A4E420-AU03-01

AC axial fan

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**A4E420-AU03-01**
Motor	**M4E094-EA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1360	1520
Power consumption	W	280	385
Current draw	A	1.25	1.68
Capacitor	µF	7	7
Capacitor voltage	VDB	450	450
Max. back pressure	Pa	95	100
Max. back pressure	in. wg	0.38	0.4
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	55	55

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	31.8	30.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		41.6	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.27
09 Air flow q_v	m^3/h	3205
09 Pressure increase p_{fs}	Pa	100
10 Speed (rpm) n	min^{-1}	1360
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-71823

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Technical description

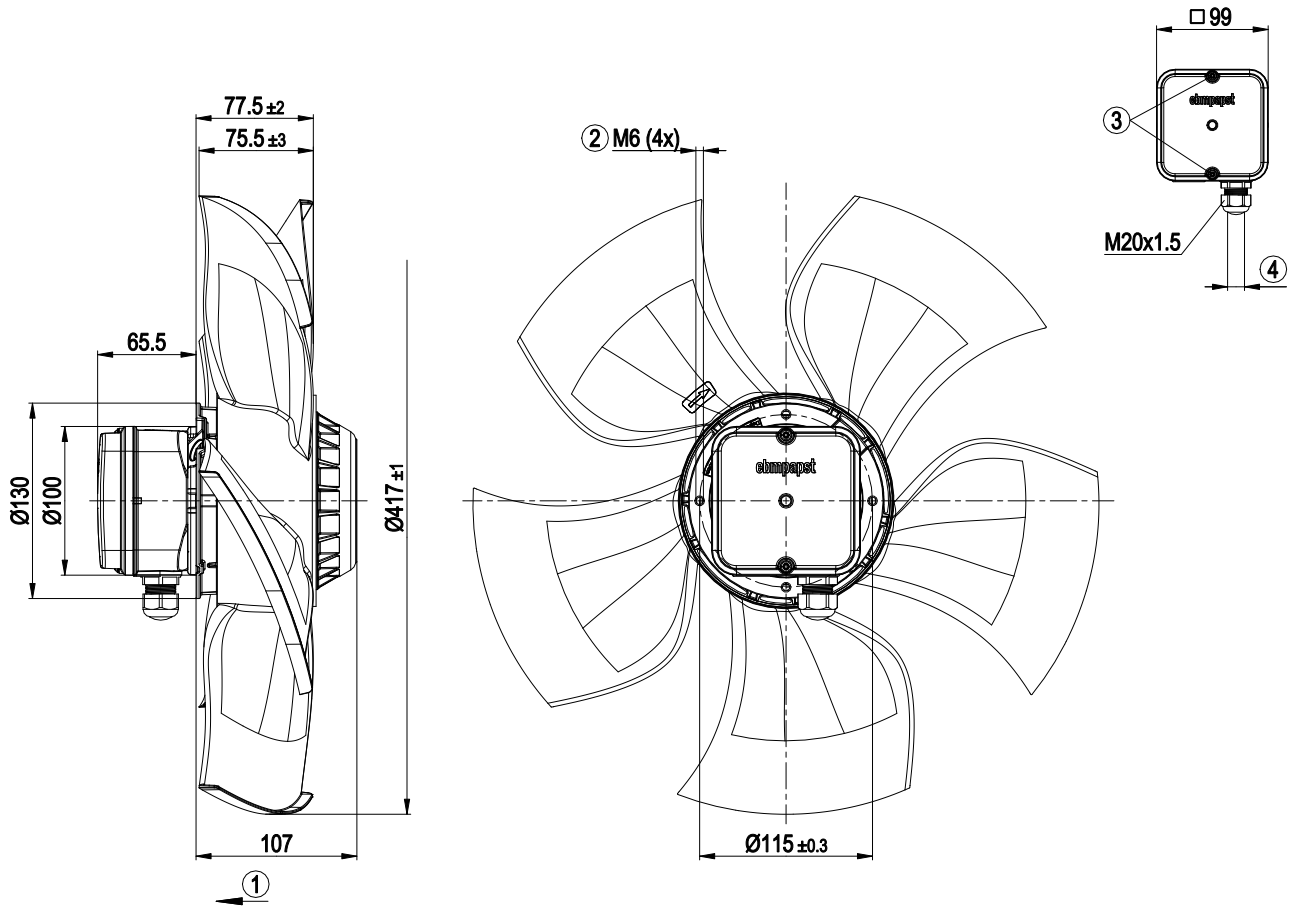
Weight	4.8 kg
Size	420 mm
Motor size	94
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
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 60034-1 (2010); CE
Approval	EAC

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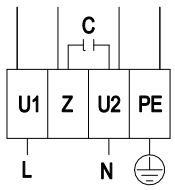
sickle-shaped blades (S series)

Product drawing



1	Direction of air flow "V"
2	Max. clearance for screw 10 mm
3	Tightening torque 1.5 ± 0.2 Nm
4	Cable diameter min. 6 mm, max. 12 mm, tightening torque 2 ± 0.3 Nm

