R1G175-AF29-04

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	**R1G175-AF29-04**	
Motor	**M1G055-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 52
Type of data definition		fa
Speed	min^{-1}	4000
Power input	W	75
Current draw	A	1.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

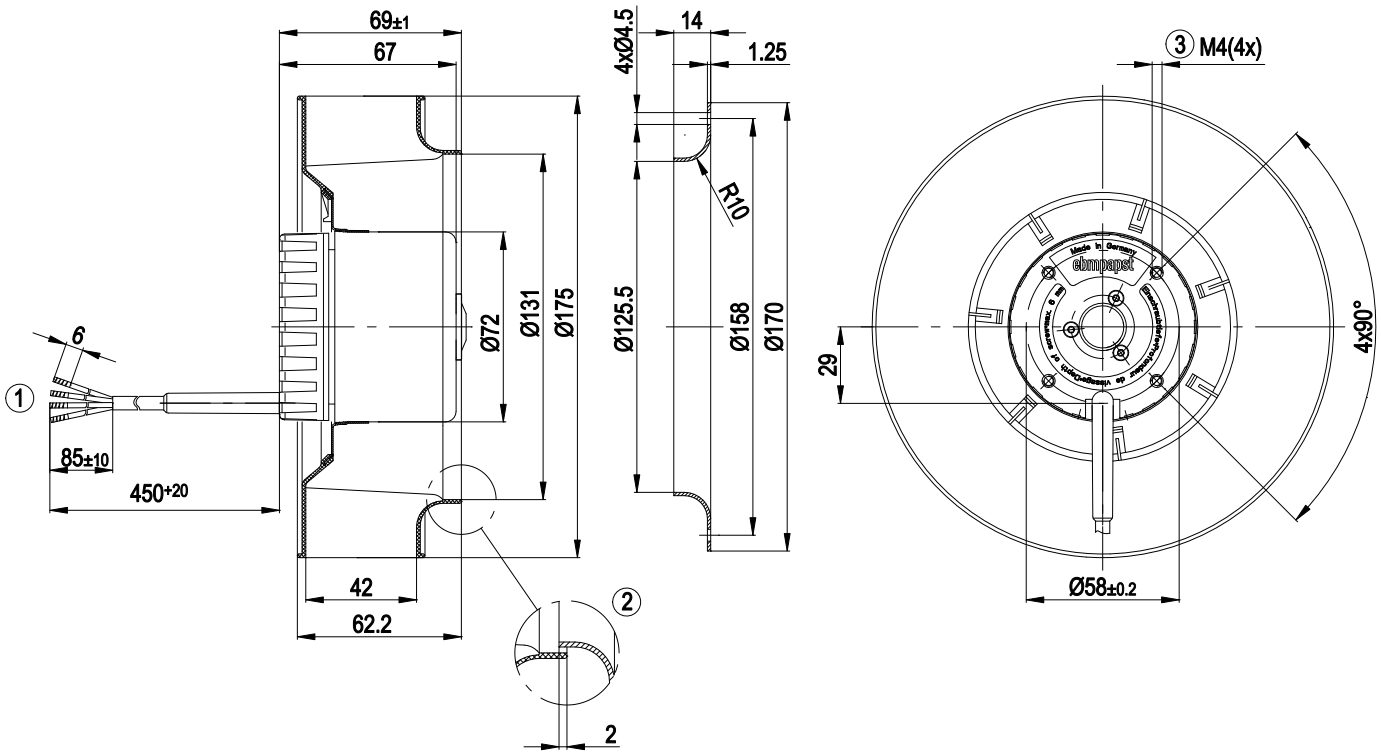
Mass	1.0 kg
Size	175 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA66, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 22
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60950-1
Approval	CCC; EAC

