

G1G160-BH39-52

## EC centrifugal fan

forward curved, single inlet

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 |
| Type of data definition  |                   | rfa      |
| Speed                    | min <sup>-1</sup> | 1750     |
| Power input              | W                 | 105      |
| Current draw             | A                 | 2.9      |
| Min. ambient temperature | °C                | -25      |
| Max. ambient temperature | °C                | +60      |

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

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## Technical features

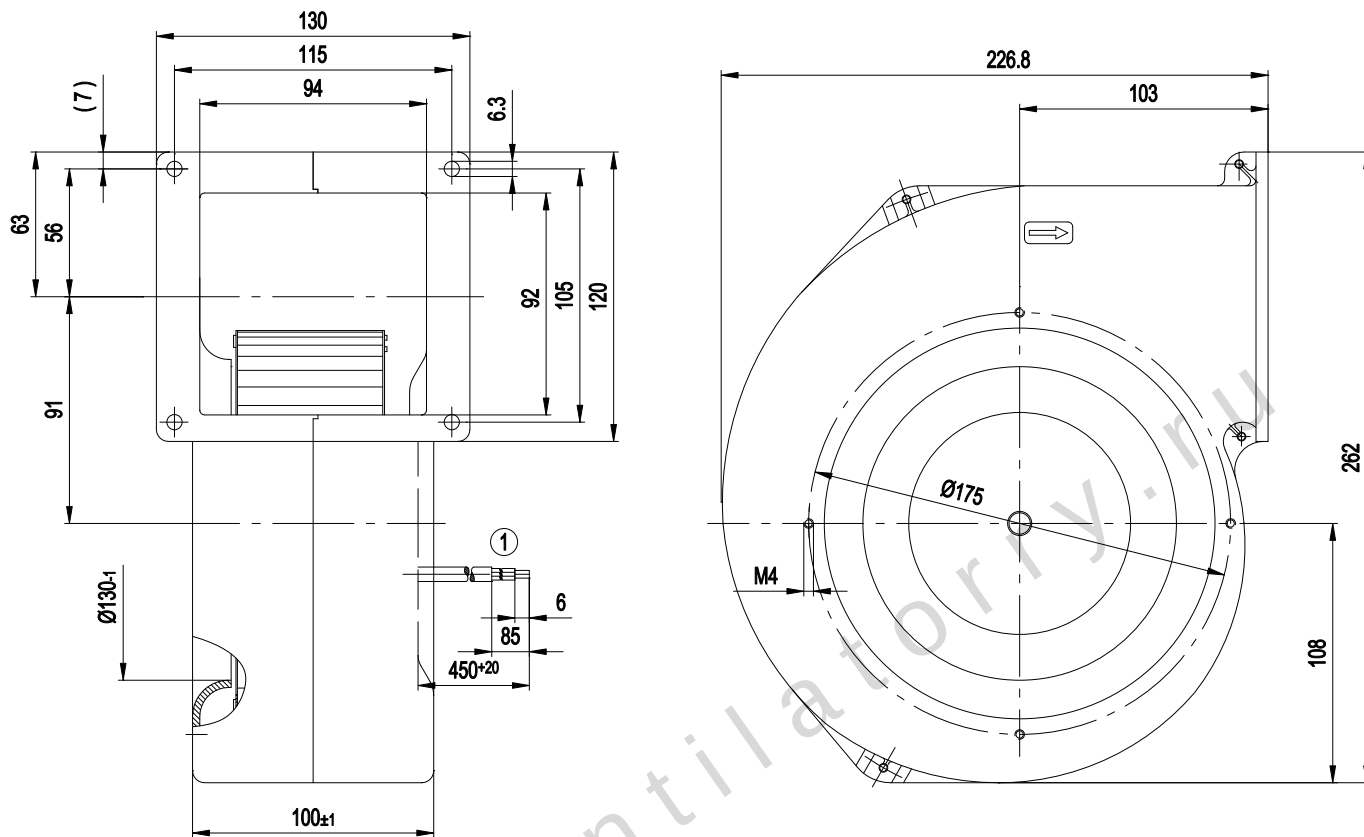
|                                                         |                                                                                                                                                         |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| General description                                     | Integrated electronics                                                                                                                                  |
| Size                                                    | 160 mm                                                                                                                                                  |
| Operation mode                                          | S1                                                                                                                                                      |
| Direction of rotation                                   | Clockwise, seen on rotor                                                                                                                                |
| Mounting position                                       | Any                                                                                                                                                     |
| EMC interference emission                               | Acc. to EN 55022 (Class B)                                                                                                                              |
| EMC interference immunity                               | Acc. to EN 61000-6-2 (industrial environment)                                                                                                           |
| Humidity class                                          | F0                                                                                                                                                      |
| Insulation class                                        | "B"                                                                                                                                                     |
| Cable exit                                              | Axial                                                                                                                                                   |
| Condensate discharge holes                              | None                                                                                                                                                    |
| Motor bearing                                           | Ball bearing                                                                                                                                            |
| Mass                                                    | 2.6 kg                                                                                                                                                  |
| Material of impeller                                    | Sheet steel, hot-galvanised                                                                                                                             |
| Motor protection                                        | Reverse polarity and locked-rotor protection                                                                                                            |
| Product conforming to standard                          | EN 60950-1                                                                                                                                              |
| Surface of rotor                                        | Coated in black                                                                                                                                         |
| Type of protection                                      | IP 42                                                                                                                                                   |
| Protection class                                        | I                                                                                                                                                       |
| Technical features                                      | <ul style="list-style-type: none"><li>- Tach output</li><li>- Motor current limit</li><li>- Soft start</li><li>- Control input 0-10 VDC / PWM</li></ul> |
| Max. permissible ambient motor temp. (transp./ storage) | +80 °C                                                                                                                                                  |
| Min. permissible ambient motor temp. (transp./storage)  | -40 °C                                                                                                                                                  |
| Approval                                                | CSA C22.2 Nr.77; UL 1004-1                                                                                                                              |

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## Product drawing



1 Connection line AWG 20, 4x brass lead tips crimped

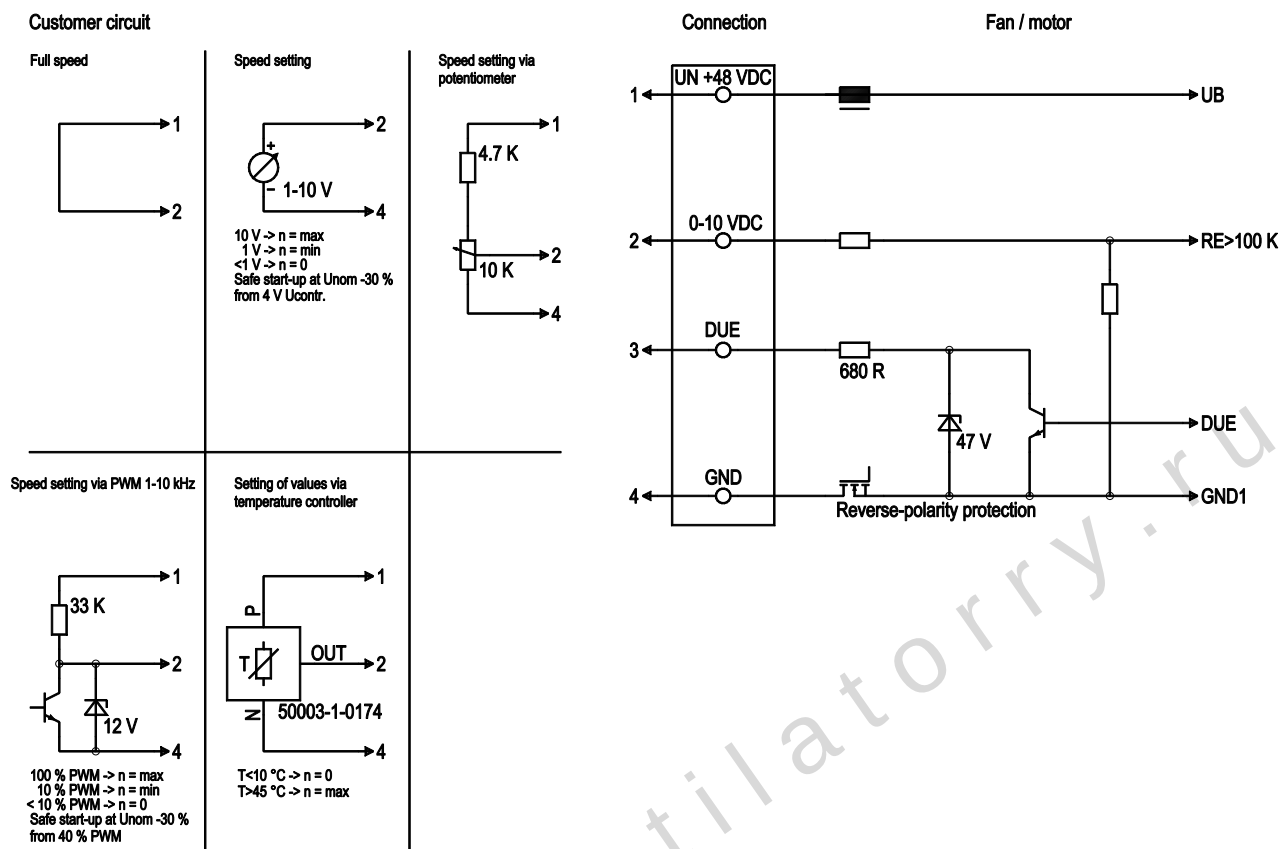
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## Connection screen



| Line | No. | Signal     | Colour | Function / assignment                                             |
|------|-----|------------|--------|-------------------------------------------------------------------|
| 1    | 1   | Un +48 VDC | red    | Power supply 48 VDC, residual ripple 3.5 %                        |
| 1    | 2   | 0-10 VDC   | yellow | Control input Re > 100 K                                          |
| 1    | 3   | DUE        | white  | Speed monitoring output, 3 pulses per rotation, Isink max = 10 mA |
| 1    | 4   | GND        | blue   | Reference mass                                                    |

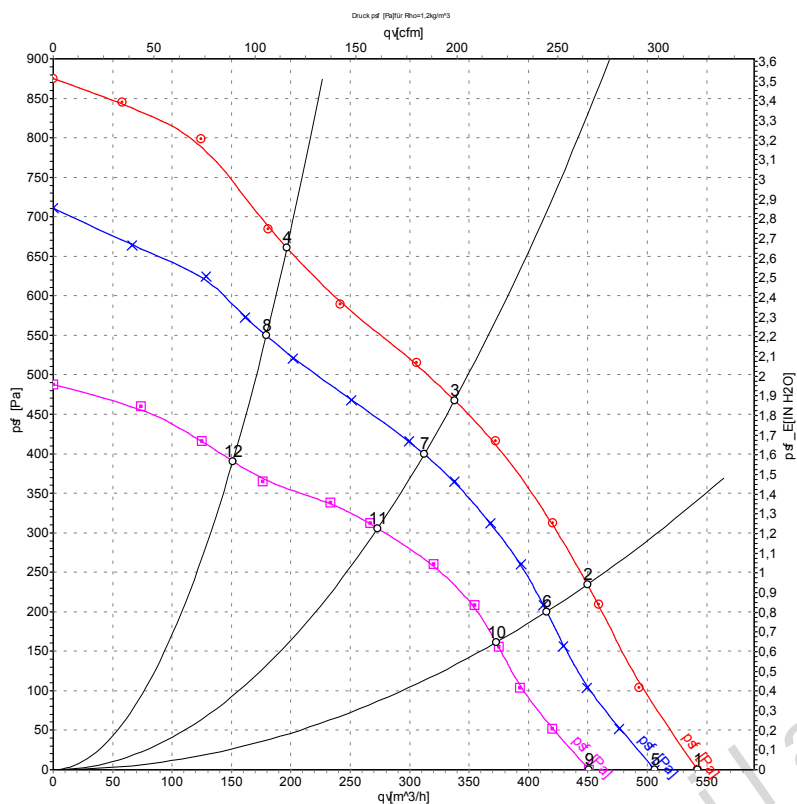
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## Charts: Air flow



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

Air performance measured as per ISO 5801 Installation Category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

|    | U  | n                 | P <sub>1</sub> | I    | qv                | p <sub>sf</sub> |
|----|----|-------------------|----------------|------|-------------------|-----------------|
|    | V  | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1  | 57 | 1890              | 134            | 3.27 | 545               | 0               |
| 2  | 57 | 2145              | 120            | 2.78 | 450               | 235             |
| 3  | 57 | 2470              | 111            | 2.40 | 340               | 468             |
| 4  | 57 | 2885              | 103            | 2.10 | 195               | 660             |
| 5  | 48 | 1750              | 105            | 2.90 | 505               | 0               |
| 6  | 48 | 1980              | 97             | 2.51 | 415               | 200             |
| 7  | 48 | 2275              | 91             | 2.21 | 310               | 400             |
| 8  | 48 | 2645              | 81             | 1.90 | 180               | 550             |
| 9  | 36 | 1580              | 72             | 2.35 | 450               | 0               |
| 10 | 36 | 1795              | 67             | 2.12 | 375               | 162             |
| 11 | 36 | 2005              | 58             | 1.81 | 275               | 306             |
| 12 | 36 | 2230              | 48             | 1.49 | 150               | 390             |