

D1G146-AA33-52

# EC centrifugal fan

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



## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

Type	D1G146-AA33-52	
Motor	M1G074-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Frequency	Hz	-
Method of obtaining data		fa
Speed (rpm)	min <sup>-1</sup>	1350
Power consumption	W	105
Current draw	A	2.6
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>	3.4 kg
<b>Fan size</b>	146 mm
<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>	F0
<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> </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>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Approval</b>	EAC; UL 1004-1; CSA C22.2 No. 77

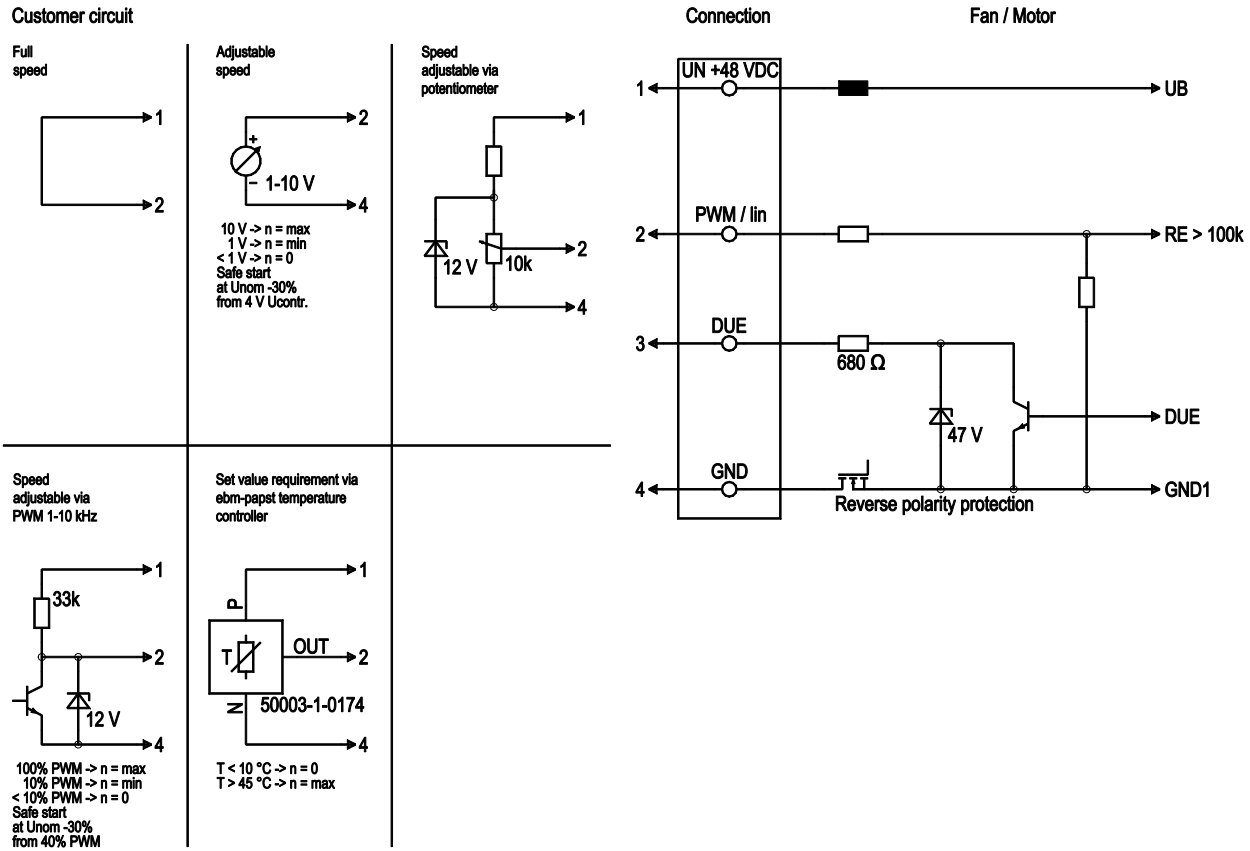




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## Connection diagram



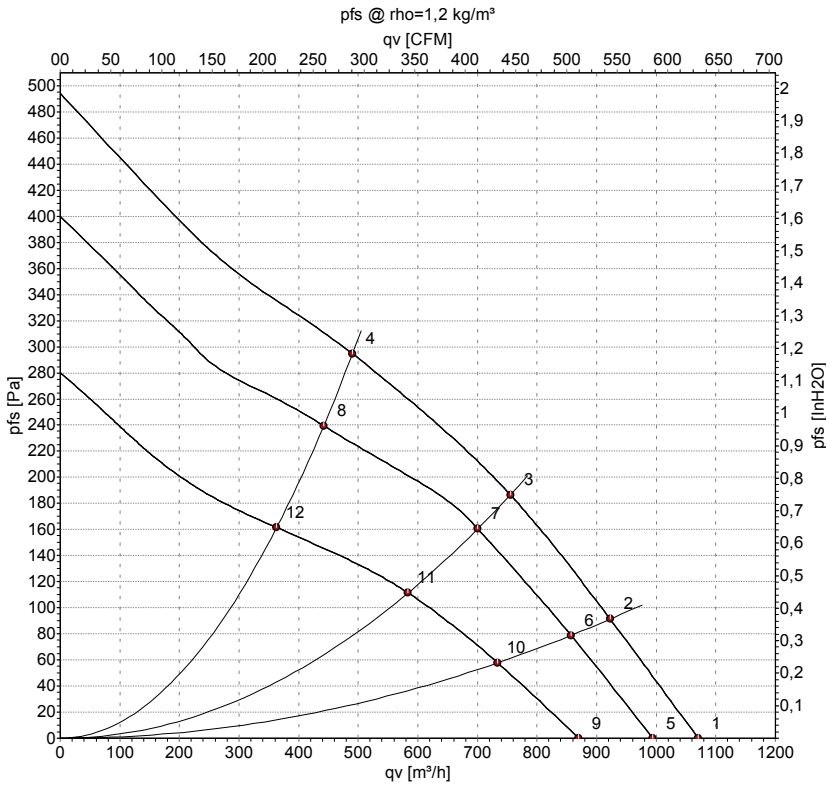
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	PWM / lin	yellow	PWM / lin. Control input 0-10 V
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground



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## Curves: Air performance



Measurement: LU-51329-1  
Measurement: LU-51328-1  
Measurement: LU-51330-1

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	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	57	1475	130	2.86	1070	0	630	0.00
2	57	1640	121	2.58	925	91	545	0.37
3	57	1840	114	2.35	755	187	445	0.75
4	57	2175	100	2.05	490	295	290	1.18
5	48	1350	105	2.60	995	0	585	0.00
6	48	1525	98	2.36	855	80	505	0.32
7	48	1705	91	2.17	700	160	410	0.64
8	48	1960	75	1.79	440	240	260	0.96
9	36	1210	70	2.20	870	0	510	0.00
10	36	1330	63	1.97	735	59	430	0.24
11	36	1435	55	1.73	585	112	345	0.45
12	36	1630	44	1.44	365	162	215	0.65

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

