

R1G175-AF29-04

EC centrifugal fan

backward-curved, single-intake



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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R1G175-AF29-04	
Motor	M1G055-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 52
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	4000
Power consumption	W	75
Current draw	A	1.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

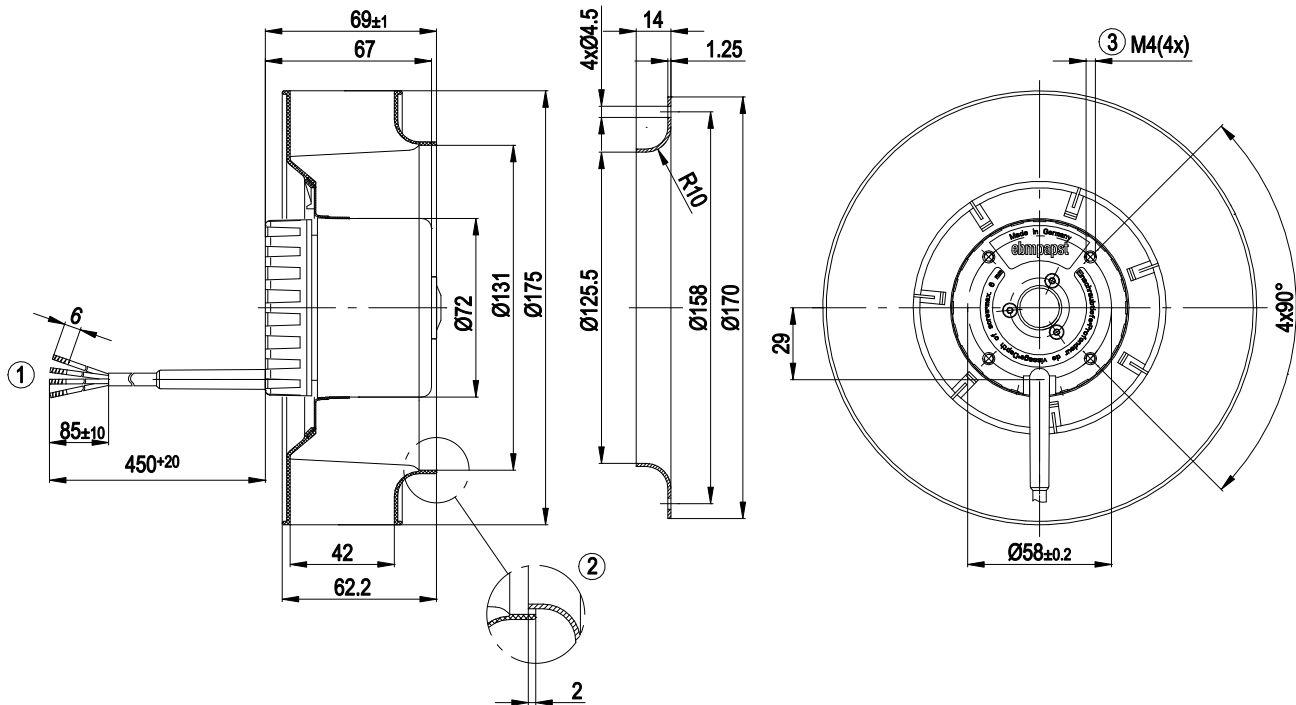
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

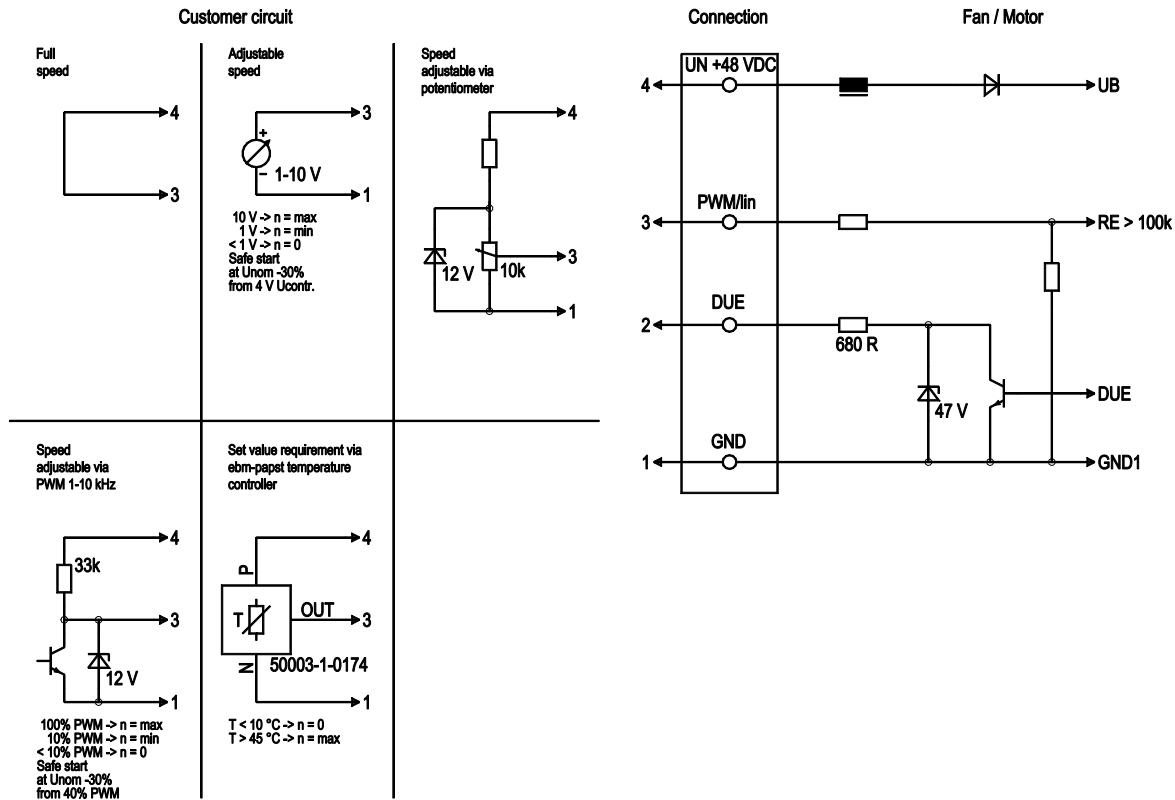
Weight	1.0 kg
Fan size	175 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Impeller material	PA66 plastic, glass-fiber reinforced
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP22
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Cooling hole/opening	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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60950-1
Approval	EAC; CCC

Product drawing



1	Cable PVC 4x 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

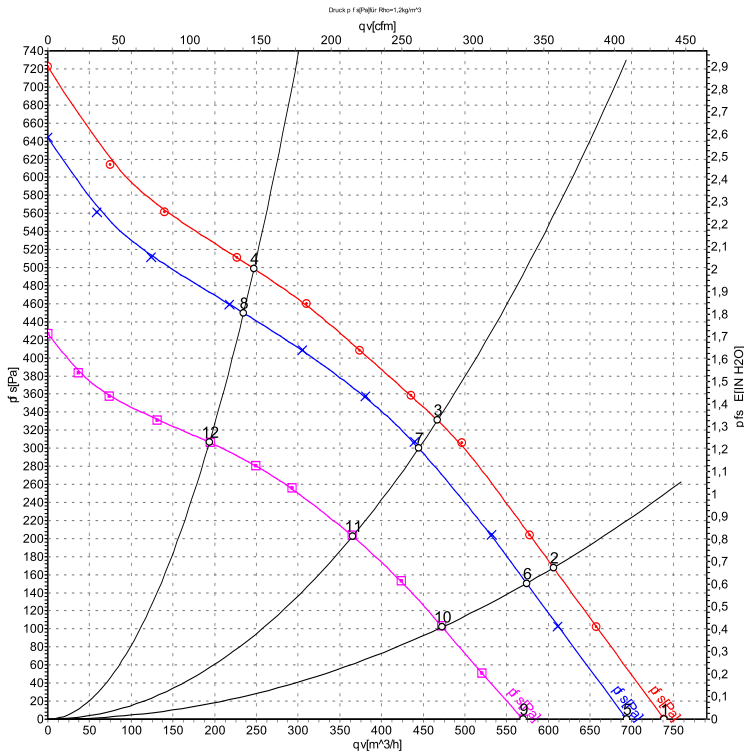
Connection diagram



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



Curves: Air performance



Measurement: LU-56258-1
 Measurement: LU-56257-1
 Measurement: LU-56259-1

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	q_v	p_{fs}	q_v	p_{fs}
	V	min ⁻¹	W	A	m ³ /h	Pa	CFM	inH ₂ O
1	52	4245	88	1.88	740	0	435	0.00
2	52	4120	93	2.00	605	168	355	0.67
3	52	4040	96	2.07	465	331	275	1.33
4	52	4100	94	2.02	245	499	145	2.00
5	48	4000	75	1.75	695	0	410	0.00
6	48	3915	81	1.87	575	150	340	0.60
7	48	3860	83	1.93	445	300	260	1.20
8	48	3900	82	1.89	235	450	140	1.81
9	36	3300	42	1.31	570	0	335	0.00
10	36	3230	45	1.39	475	102	280	0.41
11	36	3180	47	1.46	365	204	215	0.82
12	36	3205	46	1.42	195	307	115	1.23

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

