G3G120-BD17-21

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G3G120-BD17-21**
Motor	**M3G055-BD**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2900
Power consumption	W	58
Current draw	A	0.6
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
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	1.9 kg
Size	120 mm
Motor size	55
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	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	- 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)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
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

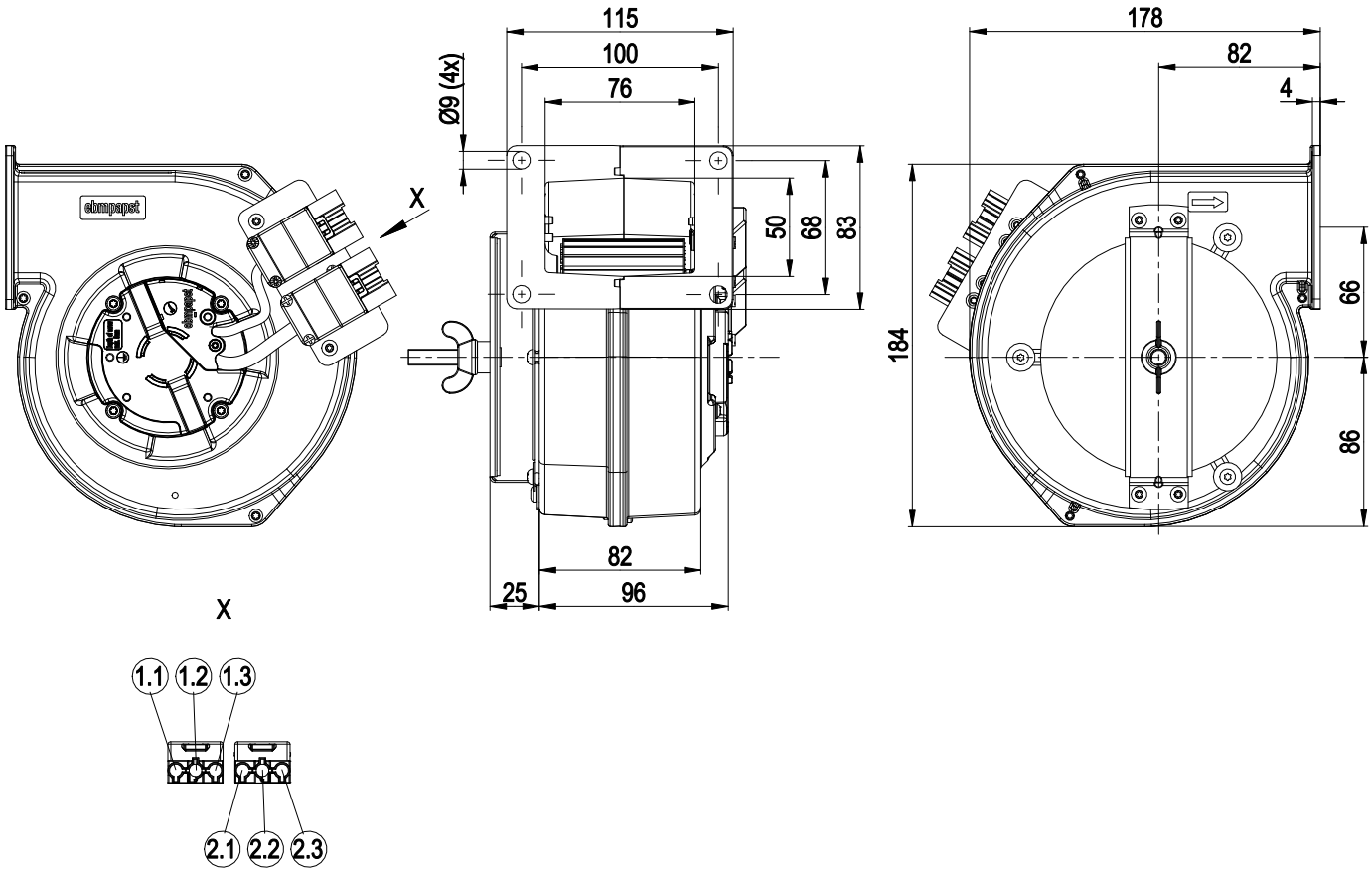
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Product drawing



1	3-pole connector housing Wieland 93.631.4257.0
1.1	L (black)
1.2	PE (green/yellow)
1.3	N (blue)
2	3-pole connector housing Wieland 93.631.4757.0
2.1	Tach (white)
2.2	0-10 V PWM (yellow)
2.3	GND (blue)

