G3G160-AC50-14

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G3G160-AC50-14**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2150
Power consumption	W	170
Current draw	A	1.25
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	3.6 kg
Fan size	160 mm
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, sendzimir galvanized
Housing material	Die-cast aluminum
Guard grille material	Steel, bright-galvanized and blue chromated
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Soft start - Motor current limitation
EMC immunity to interference	According to EN 61000-6-2
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	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1; EN 60204-1; CE
Approval	CSA C22.2 No. 77; UL 2111

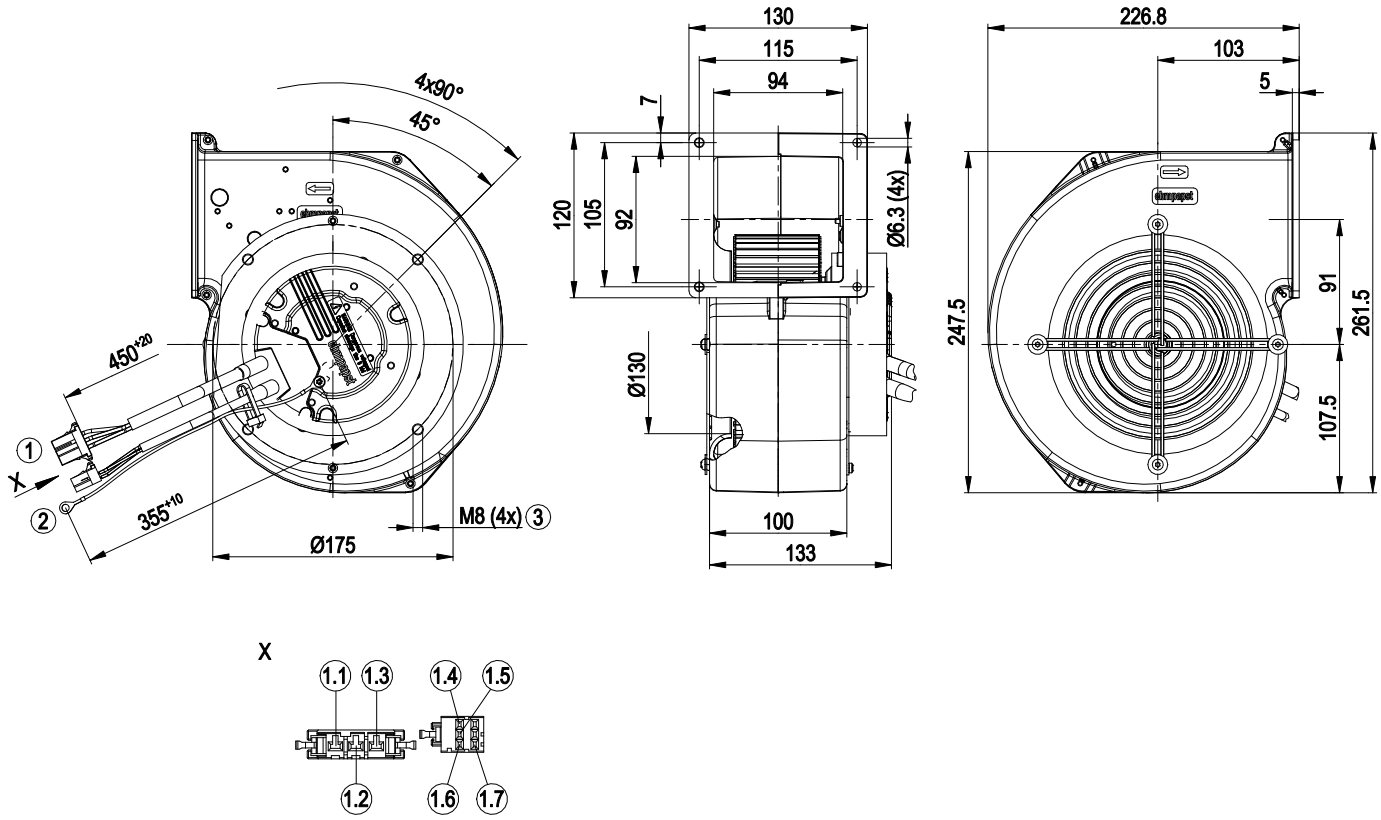
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Product drawing



1	1x cable PVC 3x AWG18 with connector housing AMP 1-178128-3, 1x cable PVC 4x AWG22 with connector housing AMP 1-1318119-3
1.1	blue (N) in 3
1.2	green/yellow (PE) in 2
1.3	black (L) in 1
1.4	white (tach output) in B1
1.5	yellow (0-10/PWM) in B2
1.6	blue (-) in B3
1.7	red (+) in A3
2	Ground conductor AWG18, 1x ring terminal tyco 160101-2
3	Rivet nut with M8 thread for mounting

