

G1G097-AA07-01

# EC centrifugal fan

forward-curved, single-intake  
with housing (without flange)



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## Nominal data

|                          |                   |          |
|--------------------------|-------------------|----------|
| Type                     | G1G097-AA07-01    |          |
| Motor                    | M1G045-BE         |          |
| Nominal voltage          | VDC               | 48       |
| Nominal voltage range    | VDC               | 36 .. 57 |
| Method of obtaining data |                   | fa       |
| Speed (rpm)              | min <sup>-1</sup> | 2650     |
| Power consumption        | W                 | 16       |
| 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

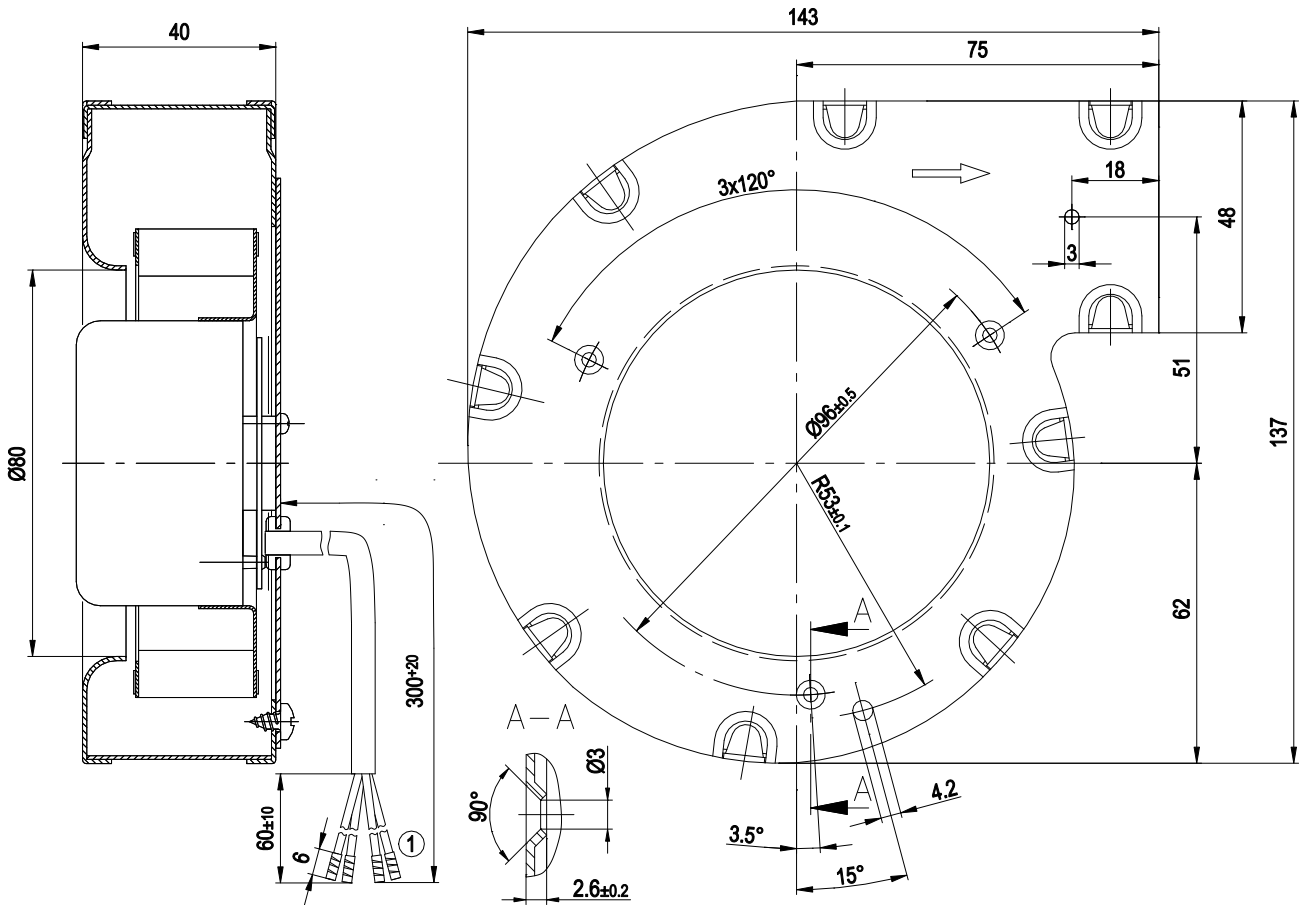
|   |   |
|---|---|
| <b>Weight</b>   | 0.8 kg  |
| <b>Fan size</b>   | 97 mm   |
| <b>Rotor surface</b>  | Thick-film passivated   |
| <b>Impeller material</b>  | Sheet steel, hot-dip galvanized   |
| <b>Housing material</b>   | Sheet steel, hot-dip galvanized   |
| <b>Direction of rotation</b>                                      | Clockwise, viewed toward rotor  |
| <b>Degree of protection</b>                                       | IP22  |
| <b>Insulation class</b>   | "B"   |
| <b>Moisture (F) / Environmental (H) protection class</b>          | H0 - dry environment  |
| <b>Max. permitted ambient temp. for motor (transport/storage)</b> | + 80 °C   |
| <b>Min. permitted ambient temp. for motor (transport/storage)</b> | - 40 °C   |
| <b>Installation position</b>                                      | Any   |
| <b>Condensation drainage holes</b>                                | None  |
| <b>Mode</b>   | S1  |
| <b>Motor bearing</b>  | Ball bearing  |
| <b>Technical features</b>   | <ul style="list-style-type: none"> <li>- Tach output</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> </ul> |
| <b>Motor protection</b>   | Reverse polarity and locked-rotor protection  |
| <b>With cable</b>   | Axial   |
| <b>Conformity with standards</b>                                  | EN 60950-1  |
| <b>Approval</b>   | EAC   |



