D3G146-HQ23-38

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D3G146-HQ23-38**
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^{-1}	1500
Power input	W	135
Current draw	A	1.9
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	2.4 kg
Size	146 mm
Surface of rotor	Galvanised
Material of electronics housing	PP plastic
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 20
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
Cooling bore / aperture	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - 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; Via terminal box
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; EN 60335-2-31; CE
Approval	UL 1004-7 + 60730; CSA C22.2 No.77

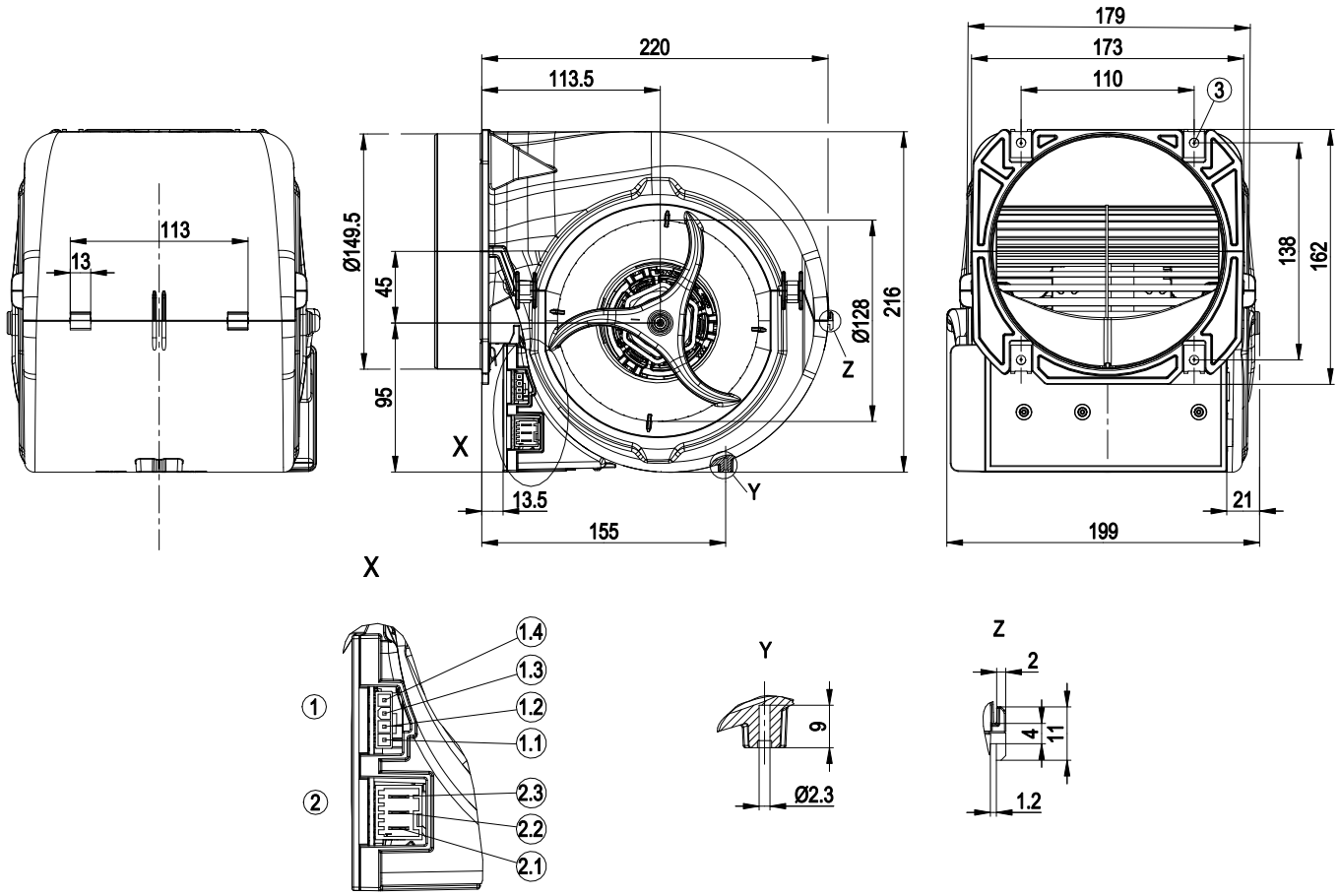
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Product drawing



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

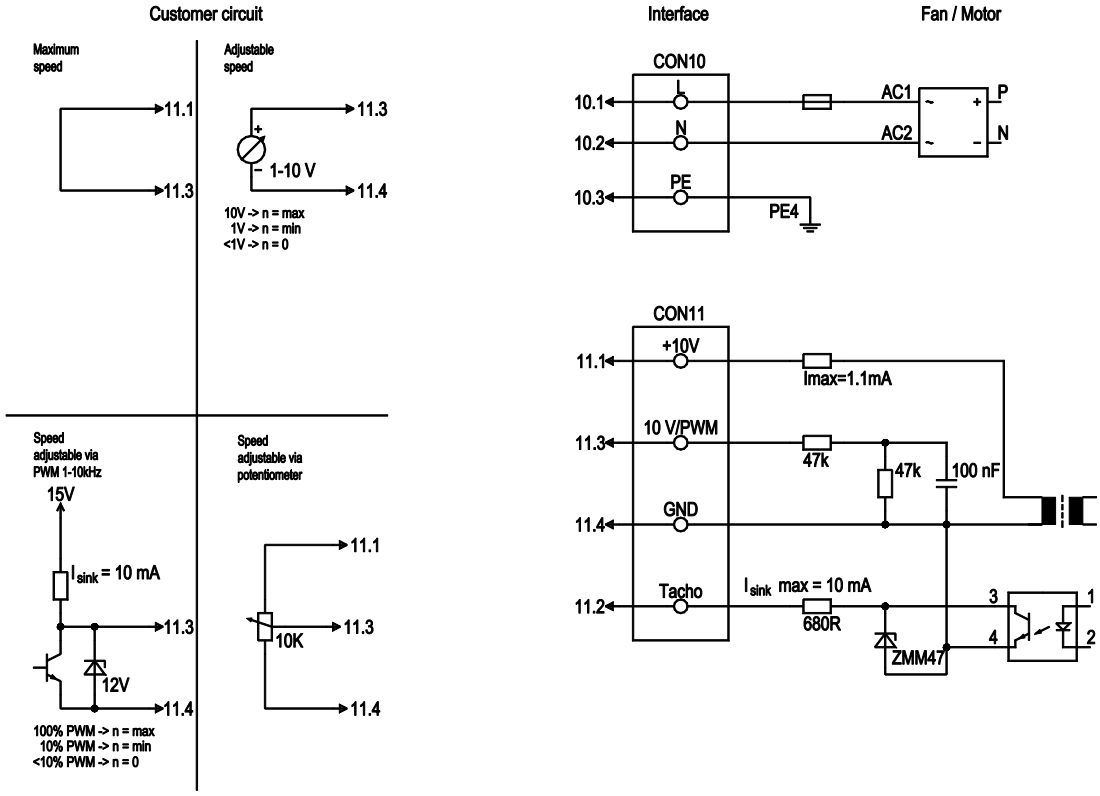
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
CON10	10.1	L	black	Power supply 115 VAC, 50-60 Hz, see type plate for voltage range
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 10 V, 1.1 mA, 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

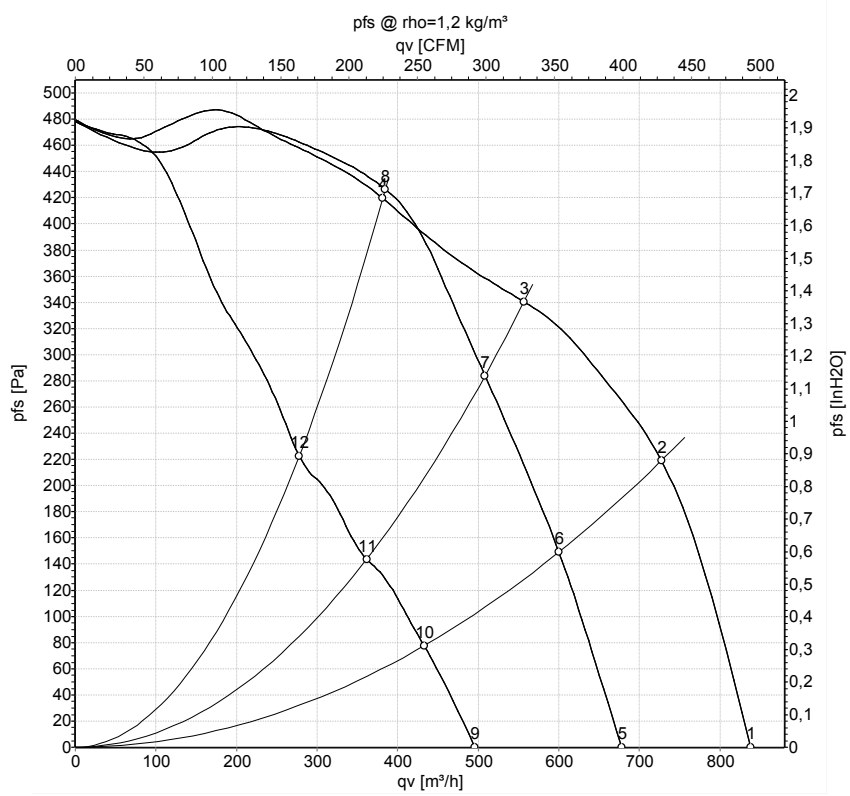
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Charts: Air flow 50 Hz



Measurement: LU-157993-1
Measurement: LU-158058-1
Measurement: LU-158065-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	115	50	1500	135	1.90	840	0	495	0.00
2	115	50	1900	165	2.30	725	220	430	0.88
3	115	50	2195	140	1.93	555	340	330	1.36
4	115	50	2455	118	1.64	380	420	225	1.69
5	115	50	1195	66	0.97	680	0	400	0.00
6	115	50	1595	84	1.20	600	151	355	0.61
7	115	50	2010	103	1.44	510	284	300	1.14
8	115	50	2465	117	1.63	385	427	225	1.71
9	115	50	885	26	0.40	495	0	290	0.00
10	115	50	1160	31	0.47	435	77	255	0.31
11	115	50	1465	38	0.56	360	143	215	0.57
12	115	50	1820	45	0.67	280	219	165	0.88

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

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