A4D630-AO03-05

AC axial fan

sickled blades (S series)

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A4D630-AO03-05**
Motor	**M4D138-HF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Connection		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	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}	1360	1570	1630	1360	1570	1630
Power input	W	1620	2050	2240	1620	2050	2240
Current draw	A	5.28	6.1	5.88	3.02	3.51	3.4
Max. back pressure	Pa	200	135	150	200	135	150
Max. ambient temperature	°C	75	55	55	75	55	55

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}		38.2	30.9	34.9
Efficiency grade N		43.3	36	40
Power input P_e	kW	1.57		
Air flow q_v	m^3/h	10530		
Pressure increase p_{fs}	Pa	207		
Speed n	min^{-1}	1370		

Data established at point of optimum efficiency

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Technical features

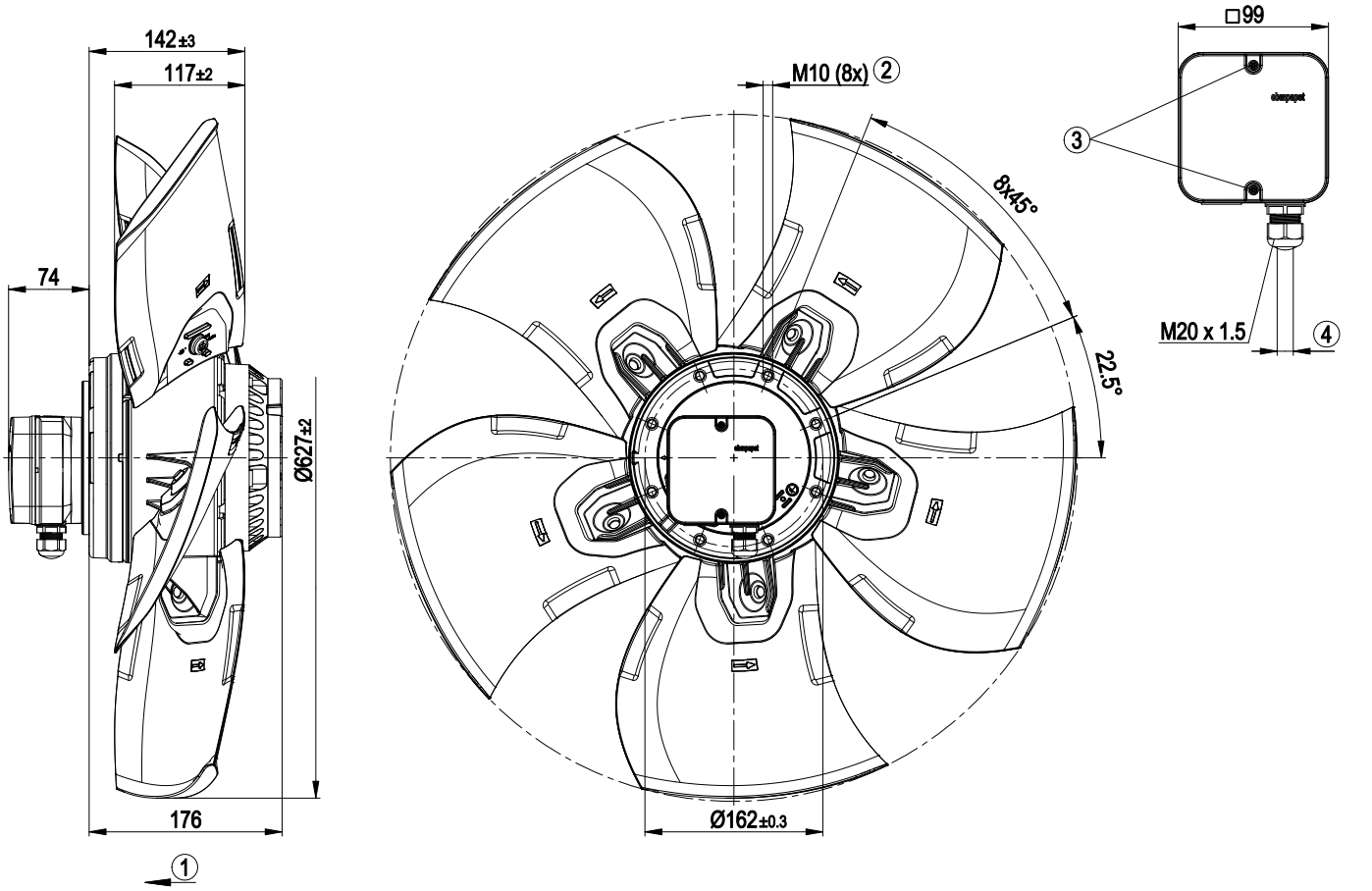
Mass	21.6 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Die-cast aluminum
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	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	VDE

