S6E450-AC28-84

AC axial fan

sickle-shaped blades (S series)

with square short nozzle

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	**S6E450-AC28-84**		
Motor	**M6E094-EA**		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	50
Method of obtaining data		fa	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	935	920
Power consumption	W	158	170
Current draw	A	0.77	0.81
Capacitor	µF	5	5
Capacitor voltage	VDB	450	450
Capacitor standard		S2 (CE)	S2 (CE)
Max. back pressure	Pa	30	30
Max. back pressure	inH2O	0.12	0.12
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	60
Starting current	A	1.57	1.57

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	7.8 kg
Fan size	450 mm
Rotor surface	Painted black
Terminal box material	PC/ABS plastic
Blade material	Sheet steel, painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
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
Speed levels	2
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60034-1 (2010)
Approval	CSA C22.2 No. 100; UL 1004-1

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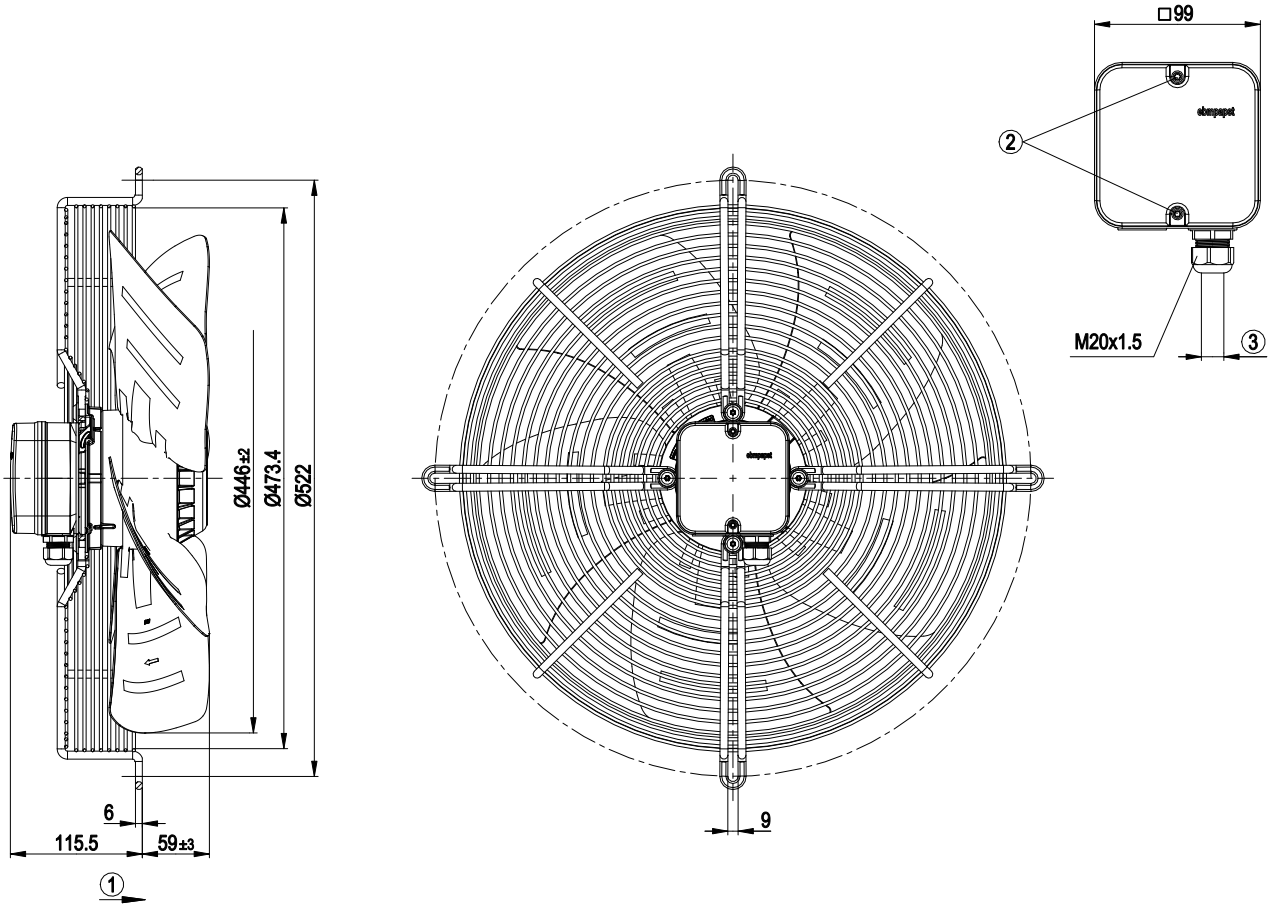
Product drawing



