AC axial fan - HyBlade®

sickled blades (S series)

A6D630-AK03-01 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner: Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2013 EXCEEDS THE NORM

Nominal data

Type	**A6D630-AK03-01**
Motor	**M6D110-EF**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		**Δ**	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	820	570
Power input	W	560	320
Current draw	A	0.98	0.55
Max. back pressure	Pa	90	40
Max. ambient temperature	°C	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
Closed-loop speed control	No
Specific ratio*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_e		28,8	27,9	31,9
Efficiency grade N		36,9	36	40
Power input P_e	kW	0,53		
Air flow q_v	m^3/h	7285		
Pressure increase Total p_{sf}	Pa	76		
Speed n	min^{-1}	830		

Data established at point of optimum efficiency

ebmpapst

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Technical features

Mass	10.5 kg
Size	630 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic, black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
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
Leakage current	<= 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; CE
Approval	VDE

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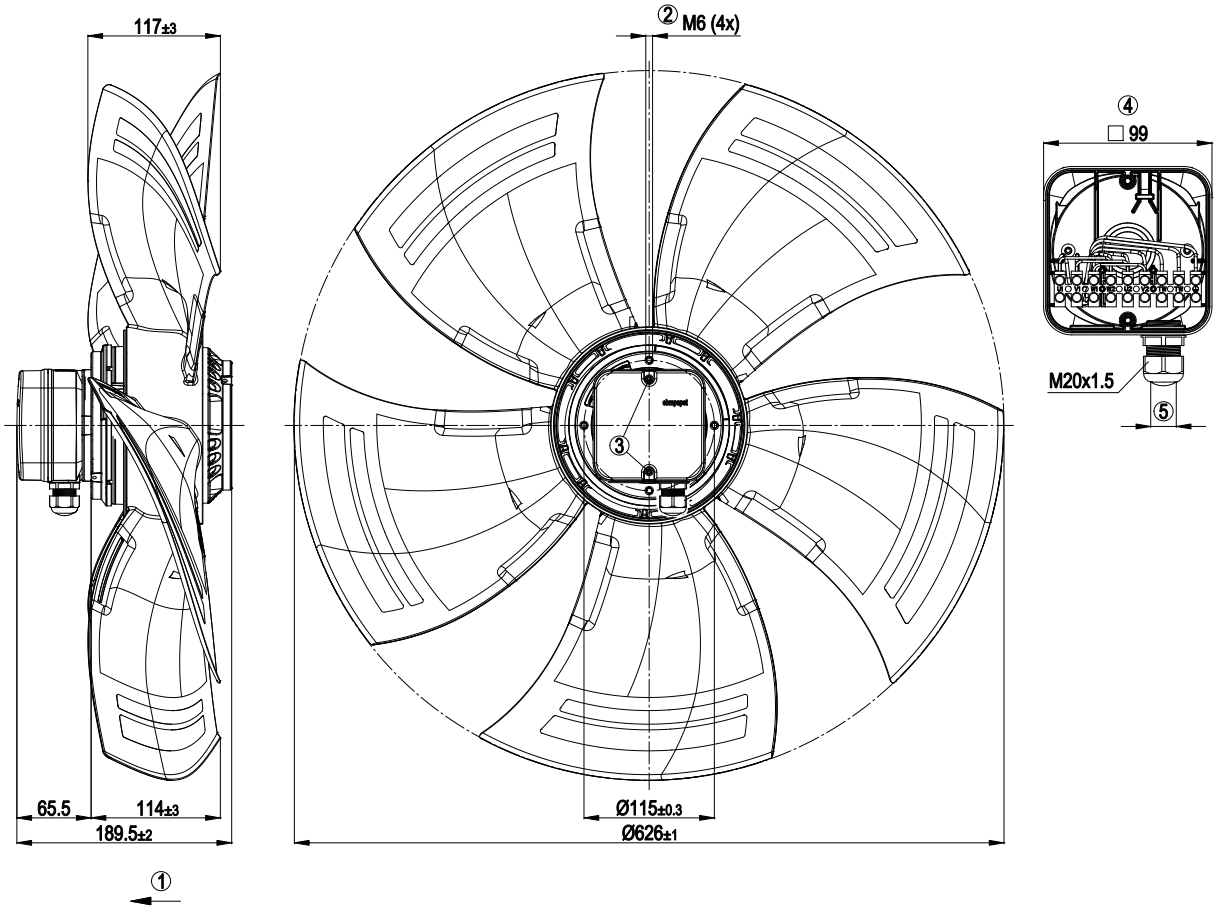
Product drawing



1	Direction of air flow "V"
2	Screw depth max. 12 mm
3	Tightening torque 0.8±0.15 Nm
4	Shown without terminal box cover
5	Cable diameter: min. 6 mm, max. 12 mm, tightening torque: 2±0.3 Nm

