

## EC centrifugal fan

backward-curved, single-intake

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**Nominal data**

Type	R1G190-AC11-52	
Motor	M1G074-BF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	3200
Power consumption	W	71
Current draw	A	1.65
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



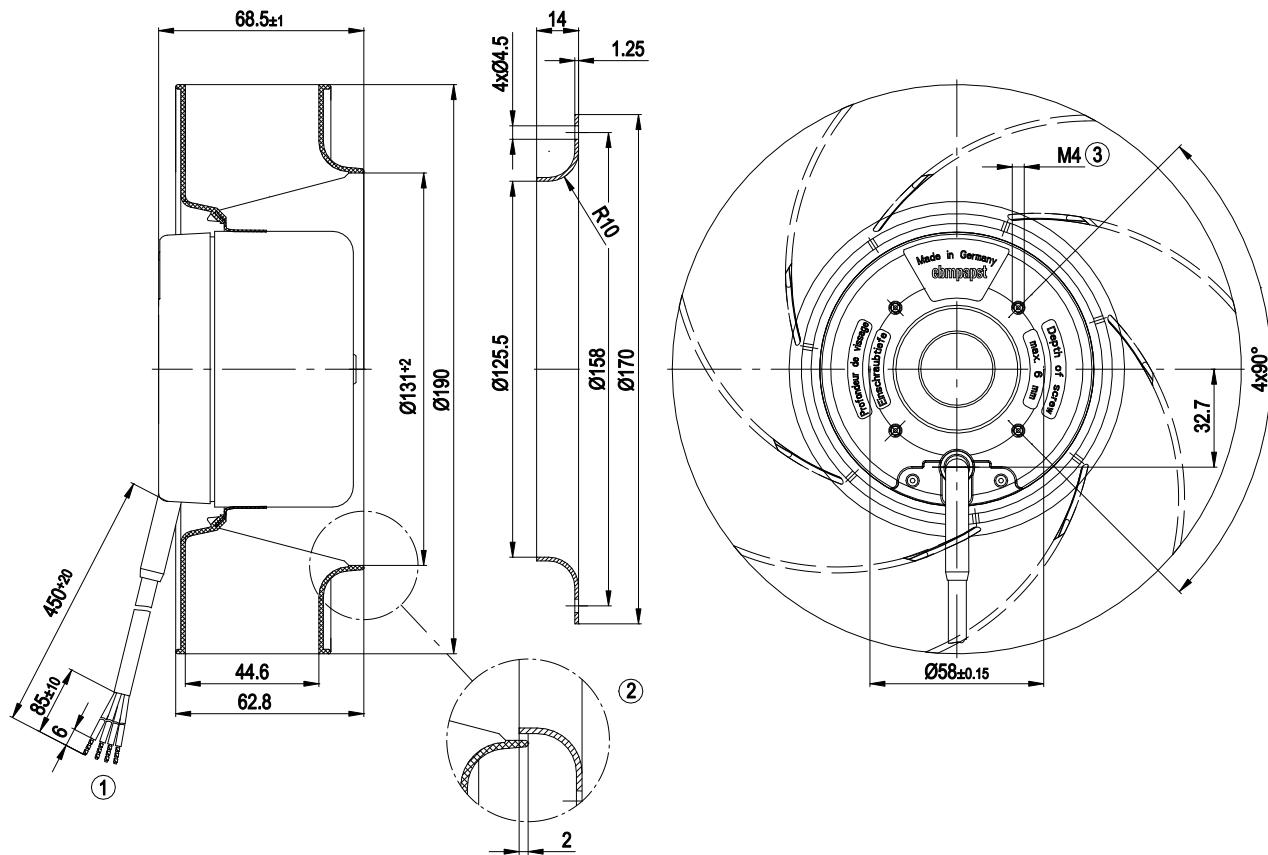
**Technical description**

<b>Weight</b>	1.3 kg
<b>Fan size</b>	190 mm
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	PA 6.6 plastic, glass-fiber reinforced
<b>Number of blades</b>	7
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP42
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F0
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Tach output</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2
<b>EMC interference emission</b>	According to EN 61000-6-3
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>With cable</b>	Variable
<b>Conformity with standards</b>	EN 60950-1
<b>Approval</b>	CSA C22.2 No. 77; CCC; EAC; UL 1004-1

