

G1G120-AB67-07

EC centrifugal fan

forward-curved, single-intake
with housing (flange), for rail applications



G1G120-AB67-07 ebmpapst Datasheet
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Nominal data

Type	G1G120-AB67-07	
Motor	M1G055-BD	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	2200
Power consumption	W	40
Current draw	A	1.9
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	1.57 kg
Size	120 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP22
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
Motor protection	Reverse polarity and locked-rotor protection
With cable	Axial
Protection class	III
Conformity with standards	EN 15085-1, CPC3: 2013; EN 45545-2, HL3: 2013 + A1:2015; EN 61373, Cat. 1B: 2010; CE
Approval	EAC

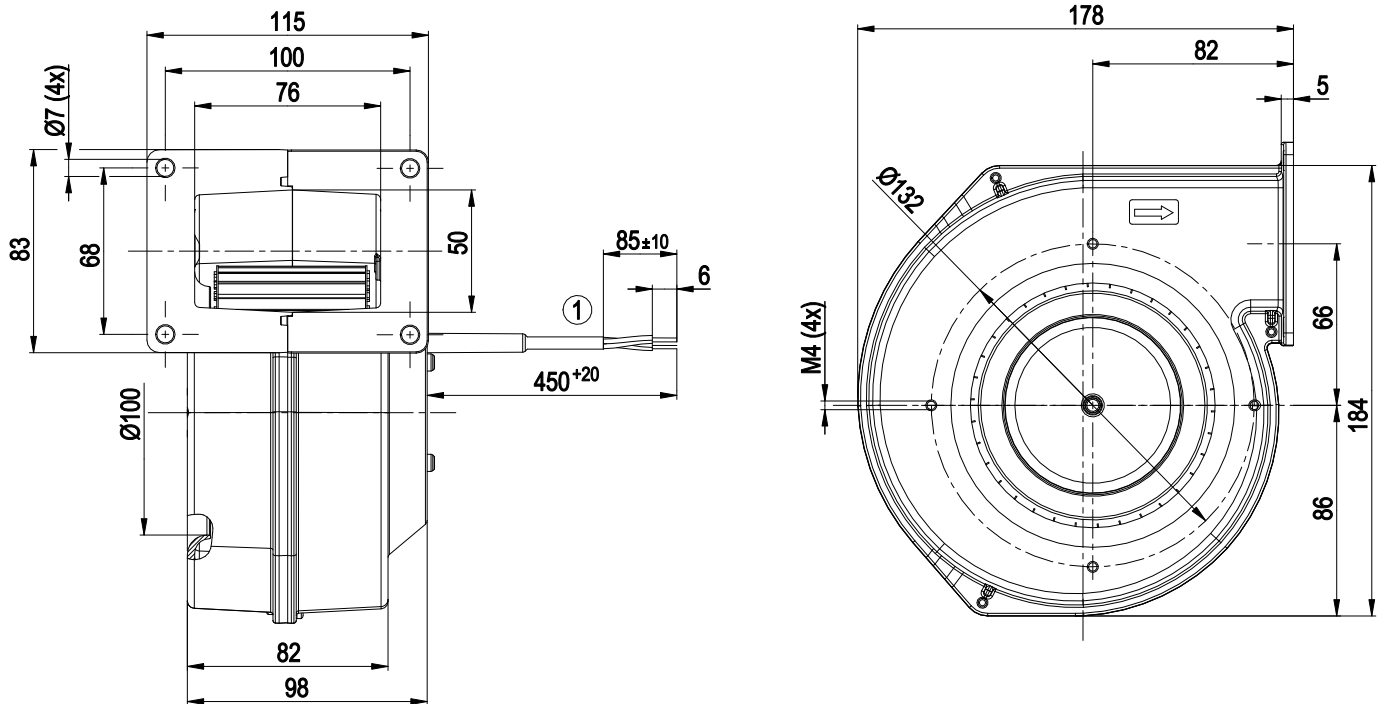


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Product drawing



1	Cable, halogen-free, railway application EN 45545, 4x 0.5 mm ²
	4x splice

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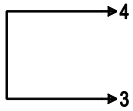
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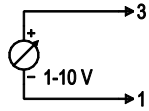
Connection diagram

