D3G146-HQ01-08

EC centrifugal fan

forward curved, dual inlet

with housing (large flange)



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Nominal data

Type	**D3G146-HQ01-08**
Motor	**M3G055-DF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1660
Power input	W	176
Current draw	A	1.34
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	2.4 kg
Size	146 mm
Surface of rotor	Galvanised
Material of electronics housing	PP plastic, black
Material of impeller	PP plastic, white
Housing material	PP plastic, black
Motor suspension	Motor anti-vibration mounted on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	Motor IP54
Insulation class	"F"
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	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Over-temperature protected motor
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

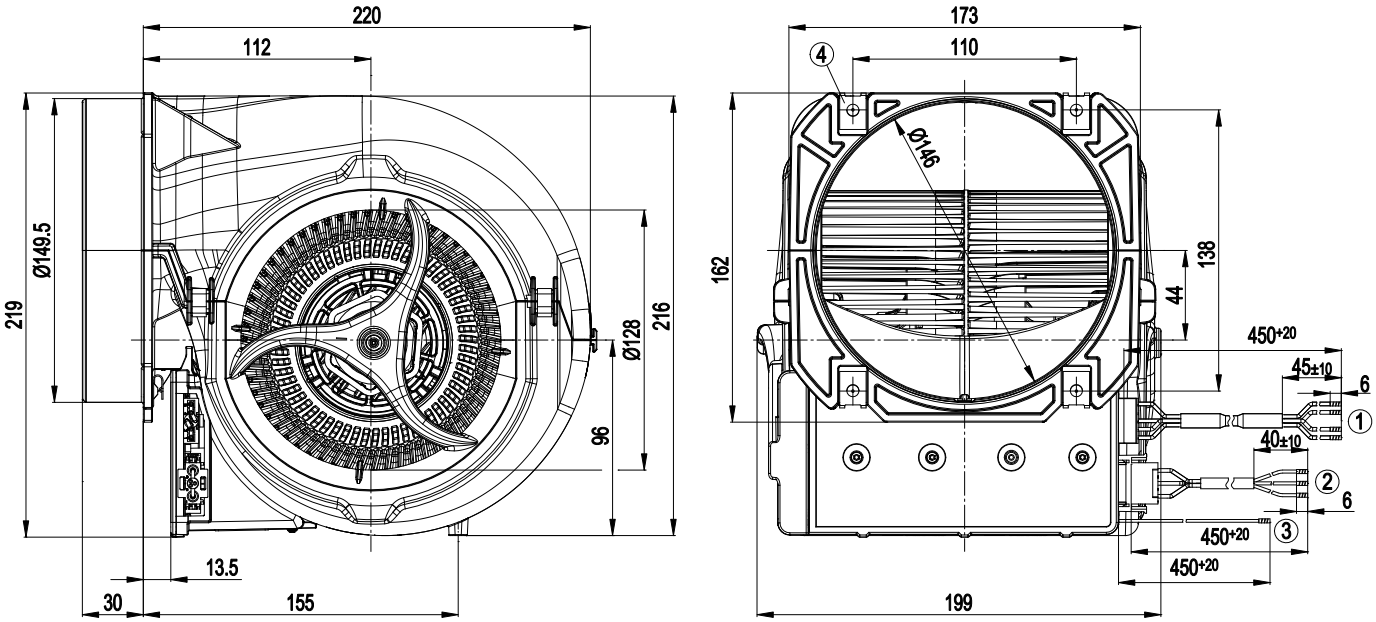
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Product drawing



Line	No.	Signal	Colour	Function / assignment
	1			Control line AWG20, 4 x brass lead tips crimped
			red	Voltage output 10V/ 1mA
			white	Tach output
			yellow	Control input 0 - 10V or PWM
			blue	GND - Connection for control interface
	2			Connection line PVC 3 x 0.5 mm²; 3 x brass lead tips crimped
			green/yellow	Protective earth
			black	Power supply 230 VAC, 50 60 Hz, for voltage range refer to rating plate
			blue	Neutral conductor
	3		green/yellow	EMC earth, 1 x brass lead tip crimped
	4			4 x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting material)

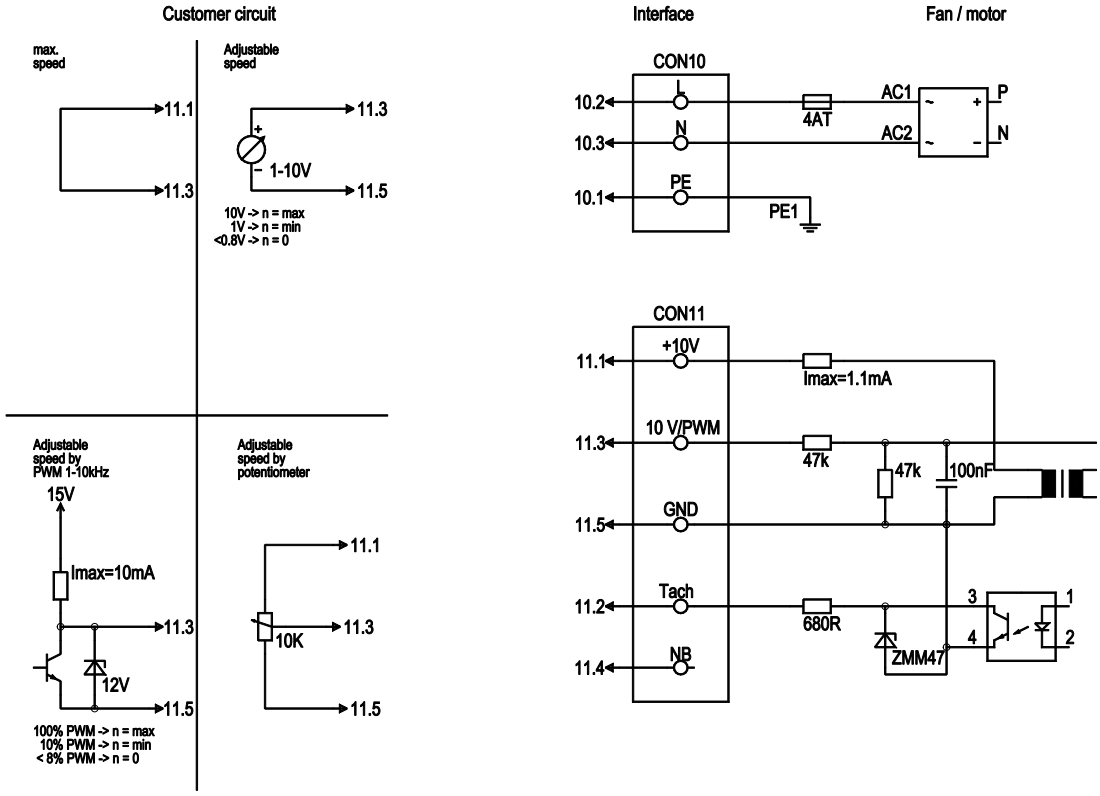
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Connection screen



Line	No.	Signal	Colour	Function / assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
CON10	10.3	N	blue	Neutral conductor
CON11	11.1	10 V/max. 1.1 mA	red	Voltage output 10 V/ 1.1 mA, electrically isolated
CON11	11.2	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
CON11	11.3	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
CON11	11.4	NB		Not assigned
CON11	11.5	GND	blue	GND - Connection for control interface

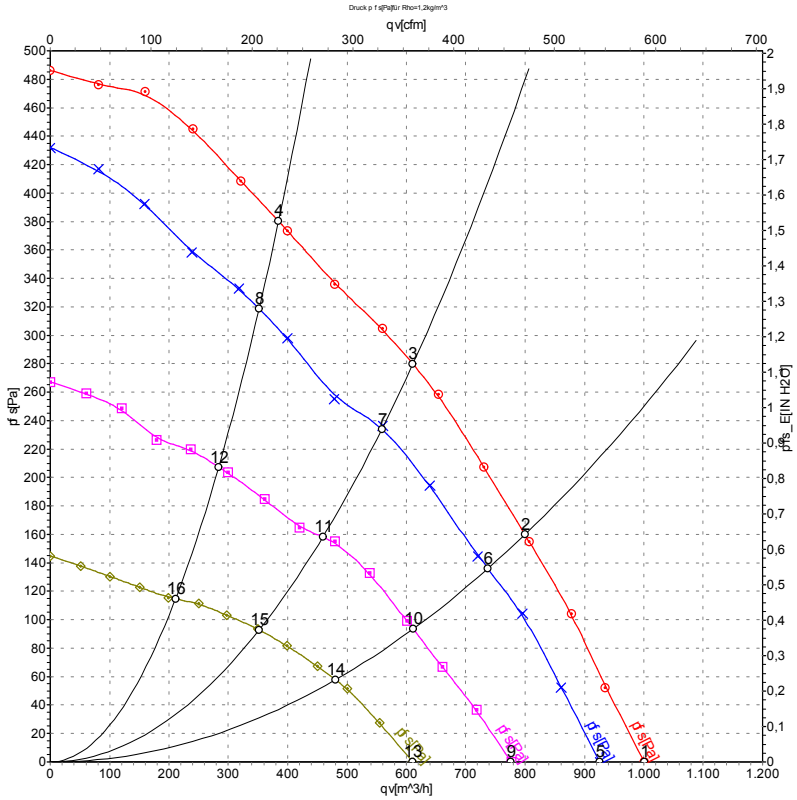
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Charts: Air flow 50 Hz



Measurement: LU-129602
Measurement: LU-126586
Measurement: LU-126587
Measurement: LU-126588

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1660	176	1.34	1000	0
2	230	50	1930	158	1.22	800	160
3	230	50	2160	133	1.06	610	280
4	230	50	2455	105	0.86	385	380
5	230	50	1555	143	1.04	925	0
6	230	50	1785	116	0.86	735	136
7	230	50	1990	97	0.73	560	237
8	230	50	2245	74	0.58	350	319
9	230	50	1325	81	0.61	775	0
10	230	50	1495	67	0.52	610	93
11	230	50	1645	54	0.43	460	158
12	230	50	1830	42	0.34	285	208
13	230	50	1065	40	0.31	610	0
14	230	50	1180	32	0.26	480	58
15	230	50	1275	25	0.21	350	93
16	230	50	1370	19	0.16	210	115

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

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