W1G250-BB21-01

EC axial fan - ESM

sickled blades (S series)

ESM wall ring with guard grille



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**W1G250-BB21-01**
Motor	**M1G055-BI**

Phase		1~	1~
Nominal voltage	VAC	115	115
Frequency	Hz	50/60	50/60
Type of data definition		ml	
Speed (rpm)	min^{-1}	1700	1200
Power input	W	32	
Current draw	A	0.47	
Max. back pressure	Pa	40	
Min. ambient temperature	°C	-30	-30
Max. ambient temperature	°C	50	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

EC axial fan - ESM

sickled blades (S series)

ESM wall ring with guard grille

Technical features

Mass	1.6 kg
Size	250 mm
Motor size	55
Material of blades	PA plastic
Material of wall ring	PP plastic
Number of blades	5
Direction of air flow	V
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP55
Insulation class	"B"
Humidity (F) / environmental protection class (H)	H1+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensation drainage holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Speed selection max/min - ESM+ extensible with plug-in module - Soft start - Over-temperature protected motor
Speed steps	2
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Electrical connection	Connector with connection line
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Lateral
Protection class	II
Product conforming to standard	EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE
Approval	VDE; CSA C22.2 no. 77; EAC; UL 1004-3

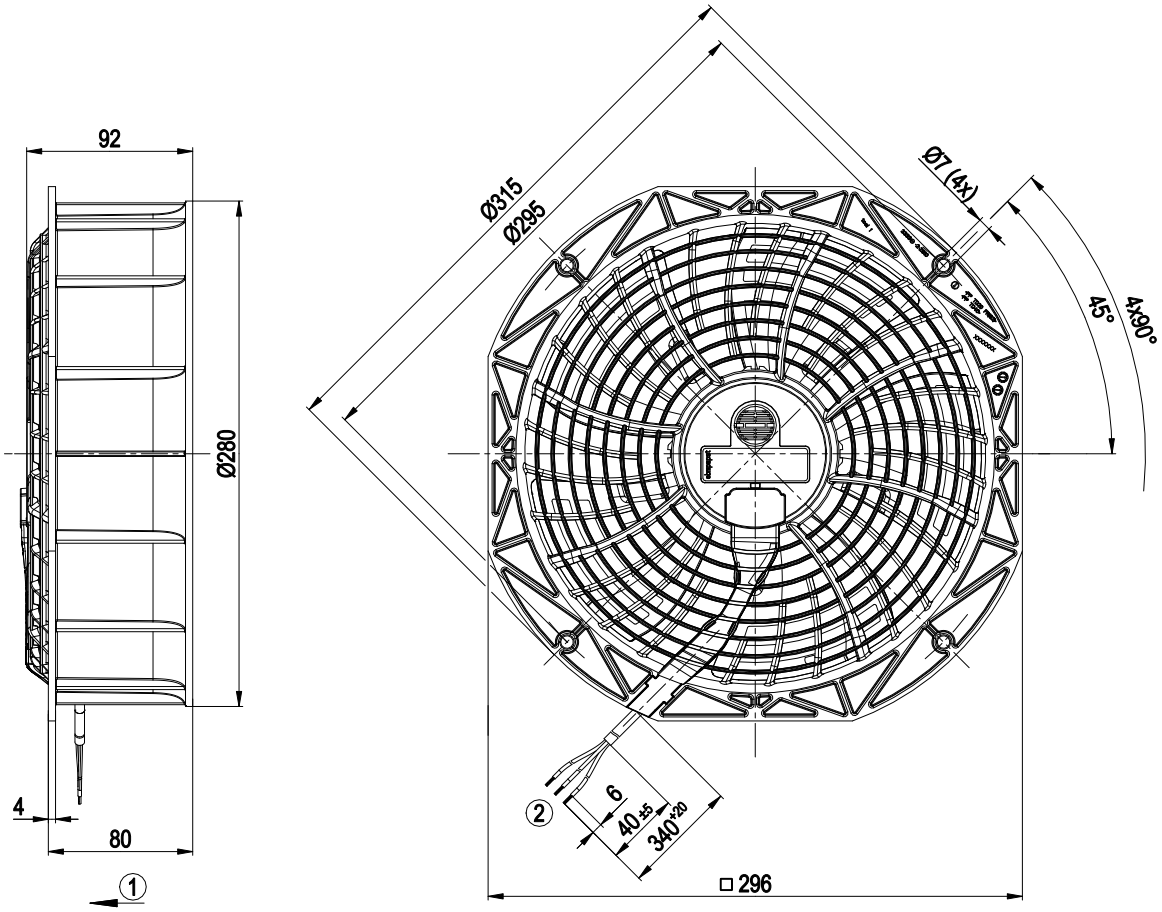
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC axial fan - ESM

sickled blades (S series)

ESM wall ring with guard grille

Product drawing



1	Direction of air flow "V"
2	Connection line PVC AWG20
	3x lead tip

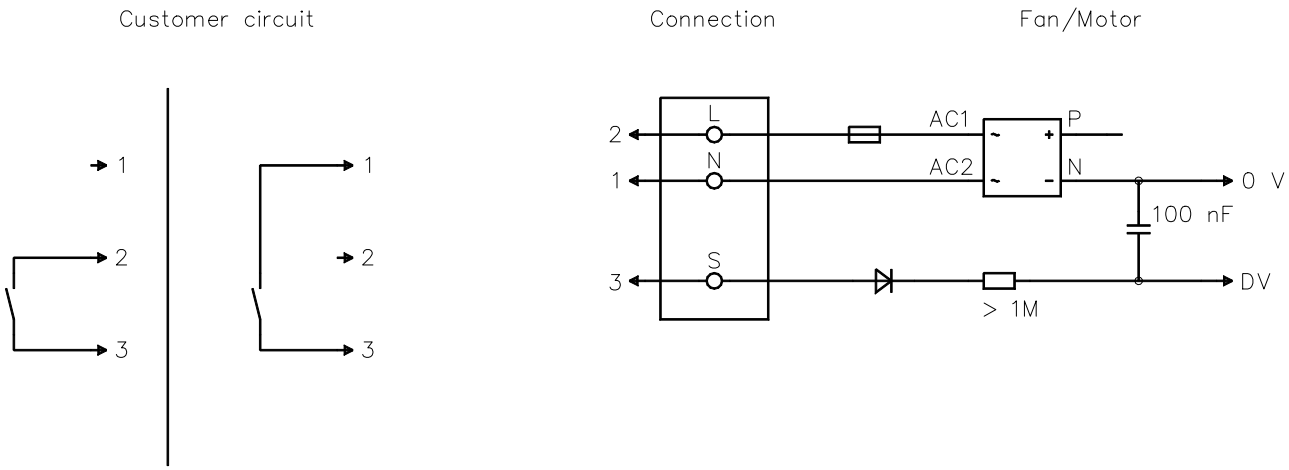
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC axial fan - ESM

sickled blades (S series)

ESM wall ring with guard grille

Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	N		blue	Neutral conductor
2	L		black	Power supply 115 VAC, 50-60 Hz, see type plate for voltage range
3	S		brown	Speed selection: Switch open = speed 1 (fast), switch closed = speed 2 (slow)

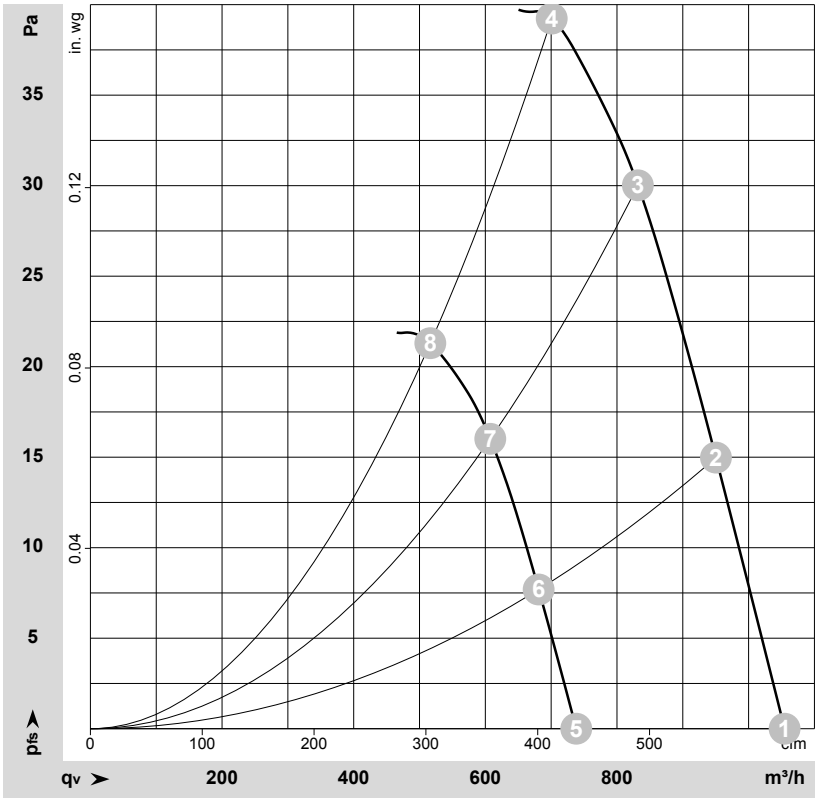
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC axial fan - ESM

sickled blades (S series)

ESM wall ring with guard grille

Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-113725-1
Measurement: LU-113734-1

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

	Stage	Conn.	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	1~	115	50	1700	30	0.44	55	62	1055	0	620	0.00
2	1	1~	115	50	1700	31	0.45	56	63	950	15	560	0.06
3	1	1~	115	50	1700	32	0.47	56	64	830	30	490	0.12
4	1	1~	115	50	1700	32	0.47	57	66	700	40	415	0.16
5	2	1~	115	50	1200	14	0.22	46	53	740	0	435	0.00
6	2	1~	115	50	1200	15	0.24	46	54	680	8	400	0.03
7	2	1~	115	50	1200	16	0.25	47	55	610	16	360	0.06
8	2	1~	115	50	1200	16	0.26	48	57	515	21	305	0.08

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
q_V = Air flow · p_{fs} = Pressure increase

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com