

R2E180-AH05-40 ebmpapst Datasheet

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Nominal data

| Type | R2E180-AH05-40 | | |
|-----------------------------|--------------------|------------|------------|
| Motor | M2E068-DF | | |
| Phase | | 1~ | 1~ |
| Nominal voltage | VAC | 240 | 240 |
| Nominal voltage range | VAC | 200 .. 240 | 200 .. 240 |
| Frequency | Hz | 50 | 60 |
| Method of obtaining data | | fa | fa |
| Valid for approval/standard | | CE | CE |
| Speed (rpm) | min ⁻¹ | 2650 | 2850 |
| Power consumption | W | 125 | 165 |
| Current draw | A | 0.55 | 0.7 |
| Capacitor | µF | 3 | 3 |
| Capacitor voltage | VDB | 400 | 400 |
| Capacitor standard | | S0 (CE) | S0 (CE) |
| Min. back pressure | Pa | 0 | 0 |
| Min. back pressure | inH ₂ O | 0 | 0 |
| Min. ambient temperature | °C | -25 | -25 |
| Max. ambient temperature | °C | 90 | 90 |

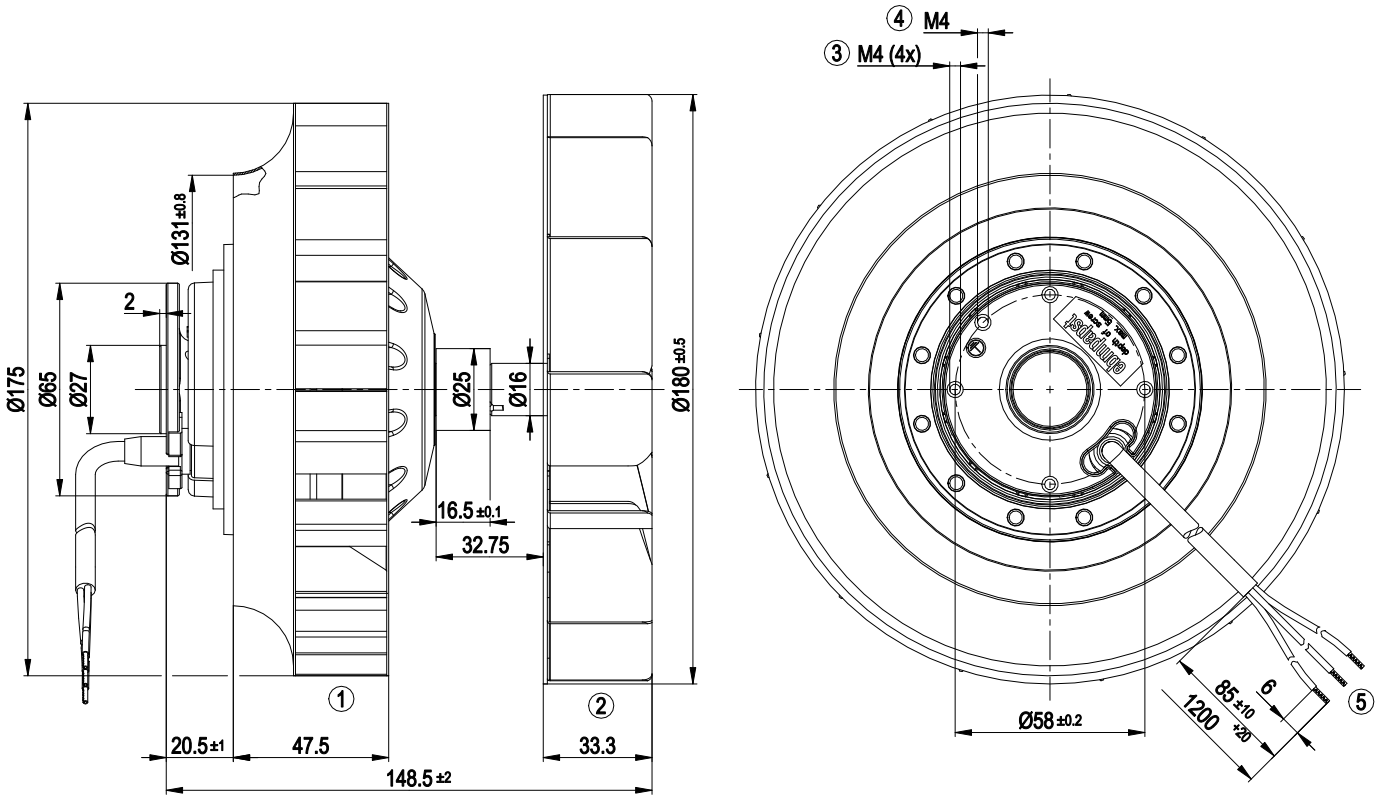
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
 Subject to change



Technical description

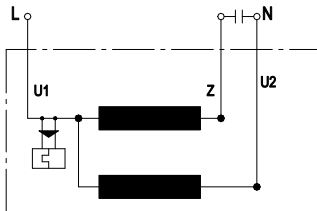
| | |
|---|--|
| Weight | 2.6 kg |
| Fan size | 180 mm |
| Direction of rotation | Counterclockwise, viewed toward rotor |
| Degree of protection | IP20 |
| Insulation class | "F" |
| Moisture (F) / Environmental (H) protection class | H0 - dry environment |
| Max. permitted ambient temp. for motor (transport/storage) | + 80 °C |
| Min. permitted ambient temp. for motor (transport/storage) | - 40 °C |
| Installation position | Shaft horizontal |
| 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 | Axial |
| Protection class | I (if protective earth is connected by customer to the housing's connection point) |
| Conformity with standards | EN 60335-1; CE |
| Approval | UL 1004-1; CSA C22.2 No. 100 |

Product drawing



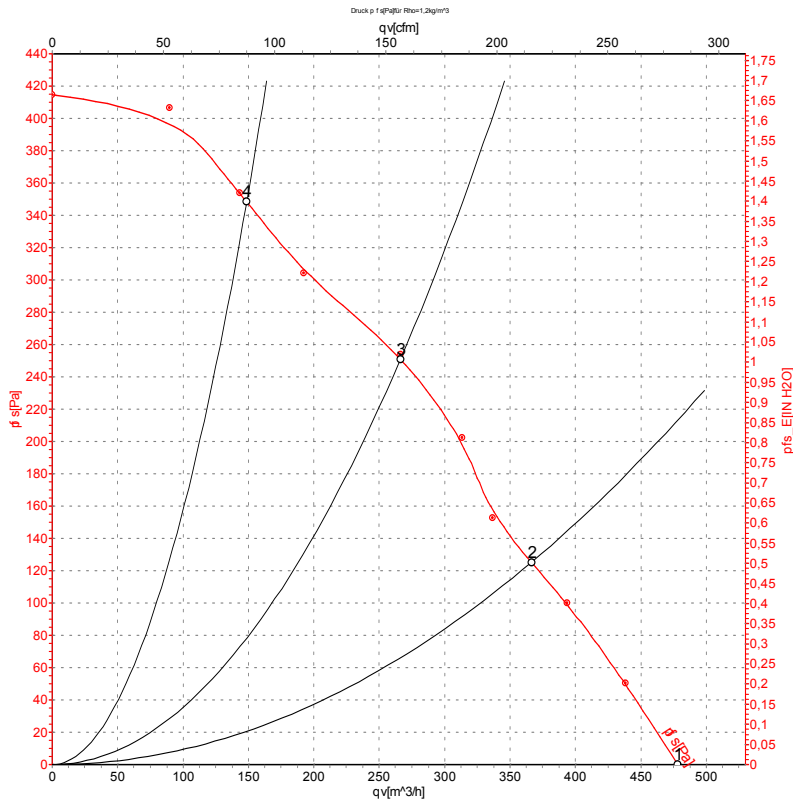
| | |
|---|--|
| 1 | Centrifugal fan impeller (sheet steel, galvanized) |
| 2 | Centrifugal fan impeller (stainless steel) |
| 3 | Max. clearance for screw 4 mm |
| 4 | Max. clearance for screw 4 mm |
| 5 | Cable PFA AWG20, 3x crimped splices |

Connection diagram



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

Curves: Air performance 50 Hz



Measurement: LU-18195-1

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.

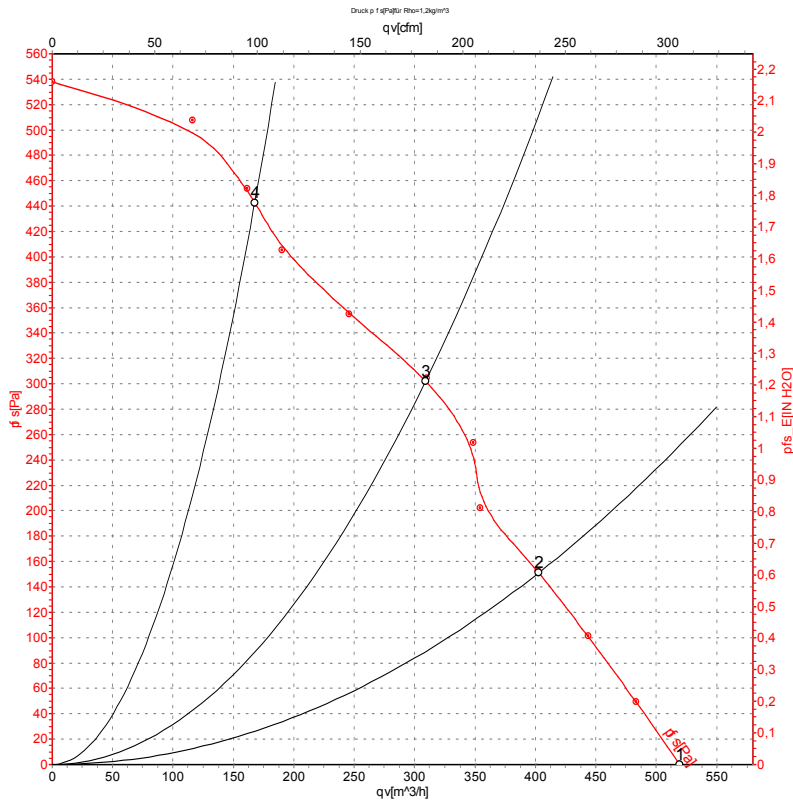
Measured values

| | U | f | n | P _e | I | q _v | p _{fs} | q _v | p _{fs} |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|--------------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa | cfm | inH ₂ O |
| 1 | 240 | 50 | 2650 | 125 | 0.55 | 480 | 0 | 285 | 0.00 |
| 2 | 240 | 50 | 2645 | 115 | 0.52 | 365 | 125 | 215 | 0.50 |
| 3 | 240 | 50 | 2685 | 109 | 0.50 | 265 | 250 | 155 | 1.00 |
| 4 | 240 | 50 | 2700 | 106 | 0.49 | 150 | 350 | 90 | 1.41 |

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



Measurement: LU-18196-1

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 | inH2O |
| 1 | 240 | 60 | 2850 | 165 | 0.70 | 520 | 0 | 305 | 0.00 |
| 2 | 240 | 60 | 2925 | 152 | 0.66 | 405 | 150 | 235 | 0.60 |
| 3 | 240 | 60 | 3000 | 144 | 0.62 | 310 | 300 | 180 | 1.20 |
| 4 | 240 | 60 | 3035 | 138 | 0.60 | 170 | 440 | 100 | 1.77 |

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

