

D1G146-HT01-02

VHD0146XSLES

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D1G146-HT01-02	
Motor	M1G055-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	1500
Power consumption	W	100
Current draw	A	0.8
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
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	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Motor current limitation - Soft start - PWM control input - Thermal overload protection for motor
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)
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	II
Conformity with standards	EN 60335-1; EN 60335-2-31; CE
Approval	VDE; EAC



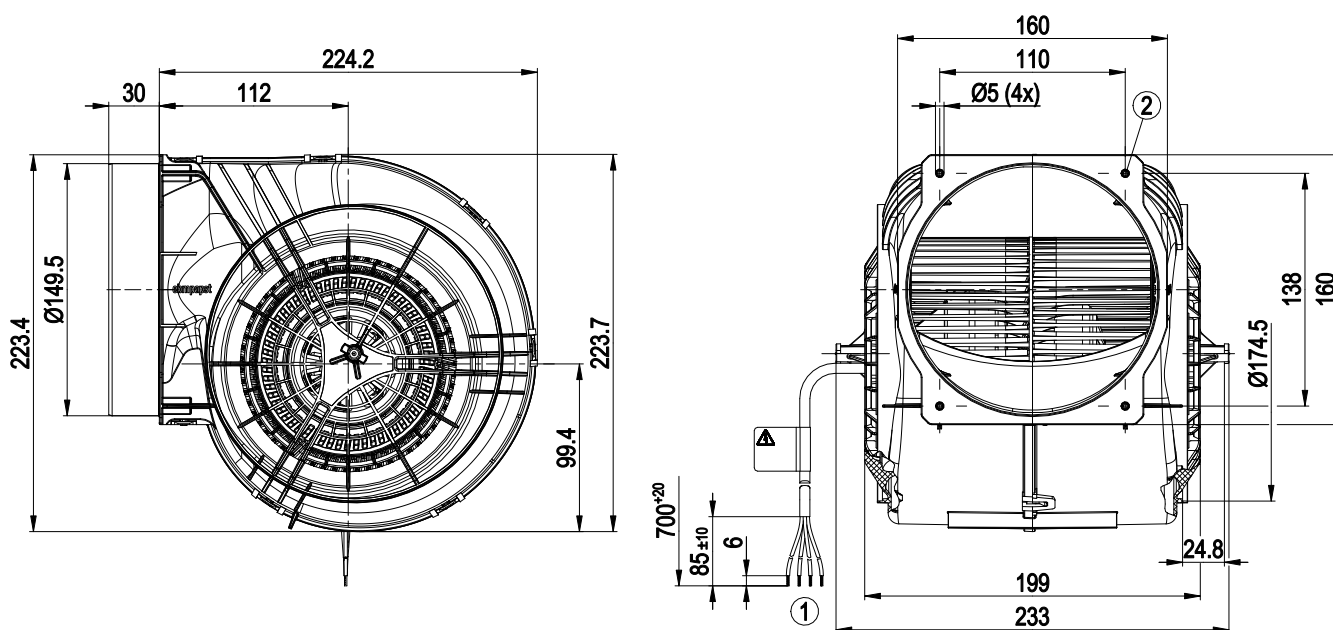
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Product drawing



1 Cable PVC 4x 0.5 mm²

4x splice

2 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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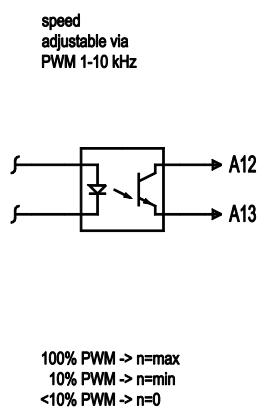
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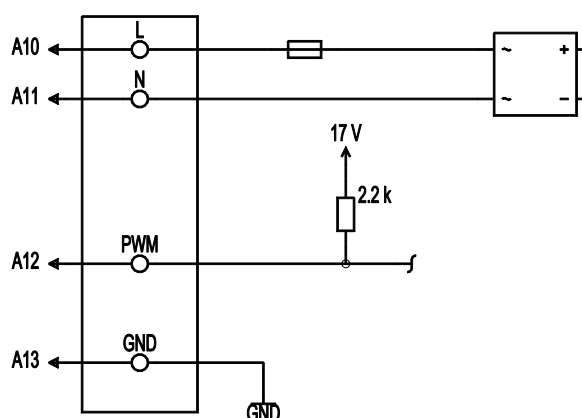
Connection diagram

