A8D910-AJ03-01

AC axial fan

sickled blades (S series)

A8D910-AJ03-01 ebmpapst Datasheet
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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**A8D910-AJ03-01**
Motor	**M8D138-LA**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Connection		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	60	60
Type of data definition		ml	ml	ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE	CE	CE
Speed	min^{-1}	665	495	730	450	780	545
Power input	W	1110	680	1420	670	1630	930
Current draw	A	2.7	1.36	2.95	1.48	3.0	1.64
Max. back pressure	Pa	90	50	80	33	90	47
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	50	50	50	50
Starting current	A	6.2	2.2	4.9		6.5	2.3

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	31.6	29.8	33.8
Efficiency grade N		37.8	36	40
Power input P_e	kW	1.05		
Air flow q_v	m^3/h	16005		
Pressure increase p_{fs}	Pa	76		
Speed n	min^{-1}	670		

Data definition with optimum efficiency. LU-102537
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	27 kg
Size	910 mm
Surface of rotor	Cast in aluminium
Material of terminal box	Plastic, fibreglass-reinforced
Material of blades	Die-cast aluminum
Number of blades	5
Blade angle	0°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	On rotor and stator sides
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
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034; EN 61800-5-1; CE
Approval	CCC; EAC; VDE

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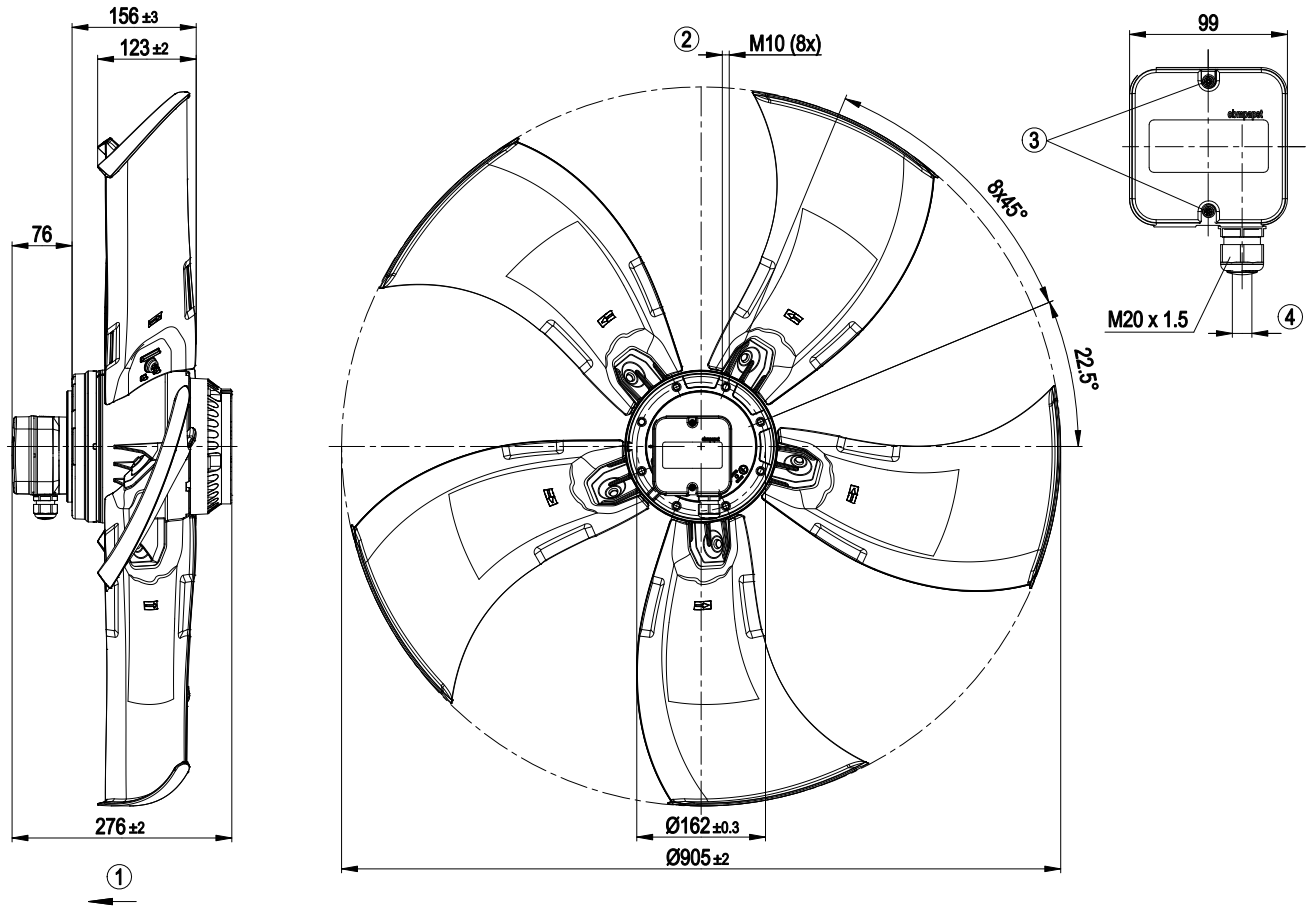
Product drawing



1	Direction of air flow "V"
2	Screw depth max. 18 mm
3	Tightening torque 1.5 ± 0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm, tightening torque: 2.0 ± 0.3 Nm

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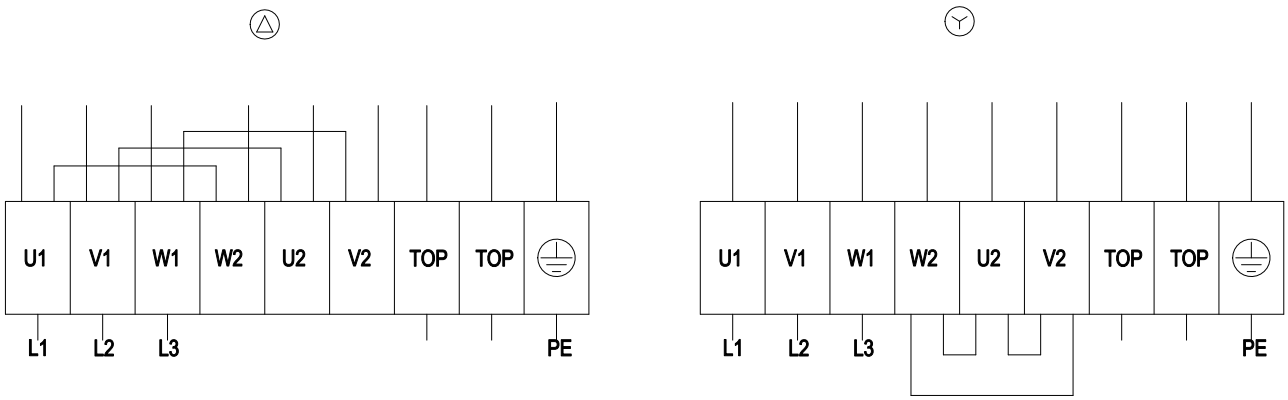
Connection screen



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

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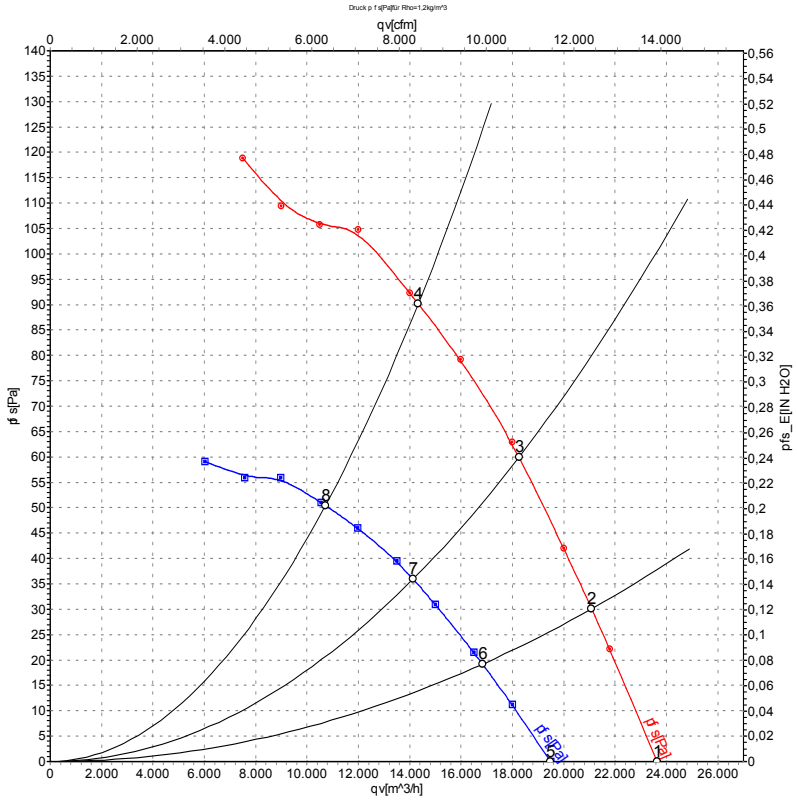
Charts: Air flow 50 Hz



