

# AC axial fan

sickle-shaped blades (S series)

with guard grille

S4S250-AH02-08 ebmpapst Datasheet

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## Nominal data

<b>Type</b>	<b>S4S250-AH02-08</b>		
<b>Motor</b>	<b>M4S068-CF</b>		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	1390	1600
Power consumption	W	69	63
Current draw	A	0.53	0.45
Max. back pressure	Pa	80	80
Max. back pressure	inH <sub>2</sub> O	0.32	0.32
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	65
Starting current	A	0.85	0.7

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



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## Technical description

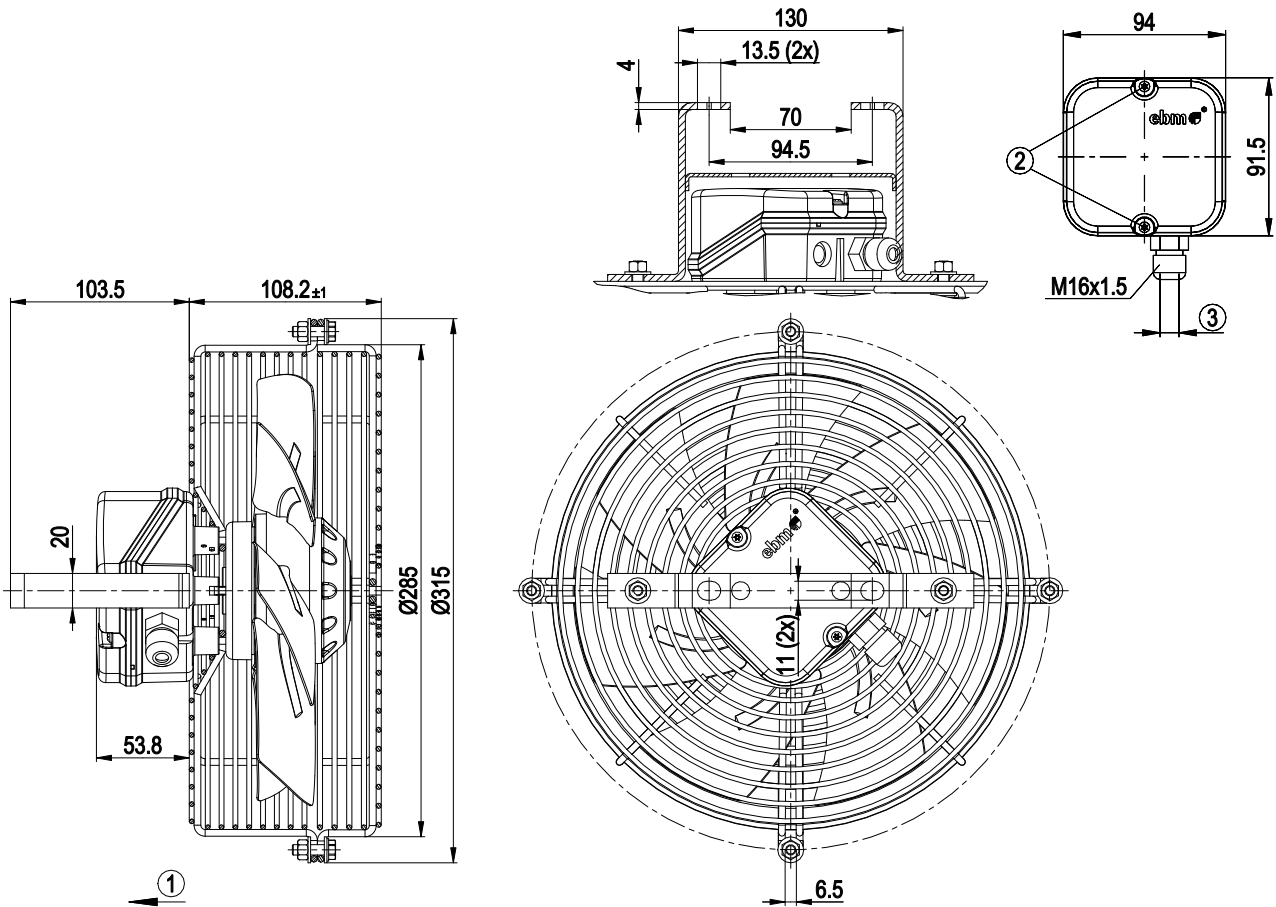
<b>Weight</b>	3.5 kg
<b>Fan size</b>	250 mm
<b>Rotor surface</b>	Painted black
<b>Terminal box material</b>	ABS plastic
<b>Blade material</b>	Sheet steel, painted black
<b>Guard grille material</b>	Steel, coated with black plastic (RAL 9005)
<b>Number of blades</b>	7
<b>Direction of rotation</b>	"V"
<b>Degree of protection</b>	IP44
<b>Insulation class</b>	"B"
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>Electrical hookup</b>	Via terminal box
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Axial
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE



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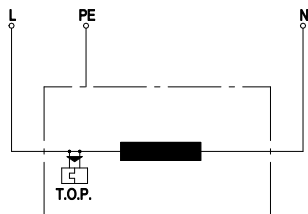
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## Product drawing



