

8300101467
VWT0450CSNJS

EC axial panel fan - AxiEco

Fan housing with guard grille

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Nominal data

Item	8300101467	
Motor	E07433-43	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	1000
Power consumption	W	160
Current draw	A	1.35
Max. back pressure	Pa	100
Max. back pressure	in. wg	0.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · oe = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	53.3	28.6	09 Power consumption P_{ed}	kW	0.15
02 Measurement category		A		09 Air flow q_v	m³/h	2945
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	91
04 Efficiency grade N		64.7	40	10 Speed (rpm) n	min ⁻¹	1005
05 Variable speed drive		Yes		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.
The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

* Specific ratio = $1 + p_g / 100\,000\text{ Pa}$ LU-228360

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Technical description

Size	450 mm
Motor size	74
Rotor surface	Galvanized
Electronics housing material	Die-cast aluminum
Impeller material	PP plastic
Fan housing material	PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
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, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Locked-rotor detection - Tach output - Speed control - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 60335-1; EN 60034-1; EN 60204-1; CE; UKCA
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

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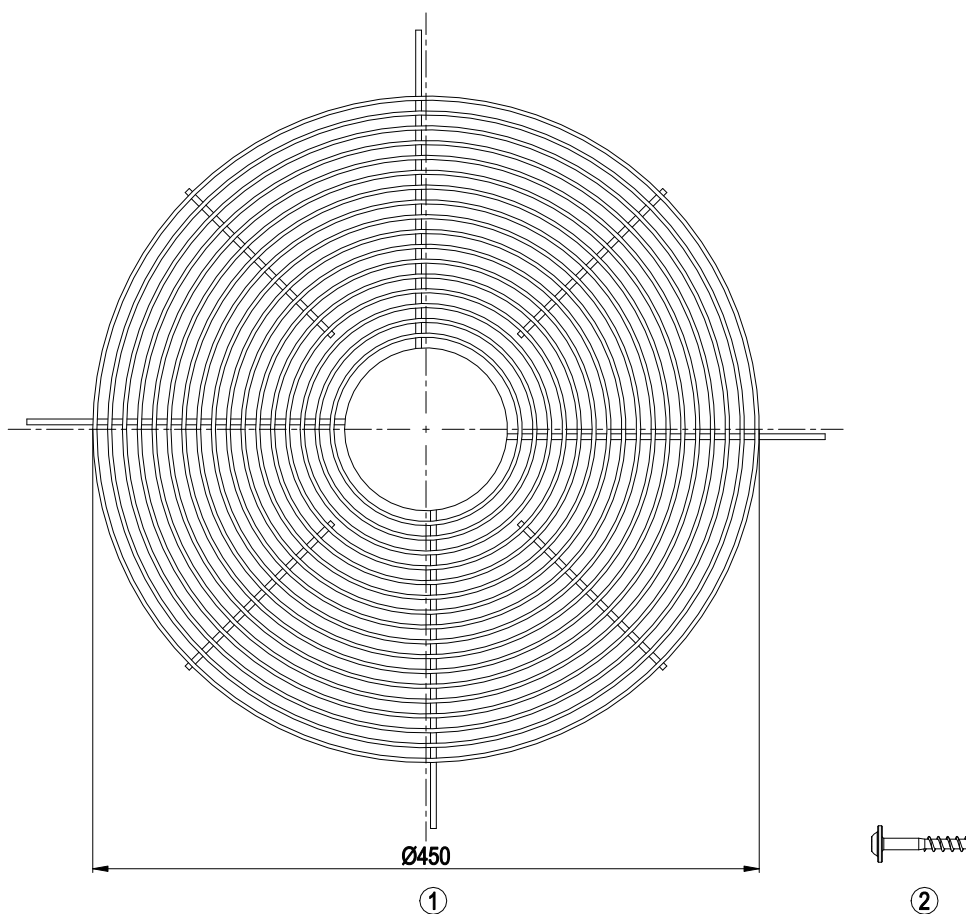
1	Airflow direction "V"
2	Supply line (PWR) PVC AWG20
	3x splice
3	Control wire (CTRL) PVC AWG22
	6x splice
	Accessory part: Guard grill 45050-2-4039 with oval head screw 60080-7-6201 (4x), can be fitted on the intake side. Not included in scope of delivery.
	The installation of accessories may change the air performance and noise values.

