

AC axial fan

straight blades (A series)

with full square nozzle

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Nominal data

| | | | |
|-------------------------------|-------------------|------|------|
| Type | W2D250-GA02-07 | | |
| Motor | M2D068-DF | | |
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 400 | 400 |
| Connection | | Y | Y |
| Frequency | Hz | 50 | 60 |
| Type of data definition | | fa | fa |
| Valid for approval / standard | | CE | CE |
| Speed | min ⁻¹ | 2700 | 3000 |
| Power input | W | 112 | 180 |
| Current draw | A | 0.23 | 0.27 |
| Max. back pressure | Pa | 280 | 280 |
| Max. ambient temperature | °C | 60 | 50 |

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

Data according to ErP directive

| | |
|---------------------------------|--------|
| Installation category | A |
| Efficiency category | Static |
| Variable speed drive integrated | No |
| Specific ratio* | 1,00 |

* Specific ratio = $1 + p_{sf} / 100\,000$

| | | Actual | Request 2013 | Request 2015 |
|----------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency η_e | | 28,1 | 24,1 | 28,1 |
| Efficiency grade N | | 40 | 36 | 40 |
| Power input P_e | kW | 0,13 | | |
| Air flow q_v | m ³ /h | 1050 | | |
| Pressure increase Total p_{sf} | Pa | 121 | | |
| Speed n | min ⁻¹ | 2600 | | |

Data established at point of optimum efficiency



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Technical features

| | |
|--|--|
| Mass | 2.9 kg |
| Size | 250 mm |
| Surface of rotor | Coated in black |
| Material of impeller | Sheet steel, coated in black |
| Material of mounting ring | Steel, phosphated and coated in black plastic |
| Material of wall ring | Sheet steel, galvanised |
| Number of blades | 5 |
| Direction of air flow | "A" |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 44; Depending on installation and position |
| Insulation class | "B" |
| Humidity class | F1-2 |
| Max. permissible ambient motor temp. (transp./ storage) | + 80 °C |
| Min. permissible ambient motor temp. (transp./storage) | - 40 °C |
| Mounting position | Any |
| Condensate discharge holes | None |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Leakage current | < 0.75 mA |
| Cable exit | Lateral |
| Protection class | I (if earth wire is connected by customer) |
| Product conforming to standard | EN 60335-1, motor does not have factory-installed overheating protection |

