

K4E310-AB05-09 ebmpapst Datasheet  
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## Nominal data

|                               |                   |      |      |
|-------------------------------|-------------------|------|------|
| Type                          | K4E310-AB05-09    |      |      |
| Motor                         | M4E074-EI         |      |      |
| Phase                         |                   | 1~   | 1~   |
| Nominal voltage               | VAC               | 230  | 230  |
| Frequency                     | Hz                | 50   | 60   |
| Type of data definition       |                   | ml   | ml   |
| Valid for approval / standard |                   | CE   | CE   |
| Speed                         | min <sup>-1</sup> | 1390 | 1580 |
| Power input                   | W                 | 150  | 205  |
| Current draw                  | A                 | 0.72 | 0.90 |
| Motor capacitor               | µF                | 4    | 4    |
| Capacitor voltage             | VDB               | 400  | 400  |
| Min. back pressure            | Pa                | 0    | 0    |
| Min. ambient temperature      | °C                | -25  | -25  |
| Max. ambient temperature      | °C                | 70   | 80   |
| Starting current              | A                 | 1.88 | 1.8  |

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

## Data according to ErP directive

|                       |        |
|-----------------------|--------|
| Installation category | A      |
| Efficiency category   | Static |
| Variable speed drive  | No     |
| Specific ratio*       | 1.00   |

\* Specific ratio =  $1 + p_g / 100\,000\text{ Pa}$

|                                |                   | Actual | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency $\eta_{es}$ | %                 | 38.5   | 38.5         | 42.5         |
| Efficiency grade N             |                   | 58     | 58           | 62           |
| Power input $P_e$              | kW                | 0.14   |              |              |
| Air flow $q_v$                 | m <sup>3</sup> /h | 1105   |              |              |
| Pressure increase $p_{fs}$     | Pa                | 179    |              |              |
| Speed n                        | min <sup>-1</sup> | 1390   |              |              |

Data definition with optimum efficiency.  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



