G3G146-ED19-16

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G3G146-ED19-16**
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}	1950
Power consumption	W	118
Current draw	A	1
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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	2.7 kg
Size	146 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
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; (balls made of Si_3N_4); (sealed)
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
Electrical hookup	Connector with cable
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

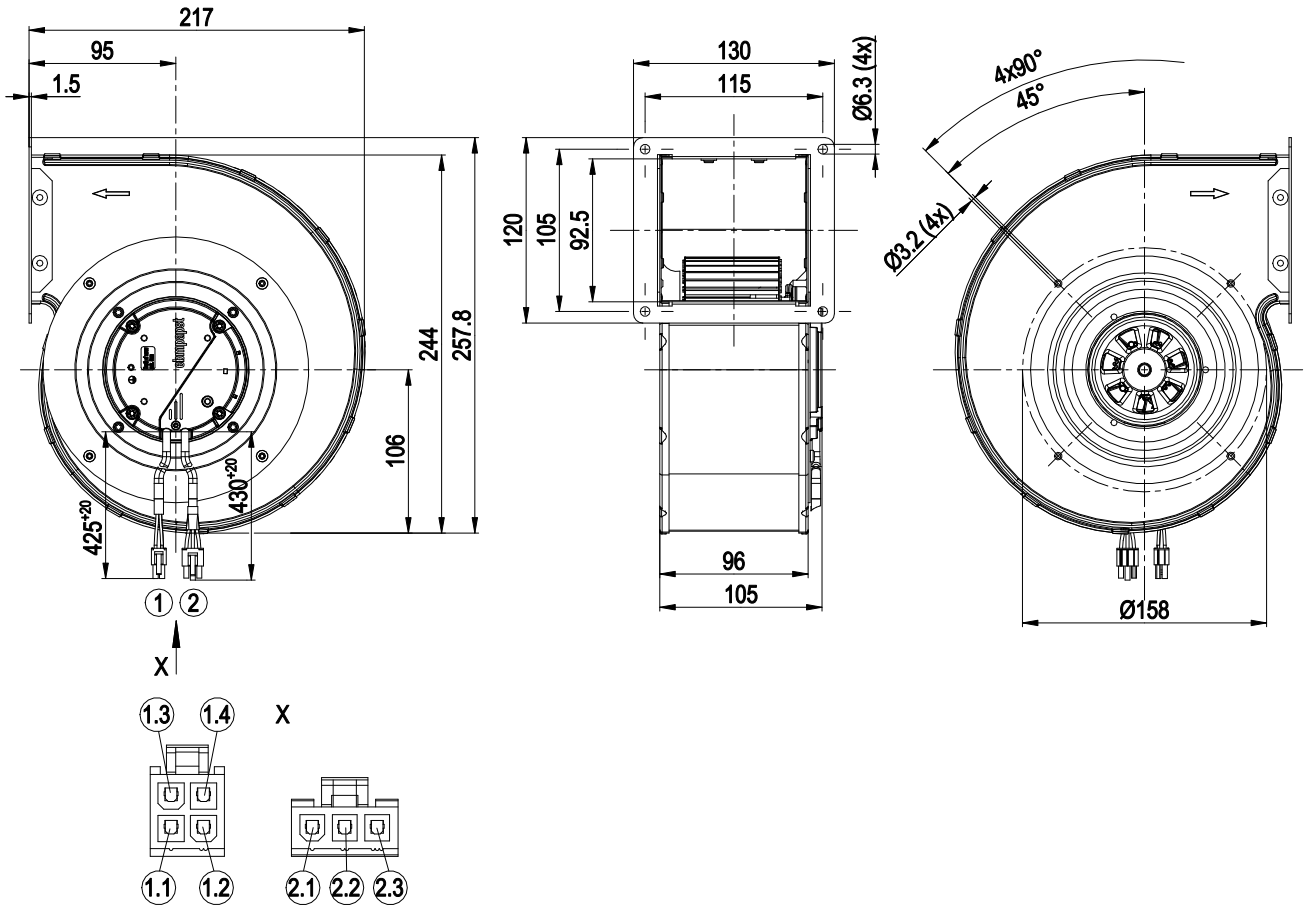
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Product drawing



1	Cable PVC 3G 0.5 mm²
	4-pole connector housing Molex 46992-0410
	3x socket Molex 39-00-0059
1.1	L (brown)
1.2	N (blue)
1.3	not used
1.4	PE (green/yellow)
2	Cable PVC 4x 0.25 mm²
	3-pole connector housing Molex 50-29-1662
	3x socket Molex 39-00-0059
2.1	0-10 V/PWM (yellow)
2.2	GND (blue)
2.3	Tach (white)

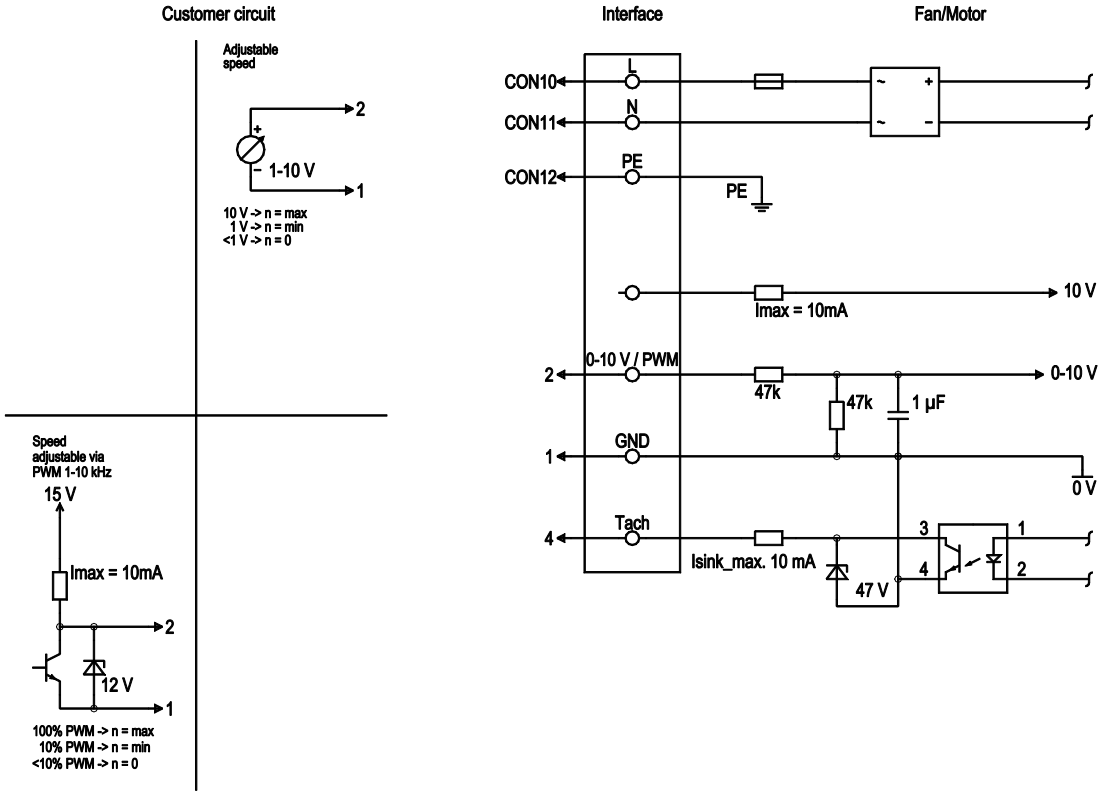
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Connection diagram



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
	1	GND	blue	Reference ground for control interface, SELV

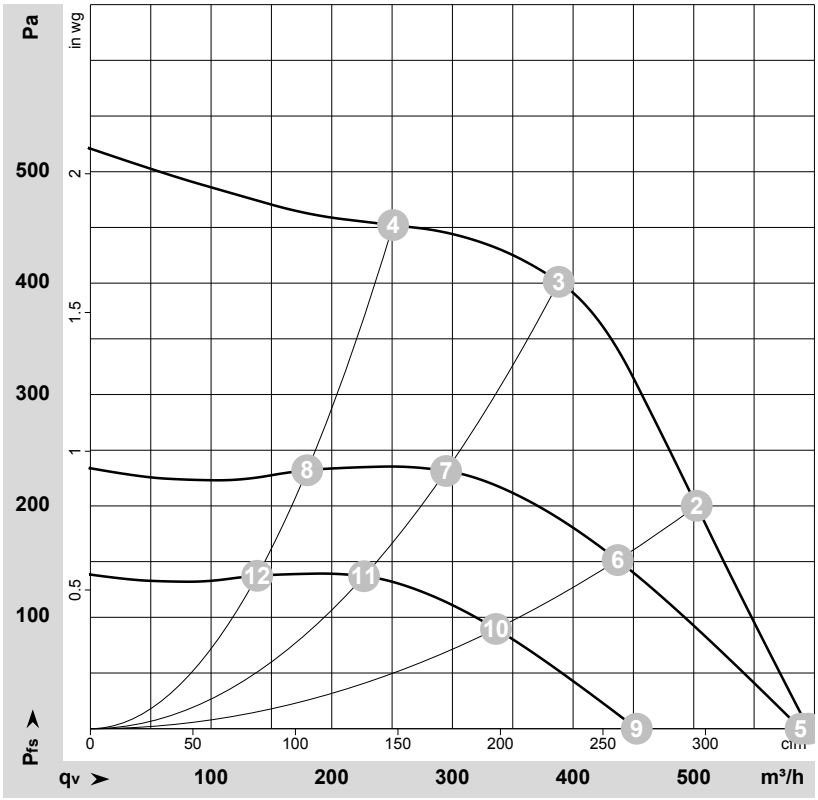
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-174185-1

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	1950	118	1.00	66	73	595	0	350	0.00
2	230	50	2235	118	1.00	65	71	500	200	295	0.80
3	230	50	2565	112	0.95	64	71	390	400	230	1.61
4	230	50	2720	87	0.75	65	72	250	450	150	1.81
5	230	50	1950	115	0.96	66	73	590	0	345	0.00
6	230	50	1950	78	0.66	61	68	435	152	255	0.61
7	230	50	1950	49	0.42	58	64	295	231	175	0.93
8	230	50	1950	32	0.28	57	63	180	232	105	0.93
9	230	50	1500	52	0.44	59	66	455	0	265	0.00
10	230	50	1500	36	0.30	55	61	335	90	200	0.36
11	230	50	1500	22	0.19	51	57	225	137	135	0.55
12	230	50	1500	15	0.13	50	57	140	137	80	0.55

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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