D3G146-HT13-02

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D3G146-HT13-02**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1750
Power consumption	W	170
Current draw	A	1.3
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	1.8 kg
Size	146 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PP plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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 bearing	Ball bearing
Technical features	- Locked-rotor detection - Power limiter - Motor current limitation - Soft start - PWM control input - 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
Motor protection	Thermal overload protector (TOP) internally connected; Locked-rotor protection
Protection class assignment	0; Built-in component with basic insulation, protection class is based on the intended installation. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	VDE

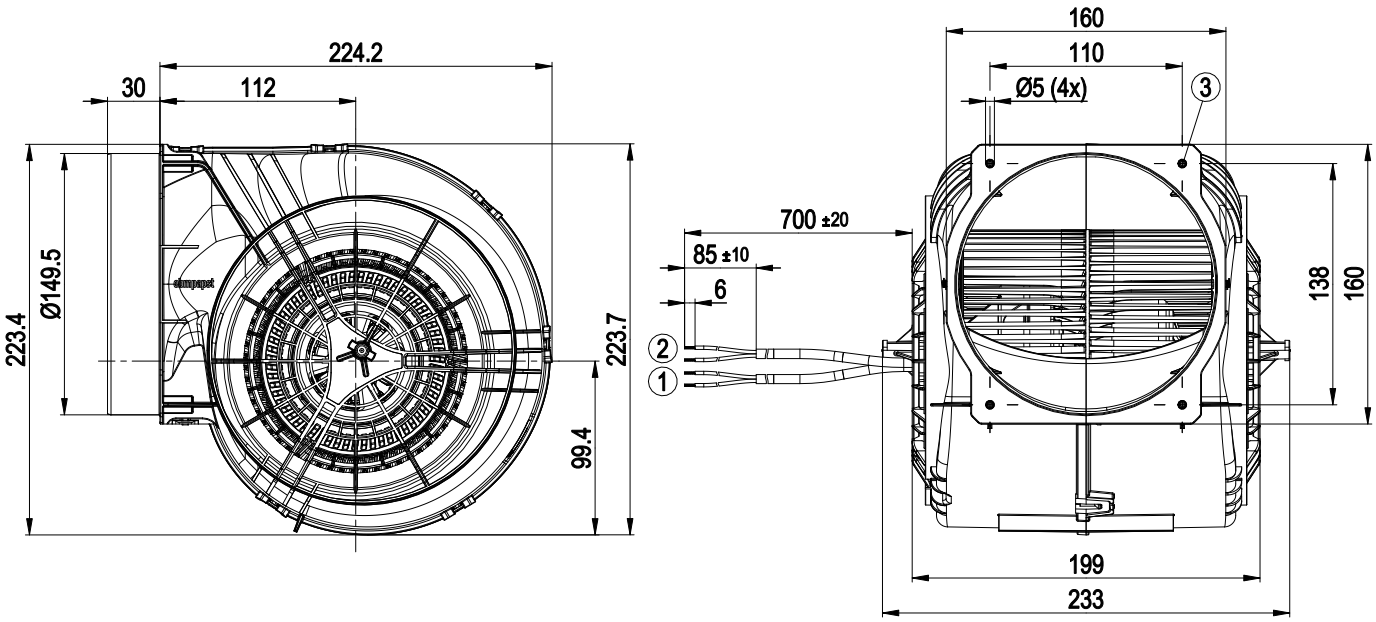
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Product drawing



1	Cable PVC 2x 0.5 mm²
	2x splice
2	Cable PVC 2x 0.5 mm²
	2x splice
3	Tapping hole prepared for self-tapping screw for fastening plastics (Remform) dia. 5 mm, clearance for screw max. 16 mm.
	Recommended tightening torque 2±0.3 Nm
	A non-return valve (10000-2-4054) can be installed in the outlet. Attaching activated carbon filters to the intakes. Adaptation tailored to activated carbon filter such as type D186 from Resett Engineering Srl.

