W3G250-HK19-11

EC axial compact fan

sickle-shaped blades (S series), single-intake

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Nominal data

Type	**W3G250-HK19-11**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2730
Power consumption	W	125
Current draw	A	1.1
Max. back pressure	Pa	138
Max. back pressure	in. wg	0.55
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

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Technical description

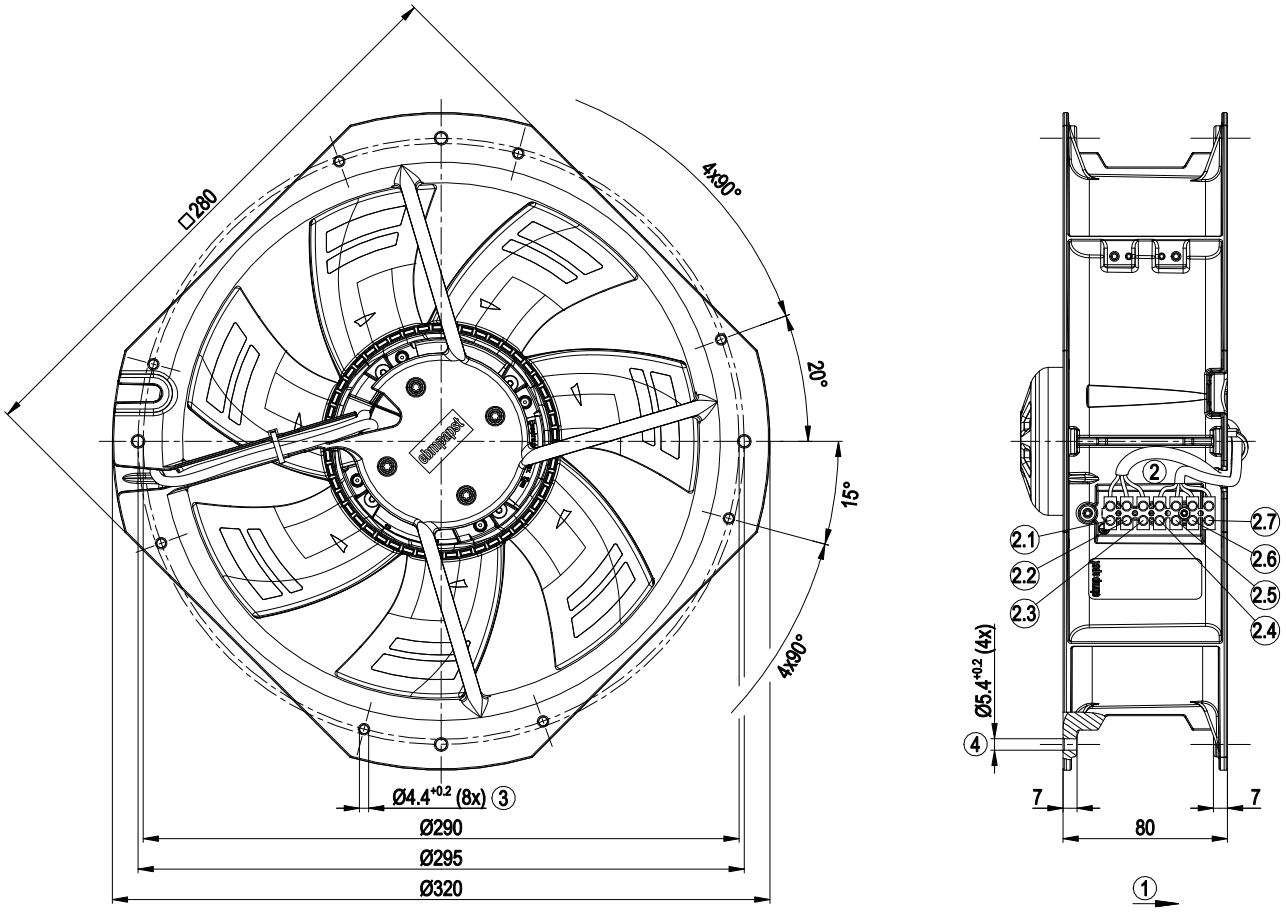
Weight	3.3 kg
Size	250 mm
Motor size	55
Rotor surface	Thick-film passivated
Blade material	PP plastic
Fan housing material	Die-cast aluminum
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / 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	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
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), on account of the installation conditions, ferritic damping in the cable may be required for the application.
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Terminal strip
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	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



