S8E500-AJ03-02

AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

S8E500-AJ03-02 ebmpapst Datasheet
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Nominal data

Type	**S8E500-AJ03-02**
Motor	**M8E110-EF**

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}	665	740
Power consumption	W	130	170
Current draw	A	0.59	0.75
Capacitor	µF	3	3
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	35	45
Max. back pressure	inH2O	0.14	0.18
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
Starting current	A	1.2	

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

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Technical description

Weight	10.6 kg
Fan size	500 mm
Rotor surface	Painted black
Terminal box material	PC/ABS 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 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	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	UL 1004-1; CSA C22.2 No. 100; EAC; VDE

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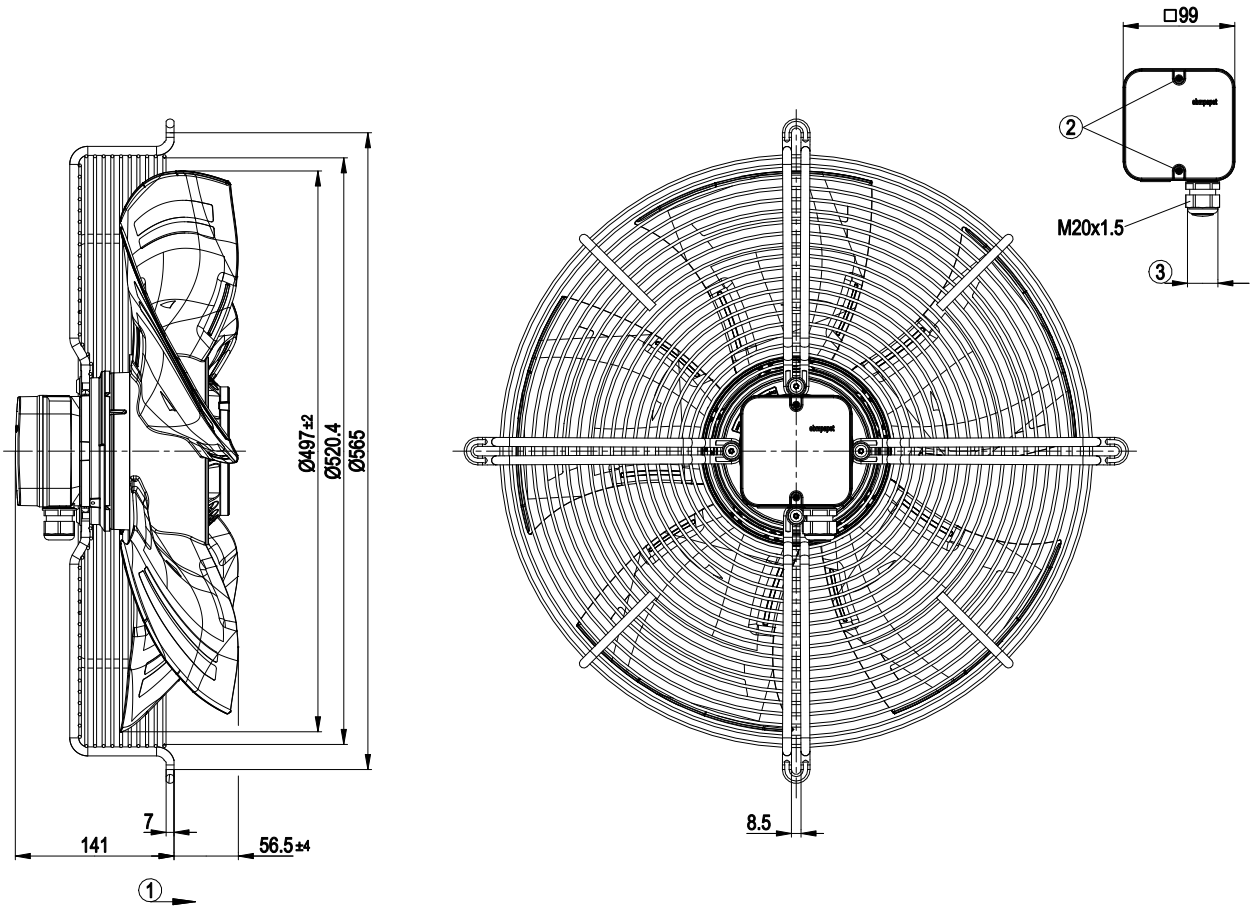
Product drawing



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

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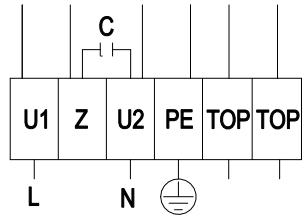
Connection diagram



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

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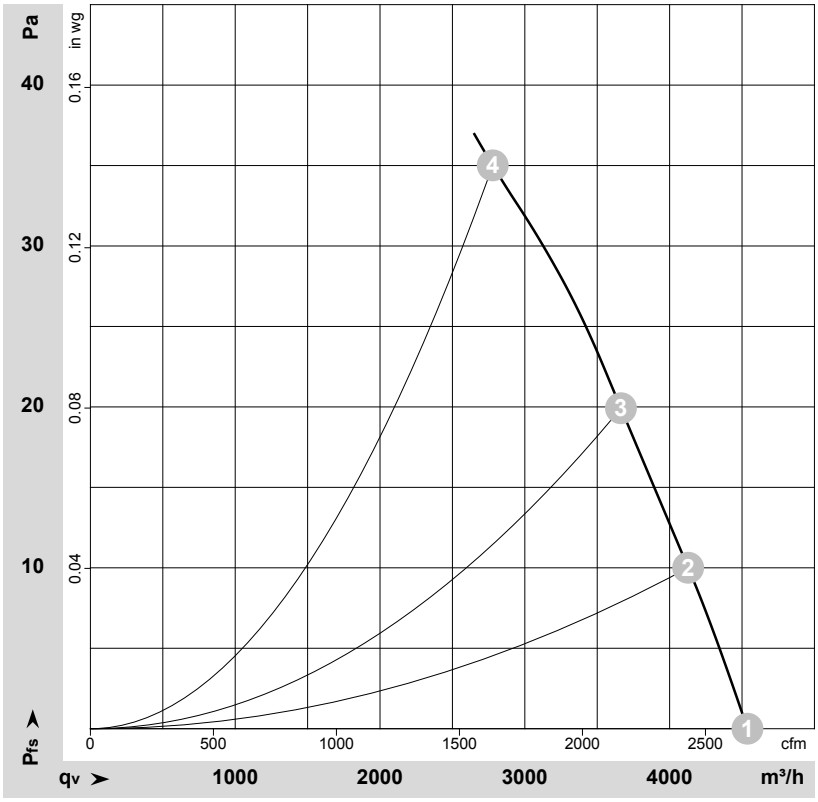
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-106609-1

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)	m^3/h	Pa	cfm	inH2O
1	230	50	695	106	0.52	55	61	61	4540	0	2670	0.00
2	230	50	690	111	0.54	53	59	59	4130	10	2430	0.04
3	230	50	680	116	0.56	50	56	56	3665	20	2155	0.08
4	230	50	665	130	0.59	47	54	54	2780	35	1635	0.14

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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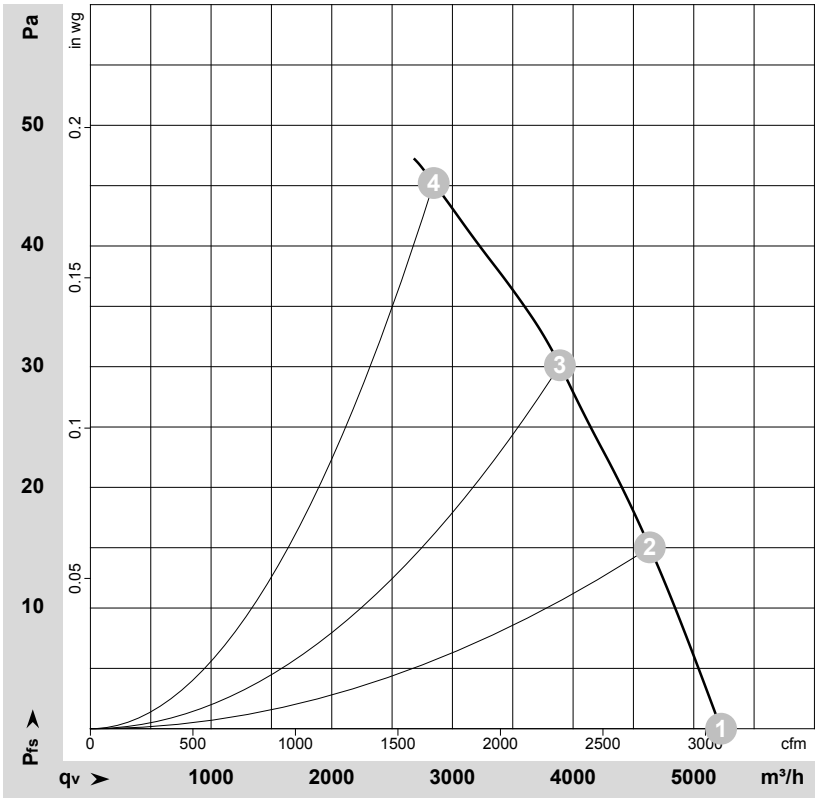
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-106615-1

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)	m^3/h	Pa	cfm	inH2O
1	230	60	800	145	0.64	58	64	64	5225	0	3075	0.00
2	230	60	780	153	0.68	54	60	60	4635	15	2730	0.06
3	230	60	760	160	0.71	52	58	57	3890	30	2290	0.12
4	230	60	740	170	0.75	50	57	56	2845	45	1675	0.18

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