

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G3G120-BC25-10 ebmpapst Datasheet

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Nominal data

Type	G3G120-BC25-10	
Motor	M3G055-BD	
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	2770
Power consumption	W	84
Current draw	A	0.7
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

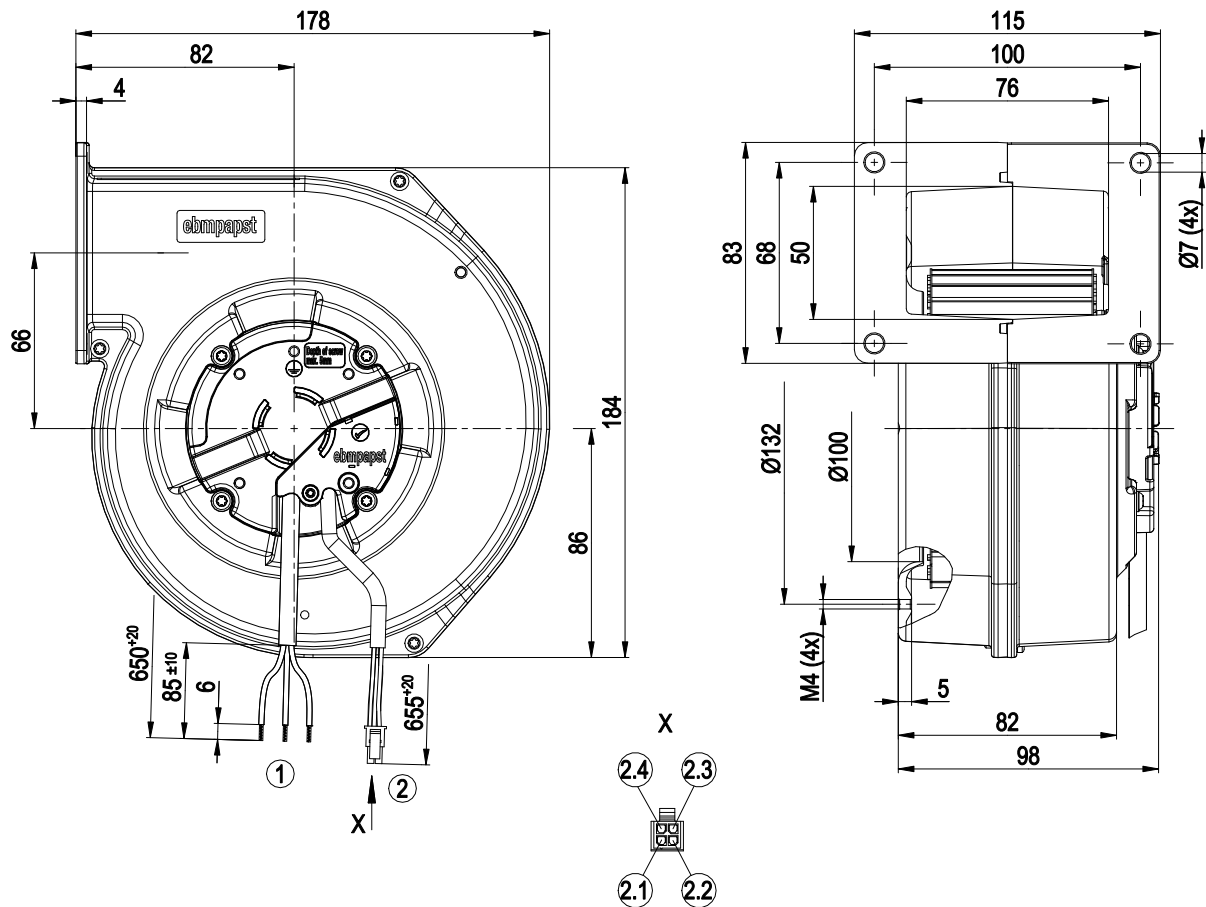
Weight	1.6 kg
Size	120 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	None, open rotor
Mode	S1
Motor mounting	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - 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
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



