

# EC centrifugal fan

backward curved, single inlet

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## Nominal data

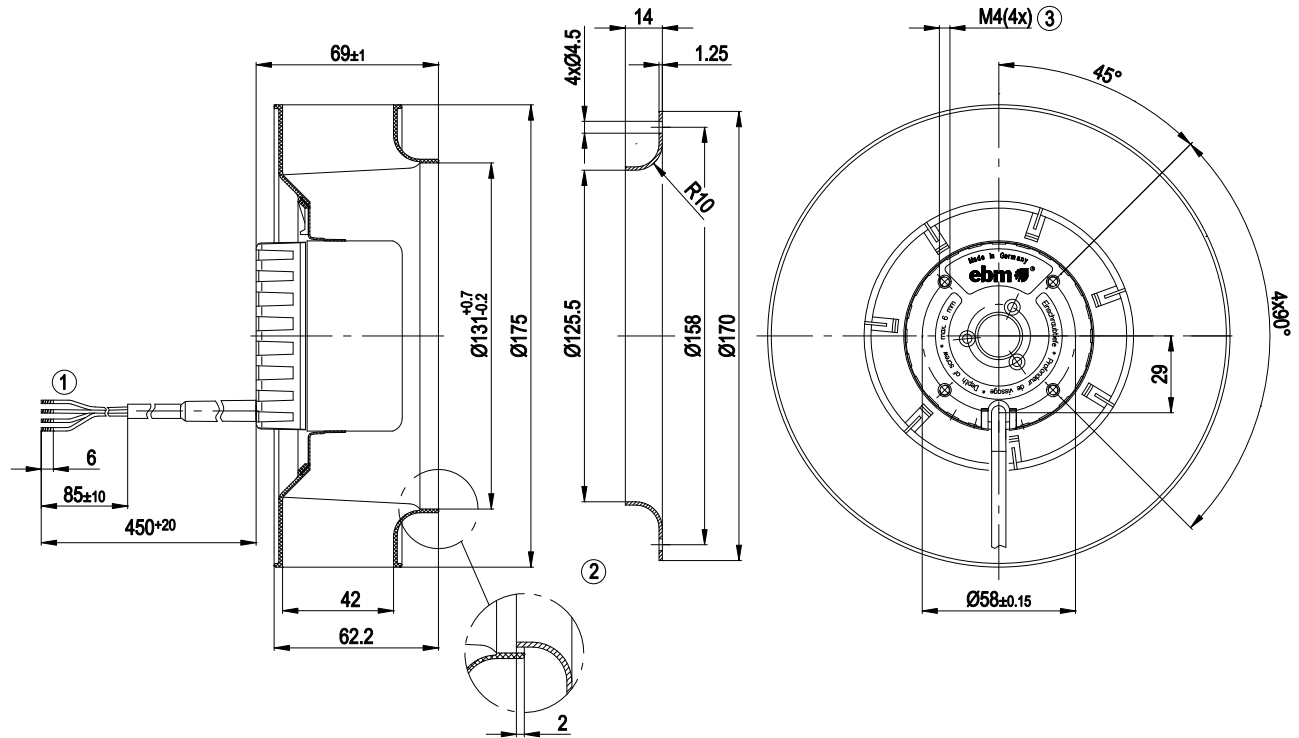
Type	R1G175-AB41-02	
Motor	M1G055-BD	
Nominal voltage	[VDC]	48
Nominal voltage range	[VDC]	36 .. 57
Type of data definition		rfa
Speed	[min <sup>-1</sup> ]	3100
Power input	[W]	34
Current draw	[A]	0.8
Min. ambient temperature	[°C]	- 25
Max. ambient temperature	[°C]	+ 60

