A8D630-AO09-01

AC axial fan - HyBlade

sickled blades (S series)

A8D630-AO09-01 ebmpapst Datasheet
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County court Stuttgart · HRB 590142

Nominal data

Type	**A8D630-AO09-01**
Motor	**M8D110-GF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Connection		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	650	480	750	490
Power input	W	235	140	360	195
Current draw	A	0.55	0.27	0.65	0.32
Max. back pressure	Pa	60	36	80	40
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	70	70
Starting current	A	1.2	0.40	1.1	0.44

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	29.5	29.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.22
09 Air flow q_v	m^3/h	4400
09 Pressure increase p_{fs}	Pa	53
10 Speed (rpm) n	min^{-1}	655
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-152613

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Technical features

Mass	10.1 kg
Size	630 mm
Surface of rotor	Coated in black
Material of terminal box	PP plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	CCC; VDE; EAC

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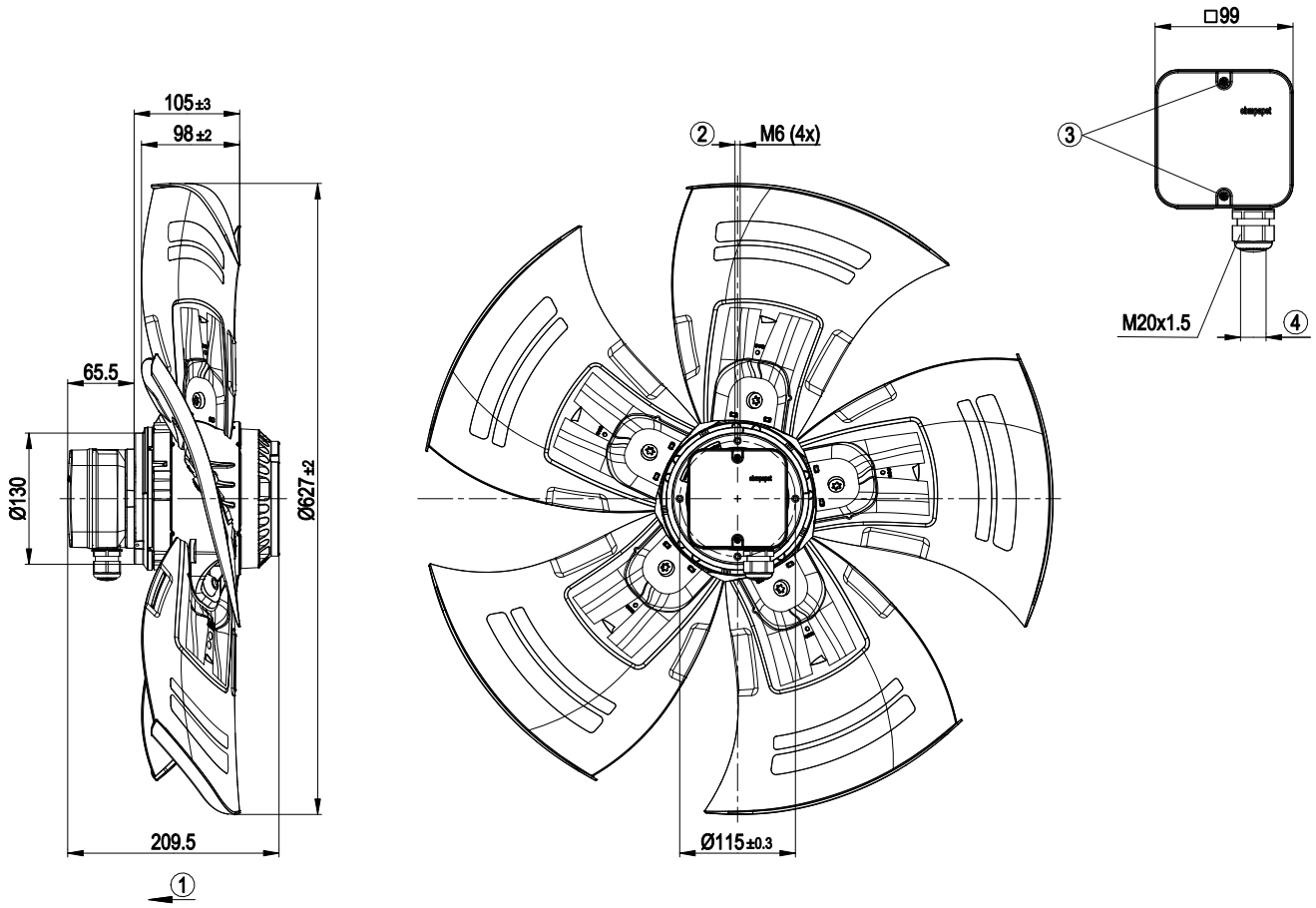
Product drawing



