

AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

W4E500-GJ01-01 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	W4E500-GJ01-01	
Motor	M4E110-EF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		-
Speed (rpm)	min ⁻¹	1225
Power consumption	W	600
Current draw	A	2.62
Capacitor	µF	10
Capacitor voltage	VDB	400
Max. back pressure	Pa	100
Max. back pressure	inH ₂ O	0.4
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	55
Starting current	A	4.7

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	16 kg
Fan size	500 mm
Rotor surface	Painted black
Terminal box material	PP plastic, black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Fan housing material	Sheet steel, pre-galvanized and coated with black plastic
Guard grille material	Steel, phosphated and coated with black 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	F4-1
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
Electrical hookup	Via terminal box, capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 61800-5-1
Approval	VDE; EAC; CCC

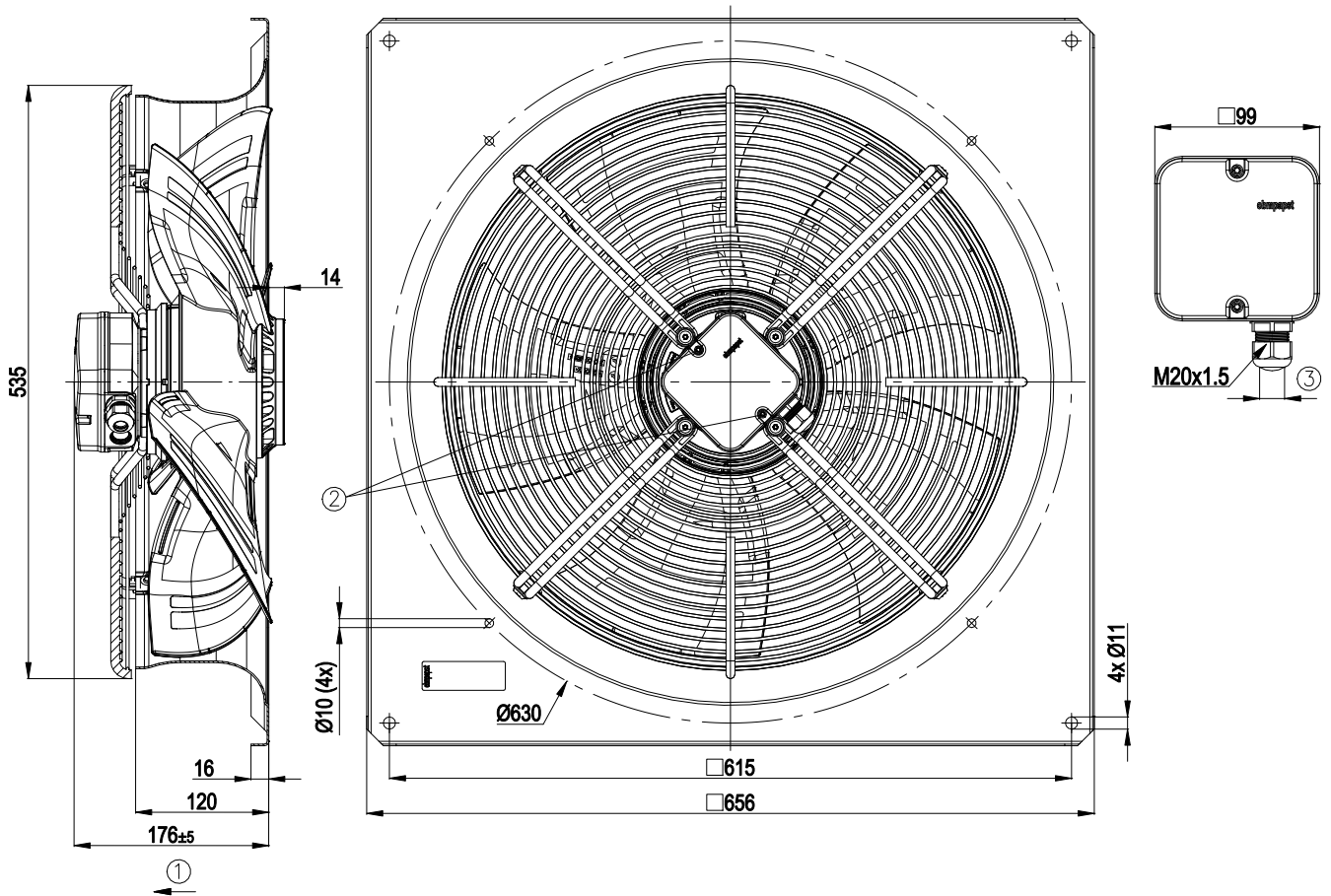


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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm

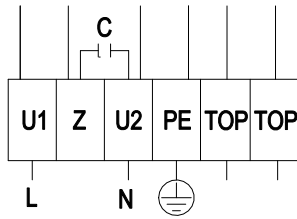


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Connection diagram



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

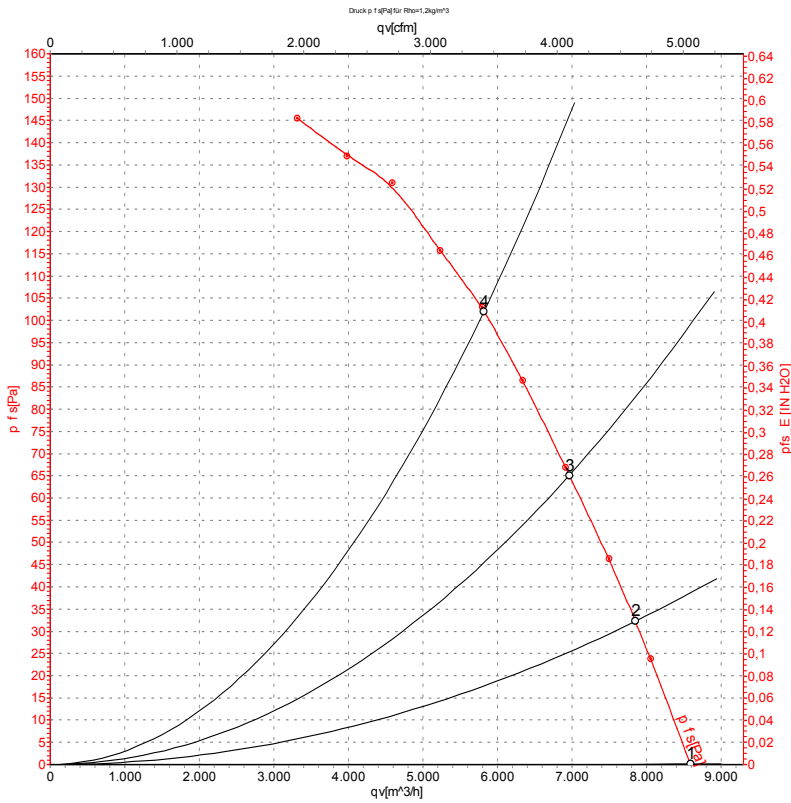


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Curves: Air performance 50 Hz



Measurement: LU-106637-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	inH ₂ O
1	230	50	1325	498	2.17	67	74	74	8590	0	5055	0.00
2	230	50	1295	528	2.30	64	71	71	7850	32	4620	0.13
3	230	50	1270	560	2.44	62	69	69	6965	65	4100	0.26
4	230	50	1225	600	2.62	61	68	68	5815	100	3425	0.40

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