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## Product drawing



1 Cable PVC AWG22, 4 x crimped splices



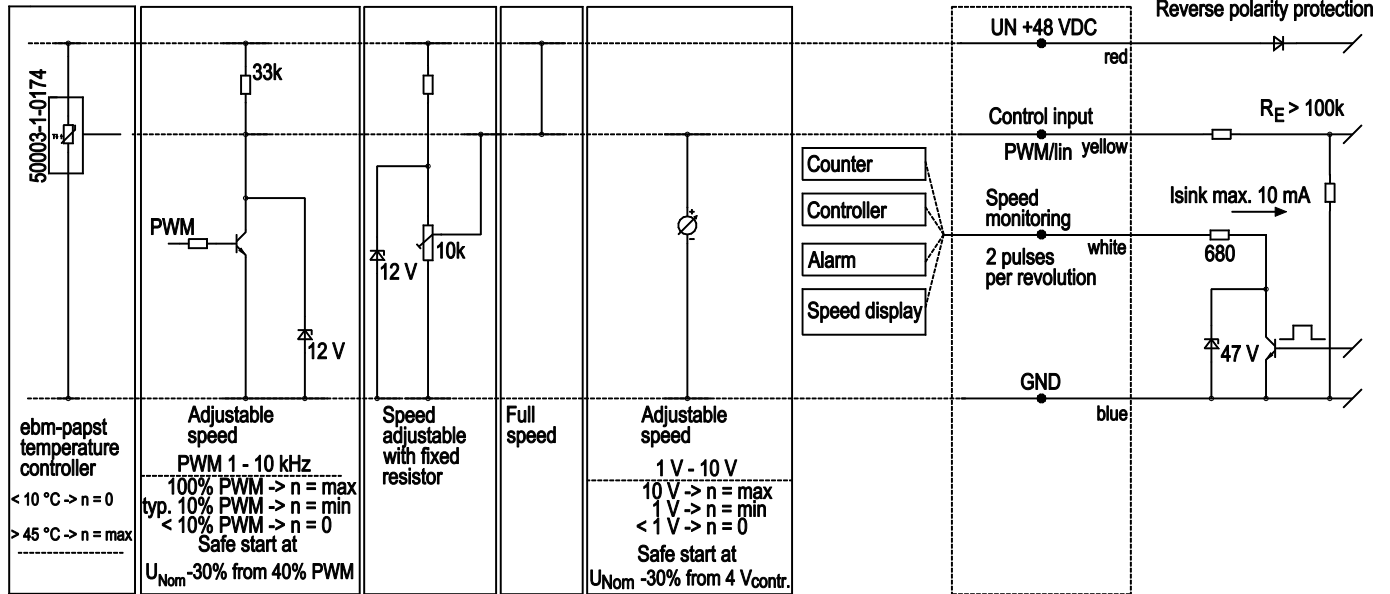
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## Connection diagram

