EC axial fan - ESM

sickle-shaped blades (S series)

ESM fan housing

W1G154-EG57-11 ebmpapst Datasheet
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Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W1G154-EG57-11**
Motor	**M1G055-AI**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed (rpm)	min^{-1}	1300	1000
Power consumption	W	3	
Current draw	A	0.03	
Max. back pressure	Pa	11	
Max. back pressure	in. wg	0.04	
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	0.9 kg
Size	154 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 selection max./min. - Power limiter - Motor current limitation - Soft start - Thermal overload protection for motor
Speed levels	2
Electrical hookup	Plug
With cable	Lateral
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE
Approval	VDE

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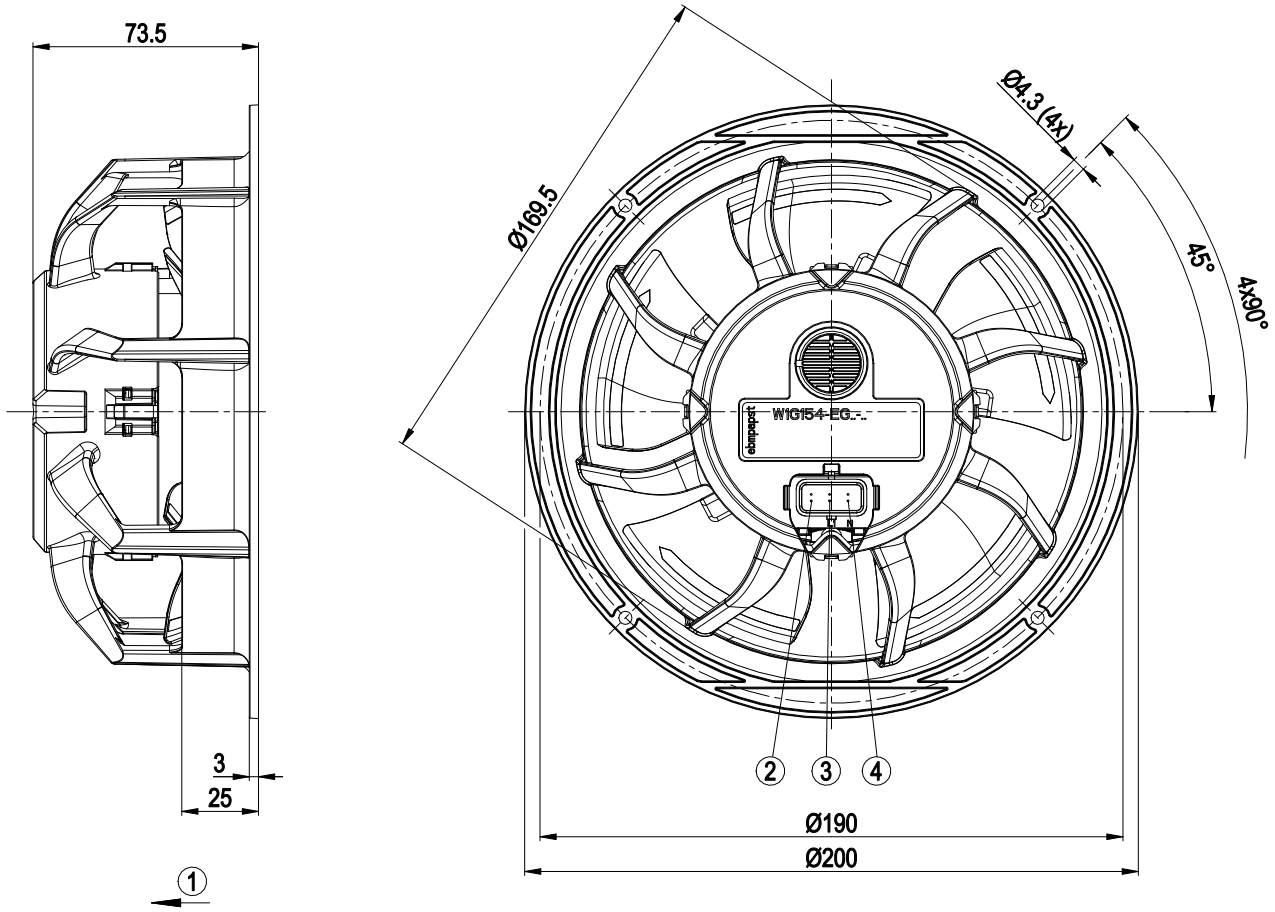
Product drawing



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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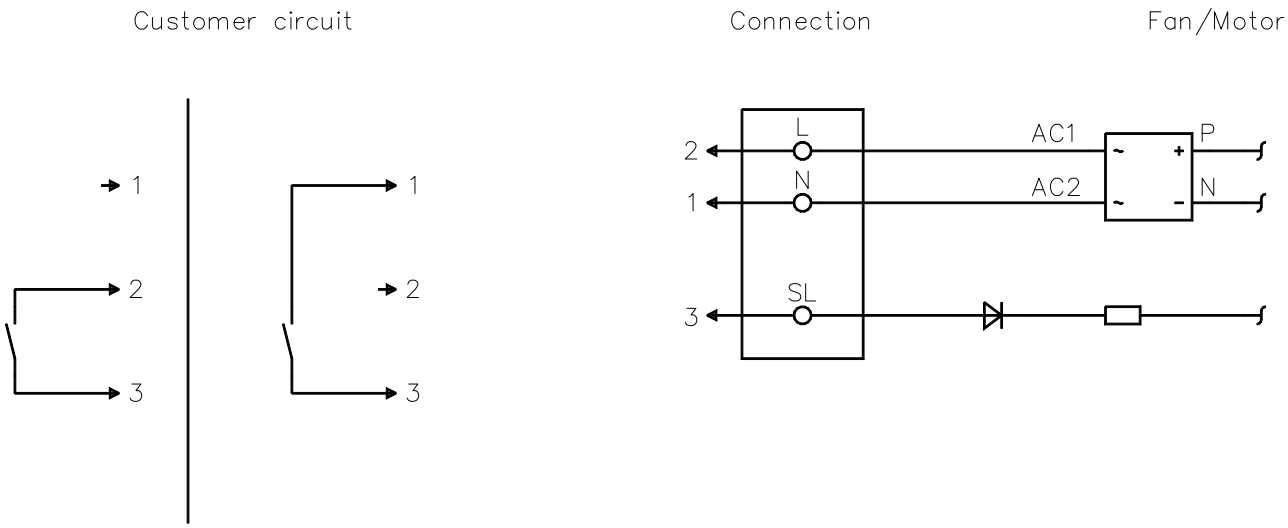
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	N		blue	Power supply, neutral conductor, see nameplate for voltage range
2	L		black	Power supply, phase, see nameplate for voltage range
3	SL		brown	Speed selection: switch open speed 1, switch closed speed 2

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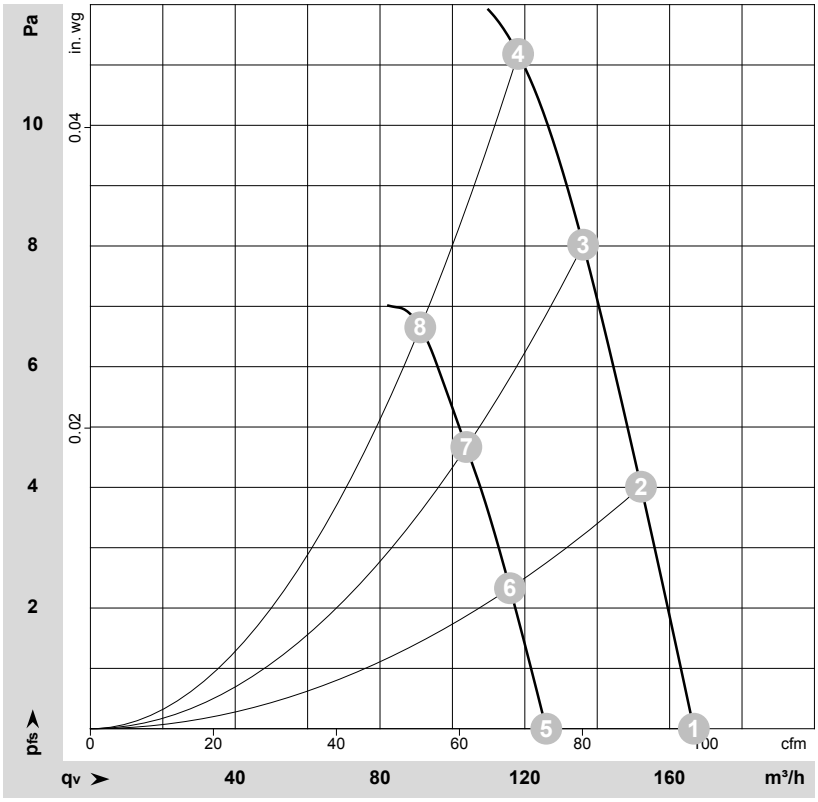
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-196481-1
Measurement: LU-196516-1

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	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
			V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	1	1~	230	1300	3.00	0.03	30	38	165	0	100	0.00
2	1	1~	230	1300	3.00	0.03	30	39	150	4	90	0.02
3	1	1~	230	1300	3.00	0.03	31	39	135	8	80	0.03
4	1	1~	230	1300	3.00	0.03	31	40	120	11	70	0.04
5	2	1~	230	1000	2.00	0.02	24	32	125	0	75	0.00
6	2	1~	230	1000	2.00	0.02	24	32	115	2	70	0.01
7	2	1~	230	1000	2.00	0.02	24	33	105	5	60	0.02
8	2	1~	230	1000	2.00	0.02	25	34	90	7	55	0.03

Wired = Wiring · U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase