D3G146-LT13-33

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

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Nominal data

Type	**D3G146-LT13-33**
Motor	**M3G055-BI**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed (rpm)	min^{-1}	1050
Power input	W	55
Current draw	A	0.5
Min. back pressure	Pa	0
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	2.2 kg
Size	146 mm
Surface of rotor	Galvanised
Material of electronics housing	PP plastic
Material of impeller	PA plastic
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 IP34, electronics IP20; Depending on installation and position
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 - Fault output (open collector) - 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
Electrical leads	With plug
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

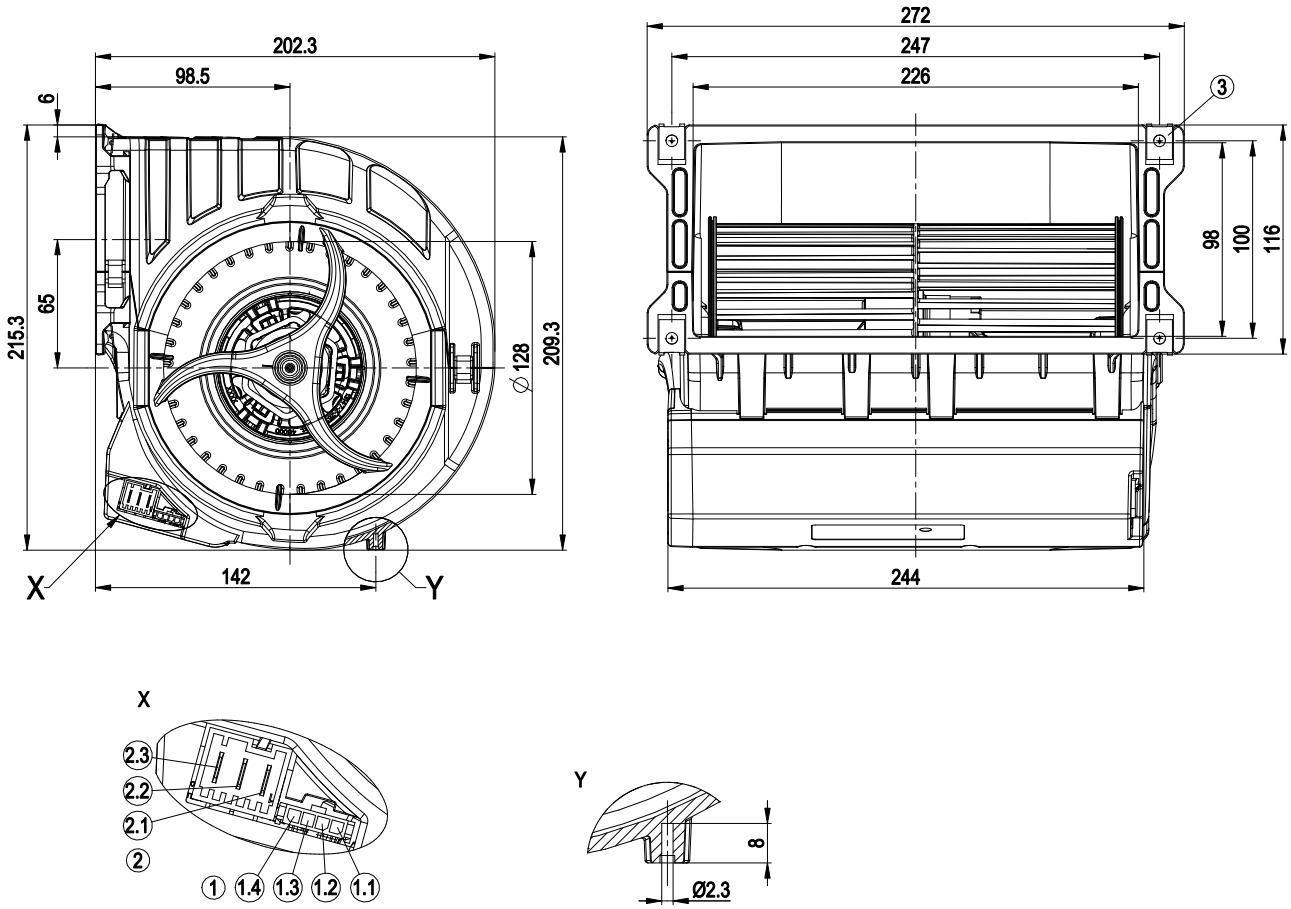
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Product drawing



1	Strip Molex Micro Fit 3.0 043650 0400 (pluggable with 043645 0400)
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 thickness of mounting material)

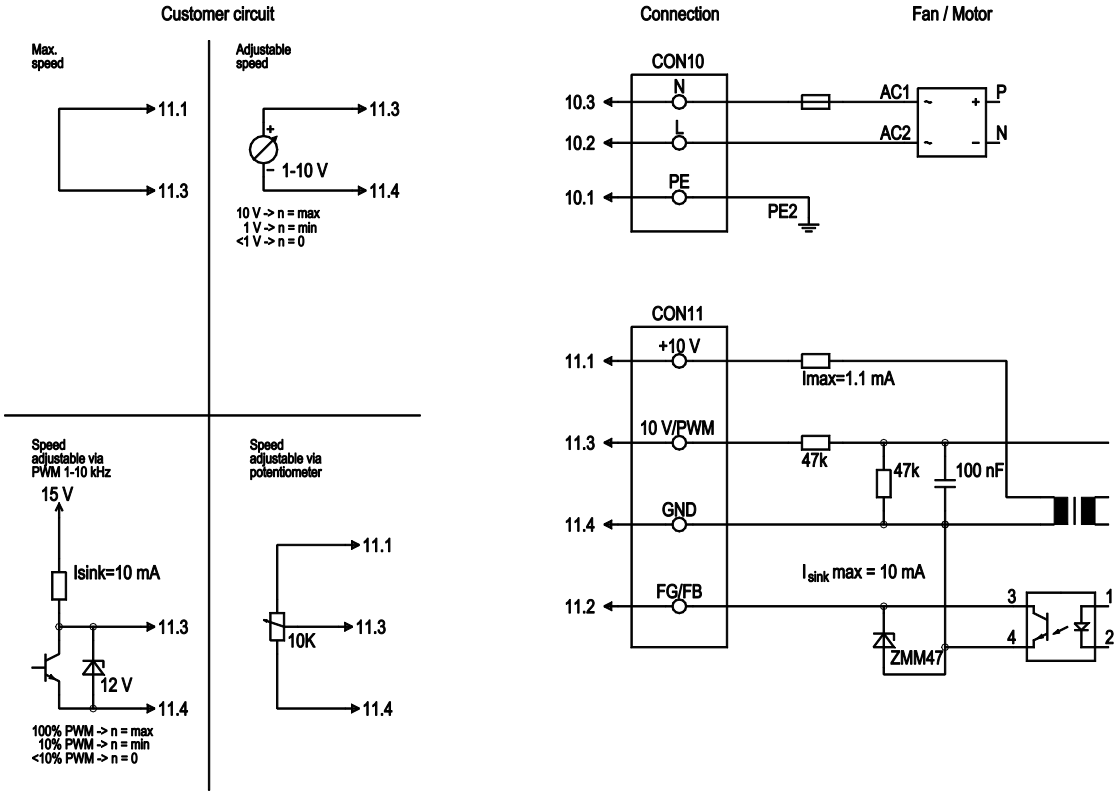
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, see type plate 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	FG/FB	white	Fan good / fan bad: Open collector, fan good = high, 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

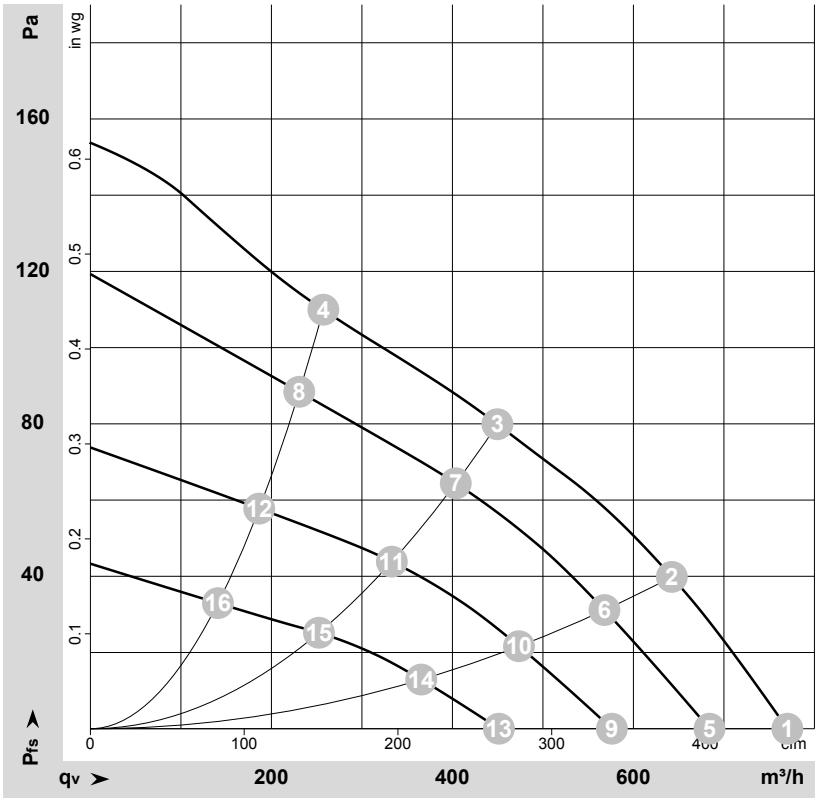
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171664-1
Measurement: LU-172138-1
Measurement: LU-172140-1
Measurement: LU-172142-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1050	55	0.50	52	63	770	0	455	0.00
2	230	50	1175	48	0.42	49	60	640	40	380	0.16
3	230	50	1320	38	0.33	48	58	450	80	265	0.32
4	230	50	1460	28	0.25	49	59	255	110	150	0.44
5	230	50	955	40	0.36	49	60	685	0	405	0.00
6	230	50	1040	34	0.31	46	57	570	32	335	0.13
7	230	50	1165	27	0.25	45	55	405	65	240	0.26
8	230	50	1285	21	0.19	45	56	230	89	135	0.36
9	230	50	800	24	0.22	44	55	575	0	340	0.00
10	230	50	870	20	0.19	41	52	475	22	280	0.09
11	230	50	960	16	0.15	39	50	335	44	195	0.18
12	230	50	1035	12	0.12	39	50	185	58	110	0.23
13	230	50	630	12	0.12	37	49	450	0	265	0.00
14	230	50	675	10.0	0.10	35	45	365	13	215	0.05
15	230	50	735	8.0	0.09	32	42	250	25	150	0.10
16	230	50	785	6.0	0.07	32	42	140	33	85	0.13

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

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