

D3G146-HQ25-38

# EC centrifugal fan

forward curved, dual inlet  
with housing (flange)

D3G146-HQ25-38 ebmpapst Datasheet  
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## Nominal data

Type	D3G146-HQ25-38	
Motor	M3G055-DF	
Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min <sup>-1</sup>	2260
Power input	W	200
Current draw	A	2.7
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

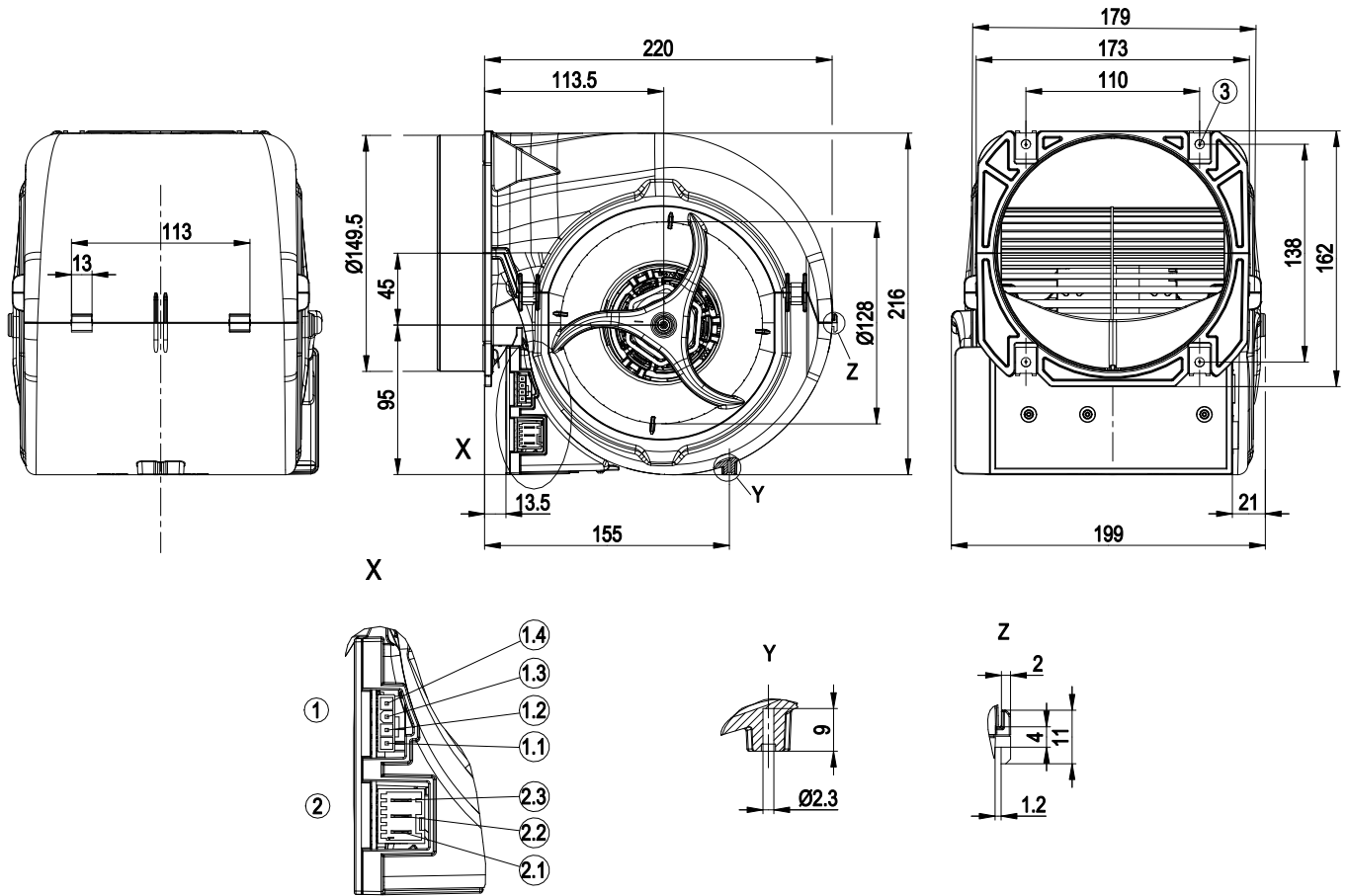
<b>Mass</b>	2.4 kg
<b>Size</b>	146 mm
<b>Surface of rotor</b>	Galvanised
<b>Material of electronics housing</b>	PP plastic
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Housing material</b>	PP plastic
<b>Motor suspension</b>	Motor mounted anti-vibration on both sides
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 20
<b>Insulation class</b>	"F"
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None, open rotor
<b>Cooling bore / aperture</b>	On rotor and stator sides
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Output limit</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Over-temperature protected motor</li> </ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	Acc. to EN 61000-6-4 (industrial environment)
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Electrical leads</b>	With plug; Via terminal box
<b>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; EN 60335-2-31; CE
<b>Approval</b>	UL 1004-7 + 60730; C22.2 Nr.77 + CAN/CSA-E60730-1



