S2D250-BH14-09

AC axial fan

sickled blades (S series)

with guard grille for full nozzle, for railway applications

S2D250-BH14-09 ebmpapst Datasheet
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Nominal data

Type	**S2D250-BH14-09**
Motor	**M2D068-CF**

Phase		3~
Nominal voltage	VAC	400
Connection		Y
Frequency	Hz	60
Type of data definition		fa
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	2580
Power input	W	140
Current draw	A	0.22
Max. back pressure	Pa	100
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	70

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	2.3 kg
Size	250 mm
Surface of rotor	Coated in black
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	7
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61373, Cat. 1B: 2010

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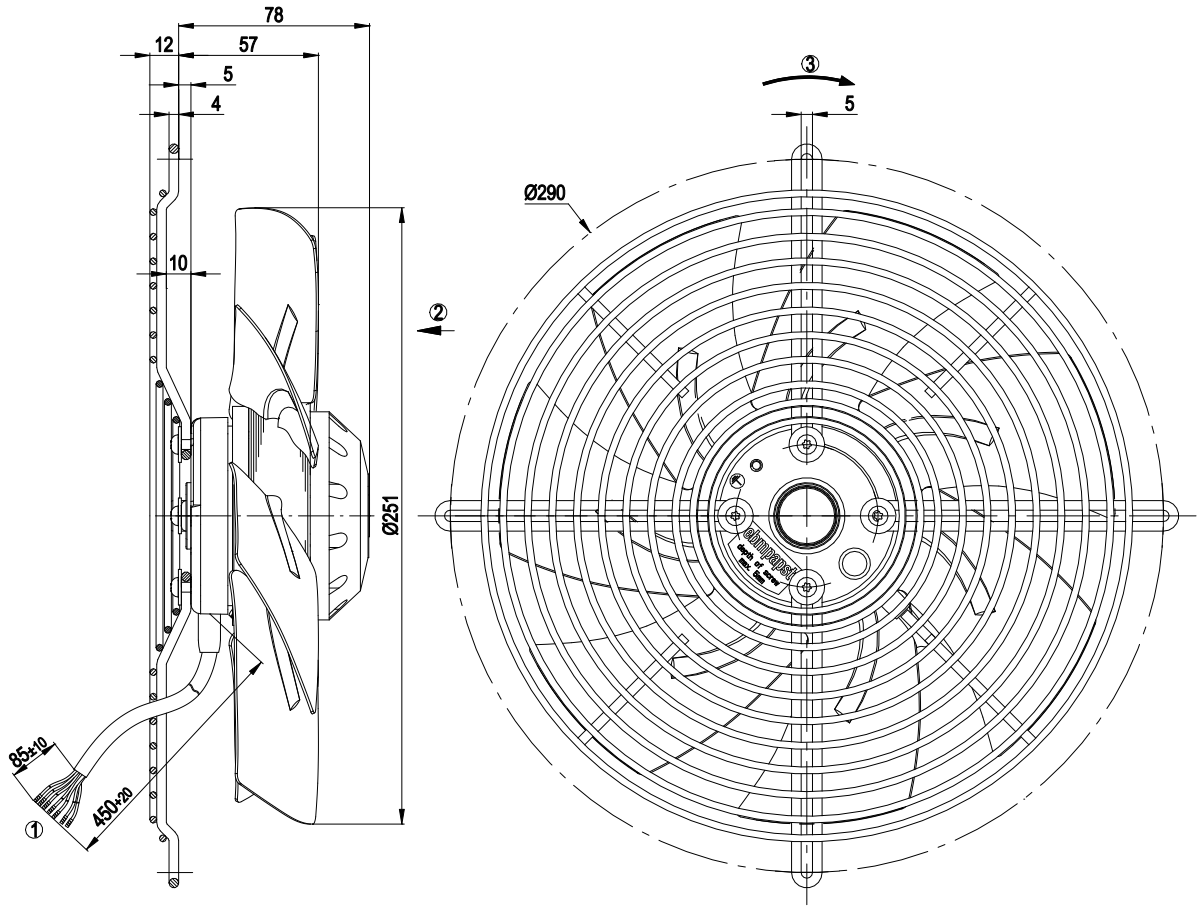
Product drawing



1	Connection line halogen-free, BETAtrans® 3 GKW flex, black 6G 0.5 mm², 6x lead tips crimped
2	Direction of air flow "V"
3	Direction of rotation anticlockwise, viewed towards rotor

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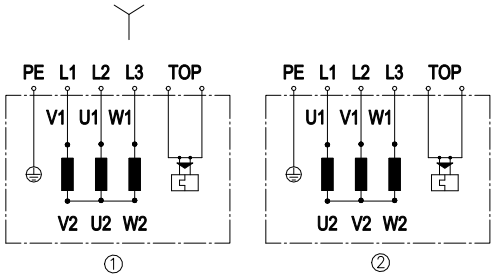
Connection screen



Change direction of rotation by reversing two phases

	Three-phase motor
Y	Star connection
1	Anti-clockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow
TOP	2x grey

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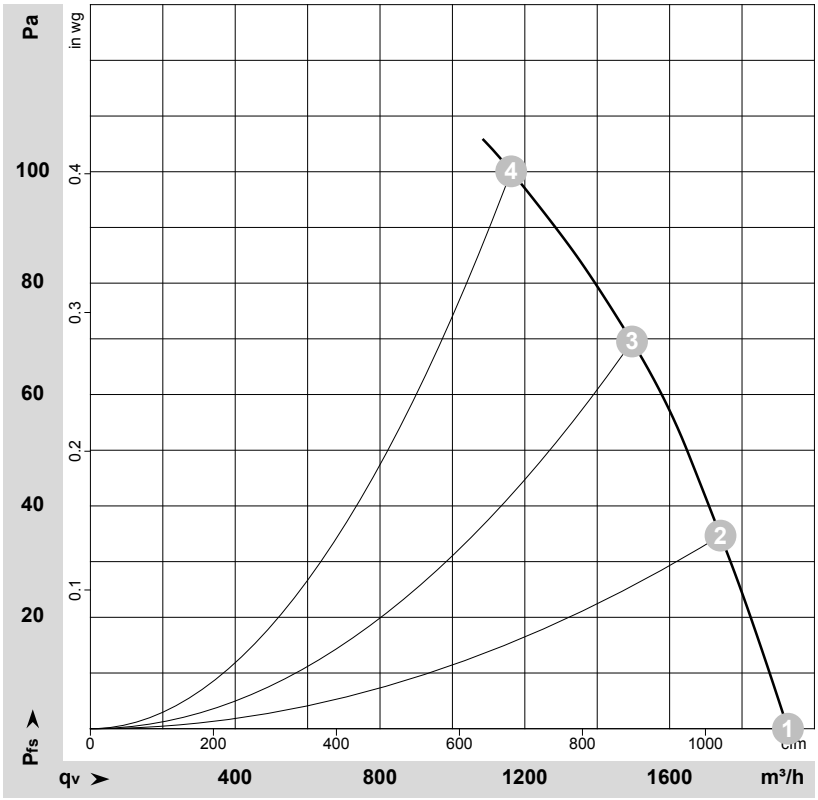
Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-76488-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	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	60	2580	140	0.22	1925	0	1135	0.00
2	Y	400	60	2495	146	0.23	1740	35	1025	0.14
3	Y	400	60	2390	155	0.25	1495	70	880	0.28
4	Y	400	60	2305	162	0.26	1160	100	685	0.40

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase