S2D250-BA02-25

AC axial fan

straight blades (A series)

with guard grille for full nozzle, for railway applications

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Nominal data

Type	**S2D250-BA02-25**
Motor	**M2D068-DF**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	2650	2950
Power input	W	110	160
Current draw	A	0.22	0.26
Max. back pressure	Pa	250	300
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	90	60

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	2.51 kg
Size	250 mm
Surface of rotor	Coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
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	None
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
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	DIN IEC 60038; CE

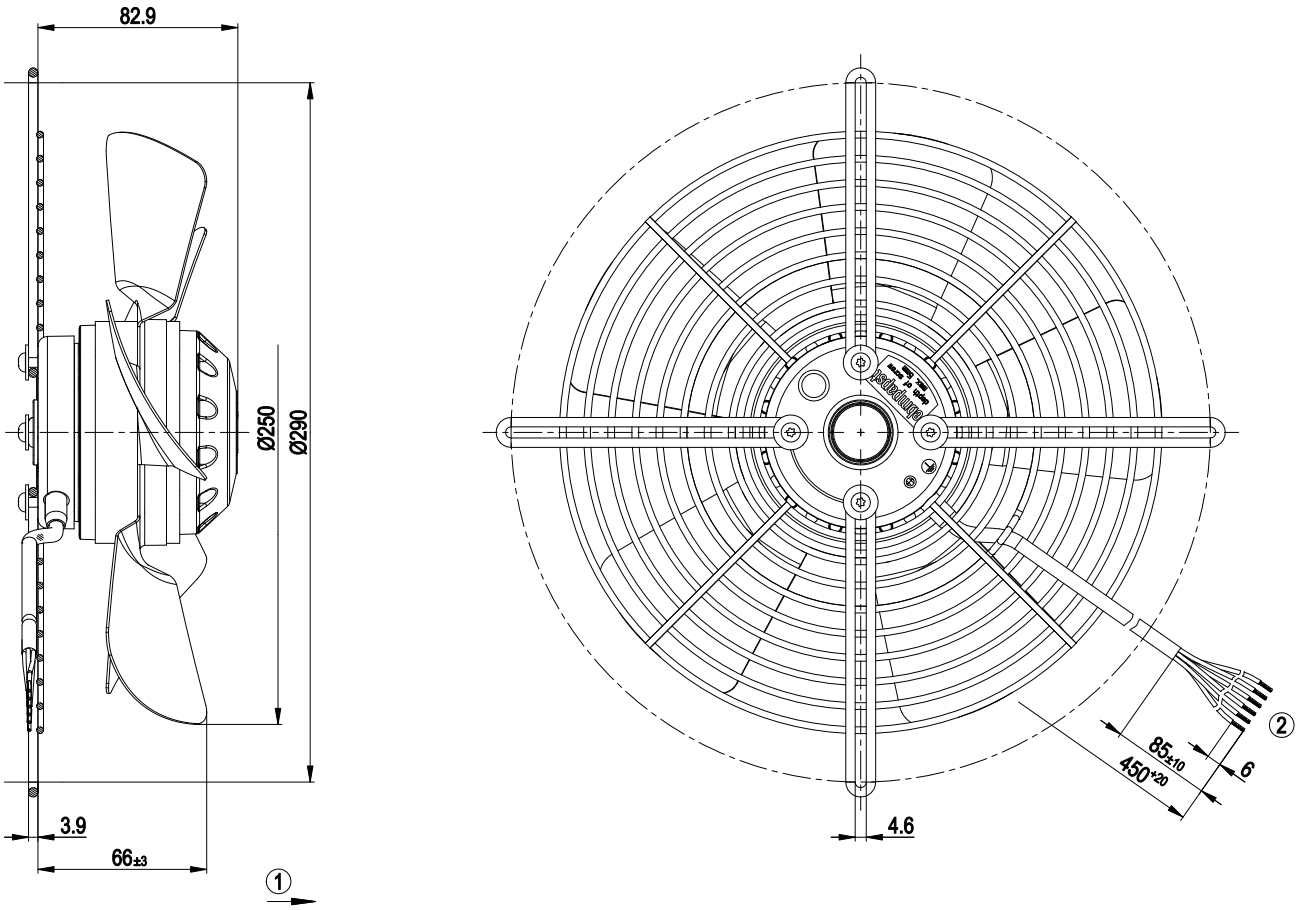
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Product drawing



1	Direction of air flow "A"
2	Connection line XLPE / XLPO 6G 0.5 mm², 6x lead tips crimped

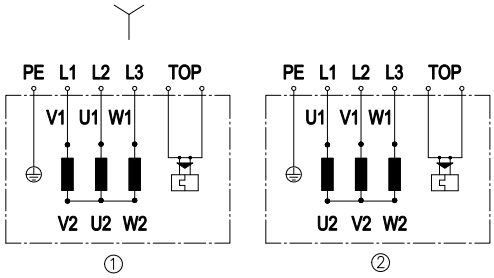
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Connection screen



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

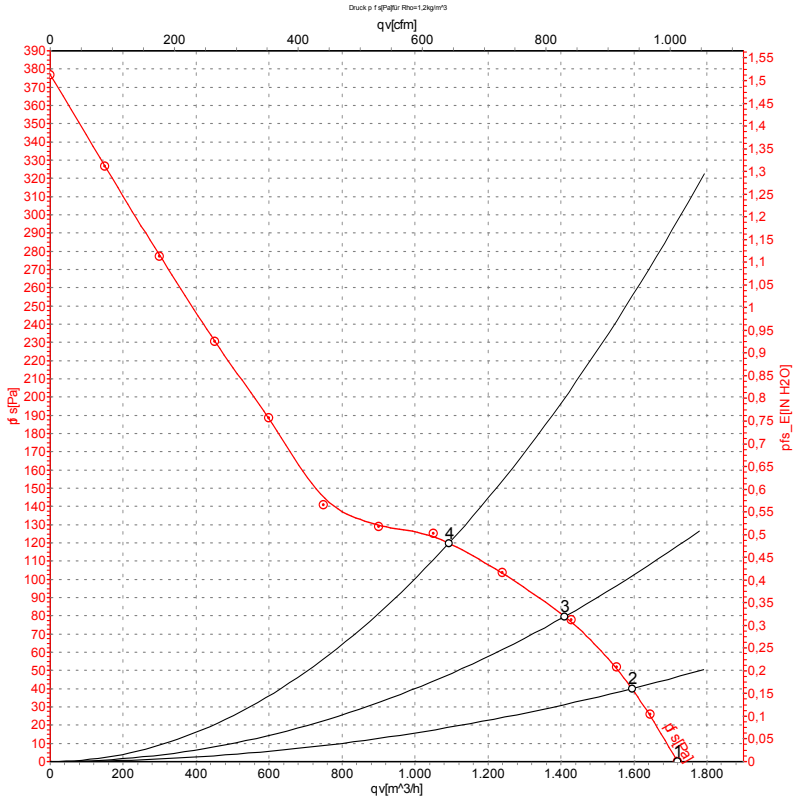
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Charts: Air flow 50 Hz Y



Measurement: LU-69121

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	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	400	50	2650	110	0.22	1720	0
2	Y	400	50	2620	126	0.23	1595	40
3	Y	400	50	2600	131	0.24	1410	80
4	Y	400	50	2595	131	0.24	1090	120

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

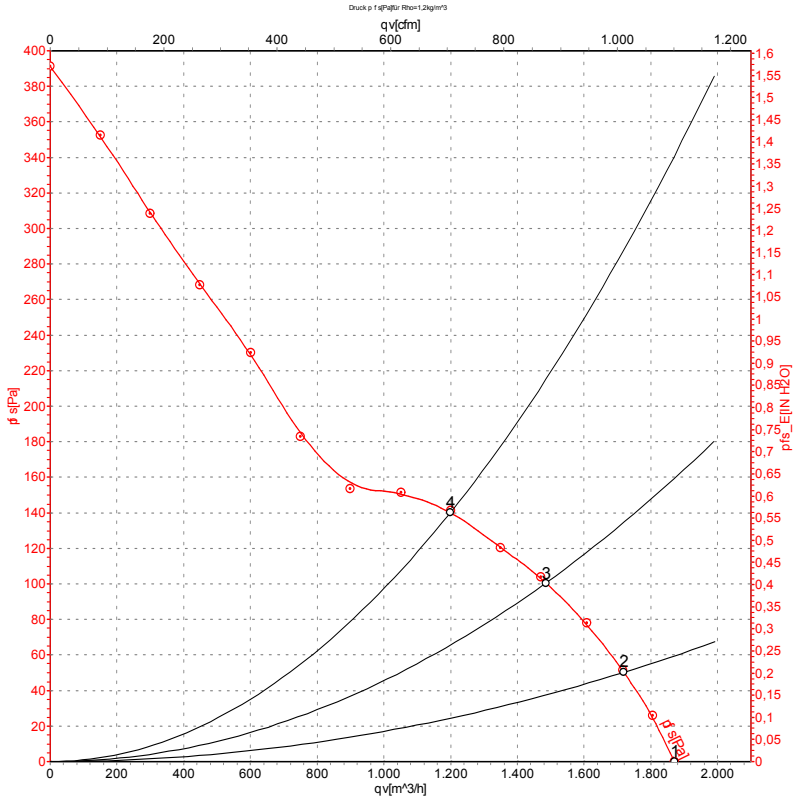
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Charts: Air flow 60 Hz Y



Measurement: LU-69123

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	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	400	60	2950	160	0.26	1870	0
2	Y	400	60	2850	177	0.28	1720	50
3	Y	400	60	2810	184	0.29	1485	100
4	Y	400	60	2805	184	0.29	1200	140

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

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