

R1G190-AC37-52

EC centrifugal fan

backward curved, single inlet

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Nominal data

Type	R1G190-AC37-52	
Motor	M1G074-BF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		rfa
Speed	min ⁻¹	3250
Power input	W	80
Current draw	A	3.7
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

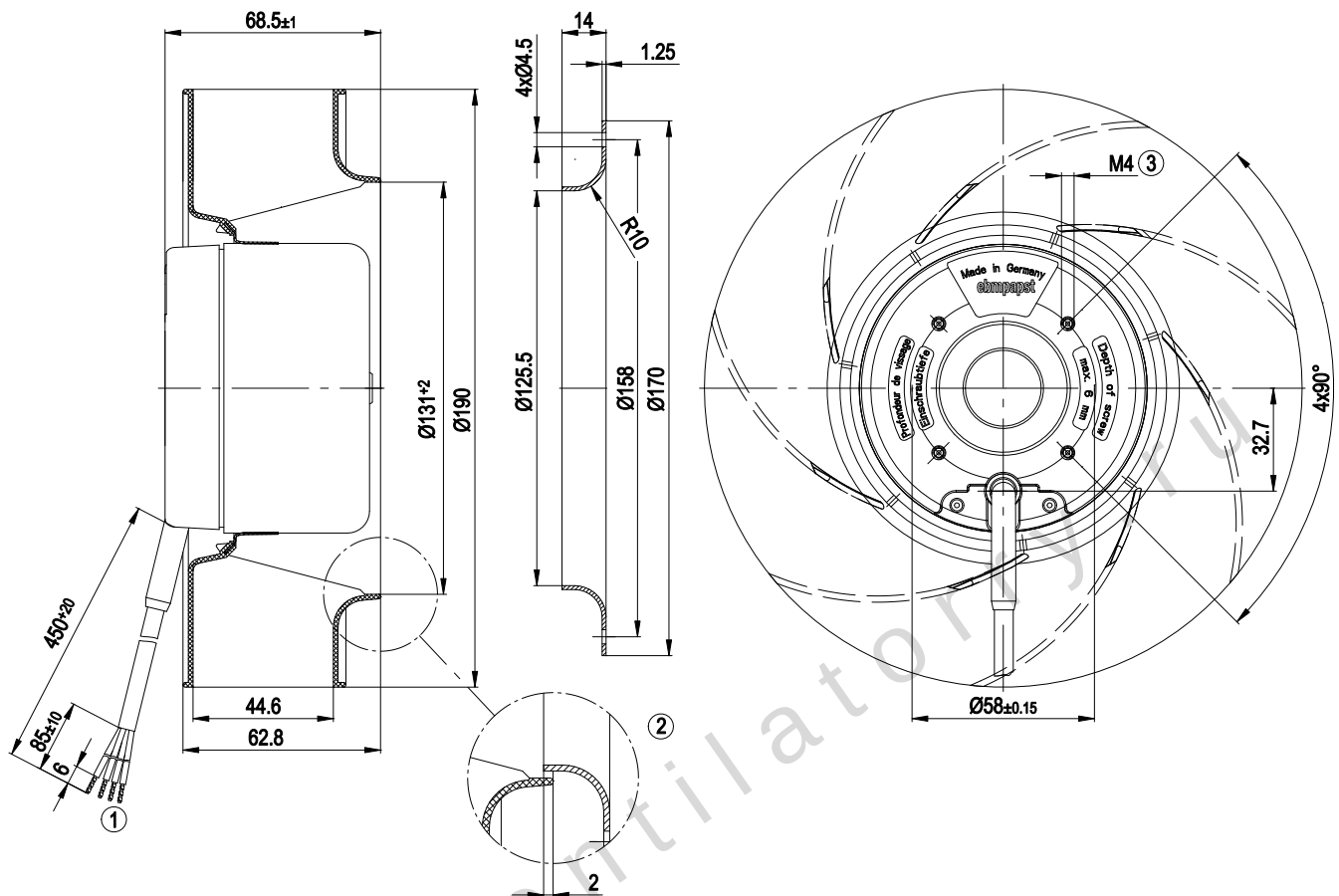
Size	190 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC interference emission	Acc. to EN 61000-6-3
EMC interference immunity	Acc. to EN 61000-6-2
Humidity class	F0
Insulation class	"B"
Cable exit	Variable
Condensate discharge holes	None
Motor bearing	Ball bearing
Mass	1.3 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	Coated in black
Number of blades	7
Type of protection	IP 42
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	CSA C22.2 Nr.77; UL 1004-1

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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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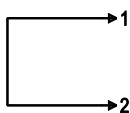
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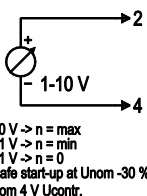
Connection screen

