W1G200-EC89-86

EC axial fan - ESM

sickle-shaped blades (S series)

ESM fan housing

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Nominal data

Type	**W1G200-EC89-86**		
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}	1700	1440
Power consumption	W	15	
Current draw	A	0.14	
Max. back pressure	Pa	38	
Max. back pressure	in. wg	0.15	
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	200 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	- Speed setting input (230 V) - ESM+ expandable with plug-in module - Soft start - Thermal overload protection for motor
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	Connector with cable
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Lateral
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; EN 60034-1; EN 60204-1; CE
Approval	VDE; CSA C22.2 No. 77; UL 1004-3

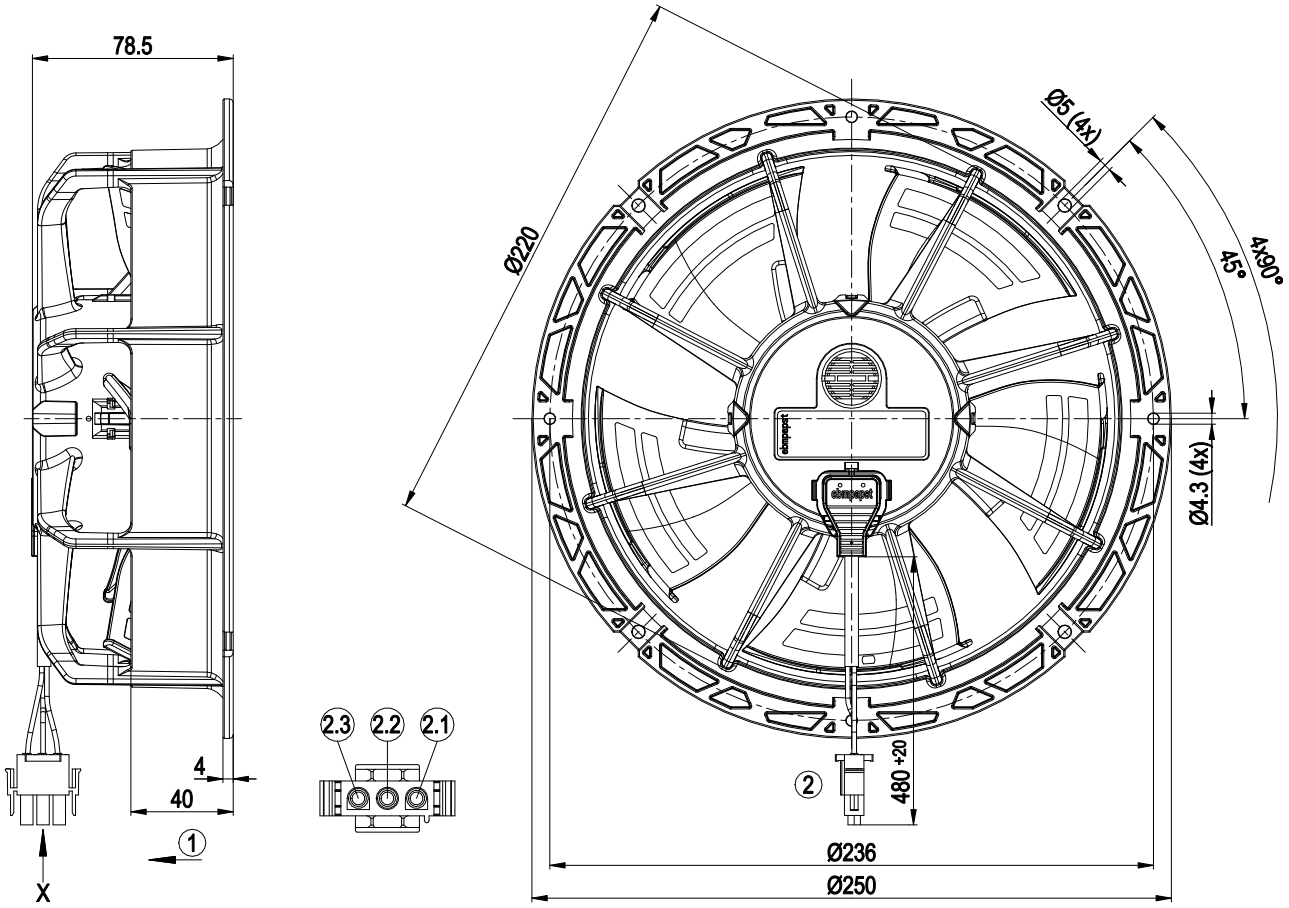
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Product drawing



1	Airflow direction "V"
2	Cable PVC AWG20
	3-pole connector housing TE 2178473-3, 3x plug pin TE 926885-1
2.1	N
2.2	L
2.3	S

