S4E500-AF05-07

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**S4E500-AF05-07**
Motor	**M4E110-GF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1275	1270
Power consumption	W	570	730
Current draw	A	2.48	3.2
Capacitor	µF	10	10
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	140	130
Max. back pressure	in. wg	0.56	0.52
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	85	60

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

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

Technical description

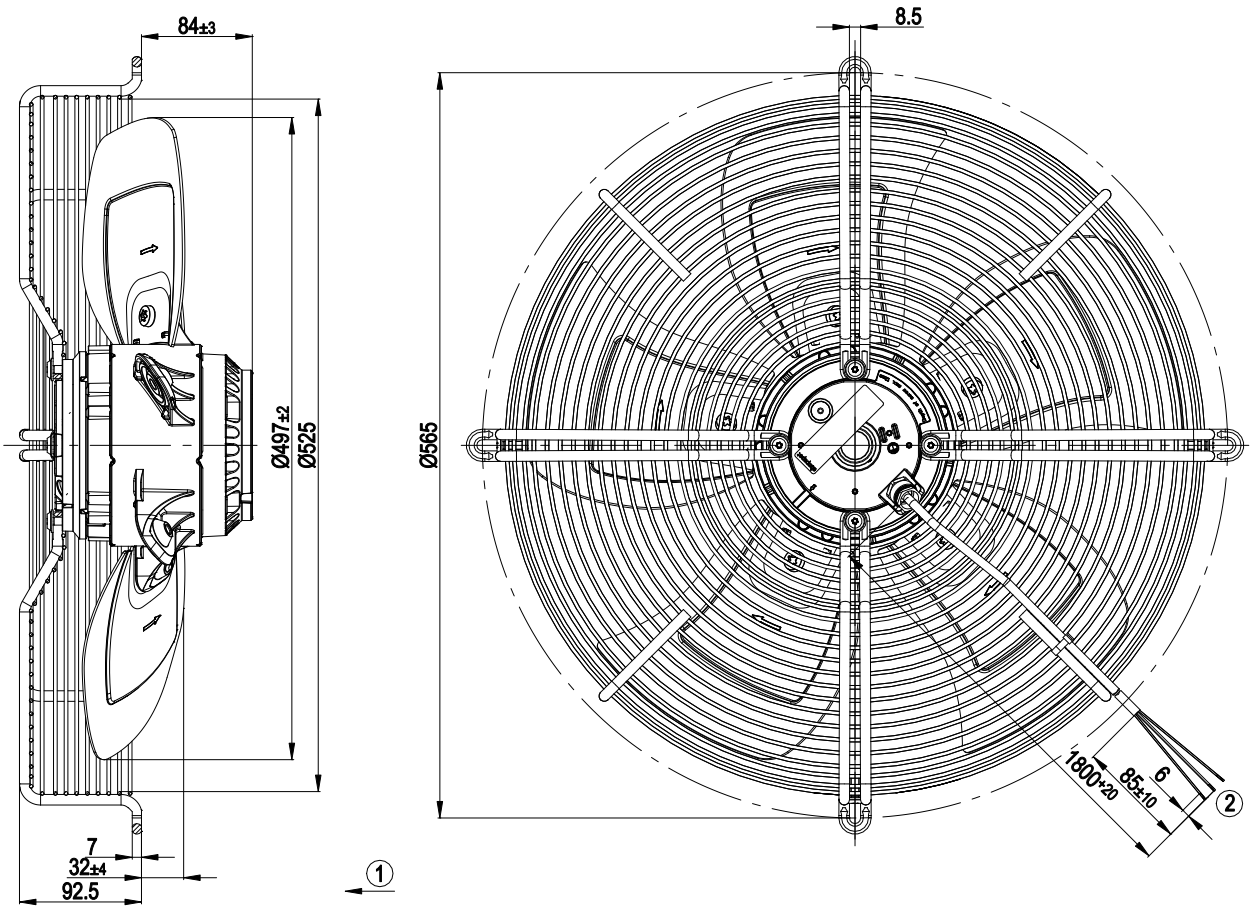
Weight	13.16 kg
Size	500 mm
Motor size	110
Rotor surface	Cast in aluminum
Blade material	Sheet aluminum
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	-10°
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	EAC; VDE

AC axial fan

sickle-shaped blades (S series)

