A6E450-AU04-06

AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

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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
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	875	920	900	990
Power consumption	W	160	210	190	260
Current draw	A	0.8	1.06	0.86	1.16
Capacitor	µF	5	5	5	5
Capacitor voltage	VDB	400	400	450	450
Max. back pressure	Pa	50	55	60	75
Max. back pressure	inH2O	0.2	0.22	0.24	0.3
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	65	65	65	65

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

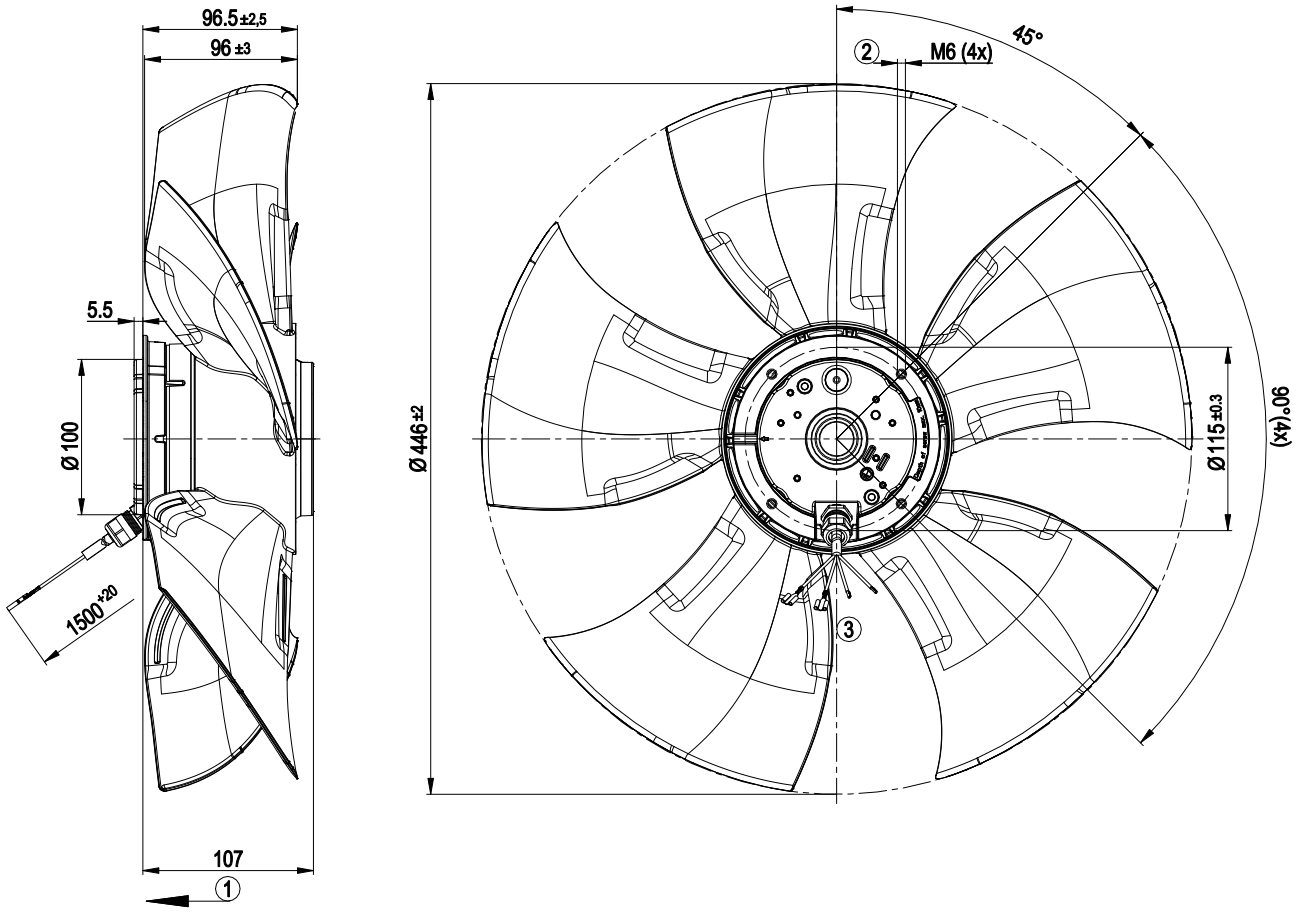
Weight	4.8 kg
Fan size	450 mm
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F5
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Approval	UL 1004-1; CSA C22.2 No. 100

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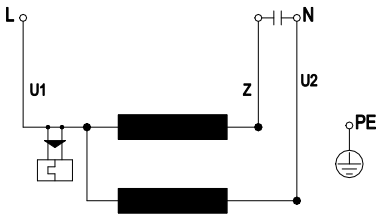
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Product drawing



1	Direction of air flow "V"
2	Max. clearance for screw 10 mm
3	Cable PFA, AWG18/19, 2x flat push-on receptacle 6.3 x 0.8 at brown and black wire; 2x splices at blue and PE wire