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Product drawing



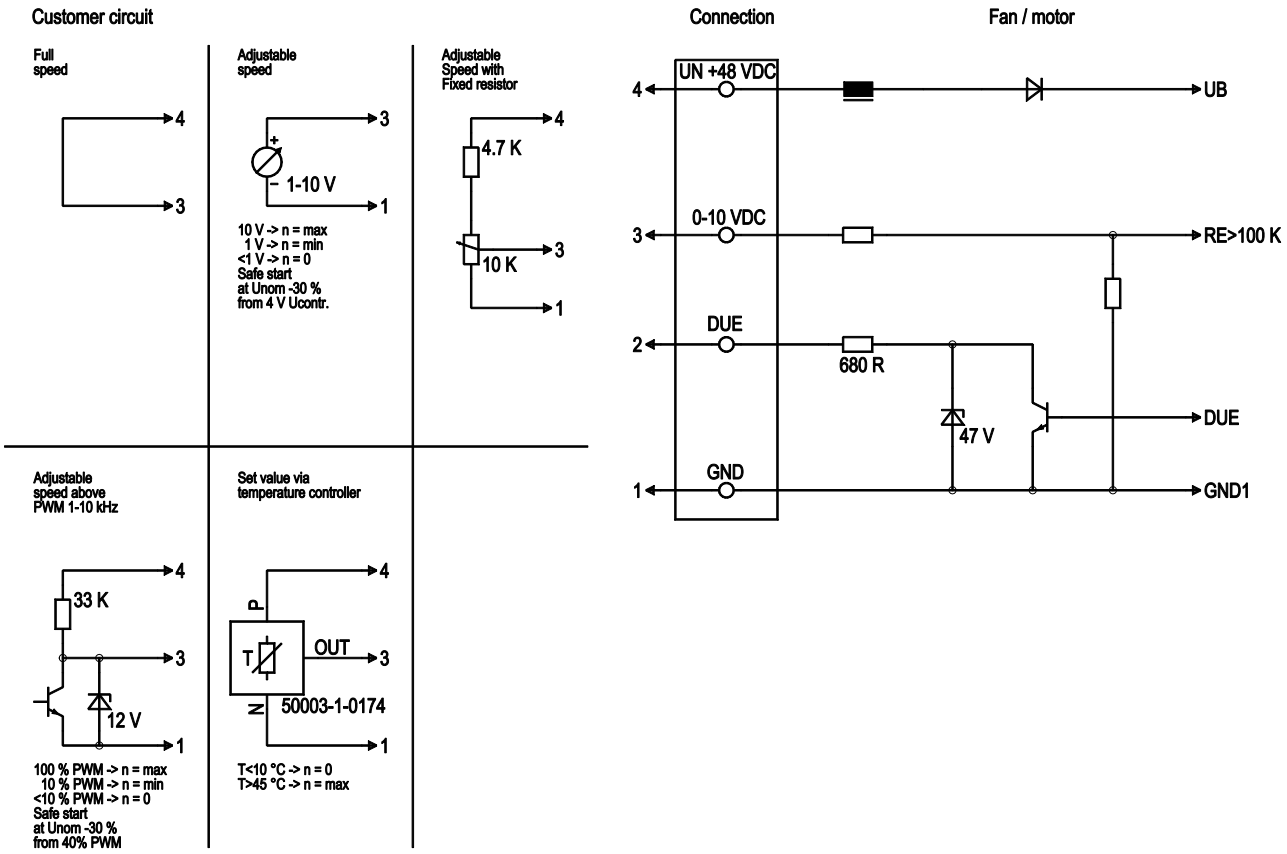
1	Connection line PVC 4X AWG20, 4x brass lead tips crimped
2	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

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Connection screen



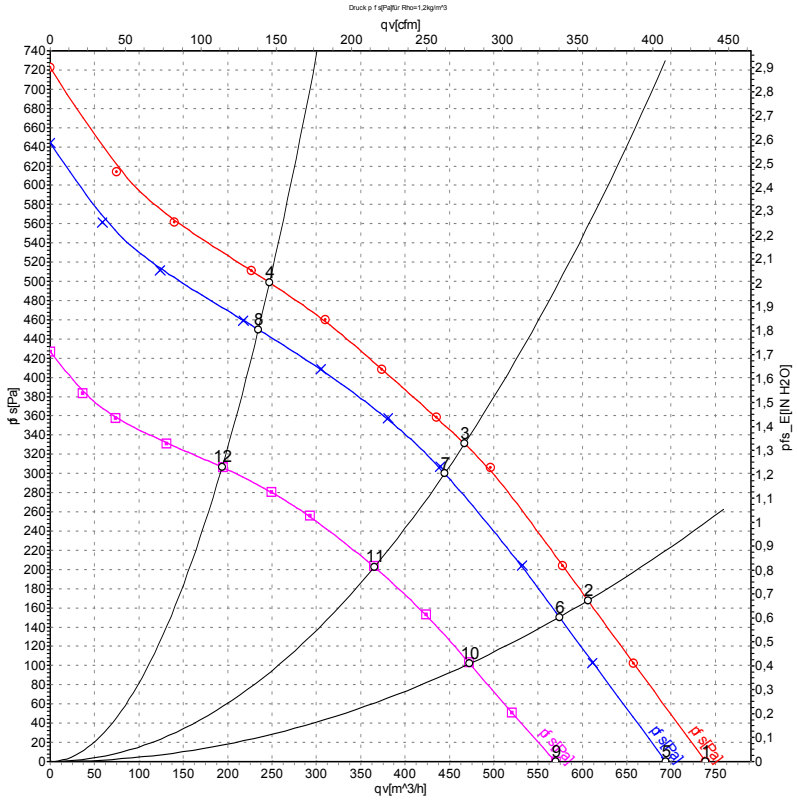
No.	Conn.	Designation	Colour	Function / assignment
1	1	GND	blue	Reference mass
1	2	Tach	white	Speed monitoring output, 2 pulses per revolution, Isink max = 10 mA
1	3	0-10 VDC	yellow	Control input Re > 100 k
1	4	Un +48 VDC	red	Power supply 48 VDC, see type plate for voltage range, residual ripple 3.5%

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Charts: Air flow



Measurement: LU-56258
Measurement: LU-56257
Measurement: LU-56259

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: LwA measured as per ISO 13347 / LpA 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_{ed}	I	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa
1	52	4245	88	1.88	740	0
2	52	4120	93	2.00	605	168
3	52	4040	96	2.07	465	331
4	52	4100	94	2.02	245	499
5	48	4000	75	1.75	695	0
6	48	3915	81	1.87	575	150
7	48	3860	83	1.93	445	300
8	48	3900	82	1.89	235	450
9	36	3300	42	1.31	570	0
10	36	3230	45	1.39	475	102
11	36	3180	47	1.46	365	204
12	36	3205	46	1.42	195	307

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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