

D3G146-LV13-01

# EC centrifugal fan

forward curved, dual inlet  
with housing (flange)



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## Nominal data

Type	D3G146-LV13-01	
Motor	M3G055-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min <sup>-1</sup>	1550
Power input	W	182
Current draw	A	1.4
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

## Data according to ErP directive

Installation category	A
Efficiency category	Static
Closed-loop speed control	Integrated
Specific ratio*	1,00

\* Specific ratio =  $1 + p_{sf} / 100\ 000$

	Actual	Request 2013	Request 2015
Overall efficiency $\eta_e$	36,2	26	33
Efficiency grade N	47,2	37	44
Power input $P_e$	kW	0,18	
Air flow $q_v$	m <sup>3</sup> /h	600	
Pressure increase Total $p_{sf}$	Pa	345	
Speed n	min <sup>-1</sup>	2500	

Data established at point of optimum efficiency



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## Technical features

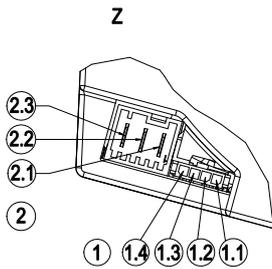
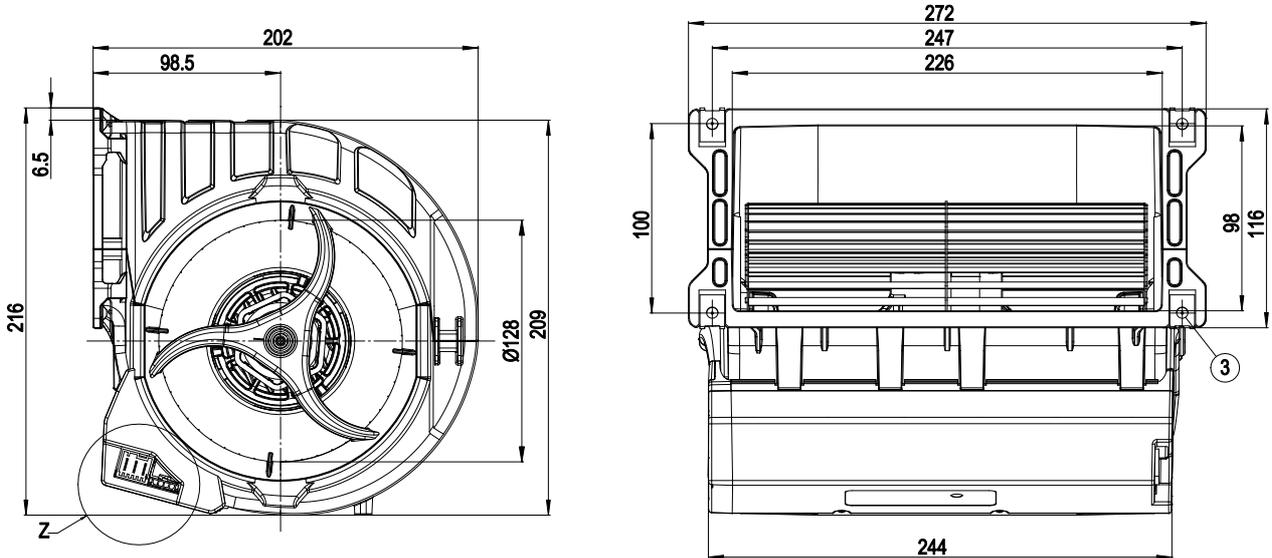
<b>Mass</b>	2.9 kg
<b>Size</b>	146 mm
<b>Surface of rotor</b>	Galvanised
<b>Material of electronics housing</b>	PP plastic, black
<b>Material of impeller</b>	Sheet steel, hot-galvanised
<b>Housing material</b>	PP plastic, black
<b>Motor suspension</b>	Motor anti-vibration mounted on both sides
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 44
<b>Insulation class</b>	"F"
<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
<b>Condensate discharge holes</b>	None, open rotor
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Control input 0-10 VDC / PWM</li> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> </ul>
<b>Leakage current</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



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## Product drawing



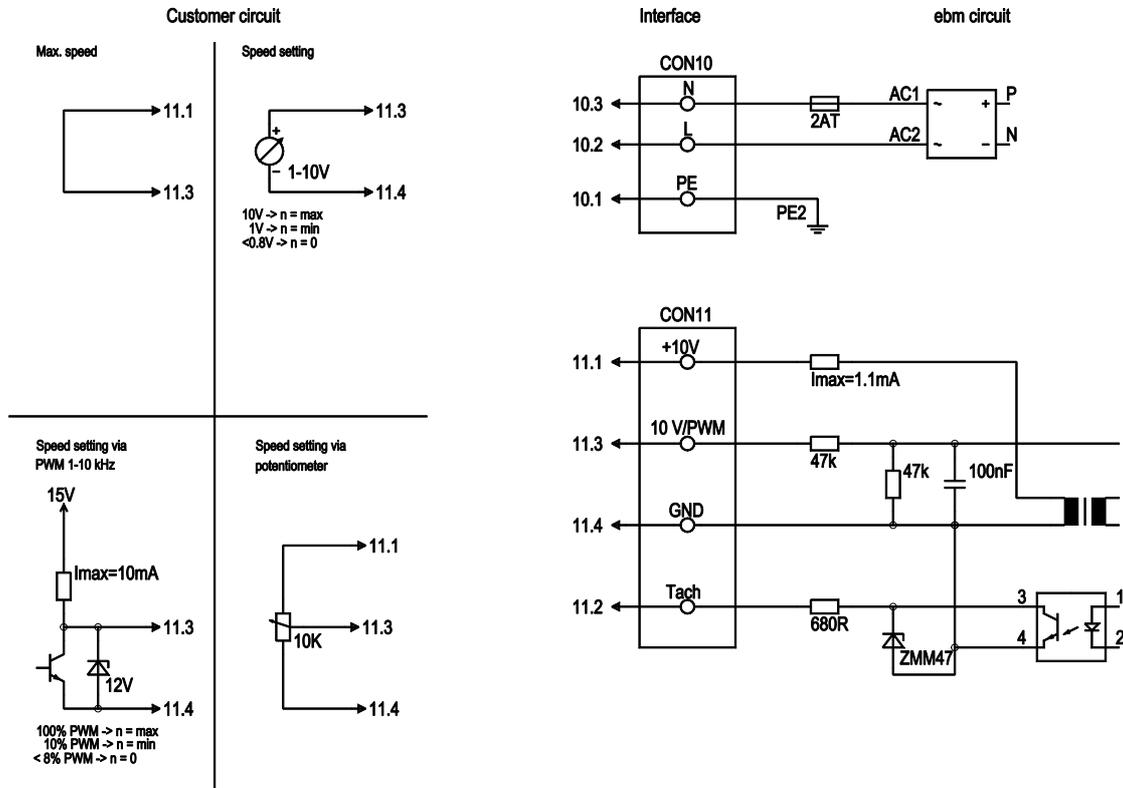
1	Strip Molex Micro Fit 3.0 04365 00400 (pluggable with 04364 50400)
1.1	10V
1.2	Tach
1.3	0-10V lin. / PWM
1.4	GND
2	Plug connector Lumberg 3642 03 K01 (pluggable with 3626 03 K01)
2.1	PE
2.2	L
2.3	N
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting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



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## Connection screen



Line	No.	Signal	Colour	Function / assignment
CON10	10.1	PE	green/yellow	Protective earth
CON10	10.2	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
CON10	10.3	N	blue	Neutral conductor
CON11	11.1	10 V/max. 1.1 mA	red	Voltage output 10 V/ 1 mA, electrically isolated
CON11	11.2	Tacho	white	Tach output: open collector, 1 pulses per revolution, electrically isolated
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

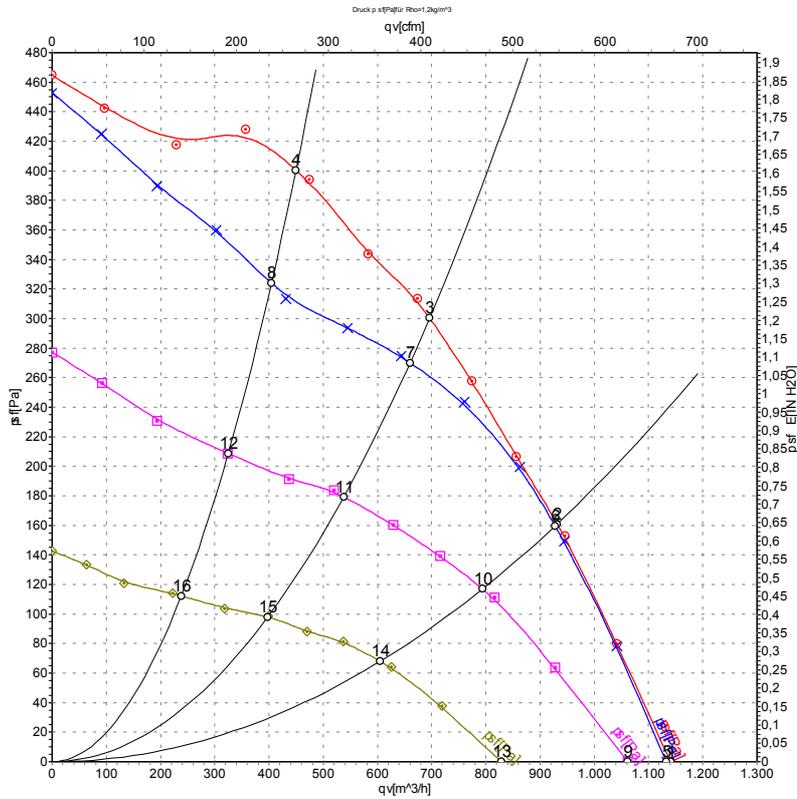


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## Charts: Air flow 50 Hz



Measurement: LU-129101  
 Measurement: LU-129106  
 Measurement: LU-129107  
 Measurement: LU-129113

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>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>sf</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	50	1550	182	1.40	64	75	1140	0
2	230	50	1945	179	1.40	62	73	930	160
3	230	50	2340	177	1.39	62	73	695	300
4	230	50	2660	166	1.32	65	75	450	400
5	230	50	1570	174	1.34			1130	0
6	230	50	1930	177	1.40			925	160
7	230	50	2220	149	1.19			660	270
8	230	50	2395	121	0.98			405	323
9	230	50	1470	145	1.14			1060	0
10	230	50	1660	109	0.89			795	118
11	230	50	1810	81	0.67			540	180
12	230	50	1925	63	0.53			325	208
13	230	50	1140	64	0.54			830	0
14	230	50	1260	49	0.43			605	68
15	230	50	1340	36	0.31			400	99
16	230	50	1400	28	0.26			240	112

