

AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

S6E630-CO01-01 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	S6E630-CO01-01		
Motor	M6E110-GF		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	900	920
Power consumption	W	480	690
Current draw	A	2.12	3.02
Capacitor	μF	12	12
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	100	110
Max. back pressure	in. wg	0.4	0.44
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	40

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}	%	34.5	31.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.9	40
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_e	kW	0.47
09 Air flow q_v	m³/h	6215
09 Pressure increase p_{fs}	Pa	96
10 Speed (rpm) n	min ⁻¹	905
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-107068



AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

Technical description

Weight	14.1 kg
Size	630 mm
Motor size	110
Terminal box material	PP plastic
Blade material	Sheet aluminum insert, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	-10°
Airflow direction	V
Direction of rotation	Counterclockwise, 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	Terminal box; Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 61800-5-1; CE
Approval	EAC; CSA C22.2 No. 100; UL 1004-1; VDE

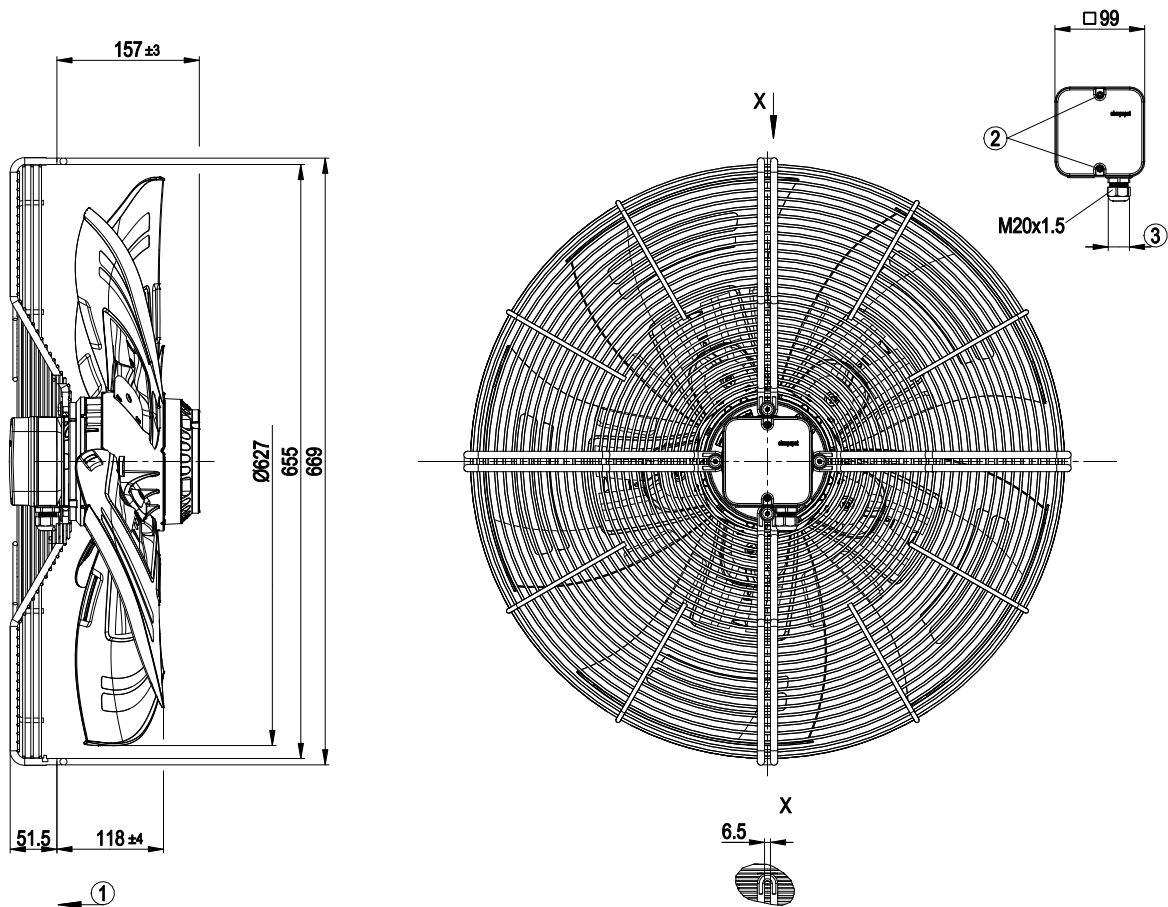


AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

Product drawing



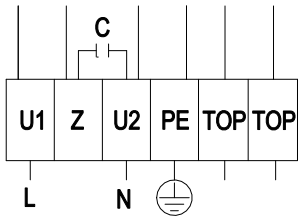
1	Direction of air flow "V"
2	Tightening torque 0.8 ± 0.15 Nm
3	Cable diameter: min. 6 mm, max. 12 mm; tightening torque 2 ± 0.3 Nm



