**W4D200-HH16-06**

# AC axial compact fan

sickled blades (S series), with brushless DC motor

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## Nominal data

| | |
|---|---|
| **Type** | **W4D200-HH16-06** |
| **Motor** | **M4D068-BF** |

| | | | |
|---|---|---|---|
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 230 | 230 |
| Nominal voltage range | VAC | 190 .. 240 | 190 .. 240 |
| Connection | | Δ | Δ |
| Frequency | Hz | 50 | 60 |
| Type of data definition | | fa | fa |
| Valid for approval / standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 1440 | 1680 |
| Power input | W | 23 | 22 |
| Current draw | A | 0.12 | 0.1 |
| Max. back pressure | Pa | 60 | 75 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 85 | 105 |
| Starting current | A | 0.13 | 0.13 |

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** | 2.0 kg |
| **Size** | 200 mm |
| **Surface of rotor** | Coated in black |
| **Material of blades** | Sheet steel, coated in black |
| **Material of wall ring** | Die-cast aluminium |
| **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)** | F2-2 |
| **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 |
| **Cable exit** | Axial |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1, motor does not have factory-installed overheating protection; CE |
| **Approval** | CSA C22.2 No.100; UL 1004-1 |

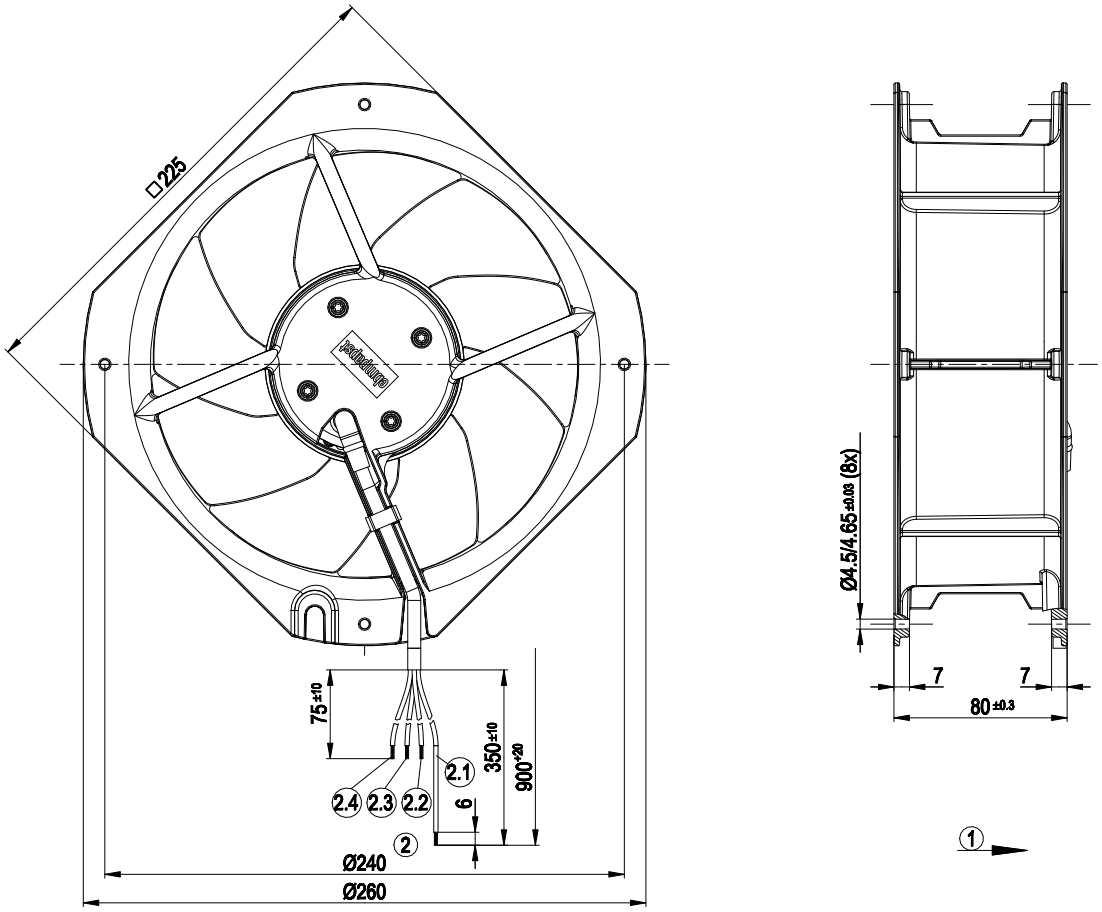


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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Connection line silicone 4G 1 mm², 4x lead tips crimped |
| 2.1 | green/yellow |
| 2.2 | blue |
| 2.3 | brown |
| 2.4 | black |

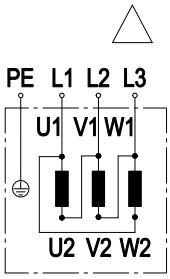


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## Connection screen




Note: Change direction of rotation by reversing two phases

| | | | | | |
|---|---|---|---|---|---|
| Δ | Delta connection | L1 | = U1 = black | L2 | = V1 = blue |
| L3 | = W1 = brown | PE | green / yellow | | |