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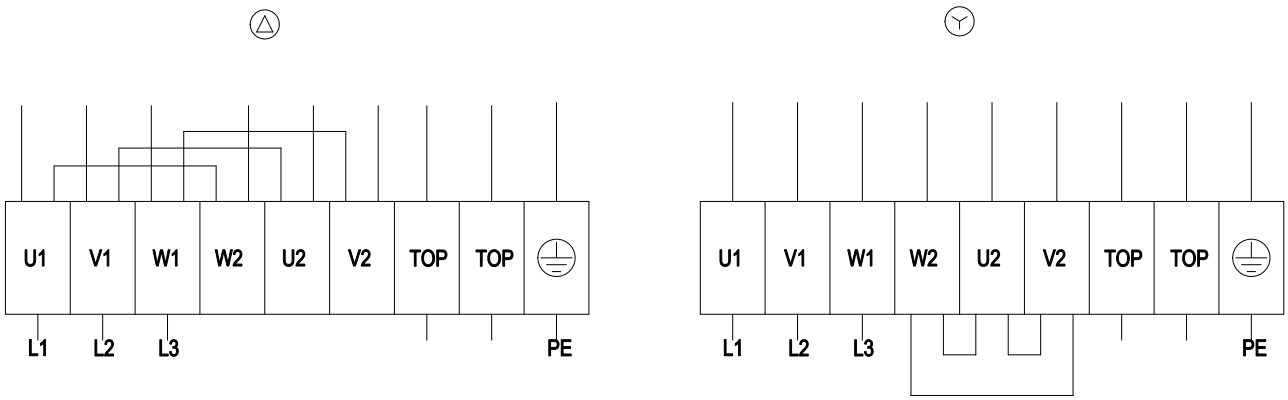
Connection screen



Note: Direction of rotation changes when two phases are reversed

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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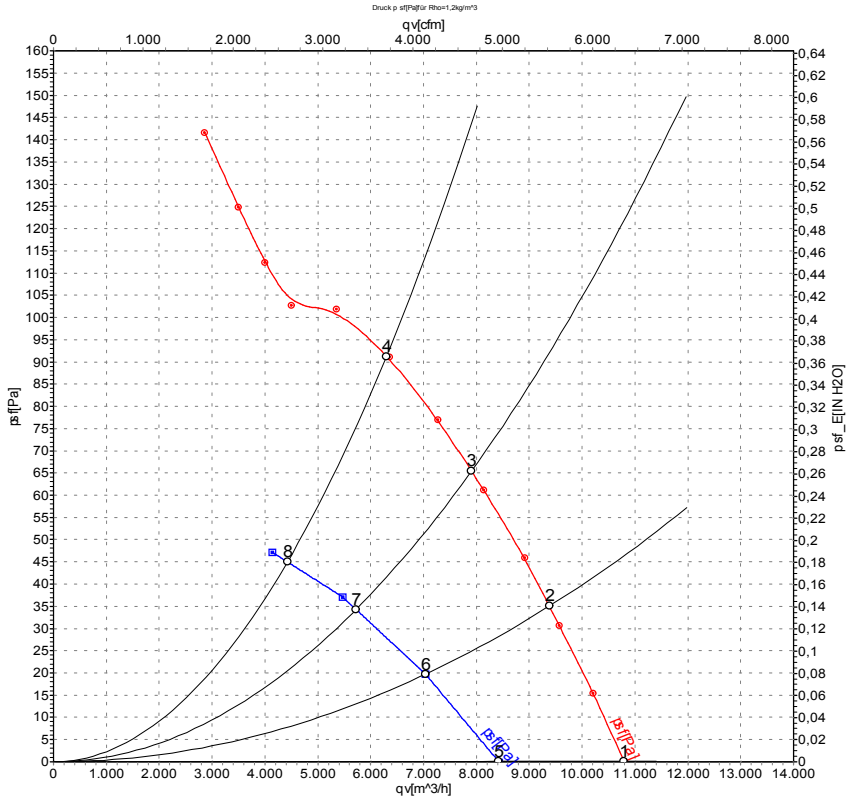
Charts: Air flow 50 Hz



Measurement: LU-107382
Measurement: LU-107571

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_{sf}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	890	401	0.79	62	68	68	10790	0
2	Δ	400	50	860	463	0.86	58	65	64	9380	35
3	Δ	400	50	840	516	0.91	57	63	63	7910	66
4	Δ	400	50	820	560	0.98	58	65	65	6300	90
5	Y	400	50	685	263	0.43	56	62	61	8420	0
6	Y	400	50	630	287	0.48	52	57	57	7040	20
7	Y	400	50	595	302	0.50	50	56	56	5725	34
8	Y	400	50	570	320	0.55	51	57	58	4425	45