8317073847

# AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

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## Nominal data

| | |
|---|---|
| **Type** | 8317073847 |
| **Motor** | **M6D138-LA** |

| | | | |
|---|---|---|---|
| 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) | $min^{-1}$ | 880 | 670 |
| Power consumption | W | 1940 | 1210 |
| Current draw | A | 3.9 | 2.23 |
| Max. back pressure | Pa | 160 | 92 |
| Max. back pressure | in. wg | 0.64 | 0.37 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 60 | 60 |
| Starting current | A | 13 | 4.3 |

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

## Data according to Commission Regulation (EU) 327/2011

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 35.2 | 35.2 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 40 | 40 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 1.72 |
| 09 Air flow $q_v$ | $m^3/h$ | 17215 |
| 09 Pressure increase $p_{fs}$ | Pa | 124 |
| 10 Speed (rpm) n | $min^{-1}$ | 905 |
| 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

LU-122313



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## Technical description

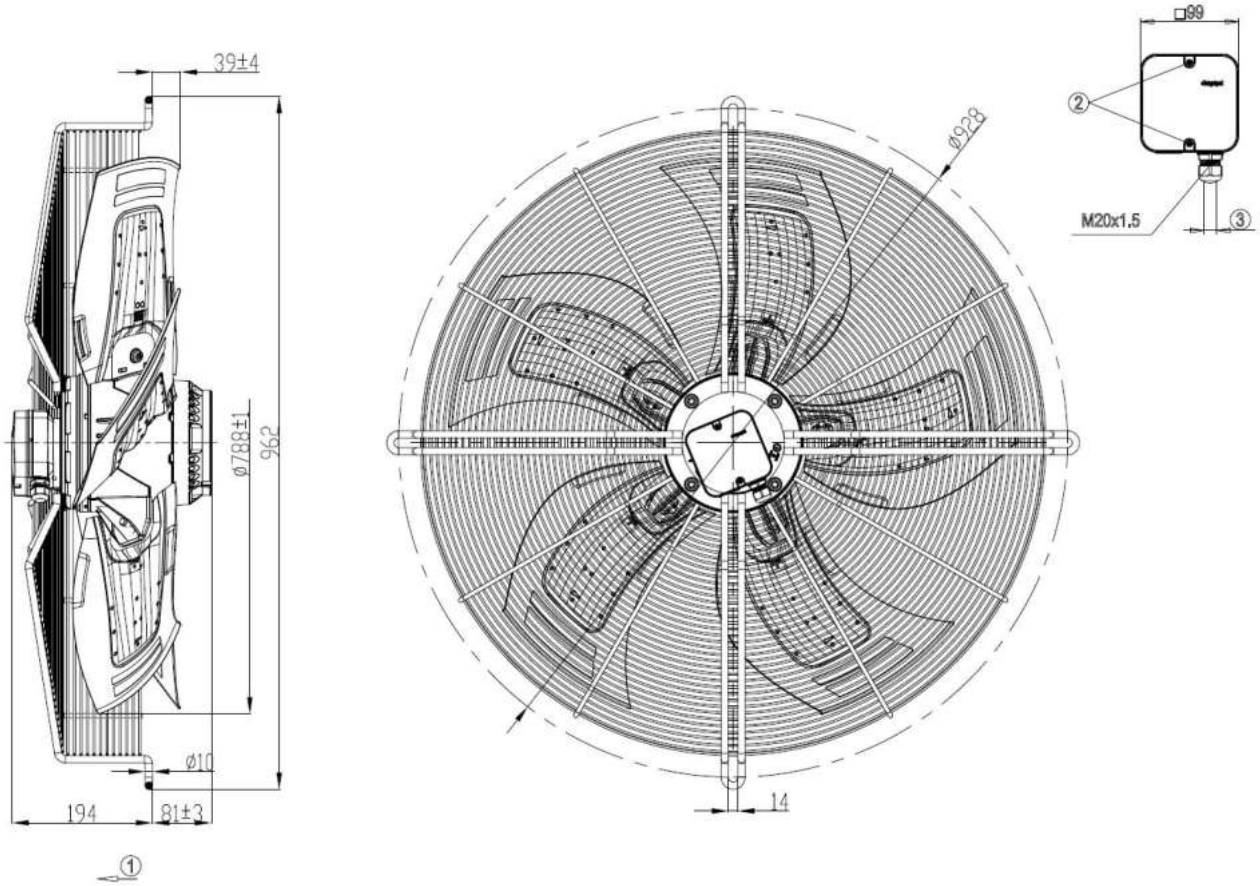
| | |
|---|---|
| **Weight** | 35.3 kg |
| **Fan size** | 800 mm |
| **Rotor surface** | Cast in aluminum |
| **Terminal box material** | PP plastic |
| **Blade material** | Sheet aluminum insert, sprayed with PP plastic |
| **Guard grille material** | Steel, coated with black plastic (RAL 9005) |
| **Number of blades** | 5 |
| **Blade pitch** | 0° |
| **Airflow direction** | "V" |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP54 |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | F3-1 |
| **Ambient temperature note** | Occasional start-up between -40°C and -25°C is permissible.<br>For continuous operation at temperatures below -25°C (e.g. refrigeration applications) we recommend our fan design with special low-temperature bearings. |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | - 40 °C |
| **Installation position** | Any |
| **Condensation drainage holes** | On rotor and stator sides |
| **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 |
| **With cable** | Axial |
| **Protection class** | I (with customer connection of protective earth) |

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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Tightening torque 1.5 ± 0.2 Nm |
| 3 | Cable diameter min. 6 mm, max. 12 mm, tightening torque 2±0.3 Nm |



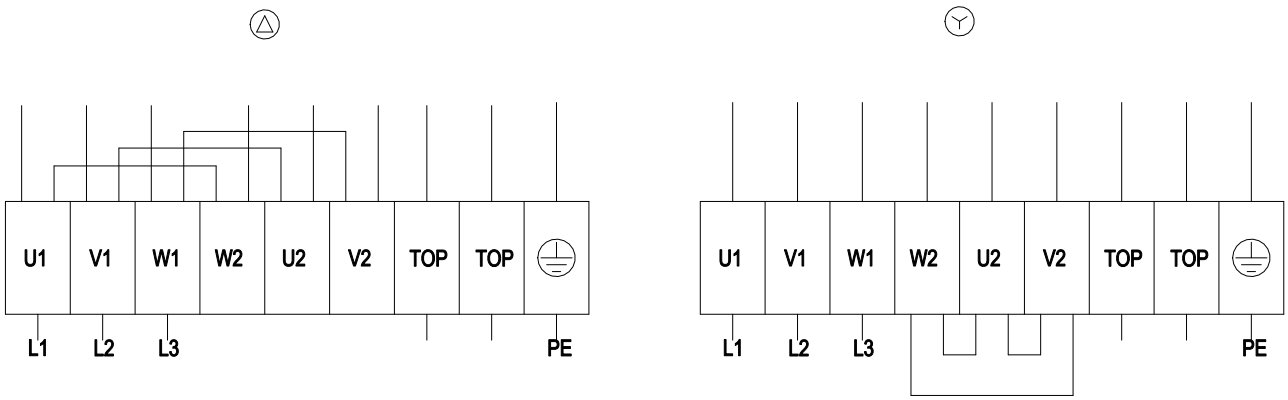
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## Connection diagram




| | | | | | |
|---|---|---|---|---|---|
| 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 | | | | |



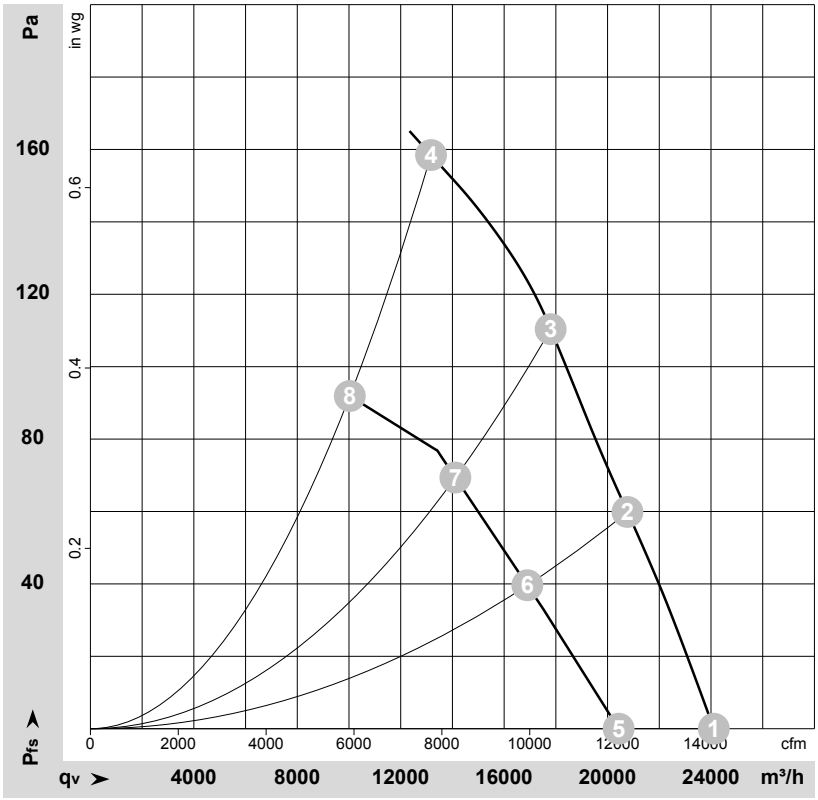
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## Curves: Air performance 50 Hz




## Measured values

| | Wired | U | f | n | $P_e$ | I | $LpA_{in}$ | $LwA_{in}$ | $LwA_{out}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | in. wg |
| 1 | Δ | 400 | 50 | 925 | 1380 | 3.30 | 65 | 72 | 72 | 24110 | 0 | 14190 | 0.00 |
| 2 | Δ | 400 | 50 | 910 | 1585 | 3.44 | 65 | 72 | 71 | 20770 | 60 | 12225 | 0.24 |
| 3 | Δ | 400 | 50 | 900 | 1725 | 3.61 | 67 | 73 | 72 | 17800 | 110 | 10475 | 0.44 |
| 4 | Δ | 400 | 50 | 880 | 1940 | 3.90 | 70 | 77 | 77 | 13170 | 160 | 7755 | 0.64 |
| 5 | Y | 400 | 50 | 780 | 1000 | 1.85 | 61 | 68 | 67 | 20430 | 0 | 12025 | 0.00 |
| 6 | Y | 400 | 50 | 735 | 1080 | 1.98 | 60 | 66 | 66 | 16895 | 40 | 9945 | 0.16 |
| 7 | Y | 400 | 50 | 710 | 1133 | 2.08 | 60 | 67 | 66 | 14115 | 69 | 8305 | 0.28 |
| 8 | Y | 400 | 50 | 670 | 1210 | 2.23 | 63 | 70 | 69 | 10030 | 92 | 5905 | 0.37 |

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
$LwA_{out}$ = Sound power level outlet side · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



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