**D4E225-CC01-39**

# AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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

## Nominal data

| | |
|---|---|
| **Type** | **D4E225-CC01-39** |
| **Motor** | **M4E074-LA** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 1210 | 1300 |
| Power consumption | W | 540 | 625 |
| Current draw | A | 2.4 | 2.75 |
| Capacitor | µF | 16 | 16 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S2 (CE) | S2 (CE) |
| Min. back pressure | Pa | 250 | 300 |
| Min. back pressure | inH2O | 1 | 1.2 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 30 | 30 |

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 $\eta_e$ | % | 40.2 | 40.2 |
| 02 Measurement category | | B | |
| 03 Efficiency category | | Total | |
| 04 Efficiency grade N | | 49 | 49 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 0.4 |
| 09 Air flow $q_v$ | $m^3/h$ | 1595 |
| 09 Pressure increase $p_f$ | Pa | 355 |
| 10 Speed (rpm) n | $min^{-1}$ | 1345 |
| 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 + $p_f$ / 100 000 Pa

LU-135956

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## Technical description

| | |
|---|---|
| **Weight** | 13.4 kg |
| **Fan size** | 225 mm |
| **Rotor surface** | Painted black |
| **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 vibration-damped on both sides |
| **Direction of rotation** | Counterclockwise, viewed toward rotor |
| **Degree of protection** | IP22 |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | F2-1 |
| **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** | None |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | < 0.75 mA |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1; CE |
| **Approval** | CSA C22.2 No. 100; CCC; EAC; UL 1004-1 |



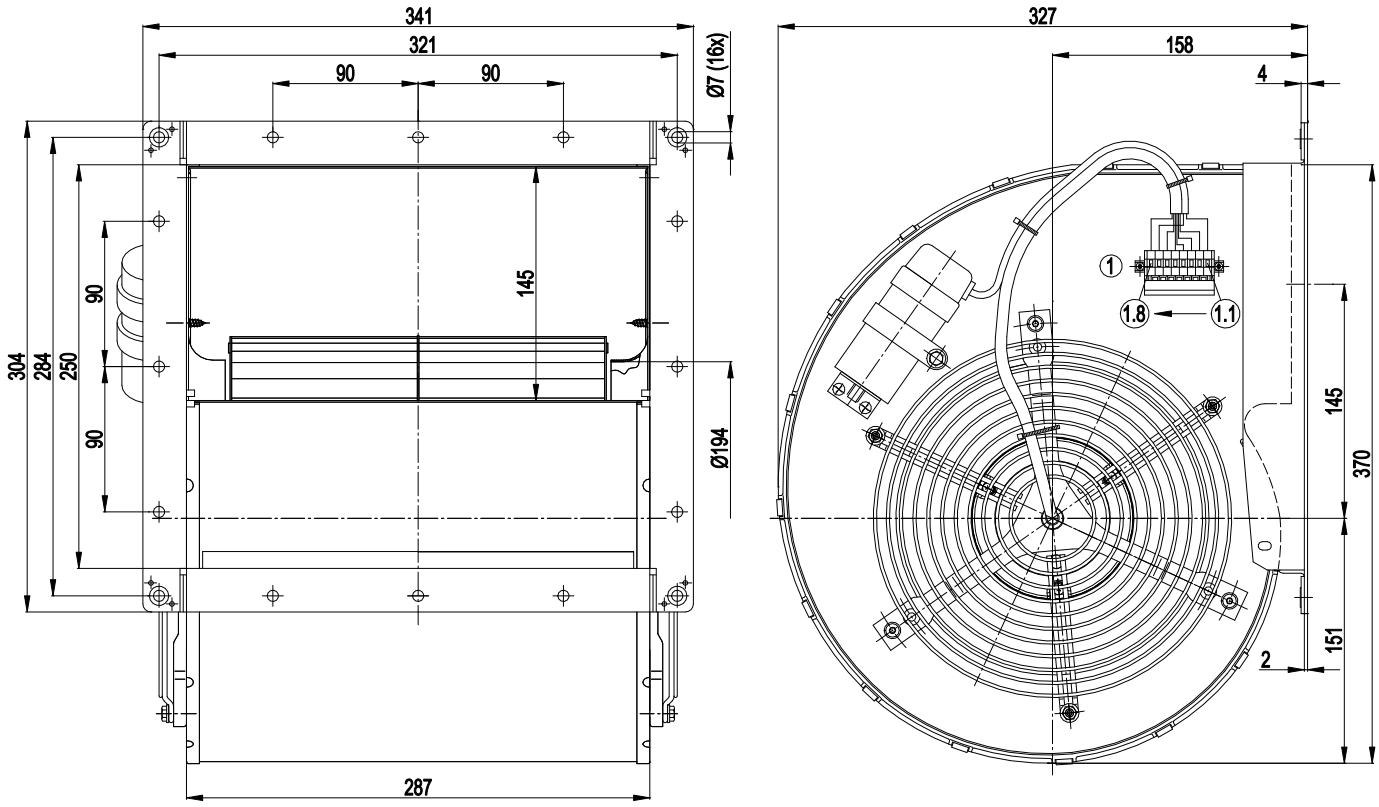
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## Product drawing




| | |
|---|---|
| 1 | Cable with connector housing WAGO 231-608/019-000 |
| 1.1 | Capacitor |
| 1.2 | Z |
| 1.3 | U1 |
| 1.4 | TW |
| 1.5 | PE |
| 1.6 | TW |
| 1.7 | Capacitor |
| 1.8 | U2 |



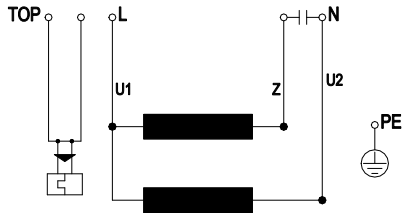
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## Connection diagram




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



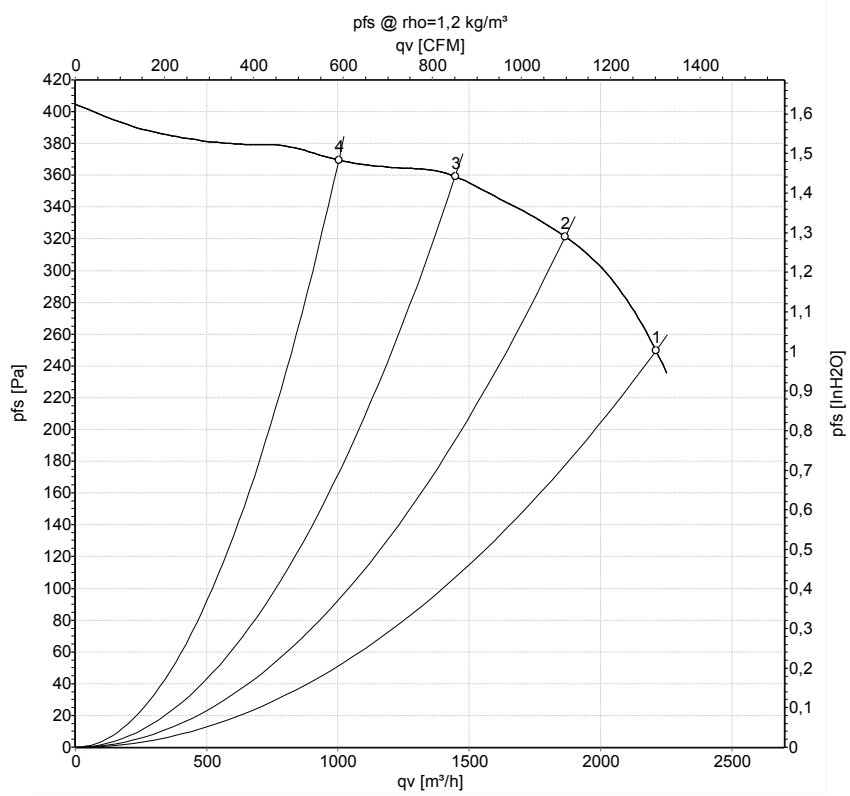
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# AC centrifugal fan

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with housing (large flange)

## Curves: Air performance 50 Hz




Measurement: LU-135956-1

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 | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 50 | 1210 | 540 | 2.40 | 2210 | 250 | 1300 | 1.00 |
| 2 | 230 | 50 | 1300 | 459 | 2.04 | 1865 | 320 | 1100 | 1.28 |
| 3 | 230 | 50 | 1365 | 378 | 1.71 | 1445 | 360 | 850 | 1.45 |
| 4 | 230 | 50 | 1405 | 320 | 1.48 | 1005 | 370 | 590 | 1.49 |

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



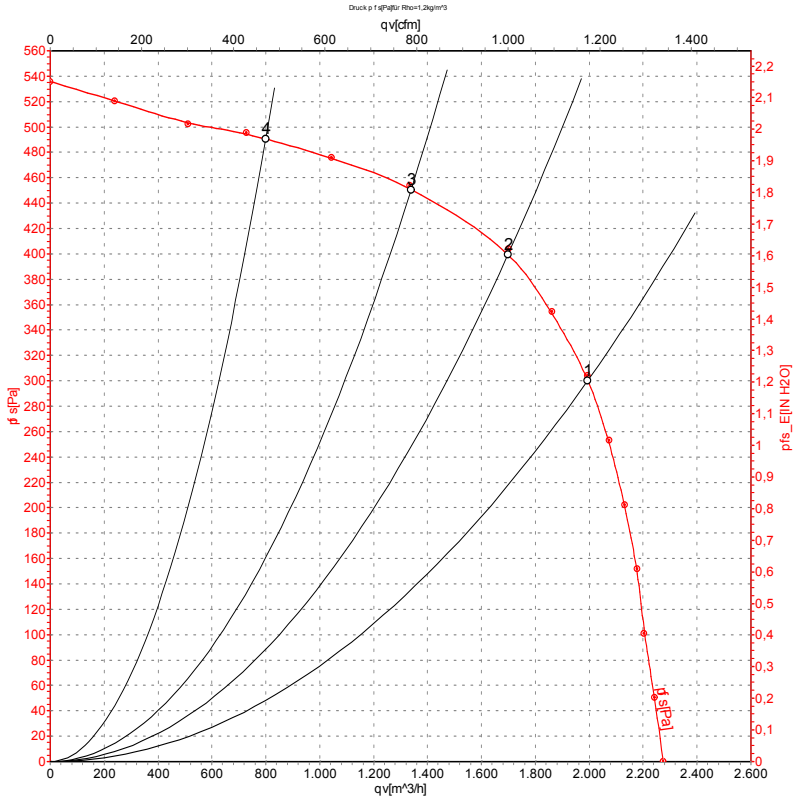
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## Curves: Air performance 60 Hz




Measurement: LU-35316-1

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 | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 60 | 1300 | 625 | 2.75 | 1995 | 300 | 1175 | 1.20 |
| 2 | 230 | 60 | 1465 | 553 | 2.43 | 1700 | 400 | 1000 | 1.61 |
| 3 | 230 | 60 | 1565 | 474 | 2.13 | 1340 | 450 | 790 | 1.81 |
| 4 | 230 | 60 | 1645 | 390 | 1.83 | 800 | 490 | 470 | 1.97 |

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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