S4E500-AM03-01

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

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County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4E500-AM03-01**
Motor	**M4E110-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}	1300	1400
Power input	W	680	880
Current draw	A	3.0	3.88
Motor capacitor	µF	12	12
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	150	100
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
Closed-loop speed control	No
Specific ratio*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_e		32,5	28,5	32,5
Efficiency grade N		40	36	40
Power input P_e	kW	0,65		
Air flow q_v	m^3/h	5765		
Pressure increase Total p_{sf}	Pa	129		
Speed n	min^{-1}	1315		

Data established at point of optimum efficiency

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Technical features

Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	PC/ABS plastic, black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Leakage current	<= 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	UL 1004-1; VDE; CSA C22.2 Nr.100

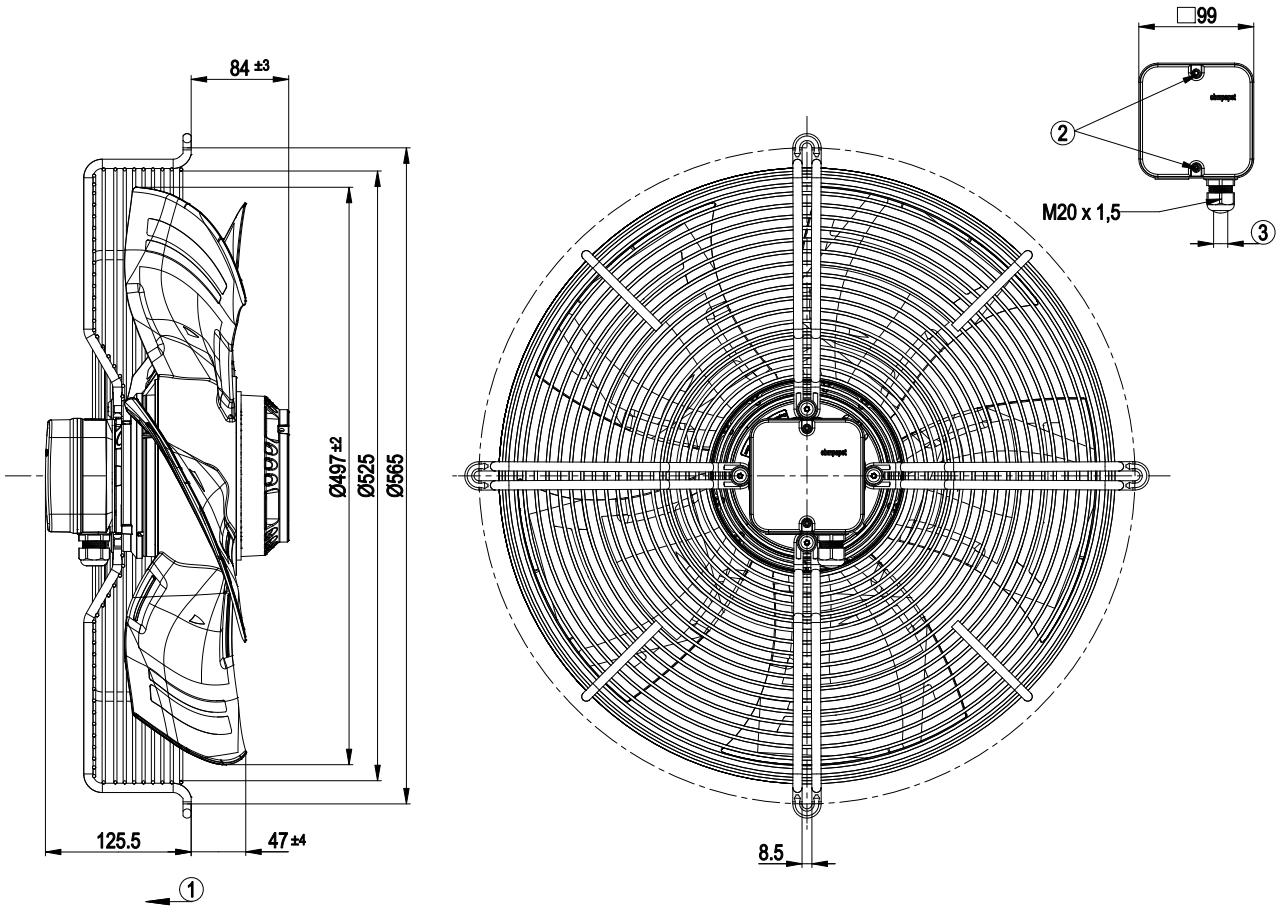
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Product drawing



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±0.3 Nm

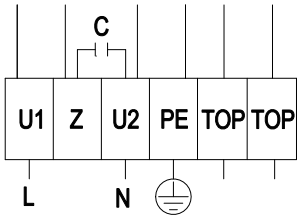
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Connection screen



