

R1G175-AB41-34 ebmpapst Datasheet

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Nominal data

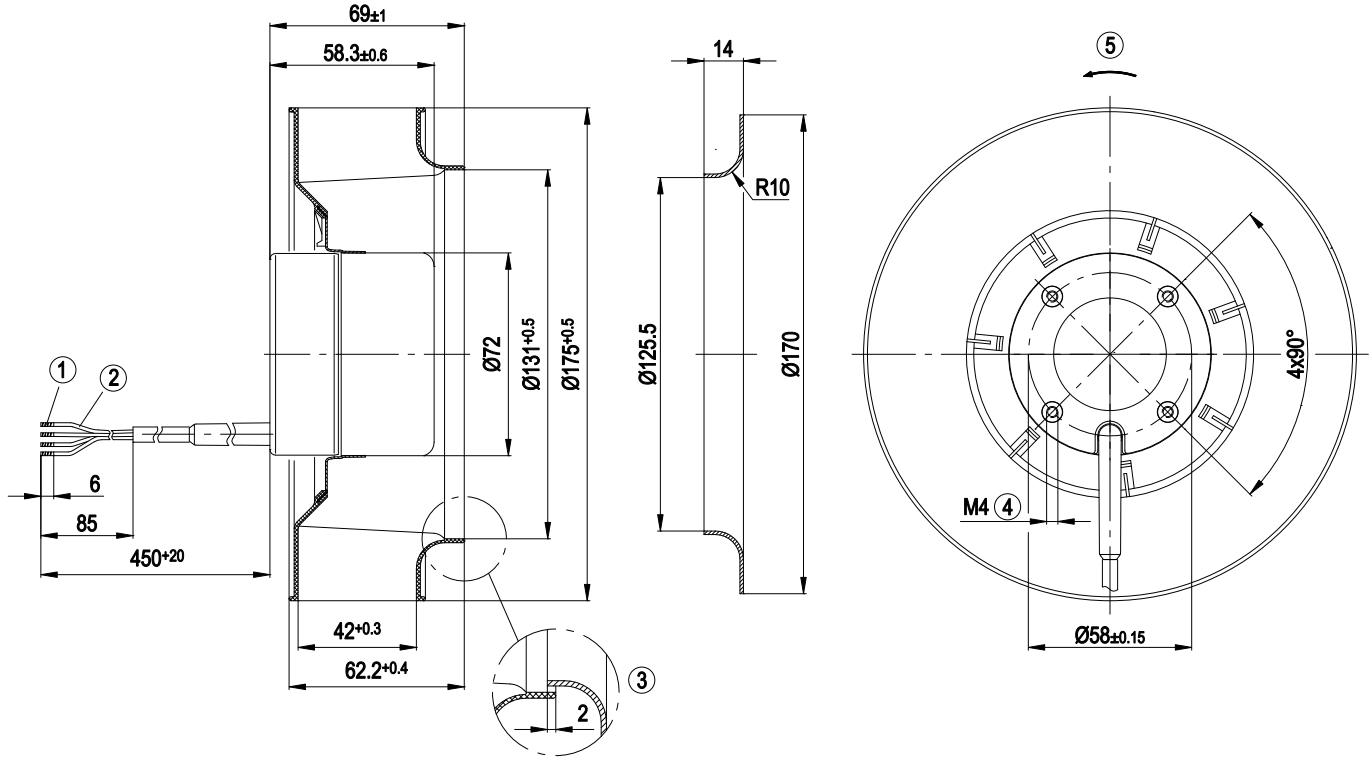
Type	R1G175-AB41-34	
Motor	M1G055-BD	
Nominal voltage	[VDC]	48
Nominal voltage range	[VDC]	36 .. 57
Type of data definition		rfa
Speed	[min ⁻¹]	3100
Power input	[W]	34
Current draw	[A]	1.0
Max. ambient temperature	[°C]	+ 60
Air flow	[m ³ /h]	565
Back pressure	[Pa]	0

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

Technical features

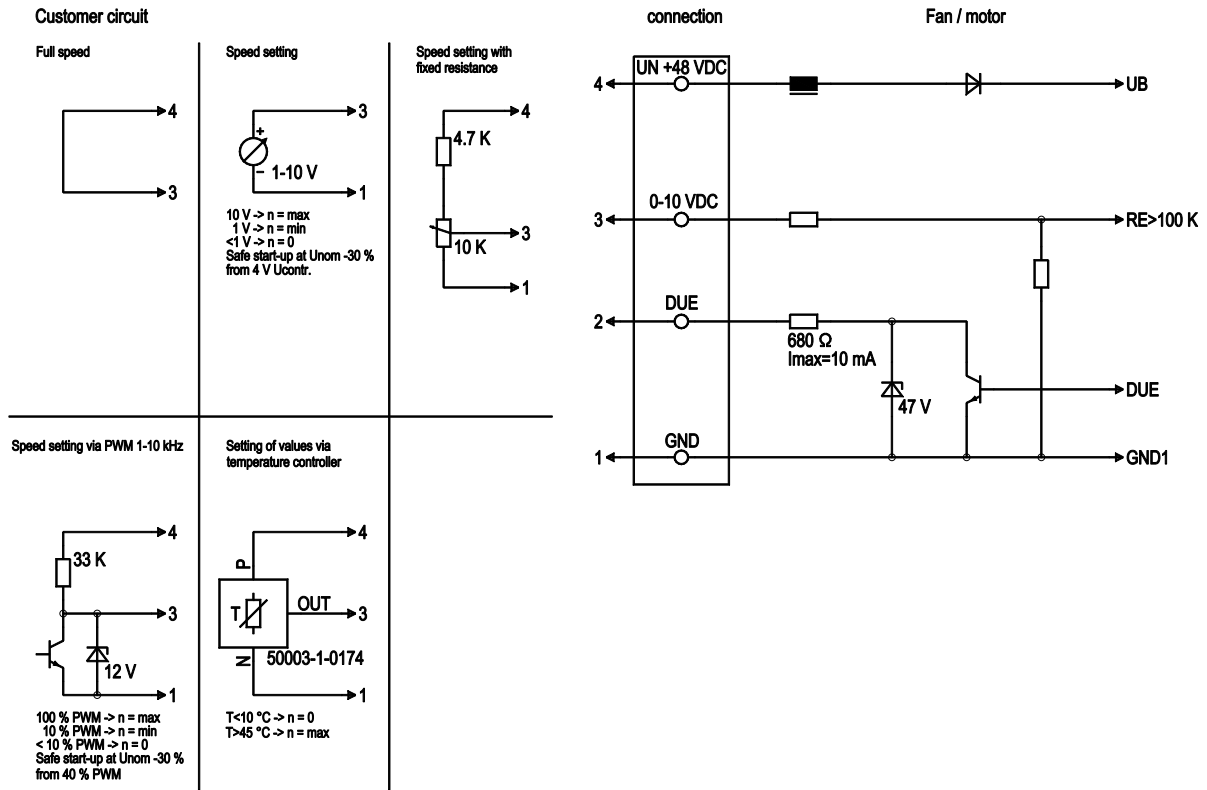
Leakage current	<= 0,25 mA
Size	175 mm
Operation mode	S1
Mounting position	Any
EMC interference emission	Acc. to EN 61000-6-3
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Direction of rotation	Clockwise, seen on rotor
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Bearing-motor	Ball bearing
Mass	0.79 kg
Material of impeller	PA plastic 6.6, fiberglass-reinforced
Motor protection	Reverse polarity and locked-rotor protection
Surface of rotor	Thick layer passivated (galvanically nickel-plated)
Number of blades	7
Type of protection	IP 44
Technical features	- Control input 0-10 VDC / PWM - Tach output - Soft start
Approval	CCC

Product drawing



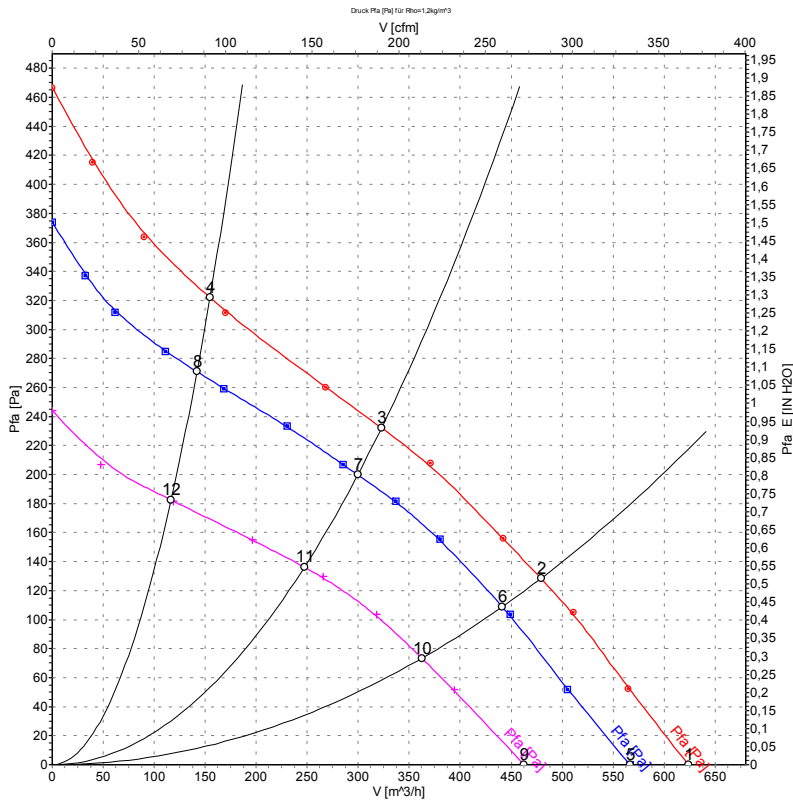
1	Brass lead tips
2	Connection line 4 x AWG20: red = +, yellow = 0-10 VDC, white = speed monitoring, blue = GND
3	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
4	Screw depth max. 6 mm
5	Direction of rotation clockwise, seen on rotor

Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1	GND	blue	Reference mass
1	2	DUE	white	Speed monitoring output, 2 pulses per rpm (revolutions per minute), Isink max = 10 mA
1	3	0-10 VDC	yellow	Control input Re > 100 K
1	4	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %

Charts: Air flow



	U	n	P ₁	I	\dot{V}	p _{fa}
	[V]	[min ⁻¹]	[W]	[A]	[m ³ /h]	[Pa]
1	56	3410	46	0.92	625	0
2	56	3210	48	0.98	480	128
3	56	3105	50	1.01	325	232
4	56	3260	48	0.96	155	321
5	48	3100	34	0.83	565	0
6	48	2960	39	0.89	440	110
7	48	2880	40	0.93	300	200
8	48	3005	38	0.87	140	271
9	36	2530	20	0.63	465	0
10	36	2440	22	0.69	360	74
11	36	2385	24	0.72	245	136
12	36	2455	22	0.67	115	182