W6E500-DT05-15

AC axial fan

sickled blades (S series)

with full square nozzle

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**W6E500-DT05-15**
Motor	**M6E094-FA**

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}	850	850
Power input	W	230	310
Current draw	A	1.05	1.36
Motor capacitor	µF	6	6
Capacitor voltage	VDB	400	400
Max. back pressure	Pa	65	70
Max. ambient temperature	°C	85	75
Starting current	A	1.65	

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 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		25.7	25.5	29.5
Efficiency grade N		36.2	36	40
Power input P_e	kW	0.22		
Air flow q_v	m^3/h	3600		
Pressure increase p_{fs}	Pa	57		
Speed n	min^{-1}	865		

Data established at point of optimum efficiency

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Technical features

Mass	14 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	ABS Plastic, black
Material of blades	Aluminium sheet
Material of wall ring	Sheet steel, pre-galvanised and coated with black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Blade angle	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	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
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
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2004); CE

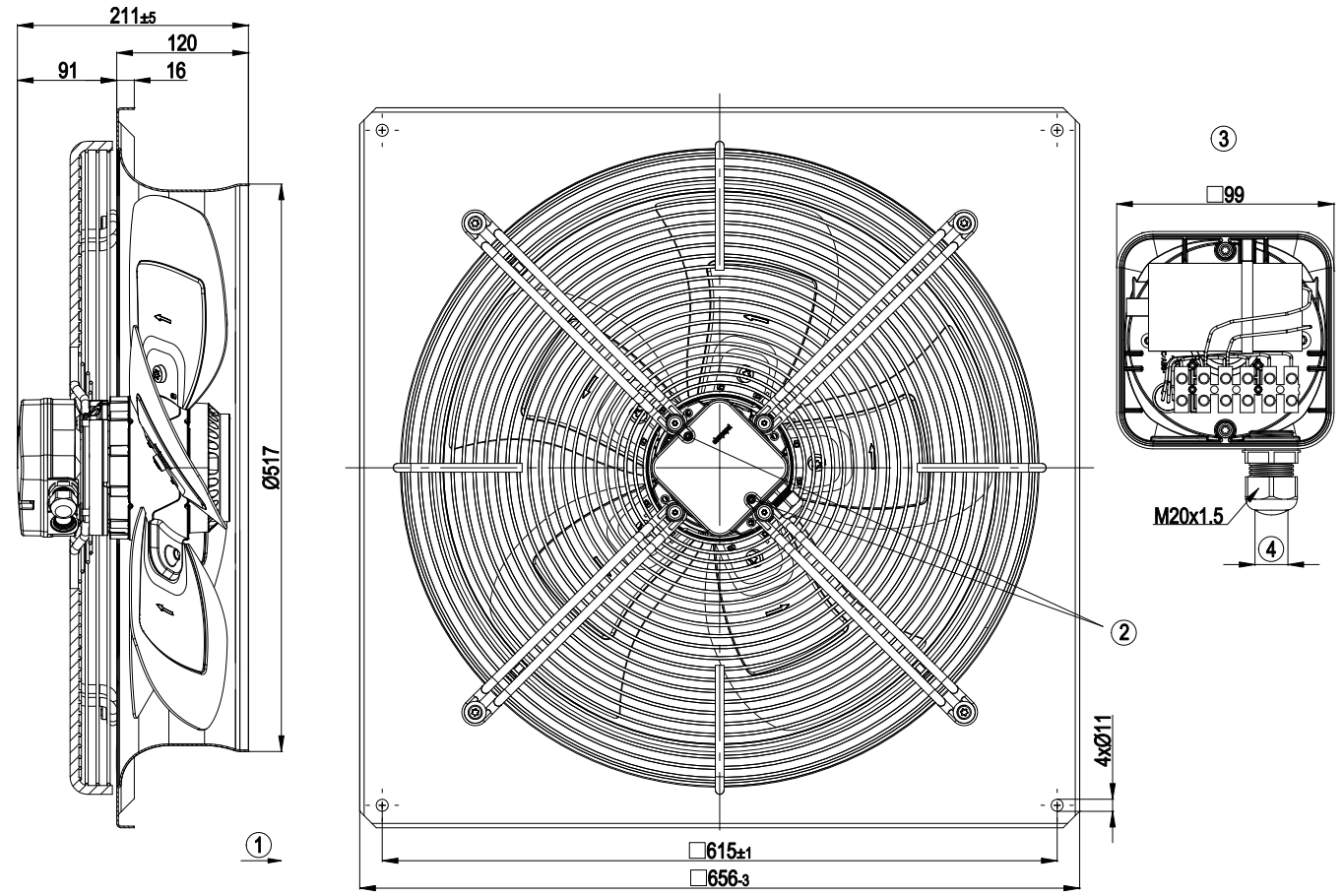
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Product drawing



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

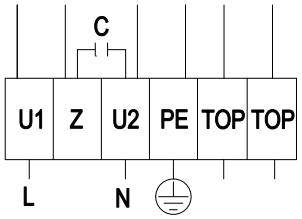
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Connection screen



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

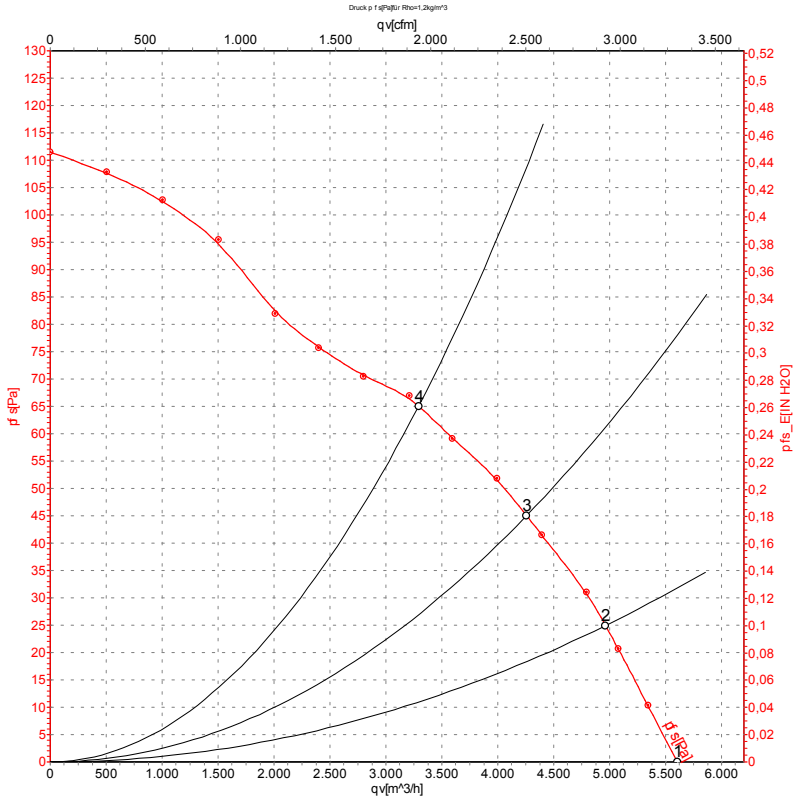
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Charts: Air flow 50 Hz



Measurement: LU-70412

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	900	191	0.87	5605	0
2	230	50	890	204	0.92	4965	25
3	230	50	875	216	0.97	4255	45
4	230	50	850	230	1.05	3290	65

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

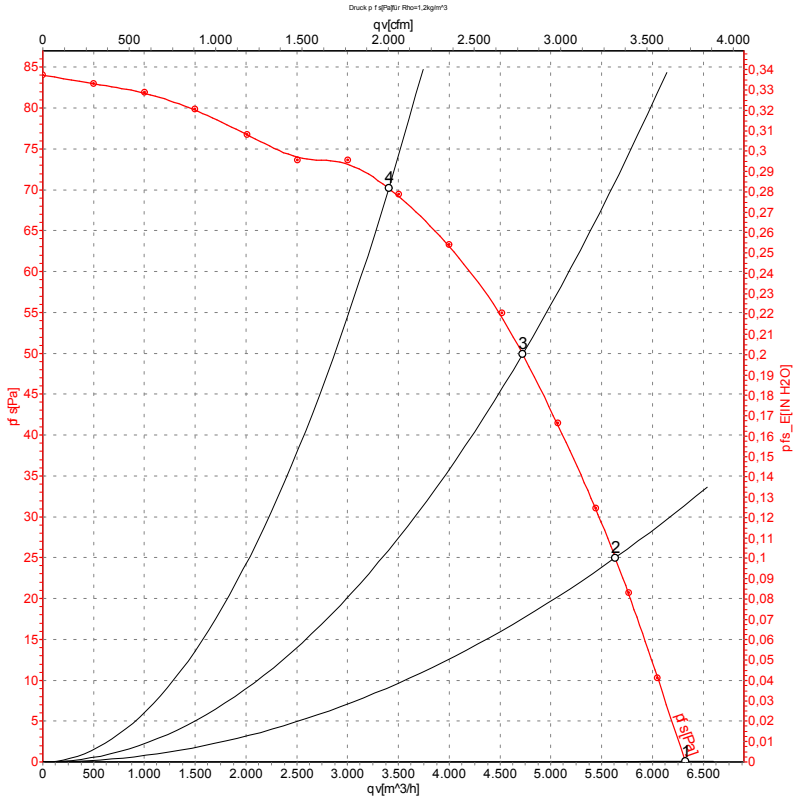
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Charts: Air flow 60 Hz



Measurement: LU-70413

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	60	1025	260	1.13	6325	0
2	230	60	990	275	1.19	5635	25
3	230	60	945	288	1.25	4720	50
4	230	60	850	310	1.36	3405	70

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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