

R2E175-AR70-05

AC centrifugal fan

backward-curved, single-intake

R2E175-AR70-05 ebmpapst

Datesheet

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Nominal data

| | | | |
|-----------------------------|-------------------|---------|---------|
| Type | R2E175-AR70-05 | | |
| Motor | M2E052-CA | | |
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 230 | 230 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | fa | fa |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | min ⁻¹ | 2600 | 2950 |
| Power consumption | W | 38 | 44 |
| Current draw | A | 0.17 | 0.20 |
| Capacitor | µF | 1.5 | 1.5 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Min. back pressure | Pa | 0 | 0 |
| Min. back pressure | in. wg | 0 | 0 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 60 | 60 |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



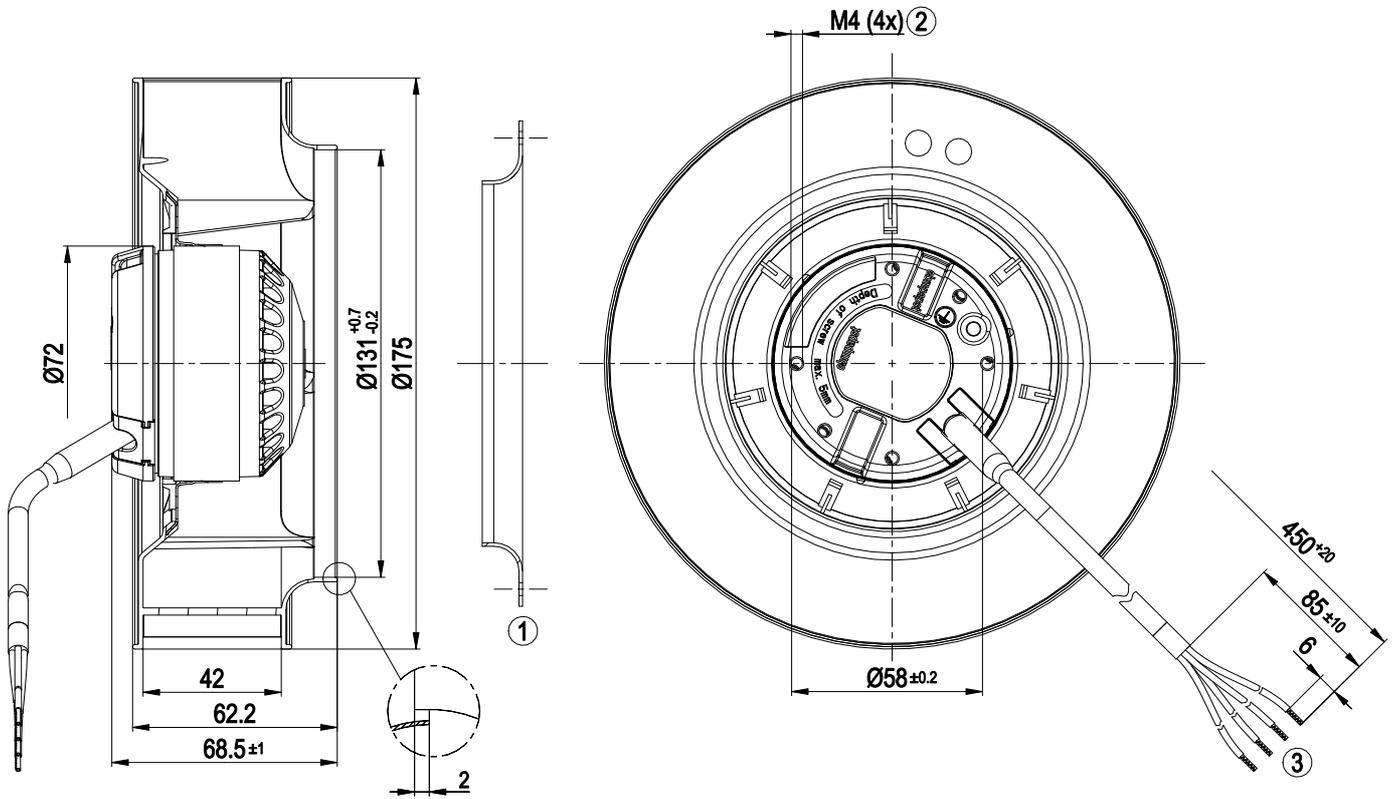
Technical description

| | |
|---|--|
| Weight | 0.9 kg |
| Fan size | 175 mm |
| Rotor surface | Painted black |
| Impeller material | PA plastic |
| Number of blades | 7 |
| Direction of rotation | Clockwise, viewed toward rotor |
| Degree of protection | IP44; installation- and position-dependent |
| Insulation class | "F" |
| Ambient temperature note | Occasional start-up between -40°C and -25°C is permissible. For continuous operation at temperatures below -25°C (e.g. refrigeration applications) we recommend our fan design with special low-temperature bearings. |
| 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) internally connected |
| With cable | Variable |
| Protection class | I (with customer connection of protective earth) |
| Conformity with standards | EN 60335-1; CE |
| Approval | CCC; EAC |

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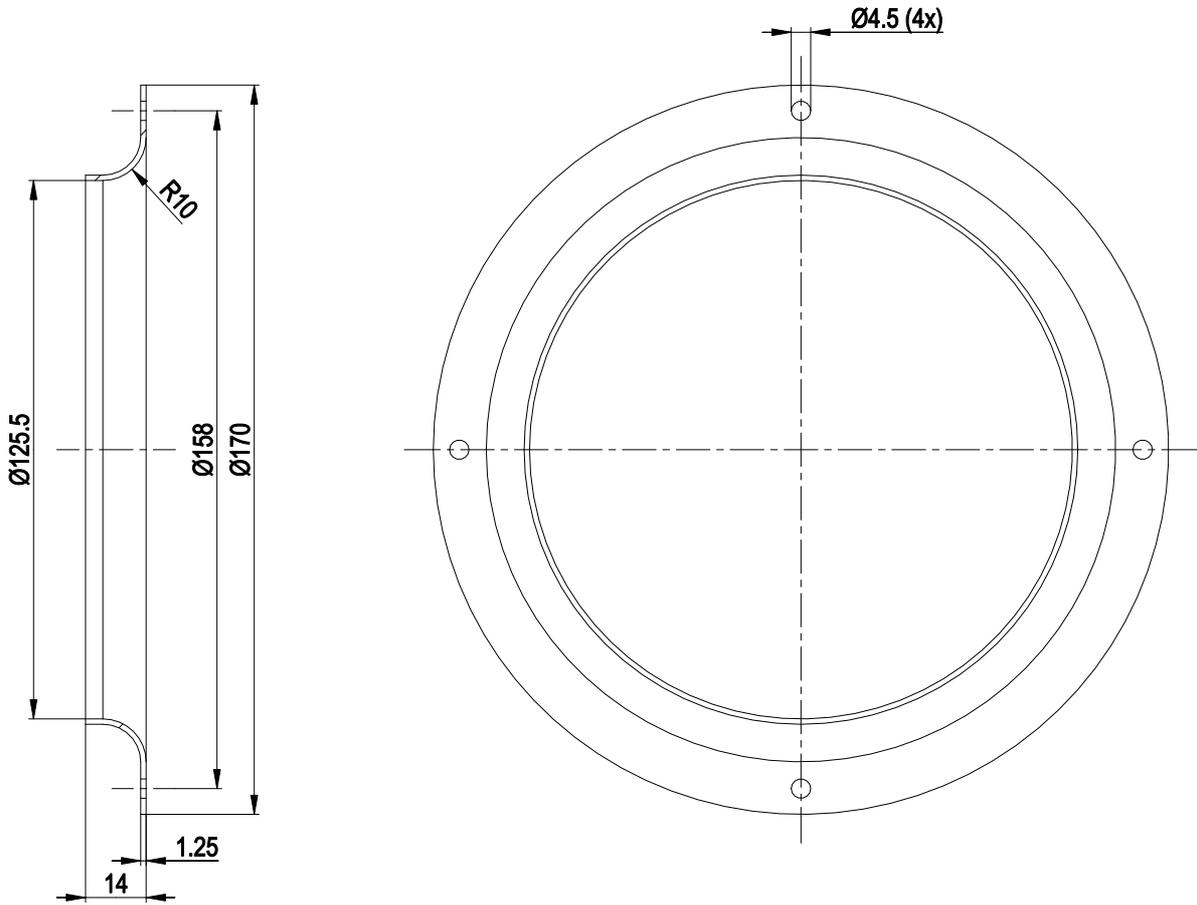
Product drawing



- | | |
|---|--|
| 1 | Accessory part: Inlet ring 09576-2-4013, not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm |
| 3 | Cable ETFE AWG 20, 4x crimped splices |

