

D1G133-DC13-52

## EC centrifugal fan

forward curved, dual inlet  
with housing (without flange)



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### Nominal data

Type	D1G133-DC13-52	
Motor	M1G074-CF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Frequency	Hz	-
Type of data definition		fa
Speed	min <sup>-1</sup>	1580
Power input	W	118
Current draw	A	6.0
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>	3.46 kg
<b>Size</b>	133 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	Sheet steel, hot-galvanised
<b>Housing material</b>	Sheet steel, hot-galvanised
<b>Motor suspension</b>	Motor anti-vibration mounted on both sides
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 42
<b>Insulation class</b>	"B"
<b>Humidity class</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
<b>Condensate discharge holes</b>	None
<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>- Tach output</li> <li>- Motor current limit</li> <li>- Soft start</li> </ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	Acc. to EN 55022 (Class B)
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Cable exit</b>	Variable
<b>Product conforming to standard</b>	EN 60950-1
<b>Approval</b>	UL 1004-1; CSA C22.2 Nr.77

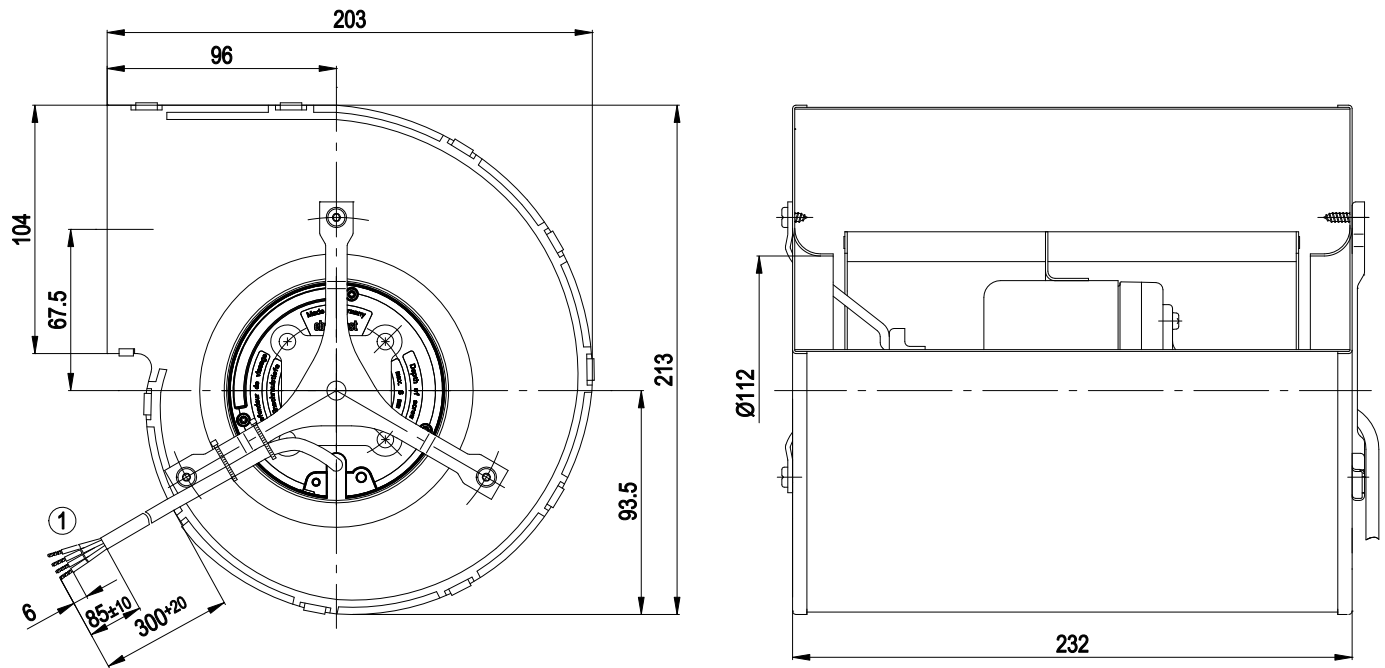


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## Product drawing



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



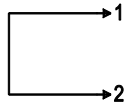
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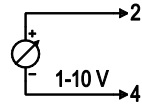
## Connection screen

### Customer circuit

#### Full speed

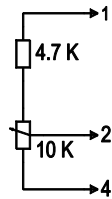


#### Speed setting

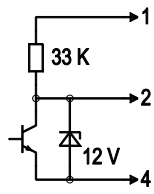


10 V → n = max  
1 V → n = min  
<1 V → n = 0  
Safe start  
at Unom -30%  
from 4 V Ucontr.

#### Speed setting via potentiometer

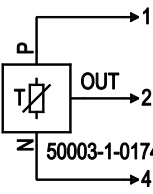


#### Speed setting via PWM 1-10 kHz



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

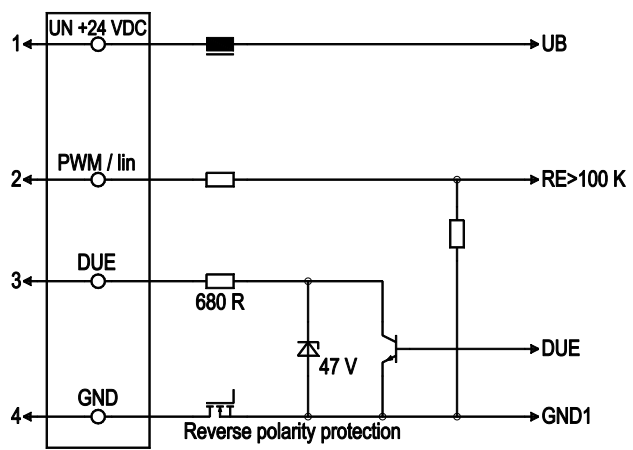
#### Set value via temperature controller



T < 10°C → n = 0  
T > 45°C → n = max

### Connection

### Fan / motor



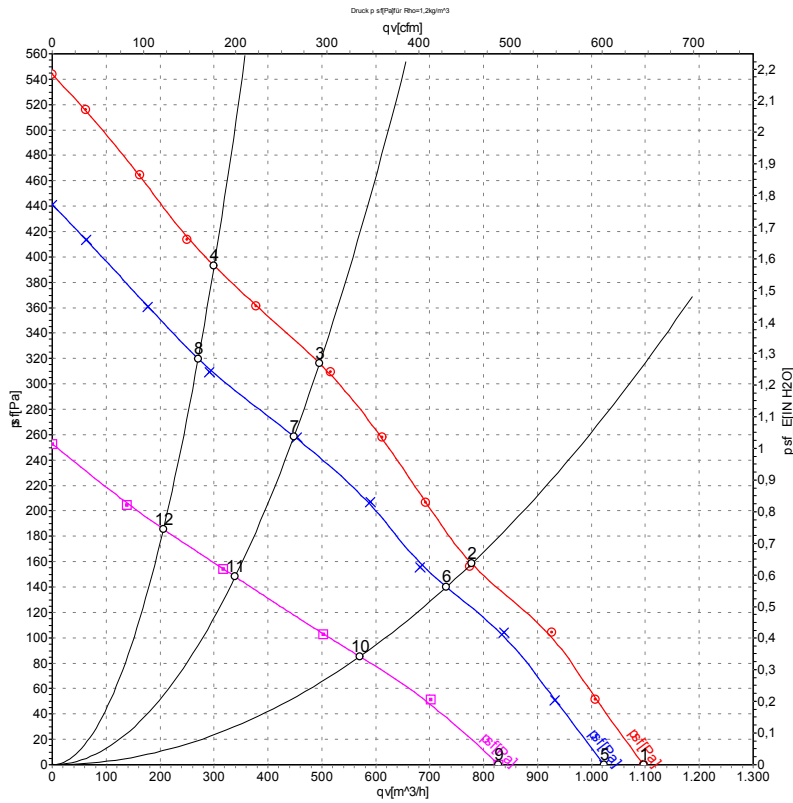
Line	No.	Signal	Colour	Function / assignment
1	1	Un +24V	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	PWM / lin	yellow	PWM / lin, control input, 0-10 V
1	3	DUE	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass



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## Charts: Air flow



Measurement: LU-51355  
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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 <sub>e</sub>	I	qv	p <sub>sf</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	28	1675	147	6.46	1095	0
2	28	2080	128	5.21	780	155
3	28	2495	111	4.37	495	317
4	28	2715	95	3.73	300	393
5	24	1580	118	6.00	1020	0
6	24	1930	105	4.91	730	140
7	24	2265	83	3.84	450	260
8	24	2455	70	3.28	270	320
9	16	1290	66	4.59	830	0
10	16	1510	52	3.58	570	85
11	16	1730	39	2.84	340	148
12	16	1870	34	2.65	205	185

