S6D500-AJ05-08

AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S6D500-AJ05-08**
Motor	**M6D110-EF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	920	785	1090	880
Power consumption	W	260	190	410	290
Current draw	A	0.63	0.32	0.72	0.41
Max. back pressure	Pa	70	50	95	62
Max. back pressure	inH2O	0.28	0.2	0.38	0.25
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	80	80	80	80
Starting current	A	2.2	0.73	2.4	0.8

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	29.9	29.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.25
09 Air flow q_v	m^3/h	4105
09 Pressure increase p_{fs}	Pa	64
10 Speed (rpm) n	min^{-1}	925
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-140967

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Technical description

Weight	10.7 kg
Fan size	500 mm
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
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 top; rotor on bottom on request
Condensation drainage holes	On stator side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	VDE

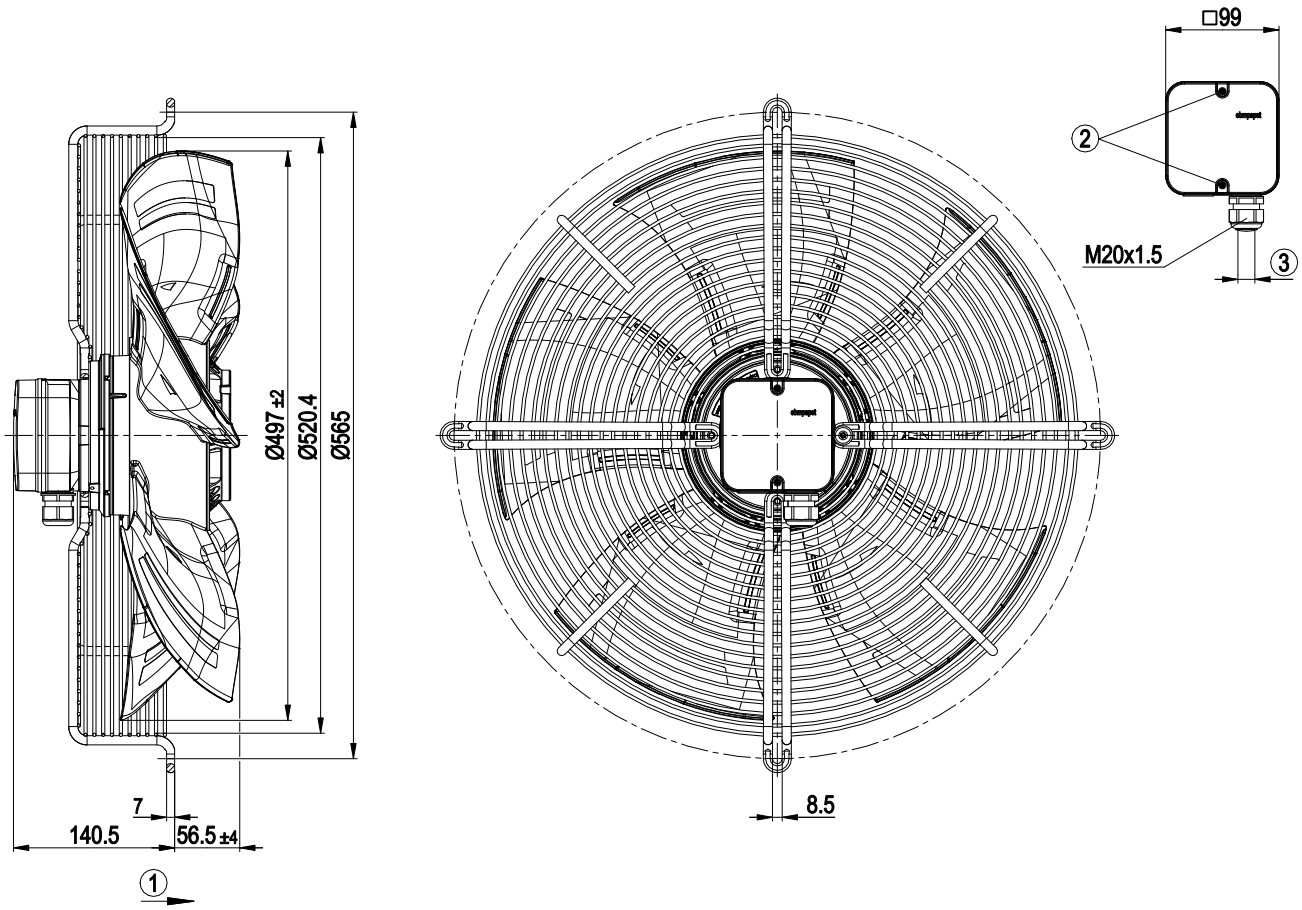
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Product drawing



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

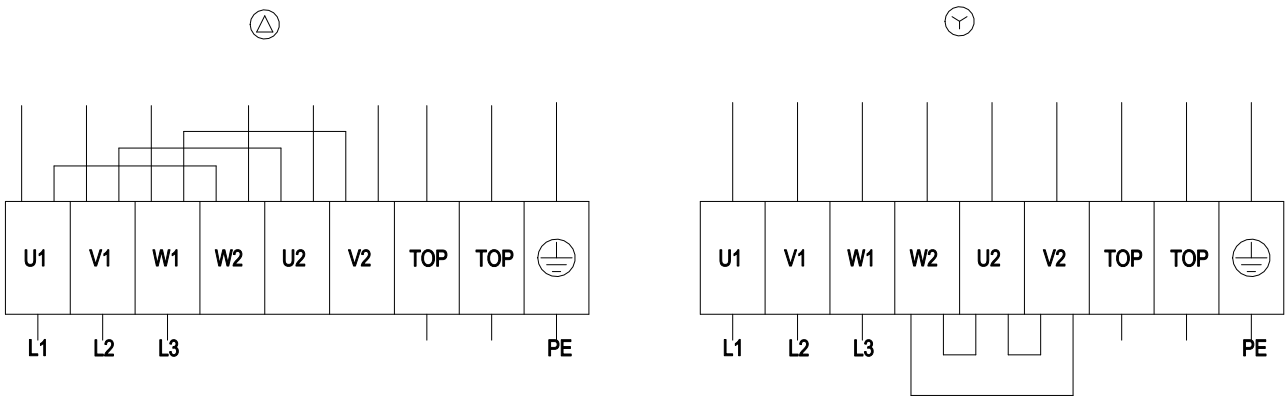
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Connection diagram



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

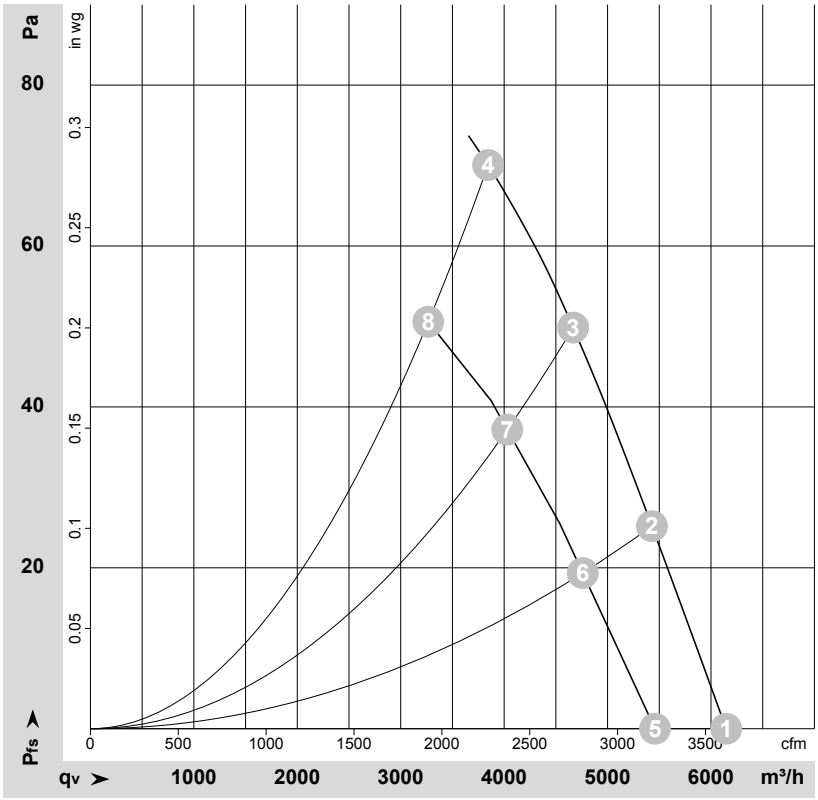
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-152524-1
Measurement: LU-167953-1

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

	Wired	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)	m^3/h	Pa	cfm	inH2O
1	Δ	400	50	945	202	0.58	62	68	68	6145	0	3620	0.00
2	Δ	400	50	940	225	0.59	59	66	65	5430	25	3195	0.10
3	Δ	400	50	930	245	0.60	56	63	63	4670	50	2745	0.20
4	Δ	400	50	920	260	0.63	55	62	62	3845	70	2265	0.28
5	Y	400	50	845	148	0.26	59	66	65	5460	0	3215	0.00
6	Y	400	50	820	163	0.28	56	63	62	4760	19	2800	0.08
7	Y	400	50	800	175	0.30	53	60	60	4030	37	2370	0.15
8	Y	400	50	785	190	0.32	51	58	57	3265	51	1925	0.20

Wired = Wiring · U = Power supply · 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

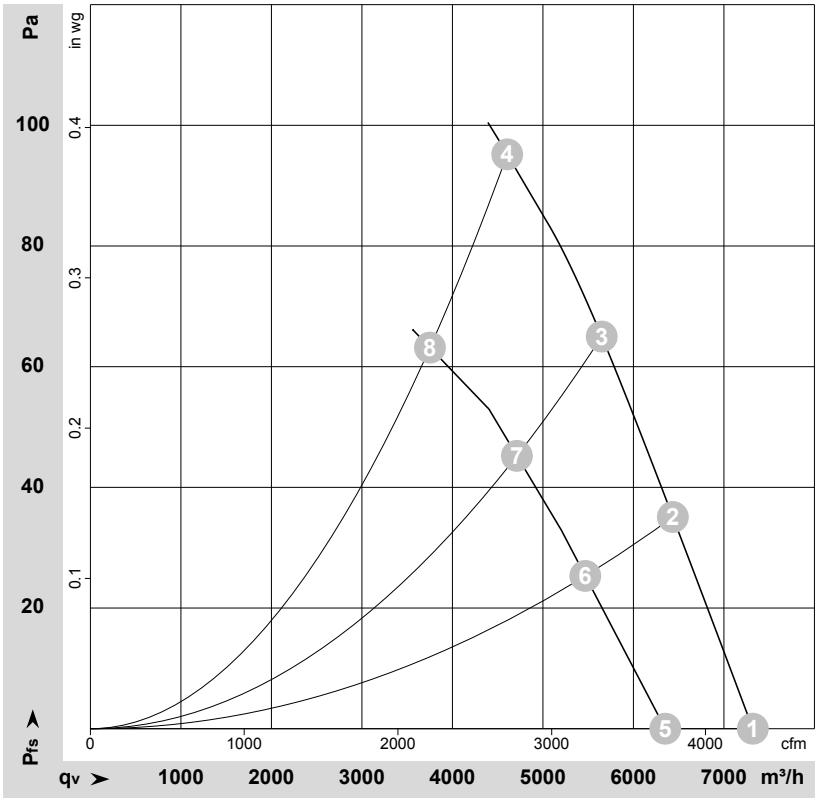
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-152527-1
Measurement: LU-167955-1

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

	Wired	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)	m^3/h	Pa	cfm	inH2O
1	Δ	480	60	1120	314	0.62	65	72	71	7320	0	4310	0.00
2	Δ	480	60	1110	350	0.65	62	69	69	6435	35	3790	0.14
3	Δ	480	60	1100	378	0.67	60	67	67	5650	65	3325	0.26
4	Δ	480	60	1090	410	0.72	59	66	66	4605	95	2710	0.38
5	Y	480	60	975	234	0.33	62	69	68	6350	0	3740	0.00
6	Y	480	60	940	257	0.36	59	65	65	5470	25	3220	0.10
7	Y	480	60	915	272	0.38	56	63	63	4715	45	2775	0.18
8	Y	480	60	880	290	0.41	54	61	61	3750	63	2210	0.25

Wired = Wiring · U = Power supply · 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

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