

8300100742
VWA0630BSPHS

EC axial panel fan - AxiBlade

sickle-shaped blades (S series)
Fan housing with guard grille

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Nominal data

Item	8300100742	
Motor	E09002-40	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min ⁻¹	820
Power consumption	W	400
Current draw	A	1.8
Max. back pressure	Pa	95
Max. back pressure	in. wg	0.38
Min. ambient temperature	°C	-40
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}	%	45.9	31	09 Power consumption P_{ed}	kW	0.37
02 Measurement category		A		09 Air flow q_v	m ³ /h	6695
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	84
04 Efficiency grade N		54.9	40	10 Speed (rpm) n	min ⁻¹	820
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-233434

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Technical description

Size	630 mm
Motor size	90
Rotor surface	Painted black
Terminal box material	PA plastic
Electronics housing material	Die-cast aluminum, painted gray
Impeller material	PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2 = Wet – direct exposure to water
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Technical features	- Locked-rotor detection - Speed control - Alarm relay - Power limiter - Motor current limitation - PFC, active - Soft start - Control interface with SELV potential safely disconnected from the mains - Temperature derating - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
Power Factor Correction (PFC)	Active
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Electronic motor protection
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 61800-5-1; CE; UKCA
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

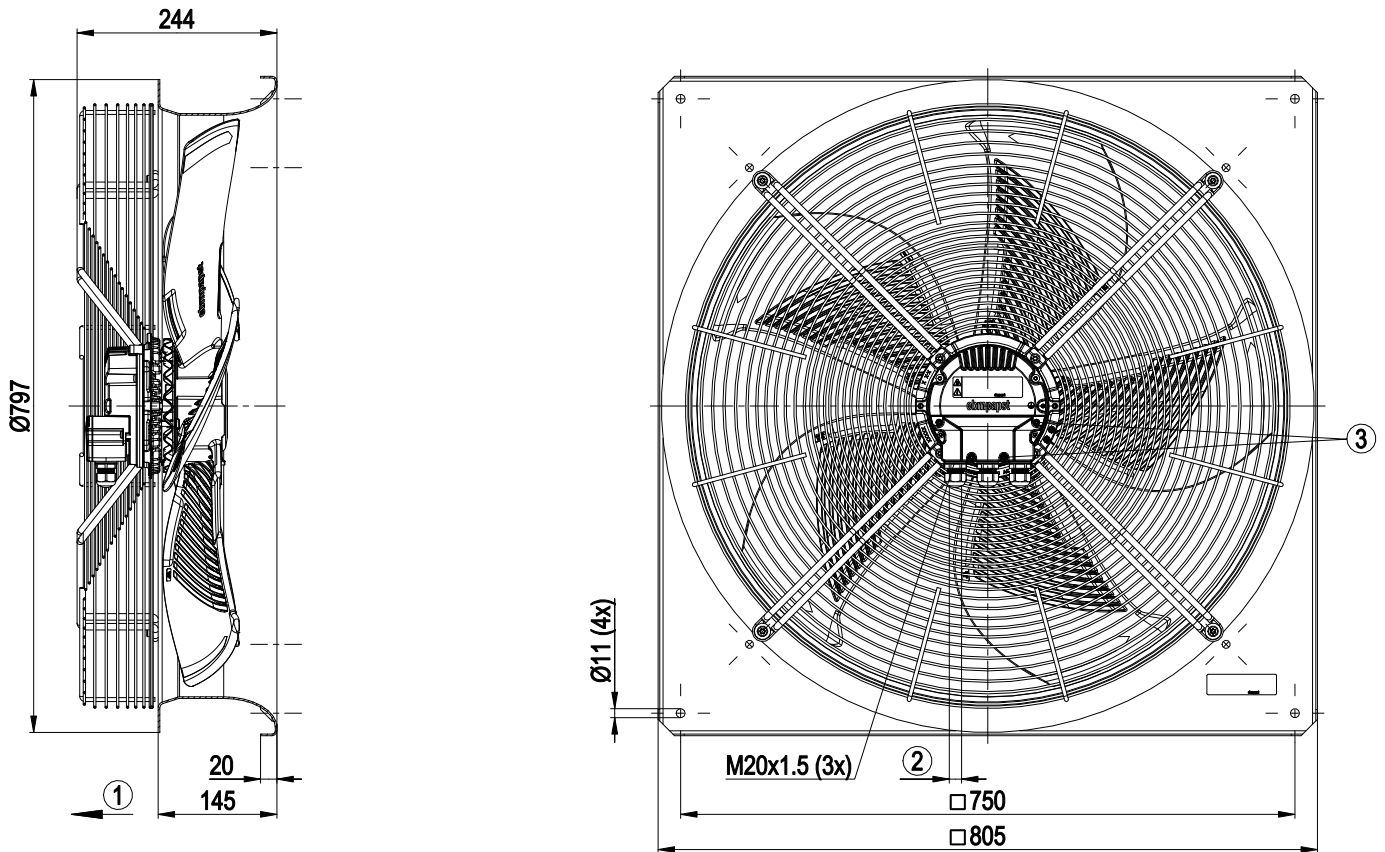
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Product drawing



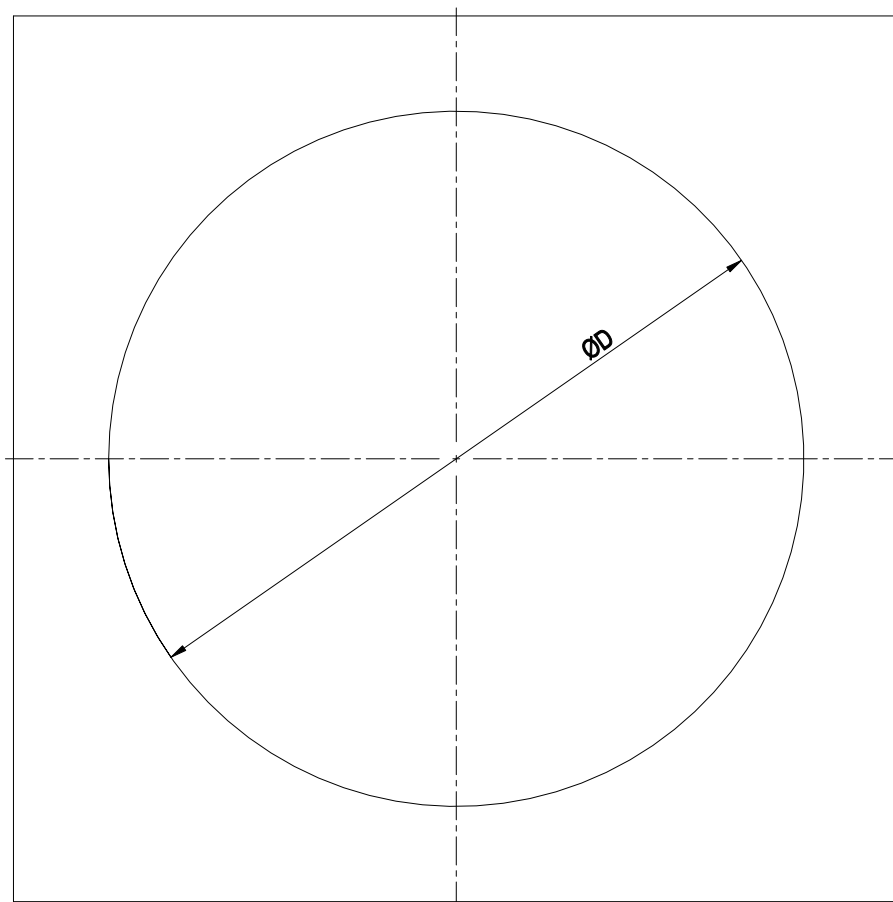
1	Airflow direction "V"
2	Cable diameter min. 4 mm, max. 10 mm, tightening torque 4 ± 0.6 Nm (The tightening torque is designed for PVC cables. If the cable materials are different, the tightening torque may have to be adjusted)
3	Tightening torque 2 ± 0.3 Nm

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Mounting dimensions



Diameter of the necessary recess for mounting the fan housing in the end device

BG630: D = $\varnothing$ 785 mm

BG710: D = $\varnothing$ 830 mm

BG800: D = $\varnothing$ 950 mm

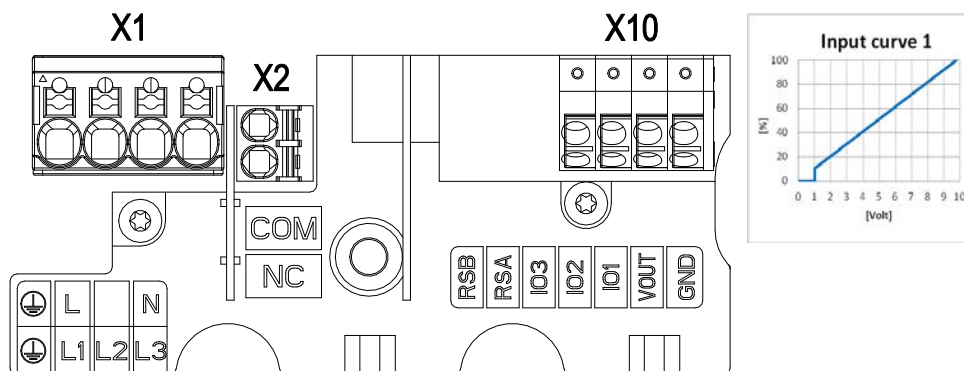
BG910: D = $\varnothing$ 1050 mm

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Connection diagram



No.	Conn.	Designation	Function/assignment
X1	PWR	PE	Protective earth
X1	PWR	L	Power supply, phase, see nameplate for voltage range
X1	PWR	N	Power supply, neutral conductor, see nameplate for voltage range
X2	CTRL	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) / min. 10 mA, reinforced insulation on supply side and on control interface side
X2	CTRL	NC	Status relay, floating status contact, break for failure
X10	CTRL	GND	Reference ground for control interface, SELV
X10	CTRL	Vout	Voltage output 10 VDC +/-3%, I _{max} =10 mA Short-circuit-proof, power supply for external devices, SELV
X10	CTRL	IO1	Factory setting: Analog input 0-10 V / PWM, R _i =100 kΩ, function: set value Characteristic curve parameterizable (see input characteristic curve "Input curve 1"), SELV Function parameterizable at the factory (see table Optional interface functions)
X10	CTRL	IO2	Factory setting: Open collector output, U _{max} =50 VDC, I _{max} =20 mA, function:Tacho output 1 pulse/revolution, SELV Function parameterizable at factory (see table Optional interface functions)

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Terminal/plug assignment

		electrical specification		INPUT		OUTPUT			
IO1	Din1 (high active): digital input	active: parametrizable voltage x - 30 VDC not active: pin open or parametrizable voltage < x VDC, SELV Ri = 100 kΩ, characteristic curve parameterizable, f _{PWM} = 1 k - 10 kHz, SELV	source: set value	switch: parameter set: #1 / #2	switch: direction of rotation: cw / ccw	switch: enable/disable input	configurable function	signal: tach out	signal: diagnostics out
				○	○	○	○	○	○
				○	○	○	○	○	○
				○	○	○	○	○	○
				○	○	○	○	○	○
IO2	Ain1 0-10 V/PWM: analog input	Umax = 50 VDC, Imax = 20 mA, SELV Umax = 50 VDC, Imax = 20 mA, SELV Umax = 50 VDC, Imax = 20 mA, SELV Umax = 50 VDC, Imax = 20 mA, SELV							
COM	Relais	250 VAC / 2 A (AC1)							
NC									
Vout	Voltage output	Voltage 10 VDC, SELV							

Basic (B5)

Factory configuration option upon request

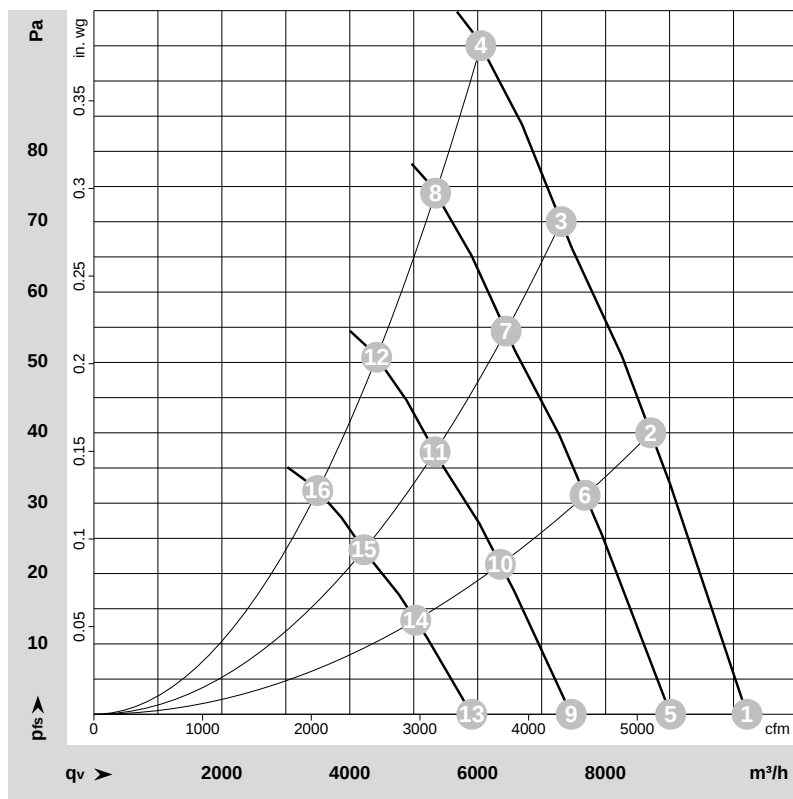
○ factory configuration option

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Curves: Air performance 50 Hz



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

Measurement: LU-233434-1
Date: 2024-08-28
Housing: 15703-2-4037

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	820	215	0.98	62	69	69	72	10210	0	6010	0.00
2	1~	230	50	820	295	1.34	59	66	66	69	8705	40	5125	0.16
3	1~	230	50	820	355	1.59	60	66	66	69	7305	70	4300	0.28
4	1~	230	50	820	400	1.78	63	70	70	73	6050	95	3560	0.38
5	1~	230	50	725	148	0.68	59	66	66	69	9015	0	5305	0.00
6	1~	230	50	725	203	0.92	56	63	63	66	7680	31	4520	0.12
7	1~	230	50	725	243	1.09	56	63	63	66	6445	54	3795	0.22
8	1~	230	50	725	275	1.23	60	67	67	70	5340	74	3145	0.30
9	1~	230	50	600	84	0.38	55	61	61	64	7465	0	4395	0.00
10	1~	230	50	600	115	0.52	52	58	58	61	6355	21	3740	0.08
11	1~	230	50	600	138	0.62	52	58	58	61	5335	37	3140	0.15
12	1~	230	50	600	156	0.70	55	62	62	65	4420	51	2600	0.20
13	1~	230	50	475	42	0.19	49	55	55	58	5910	0	3475	0.00
14	1~	230	50	475	57	0.26	46	52	52	55	5030	13	2960	0.05
15	1~	230	50	475	69	0.31	46	52	52	55	4220	23	2485	0.09
16	1~	230	50	475	77	0.34	49	56	57	59	3500	32	2060	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