

# EC axial fan

sickle-shaped blades (S series)

ESM fan housing

W1G230-EB91-20 ebmpapst Datasheet

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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

<b>Type</b>	<b>W1G230-EB91-20</b>		
<b>Motor</b>	<b>M1G055-BD</b>		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed (rpm)	min <sup>-1</sup>	1600	1000
Power consumption	W	32	
Current draw	A	0.3	
Max. back pressure	Pa	45	
Max. back pressure	inH <sub>2</sub> O	0.18	
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>	1.05 kg
<b>Fan size</b>	230 mm
<b>Blade 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>	H1
<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 bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Speed selection max./min.</li> <li>- Soft start</li> <li>- Thermal overload protection for motor</li> </ul>
<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>Protection class</b>	II
<b>Conformity with standards</b>	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE
<b>Approval</b>	UL 1004-3; VDE; CSA C22.2 No. 77

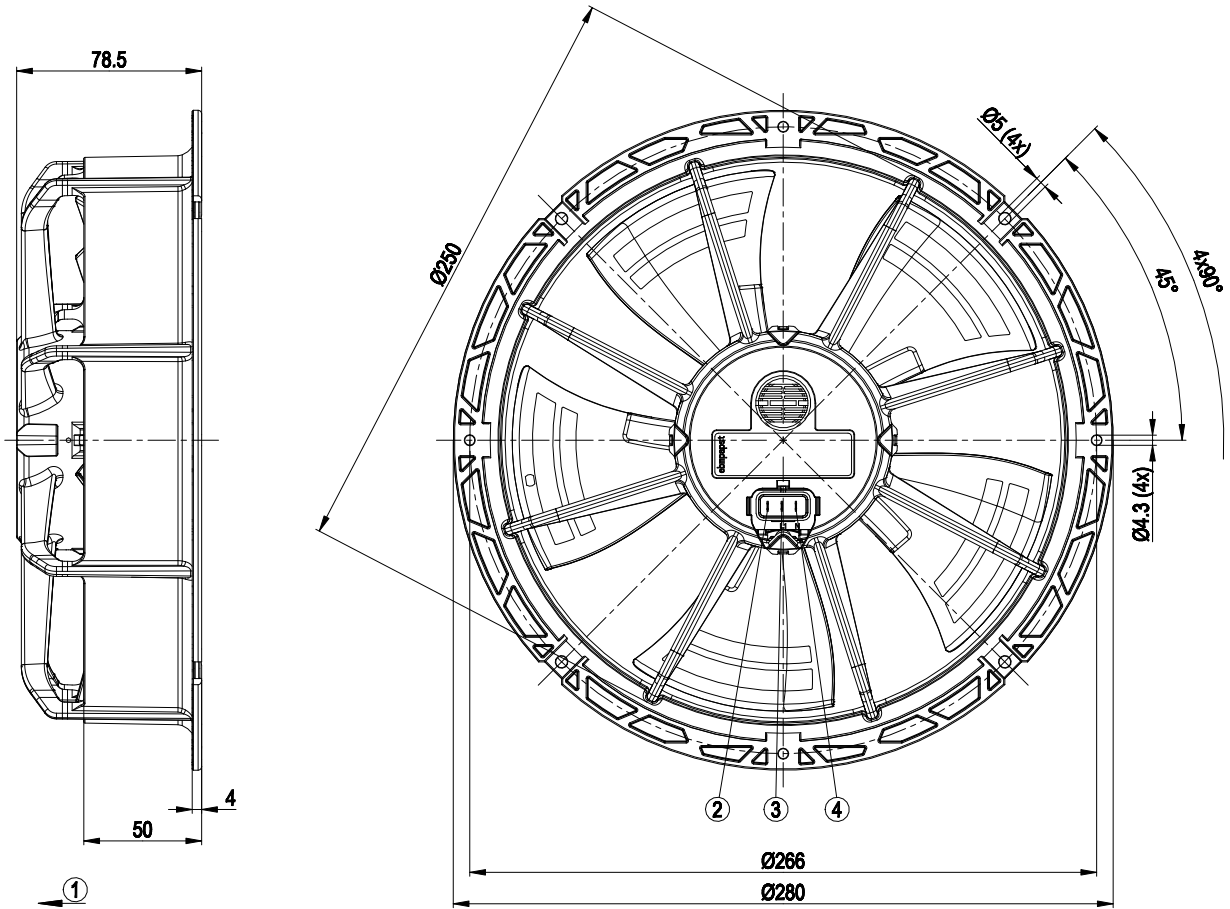


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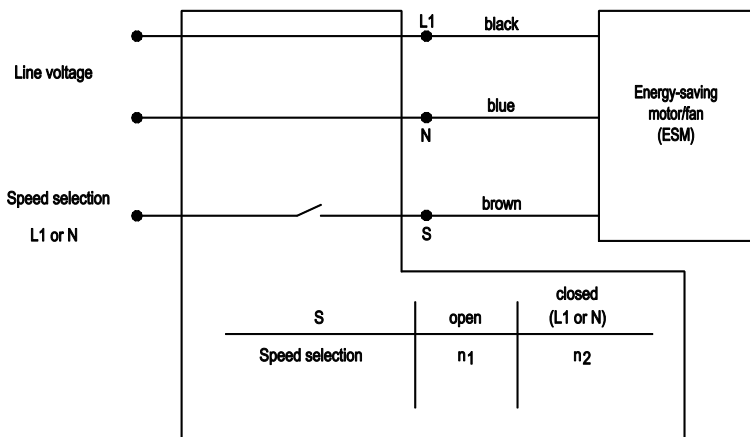
ESM fan housing

## Product drawing

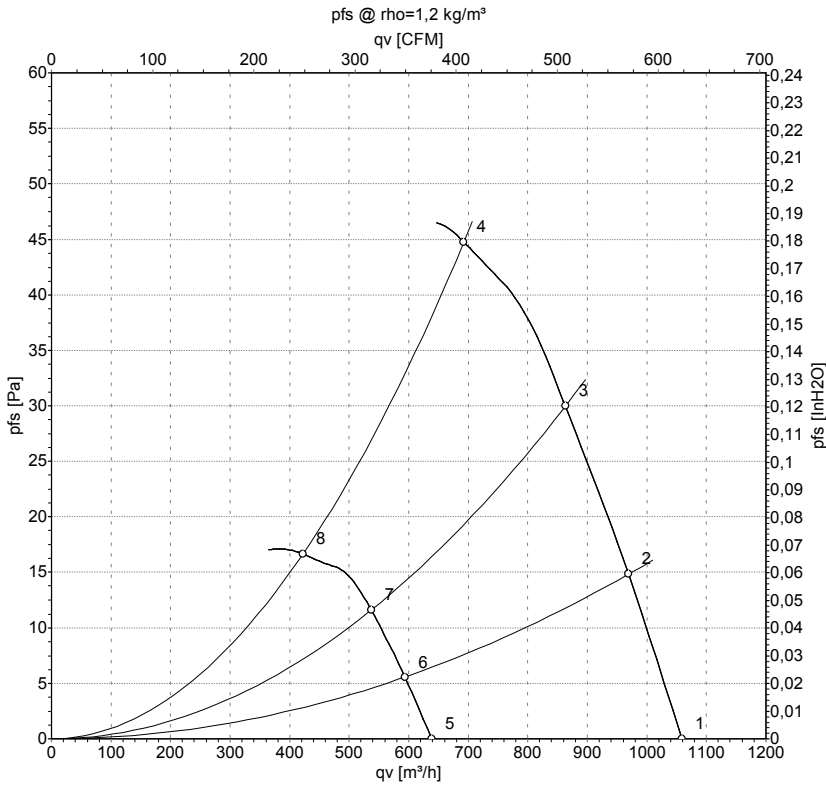


1	Direction of air flow "V"
2	Pin S, speed selection (flat plug 2.8 x 0.5)
3	Pin L1, phase (flat plug 2.8 x 0.5)
4	Pin N, neutral conductor (flat plug 2.8 x 0.5)

## Connection diagram



## Curves: Air performance 50 Hz



Measurement: LU-152684-1  
Measurement: LU-152688-1

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	f	n	P <sub>ed</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	230	50	1600	29	0.25	1060	0	625	0.00
2	230	50	1600	31	0.26	970	15	570	0.06
3	230	50	1600	32	0.28	865	30	510	0.12
4	230	50	1600	32	0.30	690	45	405	0.18
5	230	50	1000	8.0	0.07	640	0	375	0.00
6	230	50	1000	8.0	0.08	595	6	350	0.02
7	230	50	1000	9.0	0.08	535	12	315	0.05
8	230	50	1000	9.0	0.08	420	17	250	0.07

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

