

# EC axial fan

sickle-shaped blades (S series), single-intake

ESM fan housing with guard grille

W1G250-BB17-11 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

Type	W1G250-BB17-11		
Motor	M1G055-BI		
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	32	
Current draw	A	0.24	-
Max. back pressure	Pa		-
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

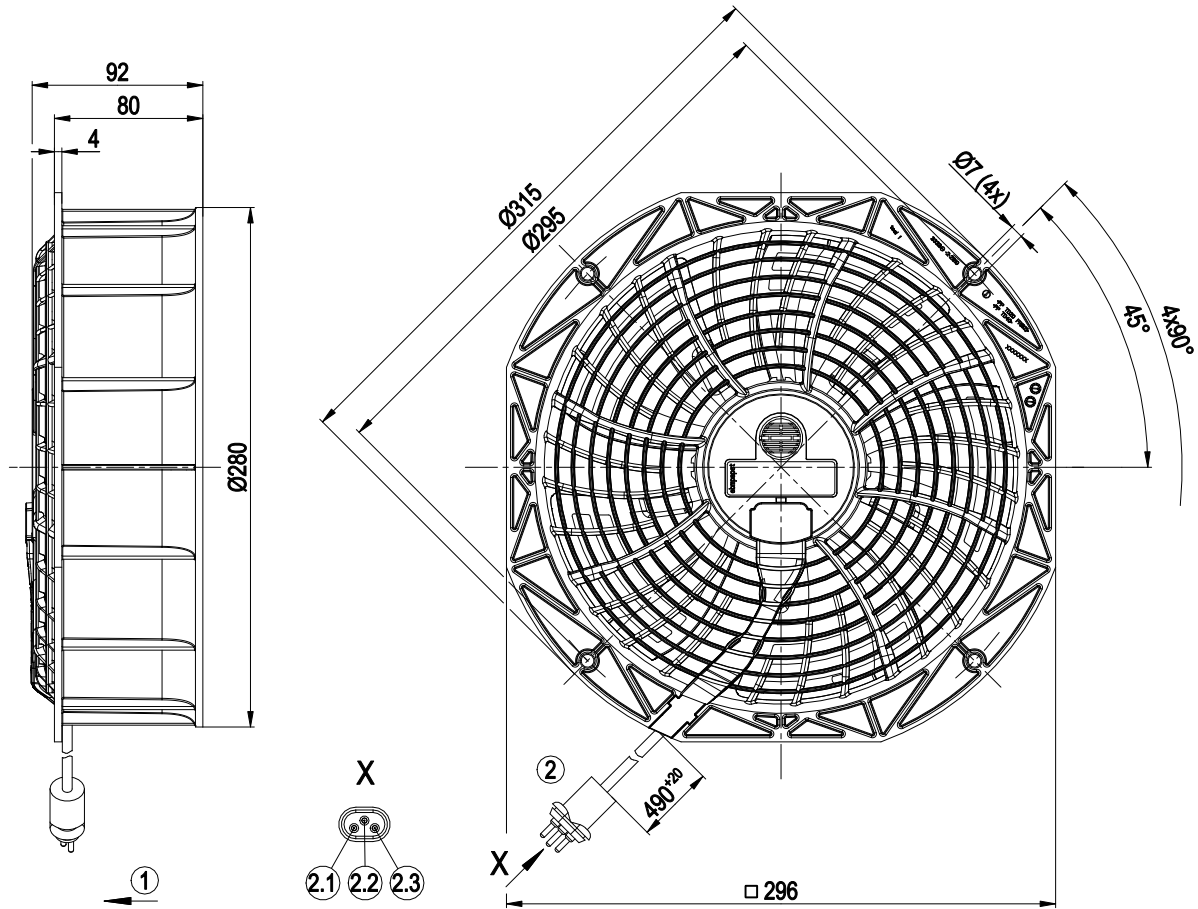
<b>Weight</b>	1.5 kg
<b>Size</b>	250 mm
<b>Motor size</b>	55
<b>Blade material</b>	PA plastic
<b>Fan housing material</b>	PP plastic
<b>Number of blades</b>	5
<b>Airflow direction</b>	V
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP55
<b>Insulation class</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>- ESM+ expandable with plug-in module</li> <li>- Soft start</li> <li>- Thermal overload protection for motor</li> </ul>
<b>Speed levels</b>	2
<b>Electrical hookup</b>	Connector with cable
<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 60034-1; EN 60204-1; CE
<b>Approval</b>	CSA C22.2 No. 77; UL 1004-3



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## Product drawing



1	Airflow direction "V"
2	Cable PVC AWG20
	3-pole connector housing similar to EMF Corporation P-3-1, 3x plug contact Heyco 7033
2.1	L (black)
2.2	Speed selection (brown)
2.3	N (blue)