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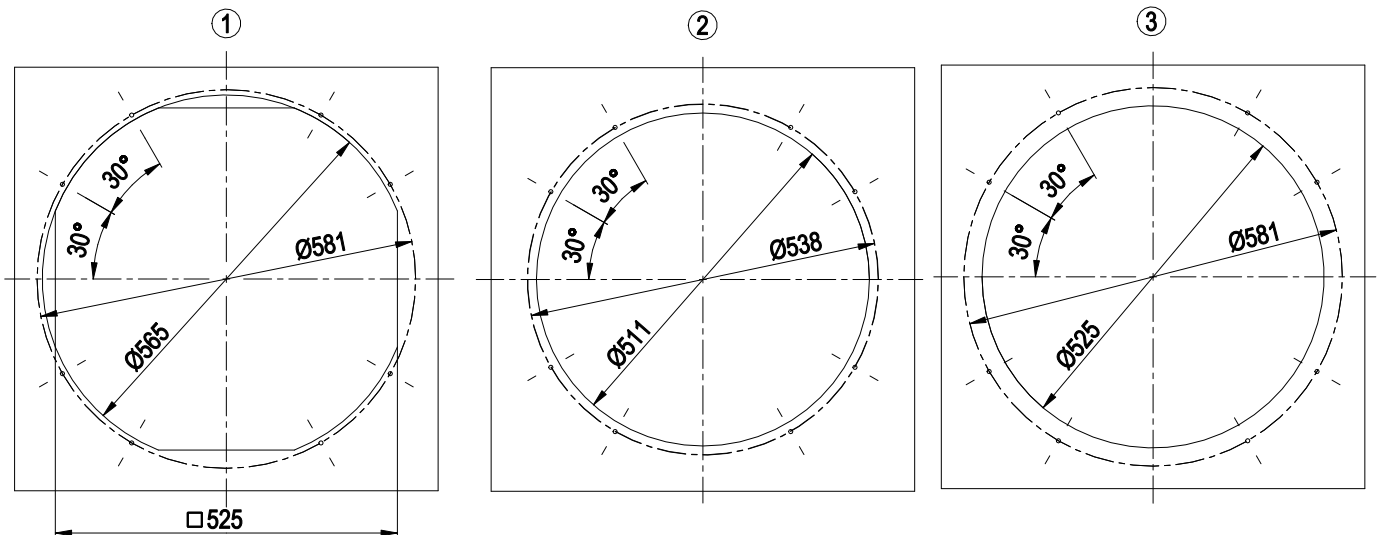
Fan housing with guard grille

Accessory part



- | | |
|---|-----------------------------------|
| 1 | Guard grill 45050-2-4039 |
| 2 | Oval head screw 60080-7-6201 (4x) |

Mounting dimensions



All 8 holes on the relevant pitch circle must always be used for all types of fastening.

1 intake-side mounting on flange

2 intake-side mounting on suction nozzle

The Ø6.5 mm holes must be pierced from the underside with a mandrel or similar tool.

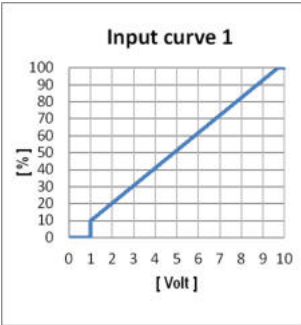
We recommend using M6 cheese-head screws with hexagon socket (DIN 912/DIN EN ISO 4762) for fastening.

3 outlet-side mounting on flange

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Connection diagram

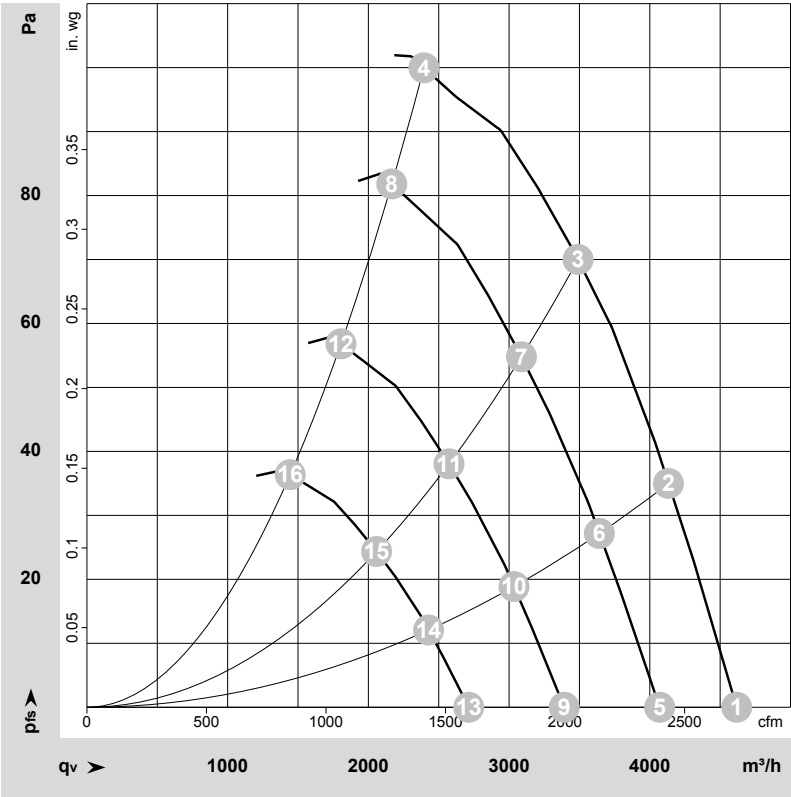


No.	Conn.	Designation	Color	Function/assignment
	PWR	L	black	Power supply, phase, see nameplate for voltage range
	PWR	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	PWR	PE	green/yellow	Protective earth
	CTRL	GND	blue	Reference ground for control interface, SELV
	CTRL	IO1	yellow	Factory setting: Analog input 0-10 V/PWM, Ri=100 KΩ, fPWM=1 kHz..10 kHz, Function: Speed set value Characteristic curve parameterizable (see "Input curve 1"), SELV Function parameterizable at the factory (see Optional interface functions table)
	CTRL	IO2	white	Factory setting: Open collector output, Umax=50 VDC, Imax= 10 mA, function: Tach output 1 pulse/revolution, SELV Function parameterizable at factory (see table Optional interface functions)
	CTRL	Vout	red	Voltage output 10 VDC +/-3%, Imax=10 mA Short-circuit-proof, power supply for external devices, SELV
	CTRL	-	gray	No function
	CTRL	-	brown	No function

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Curves: Air performance 50 Hz



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

Measurement: LU-228360-1
Date: 2023-09-05
Housing: 45000-2-4013

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

	Wired	U	f	n	P _e	I	LpA _{in}	LwA _{in}	LwA _{out}	LwA	q _v	P _{fs}	q _v	P _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	dB	m ³ /h	Pa	cfm	in. wg
1	1~	230	50	1020	130	1.10	61	67	68	70	4620	0	2720	0.00
2	1~	230	50	1020	148	1.25	59	65	66	69	4135	35	2435	0.14
3	1~	230	50	1015	158	1.33	58	64	65	68	3490	70	2055	0.28
4	1~	230	50	995	158	1.33	58	65	66	68	2395	100	1410	0.40
5	1~	230	50	900	89	0.75	58	64	65	67	4070	0	2395	0.00
6	1~	230	50	900	101	0.85	56	62	63	66	3640	27	2145	0.11
7	1~	230	50	900	109	0.92	55	61	62	65	3090	55	1820	0.22
8	1~	230	50	900	117	0.99	56	62	64	66	2165	82	1275	0.33
9	1~	230	50	750	52	0.44	54	59	60	63	3390	0	1995	0.00
10	1~	230	50	750	59	0.49	52	57	59	61	3035	19	1785	0.08
11	1~	230	50	750	63	0.53	50	56	58	60	2575	38	1515	0.15
12	1~	230	50	750	68	0.57	51	57	59	61	1805	57	1060	0.23
13	1~	230	50	600	26	0.22	48	54	54	57	2715	0	1595	0.00
14	1~	230	50	600	30	0.25	46	52	53	55	2430	12	1430	0.05
15	1~	230	50	600	32	0.27	45	51	52	54	2060	24	1210	0.10
16	1~	230	50	600	35	0.29	45	52	53	56	1445	36	850	0.14

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_v = Air flow · P_{fs} = Pressure increase