G3G160-AC50-16

EC centrifugal fan

forward-curved, single-intake

with housing (flange)



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Nominal data

Type	**G3G160-AC50-16**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2150
Power consumption	W	170
Current draw	A	1.4
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	3.5 kg
Size	160 mm
Motor size	74
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
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	Shaft horizontal or rotor on top; rotor on bottom on request
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial 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 60335-1; CE

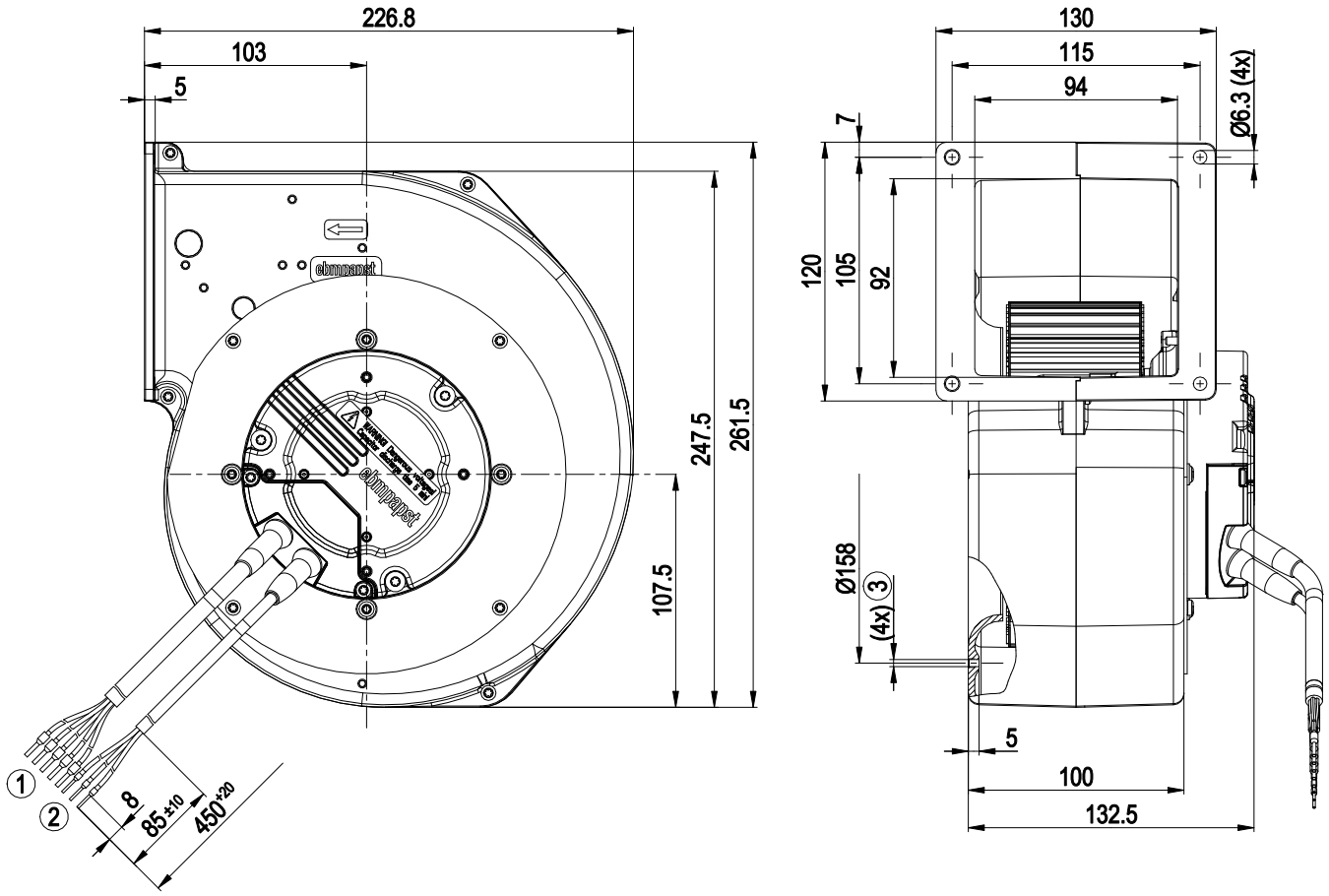
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Product drawing



