

G1G160-BH29-52

EC centrifugal fan

forward curved, single inlet

with housing (flange)

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County court Stuttgart · HRB 590142

Nominal data

| | | |
|--------------------------|-------------------|----------|
| Type | G1G160-BH29-52 | |
| Motor | M1G074-BF | |
| Nominal voltage | VDC | 24 |
| Nominal voltage range | VDC | 16 .. 28 |
| Type of data definition | | fa |
| Speed | min ⁻¹ | 1750 |
| Power input | W | 105 |
| Current draw | A | 5.8 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | +60 |

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



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Technical features

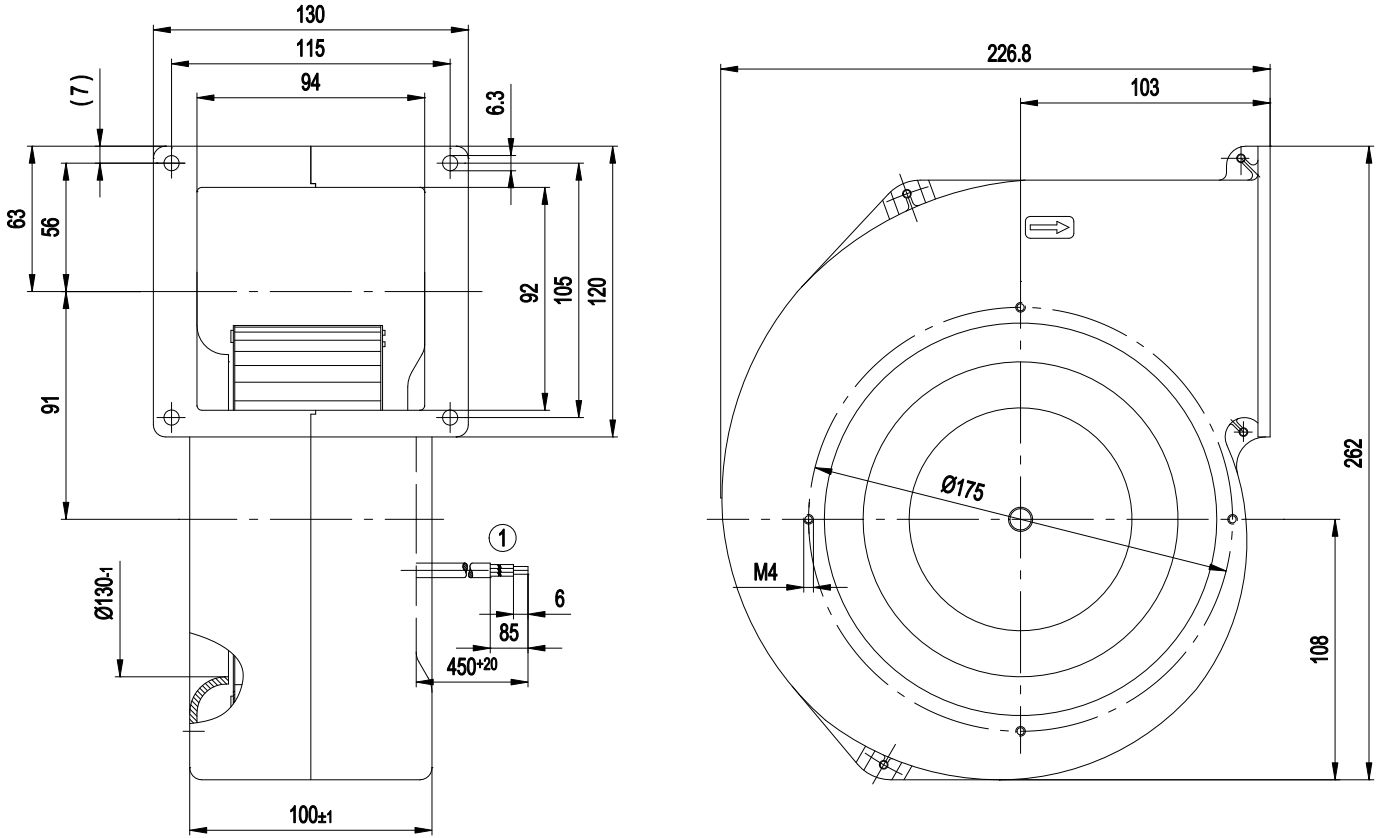
| | |
|--|--|
| Mass | 2.82 kg |
| Size | 160 mm |
| Surface of rotor | Coated in black |
| Material of impeller | Sheet steel, galvanised |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 42 |
| Insulation class | "B" |
| Humidity class | F0 |
| Max. permissible ambient motor temp. (transp./ storage) | +80 °C |
| Min. permissible ambient motor temp. (transp./storage) | -40 °C |
| Mounting position | Any |
| Condensate discharge holes | None |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| EMC interference emission | Acc. to EN 55022 (Class B) |
| Motor protection | Reverse polarity and locked-rotor protection |
| Cable exit | Axial |
| Product conforming to standard | EN 60950-1 |
| Approval | GOST; UL 1004-1; CSA C22.2 Nr.77 |



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Product drawing



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



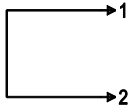
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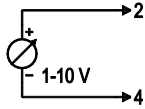
Connection screen

Customer circuit

Full speed

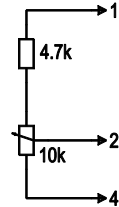


Adjustable speed

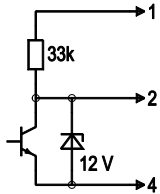


10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start at
Unom -30%
from 4 V Ucontr.

Speed adjustable via potentiometer

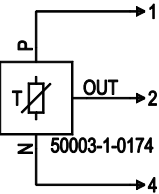


Speed adjustable via PWM 1-10 kHz



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

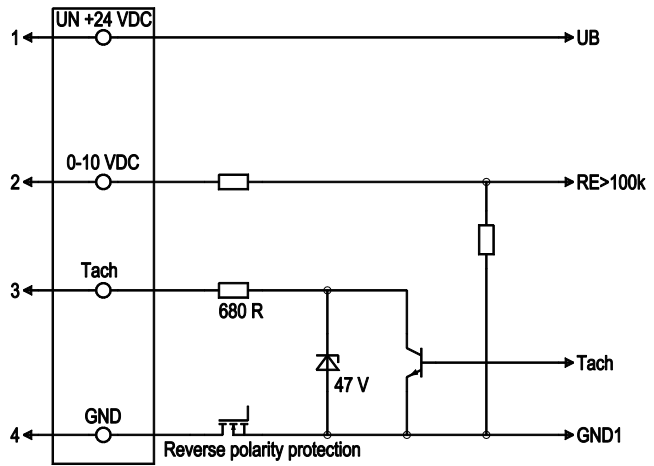
Preset target value via temperature controller



T < 10 °C → n = 0
T > 45 °C → n = max

Connection

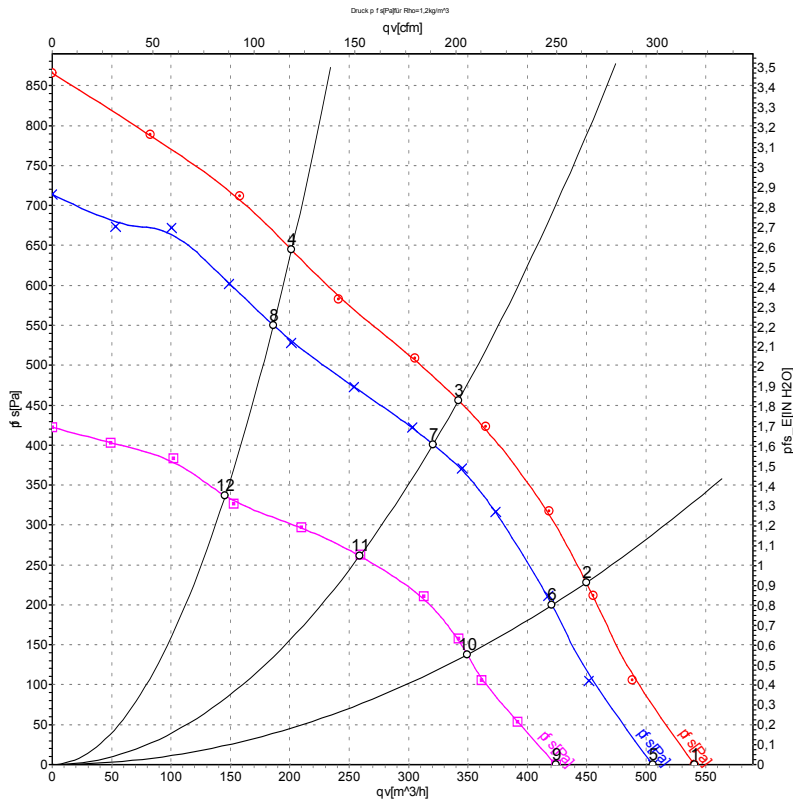
Fan/Motor



| Line | No. | Signal | Colour | Function / assignment |
|------|-----|------------|--------|---|
| 1 | 1 | Un +24 VDC | red | Power supply 24 VDC, residual ripple 3.5 % |
| 1 | 2 | 0-10 VDC | yellow | Control input Re > 100 K |
| 1 | 3 | Tach | white | Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA |
| 1 | 4 | GND | blue | Reference mass |



Charts: Air flow



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

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: L_{WA} measured as per ISO 13347 / L_{pA} 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 _{ed} | I | qv | p _{fs} |
|----|----|-------------------|-----------------|------|-------------------|-----------------|
| | V | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | 28 | 1870 | 134 | 6.43 | 540 | 0 |
| 2 | 28 | 2115 | 121 | 5.54 | 450 | 229 |
| 3 | 28 | 2420 | 110 | 4.82 | 340 | 456 |
| 4 | 28 | 2825 | 102 | 4.20 | 200 | 645 |
| 5 | 24 | 1750 | 105 | 5.80 | 505 | 0 |
| 6 | 24 | 1990 | 99 | 5.02 | 420 | 200 |
| 7 | 24 | 2275 | 91 | 4.43 | 320 | 400 |
| 8 | 24 | 2655 | 83 | 3.86 | 185 | 550 |
| 9 | 16 | 1485 | 63 | 4.48 | 425 | 0 |
| 10 | 16 | 1670 | 57 | 4.01 | 350 | 138 |
| 11 | 16 | 1860 | 49 | 3.42 | 260 | 263 |
| 12 | 16 | 2085 | 41 | 2.85 | 145 | 334 |

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

