

AC axial panel fan - AxiBlade

sickle-shaped blades (S series)

Fan housing with guard grille

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Nominal data

Type	W4D630-NG01-01		
Motor	M4D138-HF		
Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	1350	1100
Power consumption	W	1700	1200
Current draw	A	3.1	2.0
Max. back pressure	Pa	240	154
Max. back pressure	in. wg	0.96	0.62
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	14	4.4

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}	%	41.6	34.9	09 Power consumption P_e	kW	1.56
02 Measurement category		A		09 Air flow q_v	m³/h	12445
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	189
04 Efficiency grade N		46.7	40	10 Speed (rpm) n	min ⁻¹	1370
05 Variable speed drive		No		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 = $1 + p_{fs} / 100\,000\text{ Pa}$ LU-204747

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Technical description

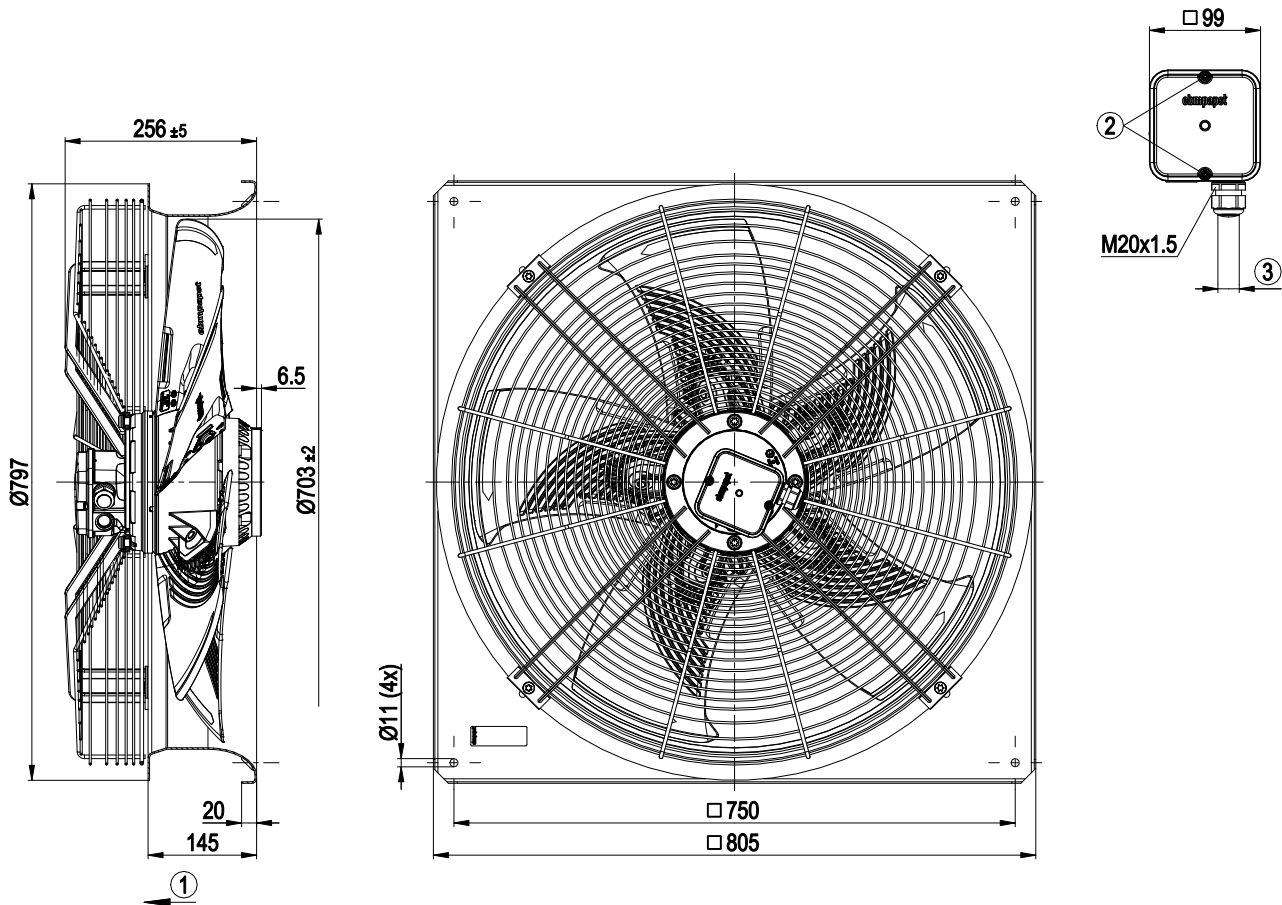
Weight	34.6 kg
Size	630 mm
Motor size	138
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	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	Any
Condensation drainage holes	On rotor and stator sides
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 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 60034-1 (2010); CE; UKCA
Approval	VDE; EAC

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Product drawing



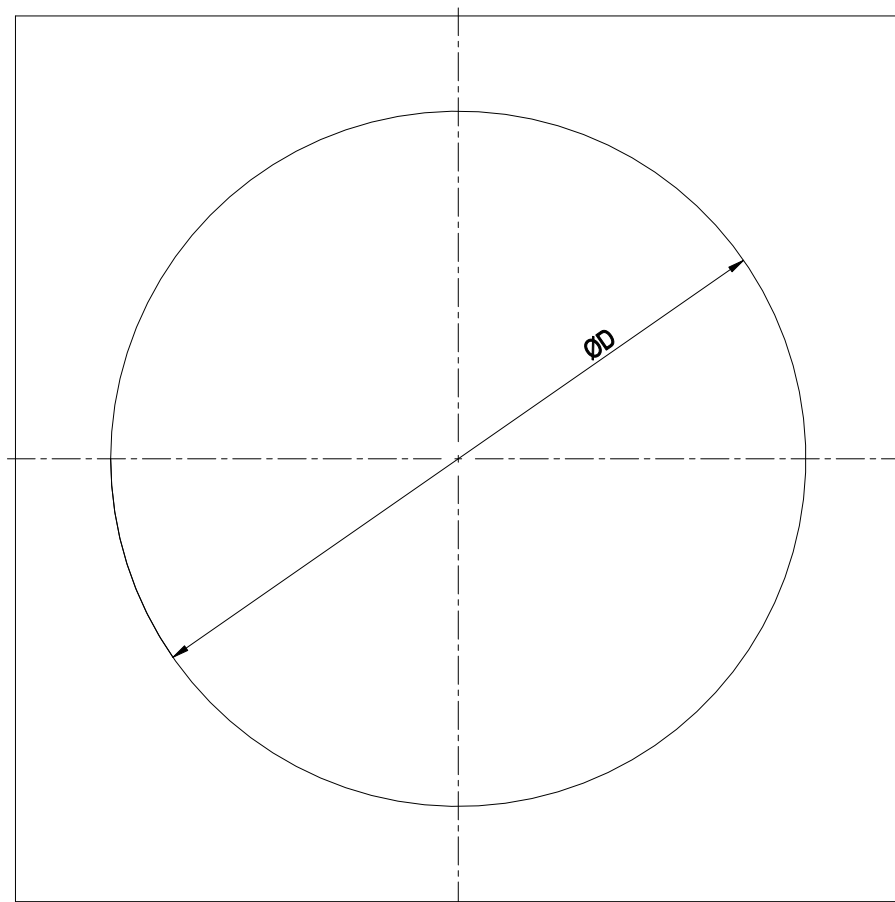
1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 7 mm, max. 14 mm, tightening torque 2 ± 0.3 Nm

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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

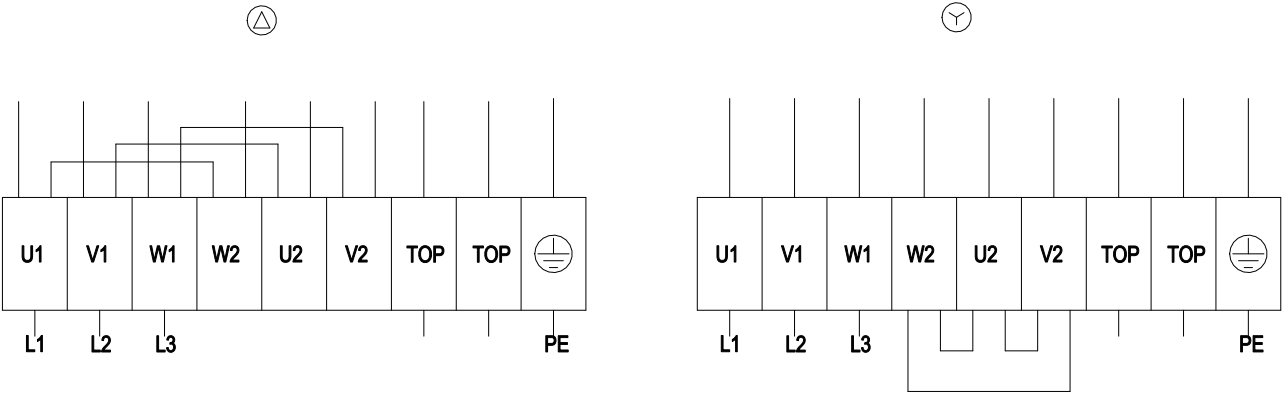
BG800: D = Ø950 mm

BG910: D = Ø1050 mm

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Connection diagram



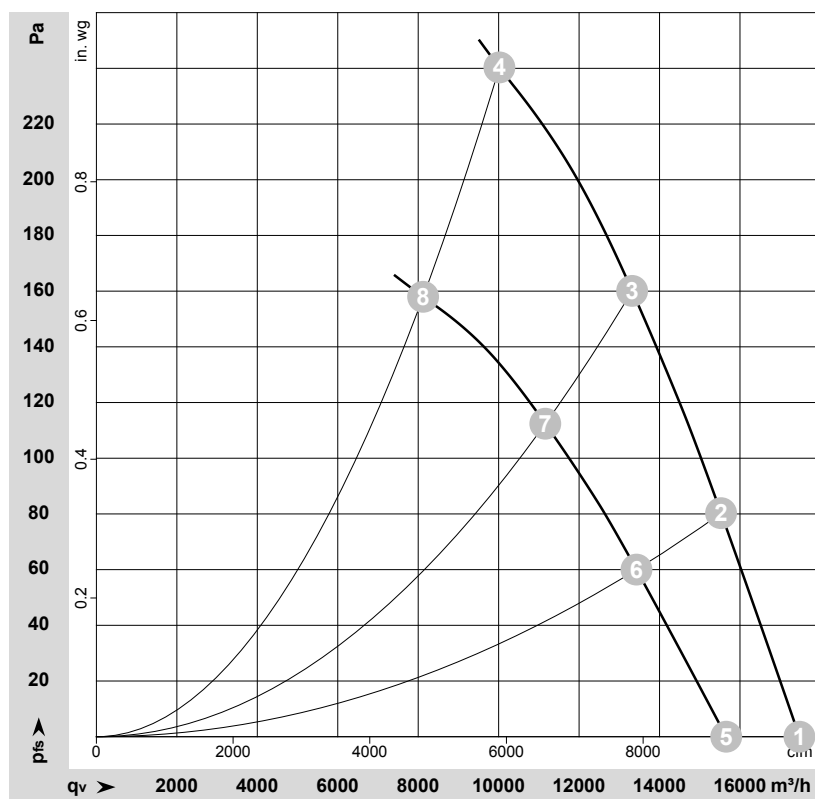
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



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

Measurement: LU-204747-1
Date: 2020-02-06
Housing: 15703-2-4037

Measurement: LU-204753-1
Date: 2020-02-06
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}	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	Δ	400	50	1420	1044	2.18	72	79	80	17480	0	10290	0.00
2	Δ	400	50	1400	1274	2.47	71	78	79	15530	80	9140	0.32
3	Δ	400	50	1375	1492	2.74	72	79	80	13320	160	7840	0.64
4	Δ	400	50	1350	1700	3.10	79	87	87	10020	240	5895	0.96
5	Y	400	50	1270	824	1.33	69	77	78	15660	0	9215	0.00
6	Y	400	50	1210	983	1.58	67	74	75	13425	61	7905	0.24
7	Y	400	50	1155	1108	1.78	68	75	75	11160	112	6570	0.45
8	Y	400	50	1100	1200	2.00	73	80	81	8120	154	4780	0.62

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