

EC axial fan - ESM

sickle-shaped blades (S series), single-intake
ESM fan housing



W1G230-EB91-22 ebmpapst Datasheet
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Nominal data

Type	W1G230-EB91-22		
Motor	M1G055-BD		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed (rpm)	min ⁻¹	1600	1000
Power consumption	W	32	
Current draw	A	0.3	
Max. back pressure	Pa	45	
Max. back pressure	in. wg	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

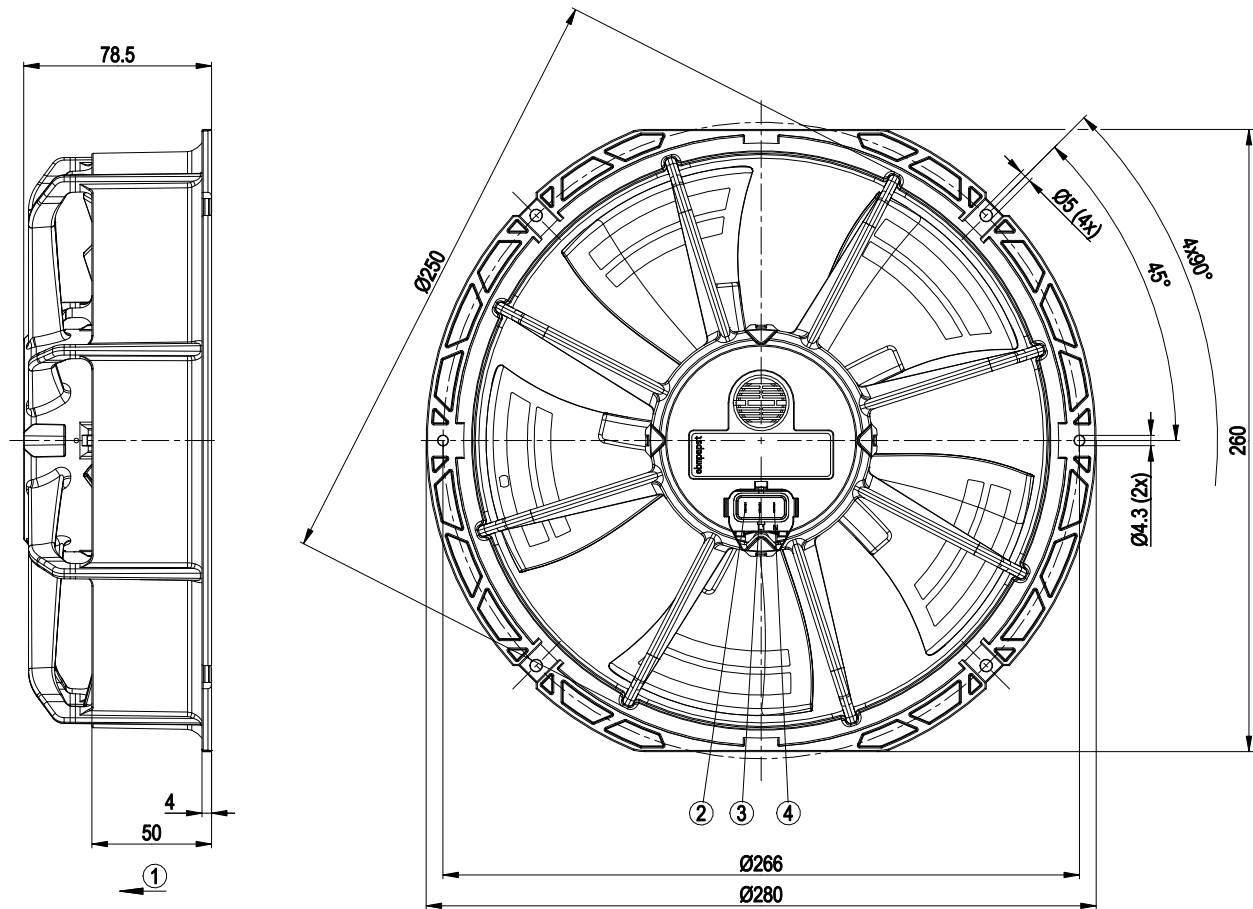
Weight	1.0 kg
Size	230 mm
Motor size	55
Blade material	PA plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP55; only with suitable plug, to be installed by customer
Insulation class	"B"
Moisture (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	- Speed setting input (230 V) - ESM+ expandable with plug-in module - Soft start - Thermal overload protection for motor
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE
Approval	UL 1004-3; CSA C22.2 No. 77; VDE



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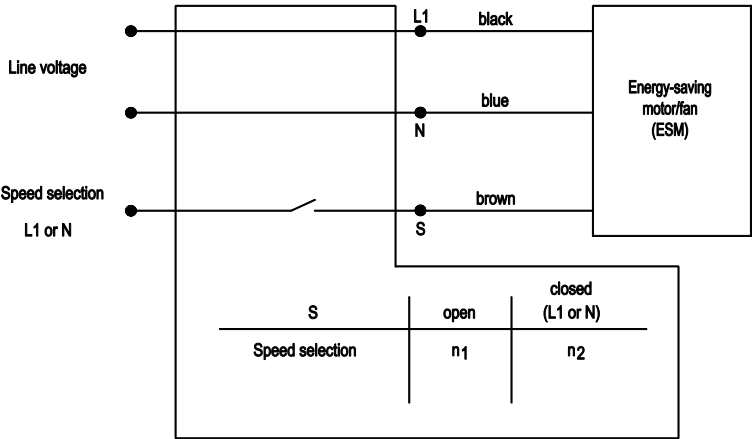
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Product drawing

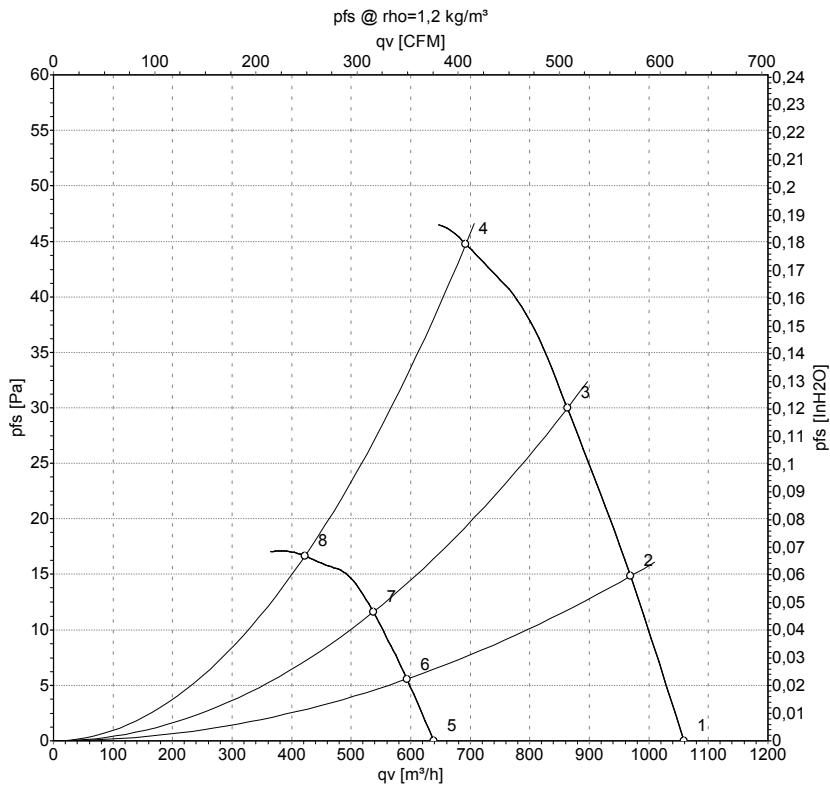


1	Direction of air flow "V"
2	Pin S, speed selection (flat plug 2.8 x 0.5)
3	Pin L1, phase (flat plug 2.8 x 0.5)
4	Pin N, neutral conductor (flat plug 2.8 x 0.5)

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 _{ed}	I	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
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 = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase