

# EC axial fan

sickle-shaped blades (S series)

ESM fan housing

W1G250-EB17-15 ebmpapst Datasheet

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## Nominal data

<b>Type</b>	<b>W1G250-EB17-15</b>		
<b>Motor</b>	<b>M1G055-BI</b>		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	ml
Speed (rpm)	min <sup>-1</sup>	1700	1200
Power consumption	W	35	
Current draw	A	0.28	
Max. back pressure	Pa	50	
Max. back pressure	in. wg	0.2	
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



### Technical description

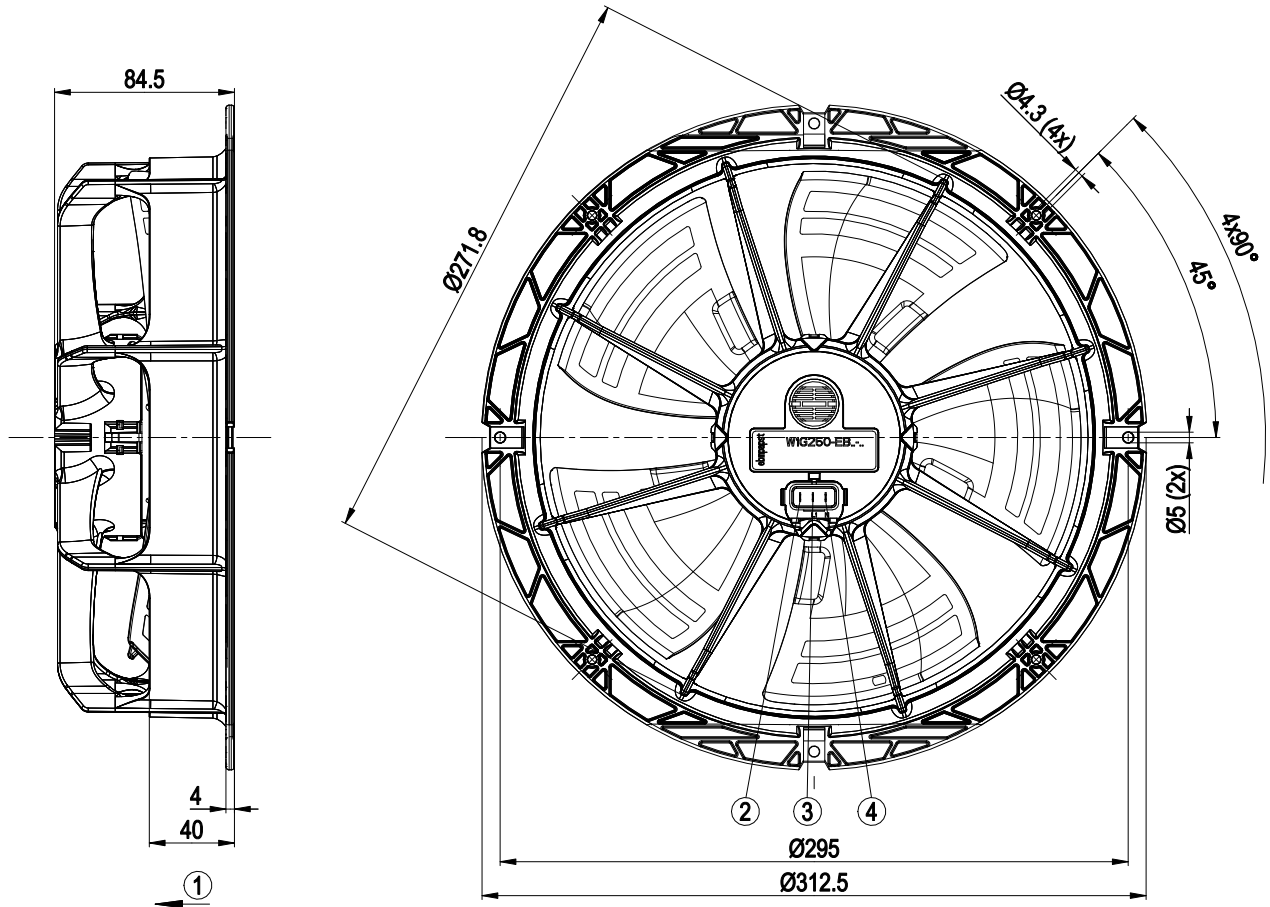
Weight	1 kg
Size	250 mm
Motor size	55
Impeller material	PA plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP55; only with suitable plug, to be installed by customer
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1+
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	<ul style="list-style-type: none"> <li>- Speed setting input (230 V)</li> <li>- ESM+ expandable with plug-in module</li> <li>- Soft start</li> <li>- Thermal overload protection for motor</li> </ul>
Speed levels	2
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Lateral
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; EN 60034-1; EN 60204-1; CE
Approval	VDE; CSA C22.2 No. 77 + CAN/CSA-E60730-1; EAC; UL 1004-3

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## Product drawing



1	Airflow direction "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)

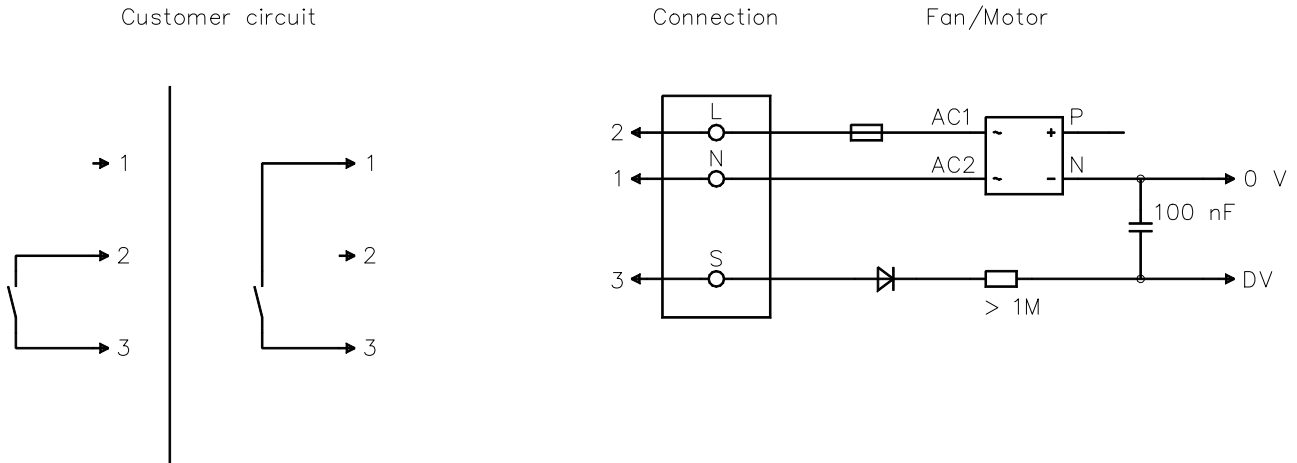


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## Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	N		blue	Neutral conductor
2	L		black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
3	S		brown	Speed selection: switch open speed 1 (fast), switch closed speed 2 (slow)

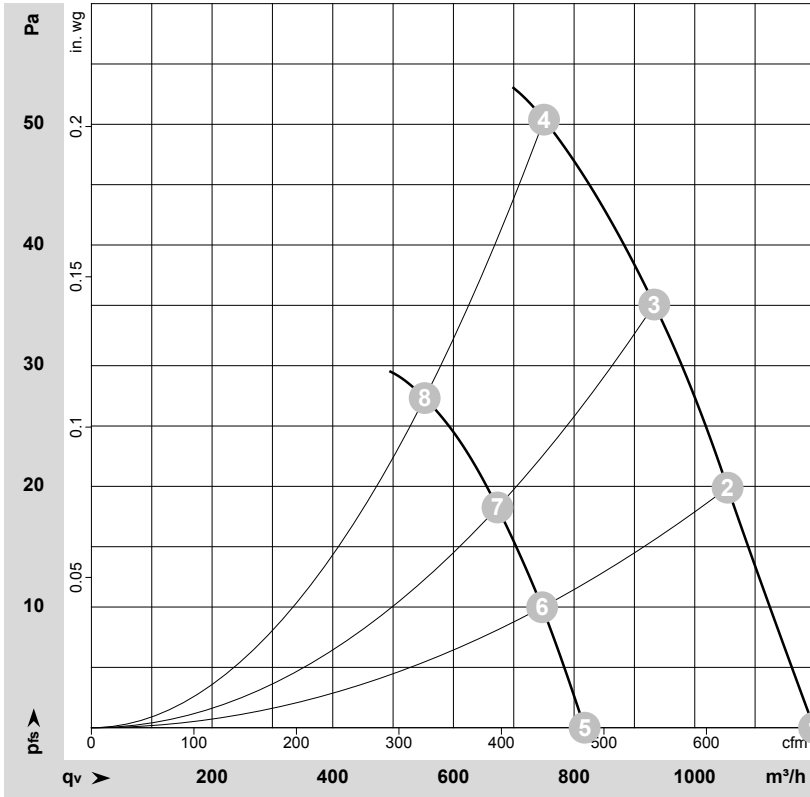


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## Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-185362-1  
Measurement: LU-185408-1

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

	Stage	Wired	U	f	n	P <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
			V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	1	1~	230	50	1700	29	0.23	56	64	1200	0	705	0.00
2	1	1~	230	50	1670	31	0.25	55	63	1055	20	620	0.08
3	1	1~	230	50	1650	33	0.26	54	62	935	35	550	0.14
4	1	1~	230	50	1600	35	0.28	54	63	750	50	440	0.20
5	2	1~	230	50	1200	13	0.12	47	55	815	0	480	0.00
6	2	1~	230	50	1200	14	0.13	45	53	745	10	440	0.04
7	2	1~	230	50	1200	16	0.15	44	52	675	18	395	0.07
8	2	1~	230	50	1200	17	0.16	47	56	550	27	325	0.11

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

