S6D630-AO05-04

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square short nozzle

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**S6D630-AO05-04**
Motor	**M6D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Wiring		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE
Speed (rpm)	min^{-1}	925	1040	1090	925	1040	1090
Power consumption	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. back pressure	in. wg	0.4	0.51	0.56	0.4	0.51	0.56
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
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 = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	34.7	31.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.9	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.51
09 Air flow q_v	m^3/h	6000
09 Pressure increase p_{fs}	Pa	109
10 Speed (rpm) n	min^{-1}	925
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

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Technical description

Weight	12.5 kg
Fan size	630 mm
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, phosphated and coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	-10°
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	VDE; EAC; CSA C22.2 No. 100; UL 1004-1

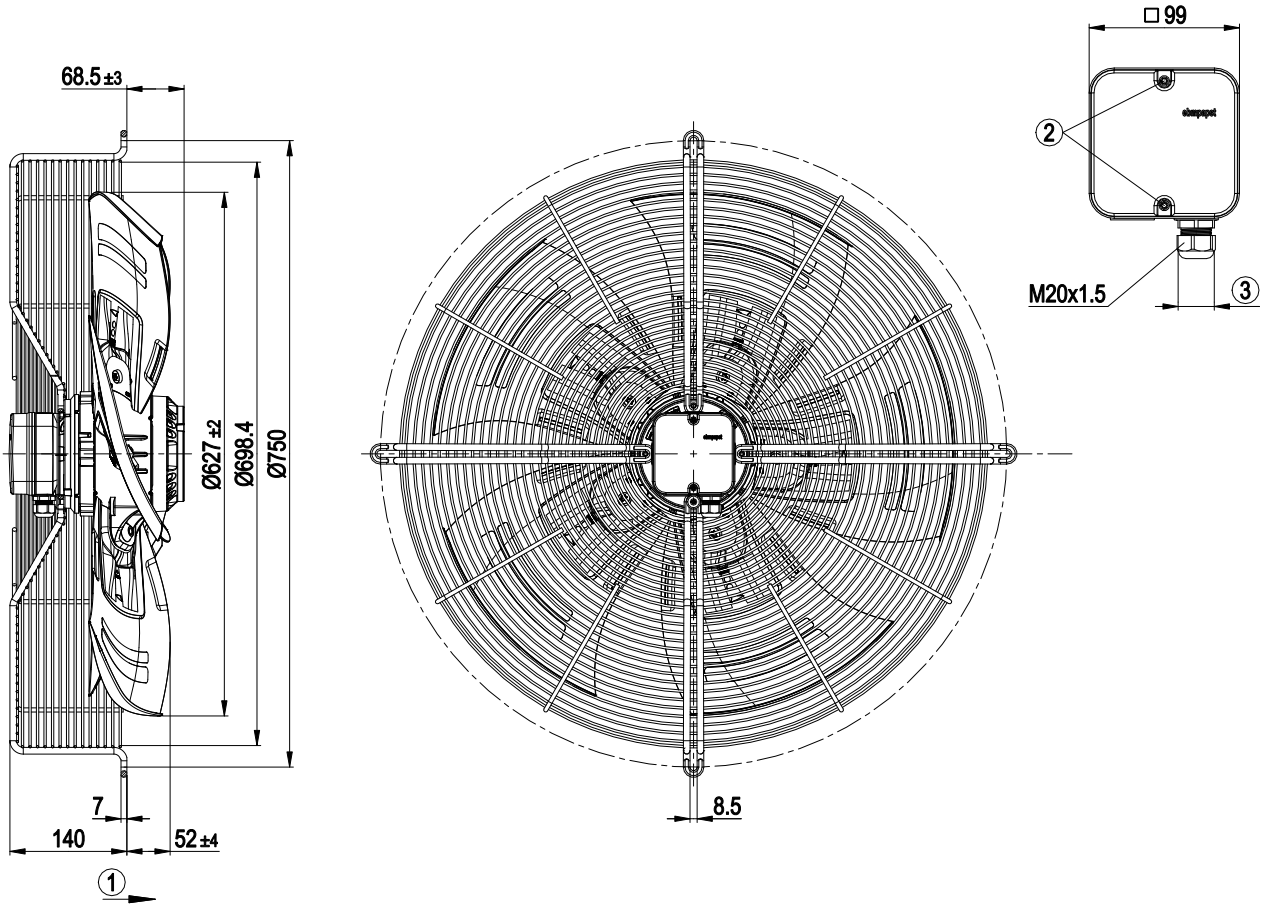
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 6 mm, max. 10 mm, tightening torque 2.5 ± 0.4 Nm