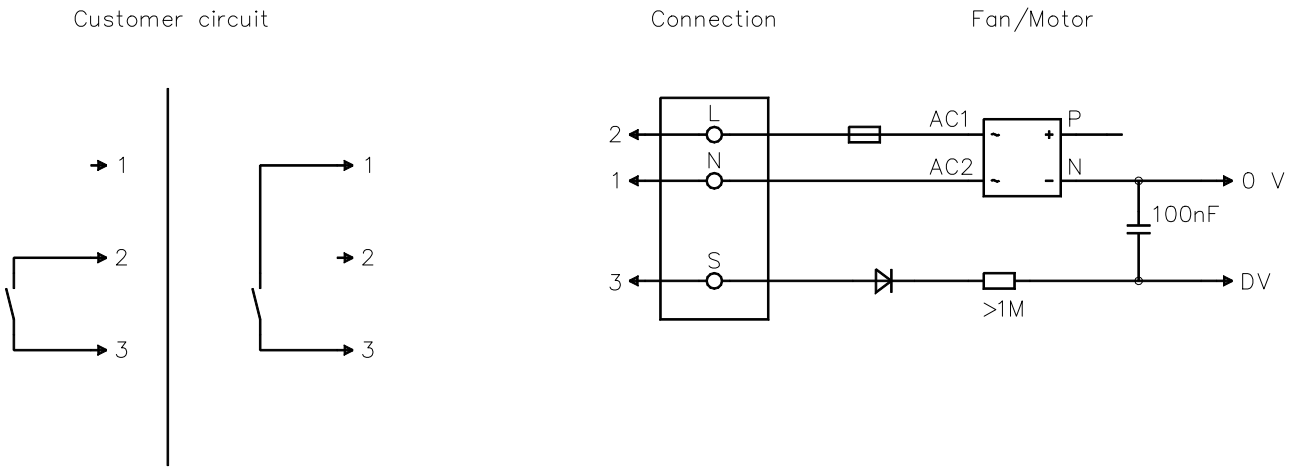
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	N		blue	Neutral conductor
2	L		brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
3	S		black	Speed selection: switch open speed 1 (fast), switch closed speed 2 (slow)

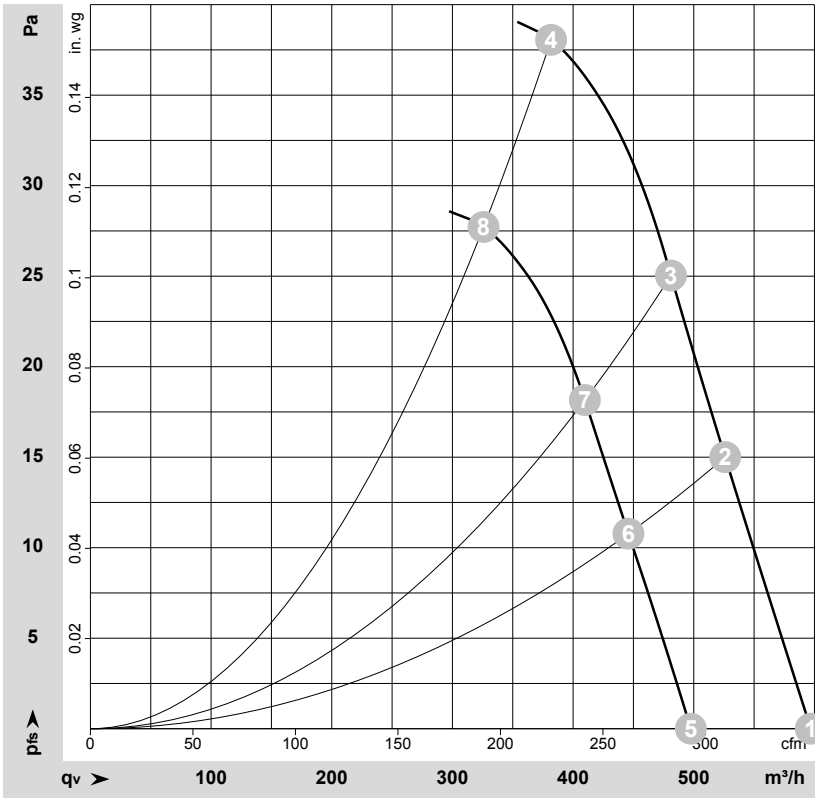
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-213872-1
Measurement: LU-213901-1

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	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~	230	50	1700	15	0.13	50	58	595	0	350	0.00
2	1	1~	230	50	1700	15	0.13	50	58	525	15	310	0.06
3	1	1~	230	50	1700	15	0.14	50	58	480	25	285	0.10
4	1	1~	230	50	1700	15	0.14	52	60	380	38	225	0.15
5	2	1~	230	50	1440	10.0	0.09	46	55	500	0	295	0.00
6	2	1~	230	50	1440	11	0.10	46	55	445	11	265	0.04
7	2	1~	230	50	1440	11	0.10	46	55	410	18	240	0.07
8	2	1~	230	50	1440	11	0.10	48	57	325	28	190	0.11

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

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