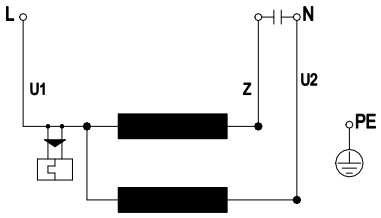
with guard grille for short nozzle

Product drawing



1	Direction of air flow "V"
2	Cable silicone 4 x 0.5 mm², 4 x crimped splices

Connection diagram



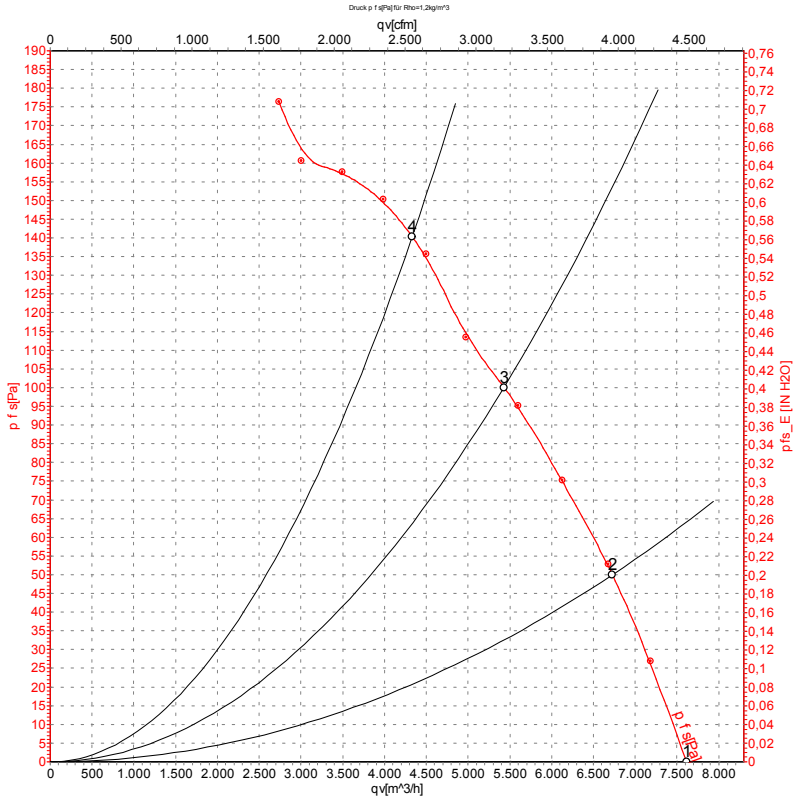
U1	brown	Z	black	U2	blue
PE	green/yellow				

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

Curves: Air performance 50 Hz



Measurement: LU-102530-1

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	in. wg
1	230	50	1380	446	1.97	72	79	78	7615	0	4480	0.00
2	230	50	1345	488	2.14	69	75	74	6725	50	3960	0.20
3	230	50	1315	529	2.30	70	76	75	5430	100	3195	0.40
4	230	50	1275	570	2.48	72	79	78	4330	140	2550	0.56

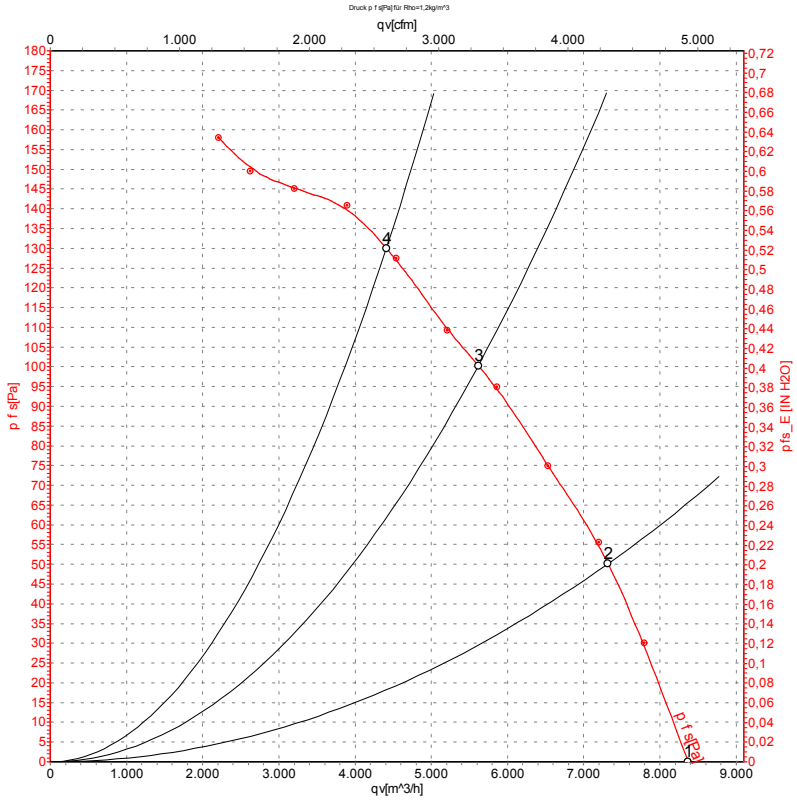
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

Curves: Air performance 60 Hz



Measurement: LU-102531-1

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	in. wg
1	230	60	1515	675	2.94	75	81	80	8370	0	4925	0.00
2	230	60	1440	697	3.03	70	77	76	7315	51	4305	0.20
3	230	60	1340	709	3.11	70	76	75	5620	100	3305	0.40
4	230	60	1270	730	3.20	71	78	77	4410	130	2595	0.52

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