1	Airflow direction "V"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm

## Connection diagram



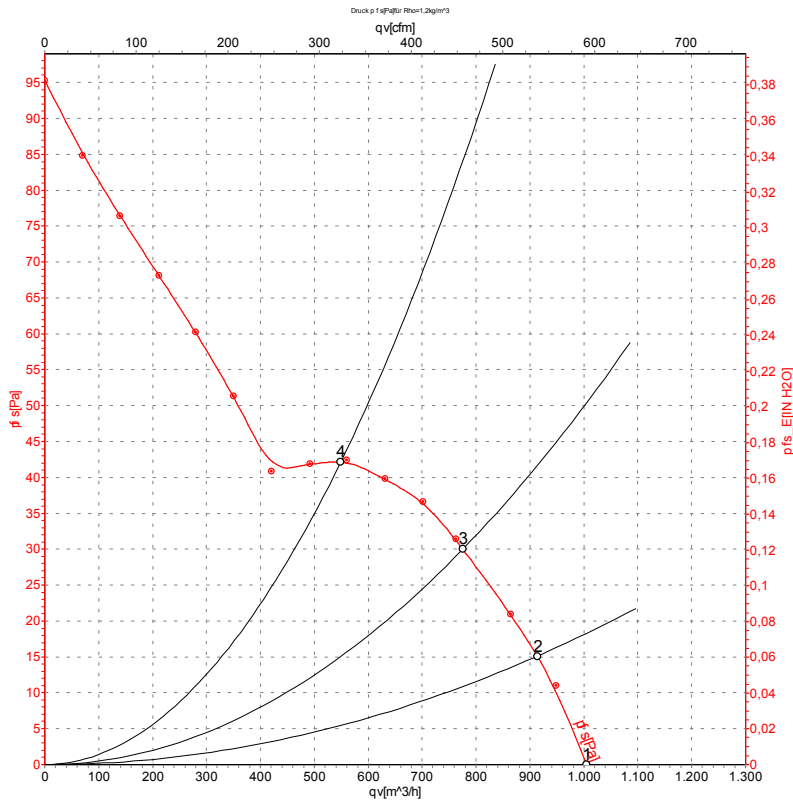
L	= blue
PE	= green/yellow
N	= brown
TOP	= thermal overload protector



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## Curves: Air performance 50 Hz



Measurement: LU-59968-1

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	inH2O
1	230	50	1390	69	0.53	1005	0	590	0.00
2	230	50	1380	71	0.53	915	15	535	0.06
3	230	50	1365	73	0.53	775	30	455	0.12
4	230	50	1360	73	0.53	550	42	325	0.17

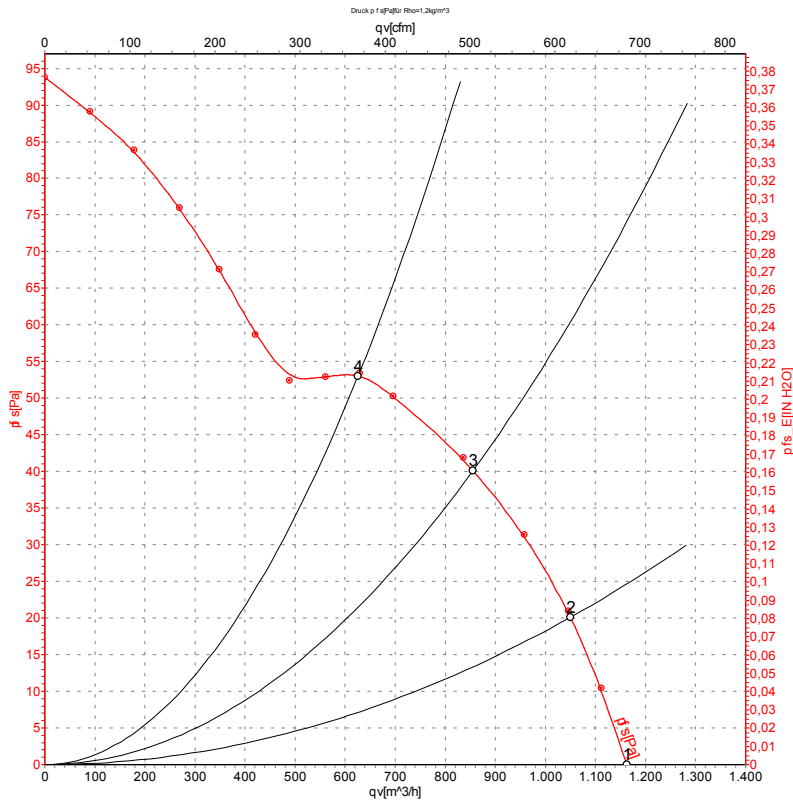
U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



Measurement: LU-59969-1

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	inH <sub>2</sub> O
1	230	60	1600	63	0.45	1165	0	685	0.00
2	230	60	1580	65	0.45	1050	20	620	0.08
3	230	60	1545	69	0.47	855	40	505	0.16
4	230	60	1525	71	0.48	625	53	370	0.21

U = Power supply · 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