Connection diagram



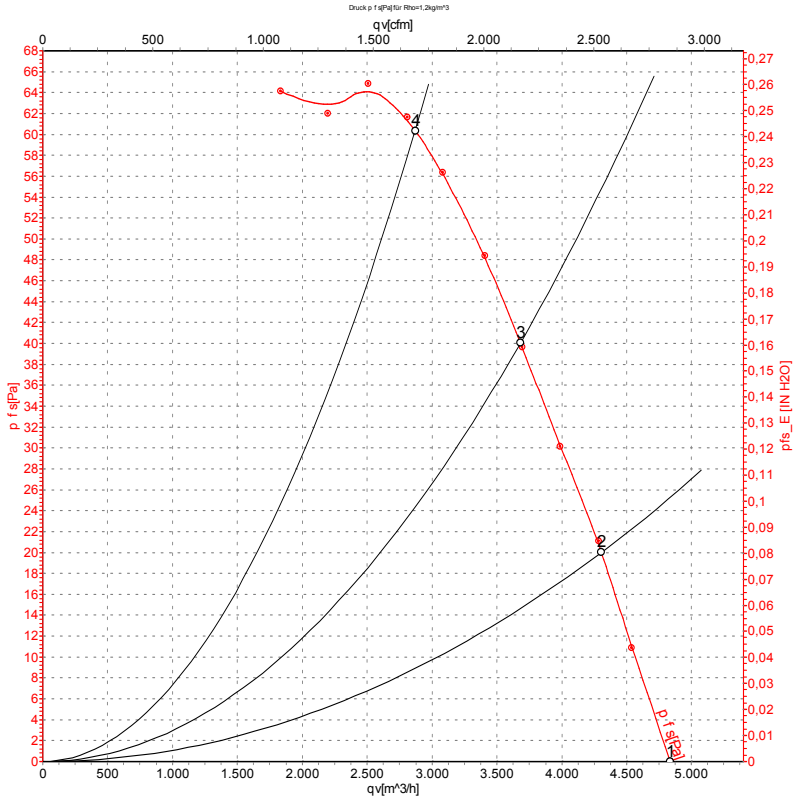
U1	blue	Z	brown	U2	black
PE	green/yellow				

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AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

Curves: Air performance 50 Hz



Measurement: LU-106691-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	925	171	0.79	56	61	62	4830	0	2845	0.00
2	230	50	915	180	0.82	55	60	60	4305	20	2535	0.08
3	230	50	905	186	0.84	54	59	60	3680	40	2165	0.16
4	230	50	900	190	0.86	53	59	59	2870	60	1690	0.24

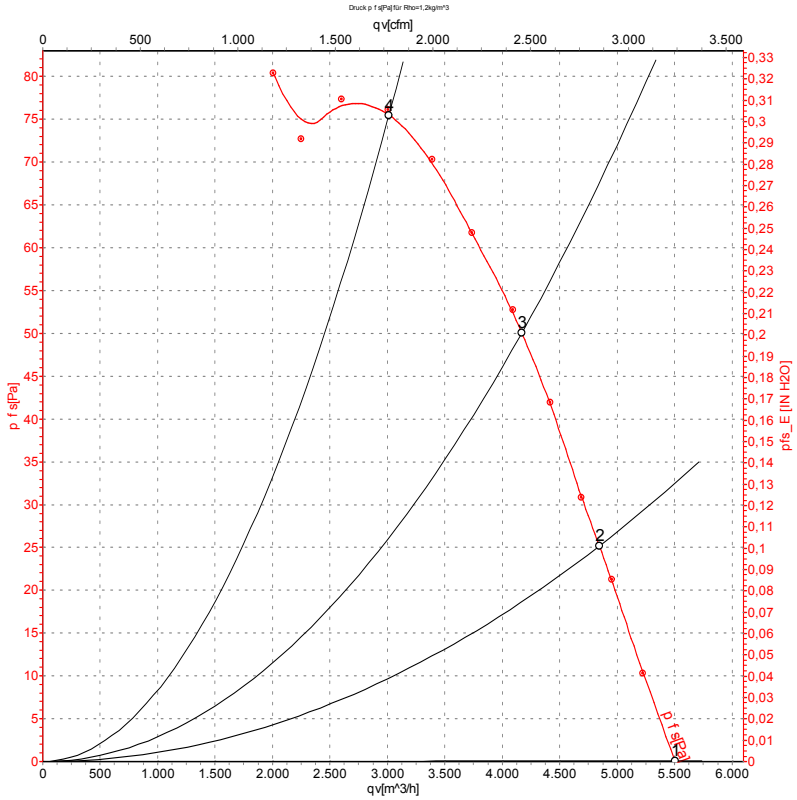
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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sickle-shaped blades (S series), single-intake

Curves: Air performance 60 Hz



Measurement: LU-106697-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	60	1060	241	1.05	58	64	65	5500	0	3235	0.00
2	230	60	1035	251	1.09	57	63	63	4845	25	2850	0.10
3	230	60	1015	260	1.13	56	62	62	4170	50	2455	0.20
4	230	60	990	260	1.16	56	62	62	3015	75	1775	0.30

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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