**W4E315-IS20-01**

# AC axial fan

sickled blades (S series)

with full round nozzle

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## Nominal data

| | |
|---|---|
| **Type** | **W4E315-IS20-01** |
| **Motor** | **M4E068-DF** |

| | | | |
|---|---|---|---|
| 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 (rpm) | $min^{-1}$ | 1350 | 1490 |
| Power input | W | 110 | 148 |
| Current draw | A | 0.52 | 0.66 |
| Motor capacitor | µF | 3 | 3 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Max. back pressure | Pa | 70 | 85 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 65 | 70 |
| Starting current | A | 1.2 | 1.18 |

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

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## Technical features

| | |
|---|---|
| **Mass** | 5 kg |
| **Size** | 315 mm |
| **Surface of rotor** | Coated in black |
| **Material of terminal box** | PC / ABS plastic |
| **Material of blades** | Press-fitted sheet steel blank, sprayed with PP plastic |
| **Material of mounting ring** | Steel, coated in black plastic (RAL 9005) |
| **Material of wall ring** | Sheet steel, galvanised and coated in black plastic (RAL 9005) |
| **Number of blades** | 9 |
| **Direction of air flow** | "V" |
| **Direction of rotation** | Counter-clockwise, seen on rotor |
| **Type of protection** | IP 44; Depending on installation and position as per EN 60034-5 |
| **Insulation class** | "F" |
| **Humidity (F)/environmental protection class (H)** | H0+ |
| **Max. permissible ambient motor temp. (transp./ storage)** | + 80 °C |
| **Min. permissible ambient motor temp. (transp./storage)** | - 40 °C |
| **Mounting position** | Shaft horizontal or rotor on bottom; rotor on top on request |
| **Condensate discharge holes** | Rotor-side |
| **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 |
| **Motor protection** | Thermal overload protector (TOP) brought out, basic insulation |
| **Cable exit** | Lateral |
| **Protection class** | I (if protective earth is connected by customer) |
| **Motor capacitor according to EN 60252-1 in safety protection class** | S0 |
| **Product conforming to standard** | EN 60335-1; CE |



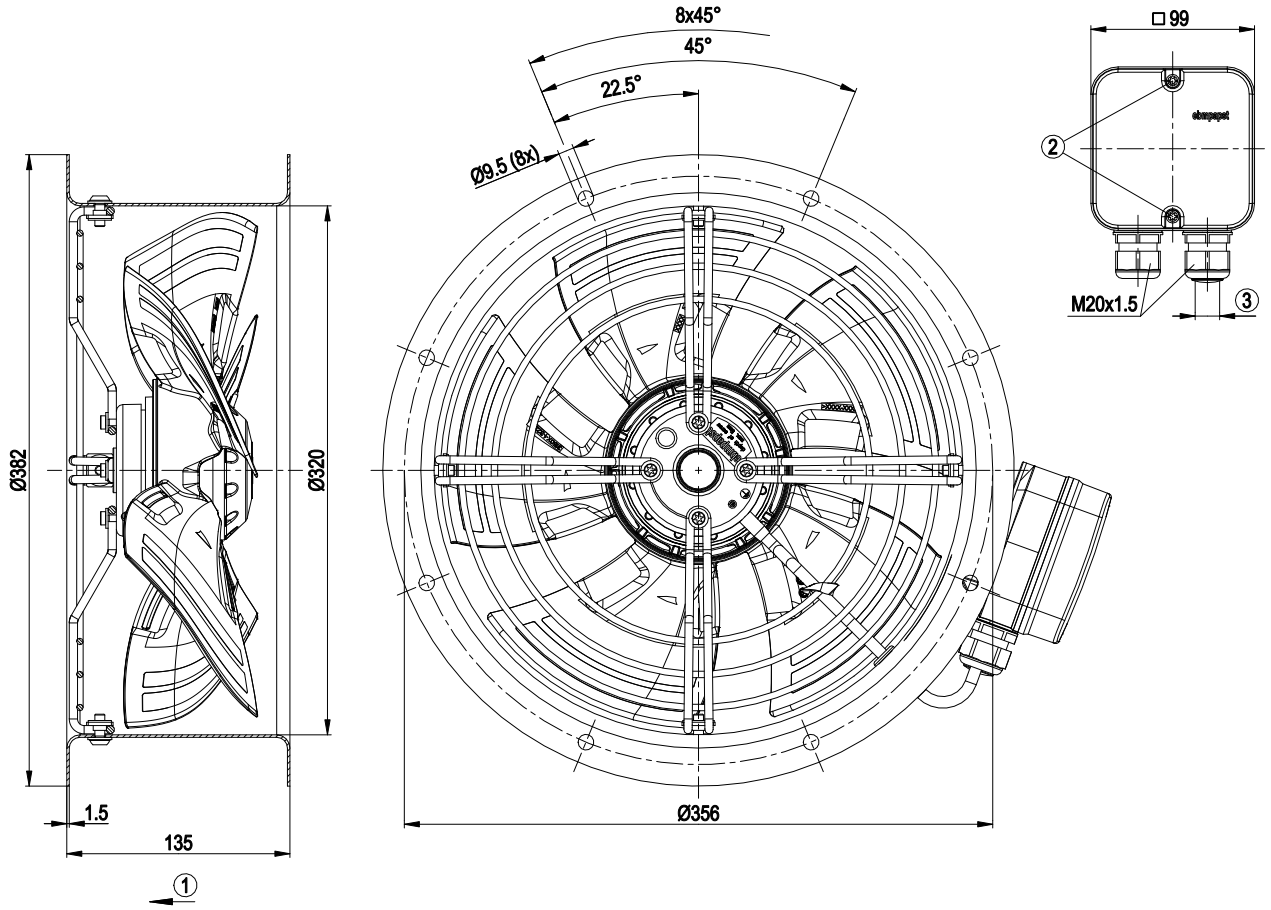
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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Tightening torque 0.8±0.15 Nm |
| 3 | Cable diameter min. 6 mm, max. 12 mm, tightening torque 2±0.15 Nm |



