D1G146-LV03-07

EC centrifugal fan

Transformator fan

D1G146-LV03-07 ebmpapst Datasheet
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Nominal data

Type	**D1G146-LV03-07**
Motor	**M1G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1840
Power input	W	165
Current draw	A	1.20
Min. back pressure	Pa	115
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	32.6	32.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power input P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	405
09 Pressure increase p_{fs}	Pa	459
10 Speed (rpm) n	min^{-1}	2885
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-169910

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Technical features

Mass	2.5 kg
Size	146 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	PP plastic
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Fault output (open collector) - Motor current limit - Soft start - PWM control input - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	Built-in component with basic insulation, protection rating results from installation according to intended use
Product conforming to standard	EN 60335-1; CE

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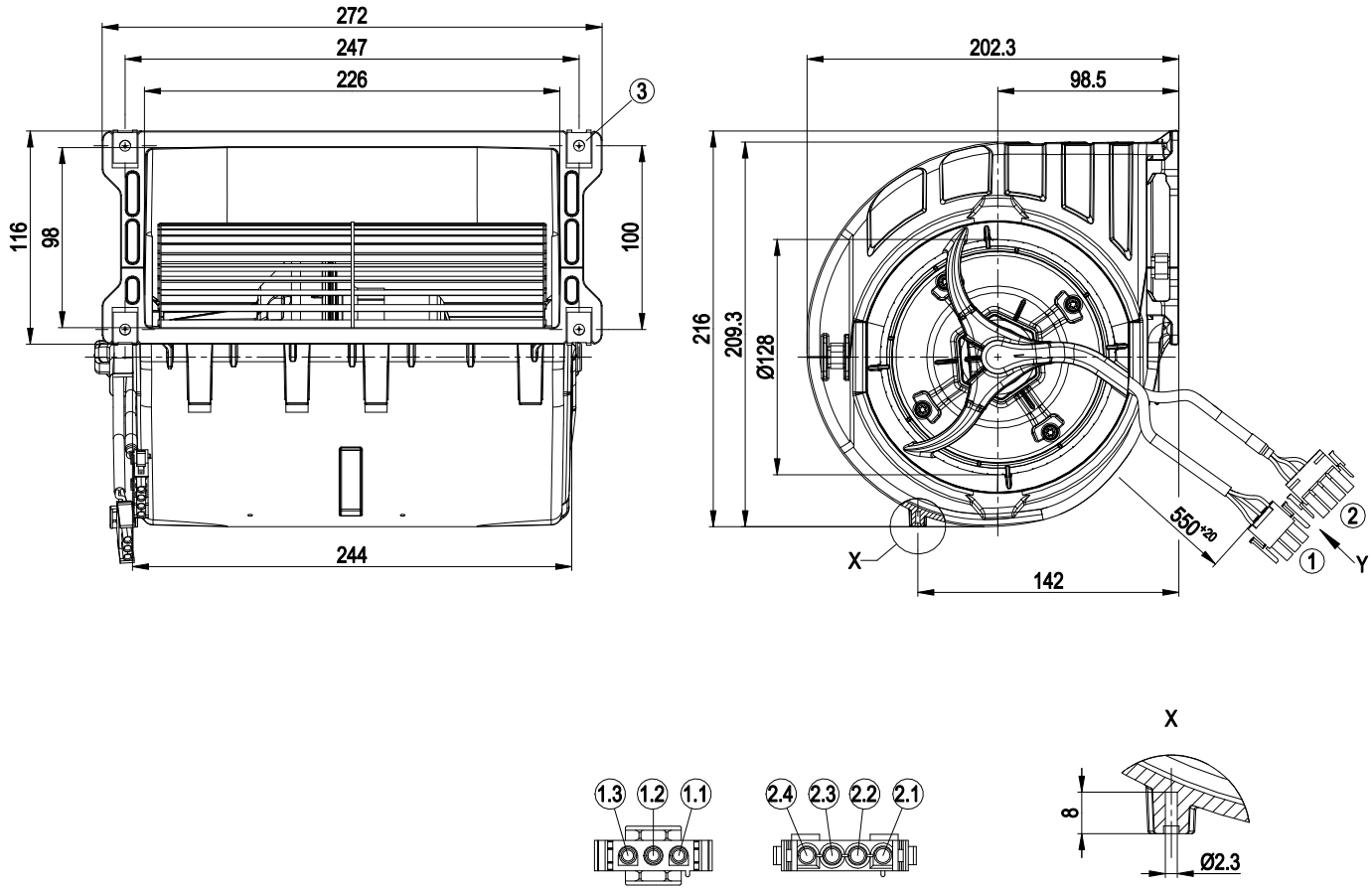
Product drawing



1	Connection line PVC AWG20, tyco 3-pole connector housing 1241809-2, 3x tyco plug pin 926887-1 crimped
1.1	green/yellow
1.2	blue
1.3	black
2	Connection line PVC AWG20, tyco 4-pole connector housing 926298-6, 3x tyco plug pin 926887-1 crimped
2.1	not used
2.2	blue
2.3	yellow
2.4	white
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting material)

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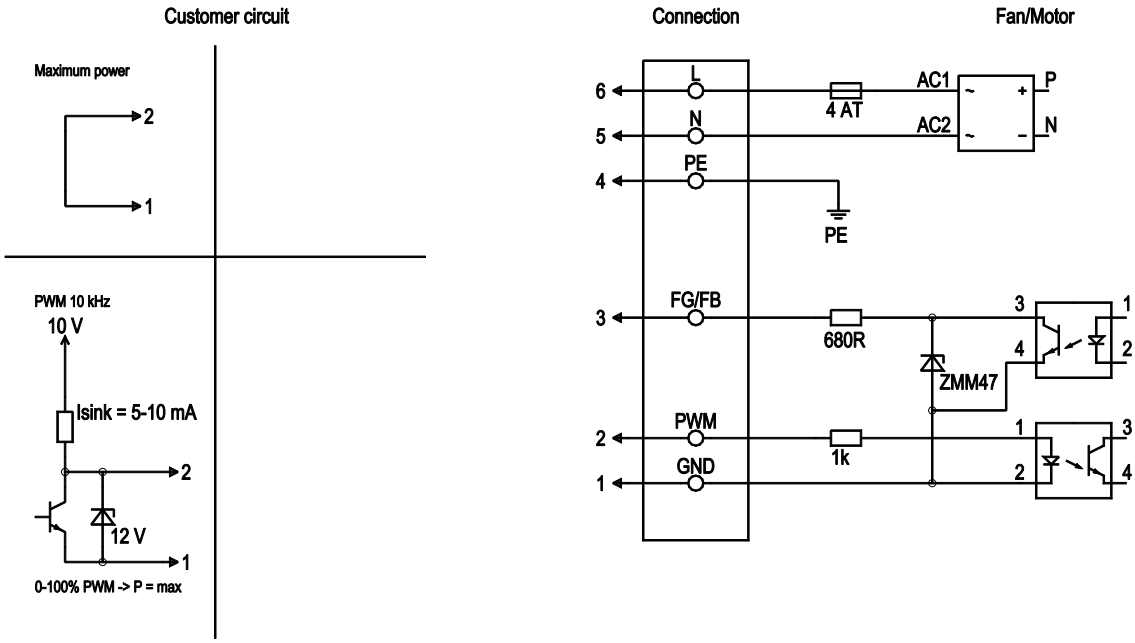
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	6	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	5	N	blue	Neutral conductor
	4	PE	green/yellow	Protective earth
	3	FG/FB	white	Fan good / fan bad: Open collector, fan good = high, electrically isolated, Isink max=10 mA
	2	PWM	yellow	Control input PWM, electrically isolated, Isink = 5-10 mA
	1	GND	blue	GND connection of control interface

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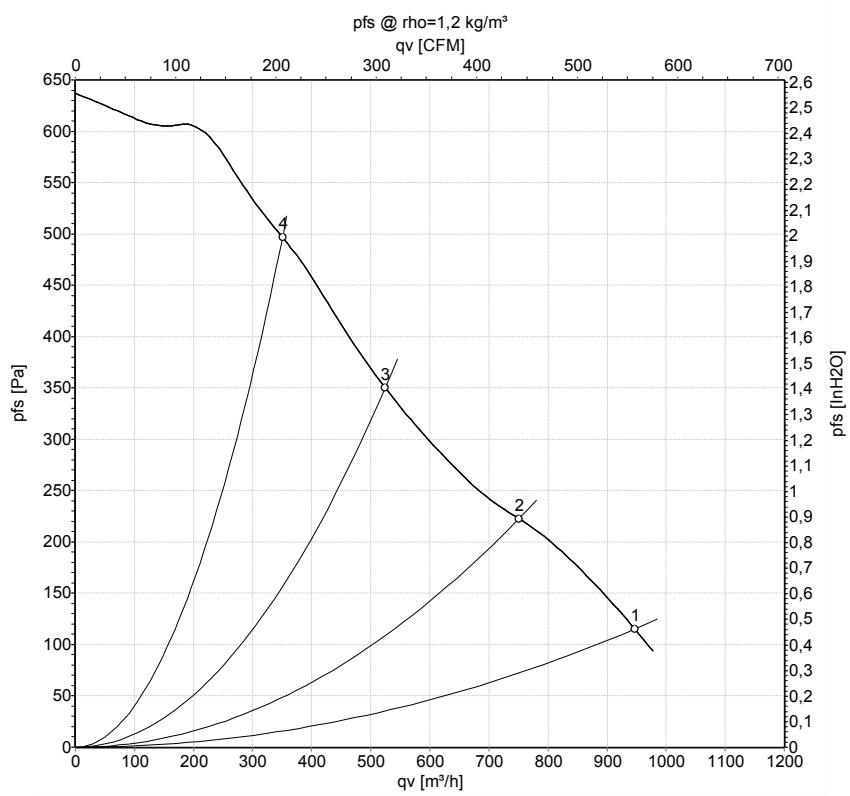
Charts: Air flow 50 Hz



Measurement: LU-166068-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	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	inH2O
1	230	50	1840	165	1.20	945	115	555	0.46
2	230	50	2095	165	1.20	750	220	440	0.88
3	230	50	2505	165	1.20	525	350	310	1.41
4	230	50	2970	165	1.20	350	500	205	2.01

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase