

AC axial fan

straight blades (A series), single-intake
with guard grille for full nozzle

S4D250-BA36-01 ebmpapst Datasheet

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Nominal data

Type	S4D250-BA36-01				
Motor	M4D068-CF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1420	1640	1420	1640
Power consumption	W	27	33	27	33
Current draw	A	0.14	0.12	0.08	0.07
Max. back pressure	Pa	100	110	100	110
Max. back pressure	inH ₂ O	0.4	0.44	0.4	0.44
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	85	85	85	85

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



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Technical description

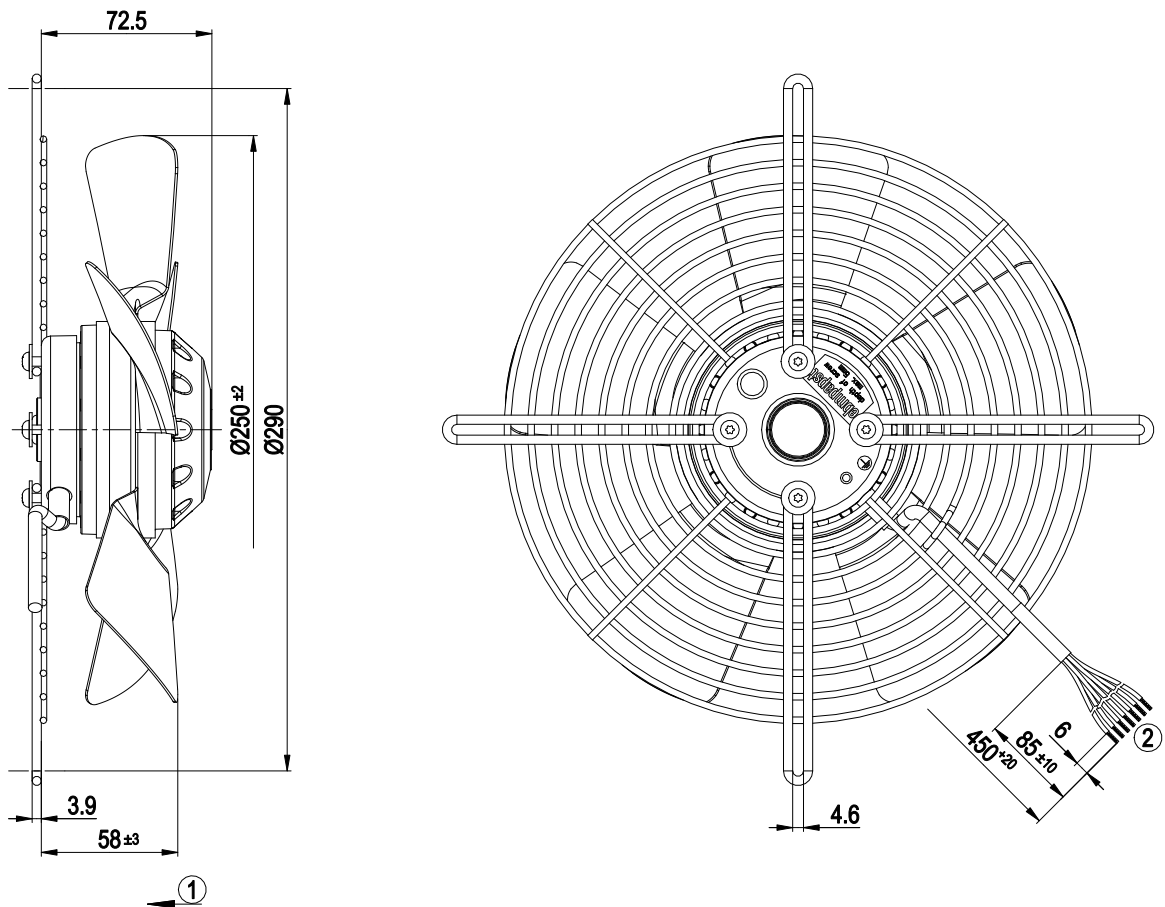
Weight	1.6 kg
Fan size	250 mm
Rotor surface	Painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F1-2
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	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection



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Product drawing



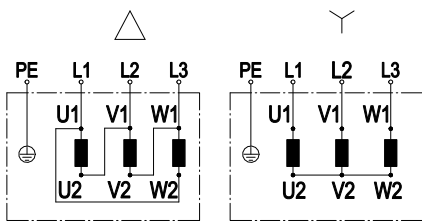
1	Airflow direction "V"
2	Cable PVC 7G 0.5 mm ² , 7x crimped splices



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Connection diagram



Change of rotation direction by reversing two phases

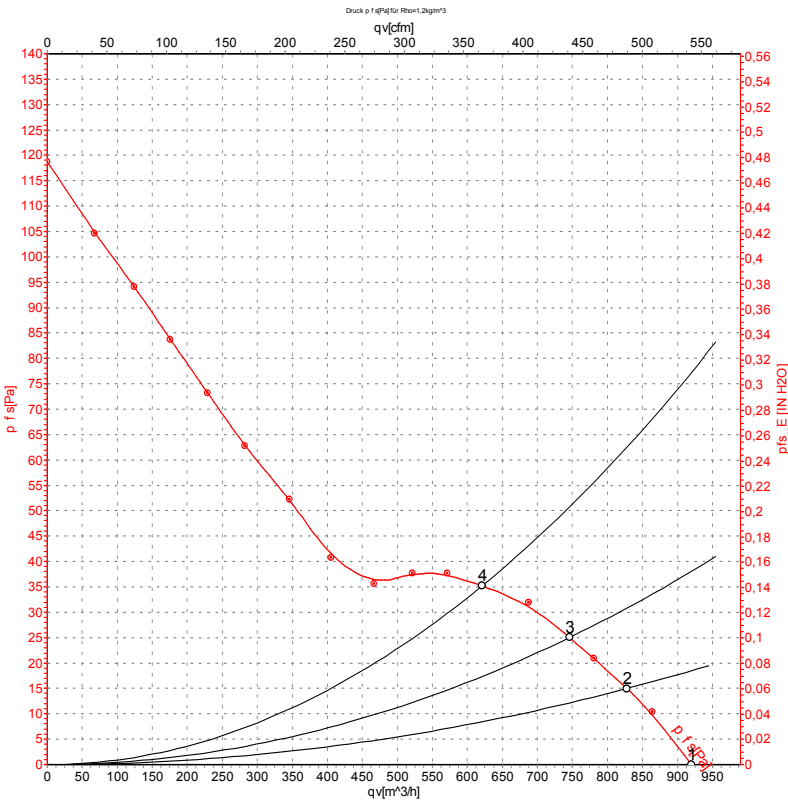
	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				



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Curves: Air performance 50 Hz



Measurement: LU-55427-1

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 _e	I	q _v	p _{ts}	q _v	p _{ts}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	inH ₂ O
1	400	50	1420	27	0.08	920	0	540	0.00
2	400	50	1410	28	0.08	830	15	485	0.06
3	400	50	1405	29	0.08	745	25	440	0.10
4	400	50	1405	29	0.08	620	35	365	0.14

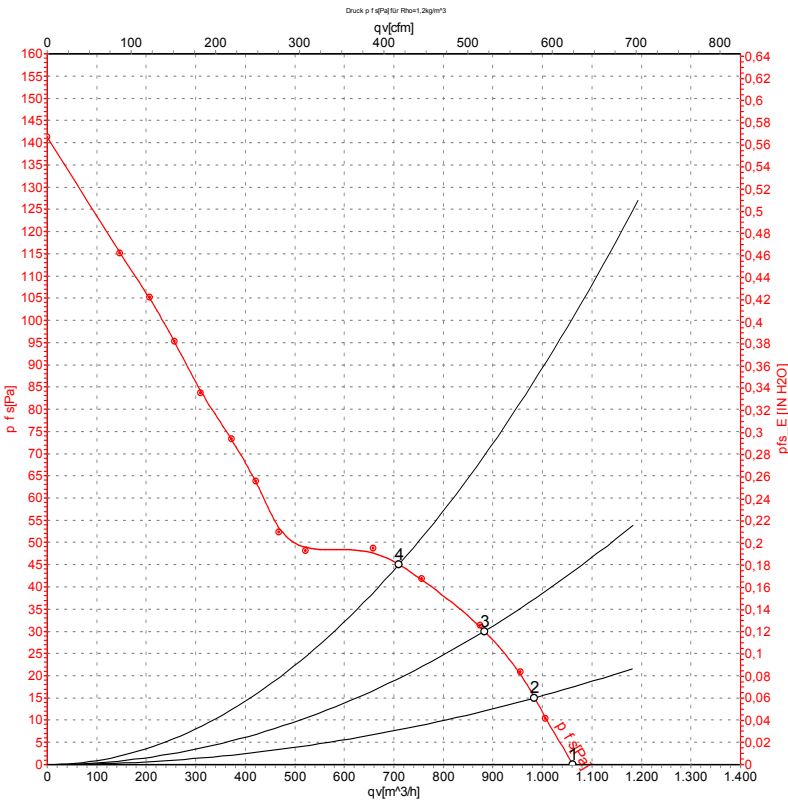
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{ts} = Pressure increase



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Curves: Air performance 60 Hz



Measurement: LU-55428-1

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 _e	I	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	inH ₂ O
1	400	60	1640	33	0.07	1060	0	625	0.00
2	400	60	1625	35	0.08	985	15	580	0.06
3	400	60	1615	36	0.08	885	30	520	0.12
4	400	60	1610	37	0.08	710	45	420	0.18

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

