**G4D225-FK10-03**

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)



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## Nominal data

| | | | |
|---|---|---|---|
| **Type** | **G4D225-FK10-03** | | |
| **Motor** | **M4D094-FA** | | |
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 400 | 400 |
| Wiring | | Y | Y |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | fa | ml |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | $min^{-1}$ | 1350 | 1500 |
| Power consumption | W | 380 | 540 |
| Current draw | A | 0.75 | 0.94 |
| Min. back pressure | Pa | 0 | 50 |
| Min. back pressure | in. wg | 0 | 0.2 |
| Min. ambient temperature | °C | -40 | -40 |
| Max. ambient temperature | °C | 90 | 55 |
| Starting current | A | 2.8 | 2.7 |

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 $\eta_{es}$ | % | 34.1 | 33 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 45.1 | 44 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power consumption $P_e$ | kW | 0.18 |
| 09 Air flow $q_v$ | $m^3/h$ | 755 |
| 09 Pressure increase $p_{fs}$ | Pa | 295 |
| 10 Speed (rpm) n | $min^{-1}$ | 1445 |
| 11 Specific ratio* | | 1.00 |

Data obtained at optimum efficiency level.

* Specific ratio = 1 + $p_{fs}$ / 100 000 Pa

LU-56986

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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## Technical description

| | |
|---|---|
| **Weight** | 9.5 kg |
| **Size** | 225 mm |
| **Motor size** | 94 |
| **Rotor surface** | Painted black |
| **Impeller material** | Sheet steel, galvanized |
| **Housing material** | Sheet steel, galvanized |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP54 |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | H1 |
| **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)** | <= 3.5 mA |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **With cable** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60034-1 (2010); CE |
| **Approval** | EAC; CCC |



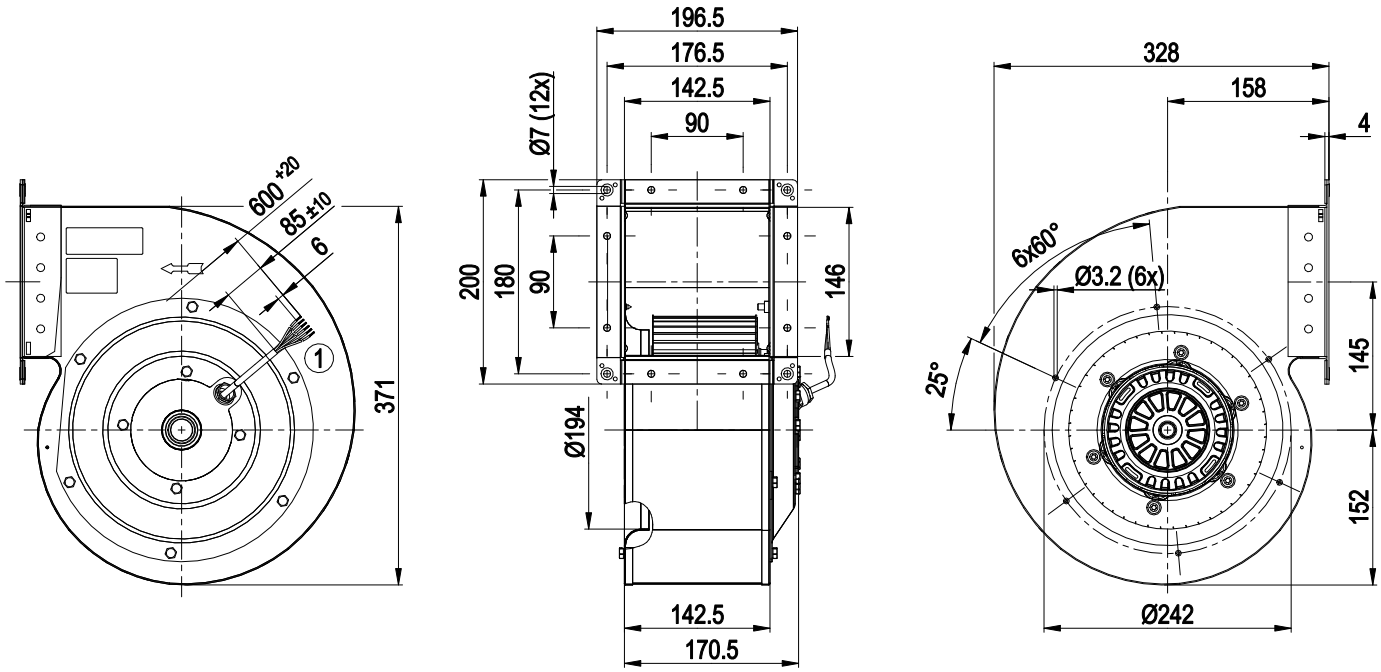
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## Product drawing




| | |
|---|---|
| 1 | Cable silicone 6G 0.5 mm² |
| | 6x splice |



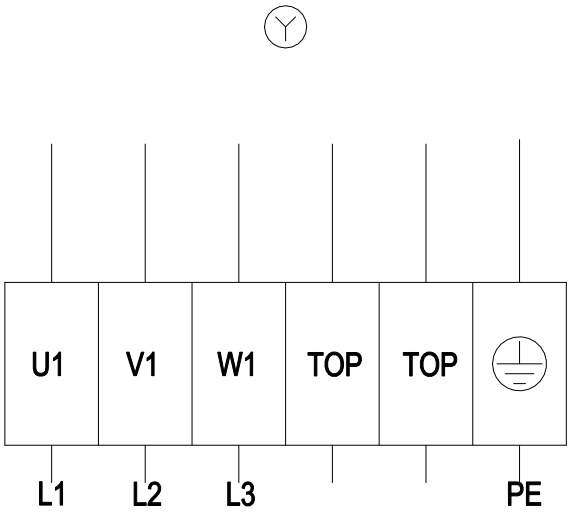
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## Connection diagram




| | | | | | |
|---|---|---|---|---|---|
| Δ | Star connection | L1 | = U1 = black | L2 | = V1 = blue |
| L3 | = W1 = brown | TOP | 2x gray | PE | green/yellow |



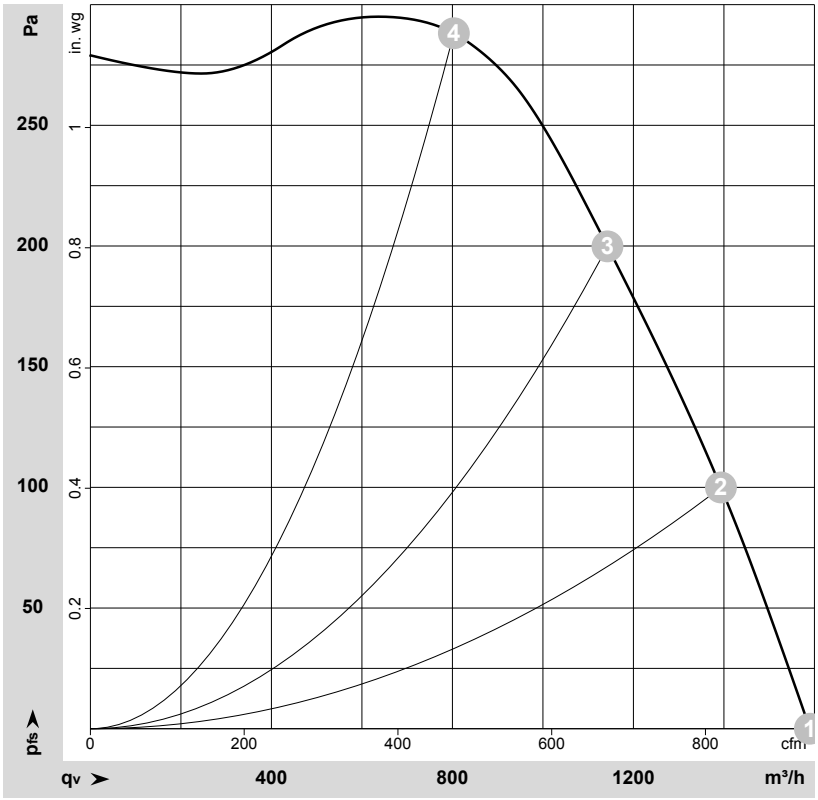
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## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-56986-1

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 | in. wg |
| 1 | Y | 400 | 50 | 1350 | 380 | 0.75 | 1590 | 0 | 935 | 0.00 |
| 2 | Y | 400 | 50 | 1380 | 323 | 0.69 | 1395 | 100 | 820 | 0.40 |
| 3 | Y | 400 | 50 | 1410 | 259 | 0.63 | 1145 | 200 | 675 | 0.80 |
| 4 | Y | 400 | 50 | 1440 | 190 | 0.57 | 805 | 290 | 475 | 1.16 |

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



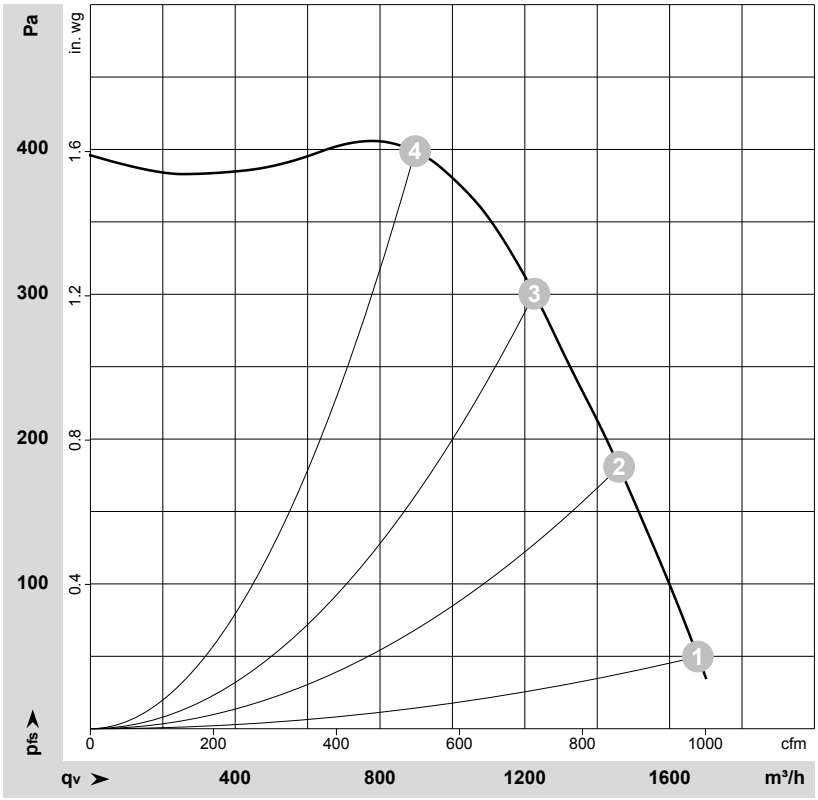
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## Curves: Air performance 60 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-56987-1

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 | in. wg |
| 1 | Y | 400 | 60 | 1500 | 540 | 0.94 | 1680 | 50 | 990 | 0.20 |
| 2 | Y | 400 | 60 | 1570 | 452 | 0.80 | 1460 | 180 | 860 | 0.72 |
| 3 | Y | 400 | 60 | 1625 | 370 | 0.68 | 1225 | 300 | 720 | 1.20 |
| 4 | Y | 400 | 60 | 1675 | 272 | 0.55 | 895 | 400 | 530 | 1.61 |

Wired = Wiring · 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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