D3G146-LT13-06

EC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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Nominal data

Type	**D3G146-LT13-06**
Motor	**M3G055-BI**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1000
Power consumption	W	47
Current draw	A	0.4
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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
Fan size	146 mm
Rotor surface	Galvanized
Electronics housing material	PP plastic
Impeller material	PA plastic
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	Motor IP54, electronics IP20; installation- and position-dependent
Insulation class	"F"
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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Fault output (open collector) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for motor
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With 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

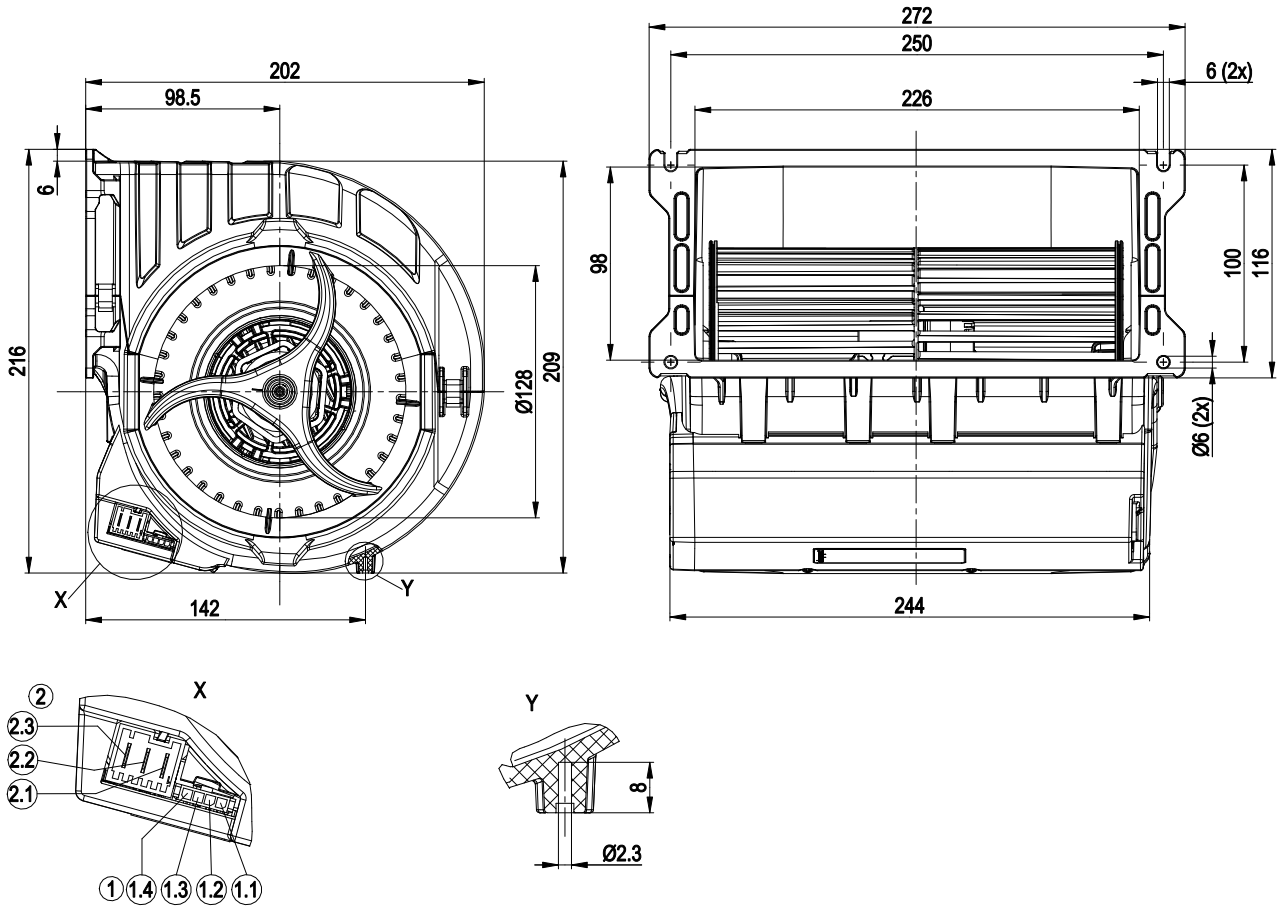
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Product drawing



1	Header Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10V
1.2	FG/FB
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

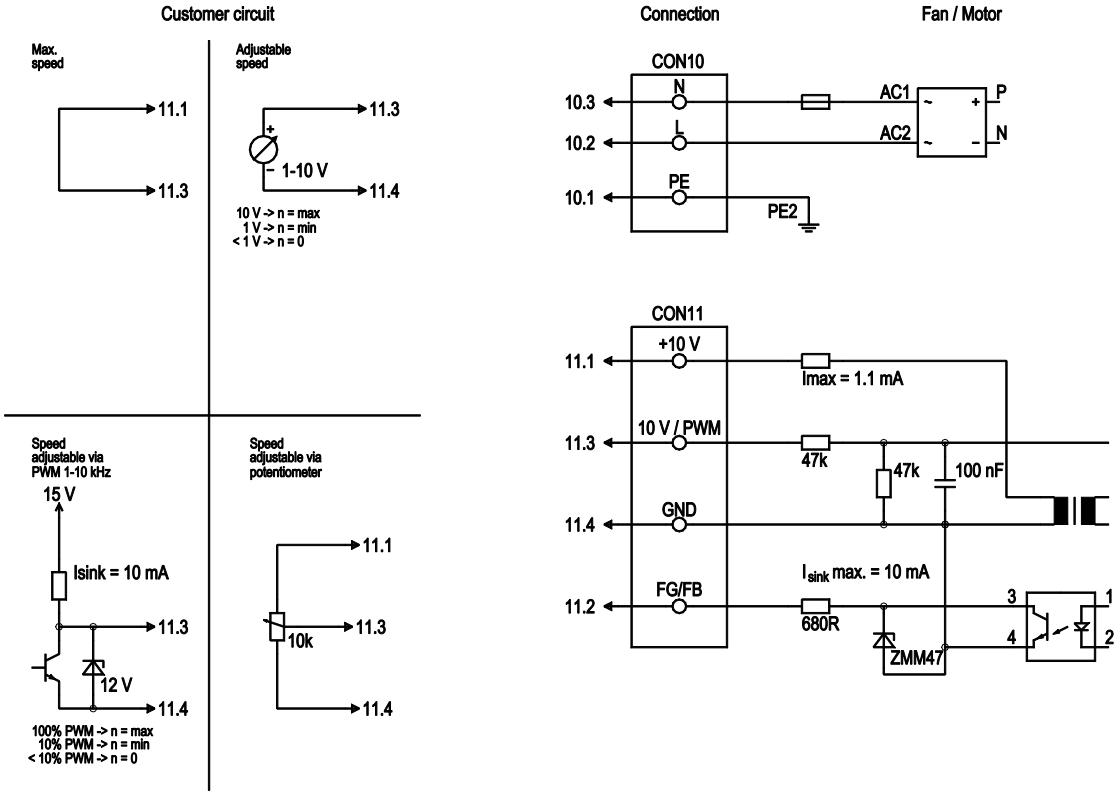
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Connection diagram



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	FG/FB	white	Fan good / fan bad: open collector, fan good = low, 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

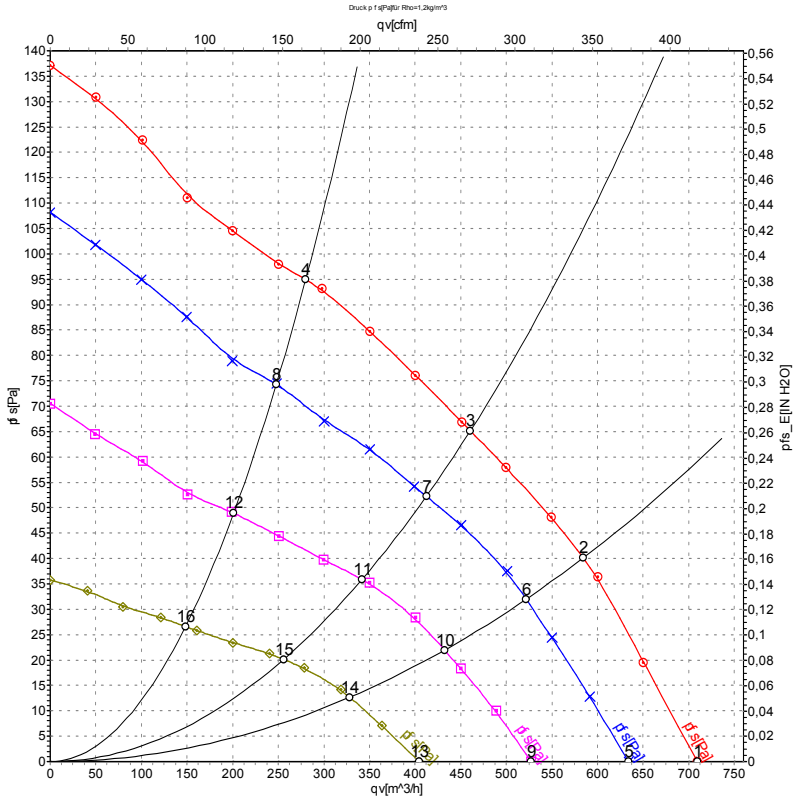
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Curves: Air performance 50 Hz



Measurement: LU-129859-1
Measurement: LU-129860-1
Measurement: LU-129862-1
Measurement: LU-129864-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1000	47	0.40	710	0	415	0.00
2	230	50	1100	39	0.34	585	40	345	0.16
3	230	50	1185	33	0.29	460	65	270	0.26
4	230	50	1315	25	0.23	280	95	165	0.38
5	230	50	920	35	0.30	635	0	375	0.00
6	230	50	1000	30	0.27	520	32	305	0.13
7	230	50	1080	26	0.23	410	52	240	0.21
8	230	50	1185	19	0.18	250	75	145	0.30
9	230	50	780	22	0.20	525	0	310	0.00
10	230	50	840	18	0.17	430	22	255	0.09
11	230	50	890	15	0.15	340	36	200	0.14
12	230	50	970	12	0.12	200	49	120	0.20
13	230	50	605	11	0.11	405	0	240	0.00
14	230	50	645	9.6	0.10	330	13	195	0.05
15	230	50	680	8.3	0.09	255	20	150	0.08
16	230	50	725	6.9	0.08	150	27	85	0.11

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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