

G1G160-BH39-52

EC centrifugal fan

forward-curved, single-intake
with housing (flange)



G1G160-BH39-52 ebmpapst Datasheet

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Nominal data

Type	G1G160-BH39-52	
Motor	M1G074-BF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	1750
Power consumption	W	105
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

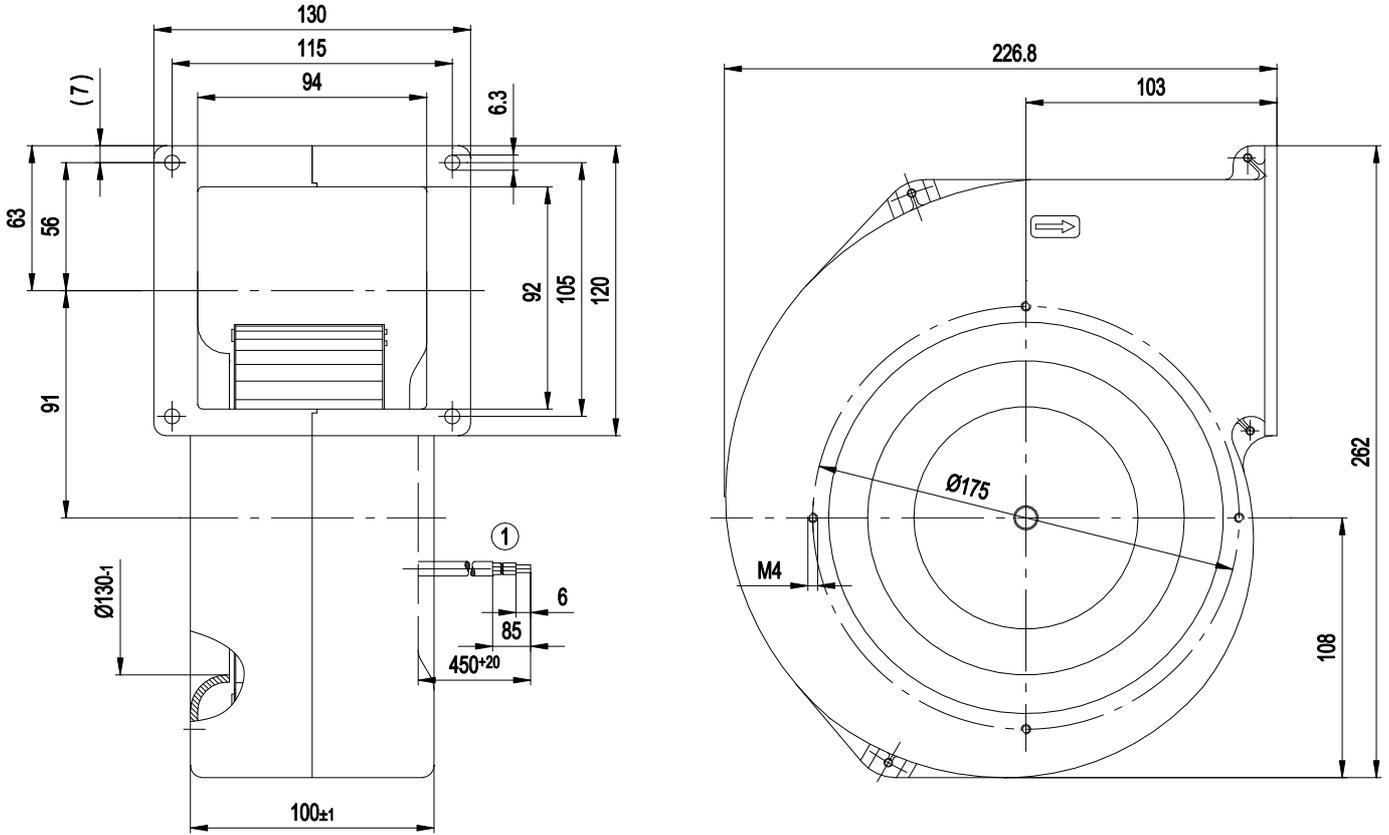
Weight	2.6 kg
Size	160 mm
Motor size	74
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (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	<ul style="list-style-type: none"> - 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)
With cable	Axial
Protection class assignment	<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>
Conformity with standards	EN 62368-1
Approval	CSA C22.2 No. 77; EAC; UL 1004-1



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Product drawing



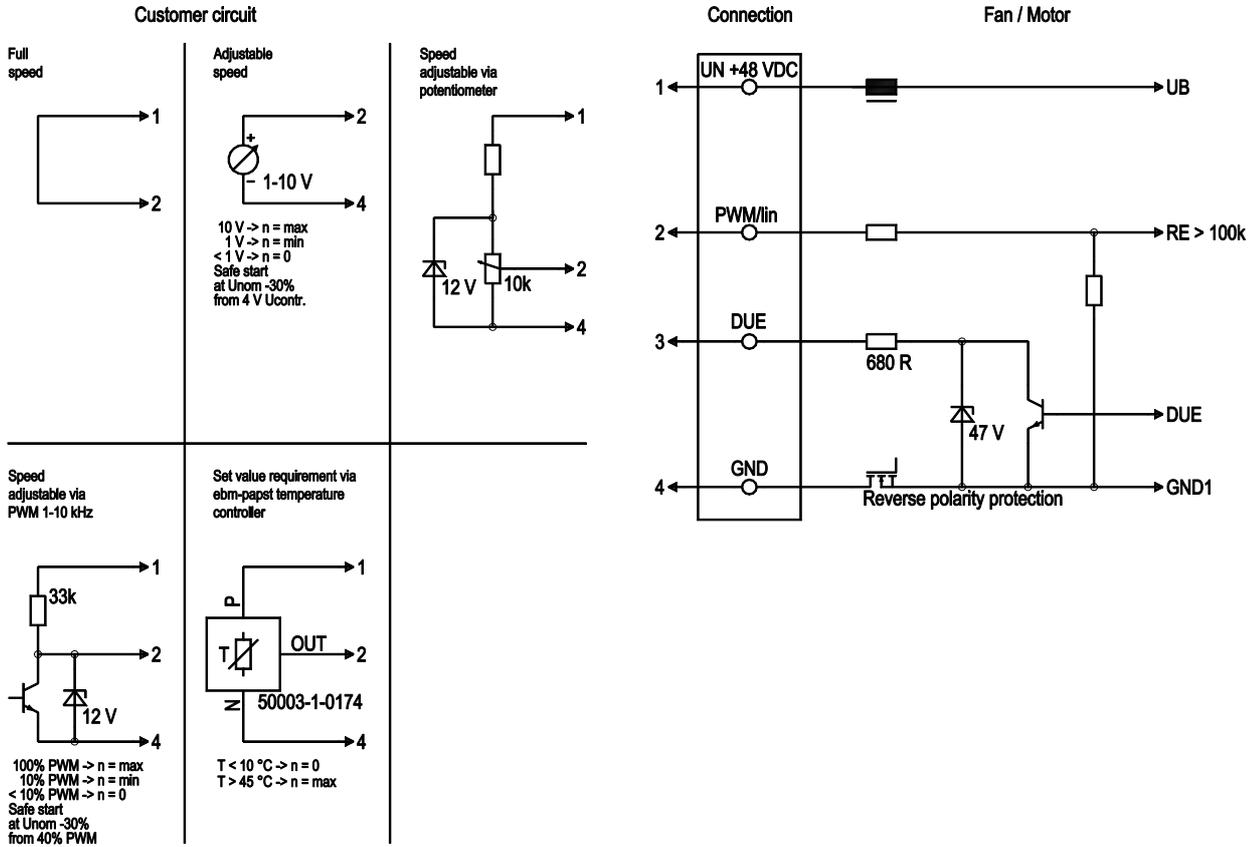
1 Cable AWG 20, 4x crimped splices



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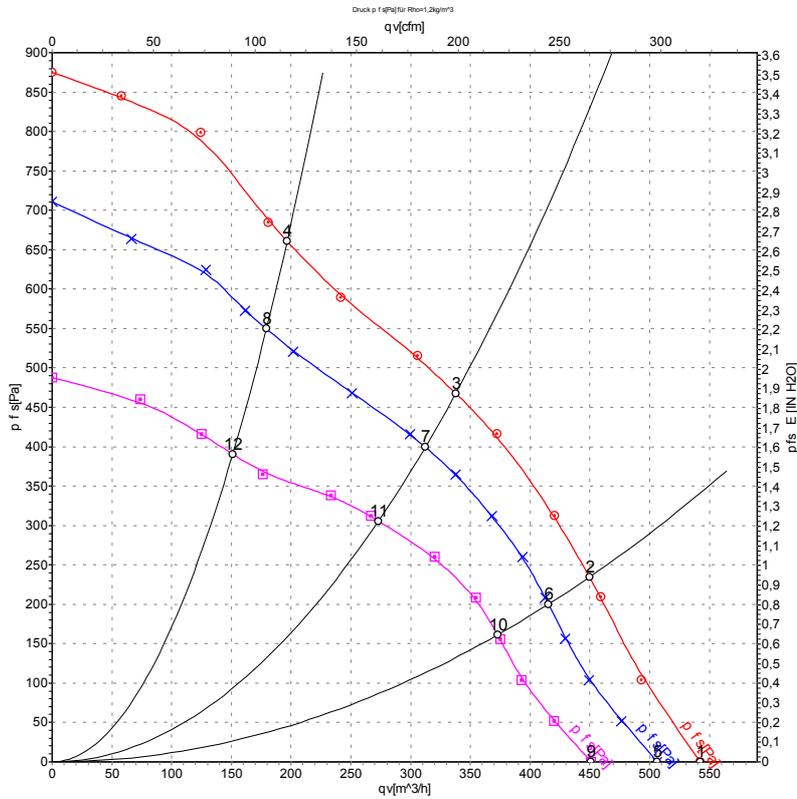
Connection diagram



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



Curves: Air performance



Measurement: LU-60109-1
 Measurement: LU-60108-1
 Measurement: LU-60110-1

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	1890	134	3.27	545	0	320	0.00
2	57	2145	120	2.78	450	235	265	0.94
3	57	2470	111	2.40	340	468	200	1.88
4	57	2885	103	2.10	195	660	115	2.65
5	48	1750	105	2.90	505	0	300	0.00
6	48	1980	97	2.51	415	200	245	0.80
7	48	2275	91	2.21	310	400	185	1.61
8	48	2645	81	1.90	180	550	105	2.21
9	36	1580	72	2.35	450	0	265	0.00
10	36	1795	67	2.12	375	162	220	0.65
11	36	2005	58	1.81	275	306	160	1.23
12	36	2230	48	1.49	150	390	90	1.57

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

