

S4E450-AP01-05

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



Nominal data

Type	S4E450-AP01-05	
Motor	M4E074-GA	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		fa
Valid for approval / standard		CE
Speed	min ⁻¹	1400
Power input	W	245
Current draw	A	1.1
Motor capacitor	µF	8
Capacitor voltage	VDB	400
Capacitor standard		P0 (CE)
Max. back pressure	Pa	85
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40
Starting current	A	2.8

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 = $1 + p_b / 100\,000\text{ Pa}$

	Actual	Request 2013	Request 2015
Overall efficiency η_{es}	32.2	26.5	30.5
Efficiency grade N	41.7	36	40
Power input P_e	kW	0.32	
Air flow q_v	m ³ /h	3690	
Pressure increase p_{fs}	Pa	101	
Speed n	min ⁻¹	1325	

Data established at point of optimum efficiency



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Technical features

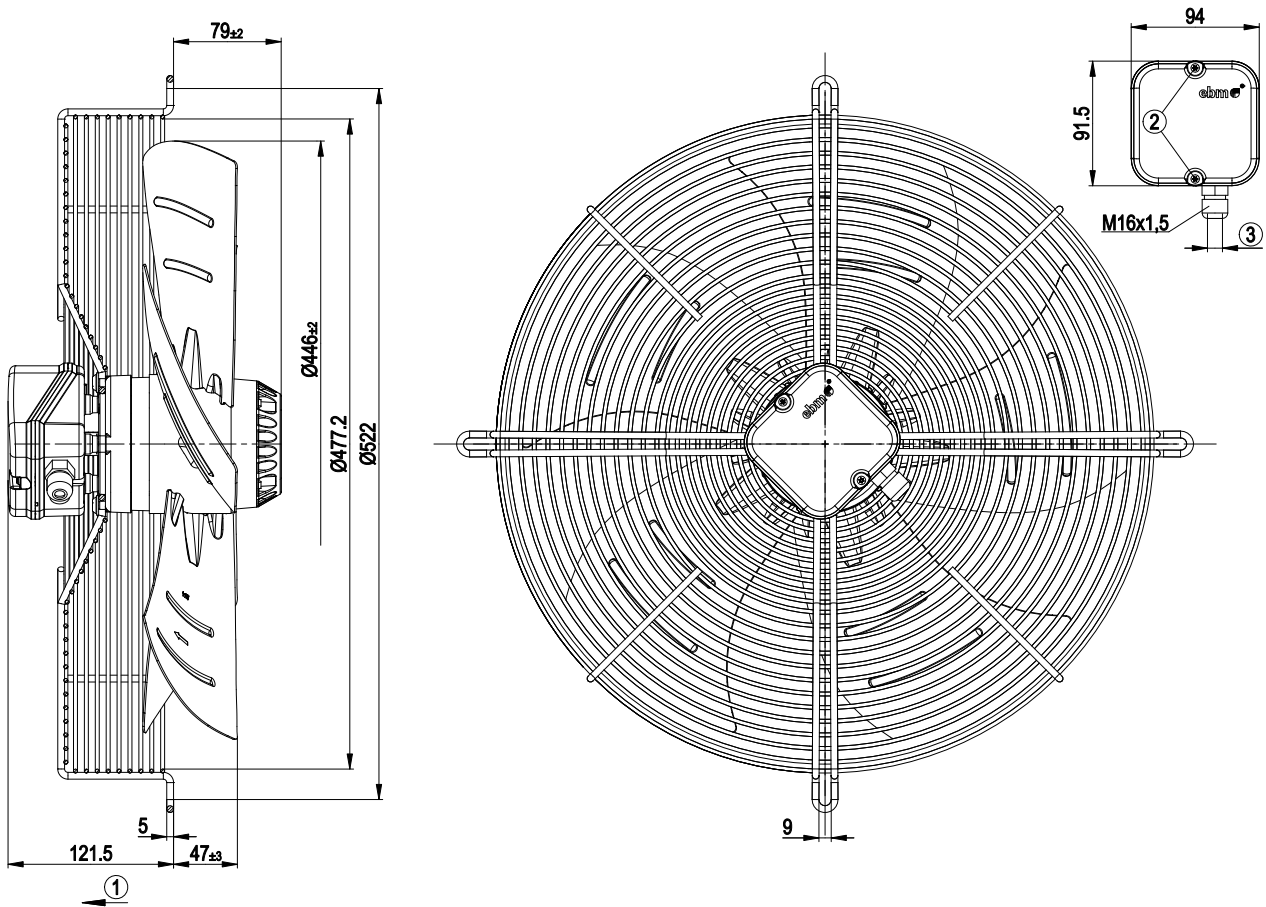
Mass	7.21 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity class	F1-2
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) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE



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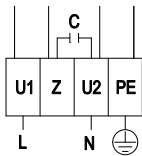
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.5Nm ±0.1Nm
3	Cable diameter: max. 7.5 mm, tightening torque 1.3±0.2 Nm

Connection screen



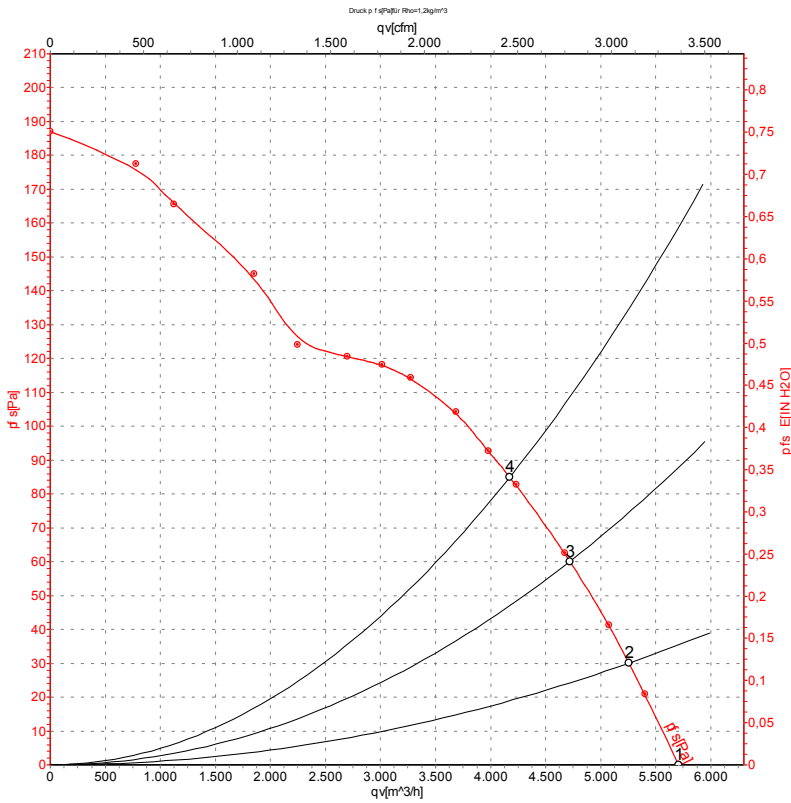
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				



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Charts: Air flow 50 Hz



Measurement: LU-33262

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	Pe	I	qv	Pfs
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	230	50	1400	245	1.10	5705	0
2	230	50	1385	264	1.19	5255	30
3	230	50	1365	285	1.27	4720	60
4	230	50	1345	303	1.35	4175	85

U = Supply voltage · f = Frequency · n = Speed · Pe = Power input · I = Current draw · qv = Air flow · Pfs = Pressure increase

