

EC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R1G190-AB25-02	
Motor	M1G055-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	2950
Power consumption	W	51
Current draw	A	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

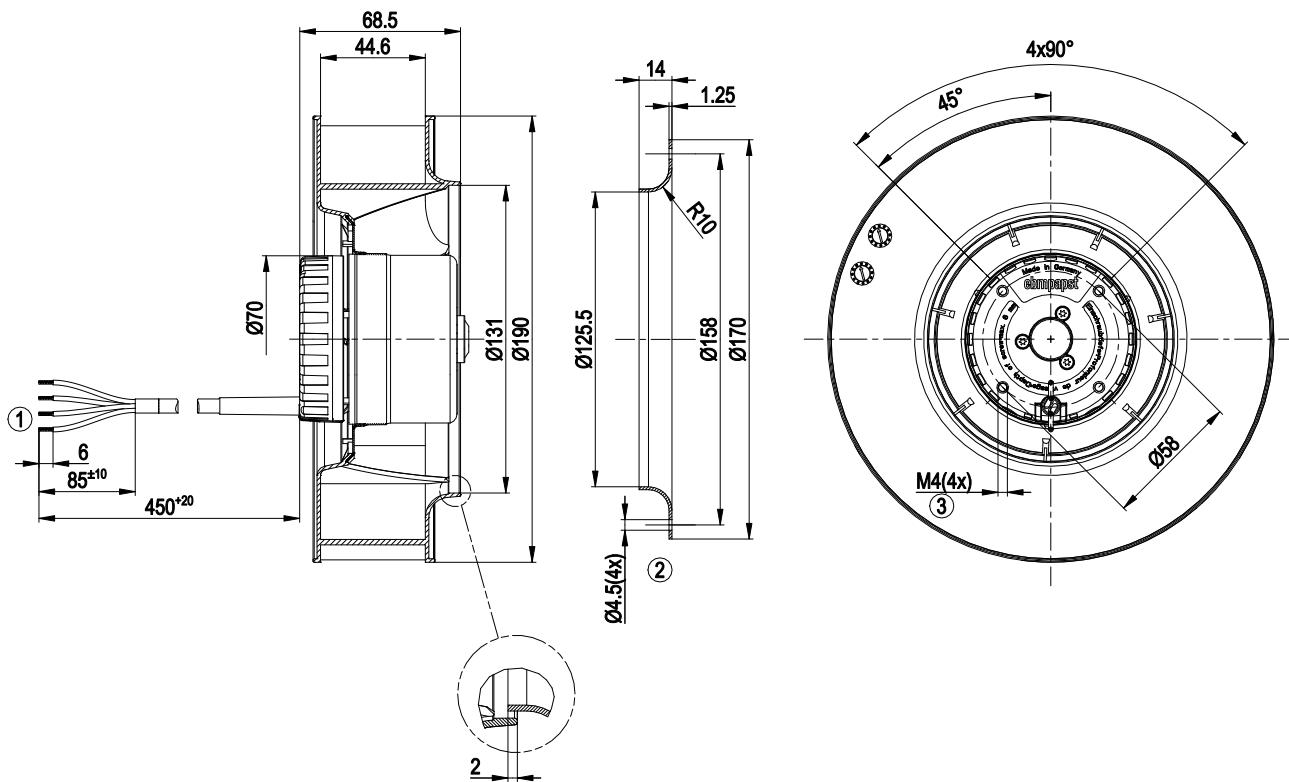
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

