S6D630-AO11-13

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

S6D630-AO11-13 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S6D630-AO11-13**
Motor	**M6D110-GF**

Phase		3~	3~	3~
Nominal voltage	VAC	208	230	460
Connection		Δ	Δ	Y
Frequency	Hz	60	60	60
Type of data definition		cs	cs	cs
Valid for approval / standard		CE	CE	CE
Speed	min^{-1}	940	990	1040
Power input	W	630	690	750
Current draw	A	2.22	2.24	1.25
Max. back pressure	Pa	95	110	120
Min. ambient temperature	°C	-40	-40	-40
Max. ambient temperature	°C	62	62	62
Starting current	A	4.8	5.1	3.8

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}	%	35.1	27.7	31.7
Efficiency grade N		43.4	36	40
Power input P_e	kW	0.48		
Air flow q_v	m^3/h	6105		
Pressure increase p_{fs}	Pa	101		
Speed n	min^{-1}	905		

Data definition with optimum efficiency. LU-134368
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	15 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
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; UL 1004-1; CSA C22.2 Nr.100

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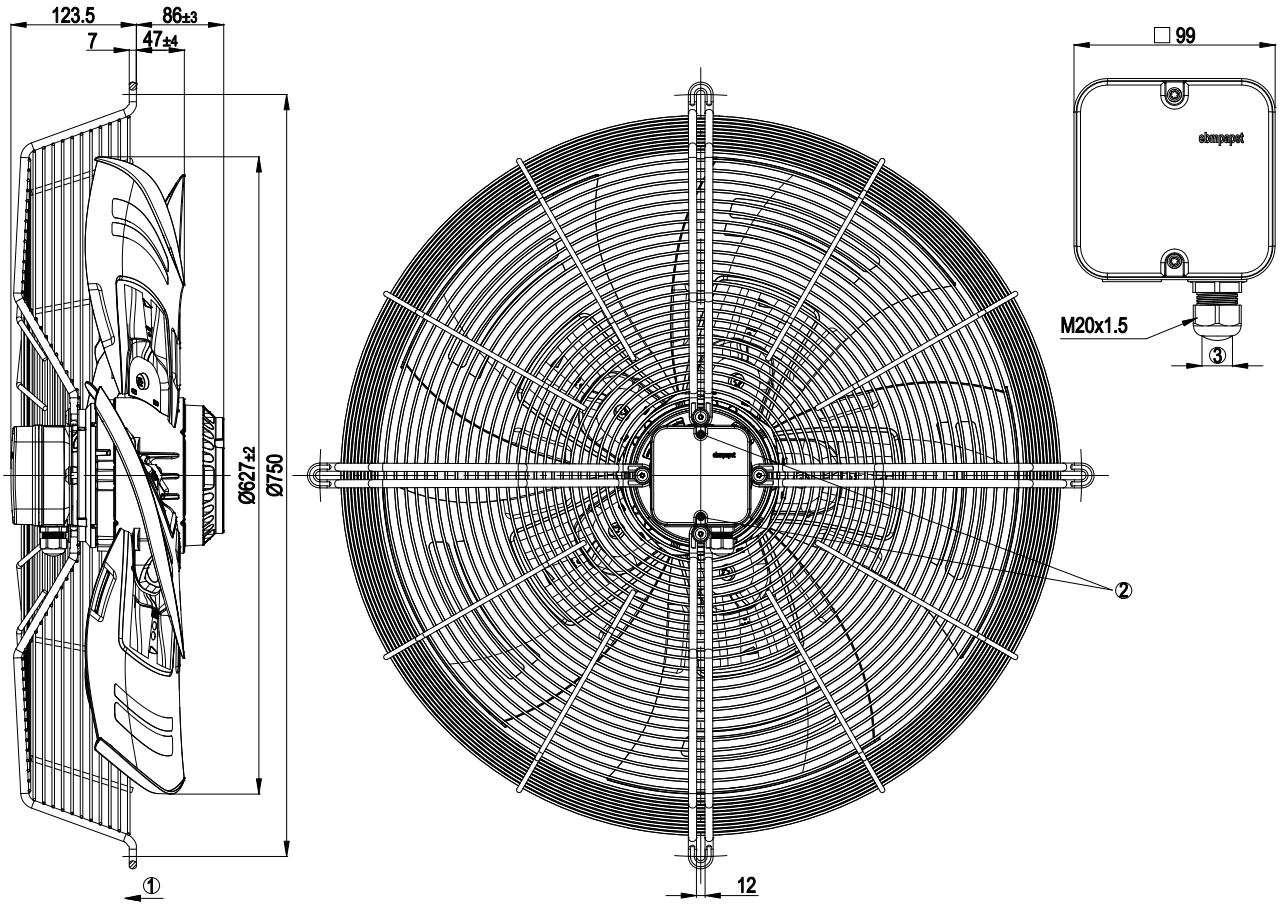
Product drawing



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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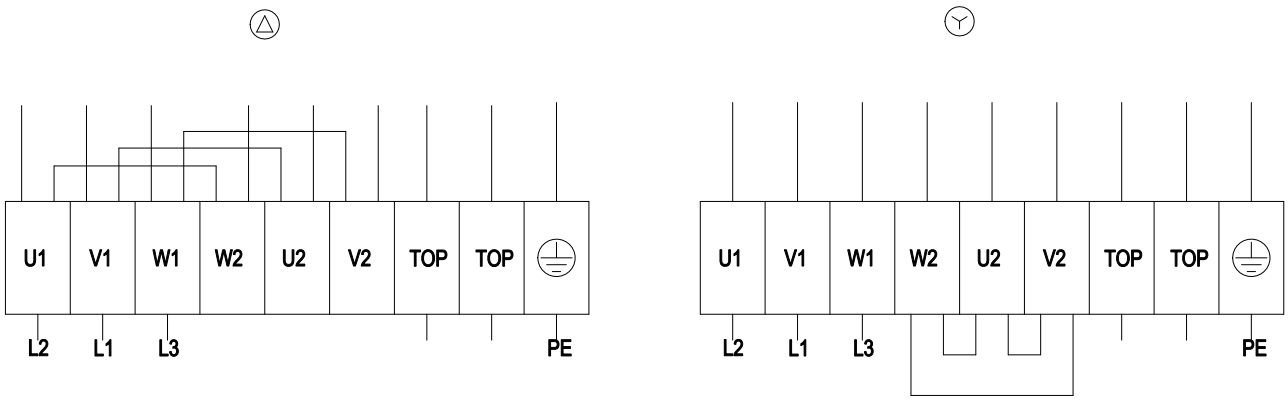
Connection screen



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

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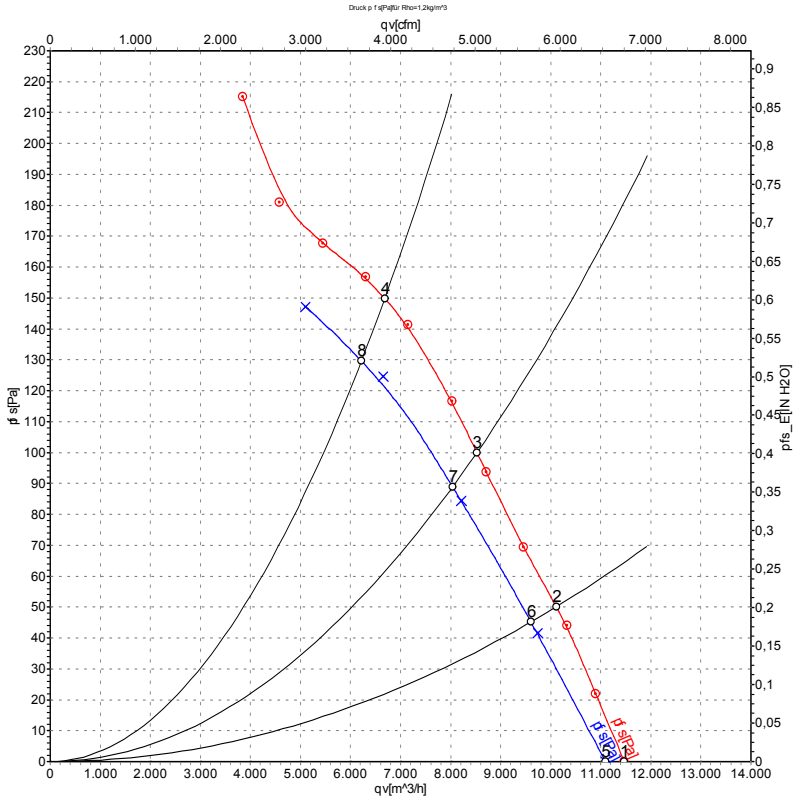
Charts: Air flow 60 Hz



Measurement: LU-134374
Measurement: LU-134636

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	1120	516	1.00	67	73	72	11470	0
2	Y	480	60	1095	622	1.11	64	70	69	10110	50
3	Y	480	60	1070	716	1.21	64	71	69	8525	100
4	Y	480	60	1050	810	1.32	65	72	72	6685	150
5	Y	400	60	1080	471	0.95	66	73	71	11090	0
6	Y	400	60	1045	567	1.08	63	70	68	9605	46
7	Y	400	60	1010	651	1.21	63	69	68	8040	89
8	Y	400	60	990	710	1.34	65	72	71	6215	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