8317074025

# AC axial fan

sickle-shaped blades (S series)

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## Nominal data

| | |
|---|---|
| **Type** | 8317074025 |
| **Motor** | **M4D094-FA** |

| | | | |
|---|---|---|---|
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 400 | 400 |
| Wiring | | Δ | Y |
| Frequency | Hz | 50 | 50 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 1330 | 1040 |
| Power consumption | W | 460 | 310 |
| Current draw | A | 0.95 | 0.52 |
| Max. back pressure | Pa | 130 | 78 |
| Max. back pressure | inH2O | 0.52 | 0.31 |
| Min. ambient temperature | °C | -40 | -40 |
| Max. ambient temperature | °C | 65 | 65 |
| Starting current | A | 3.3 | 1.1 |

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

## Data according to ErP Directive

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 34.3 | 31.5 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 42.8 | 40 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 0.45 |
| 09 Air flow $q_v$ | $m^3/h$ | 4530 |
| 09 Pressure increase $p_{fs}$ | Pa | 124 |
| 10 Speed (rpm) n | $min^{-1}$ | 1335 |
| 11 Specific ratio* | | 1.00 |

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + $p_{fs}$ / 100 000 Pa

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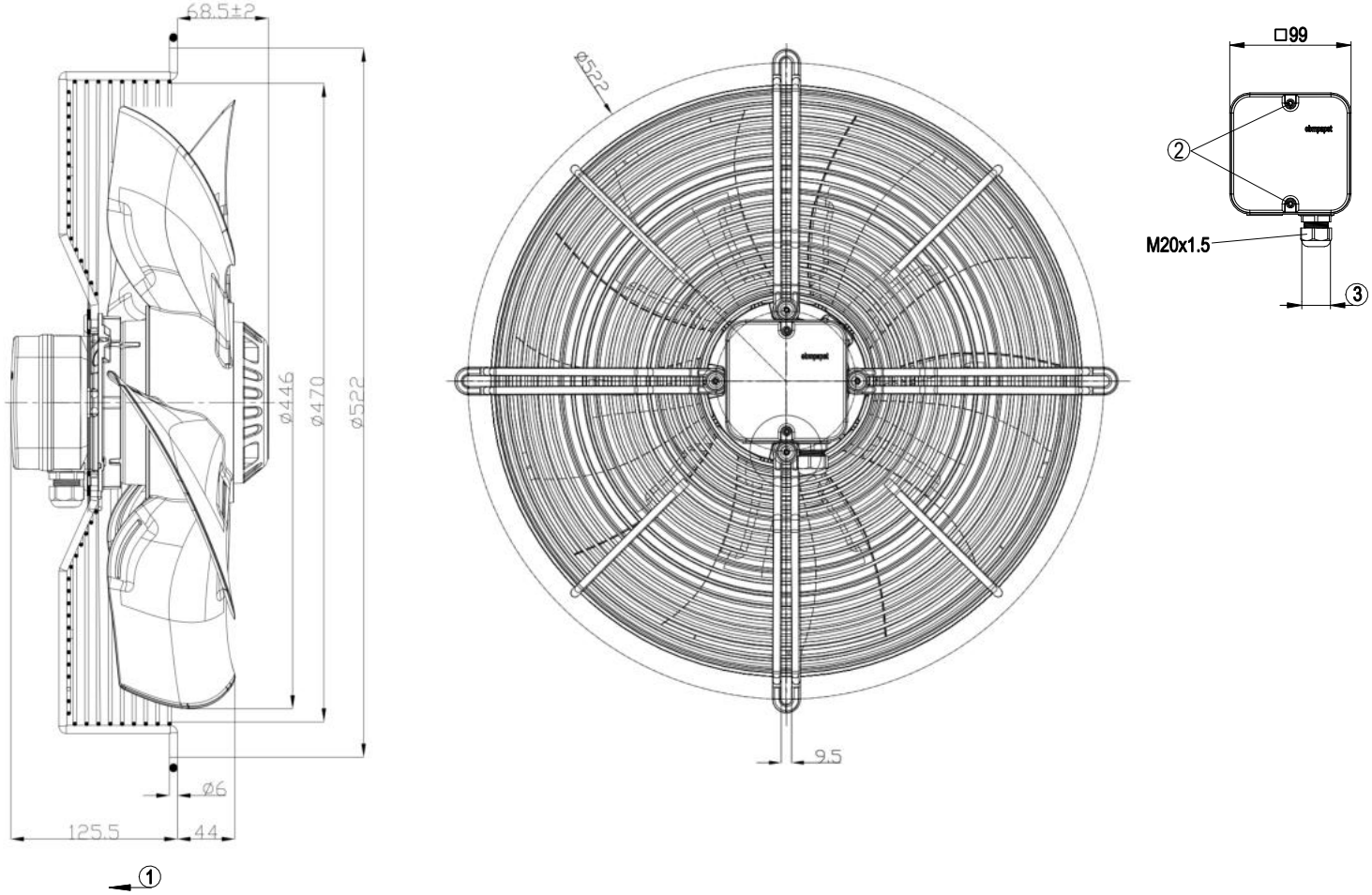
## Technical description

| | |
|---|---|
| **Weight** | 5.9 kg |
| **Fan size** | 450 mm |
| **Rotor surface** | Painted black |
| **Terminal box material** | ABS plastic |
| **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** | IP54 |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | F4-1 |
| **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)** | <= 3.5 mA |
| **Electrical hookup** | Via terminal box |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60034-1 (2010); CE |
| **Approval** | CCC |

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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±0.3 Nm |

