

D3G146-LU03-33

EC centrifugal fan

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

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	D3G146-LU03-33	
Motor	M3G055-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	1300
Power consumption	W	95
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	55

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



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Technical description

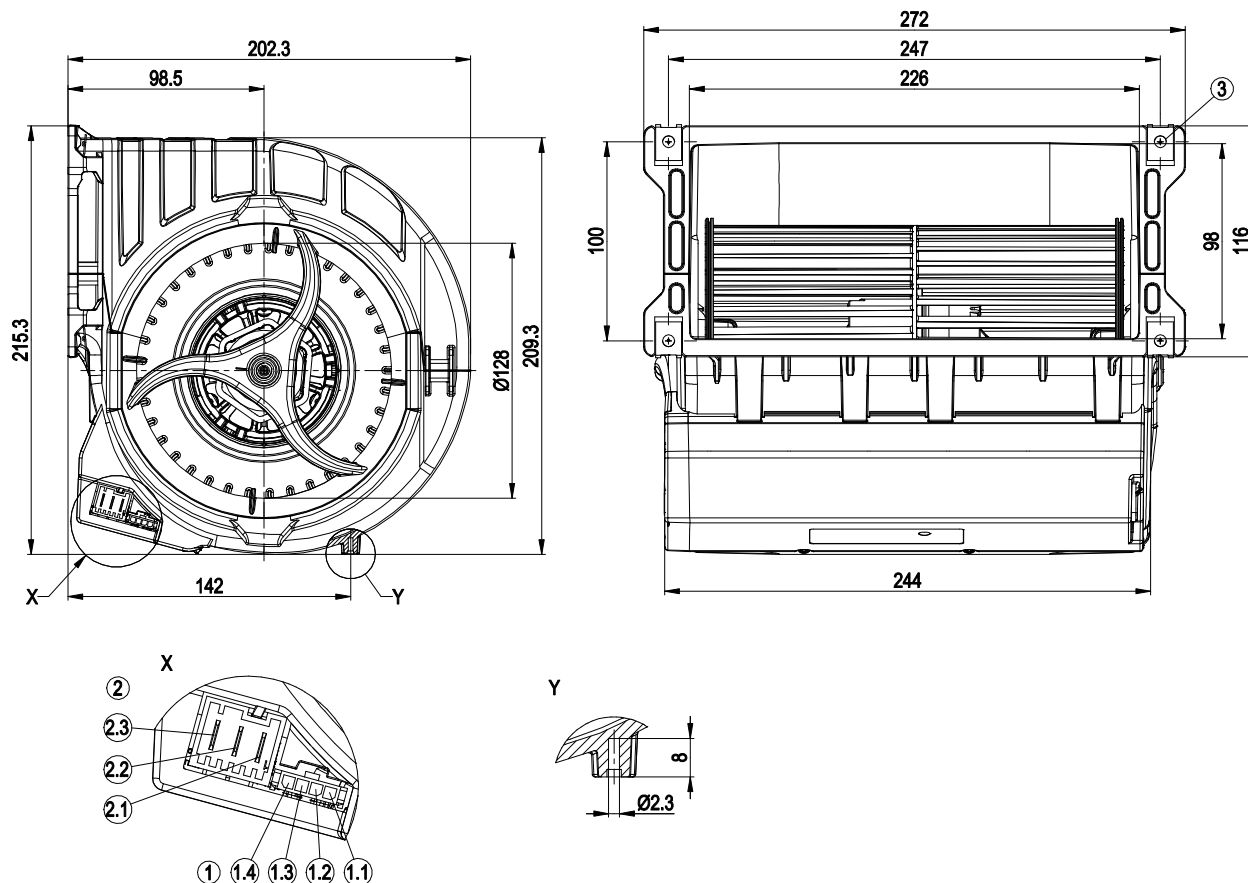
Weight	2.2 kg
Size	146 mm
Motor size	55
Rotor surface	Galvanized
Electronics housing material	PP plastic
Impeller material	PP plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	Motor IP34, electronics IP20; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
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
Cooling hole/opening	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - 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 61000-6-4 (industrial 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
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE



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Product drawing



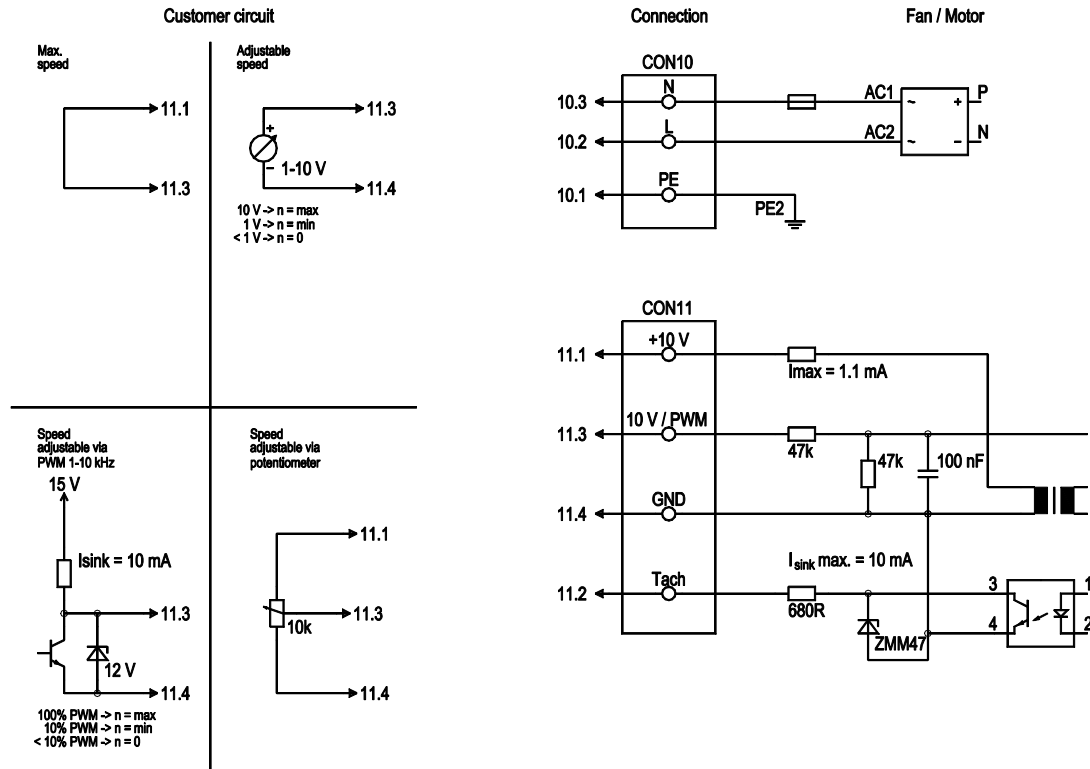
1	Header Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10 V
1.2	Tach
1.3	0-10 V lin. / PWM
1.4	GND
2	Connector Lumberg 3642 03 K01 (pluggable with 3626 03 K01)
2.1	PE
2.2	L
2.3	N
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)



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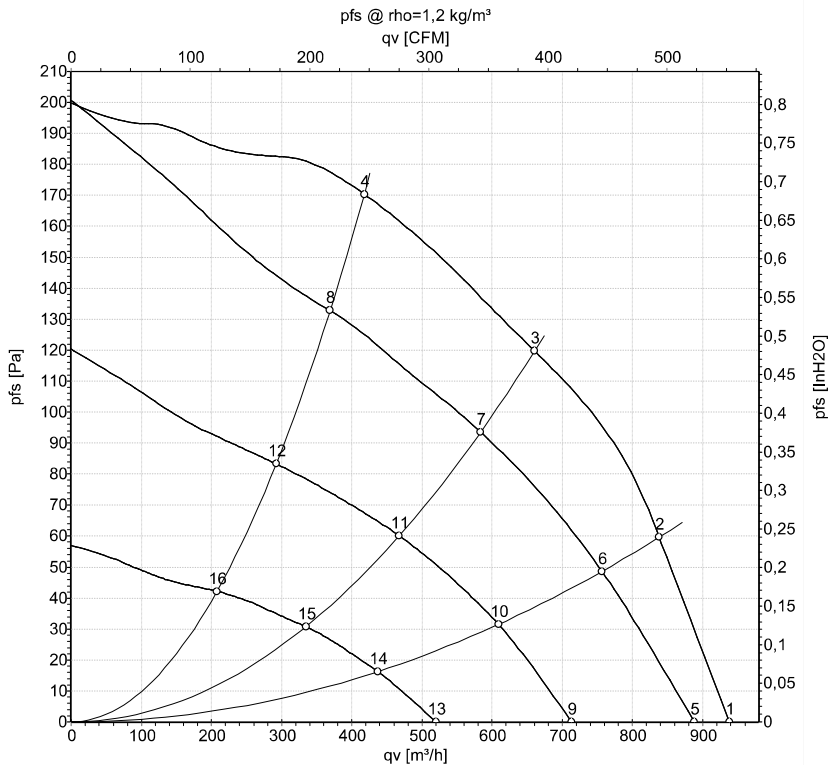
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
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, not short-circuit-proof
CON11	11.2	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, I _{sink 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



Curves: Air performance 50 Hz



Measurement: LU-162072-1
Measurement: LU-131837-1
Measurement: LU-131838-1
Measurement: LU-131839-1

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	1300	95	0.80	57	68	940	0	550	0.00
2	230	50	1465	94	0.78	56	67	840	60	495	0.24
3	230	50	1630	82	0.68	55	66	660	120	390	0.48
4	230	50	1795	62	0.52	55	65	420	170	245	0.68
5	230	50	1245	82	0.69			890	0	525	0.00
6	230	50	1335	69	0.59			755	49	445	0.20
7	230	50	1455	56	0.47			585	94	345	0.38
8	230	50	1575	43	0.37			370	133	215	0.53
9	230	50	1030	45	0.39			715	0	420	0.00
10	230	50	1095	38	0.34			610	32	360	0.13
11	230	50	1170	31	0.28			470	60	275	0.24
12	230	50	1255	23	0.22			290	83	170	0.33
13	230	50	765	19	0.17			520	0	305	0.00
14	230	50	800	16	0.15			435	16	255	0.06
15	230	50	850	13	0.13			335	31	195	0.12
16	230	50	900	10.0	0.10			210	42	120	0.17

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

