

AC axial fan

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

S4D300-AR36-48 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Muldingen
Amtsgericht (court of registration) Stuttgart · HRA 590344
General partner Elektrobau Muldingen GmbH · Headquarters Muldingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	S4D300-AR36-48							
Motor	M4D068-CF							
Phase		3~	3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	265	400	400	440	460	480
Wiring		Δ	Δ	Y	Y	Y	Y	Y
Frequency	Hz	50	60	50	60	60	60	60
Method of obtaining data		fa	fa	fa	fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1300	1490	1300	1380	1430	1490	1500
Power consumption	W	45	67	45	60	64	67	70
Current draw	A	0.16	0.19	0.09	0.1	0.1	0.11	0.12
Max. back pressure	Pa	45	53	45	45	51	53	55
Max. back pressure	inH ₂ O	0.18	0.21	0.18	0.18	0.2	0.21	0.22
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	80	65	80	65	65	65	65

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



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Technical description

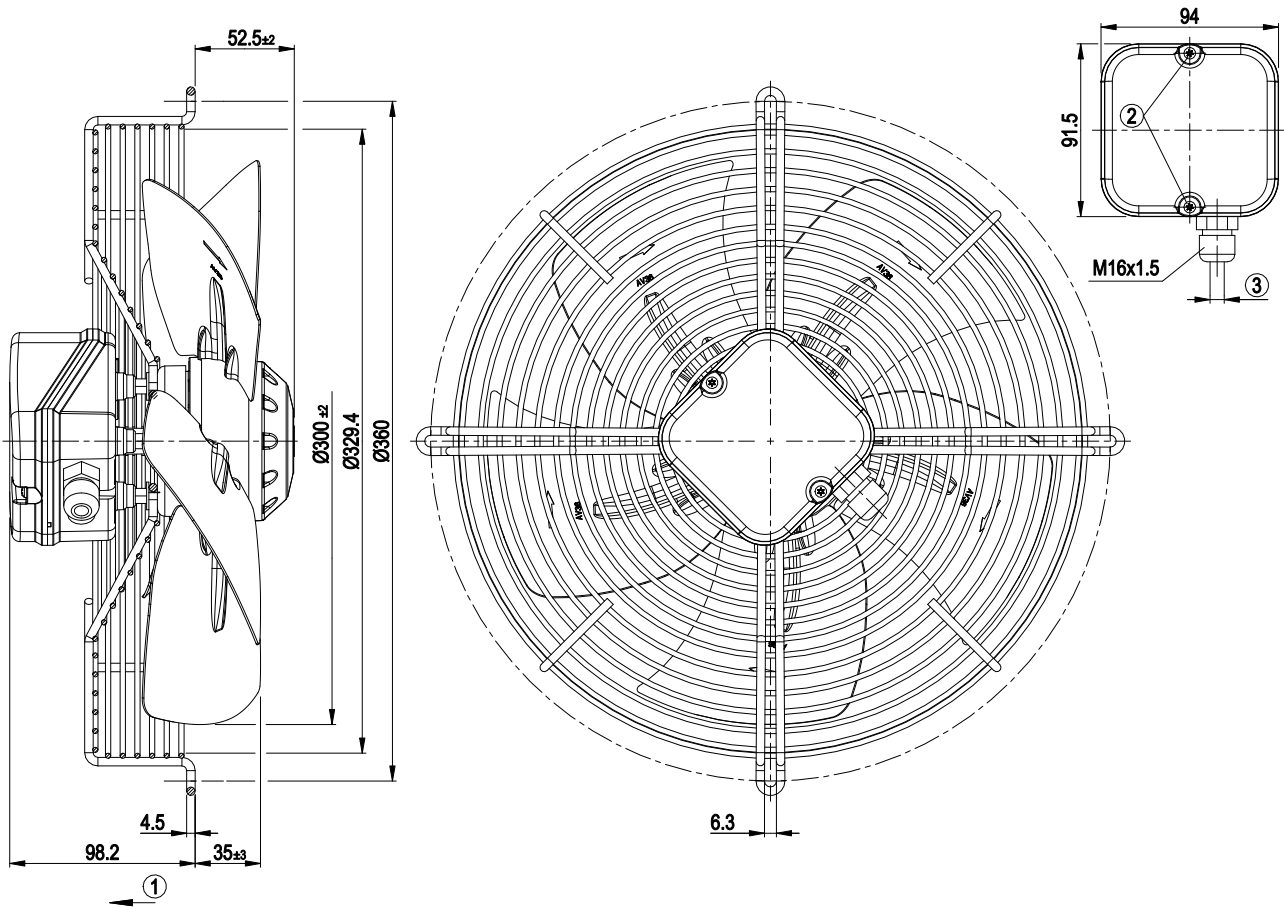
Weight	2.6 kg
Fan size	300 mm
Rotor surface	Painted black
Terminal box material	PC/ABS plastic
Blade material	Sheet steel, painted black
Guard grille material	Steel, galvanized and coated with signal white plastic (RAL 9003)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, 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	F2-2
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	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE



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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.8±0.2 Nm
3	Cable diameter: max. 7.5 mm, tightening torque 1.3±0.2 Nm



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Connection diagram



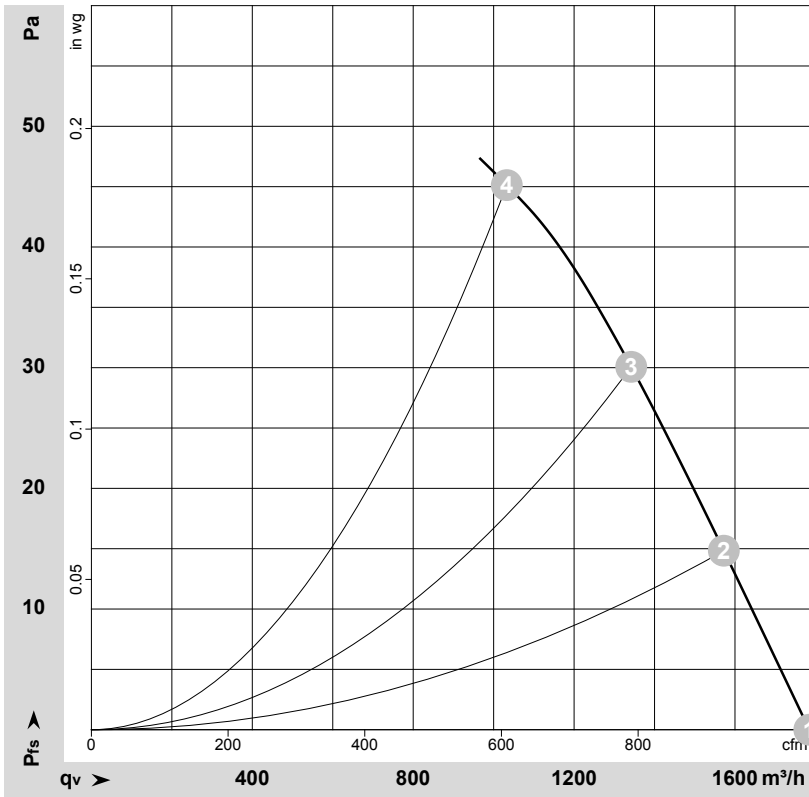
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				



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Curves: Air performance 50 Hz



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

Measurement: LU-110338-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	inH2O
1	Y	400	50	1300	45	0.09	1785	0	1050	0.00
2	Y	400	50	1265	50	0.09	1570	15	925	0.06
3	Y	400	50	1230	54	0.10	1340	30	790	0.12
4	Y	400	50	1185	60	0.10	1035	45	610	0.18

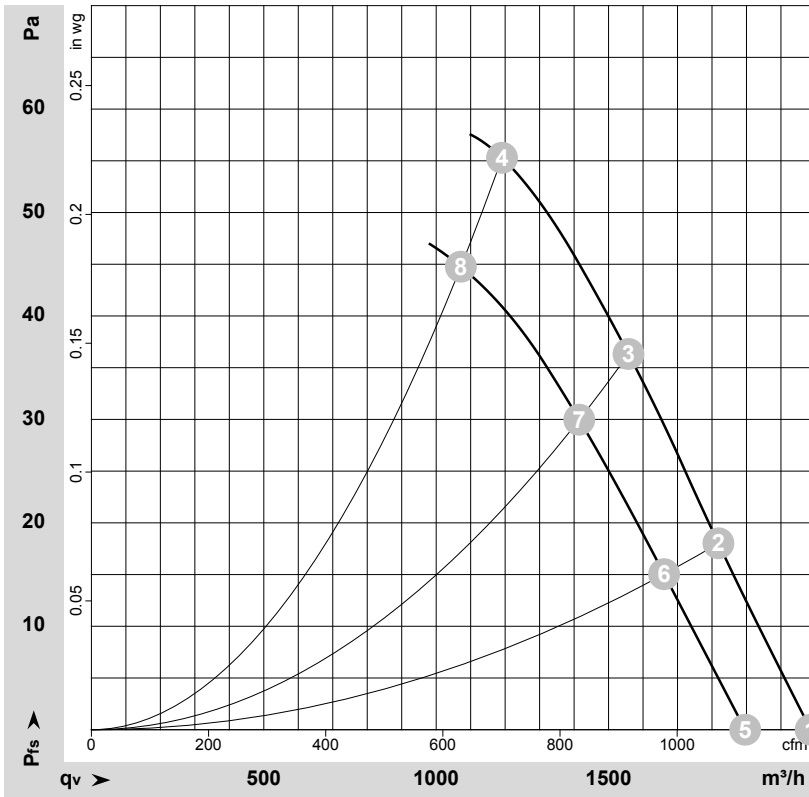
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



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

Measurement: LU-110546-1
Measurement: LU-110339-1

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	inH2O
1	Y	460	60	1490	67	0.11	2085	0	1230	0.00
2	Y	460	60	1440	75	0.11	1820	18	1070	0.07
3	Y	460	60	1395	81	0.12	1560	36	915	0.14
4	Y	460	60	1335	88	0.12	1190	55	700	0.22
5	Y	400	60	1380	60	0.10	1895	0	1115	0.00
6	Y	400	60	1325	66	0.11	1660	15	980	0.06
7	Y	400	60	1275	71	0.11	1415	30	835	0.12
8	Y	400	60	1195	77	0.12	1070	45	630	0.18

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

