

W1G172-EC82-80

EC axial fan

sickle-shaped blades (S series)

ESM fan housing



W1G172-EC82-80 ebmpapst Datasheet

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Nominal data

Type	W1G172-EC82-80		
Motor	M1G055-BD		
Phase		1~	1~
Nominal voltage	VAC	115	115
Nominal voltage range	VAC	100 .. 240	100 .. 240
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed (rpm)	min ⁻¹	1800	1400
Power consumption	W	10	
Current draw	A	0.16	
Max. back pressure	Pa	28	
Max. back pressure	in. wg	0.11	
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	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
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	<ul style="list-style-type: none"> - Speed selection max./min. - Power limiter - Motor current limitation - 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)
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	CSA C22.2 No. 77; UL 1004-3; VDE

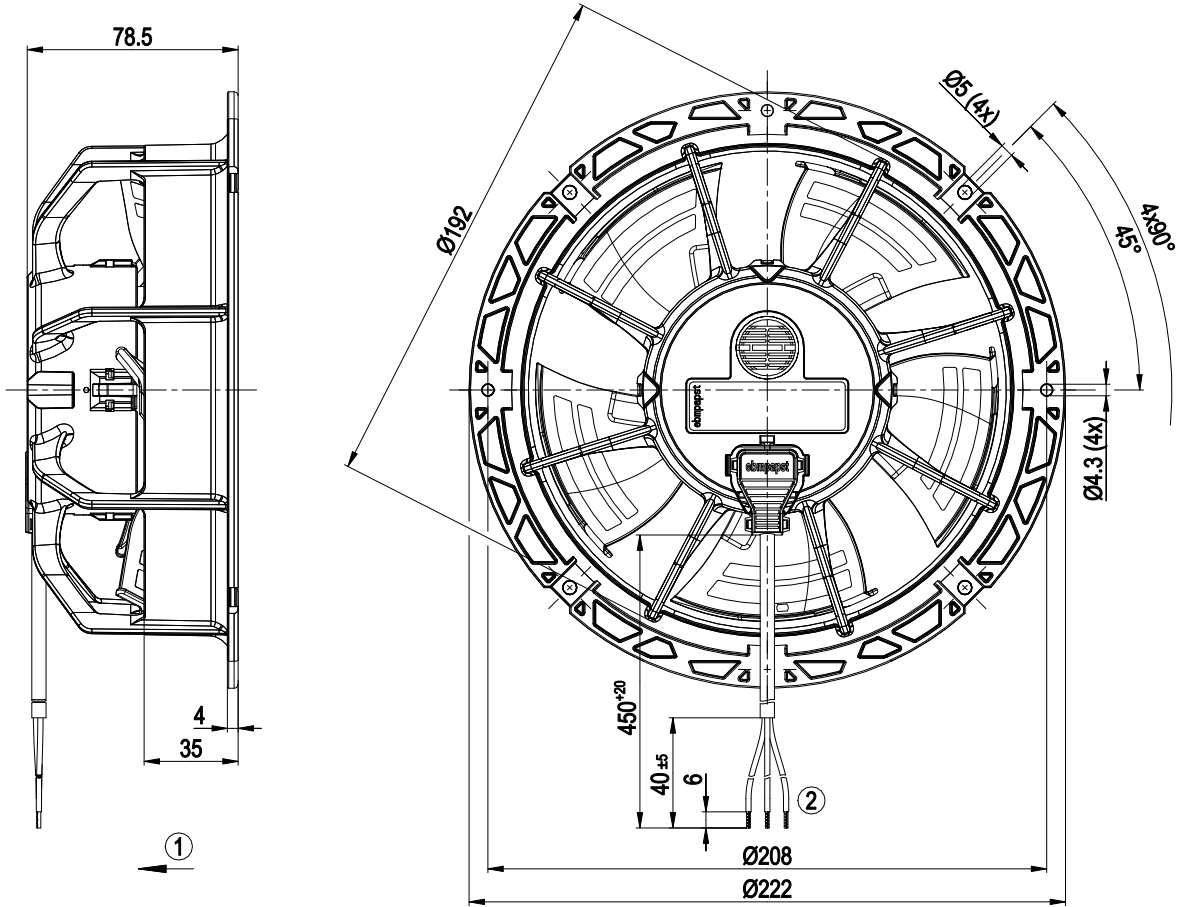


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Product drawing



1	Airflow direction "V"
2	Cable AWG20
	3x splice

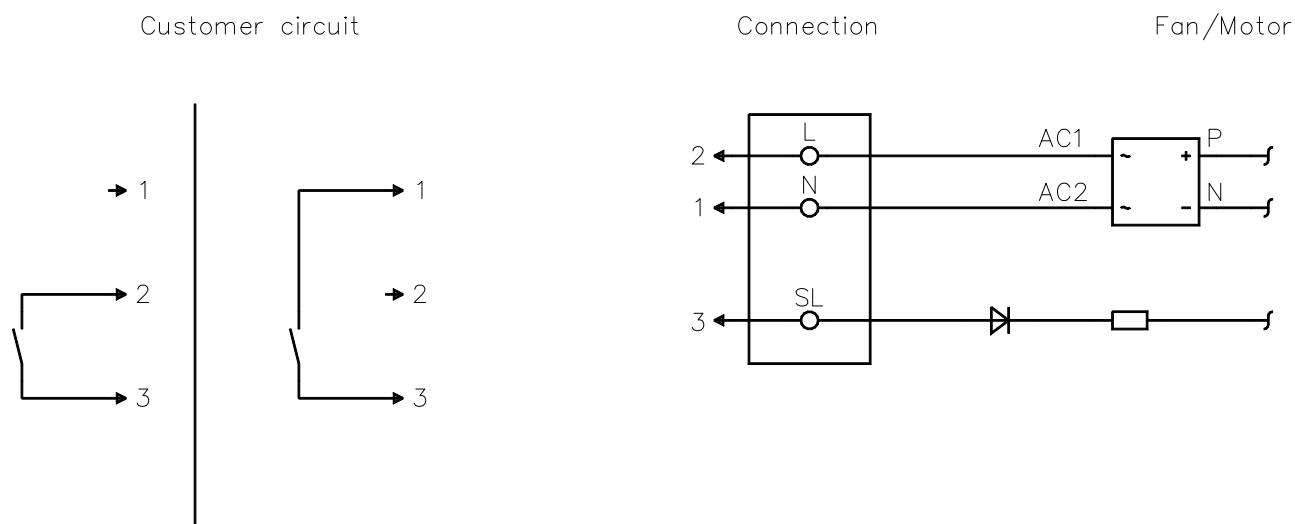


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Connection diagram



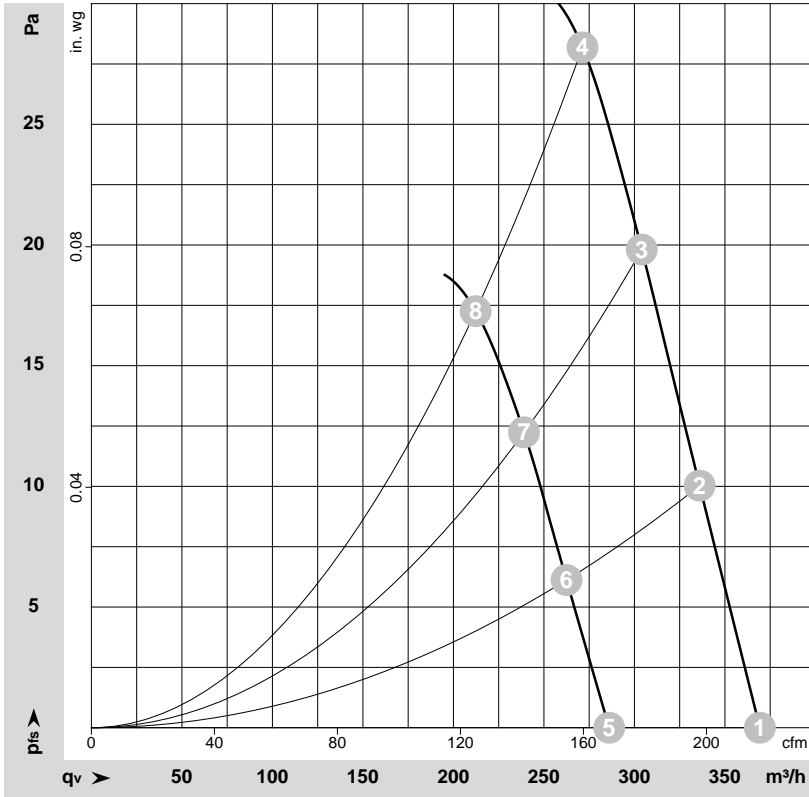
No.	Conn.	Designation	Color	Function/assignment
1	N		blue	Power supply, neutral conductor, see nameplate for voltage range
2	L		black	Power supply, phase, see nameplate for voltage range
3	SL		brown	Speed selection: switch open speed 1, switch closed speed 2

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Curves: Air performance 50 Hz



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

Measurement: LU-196398-1
Measurement: LU-196456-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	P _{fs}	q _v	P _{fs}
			V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	1	1~	115	50	1800	9.0	0.14	46	54	370	0	215	0.00
2	1	1~	115	50	1800	10.0	0.15	45	53	335	10	200	0.04
3	1	1~	115	50	1800	10.0	0.15	44	52	305	20	180	0.08
4	1	1~	115	50	1800	10.0	0.16	46	54	270	28	160	0.11
5	2	1~	115	50	1400	5.0	0.08	39	48	285	0	170	0.00
6	2	1~	115	50	1400	5.0	0.09	38	47	260	6	155	0.02
7	2	1~	115	50	1400	6.0	0.09	38	46	240	12	140	0.05
8	2	1~	115	50	1400	6.0	0.09	37	46	210	18	125	0.07

Wired = Wiring · U = Voltage · f = Frequency · 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

