

D3G146-LV13-36

# EC centrifugal fan

forward curved, dual inlet

with housing (flange)



D3G146-LV13-36 ebmpapst Datasheet

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Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344

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County court Stuttgart · HRB 590142

## Nominal data

Type	D3G146-LV13-36	
Motor	M3G055-DF	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min <sup>-1</sup>	1460
Power input	W	145
Current draw	A	1.2
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

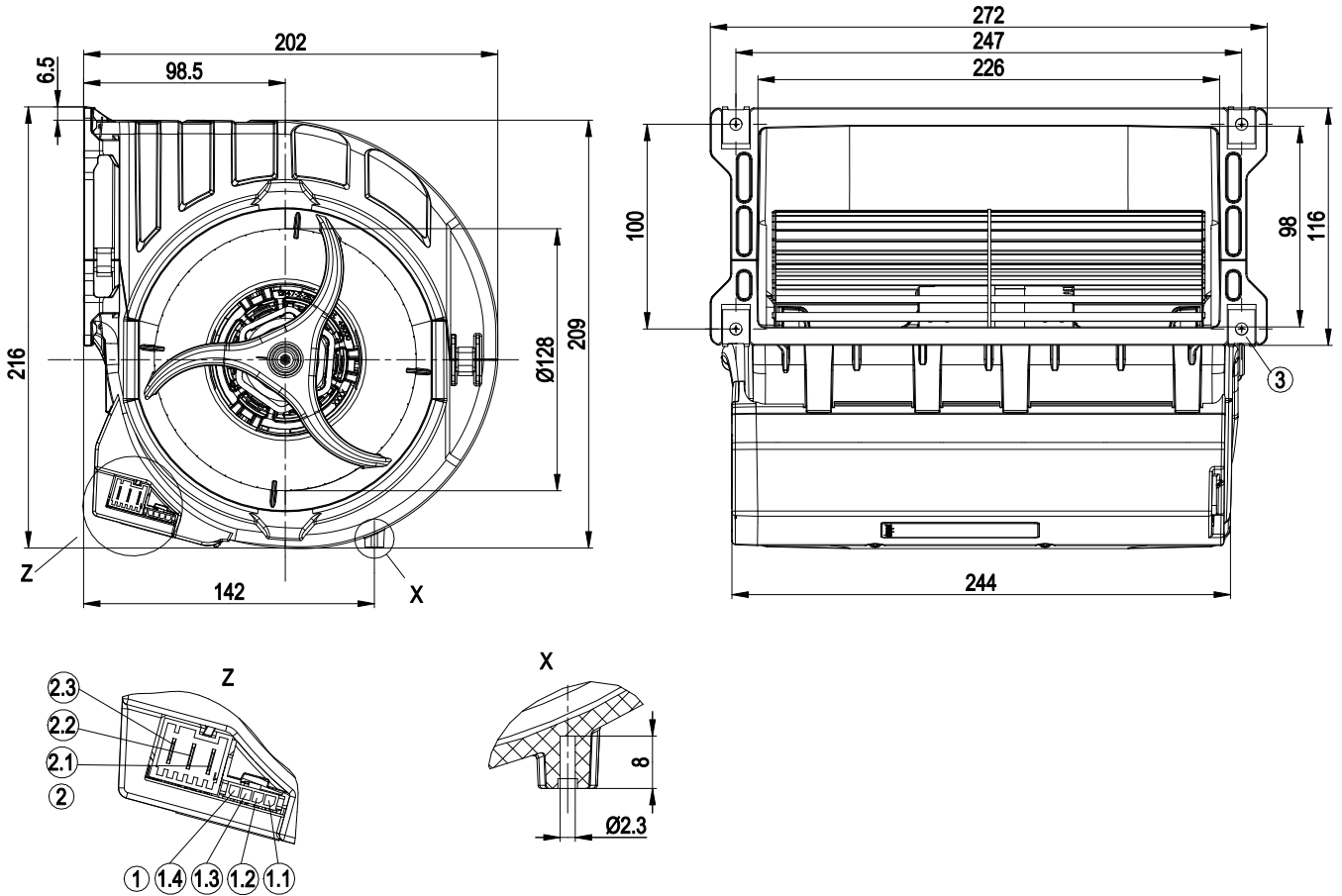
<b>Mass</b>	2.9 kg
<b>Size</b>	146 mm
<b>Surface of rotor</b>	Galvanised
<b>Material of electronics housing</b>	PP plastic
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Housing material</b>	PP plastic
<b>Motor suspension</b>	Motor mounted anti-vibration on both sides
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	Motor IP 00, electronics IP 20
<b>Insulation class</b>	"F"
<b>Humidity (F)/environmental protection class (H)</b>	F0
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any, make sure no water remains in the housing
<b>Cooling bore / aperture</b>	On rotor and stator sides
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Over-temperature protected motor</li> </ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC harmonics</b>	Acc. to EN 61000-3-2/3
<b>EMC interference emission</b>	Must be assessed in customer unit
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Electrical leads</b>	With plug
<b>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE



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## Product drawing



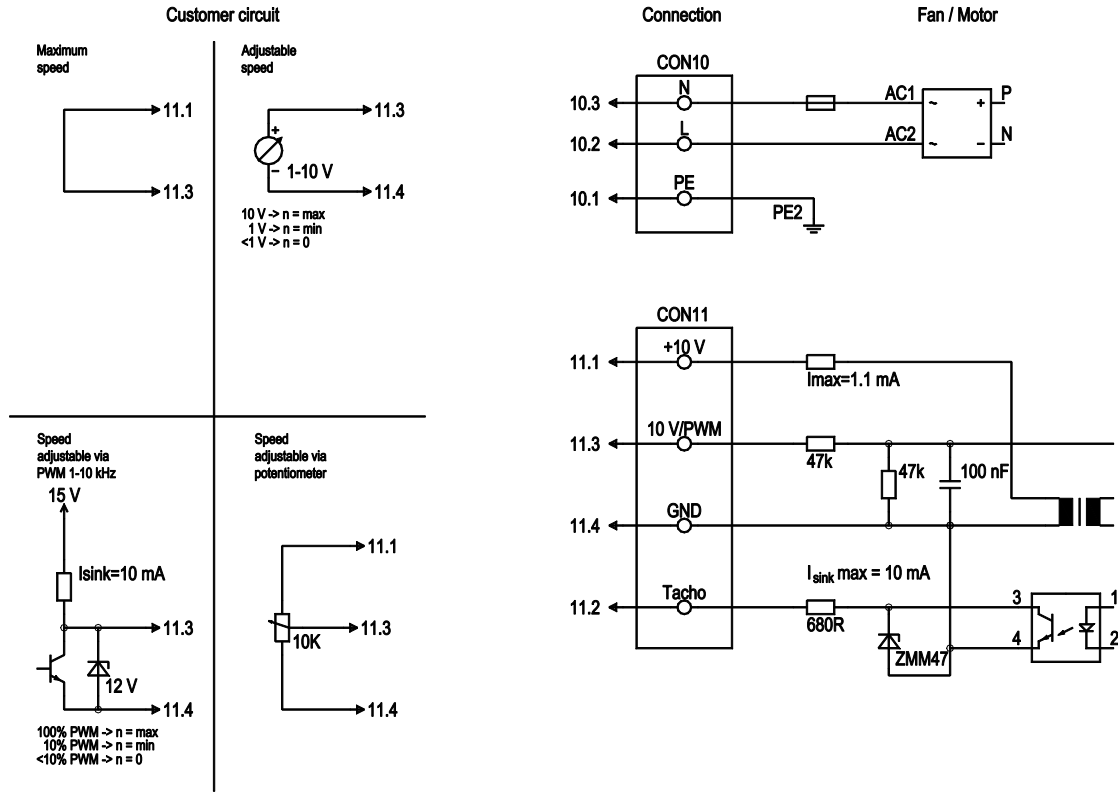
1	Strip Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10V
1.2	Tacho
1.3	0-10 V lin. / PWM
1.4	GND
2	Plug connector Lumberg 3642 03 K01 (pluggable with 3626 03 K01)
2.1	PE
2.2	L
2.3	N
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting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

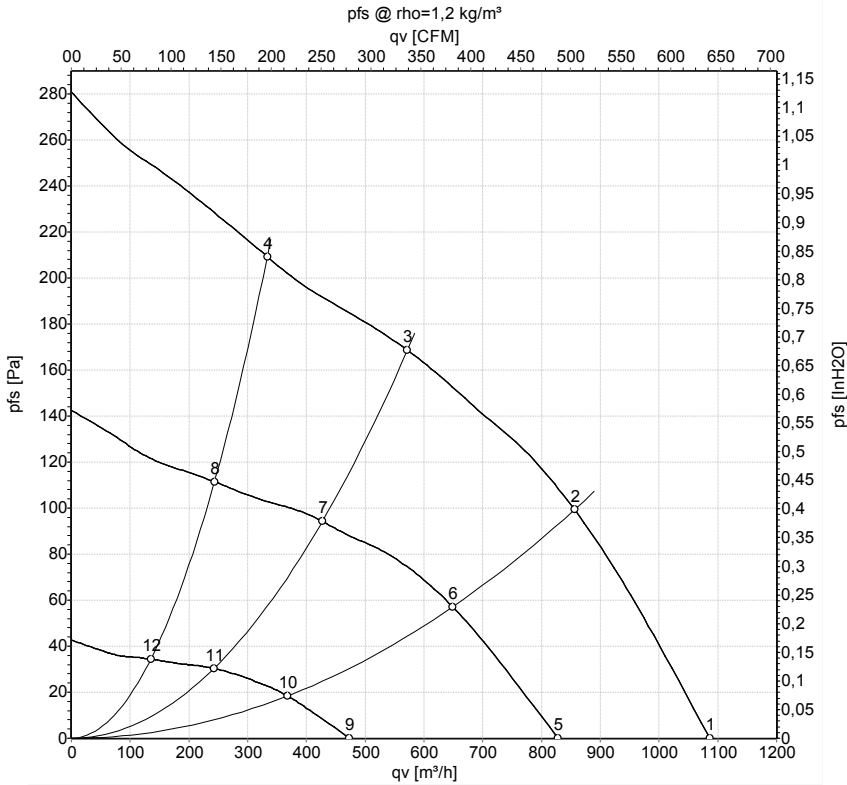


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## Charts: Air flow 50 Hz



Measurement: LU-161365-1  
 Measurement: LU-129113-1  
 Measurement: LU-129114-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. 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 <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	inH2O
1	230	50	1460	145	1.20	62	73	1085	0	640	0.00
2	230	50	1620	114	0.94	59	70	855	100	505	0.40
3	230	50	1795	85	0.71	57	67	570	170	335	0.68
4	230	50	1945	63	0.54	58	68	335	210	195	0.84
5	230	50	1140	63	0.54			830	0	485	0.00
6	230	50	1240	52	0.45			650	57	380	0.23
7	230	50	1325	38	0.33			425	94	250	0.38
8	230	50	1400	28	0.26			245	112	145	0.45
9	230	50	685	16	0.16			475	0	280	0.00
10	230	50	725	13	0.13			370	18	215	0.07
11	230	50	760	10.0	0.11			240	30	140	0.12
12	230	50	795	8.0	0.09			135	34	80	0.14

U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · q<sub>v</sub> = Air flow  
 P<sub>fs</sub> = Pressure increase