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

### Technical features

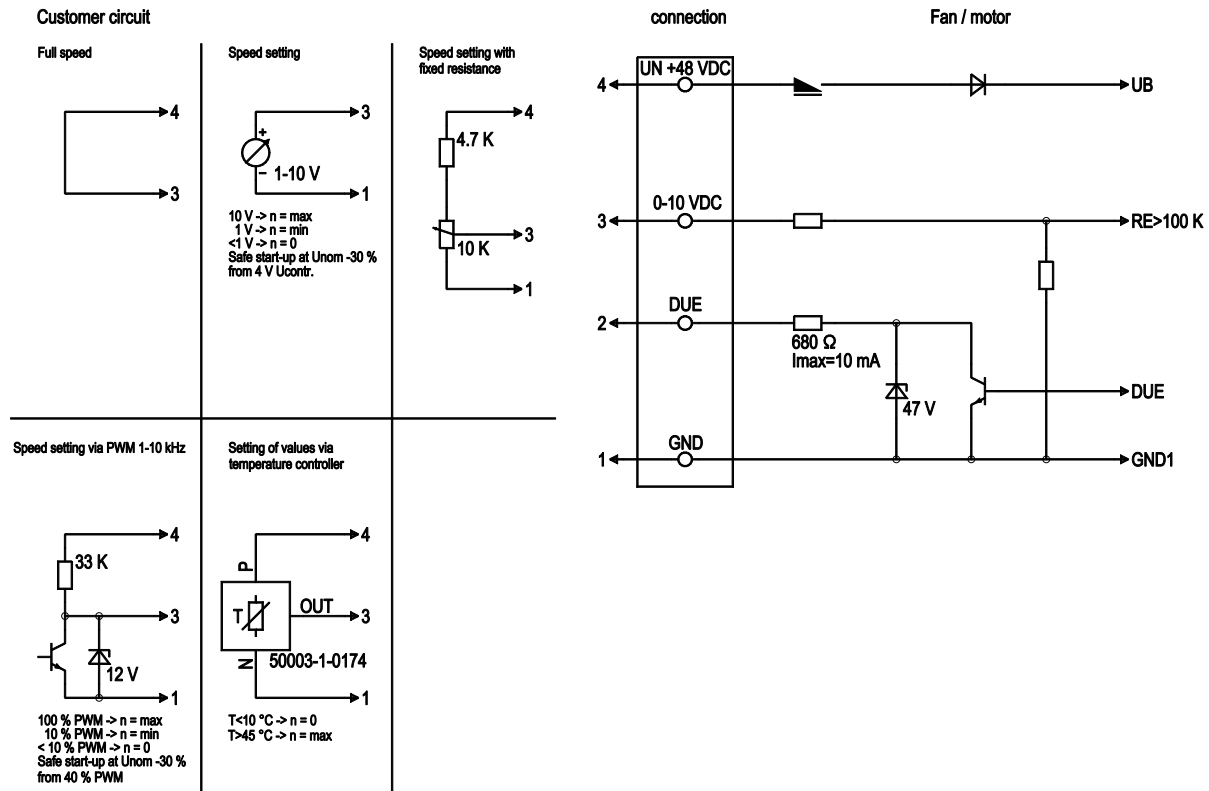
<b>Size</b>	175 mm
<b>Operation mode</b>	S1
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Mounting position</b>	Any
<b>EMC interference emission</b>	Acc. to EN 61000-6-3
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2
<b>Insulation class</b>	"B"
<b>Cable exit</b>	Variable
<b>Condensate discharge holes</b>	None
<b>Bearing motor</b>	Ball bearing
<b>Mass</b>	0.74 kg
<b>Material of impeller</b>	PA plastic 6.6, fiberglass-reinforced
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Product conforming to standard</b>	EN 60950-1
<b>Surface of rotor</b>	Thick layer passivated
<b>Number of blades</b>	7
<b>Type of protection</b>	IP 22
<b>Technical features</b>	Control input 0-10 VDC / PWM, tach output
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	-40 °C
<b>Approval</b>	CCC; CSA C22.2 Nr.113; UL 507; VDE

## Product drawing



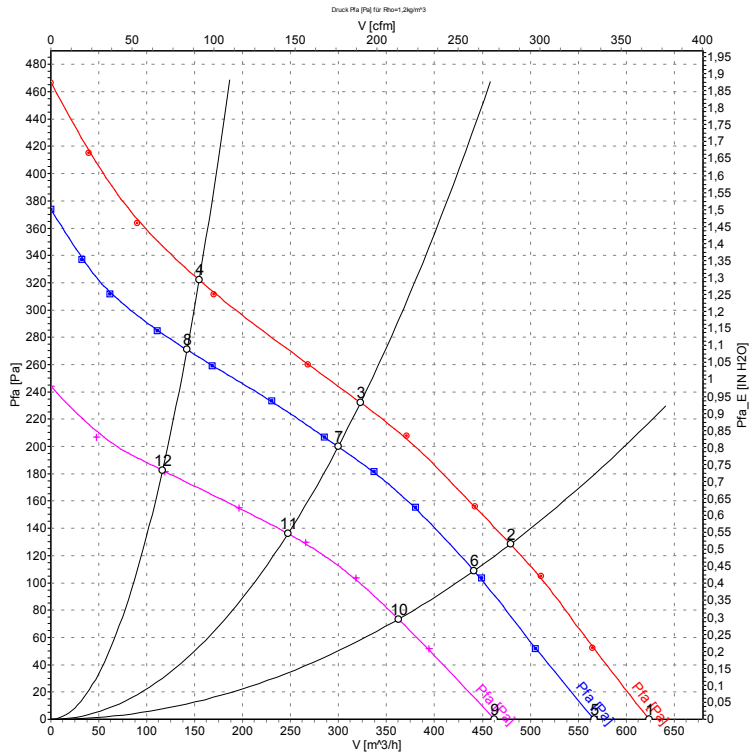
- |   |   |
|---|---|
| 1 | Connection line AWG20, 4 x brass lead tips crimped  |
| 2 | Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery |
| 3 | Depth of screw max. 6 mm  |

## 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 %

## Charts: Air flow



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

## Measured values

	U	n	P <sub>1</sub>	I	$\hat{V}$	p <sub>ra</sub>
	[V]	[min <sup>-1</sup> ]	[W]	[A]	[m³/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