

AC axial fan

straight blades (A series)
with round full nozzle



W4E350-CA06-02 ebmpapst Datasheet

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Nominal data

| | | | |
|-----------------------------|-------------------|---------|---------|
| Type | W4E350-CA06-02 | | |
| Motor | M4E068-EC | | |
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | fa | fa |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | min ⁻¹ | 1390 | 1550 |
| Power consumption | W | 140 | 195 |
| Current draw | A | 0.62 | 0.86 |
| Capacitor | µF | 5 | 5 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Max. back pressure | Pa | 120 | 90 |
| Max. back pressure | in. wg | 0.48 | 0.36 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 50 | 30 |
| Starting current | A | 1.4 | 1.3 |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

| | | Actual | Req. 2015 | | | |
|-----------------------------------|---|--------|-----------|-------------------------------|-------------------|------|
| 01 Overall efficiency η_{es} | % | 29 | 28.5 | 09 Power consumption P_e | kW | 0.15 |
| 02 Measurement category | | A | | 09 Air flow q_v | m ³ /h | 1865 |
| 03 Efficiency category | | Static | | 09 Pressure increase p_{fs} | Pa | 89 |
| 04 Efficiency grade N | | 40.5 | 40 | 10 Speed (rpm) n | min ⁻¹ | 1350 |
| 05 Variable speed drive | | No | | 11 Specific ratio* | | 1.00 |

Data obtained at optimum efficiency level.

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

LU-199647

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings). The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again. The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).



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Technical description

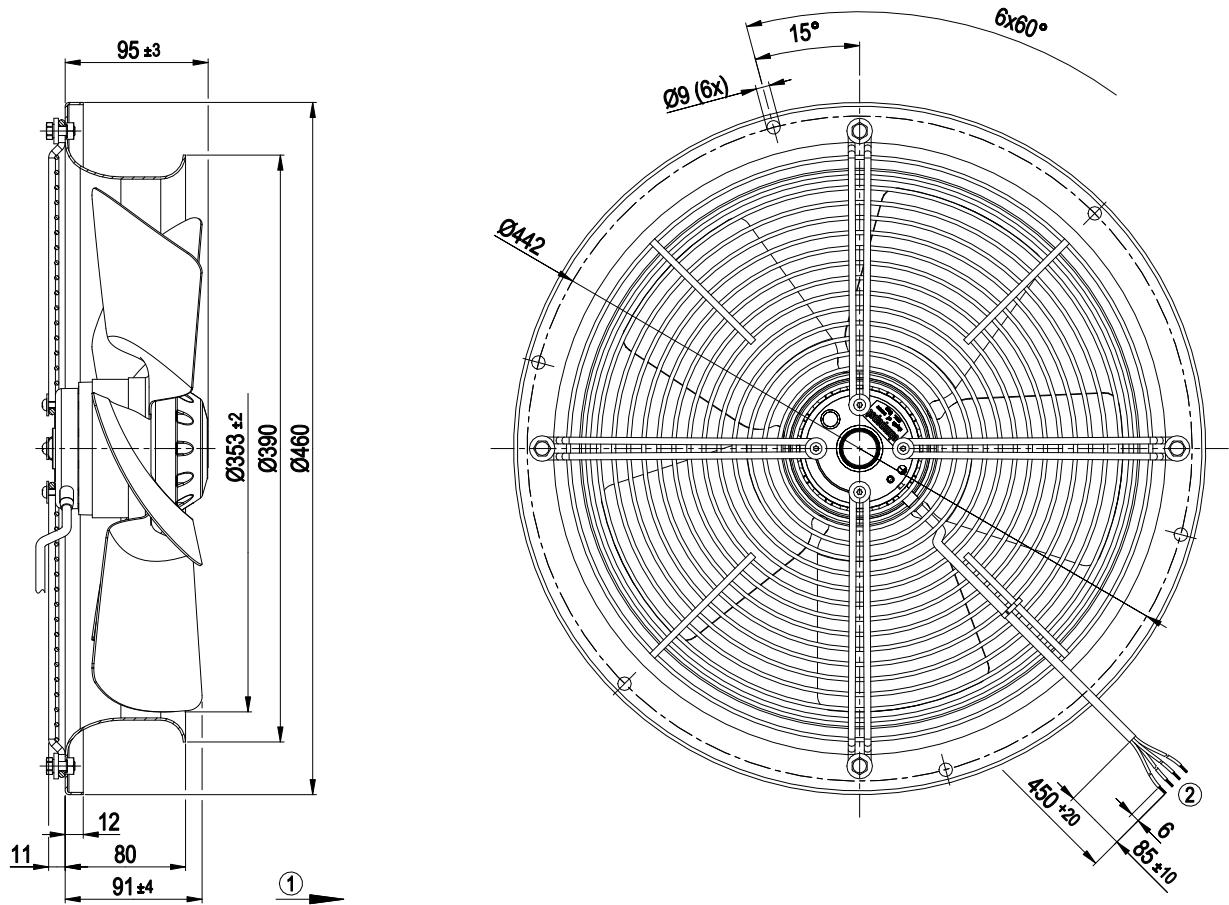
| | |
|---|--|
| Weight | 5.7 kg |
| Size | 350 mm |
| Motor size | 68 |
| Rotor surface | Painted black |
| Blade material | Sheet steel, painted black |
| Fan housing material | Sheet steel, galvanized and coated with black plastic (RAL 9005) |
| Guard grille material | Steel, coated with black plastic (RAL 9005) |
| Number of blades | 5 |
| Airflow direction | A |
| Direction of rotation | Clockwise, viewed toward rotor |
| Degree of protection | IP44; installation- and position-dependent as per EN 60034-5 |
| Insulation class | "B" |
| Moisture (F) / Environmental (H) protection class | H1 |
| Max. permitted ambient temp. for motor (transport/storage) | + 80 °C |
| Min. permitted ambient temp. for motor (transport/storage) | - 40 °C |
| Installation position | Shaft horizontal or rotor on bottom; rotor on top on request |
| Condensation drainage holes | On rotor side |
| Mode | S1 |
| Motor bearing | Ball bearing |
| Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system) | < 0.75 mA |
| Motor protection | Thermal overload protector (TOP) internally connected |
| With cable | Lateral |
| Protection class assignment | I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection. |
| Motor capacitor according to EN 60252-1 in safety protection class | S0 |
| Conformity with standards | EN 60335-1; EN 60034-1; EN 60204-1; CE; UKCA |
| Approval | EAC |



