S4D315-BC20-02

AC axial fan

straight blades (A series)

with guard grille for full nozzle

S4D315-BC20-02 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	**S4D315-BC20-02**
Motor	**M4D068-EC**

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}	1400	1590	1400	1590
Power consumption	W	78	115	78	115
Current draw	A	0.33	0.37	0.19	0.21
Max. back pressure	Pa	150	150	150	150
Max. back pressure	in. wg	0.6	0.6	0.6	0.6
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 = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

AC axial fan

straight blades (A series)

with guard grille for full nozzle

Technical description

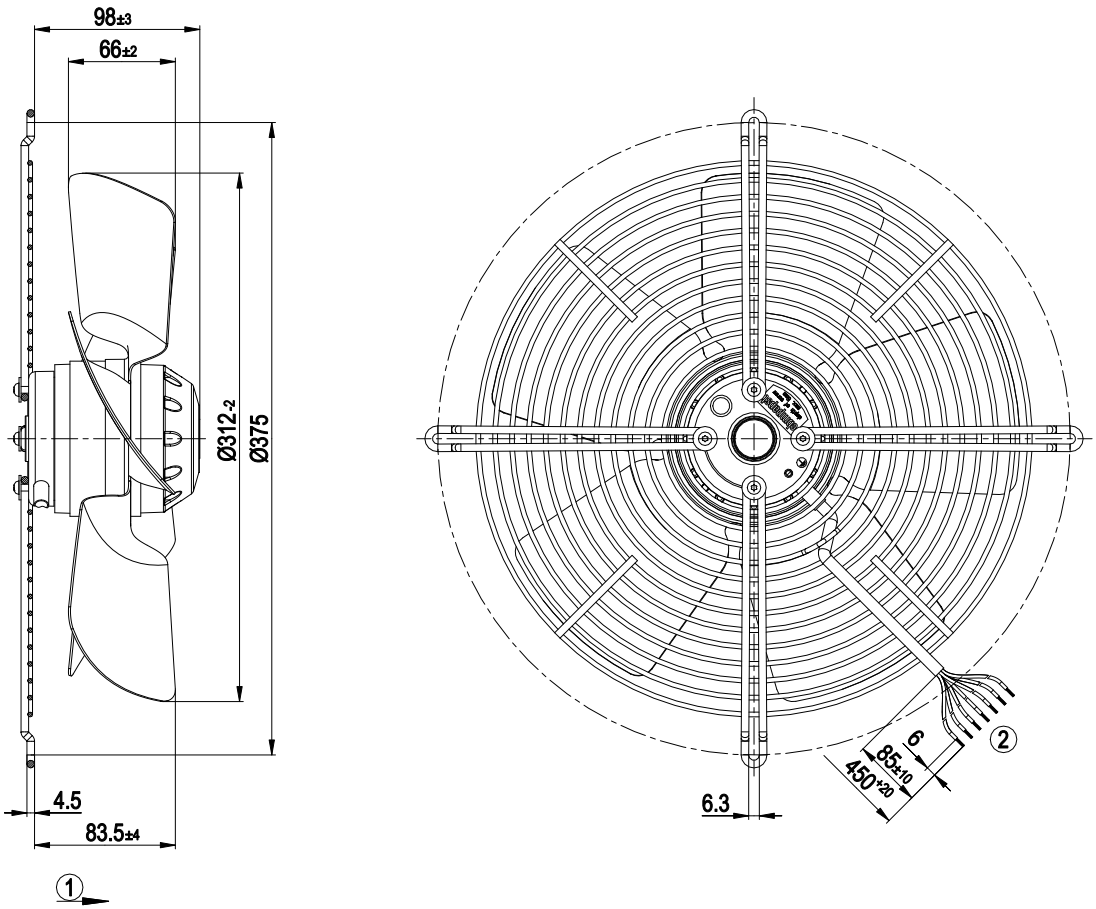
Weight	3.6 kg
Size	315 mm
Motor size	68
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized and painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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; CE

AC axial fan

straight blades (A series)

with guard grille for full nozzle

Product drawing



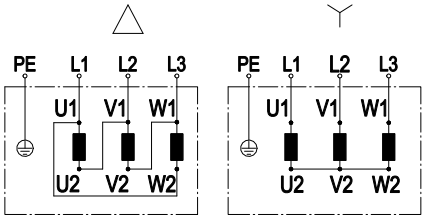
1	Direction of air flow "A"
2	Cable PVC 7G 0.5 mm², 7x crimped splices

AC axial fan

straight blades (A series)

with guard grille for full nozzle

Connection diagram



Change of rotation direction by reversing two phases

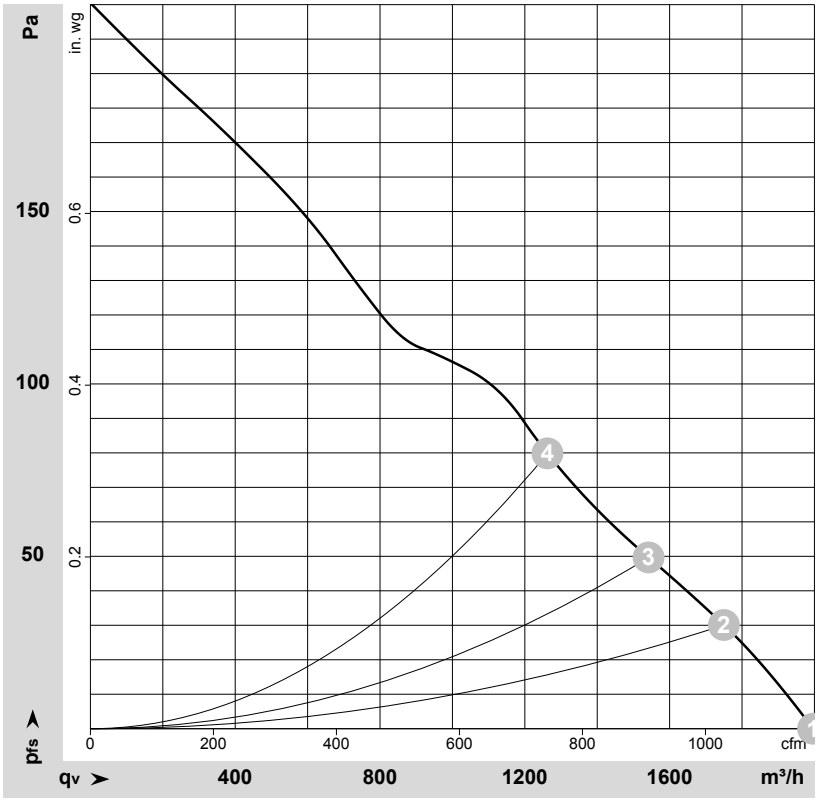
	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				

AC axial fan

straight blades (A series)

with guard grille for full nozzle

Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-56877-1

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	in. wg
1	Y	400	50	1400	78	0.19	1995	0	1175	0.00
2	Y	400	50	1390	84	0.19	1750	30	1030	0.12
3	Y	400	50	1385	87	0.20	1540	50	910	0.20
4	Y	400	50	1375	94	0.20	1265	80	745	0.32

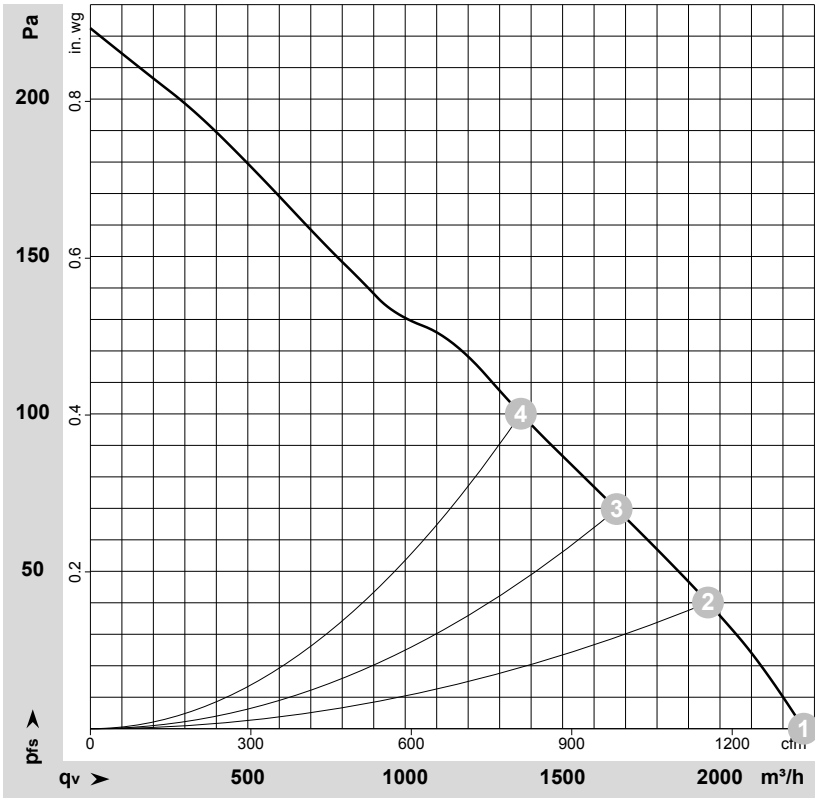
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

AC axial fan

straight blades (A series)

with guard grille for full nozzle

Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-56878-1

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	m^3/h	Pa	cfm	in. wg
1	400	60	1590	115	0.21	2265	0	1335	0.00
2	400	60	1565	124	0.22	1960	40	1155	0.16
3	400	60	1555	129	0.22	1670	70	985	0.28
4	400	60	1525	140	0.24	1365	100	805	0.40

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