**W4E250-CI02-01**

# AC axial fan

sickle-shaped blades (S series)

with round full nozzle

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## Nominal data

| | |
|---|---|
| **Type** | **W4E250-CI02-01** |
| **Motor** | **M4E068-BF** |

| | | | |
|---|---|---|---|
| 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) | $min^{-1}$ | 1400 | 1630 |
| Power consumption | W | 42 | 45 |
| Current draw | A | 0.19 | 0.20 |
| Capacitor | µF | 1.5 | 1.5 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | |
| Max. back pressure | Pa | 35 | 45 |
| Max. back pressure | inH2O | 0.14 | 0.18 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 40 | 60 |
| Starting current | A | 0.33 | 0.32 |

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

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## Technical description

| | |
|---|---|
| **Weight** | 2.73 kg |
| **Fan size** | 250 mm |
| **Rotor surface** | Painted black |
| **Blade material** | Sheet steel, painted black |
| **Fan housing material** | Sheet steel, pre-galvanized and coated with black plastic |
| **Guard grille material** | Steel, phosphated and coated with black plastic |
| **Number of blades** | 9 |
| **Airflow direction** | "A" |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP44 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | H0+ |
| **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** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1; CE |



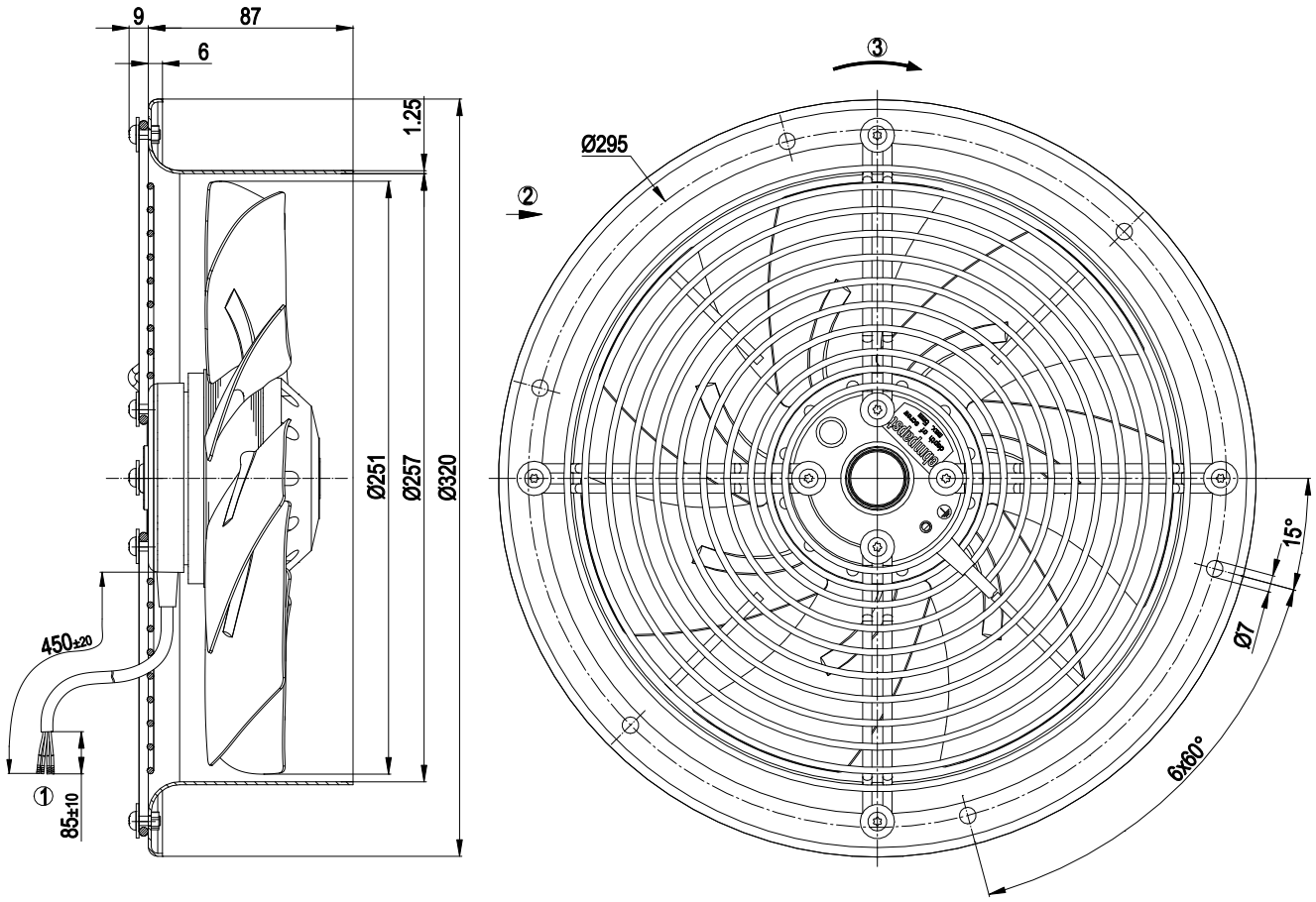
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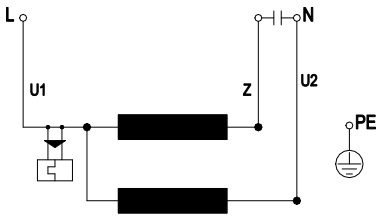
with round full nozzle

## Product drawing




| | |
|---|---|
| 1 | Cable PVC, 4x crimped splices |
| 2 | Direction of air flow "A" |
| 3 | Direction of rotation counterclockwise, viewed toward rotor |

## Connection diagram




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



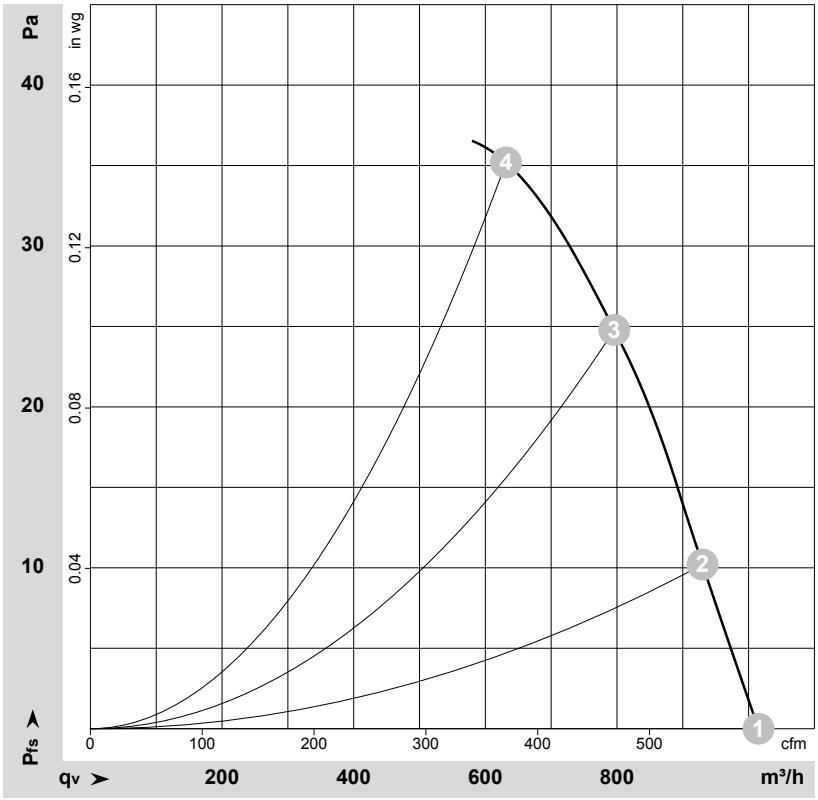
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## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-60036-1

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 | inH2O |
| 1 | 230 | 50 | 1400 | 42 | 0.19 | 1015 | 0 | 595 | 0.00 |
| 2 | 230 | 50 | 1395 | 43 | 0.20 | 930 | 10 | 545 | 0.04 |
| 3 | 230 | 50 | 1375 | 44 | 0.20 | 795 | 25 | 470 | 0.10 |
| 4 | 230 | 50 | 1360 | 45 | 0.20 | 630 | 35 | 370 | 0.14 |

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



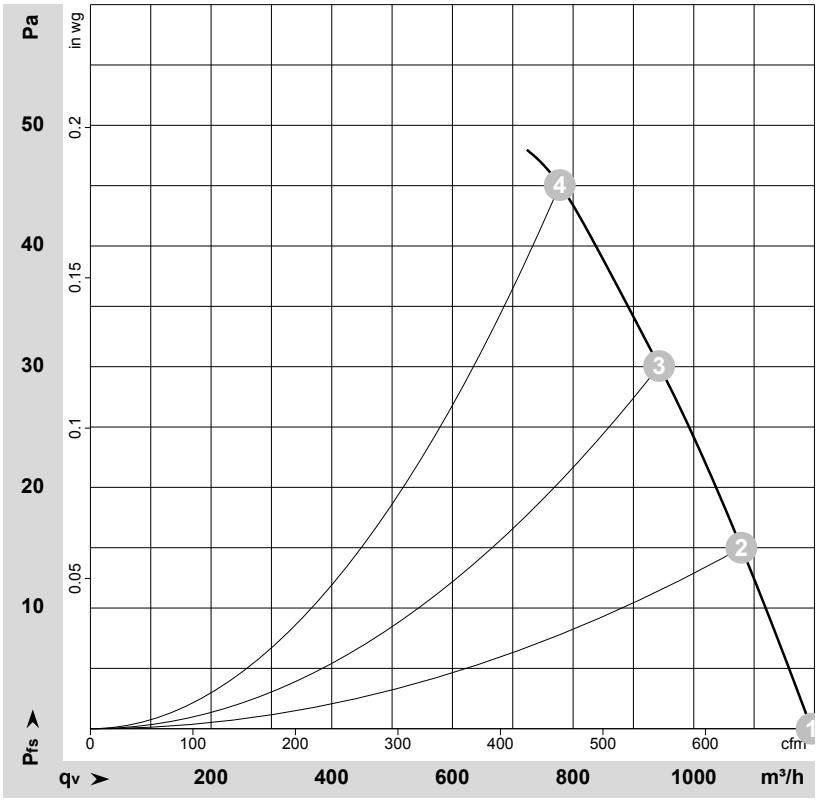
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## Curves: Air performance 60 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-60037-1

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 | inH2O |
| 1 | 230 | 60 | 1630 | 45 | 0.20 | 1195 | 0 | 705 | 0.00 |
| 2 | 230 | 60 | 1630 | 46 | 0.20 | 1080 | 15 | 635 | 0.06 |
| 3 | 230 | 60 | 1605 | 48 | 0.21 | 945 | 30 | 555 | 0.12 |
| 4 | 230 | 60 | 1575 | 49 | 0.21 | 780 | 45 | 460 | 0.18 |

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



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