D1G146-AA33-52

EC centrifugal fan

forward-curved, dual-intake

with housing (without flange)

D1G146-AA33-52 ebmpapst Datesheet

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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^{-1}	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

Weight	3.4 kg
Size	146 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B, household environment)
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection. If there is a PE connection point on the housing, it must not be visible after installation.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1
Approval	CSA C22.2 No. 77; EAC; UL 1004-1

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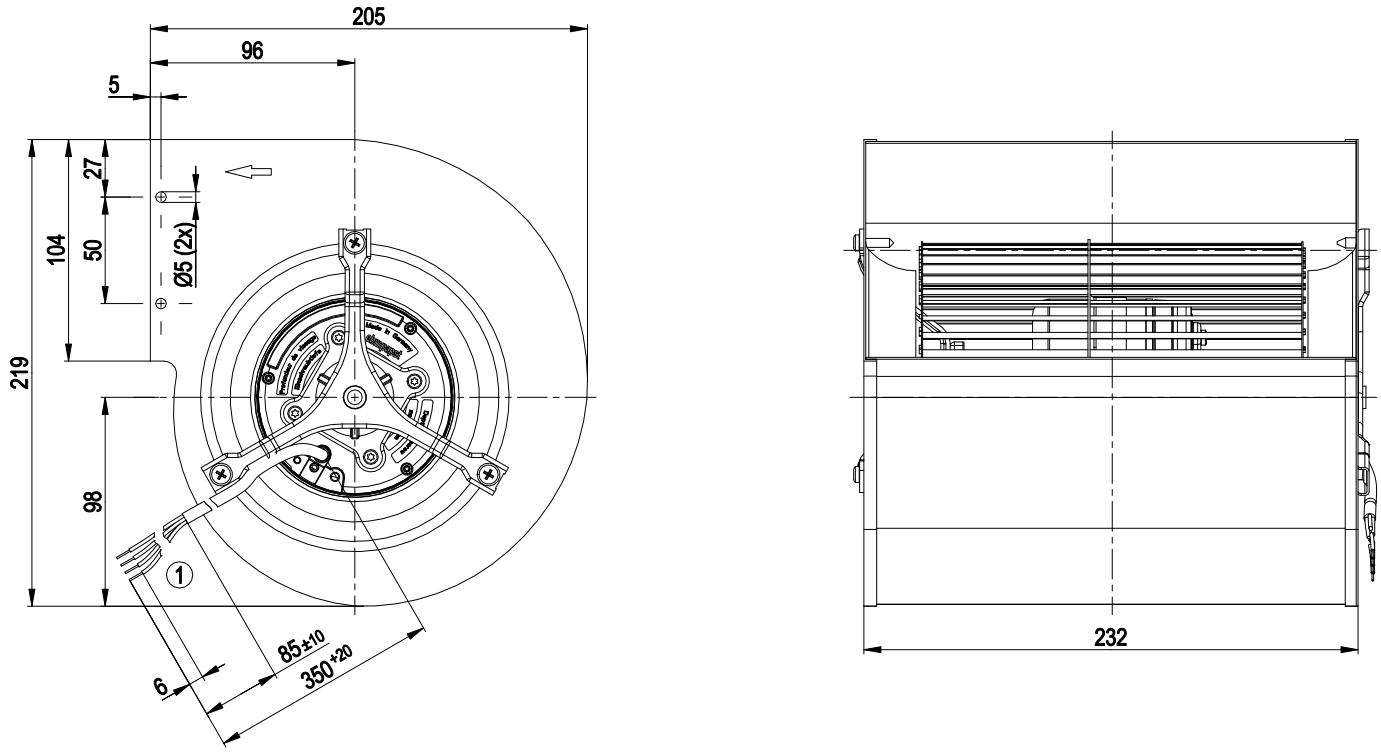
Product drawing



1	Cable PVC AWG20		4x splice

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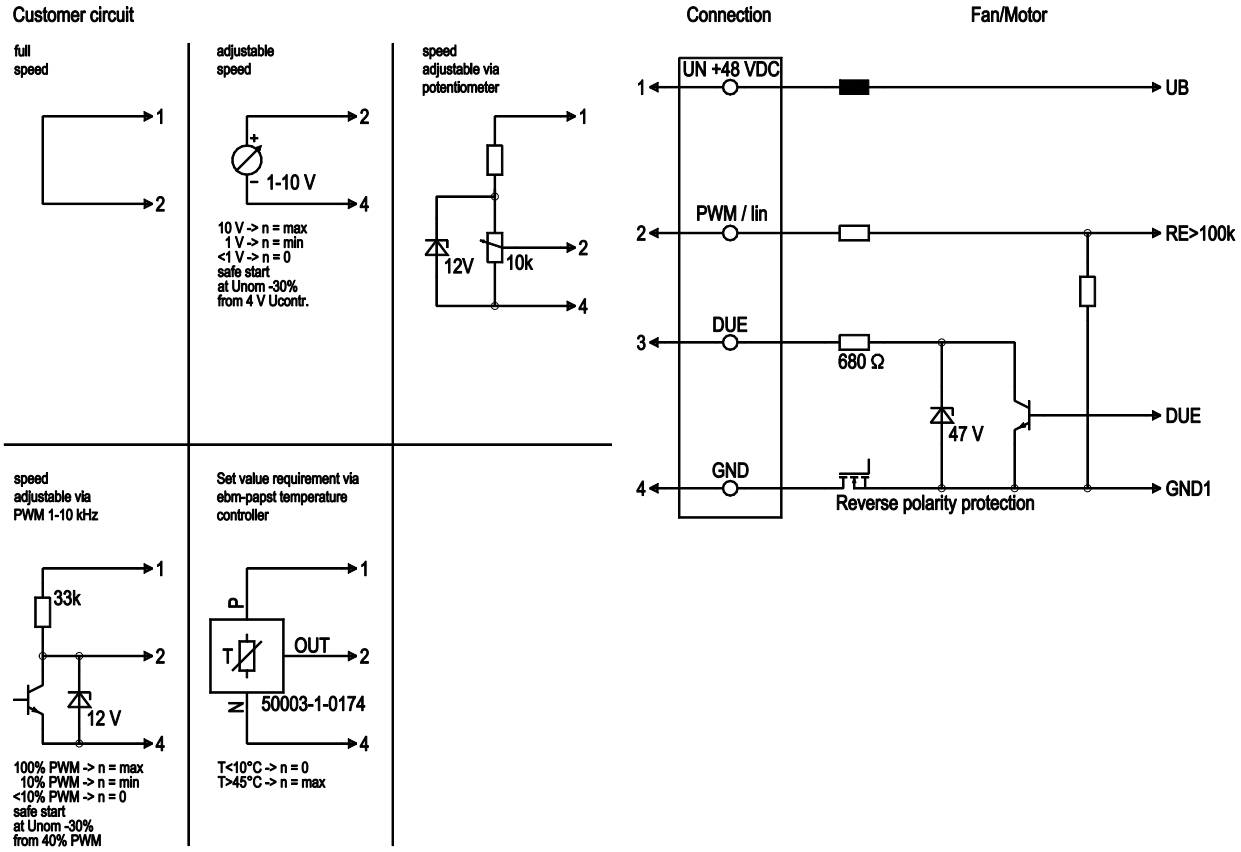
Connection diagram



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	DUE	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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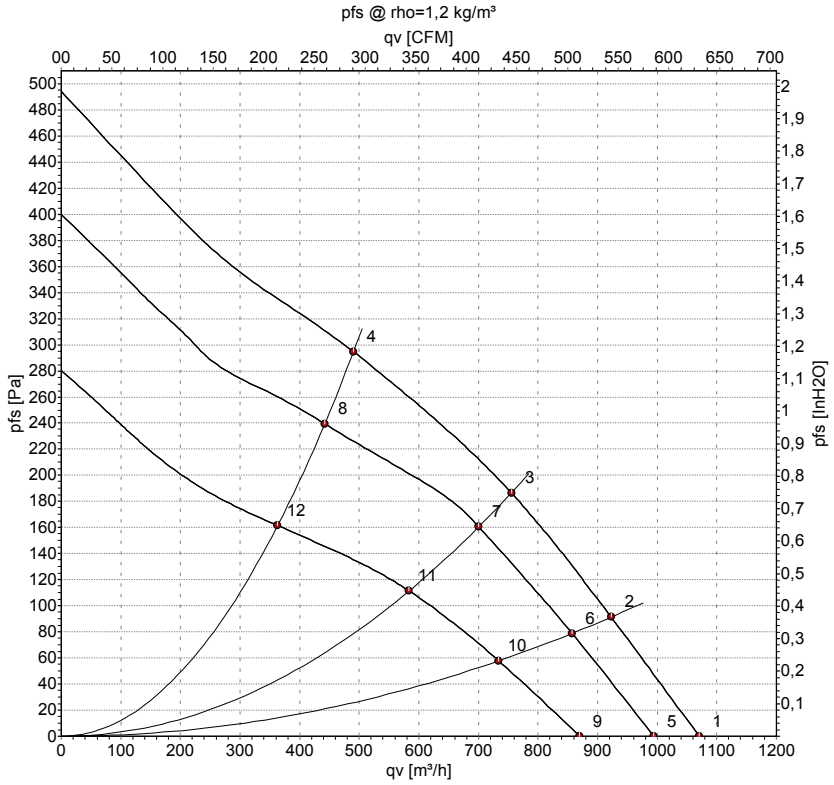
Curves: Air performance



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_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
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 = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase