S4D500-AM03-01

AC axial fan - HyBlade

sickled blades (S series)

with short square nozzle

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Nominal data

Type	**S4D500-AM03-01**
Motor	**M4D110-GF**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	460
Connection		Δ	Y	Δ	Δ
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	1390	1180	1590	1640
Power input	W	720	550	1020	1060
Current draw	A	1.41	0.9	1.7	1.64
Max. back pressure	Pa	140	100	130	138
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	50	60
Starting current	A	6.5	2.2	5.9	6.8

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	35.2	32.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.5	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.7
09 Air flow q_v	m^3/h	6165
09 Pressure increase p_{fs}	Pa	146
10 Speed (rpm) n	min^{-1}	1390
11 Specific ratio*		1.00

Data definition with optimum efficiency.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-197826

The indicated efficiency values for obtaining conformity with the Ecodesign Directive EU 327/2011 were achieved with defined air conduction components (e.g. inlet nozzles).
The dimensions are to be requested from ebm-papst. If other air guide geometries are used on the installation side, the ebm-papst evaluation loses its validity/conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2(2a) (motors completely integrated into a product).

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Technical features

Mass	12.62 kg
Size	500 mm
Motor size	110
Surface of rotor	Coated in black
Material of terminal box	PP plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	V
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP54
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H2
Note ambient temperature	Occasional start-up between -40 °C and -25 °C is permissible. For continuous operation at ambient temperatures below -25 °C (e.g. refrigeration applications), a fan version with special low-temperature bearings must be used.
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
Condensation drainage holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	Terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); CE
Standard conformity	UKCA
Approval	VDE; CCC; EAC

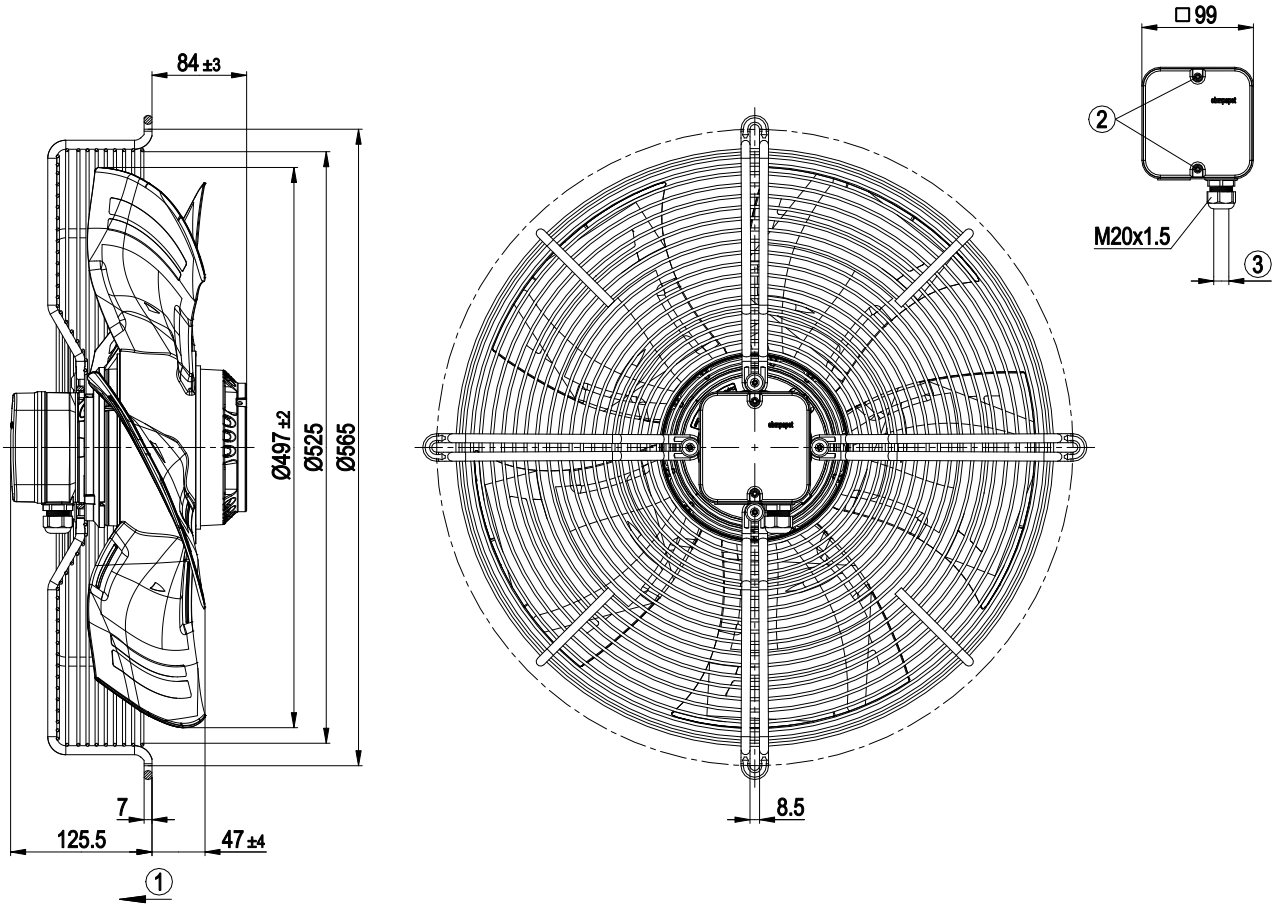
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm

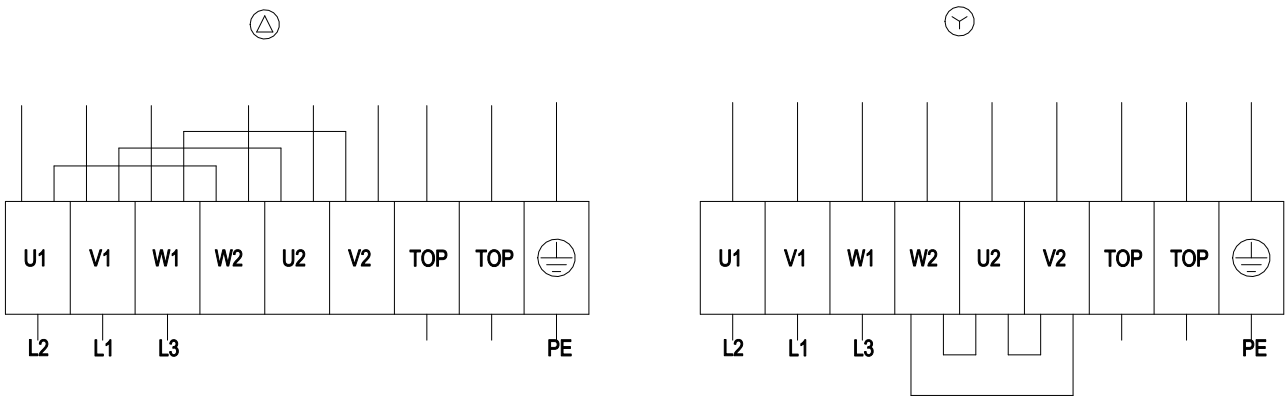
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Connection screen



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

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