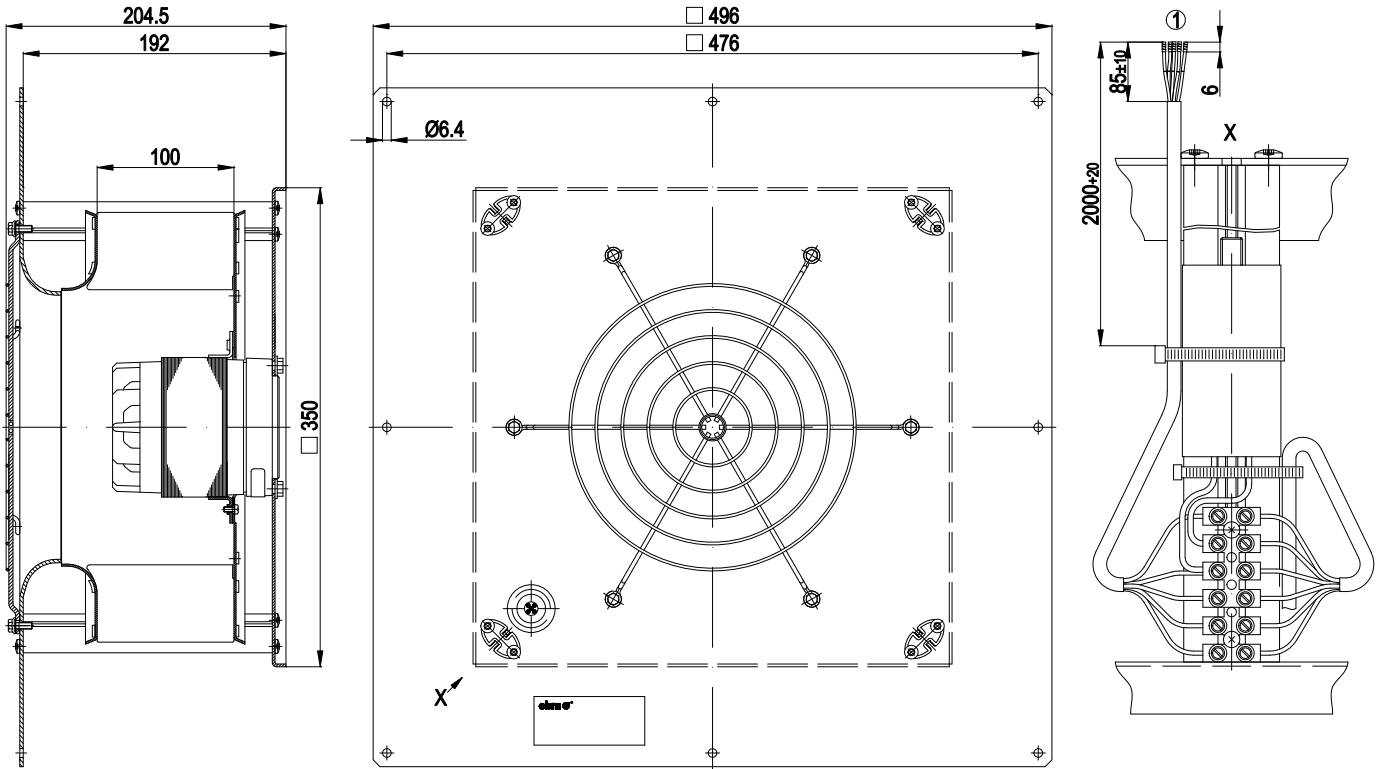
## Technical features

|  |   |
|--|---|
| Mass   | 7.7 kg  |
| Size   | 310 mm  |
| Surface of rotor   | Coated in black   |
| Material of impeller   | Aluminium sheet, joined by tabs   |
| Material of distancing profiles                                    | Aluminium   |
| Material of inlet nozzle   | Aluminium sheet   |
| Material of guard grille   | Steel, phosphated and coated in black plastic                           |
| Direction of rotation  | Clockwise, seen on rotor  |
| Type of protection   | IP 00   |
| Insulation class   | "B"   |
| Humidity class   | F1-2  |
| 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   |
| Electrical leads   | Via terminal strips, integrated capacitor connected via terminal strips |
| Motor protection   | Thermal overload protector (TOP) brought out                            |
| Cable exit   | Variable  |
| Protection class   | I (if protective earth is connected by customer)                        |
| Product conforming to standard                                     | EN 60335-1; CE  |

# AC centrifugal module

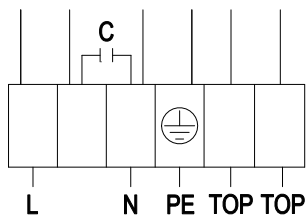
backward curved  
with support plate

## Product drawing



1 Plastic sheathed flexible cable, 5x brass lead tips crimped

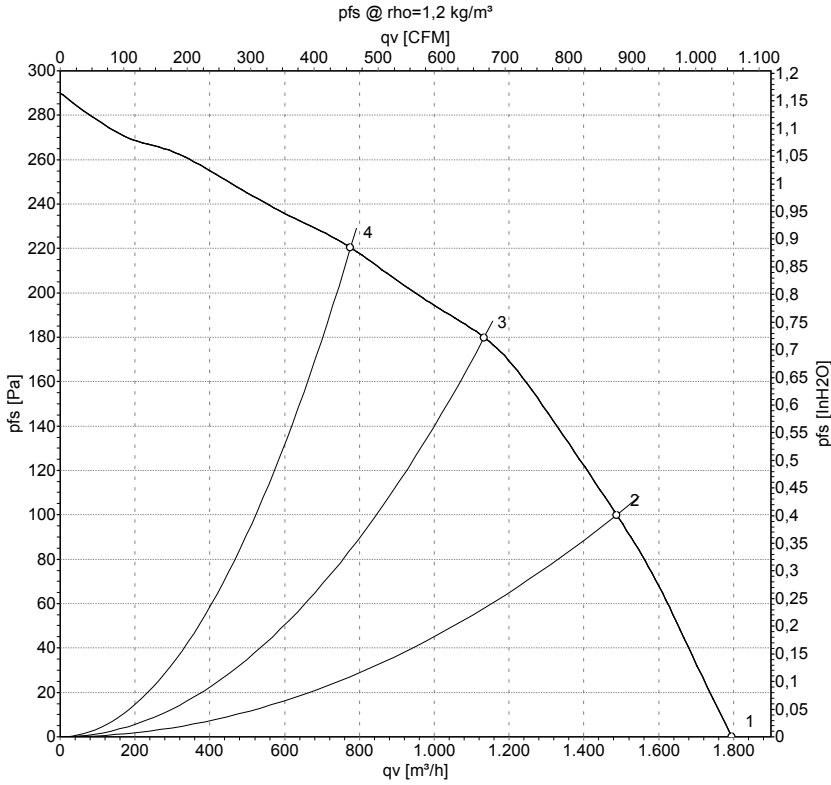
## Connection screen



|     |      |   |       |    |              |
|-----|------|---|-------|----|--------------|
| L   | blue | N | black | PE | green/yellow |
| TOP | grey |   |       |    |              |



## Charts: Air flow 50 Hz



Measurement: LU-144769

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.

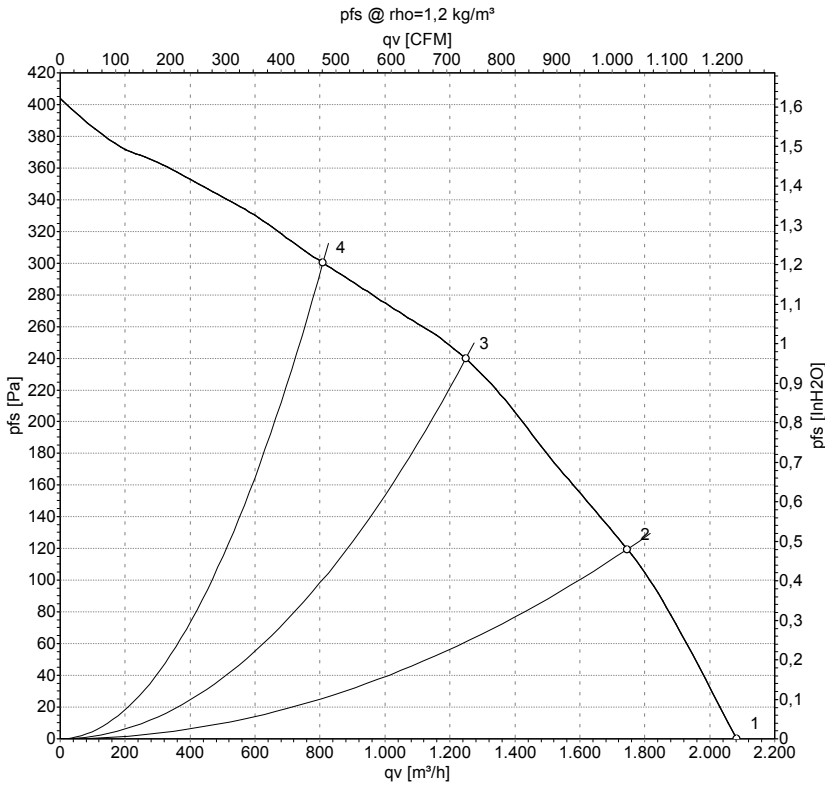
## Measured values

|   | U   | f  | n                 | P <sub>e</sub> | I    | qv                | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1 | 230 | 50 | 1415              | 132            | 0.67 | 1795              | 0               |
| 2 | 230 | 50 | 1400              | 144            | 0.70 | 1490              | 100             |
| 3 | 230 | 50 | 1390              | 150            | 0.72 | 1135              | 180             |
| 4 | 230 | 50 | 1400              | 141            | 0.69 | 775               | 220             |

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



## Charts: Air flow 60 Hz



Measurement: LU-145223

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 <sub>e</sub> | I    | qv   | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | 230 | 60 | 1640              | 172            | 0.75 | 2080 | 0               |
| 2 | 230 | 60 | 1610              | 191            | 0.83 | 1745 | 120             |
| 3 | 230 | 60 | 1580              | 205            | 0.90 | 1250 | 240             |
| 4 | 230 | 60 | 1610              | 187            | 0.82 | 810  | 300             |

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