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## Product drawing



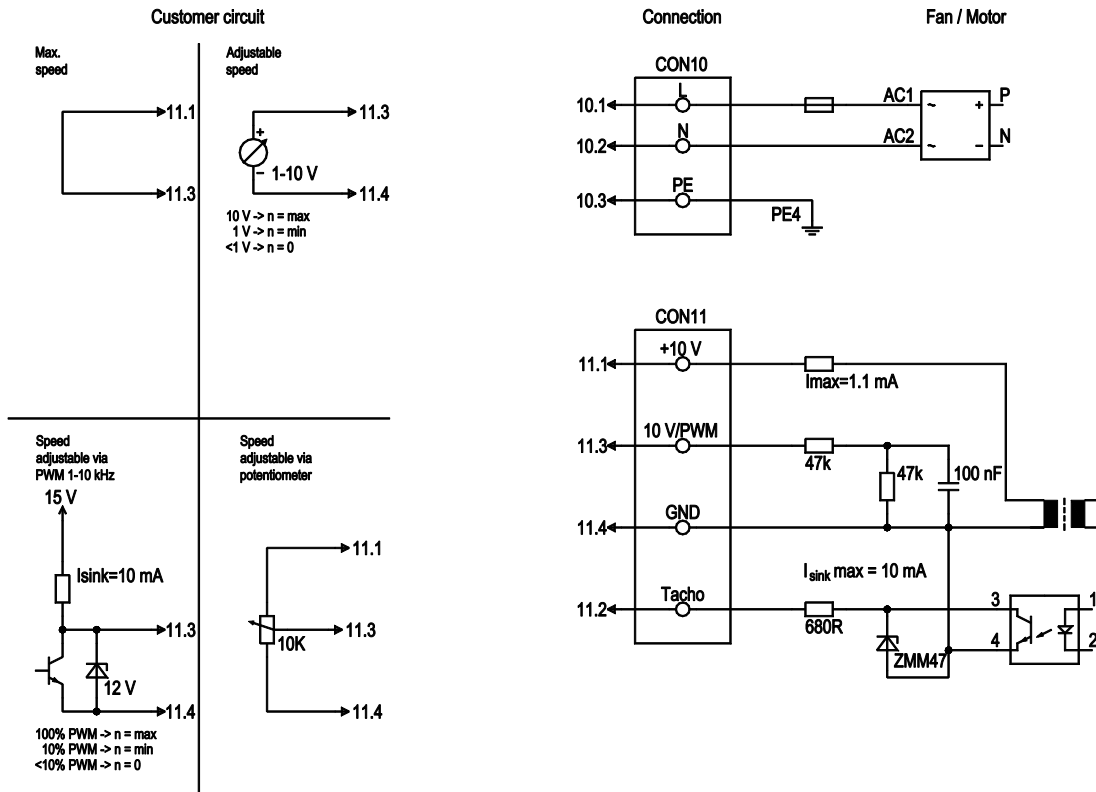
1	Strip Stocko MSLO 7708-004-003-960 pluggable with Stocko EH 705-004-003-960 + RBB 8230.120 Ms
1.1	10 V
1.2	Tacho
1.3	0-10 V/PWM
1.4	GND
2	Macro module connector Stocko MSLO 9404-003-00A-960 pluggable with Stocko MFMP 9761-003-50A-960
2.1	L
2.2	N
2.3	PE
3	4x sheet metal nut for EN ISO 1478-ST4.8 thread



