EC axial compact fan

sickle-shaped blades (S series)

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W1G250-HH67-48**	
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	inH2O	0.56
Min. ambient temperature	°C	-40
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	2.5 kg
Fan size	250 mm
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	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+70 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Rotor on bottom
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing with low-temperature lubricant
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 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Conformity with standards	EN 60950-1

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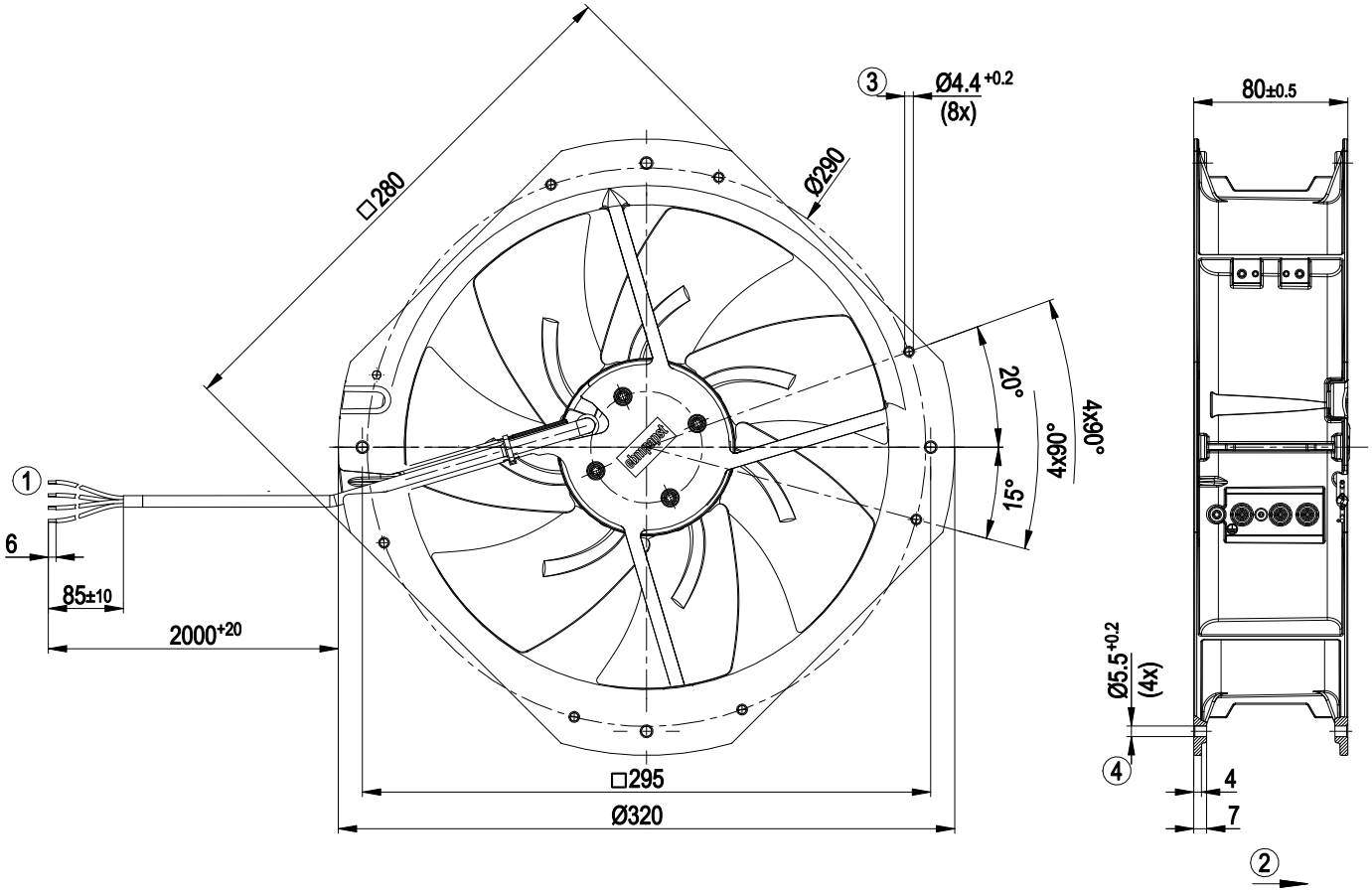
Product drawing



1	Cable halogen-free 4G 0.5 mm², 4x crimped splices
2	Direction of air flow "V"
3	For self-tapping M5 screws
4	For self-tapping M6 screws

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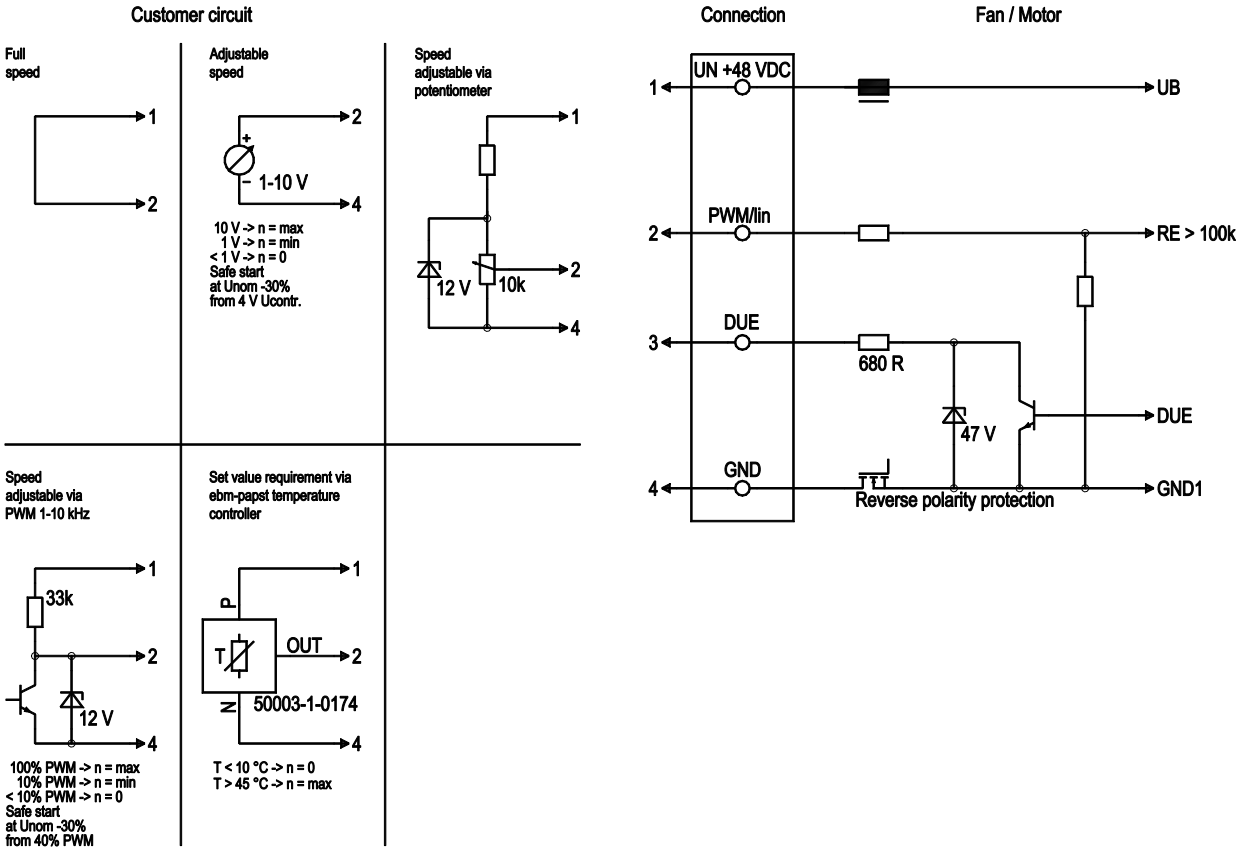
Connection diagram



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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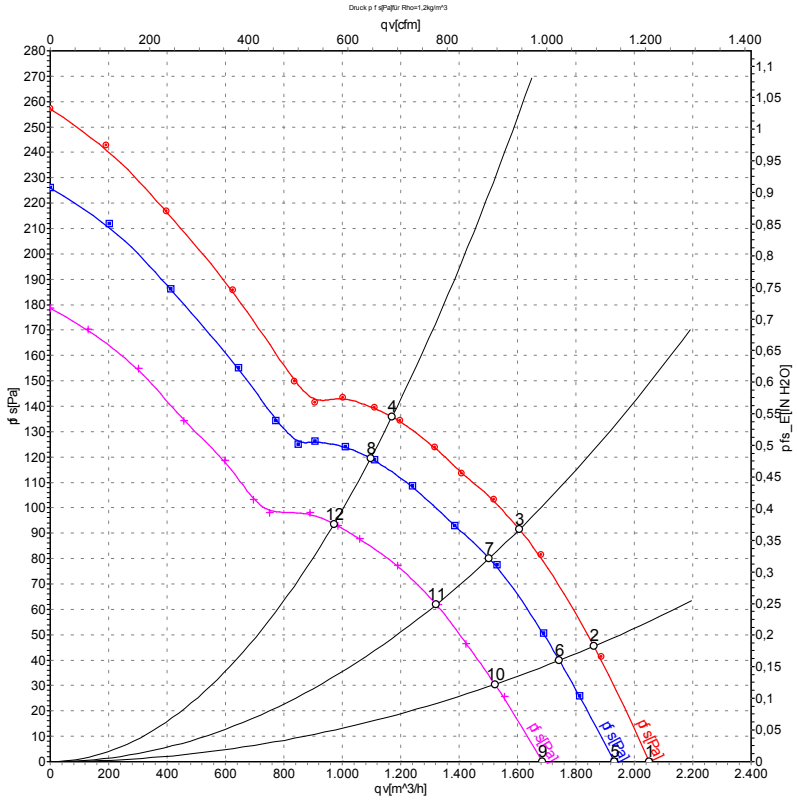
Curves: Air performance



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	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
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 = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase