D3G146-LT13-06

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D3G146-LT13-06 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

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

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	1000
Power input	W	47
Current draw	A	0.4
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

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

Technical features

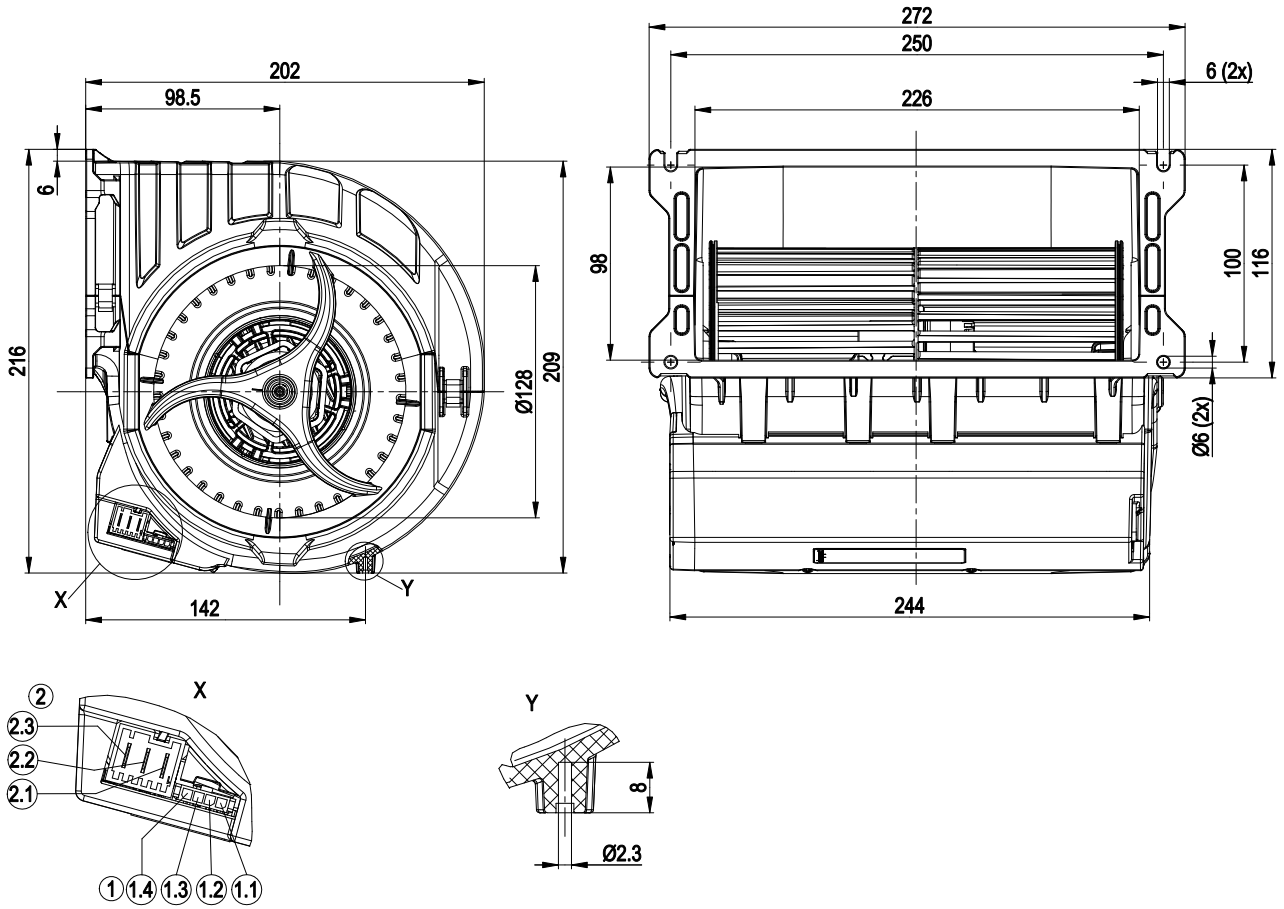
Mass	2.2 kg
Size	146 mm
Surface of rotor	Galvanised
Material of electronics housing	PP plastic
Material of impeller	PA plastic
Housing material	PP plastic
Motor suspension	Motor mounted anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	Motor IP 54, electronic IP 20; 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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
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

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

Product drawing



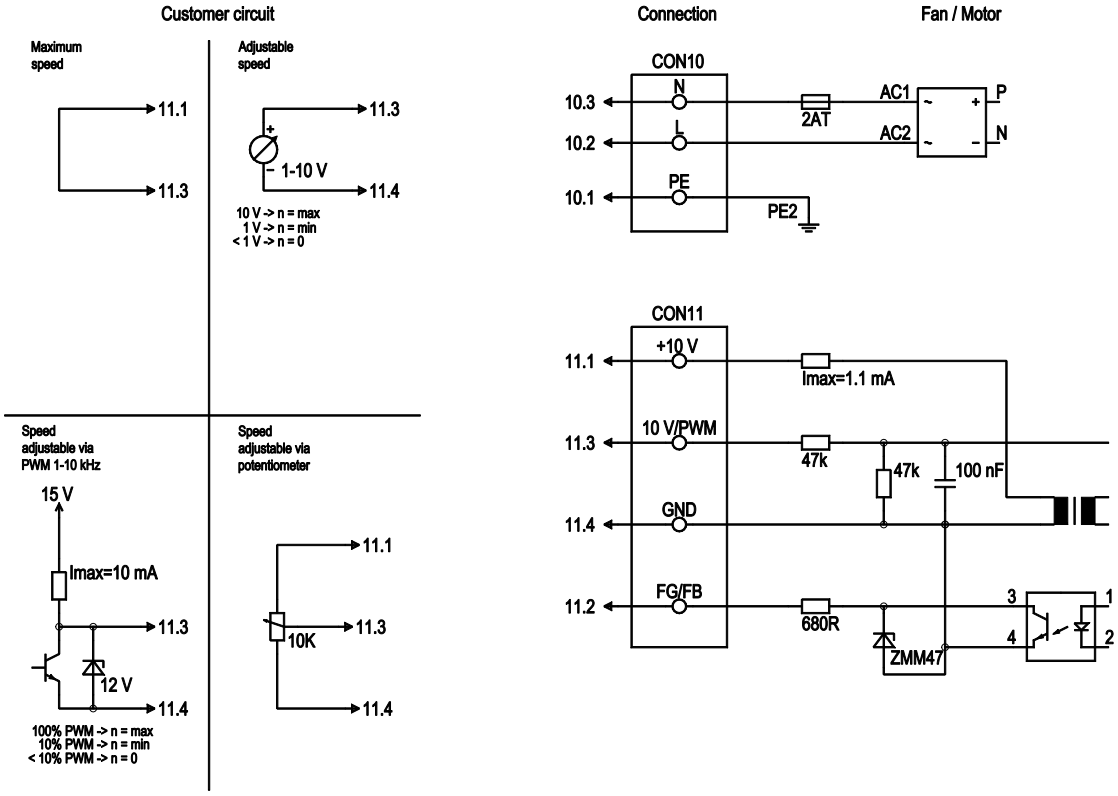
1	Strip Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10V
1.2	FG/FB
1.3	0-10V lin. / PWM
1.4	GND
2	Plug connector Lumberg 3642 03 K01 (pluggable with 3626 03 K01)
2.1	PE
2.2	L
2.3	N

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

Connection screen



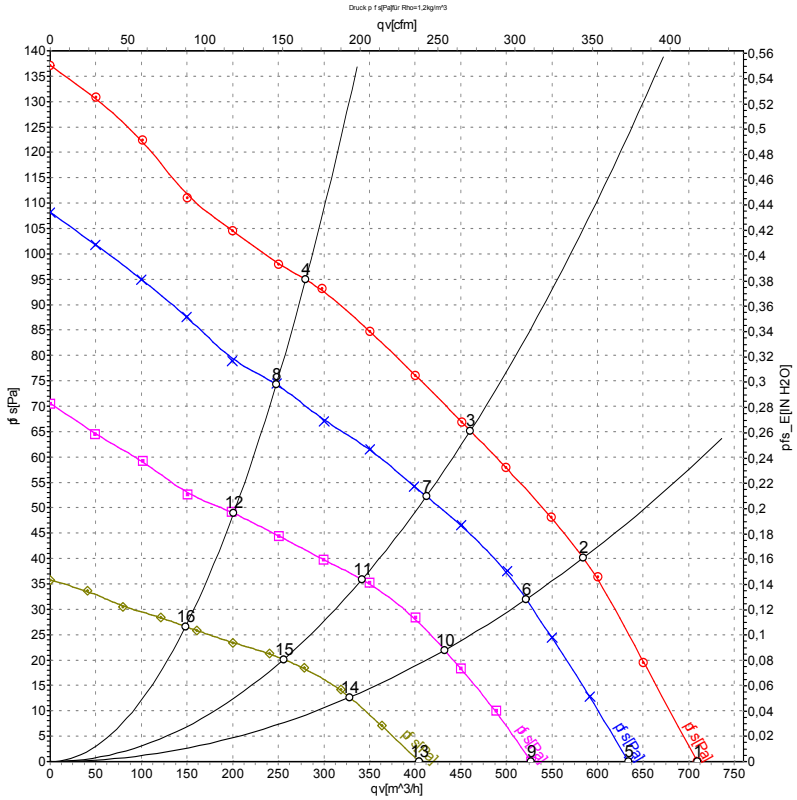
No.	Conn.	Designation	Colour	Function / assignment
CON10	10.3	N	blue	Neutral conductor
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
CON10	10.1	PE	green/yellow	Protective earth
CON11	11.4	GND	blue	GND connection for control interface
CON11	11.3	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
CON11	11.2	FG/FB	white	Fan good / fan bad: Open collector, fan good = low, electrically isolated
CON11	11.1	10 V/max. 1.1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, not short-circuit-proof

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

Charts: Air flow 50 Hz



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

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

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