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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	700	796	2.34	65	71	69	23630	0
2	Δ	400	50	690	902	2.45	63	69	67	21080	30
3	Δ	400	50	680	992	2.53	63	69	67	18260	60
4	Δ	400	50	665	1110	2.70	64	71	69	14330	90
5	Y	400	50	580	551	1.11	60	66	65	19480	0
6	Y	400	50	550	602	1.21	59	65	62	16840	19
7	Y	400	50	525	635	1.27	57	63	61	14130	36
8	Y	400	50	495	680	1.36	57	63	62	10720	50

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · 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 · qv = Air flow · p_{fs} = Pressure increase

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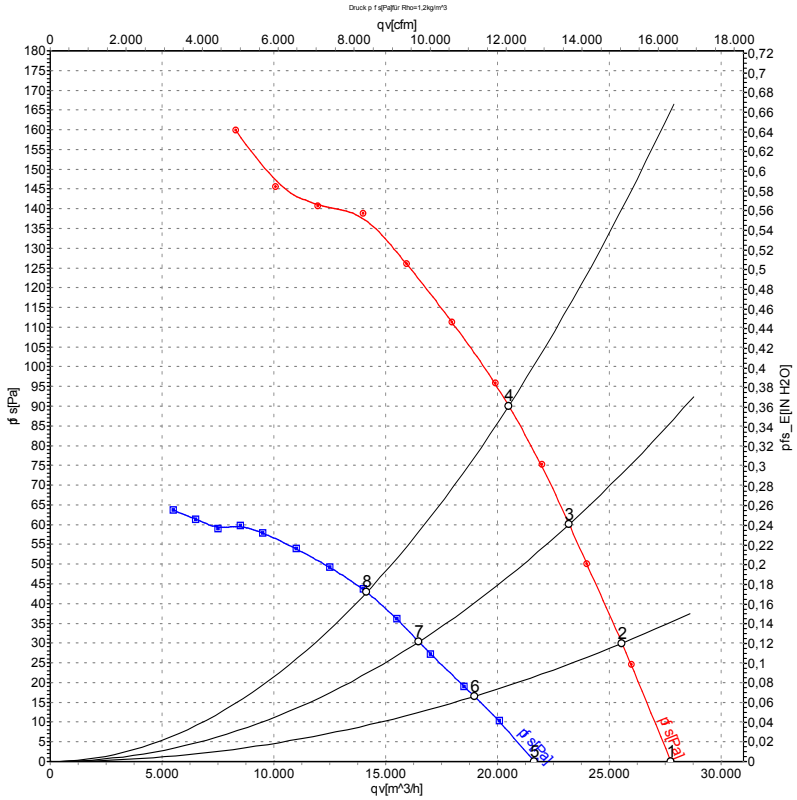
Charts: Air flow 60 Hz



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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	480	60	820	1263	2.60	67	74	72	27750	0
2	Δ	480	60	810	1392	2.74	67	73	71	25570	30
3	Δ	480	60	795	1510	2.87	66	72	70	23200	60
4	Δ	480	60	780	1630	3.00	66	72	70	20500	90
5	Y	480	60	640	838	1.45	62	69	67	21650	0
6	Y	480	60	600	870	1.50	61	67	65	18970	16
7	Y	480	60	570	892	1.55	59	65	63	16480	30
8	Y	480	60	545	930	1.64	58	64	62	14150	43

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · 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 · qv = Air flow · p_{fs} = Pressure increase