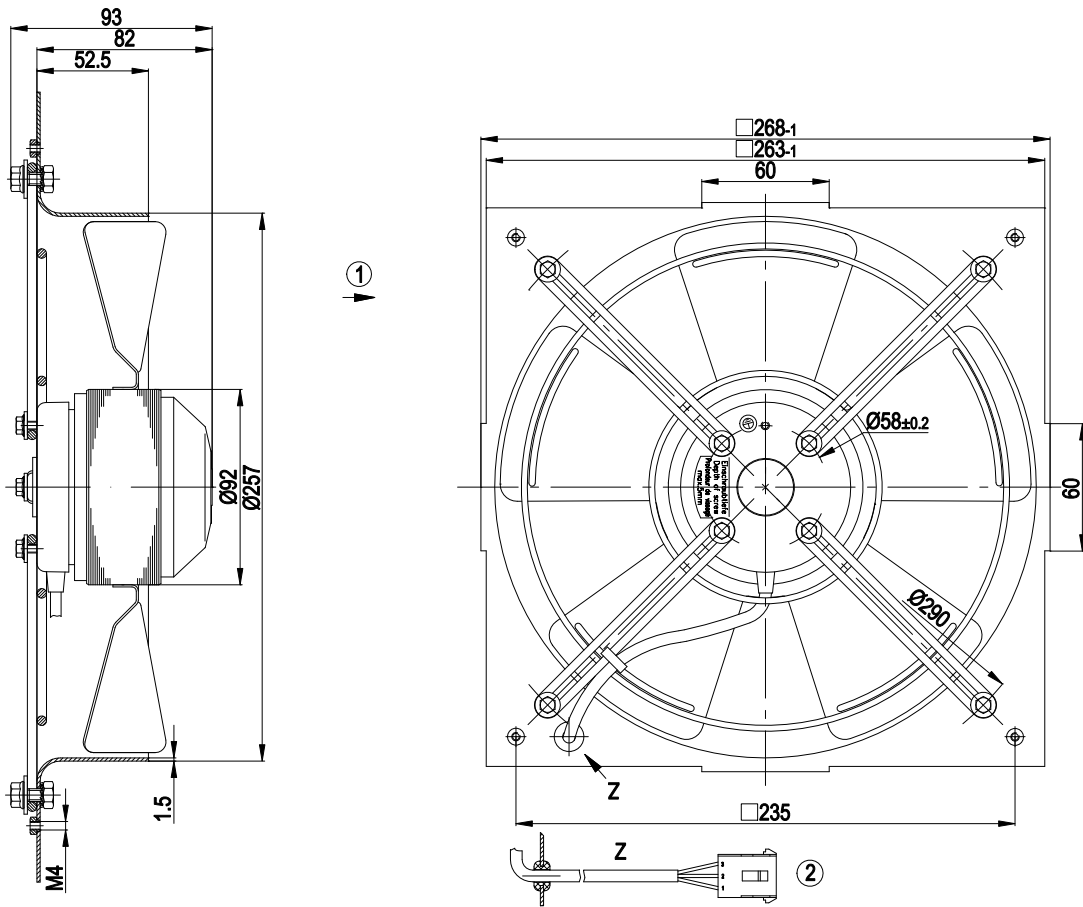


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Product drawing



| | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Connection line PVC 3X 0.5 mm ² , length starting at stator bush 250 mm, connector housing Molex No. 350 767-1 crimped |
| | Plug assignment: |
| 1 | black = U1 |
| 2 | blue = V1 |
| 3 | brown = W1 |

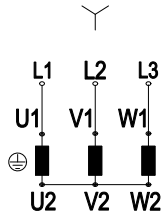


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Connection screen



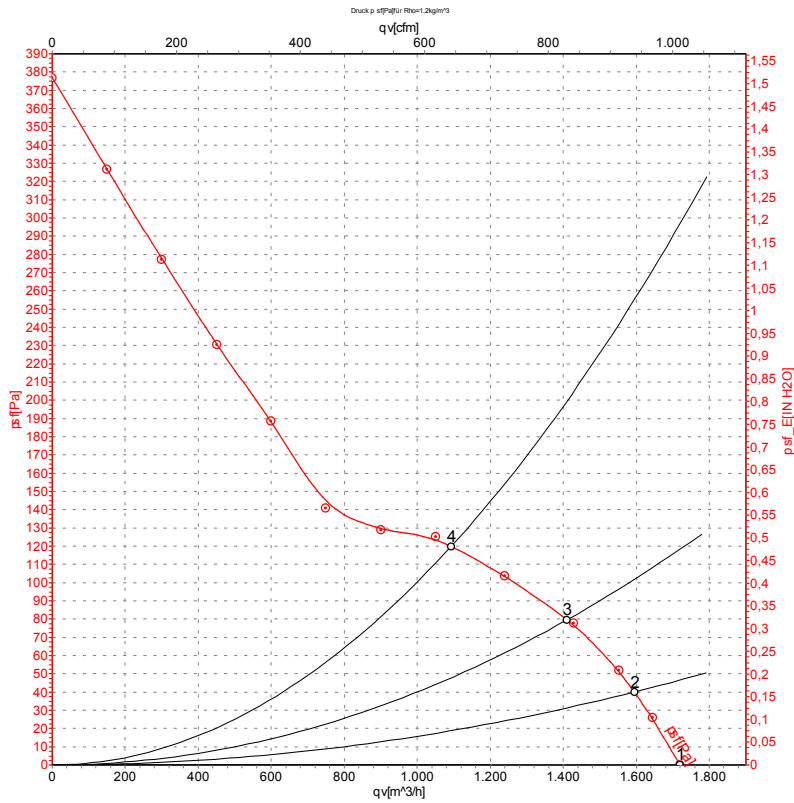
Note: Direction of rotation changes when two phases are reversed

| | | | | | |
|----|-----------------|----|-------|----|-------|
| Y | Star connection | L1 | black | L2 | blue |
| L3 | brown | U1 | black | V1 | blue |
| W1 | brown | U2 | green | V2 | white |
| W2 | yellow | | | | |

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Charts: Air flow 50 Hz Y



Measurement: LU-69121

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: L_{wA} measured as per ISO 13347 / L_{pA} 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

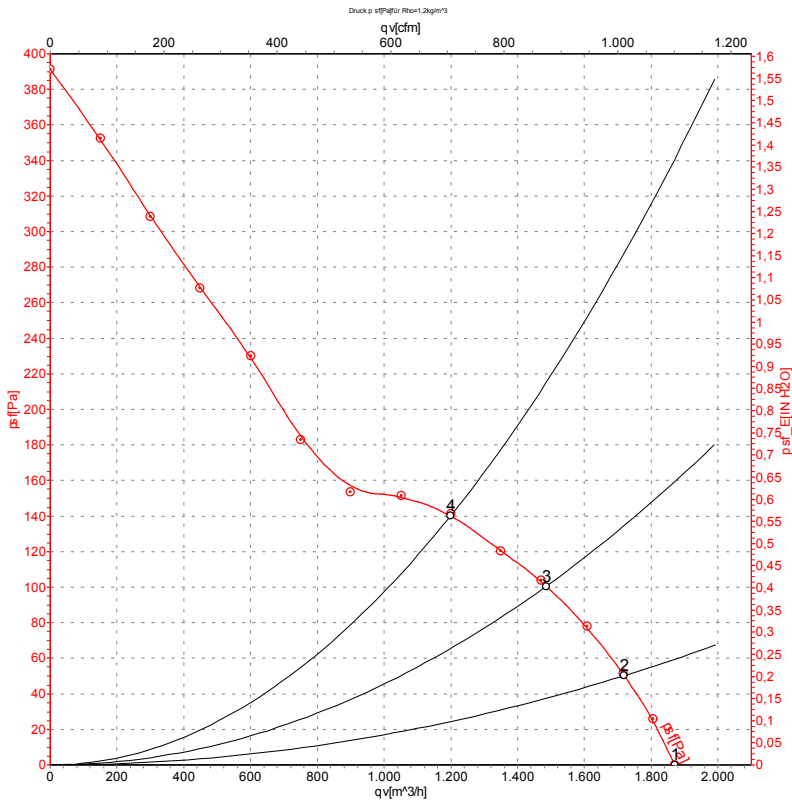
| | Conn. | U | f | n | P _e | I | qv | P _{sf} |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 400 | 50 | 2650 | 110 | 0.22 | 1720 | 0 |
| 2 | Y | 400 | 50 | 2620 | 126 | 0.23 | 1595 | 40 |
| 3 | Y | 400 | 50 | 2600 | 131 | 0.24 | 1410 | 80 |
| 4 | Y | 400 | 50 | 2595 | 131 | 0.24 | 1090 | 120 |



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Charts: Air flow 60 Hz Y



Measurement: LU-69123

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

| | Conn. | U | f | n | Pe | I | qv | Psf |
|---|-------|-----|----|-------------------|-----|------|-------------------|-----|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 400 | 60 | 2950 | 160 | 0.26 | 1870 | 0 |
| 2 | Y | 400 | 60 | 2850 | 177 | 0.28 | 1720 | 50 |
| 3 | Y | 400 | 60 | 2810 | 184 | 0.29 | 1485 | 100 |
| 4 | Y | 400 | 60 | 2805 | 184 | 0.29 | 1200 | 140 |

