

A4D630-AF03-03

AC axial fan - HyBlade®

sickled blades (S series)



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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142



Nominal data

Type	A4D630-AF03-03			
Motor	M4D138-LA			
Phase		3~	3~	3~
Nominal voltage	VAC	230	277	400
Connection		Δ	Δ	Y
Frequency	Hz	50	60	50
Type of data definition		ml	ml	ml
Valid for approval / standard		CE	CE	CE
Speed	min ⁻¹	1405	1660	1405
Power input	W	1720	2860	1720
Current draw	A	6.67	8.18	3.86
Max. back pressure	Pa	220	310	220
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	65	60	65
Starting current	A	27		27

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 = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	36.4	31.1	35.1
Efficiency grade N		41.3	36	40
Power input P_e	kW	1.69		
Air flow q_v	m ³ /h	10780		
Pressure increase p_{fs}	Pa	206		
Speed n	min ⁻¹	1410		

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

LU-121453



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Technical features

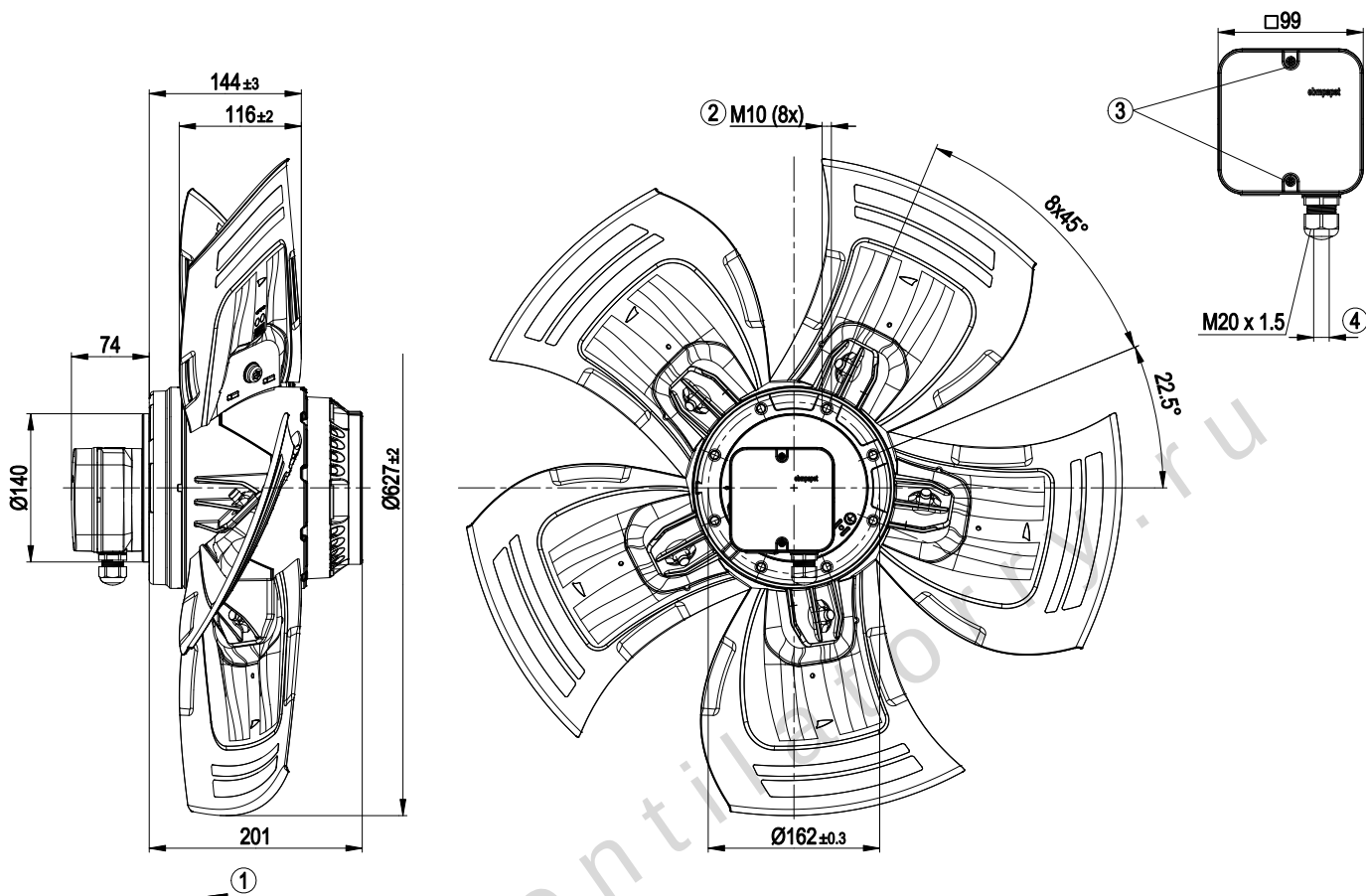
Mass	23.5 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC/ABS plastic, black
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	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 61800-5-1; EN 60034; CE
Approval	CSA C22.2 Nr.100; EAC; UL 1004-1