AC axial fan - HyBlade

sickle-shaped blades (S series)
with guard grille for full nozzle

Connection diagram



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

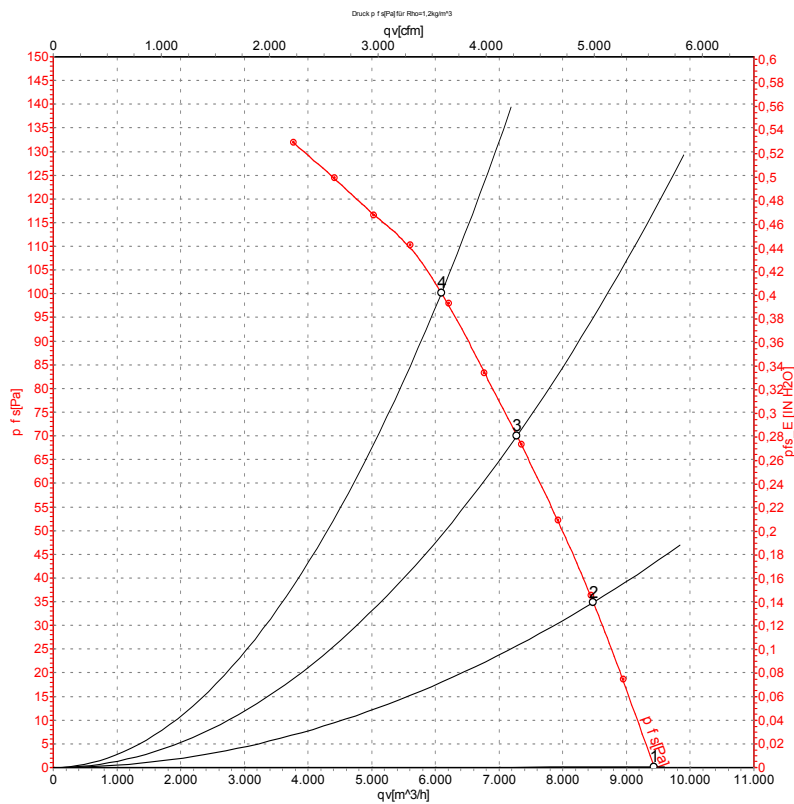


AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

Curves: Air performance 50 Hz



Measurement: LU-107068-1

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

	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)	m³/h	Pa	cfm	in. wg
1	230	50	945	350	1.54	64	70	69	9430	0	5550	0.00
2	230	50	935	395	1.74	61	67	66	8480	35	4990	0.14
3	230	50	915	446	1.96	59	66	65	7280	70	4285	0.28
4	230	50	900	480	2.12	62	68	67	6095	100	3585	0.40

U = Voltage · 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

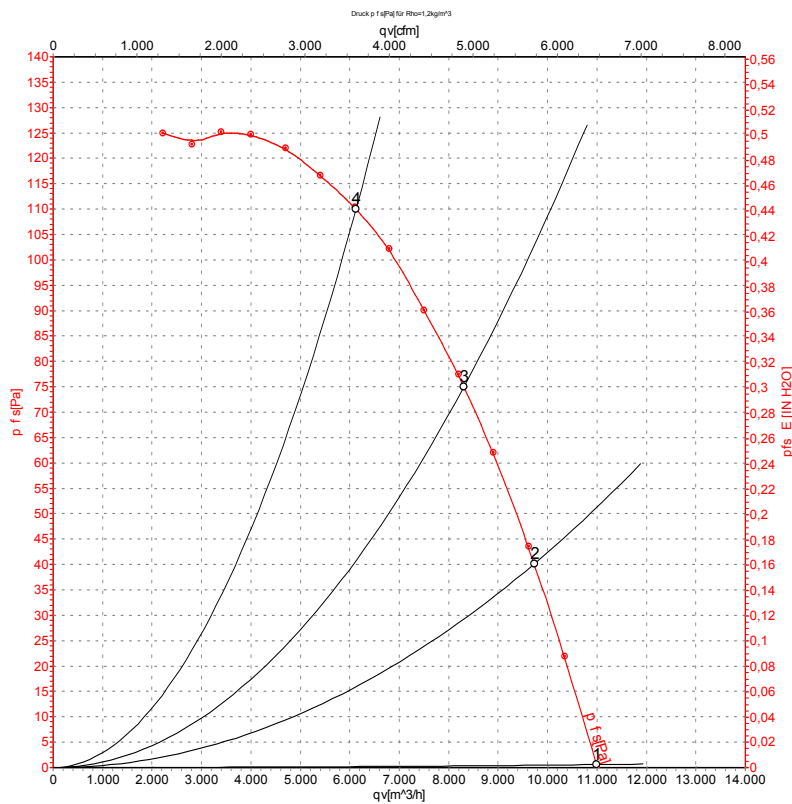


AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

Curves: Air performance 60 Hz



Measurement: LU-107072-1

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

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	LwA _{out}	η _{es}	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	230	60	1090	550	2.41	70	76	75	36	10990	0	6470	0.00
2	230	60	1060	594	2.59	66	72	71	41	9730	40	5725	0.16
3	230	60	1015	642	2.79	62	68	67	40	8305	75	4890	0.30
4	230	60	920	690	3.02	63	69	68	32	6125	110	3605	0.44

U = Voltage · 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 · η_{es} = Total efficiency of fan · q_v = Air flow · p_{fs} = Pressure increase

