**R3G150-AA03-05**

# EC centrifugal fan

single inlet

R3G150-AA03-05 ebmpapst Datasheet
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## Nominal data

| | |
|---|---|
| **Type** | **R3G150-AA03-05** |
| **Motor** | **M3G055-AI** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed (rpm) | $min^{-1}$ | 3450 |
| Power input | W | 50 |
| Current draw | A | 0.44 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 50 |

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** | 1.2 kg |
| **Size** | 150 mm |
| **Surface of rotor** | Thick layer passivated |
| **Material of terminal box** | PA plastic |
| **Material of impeller** | Sheet steel, stainless |
| **Material of mounting plate** | Sheet steel, galvanised |
| **Number of blades** | 6 |
| **Motor suspension** | Motor anti-vibration mounted on one side via mounting plate |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 54 |
| **Insulation class** | "B" |
| **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, open rotor |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Tach output<br>- Motor current limit<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- Control interface with SELV potential safely disconnected from the mains<br>- Over-temperature protected motor |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Electrical leads** | Via terminal box |
| **Motor protection** | Locked-rotor protection |
| **Cable exit** | Variable |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1; CE |

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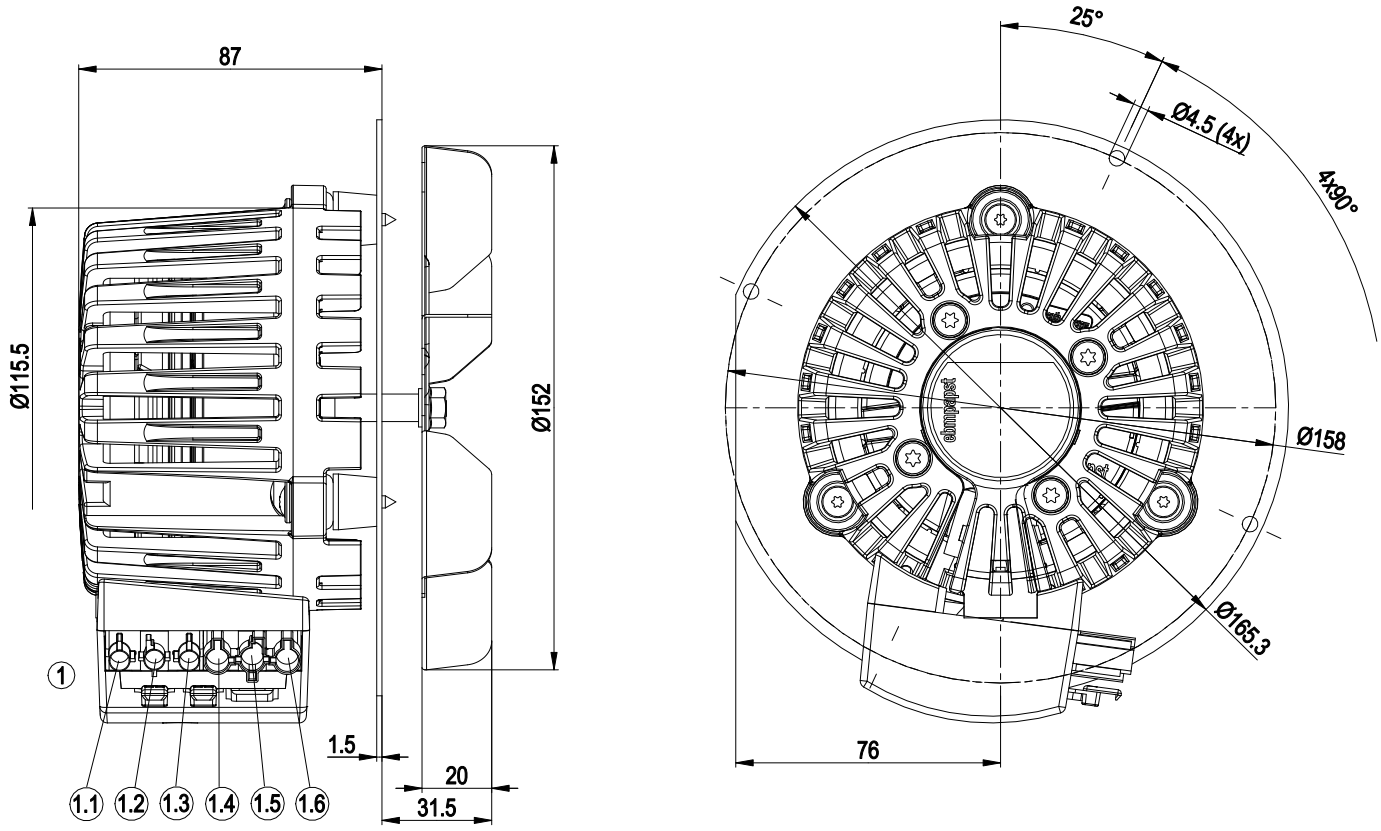
## Product drawing




