D1G160-DA33-17

EC centrifugal fan

forward-curved, dual-intake

with housing (flange), for rail applications

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Nominal data

Type	**D1G160-DA33-17**	
Motor	**M1G074-CF**	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1250
Power consumption	W	112
Current draw	A	2.9
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	4.3 kg
Fan size	160 mm
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F5
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 with low-temperature lubricant
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Conformity with standards	EN 60950-1
Approval	CSA C22.2 No. 77; UL 1004-1

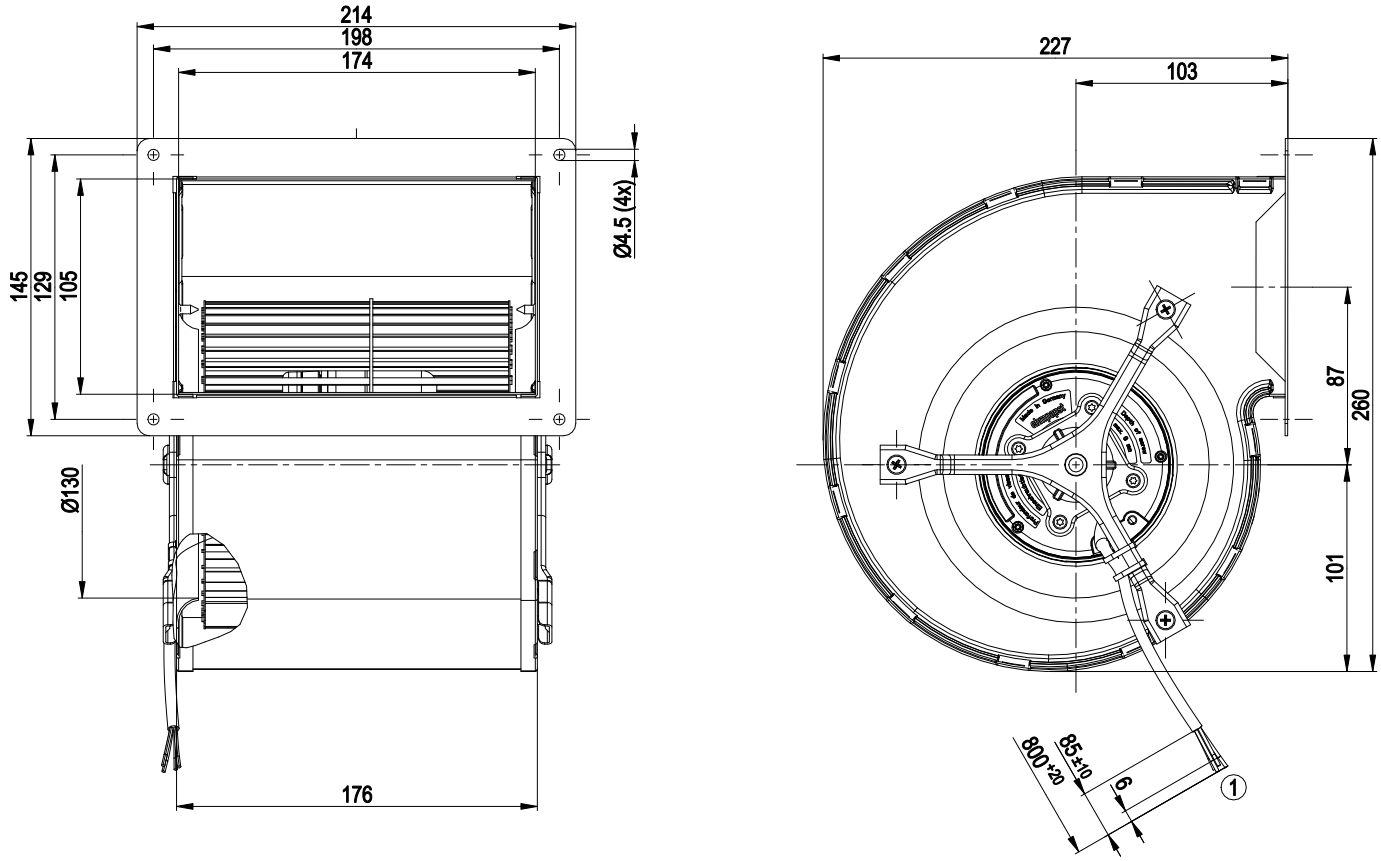
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Product drawing



