W6E500-DJ03-02

AC axial fan - HyBlade®

sickled blades (S series)

with full square nozzle

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**W6E500-DJ03-02**		
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	min^{-1}	915	1015
Power input	W	270	390
Current draw	A	1.18	1.72
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	70	90
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
Starting current	A	2.3	

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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		26.6	26	30
Efficiency grade N		36.6	36	40
Power input P_e	kW	0.26		
Air flow q_v	m^3/h	3805		
Pressure increase p_{fs}	Pa	67		
Speed n	min^{-1}	915		

Data established at point of optimum efficiency

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Technical features

Mass	16.7 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	PC/ABS plastic Bayblend FR110
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanized and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box, integrated capacitor connected via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	GOST; VDE; UL 1004-1; CSA C22.2 Nr.100

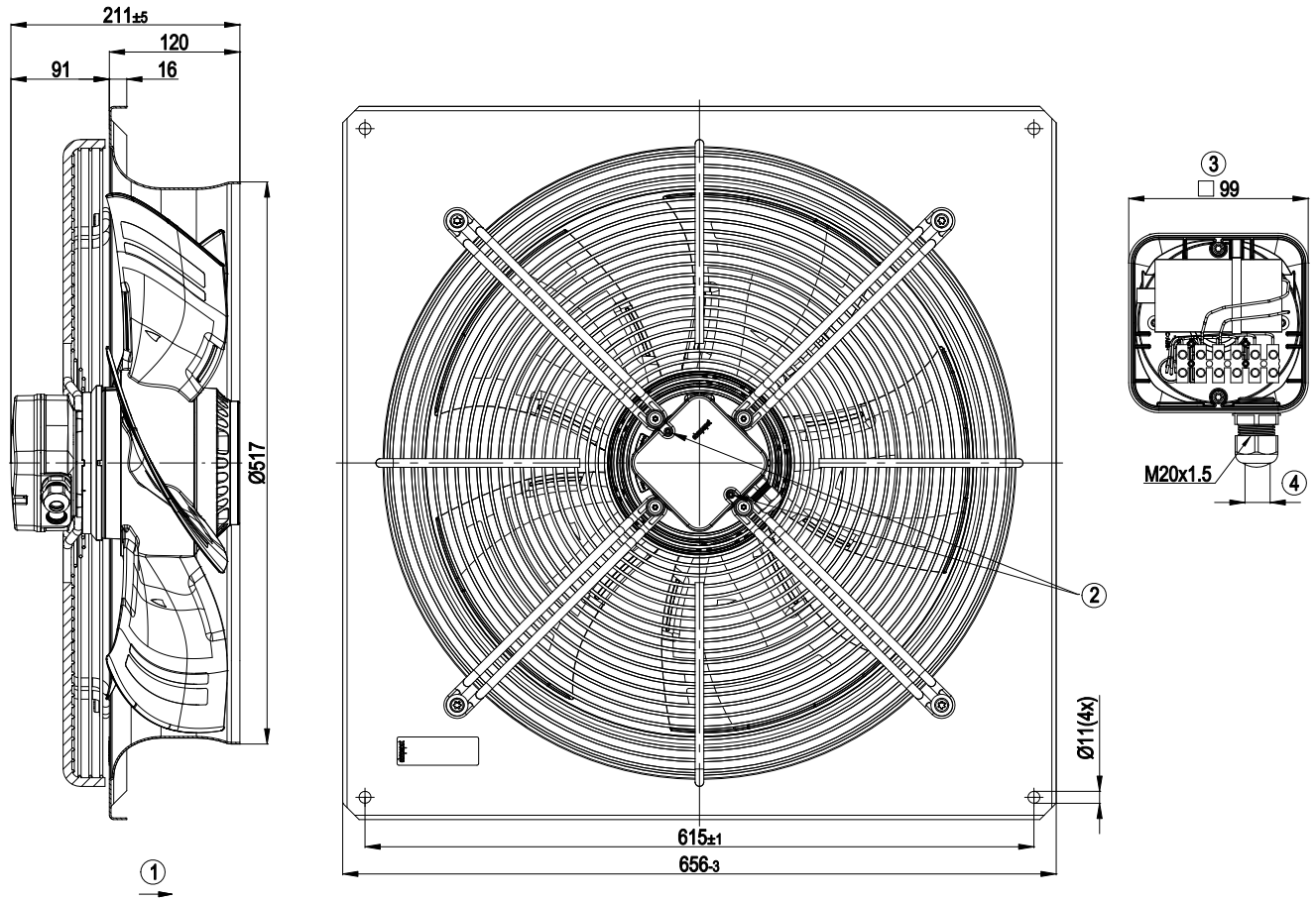
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 0.8±0.15 Nm
3	Shown without terminal box cover
4	Cable diameter: min. 6 mm, max. 12 mm; tightening torque: 2±0.3 Nm

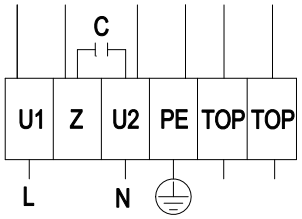
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Connection screen



