

W1G250-BB21-01

## EC axial fan - ESM

sickle-shaped blades (S series)  
ESM fan housing with guard grille



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### Nominal data

Type	W1G250-BB21-01		
Motor	M1G055-BI		
Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed	min <sup>-1</sup>	1700	1200
Power consumption	W	32	-
Current draw	A	0.47	
Max. back pressure	Pa	40	
Min. ambient temperature	°C	-30	-30
Max. ambient temperature	°C	50	50

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



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## Technical description

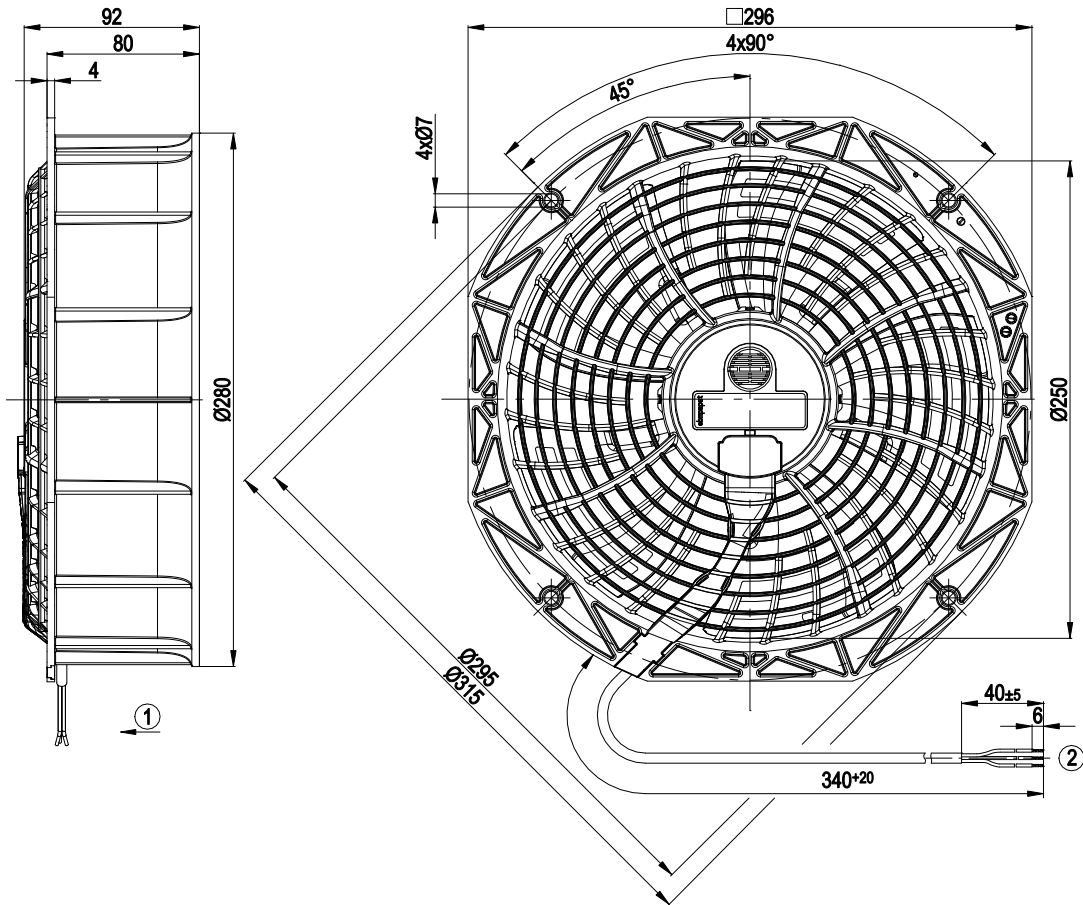
<b>Weight</b>	1.55 kg
<b>Fan size</b>	250 mm
<b>Impeller material</b>	PA plastic
<b>Fan housing material</b>	PP plastic
<b>Number of blades</b>	5
<b>Airflow direction</b>	"V"
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP54
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F3-1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor storage</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Thermal overload protection for motor</li> <li>- Soft start</li> <li>- Speed selection max./min.</li> </ul>
<b>Speed levels</b>	2
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC circuit feedback</b>	According to EN 61000-3-2/3
<b>EMC interference emission</b>	According to EN 61000-6-3 (household environment)
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Lateral
<b>Protection class</b>	II
<b>Conformity with standards</b>	EN 60335-1
<b>Approval</b>	EAC; VDE; UL 2111; CSA C22.2 No. 77



