W1G200-EC87-A2

EC axial fan - ESM

sickle-shaped blades (S series)

ESM fan housing

W1G200-EC87-A2 ebmpapst Datasheet
sales@fansco.com

www.fansco.com

Nominal data

Type	**W1G200-EC87-A2**
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}	1300	900
Power consumption	W	8	
Current draw	A	0.07	
Max. back pressure	Pa	23	
Max. back pressure	in. wg	0.09	
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	1 kg
Size	200 mm
Motor size	55
Electronics housing material	PC/ABS plastic
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
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)
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; CE
Approval	VDE; CSA C22.2 No. 77; EAC; UL 1004-3

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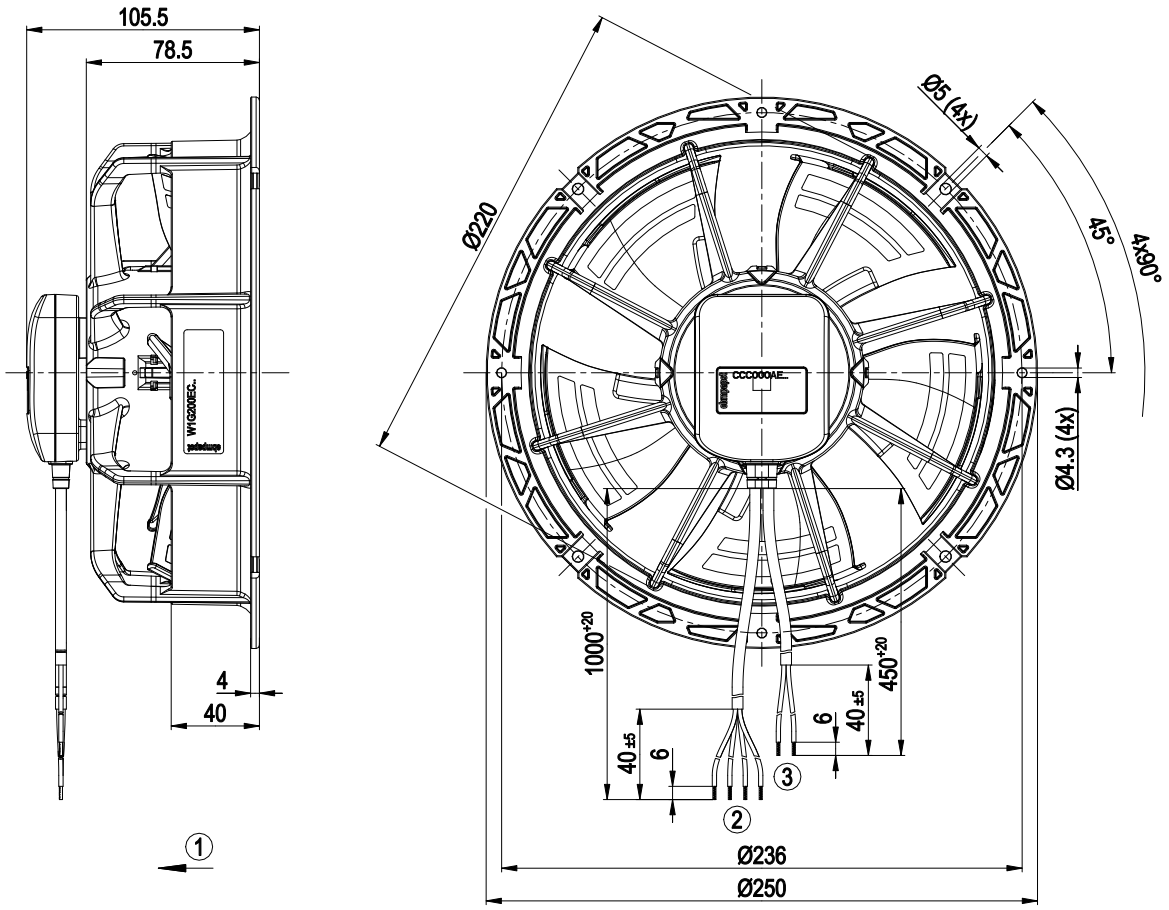
Product drawing



	Stepless speed control from 50-100%
1	Airflow direction "V"
2	Cable PVC AWG22
	4x splice
3	Cable PVC AWG22
	2x splice

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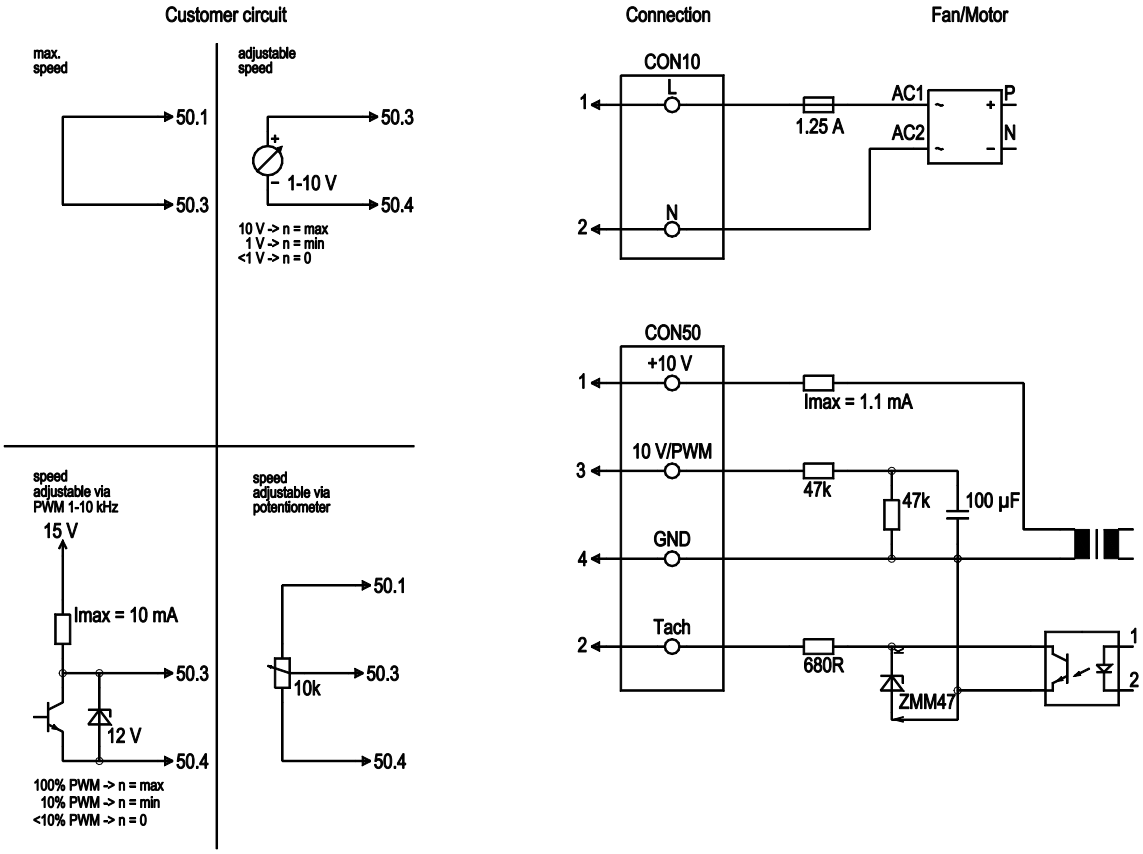
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
CON10	1	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
CON10	2	N	blue	Neutral conductor
CON50	1	10V/max 1.1mA	red	Voltage output 10 V/1.1 mA, electrically isolated, not short-circuit-proof.
CON50	2	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated
CON50	3	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
CON50	4	GND	blue	GND connection for control interface

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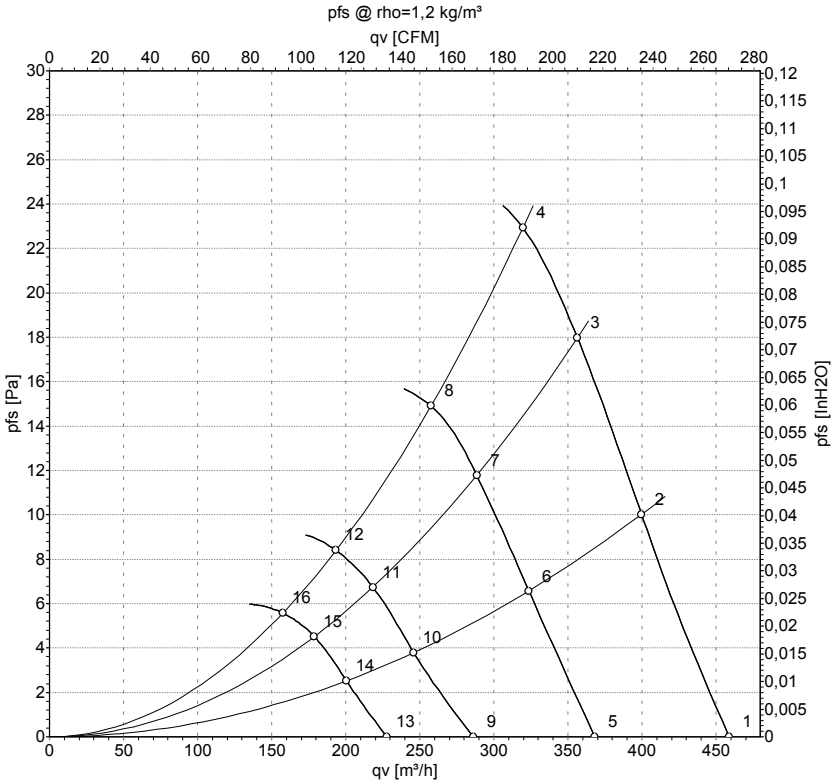
Curves: Air performance 50 Hz



Measurement: LU-139743-1

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	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	230	50	1300	8.0	0.07	42	50	460	0	270	0.00
2	230	50	1300	8.0	0.07	41	49	400	10	235	0.04
3	230	50	1300	8.0	0.07	40	48	355	18	210	0.07
4	230	50	1300	8.0	0.07	40	48	320	23	190	0.09
5	230	50	1050	5.0	0.06			370	0	215	0.00
6	230	50	1050	5.0	0.06			325	7	190	0.03
7	230	50	1050	6.0	0.06			290	12	170	0.05
8	230	50	1050	6.0	0.06			260	15	150	0.06
9	230	50	800	3.00	0.04			285	0	170	0.00
10	230	50	800	4.0	0.04			245	4	145	0.02
11	230	50	800	4.0	0.04			220	7	130	0.03
12	230	50	800	4.0	0.04			195	8	115	0.03
13	230	50	650	2.00	0.02			230	0	135	0.00
14	230	50	650	2.00	0.02			200	3	120	0.01
15	230	50	650	2.00	0.02			180	5	105	0.02
16	230	50	650	2.00	0.02			160	6	95	0.02

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