S4D450-GA18-17

AC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

S4D450-GA18-17 ebmpapst Datasheet
sales@fansco.com
www.fansco.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	**S4D450-GA18-17**
Motor	**M4D094-HA**

Phase		3~	3~
Nominal voltage	VAC	230	400
Wiring		Δ	Y
Frequency	Hz	60	60
Status		prelim.	prelim.
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1340	1340
Power consumption	W	660	660
Current draw	A	2.0	1.15
Max. back pressure	Pa	150	150
Max. back pressure	inH2O	0.6	0.6
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	45	45
Starting current	A	2.4	2.4

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	10.5 kg
Fan size	450 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
Impeller material	Sheet steel, painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, 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 with low-temperature lubricant
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2004)

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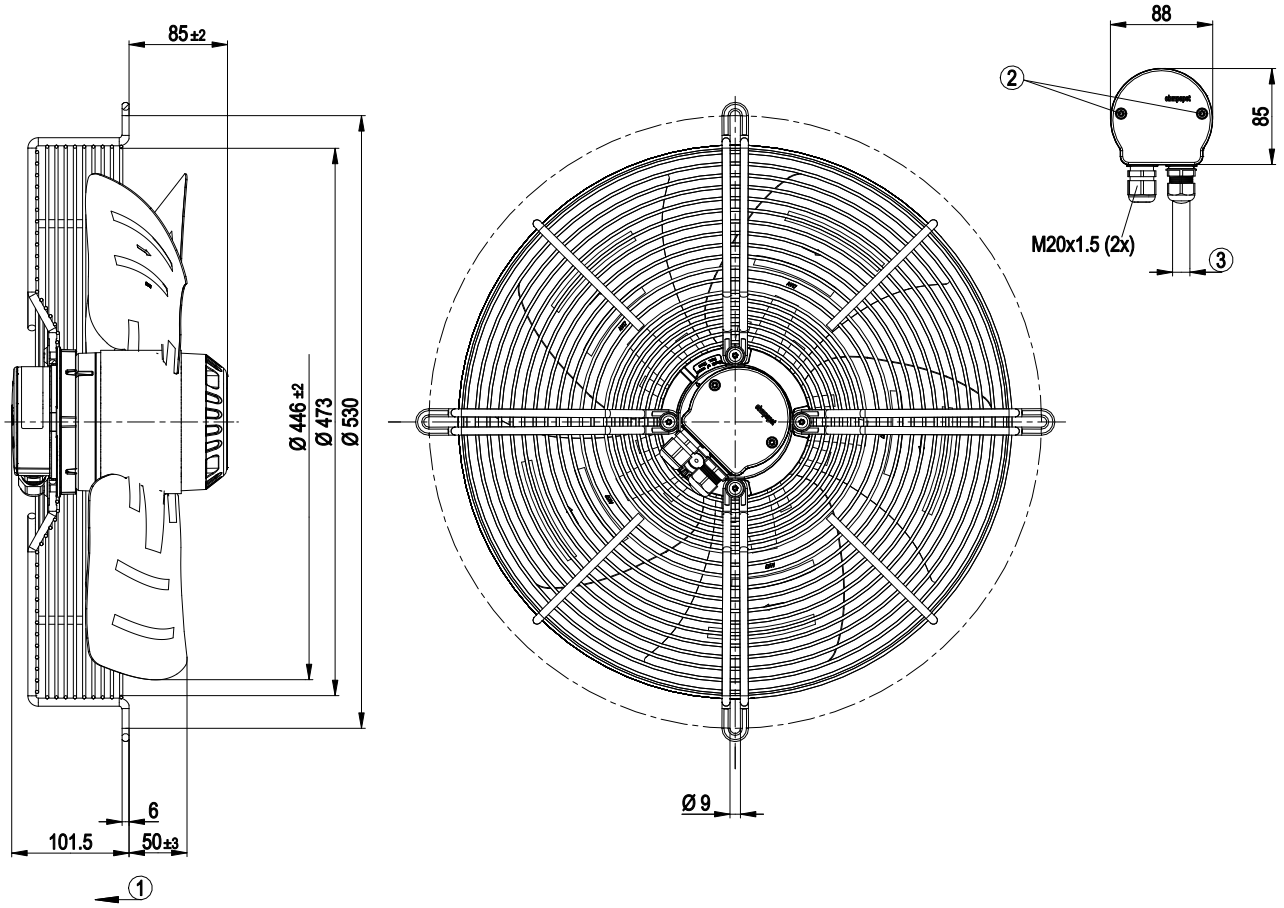
Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.0±0.15 Nm
3	Cable diameter: min. 6 mm, max. 12 mm; tightening torque 2±0.15 Nm

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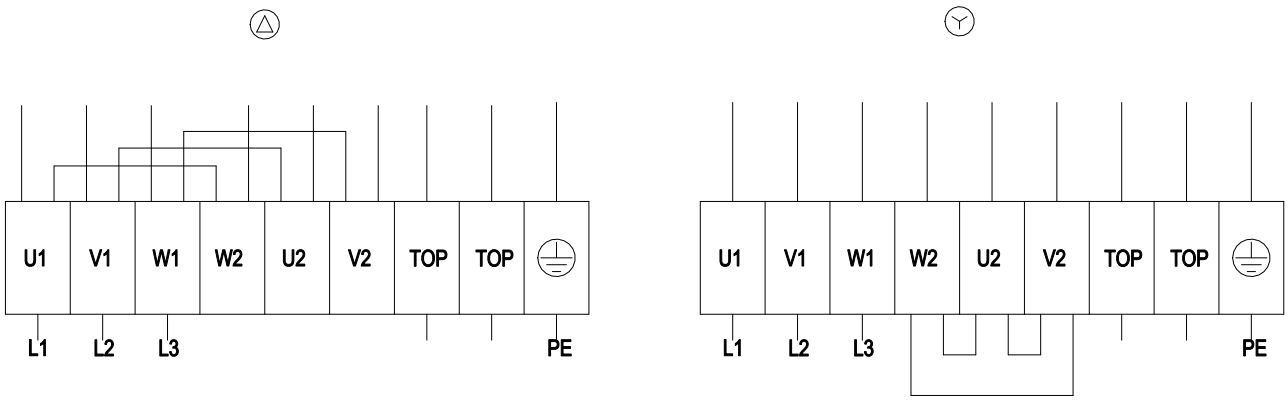
Connection diagram



Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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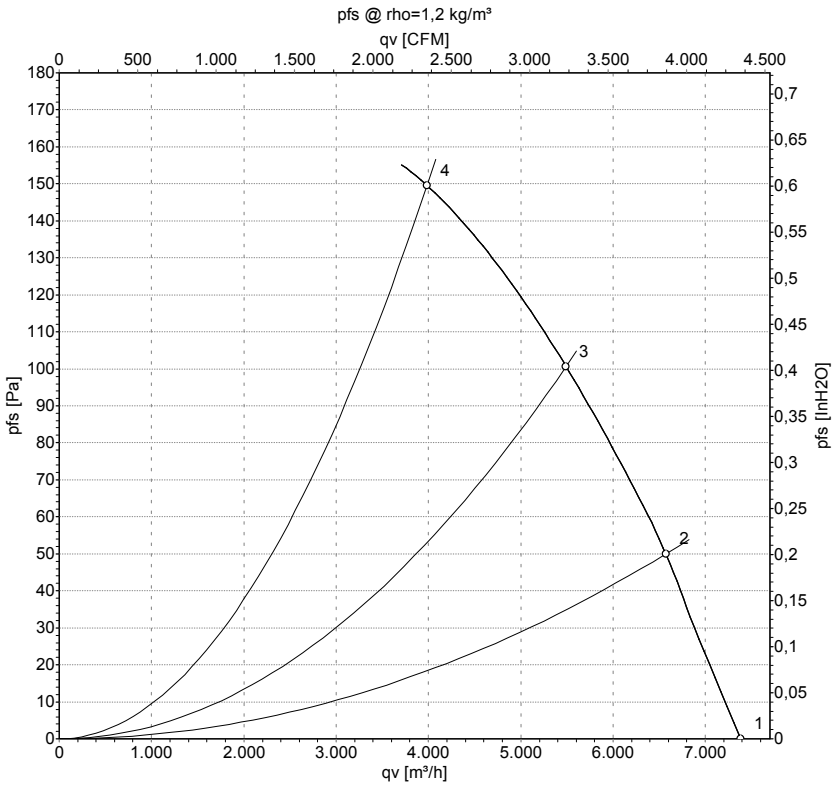
Curves: Air performance 60 Hz Y



Measurement: LU-75078-1

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

	Wired	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Y	400	60	1515	478	0.83	7385	0	4345	0.00
2	Y	400	60	1470	528	0.91	6570	50	3870	0.20
3	Y	400	60	1430	572	0.99	5490	100	3230	0.40
4	Y	400	60	1340	660	1.15	3985	150	2345	0.60

Wired = Wiring · 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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