Customer circuit



Connection

Fan/Motor



No.	Conn.	Designation	Color	Function/assignment
	A10	L	black	Power supply, phase, see nameplate for voltage range
	A11	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	A12	PWM	brown	Control input PWM, not electrically isolated
	A13	GND	gray	Reference ground for control interface



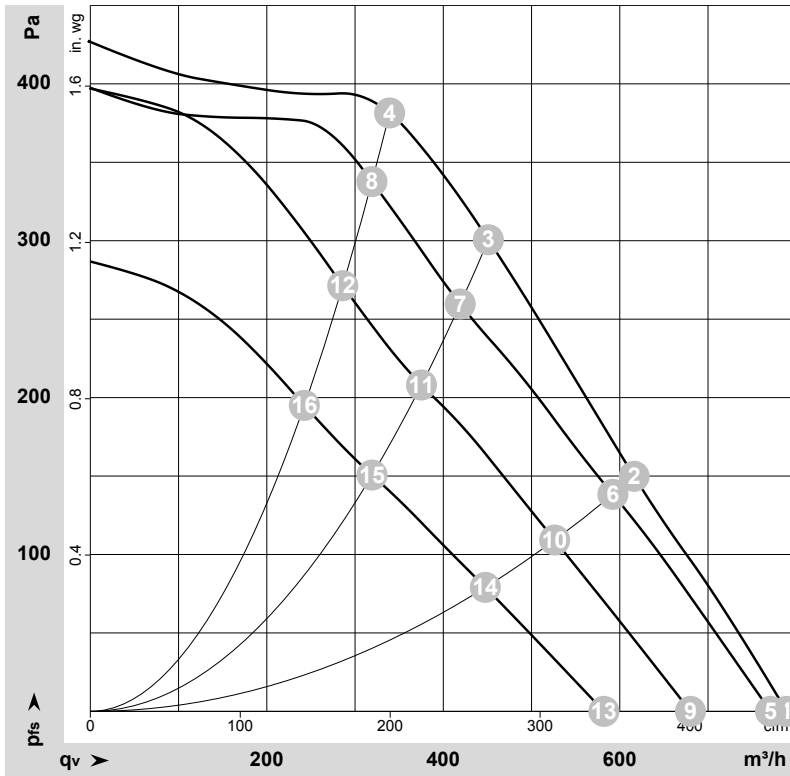
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Curves: Air performance 50 Hz



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

Measurement: LU-189314-1
Measurement: LU-184427-1
Measurement: LU-184439-1
Measurement: LU-184440-1

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

	Stage	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)	m³/h	Pa	cfm	in. wg
1	100%	1~	230	50	1500	100	0.80	58	69	800	0	470	0.00
2	100%	1~	230	50	1855	100	0.80	58	68	615	150	365	0.60
3	100%	1~	230	50	2290	100	0.80	60	68	450	300	265	1.20
4	100%	1~	230	50	2555	92	0.72	60	70	340	380	200	1.53
5	80%	1~	230	50	1405	85	0.67			770	0	455	0.00
6	80%	1~	230	50	1785	85	0.67			590	138	350	0.55
7	80%	1~	230	50	2210	85	0.67			420	258	245	1.04
8	80%	1~	230	50	2460	84	0.66			320	338	190	1.36
9	60%	1~	230	50	1265	61	0.49			680	0	400	0.00
10	60%	1~	230	50	1595	61	0.49			525	109	310	0.44
11	60%	1~	230	50	1975	61	0.50			375	208	220	0.84
12	60%	1~	230	50	2205	61	0.49			285	271	170	1.09
13	40%	1~	230	50	1095	38	0.32			580	0	345	0.00
14	40%	1~	230	50	1375	38	0.32			450	79	265	0.32
15	40%	1~	230	50	1685	38	0.31			320	151	190	0.61
16	40%	1~	230	50	1885	38	0.32			245	195	145	0.78

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

