

S4E450-AP01-01

AC axial fan

sickle-shaped 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

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142



Nominal data

Type	S4E450-AP01-01		
Motor	M4E074-GA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	1400	1600
Power consumption	W	245	355
Current draw	A	1.1	1.55
Capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	85	35
Max. back pressure	inH ₂ O	0.34	0.14
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	40
Starting current	A	2.8	2.6

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	32.2	30.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		41.7	40
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

09 Power consumption P_e	kW	0.32
09 Air flow q_v	m ³ /h	3690
09 Pressure increase p_{fs}	Pa	101
10 Speed (rpm) n	min ⁻¹	1325
11 Specific ratio*		1.00

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-33262



AC axial fan

sickle-shaped blades (S series)
with guard grille for short nozzle

Technical description

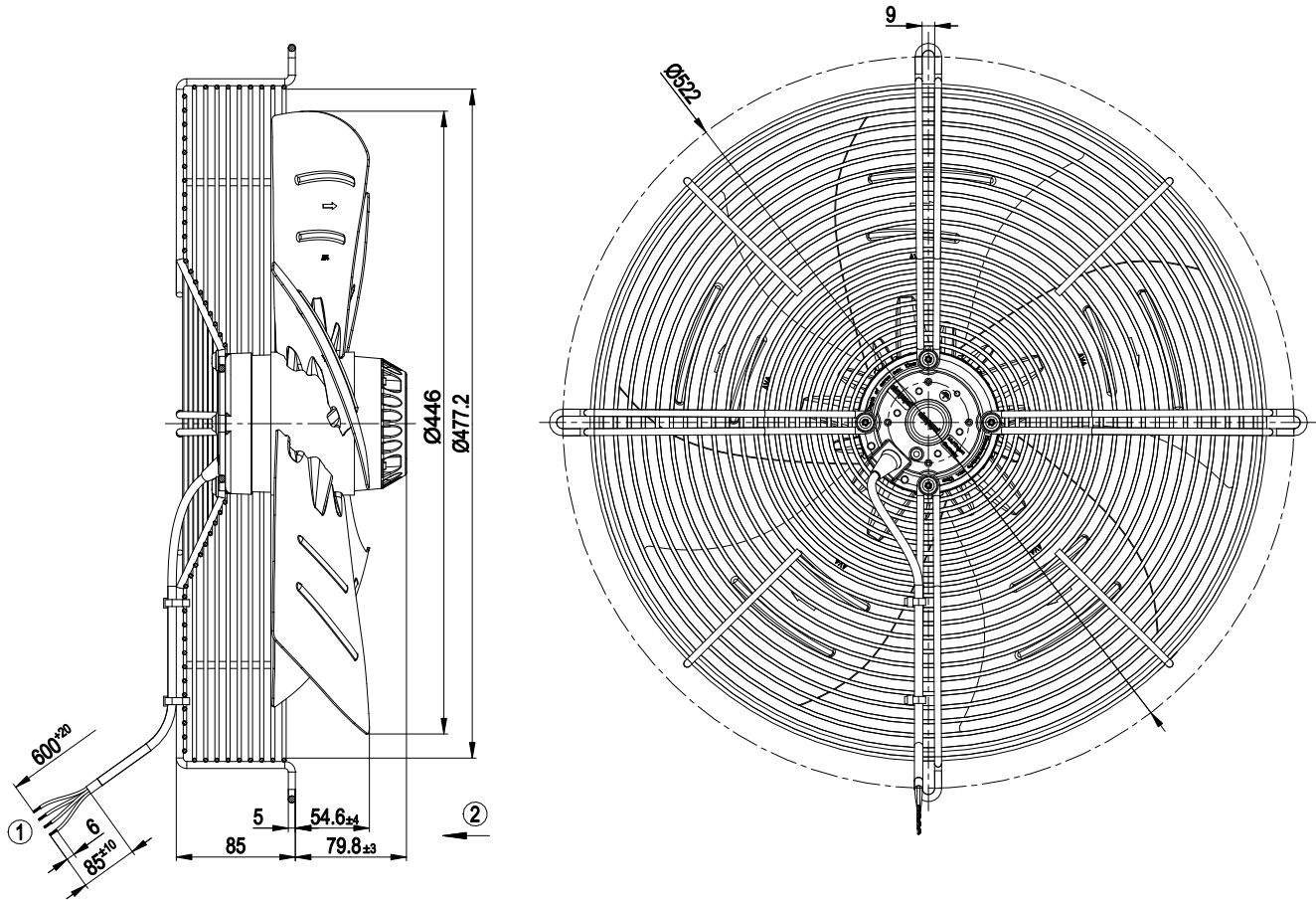
Weight	7.1 kg
Fan size	450 mm
Rotor surface	Painted black
Blade material	Sheet steel
Guard grille material	Steel, phosphated and coated with black plastic
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE



AC axial fan

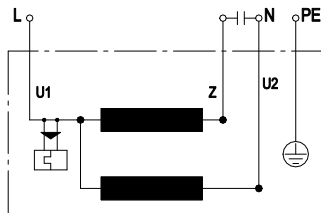
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Product drawing



- 1 Cable silicone 4G 0.5 mm², 4x crimped splice
- 2 Direction of air flow "V"

Connection diagram



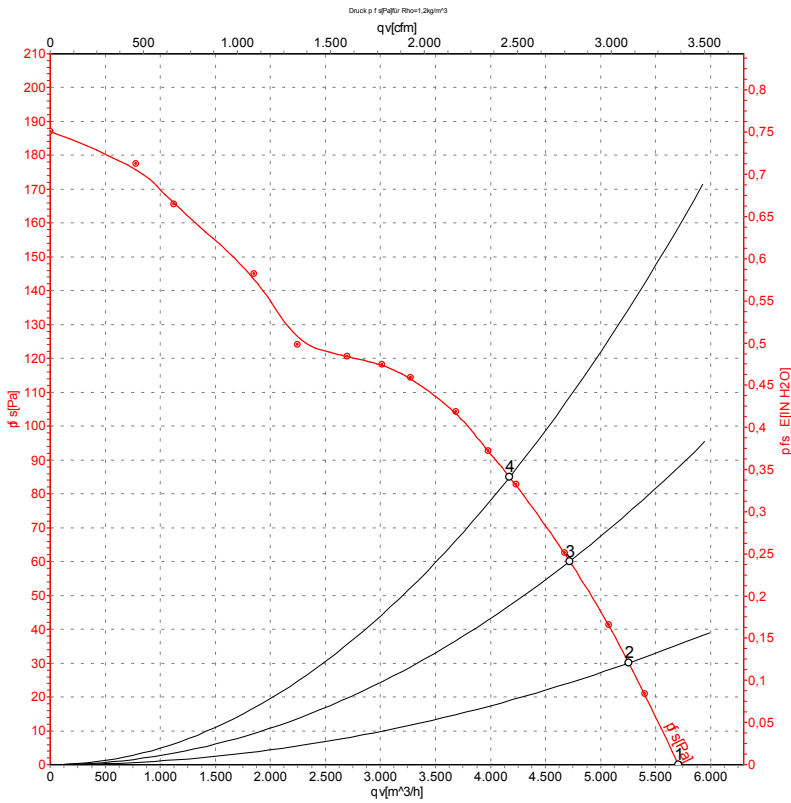
U1	blue	Z	brown	U2	black
PE	green/yellow				



AC axial fan

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Curves: Air performance 50 Hz



Measurement: LU-33262-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P _e	I	qv	p _{fs}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa	CFM	inH ₂ O
1	230	50	1400	245	1.10	5705	0	3360	0.00
2	230	50	1385	264	1.19	5255	30	3095	0.12
3	230	50	1365	285	1.27	4720	60	2775	0.24
4	230	50	1345	303	1.35	4175	85	2455	0.34

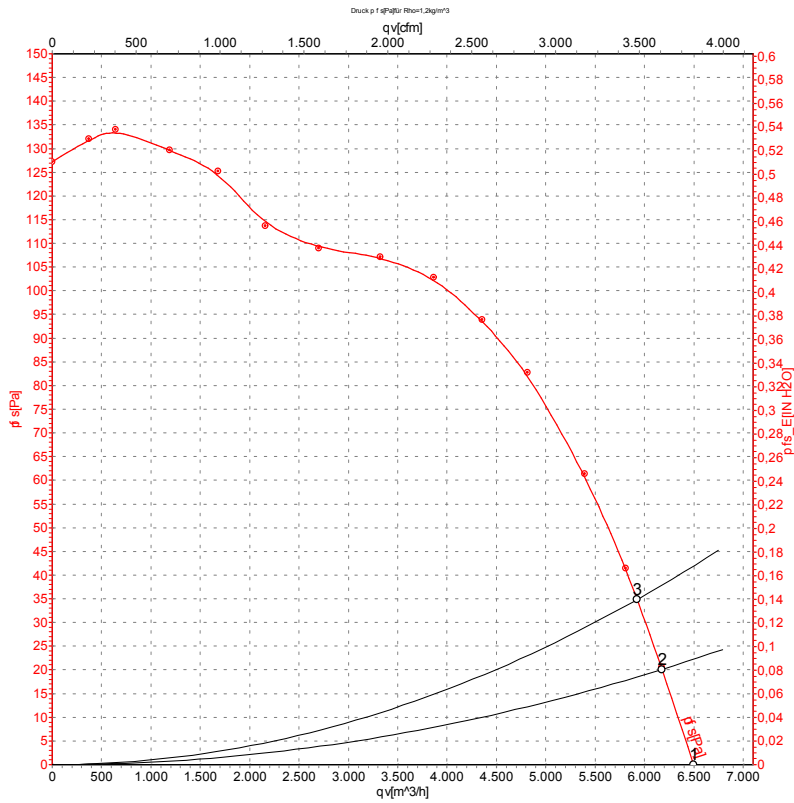
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



Measurement: LU-33263-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P _e	I	qv	p _{fs}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa	CFM	inH ₂ O
1	230	60	1600	355	1.55	6495	0	3825	0.00
2	230	60	1580	364	1.58	6175	20	3635	0.08
3	230	60	1560	376	1.63	5925	35	3485	0.14

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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