S6E630-AO01-01

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	**S6E630-AO01-01**
Motor	**M6E110-GF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	900	920
Power input	W	480	690
Current draw	A	2.12	3.02
Motor capacitor	µF	12	12
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	100	110
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	40

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}	%	34.5	27.6	31.6
Efficiency grade N		42.9	36	40
Power input P_e	kW	0.47		
Air flow q_v	m^3/h	6215		
Pressure increase p_{fs}	Pa	96		
Speed n	min^{-1}	905		

Data definition with optimum efficiency. LU-107068
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	17.7 kg
Size	630 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC/ABS plastic Bayblend FR110
Material of blades	PP plastic, black
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	Any
Condensate discharge holes	On rotor and stator sides
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, integrated capacitor connected 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	CSA C22.2 Nr.100; EAC; UL 1004-1; VDE

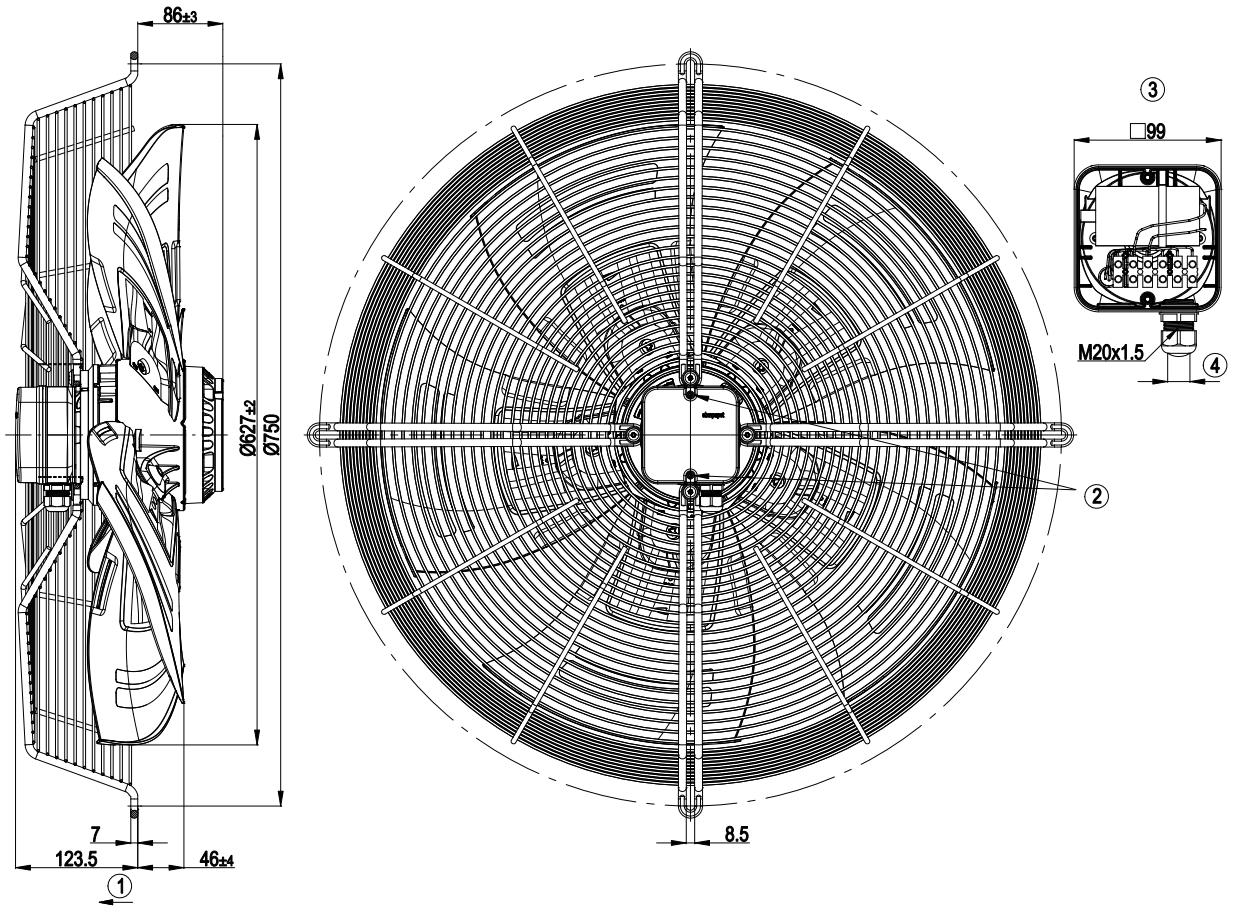
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Product drawing



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

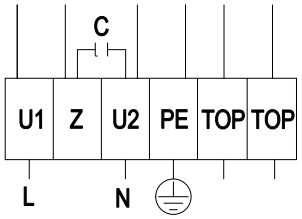
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Connection screen



