

D1G133-AB39-52

# EC centrifugal fan

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



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## Nominal data

Type	D1G133-AB39-52	
Motor	M1G074-BF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Frequency	Hz	-
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	1780
Power consumption	W	105
Current draw	A	2.8
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>	2.8 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, household environment)
<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; CCC; EAC; UL 1004-1

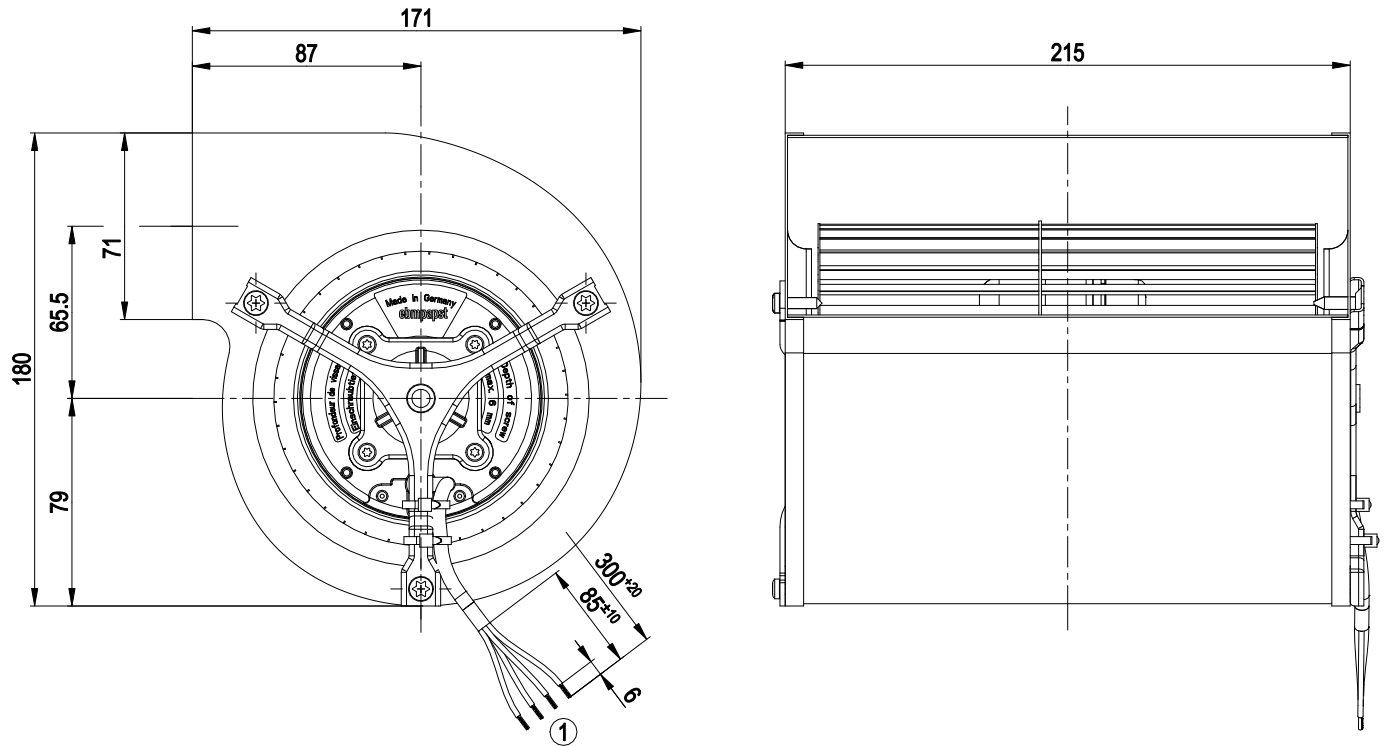


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## Product drawing



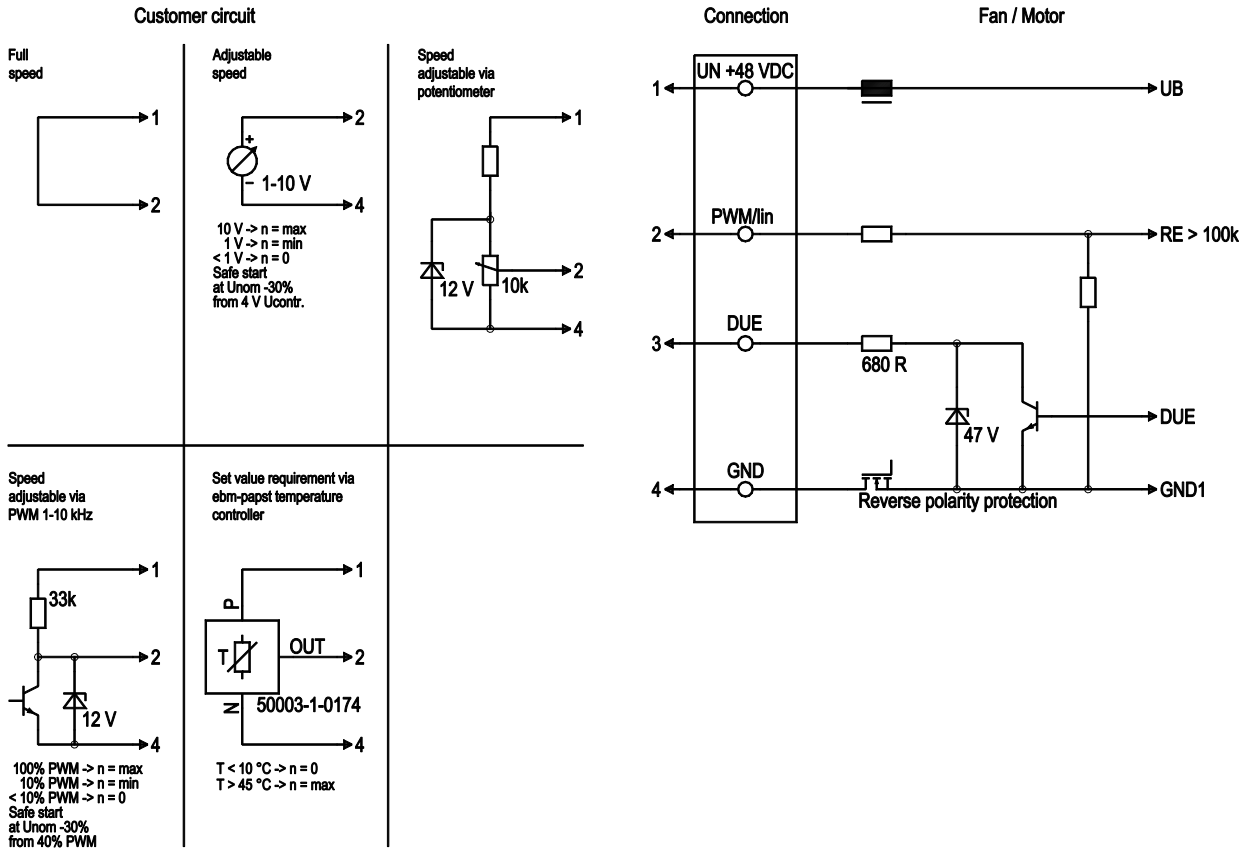
1 Cable PVC AWG20, 4x crimped splices



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## Connection diagram



