D3G146-HQ25-64

EC centrifugal fan

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Nominal data

Type	**D3G146-HQ25-64**
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}	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

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	49.9	33.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		60.8	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.18
09 Air flow q_v	m^3/h	700
09 Pressure increase p_{fs}	Pa	419
10 Speed (rpm) n	min^{-1}	2415
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-158670

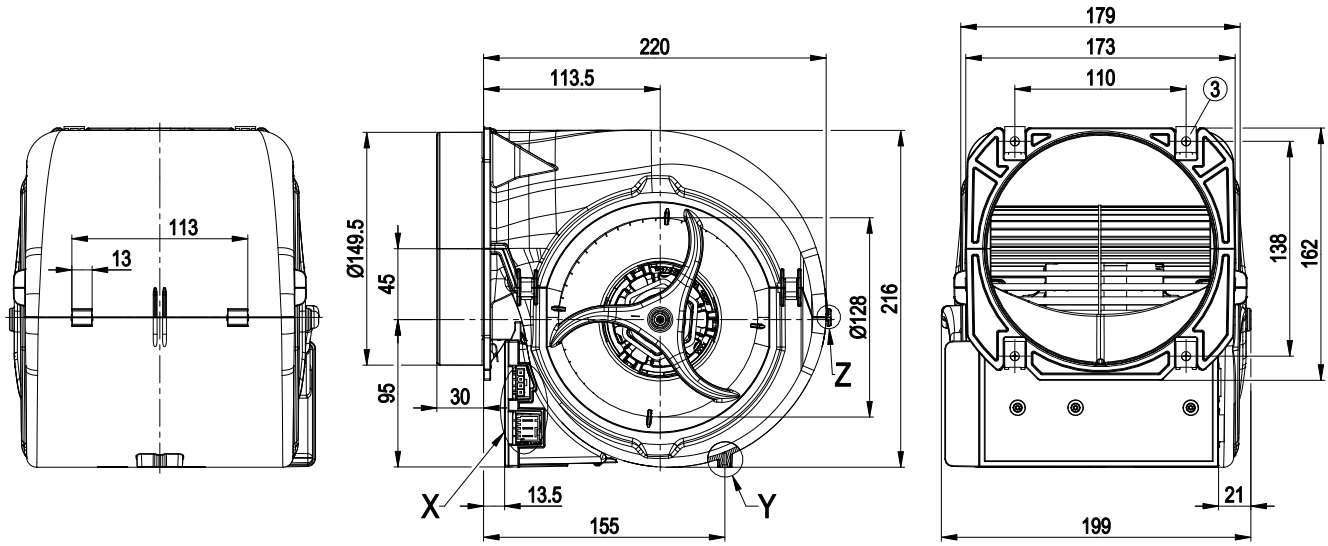
Technical features

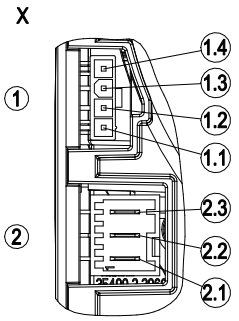
Mass	2.4 kg
Size	146 mm
Motor size	55
Surface of rotor	Galvanised
Material of electronics housing	PP plastic
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	Motor IP54, electronics IP20
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H0+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensation drainage 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 connection	Plug
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; CE
Approval	CSA C22.2 no. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

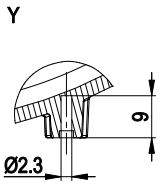
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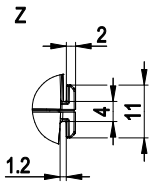
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Product drawing





