

# EC centrifugal fan

backward curved, single inlet

R1G220-AB73-99 ebmpapst Datasheet

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## Nominal data

Type	R1G220-AB73-99	
Motor	M1G074-BF	
Nominal voltage	[VDC]	48
Nominal voltage range	[VDC]	36 .. 57
Type of data definition		rfa
Speed	[min <sup>-1</sup> ]	3100
Power input	[W]	100
Current draw	[A]	2,4
Max. ambient temperature	[°C]	60

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

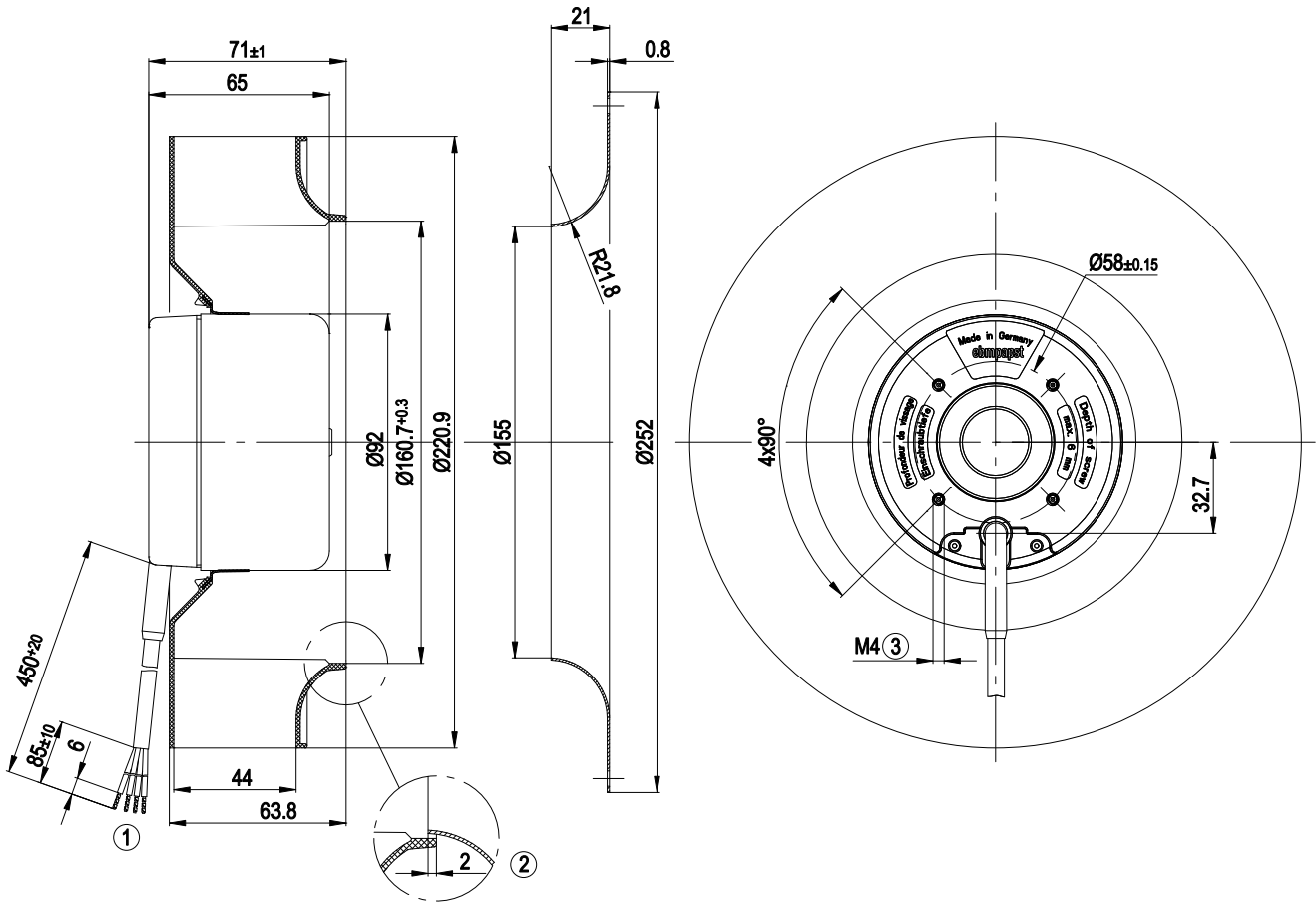
## Technical features

Leakage current	<= 0,25 mA
Size	220 mm
Stability	Salt fog resistant in accordance with TELCORDIA GR-487-CORE, release No. 2, March 2000
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC interference emission	Acc. to EN 55022 (Class B)
