R1G220-AB73-52

EC centrifugal fan

backward-curved, single-intake

R1G220-AB73-52 ebmpapst Datasheet

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Nominal data

Type	**R1G220-AB73-52**
Motor	**M1G074-BF**

Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3100
Power consumption	W	100
Current draw	A	2.4
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	PA66 plastic, glass-fiber reinforced
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; Supply with safety extra-low voltage SELV. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 62368-1
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	CSA C22.2 No. 77; EAC; UL 1004-1; CCC

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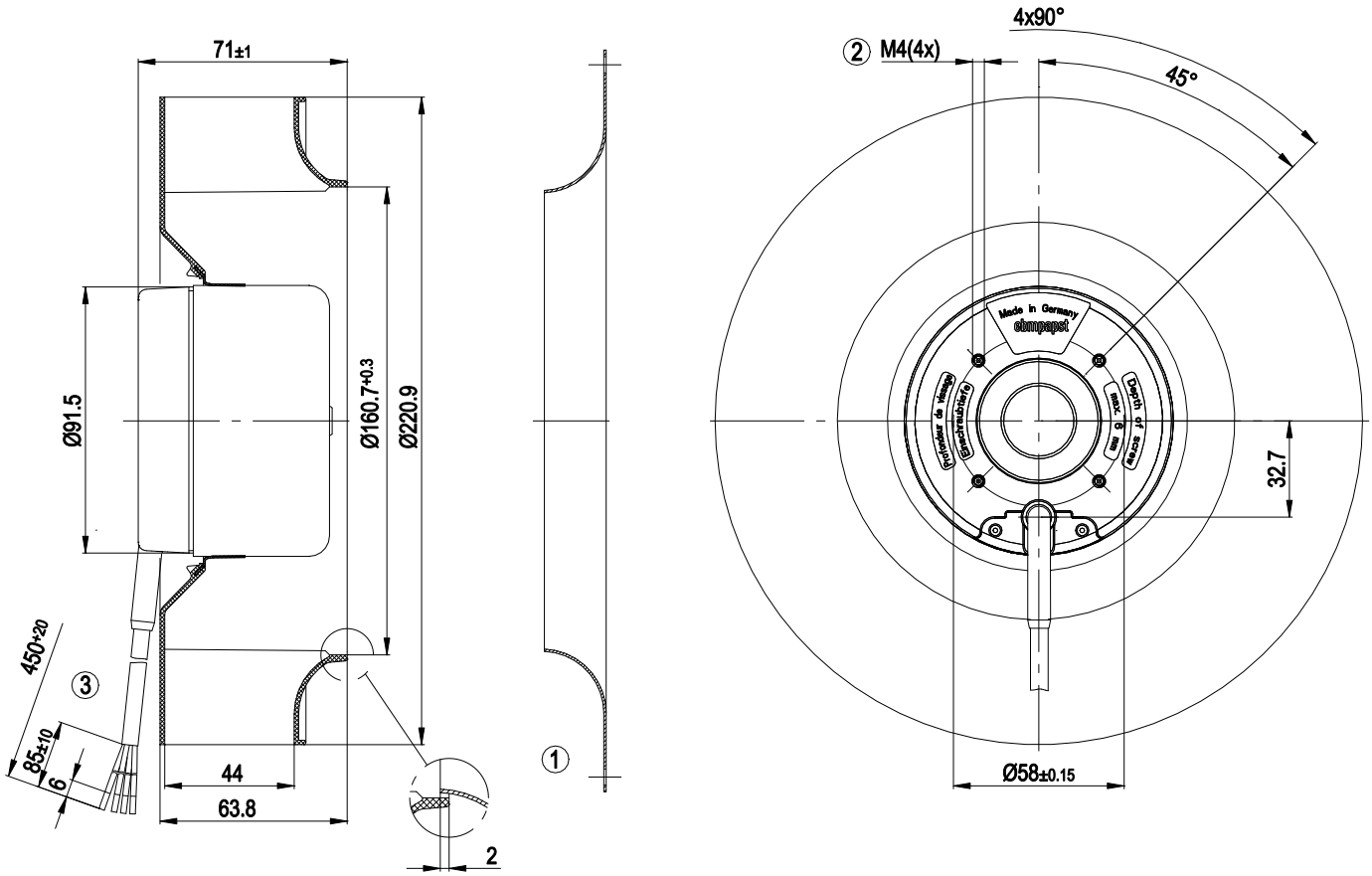
Product drawing