1	Cable silicone 4G 0.5 mm², 4x crimped splices

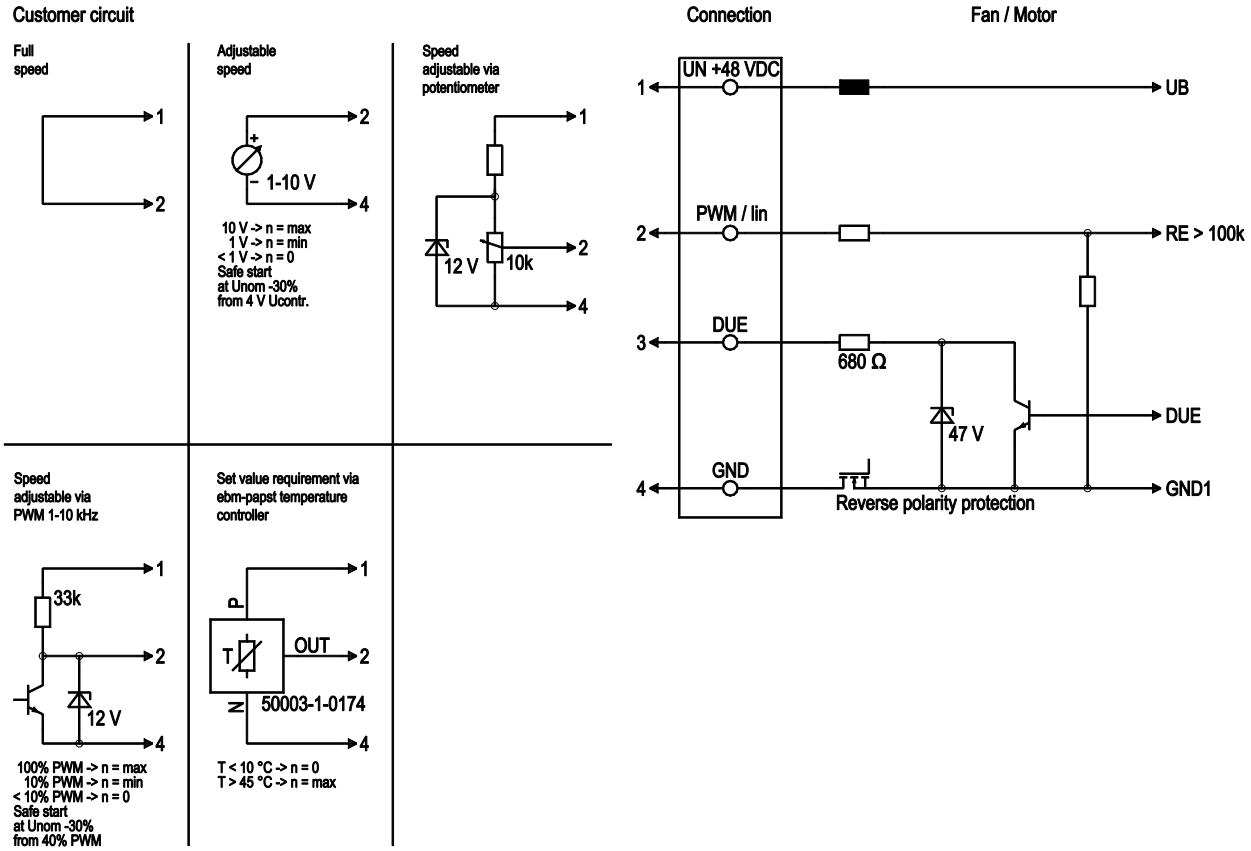
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC, maximum ripple 3.5%
1	2	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

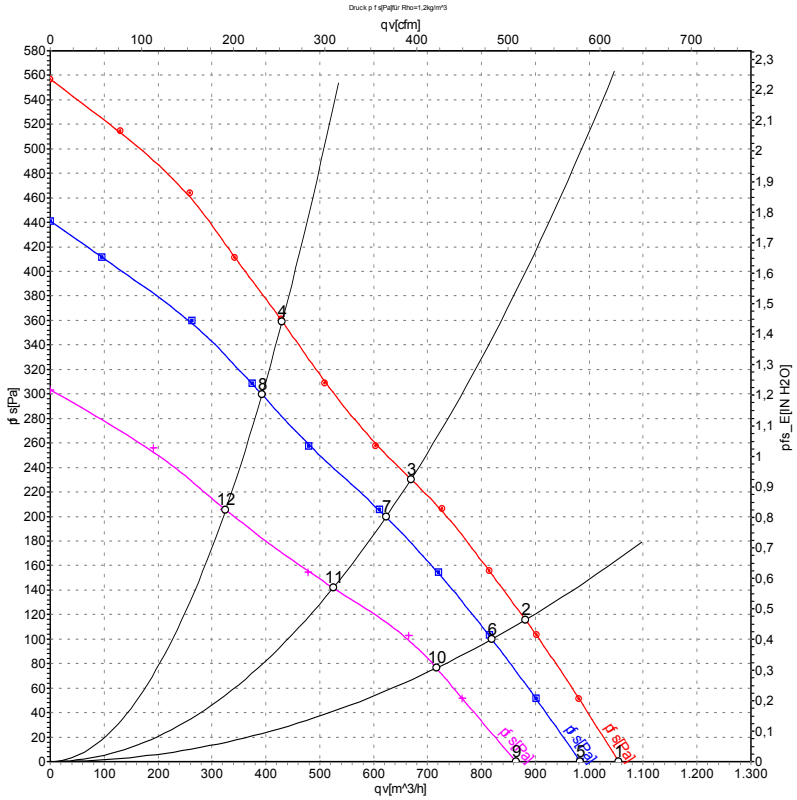
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Curves: Air performance



Measurement: LU-51358-1
Measurement: LU-51357-1
Measurement: LU-51359-1

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	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	57	1330	142	3.29	1055	0	620	0.00
2	57	1520	129	2.84	880	116	520	0.47
3	57	1775	116	2.45	670	230	395	0.92
4	57	2080	107	2.20	430	360	255	1.45
5	48	1250	112	2.90	985	0	580	0.00
6	48	1415	102	2.54	820	100	485	0.40
7	48	1645	93	2.25	625	200	365	0.80
8	48	1890	82	1.98	395	300	230	1.20
9	36	1105	75	2.40	865	0	510	0.00
10	36	1245	69	2.17	715	76	420	0.31
11	36	1410	59	1.85	525	142	310	0.57
12	36	1580	48	1.54	325	204	190	0.82

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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