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Product drawing



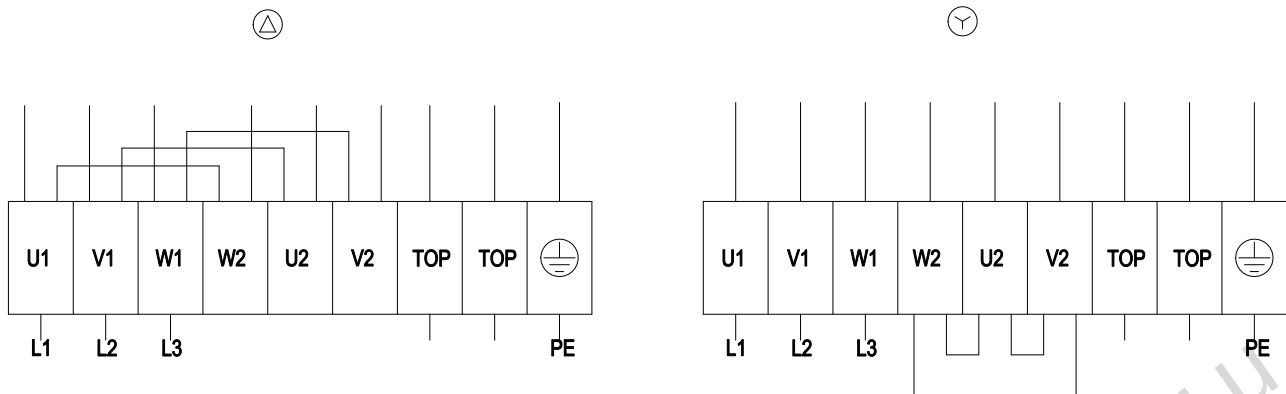
1	Direction of air flow "V"
2	Depth of screw max. 18 mm
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm; tightening torque: 2±0.3 Nm

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Connection screen



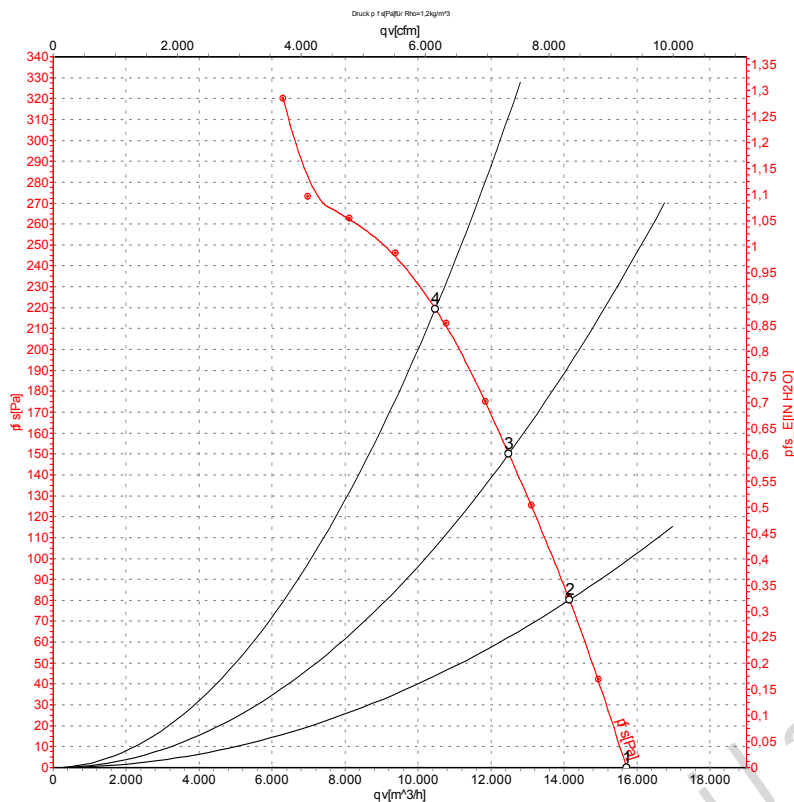
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green/yellow				

