

A4E450-AP01-14 ebmpapst Datasheet  
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## Nominal data

<b>Type</b>	A4E450-AP01-14		
<b>Motor</b>	M4E074-GA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min <sup>-1</sup>	1400	1600
Power input	W	245	355
Current draw	A	1.1	1.55
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	85	35
Max. ambient temperature	°C	40	0
Starting current	A	2.8	2.6

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	Overall efficiency $\eta_{es}$	Actual	Request 2013	Request 2015
Efficiency category	Static	Efficiency grade N	32.2	26.5	30.5
Variable speed drive	No	Power input $P_e$	41.7	36	40
Specific ratio*	1.00	kW	0.32		
		Air flow $q_v$	3690		
		Pressure increase $p_{fs}$	101		
		Speed n	1325		
		min <sup>-1</sup>			

Data established at point of optimum efficiency

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



# AC axial fan

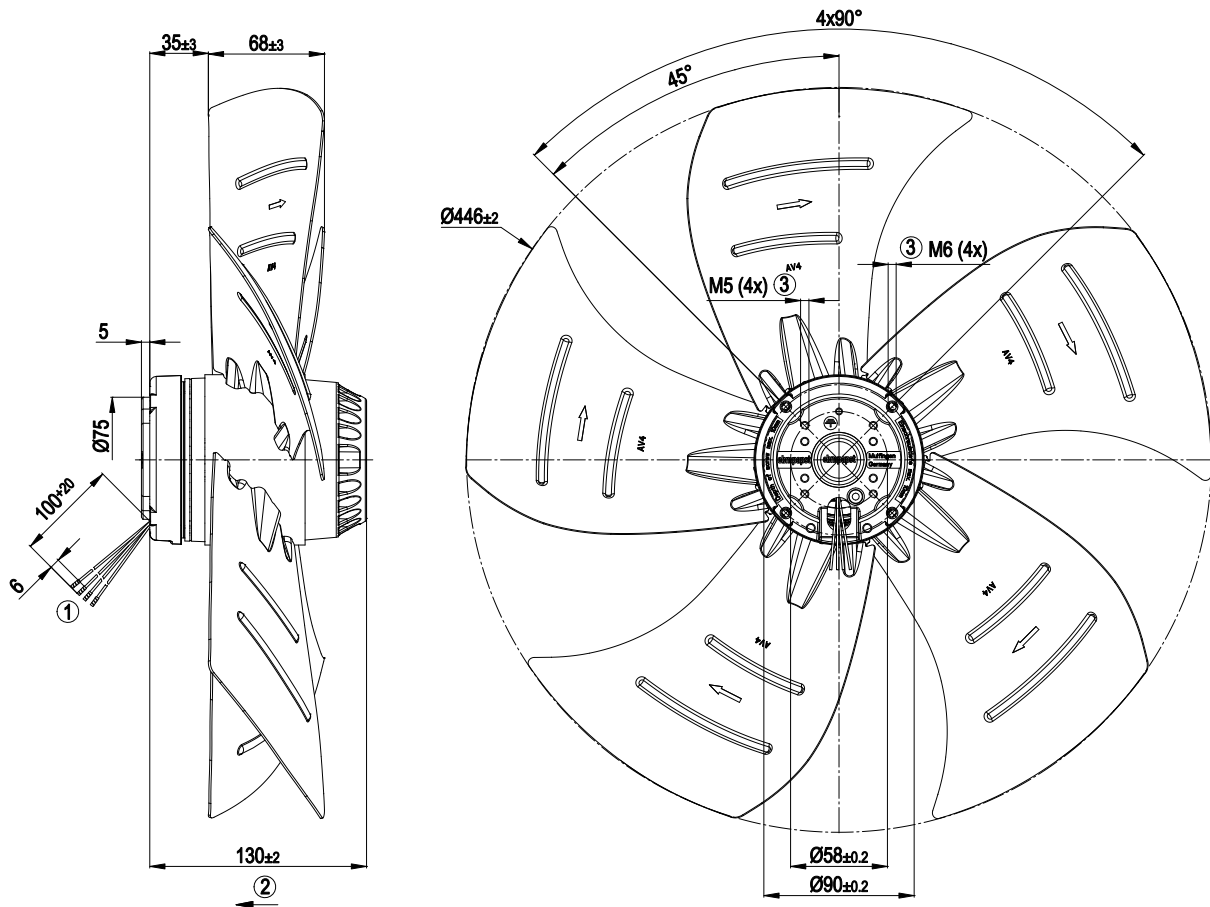
sickled blades (S series)

## Technical features

<b>Mass</b>	4.9 kg
<b>Size</b>	450 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of blades</b>	Sheet steel, coated in black
<b>Number of blades</b>	5
<b>Direction of air flow</b>	"V"
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position as per EN 60034-5
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F1-2
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensate discharge holes</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Electrical leads</b>	Prepared for terminal box installation/assembly
<b>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE

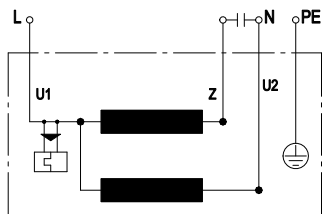


## Product drawing



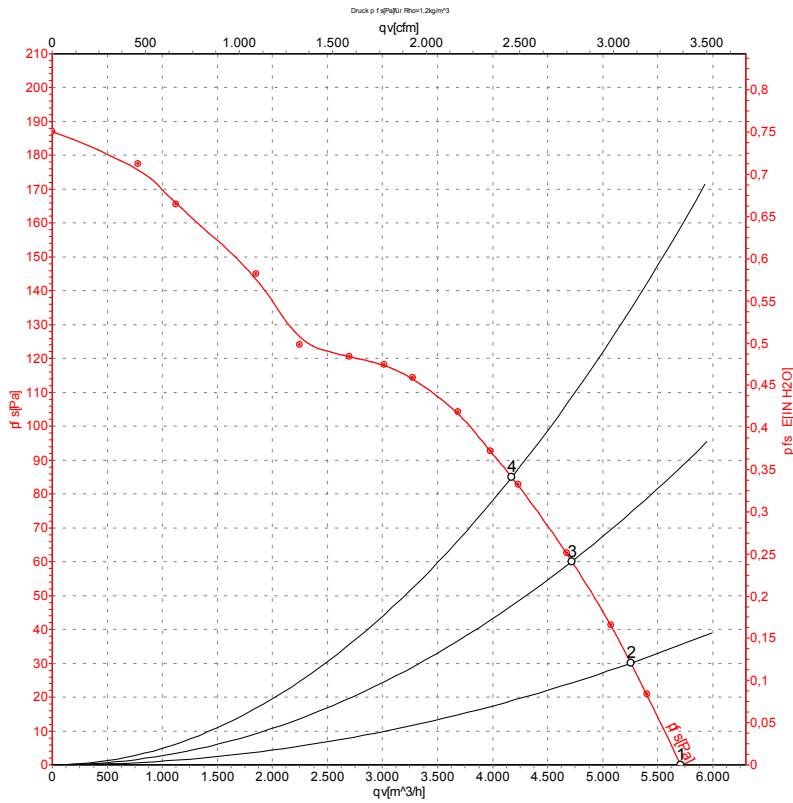
- |   |  |
|---|--|
| 1 | Connection line halogen- and silicone-free, 4G 0.5 mm <sup>2</sup> , 4 x brass lead tips crimped |
| 2 | Direction of air flow "V"  |
| 3 | Depth of screw max. 10 mm  |

## Connection screen



- |    |              |   |       |    |       |
|----|--------------|---|-------|----|-------|
| U1 | blue         | Z | brown | U2 | black |
| PE | green/yellow |   |       |    |       |

## Charts: Air flow 50 Hz



Measurement: LU-33262

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<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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.

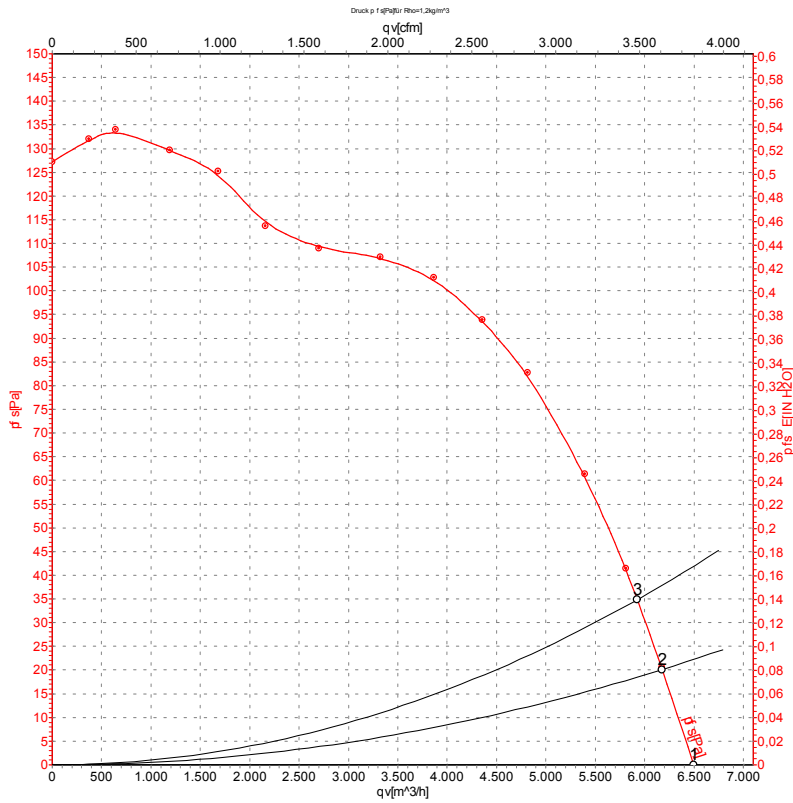
## Measured values

	U	f	n	P <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	1400	245	1.10	5705	0
2	230	50	1385	264	1.19	5255	30
3	230	50	1365	285	1.27	4720	60
4	230	50	1345	303	1.35	4175	85

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



Measurement: LU-33263

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. Suction-side noise levels: L<sub>WA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	60	1600	355	1.55	6495	0
2	230	60	1580	364	1.58	6175	20
3	230	60	1560	376	1.63	5925	35

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase