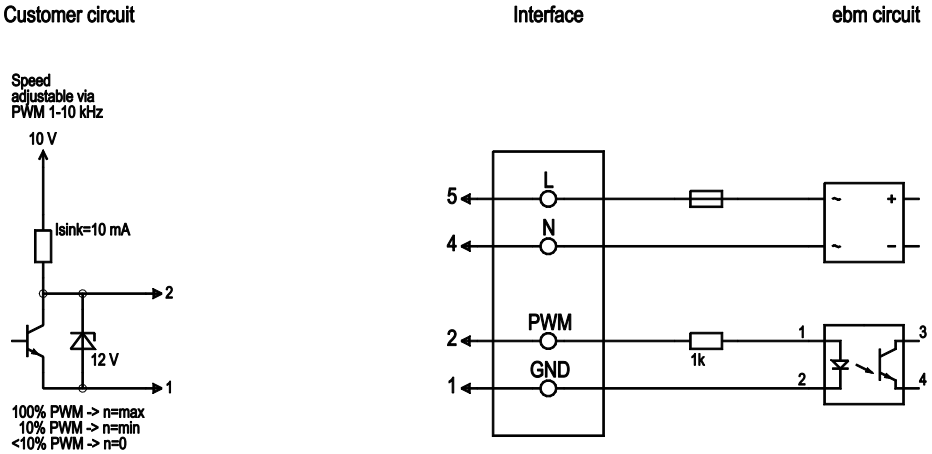
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	1	GND	white	Reference ground for control interface, SELV
	2	PWM	yellow	Control input PWM, impedance 1 kΩ; SELV
	4	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	5	L	brown	Power supply, phase, see nameplate for voltage range

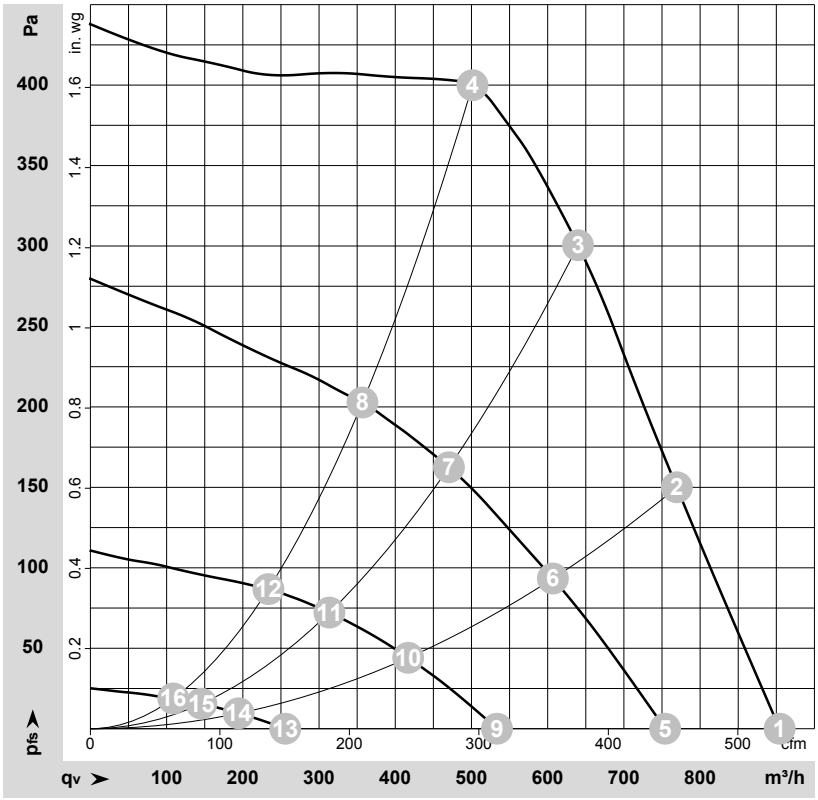
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-211914-1

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	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	1~	230	50	1750	170	1.30	62	72	905	0	530	0.00
2	1~	230	50	2045	170	1.30	60	70	770	150	455	0.60
3	1~	230	50	2380	170	1.30	60	70	640	300	375	1.20
4	1~	230	50	2625	150	1.14	60	70	500	400	295	1.61
5	1~	230	50	1470	95	0.73			755	0	445	0.00
6	1~	230	50	1625	79	0.62			605	94	355	0.38
7	1~	230	50	1770	65	0.52			470	163	275	0.65
8	1~	230	50	1885	54	0.44			355	203	210	0.81
9	1~	230	50	1050	33	0.26			535	0	315	0.00
10	1~	230	50	1135	27	0.22			415	44	245	0.18
11	1~	230	50	1205	21	0.18			315	72	185	0.29
12	1~	230	50	1255	17	0.15			235	87	140	0.35
13	1~	230	50	525	5.0	0.06			255	0	150	0.00
14	1~	230	50	560	5.0	0.05			195	10	115	0.04
15	1~	230	50	585	4.0	0.05			145	16	85	0.06
16	1~	230	50	610	4.0	0.04			110	19	65	0.08

Wired = Wiring · 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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