AC axial fan

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**A4D500-AD01-11**
Motor	**M4D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	200	200	230	230	400	400
Wiring		Δ	Δ	Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60	50	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		-	-	-	-	-	-
Speed (rpm)	min^{-1}	1280	1380	1325	1480	1325	1480
Power consumption	W	750	990	820	1095	820	1095
Current draw	A	2.6	3.3	2.77	3.31	1.59	1.91
Max. back pressure	Pa	145	120	160	135	160	135
Max. back pressure	inH2O	0.58	0.48	0.64	0.54	0.64	0.54
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	80	55	80	55	80	55
Starting current	A			10.6	9.7	6.1	5.6

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

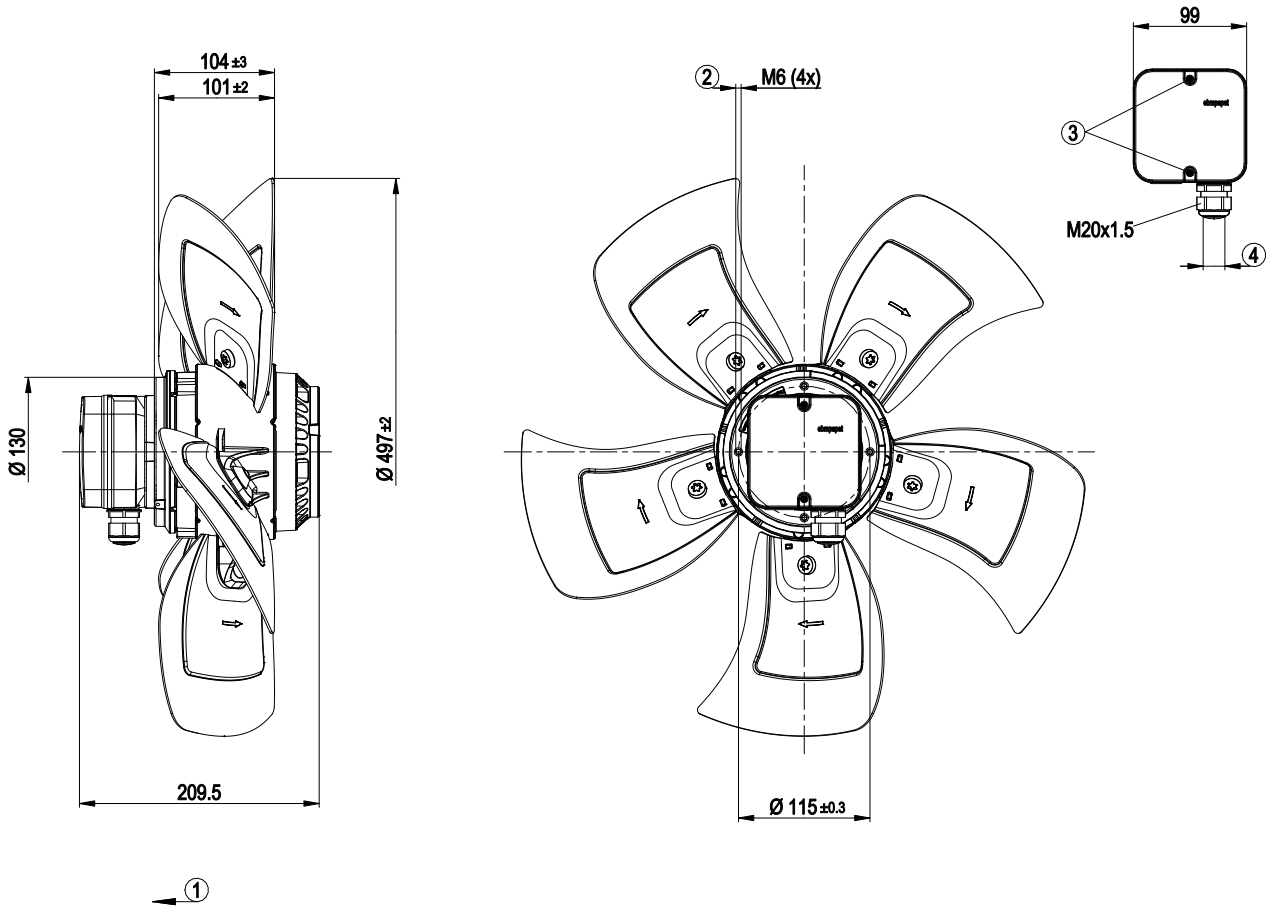
Weight	10.2 kg
Fan size	500 mm
Rotor surface	Cast in aluminum
Terminal box material	PP plastic
Blade material	Sheet aluminum
Number of blades	5
Blade pitch	0°
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
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
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034
Approval	VDE; EAC

