

for solid fuel heating systems

R2E180-CG82-40 ebmpapst Datasheet

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## Nominal data

|                               |                   |         |
|-------------------------------|-------------------|---------|
| Type                          | R2E180-CG82-40    |         |
| Motor                         | M2E068-CF         |         |
| Phase                         |                   | 1~      |
| Nominal voltage               | VAC               | 230     |
| Frequency                     | Hz                | 50      |
| Type of data definition       |                   | fa      |
| Valid for approval / standard |                   | CE      |
| Speed (rpm)                   | min <sup>-1</sup> | 2530    |
| Power input                   | W                 | 68      |
| Current draw                  | A                 | 0.30    |
| Motor capacitor               | µF                | 2       |
| Capacitor voltage             | VDB               | 400     |
| Capacitor standard            |                   | S0 (CE) |
| Min. back pressure            | Pa                | 0       |
| Min. ambient temperature      | °C                | -25     |
| Max. ambient temperature      | °C                | 60      |

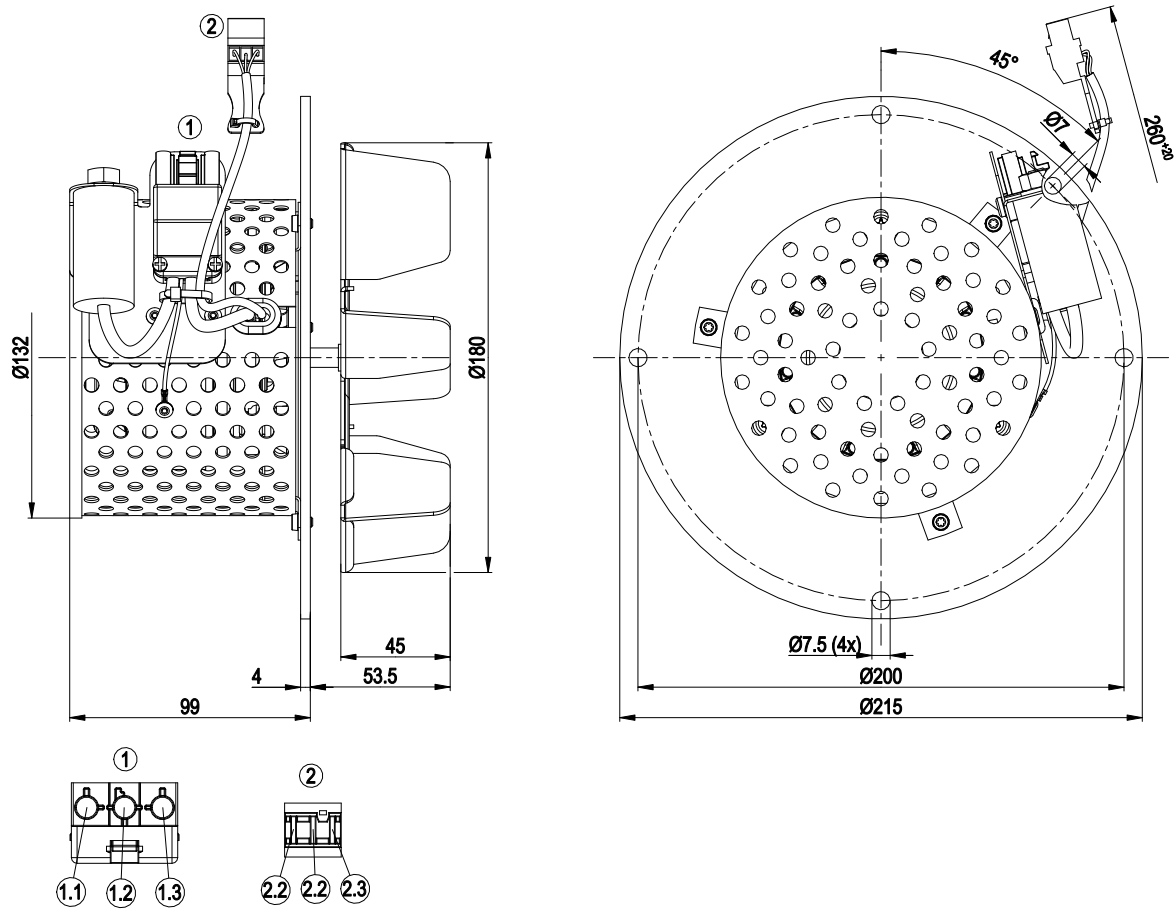
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations



### Technical features

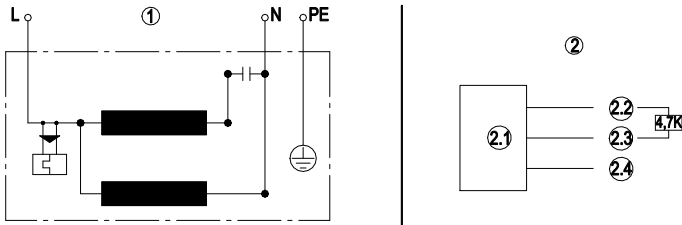
|  |   |
|--|---|
| Mass   | 3.6 kg  |
| Size   | 180 mm  |
| Surface of rotor   | Uncoated  |
| Material of impeller   | Sheet steel, rust-resistant                                 |
| Number of blades   | 6   |
| Motor suspension   | Motor anti-vibration mounted on one side via mounting plate |
| Direction of rotation  | Clockwise, seen on rotor                                    |
| Type of protection   | IP 44; Depending on installation and position               |
| Insulation class   | "F"   |
| Humidity (F)/environmental protection class (H)                    | H0 - dry environment  |
| 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  |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA   |
| Motor protection   | Thermal overload protector (TOP) wired internally           |
| Cable exit   | Variable  |
| Protection class   | I (if protective earth is connected by customer)            |
| Motor capacitor according to EN 60252-1 in safety protection class | S0  |
| Product conforming to standard                                     | EN 60335-1; CE  |

Product drawing



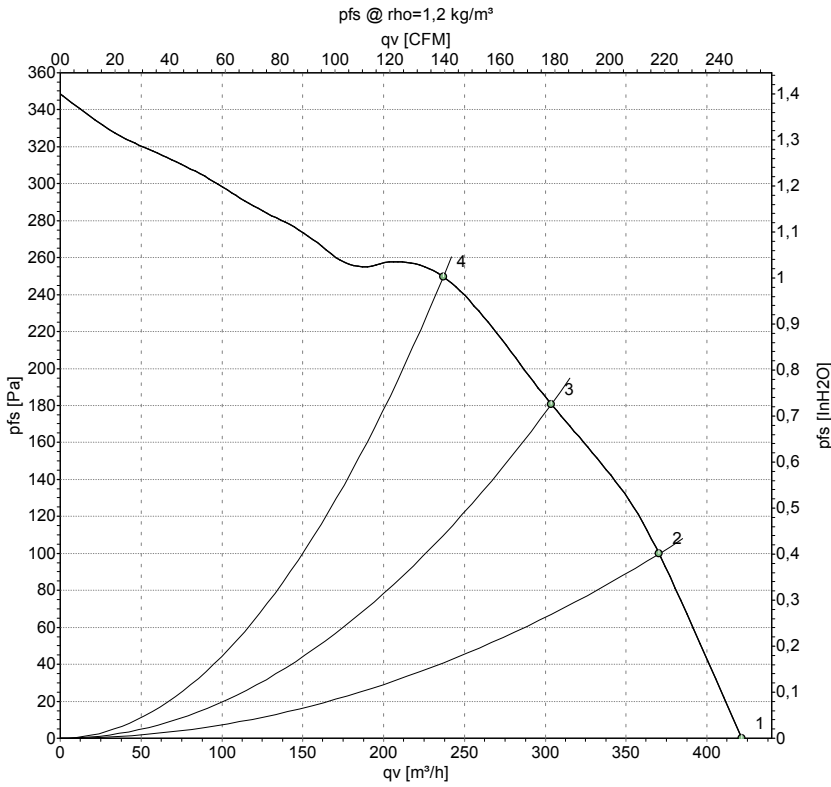
|     |  |
|-----|--|
| 1   | Connector housing Lumberg 3615-1 03 K02  |
| 1.1 | N (black + capacitor)  |
| 1.2 | PE (green/yellow)  |
| 1.3 | L (blue)   |
| 2   | Connection line Raychem Spec. 44, AWG24, connector housing 3-pole Lumberg 3615-1 |
| 2.1 | 0 V (black)  |
| 2.2 | out (white)  |
| 2.3 | +5 V (red)   |

## Connection screen



|     |                        |
|-----|------------------------|
| 1   | Fan connection diagram |
| L   | blue                   |
| N   | black                  |
| PE  | green/yellow           |
| 2   | Hall IC circuit        |
| 2.1 | Hall IC                |
| 2.2 | Red (+5V)              |
| 2.3 | White (out)            |
| 2.4 | Black (0V)             |

## Charts: Air flow 50 Hz



Measurement: LU-144749-1

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: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub> | I    | q <sub>v</sub>    | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | cfm            | inH2O           |
| 1 | 230 | 50 | 2530              | 68             | 0.30 | 420               | 0               | 250            | 0.00            |
| 2 | 230 | 50 | 2520              | 68             | 0.30 | 370               | 100             | 220            | 0.40            |
| 3 | 230 | 50 | 2540              | 66             | 0.29 | 305               | 180             | 180            | 0.72            |
| 4 | 230 | 50 | 2590              | 62             | 0.27 | 235               | 250             | 140            | 1.00            |

U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

