EC axial compact fan

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Nominal data

Type	**W1G250-HH67-52**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2750
Power consumption	W	105
Current draw	A	2.6
Max. back pressure	Pa	140
Max. back pressure	in. wg	0.56
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

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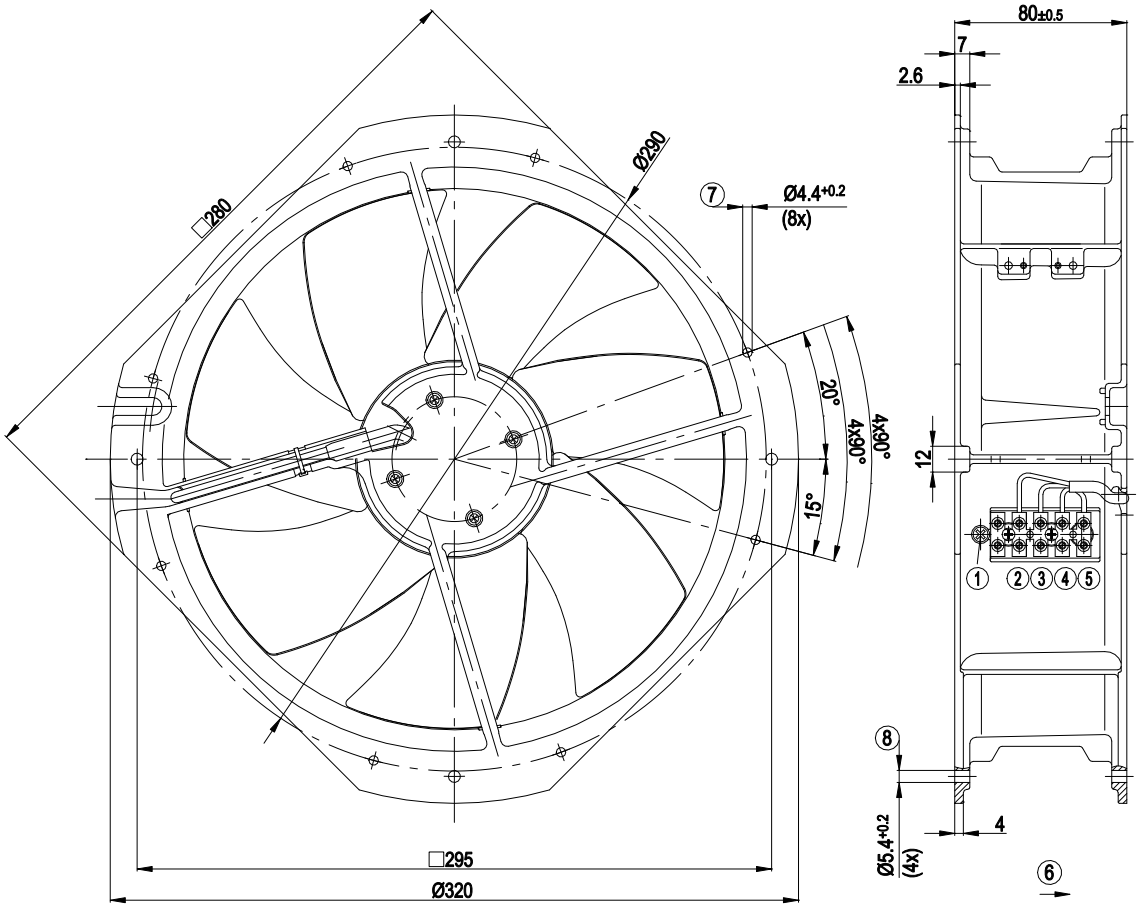
Technical description

Weight	2.38 kg
Size	250 mm
Motor size	74
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Fan housing material	Die-cast aluminum
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0; H0 - dry environment
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	- Control input 0-10 VDC / PWM - Tach output - Motor current limitation - Soft start
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
Electrical hookup	Via terminal strip
Motor protection	Reverse polarity and locked-rotor protection
Conformity with standards	EN 60950-1
Approval	CSA C22.2 No. 113; CCC; EAC; UL 507; VDE