1	Direction of air flow "V"
2	Thread reach max. 12 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm

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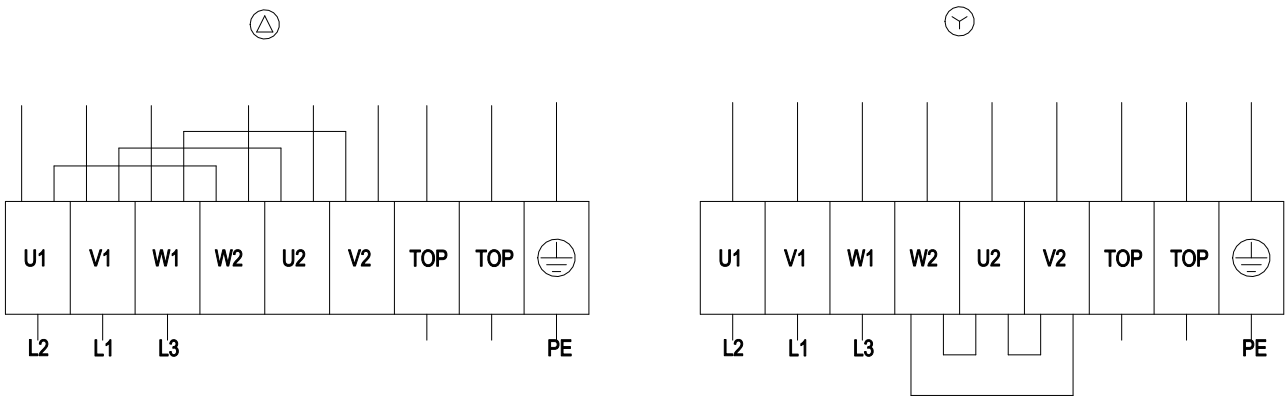
Connection screen



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

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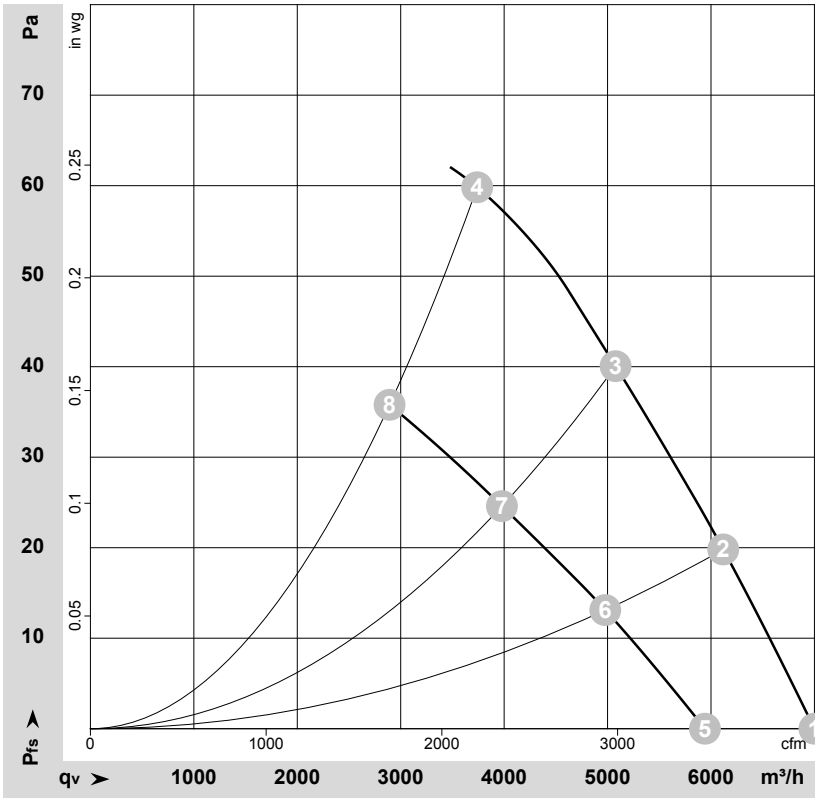
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-152613-1
Measurement: LU-157817-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	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	inH2O
1	Δ	400	50	695	160	0.45	56	62	60	7000	0	4120	0.00
2	Δ	400	50	680	187	0.47	53	59	58	6120	20	3600	0.08
3	Δ	400	50	660	213	0.49	53	59	58	5080	40	2990	0.16
4	Δ	400	50	650	235	0.55	55	62	61	3740	60	2200	0.24
5	Y	400	50	580	108	0.21	51	57	56	5940	0	3495	0.00
6	Y	400	50	540	121	0.23	49	54	53	4980	13	2930	0.05
7	Y	400	50	505	131	0.25	47	53	52	3980	25	2340	0.10
8	Y	400	50	480	140	0.27	46	52	51	2890	36	1700	0.14