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Product drawing

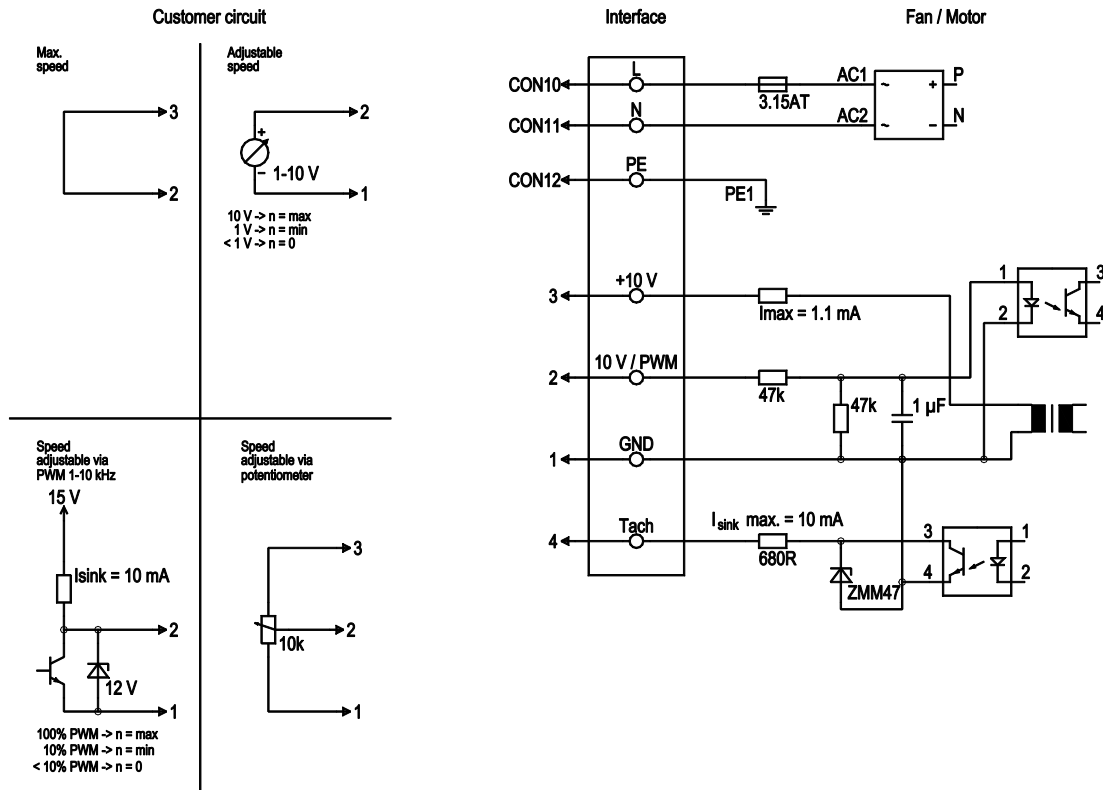


1	Cable PVC AWG20
	3x splice
2	Cable PVC AWG22
	4-pole connector housing Molex 43025-0400, 4x socket Molex 43030-0001
2.1	10 V/max. 1.1 mA (red)
2.2	0-10 V/PWM (yellow)
2.3	GND (blue)
2.4	Tach (white)

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Connection diagram

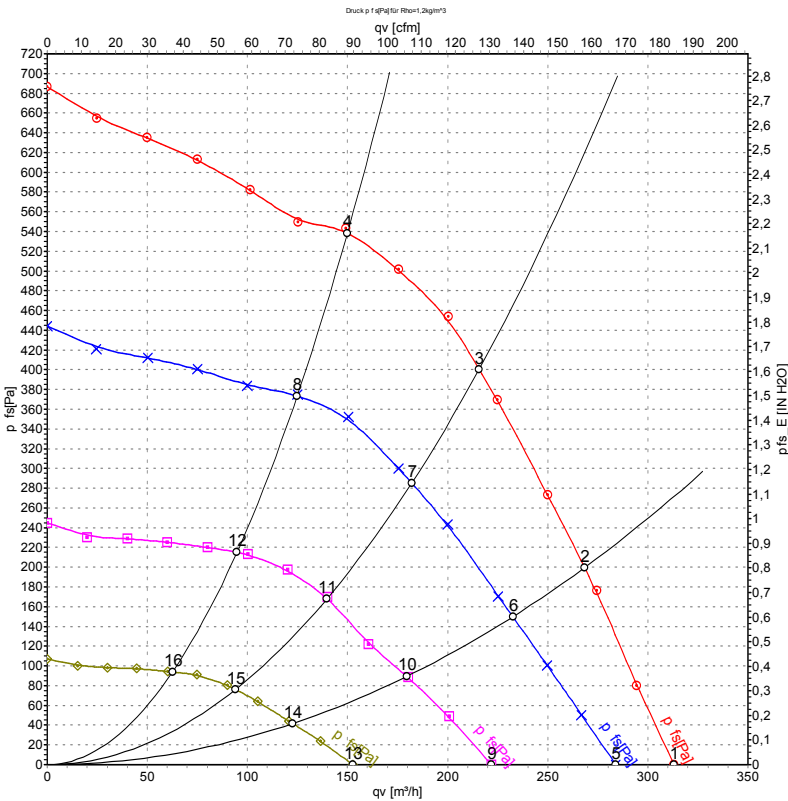


No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0- 10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof
	4	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, $I_{\text{sink max}} = 10 \text{ mA}$

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Curves: Air performance 50 Hz



Measurement: LU-135394-1
Measurement: LU-135396-1
Measurement: LU-135397-1
Measurement: LU-135399-1

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)	m³/h	Pa	cfm	in. wg
1	230	50	2770	84	0.70	64	71	315	0	185	0.00
2	230	50	3120	81	0.68	64	72	270	200	160	0.80
3	230	50	3365	71	0.60	63	72	215	400	125	1.61
4	230	50	3665	58	0.52	65	73	150	540	90	2.17
5	230	50	2535	60	0.52			285	0	165	0.00
6	230	50	2705	52	0.47			235	150	135	0.60
7	230	50	2880	43	0.42			180	285	105	1.14
8	230	50	3070	34	0.35			125	375	75	1.51
9	230	50	2030	31	0.31			220	0	130	0.00
10	230	50	2140	26	0.27			180	90	105	0.36
11	230	50	2240	22	0.23			140	170	80	0.68
12	230	50	2370	17	0.19			95	215	55	0.86
13	230	50	1420	13	0.16			155	0	90	0.00
14	230	50	1485	11	0.13			125	42	70	0.17
15	230	50	1540	9.4	0.12			95	76	55	0.31
16	230	50	1605	7.8	0.11			65	94	35	0.38

U = Power supply · 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