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Product drawing



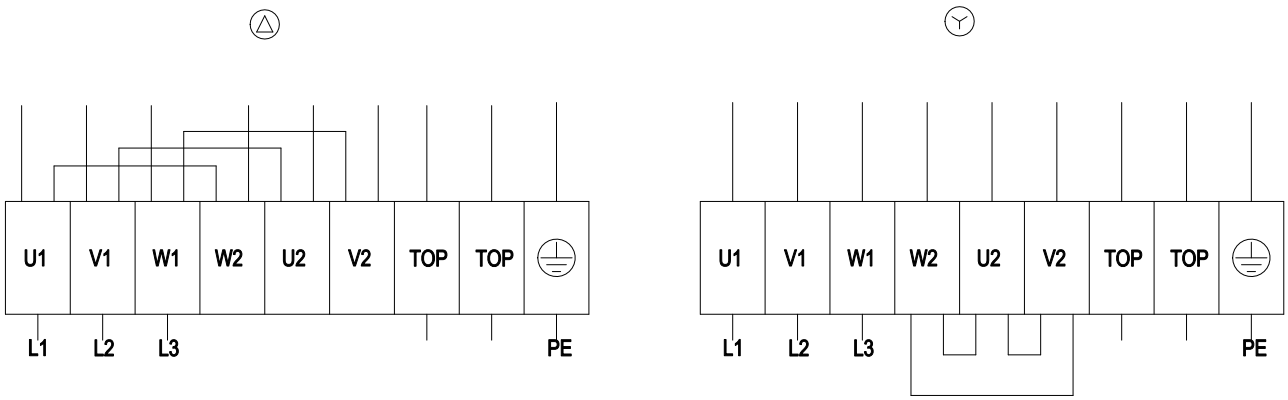
1	Direction of air flow "V"
2	Screw depth max. 18 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm, tightening torque: 2±0.3 Nm

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Connection screen



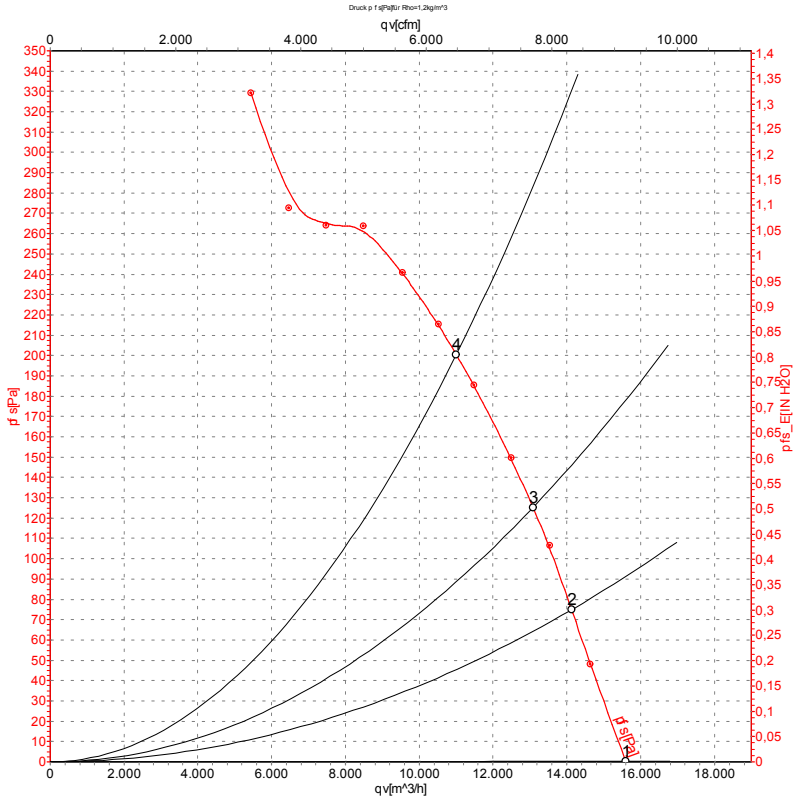
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green/yellow				

