

D1G146-HS01-04

EC centrifugal fan

forward-curved, dual-intake
with housing (flange)

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D1G146-HS01-04	
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	1410
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

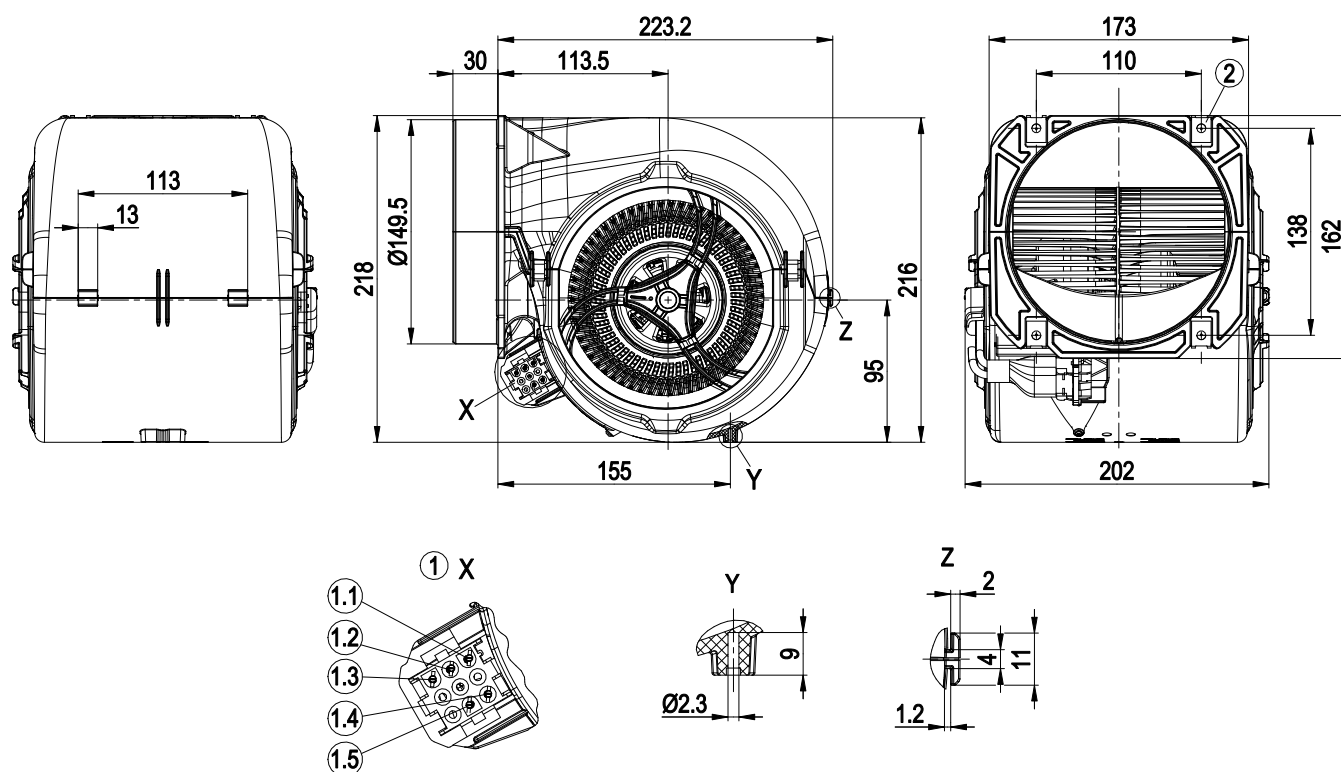
Weight	1.8 kg
Size	146 mm
Motor size	55
Impeller material	PP plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection 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 - Control interface with SELV potential safely disconnected from supply - 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)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	≤ 3.5 mA
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	Built-in component, protection class results from installation according to intended use
Conformity with standards	EN 60335-1; EN 60335-2-31; CE
Approval	VDE



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Product drawing



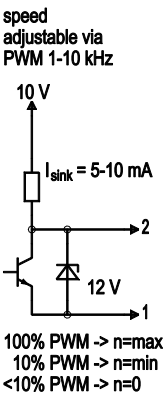
1	Coded plug system: 9-pole connector housing TE 927231-7, 5x plug pin TE 926887-1
	Mating connector (not in scope of delivery): 9-pole connector housing TE 1-1863003-2, socket TE 926884-1
1.1	L (brown)
1.2	N (blue)
1.3	FE (green/yellow)
1.4	PWM (yellow)
1.5	GND (blue)
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

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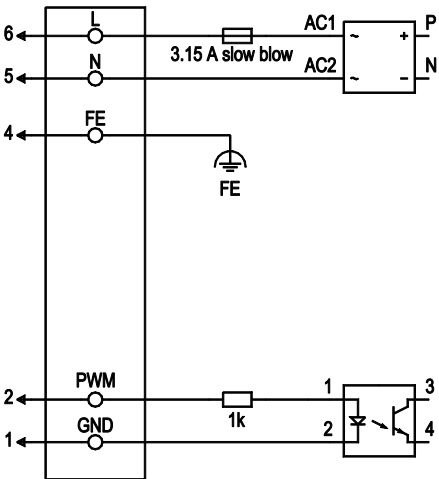
Connection diagram

Customer circuit



Connection

Fan/Motor



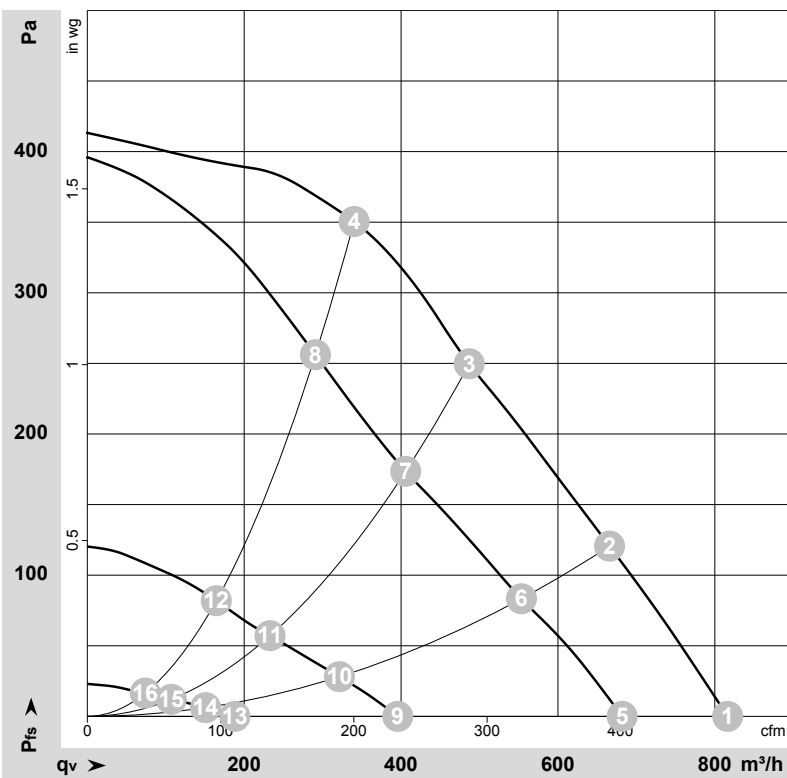
No.	Conn.	Designation	Color	Function/assignment
	6	L	brown	Power supply, phase, see nameplate for voltage range
	5	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	4	FE	green/yellow	Functional ground conductor
	2	PWM	yellow	Control input PWM, impedance 1 kΩ; SELV
	1	GND	blue	Reference ground for control interface, SELV



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Curves: Air performance 50 Hz



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

Measurement: LU-159021-1

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

	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	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 = 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