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## Product drawing



1 Cable AWG20, 4x crimped splices

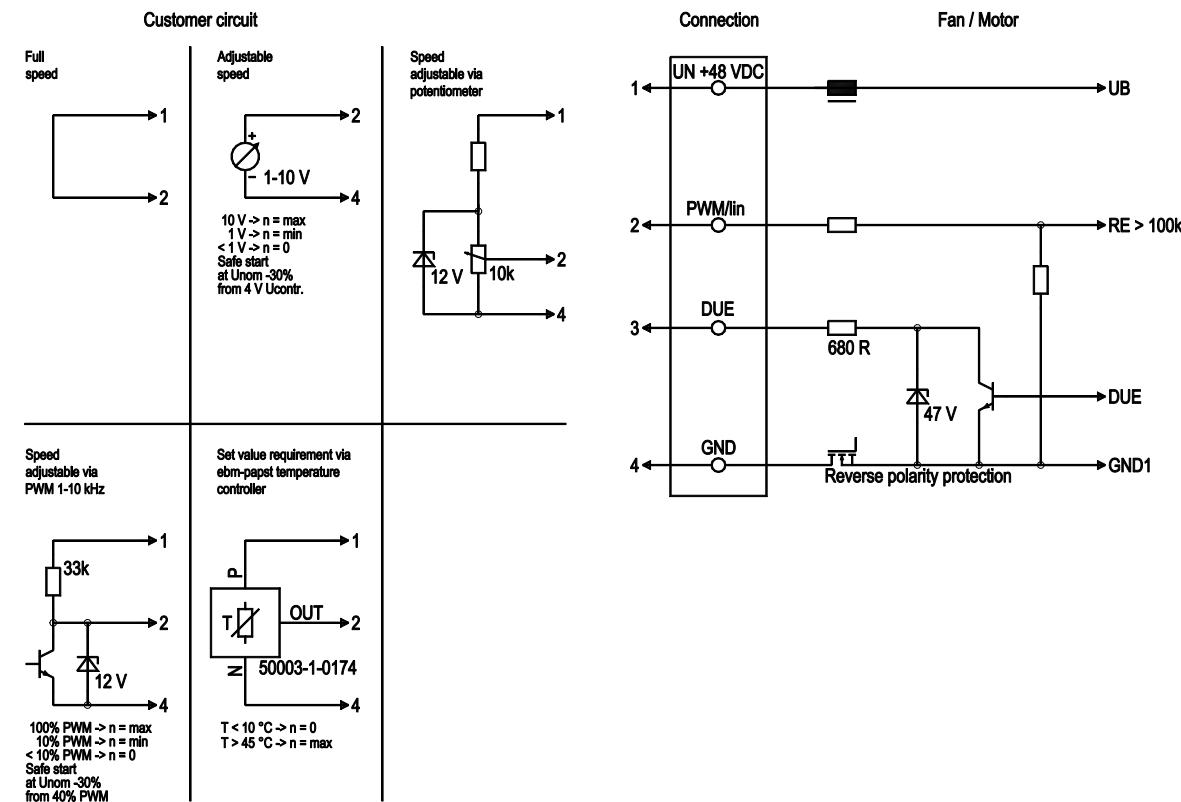
2 Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

3 Max. clearance for screw 6 mm

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## Connection diagram

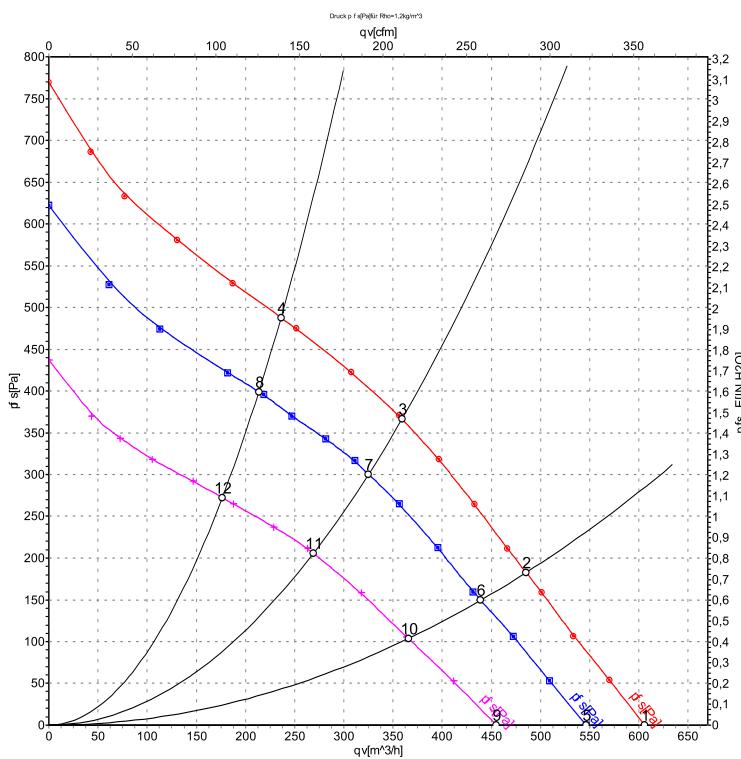


No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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## Curves: Air performance



Measurement: LU-50036-1  
 Measurement: LU-50035-1  
 Measurement: LU-50037-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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	$qv$	$p_{fs}$	$qv$	$p_{fs}$
	V	$min^{-1}$	W	A	$m^3/h$	Pa	CFM	inH2O
1	57	3560	96	1.89	605	0	355	0.00
2	57	3485	99	1.96	485	183	285	0.73
3	57	3545	96	1.89	360	367	210	1.47
4	57	3610	93	1.84	235	488	140	1.96
5	48	3200	71	1.65	545	0	320	0.00
6	48	3145	74	1.71	440	150	260	0.60
7	48	3200	72	1.67	325	300	190	1.20
8	48	3245	69	1.61	215	400	125	1.61
9	36	2670	42	1.30	455	0	270	0.00
10	36	2615	44	1.36	365	103	215	0.41
11	36	2655	42	1.31	270	206	160	0.83
12	36	2700	41	1.28	175	272	105	1.09

U = Power supply · n = Speed (rpm) ·  $P_{ed}$  = Power consumption · I = Current draw ·  $qv$  = Air flow ·  $p_{fs}$  = Pressure increase



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