**W2D300-CP02-56**

# AC axial fan

sickle-shaped blades (S series), single-intake
with round 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

ErP2015 EXCEEDS THE NORM

## Nominal data

| | |
|---|---|
| **Type** | **W2D300-CP02-56** |
| **Motor** | **M2D074-DF** |

| | | | |
|---|---|---|---|
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 230 | 400 |
| Wiring | | Δ | Y |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | fa | fa |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 2580 | 2750 |
| Power consumption | W | 210 | 300 |
| Current draw | A | 0.62 | 0.48 |
| Max. back pressure | Pa | 200 | 125 |
| Max. back pressure | inH2O | 0.8 | 0.5 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 75 | 40 |
| Starting current | A | 2.0 | 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 $\eta_{es}$ | % | 29.9 | 29.9 |
| 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 | 0.25 |
| 09 Air flow $q_v$ | $m^3/h$ | 2210 |
| 09 Pressure increase $p_{fs}$ | Pa | 125 |
| 10 Speed (rpm) n | $min^{-1}$ | 2455 |
| 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-62732



ebmpapst

# AC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

## Technical description

| | |
|---|---|
| **Weight** | 5.2 kg |
| **Fan size** | 300 mm |
| **Rotor surface** | Painted black |
| **Blade material** | Sheet steel, painted black |
| **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** | "V" |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP44; installation- and position-dependent as per EN 60034-5 |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | H0+ |
| **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)** | < 0.75 mA |
| **With cable** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1, motor does not have factory-installed overheating protection; CE |

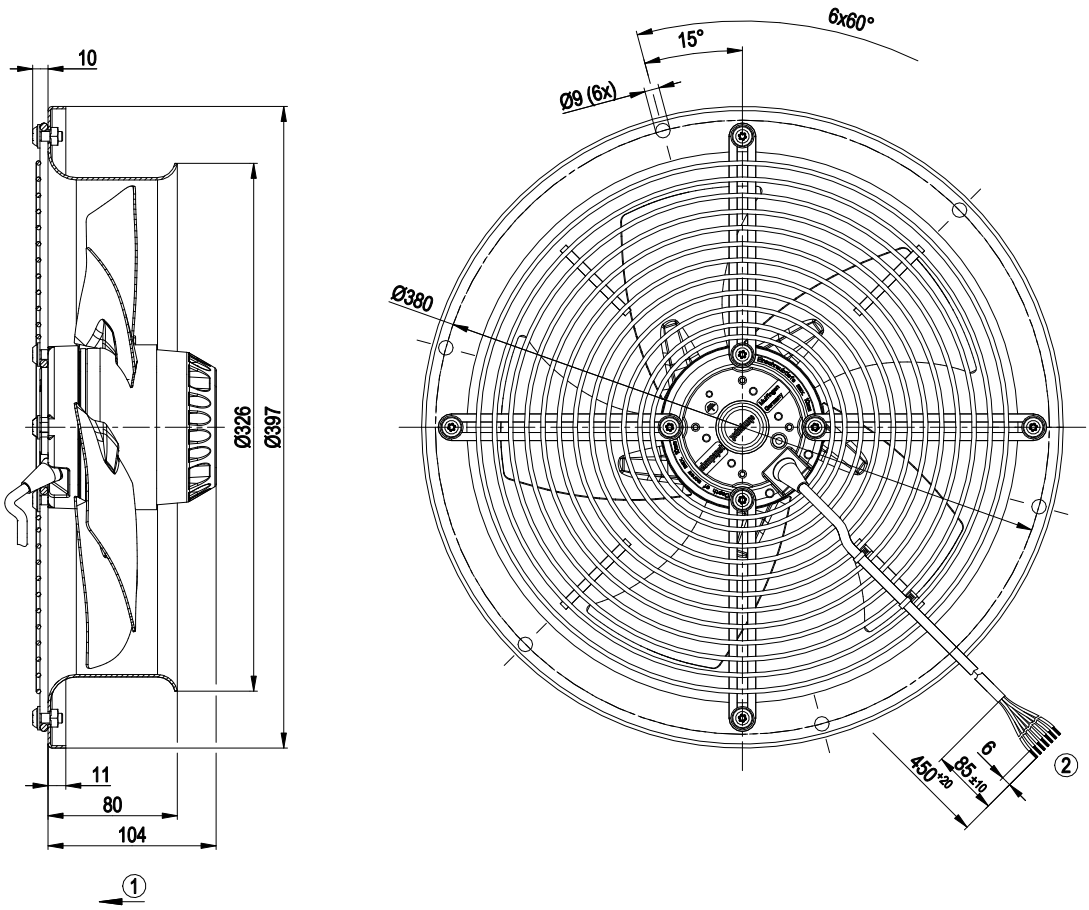


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

## Product drawing




| | |
|---|---|
| 1 | Direction of air flow "V" |
| 2 | Cable PFA AWG20 (green/yellow AWG18), 7x crimped splices |

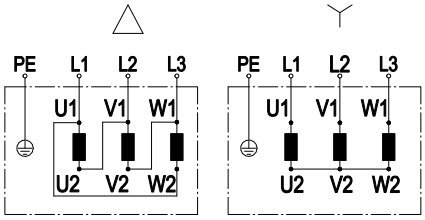


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

## Connection diagram




Change of rotation direction by reversing two phases

| | | | | | |
|---|---|---|---|---|---|
| | Three-phase motor | Δ | Delta connection | Y | Star connection |
| L1 | = U1 = black | L2 | = V1 = blue | L3 | = W1 = brown |
| U2 | green | V2 | white | W2 | yellow |
| PE | green/yellow | | | | |

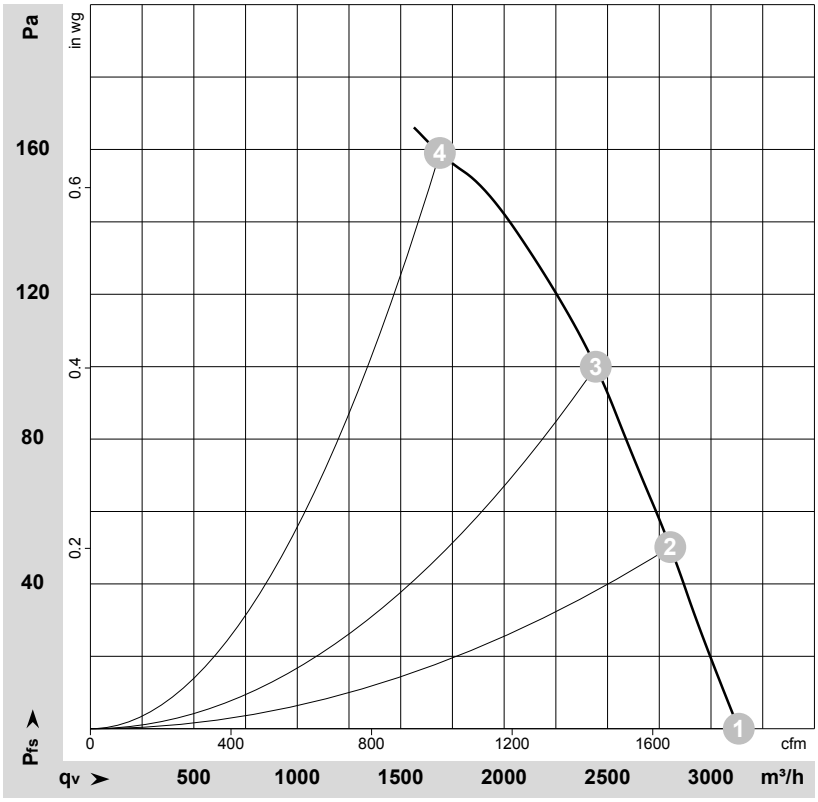


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-62732-1

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

| | Wired | U | f | n | $P_e$ | I | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | CFM | inH2O |
| 1 | Y | 400 | 50 | 2580 | 210 | 0.36 | 3135 | 0 | 1845 | 0.00 |
| 2 | Y | 400 | 50 | 2540 | 228 | 0.36 | 2805 | 50 | 1650 | 0.20 |
| 3 | Y | 400 | 50 | 2490 | 244 | 0.39 | 2445 | 100 | 1440 | 0.40 |
| 4 | Y | 400 | 50 | 2385 | 281 | 0.44 | 1690 | 160 | 995 | 0.64 |

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase

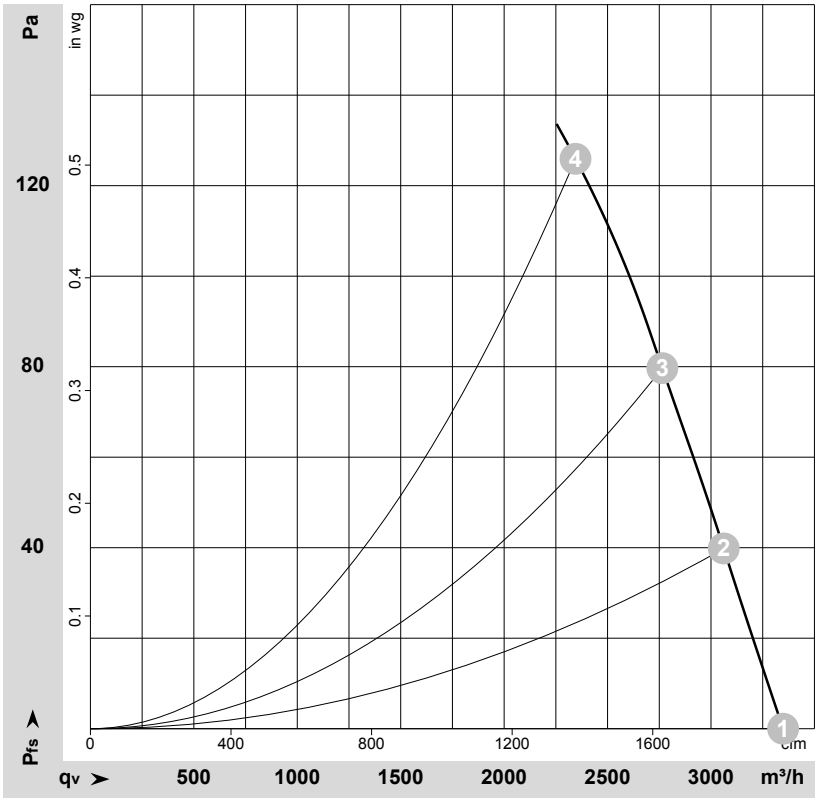


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC axial fan

sickle-shaped blades (S series), single-intake
with round full nozzle

## Curves: Air performance 60 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-62733-1

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 | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 400 | 60 | 2750 | 300 | 0.48 | 3350 | 0 | 1970 | 0.00 |
| 2 | 400 | 60 | 2685 | 316 | 0.48 | 3060 | 40 | 1800 | 0.16 |
| 3 | 400 | 60 | 2625 | 331 | 0.50 | 2765 | 80 | 1625 | 0.32 |
| 4 | 400 | 60 | 2540 | 349 | 0.53 | 2345 | 125 | 1380 | 0.50 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



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