1	Direction of air flow "A"
2	Tightening torque 0.8 ± 0.15 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

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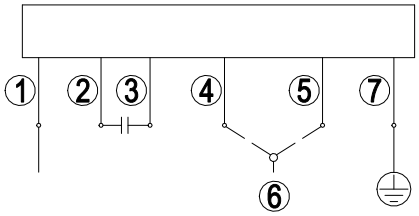
Connection diagram



Note: High speed (step II); low speed (step I)

1	blue (N)	2	brown (capacitor)	3	yellow (capacitor)
4	Step I white	5	Step II black	6	L1
7	green/yellow (PE)				

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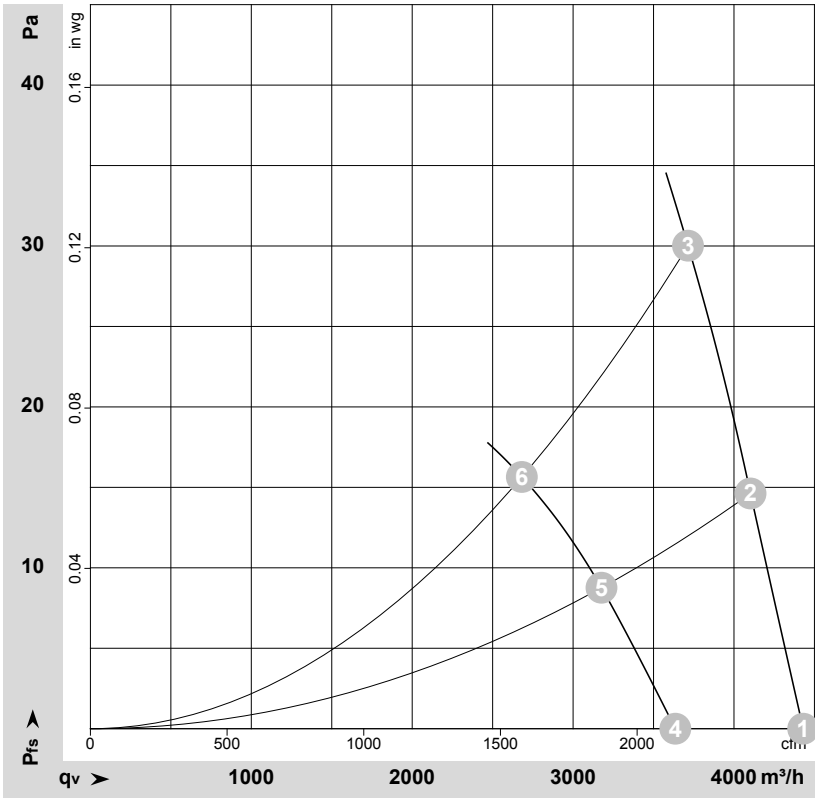
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-127072-1
Measurement: LU-127073-1

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

	Stage	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	2	230	50	935	158	0.77	4430	0	2605	0.00
2	2	230	50	930	165	0.79	4105	15	2415	0.06
3	2	230	50	920	170	0.81	3715	30	2185	0.12
4	1	230	50	770	121	0.53	3635	0	2140	0.00
5	1	230	50	725	130	0.57	3175	9	1870	0.04
6	1	230	50	670	137	0.60	2680	16	1580	0.06

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