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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)	m³/h	Pa
1	Y	400	50	1445	1147	3.33	71	78	78	15710	0
2	Y	400	50	1430	1361	3.49	69	76	76	14150	80
3	Y	400	50	1420	1547	3.66	71	78	78	12490	150
4	Y	400	50	1405	1720	3.86	75	82	81	10470	220

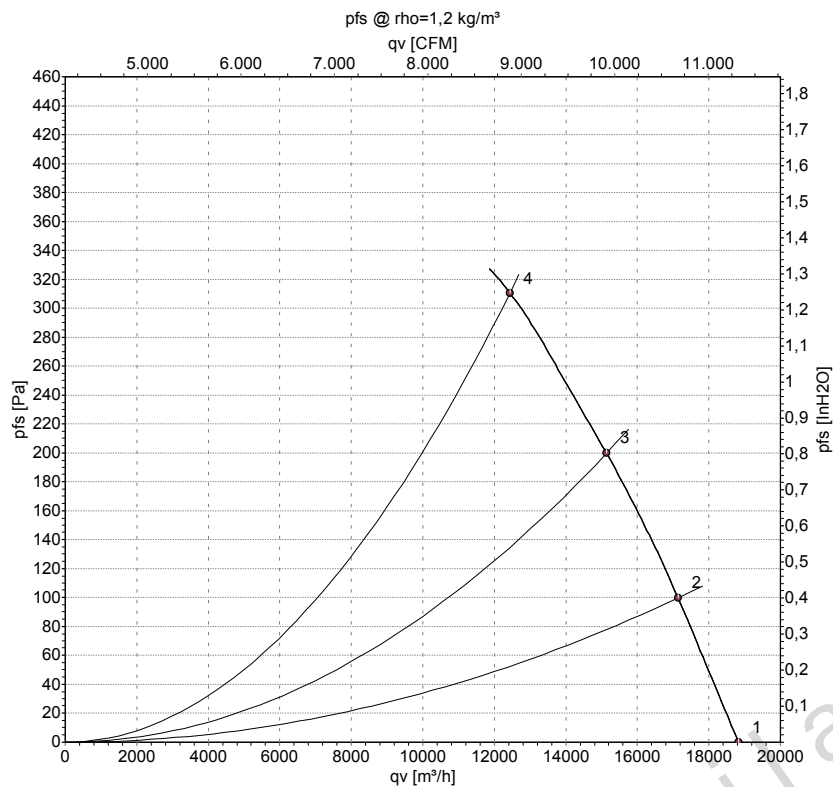
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-121467

Air performance measured as per ISO 5801
Installation category A. For detailed
information on the measuring set-up, please
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levels: LwA measured as per ISO 13347 /
LpA measured with 1m distance to fan axis.
The values given are valid under the
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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)	m³/h	Pa
1	Y	480	60	1715	1884	3.71	75	82	82	18830	0
2	Y	480	60	1700	2210	4.02	73	81	80	17135	100
3	Y	480	60	1680	2530	4.34	75	82	82	15140	200
4	Y	480	60	1660	2860	4.73	79	86	86	12435	310

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