

AC axial fan - AxiBlade

sickle-shaped blades (S series)

Fan housing with guard grille

W6E630-NT03-01 ebmpapst Datasheet

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Limited partnership · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	W6E630-NT03-01	
Motor	M6E110-GF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min ⁻¹	845
Power consumption	W	535
Current draw	A	2.4
Capacitor	µF	14
Capacitor voltage	VDB	450
Capacitor standard		S0 (CE)
Max. back pressure	Pa	120
Max. back pressure	in. wg	0.48
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	55
Starting current	A	3.9

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

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

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	37.3	31.8	09 Power consumption P_e	kW	0.5
02 Measurement category		A		09 Air flow q_v	m ³ /h	7150
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	97
04 Efficiency grade N		45.5	40	10 Speed (rpm) n	min ⁻¹	875
05 Variable speed drive		No		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-199554

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).



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Technical description

Weight	23.7 kg
Size	630 mm
Motor size	110
Rotor surface	Painted black
Terminal box material	PP plastic
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
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal switch auto reset, lead out, with basic insulation
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 61800-5-1; CE
Approval	VDE; EAC

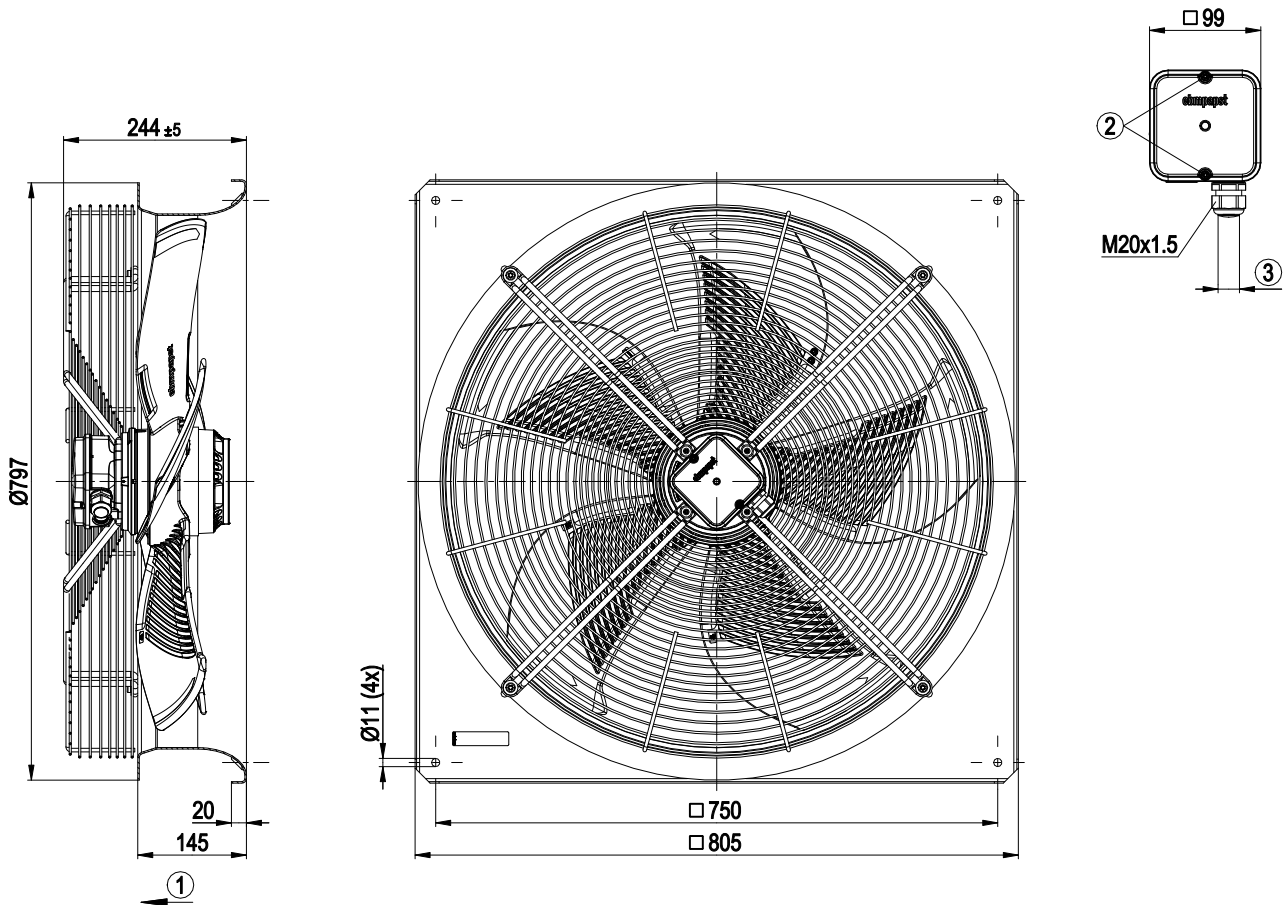


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Product drawing



1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

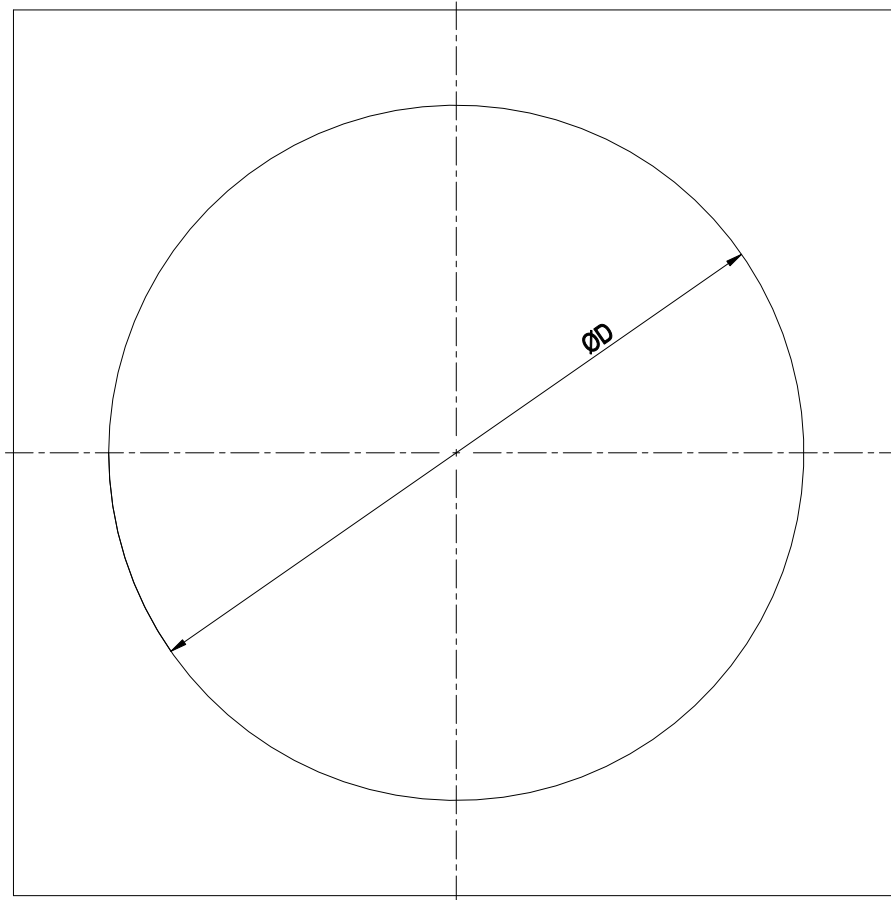


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Mounting dimensions



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

BG630: D = Ø785 mm

BG710: D = Ø830 mm

BG800: D = Ø950 mm

BG910: D = Ø1050 mm

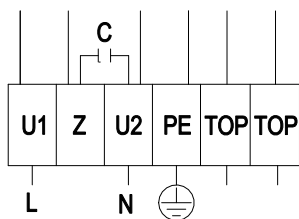


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Connection diagram



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow	TOP	gray		

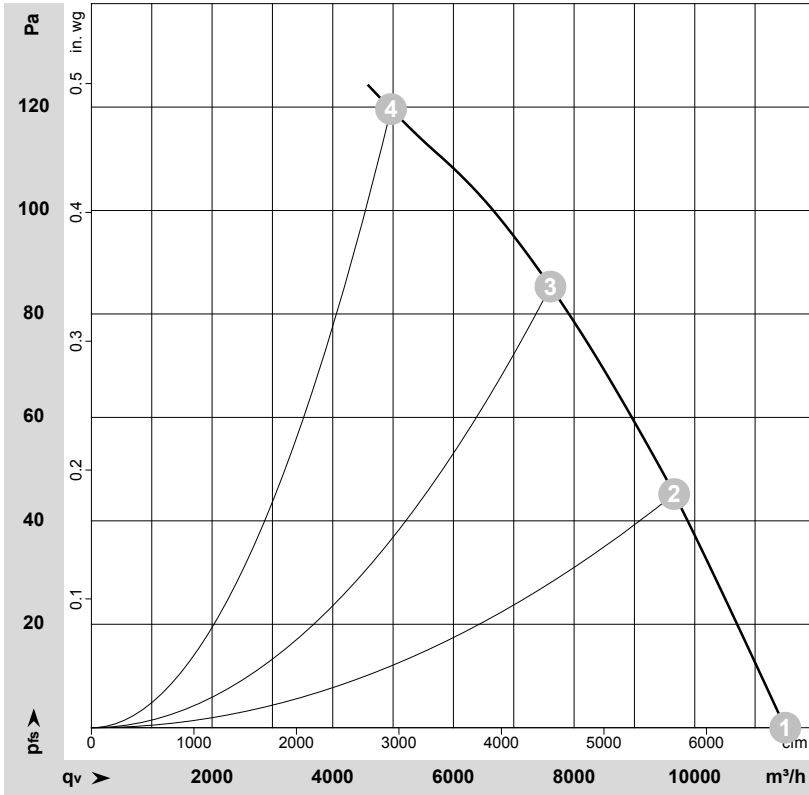


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Curves: Air performance 50 Hz



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

Measurement: LU-204305-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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}	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	1~	230	50	930	387	1.71	67	73	74	11500	0	6770	0.00
2	1~	230	50	905	452	1.99	63	69	69	9660	45	5685	0.18
3	1~	230	50	875	500	2.20	63	70	70	7610	85	4480	0.34
4	1~	230	50	845	535	2.40	69	76	77	4965	120	2925	0.48

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

