AC axial fan - HyBlade®

sickled blades (S series)

with full square nozzle

W6D630-GO05-08 ebmpapst Datasheet
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www.fansco.com

Nominal data

Type	**W6D630-GO05-08**
Motor	**M6D110-GF**

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}	925	1040	1090	925	1040	1090
Power input	W	510	730	800	510	730	800
Current draw	A	2.16	2.39	2.45	1.25	1.38	1.42
Max. back pressure	Pa	100	128	140	100	128	140
Max. ambient temperature	°C	65	55	55	65	55	55
Starting current	A	7.2	6.45		4.3	3.9	

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}		34.7	27.8	31.8
Efficiency grade N		42.9	36	40
Power input P_e	kW	0.51		
Air flow q_v	m^3/h	6000		
Pressure increase p_{fs}	Pa	109		
Speed n	min^{-1}	925		

Data established at point of optimum efficiency

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Technical features

Mass	24 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	ABS Plastic, black
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Blade angle	-10°
Direction of air flow	"V"
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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
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; CE
Approval	VDE

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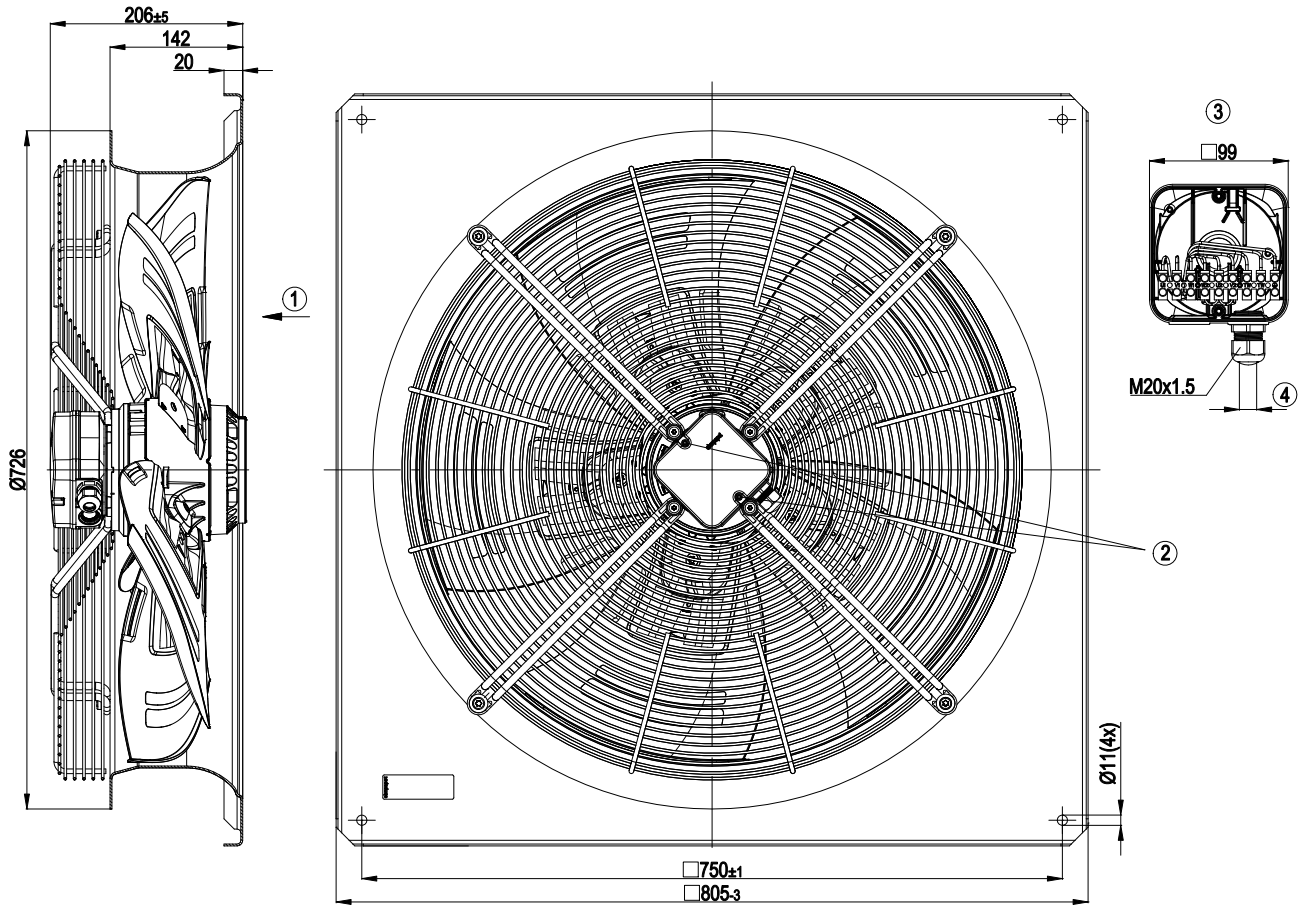
Product drawing



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

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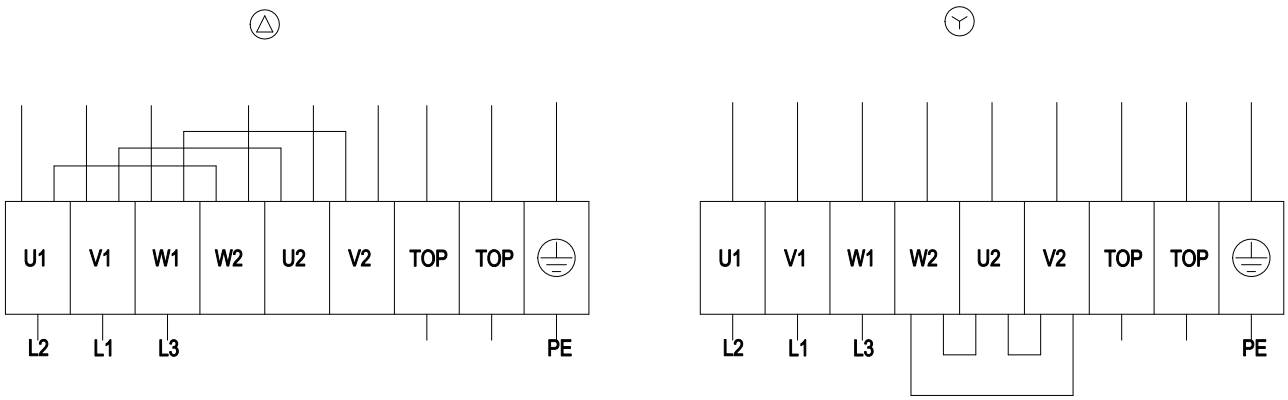
Connection screen



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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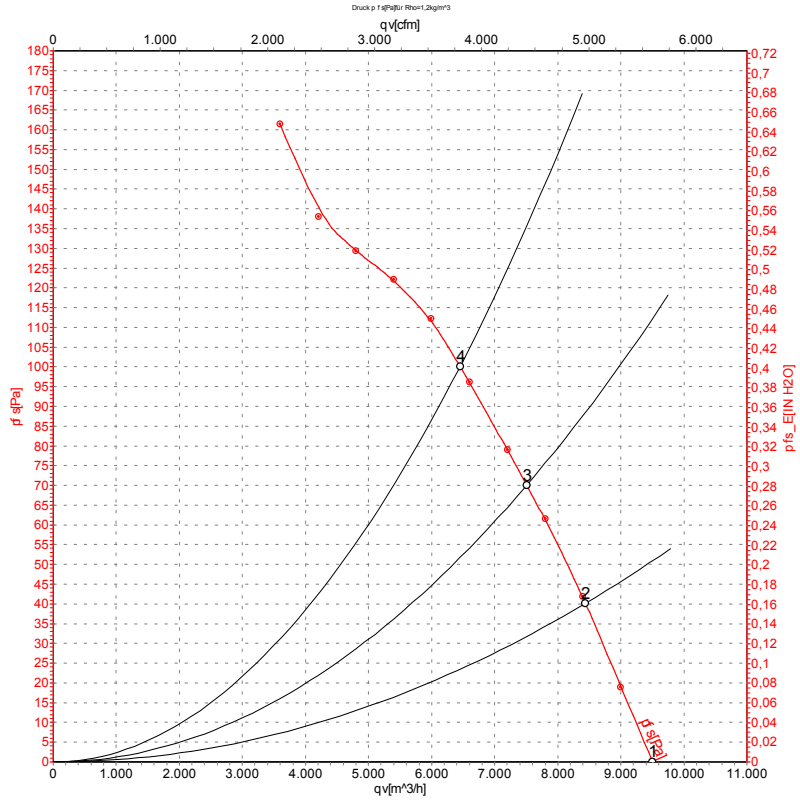
Charts: Air flow 50 Hz



