

## AC axial fan

sickled blades (S series)

Wall ring with guard grille

W4E350-IR06-04 ebmpapst Datasheet

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## Nominal data

|                               |                   |         |         |
|-------------------------------|-------------------|---------|---------|
| Type                          | W4E350-IR06-04    |         |         |
| Motor                         | M4E068-EC         |         |         |
| Phase                         |                   | 1~      | 1~      |
| Nominal voltage               | VAC               | 230     | 230     |
| Frequency                     | Hz                | 50      | 60      |
| Type of data definition       |                   | fa      | fa      |
| Valid for approval / standard |                   | CE      | CE      |
| Speed                         | min <sup>-1</sup> | 1365    | 1530    |
| Power input                   | W                 | 132     | 180     |
| Current draw                  | A                 | 0.58    | 0.8     |
| Motor capacitor               | μF                | 5       | 5       |
| Capacitor voltage             | VDB               | 400     | 400     |
| Capacitor standard            |                   | P0 (CE) | P0 (CE) |
| Max. back pressure            | Pa                | 90      | 65      |
| Min. ambient temperature      | °C                | -25     | -25     |
| Max. ambient temperature      | °C                | 60      | 50      |
| Starting current              | A                 | 1.4     | 1.3     |

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 =  $1 + p_{fs} / 100\,000\text{ Pa}$

|                                | Actual            | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------------|--------------|
| Overall efficiency $\eta_{es}$ | 26.3              | 24.6         | 28.6         |
| Efficiency grade N             | 37.7              | 36           | 40           |
| Power input $P_e$              | kW                | 0.16         |              |
| Air flow $q_v$                 | m <sup>3</sup> /h | 2095         |              |
| Pressure increase $p_{fs}$     | Pa                | 73           |              |
| Speed n                        | min <sup>-1</sup> | 1285         |              |

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



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## Technical features

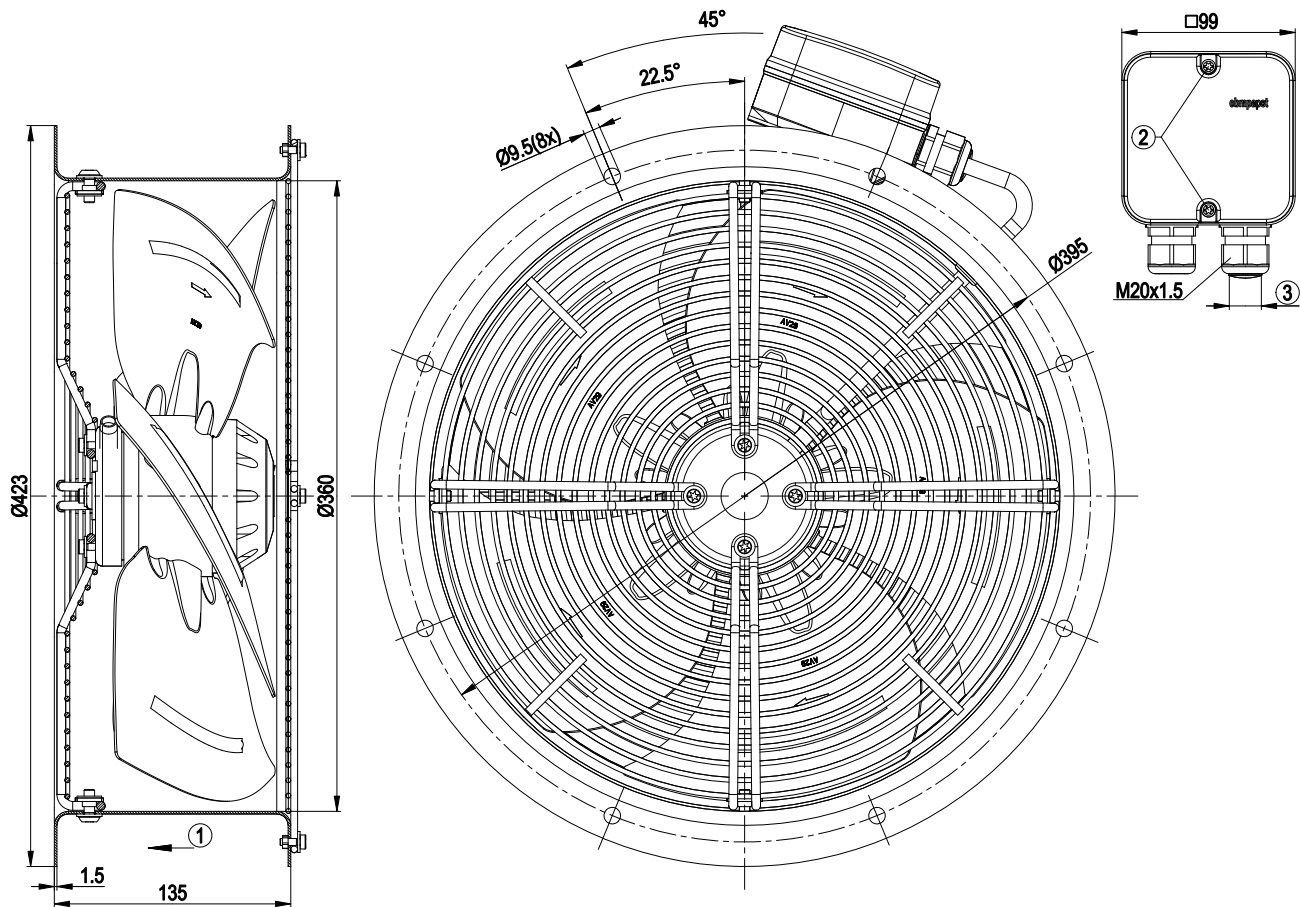
|                                                                    |                                                                             |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Mass                                                               | 7.3 kg                                                                      |
| Size                                                               | 350 mm                                                                      |
| Surface of rotor                                                   | Coated in black                                                             |
| Material of terminal box                                           | ABS plastic                                                                 |
| Material of blades                                                 | Sheet steel, coated in black                                                |
| Material of wall ring                                              | Sheet steel, pre-galvanised, primed, and coated in black plastic (RAL 9005) |
| Material of guard grille                                           | Steel, coated in black plastic (RAL9005)                                    |
| Number of blades                                                   | 5                                                                           |
| Direction of air flow                                              | "V"                                                                         |
| Direction of rotation                                              | Counter-clockwise, seen on rotor                                            |
| Type of protection                                                 | IP 44; Depending on installation and position                               |
| Insulation class                                                   | "F"                                                                         |
| Humidity class                                                     | F5                                                                          |
| 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 box, integrated capacitor connected via terminal box           |
| Motor protection                                                   | Thermal overload protector (TOP) wired internally                           |
| Cable exit                                                         | Lateral                                                                     |
| Protection class                                                   | I (if protective earth is connected by customer)                            |
| Product conforming to standard                                     | EN 60335-1; CE                                                              |



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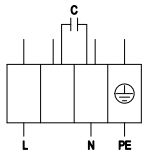
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## Product drawing



- |   |                                                                          |
|---|--------------------------------------------------------------------------|
| 1 | Direction of air flow "V"                                                |
| 2 | Tightening torque $0.8 \pm 0.15$ Nm                                      |
| 3 | Cable diameter: min. 7 mm, max. 14 mm, tightening torque: $2 \pm 0.3$ Nm |

## Connection screen

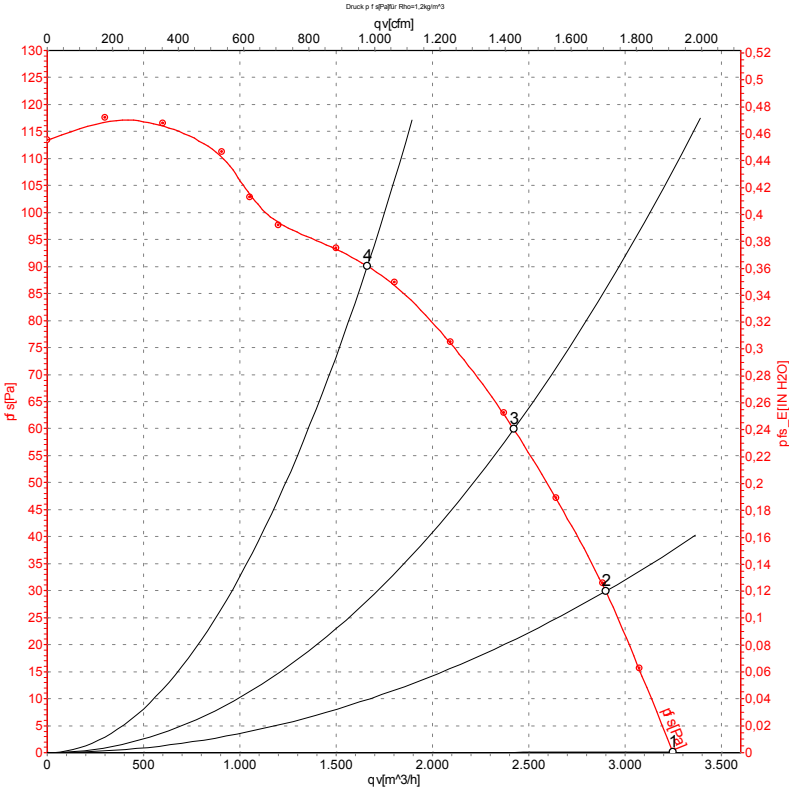


|    |                |   |       |   |      |
|----|----------------|---|-------|---|------|
| PE | green / yellow | L | black | N | blue |
|----|----------------|---|-------|---|------|



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Charts: Air flow 50 Hz



Measurement: LU-67365

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.

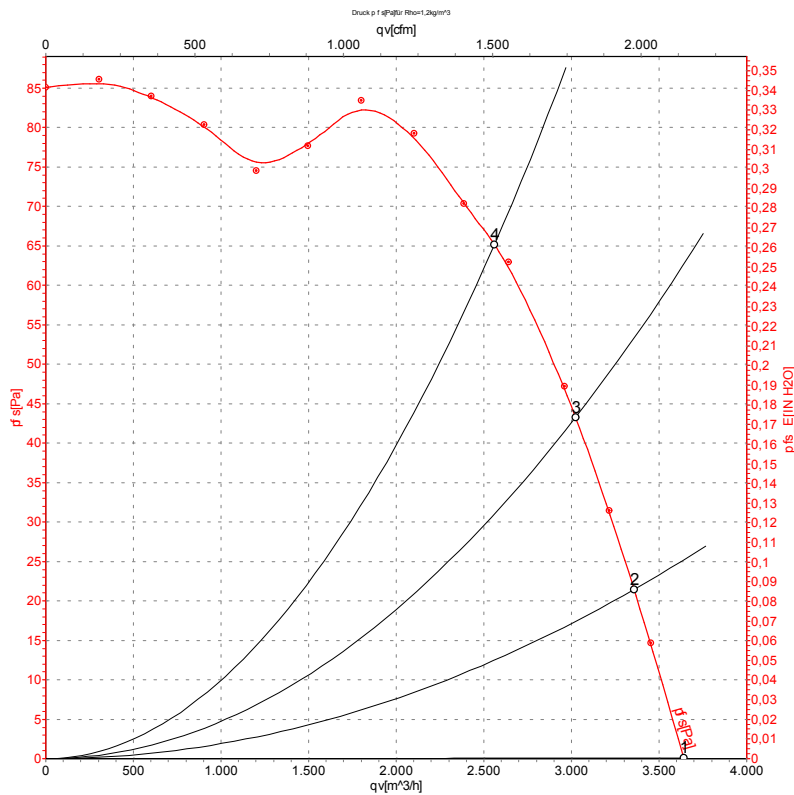
Measured values

|   | 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 | 1365              | 132            | 0.58 | 3250              | 0               |
| 2 | 230 | 50 | 1340              | 142            | 0.62 | 2900              | 30              |
| 3 | 230 | 50 | 1305              | 154            | 0.68 | 2420              | 60              |
| 4 | 230 | 50 | 1220              | 178            | 0.79 | 1660              | 90              |

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-67366

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 | 60 | 1530              | 180            | 0.80 | 3640              | 0               |
| 2 | 230 | 60 | 1490              | 187            | 0.82 | 3355              | 22              |
| 3 | 230 | 60 | 1440              | 196            | 0.85 | 3025              | 43              |
| 4 | 230 | 60 | 1360              | 206            | 0.89 | 2560              | 65              |

U = Supply voltage · f = Frequency · n = Speed ·  $P_e$  = Power input · I = Current draw · qv = Air flow ·  $p_{fs}$  = Pressure increase