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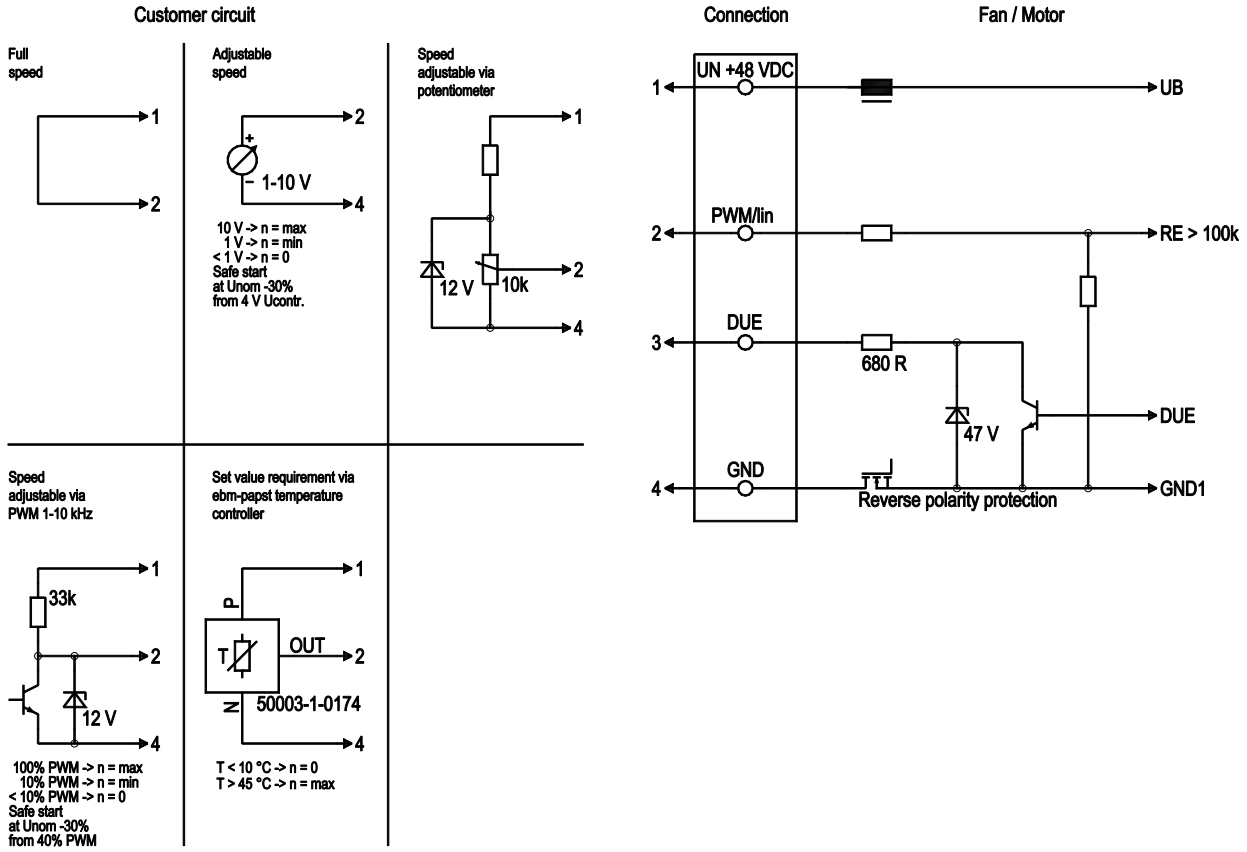
Product drawing



1	Protective earth
2	Control input yellow
3	Speed monitoring white
4	(-) blue
5	(+) red
6	Direction of air flow "V"
7	For self-tapping M5 screws
8	For self-tapping M6 screws

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Connection diagram

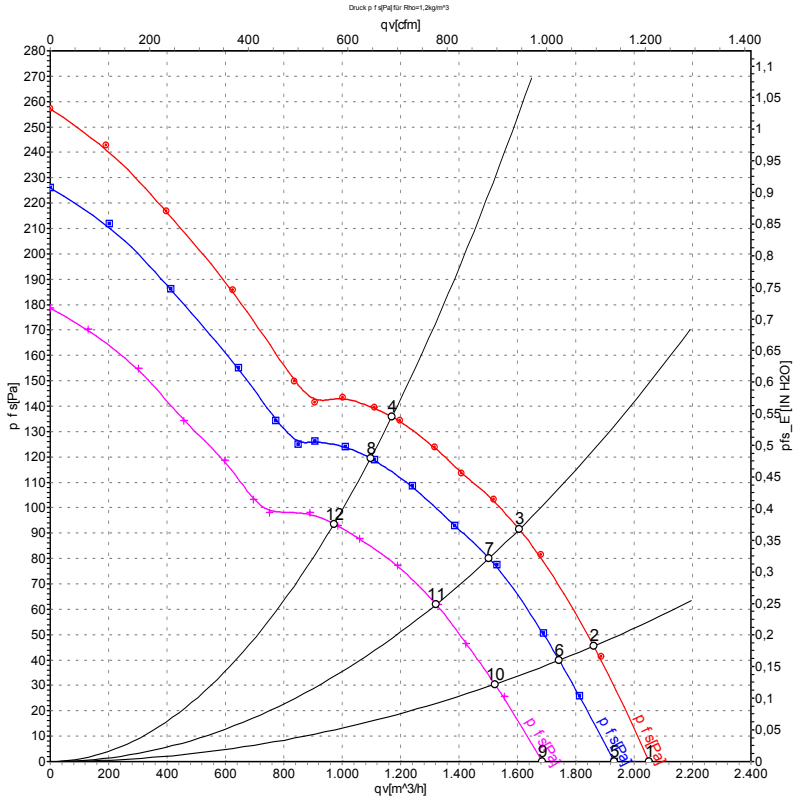


No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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Curves: Air performance



Measurement: LU-54178-1
Measurement: LU-54177-1
Measurement: LU-54175-1

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	in. wg
1	57	2930	129	2.80	2050	0	1210	0.00
2	57	2810	132	2.92	1860	47	1095	0.19
3	57	2700	136	3.05	1605	92	945	0.37
4	57	2595	139	3.18	1170	136	690	0.55
5	48	2750	105	2.60	1930	0	1135	0.00
6	48	2645	109	2.70	1745	40	1025	0.16
7	48	2530	111	2.80	1505	80	885	0.32
8	48	2435	114	2.90	1095	120	645	0.48
9	36	2405	73	2.27	1685	0	990	0.00
10	36	2330	75	2.36	1525	31	895	0.12
11	36	2245	78	2.46	1320	62	780	0.25
12	36	2170	80	2.52	970	94	570	0.38

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

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