W3G250-HH53-03

EC axial compact fan

sickled blades (S series)



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Nominal data

Type	**W3G250-HH53-03**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2040
Power input	W	56
Current draw	A	0.9
Max. back pressure	Pa	80
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

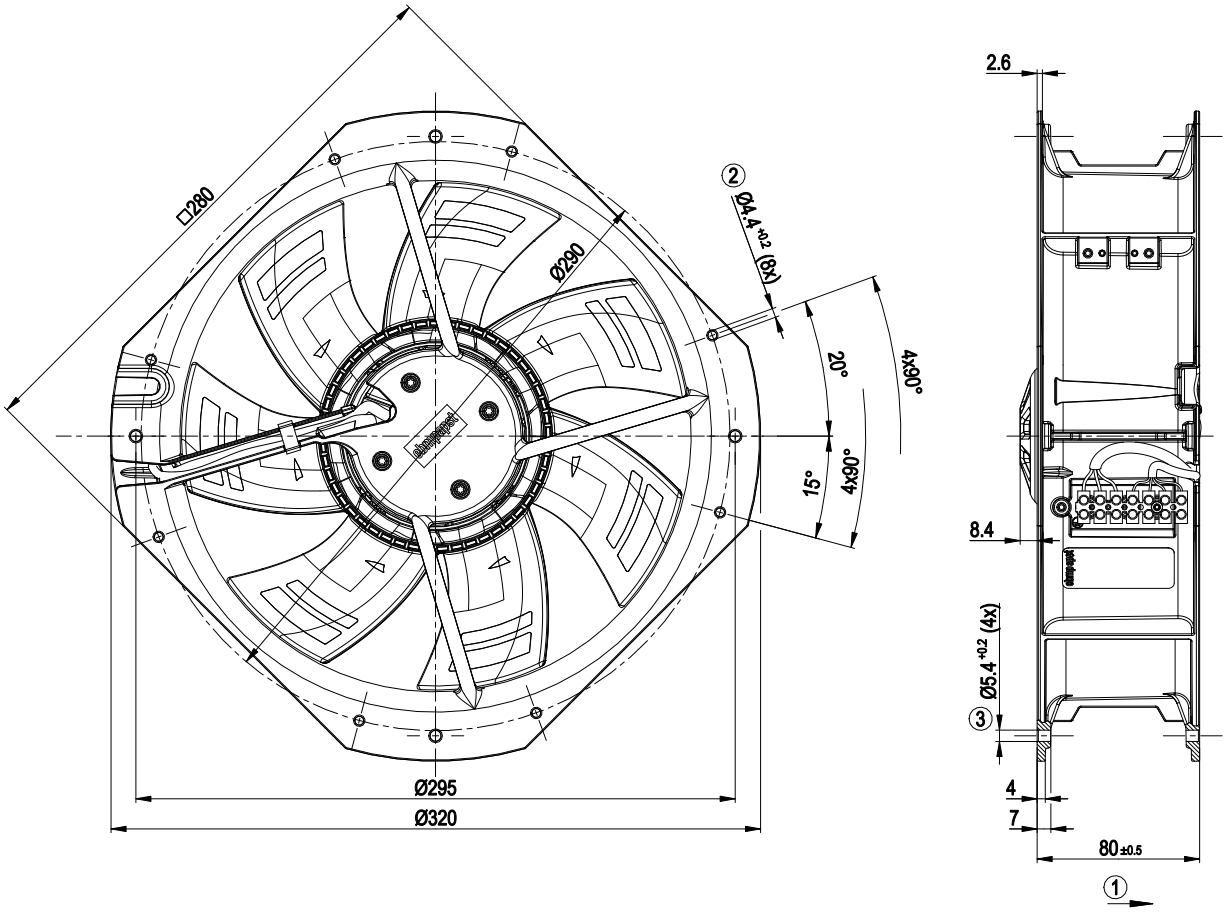
Mass	2.15 kg
Size	250 mm
Motor size	55
Surface of rotor	Thick layer passivated
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Die-cast aluminium
Number of blades	7
Direction of air flow	V
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP54
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, open rotor
Operation mode	S1
Motor bearing	Ball bearing
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical connection	Terminal strip
Motor protection	Electronic motor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 no. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

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Product drawing



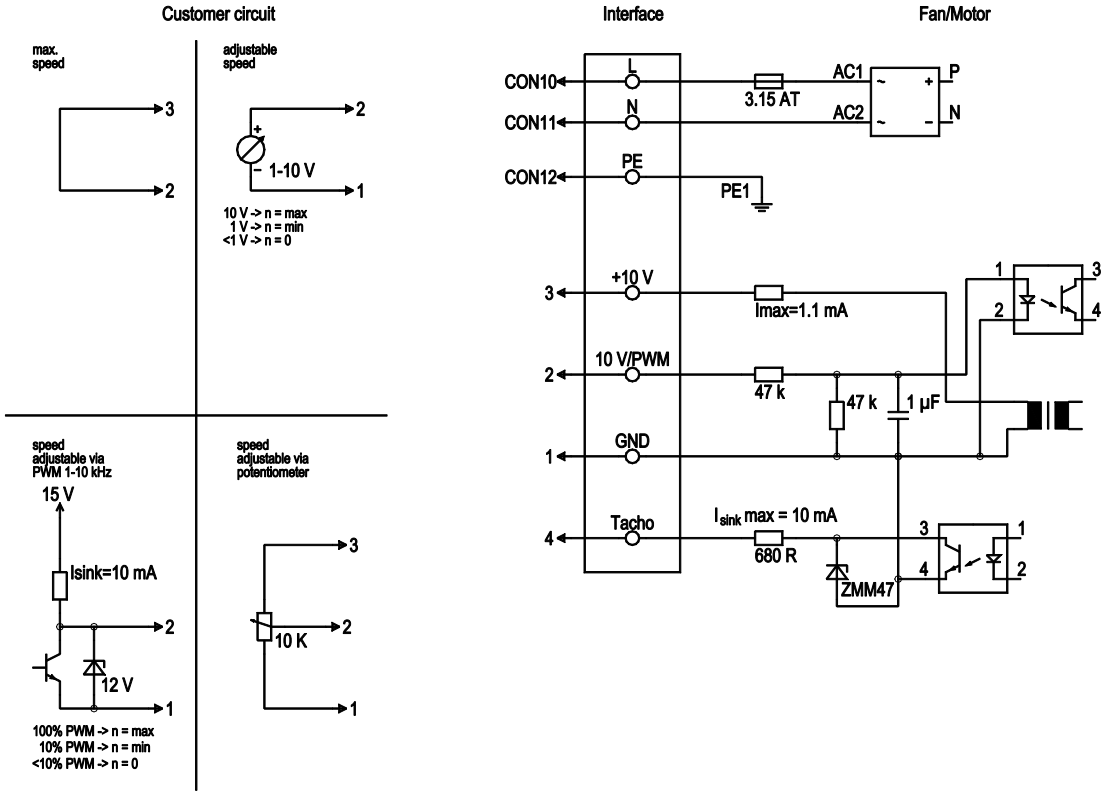
1	Direction of air flow "V"
2	For self-tapping M5 screws
3	For self-tapping M6 screws

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Connection screen



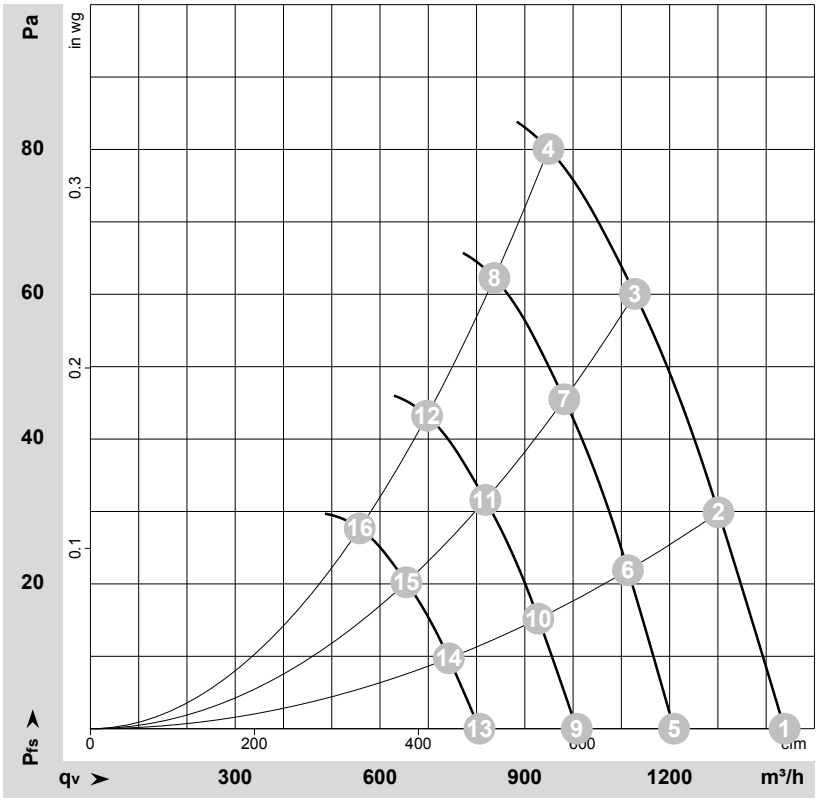
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 115 VAC, 50-60 Hz, see type plate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0- 10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171661-1

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_{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	115	50	2140	43	0.72	56	63	1440	0	845	0.00
2	115	50	2100	49	0.80	56	63	1300	30	765	0.12
3	115	50	2070	53	0.86	57	64	1130	60	665	0.24
4	115	50	2040	56	0.90	58	65	950	80	560	0.32
5	115	50	1800	26	0.43			1210	0	710	0.00
6	115	50	1800	31	0.50			1115	22	655	0.09
7	115	50	1800	35	0.57			980	46	580	0.18
8	115	50	1800	38	0.62			835	62	495	0.25
9	115	50	1500	15	0.25			1010	0	595	0.00
10	115	50	1500	18	0.29			930	16	545	0.06
11	115	50	1500	20	0.33			820	32	480	0.13
12	115	50	1500	22	0.36			695	43	410	0.17
13	115	50	1200	8.0	0.13			805	0	475	0.00
14	115	50	1200	9.0	0.15			740	10	435	0.04
15	115	50	1200	10.0	0.17			655	20	385	0.08
16	115	50	1200	11	0.18			560	28	330	0.11

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

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