D1G146-HQ03-04

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D1G146-HQ03-04**
Motor	**M1G055-DF**

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}	1675
Power input	W	170
Current draw	A	1.2
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	1.9 kg
Size	146 mm
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"
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, protection rating results from installation according to intended use
Product conforming to standard	EN 60335-1; EN 60335-2-31; CE
Approval	VDE; EAC

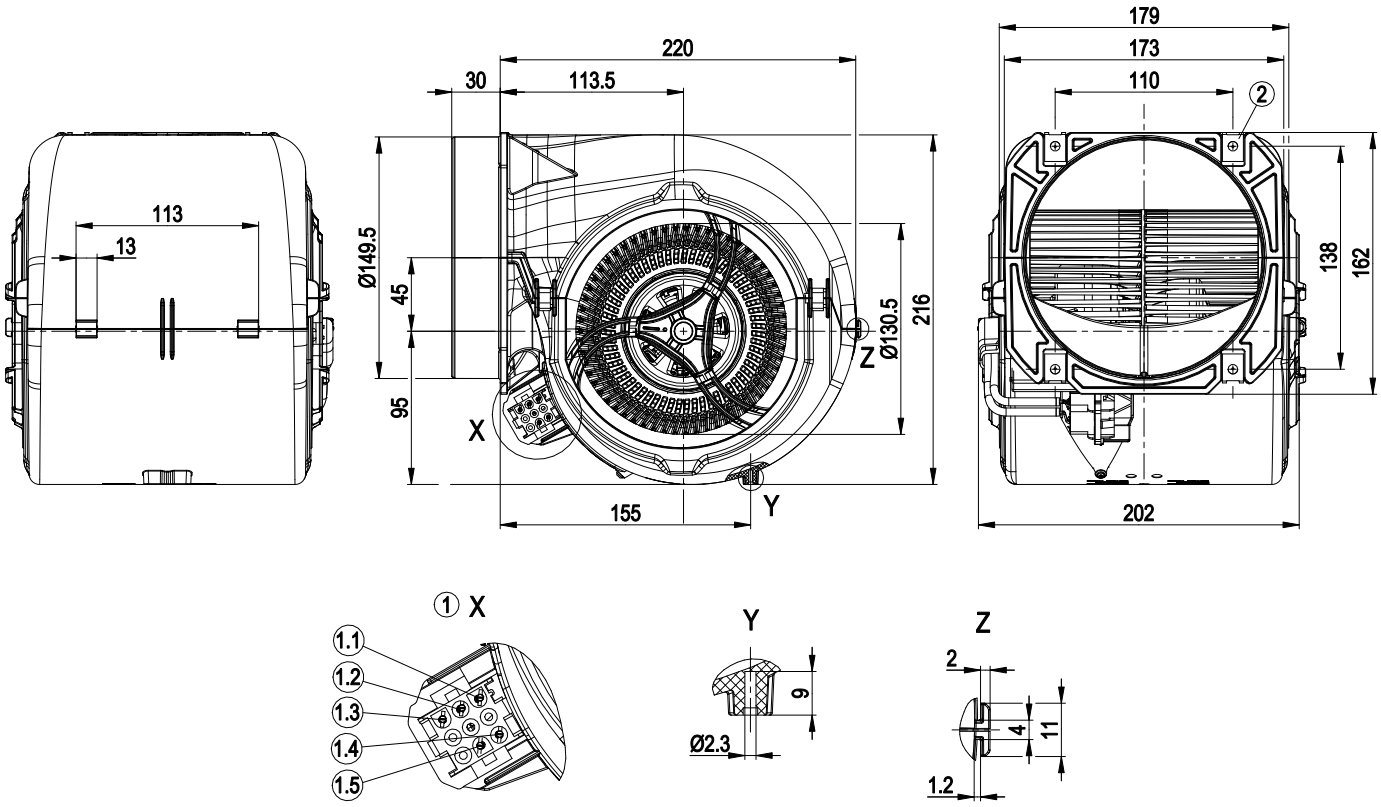
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Product drawing