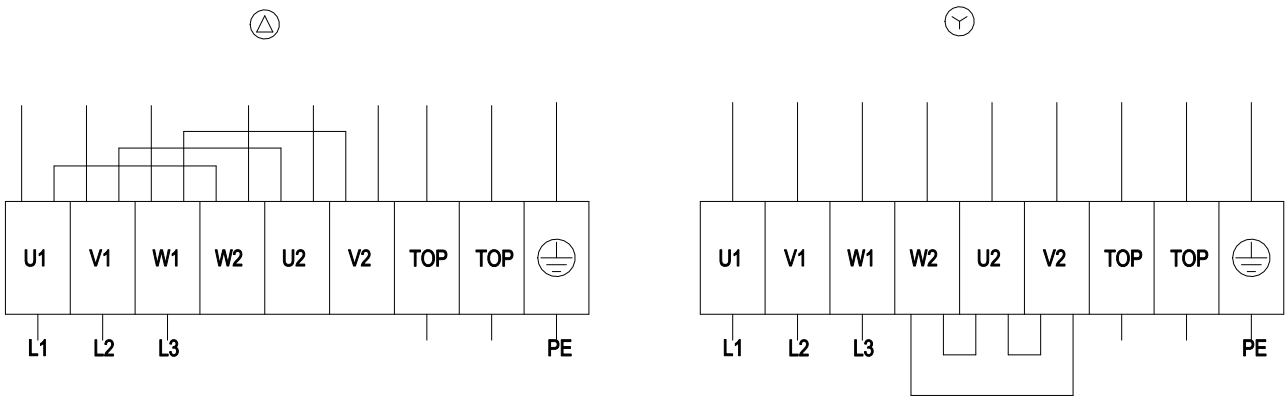
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Connection diagram



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

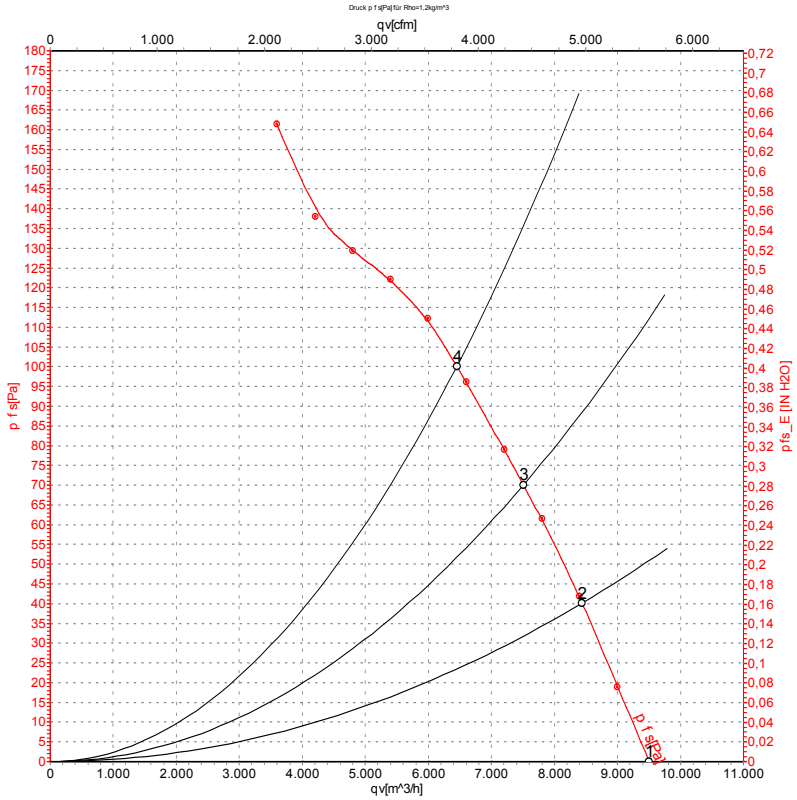
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AC axial fan - HyBlade

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Curves: Air performance 50 Hz



Measurement: LU-108273-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	955	351	1.16	64	70	69	9505	0	5595	0.00
2	Y	400	50	945	413	1.18	61	67	67	8440	40	4965	0.16
3	Y	400	50	935	460	1.22	60	66	65	7510	70	4420	0.28
4	Y	400	50	925	510	1.25	62	68	67	6450	100	3800	0.40

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

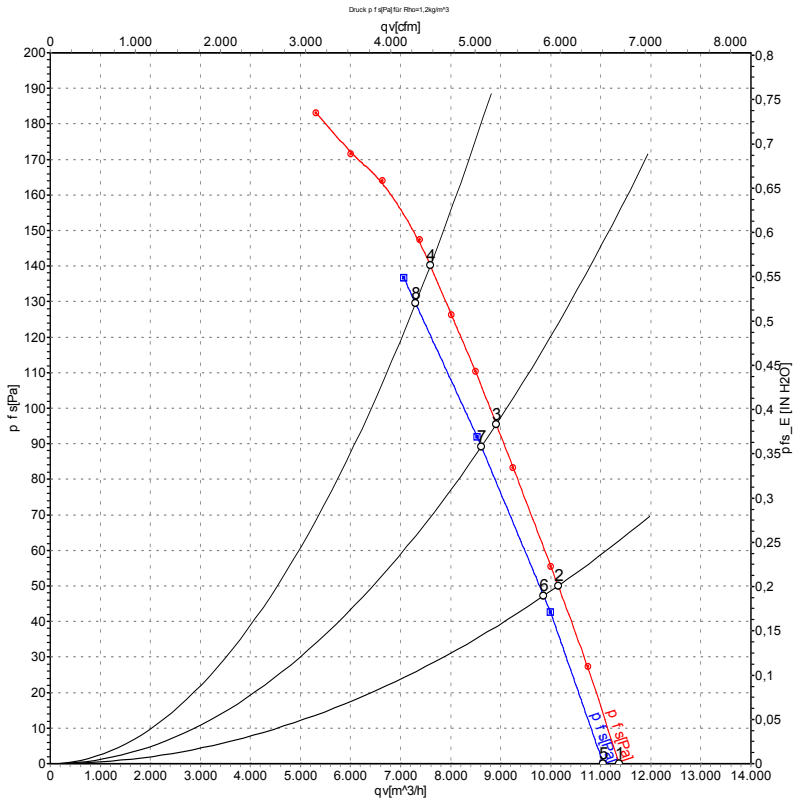
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Curves: Air performance 60 Hz



Measurement: LU-108281-1
Measurement: LU-108317-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	480	60	1135	536	1.22	68	74	74	11360	0	6685	0.00
2	Y	480	60	1120	628	1.29	65	71	71	10150	50	5975	0.20
3	Y	480	60	1105	722	1.36	63	70	69	8910	95	5245	0.38
4	Y	480	60	1090	800	1.42	66	72	72	7595	140	4470	0.56
5	Y	400	60	1105	487	1.04	67	73	73	11050	0	6505	0.00
6	Y	400	60	1085	574	1.16	64	71	70	9860	47	5805	0.19
7	Y	400	60	1065	655	1.27	62	69	69	8615	89	5070	0.36
8	Y	400	60	1040	730	1.38	65	71	71	7300	130	4295	0.52

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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