

# EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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## Nominal data

<b>Type</b>	<b>G3G108-BB01-03</b>	
<b>Motor</b>	<b>M3G055-BD</b>	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	2850
Power consumption	W	55
Current draw	A	0.48
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

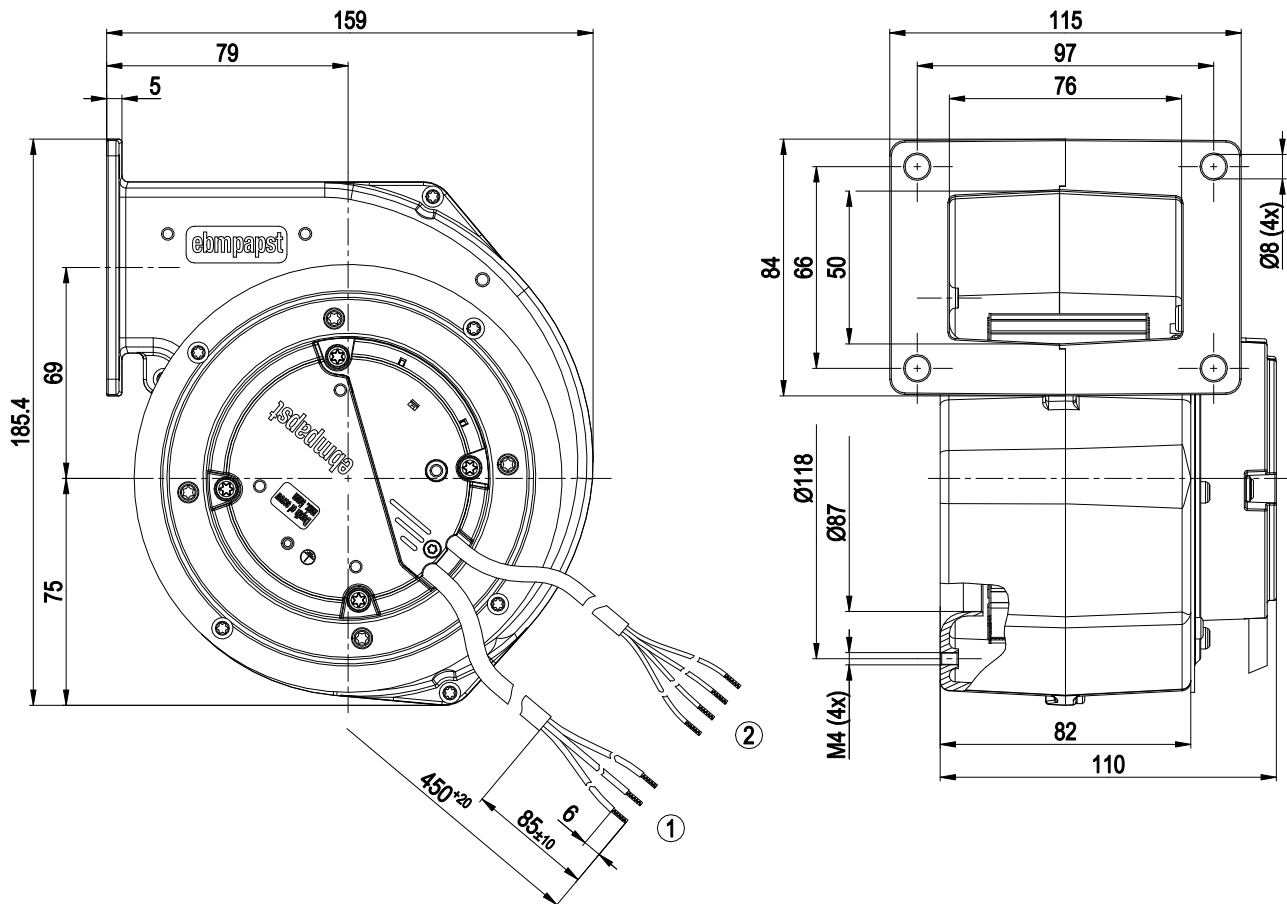
<b>Weight</b>	1.9 kg
<b>Fan size</b>	108 mm
<b>Rotor surface</b>	Thick-film passivated
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Die-cast aluminum
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP54
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None, open rotor
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 10 mA</li> <li>- Tach output</li> <li>- Power limiter</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Overvoltage detection</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC circuit feedback</b>	According to EN 61000-3-2/3
<b>EMC interference emission</b>	According to EN 61000-6-3 (household environment)
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Electronic motor protection
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE



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## Product drawing

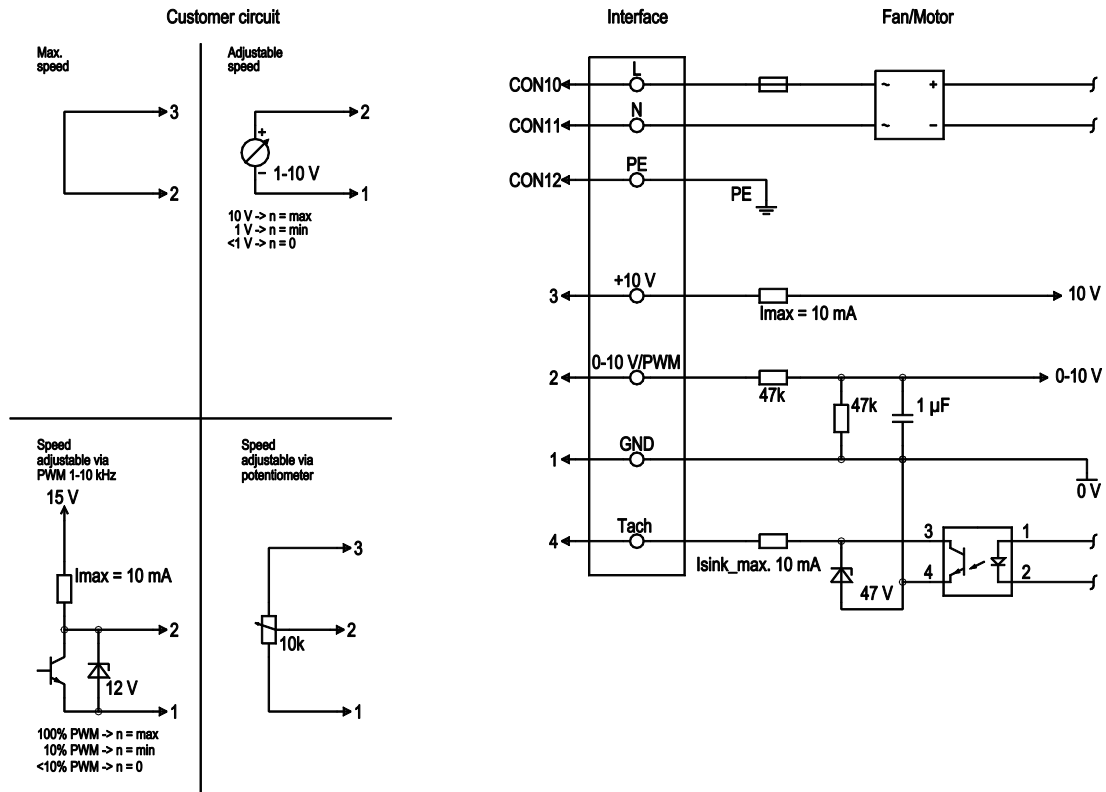


- |   |  |
|---|--|
| 1 | Cable PVC 3G 0.5 mm <sup>2</sup> , 3x crimped splices  |
| 2 | Cable PVC 4x 0.25 mm <sup>2</sup> , 4x crimped splices |

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## Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	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, R <sub>i</sub> =100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, I <sub>sink max</sub> = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, I <sub>max</sub> . 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

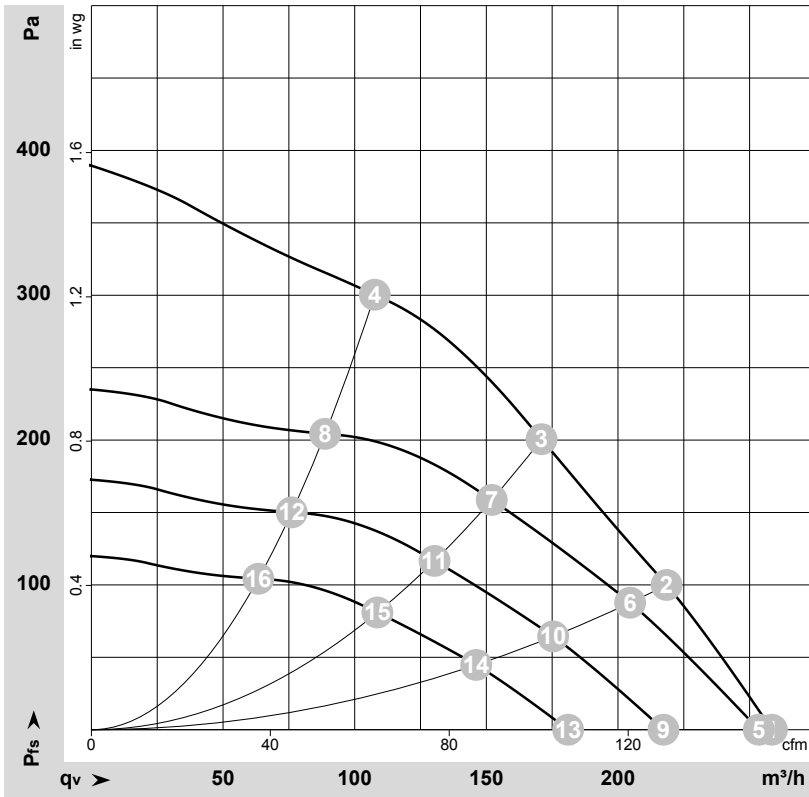


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## Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-177609-1

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 <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	2850	55	0.48	65	71	260	0	150	0.00
2	230	50	2990	48	0.43	63	69	220	100	130	0.40
3	230	50	3145	39	0.36	62	68	170	200	100	0.80
4	230	50	3395	30	0.28	61	68	110	300	65	1.20
5	230	50	2800	51	0.45	64	70	255	0	150	0.00
6	230	50	2800	39	0.35	62	68	205	88	120	0.35
7	230	50	2800	28	0.25	59	65	150	159	90	0.64
8	230	50	2800	17	0.16	56	63	90	204	50	0.82
9	230	50	2400	32	0.29	60	67	215	0	130	0.00
10	230	50	2400	25	0.22	58	64	175	65	105	0.26
11	230	50	2400	17	0.16	55	61	130	117	75	0.47
12	230	50	2400	11	0.10	52	59	75	150	45	0.60
13	230	50	2000	19	0.17	56	62	180	0	105	0.00
14	230	50	2000	14	0.13	53	59	145	45	85	0.18
15	230	50	2000	10.0	0.09	50	57	110	81	65	0.33
16	230	50	2000	6.0	0.06	47	54	65	104	35	0.42

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
 q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

