EC centrifugal fan

backward-curved, single-intake

with housing (without flange)

G3G225-EH19-10 ebmpapst Datasheet
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Nominal data

Type	**G3G225-EH19-10**
Motor	**M3G055-CF**

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}	2580
Power consumption	W	110
Current draw	A	0.95
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	4.1 kg
Fan size	225 mm
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Housing material	Sheet steel, galvanized
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 - 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
Electrical hookup	With plug
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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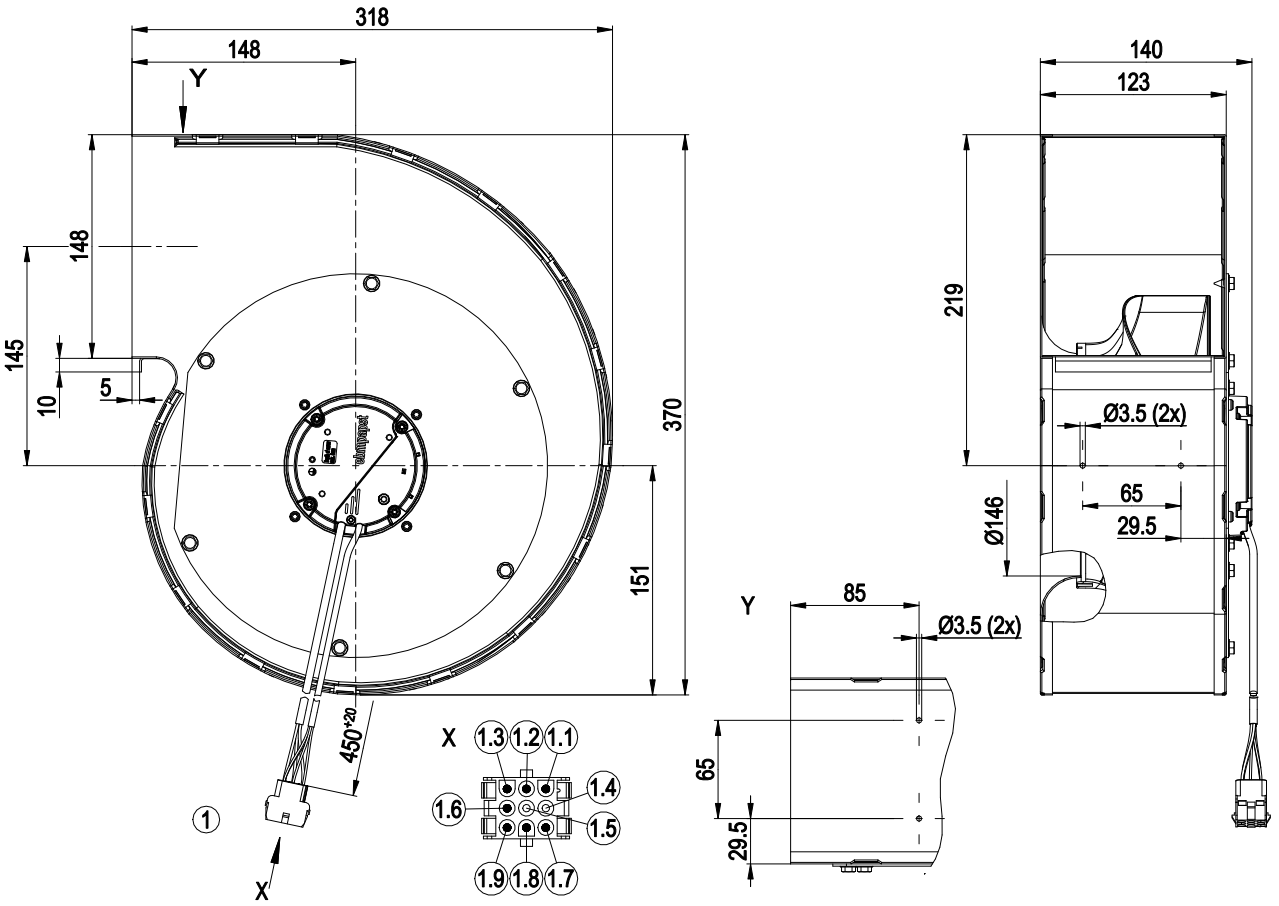
Product drawing



1	Coded plug system: 9-pole connector housing tyco 927231-5, 7x plug pin tyco 926886-1
1.1	GND (blue)
1.2	Tach (white)
1.3	0-10 V PWM (yellow)
1.4	not used
1.5	not used
1.6	+10 V (red)
1.7	L (brown)
1.8	N (blue)
1.9	PE (green/yellow)