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

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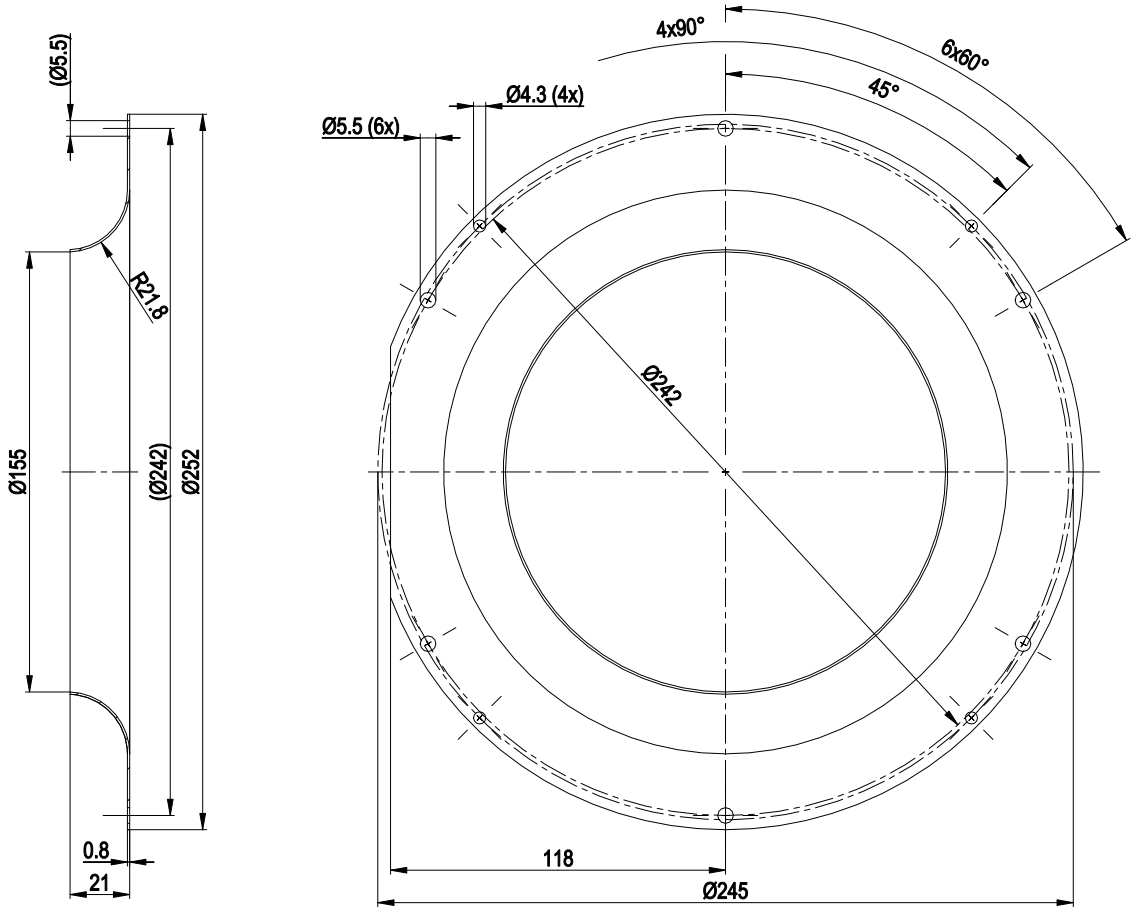
Accessory part