EMC interference immunity	Acc. to EN 61000-6-2
Humidity class	F4-2
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Bearing motor	Ball bearing
Mass	1.4 kg
Material of impeller	PA plastic 6.6, fiberglass-reinforced
Motor protection	Reverse polarity and locked-rotor protection
Product conforming to standard	EN 60950-1
Surface of rotor	Coated in black
Number of blades	11
Type of protection	IP 44 - depending on position
Technical features	- Control input 0-10 VDC / PWM - Tach output
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Approval	CCC; CSA C22.2 Nr.77; UL 1004

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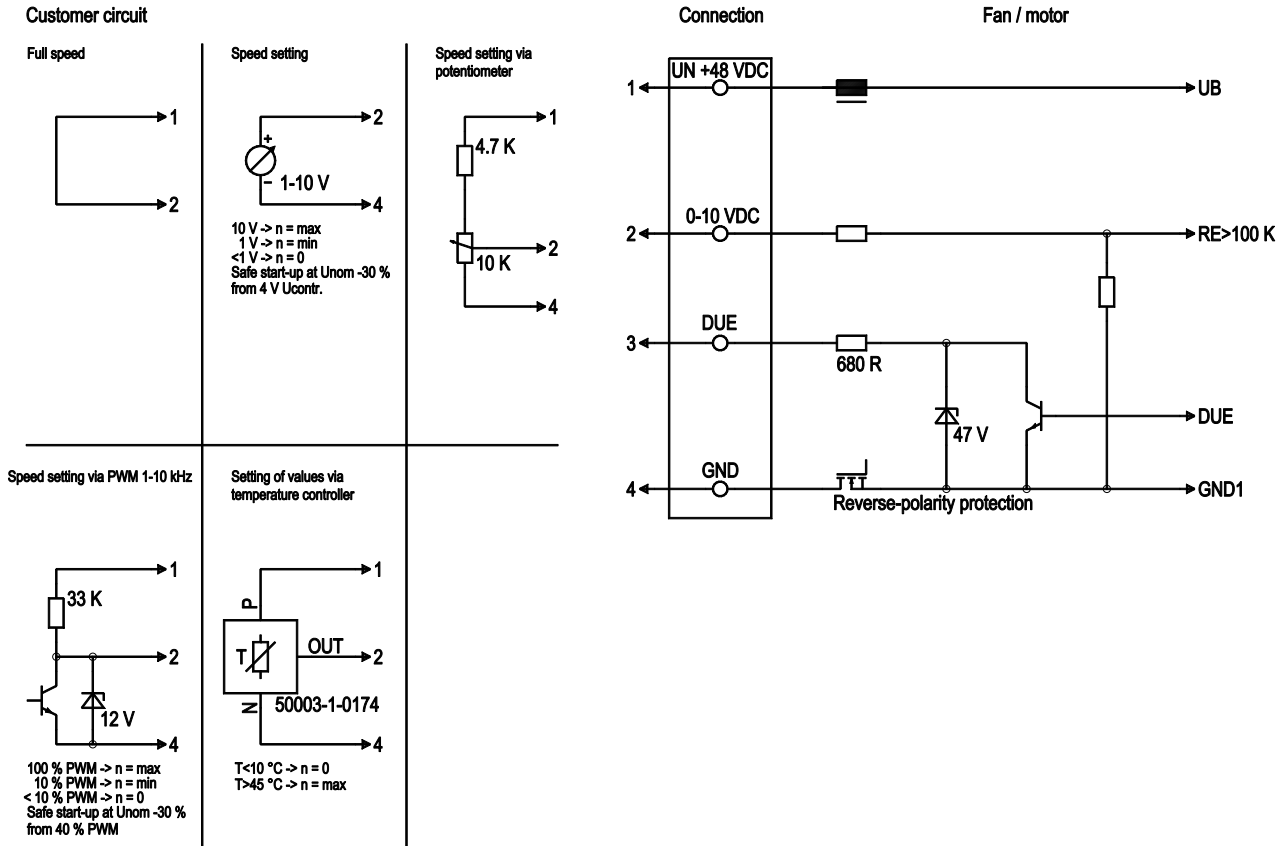
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## Product drawing



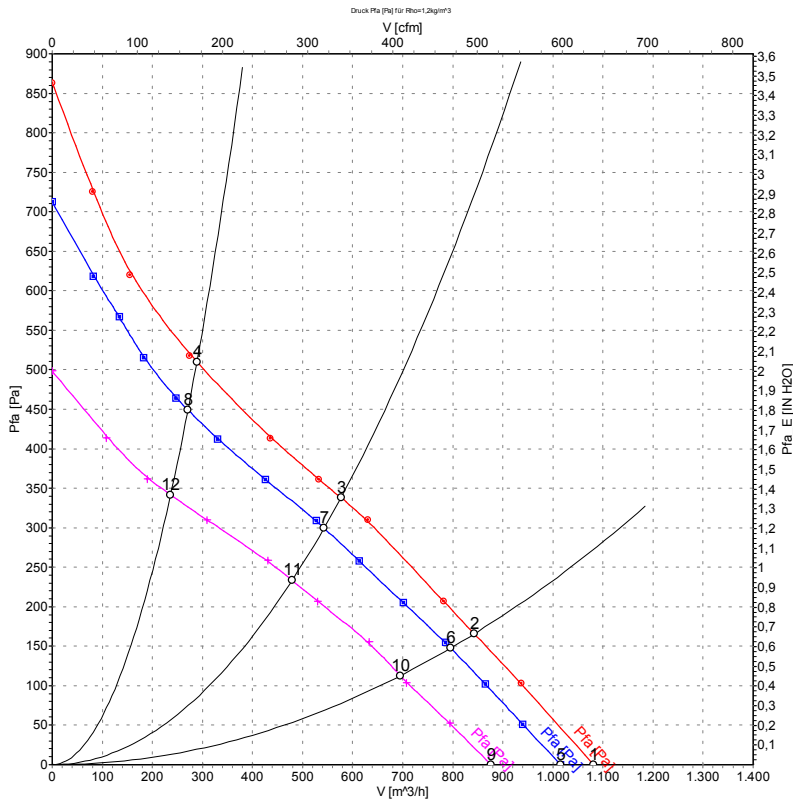
1	Connection line AWG20, 4 x brass lead tips crimped
2	Accessory part: Inlet nozzle 09609-2-4013, not included in the standard scope of delivery
3	Screw depth max. 6 mm

## 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	DUE	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

Charts: Air flow



Measurement: LU-47146  
 Measurement: LU-47145  
 Measurement: LU-47147

Measured values

	U	n	P <sub>1</sub>	I	$\dot{V}$	p <sub>ra</sub>
	[V]	[min <sup>-1</sup> ]	[W]	[A]	[m <sup>3</sup> /h]	[Pa]
1	56	3305	118	2.54	1080	0
2	56	3095	122	2.72	845	166
3	56	2975	126	2.85	575	338
4	56	3155	122	2.68	290	508
5	48	3100	100	2.40	1015	0
6	48	2915	102	2.51	795	148
7	48	2805	104	2.59	545	300
8	48	2980	101	2.45	270	449
9	36	2665	64	1.96	875	0
10	36	2545	68	2.10	695	112
11	36	2480	71	2.20	480	233
12	36	2600	66	2.03	235	341