EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D1G146-HS01-11 ebmpapst Datasheet
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Nominal data

Type	**D1G146-HS01-11**
Motor	**M1G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	1410
Power input	W	100
Current draw	A	0.8
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
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

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Technical features

Mass	1.8 kg
Size	146 mm
Surface of rotor	Thick layer passivated
Material of impeller	PP plastic
Housing material	PP plastic
Motor suspension	Motor mounted vibration-free 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)	H0 - dry environment
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	- 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, safety classification after installation in accordance with intended use
Product conforming to standard	EN 60335-1; EN 60335-2-31; CE
Approval	VDE

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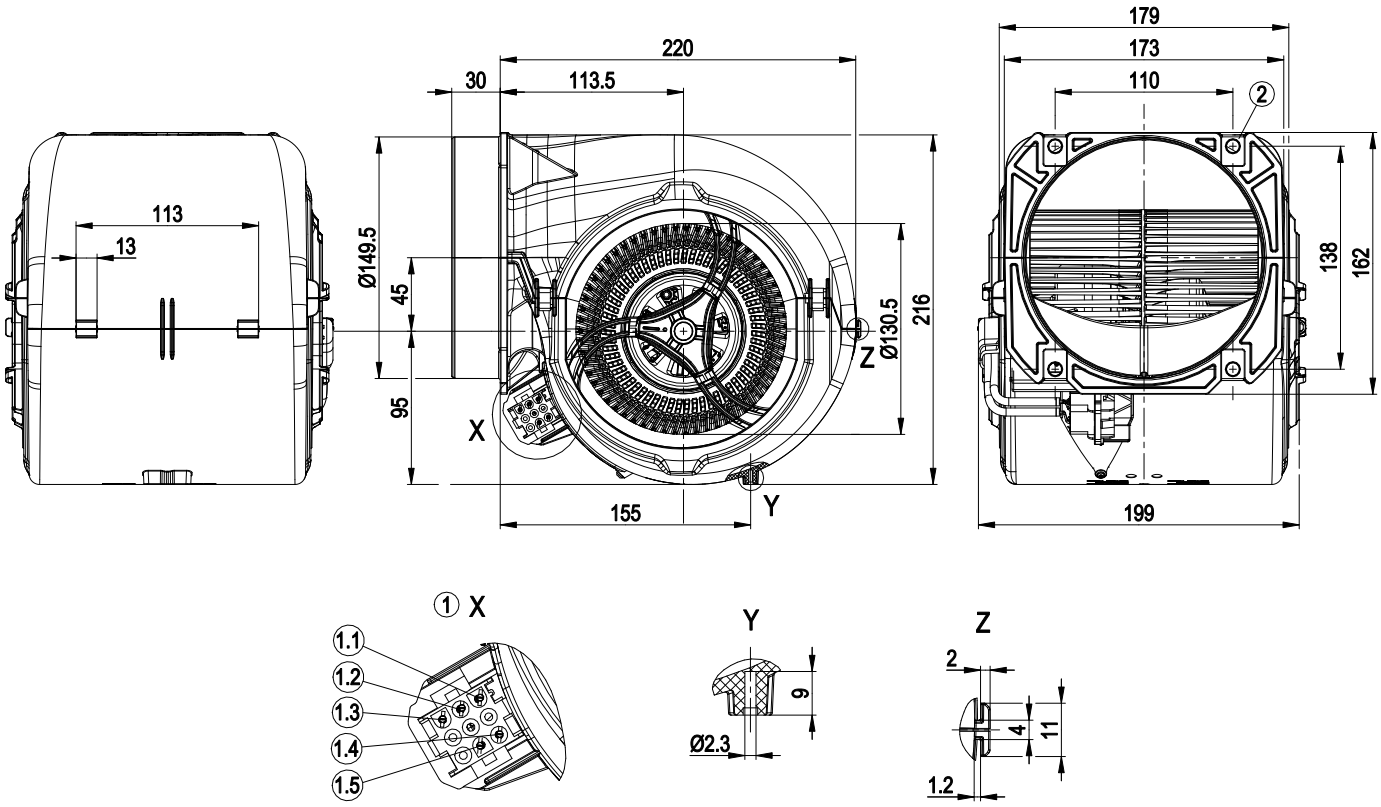
Product drawing



1	Coded plug system: Connector housing 9-pole tyco 927231-7, 5x plug pin tyco 926887-1
	Mating connector (not included in scope of delivery): Connector housing 9-pole tyco 1-1863003-2, female connector tyco 926884-1
1.1	L (brown)
1.2	N (blue)
1.3	FE (green/yellow)
1.4	PWM (yellow)
1.5	GND (blue)
2	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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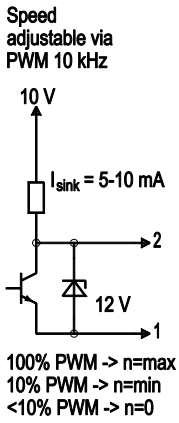
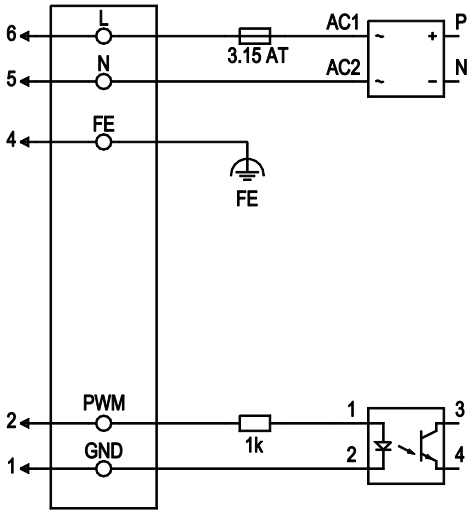
Connection screen

Customer circuit



Connection

Fan / Motor



No.	Conn.	Designation	Colour	Function / assignment
	6	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	5	N	blue	Neutral conductor
	4	FE	green/yellow	Functional earth conductor
	2	PWM	yellow	Control input PWM, electrically isolated, Isink = 5-10 mA
	1	GND	blue	GND connection for control interface

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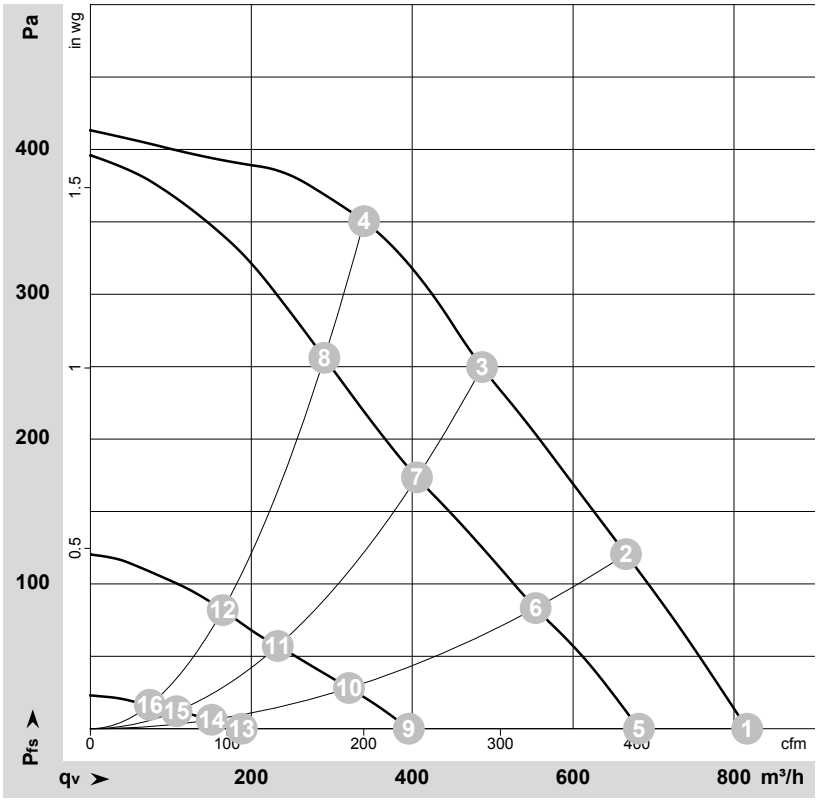
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-159021-1

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	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	inH2O
1	230	50	1410	100	0.80	56	68	815	0	480	0.00
2	230	50	1735	100	0.80	55	66	665	120	390	0.48
3	230	50	2150	100	0.80	56	67	485	250	285	1.00
4	230	50	2445	92	0.72	59	70	340	350	200	1.41
5	230	50	1185	57	0.46			680	0	400	0.00
6	230	50	1450	56	0.46			555	83	325	0.33
7	230	50	1810	56	0.46			405	173	240	0.69
8	230	50	2120	57	0.46			290	256	170	1.03
9	230	50	725	13	0.12			395	0	235	0.00
10	230	50	870	13	0.12			320	28	190	0.11
11	230	50	1055	13	0.12			235	57	135	0.23
12	230	50	1230	13	0.12			165	82	95	0.33
13	230	50	375	3.00	0.05			190	0	110	0.00
14	230	50	435	3.00	0.05			150	6	90	0.02
15	230	50	510	3.00	0.05			105	12	65	0.05
16	230	50	580	3.00	0.05			75	17	45	0.07

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow p_{fs} = Pressure increase