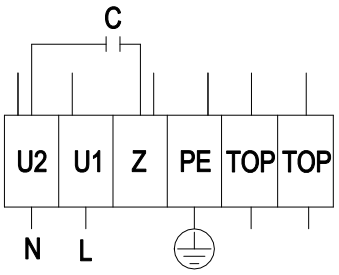
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## Connection screen




| | | | | | |
|---|---|---|---|---|---|
| N | = U2 = black | L | = U1 = blue | Z | brown |
| PE | green / yellow | TOP | grey | | |



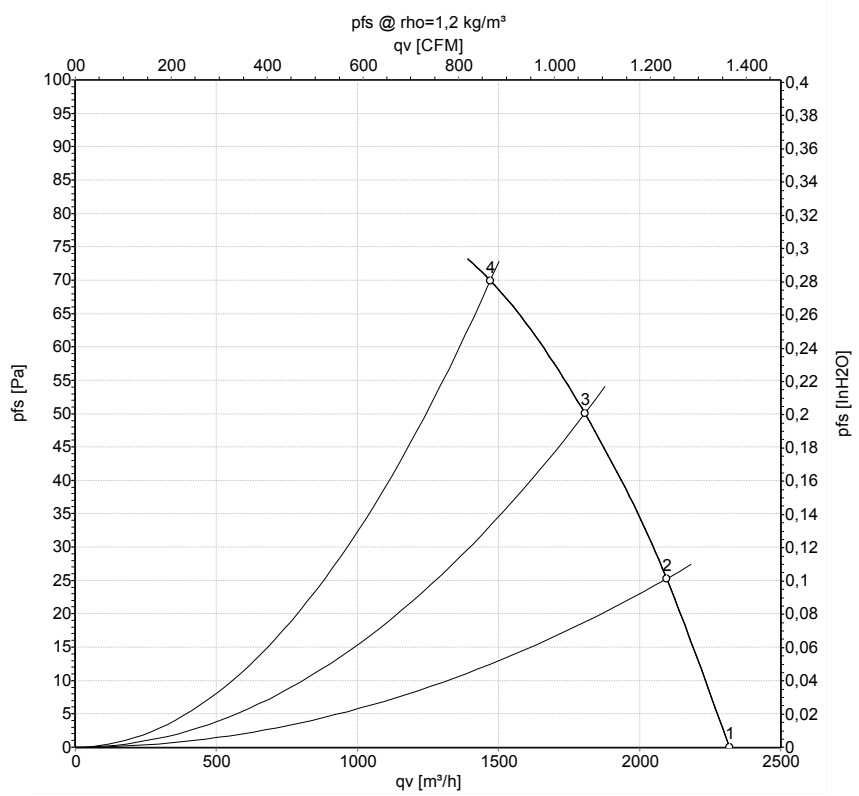
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## Charts: Air flow 50 Hz




Measurement: LU-159582-1

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 | $P_e$ | 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 | inH2O |
| 1 | 230 | 50 | 1390 | 96 | 0.48 | 58 | 64 | 2320 | 0 | 1365 | 0.00 |
| 2 | 230 | 50 | 1380 | 100 | 0.49 | 55 | 61 | 2095 | 25 | 1235 | 0.10 |
| 3 | 230 | 50 | 1365 | 105 | 0.51 | 52 | 59 | 1805 | 50 | 1065 | 0.20 |
| 4 | 230 | 50 | 1350 | 110 | 0.52 | 51 | 59 | 1470 | 70 | 865 | 0.28 |

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



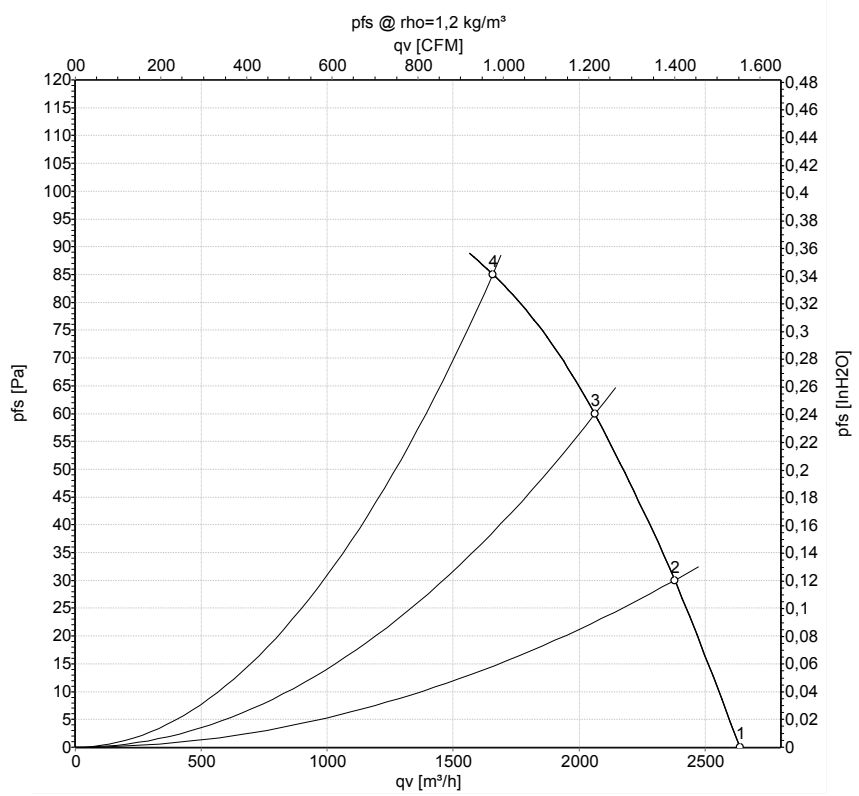
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## Charts: Air flow 60 Hz




Measurement: LU-159796-1

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 | $P_e$ | I | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 60 | 1590 | 121 | 0.53 | 2640 | 0 | 1555 | 0.00 |
| 2 | 230 | 60 | 1565 | 130 | 0.56 | 2380 | 30 | 1400 | 0.12 |
| 3 | 230 | 60 | 1535 | 136 | 0.59 | 2065 | 60 | 1215 | 0.24 |
| 4 | 230 | 60 | 1490 | 148 | 0.66 | 1660 | 85 | 975 | 0.34 |

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



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