Customer circuit

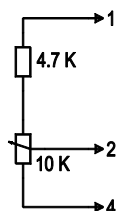
Full speed



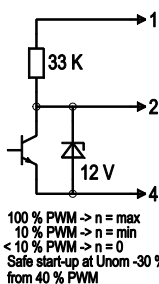
Speed setting



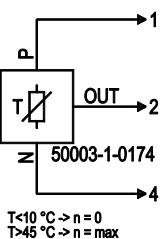
Speed setting via potentiometer



Speed setting via PWM 1-10 kHz

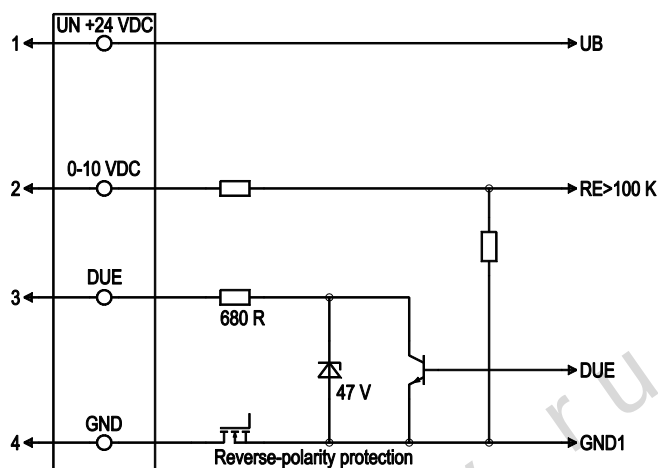


Setting of values via temperature controller



Connection

Fan / motor



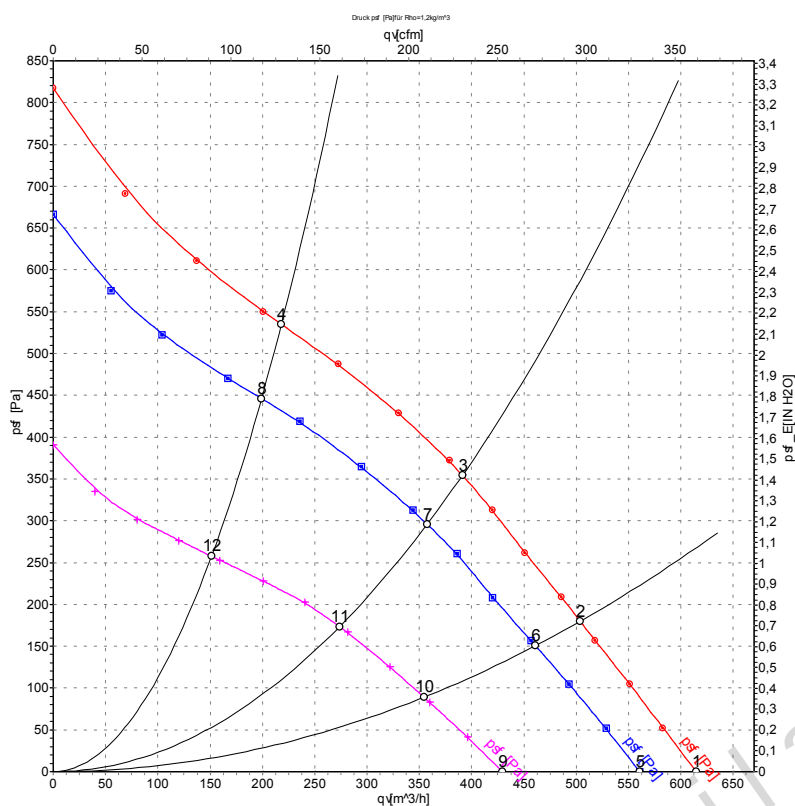
Line	No.	Signal	Colour	Function / assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100 K
1	3	DUE	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-75809
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Air performance measured as per ISO 5801 Installation Category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L_{WA} measured as per ISO 13347 / L_{pA} measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	n	P _e	I	qv	p _{sf}
	V	min ⁻¹	W	A	m³/h	Pa
1	28	3630	103	4.14	615	0
2	28	3540	107	4.30	505	180
3	28	3600	104	4.19	390	354
4	28	3705	100	4.01	220	535
5	24	3250	80	3.70	560	0
6	24	3230	82	3.82	460	150
7	24	3290	80	3.71	360	300
8	24	3380	76	3.53	200	450
9	16	2515	38	2.72	430	0
10	16	2470	39	2.80	355	89
11	16	2515	38	2.70	275	174
12	16	2560	36	2.61	150	258