A4D630-AO01-02

AC axial fan

sickled blades (S series)

A4D630-AO01-02 ebmpapst Datasheet FansCo

sales@fansco.com

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Nominal data

Type	**A4D630-AO01-02**
Motor	**M4D138-HF**

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	min^{-1}	1360	1120	1630	1300
Power input	W	1620	1120	2240	1600
Current draw	A	3.02	1.87	3.4	2.3
Max. back pressure	Pa	230	150	150	95
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	55	55
Starting current	A	14	4.5	16	5.3

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}	%	36.2	30.9	34.9
Efficiency grade N		41.3	36	40
Power input P_e	kW	1.54		
Air flow q_v	m^3/h	9700		
Pressure increase p_{fs}	Pa	208		
Speed n	min^{-1}	1365		

Data definition with optimum efficiency. LU-101076
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	21.6 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Die-cast aluminium
Number of blades	5
Blade angle	-10°
Direction of air flow	"A"
Direction of rotation	Counter-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	EAC; VDE

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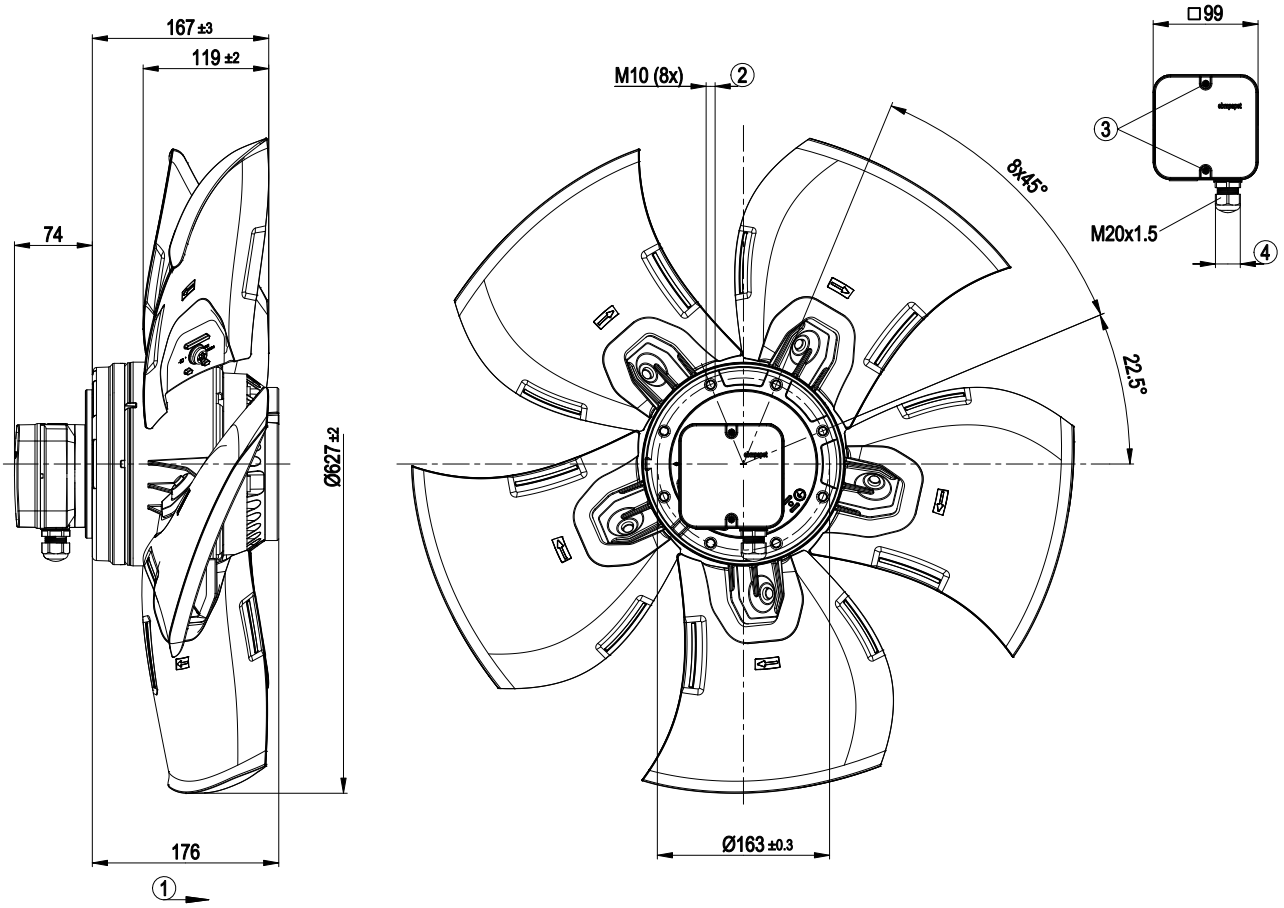
Product drawing



