D3G133-LV13-06

EC centrifugal fan

forward curved, dual inlet

with housing (flange)

D3G133-LV13-06 ebmpapst Datasheet
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Nominal data

Type	**D3G133-LV13-06**
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^{-1}	2220
Power input	W	182
Current draw	A	1.4
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

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	34.2	32.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.1	44
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.13
09 Air flow q_v	m^3/h	480
09 Pressure increase p_{fs}	Pa	298
10 Speed (rpm) n	min^{-1}	2725
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-134371

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Technical features

Mass	2.75 kg
Size	133 mm
Material of electronics housing	PP plastic
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Motor suspension	Motor mounted vibration-free on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	Motor IP 54, electronic IP 20
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

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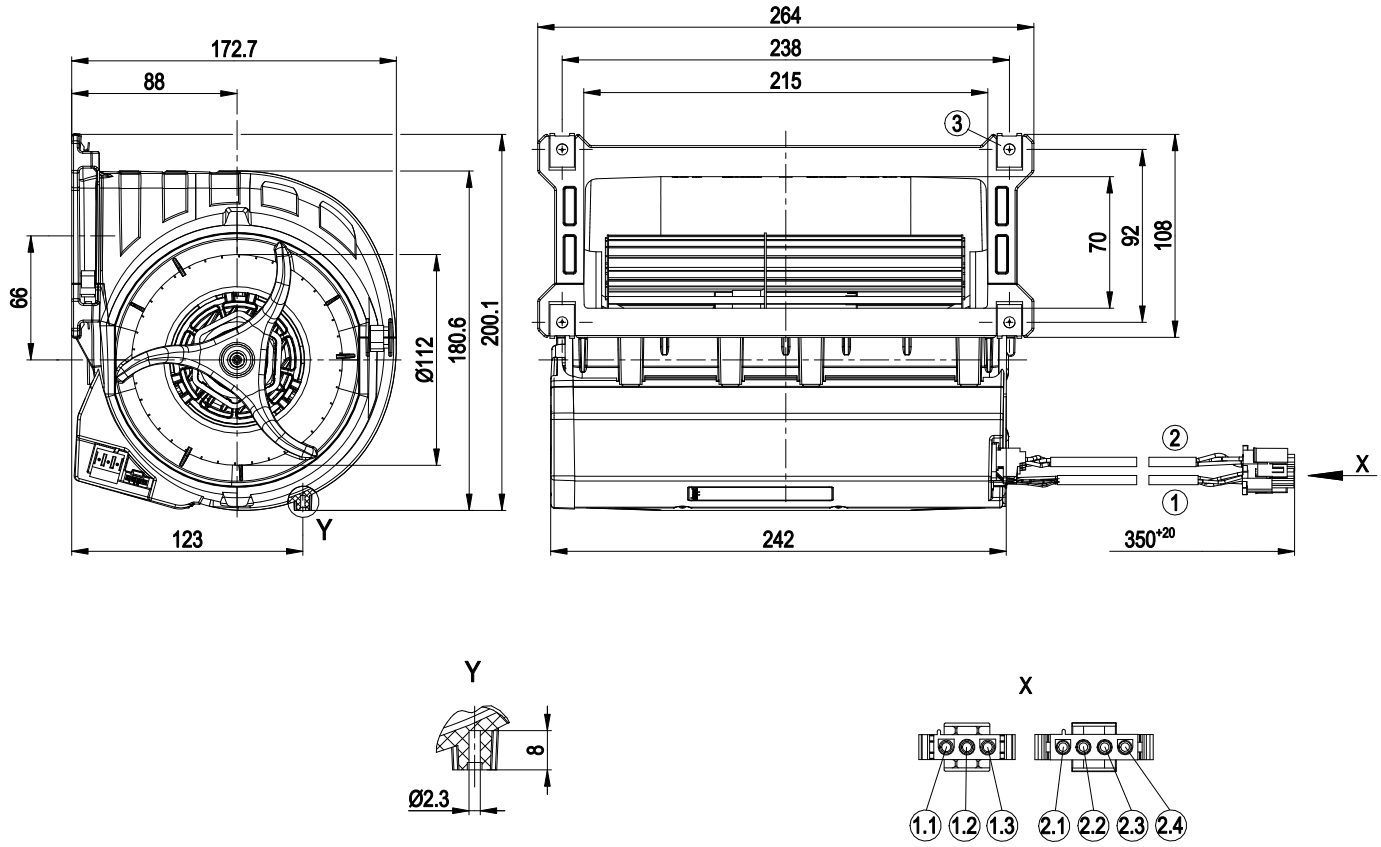
Product drawing



1	Connection line PVC AWG18, tyco 3-pin connector housing 350766-4, 3x tyco plug pin 926883-1
1.1	green/yellow
1.2	blue
1.3	black
2	Connection line PVC AWG22, connector housing 4-pole tyco 350779-4 with 4x plug pin tyco 926885-1
2.1	red
2.2	blue
2.3	yellow
2.4	white
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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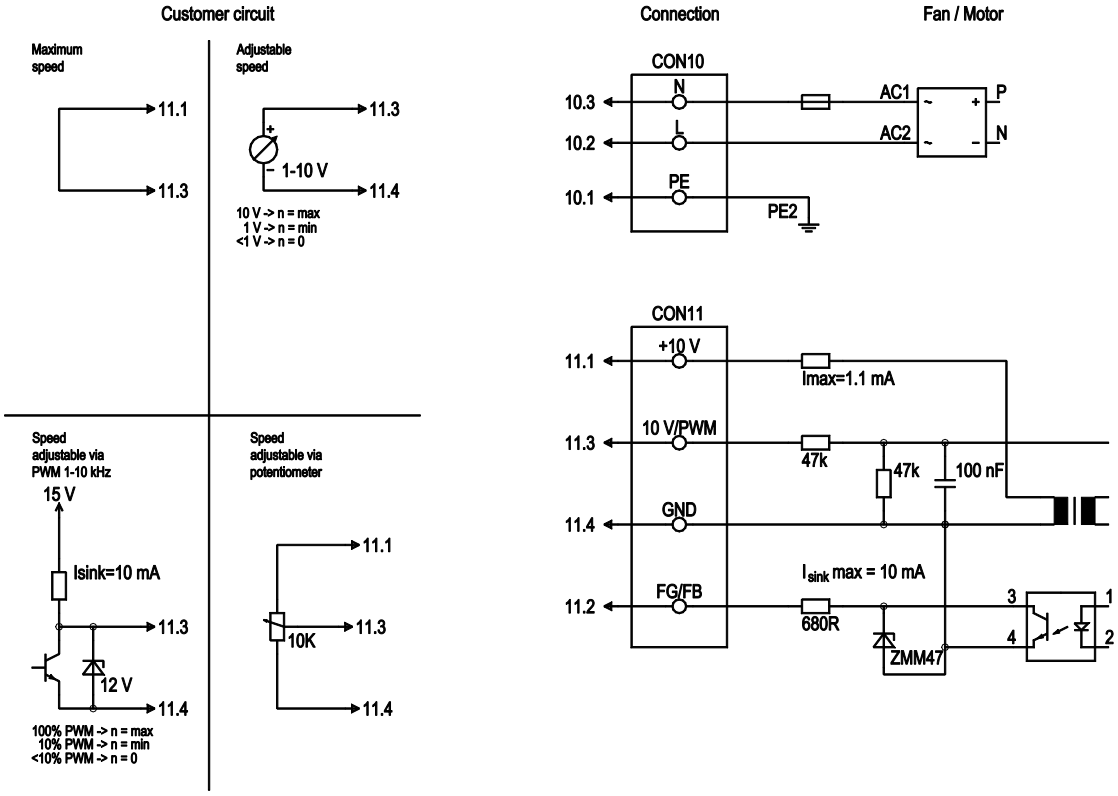
Connection screen



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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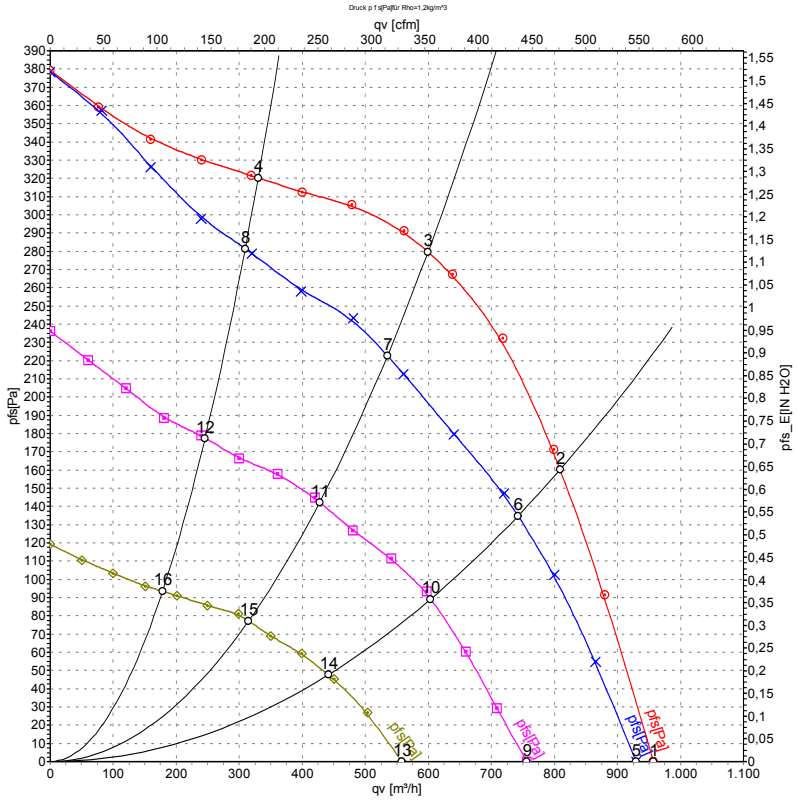
Charts: Air flow 50 Hz



Measurement: LU-134371-1
Measurement: LU-134373-1
Measurement: LU-134376-1
Measurement: LU-134377-1

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	2220	182	1.40	63	76	960	0	565	0.00
2	230	50	2455	182	1.40	63	75	810	160	475	0.64
3	230	50	2695	159	1.25	62	74	600	280	355	1.12
4	230	50	2710	100	0.81	61	72	330	320	195	1.28
5	230	50	2105	167	1.28			930	0	545	0.00
6	230	50	2250	139	1.09			740	135	435	0.54
7	230	50	2405	110	0.87			535	223	315	0.90
8	230	50	2545	82	0.68			310	282	180	1.13
9	230	50	1715	87	0.72			755	0	445	0.00
10	230	50	1825	71	0.61			605	90	355	0.36
11	230	50	1925	58	0.50			430	142	250	0.57
12	230	50	2025	45	0.38			245	178	145	0.71
13	230	50	1310	39	0.34			560	0	330	0.00
14	230	50	1365	32	0.29			440	48	260	0.19
15	230	50	1420	25	0.23			315	77	185	0.31
16	230	50	1480	20	0.19			180	93	105	0.37

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