Connection diagram



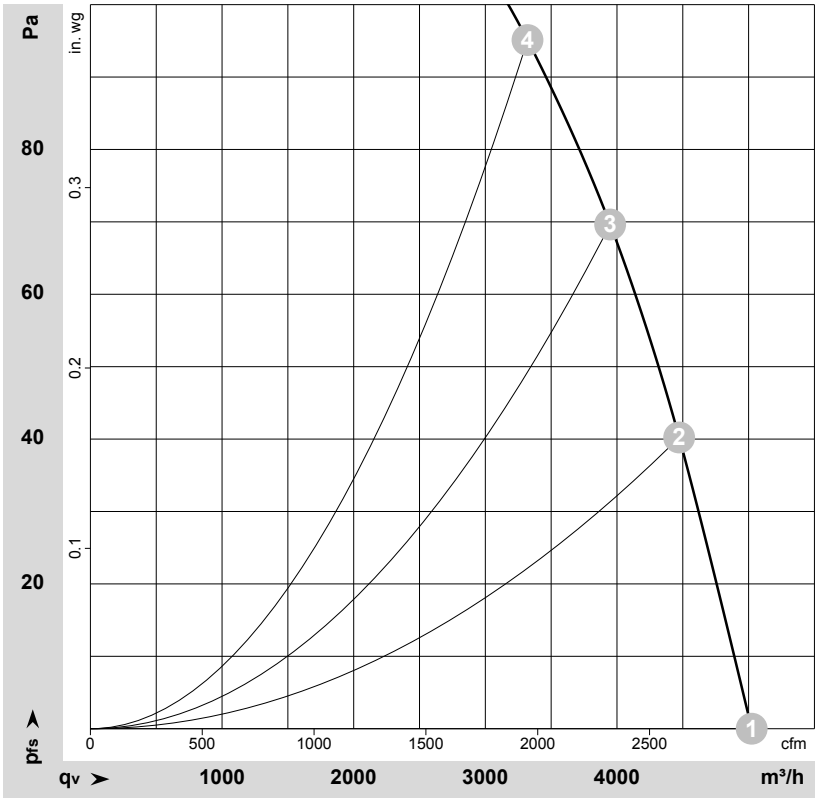
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				

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AC axial fan

sickle-shaped blades (S series)

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-71823-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	1400	230	1.06	5025	0	2955	0.00
2	1~	230	50	1385	248	1.12	4470	40	2630	0.16
3	1~	230	50	1375	260	1.17	3950	70	2325	0.28
4	1~	230	50	1360	280	1.25	3320	95	1955	0.38

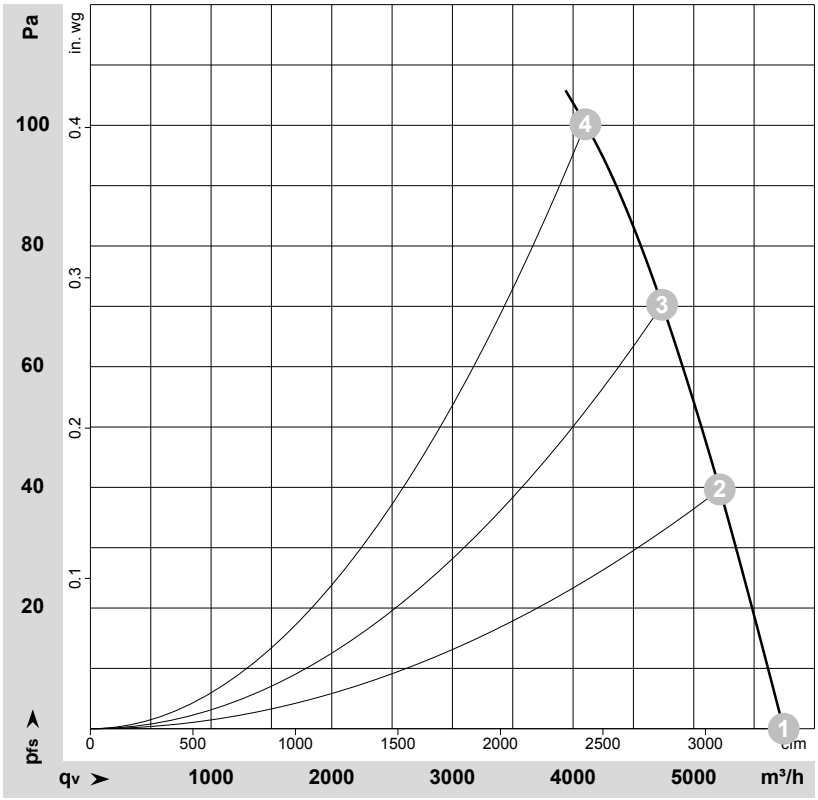
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-71831-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	60	1595	325	1.42	5745	0	3380	0.00
2	1~	230	60	1570	348	1.52	5215	40	3070	0.16
3	1~	230	60	1545	364	1.58	4740	70	2790	0.28
4	1~	230	60	1520	385	1.68	4100	100	2415	0.40

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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