| | |
|---|---|
| 1 | Connector housing 3-pole Wieland 93.031.3257.0 |
| 1 | Connector housing 3-pole Wieland 93.031.3757.0 |
| 1.1 | N (blue) |
| 1.2 | PE (green/yellow) |
| 1.3 | L (black) |
| 1.4 | 0-10 V PWM (yellow) |
| 1.5 | GND (blue) |
| 1.6 | Tach (white) |

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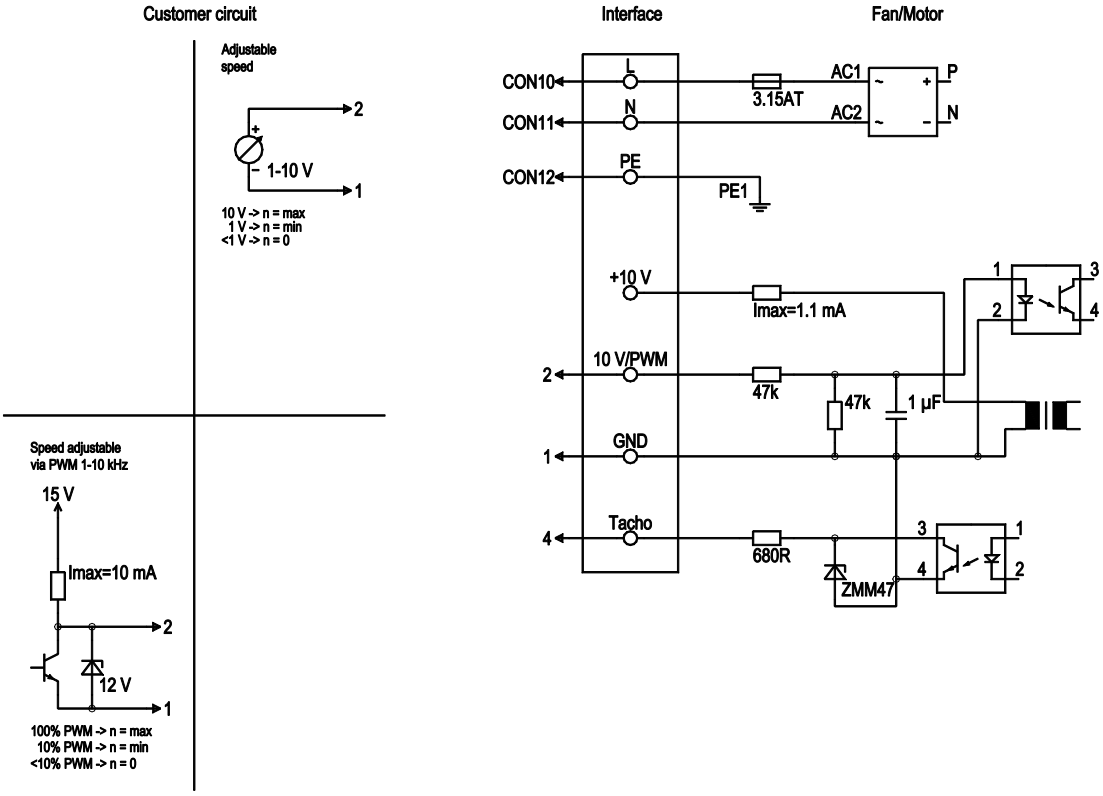
## Connection screen




| No. | Conn. | Designation | Colour | Function / assignment |
|---|---|---|---|---|
| | CON10 | L | black | Power supply 230 VAC, 50-60 Hz, see type plate for voltage range |
| | CON11 | N | blue | Neutral conductor |
| | CON12 | PE | green/yellow | Protective earth |
| | 1 | GND | blue | GND connection for control interface |
| | 2 | 0- 10V PWM | yellow | Control input 0-10 V or PWM, electrically isolated |
| | 4 | Tach | white | Tach output: open collector, 1 pulse per revolution, electrically isolated |