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green / yellow	TOP	grey		

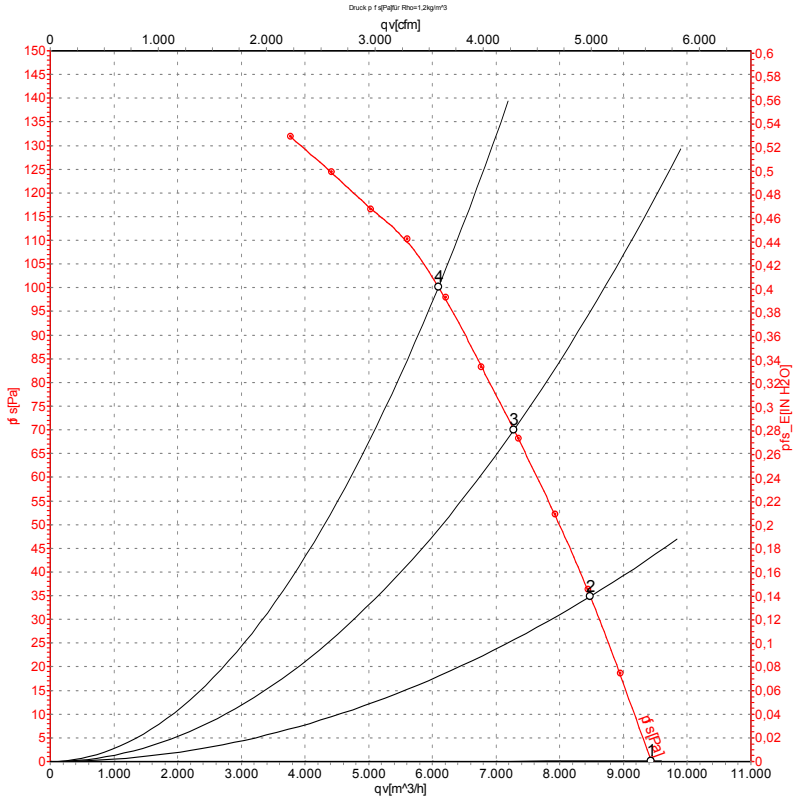
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Charts: Air flow 50 Hz



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

	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	230	50	945	350	1.54	64	70	69	9430	0
2	230	50	935	395	1.74	61	67	66	8480	35
3	230	50	915	446	1.96	59	66	65	7280	70
4	230	50	900	480	2.12	62	68	67	6095	100

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

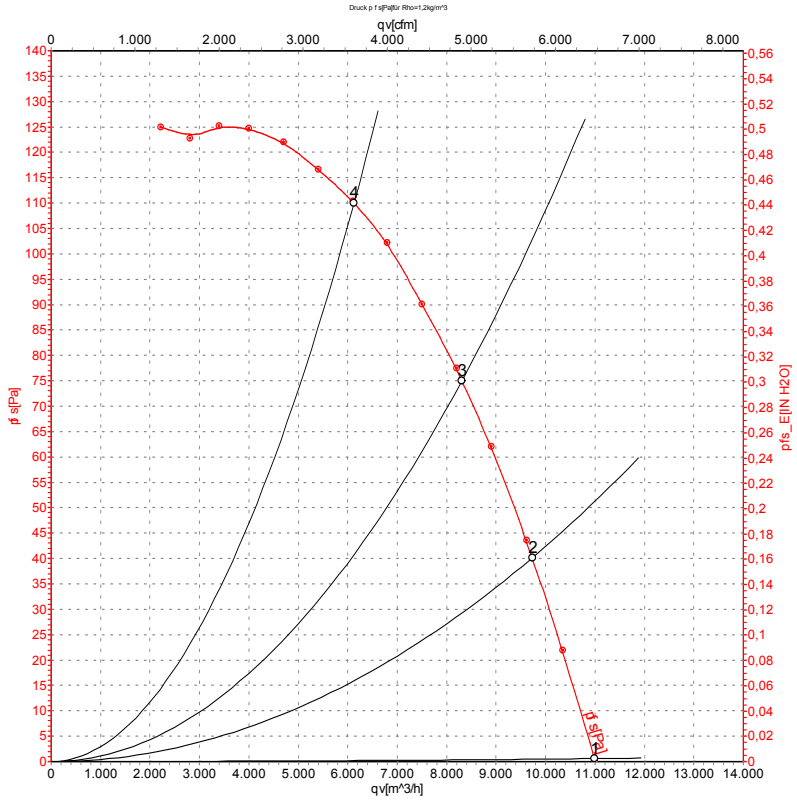
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Charts: Air flow 60 Hz



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

	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	230	60	1090	550	2.41	70	76	75	36	10990	0
2	230	60	1060	594	2.59	66	72	71	41	9730	40
3	230	60	1015	642	2.79	62	68	67	40	8305	75
4	230	60	920	690	3.02	63	69	68	32	6125	110

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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