W1G172-EC87-17

EC axial fan

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

ESM fan housing

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

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	**W1G172-EC87-17**
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}	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

Weight	1 kg
Size	172 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
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
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE
Approval	VDE; CSA C22.2 No. 77; UL 1004-3; EAC

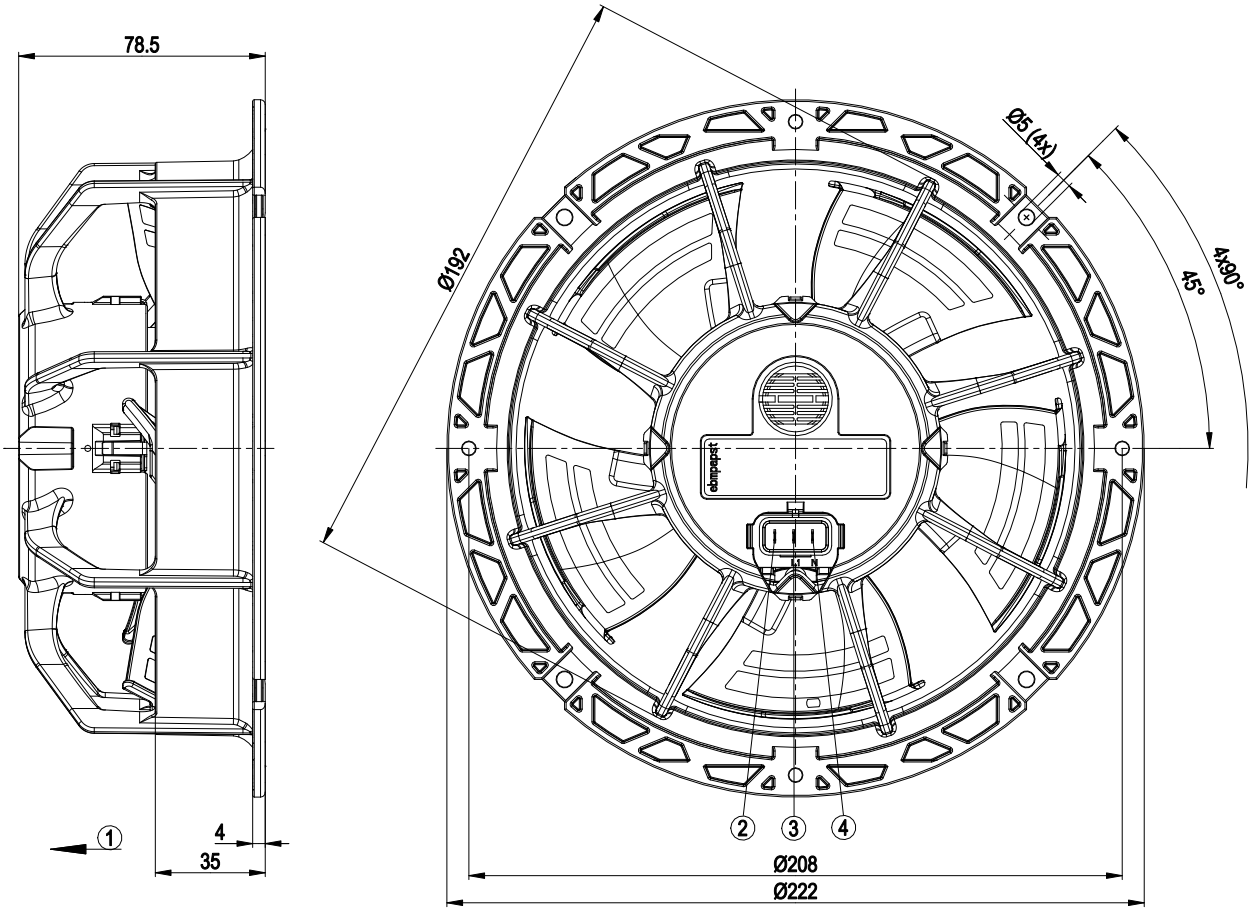
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC axial fan

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

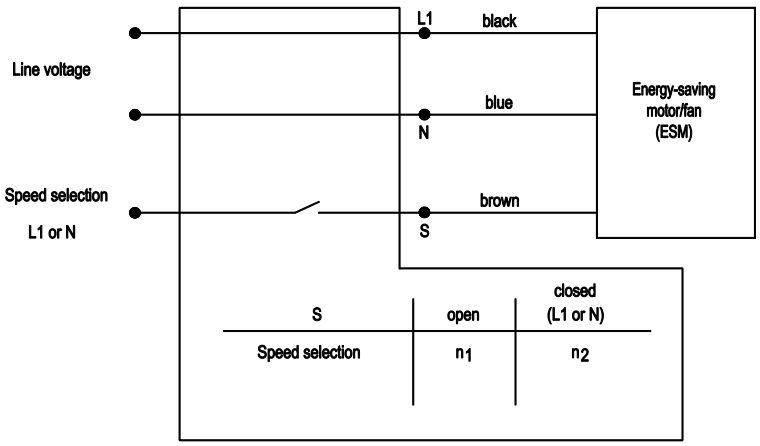
ESM fan housing

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



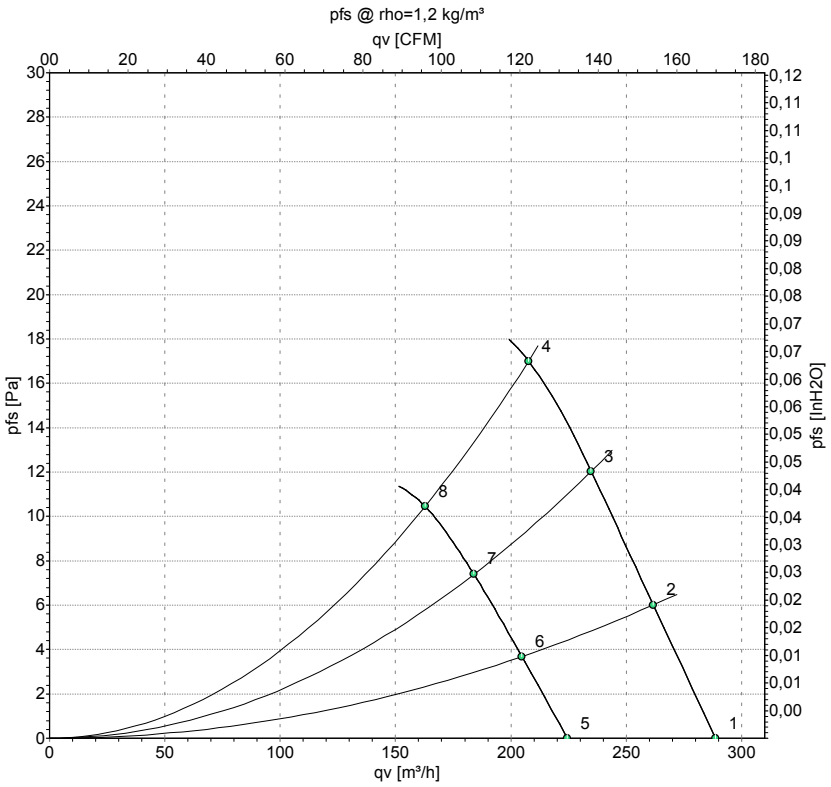
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC axial fan

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

ESM fan housing

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_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/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_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com