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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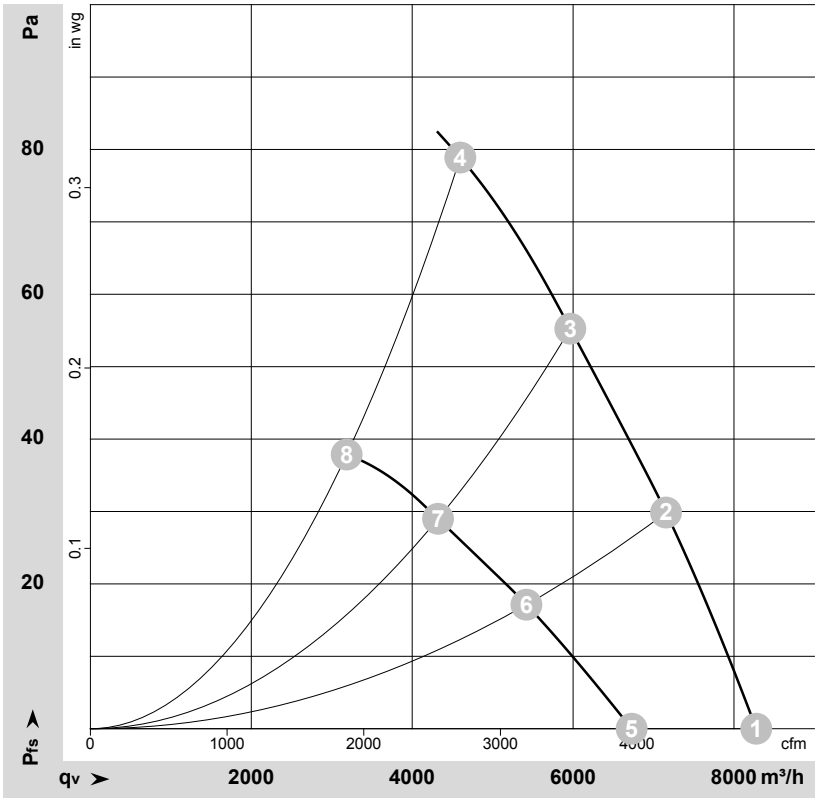
Charts: Air flow 60 Hz



ρ = 1.18 kg/m³ ± 2 %

Measurement: LU-160203-1
Measurement: LU-160382-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	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	inH2O
1	Δ	480	60	815	246	0.49	59	66	65	8275	0	4870	0.00
2	Δ	480	60	790	293	0.53	57	63	62	7155	30	4210	0.12
3	Δ	480	60	765	331	0.57	56	63	62	5965	55	3510	0.22
4	Δ	480	60	750	360	0.65	60	67	66	4600	80	2705	0.32
5	Y	480	60	640	162	0.26	53	59	58	6730	0	3960	0.00
6	Y	480	60	575	178	0.28	49	56	54	5420	17	3190	0.07
7	Y	480	60	530	187	0.30	48	54	53	4320	29	2545	0.12
8	Y	480	60	490	195	0.32	46	52	51	3185	38	1875	0.15

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase