S6E450-AP02-02

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

S6E450-AP02-02 ebmpapst Datasheet
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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Nominal data

Type	**S6E450-AP02-02**
Motor	**M6E074-GA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	940	1070
Power consumption	W	165	225
Current draw	A	0.8	0.98
Capacitor	µF	4	4
Capacitor voltage	VDB	450	450
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	70	45
Max. back pressure	inH2O	0.28	0.18
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60
Starting current	A	1.5	1.4

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

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Technical description

Weight	7.9 kg
Fan size	450 mm
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Guard grille material	Steel, phosphated and coated with black plastic
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, 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
Approval	EAC

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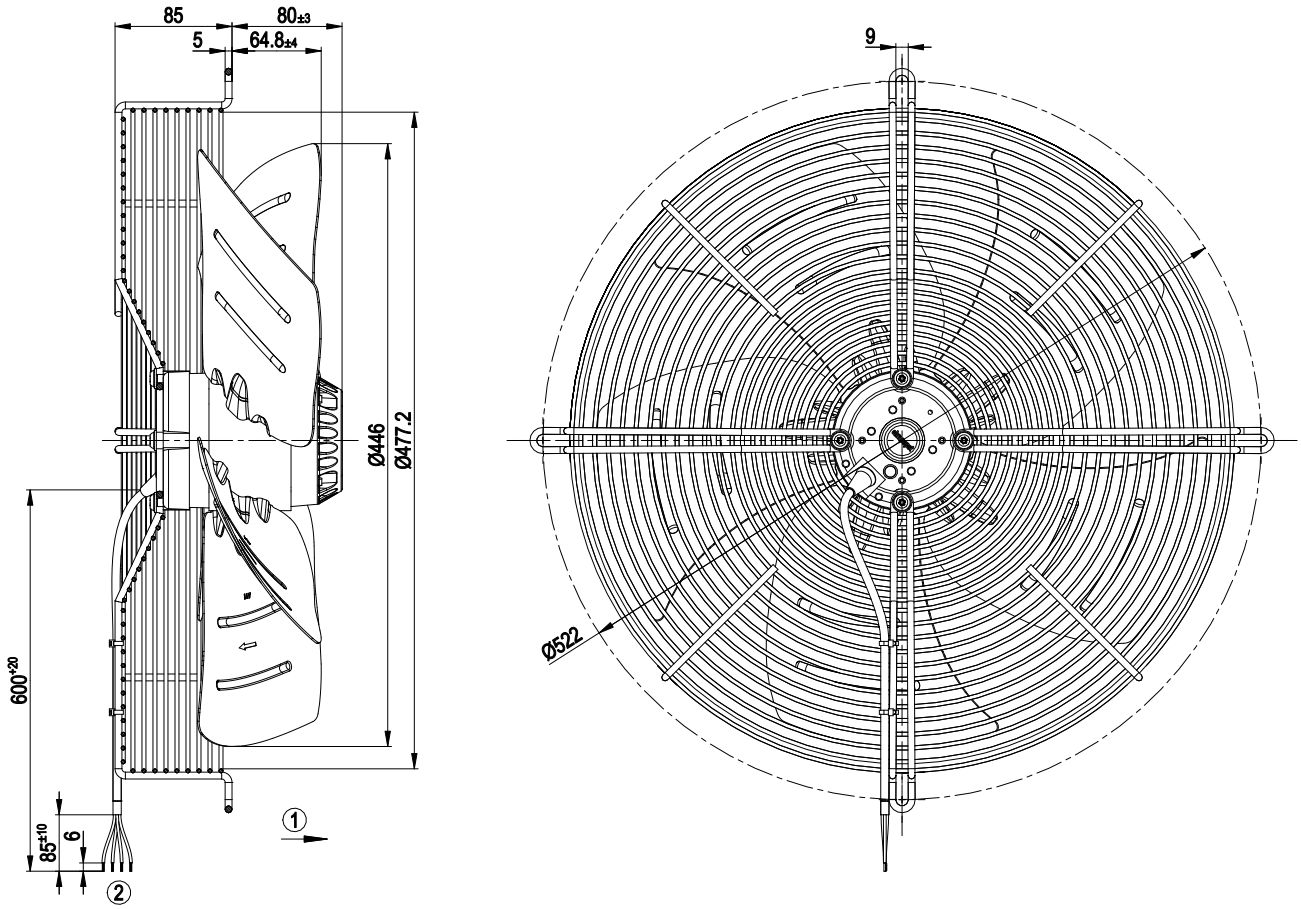
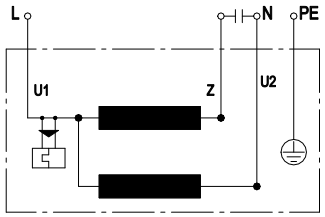
Product drawing



1	Airflow direction "A"
2	Cable silicone 4G 0.5 mm², 4x crimped splices

Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				

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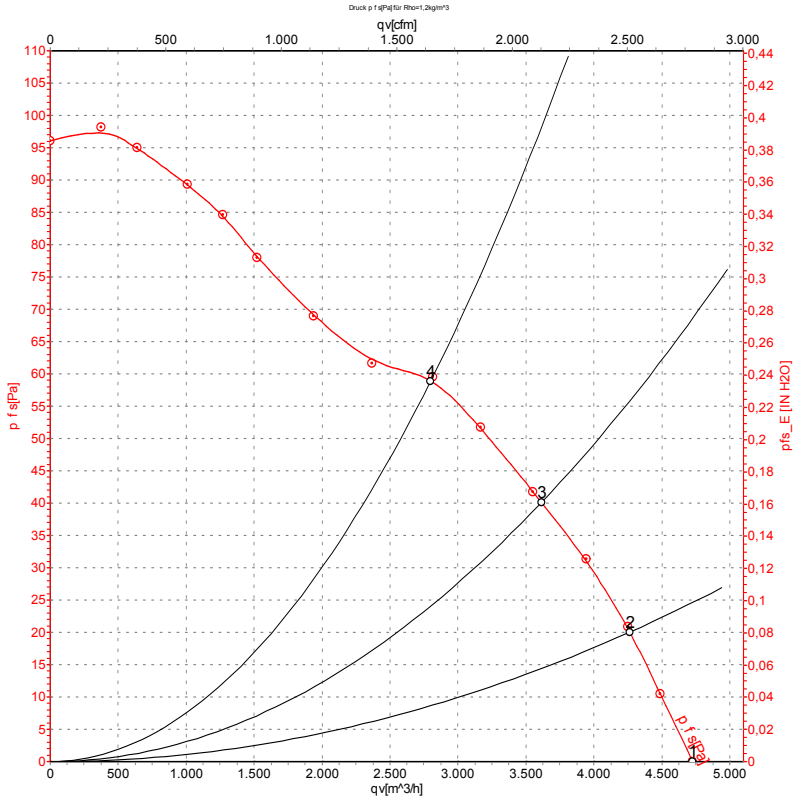
Curves: Air performance 50 Hz



Measurement: LU-33158-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	940	165	0.80	4725	0	2780	0.00
2	230	50	925	173	0.82	4265	20	2510	0.08
3	230	50	910	180	0.85	3615	40	2125	0.16
4	230	50	895	190	0.89	2800	60	1645	0.24

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

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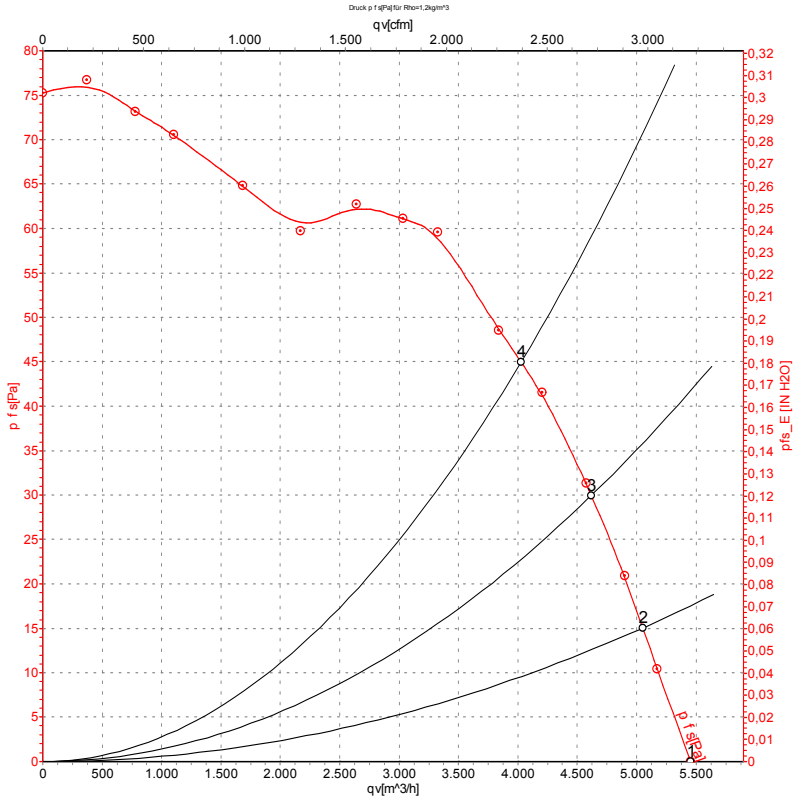
Curves: Air performance 60 Hz



Measurement: LU-33159-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	60	1070	225	0.98	5455	0	3210	0.00
2	230	60	1055	225	1.00	5050	15	2975	0.06
3	230	60	1030	231	1.03	4620	30	2720	0.12
4	230	60	995	238	1.06	4030	45	2370	0.18

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