

D1G133-DC13-52

# EC centrifugal fan

forward-curved, dual-intake  
with housing (without flange)



D1G133-DC13-52 ebmpapst Datasheet

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[www.fansco.com](http://www.fansco.com)

## Nominal data

Type	D1G133-DC13-52	
Motor	M1G074-CF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Frequency	Hz	-
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	1580
Power consumption	W	118
Current draw	A	6.0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



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## Technical description

<b>Weight</b>	3.36 kg
<b>Size</b>	133 mm
<b>Motor size</b>	74
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Sheet steel, galvanized
<b>Motor suspension</b>	Motor vibration-damped on both sides
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP42
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H0 - dry environment
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	None
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Tach output</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Reverse polarity protection</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	According to EN 55022 (Class B)
<b>With cable</b>	Variable
<b>Protection class assignment</b>	<p>III; Requires supply with safety extra-low voltage SELV.</p> <p>This component to be built-in can have several local protection classes.</p> <p>This specification relates to the basic design of this component.</p> <p>The final protection class is based on the intended installation and connection of the components.</p>
<b>Conformity with standards</b>	EN 62368-1
<b>Approval</b>	CSA C22.2 No. 77; EAC; UL 1004-1

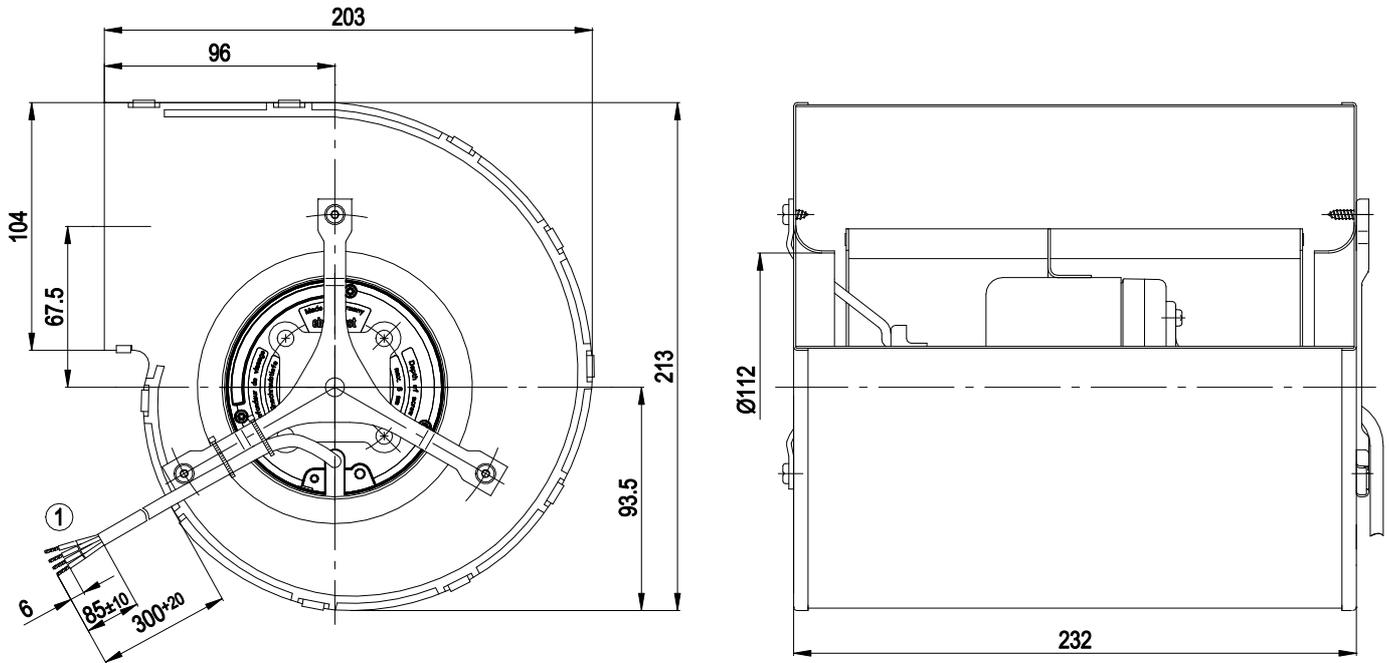


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## Product drawing



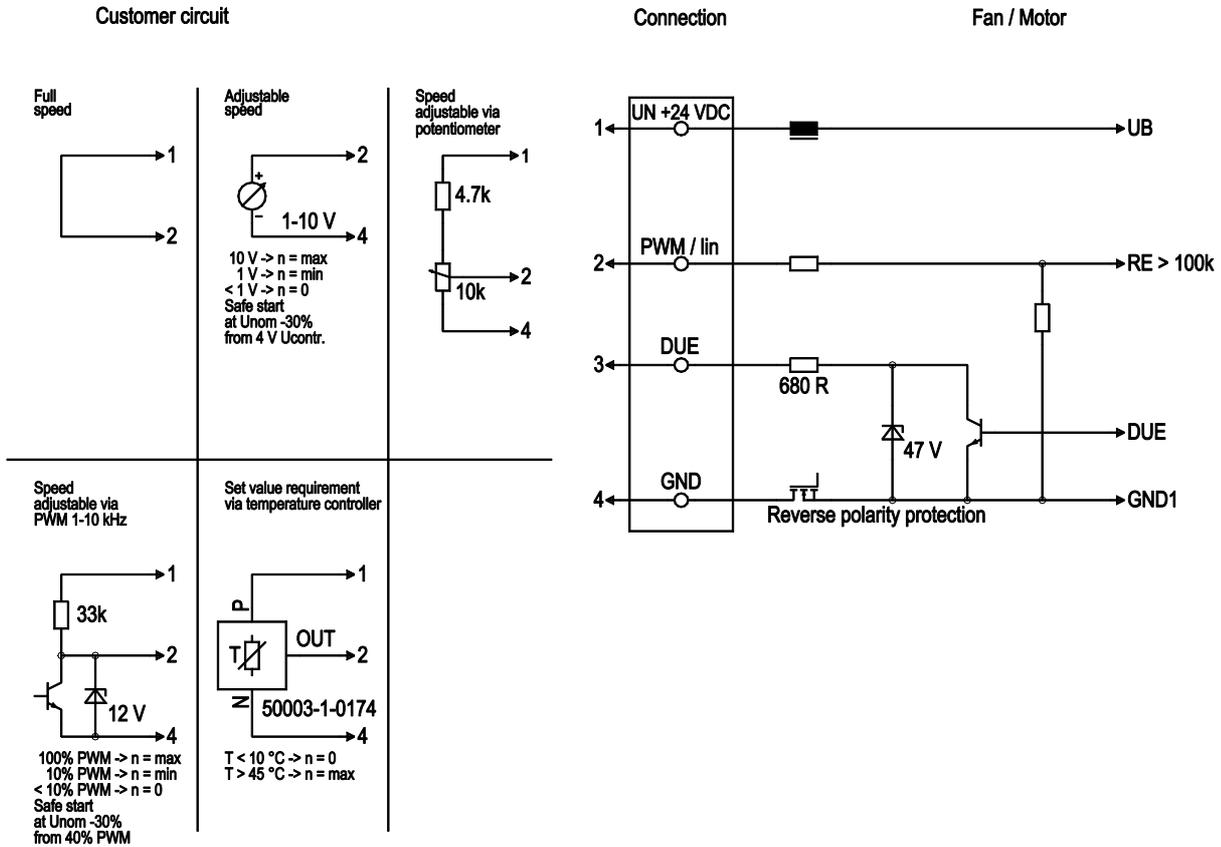
1 Cable PVC AWG20, 4x crimped splices



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## Connection diagram



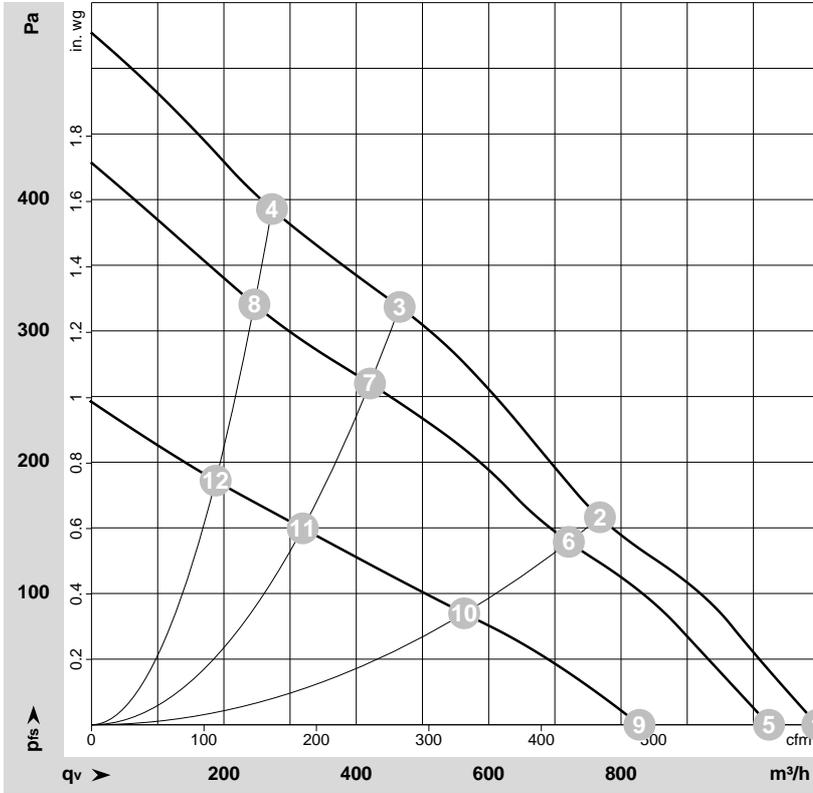
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24V	red	Power supply 24 VDC, maximum ripple 3.5%
1	2	PWM / lin	yellow	PWM / lin., control input, 0-10 V
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground



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## Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-51355-1  
Measurement: LU-51354-1  
Measurement: LU-51356-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	U	n	P <sub>ed</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	28	1675	147	6.46	1095	0	645	0.00
2	28	2095	127	5.18	770	155	450	0.62
3	28	2530	108	4.27	465	318	275	1.28
4	28	2745	92	3.64	275	392	160	1.57
5	24	1580	118	6.00	1025	0	605	0.00
6	24	1945	105	4.88	720	140	425	0.56
7	24	2295	81	3.75	420	260	250	1.04
8	24	2480	69	3.22	245	320	145	1.28
9	16	1290	66	4.59	830	0	485	0.00
10	16	1520	51	3.55	565	85	330	0.34
11	16	1750	38	2.77	320	150	190	0.60
12	16	1890	34	2.63	190	186	110	0.75

U = Voltage · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