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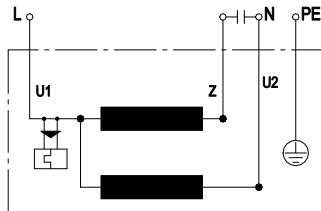
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Product drawing



| | |
|---|----------------------------------|
| 1 | Direction of air flow "A" |
| 2 | Cable PVC 4G 0.5 mm ² |
| | 4x splice |

Connection diagram



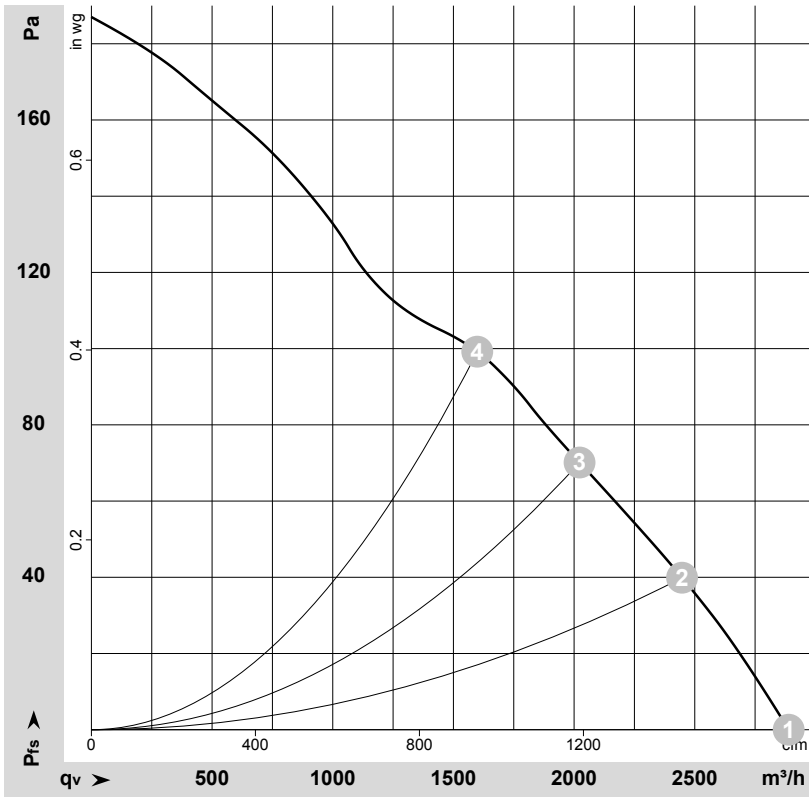
| | | | | | |
|----|--------------|---|-------|----|-------|
| U1 | blue | Z | brown | U2 | black |
| PE | green/yellow | | | | |



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Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-64421-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

| | U | f | n | P _e | I | q _v | P _{fs} | q _v | P _{fs} |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa | cfm | in. wg |
| 1 | 230 | 50 | 1390 | 140 | 0.62 | 2890 | 0 | 1700 | 0.00 |
| 2 | 230 | 50 | 1370 | 144 | 0.63 | 2445 | 40 | 1440 | 0.16 |
| 3 | 230 | 50 | 1360 | 150 | 0.65 | 2025 | 70 | 1190 | 0.28 |
| 4 | 230 | 50 | 1315 | 174 | 0.75 | 1600 | 100 | 940 | 0.40 |

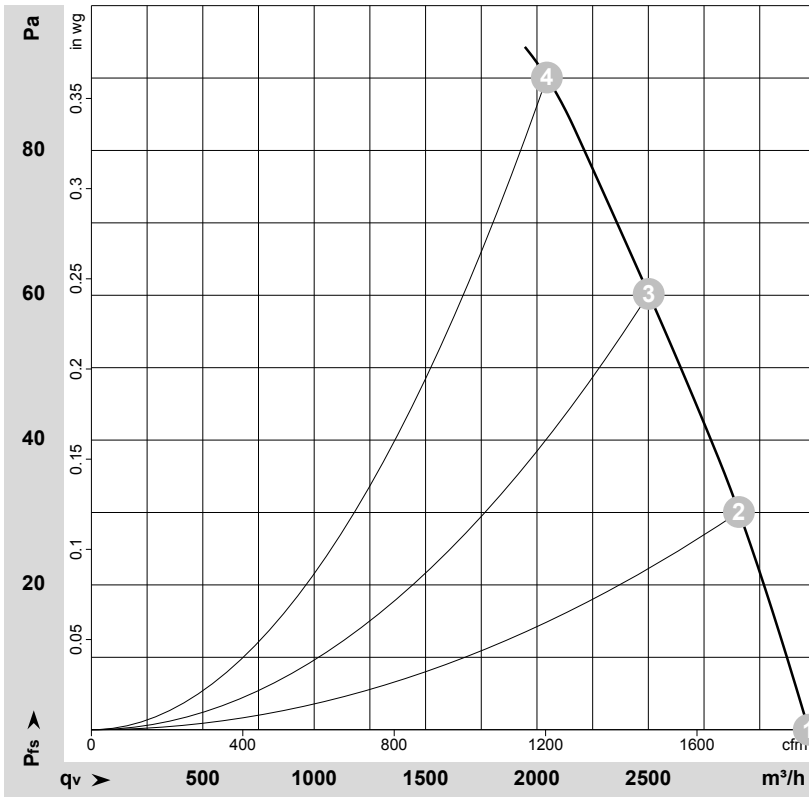
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · P_{fs} = Pressure increase



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Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-64461-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

| | U | f | n | P _e | I | q _v | p _{fs} | q _v | p _{fs} |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa | cfm | in. wg |
| 1 | 230 | 60 | 1550 | 195 | 0.86 | 3220 | 0 | 1895 | 0.00 |
| 2 | 230 | 60 | 1520 | 202 | 0.88 | 2905 | 30 | 1710 | 0.12 |
| 3 | 230 | 60 | 1490 | 211 | 0.92 | 2500 | 60 | 1475 | 0.24 |
| 4 | 230 | 60 | 1465 | 217 | 0.94 | 2045 | 90 | 1205 | 0.36 |

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

