S4D450-AN14-01

AC axial fan - HyBlade®

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4D450-AN14-01**
Motor	**M4D094-FA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		**Δ**	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	1330	1040
Power input	W	460	310
Current draw	A	0.95	0.52
Max. back pressure	Pa	130	78
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	65

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive integrated	No
Specific ratio*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		34,3	27,5	31,5
Efficiency grade N		42,8	36	40
Power input P_e	kW	0,45		
Air flow q_v	m^3/h	4530		
Pressure increase p_{fs}	Pa	124		
Speed n	min^{-1}	1335		

Data established at point of optimum efficiency

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Technical features

Mass	8.5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic
Material of blades	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	IP 54
Insulation class	"F"
Humidity class	F4-1
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
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Leakage current	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE

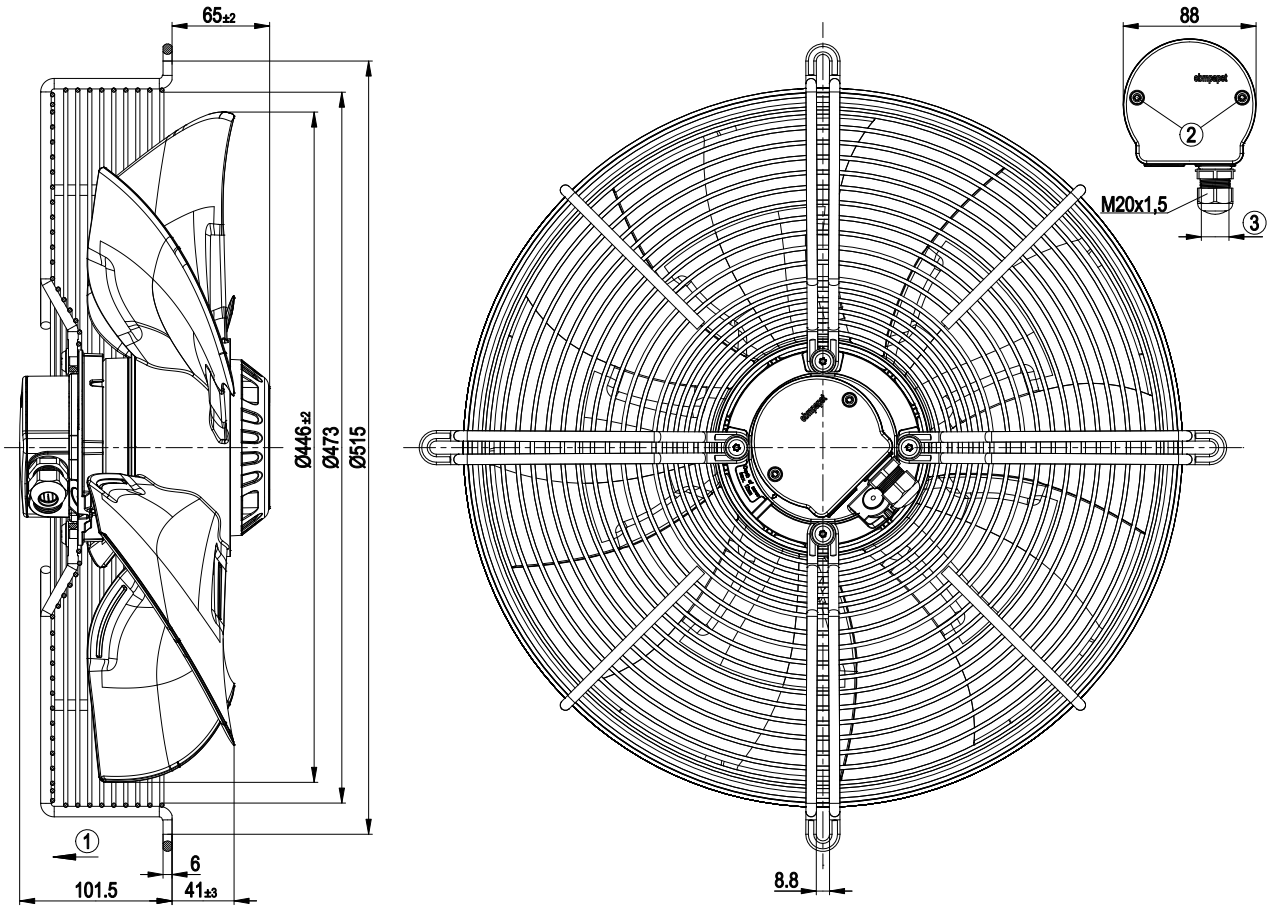
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Product drawing



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±0.2 Nm

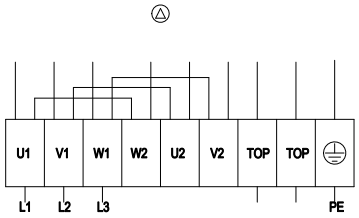
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Connection screen



Note: Direction of rotation changes when two phases are reversed

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

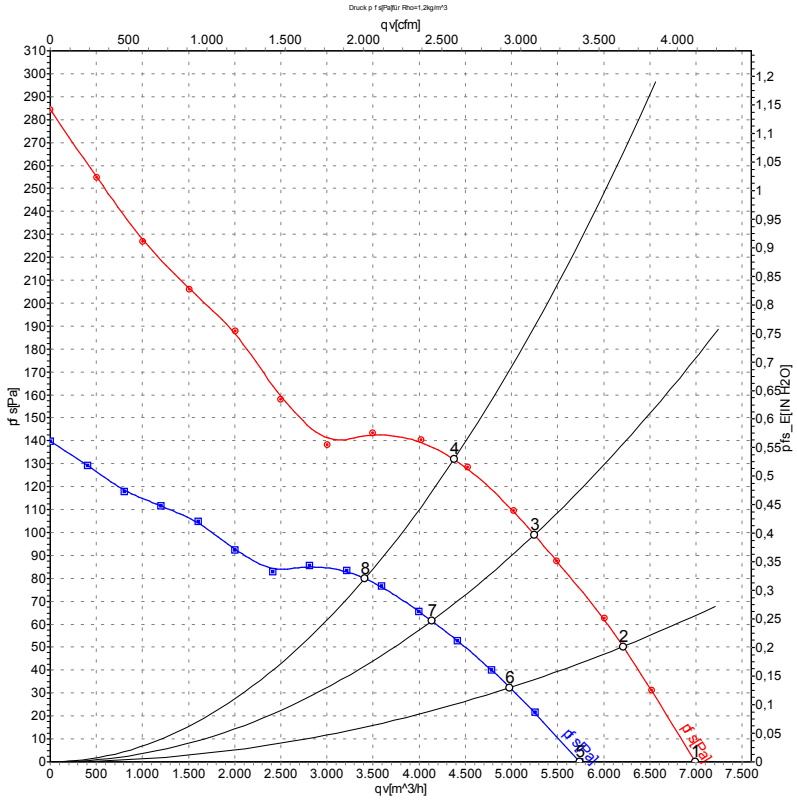
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Charts: Air flow 50 Hz



Measurement: LU-108389
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Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	LpA_{in}	LwA_{in}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	Δ	400	50	1375	369	0.86	65	71	6995	0
2	Δ	400	50	1360	410	0.90	62	68	6210	50
3	Δ	400	50	1345	440	0.93	61	68	5250	100
4	Δ	400	50	1330	460	0.95	62	69	4380	130
5	Y	400	50	1145	269	0.45	61	67	5740	0
6	Y	400	50	1090	293	0.49	58	64	4980	32
7	Y	400	50	1060	306	0.51	56	62	4135	62
8	Y	400	50	1040	310	0.52	57	63	3410	80

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