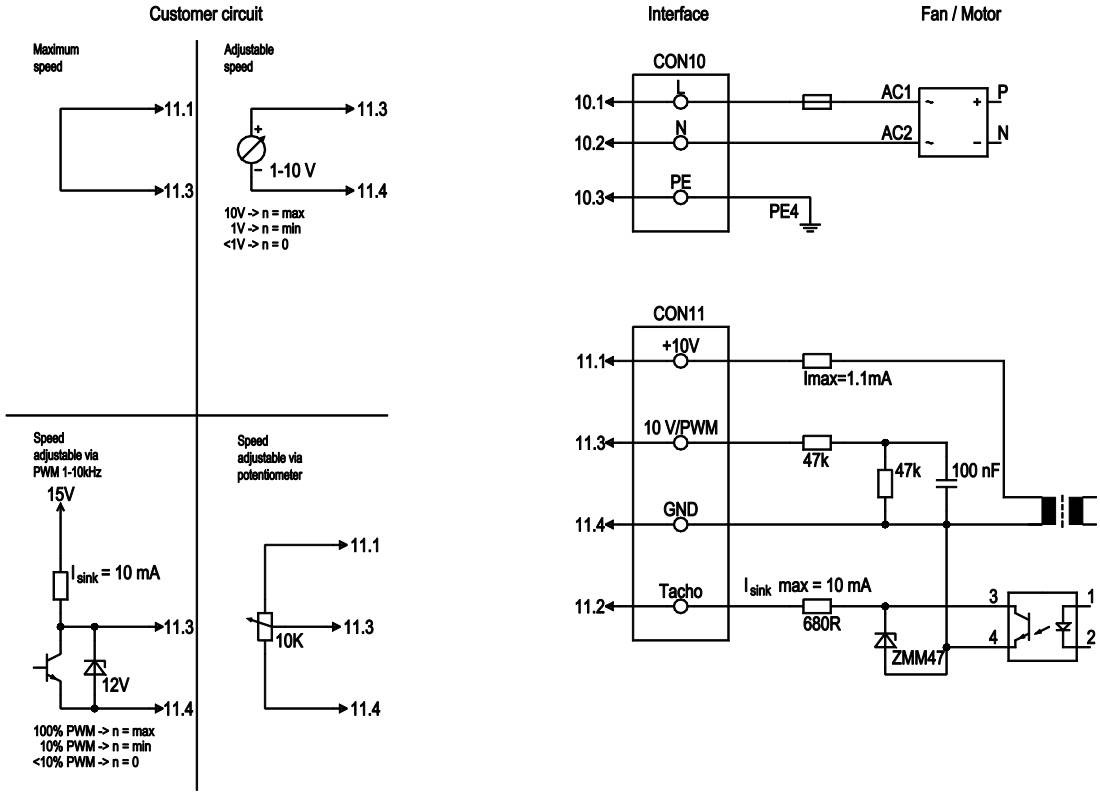




1	Strip Stocko MSLO 7708-004-003-960 pluggable with Stocko EH 705-004-003-960 + RBB 8230.120 Ms
1.1	10V
1.2	Tacho
1.3	0-10 V / PWM
1.4	GND
2	Macro module plug connector Stocko MSLO 9404-003-00A-960 pluggable with Stocko MFMP 9761-003-50A-960
2.1	L
2.2	N
2.3	PE
3	4x sheet metal nut for EN ISO 1478-ST4.8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

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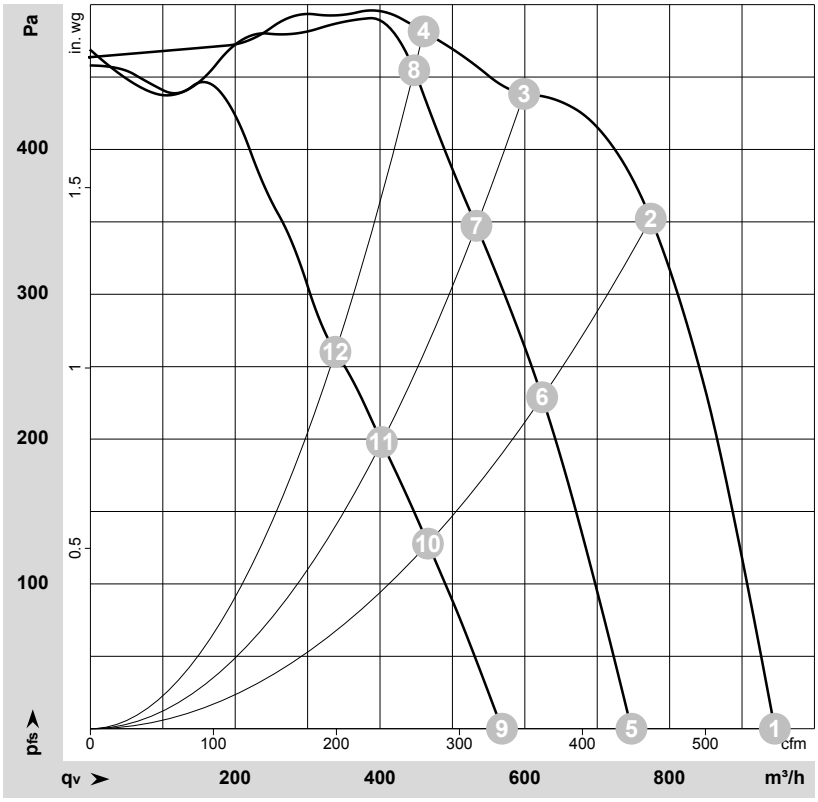
Connection screen



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



ρ = 1.15 kg/m³ ± 2 %

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

	Conn.	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	in. wg
1	1~	115	50	1665	157	2.17	945	0	555	0.00
2	1~	115	50	2260	200	2.70	775	350	455	1.41
3	1~	115	50	2525	173	2.37	600	440	355	1.77
4	1~	115	50	2670	146	2.03	460	480	270	1.93
5	1~	115	50	1330	76	1.11	745	0	440	0.00
6	1~	115	50	1895	103	1.48	625	232	365	0.93
7	1~	115	50	2260	120	1.68	535	347	315	1.39
8	1~	115	50	2605	135	1.88	445	455	265	1.83
9	1~	115	50	1025	35	0.53	570	0	335	0.00
10	1~	115	50	1435	46	0.68	465	128	275	0.51
11	1~	115	50	1735	55	0.81	405	198	235	0.79
12	1~	115	50	1995	62	0.91	340	260	200	1.04

Conn. = Connection · 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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