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

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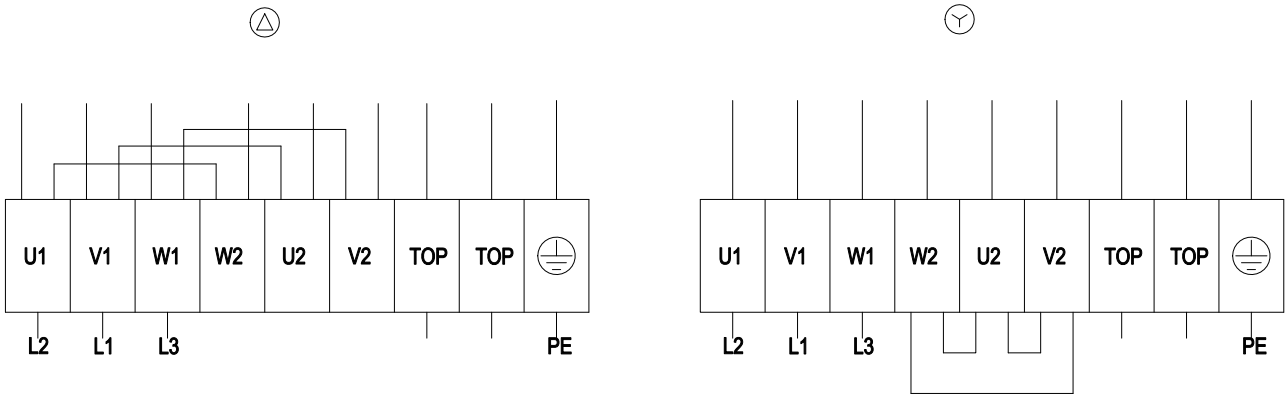
Connection screen



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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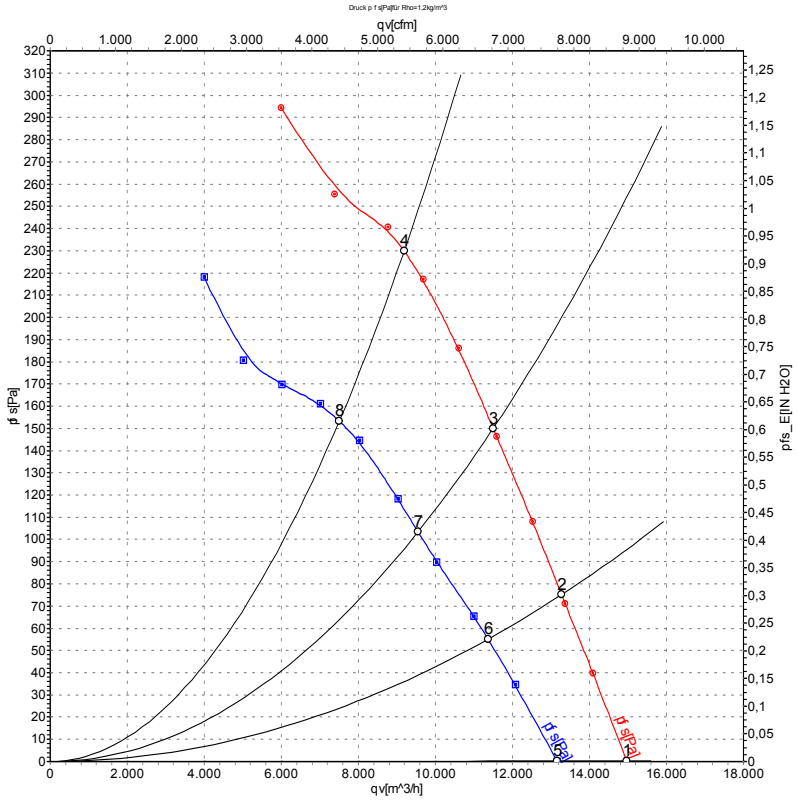
Charts: Air flow 50 Hz



