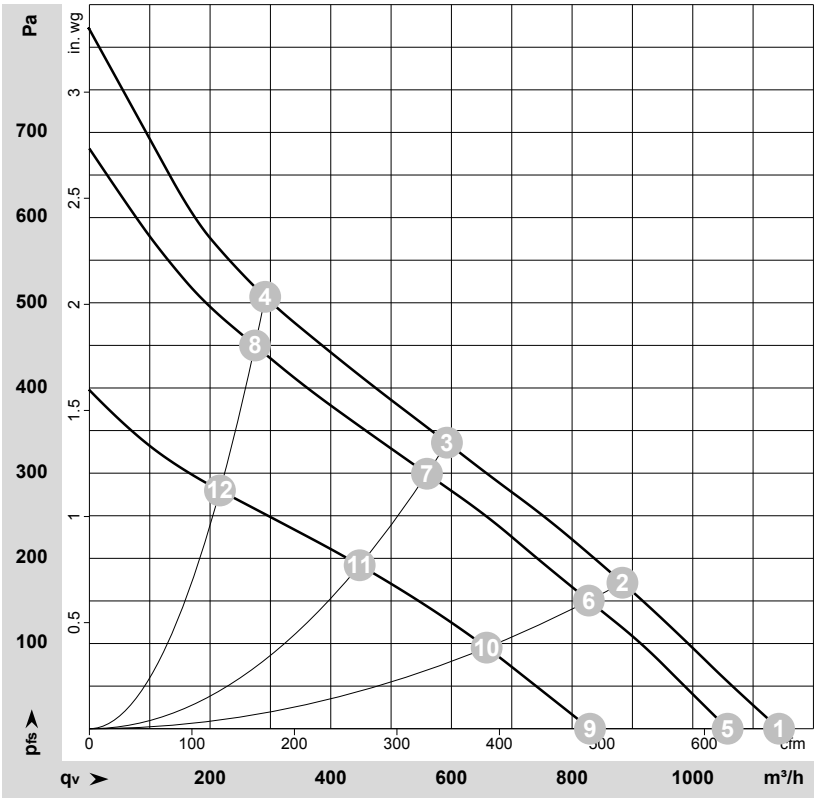


No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

EC centrifugal fan

backward-curved, single-intake

Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

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	3130	134	5.72	885	171	520	0.69
3	28	2985	137	5.96	595	336	350	1.35
4	28	3200	132	5.59	290	506	170	2.03
5	24	3150	106	5.00	1060	0	625	0.00
6	24	2930	112	5.33	830	150	485	0.60
7	24	2810	114	5.52	560	300	330	1.20
8	24	3000	110	5.22	275	450	160	1.81
9	16	2460	50	3.50	830	0	490	0.00
10	16	2330	56	3.88	660	96	385	0.39
11	16	2260	59	4.11	450	192	265	0.77
12	16	2375	54	3.77	215	280	125	1.12

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