

# EC axial panel fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

Type	S3G250-AH07-30		
Motor	M3G055-CF		
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	ml
Speed (rpm)	min <sup>-1</sup>	2350	1820
Power consumption	W	83	41
Current draw	A	0.72	
Max. back pressure	Pa	120	
Max. back pressure	in. wg	0.48	
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60

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

### Technical description

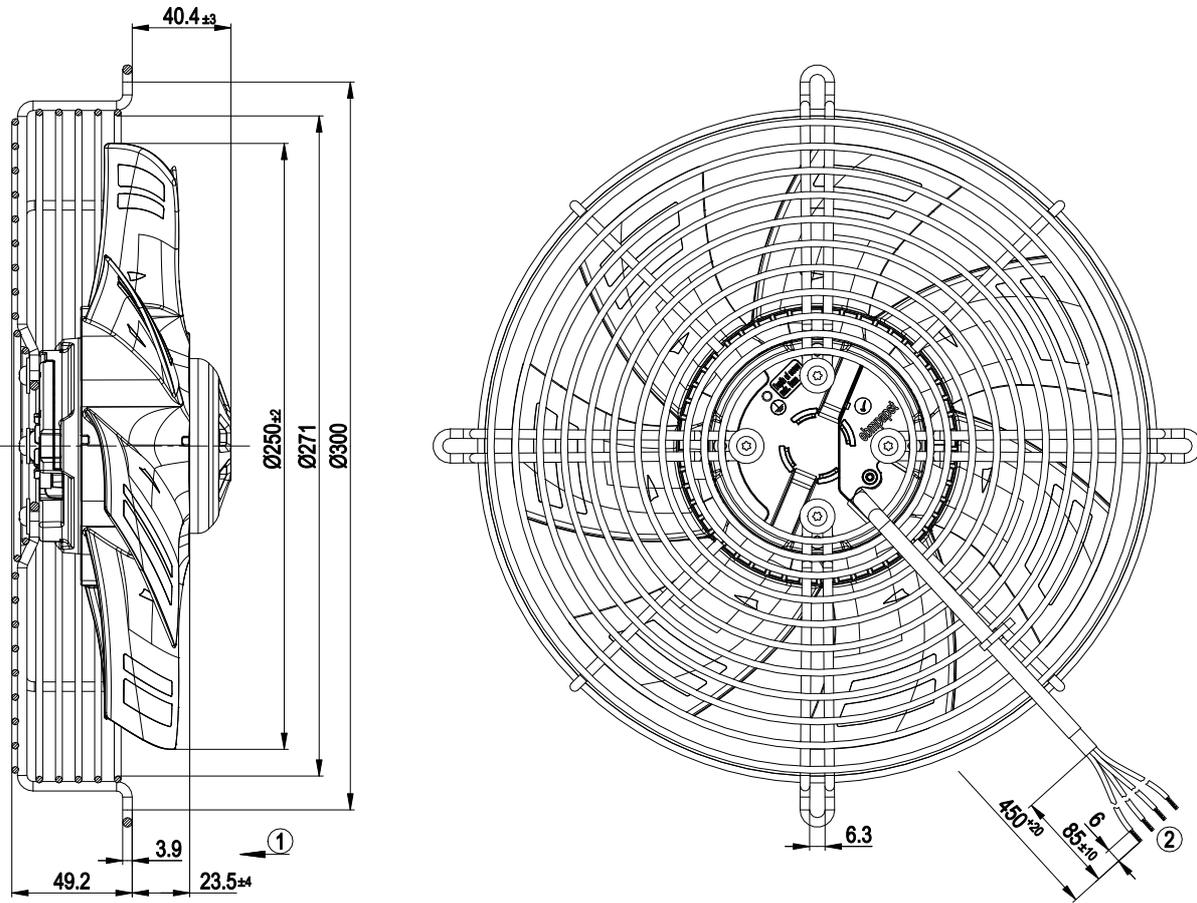
Weight	2 kg
Size	250 mm
Motor size	55
Rotor surface	Thick-film passivated
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °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
Technical features	<ul style="list-style-type: none"> <li>- Speed setting input (230 V)</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Thermal overload protection for electronics/motor</li> </ul>
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)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class assignment	I; If a protective earth is connected. The built-in component has several local protection class assignments. The final protection class is determined by the intended installation.
Conformity with standards	EN 60335-1; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	CCC

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## Product drawing



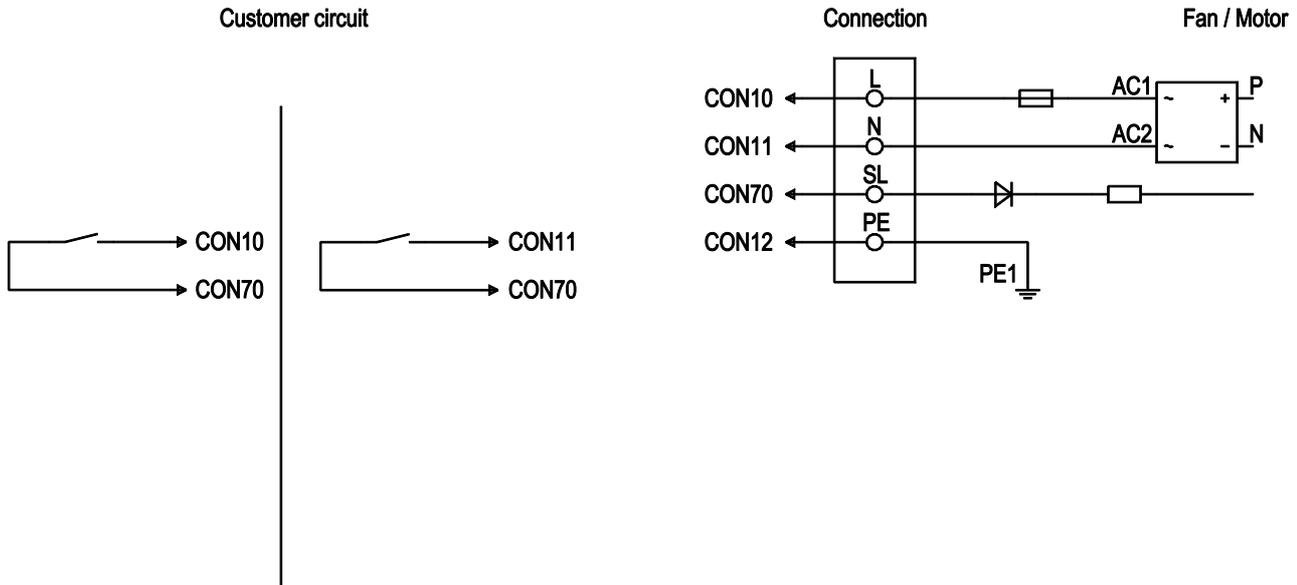
- |   |   |
|---|---|
| 1 | Direction of air flow "V"                             |
| 2 | Cable PVC 4x 0.5 mm <sup>2</sup> , 4x crimped splices |

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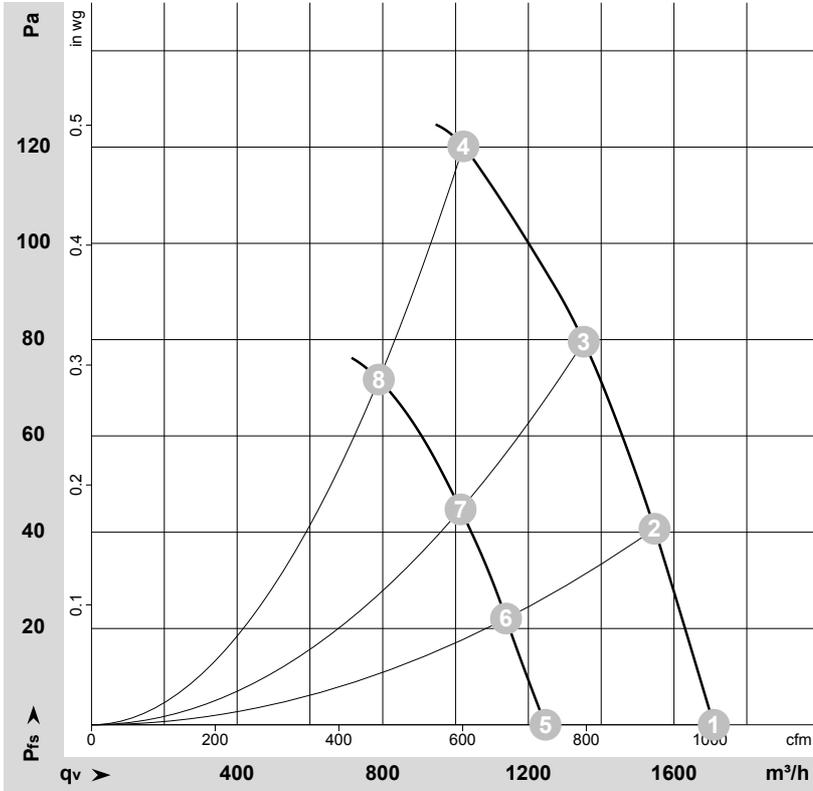
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## Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON 10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open speed 1; switch closed speed 2

## Curves: Air performance 50 Hz



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

Measurement: LU-140478-1  
Date: 2012-02-15  
Housing: 18910-2-4037

Measurement: LU-151093-1  
Date: 2012-11-21  
Housing: 18910-2-4037

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 <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	2480	70	0.63	64	71	1710	0	1005	0.00
2	230	50	2425	79	0.67	64	70	1545	40	910	0.16
3	230	50	2385	84	0.71	64	71	1350	80	795	0.32
4	230	50	2330	83	0.72	66	74	1020	120	600	0.48
5	230	50	1860	30	0.30			1245	0	735	0.00
6	230	50	1840	33	0.32			1140	22	670	0.09
7	230	50	1820	36	0.35			1015	45	595	0.18
8	230	50	1805	39	0.37			790	72	465	0.29

U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase