G1G160-BH39-52

EC centrifugal fan

forward-curved, single-intake

with housing (flange)



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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
Fan size	160 mm
Rotor surface	Painted black
Impeller material	Sheet steel, hot-dip galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F0
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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 55022 (Class B)
Motor protection	Reverse polarity and locked-rotor protection
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60950-1
Approval	CSA C22.2 No. 77; EAC; UL 1004-1

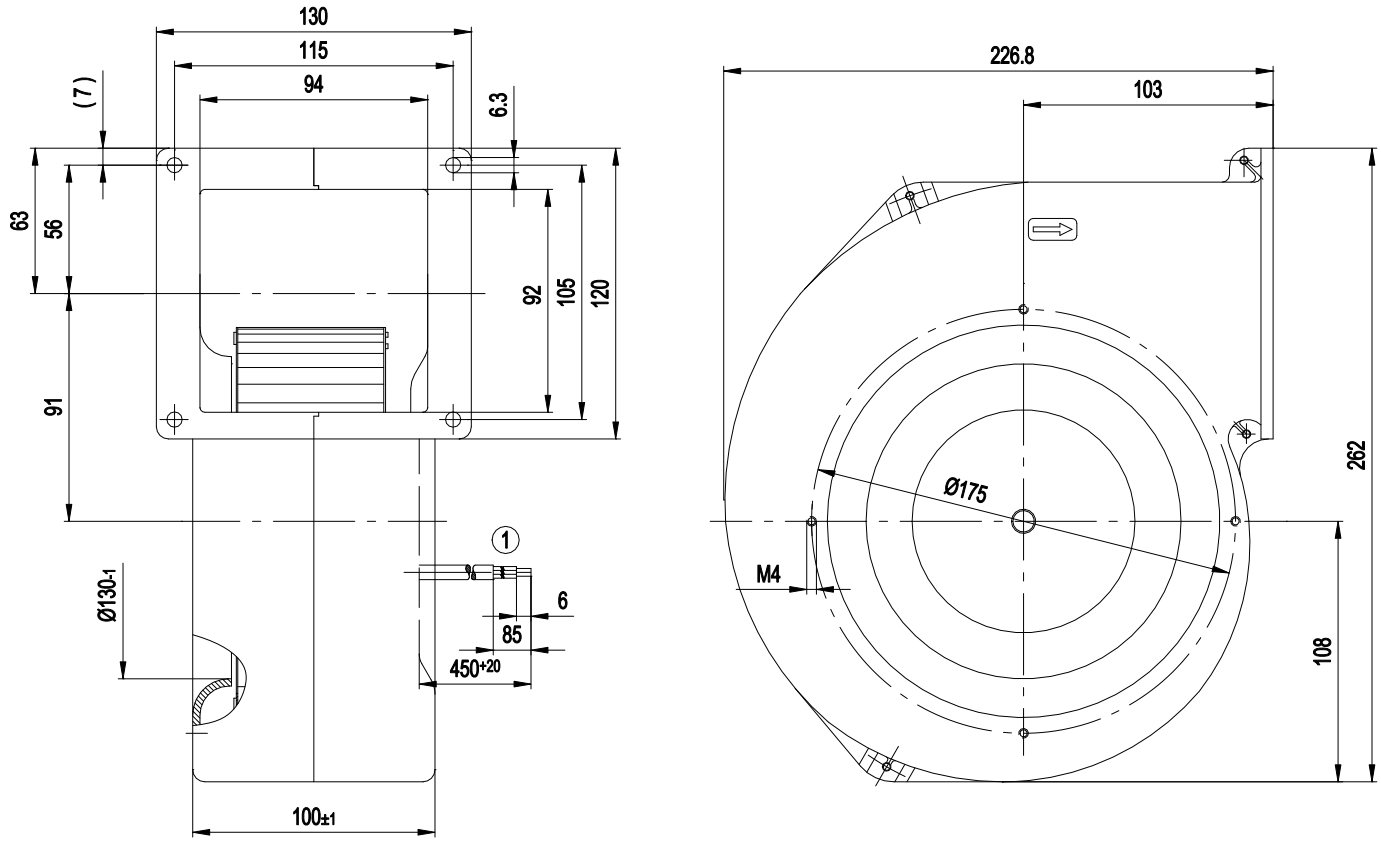
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Product drawing



1	Cable AWG 20, 4x crimped splices

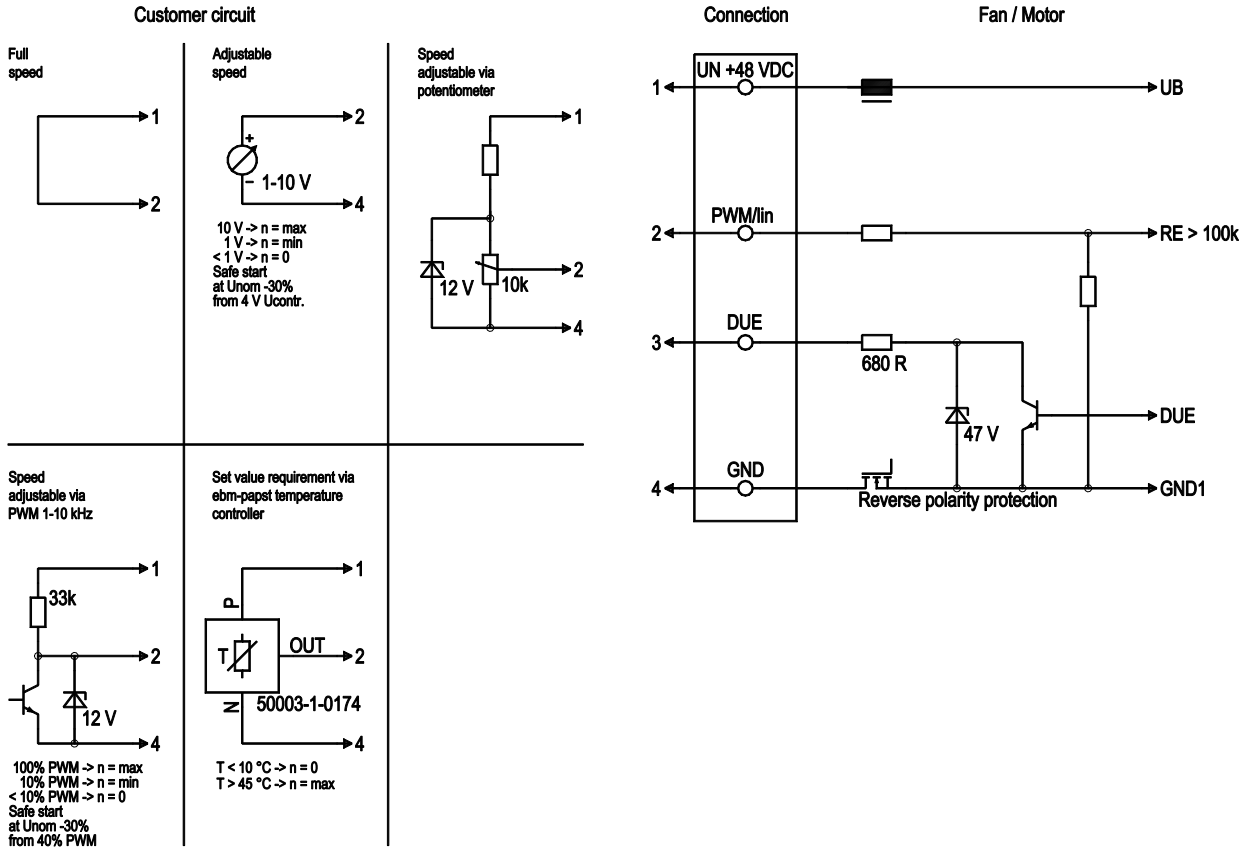
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Connection diagram



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

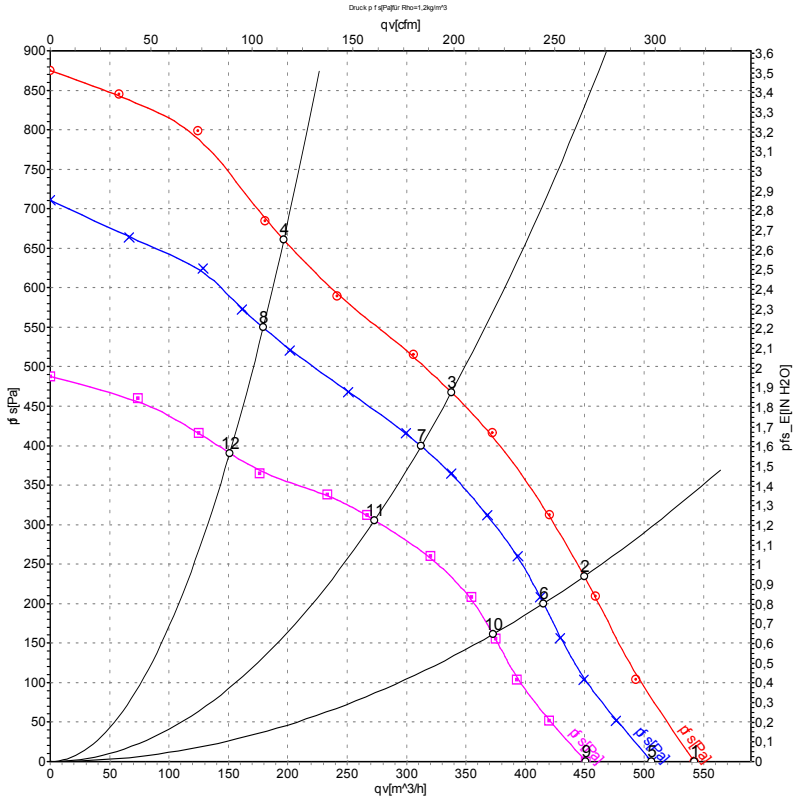
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Curves: Air performance



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	qv	p_{fs}	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
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 = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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