

# AC axial fan

sickle-shaped blades (S series)  
with guard grille for short nozzle

S4E400-AQ12-57 ebmpapst Datasheet  
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Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

Type	S4E400-AQ12-57	
Motor	M4E074-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min <sup>-1</sup>	1400
Power consumption	W	150
Current draw	A	0.66
Capacitor	µF	5
Capacitor voltage	VDB	400
Max. back pressure	Pa	70
Max. back pressure	in. wg	0.28
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	40

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 (EN 17166)

	Actual	Req. 2015				
01 Overall efficiency $\eta_{es}$	%	30.4	28.9	09 Power consumption $P_e$	kW	0.17
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	2750
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	74
04 Efficiency grade N		41.5	40	10 Speed (rpm) n	min <sup>-1</sup>	1300
05 Variable speed drive		No		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 =  $1 + p_s / 100\,000\text{ Pa}$

LU-200571



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## Technical description

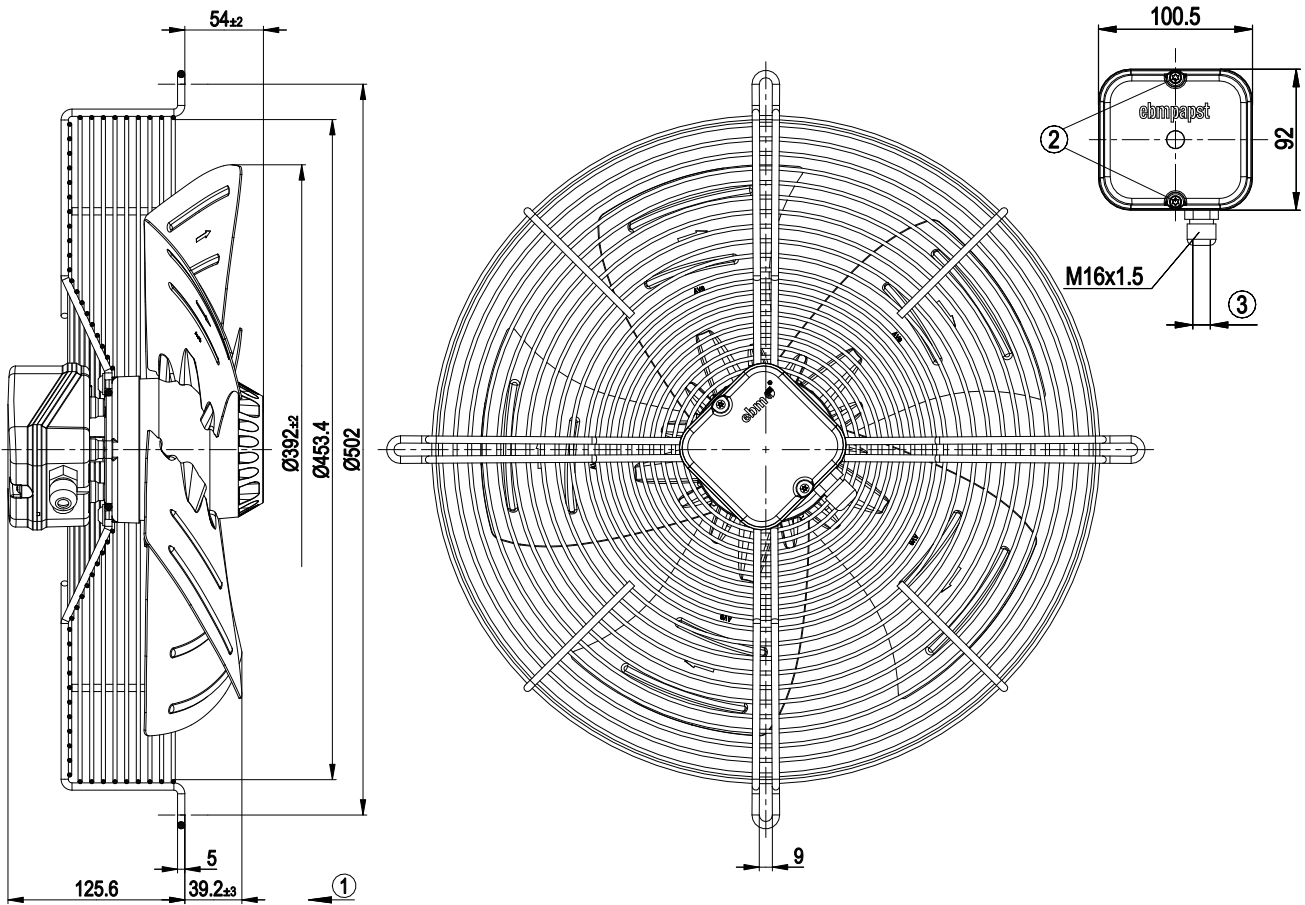
Weight	5.63 kg
Size	400 mm
Motor size	74
Rotor surface	Painted black
Terminal box material	ABS plastic
Blade material	Sheet steel, painted black
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1+
Max. permitted ambient temp. for motor (transport/storage)	+ 70 °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 with low-temperature lubricant
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Terminal box; Capacitor integrated and connected
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
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 60335-1; CE



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## Product drawing



- |   |   |
|---|---|
| 1 | Direction of air flow "V"                                 |
| 2 | Tightening torque 1.5 ± 0.2 Nm                            |
| 3 | Cable diameter: max. 7.5 mm, tightening torque 1.3±0.2 Nm |

## Connection diagram



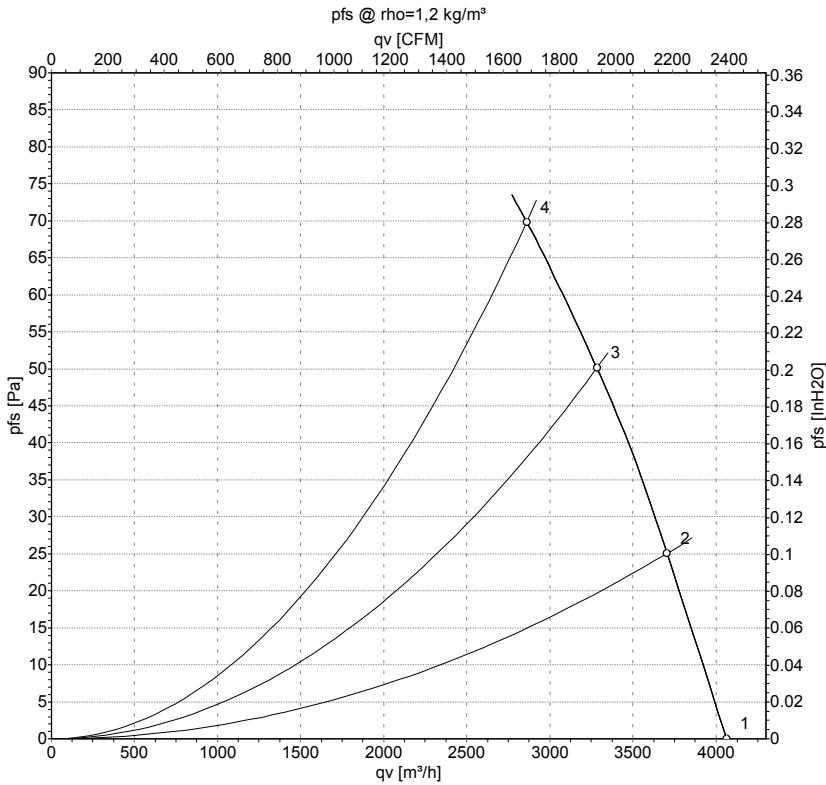
L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				



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## Curves: Air performance 50 Hz



Measurement: LU-33842-1

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

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	1400	150	0.66	4065	0	2390	0.00
2	230	50	1385	158	0.69	3705	25	2180	0.10
3	230	50	1360	171	0.75	3285	50	1930	0.20
4	230	50	1340	184	0.80	2860	70	1685	0.28

U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

