

AC axial fan

sickled blades (S series)
with guard grille for short nozzle



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Nominal data

Type	S4D450-AP01-05				
Motor	M4D074-GA				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	CE
Speed	min ⁻¹	1380	1540	1380	1540
Power input	W	200	285	200	285
Current draw	A	0.83	0.92	0.48	0.53
Max. back pressure	Pa	120	70	120	70
Max. ambient temperature	°C	50	50	50	50

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 = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		34,9	26,1	30,1
Efficiency grade N		44,8	36	40
Power input P_e	kW	0,27		
Air flow q_v	m ³ /h	3795		
Pressure increase p_{fs}	Pa	91		
Speed n	min ⁻¹	1310		

Data established at point of optimum efficiency



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Technical features

Mass	7.2 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic, black
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
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	< 0.75 mA
Electrical leads	Via terminal box
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1, motor does not have factory-installed overheating protection

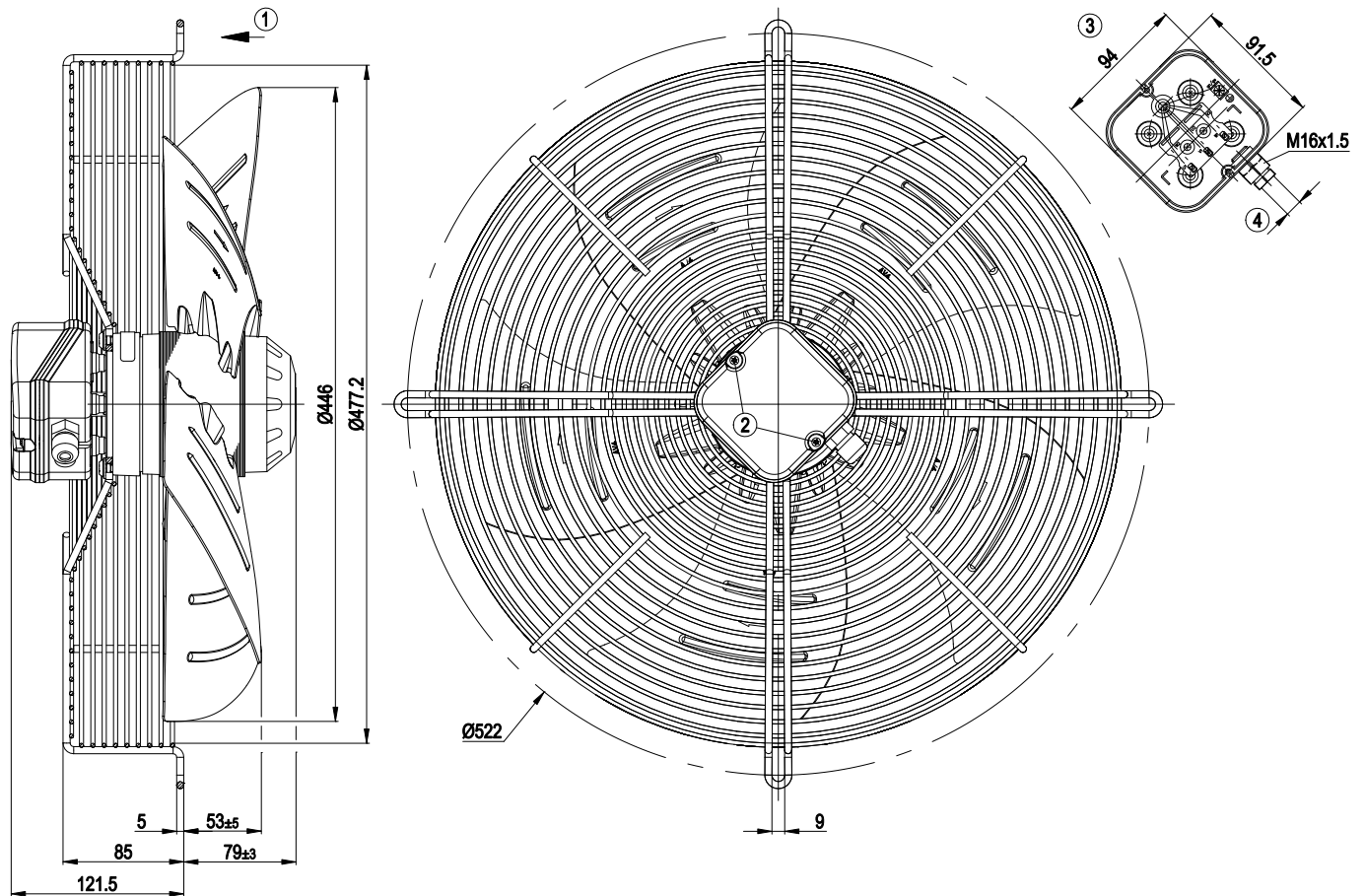


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Product drawing

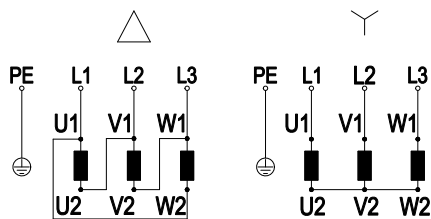


1	Direction of air flow "V"
2	Tightening torque 0.5 Nm
3	Illustration without terminal box cover
4	Cable diameter max. 7.5 mm, tightening torque 2 Nm

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Connection screen



Note: Direction of rotation changes when two phases are reversed

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

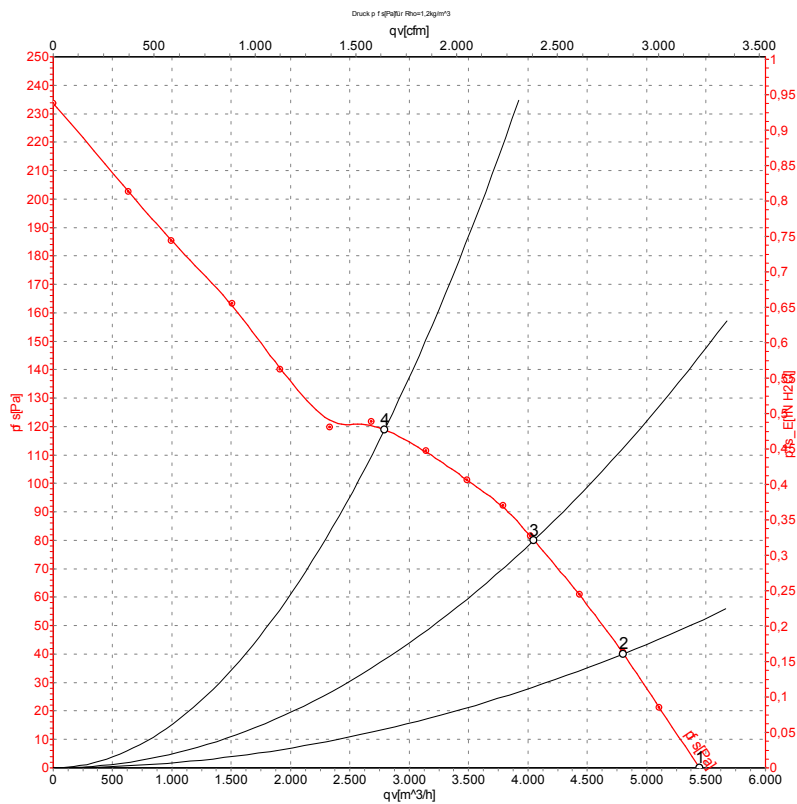


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Charts: Air flow 50 Hz



Measurement: LU-27634

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

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	400	50	1380	200	0.48	5445	0
2	400	50	1345	235	0.53	4800	40
3	400	50	1320	264	0.57	4050	80
4	400	50	1285	301	0.61	2790	120

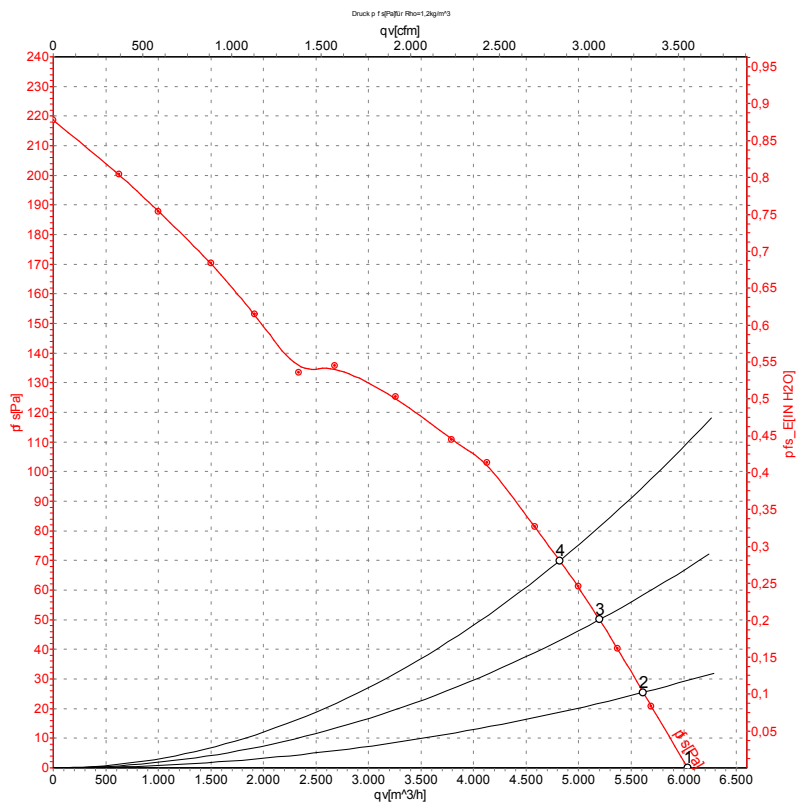


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Charts: Air flow 60 Hz



Measurement: LU-27635

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: L_{WA} measured as per ISO 13347 /
 L_{pA} 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

	U	f	n	P _e	I	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa
1	400	60	1540	285	0.53	6040	0
2	400	60	1505	314	0.58	5615	25
3	400	60	1475	337	0.62	5200	50
4	400	60	1450	355	0.64	4820	70