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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	1410	1088	2.35	74	80	14970	0
2	Δ	400	50	1390	1289	2.58	74	80	13280	75
3	Δ	400	50	1375	1446	2.75	74	80	11500	150
4	Δ	400	50	1360	1620	3.02	77	83	9190	230
5	Y	400	50	1240	848	1.43	72	77	13160	0
6	Y	400	50	1190	973	1.64	70	76	11370	55
7	Y	400	50	1150	1061	1.79	70	76	9550	103
8	Y	400	50	1120	1120	1.87	71	78	7505	153

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
qv = Air flow · p_{fs} = Pressure increase

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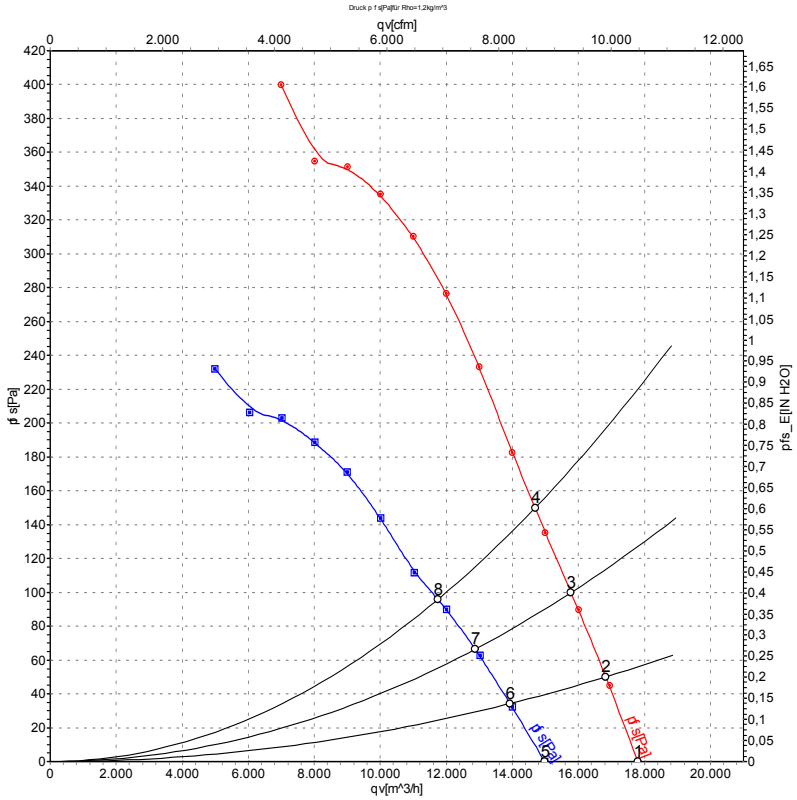
Charts: Air flow 60 Hz



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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	480	60	1670	1784	2.80	78	84	17800	0
2	Δ	480	60	1655	1968	3.00	78	84	16830	50
3	Δ	480	60	1640	2130	3.19	77	84	15780	100
4	Δ	480	60	1630	2240	3.40	78	84	14690	150
5	Y	480	60	1415	1356	1.92	74	80	14980	0
6	Y	480	60	1375	1452	2.06	73	79	13920	34
7	Y	480	60	1335	1525	2.17	73	79	12870	67
8	Y	480	60	1300	1600	2.30	72	78	11740	95

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
qv = Air flow · p_{fs} = Pressure increase