S1G250-EJ14-12

EC axial fan

sickle-shaped blades (S series)

with guard grille for full nozzle, Automotive

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Nominal data

Type	**S1G250-EJ14-12**	
Motor	**M1G074-BF**	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3000
Power consumption	W	120
Current draw	A	5.0
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	0.001 kg
Size	250 mm
Motor size	74
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K (mating connector installed)
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H4
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics - Reverse polarity protection
Electrical hookup	Terminal box
With cable	Variable
Comment	The IP protection is valid up to the motor connection side interface

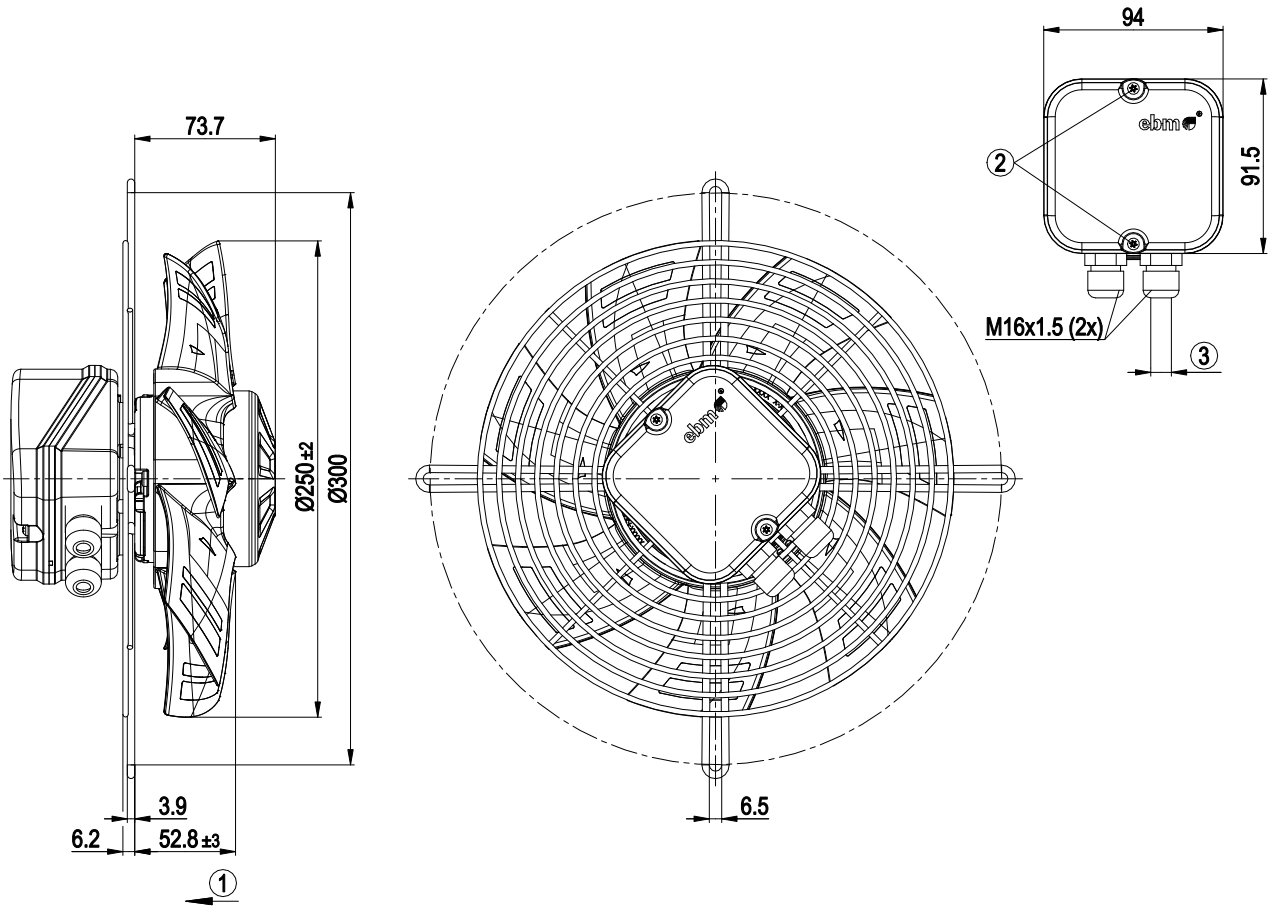
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Product drawing



1	Airflow direction "V"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm

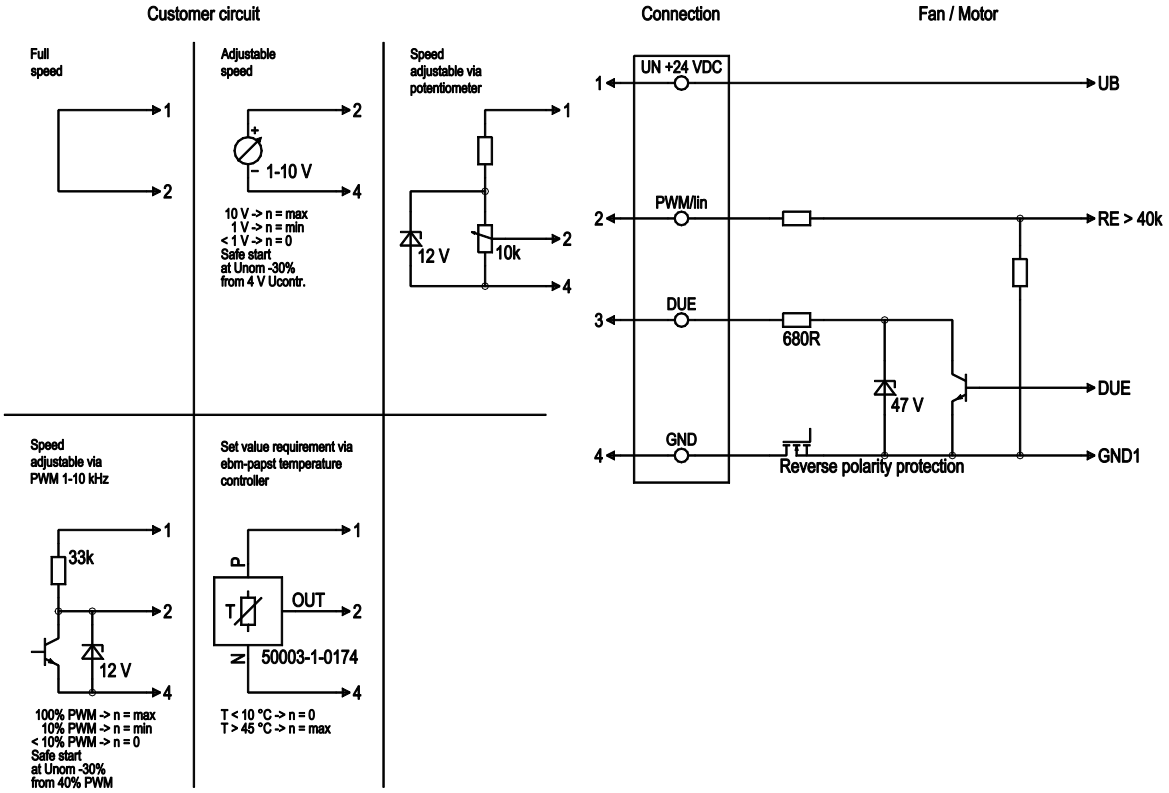
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	UN +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5%
	2	PWM/LIN	yellow	Control input Re > 40k
	3	DUE	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
	4	GND	blue	Reference ground

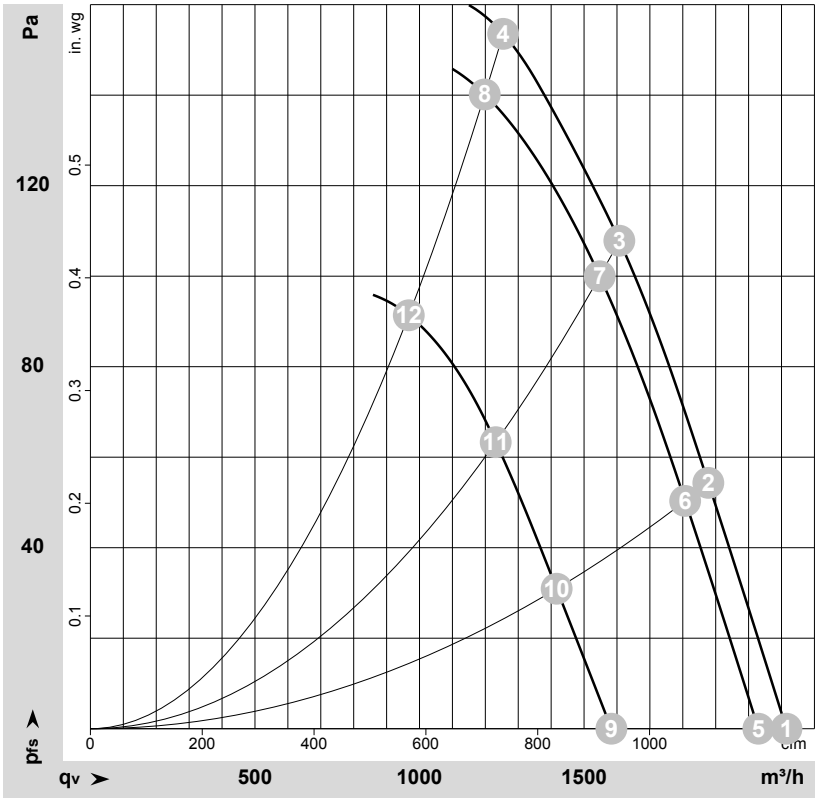
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-191421-1
Measurement: LU-191336-1
Measurement: LU-191420-1

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	28	3135	135	5.93	2115	0	1245	0.00
2	28	2975	139	6.21	1880	55	1105	0.22
3	28	2840	143	6.50	1605	108	945	0.43
4	28	2760	148	6.77	1255	156	740	0.63
5	24	3000	120	6.00	2030	0	1195	0.00
6	24	2880	127	6.30	1805	50	1065	0.20
7	24	2745	130	6.50	1550	100	910	0.40
8	24	2645	131	6.65	1200	140	705	0.56
9	16	2360	60	4.38	1585	0	930	0.00
10	16	2275	63	4.66	1415	31	835	0.12
11	16	2205	67	4.92	1230	63	725	0.25
12	16	2145	70	5.16	965	92	570	0.37

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

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