**D4E225-CC01-57**

# AC centrifugal fan

forward-curved, dual-intake

with housing (large flange)

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## Nominal data

| | | | |
|---|---|---|---|
| **Type** | **D4E225-CC01-57** | | |
| **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 | in. wg | 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 Commission Regulation (EU) 327/2011 (EN 17166)

| | | Actual | Req. 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_e$ | % | 40.3 | 40.2 |
| 02 Measurement category | | B | |
| 03 Efficiency category | | Total | |
| 04 Efficiency grade N | | 49.1 | 49 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 0.41 |
| 09 Air flow $q_v$ | $m^3/h$ | 1710 |
| 09 Pressure increase $p_f$ | Pa | 351 |
| 10 Speed (rpm) n | $min^{-1}$ | 1335 |
| 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-200211

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## Technical description

| | |
|---|---|
| **Weight** | 12.67 kg |
| **Size** | 225 mm |
| **Motor size** | 74 |
| **Impeller material** | Sheet steel, galvanized |
| **Housing material** | Sheet steel, galvanized |
| **Guard grille material** | Steel, 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** | H0+ |
| **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, open rotor |
| **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) |
| **Motor capacitor according to EN 60252-1 in safety protection class** | S2 |
| **Conformity with standards** | EN 60034-1; EN 60204-1; EN 60335-1; CE |
| **Approval** | CSA C22.2 No. 100; CCC; EAC; UL 1004-1 |



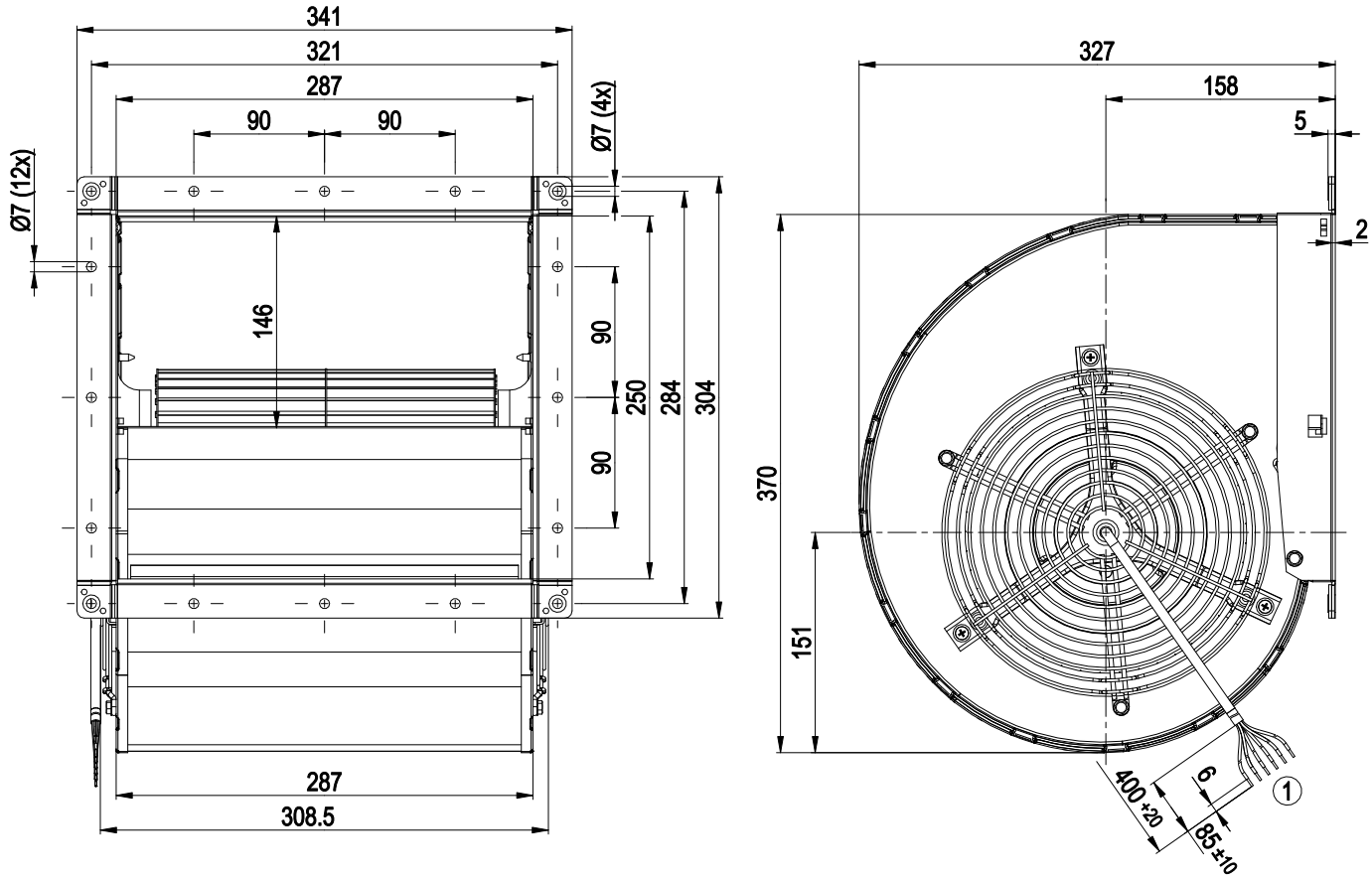
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## Product drawing




| | |
|---|---|
| 1 | Cable PFA AWG20 (green/yellow AWG18) |
| | 6x splice |



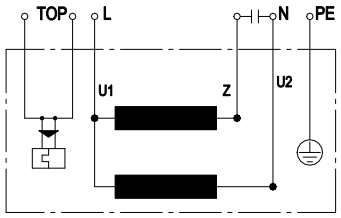
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## Connection diagram




