**G1G140-AC37-51**

# EC centrifugal fan

forward-curved, single-intake

with housing (flange)

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## Nominal data

| | | |
|---|---|---|
| **Type** | **G1G140-AC37-51** | |
| **Motor** | **M1G074-BF** | |
| Nominal voltage | VDC | 24 |
| Nominal voltage range | VDC | 16 .. 28 |
| Frequency | Hz | - |
| Method of obtaining data | | fa |
| Speed (rpm) | $min^{-1}$ | 2250 |
| Power consumption | W | 100 |
| Current draw | A | 5.0 |
| 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** | 2.5 kg |
| **Fan size** | 140 mm |
| **Rotor surface** | Painted black |
| **Impeller material** | Sheet steel, galvanized |
| **Housing material** | Die-cast aluminum |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP42; installation- and position-dependent |
| **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 |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Tach output<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM |
| **Motor protection** | Reverse polarity and locked-rotor protection |
| **With cable** | Axial |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1 |



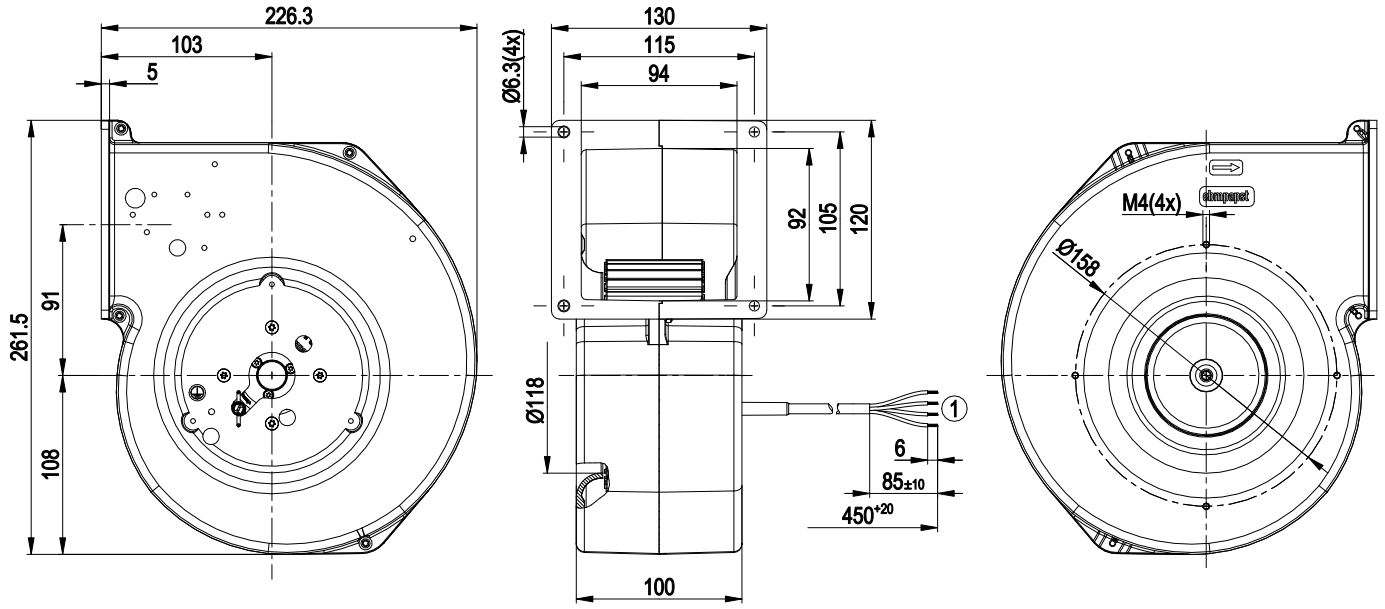
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## Product drawing




| | |
|---|---|
| 1 | Cable PVC AWG20, 4x crimped splices |



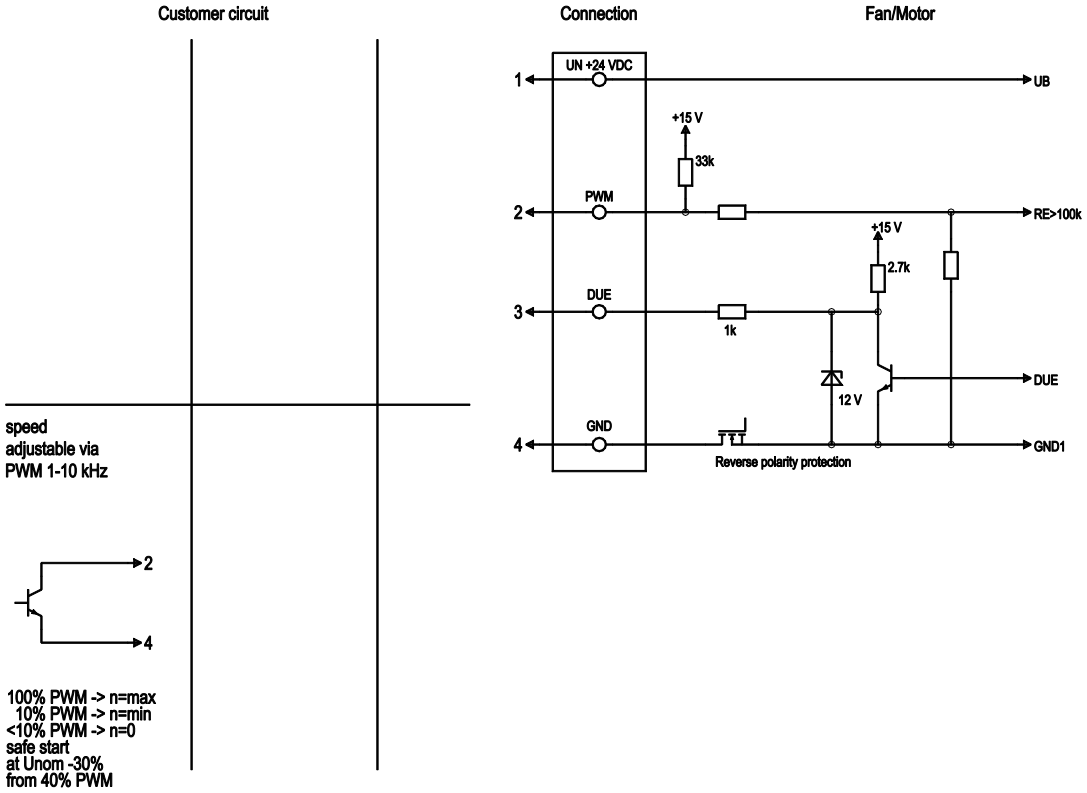
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## Connection diagram




| No. | Conn. | Designation | Color | Function/assignment |
|---|---|---|---|---|
| 1 | 1 | UN +24 VDC | red | Power supply 24 VDC, maximum ripple 3.5 % |
| 1 | 2 | PWM | black | PWM control input |
| 1 | 3 | DUE | white | Tach output, 3 pulses per revolution, Isink max = 10 mA |
| 1 | 4 | GND | blue | Reference ground |



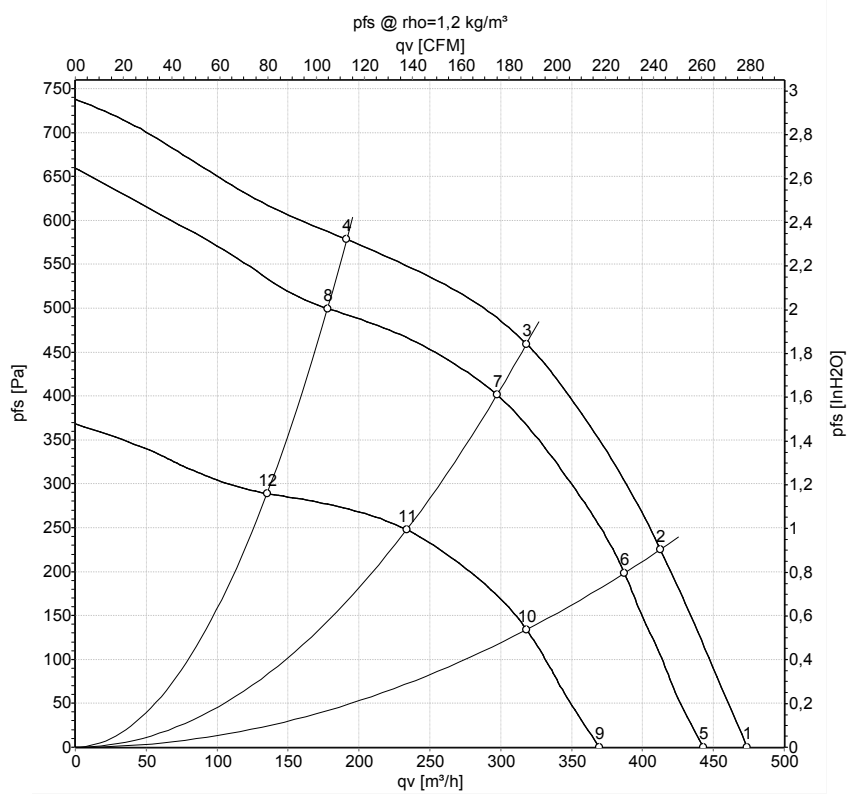
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## Curves: Air performance




Measurement: LU-51630-1
Measurement: LU-51629-1
Measurement: LU-51631-1

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 | 28 | 2430 | 123 | 5.55 | 475 | 0 | 280 | 0.00 |
| 2 | 28 | 2600 | 117 | 5.13 | 415 | 226 | 245 | 0.91 |
| 3 | 28 | 2925 | 108 | 4.51 | 320 | 462 | 185 | 1.85 |
| 4 | 28 | 3370 | 93 | 3.72 | 190 | 579 | 110 | 2.32 |
| 5 | 24 | 2250 | 100 | 5.00 | 445 | 0 | 260 | 0.00 |
| 6 | 24 | 2435 | 96 | 4.69 | 385 | 200 | 230 | 0.80 |
| 7 | 24 | 2735 | 89 | 4.16 | 295 | 400 | 175 | 1.61 |
| 8 | 24 | 3155 | 78 | 3.54 | 180 | 500 | 105 | 2.01 |
| 9 | 16 | 1910 | 58 | 3.98 | 370 | 0 | 220 | 0.00 |
| 10 | 16 | 2010 | 54 | 3.70 | 320 | 134 | 185 | 0.54 |
| 11 | 16 | 2195 | 46 | 3.15 | 235 | 250 | 140 | 1.00 |
| 12 | 16 | 2425 | 36 | 2.50 | 135 | 288 | 80 | 1.16 |

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



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