G3G225-RI07-01

EC centrifugal fan - RadiCal

backward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G3G225-RI07-01**
Motor	**M3G074-DF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	4300
Power consumption	W	500
Current draw	A	2.2
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	74.1	47
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		88.1	61
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.46
09 Air flow q_v	m^3/h	870
09 Pressure increase p_{fs}	Pa	1278
10 Speed (rpm) n	min^{-1}	4300
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-197474

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Technical description

Weight	2.7 kg
Size	225 mm
Motor size	74
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Housing material	PP plastic
Number of blades	7
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	- Output 10 VDC, max. 10 mA - Operation and alarm display - Alarm relay - Integrated PID controller - Power limiter - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure detection
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
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

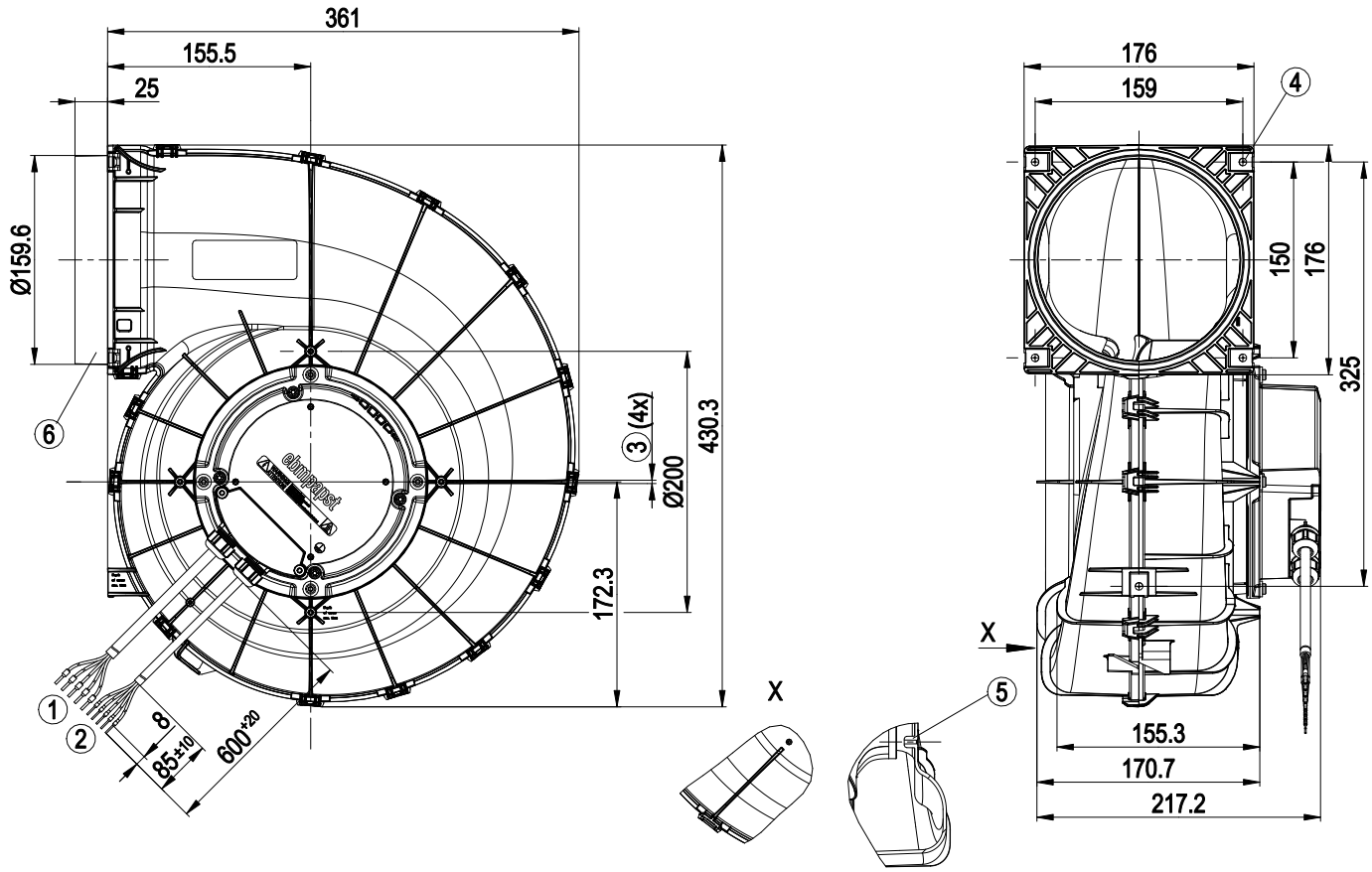
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Product drawing



1	Cable PVC AWG18
	5x splice
2	Cable PVC AWG22
	5x splice
3	Tapping hole prepared for self-tapping screw for fastening plastics (Remform) dia. 4 mm, screw-in depth max. 15 mm, torque is to be determined on the basis of the screw.
4	5x sheet metal nut for thread EN ISO 1478-ST4.8 (max. screw length 16 mm plus thickness of mounting material)
5	Screw-on domes are only permissible for Flowgrid!
6	Connecting sleeve not suitable for installation with pipe clamps

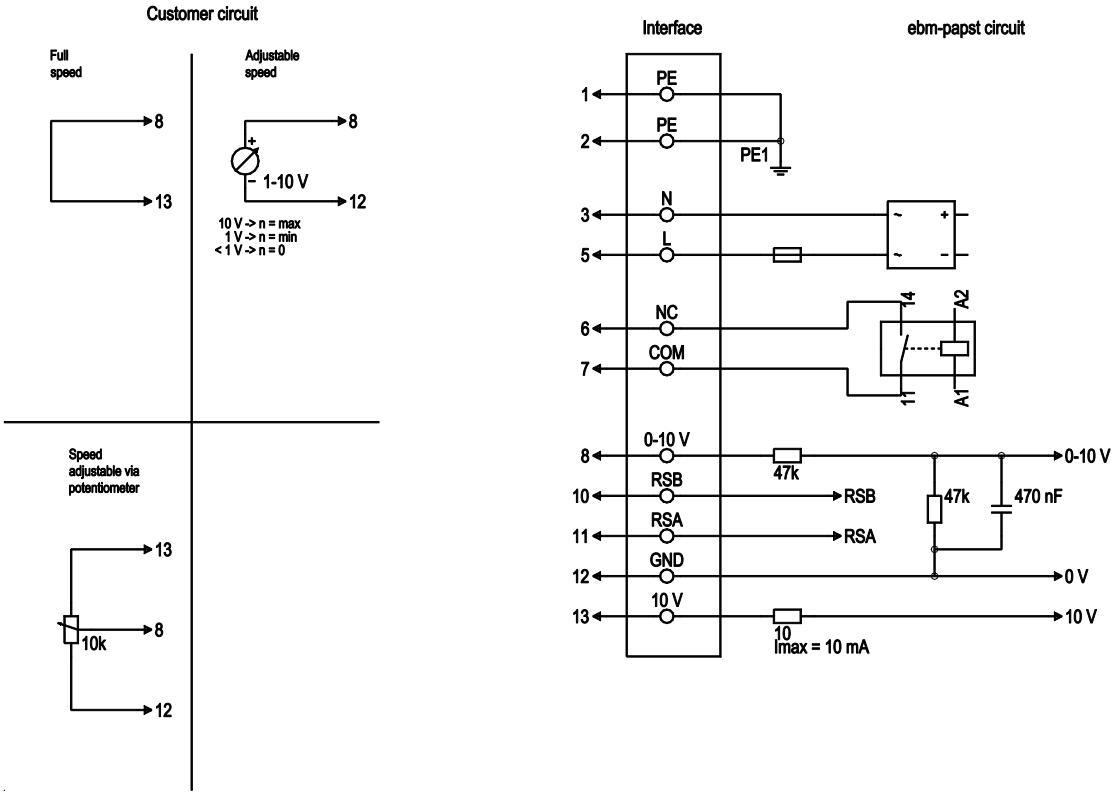
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1, 2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	5	L	black	Power supply, phase, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact; break for failure, contact rating 250 VAC / 2A (AC1) / min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
1	7	COM	white 2	Status relay, floating status contact; common connection, contact rating 250 VAC / 2A (AC1) / min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
2	8	0-10V	yellow	Analog input (set value); 0-10 V; Ri = 100 kΩ; adjustable curve
2	10	RSB	brown	RS485 interface for MODBUS, RSB
2	11	RSA	white	RS485 interface for MODBUS, RSA
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+10V	red	Fixed voltage output 10 VDC, +10 V ±3%; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. pot)

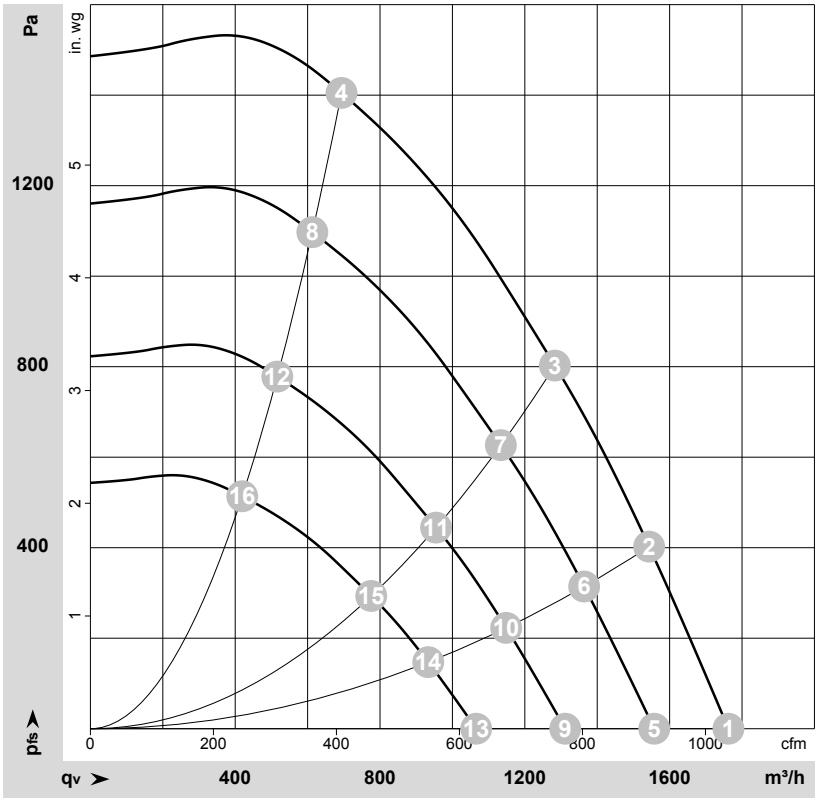
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-197474-1

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	1~	230	50	4300	438	1.92	1760	0	1035	0.00
2	1~	230	50	4300	492	2.15	1545	400	910	1.61
3	1~	230	50	4300	500	2.20	1285	800	755	3.21
4	1~	230	50	4300	429	1.88	695	1400	410	5.62
5	1~	230	50	3800	303	1.33	1560	0	915	0.00
6	1~	230	50	3800	340	1.48	1365	315	805	1.26
7	1~	230	50	3800	352	1.54	1135	627	665	2.52
8	1~	230	50	3800	296	1.30	615	1099	360	4.41
9	1~	230	50	3200	181	0.79	1310	0	770	0.00
10	1~	230	50	3200	203	0.89	1150	223	675	0.90
11	1~	230	50	3200	210	0.92	955	444	560	1.78
12	1~	230	50	3200	177	0.77	515	779	305	3.13
13	1~	230	50	2600	97	0.42	1065	0	625	0.00
14	1~	230	50	2600	109	0.48	935	147	550	0.59
15	1~	230	50	2600	113	0.49	775	293	455	1.18
16	1~	230	50	2600	95	0.42	420	514	245	2.06

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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