S1G250-AI37-52

EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S1G250-AI37-52**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min-1	2750
Power consumption	W	105
Current draw	A	5.0
Max. back pressure	Pa	140
Max. back pressure	inH2O	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	2.2 kg
Fan size	250 mm
Electronics housing material	Rotor: painted black
Blade material	Sheet steel, painted black
Guard grille material	Steel, phosphated and coated with black plastic
Number of blades	9
Airflow direction	"A"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP42
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
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Approval	CSA C22.2 No. 77; EAC; UL 1004-1

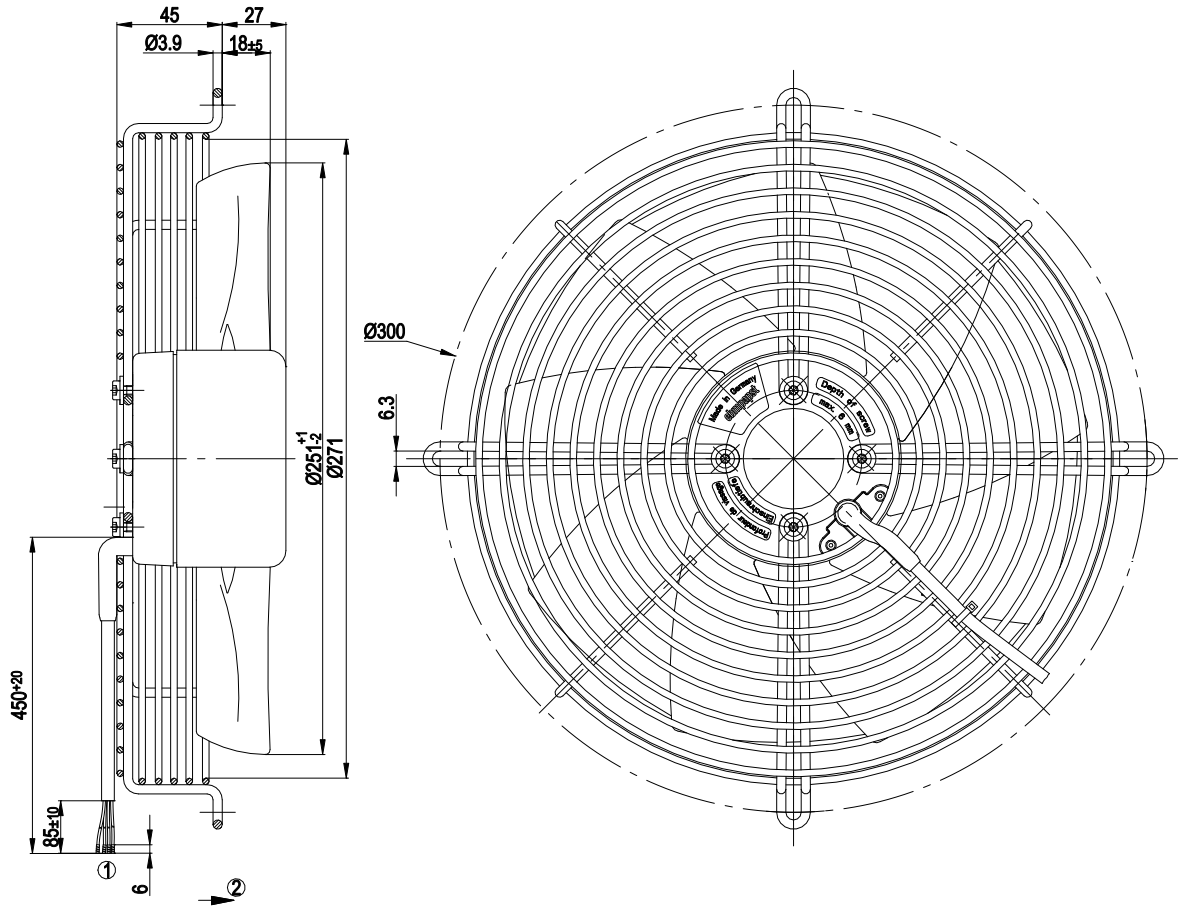
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Product drawing



1	Cable AWG 20, 4x crimped splices
2	Airflow direction "A"

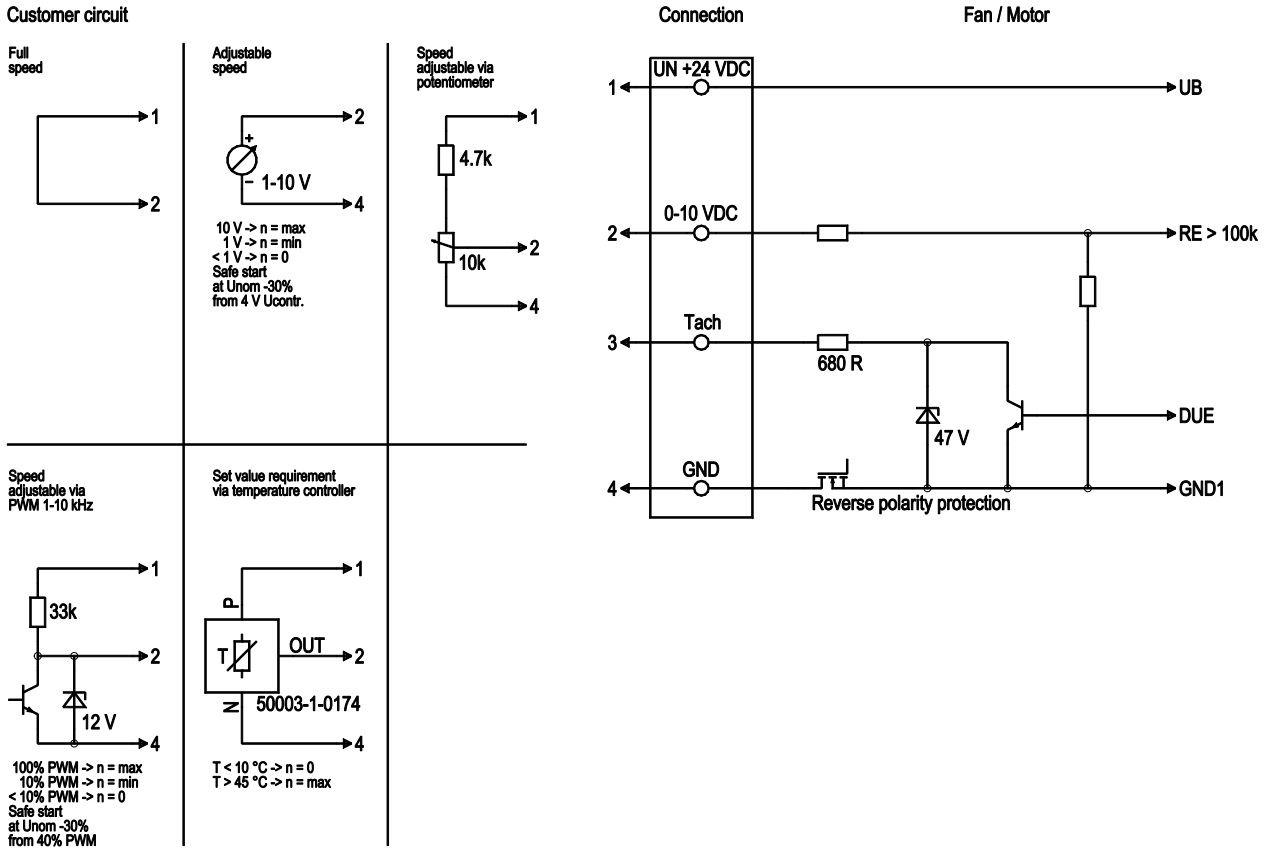
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24 VDC	red	Power supply 24 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

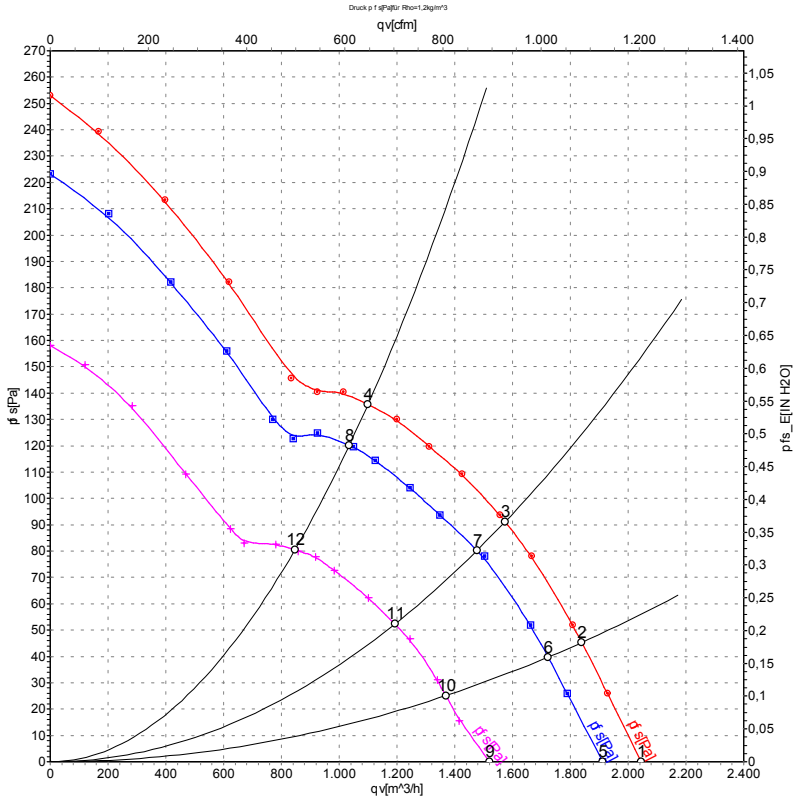
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Curves: Air performance



Measurement: LU-54187-1
Measurement: LU-54186-1
Measurement: LU-54185-1

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	28	2905	125	5.31	2045	0	1205	0.00
2	28	2785	128	5.51	1840	46	1080	0.18
3	28	2660	131	5.76	1575	91	925	0.37
4	28	2580	134	5.93	1100	136	645	0.55
5	24	2750	105	5.00	1920	0	1130	0.00
6	24	2615	106	5.11	1725	40	1015	0.16
7	24	2510	108	5.29	1475	80	870	0.32
8	24	2420	110	5.47	1035	120	610	0.48
9	16	2180	53	3.74	1520	0	895	0.00
10	16	2120	56	3.91	1370	25	805	0.10
11	16	2050	59	4.12	1195	52	700	0.21
12	16	1995	61	4.29	845	80	500	0.32

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

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