

AC axial fan

straight blades (A series)

with guard grille for short nozzle

S4D315-AC20-10 ebmpapst Datasheet

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Nominal data

Type	S4D315-AC20-10				
Motor	M4D068-EC				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1400	1590	1400	1590
Power input	W	78	115	78	115
Current draw	A	0.33	0.37	0.19	0.21
Max. back pressure	Pa	150	150	150	150
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	80	60	80	60
Starting current	A	1.04	0.97	0.6	0.56

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

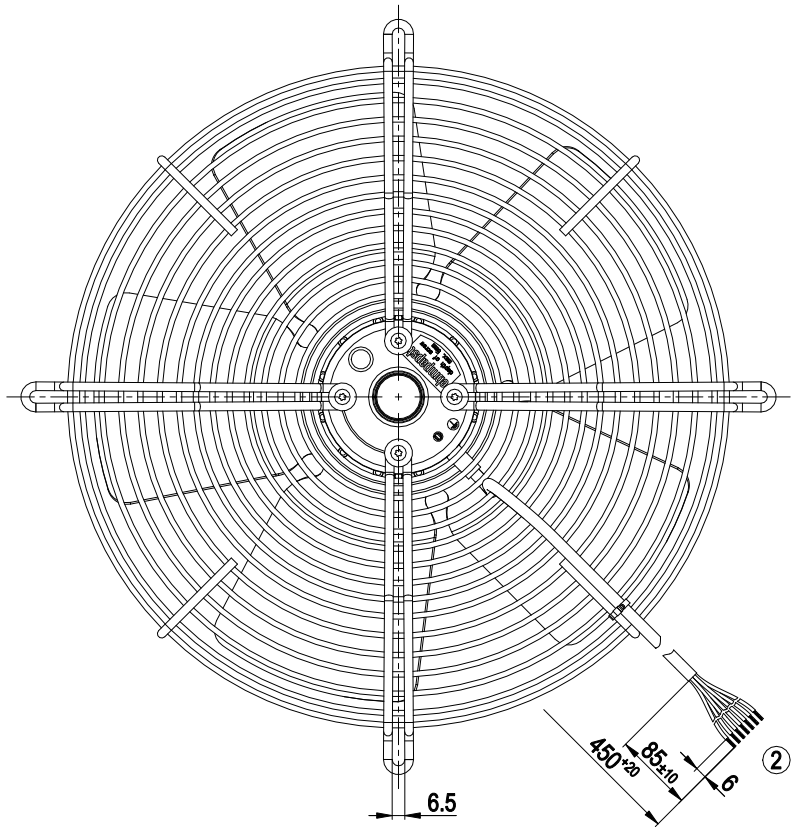
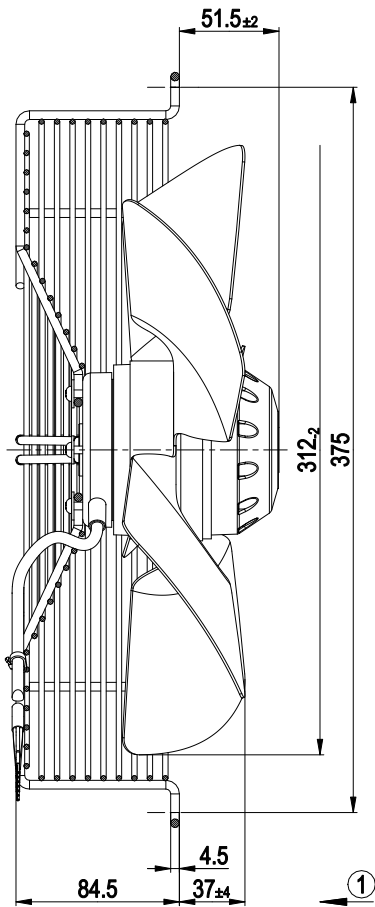
Mass	4.1 kg
Size	315 mm
Surface of rotor	Coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"B"
Humidity (F)/environmental protection class (H)	H0+
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
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1, motor does not have factory-installed overheating protection; CE



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Product drawing



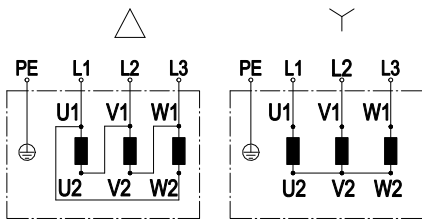
- | | |
|---|--|
| 1 | Direction of air flow "V" |
| 2 | Connection line PVC 7G 0.5 mm², 7x lead tips crimped |



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Connection screen



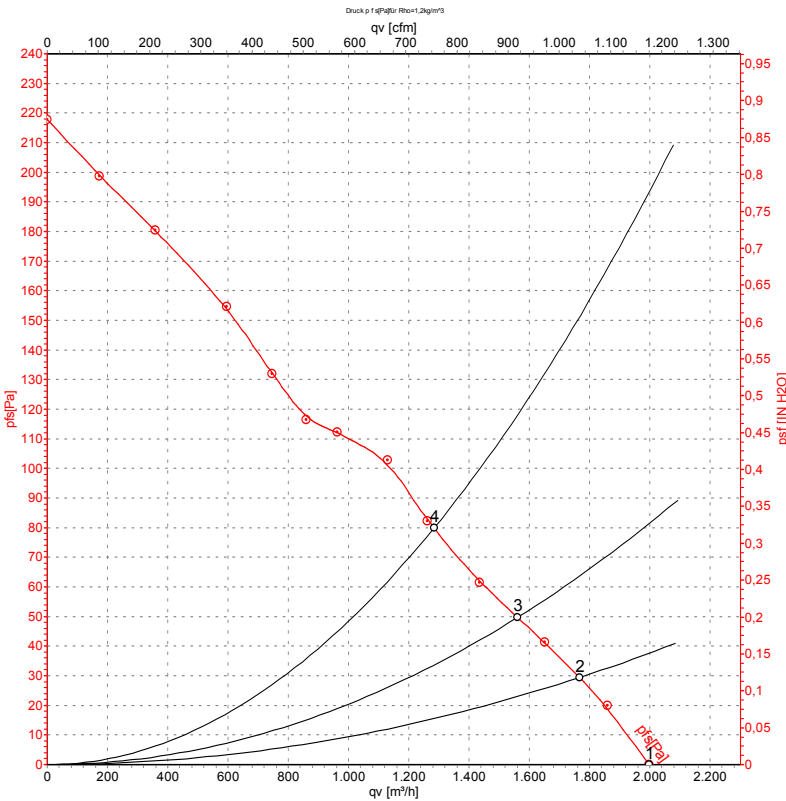
Change direction of rotation by reversing two phases

	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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Charts: Air flow 50 Hz



Measurement: LU-56877-1

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

	U	f	n	P _e	I	q _v	p _{1s}	q _v	p _{1s}
	V	Hz	min ⁻¹	W	A	m ³ /h	Pa	cfm	inH ₂ O
1	400	50	1400	78	0.19	1995	0	1175	0.00
2	400	50	1390	84	0.19	1765	29	1040	0.12
3	400	50	1385	87	0.20	1560	50	920	0.20
4	400	50	1375	94	0.20	1285	80	755	0.32

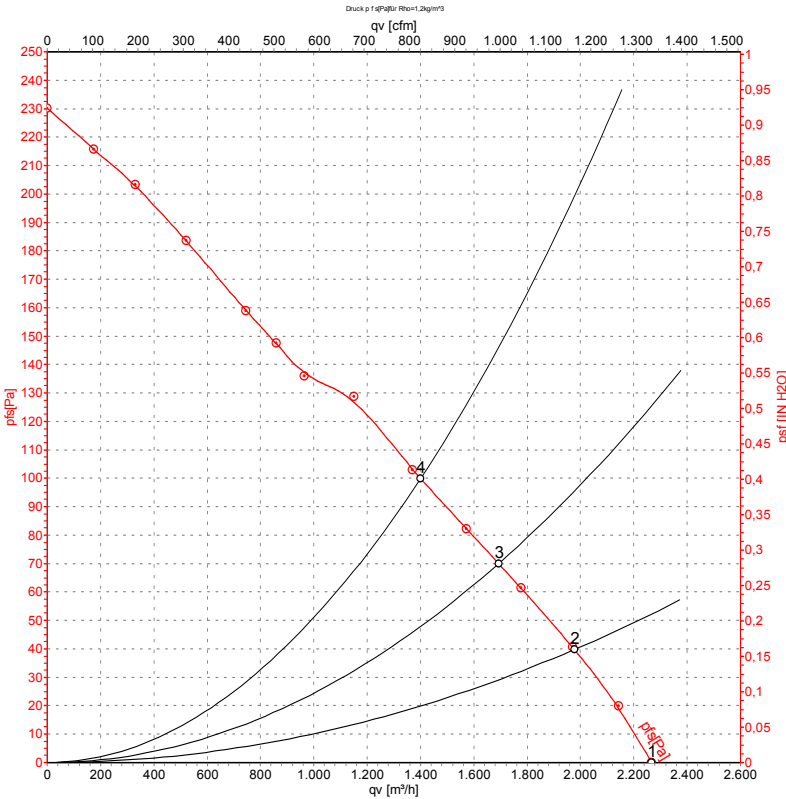
U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_v = Air flow · p_{1s} = Pressure increase



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Charts: Air flow 60 Hz



Measurement: LU-56878-1

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: L_{wA} measured as per ISO 13347 /
L_{pA} 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

	U	f	n	P _e	I	q _v	p _{is}	q _v	p _{is}
	V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	inH ₂ O
1	400	60	1590	115	0.21	2265	0	1335	0.00
2	400	60	1565	124	0.22	1975	40	1165	0.16
3	400	60	1555	129	0.22	1695	70	995	0.28
4	400	60	1530	138	0.24	1400	100	825	0.40

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_v = Air flow · p_{is} = Pressure increase

