**G1G160-BH29-52**

# EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G1G160-BH29-52 ebmpapst Datesheet

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## Nominal data

| | |
|---|---|
| **Type** | **G1G160-BH29-52** |
| **Motor** | **M1G074-BF** |

| | | |
|---|---|---|
| Nominal voltage | VDC | 24 |
| Nominal voltage range | VDC | 16 .. 28 |
| Method of obtaining data | | fa |
| Speed (rpm) | min-1 | 1750 |
| Power consumption | W | 105 |
| Current draw | A | 5.8 |
| 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** | 2.87 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** | - Tach output<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- 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** | III; Requires supply with safety extra-low voltage SELV.<br>This component to be built-in can have several local protection classes.<br>This specification relates to the basic design of this component.<br>The final protection class is based on the intended installation and connection of the components. |
| **Conformity with standards** | EN 62368-1 |
| **Approval** | EAC; UL 1004-1; CSA C22.2 No. 77 |

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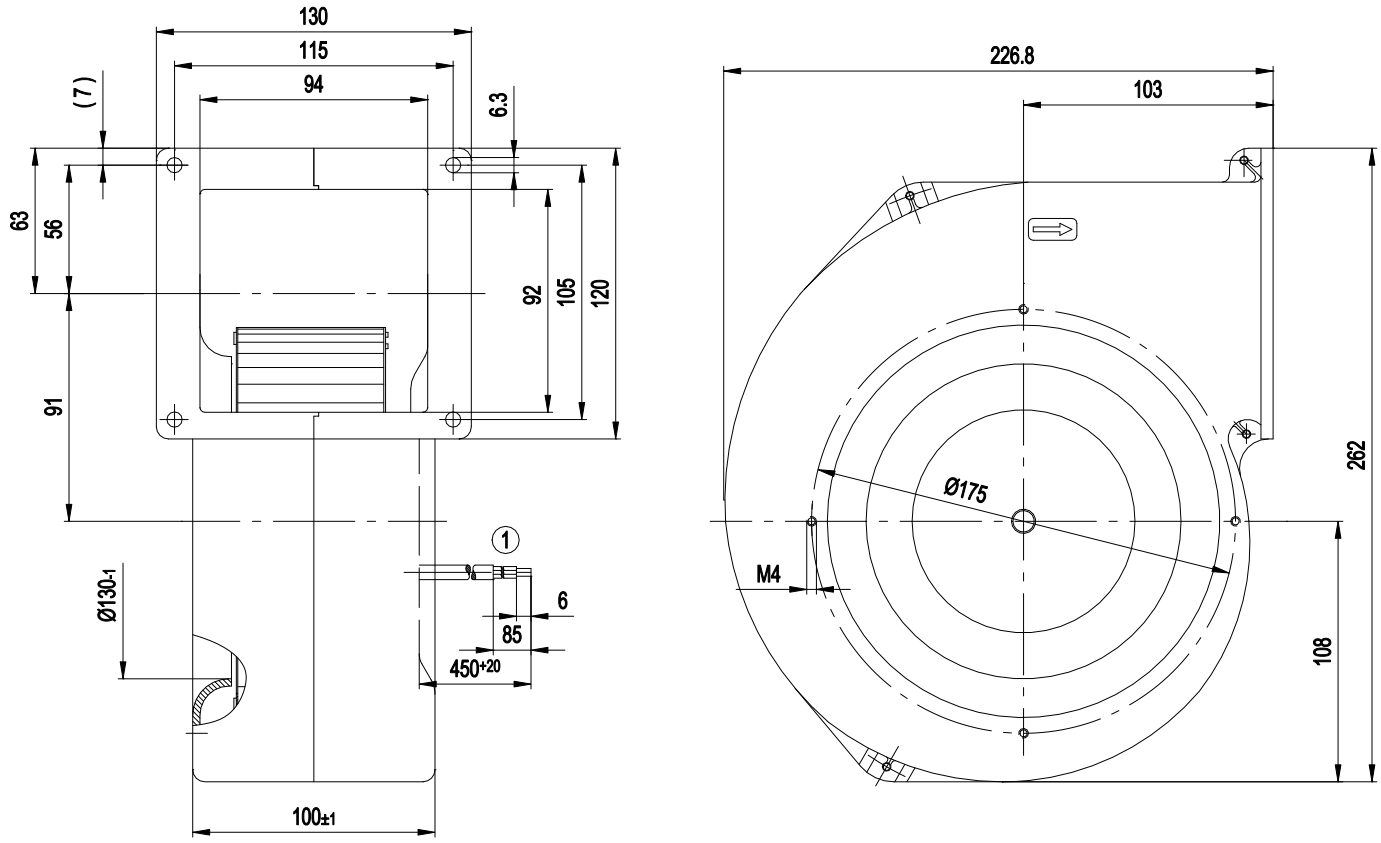
## Product drawing




| | |
|---|---|
| 1 | Cable AWG 20, 4x crimped splices |

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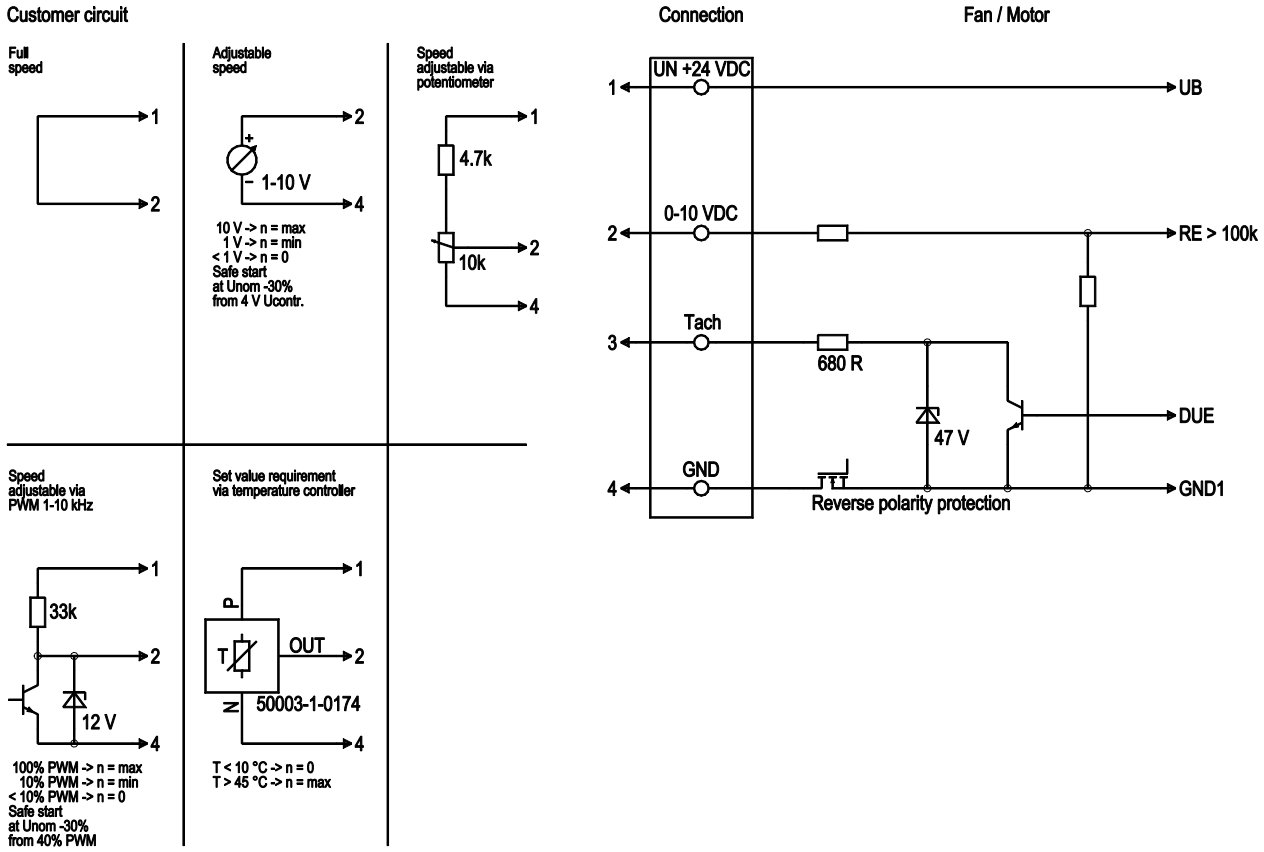
## Connection diagram




| No. | Conn. | Designation | Color | Function/assignment |
|---|---|---|---|---|
| 1 | 1 | Un +24 VDC | red | Power supply 24 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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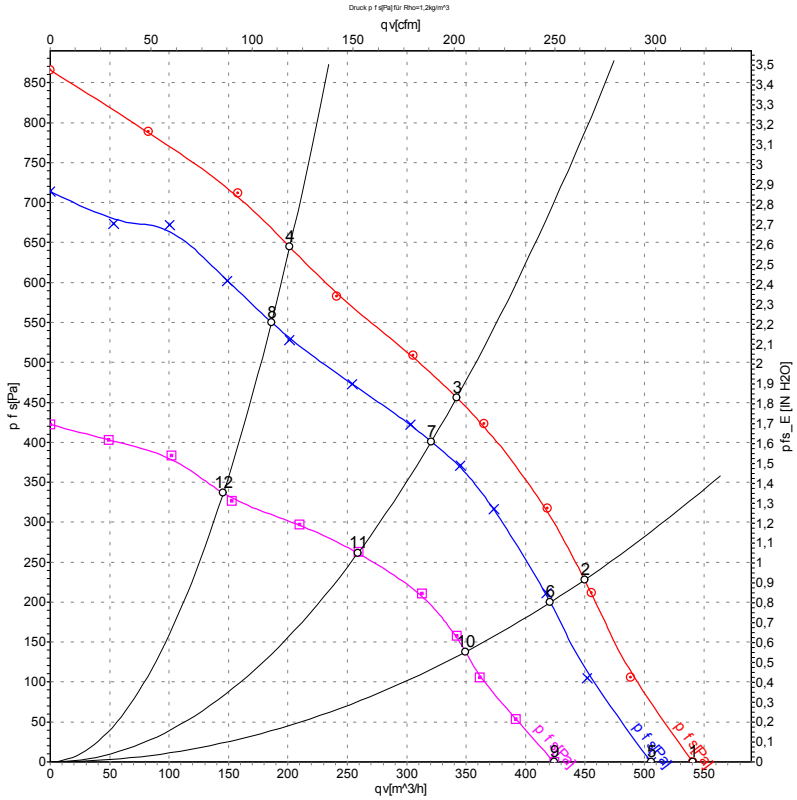
## Curves: Air performance




Measurement: LU-59980-1
Measurement: LU-59979-1
Measurement: LU-59981-1

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 | 1870 | 134 | 6.43 | 540 | 0 | 320 | 0.00 |
| 2 | 28 | 2115 | 121 | 5.54 | 450 | 229 | 265 | 0.92 |
| 3 | 28 | 2420 | 110 | 4.82 | 340 | 456 | 200 | 1.83 |
| 4 | 28 | 2825 | 102 | 4.20 | 200 | 645 | 120 | 2.59 |
| 5 | 24 | 1750 | 105 | 5.80 | 505 | 0 | 300 | 0.00 |
| 6 | 24 | 1990 | 99 | 5.02 | 420 | 200 | 250 | 0.80 |
| 7 | 24 | 2275 | 91 | 4.43 | 320 | 400 | 190 | 1.61 |
| 8 | 24 | 2655 | 83 | 3.86 | 185 | 550 | 110 | 2.21 |
| 9 | 16 | 1485 | 63 | 4.48 | 425 | 0 | 250 | 0.00 |
| 10 | 16 | 1670 | 57 | 4.01 | 350 | 138 | 205 | 0.55 |
| 11 | 16 | 1860 | 49 | 3.42 | 260 | 263 | 150 | 1.06 |
| 12 | 16 | 2085 | 41 | 2.85 | 145 | 334 | 85 | 1.34 |

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