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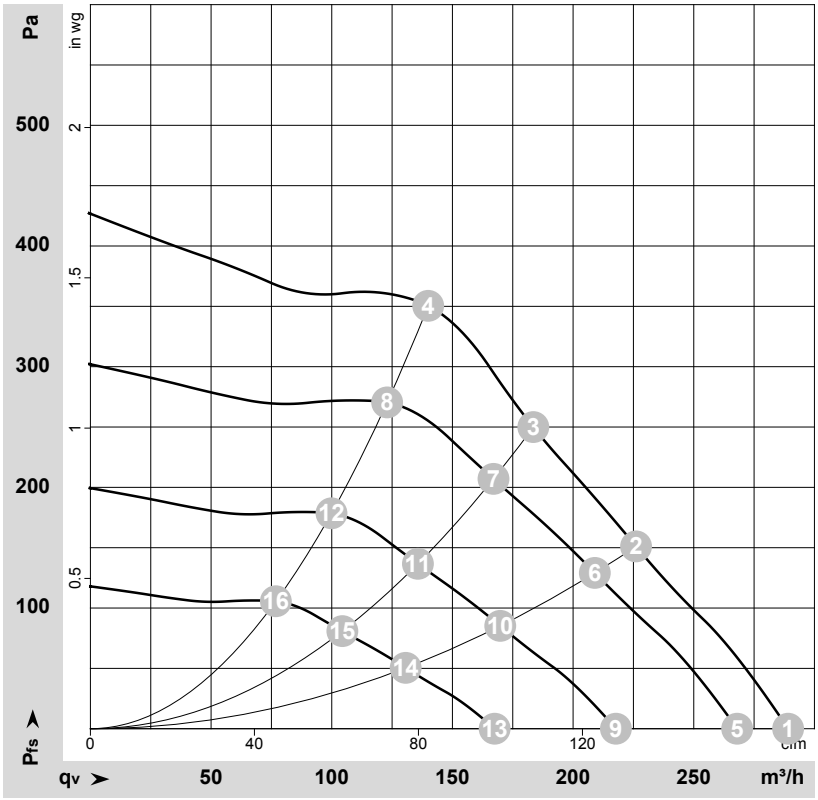
## Charts: Air flow 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170669-1

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 | f | n | $P_{ed}$ | I | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 50 | 3450 | 50 | 0.44 | 290 | 0 | 170 | 0.00 |
| 2 | 230 | 50 | 3460 | 50 | 0.44 | 225 | 150 | 135 | 0.60 |
| 3 | 230 | 50 | 3510 | 47 | 0.41 | 185 | 250 | 110 | 1.00 |
| 4 | 230 | 50 | 3610 | 42 | 0.35 | 140 | 350 | 80 | 1.41 |
| 5 | 230 | 50 | 3200 | 40 | 0.35 | 270 | 0 | 160 | 0.00 |
| 6 | 230 | 50 | 3200 | 39 | 0.35 | 210 | 129 | 125 | 0.52 |
| 7 | 230 | 50 | 3200 | 36 | 0.31 | 165 | 207 | 100 | 0.83 |
| 8 | 230 | 50 | 3200 | 29 | 0.25 | 125 | 271 | 70 | 1.09 |
| 9 | 230 | 50 | 2600 | 21 | 0.19 | 220 | 0 | 130 | 0.00 |
| 10 | 230 | 50 | 2600 | 21 | 0.19 | 170 | 85 | 100 | 0.34 |
| 11 | 230 | 50 | 2600 | 19 | 0.17 | 135 | 136 | 80 | 0.55 |
| 12 | 230 | 50 | 2600 | 15 | 0.13 | 100 | 179 | 60 | 0.72 |
| 13 | 230 | 50 | 2000 | 10.0 | 0.09 | 165 | 0 | 100 | 0.00 |
| 14 | 230 | 50 | 2000 | 10.0 | 0.08 | 130 | 50 | 75 | 0.20 |
| 15 | 230 | 50 | 2000 | 9.0 | 0.08 | 105 | 81 | 60 | 0.33 |
| 16 | 230 | 50 | 2000 | 7.0 | 0.06 | 75 | 106 | 45 | 0.43 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power input · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase