

R1G175-AE73-10

EC centrifugal fan

backward-curved, single-intake

R1G175-AE73-10 ebmpapst Datasheet FansCo

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Nominal data

Type	R1G175-AE73-10	
Motor	M1G074-BF	
Nominal voltage	VDC	48
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	3430
Power consumption	W	100
Current draw	A	2.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

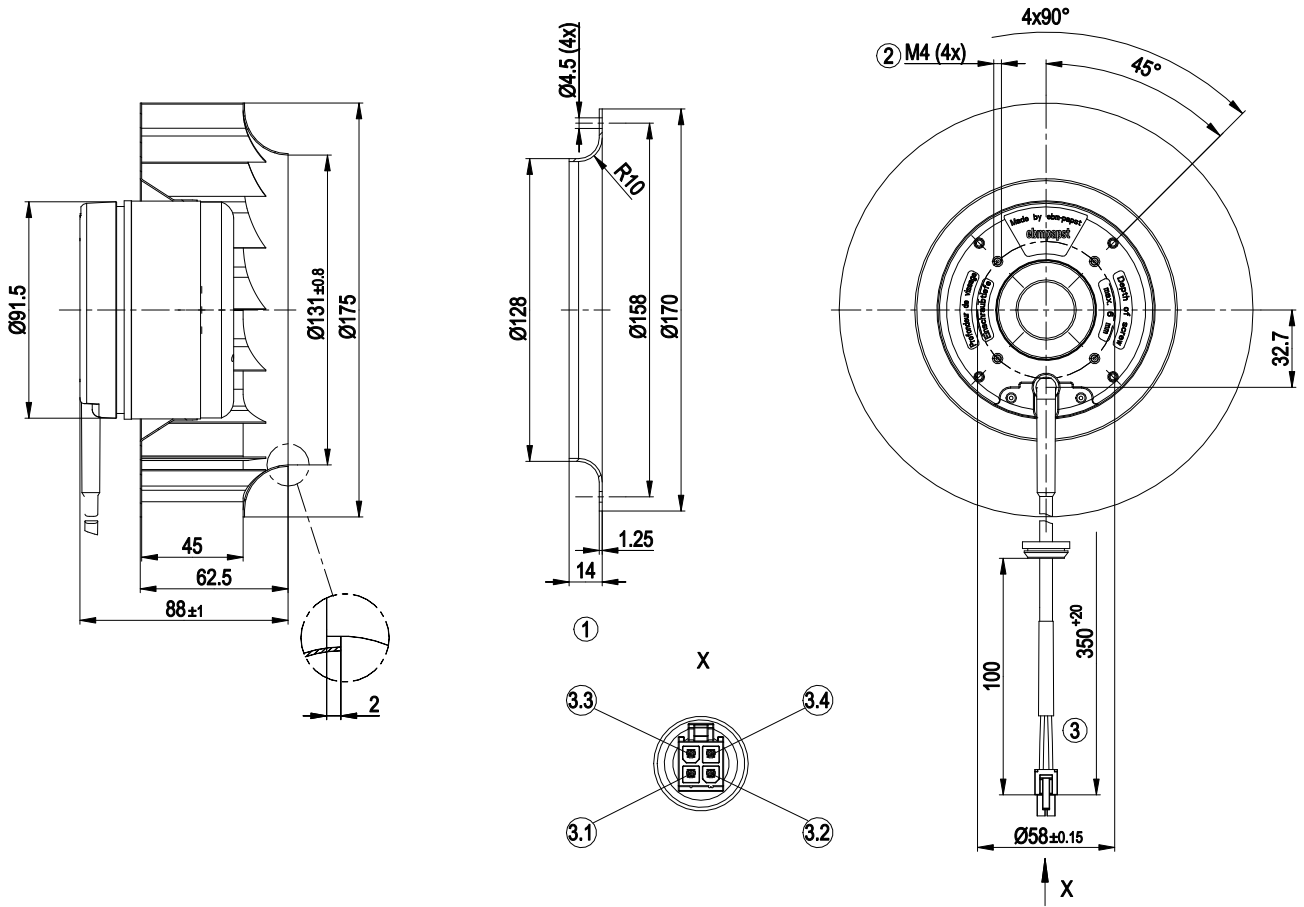
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

Weight	1.5 kg
Size	175 mm
Motor size	74
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Number of blades	16
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	<ul style="list-style-type: none"> - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
Electrical hookup	Connector with cable
With cable	Variable
Protection class assignment	<p>III; Requires supply with safety extra-low voltage SELV.</p> <p>This component for installation may have several local protection classes. This information relates to this component's basic design.</p> <p>The final protection class is based on the component's intended installation and connection.</p>
Conformity with standards	EN 62368-1
Approval	CSA C22.2 No. 100; UL 1004-1

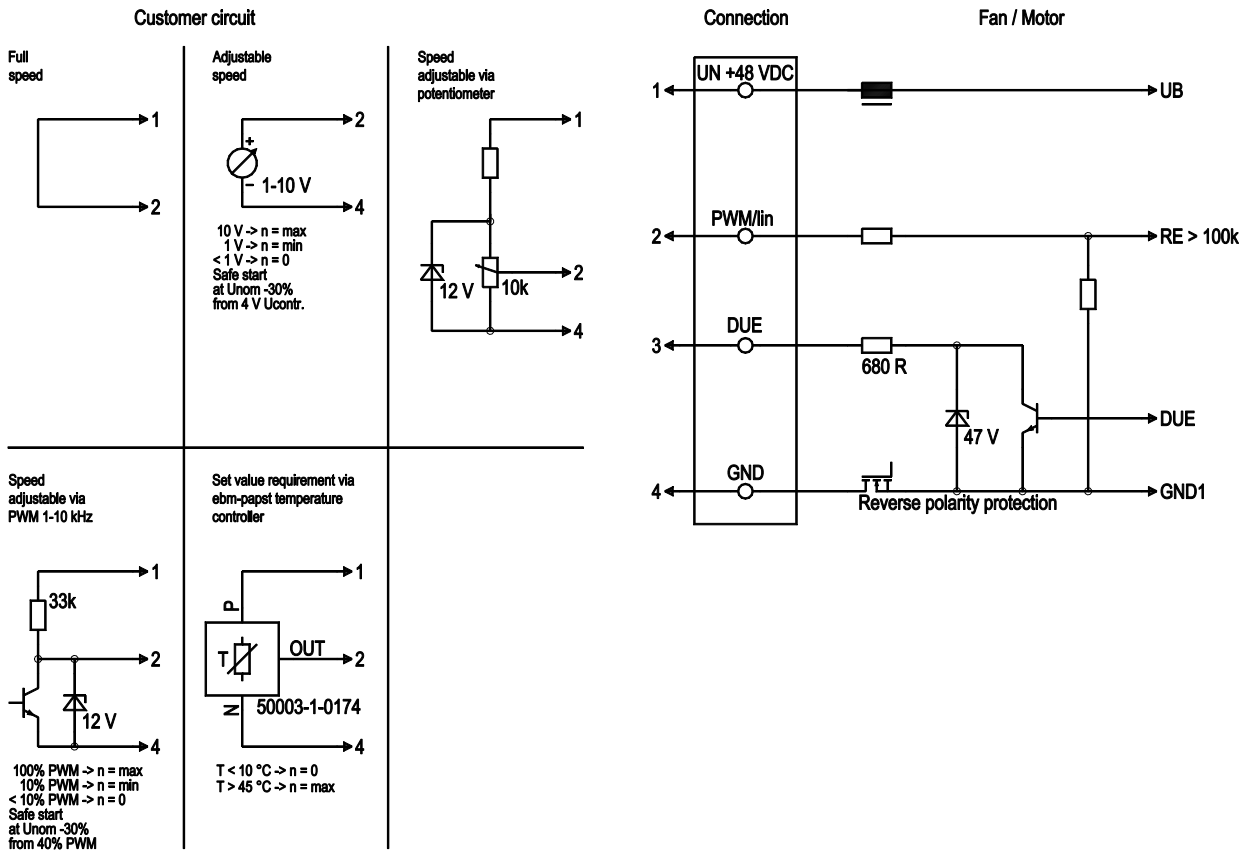
Product drawing



1	Accessory part: inlet ring 09576-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Cable PVC AWG20, 4-pole connector housing Molex 39-01-2045, 4x socket Molex 39-00-0059
3.1	UN +48 VDC (red)
3.2	PWM/LIN (yellow)
3.3	Tach (white)
3.4	GND (blue)



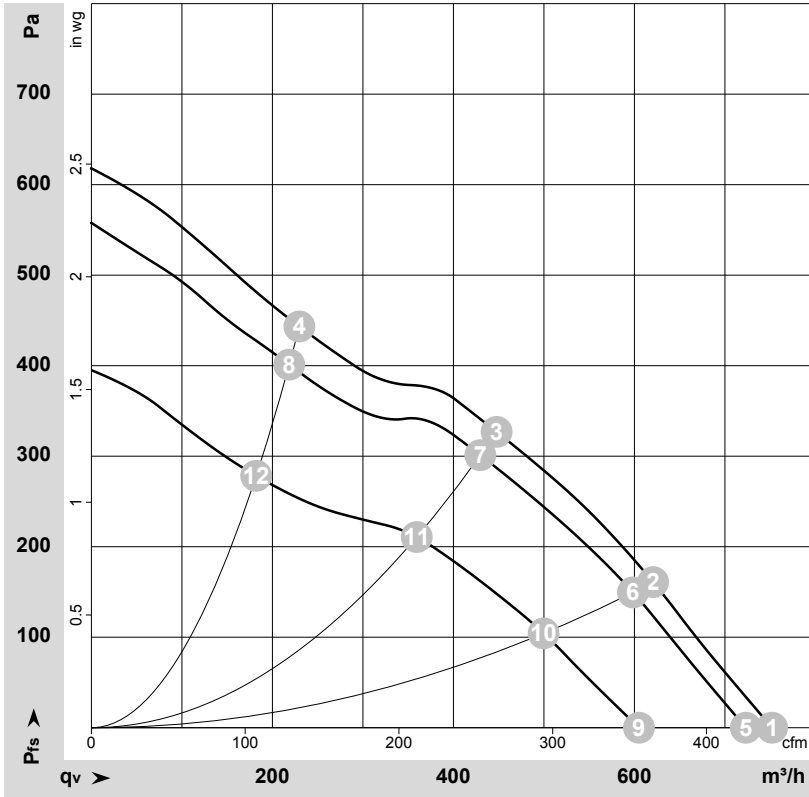
Connection diagram



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



Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-122560-1
 Measurement: LU-122551-1
 Measurement: LU-122555-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	LpA _{in}	LwA _{in}	q _v	P _{fs}	q _v	P _{fs}
	V	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	52	3560	113	2.48			750	0	445	0.00
2	52	3515	114	2.50			620	161	365	0.65
3	52	3535	113	2.49			450	327	265	1.31
4	52	3900	100	2.16			230	443	135	1.78
5	48	3430	100	2.40	72	80	725	0	425	0.00
6	48	3385	102	2.40	70	79	600	150	350	0.60
7	48	3400	102	2.39	68	77	430	300	255	1.20
8	48	3715	88	2.05	68	77	220	400	130	1.61
9	36	2885	61	1.88			605	0	355	0.00
10	36	2855	62	1.91			500	106	295	0.43
11	36	2860	62	1.91			360	212	210	0.85
12	36	3105	52	1.64			180	278	105	1.12

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side · q_v = Air flow
 P_{fs} = Pressure increase