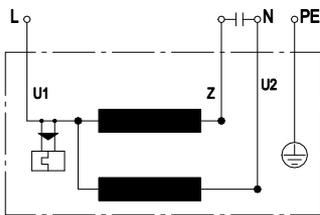


Accessory part



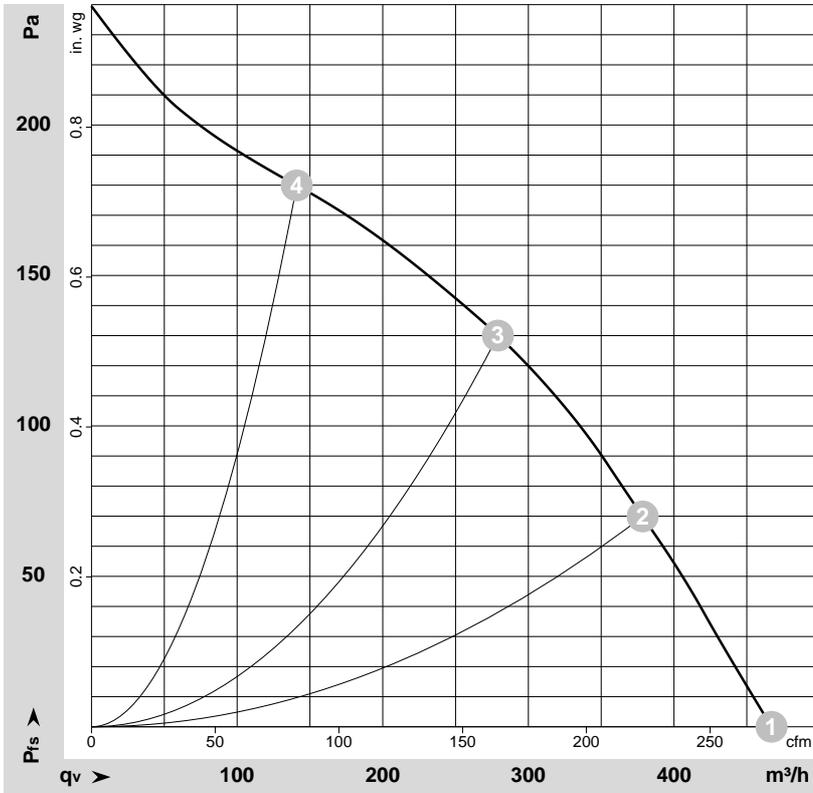
1 Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

Connection diagram



| | | | | | |
|----|--------------|---|-------|----|-------|
| U1 | blue | Z | brown | U2 | black |
| PE | green/yellow | | | | |

Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-122918-1

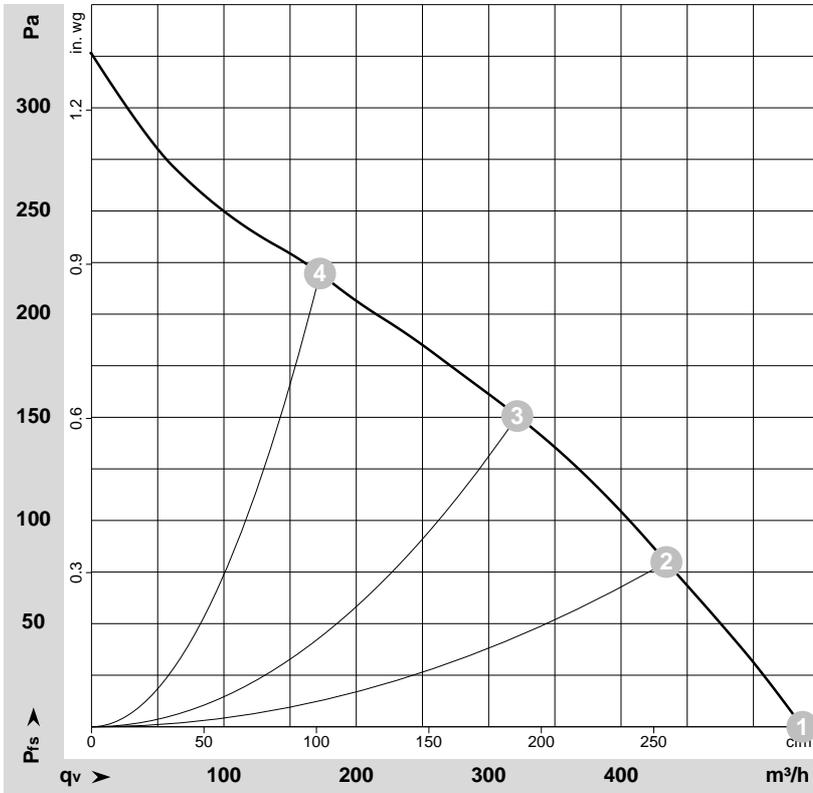
Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the 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 | 2600 | 38 | 0.17 | 465 | 0 | 275 | 0.00 |
| 2 | 230 | 50 | 2510 | 39 | 0.17 | 380 | 70 | 220 | 0.28 |
| 3 | 230 | 50 | 2445 | 41 | 0.18 | 280 | 130 | 165 | 0.52 |
| 4 | 230 | 50 | 2500 | 39 | 0.17 | 140 | 180 | 85 | 0.72 |

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

Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-122920-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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 | 2950 | 44 | 0.20 | 535 | 0 | 315 | 0.00 |
| 2 | 230 | 60 | 2825 | 47 | 0.21 | 435 | 80 | 255 | 0.32 |
| 3 | 230 | 60 | 2695 | 49 | 0.22 | 320 | 150 | 190 | 0.60 |
| 4 | 230 | 60 | 2765 | 48 | 0.21 | 175 | 220 | 100 | 0.88 |

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