W6E500-KJ05-01

AC axial fan - AxiCool

sickled blades (S series)

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Nominal data

Type	**W6E500-KJ05-01**
Motor	**M6E110-EF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	865	900
Power input	W	210	290
Current draw	A	0.95	1.3
Motor capacitor	µF	5	5
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	60	57
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	40	40
Starting current	A	1.7	1.51

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011

		Actual	Request 2015
01 Overall efficiency η_{es}	%	33.4	29.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.21
09 Air flow q_v	m^3/h	3750
09 Pressure increase p_{fs}	Pa	70
10 Speed (rpm) n	min^{-1}	865
11 Specific ratio*		1.00

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

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

LU-177930

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Technical features

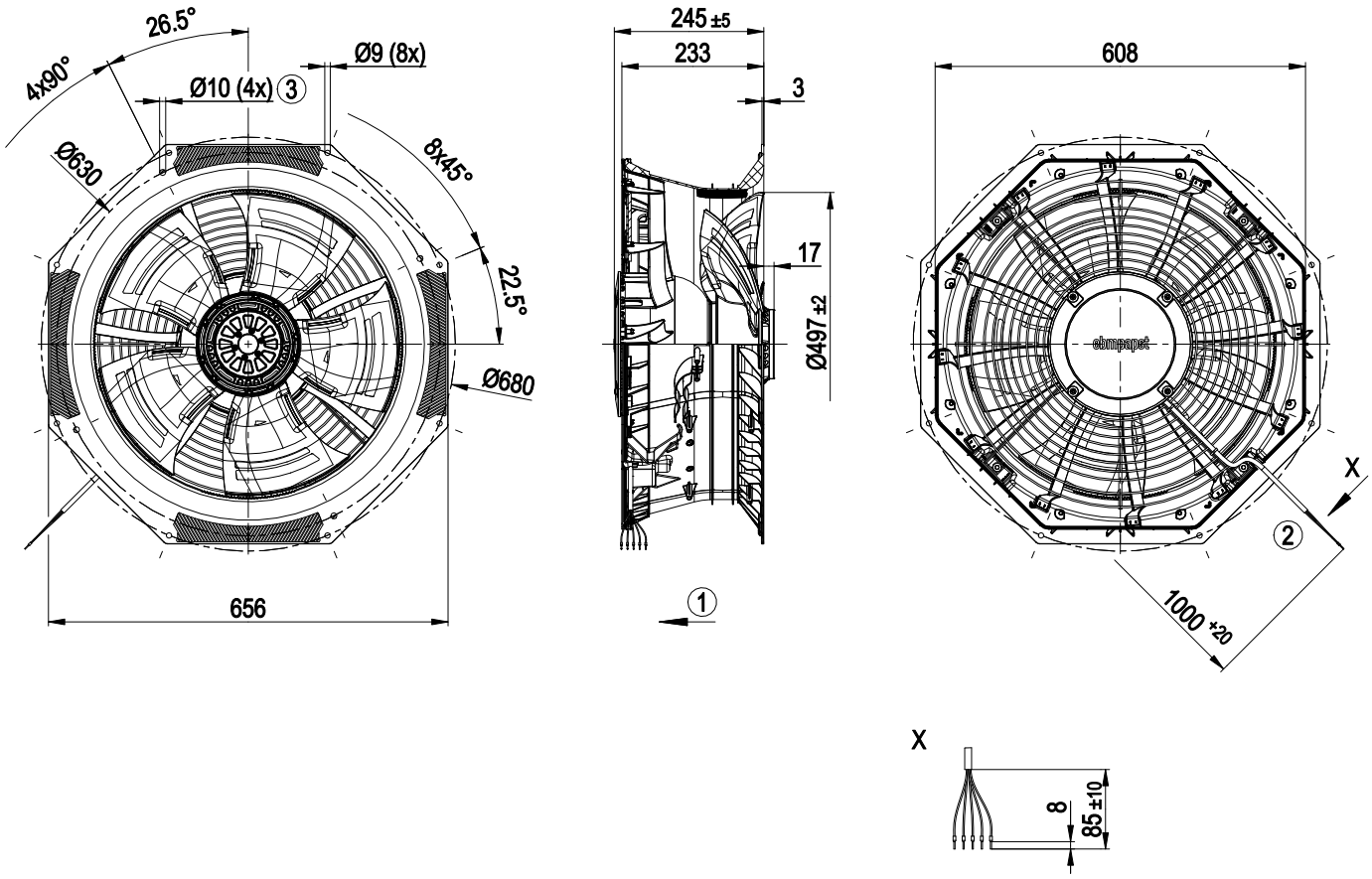
Mass	12.7 kg
Size	500 mm
Surface of rotor	Coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	PP plastic
Streamer material	PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H2
Note ambient temperature	If there is a risk of ice formation, the fan is only to be operated with a heating tape in the wall ring. Contact ebm-papst for more details. As a fan only suitable for use with industrial evaporators
Max. permissible ambient motor temp. (transp./ storage)	+70 °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 with anti-freezing grease
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Protection class	I (if protective earth is connected by customer)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Product conforming to standard	EN 60034-1 (2010); EN 61800-5-1; CE
Approval	EAC; VDE