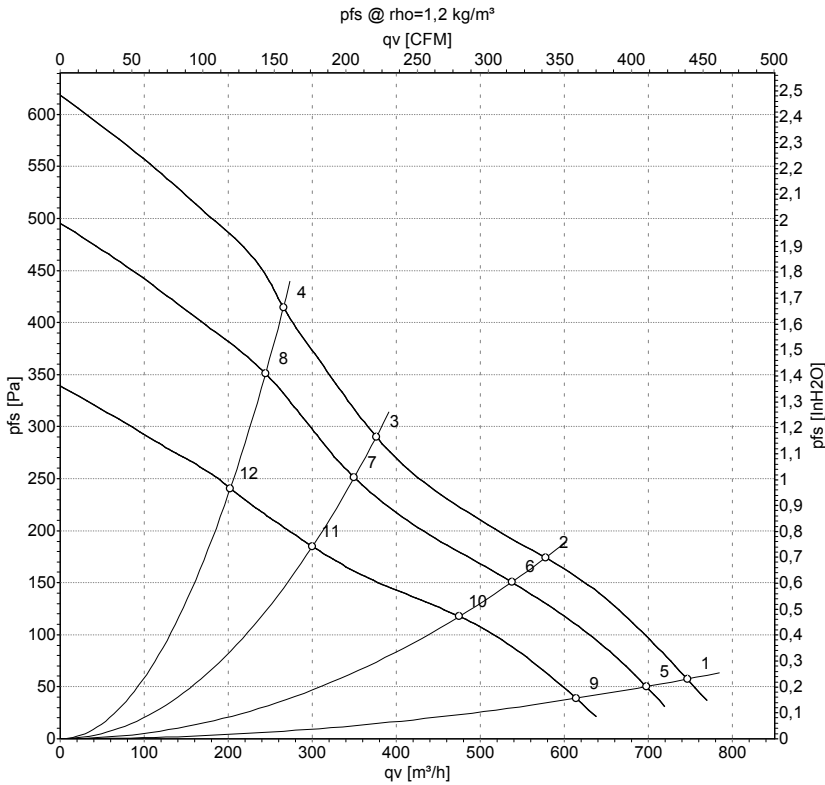
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground



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## Curves: Air performance



Measurement: LU-51633-1  
Measurement: LU-51632-1  
Measurement: LU-51634-1

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	57	1890	130	3.24	745	58	440	0.23
2	57	2230	114	2.64	575	174	340	0.70
3	57	2640	104	2.21	375	290	220	1.16
4	57	3005	98	1.98	265	412	155	1.65
5	48	1780	105	2.80	695	50	410	0.20
6	48	2065	92	2.37	535	150	315	0.60
7	48	2455	85	2.03	350	250	205	1.00
8	48	2775	76	1.77	245	350	145	1.41
9	36	1590	70	2.31	615	40	360	0.16
10	36	1855	64	2.02	475	118	280	0.47
11	36	2120	54	1.67	300	185	175	0.74
12	36	2325	45	1.40	200	241	120	0.97

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