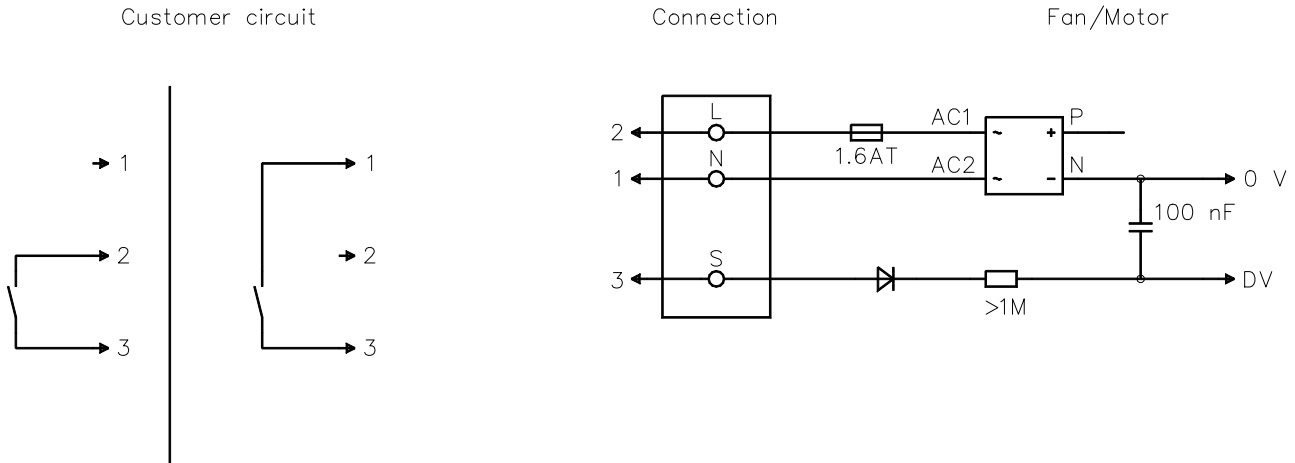


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## Connection diagram



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)

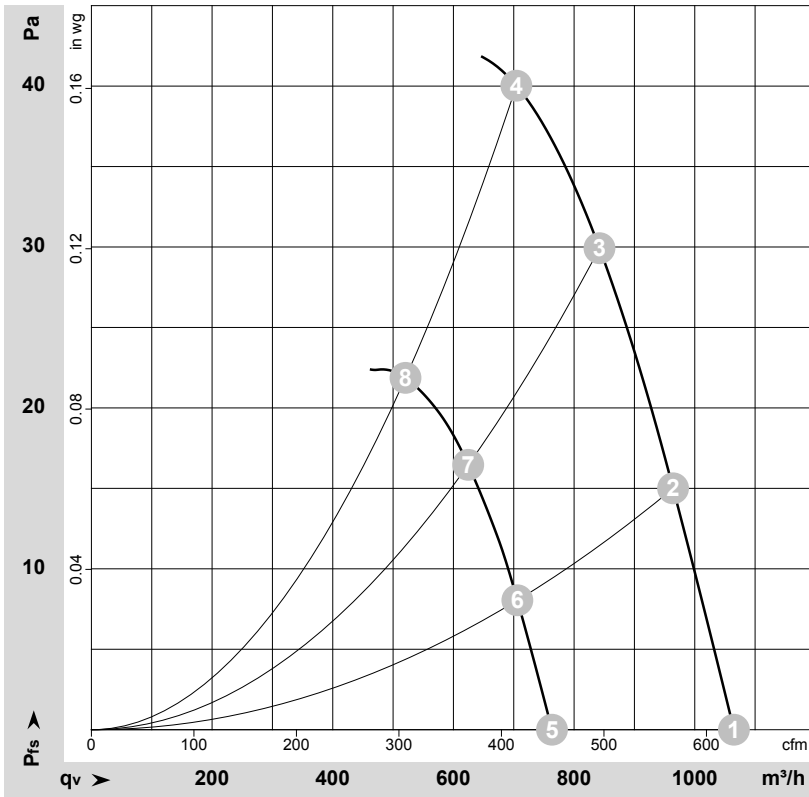


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## Curves: Air performance 50 Hz



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

Measurement: LU-112960-1  
Measurement: LU-112961-1

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	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	2	230	50	1700	31	0.24	55	62	1065	0	625	0.00
2	2	230	50	1700	32	0.24	56	63	965	15	565	0.06
3	2	230	50	1700	32	0.24	56	64	840	30	495	0.12
4	2	230	50	1700	32	0.24	57	66	705	40	415	0.16
5	1	230	50	1200	14	0.12	46	53	765	0	450	0.00
6	1	230	50	1200	15	0.13	46	54	705	8	415	0.03
7	1	230	50	1200	16	0.14	47	55	625	16	370	0.06
8	1	230	50	1200	17	0.14	48	57	520	22	305	0.09

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

