

A6E450-AU04-06 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344General partner Elektrobau Muldingen GmbH · Headquarters Muldingen  
County court Stuttgart · HRB 590142

## Nominal data

Type	A6E450-AU04-06				
Motor	M6E094-EA				
Phase		1~	1~	1~	1~
Nominal voltage	VAC	200	200	230	230
Frequency	Hz	50	60	50	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min <sup>-1</sup>	875	920	900	990
Power input	W	160	210	190	260
Current draw	A	0.8	1.06	0.86	1.16
Motor capacitor	µF	5	5	5	5
Capacitor voltage	VDB	400	400	450	450
Max. back pressure	Pa	50	55	60	75
Min. ambient temperature	°C			-40	-40
Max. ambient temperature	°C	65	65	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	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency $\eta_{es}$	%	25.2	25	29
Efficiency grade N		36.2	36	40
Power input $P_e$	kW	0.18		
Air flow $q_v$	m <sup>3</sup> /h	3085		
Pressure increase $p_{fs}$	Pa	56		
Speed n	min <sup>-1</sup>	900		

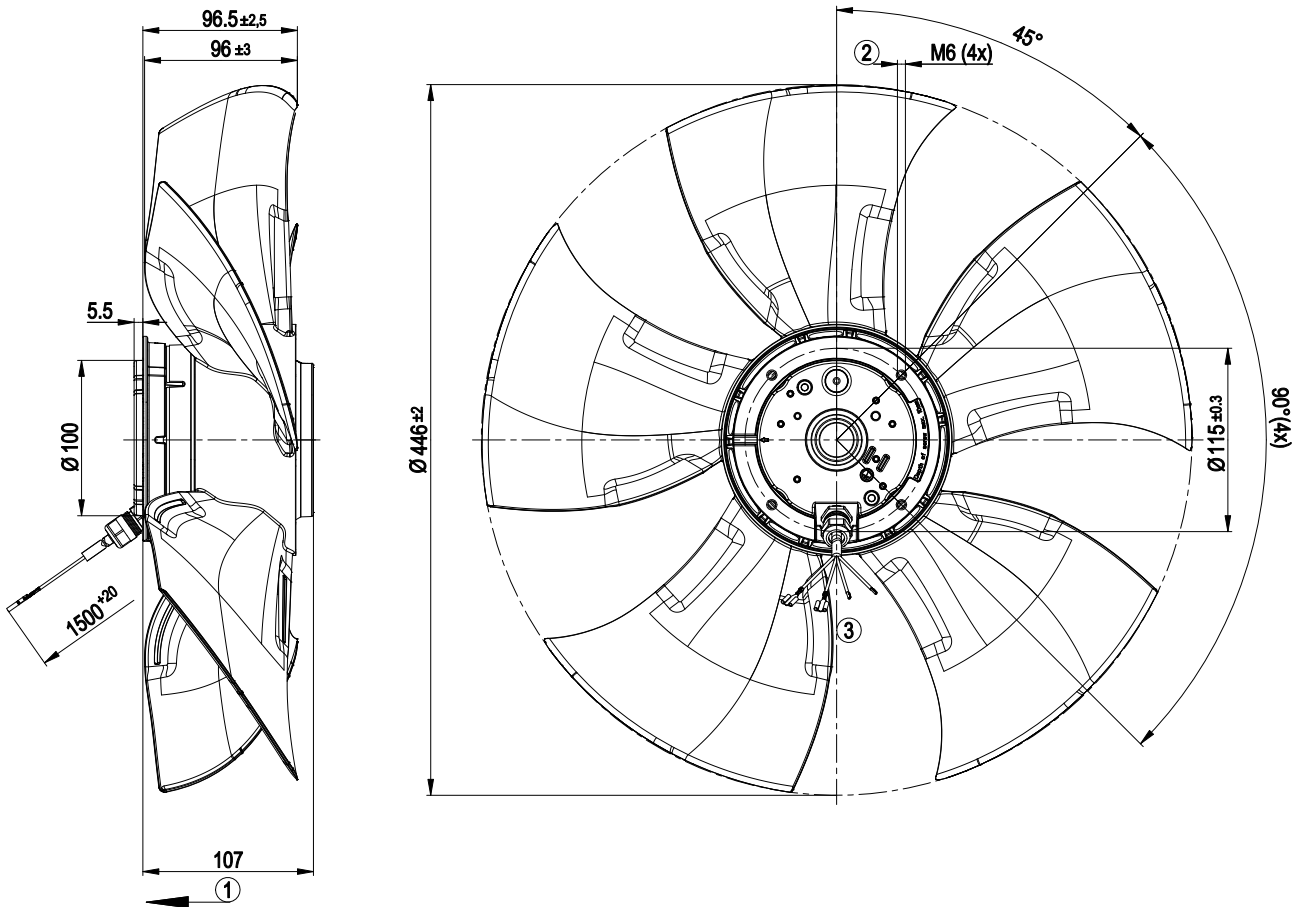
Data definition with optimum efficiency.  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



## Technical features

<b>Mass</b>	4.9 kg
<b>Size</b>	450 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of terminal box</b>	ABS plastic, black
<b>Material of blades</b>	Press-fitted sheet steel blank, sprayed with PP plastic
<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 54
<b>Insulation class</b>	"F"
<b>Humidity class</b>	F5
<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>	<= 3.5 mA
<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>	CE
<b>Approval</b>	UL 1004-1; CSA C22.2 Nr.100

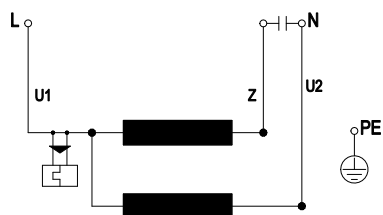
Product drawing



1	Direction of air flow "V"
2	Depth of screw max. 10 mm
3	Connection line PFA, AWG18/19, 2x receptacle for tabs 6.3 x 0.8 on brown and black strand; 2x brass lead tips on blue and PE strand

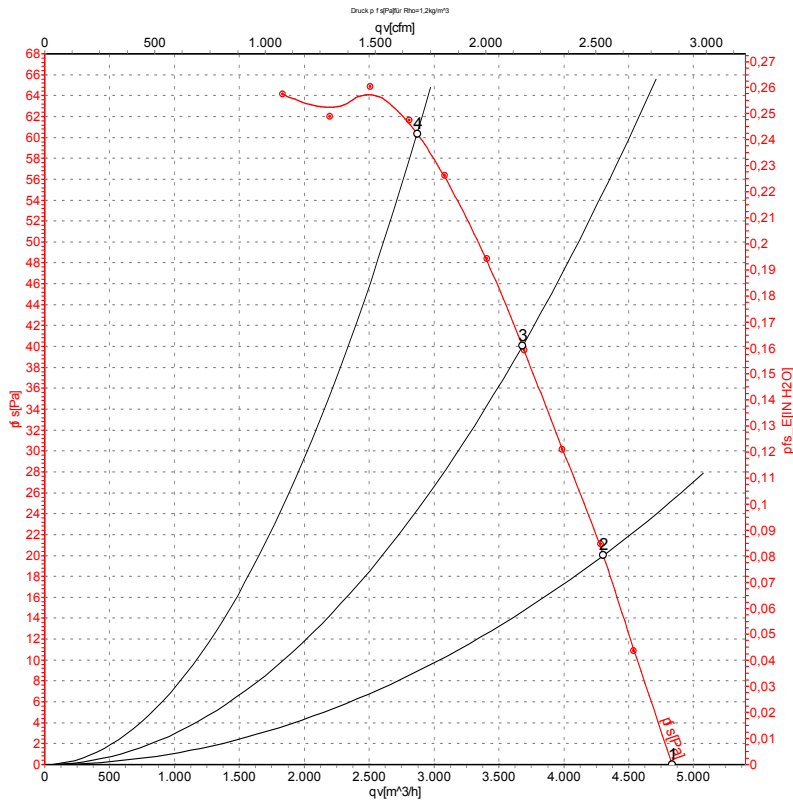


## Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

## Charts: Air flow 50 Hz



Measurement: LU-106691

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.

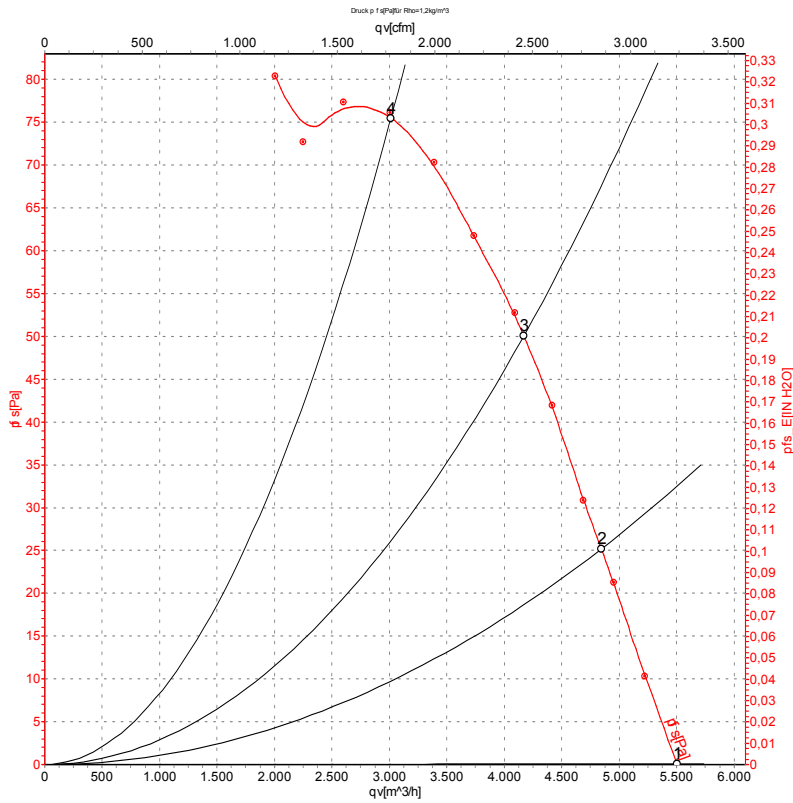
## Measured values

	U	f	n	Pe	I	LpA <sub>in</sub>	LwA <sub>in</sub>	LwA <sub>out</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	50	925	171	0.79	56	61	62	4830	0
2	230	50	915	180	0.82	55	60	60	4305	20
3	230	50	905	186	0.84	54	59	60	3680	40
4	230	50	900	190	0.86	53	59	59	2870	60

U = Supply voltage · f = Frequency · n = Speed · Pe = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · LwA<sub>out</sub> = Sound power level outlet side  
 qv = Air flow · p<sub>fs</sub> = Pressure increase



## Charts: Air flow 60 Hz



Measurement: LU-106697

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 <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	LwA <sub>out</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	60	1060	241	1.05	58	64	65	5500	0
2	230	60	1035	251	1.09	57	63	63	4845	25
3	230	60	1015	260	1.13	56	62	62	4170	50
4	230	60	990	260	1.16	56	62	62	3015	75

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · LwA<sub>out</sub> = Sound power level outlet side  
 qv = Air flow · p<sub>fs</sub> = Pressure increase