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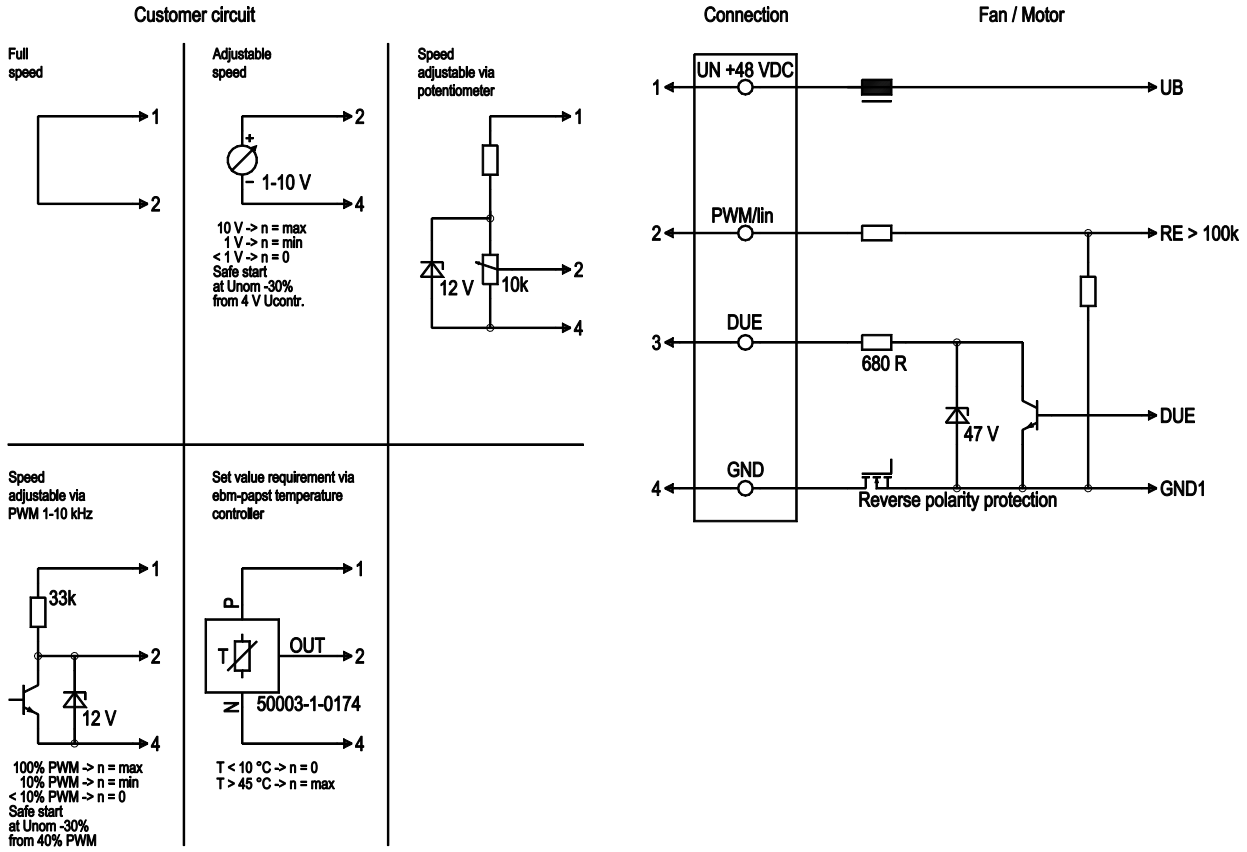
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 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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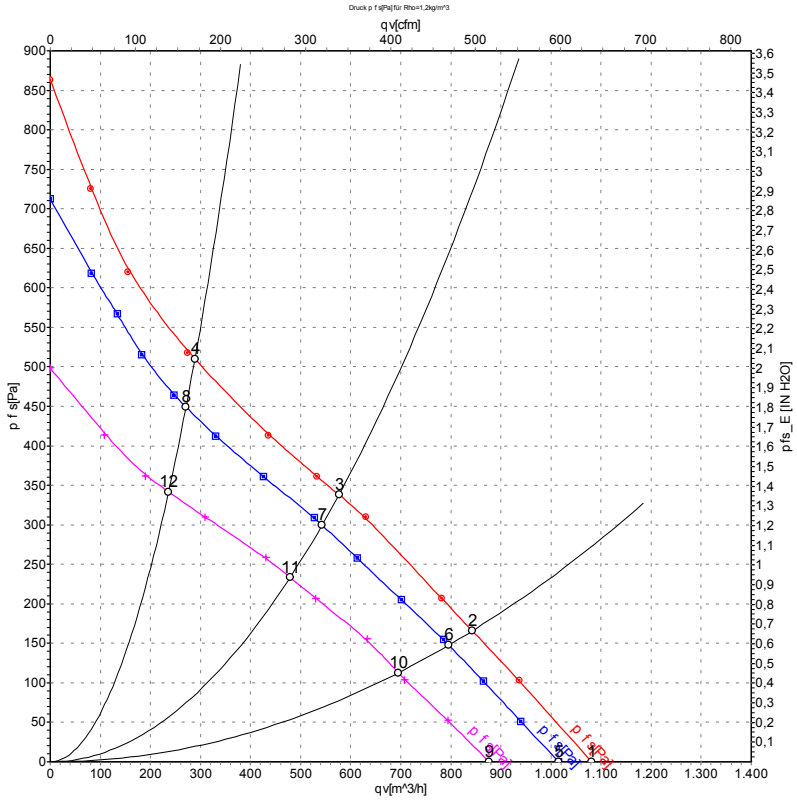
Curves: Air performance



Measurement: LU-47146-1
Date: 2001-01-22

Measurement: LU-47145-1
Date: 2001-01-22
Nozzle: 09609-2-4013

Measurement: LU-47147-1
Date: 2001-01-22

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	56	3305	118	2.54	1080	0	635	0.00
2	56	3095	122	2.72	845	166	495	0.67
3	56	2975	126	2.85	575	338	340	1.36
4	56	3155	122	2.68	290	508	170	2.04
5	48	3100	100	2.40	1015	0	595	0.00
6	48	2915	102	2.51	795	150	470	0.60
7	48	2805	104	2.59	545	300	320	1.20
8	48	2980	101	2.45	270	450	160	1.81
9	36	2665	64	1.96	875	0	515	0.00
10	36	2545	68	2.10	695	112	410	0.45
11	36	2480	71	2.20	480	233	280	0.94
12	36	2600	66	2.03	235	341	140	1.37

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