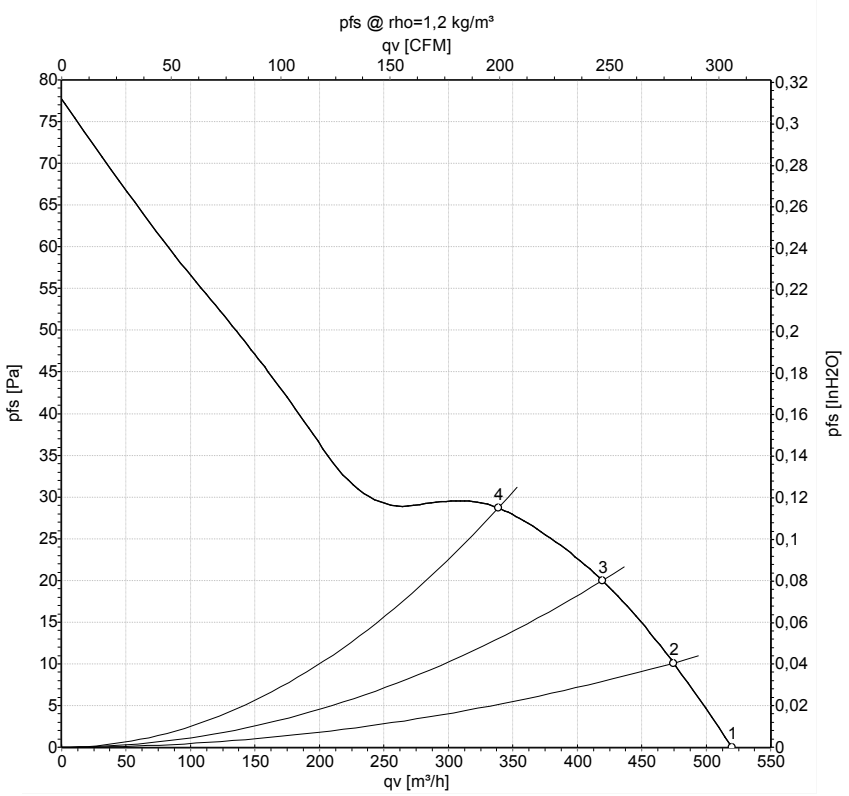


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# AC axial compact fan

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## Charts: Air flow 50 Hz




Measurement: LU-57551-1

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 | 400 | 50 | 1440 | 23 | 0.07 | 520 | 0 | 305 | 0.00 |
| 2 | 400 | 50 | 1435 | 23 | 0.07 | 475 | 10 | 280 | 0.04 |
| 3 | 400 | 50 | 1425 | 24 | 0.07 | 420 | 20 | 245 | 0.08 |
| 4 | 400 | 50 | 1420 | 24 | 0.07 | 340 | 29 | 200 | 0.12 |

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

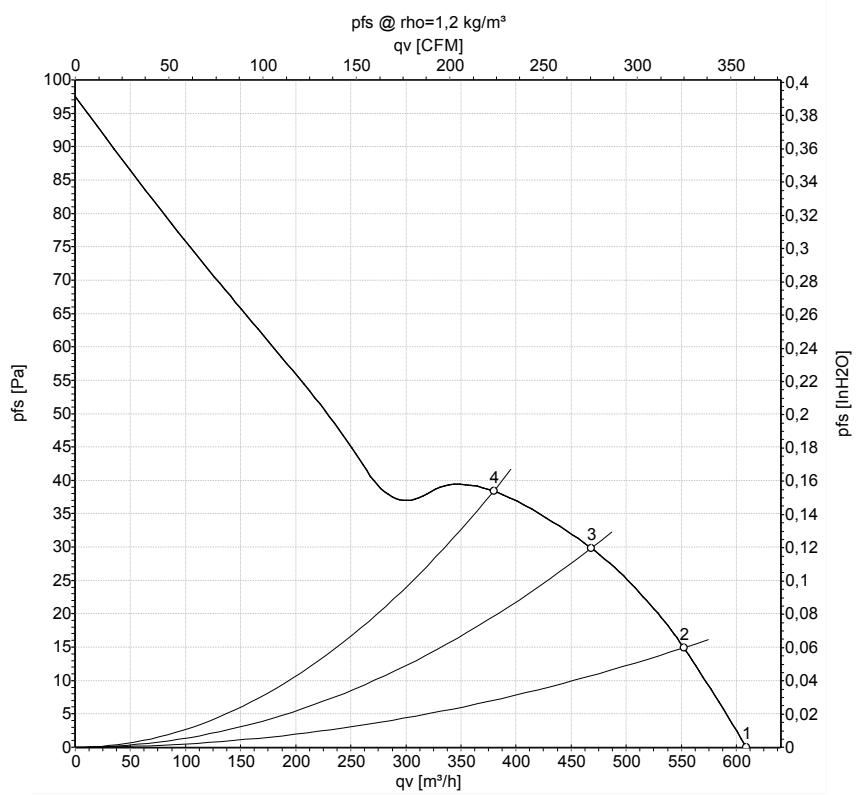


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## Charts: Air flow 60 Hz




Measurement: LU-57552-1

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 | 400 | 60 | 1680 | 22 | 0.06 | 610 | 0 | 360 | 0.00 |
| 2 | 400 | 60 | 1665 | 22 | 0.06 | 550 | 15 | 325 | 0.06 |
| 3 | 400 | 60 | 1640 | 23 | 0.06 | 470 | 30 | 275 | 0.12 |
| 4 | 400 | 60 | 1635 | 24 | 0.06 | 380 | 39 | 225 | 0.16 |

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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