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Product drawing



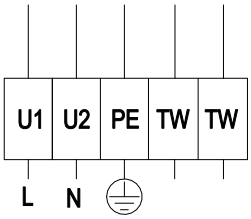
1	Direction of air flow "V"
2	Connection line silicone 5G 0.5 mm², 5x crimped core-end sleeves
3	Mounting holes for FlowGrid

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Connection screen



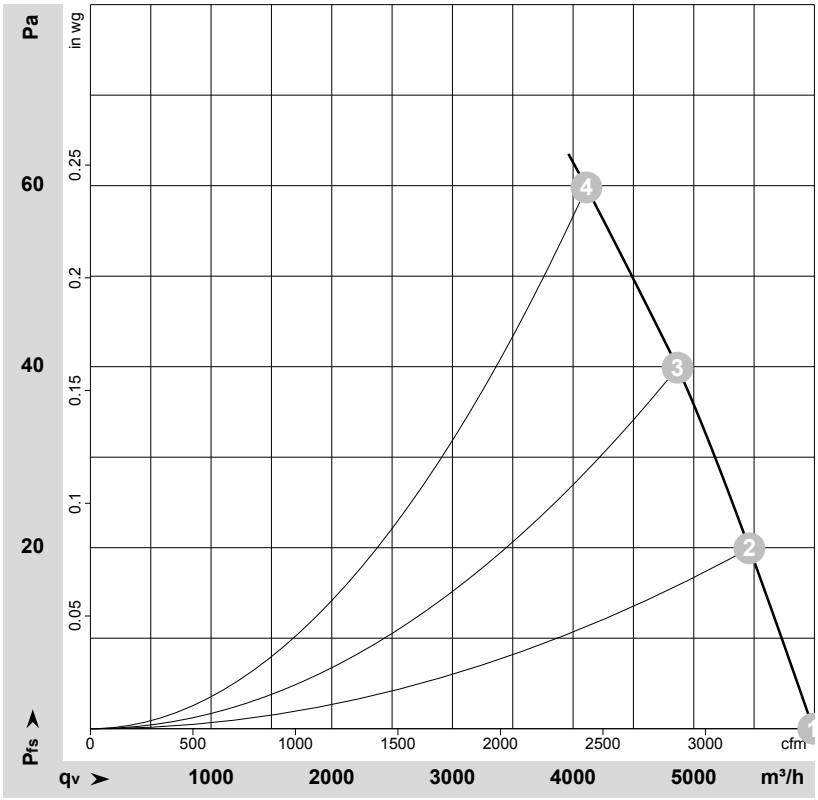
L	= U1 = blue
N	= U2 = black
PE	green/yellow
TW	Thermal overload protector grey (2x)

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-177930-1

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	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	915	173	0.75	62	69	70	5990	0	3525	0.00
2	230	50	900	187	0.81	60	67	68	5460	20	3215	0.08
3	230	50	885	199	0.87	58	65	66	4865	40	2865	0.16
4	230	50	865	210	0.95	56	64	65	4110	60	2420	0.24

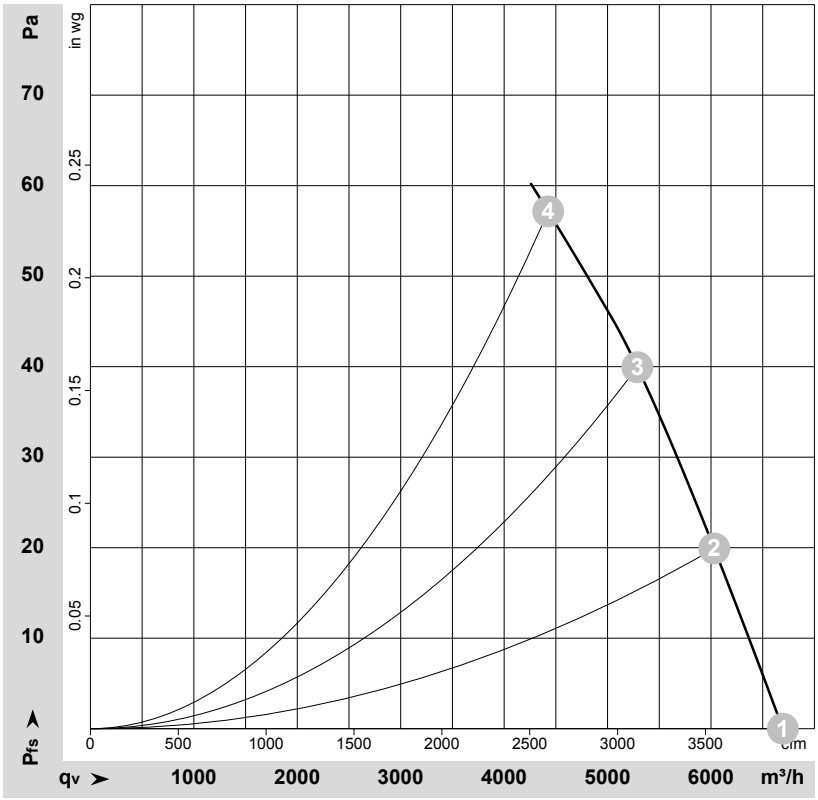
U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-177996-1

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	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	1020	253	1.09	64	72	72	6695	0	3940	0.00
2	230	60	985	265	1.15	62	69	70	6030	20	3550	0.08
3	230	60	945	276	1.20	59	67	68	5290	40	3110	0.16
4	230	60	900	290	1.30	57	65	66	4425	57	2605	0.23

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
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