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AC axial fan

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Charts: Air flow 50 Hz



Measurement: LU-101456

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	Y	400	50	1420	1043	2.35	74	80	15600	0
2	Y	400	50	1400	1238	2.57	71	76	14130	75
3	Y	400	50	1390	1367	2.73	73	77	13080	125
4	Y	400	50	1360	1620	3.02	73	78	11010	200

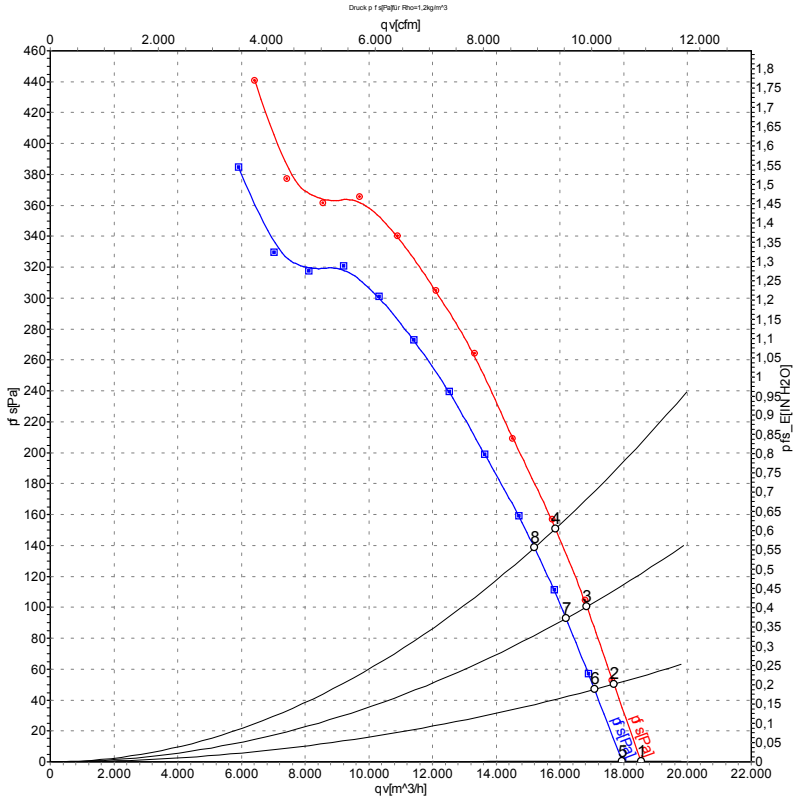
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-101461
Measurement: LU-101460

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	Y	480	60	1680	1714	2.78	78	84	18545	0
2	Y	480	60	1670	1874	2.95	75	81	17690	50
3	Y	480	60	1655	2038	3.16	73	79	16840	101
4	Y	480	60	1630	2240	3.40	72	79	15860	150
5	Y	400	60	1630	1625	2.86	77	83	17955	0
6	Y	400	60	1610	1768	3.07	74	80	17080	47
7	Y	400	60	1595	1899	3.27	72	79	16190	93
8	Y	400	60	1570	2050	3.51	71	78	15190	135

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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