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

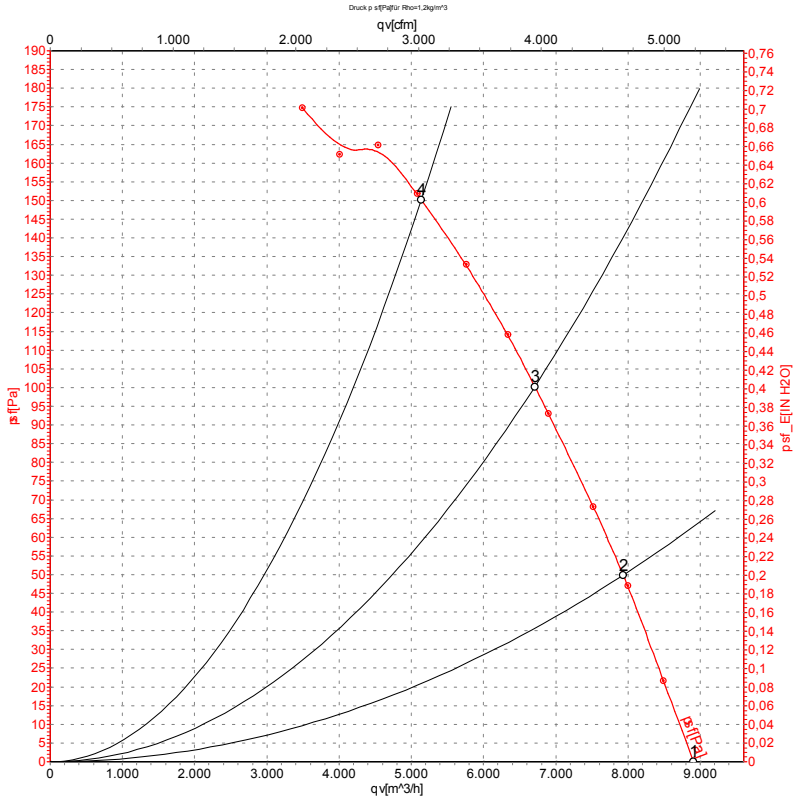
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Charts: Air flow 50 Hz



Measurement: LU-107128

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_{sf}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1380	513	2.25	68	75	75	8905	0
2	230	50	1355	571	2.50	65	72	72	7930	50
3	230	50	1330	623	2.73	63	70	70	6705	100
4	230	50	1300	680	3.00	65	72	71	5140	150

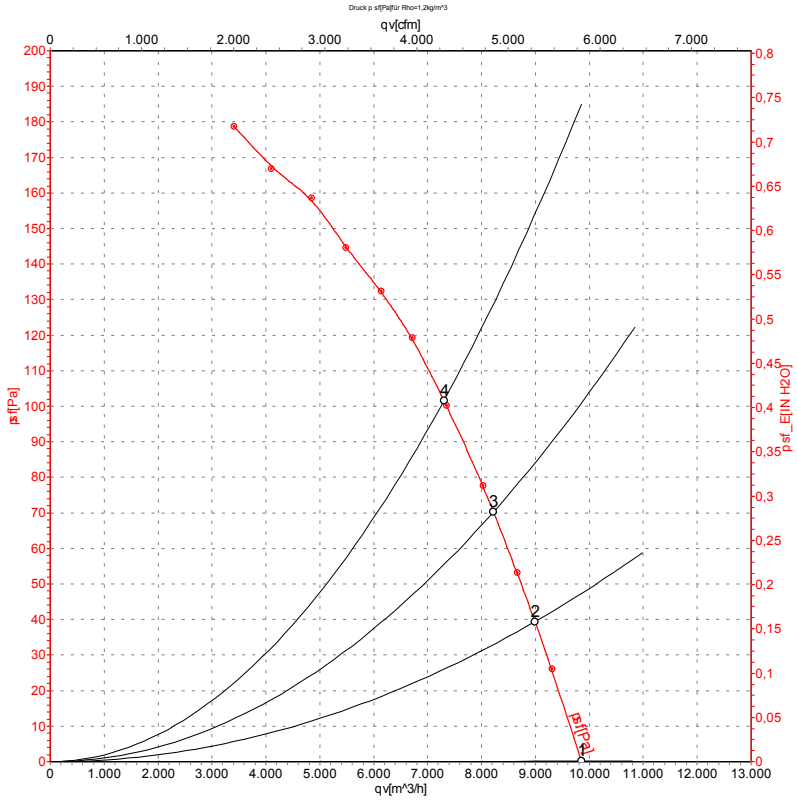
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Charts: Air flow 60 Hz



Measurement: LU-107130

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_{sf}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	60	1530	793	3.45	70	77	78	9850	0
2	230	60	1485	828	3.61	68	75	75	8990	40
3	230	60	1450	853	3.73	66	73	73	8220	70
4	230	60	1400	880	3.88	65	72	72	7300	100

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