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green / yellow	TOP	grey		

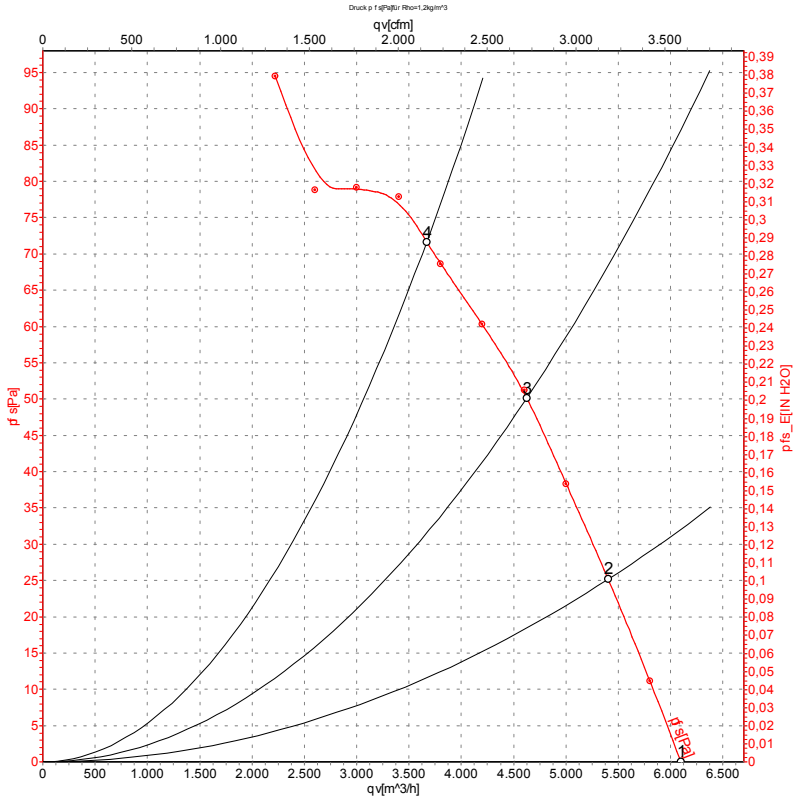
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Charts: Air flow 50 Hz



Measurement: LU-105735

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	50	945	220	0.97	61	67	67	6100	0
2	230	50	935	235	1.03	58	64	65	5405	25
3	230	50	925	251	1.10	56	62	63	4625	50
4	230	50	915	270	1.18	56	63	63	3670	70

U = Supply voltage · f = Frequency · n = Speed · 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
qv = Air flow · p_{fs} = Pressure increase

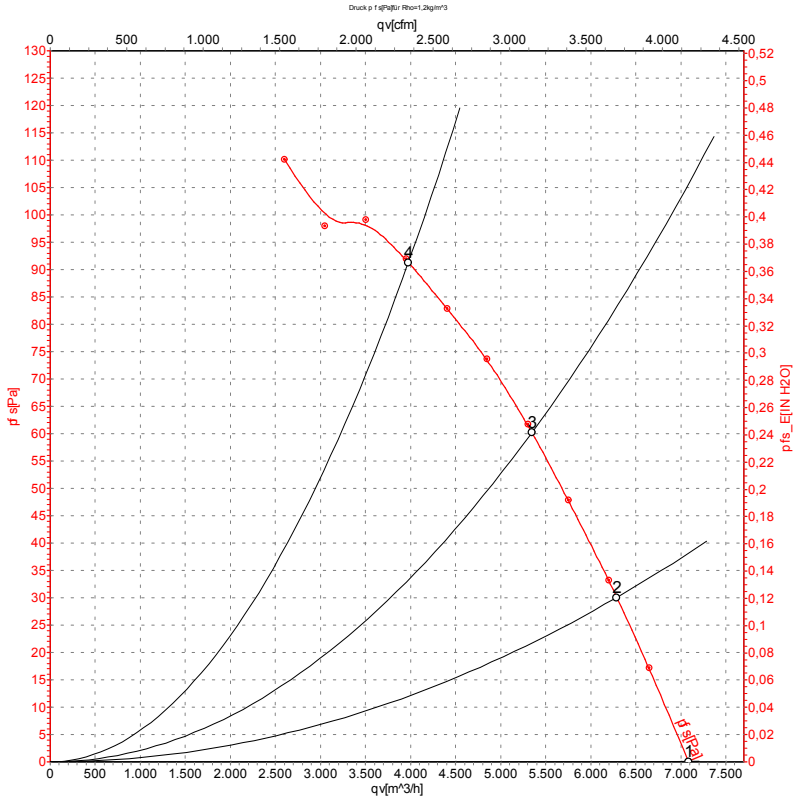
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Charts: Air flow 60 Hz



Measurement: LU-105744

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	230	60	1095	340	1.53	63	70	70	7085	0
2	230	60	1075	360	1.59	60	67	67	6290	30
3	230	60	1050	375	1.65	58	65	65	5345	60
4	230	60	1015	390	1.72	58	65	65	3975	90

U = Supply voltage · f = Frequency · n = Speed · 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
qv = Air flow · p_{fs} = Pressure increase

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