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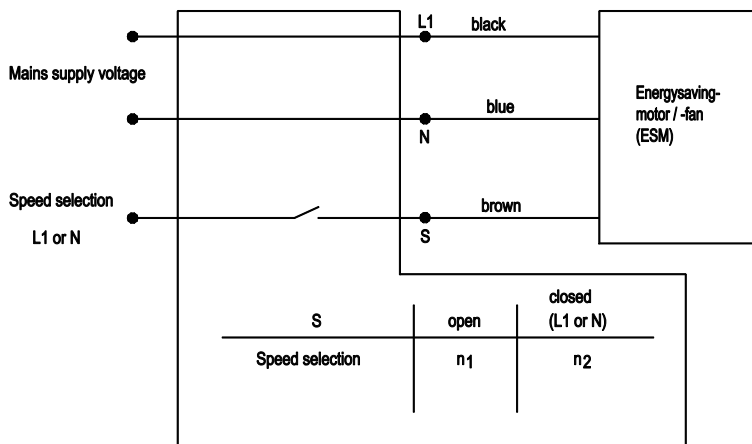
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## Product drawing



- 1 Direction of air flow "V"
- 2 Cable AWG20, 3x crimped splices

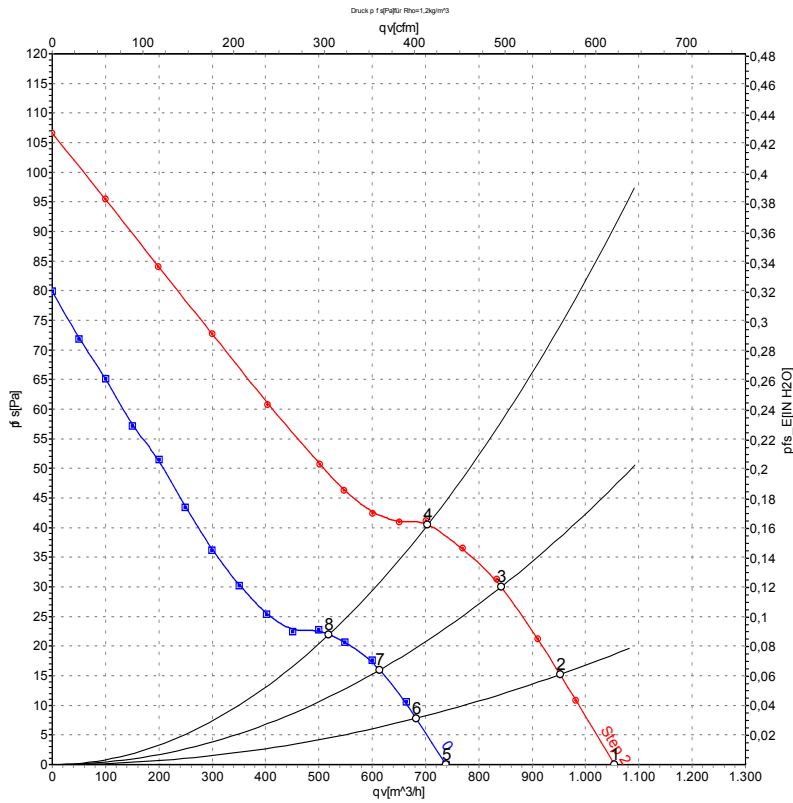
## Connection diagram



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## Curves: Air performance 50 Hz



Measurement: LU-113725  
Measurement: LU-113734

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

	Stage	U	f	n	P <sub>ed</sub>	I	qv	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	2	115	50	1700	30	0.44	1055	0
2	2	115	50	1700	31	0.45	950	15
3	2	115	50	1700	32	0.47	840	30
4	2	115	50	1700	32	0.47	705	40
5	1	115	50	1200	14	0.22	740	0
6	1	115	50	1200	15	0.24	680	8
7	1	115	50	1200	16	0.25	615	16
8	1	115	50	1200	17	0.26	520	22

U = Power supply · f = Frequency · n = Speed · P<sub>ed</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