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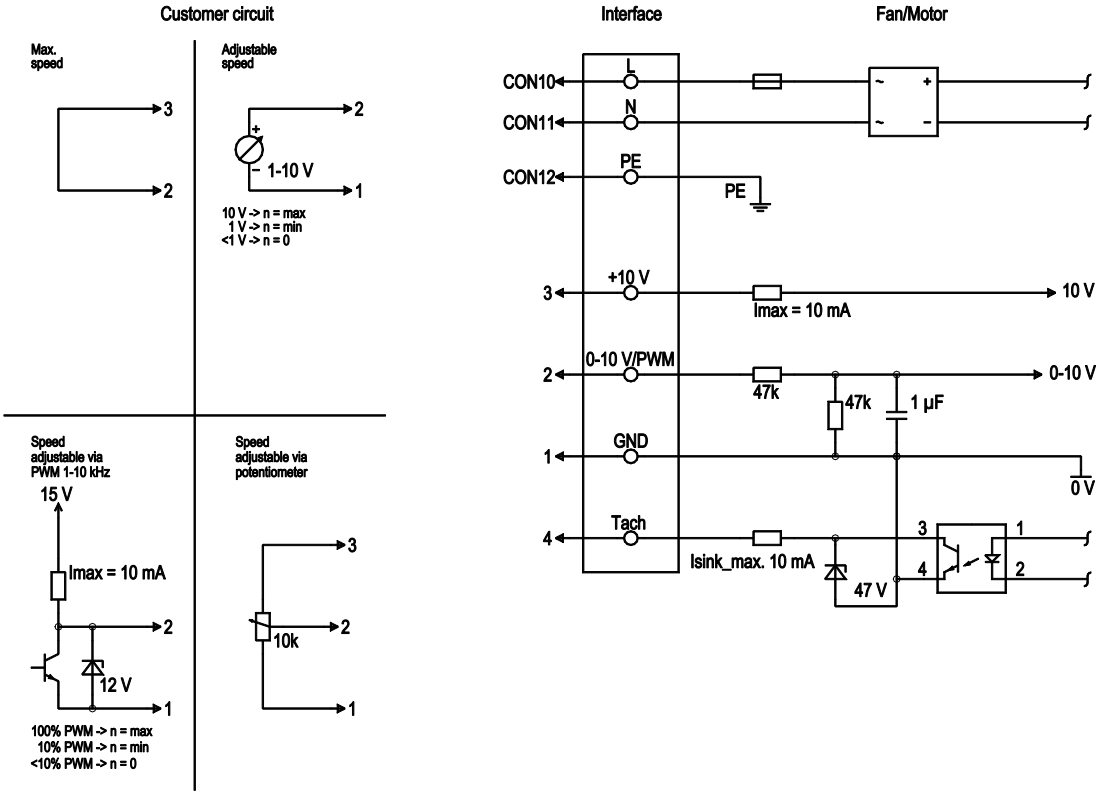
Connection diagram



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, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 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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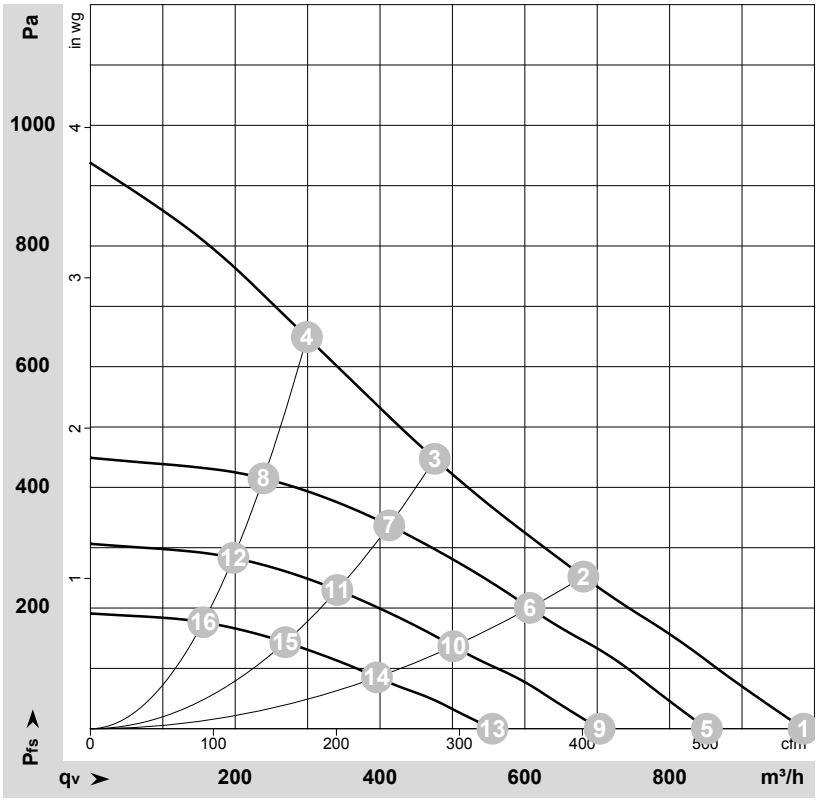
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-178981-1

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	2660	110	0.95	74	79	985	0	580	0.00
2	230	50	2580	110	0.95	69	74	680	250	400	1.00
3	230	50	2650	110	0.95	64	69	475	450	280	1.81
4	230	50	2875	110	0.95	68	75	300	650	175	2.61
5	230	50	2300	72	0.61	70	75	850	0	500	0.00
6	230	50	2300	79	0.66	66	71	605	200	355	0.80
7	230	50	2300	73	0.61	60	66	415	337	245	1.35
8	230	50	2300	57	0.48	63	69	240	415	140	1.67
9	230	50	1900	41	0.34	66	70	705	0	415	0.00
10	230	50	1900	45	0.37	61	66	500	137	295	0.55
11	230	50	1900	41	0.35	55	61	340	230	200	0.92
12	230	50	1900	32	0.27	58	64	195	283	115	1.14
13	230	50	1500	20	0.17	60	64	555	0	325	0.00
14	230	50	1500	22	0.18	55	60	395	85	235	0.34
15	230	50	1500	20	0.17	49	55	270	143	160	0.57
16	230	50	1500	16	0.13	52	58	155	177	90	0.71

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