S4E500-AZ02-20

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4E500-AZ02-20**	
Motor	**M4E094-HA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	1330
Power input	W	660
Current draw	A	3.1
Motor capacitor	µF	10
Capacitor voltage	VDB	400
Capacitor standard		P0 (CE)
Max. back pressure	Pa	180
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	70
Starting current	A	7.3

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}	%	33.5	28.2	32.2
Efficiency grade N		41.3	36	40
Power input P_e	kW	0.58		
Air flow q_v	m^3/h	5005		
Pressure increase p_{fs}	Pa	140		
Speed n	min^{-1}	1370		

Data definition with optimum efficiency. LU-162350
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	11.7 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic, black
Material of blades	Aluminium sheet, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	-10°
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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); CE

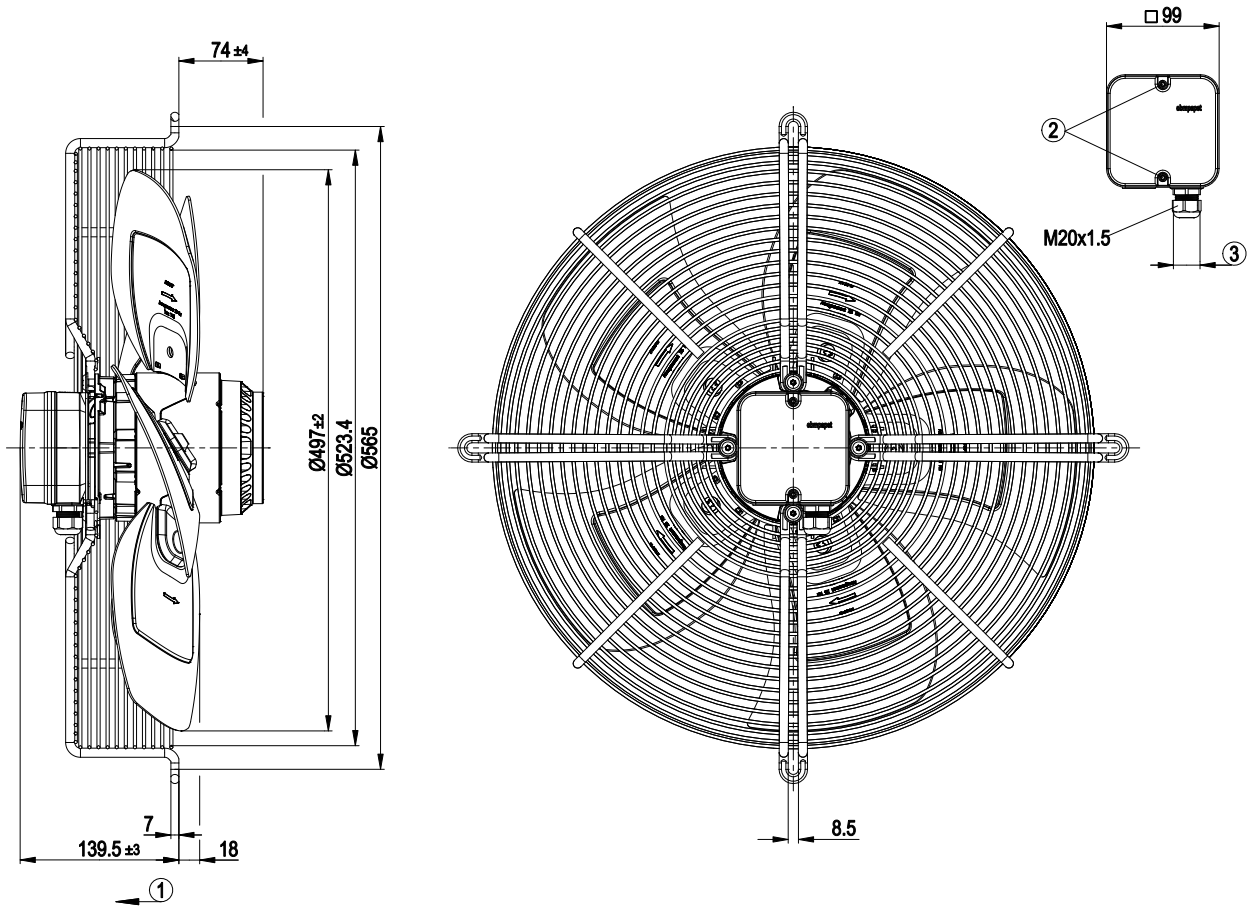
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.8Nm ±0.15Nm
3	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2Nm ±0.2Nm

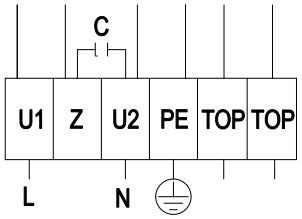
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Connection screen



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

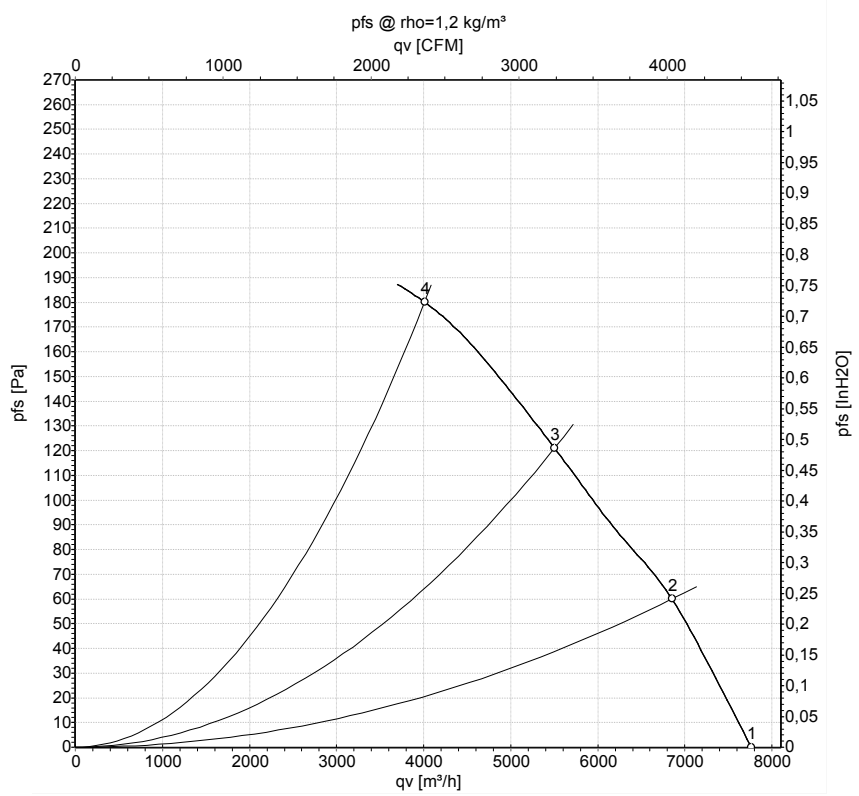
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Charts: Air flow 50 Hz



Measurement: LU-162350

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	1420	427	2.15	7765	0
2	230	50	1395	496	2.42	6850	60
3	230	50	1380	552	2.65	5505	120
4	230	50	1330	660	3.10	4010	180

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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