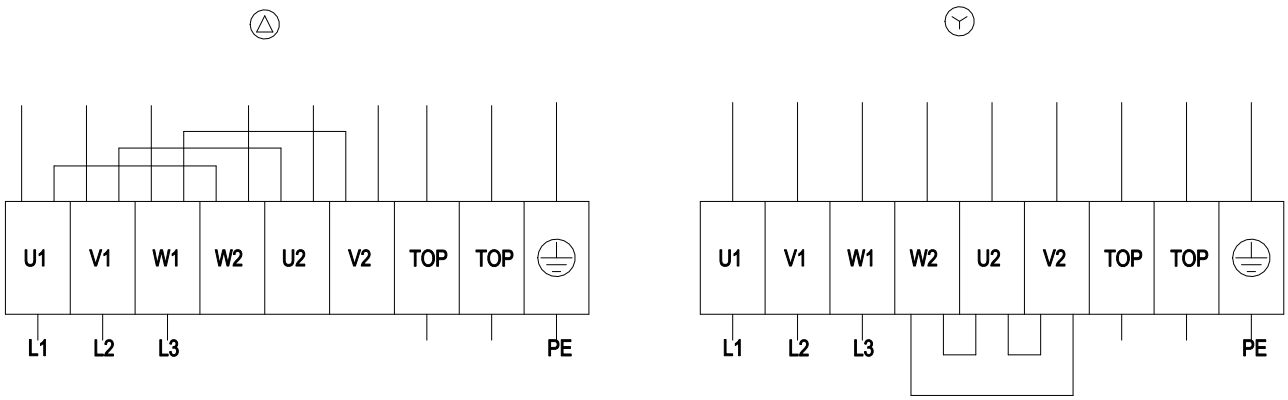


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## Connection diagram




| | | | | | |
|---|---|---|---|---|---|
| Δ | Delta connection | Y | Star connection | L1 | = U1 = black |
| L2 | = V1 = blue | L3 | = W1 = brown | W2 | yellow |
| U2 | green | V2 | white | TOP | 2x gray |
| PE | green/yellow | | | | |

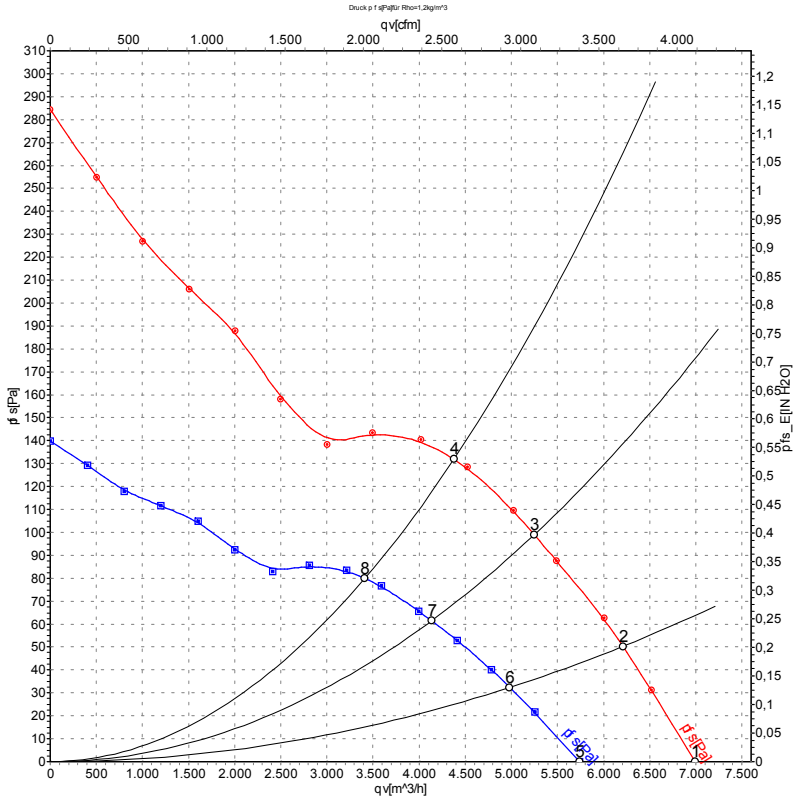


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## Curves: Air performance 50 Hz




## Measured values

| | Wired | U | f | n | $P_e$ | I | $LpA_{in}$ | $LwA_{in}$ | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | CFM | inH2O |
| 1 | Δ | 400 | 50 | 1375 | 369 | 0.86 | 65 | 71 | 6995 | 0 | 4115 | 0.00 |
| 2 | Δ | 400 | 50 | 1360 | 410 | 0.90 | 62 | 68 | 6210 | 50 | 3655 | 0.20 |
| 3 | Δ | 400 | 50 | 1345 | 440 | 0.93 | 61 | 68 | 5250 | 100 | 3090 | 0.40 |
| 4 | Δ | 400 | 50 | 1330 | 460 | 0.95 | 62 | 69 | 4380 | 130 | 2575 | 0.52 |
| 5 | Y | 400 | 50 | 1145 | 269 | 0.45 | 61 | 67 | 5740 | 0 | 3375 | 0.00 |
| 6 | Y | 400 | 50 | 1090 | 293 | 0.49 | 58 | 64 | 4980 | 32 | 2930 | 0.13 |
| 7 | Y | 400 | 50 | 1060 | 306 | 0.51 | 56 | 62 | 4135 | 62 | 2435 | 0.25 |
| 8 | Y | 400 | 50 | 1040 | 310 | 0.52 | 57 | 63 | 3410 | 80 | 2005 | 0.32 |

Wired = Wiring · 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
qv = Air flow · $p_{fs}$ = Pressure increase



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