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



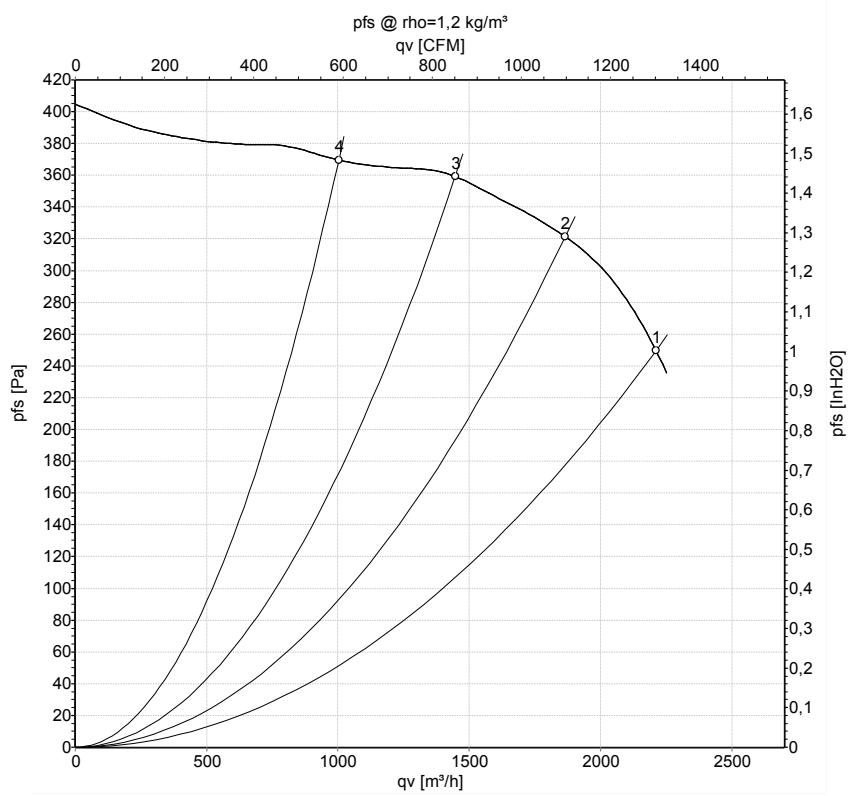
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## Curves: Air performance 50 Hz




Measurement: LU-135956-1

Air performance measured according to ISO 5801 installation category B. 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 | in. wg |
| 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 = Voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



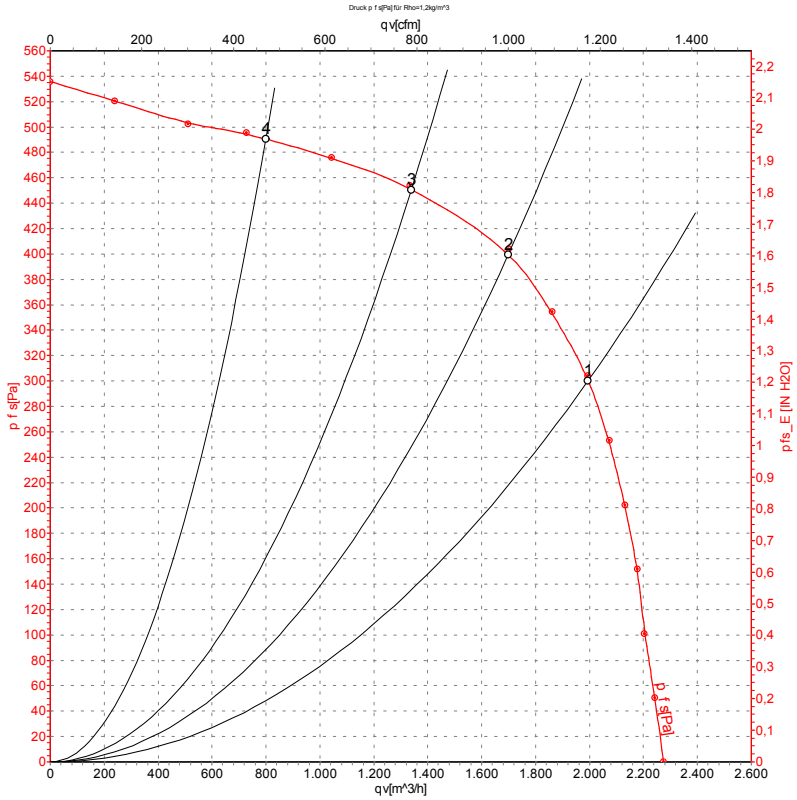
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## Curves: Air performance 60 Hz




Measurement: LU-35316-1

Air performance measured according to ISO 5801 installation category B. 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 | in. wg |
| 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 = Voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



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