**D2E146-AP47-B8**

# AC centrifugal fan

forward-curved, dual-intake



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## Nominal data

| | |
|---|---|
| **Type** | **D2E146-AP47-B8** |
| **Motor** | **M2E068-EC** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | - | - |
| Speed (rpm) | $min^{-1}$ | 2050 | 2550 |
| Power consumption | W | 300 | 330 |
| Current draw | A | 1.31 | 1.45 |
| Capacitor | µF | 8 | 8 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Min. back pressure | Pa | 200 | 0 |
| Min. back pressure | inH2O | 0.8 | 0 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 50 | 45 |

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** | 4.7 kg |
| **Fan size** | 146 mm |
| **Rotor surface** | Unpainted |
| **Impeller material** | Sheet steel, galvanized |
| **Housing material** | Sheet steel, galvanized |
| **Guard grille material** | Steel, galvanized and coated with white-aluminum plastic (RAL 9006) |
| **Motor suspension** | Motor mounted with brackets on one side |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP44; installation- and position-dependent |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | H0 - dry environment |
| **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 |
| **Electrical hookup** | Capacitor mounted; With plug |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **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 60335-1 |
| **Approval** | UL 1004-1; CCC; CSA C22.2 No. 100 |

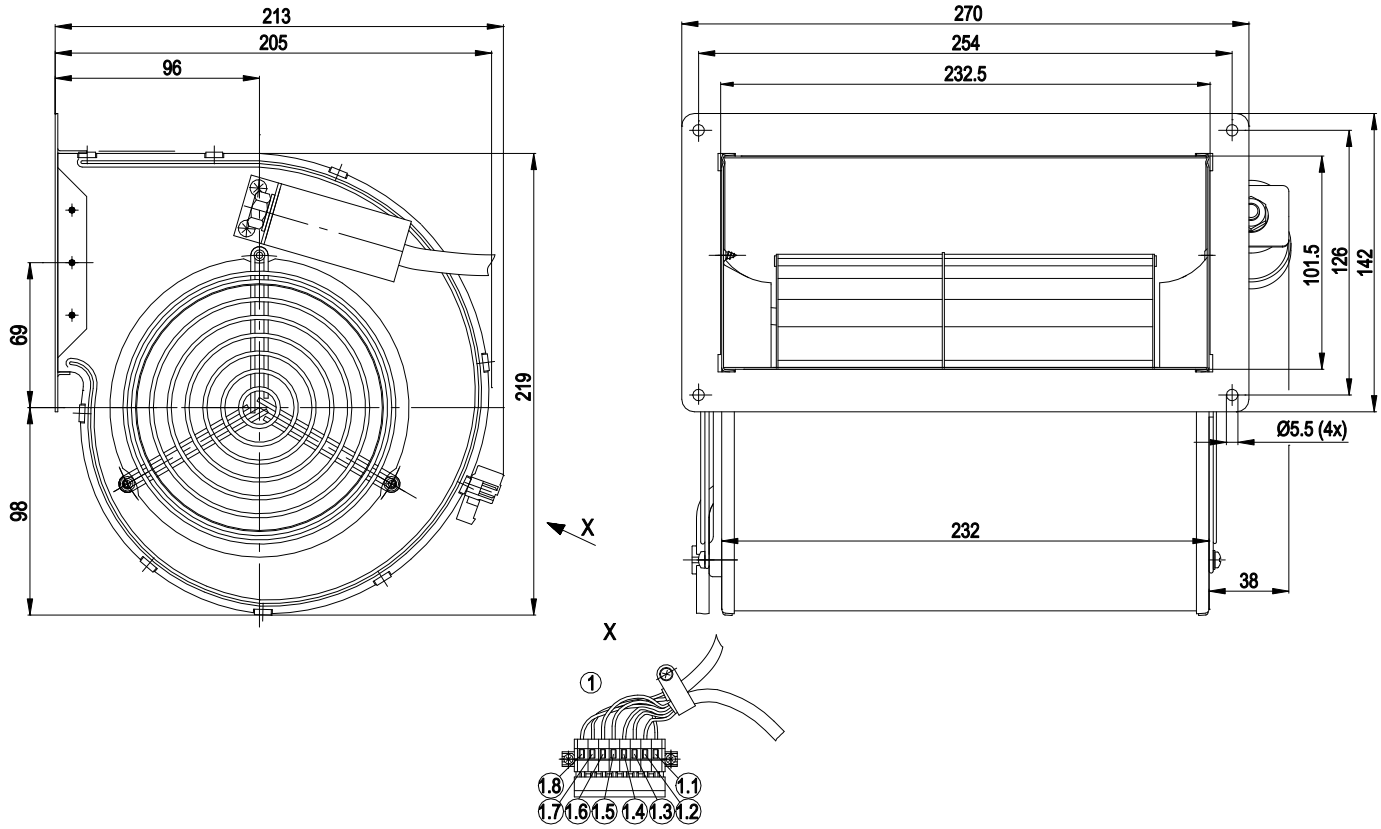


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## Product drawing




| | |
|---|---|
| 1 | Connector housing WAGO no. 231-608/019-000 |
| 1.1 | Capacitor |
| 1.2 | brown |
| 1.3 | blue |
| 1.4 | gray |
| 1.5 | green/yellow |
| 1.6 | gray |
| 1.7 | Capacitor |
| 1.8 | black |

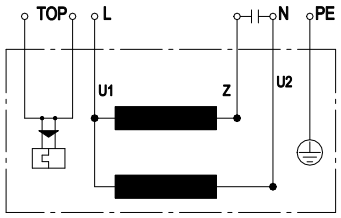


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## Connection diagram




| | | | | | |
|---|---|---|---|---|---|
| U1 | blue | Z | brown | U2 | black |
| PE | green/yellow | TOP | 2x gray | | |

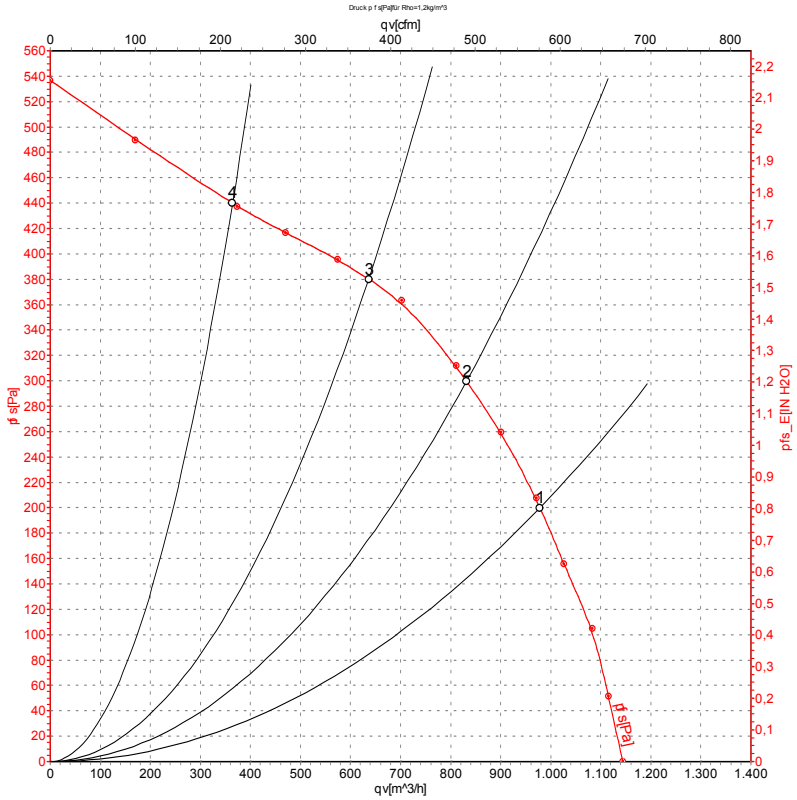


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## Curves: Air performance 50 Hz Y




Measurement: LU-32744-1

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 | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | Y | 230 | 50 | 2050 | 300 | 1.31 | 970 | 200 | 570 | 0.80 |
| 2 | Y | 230 | 50 | 2265 | 267 | 1.18 | 830 | 300 | 490 | 1.20 |
| 3 | Y | 230 | 50 | 2490 | 232 | 1.02 | 635 | 380 | 375 | 1.53 |
| 4 | Y | 230 | 50 | 2675 | 191 | 0.84 | 365 | 440 | 215 | 1.77 |

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

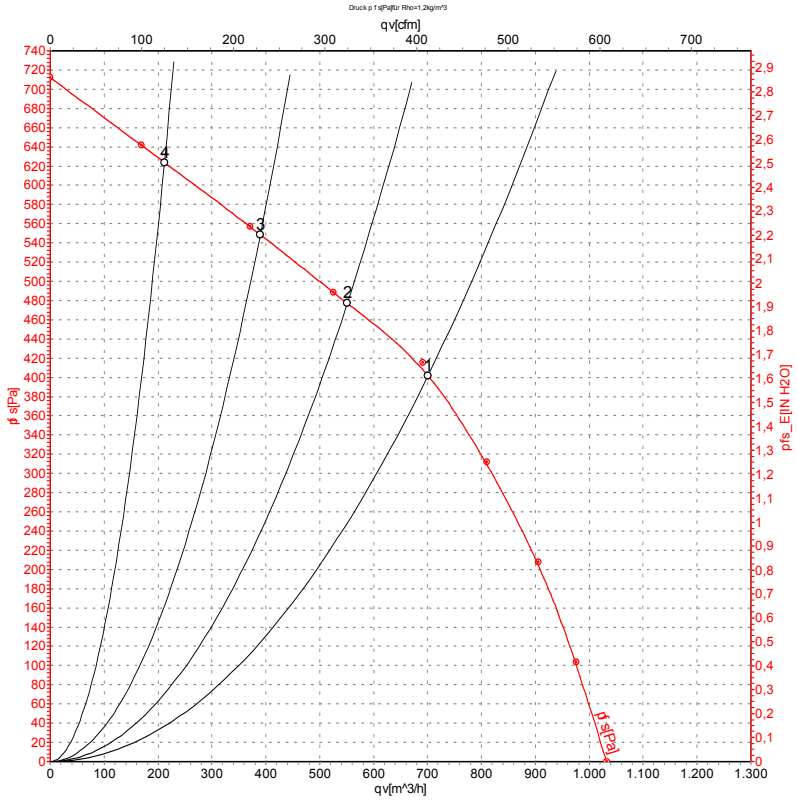


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## Curves: Air performance 60 Hz Y




Measurement: LU-32745-1

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 | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | Y | 230 | 60 | 2550 | 330 | 1.45 | 700 | 400 | 410 | 1.61 |
| 2 | Y | 230 | 60 | 2770 | 300 | 1.36 | 550 | 475 | 325 | 1.91 |
| 3 | Y | 230 | 60 | 2975 | 277 | 1.28 | 390 | 550 | 230 | 2.21 |
| 4 | Y | 230 | 60 | 3095 | 260 | 1.22 | 210 | 625 | 125 | 2.51 |

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



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