# AC centrifugal fan

backward-curved

R2E180-AT38-10 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

## Nominal data

| | |
|---|---|
| **Type** | **R2E180-AT38-10** |
| **Motor** | **M2E068-CF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 240 |
| Nominal voltage range | VAC | 220 .. 240 |
| Frequency | Hz | 50 |
| Method of obtaining data | | fa |
| Valid for approval/standard | | CE |
| Speed (rpm) | $min^{-1}$ | 2400 |
| Power consumption | W | 85 |
| Current draw | A | 0.36 |
| Capacitor | µF | 2 |
| Capacitor voltage | VDB | 450 |
| Min. back pressure | Pa | 0 |
| Min. back pressure | inH2O | 0 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 40 |

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** | 1.9 kg |
| **Fan size** | 180 mm |
| **Impeller material** | PA plastic |
| **Number of blades** | 16 |
| **Direction of rotation** | Clockwise, 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 |
| **With cable** | Axial |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1 |
| **Approval** | EAC |

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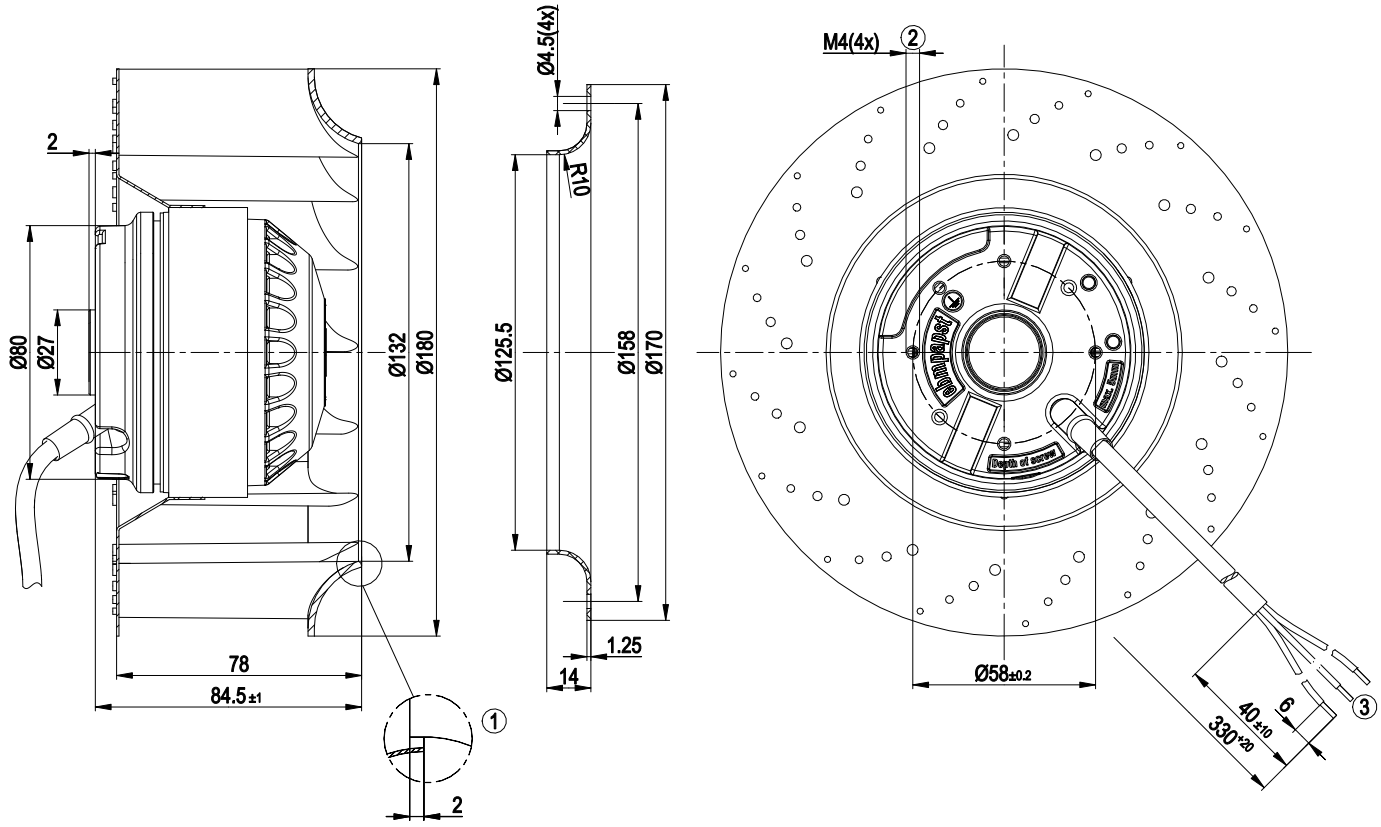
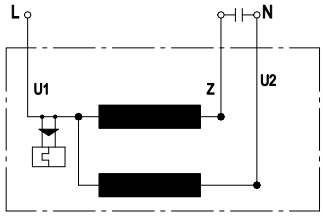
## Product drawing




| | |
|---|---|
| 1 | Accessory part: Inlet ring 09576-2-4013, not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm |
| 3 | Cable silicone 3x 0.5 mm², 3x crimped splices |

## Connection diagram




| | | | | | |
|---|---|---|---|---|---|
| U1 | blue | Z | brown | U2 | black |

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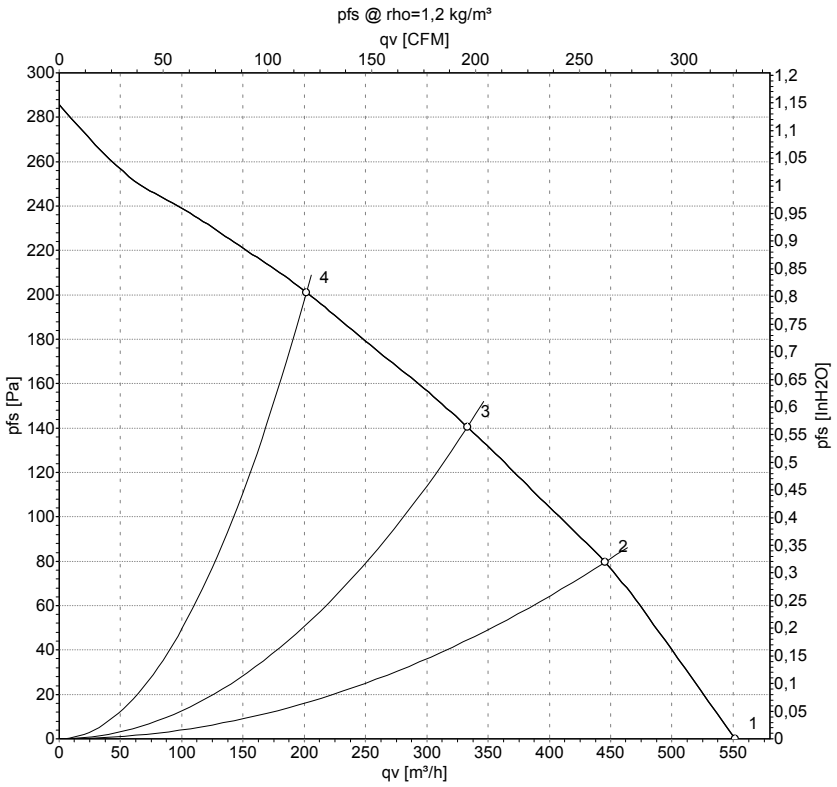
## Curves: Air performance 50 Hz




Measurement: LU-145159-1

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 | $LpA_{in}$ | $LwA_{in}$ | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 230 | 50 | 2400 | 85 | 0.36 | 62 | 69 | 550 | 0 | 325 | 0.00 |
| 2 | 230 | 50 | 2260 | 85 | 0.37 | 58 | 66 | 445 | 80 | 260 | 0.32 |
| 3 | 230 | 50 | 2360 | 80 | 0.35 | 57 | 65 | 335 | 140 | 195 | 0.56 |
| 4 | 230 | 50 | 2535 | 72 | 0.32 | 58 | 66 | 200 | 200 | 120 | 0.80 |

U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $LpA_{in}$ = Sound pressure level intake side · $LwA_{in}$ = Sound power level intake side
qv = Air flow · $p_{fs}$ = Pressure increase