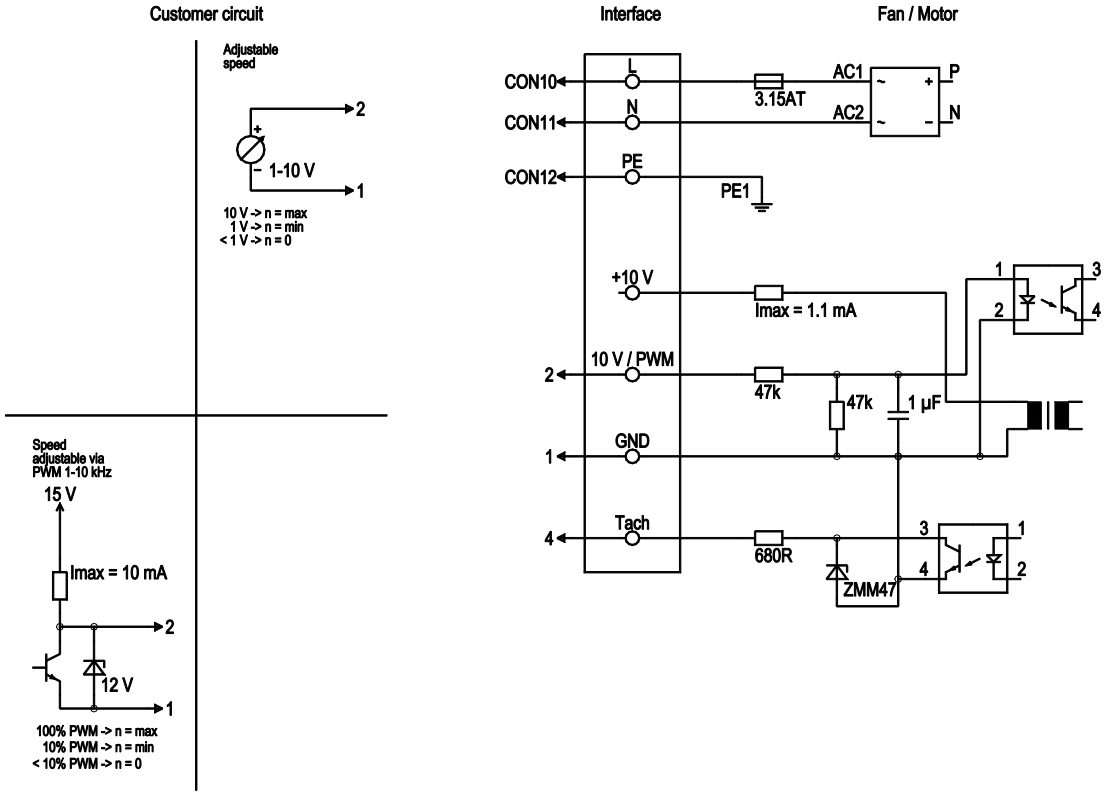
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate 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
	4	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max = 10 mA

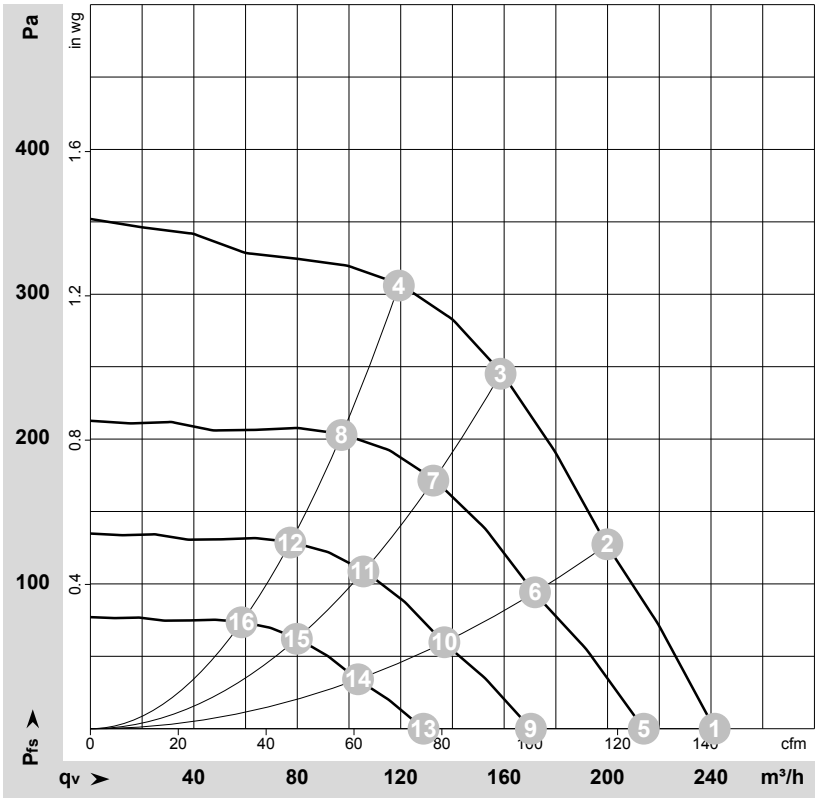
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-185030-1

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	2900	58	0.60	68	75	240	0	140	0.00
2	230	50	2995	50	0.48	66	73	200	125	120	0.50
3	230	50	3080	43	0.42	64	71	160	250	95	1.00
4	230	50	3165	34	0.35	62	69	120	310	70	1.24
5	230	50	2575	41	0.38	65	72	215	0	125	0.00
6	230	50	2575	32	0.31	62	69	170	93	100	0.37
7	230	50	2575	25	0.25	59	67	135	172	80	0.69
8	230	50	2575	18	0.19	57	64	95	204	55	0.82
9	230	50	2050	21	0.19	59	66	170	0	100	0.00
10	230	50	2050	16	0.15	56	64	135	59	80	0.24
11	230	50	2050	13	0.12	54	61	105	109	60	0.44
12	230	50	2050	9.0	0.09	51	58	75	129	45	0.52
13	230	50	1550	9.0	0.08	52	59	130	0	75	0.00
14	230	50	1550	7.0	0.07	49	56	105	34	60	0.14
15	230	50	1550	5.0	0.05	47	54	80	62	45	0.25
16	230	50	1550	4.0	0.04	44	51	60	74	35	0.30

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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