# AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

**ebm-papst Ventilator (Shanghai) Co.,Ltd.**

No.418, Hua Jing Road, Wai Gao Qiao Free Trade Zone, Pudong

Tel:+86(021)-50460183

www.ebmpapst.com

## Nominal data

| | |
|---|---|
| **Type** | S4E300-AS72-44/F01 |
| **Motor** | **M4E068-CF** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 1320 | 1500 |
| Power consumption | W | 72 | 90 |
| Current draw | A | 0.32 | 0.4 |
| Capacitor | µF | 2 | 2 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Max. back pressure | Pa | 60 | 60 |
| Max. back pressure | in. wg | 0.24 | 0.24 |
| Min. ambient temperature | °C | -40 | -40 |
| Max. ambient temperature | °C | 50 | 50 |
| Starting current | A | 0.6 | 0.57 |

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

Subject to change



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## Technical description

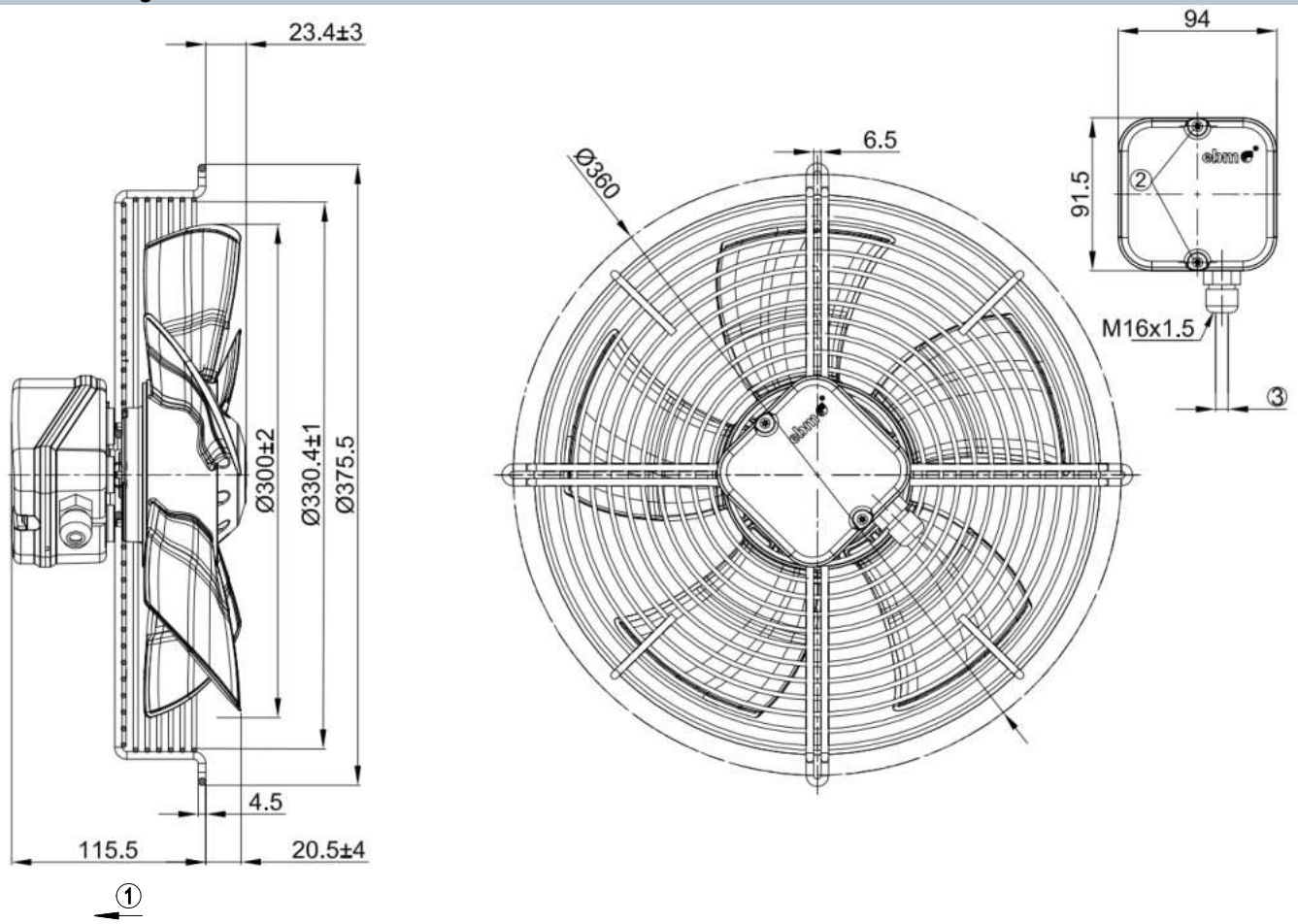
| | |
|---|---|
| **Weight** | 2.5 kg |
| **Fan size** | 300 mm |
| **Rotor surface** | Painted black |
| **Material of terminal box** | ABS plastic, black |
| **Blade material** | Press-fitted sheet steel blank, sprayed with PP plastic |
| **Number of blades** | 5 |
| **Airflow direction** | "V" |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP44; installation- and position-dependent |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F2-2 |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 70 °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 with low-temperature lubricant |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | < 0.75 mA |
| **Motor protection** | Thermal overload protector (TOP) internally connected |
| **Cable exit** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1; CE |
| **Approval** | CCC |

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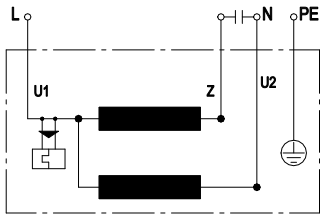
with guard grille for short nozzle

## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Tightening torque 0.5±0.1 Nm |
| 3 | Cable diameter: 7.5 mm, tightening torque 2±0.3 Nm |

## Connection diagram




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



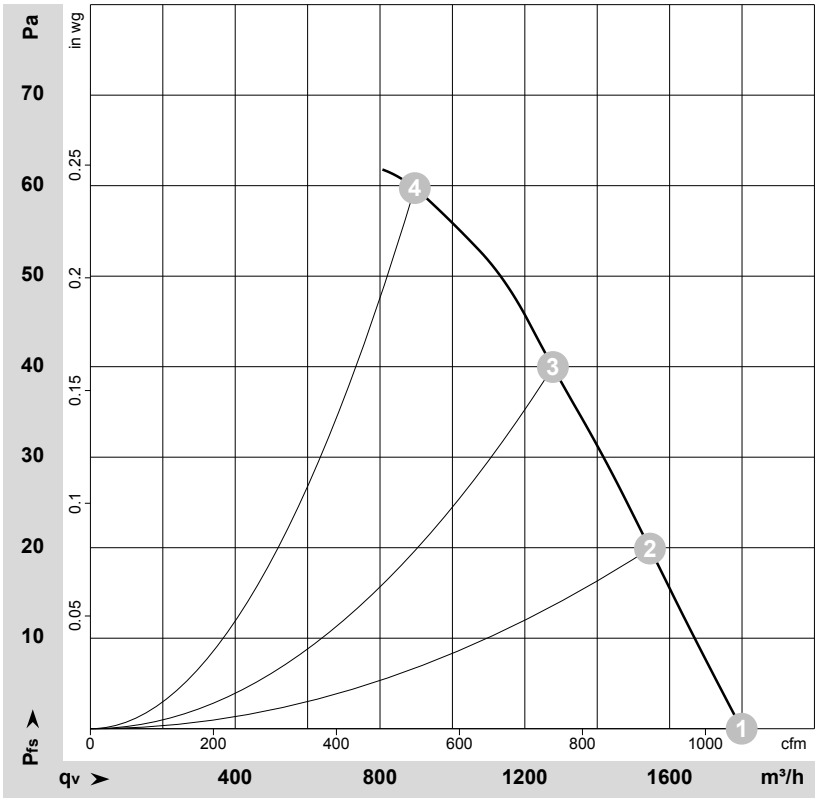
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## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-112383-1

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 | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | in. wg |
| 1 | 230 | 50 | 1385 | 60 | 0.28 | 53 | 60 | 1800 | 0 | 1060 | 0.00 |
| 2 | 230 | 50 | 1365 | 63 | 0.28 | 52 | 59 | 1545 | 20 | 910 | 0.08 |
| 3 | 230 | 50 | 1355 | 66 | 0.29 | 51 | 58 | 1280 | 40 | 750 | 0.16 |
| 4 | 230 | 50 | 1320 | 72 | 0.32 | 53 | 61 | 895 | 60 | 525 | 0.24 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $LpA_{in}$ = Sound pressure level intake side · $LwA_{in}$ = Sound power level intake side
$q_V$ = Air flow · $p_{fs}$ = Pressure increase



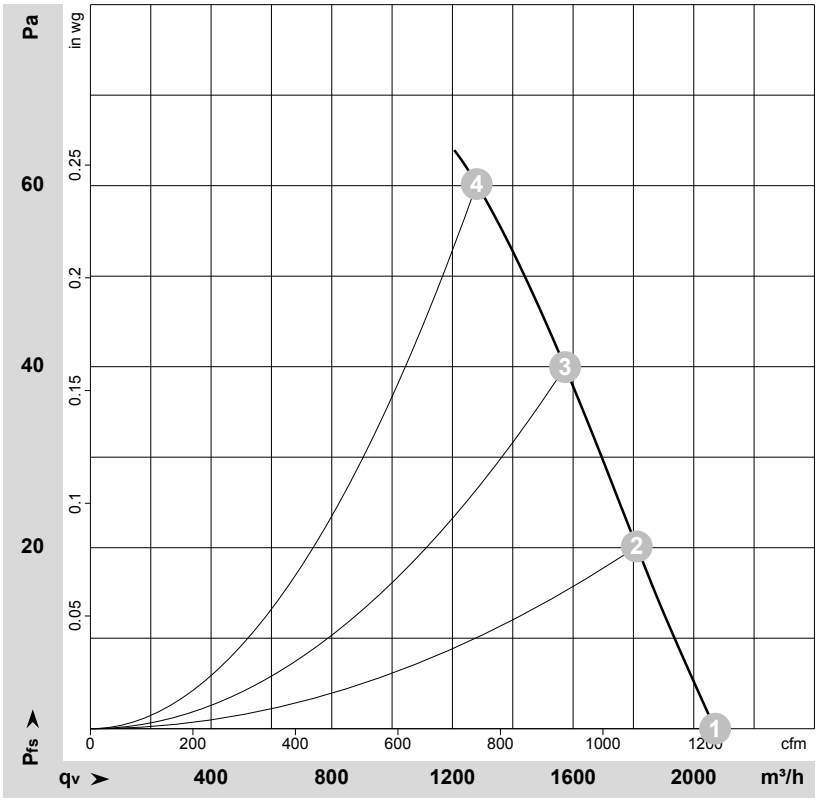
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## Curves: Air performance 60 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-112387-1

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 | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | in. wg |
| 1 | 230 | 60 | 1595 | 78 | 0.34 | 56 | 63 | 2070 | 0 | 1220 | 0.00 |
| 2 | 230 | 60 | 1560 | 83 | 0.36 | 55 | 62 | 1810 | 20 | 1065 | 0.08 |
| 3 | 230 | 60 | 1535 | 86 | 0.37 | 55 | 62 | 1575 | 40 | 925 | 0.16 |
| 4 | 230 | 60 | 1500 | 90 | 0.40 | 55 | 62 | 1280 | 60 | 755 | 0.24 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $LpA_{in}$ = Sound pressure level intake side · $LwA_{in}$ = Sound power level intake side
$q_V$ = Air flow · $p_{fs}$ = Pressure increase



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