Measurement: LU-108273

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	Y	400	50	955	351	1.16	64	70	69	9505	0
2	Y	400	50	945	413	1.18	61	67	67	8440	40
3	Y	400	50	935	460	1.22	60	66	65	7510	70
4	Y	400	50	925	510	1.25	62	68	67	6450	100

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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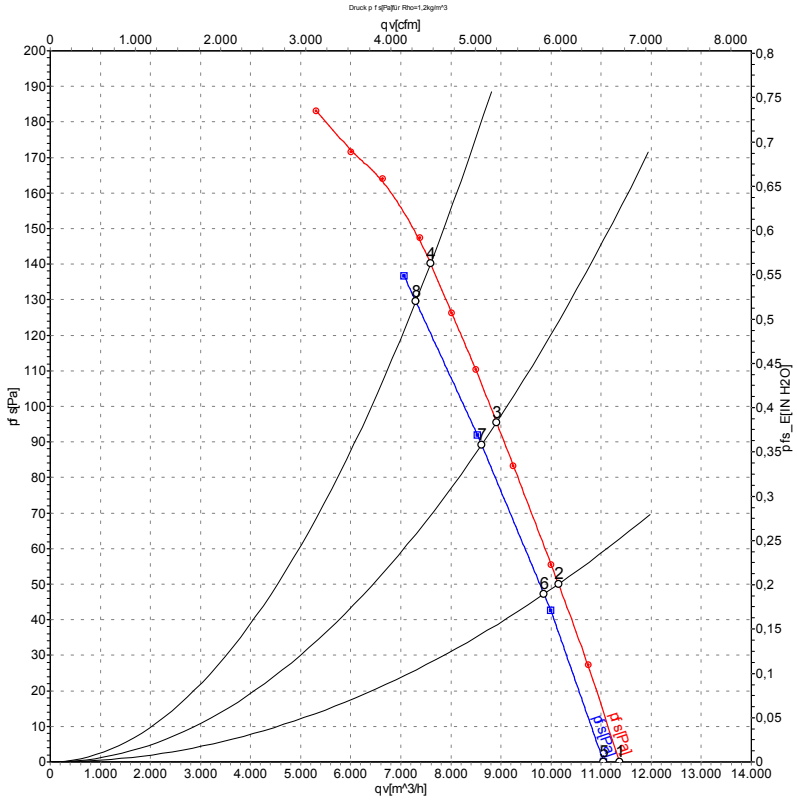
Charts: Air flow 60 Hz



Measurement: LU-108281
Measurement: LU-108317

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	Y	480	60	1135	536	1.22	68	74	74	11360	0
2	Y	480	60	1120	628	1.29	65	71	71	10150	50
3	Y	480	60	1105	722	1.36	63	70	69	8910	95
4	Y	480	60	1090	800	1.42	66	72	72	7595	140
5	Y	400	60	1105	487	1.04	67	73	73	11050	0
6	Y	400	60	1085	574	1.16	64	71	70	9860	47
7	Y	400	60	1065	655	1.27	62	69	69	8615	89
8	Y	400	60	1040	730	1.38	65	71	71	7300	130

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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