**G2D146-BF06-10**

# AC centrifugal fan

forward-curved, single-intake

**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** | **G2D146-BF06-10** | | |
| **Motor** | **M2D068-EC** | | |
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 400 | 400 |
| Wiring | | Δ | Y |
| Frequency | Hz | 50 | 50 |
| Method of obtaining data | | fa | fa |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 2500 | 1800 |
| Power consumption | W | 245 | 150 |
| Current draw | A | 0.39 | 0.23 |
| Min. back pressure | Pa | 0 | 0 |
| Min. back pressure | inH2O | 0 | 0 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 60 | 60 |

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** | 3.9 kg |
| **Fan size** | 146 mm |
| **Rotor surface** | Painted black |
| **Impeller material** | Sheet steel, painted black |
| **Housing material** | Die-cast aluminum |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP44; installation- and position-dependent |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F2-2 |
| **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** | None |
| **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 |

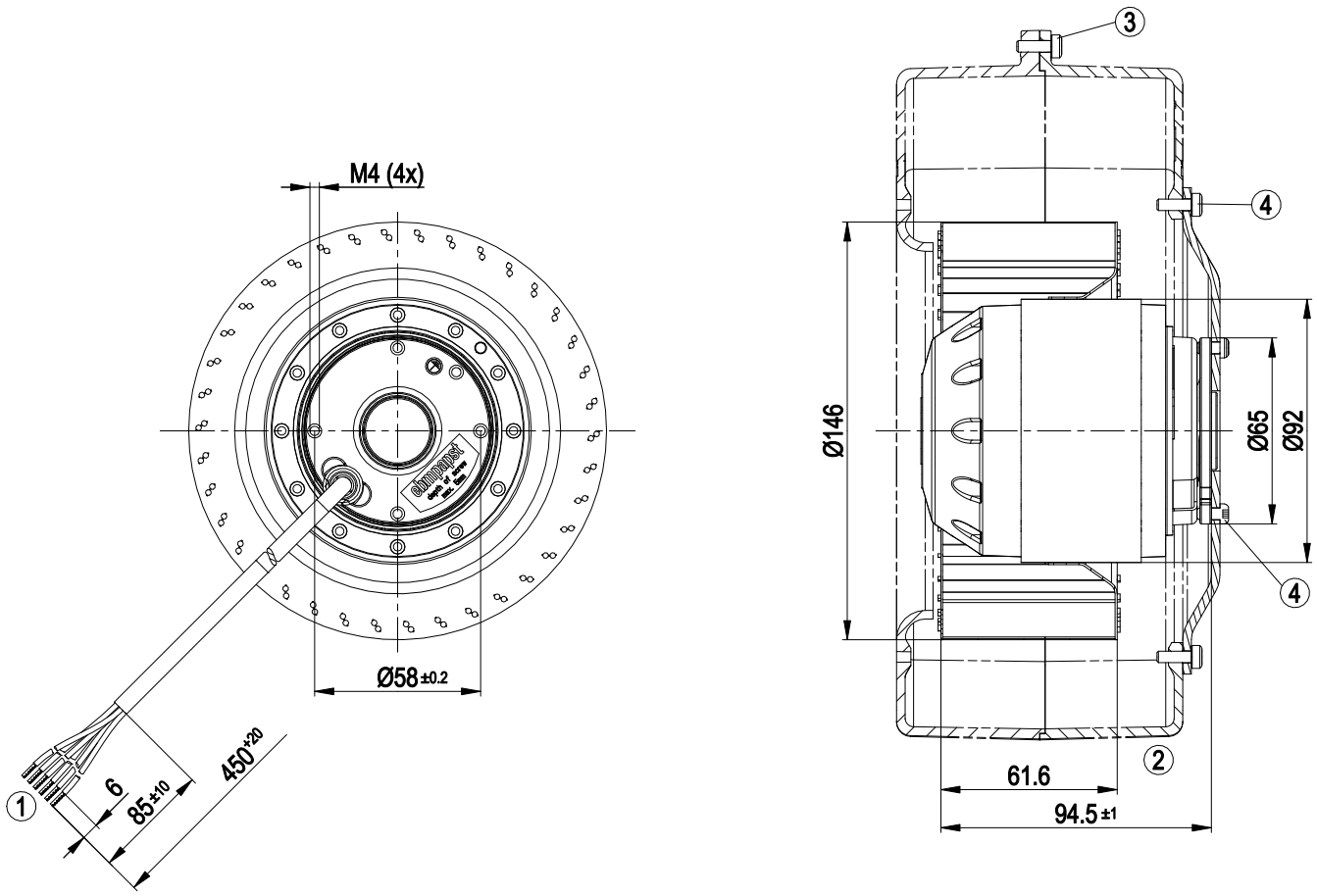


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## Product drawing




| | |
|---|---|
| 1 | Cable halogen-silicone-free 6x 0.5 mm², 6x crimped splices |
| 2 | Housing parts, support plate and cheese-head screws included separately |
| 3 | Tightening torque 3.2 ± 0.5 Nm |
| 4 | Tightening torque 2.2 ± 0.3 Nm |

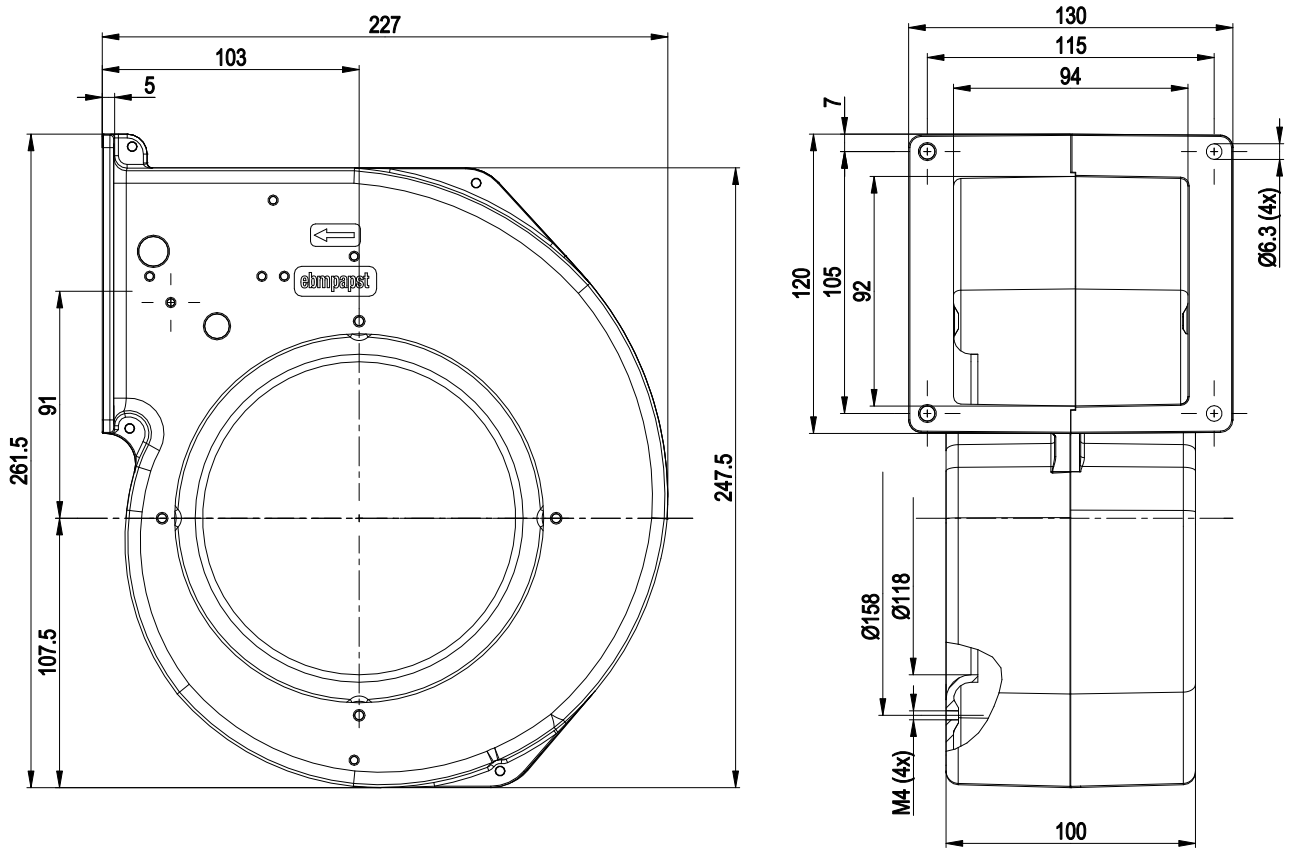


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## Accessory part



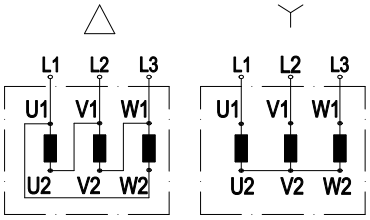



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## Connection diagram




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 |

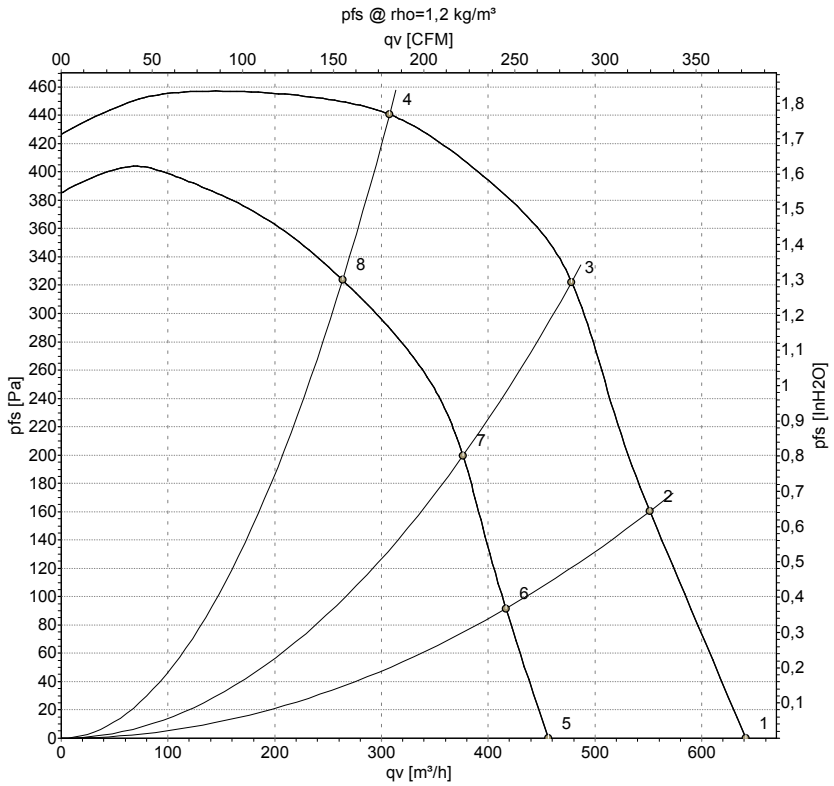


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## Curves: Air performance 50 Hz Y




Measurement: LU-45387-1
Measurement: LU-45389-1

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 | Δ | 400 | 50 | 2500 | 245 | 0.39 | 640 | 0 | 375 | 0.00 |
| 2 | Δ | 400 | 50 | 2605 | 204 | 0.33 | 550 | 160 | 325 | 0.64 |
| 3 | Δ | 400 | 50 | 2685 | 170 | 0.29 | 480 | 320 | 280 | 1.28 |
| 4 | Δ | 400 | 50 | 2820 | 109 | 0.22 | 310 | 440 | 180 | 1.77 |
| 5 | Y | 400 | 50 | 1800 | 150 | 0.23 | 455 | 0 | 270 | 0.00 |
| 6 | Y | 400 | 50 | 1975 | 135 | 0.21 | 415 | 88 | 245 | 0.35 |
| 7 | Y | 400 | 50 | 2125 | 122 | 0.19 | 375 | 205 | 220 | 0.82 |
| 8 | Y | 400 | 50 | 2430 | 89 | 0.14 | 265 | 324 | 155 | 1.30 |

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



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