EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	**R1G175-AB41-02**	
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]	0.8
Min. ambient temperature	[°C]	- 25
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

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Technical features

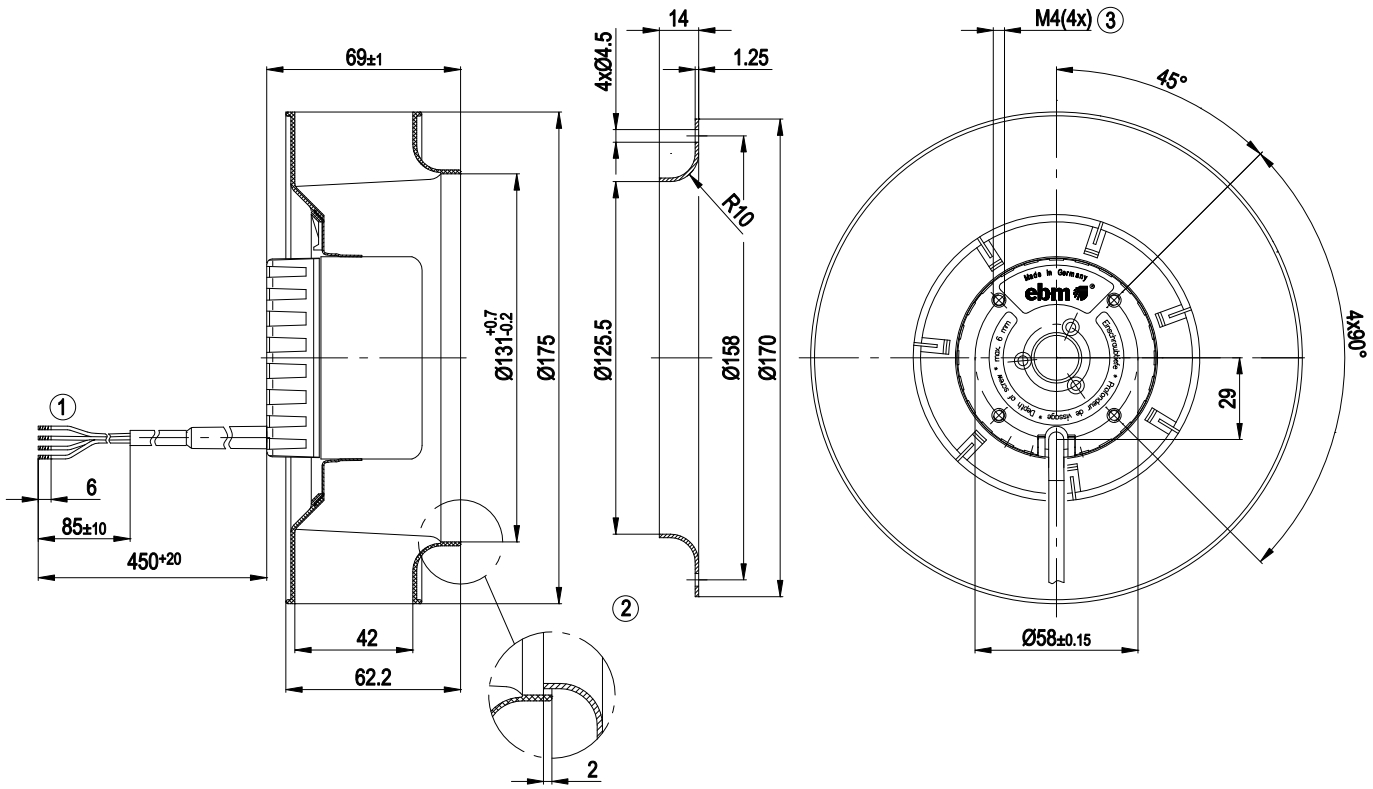
Size	175 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC interference emission	Acc. to EN 61000-6-3
EMC interference immunity	Acc. to EN 61000-6-2
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Bearing motor	Ball bearing
Mass	0.74 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	Thick layer passivated
Number of blades	7
Type of protection	IP 22
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.113; UL 507; VDE

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Product drawing



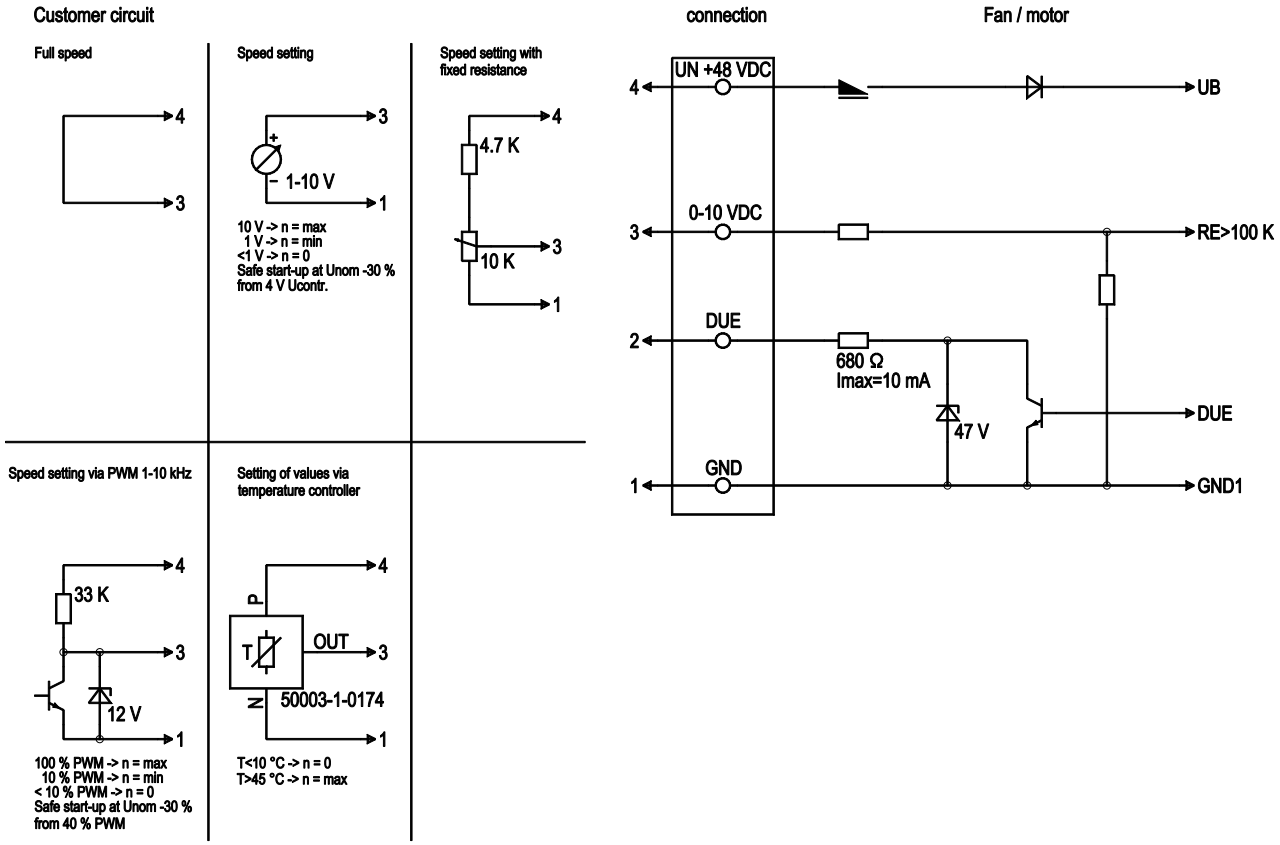
1	Connection line AWG20, 4 x brass lead tips crimped
2	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

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Connection screen



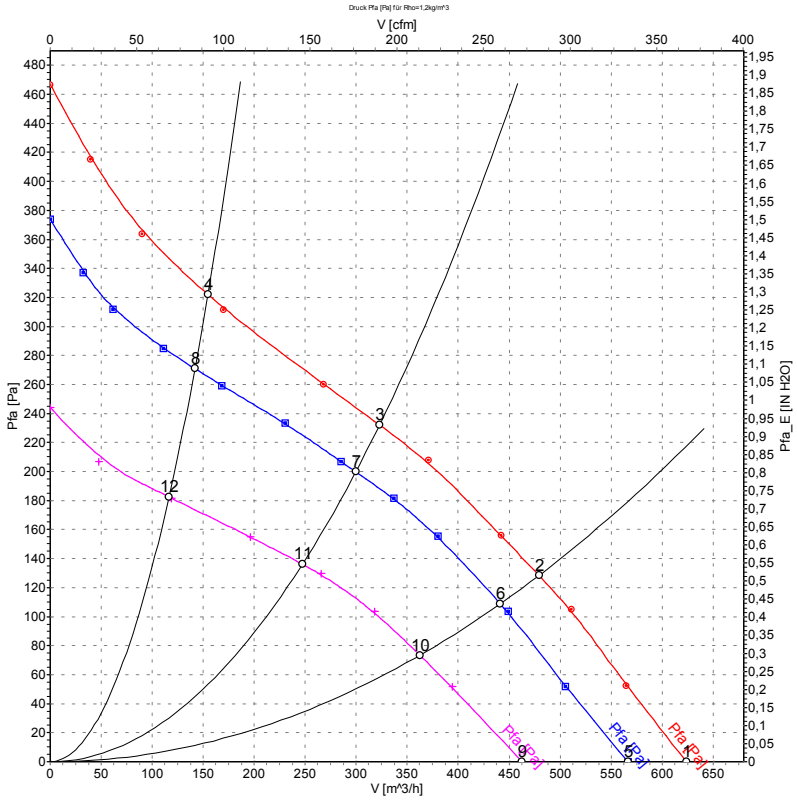
Line	No.	Signal	Colour	Function / assignment
1	1	GND	blue	Reference mass
1	2	DUE	white	Speed monitoring output, 2 pulses per rotation, Isink max = 10 mA
1	3	0-10 VDC	yellow	Control input Re > 100 K
1	4	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %

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Charts: Air flow



Measurement: LU-45688
Measurement: LU-45687
Measurement: LU-45689

Measured values

	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	270
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

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