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## Connection screen



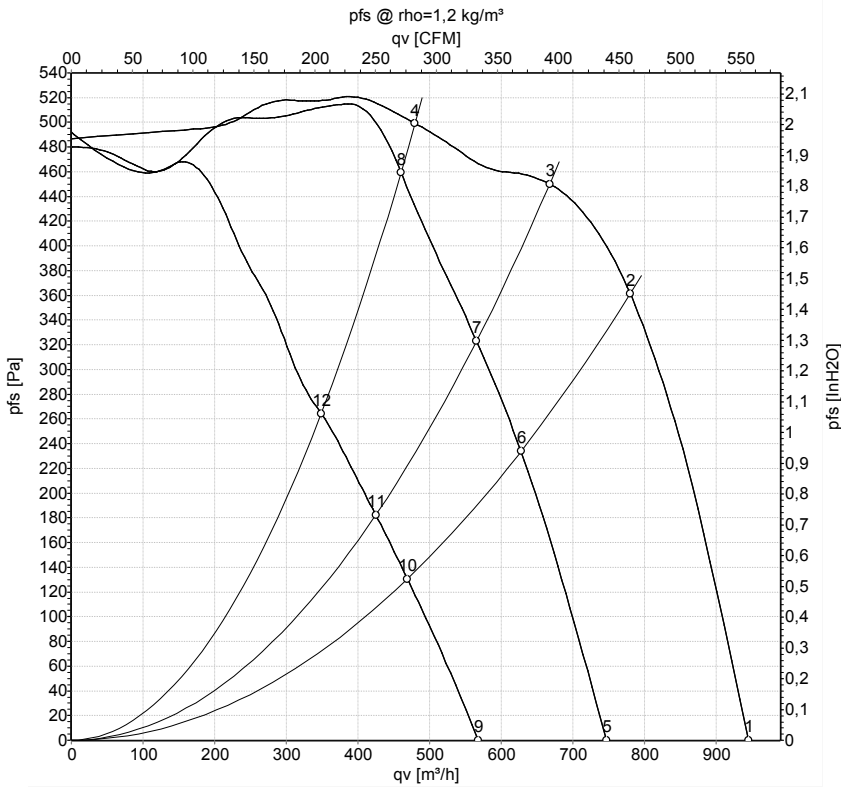
No.	Conn.	Designation	Colour	Function / assignment
CON10	10.1	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
CON10	10.2	N	blue	Neutral conductor
CON10	10.3	PE	green/yellow	Protective earth
CON11	11.1	10 V/max. 1.1mA	red	Voltage output 10V / 1.1mA, electrically isolated,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



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## Charts: Air flow 50 Hz



Measurement: LU-158670-1  
Measurement: LU-158080-1  
Measurement: LU-158085-1

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 <sub>ed</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH2O
1	115	50	1665	157	2.17	945	0	555	0.00
2	115	50	2260	200	2.70	780	360	460	1.45
3	115	50	2455	182	2.49	670	450	395	1.81
4	115	50	2650	150	2.08	480	500	285	2.01
5	115	50	1330	76	1.11	745	0	440	0.00
6	115	50	1875	102	1.47	630	238	370	0.96
7	115	50	2125	114	1.61	565	324	335	1.30
8	115	50	2550	132	1.85	460	459	270	1.84
9	115	50	1025	35	0.53	570	0	335	0.00
10	115	50	1420	45	0.68	470	131	275	0.53
11	115	50	1620	51	0.75	425	182	250	0.73
12	115	50	1960	61	0.90	350	265	205	1.06

U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

