W4E500-DY09-15

AC axial fan

sickled blades (S series)

with full square nozzle

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**W4E500-DY09-15**	
Motor	**M4E094-HA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	1270
Power input	W	635
Current draw	A	3.1
Motor capacitor	µF	10
Capacitor voltage	VDB	400
Capacitor standard		P0 (CE)
Max. back pressure	Pa	120
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60
Starting current	A	5.9

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}		28.4	28.4	32.4
Efficiency grade N		36	36	40
Power input P_e	kW	0.63		
Air flow q_v	m^3/h	5405		
Pressure increase p_{fs}	Pa	118		
Speed n	min^{-1}	1280		

Data established at point of optimum efficiency

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Technical features

Mass	15.6 kg
Size	500 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic
Material of blades	Aluminium sheet, coated in black
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic (RAL 9005)
Material of guard grille	Steel, coated in black plastic (RAL9005)
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	Any
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
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

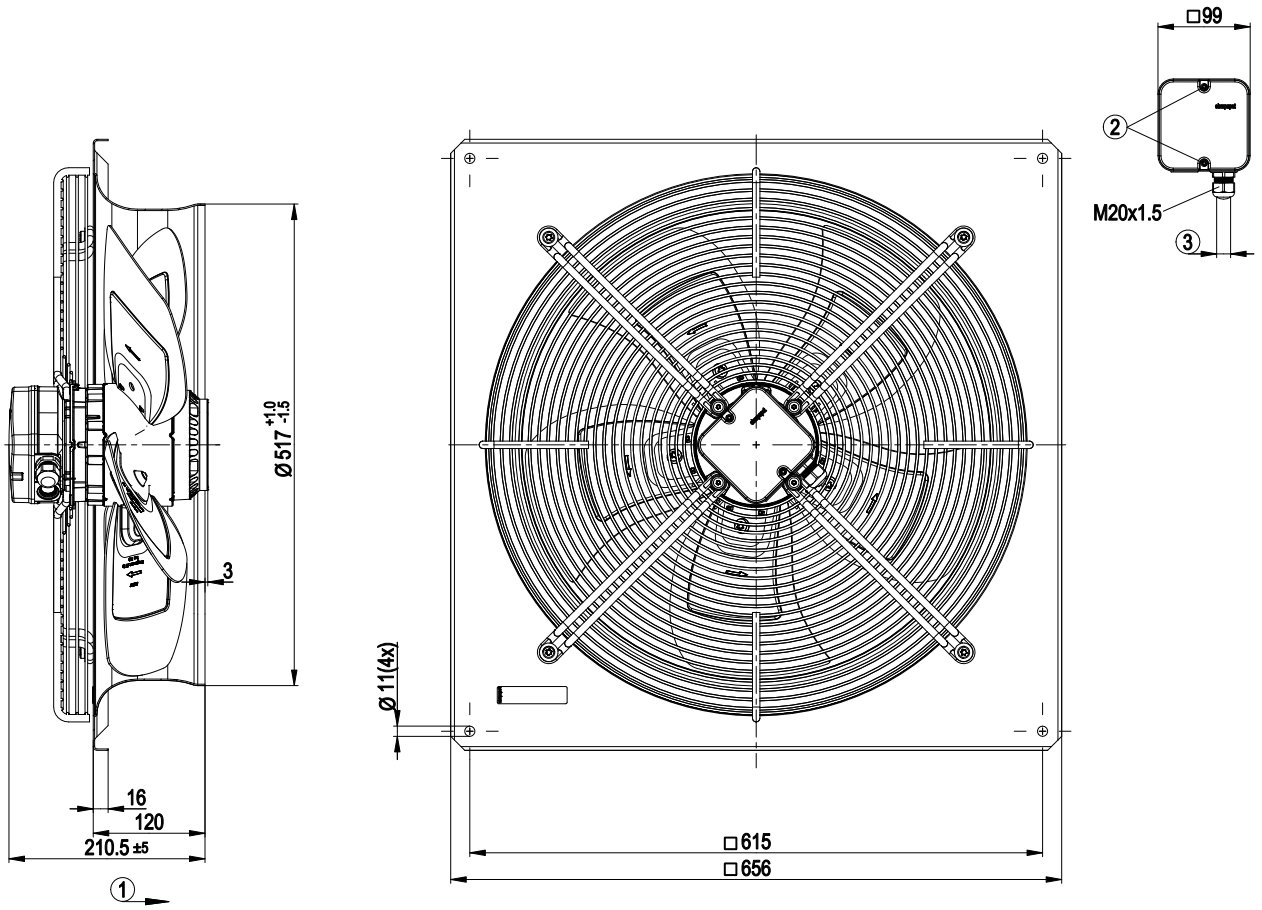
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Product drawing



1	Direction of air flow "A"
2	Tightening torque 0.8 ± 0.2 Nm
3	Cable diameter: min. 6 mm, max. 12 mm; tightening torque: 2 ± 0.3 Nm

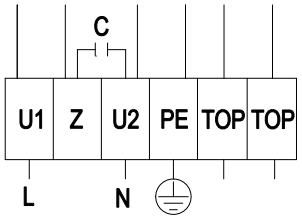
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Connection screen



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

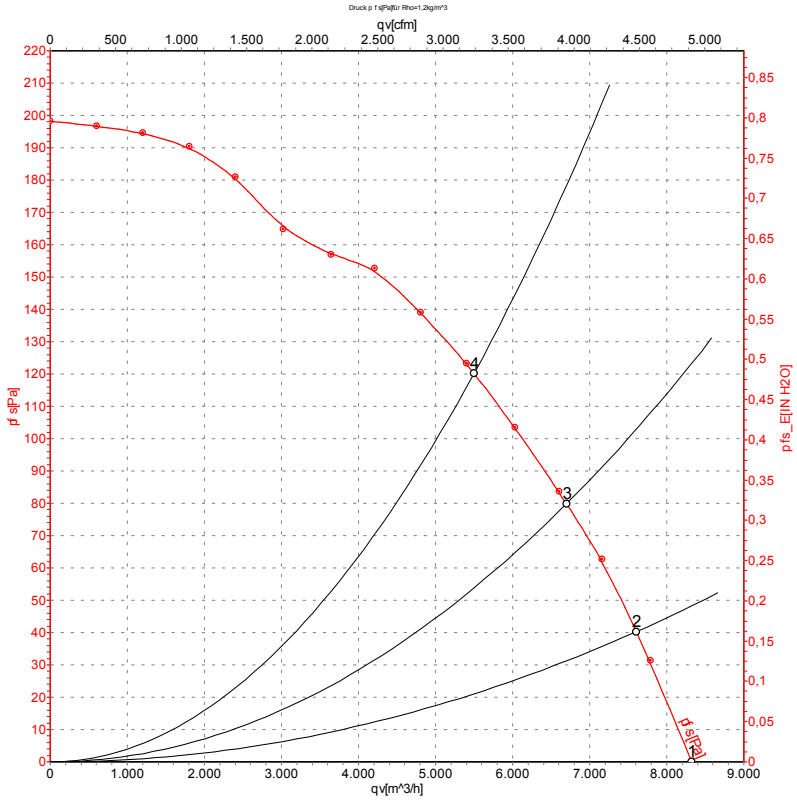
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Charts: Air flow 50 Hz



Measurement: LU-70131

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	1345	510	2.53	8320	0
2	230	50	1320	554	2.73	7605	40
3	230	50	1300	594	2.91	6700	80
4	230	50	1270	635	3.10	5500	120

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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