

# EC axial fan

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

ESM fan housing

W1G172-EC87-17 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

## Nominal data

<b>Type</b>	<b>W1G172-EC87-17</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>	1400	1100
Power consumption	W	6	
Current draw	A	0.05	
Max. back pressure	Pa	17	
Max. back pressure	in. wg	0.07	
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



# EC axial fan

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

ESM fan housing

## Technical description

<b>Weight</b>	1 kg
<b>Size</b>	172 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; only with suitable plug, to be installed by customer
<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 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>
<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>Electrical hookup</b>	Plug
<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>	VDE; CSA C22.2 No. 77; UL 1004-3; EAC

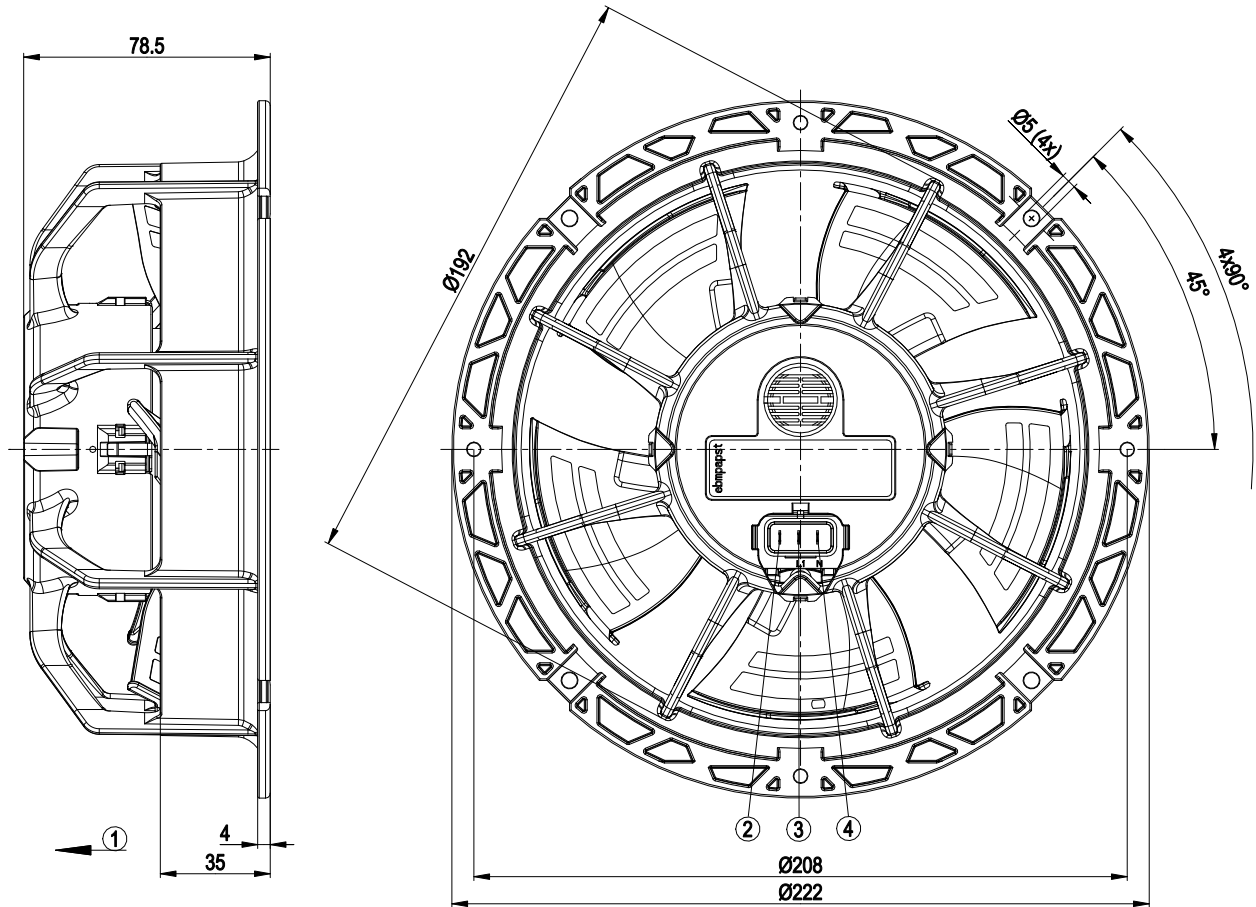


# EC axial fan

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

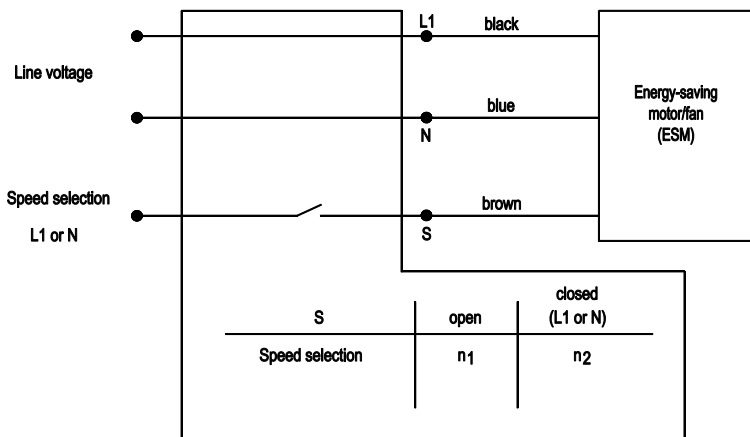
ESM fan housing

## Product drawing

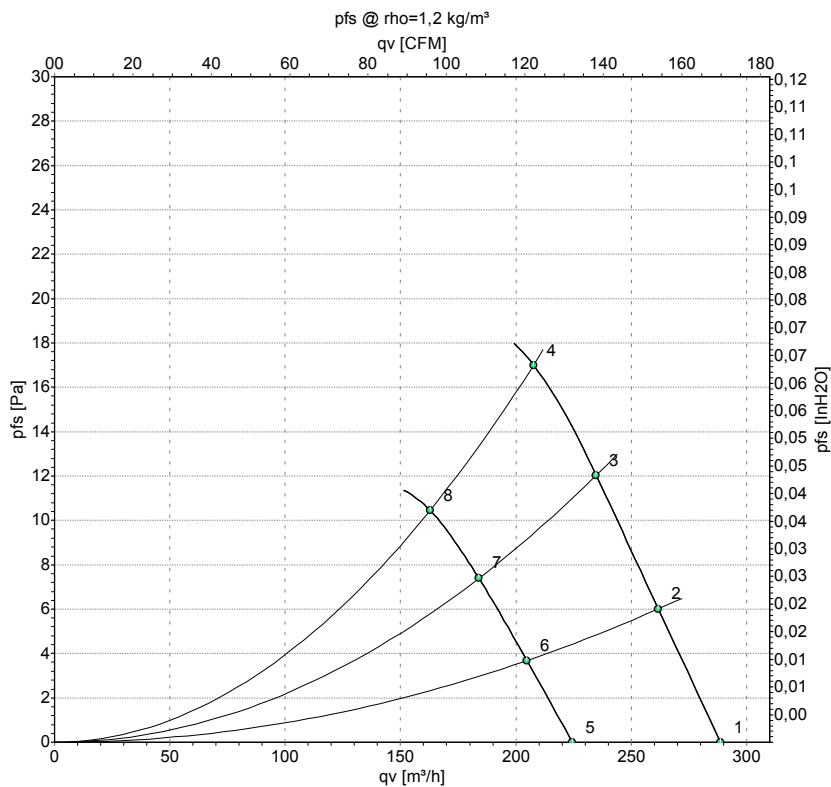


1	Direction of air flow "V"
2	Pin S, speed selection (flat plug 2.8 x 0.5)
3	Pin L1, phase (flat plug 2.8 x 0.5)
4	Pin N, neutral conductor (flat plug 2.8 x 0.5)

## Connection diagram



## Curves: Air performance 50 Hz



Measurement: LU-157664-1  
Measurement: LU-157666-1

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	in. wg
1	230	50	1400	5.0	0.05	290	0	170	0.00
2	230	50	1400	6.0	0.05	260	6	155	0.02
3	230	50	1400	6.0	0.05	235	12	140	0.05
4	230	50	1400	6.0	0.05	210	17	120	0.07
5	230	50	1100	4.0	0.04	225	0	130	0.00
6	230	50	1100	4.0	0.04	205	4	120	0.02
7	230	50	1100	4.0	0.04	185	7	110	0.03
8	230	50	1100	4.0	0.04	165	11	95	0.04

U = Voltage · 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

