**R2E225-RA40-40**

# AC centrifugal fan - RadiCal

backward curved, single inlet

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## Nominal data

| | |
|---|---|
| **Type** | **R2E225-RA40-40** |
| **Motor** | **M2E068-DF** |

| | | | | |
|---|---|---|---|---|
| Phase | | 1~ | 1~ | 1~ |
| Nominal voltage | VAC | 115 | 115 | 115 |
| Frequency | Hz | 50 | 60 | 60 |
| Type of data definition | | ml | ml | ml |
| Valid for approval / standard | | CE | CE | UL 2111 |
| Speed (rpm) | $min^{-1}$ | 2550 | 2700 | 2700 |
| Power input | W | 160 | 215 | 225 |
| Current draw | A | 1.43 | 1.88 | 1.9 |
| Motor capacitor | µF | 14 | 14 | 14 |
| Capacitor voltage | VDB | 250 | 250 | 250 |
| Capacitor standard | | | | UL |
| Min. back pressure | Pa | 0 | 0 | 0 |
| Min. ambient temperature | °C | -25 | -25 | -25 |
| Max. ambient temperature | °C | 50 | 60 | 60 |
| Starting current | A | 2.6 | 2.58 | |

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** | 2.3 kg |
| **Size** | 225 mm |
| **Surface of rotor** | Coated in black |
| **Material of impeller** | PA plastic |
| **Number of blades** | 7 |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 44; Depending on installation and position as per EN 60034-5 |
| **Insulation class** | "F" |
| **Humidity (F)/environmental protection class (H)** | F5 |
| **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** | Variable |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1; CE |
| **Approval** | UL 2111; CSA C22.2 No.77 |

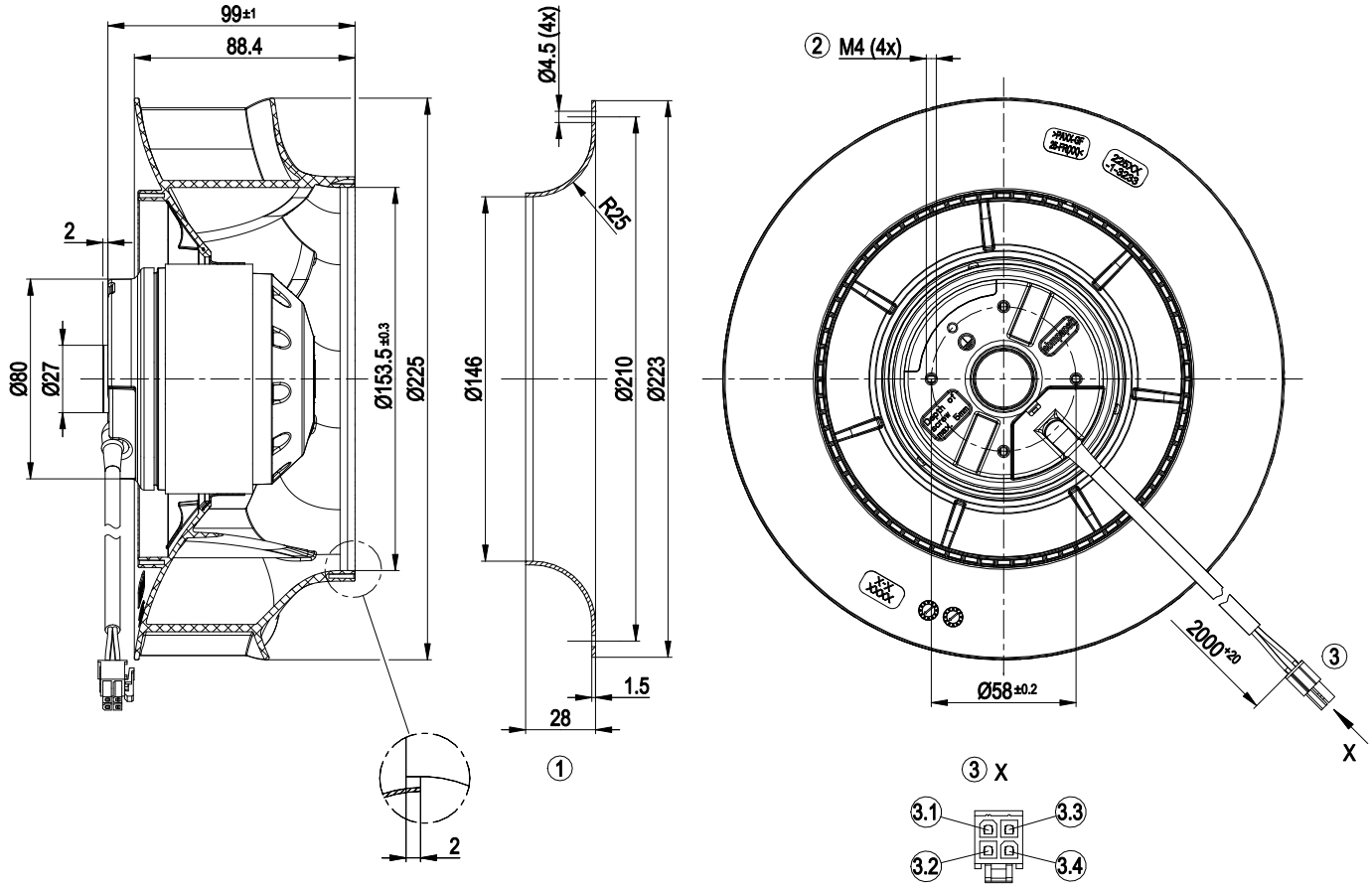


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## Product drawing




| | |
|---|---|
| 1 | Accessory part: Inlet nozzle 96358-2-4013 not included in scope of delivery |
| 2 | Thread reach max. 5 mm |
| 3 | Connection line PFA AWG20 (green/yellow AWG18), connector housing 4-pole Molex 46992-0410, 4x female connector Molex 39-00-0038 |
| 3.1 | N (black) |
| 3.2 | PE (green/yellow) |
| 3.3 | L (blue) |
| 3.4 | Z (brown) |

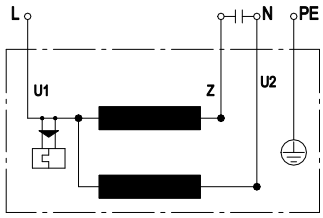


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## Connection screen




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

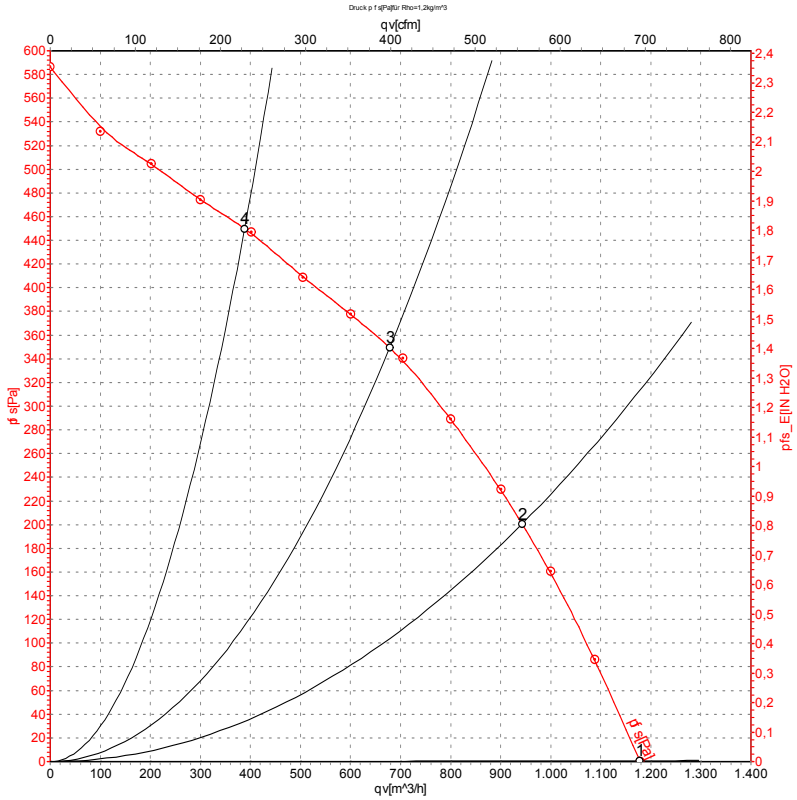


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## Charts: Air flow 50 Hz




Measurement: LU-128358-1

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 | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 115 | 50 | 2660 | 130 | 1.30 | 66 | 74 | 1180 | 0 | 695 | 0.00 |
| 2 | 115 | 50 | 2575 | 158 | 1.42 | 63 | 70 | 945 | 200 | 555 | 0.80 |
| 3 | 115 | 50 | 2550 | 165 | 1.47 | 62 | 69 | 680 | 350 | 400 | 1.41 |
| 4 | 115 | 50 | 2630 | 148 | 1.35 | 64 | 72 | 390 | 450 | 230 | 1.81 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power input · I = Current draw · $LpA_{in}$ = Sound pressure level inlet side · $LwA_{in}$ = Sound power level inlet side · $q_V$ = Air flow
$p_{fs}$ = Pressure increase

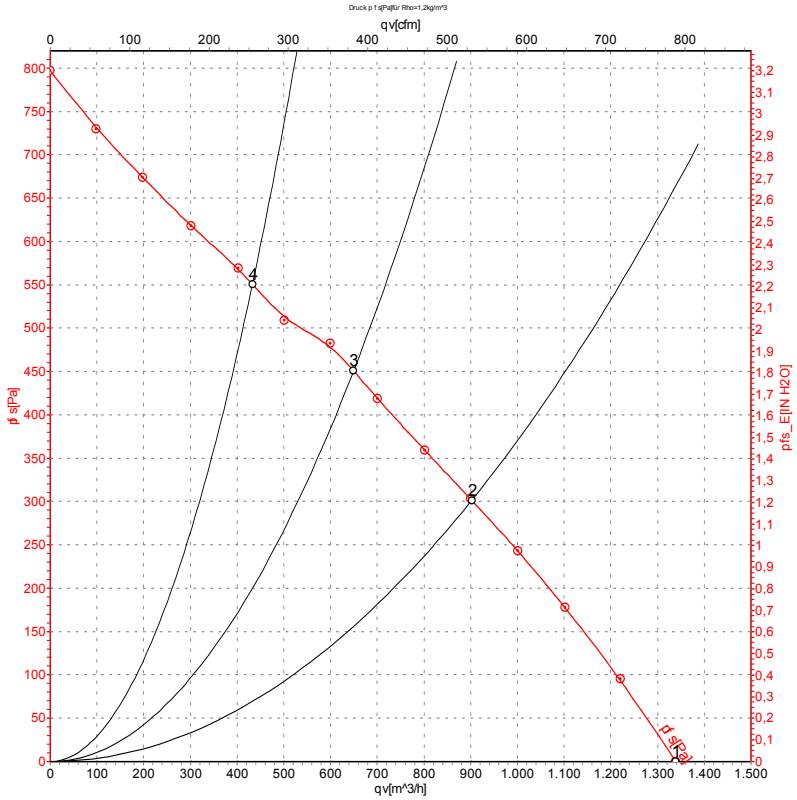


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## Charts: Air flow 60 Hz




Measurement: LU-128357-1

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 | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 115 | 60 | 3025 | 187 | 1.61 | 69 | 76 | 1340 | 0 | 790 | 0.00 |
| 2 | 115 | 60 | 2700 | 225 | 1.95 | 62 | 70 | 900 | 300 | 530 | 1.20 |
| 3 | 115 | 60 | 2765 | 218 | 1.89 | 61 | 69 | 650 | 450 | 385 | 1.81 |
| 4 | 115 | 60 | 2890 | 204 | 1.76 | 64 | 71 | 435 | 550 | 255 | 2.21 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_e$ = Power input · I = Current draw · $LpA_{in}$ = Sound pressure level inlet side · $LwA_{in}$ = Sound power level inlet side · $q_V$ = Air flow
$p_{fs}$ = Pressure increase



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