A4E400-AP02-25

AC axial fan

sickled blades (S series)



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**A4E400-AP02-25**		
Motor	**M4E074-EI**		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	1430	1700
Power input	W	160	240
Current draw	A	0.73	1.06
Motor capacitor	µF	6	6
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	110	75
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	40	60
Starting current	A	2.0	1.9

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	31.9	29.3
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		42.6	40
05 Variable speed drive		No	

09 Power input P_e	kW	0.2
09 Air flow q_v	m^3/h	2675
09 Pressure increase p_{fs}	Pa	90
10 Speed (rpm) n	min^{-1}	1390
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-30924

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Technical features

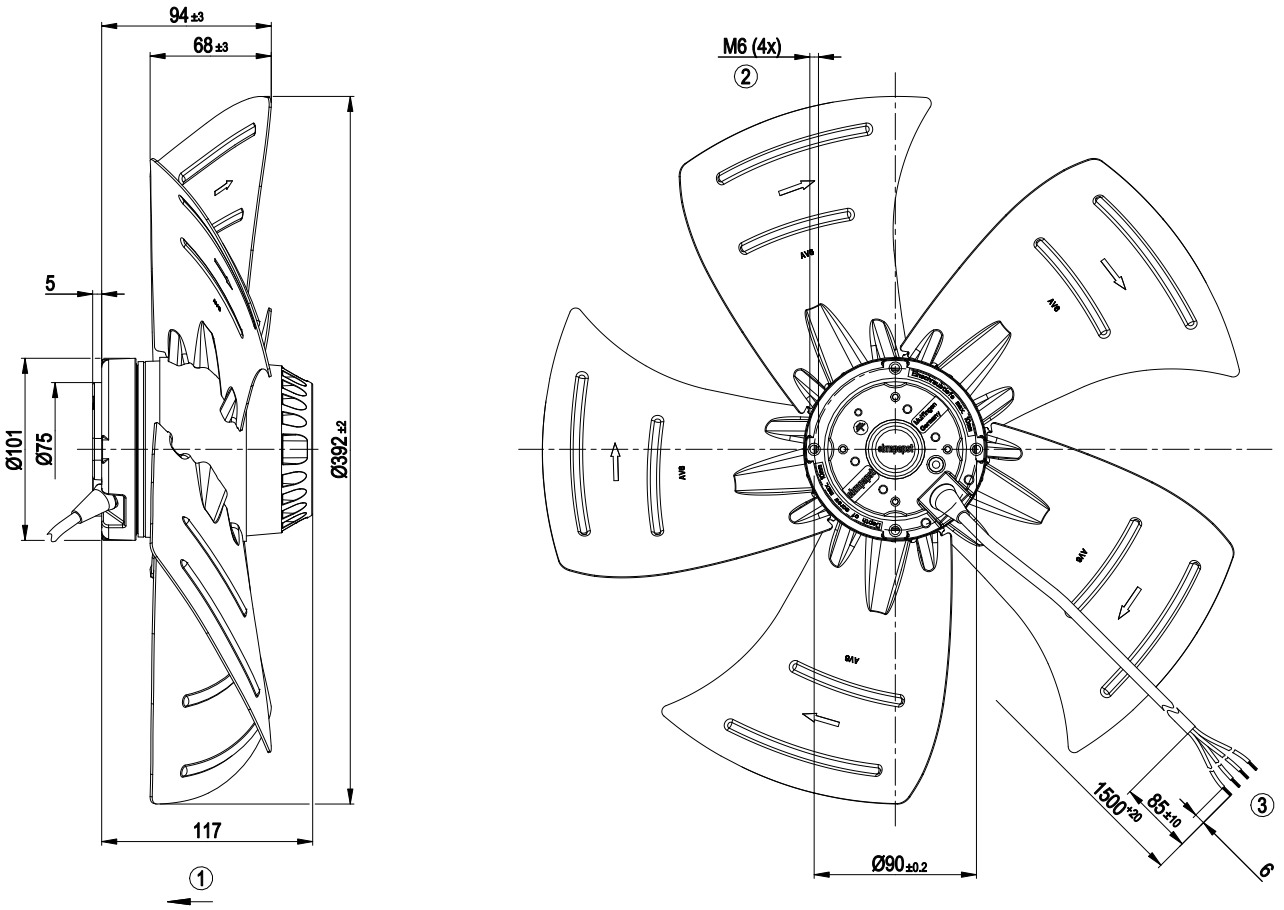
Mass	4.2 kg
Size	400 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H0+
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)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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AC axial fan

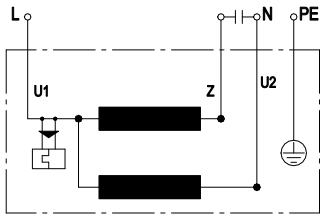
sickled blades (S series)

Product drawing



1	Direction of air flow "V"
2	Thread reach max. 10 mm
3	Connection line silicone 4G 0.5 mm², 4x lead tips crimped

Connection screen



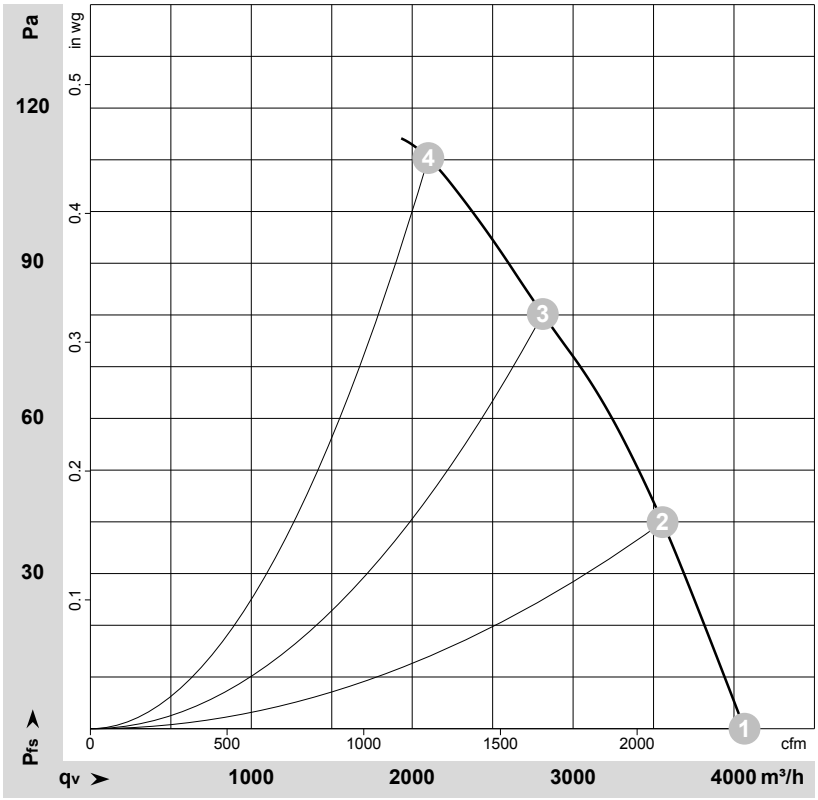
U1	blue	Z	brown	U2	black
PE	green/yellow				

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AC axial fan

sickled blades (S series)

Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-146030-1

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	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	inH2O
1	230	50	1430	160	0.73	68	74	74	4065	0	2395	0.00
2	230	50	1410	189	0.84	66	72	72	3555	40	2095	0.16
3	230	50	1390	207	0.92	65	72	72	2810	80	1655	0.32
4	230	50	1370	225	0.99	64	71	71	2100	110	1235	0.44

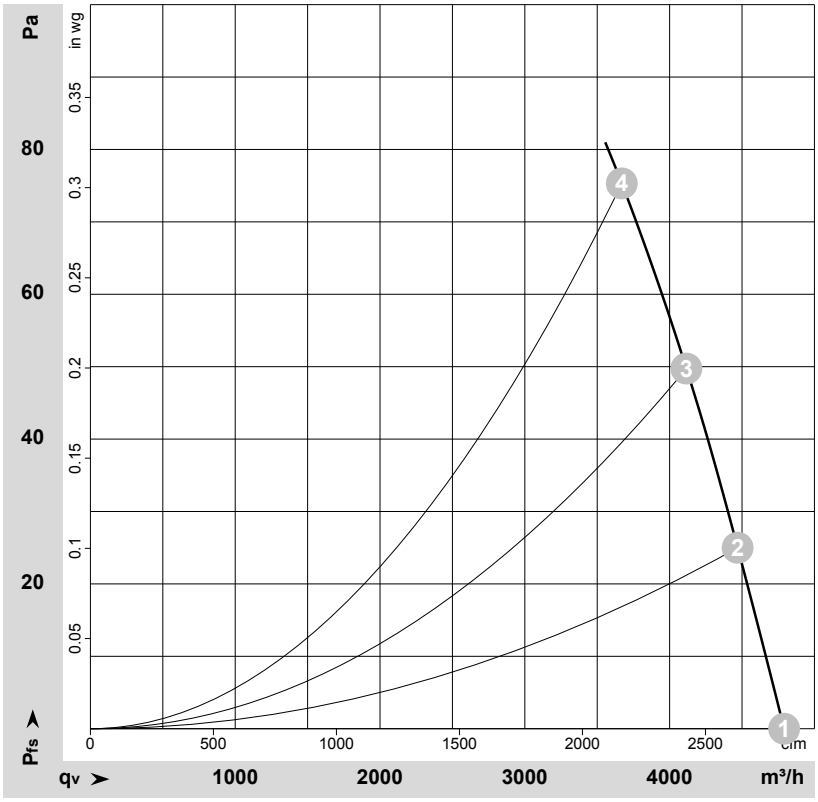
U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-146034-1

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	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	inH2O
1	230	60	1700	240	1.06	71	78	77	4790	0	2820	0.00
2	230	60	1645	262	1.16	71	77	77	4470	25	2630	0.10
3	230	60	1620	275	1.21	69	75	75	4115	50	2425	0.20
4	230	60	1580	295	1.29	67	74	74	3670	75	2160	0.30

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase

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