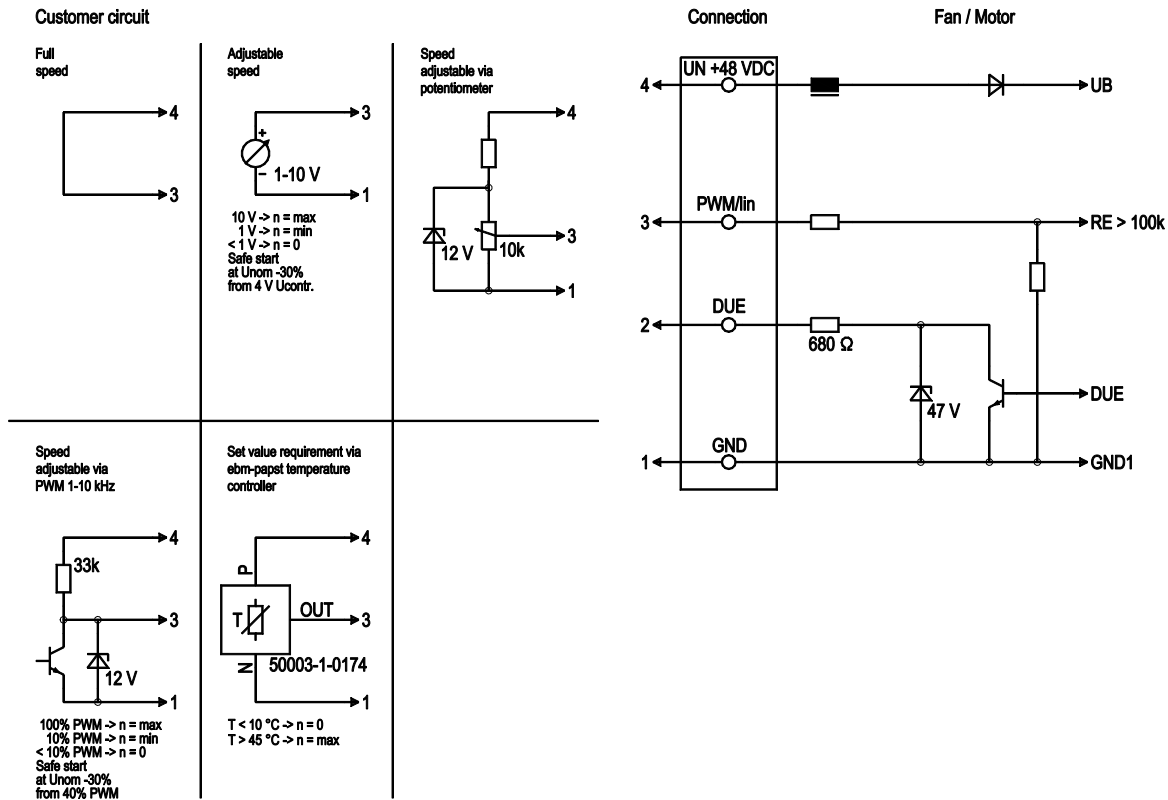
Weight	1.0 kg
Fan size	190 mm
Rotor surface	Painted black
Impeller material	PA 6.6 plastic, glass-fiber reinforced
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP22; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (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
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- 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 61000-6-3 (household environment)
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



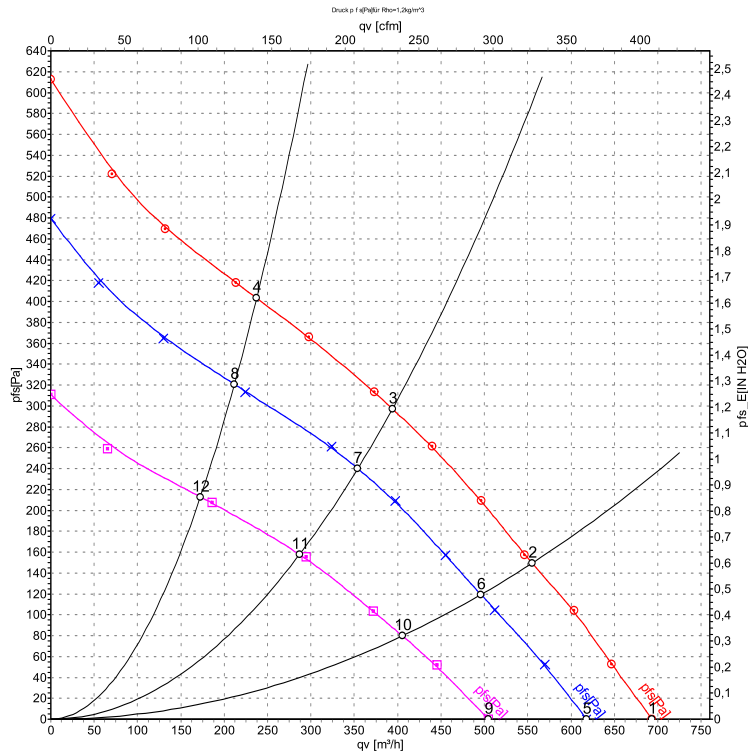
1	Cable AWG20 4x 0.5 mm ² , 4x crimped splices
2	Accessory part: inlet ring 09576-2-4013, not included in scope of delivery
3	Max. clearance for screw 6 mm

Connection diagram



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

Curves: Air performance



Measurement: LU-51398-1
 Measurement: LU-51397-1
 Measurement: LU-51399-1

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	m³/h	Pa	CFM	inH ₂ O
1	57	3310	71	1.38	695	0	410	0.00
2	57	3215	75	1.46	555	149	325	0.60
3	57	3160	77	1.51	395	297	230	1.19
4	57	3245	74	1.44	235	403	140	1.62
5	48	2950	51	1.20	620	0	365	0.00
6	48	2875	54	1.24	495	120	290	0.48
7	48	2835	56	1.29	355	240	210	0.96
8	48	2900	53	1.21	210	320	125	1.28
9	36	2395	28	0.87	505	0	295	0.00
10	36	2335	30	0.94	405	80	240	0.32
11	36	2315	31	0.96	285	159	170	0.64
12	36	2365	29	0.91	170	213	100	0.86

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



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