

D1G133-DC17-52

EC centrifugal fan

forward curved, dual inlet
with housing (without flange)

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Nominal data

Type	D1G133-DC17-52	
Motor	M1G074-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Frequency	Hz	-
Type of data definition		fa
Speed	min ⁻¹	1580
Power input	W	118
Current draw	A	3.0
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

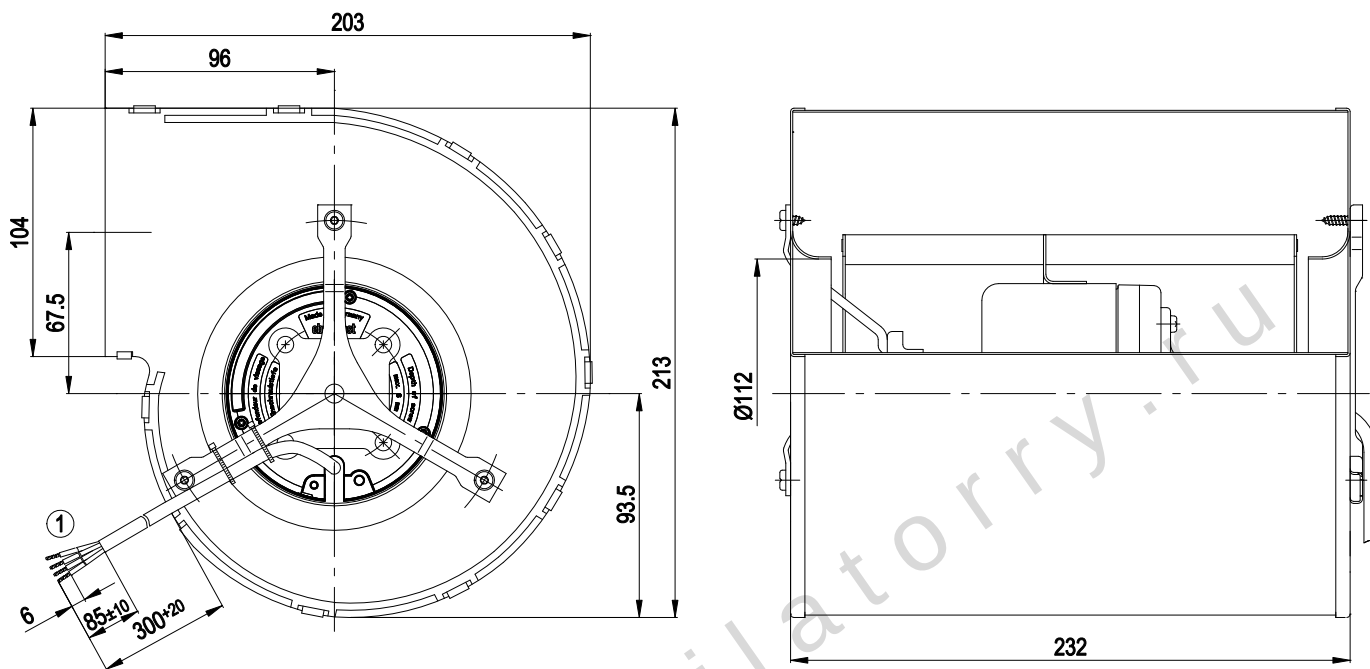
Mass	3.39 kg
Size	133 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-galvanised
Housing material	Sheet steel, hot-galvanised
Motor suspension	Motor anti-vibration mounted on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Humidity class	F0
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
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Product conforming to standard	EN 60950-1
Approval	CSA C22.2 Nr.77; EAC; UL 1004-1

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Product drawing



1 Connection line PVC AWG20, 4x brass lead tips crimped

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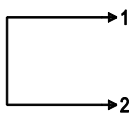
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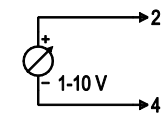
Connection screen

Customer circuit

Full speed

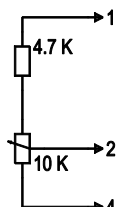


Speed setting

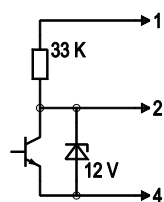


10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start
at Unom -30 %
from 4 V Ucontr.

Speed setting via potentiometer

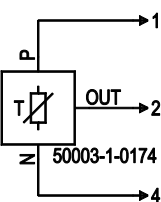


Speed setting via PWM 1-10 kHz



100 % PWM → n = max
10 % PWM → n = min
<10 % PWM → n = 0
Safe start
at Unom -30 %
from 40% PWM

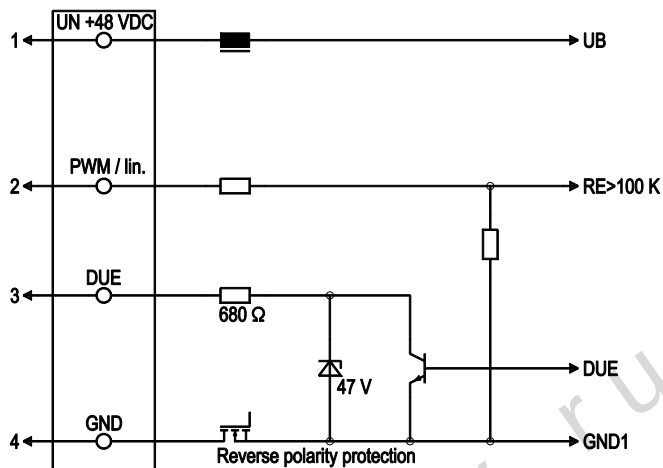
Set value via temperature controller



T < 10 °C → n = 0
T > 45 °C → n = max

Connection

Fan / motor



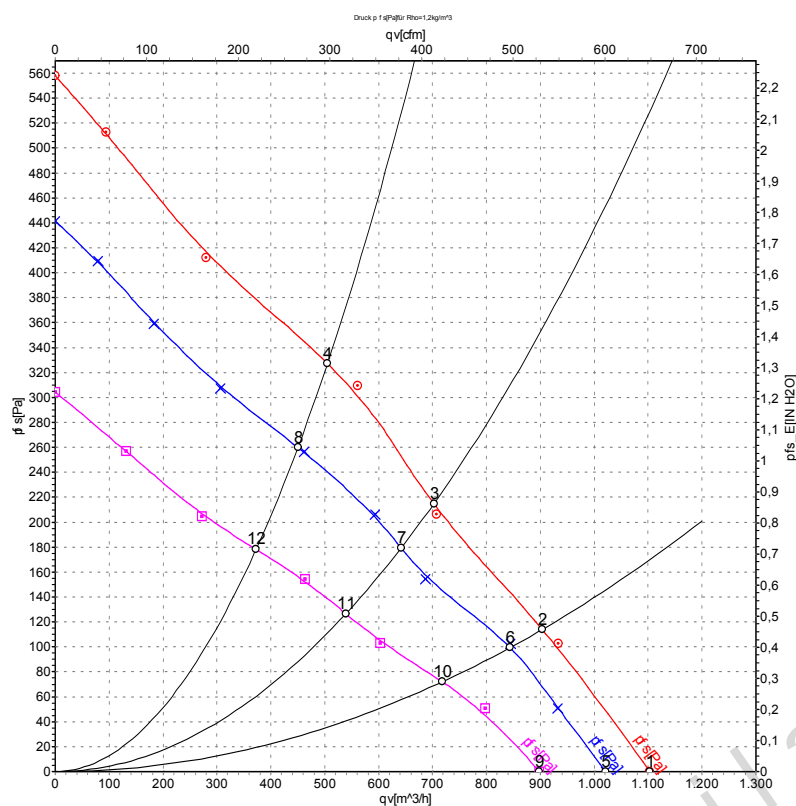
No.	Conn.	Designation	Colour	Function / assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin. control input, 0-10 V
1	3	Tach	white	Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA
1	4	GND	blue	Reference mass

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Charts: Air flow



Measurement: LU-51340
Measurement: LU-51339
Measurement: LU-51341

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	n	P _{ed}	I	qv	p _{fs}
	V	min ⁻¹	W	A	m³/h	Pa
1	57	1700	145	3.32	1105	0
2	57	1925	134	2.94	905	117
3	57	2200	125	2.63	705	210
4	57	2520	114	2.34	505	330
5	48	1580	118	3.00	1020	0
6	48	1785	108	2.65	845	100
7	48	2040	99	2.40	640	180
8	48	2275	83	2.02	450	260
9	36	1405	79	2.50	900	0
10	36	1575	70	2.23	720	72
11	36	1725	59	1.90	540	126
12	36	1890	50	1.64	375	178

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