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Product drawing



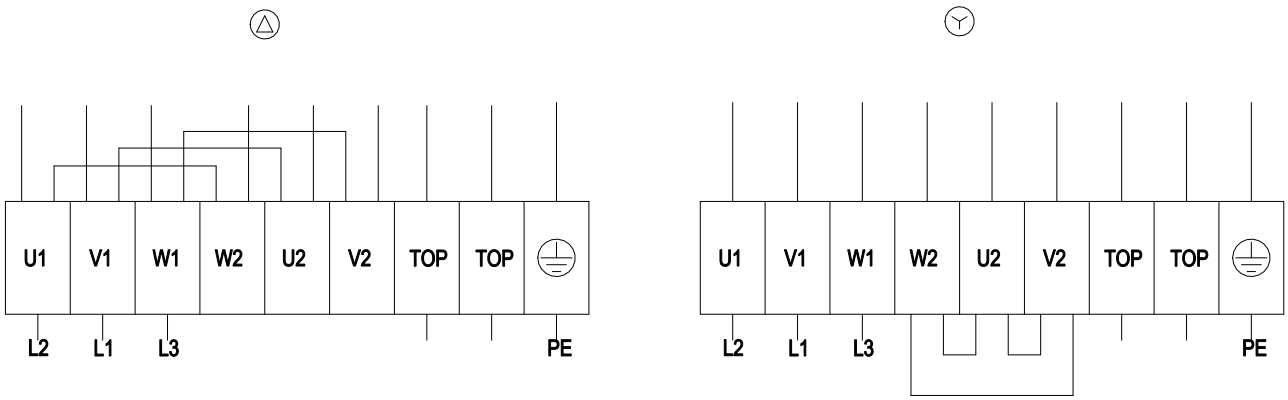
1	Direction of air flow "V"
2	Max. clearance for screw 12 mm
3	Tightening torque 0.8 ± 0.15 Nm
4	Cable diameter: min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

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Connection diagram



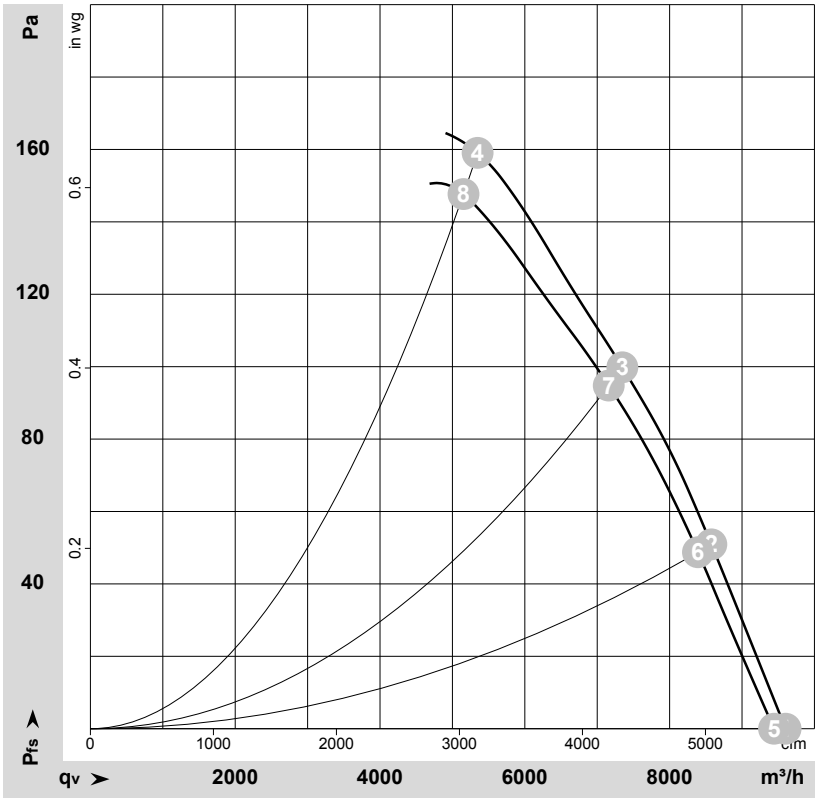
Δ	Delta connection	Y	Star connection	L1	= V1 = blue
L2	= U1 = black	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-101309-1
Measurement: LU-156384-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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

	Wired	U	f	n	P_e	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	Y	400	50	1380	619	1.35	69	76	9600	0	5650	0.00
2	Y	400	50	1365	681	1.42	70	77	8575	50	5050	0.20
3	Y	400	50	1355	739	1.49	70	77	7345	100	4325	0.40
4	Y	400	50	1325	820	1.59	73	81	5350	160	3150	0.64
5	Δ	200	50	1340	577	2.10			9440	0	5555	0.00
6	Δ	200	50	1320	639	2.25			8390	49	4940	0.20
7	Δ	200	50	1305	683	2.40			7160	95	4215	0.38
8	Δ	200	50	1280	750	2.60			5155	145	3035	0.58

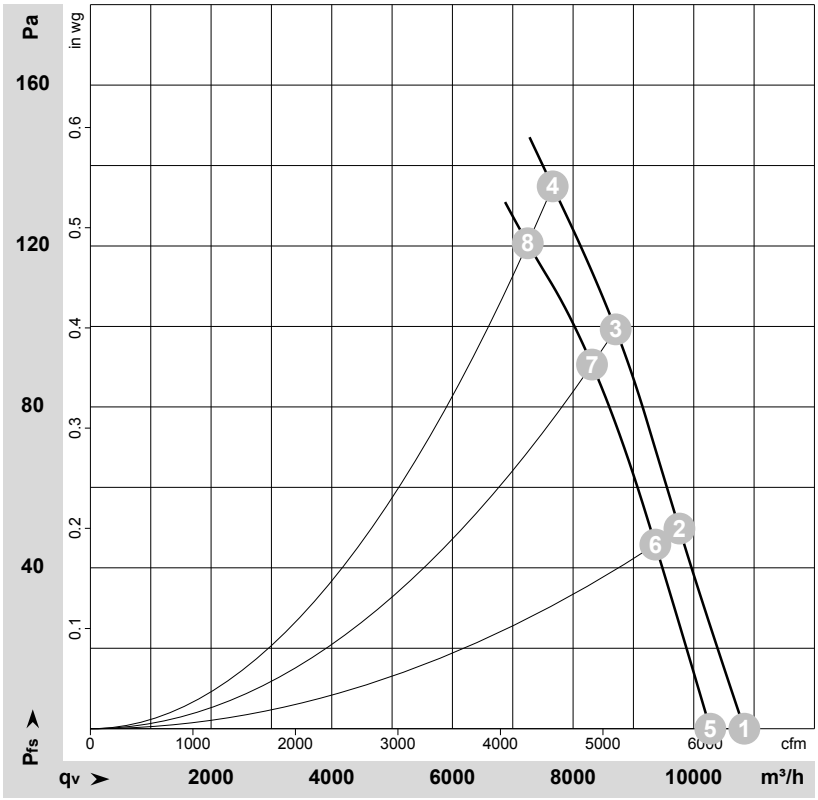
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-101310-1
Measurement: LU-156385-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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

	Wired	U	f	n	P_e	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	Y	400	60	1555	923	1.63	72	79	10840	0	6380	0.00
2	Y	400	60	1525	992	1.75	72	79	9760	50	5745	0.20
3	Y	400	60	1500	1057	1.85	72	79	8705	100	5125	0.40
4	Y	400	60	1480	1095	1.91	73	79	7660	135	4510	0.54
5	Δ	200	60	1465	855	2.88			10275	0	6045	0.00
6	Δ	200	60	1440	906	3.00			9365	46	5510	0.18
7	Δ	200	60	1410	958	3.19			8315	91	4895	0.37
8	Δ	200	60	1380	990	3.30			7250	120	4265	0.48

Wired = Wiring · 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
q_V = Air flow · p_{fs} = Pressure increase

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