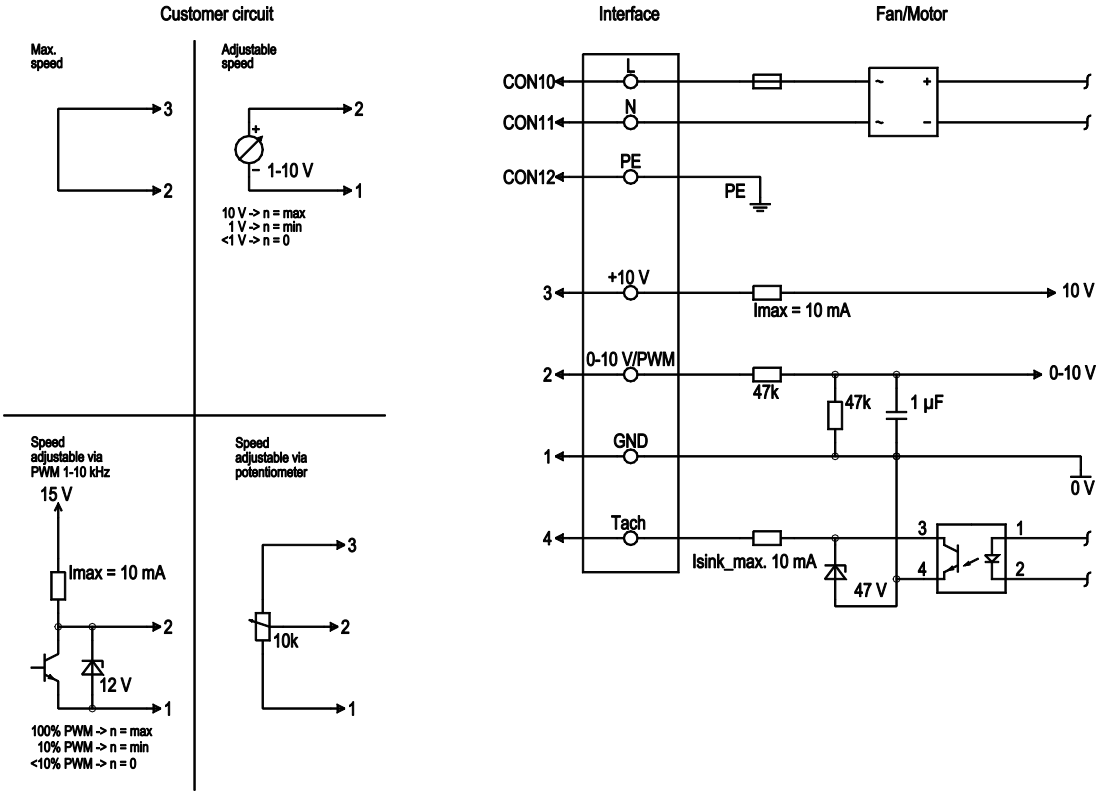
1	Direction of air flow "V"
2	Cable PVC AWG20 and PVC AWG22, 1x 7-pole terminal strip
2.1	L (black)
2.2	N (blue)
2.3	PE (green/yellow)
2.4	+10 V (red)
2.5	0-10 V PWM (yellow)
2.6	GND (blue)
2.7	Tach (white)
3	For self-tapping M5 screws
4	For self-tapping M6 screws

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Connection diagram



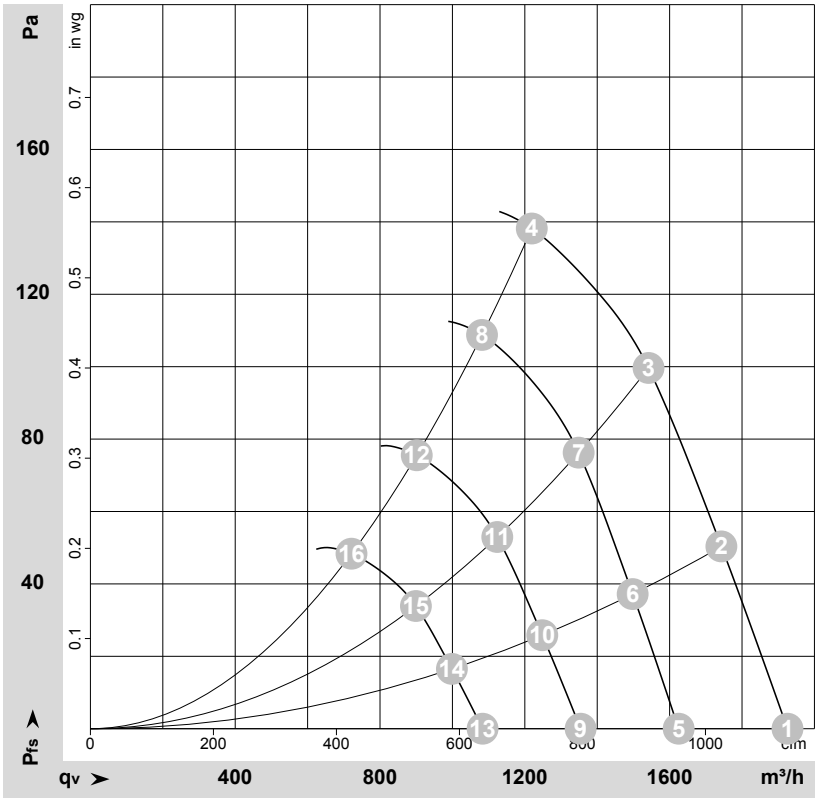
No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-154348-1

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_{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	230	50	2845	96	0.83	64	70	1925	0	1135	0.00
2	230	50	2795	110	0.93	64	70	1745	50	1025	0.20
3	230	50	2745	121	1.03	64	71	1540	100	910	0.40
4	230	50	2730	125	1.10	64	71	1220	138	715	0.55
5	230	50	2400	58	0.50	59	66	1625	0	955	0.00
6	230	50	2400	70	0.59	60	67	1500	37	880	0.15
7	230	50	2400	81	0.69	60	67	1350	76	795	0.31
8	230	50	2400	89	0.76	60	67	1080	109	635	0.44
9	230	50	2000	34	0.29	55	61	1355	0	795	0.00
10	230	50	2000	40	0.34	55	62	1250	26	735	0.10
11	230	50	2000	47	0.40	55	62	1125	53	660	0.21
12	230	50	2000	52	0.44	55	62	900	76	530	0.31
13	230	50	1600	17	0.15	49	56	1085	0	635	0.00
14	230	50	1600	21	0.18	50	56	1000	17	590	0.07
15	230	50	1600	24	0.20	50	57	900	34	530	0.14
16	230	50	1600	27	0.22	50	57	720	49	425	0.20

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

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