

EC axial panel fan - AxiEco

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Nominal data

Item	8300101186	
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	775
Power consumption	W	150
Current draw	A	1.3
Max. back pressure	Pa	80
Max. back pressure	in. wg	0.32
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}	%	48	28.4	09 Power consumption P_{ed}	kW	0.14
02 Measurement category		A		09 Air flow q_v	m³/h	3440
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	64
04 Efficiency grade N		59.6	40	10 Speed (rpm) n	min ⁻¹	775
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).

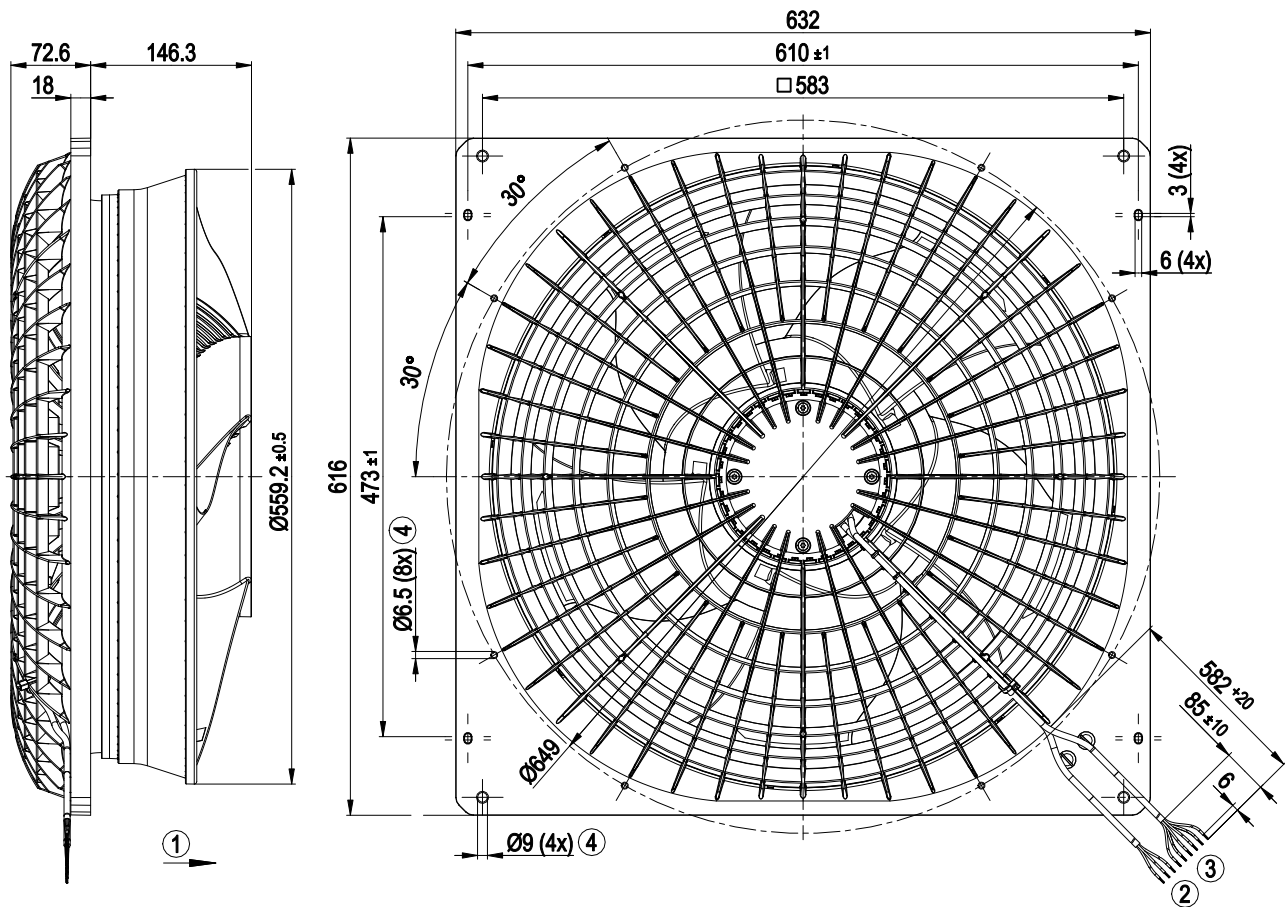
* Specific ratio = $1 + p_g / 100\,000\text{ Pa}$ LU-229339

Technical description

Weight	6,2
Size	500 mm
Motor size	74
Rotor surface	Thick-film passivated
Impeller material	PP plastic
Guard grille material	PP plastic
Number of blades	5
Airflow direction	A
Direction of rotation	Counterclockwise, 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	Shaft horizontal or rotor on bottom; rotor on top on request
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; UKCA; CE
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

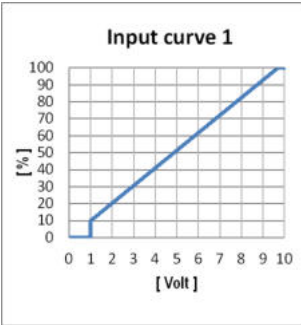
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Product drawing



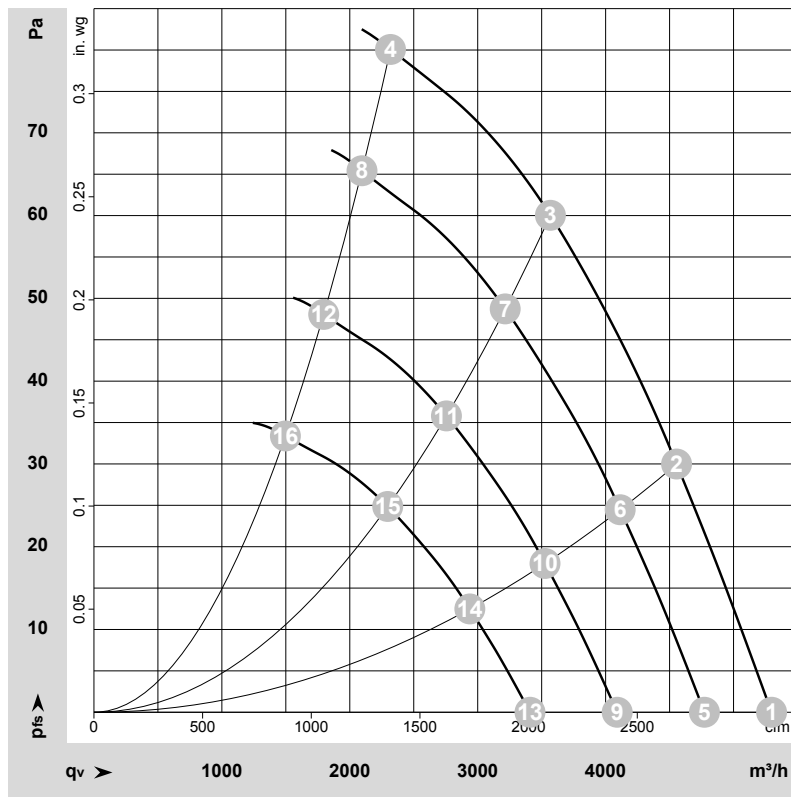
1	Direction of air flow "A"
2	Cable PVC AWG20
	3x splice
3	Cable PVC AWG22
	6x splice
4	Fastening holes are provided and must be opened subsequently if necessary

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

Curves: Air performance 50 Hz



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

Measurement: LU-229339-1
Date: 2023-10-20
Nozzle: 8217117858

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	m³/h	Pa	cfm	in. wg
1	1~	230	50	775	95	0.83	59	66	67	70	5295	0	3120	0.00
2	1~	230	50	775	120	1.04	56	63	65	67	4555	30	2680	0.12
3	1~	230	50	775	143	1.22	53	61	63	65	3570	60	2100	0.24
4	1~	230	50	775	150	1.30	54	62	65	66	2320	80	1365	0.32
5	1~	230	50	700	69	0.60	56	64	65	67	4770	0	2810	0.00
6	1~	230	50	700	88	0.76	53	60	62	64	4115	24	2420	0.10
7	1~	230	50	700	105	0.89	50	58	61	62	3215	49	1890	0.20
8	1~	230	50	700	111	0.94	51	59	62	64	2095	65	1235	0.26
9	1~	230	50	600	44	0.38	52	60	61	63	4090	0	2410	0.00
10	1~	230	50	600	56	0.48	49	57	58	60	3525	18	2075	0.07
11	1~	230	50	600	66	0.56	46	54	57	59	2755	36	1620	0.14
12	1~	230	50	600	70	0.59	47	55	58	60	1795	48	1055	0.19
13	1~	230	50	500	25	0.22	48	55	56	59	3410	0	2005	0.00
14	1~	230	50	500	32	0.28	45	52	53	56	2940	12	1730	0.05
15	1~	230	50	500	38	0.33	42	50	52	54	2295	25	1350	0.10
16	1~	230	50	500	40	0.34	43	51	54	55	1495	33	880	0.13

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