**W6E500-DJ03-02**

# AC axial fan - HyBlade

sickle-shaped blades (S series)

with square full nozzle

**ebm-papst Mulfingen GmbH & Co. KG**
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

| | |
|---|---|
| **Type** | **W6E500-DJ03-02** |
| **Motor** | **M6E110-EF** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | - | - |
| Speed (rpm) | $min^{-1}$ | 915 | 1015 |
| Power consumption | W | 270 | 390 |
| Current draw | A | 1.18 | 1.72 |
| Capacitor | µF | 8 | 8 |
| Capacitor voltage | VDB | 400 | 400 |
| Max. back pressure | Pa | 70 | 90 |
| Max. back pressure | inH2O | 0.28 | 0.36 |
| Min. ambient temperature | °C | -40 | -40 |
| Max. ambient temperature | °C | 65 | 65 |
| Starting current | A | 2.3 | |

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

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## Technical description

| | |
|---|---|
| **Weight** | 15.1 kg |
| **Fan size** | 500 mm |
| **Rotor surface** | Painted black |
| **Terminal box material** | PC/ABS plastic |
| **Blade material** | Press-fitted sheet steel blank, sprayed with PP plastic |
| **Fan housing material** | Sheet steel, galvanized and coated with black plastic (RAL 9005) |
| **Guard grille material** | Steel, coated with black plastic (RAL 9005) |
| **Number of blades** | 5 |
| **Airflow direction** | "A" |
| **Direction of rotation** | Clockwise, 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** | 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, capacitor integrated and connected |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **With cable** | Axial |
| **Protection class** | I (with customer connection of protective earth) |
| **Motor capacitor according to EN 60252-1 in safety protection class** | S0 |
| **Conformity with standards** | EN 61800-5-1 |
| **Approval** | UL 1004-1; VDE; EAC; CSA C22.2 No. 100 |



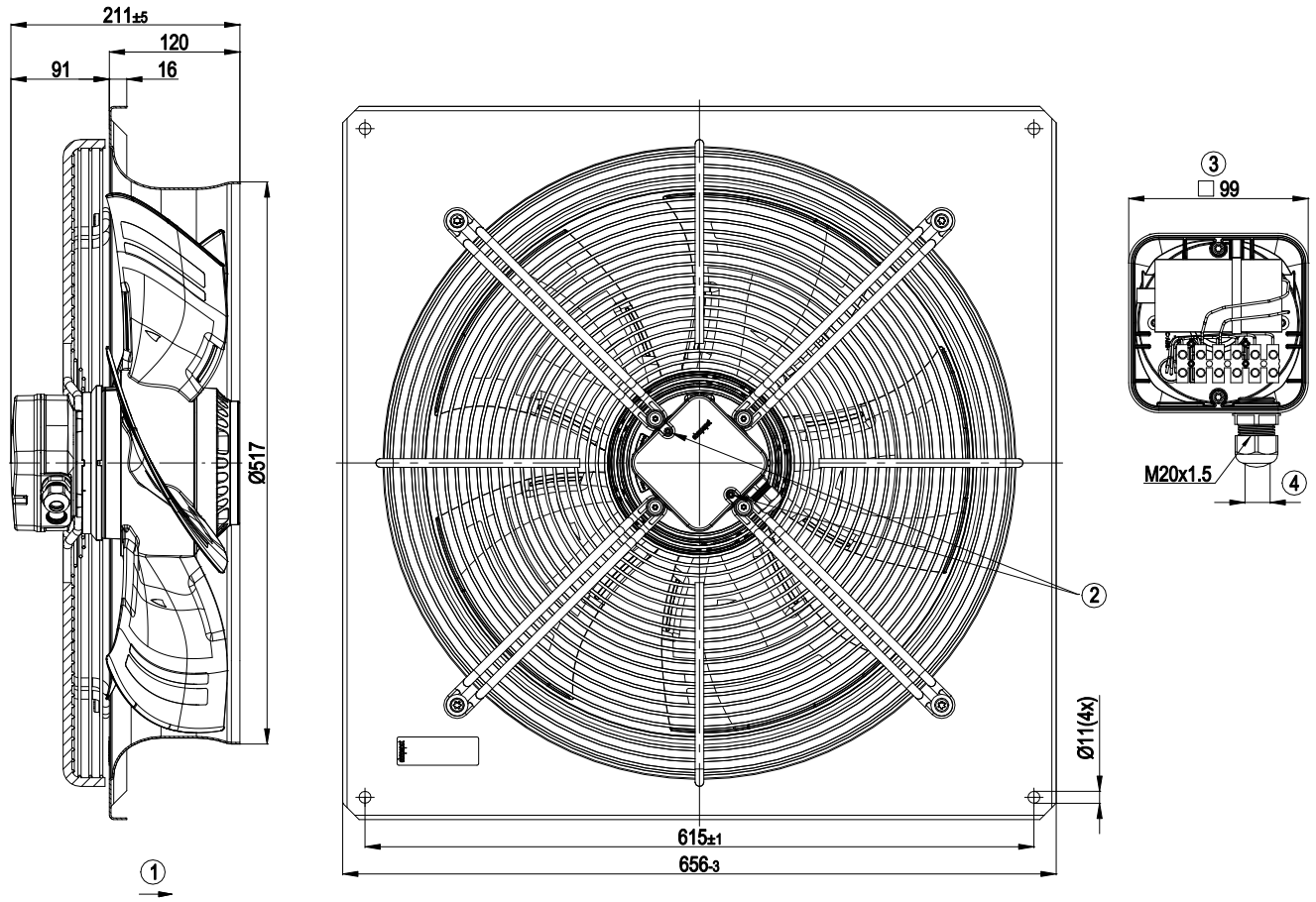
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## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "A" |
| 2 | Tightening torque 0.8 ± 0.15 Nm |
| 3 | Shown without terminal box cover |
| 4 | Cable diameter min. 6 mm, max. 12 mm; tightening torque 2 ± 0.3 Nm |



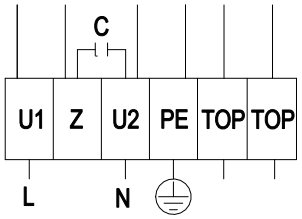
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## Connection diagram




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



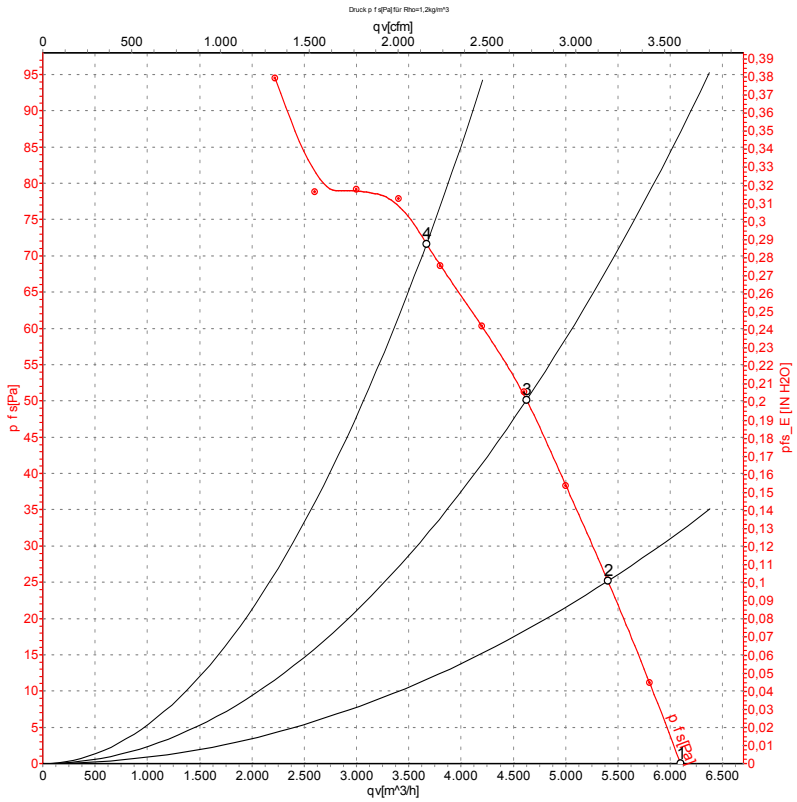
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## Curves: Air performance 50 Hz




Measurement: LU-105735-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

| | 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 | inH2O |
| 1 | 230 | 50 | 945 | 220 | 0.97 | 61 | 67 | 67 | 6100 | 0 | 3590 | 0.00 |
| 2 | 230 | 50 | 935 | 235 | 1.03 | 58 | 64 | 65 | 5405 | 25 | 3180 | 0.10 |
| 3 | 230 | 50 | 925 | 251 | 1.10 | 56 | 62 | 63 | 4625 | 50 | 2720 | 0.20 |
| 4 | 230 | 50 | 915 | 270 | 1.18 | 56 | 63 | 63 | 3670 | 70 | 2160 | 0.28 |

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



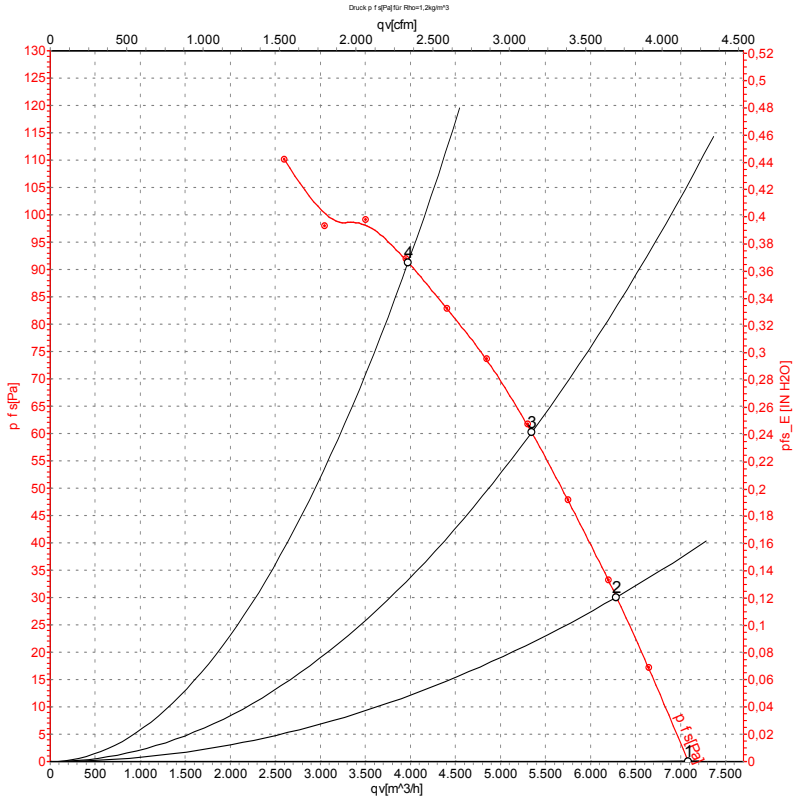
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## Curves: Air performance 60 Hz




Measurement: LU-105744-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

| | 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 | inH2O |
| 1 | 230 | 60 | 1095 | 340 | 1.53 | 63 | 70 | 70 | 7085 | 0 | 4170 | 0.00 |
| 2 | 230 | 60 | 1075 | 360 | 1.59 | 60 | 67 | 67 | 6290 | 30 | 3700 | 0.12 |
| 3 | 230 | 60 | 1050 | 375 | 1.65 | 58 | 65 | 65 | 5345 | 60 | 3145 | 0.24 |
| 4 | 230 | 60 | 1015 | 390 | 1.72 | 58 | 65 | 65 | 3975 | 90 | 2340 | 0.36 |

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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