**R3G190-RB01-09**

# EC centrifugal fan - RadiCal®

backward curved, single inlet



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## Nominal data

| | |
|---|---|
| **Type** | **R3G190-RB01-09** |
| **Motor** | **M3G055-BD** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | $min^{-1}$ | 2710 |
| Power input | W | 57 |
| Current draw | A | 0.43 |
| 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** | 1 kg |
| **Size** | 190 mm |
| **Surface of rotor** | Thick layer passivated |
| **Material of impeller** | PA plastic |
| **Number of blades** | 7 |
| **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** | - Speed adjustment input (230 V)<br>- Motor current limit<br>- Soft start<br>- Over-temperature protected electronics / motor |
| **Speed steps** | 2 |
| **EMC interference immunity** | Acc. to EN 61000-6-2 (industrial environment) |
| **EMC harmonics** | Acc. to EN 61000-3-2/3 |
| **EMC interference emission** | Acc. to EN 61000-6-3 (household environment) |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Electrical leads** | With plug |
| **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 |

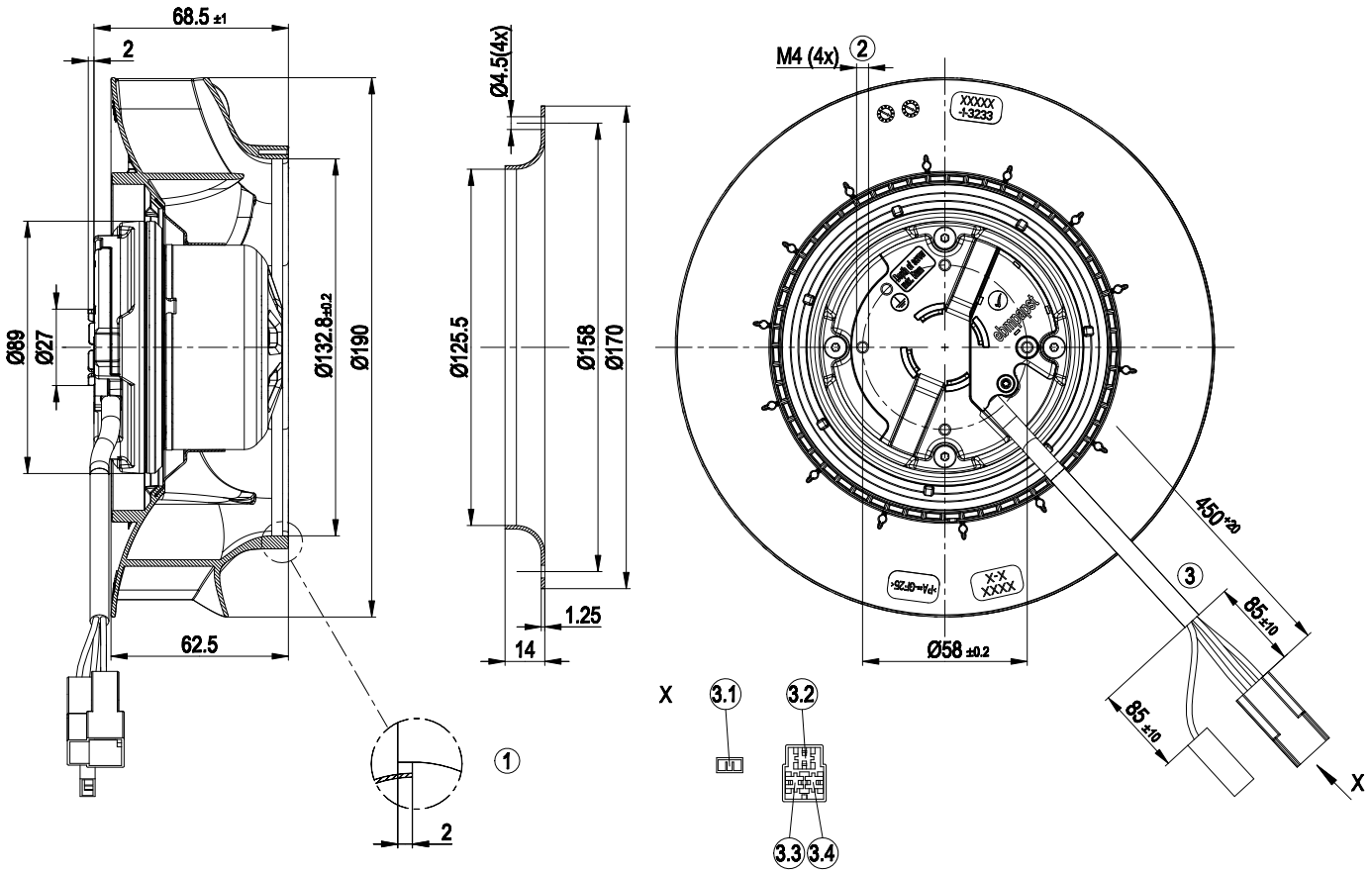


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## Product drawing




| | |
|---|---|
| 1 | Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery |
| 2 | Depth of screw max. 5 mm |
| 3 | Connection line PVC 4G 0.5mm², connector shell Stocko VV2027.100-G with 3x flat plug 6.3 - 0.8 and connector shell Stocko VV2023.200-G with receptacle for tabs 6.3 - 1 |
| 3.1 | PE (green/yellow) |
| 3.2 | SL (brown) |
| 3.3 | L (black) |
| 3.4 | N (blue) |

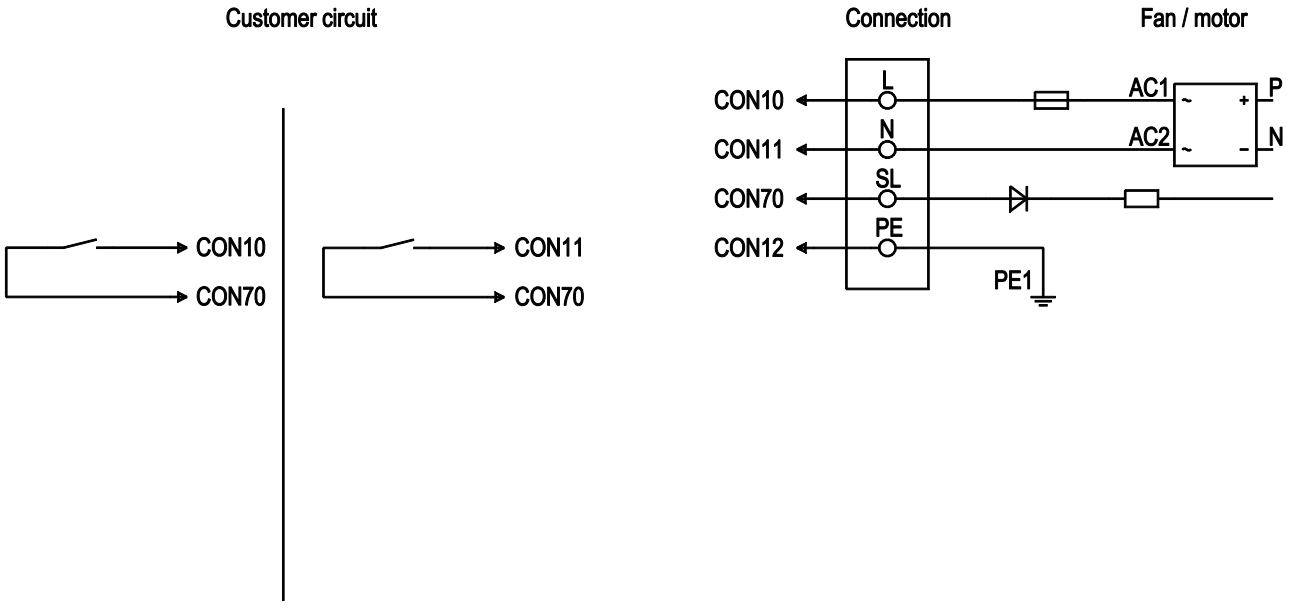


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## Connection screen




| No. | Conn. | Designation | Colour | Function / assignment |
|---|---|---|---|---|
| | CON 10 | L | black | Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range |
| | CON 11 | N | blue | Neutral conductor |
| | CON 12 | PE | green/yellow | Protective earth |
| | CON 70 | SL | brown | Speed selection: switch open = speed 1; switch closed = speed 2 |

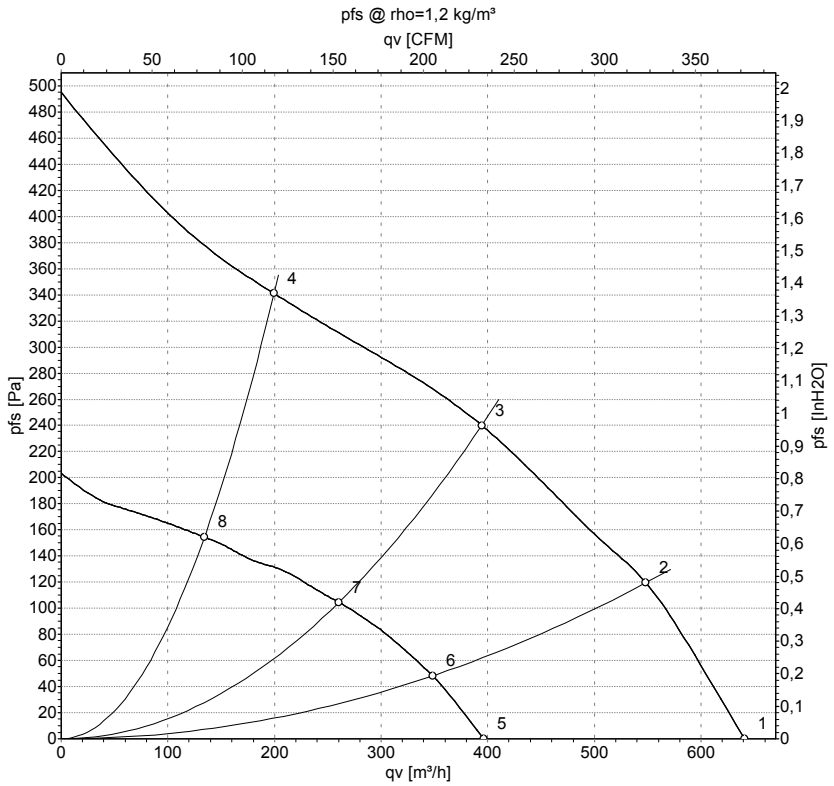


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## Charts: Air flow 50 Hz




Measurement: LU-125487
Measurement: LU-149761

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 | $LpA_{in}$ | $LwA_{in}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa |
| 1 | 230 | 50 | 2880 | 49 | 0.36 | 61 | 69 | 640 | 0 |
| 2 | 230 | 50 | 2825 | 52 | 0.40 | 56 | 64 | 550 | 120 |
| 3 | 230 | 50 | 2710 | 57 | 0.43 | 54 | 63 | 395 | 240 |
| 4 | 230 | 50 | 2810 | 52 | 0.40 | 60 | 68 | 200 | 340 |
| 5 | 230 | 50 | 1965 | 17 | 0.22 | | | 395 | 0 |
| 6 | 230 | 50 | 1960 | 18 | 0.21 | | | 350 | 48 |
| 7 | 230 | 50 | 1910 | 20 | 0.22 | | | 260 | 105 |
| 8 | 230 | 50 | 1945 | 18 | 0.21 | | | 135 | 155 |

U = Supply voltage · f = Frequency · n = Speed · $P_{ed}$ = Power input · I = Current draw · $LpA_{in}$ = Sound pressure level inlet side · $LwA_{in}$ = Sound power level inlet side · qv = Air flow
$p_{fs}$ = Pressure increase



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