**D2E097-BI56-A4**

# AC centrifugal fan

forward curved, dual inlet

with housing (without flange)



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County court Stuttgart · HRA 590344

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## Nominal data

| | |
|---|---|
| **Type** | **D2E097-BI56-A4** |
| **Motor** | **M2E052-CA** |

| | | | |
|---|---|---|---|
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Type of data definition | | fa | fa |
| Valid for approval / standard | | CE | CE |
| Speed | $min^{-1}$ | 1950 | 1850 |
| Power input | W | 87 | 100 |
| Current draw | A | 0.39 | 0.45 |
| Motor capacitor | µF | 2 | 2 |
| Capacitor voltage | VDB | 400 | 400 |
| Min. back pressure | Pa | 0 | 0 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 60 | 55 |

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

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## Technical features

| | |
|---|---|
| **Mass** | 1.5 kg |
| **Size** | 97 mm |
| **Surface of rotor** | Coated in black |
| **Material of impeller** | Sheet steel, coated in black |
| **Housing material** | Sheet steel, galvanised |
| **Direction of rotation** | Counter-clockwise, seen on rotor |
| **Type of protection** | IP 20 |
| **Insulation class** | "F" |
| **Max. permissible ambient motor temp. (transp./ storage)** | + 80 °C |
| **Min. permissible ambient motor temp. (transp./storage)** | - 40 °C |
| **Mounting position** | Shaft horizontal or rotor on bottom; rotor on top on request |
| **Condensate discharge holes** | Rotor-side |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | < 0.75 mA |
| **Motor protection** | Thermal overload protector (TOP) wired internally |
| **Cable exit** | Axial |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1; CE |



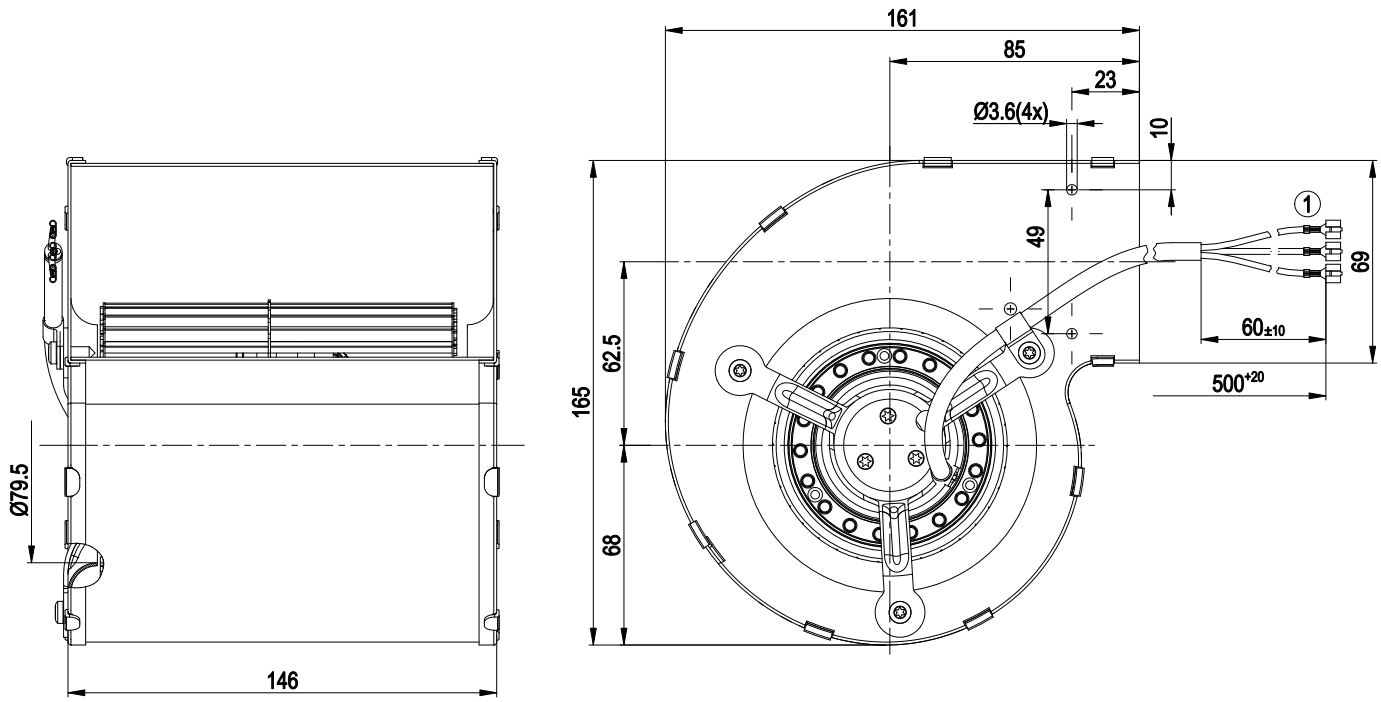
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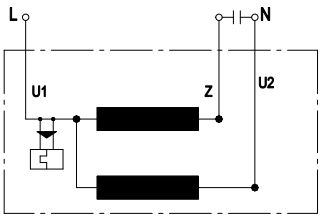
with housing (without flange)

## Product drawing




| | |
|---|---|
| 1 | Connection line ETFE AWG 20, 3x receptacles for tabs 2.8 x 1 |

## Connection screen




| | | | | | |
|---|---|---|---|---|---|
| U1 | Blue | Z | brown | U2 | black |



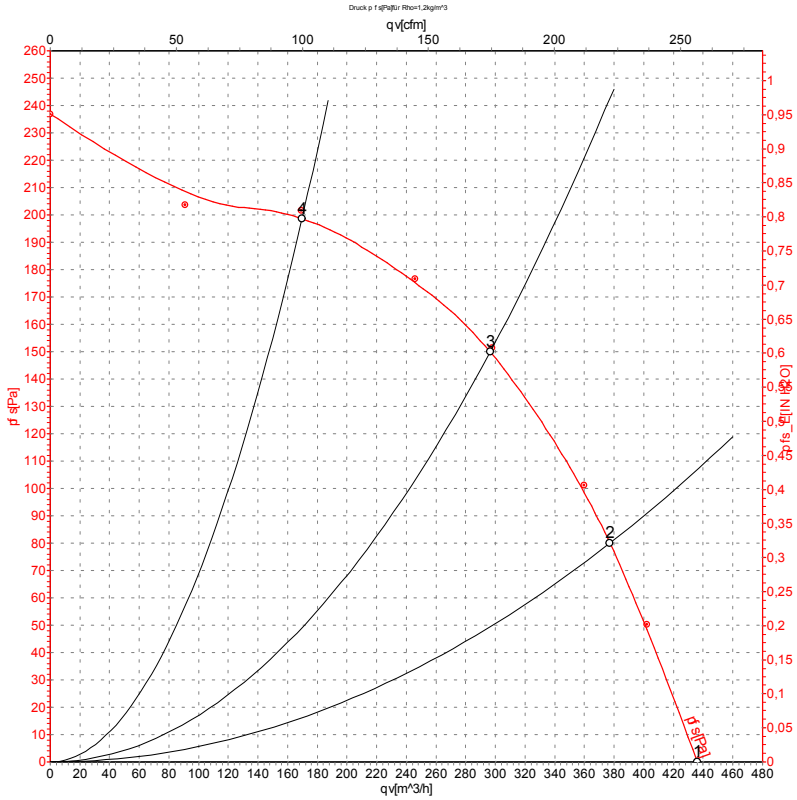
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# AC centrifugal fan

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## Charts: Air flow 50 Hz




Measurement: LU-34651

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

| | U | f | n | $P_e$ | I | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa |
| 1 | 230 | 50 | 1950 | 87 | 0.39 | 435 | 0 |
| 2 | 230 | 50 | 2235 | 81 | 0.35 | 375 | 80 |
| 3 | 230 | 50 | 2470 | 73 | 0.32 | 295 | 150 |
| 4 | 230 | 50 | 2710 | 67 | 0.31 | 170 | 200 |

U = Supply voltage · f = Frequency · n = Speed · $P_e$ = Power input · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



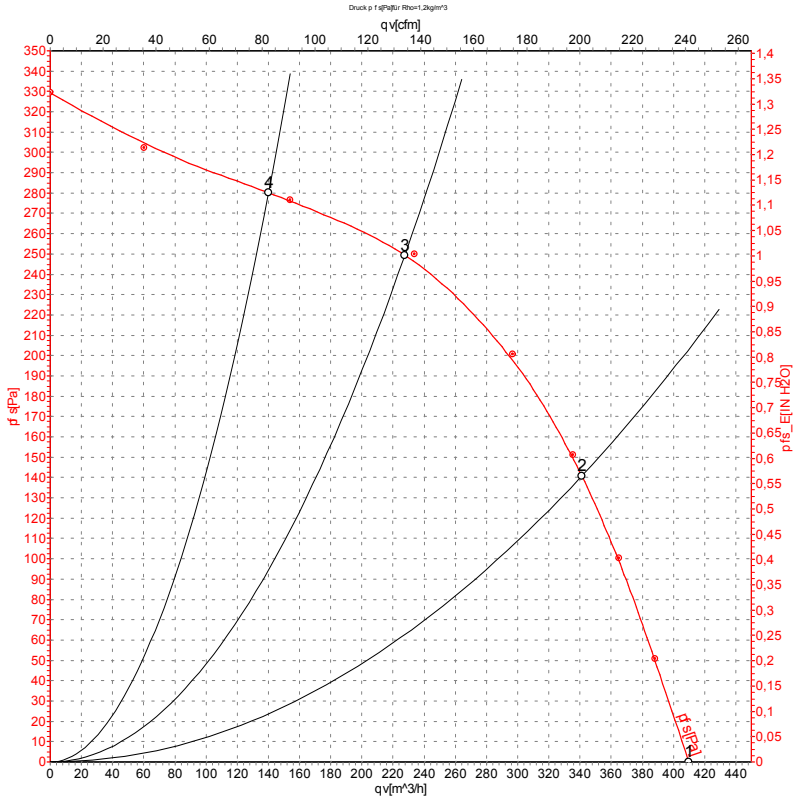
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# AC centrifugal fan

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## Charts: Air flow 60 Hz




Measurement: LU-34652

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

| | U | f | n | $P_e$ | I | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa |
| 1 | 230 | 60 | 1850 | 100 | 0.45 | 410 | 0 |
| 2 | 230 | 60 | 2500 | 93 | 0.40 | 340 | 140 |
| 3 | 230 | 60 | 2995 | 81 | 0.35 | 230 | 250 |
| 4 | 230 | 60 | 3210 | 74 | 0.32 | 140 | 280 |

U = Supply voltage · f = Frequency · n = Speed · $P_e$ = Power input · I = Current draw · qv = Air flow · $p_{fs}$ = Pressure increase



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