S4E500-AE03-01

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

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County court Stuttgart · HRA 590344

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4E500-AE03-01**
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}	1330	1490
Power input	W	710	920
Current draw	A	3.1	4.05
Motor capacitor	µF	14	14
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	160	100
Max. ambient temperature	°C	70	60

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	5605		
Pressure increase Total p_{sf}	Pa	133		
Speed n	min^{-1}	1350		

Data established at point of optimum efficiency

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Technical features

Mass	15.5 kg
Size	500 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC/ABS plastic, black
Material of blades	Aluminium sheet
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Blade angle	-5°
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	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	VDE; CSA C22.2 Nr.100; UL 1004-1

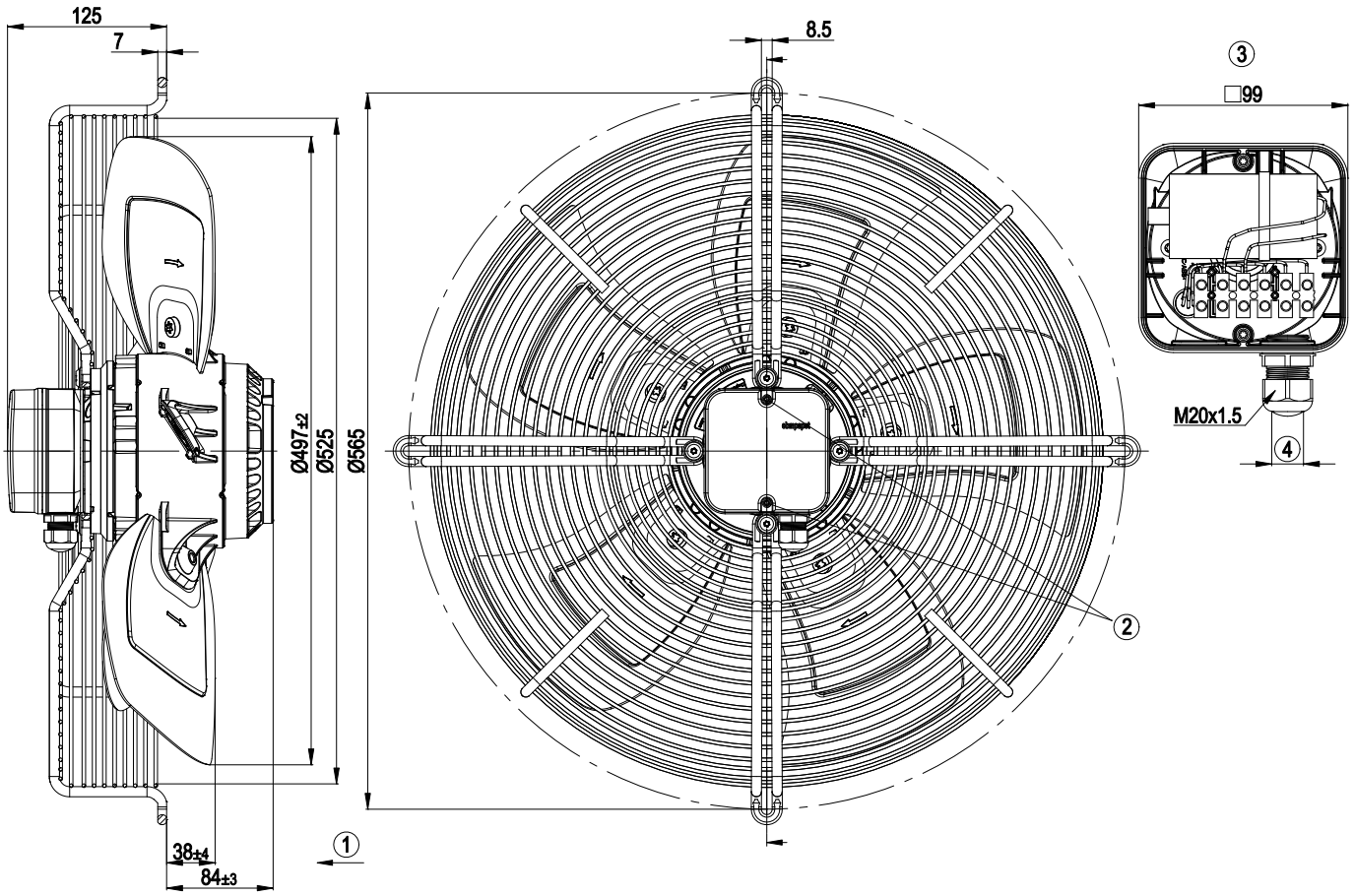
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.8 ±0.15 Nm
3	Illustration without terminal box cover
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque: 2.0±0.3 Nm

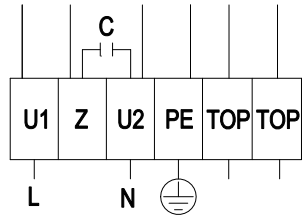
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Connection screen



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

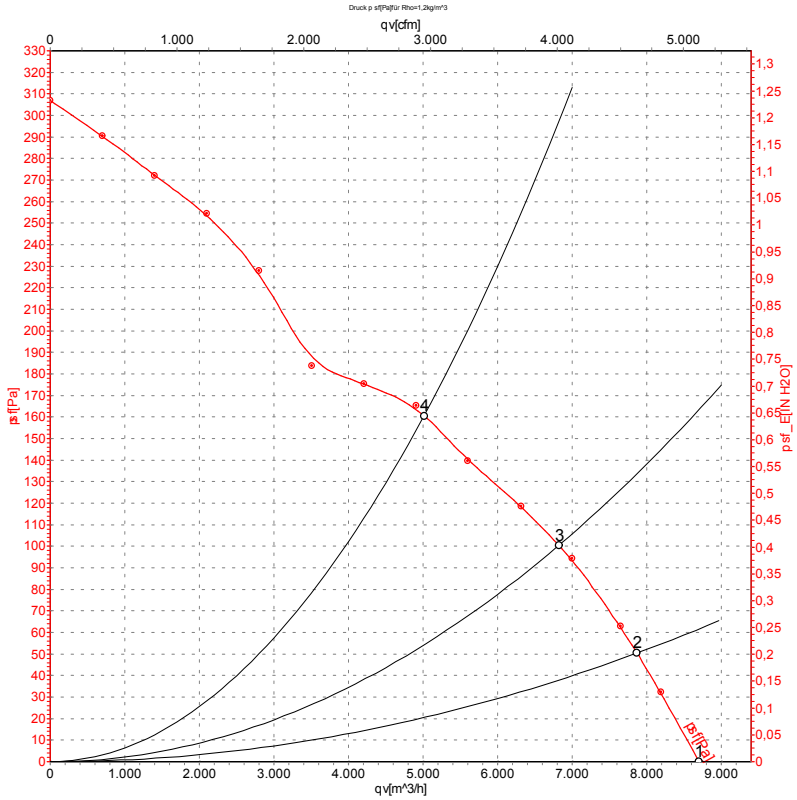
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Charts: Air flow 50 Hz



Measurement: LU-73435

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_{sf}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1395	526	2.31	8700	0
2	230	50	1380	578	2.53	7870	50
3	230	50	1360	624	2.73	6825	101
4	230	50	1330	710	3.10	5015	160

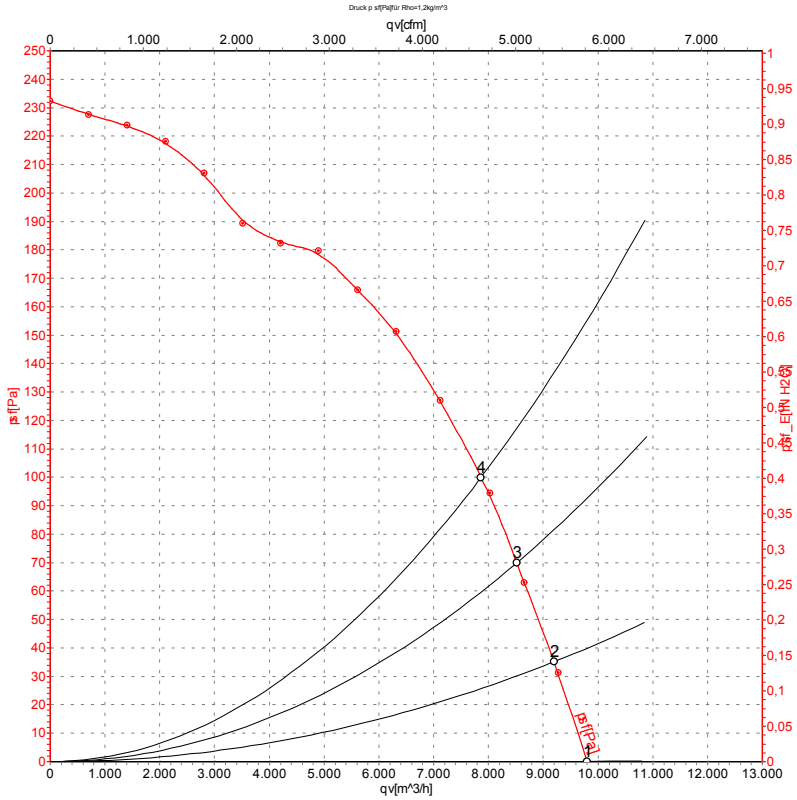
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Charts: Air flow 60 Hz



Measurement: LU-73436

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_{sf}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	60	1575	848	3.70	9800	0
2	230	60	1555	869	3.79	9195	35
3	230	60	1525	895	3.90	8515	70
4	230	60	1490	920	4.05	7865	100

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