D1G146-HS02-06

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D1G146-HS02-06**
Motor	**M1G055-CF**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	1400
Power input	W	100
Current draw	A	1.45
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	2 kg
Size	146 mm
Material of impeller	Sheet steel, galvanised
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
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
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

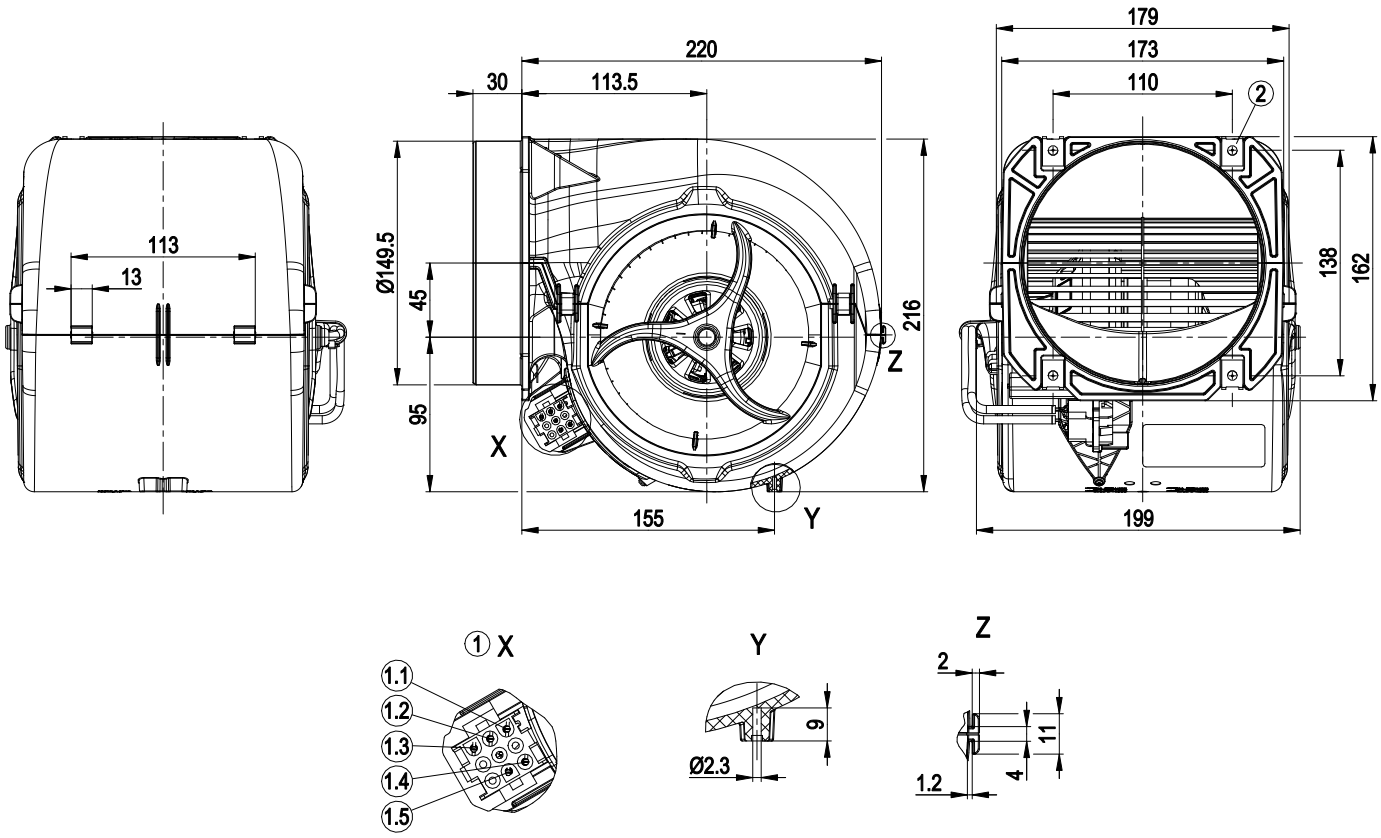
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Product drawing



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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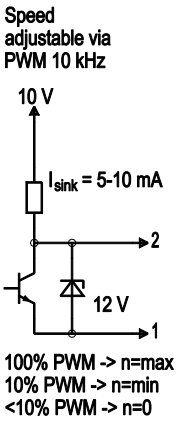
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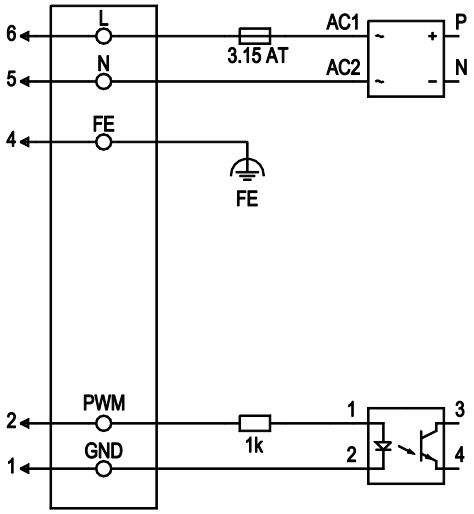
Connection screen

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

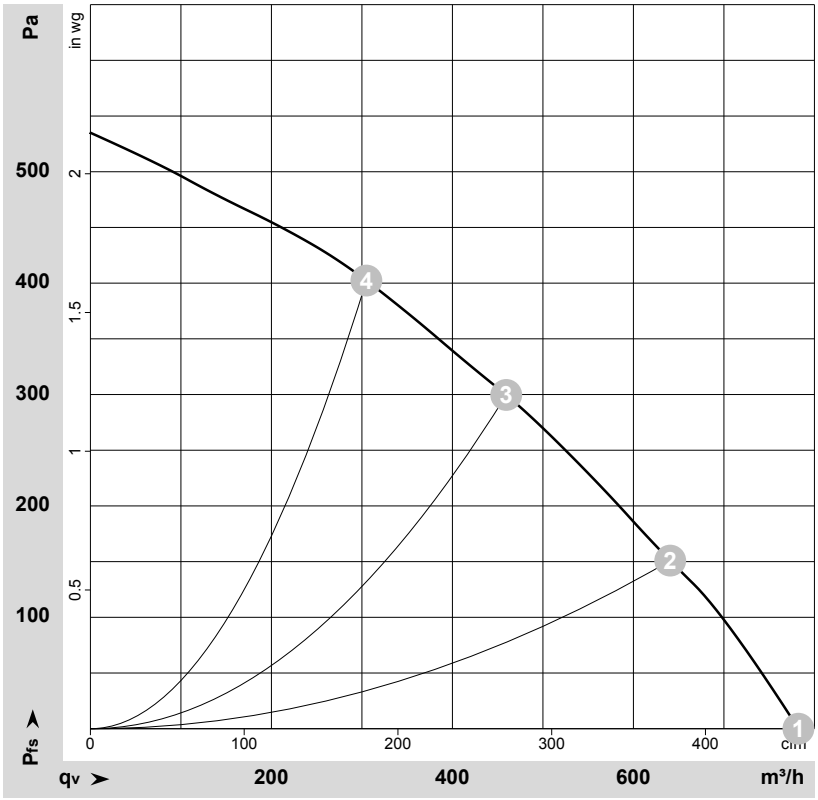
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-174560-1

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	115	50	1400	100	1.45	59	70	780	0	460	0.00
2	115	50	1685	100	1.45	56	67	640	150	375	0.60
3	115	50	2160	100	1.45	58	69	460	300	270	1.20
4	115	50	2550	100	1.45	62	73	305	400	180	1.61

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

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