

EC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

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General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	S1G315-AP01-51		
Motor	M1G055-DF		
Phase		1~	1~
Nominal voltage	VAC	230	230
Nominal voltage range	VAC	200 .. 240	200 .. 240
Frequency	Hz	50/60	50/60
Method of obtaining data		ml	
Speed (rpm)	min ⁻¹	1350	1000
Power consumption	W	80	
Current draw	A	0.7	
Max. back pressure	Pa	45	
Max. back pressure	in. wg	0.18	
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	40	40

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment

Subject to change



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Technical description

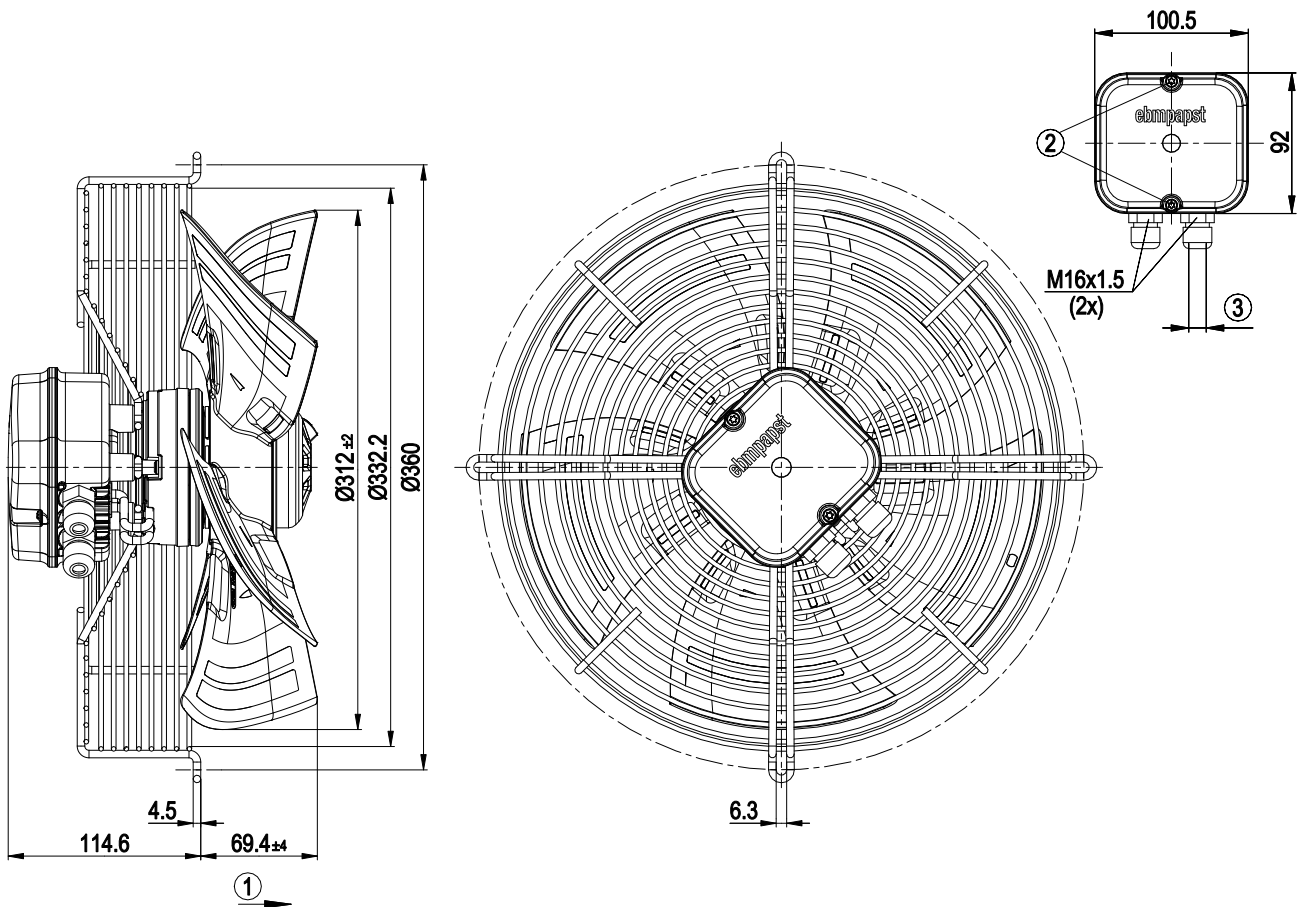
Weight	2.66 kg
Size	315 mm
Motor size	55
Rotor surface	Thick-film passivated
Terminal box material	PP plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Airflow direction	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 70 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing with low-temperature lubricant
Technical features	- Speed setting input (230 V) - Power limiter - Motor current limitation - Soft start - Thermal overload protection for motor
Speed levels	2
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 0.25 mA
Electrical hookup	Terminal box
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE



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Product drawing

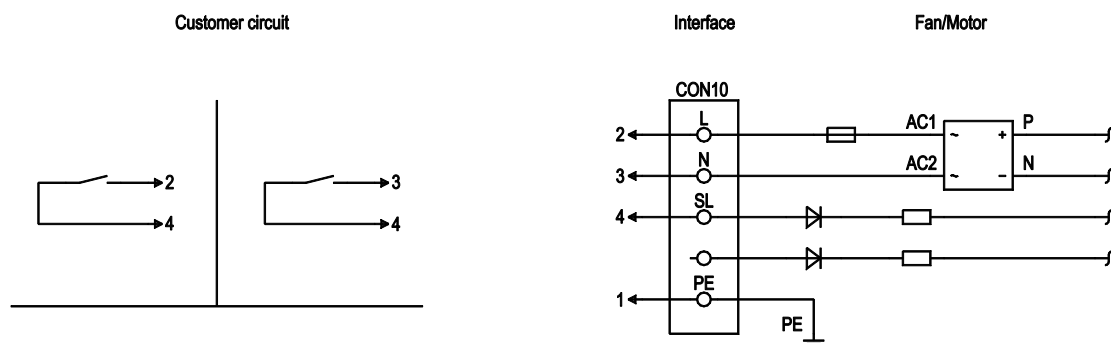


1	Direction of air flow "A"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter max. 7.5 mm, tightening torque 1.3 ± 0.2 Nm

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Connection diagram



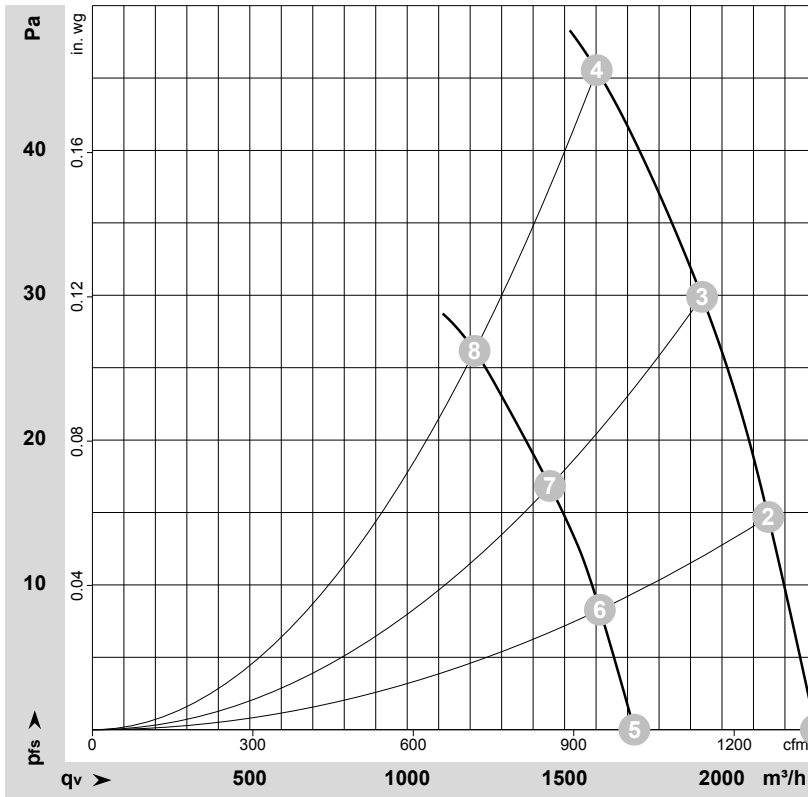
No.	Conn.	Designation	Color	Function/assignment
2	L		black	Power supply, phase, see nameplate for voltage range
3	N		blue	Power supply, neutral conductor, see nameplate for voltage range
1	PE		green/yellow	Protective earth
4	SL		yellow	Speed selection: switch open speed 1, switch closed speed 2



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Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-186620-1
Measurement: LU-186637-1

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

	Stage	U	f	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	1	230	50	1435	80	0.70	56	65	2300	0	1355	0.00
2	1	230	50	1405	80	0.70	56	64	2145	15	1265	0.06
3	1	230	50	1385	80	0.70	55	64	1935	30	1140	0.12
4	1	230	50	1350	80	0.70	56	64	1600	45	945	0.18
5	2	230	50	1080	35	0.33	49	57	1720	0	1015	0.00
6	2	230	50	1060	35	0.32	48	57	1610	9	950	0.04
7	2	230	50	1040	35	0.32	48	57	1455	17	855	0.07
8	2	230	50	1000	35	0.32	48	58	1215	26	715	0.10

U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_v = Air flow · p_{fs} = Pressure increase