Customer circuit

full speed

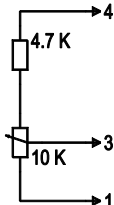


adjustable speed

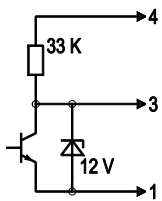


10 V → n = max
1 V → n = min
<1 V → n = 0
safe start
at Unom -30%
from 4 V Ucontr.

speed adjustable with fixed resistor

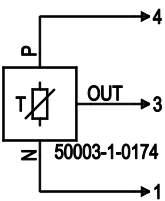


speed adjustable via PWM 1-10 kHz



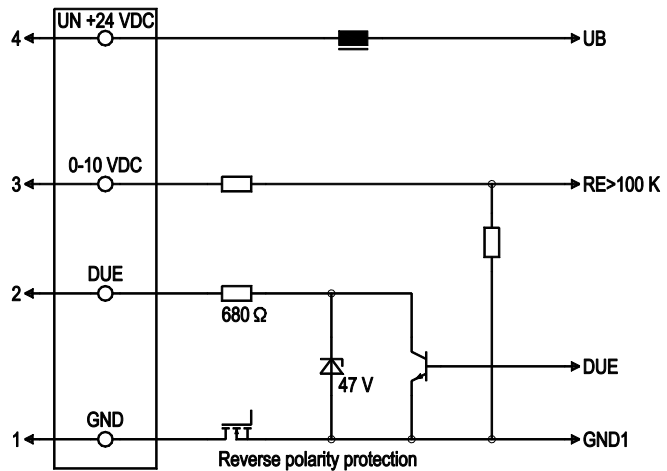
100% PWM → n = max
10% PWM → n = min
<10% PWM → n = 0
safe start
at Unom -30%
from 40% PWM

Set value requirement via temperature controller



Connection

Fan/Motor

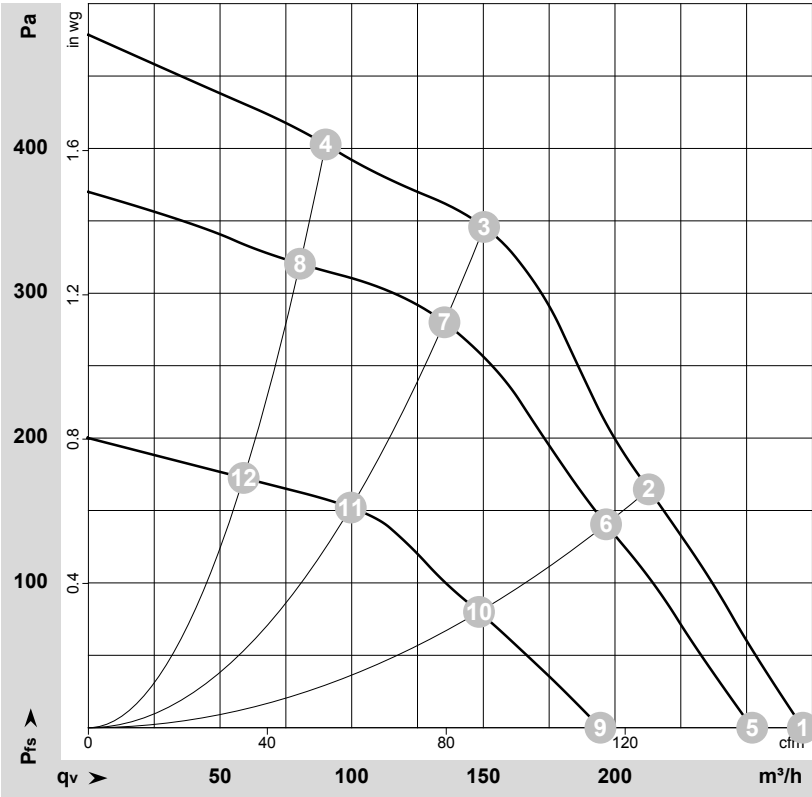


No.	Conn.	Designation	Color	Function/assignment
1	4	Un +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5%
1	3	0-10 VDC	yellow	Control input Re > 100 K
1	2	DUE	white	Tach output, 2 pulses per revolution, Isink max = 10 mA
1	1	GND	blue	Reference ground

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Curves: Air performance



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

Measurement: LU-48521-1
Measurement: LU-48520-1
Measurement: LU-48522-1

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	28	2380	49	2.09	270	0	160	0.00
2	28	2685	45	1.81	215	165	125	0.66
3	28	3055	38	1.51	150	351	90	1.41
4	28	3295	32	1.25	90	403	55	1.62
5	24	2200	40	1.90	250	0	150	0.00
6	24	2490	35	1.63	195	140	115	0.56
7	24	2745	29	1.32	135	280	80	1.12
8	24	2925	24	1.11	80	320	45	1.28
9	16	1750	19	1.31	195	0	115	0.00
10	16	1900	16	1.10	150	80	85	0.32
11	16	2060	13	0.91	100	154	60	0.62
12	16	2200	10.0	0.79	60	172	35	0.69

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