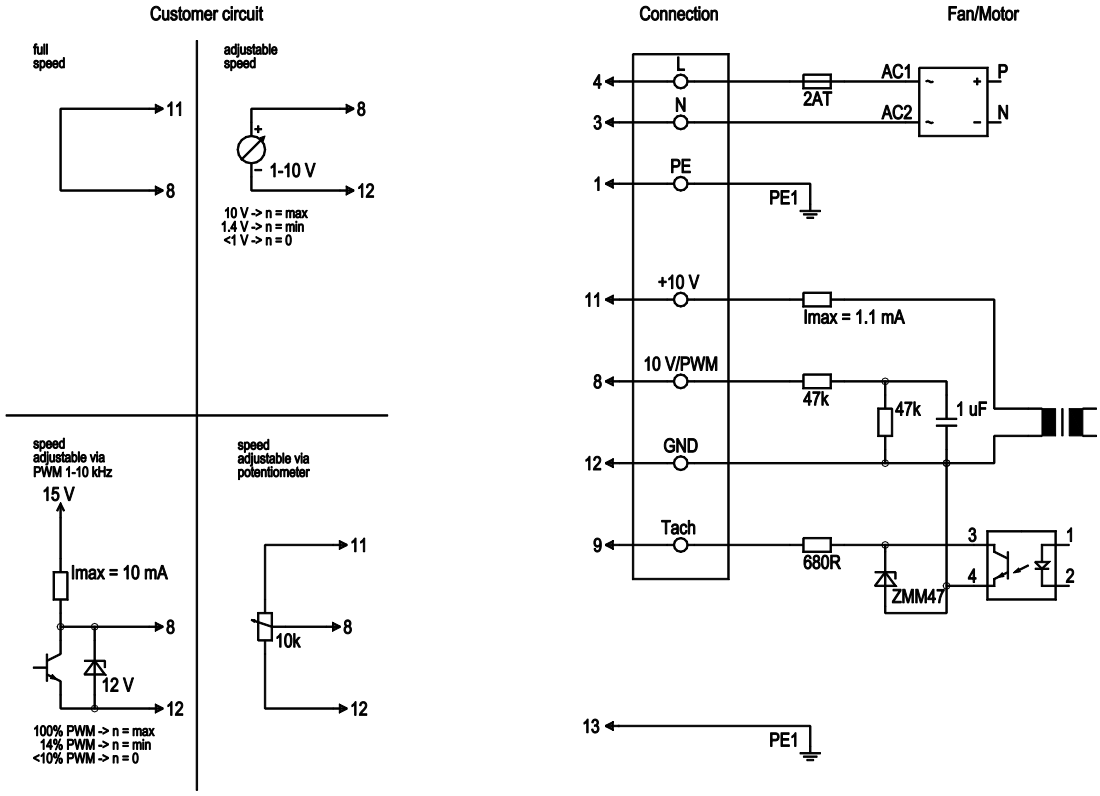
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V / max. 1.1 mA, electrically isolated
	12	GND	blue	GND connection for control interface
	13	PE		Protective earth

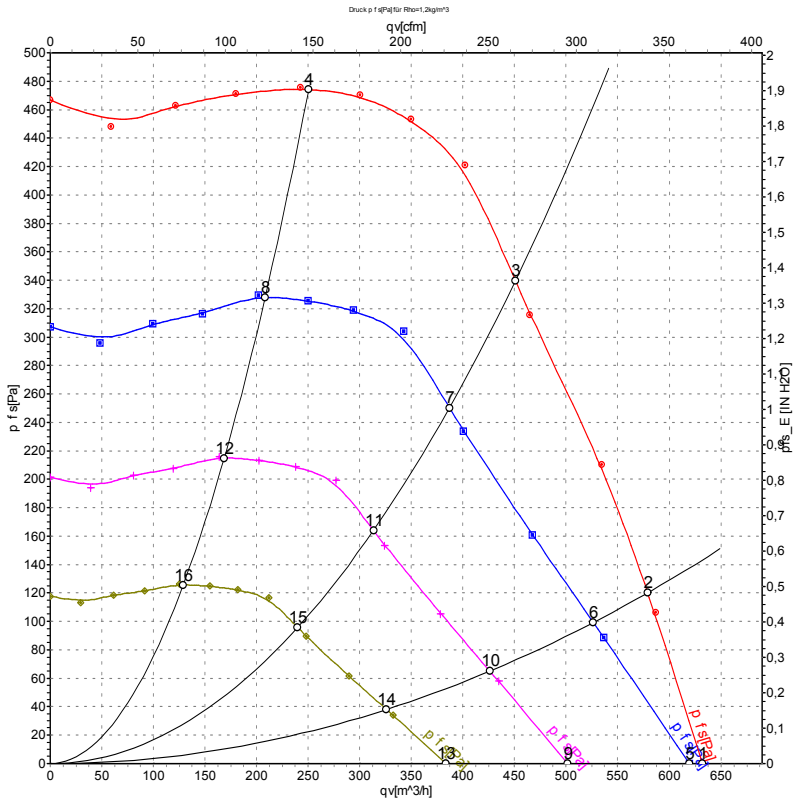
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Curves: Air performance 50 Hz



Measurement: LU-69200-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	2150	170	1.25	630	0	370	0.00
2	230	50	2310	170	1.25	580	120	340	0.48
3	230	50	2445	142	1.07	450	340	265	1.36
4	230	50	2525	97	0.74	250	475	145	1.91
5	230	50	2100	162	1.19	620	0	365	0.00
6	230	50	2100	129	0.96	525	100	310	0.40
7	230	50	2100	90	0.68	385	250	230	1.00
8	230	50	2100	56	0.42	210	329	120	1.32
9	230	50	1700	86	0.63	500	0	295	0.00
10	230	50	1700	69	0.51	425	65	250	0.26
11	230	50	1700	48	0.36	315	164	185	0.66
12	230	50	1700	30	0.23	170	216	100	0.87
13	230	50	1300	38	0.28	385	0	225	0.00
14	230	50	1300	31	0.23	325	38	190	0.15
15	230	50	1300	21	0.16	240	96	140	0.39
16	230	50	1300	13	0.10	130	126	75	0.51

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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