S4E500-AD03-01

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**S4E500-AD03-01**	
Motor	**M4E110-GF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	1270
Power input	W	760
Current draw	A	3.33
Motor capacitor	µF	14
Capacitor voltage	VDB	400
Max. back pressure	Pa	130
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60
Starting current	A	6.5

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
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	28.8	28.8	32.8
Efficiency grade N		36	36	40
Power input P_e	kW	0.74		
Air flow q_v	m^3/h	6445		
Pressure increase p_{fs}	Pa	120		
Speed n	min^{-1}	1285		

Data definition with optimum efficiency. LU-71075
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	15.5 kg
Size	500 mm
Surface of rotor	Cast in aluminium
Material of terminal box	ABS plastic, black
Material of blades	Aluminum sheet
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Blade angle	0
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 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	EAC; VDE

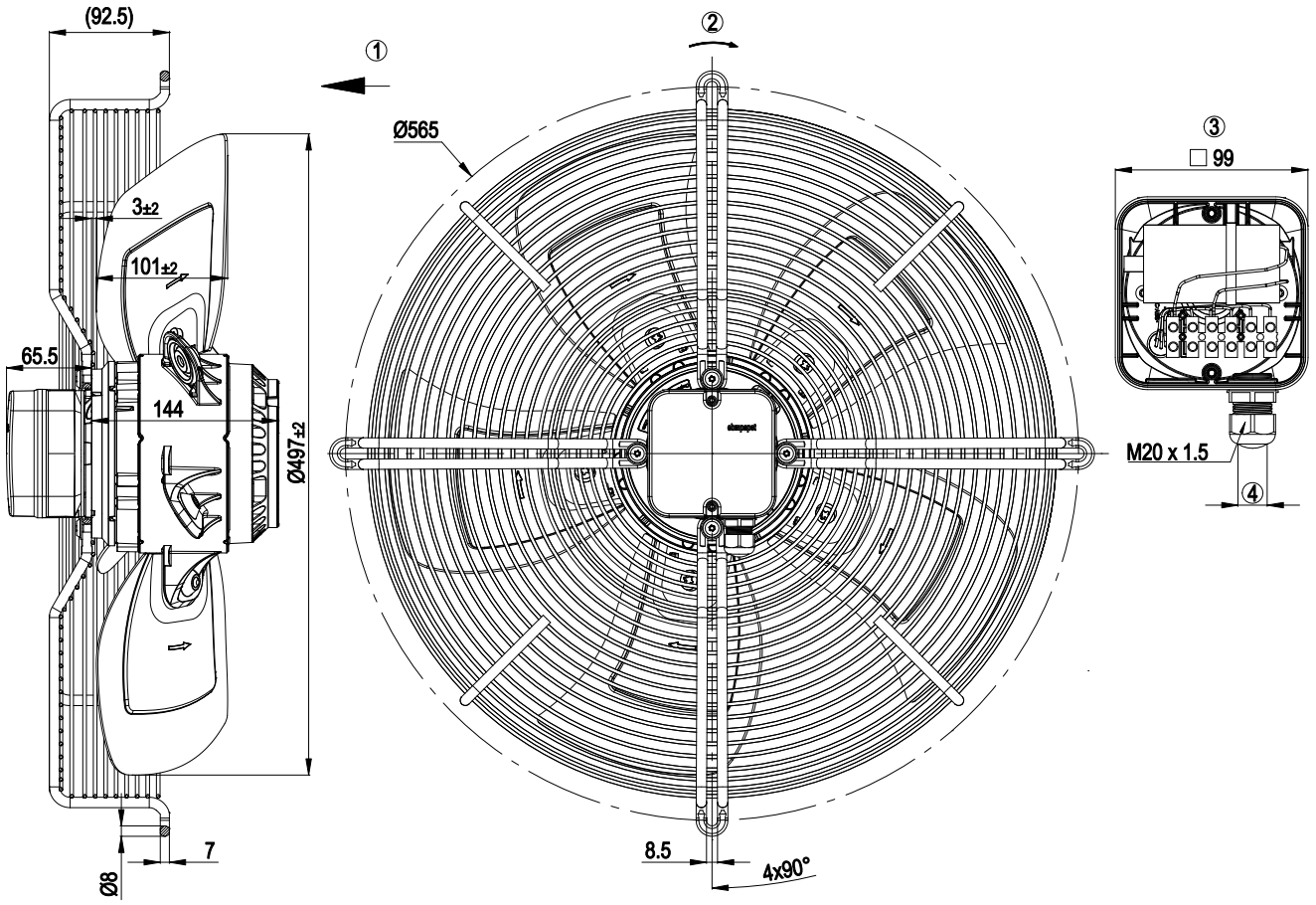
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Product drawing



1	Direction of air flow "V"
2	Direction of rotation counter-clockwise, seen on rotor
3	Shown without terminal box cover
4	Cable diameter: min. 6 mm, max. 12 mm

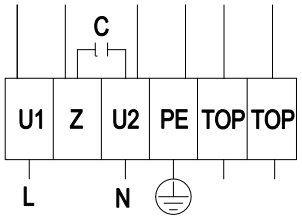
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Connection screen



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

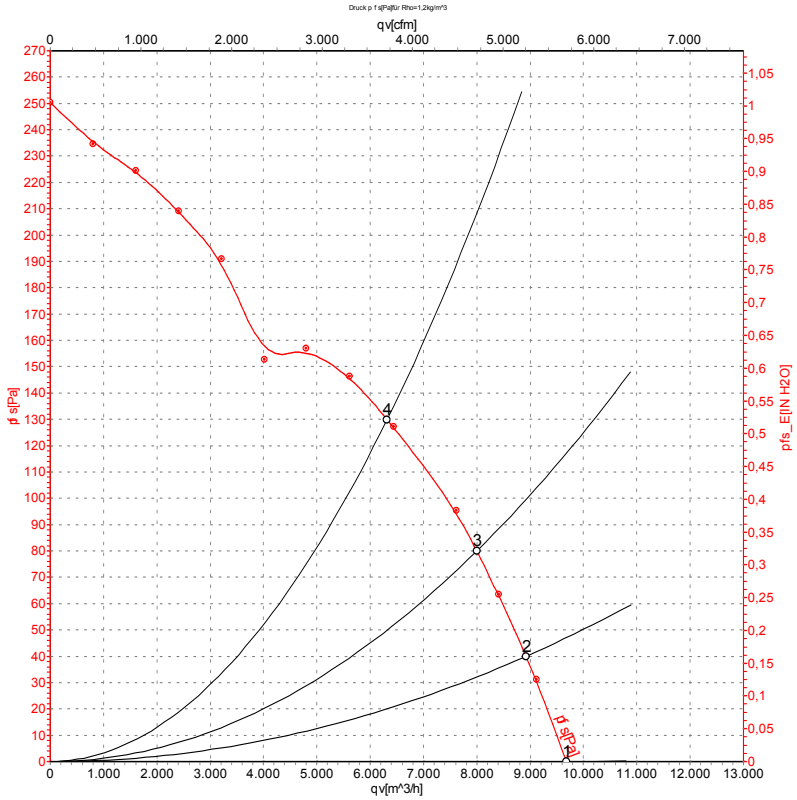
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Charts: Air flow 50 Hz



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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1340	643	2.81	9680	0
2	230	50	1320	682	2.99	8920	40
3	230	50	1305	713	3.13	8000	80
4	230	50	1270	760	3.33	6315	130

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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