1	Cable PVC AWG18
	5x wire-end ferrule
2	Cable PVC AWG22
	3x wire-end ferrule
3	For self-tapping M4 screws

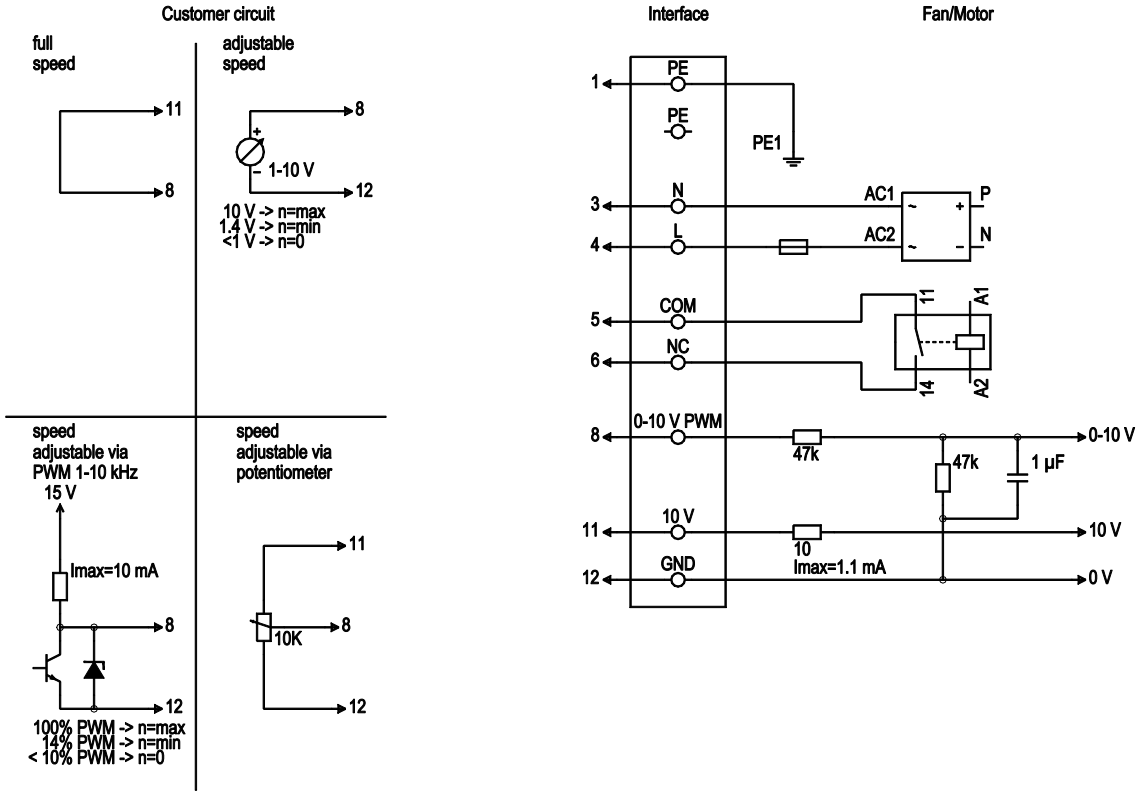
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	PE	green/yellow	Protective earth
	3	N	blue	Neutral conductor
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	5	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA)
	6	NC	white 2	Floating status contact, break for failure
	8	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	11	10V/max1.1mA	red	Voltage output 10 V/1.1 mA, electrically isolated
	12	GND	blue	Control interface GND connection

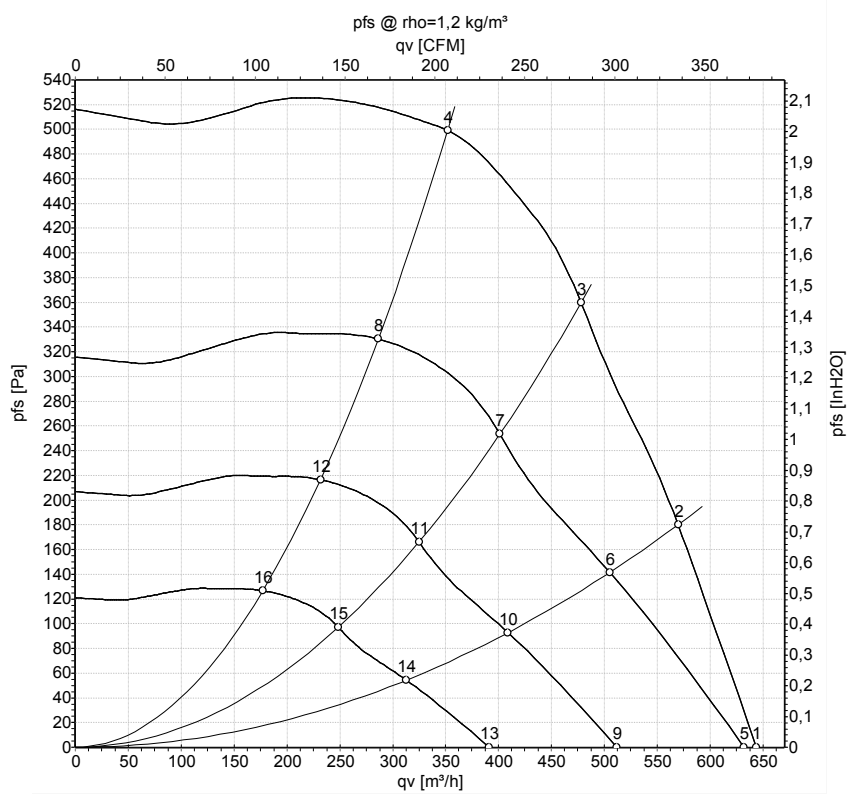
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Curves: Air performance 50 Hz



Measurement: LU-166378-1

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

	Wired	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	in. wg
1	Y	230	50	2150	170	1.40	645	0	380	0.00
2	Y	230	50	2365	170	1.40	570	180	335	0.72
3	Y	230	50	2500	155	1.25	480	360	280	1.45
4	Y	230	50	2580	113	0.95	350	500	205	2.01
5	Y	230	50	2100	163	1.31	630	0	370	0.00
6	Y	230	50	2100	119	0.96	505	141	295	0.57
7	Y	230	50	2100	91	0.74	400	254	235	1.02
8	Y	230	50	2100	61	0.51	285	331	170	1.33
9	Y	230	50	1700	87	0.69	510	0	300	0.00
10	Y	230	50	1700	63	0.51	410	93	240	0.37
11	Y	230	50	1700	49	0.39	325	166	190	0.67
12	Y	230	50	1700	32	0.27	230	217	135	0.87
13	Y	230	50	1300	39	0.31	390	0	230	0.00
14	Y	230	50	1300	28	0.23	315	54	185	0.22
15	Y	230	50	1300	22	0.18	250	97	145	0.39
16	Y	230	50	1300	14	0.12	175	127	105	0.51

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

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