

S4D250-AI40-01

AC axial panel fan

sickle-shaped blades (S series), single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	S4D250-AI40-01					
Motor	M4D068-CF					
Phase		3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400	480
Wiring		Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	50	60	60
Method of obtaining data		fa	fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1400	1600	1400	1600	1650
Power consumption	W	23	30	23	30	33
Current draw	A	0.1	0.1	0.06	0.06	0.06
Max. back pressure	Pa	70	80	70	80	95
Max. back pressure	in. wg	0.28	0.32	0.28	0.32	0.38
Min. ambient temperature	°C	-25	-25	-25	-25	-25
Max. ambient temperature	°C	90	90	90	90	90
Starting current	A			0.16	0.15	0.18

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

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Technical description

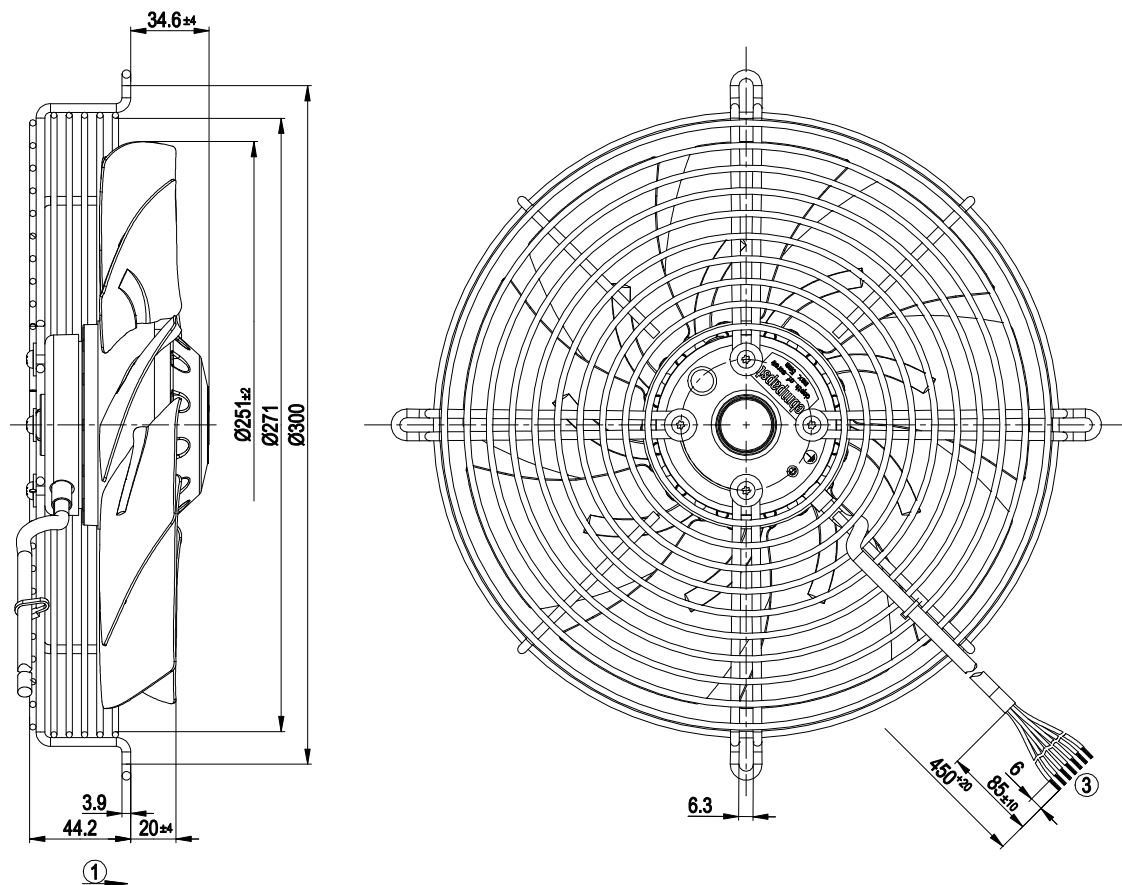
Weight	2.6 kg
Size	250 mm
Motor size	68
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Guard grille material	Steel, galvanized and coated with black plastic (RAL 9005)
Number of blades	9
Airflow direction	A
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	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)	+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)	< 0.75 mA
With cable	Lateral
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1, motor not provided with overheating protection at the factory; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	EAC

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Product drawing

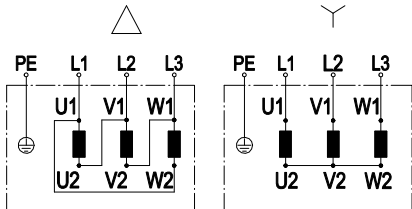


- | | |
|---|-------------------------------------|
| 1 | Direction of air flow "A" |
| 2 | Cable PFA AWG20, 7x crimped splices |

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Connection diagram



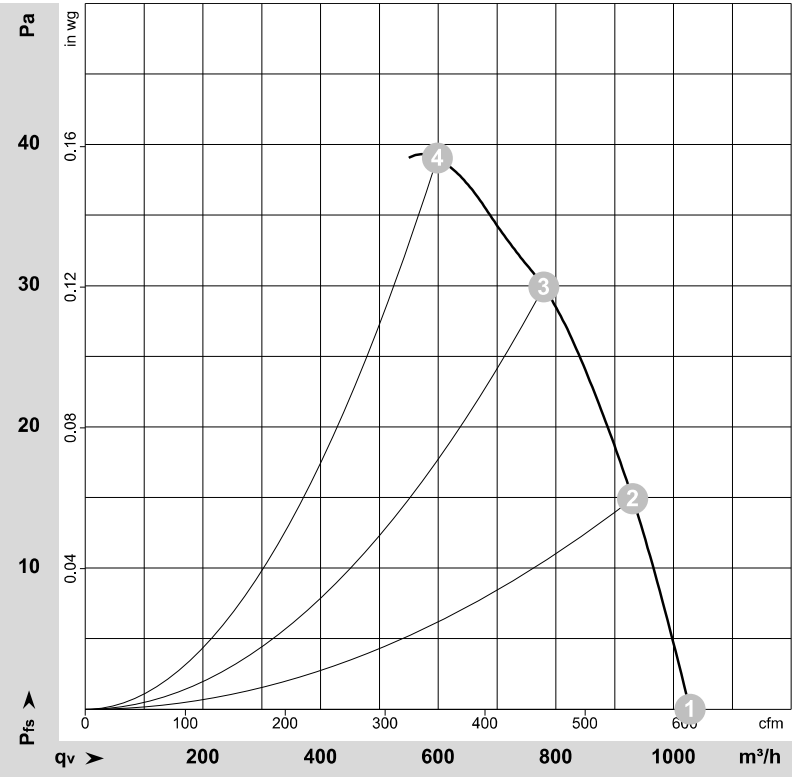
Change of rotation direction by reversing two phases

Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	U2	green
V2	white	W2	yellow	PE	green/yellow
Three-phase motor					

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Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-77947-1
Date: 2007-05-16
Housing: 18910-2-4037

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

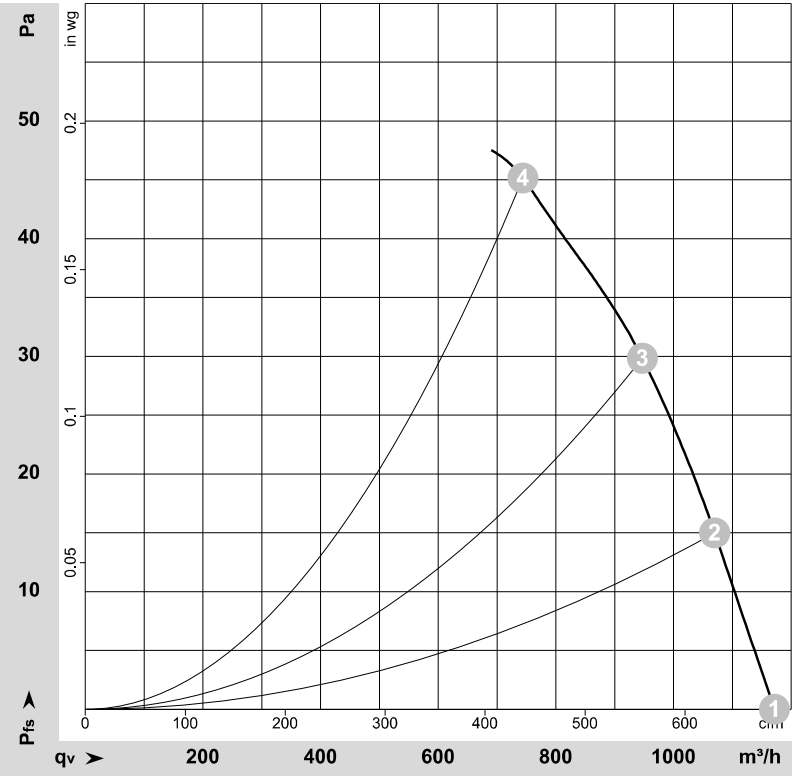
	Wired	U	f	n	P _e	I	q _v	P _{fs}	q _v	P _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	Y	400	50	1400	23	0.06	1030	0	605	0.00
2	Y	400	50	1385	24	0.06	930	15	545	0.06
3	Y	400	50	1370	26	0.06	780	30	460	0.12
4	Y	400	50	1365	28	0.06	600	40	355	0.16

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



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-77948-1
Date: 2007-05-16
Housing: 18910-2-4037

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	m³/h	Pa	cfm	in. wg
1	Y	400	60	1600	30	0.06	1170	0	690	0.00
2	Y	400	60	1570	32	0.06	1070	15	630	0.06
3	Y	400	60	1545	35	0.06	945	30	555	0.12
4	Y	400	60	1515	38	0.07	745	45	440	0.18

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