W1G200-EC91-A4

EC axial fan - ESM

sickled blades (S series)

ESM wall ring

W1G200-EC91-A4 ebmpapst Datasheet
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Nominal data

Type	**W1G200-EC91-A4**
Motor	**M1G055-BD**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50/60	50/60
Type of data definition		ml	ml
Speed (rpm)	min^{-1}	2100	1500
Power input	W	31	-
Current draw	A	0.24	
Max. back pressure	Pa	55	
Min. ambient temperature	°C	-30	-30
Max. ambient temperature	°C	50	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	1 kg
Size	200 mm
Material of electronics housing	PC / ABS plastic
Material of impeller	PA plastic
Material of wall ring	Plastic, epylene GT50
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Lateral
Protection class	II
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 No.77; EAC; UL 1004-3; VDE

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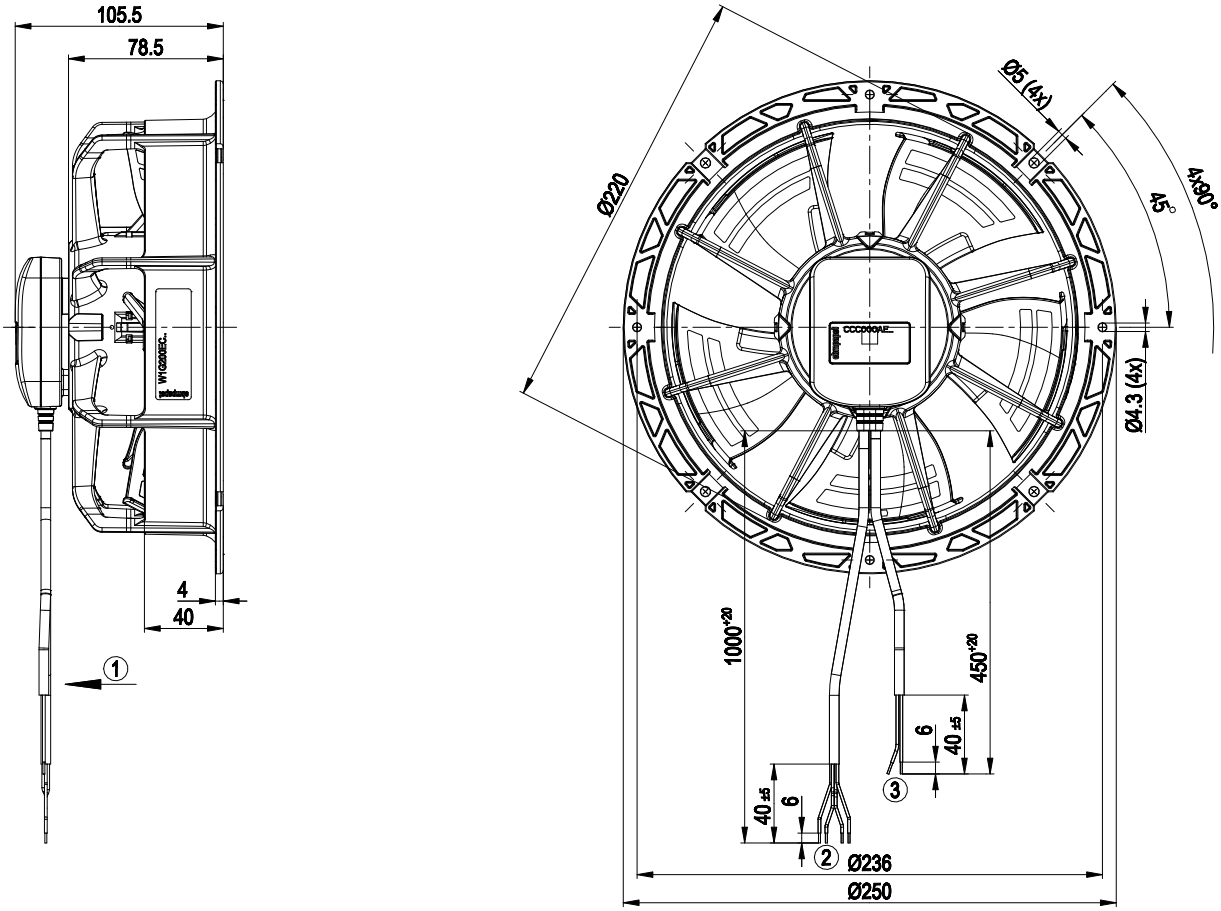
Product drawing



	Speed continuously controlled from 50-100%
1	Direction of air flow "V"
2	Connection line AWG22, 4x brass lead tips crimped
3	Connection line AWG22, 2x brass lead tips crimped

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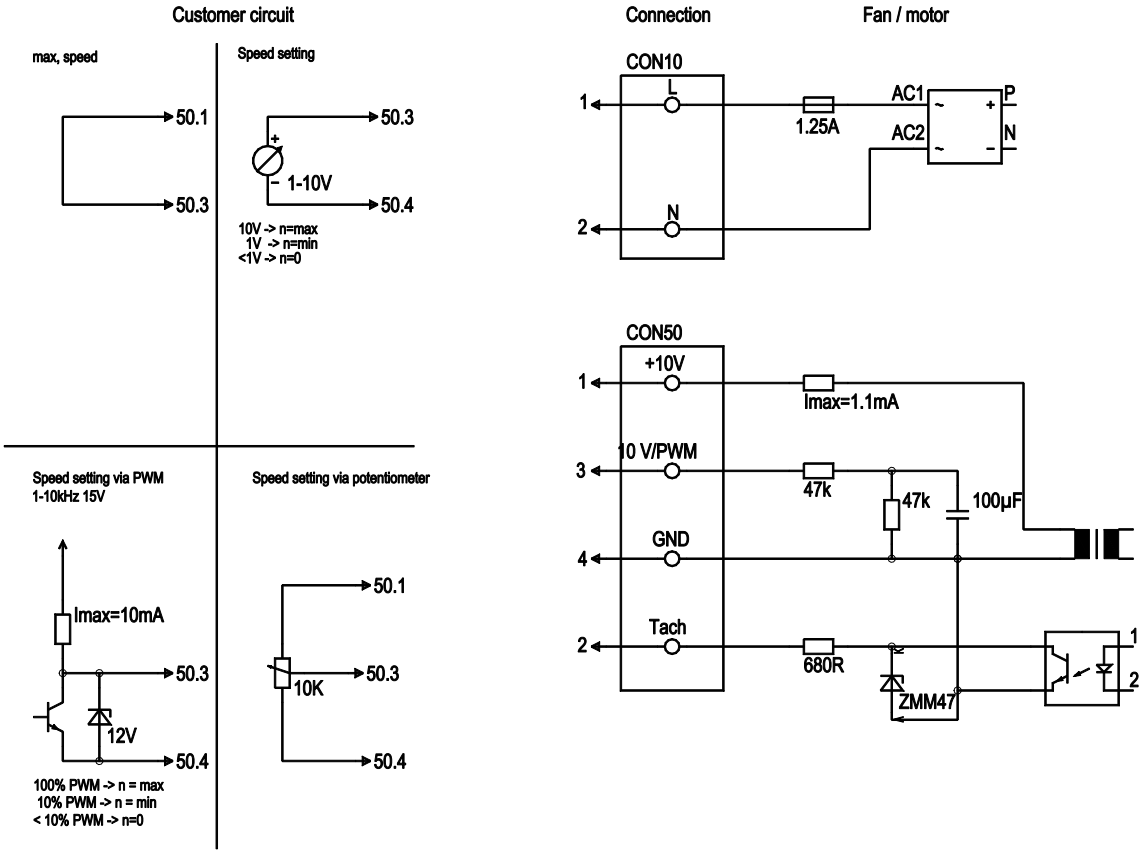
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
CON10	1	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
CON10	2	N	Blue	Neutral conductor
CON50	1	10V/max 1.1mA	red	Voltage output 10V/ 1.1mA, 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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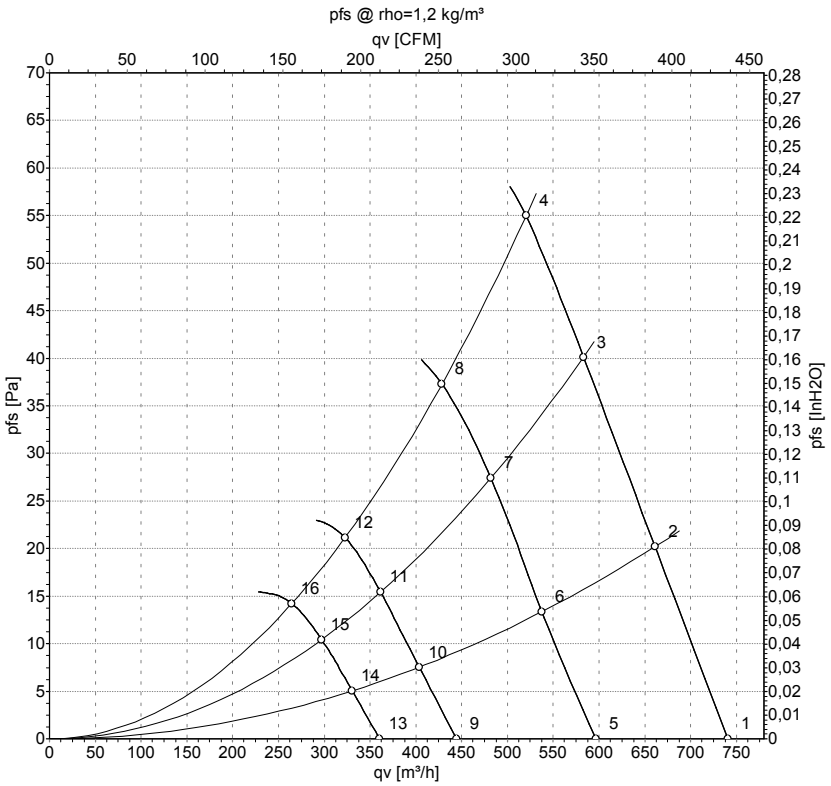
Charts: Air flow 50 Hz



Measurement: LU-139744-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	2100	29	0.23	55	62	740	0	435	0.00
2	230	50	2100	30	0.24	54	62	660	20	390	0.08
3	230	50	2100	31	0.24	53	60	585	40	345	0.16
4	230	50	2100	31	0.24	51	59	520	55	305	0.22
5	230	50	1700	16	0.14			595	0	350	0.00
6	230	50	1700	17	0.14			540	13	315	0.05
7	230	50	1700	18	0.15			480	27	285	0.11
8	230	50	1700	18	0.15			430	37	250	0.15
9	230	50	1300	8.0	0.08			445	0	260	0.00
10	230	50	1300	8.0	0.08			405	7	240	0.03
11	230	50	1300	9.0	0.08			360	16	210	0.06
12	230	50	1300	9.0	0.08			325	22	190	0.09
13	230	50	1050	4.0	0.04			360	0	210	0.00
14	230	50	1050	5.0	0.04			330	5	195	0.02
15	230	50	1050	5.0	0.04			295	11	175	0.04
16	230	50	1050	5.0	0.04			265	15	155	0.06

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase