S6D630-CN01-01

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for full nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S6D630-CN01-01**
Motor	**M6D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400	480	480
Connection		Δ	Y	Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60	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}	890	690	1010	700	1070	820
Power input	W	600	400	730	430	810	550
Current draw	A	1.2	0.68	1.29	0.8	1.35	0.8
Max. back pressure	Pa	105	56	50	26	55	35
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	60	60	55	55
Starting current	A	4		3.5			

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}	%	32.3	28.3	32.3
Efficiency grade N		40	36	40
Power input P_e	kW	0.61		
Air flow q_v	m^3/h	7050		
Pressure increase p_{fs}	Pa	101		
Speed n	min^{-1}	885		

Data definition with optimum efficiency. LU-105365
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	13.3 kg
Size	630 mm
Surface of rotor	Coated in black
Material of terminal box	PP plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
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
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	EAC; VDE

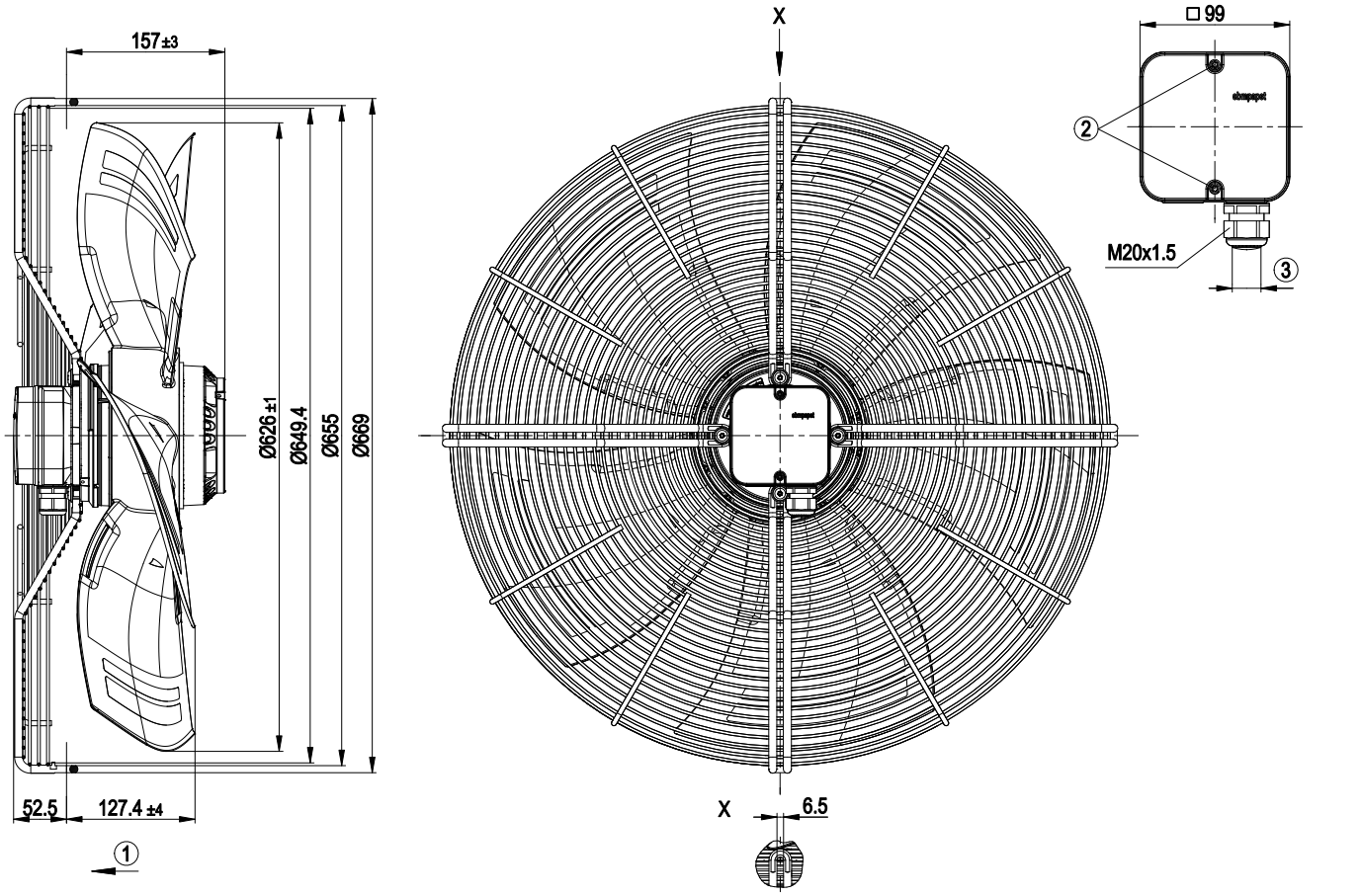
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm

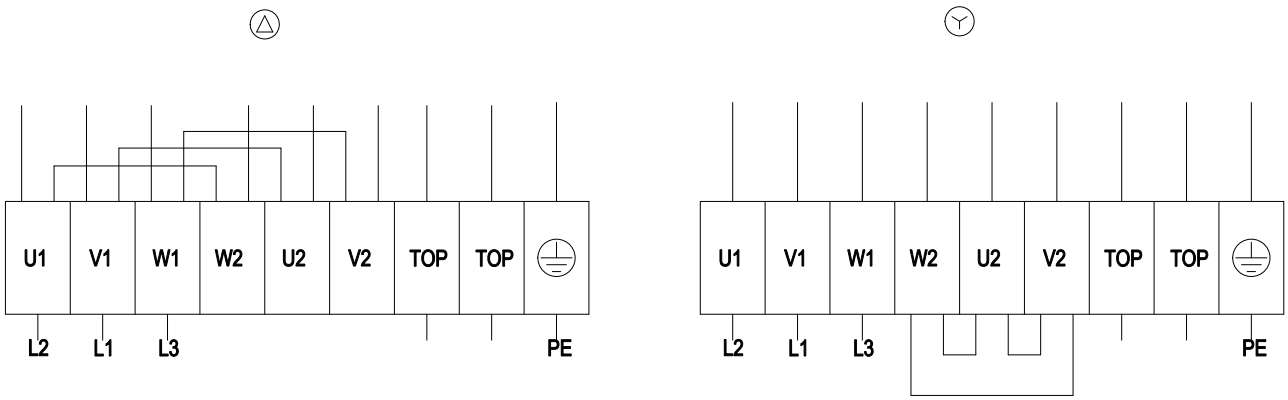
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Connection screen



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				

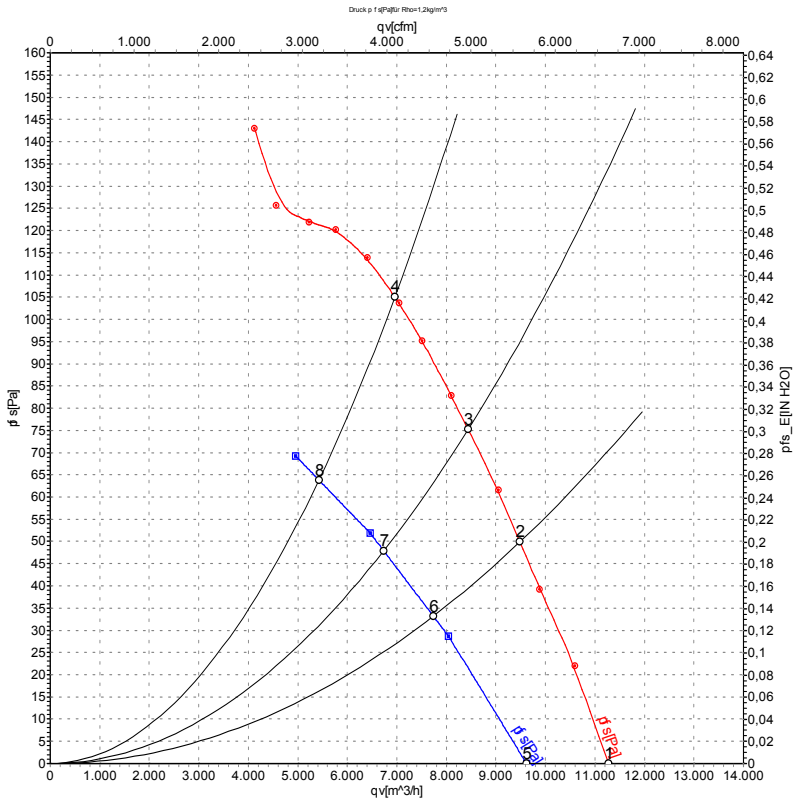
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Charts: Air flow 50 Hz



Measurement: LU-105365
Measurement: LU-107570

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	Δ	400	50	930	439	1.07	64	70	69	11270	0
2	Δ	400	50	905	530	1.15	59	66	65	9485	50
3	Δ	400	50	895	571	1.19	59	65	64	8440	75
4	Δ	400	50	890	600	1.20	60	67	66	6960	105
5	Y	400	50	790	319	0.56	59	65	65	9620	0
6	Y	400	50	730	364	0.63	55	61	60	7735	33
7	Y	400	50	705	383	0.66	54	60	59	6735	48
8	Y	400	50	690	400	0.68	55	61	61	5425	64

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

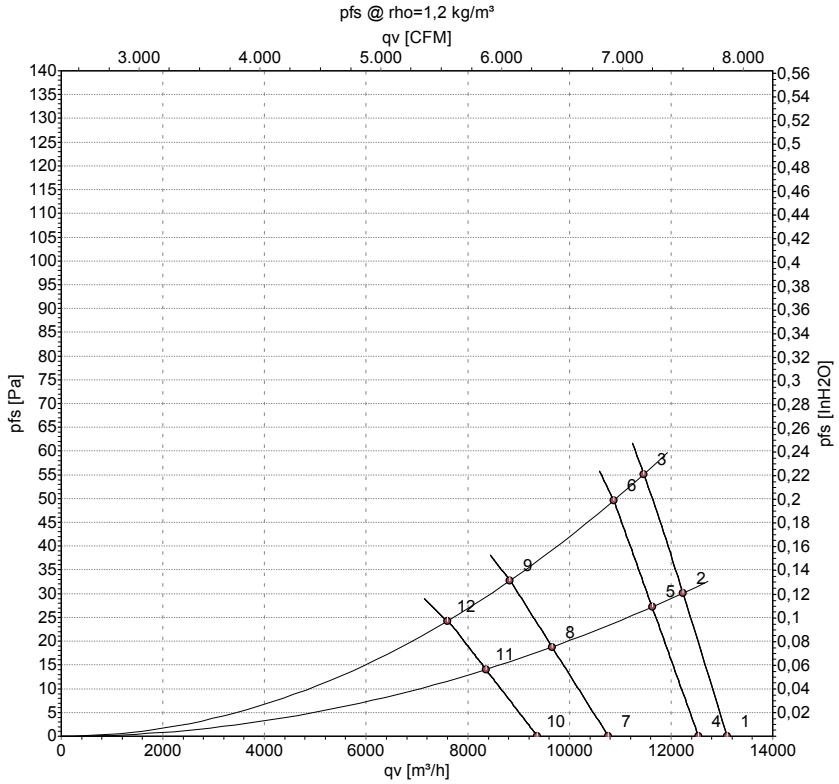
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Charts: Air flow 60 Hz



Measurement: LU-105784
Measurement: LU-106260
Measurement: LU-114171
Measurement: LU-136269

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	Δ	480	60	1095	684	1.18	68	74	74	13105	0
2	Δ	480	60	1080	757	1.24	66	72	72	12235	30
3	Δ	480	60	1070	810	1.35	64	71	70	11465	55
4	Δ	400	60	1050	633	1.15	67	73	73	12540	0
5	Δ	400	60	1030	688	1.22	65	71	71	11630	27
6	Δ	400	60	1010	730	1.29	63	69	69	10870	50
7	Y	480	60	895	491	0.71	63	69	68	10765	0
8	Y	480	60	850	518	0.74	60	66	66	9660	19
9	Y	480	60	820	550	0.80	58	64	64	8830	33
10	Y	400	60	780	399	0.70	59	65	64	9370	0
11	Y	400	60	730	410	0.72	56	62	62	8355	14
12	Y	400	60	700	430	0.80	54	61	60	7595	24

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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