Customer circuit

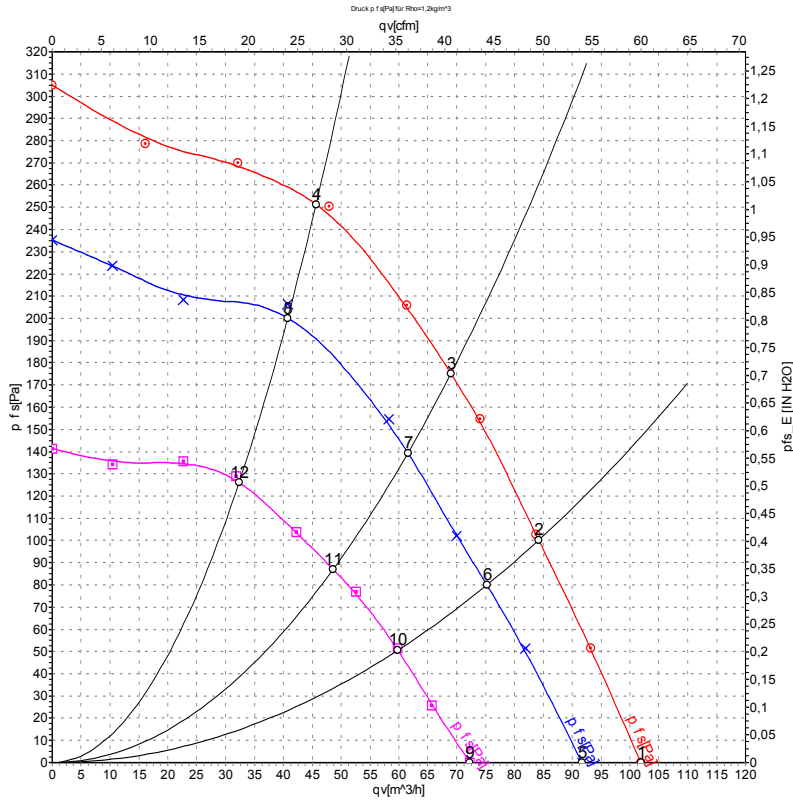
Application notes for various control options



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## Curves: Air performance



Measurement: LU-44117-1  
Measurement: LU-44116-1  
Measurement: LU-44118-1

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 <sub>ed</sub> | I    | q <sub>v</sub>    | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub>    |
|----|----|-------------------|-----------------|------|-------------------|-----------------|----------------|--------------------|
|    | V  | min <sup>-1</sup> | W               | A    | m <sup>3</sup> /h | Pa              | cfm            | inH <sub>2</sub> O |
| 1  | 56 | 2820              | 19              | 0.39 | 100               | 0               | 60             | 0.00               |
| 2  | 56 | 2990              | 17              | 0.34 | 85                | 100             | 50             | 0.40               |
| 3  | 56 | 3140              | 15              | 0.30 | 70                | 175             | 40             | 0.70               |
| 4  | 56 | 3385              | 12              | 0.24 | 45                | 253             | 25             | 1.02               |
| 5  | 48 | 2550              | 14              | 0.33 | 90                | 0               | 55             | 0.00               |
| 6  | 48 | 2695              | 12              | 0.29 | 75                | 80              | 45             | 0.32               |
| 7  | 48 | 2820              | 11              | 0.26 | 60                | 140             | 35             | 0.56               |
| 8  | 48 | 3030              | 8.6             | 0.21 | 40                | 200             | 25             | 0.80               |
| 9  | 36 | 2080              | 7.9             | 0.25 | 70                | 0               | 40             | 0.00               |
| 10 | 36 | 2180              | 7.0             | 0.22 | 60                | 51              | 35             | 0.20               |
| 11 | 36 | 2280              | 6.1             | 0.20 | 50                | 87              | 30             | 0.35               |
| 12 | 36 | 2415              | 5.0             | 0.17 | 30                | 128             | 20             | 0.51               |

U = Power supply · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