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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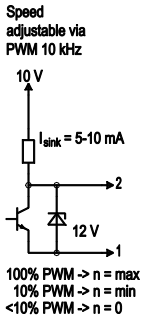
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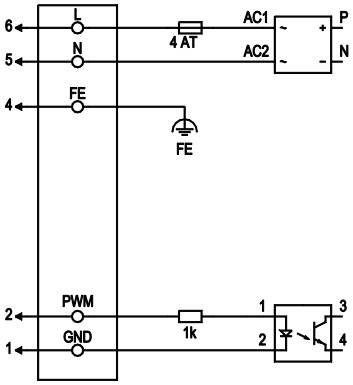
with housing (flange)

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

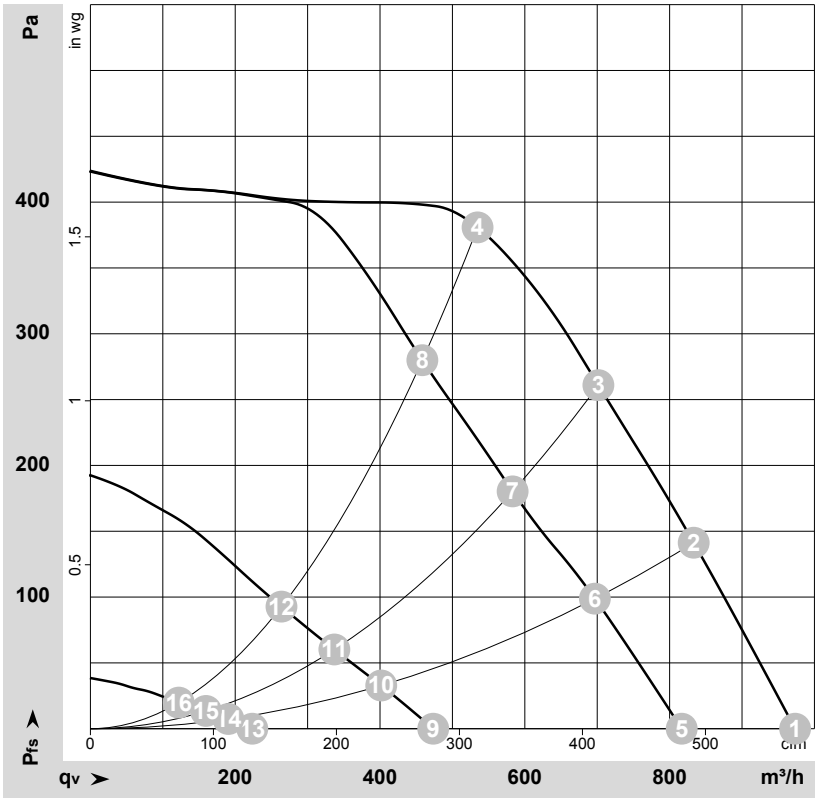
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Charts: Air flow 50 Hz



ρ = 1.178 kg/m³ ± 2 %

Measurement: LU-171114-1
Measurement: LU-171189-1
Measurement: LU-171191-1
Measurement: LU-171193-1

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	1675	170	1.20	61	73	975	0	575	0.00
2	230	50	1970	170	1.20	61	72	835	140	490	0.56
3	230	50	2265	170	1.20	61	72	700	260	415	1.04
4	230	50	2570	150	1.10	61	72	535	380	315	1.53
5	230	50	1420	95	0.68			815	0	480	0.00
6	230	50	1665	94	0.68			695	99	410	0.40
7	230	50	1905	94	0.68			585	180	345	0.72
8	230	50	2215	94	0.68			460	279	270	1.12
9	230	50	865	21	0.16			475	0	280	0.00
10	230	50	1000	21	0.16			400	33	235	0.13
11	230	50	1130	21	0.16			335	60	200	0.24
12	230	50	1305	21	0.16			265	93	155	0.37
13	230	50	460	5.0	0.05			225	0	130	0.00
14	230	50	515	4.0	0.05			190	7	110	0.03
15	230	50	570	5.0	0.05			160	14	95	0.06
16	230	50	635	5.0	0.05			120	20	70	0.08

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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