S6D630-AN09-03

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S6D630-AN09-03**
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}	890	1005	1065	890	1005	1065
Power input	W	640	790	890	640	790	890
Current draw	A	2.51	2.65	2.77	1.45	1.53	1.6
Max. back pressure	Pa	110	70	80	110	70	80
Max. ambient temperature	°C	60	40	40	60	40	40
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}		32.4	28.4	32.4
Efficiency grade N		40	36	40
Power input P_e	kW	0.62		
Air flow q_v	m^3/h	7310		
Pressure increase p_{fs}	Pa	98		
Speed n	min^{-1}	900		

Data established at point of optimum efficiency

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Technical features

Mass	14.1 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC / ABS 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	GOST; VDE; UL 1004-1; CSA C22.2 Nr.100

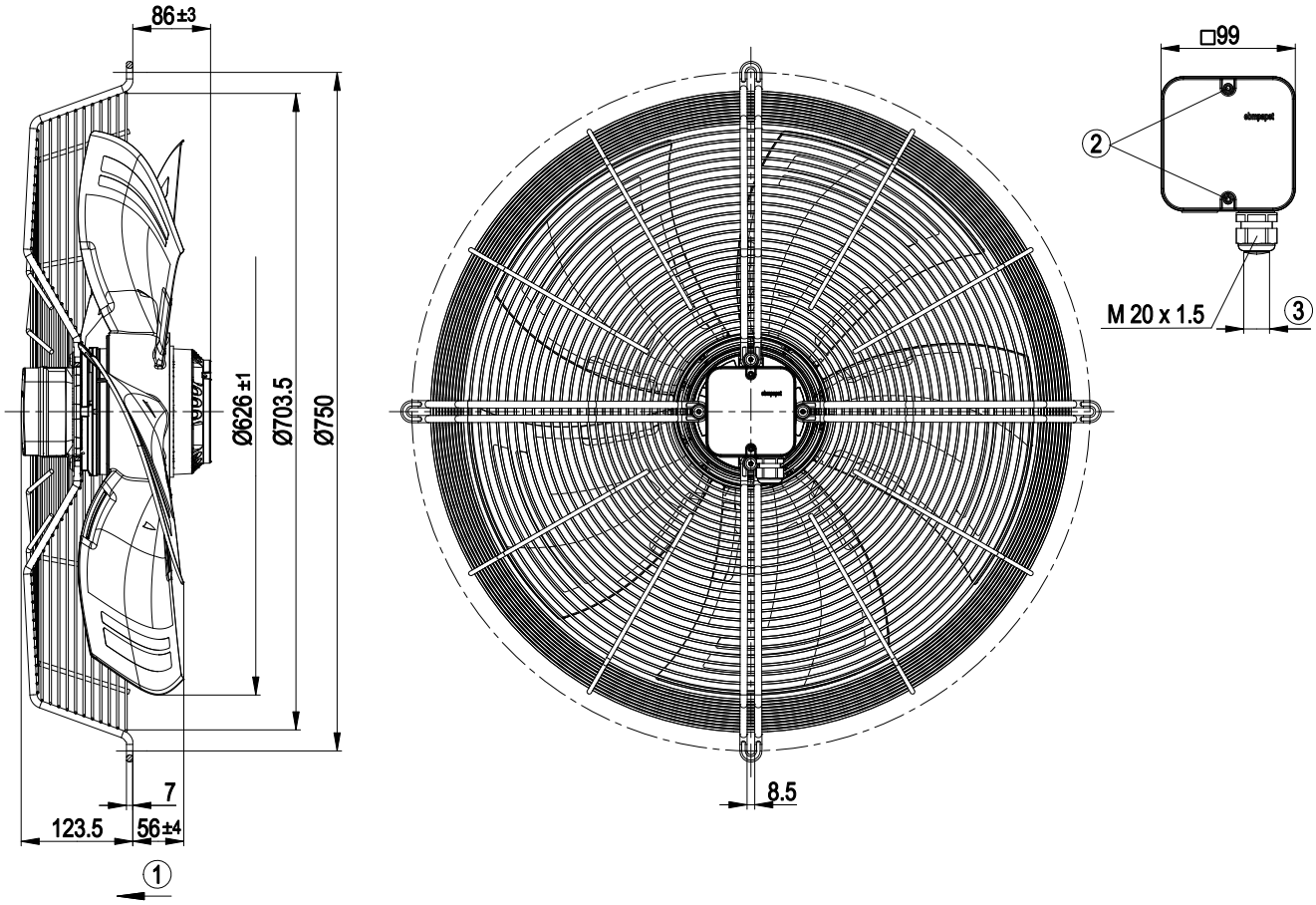
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Product drawing



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

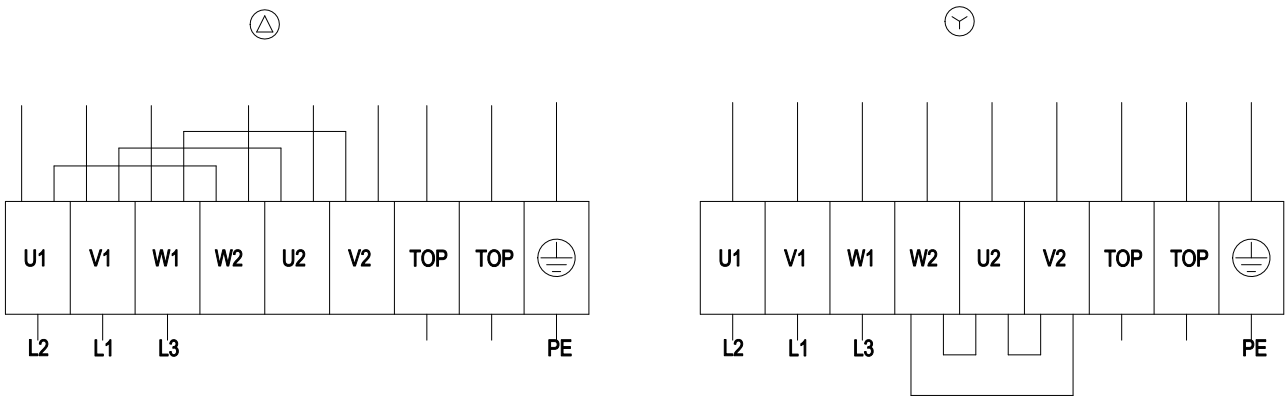
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Connection screen



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				

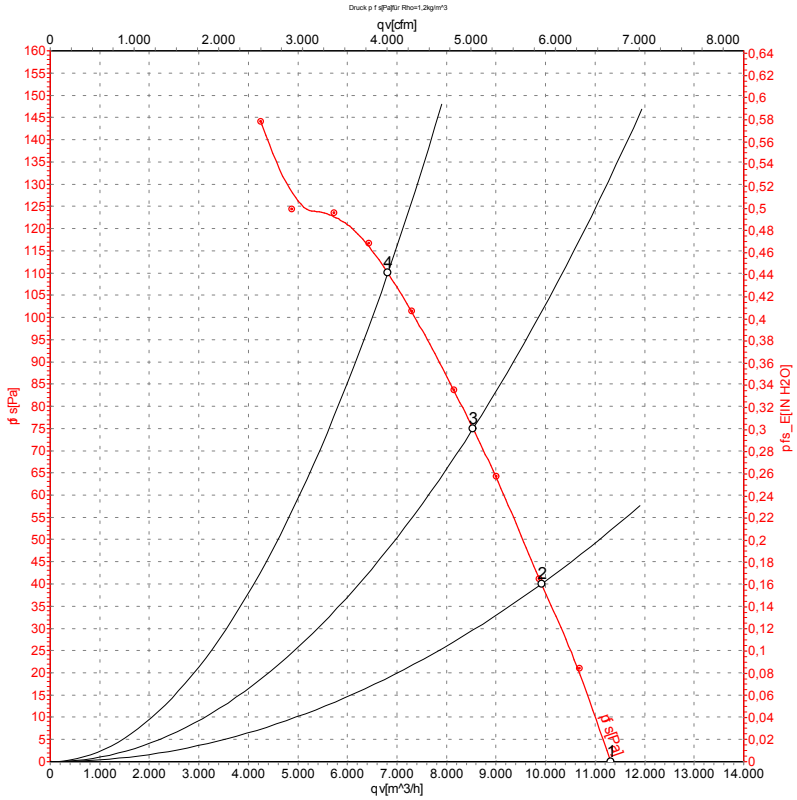
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Charts: Air flow 50 Hz



Measurement: LU-110377

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	935	447	1.24	64	69	69	11310	0
2	Y	400	50	920	525	1.27	60	66	65	9920	40
3	Y	400	50	905	583	1.34	59	65	64	8535	75
4	Y	400	50	890	640	1.45	61	67	67	6815	110

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

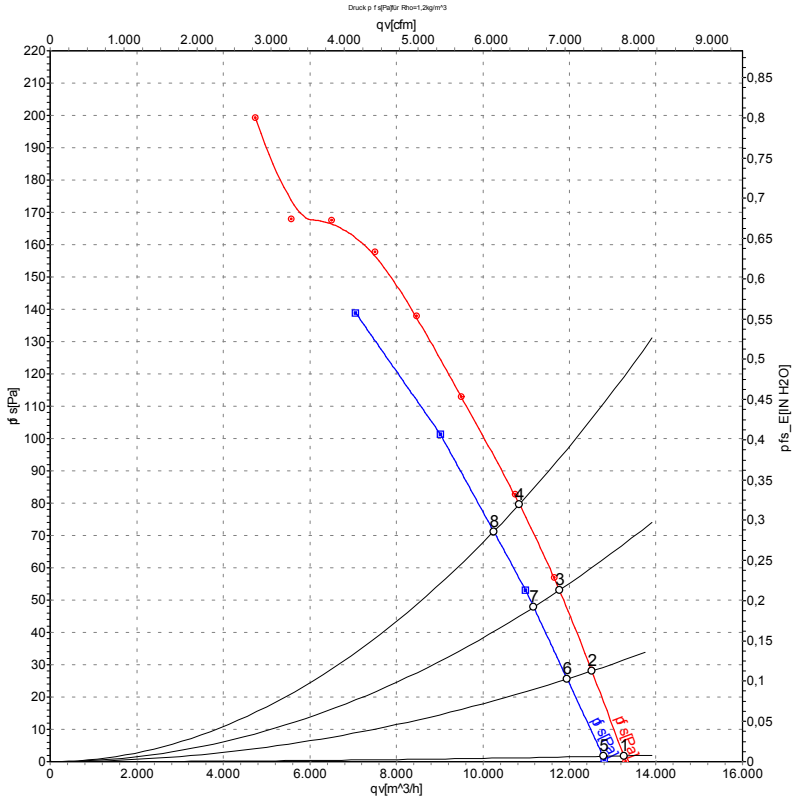
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Charts: Air flow 60 Hz



Measurement: LU-110384
Measurement: LU-111442

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}	h_{es}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	%	m^3/h	Pa
1	Y	480	60	1105	710	1.35	67	73	73	48	13260	0
2	Y	480	60	1090	766	1.41	65	71	71	50	12520	30
3	Y	480	60	1080	819	1.46	63	69	70	49	11770	53
4	Y	480	60	1065	890	1.60	62	69	68	47	10840	80
5	Y	400	60	1065	640	1.24	66	72	72	48	12780	0
6	Y	400	60	1045	694	1.32	64	70	70	47	11950	26
7	Y	400	60	1025	745	1.38	62	68	68	46	11170	48
8	Y	400	60	1005	790	1.53	61	68	67	44	10250	71

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 · h_{es} = Total efficiency · qv = Air flow · p_{fs} = Pressure increase

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