

## KARTA KATALOGOWA

# R2E225-RA92-23

Wentylator promieniowy AC, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst



Zdjęcie poglądowe

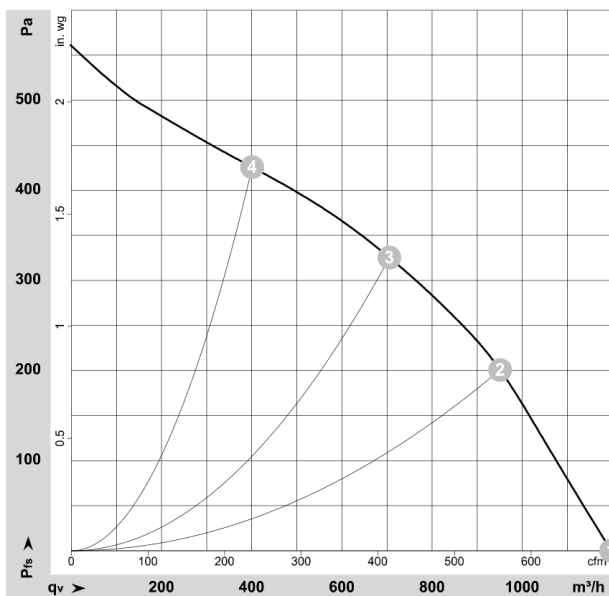
| Dane znamionowe           |                              |
|---------------------------|------------------------------|
| Napięcie znamionowe       | 1~ 230 V                     |
| Częstotliwość             | 50/60 Hz                     |
| Prędkość obrotowa         | 2500 / 2600 obr/min          |
| Pobór mocy                | 155 / 210 W                  |
| Pobór prądu               | 0,68 / 0,92 A                |
| Maks. wydajność           | 1195 m³/h                    |
| Maks. ciśnienie statyczne | 425 Pa                       |
| Temperatura otoczenia     | -25...+70 °C (60 Hz: +65 °C) |

| Dane ErP (UE 327/2011)     |          |
|----------------------------|----------|
| Sprawność całkowita        | 42,5 %   |
| Przepływ w pkt. optymalnym | 705 m³/h |
| Przyrost ciśnienia         | 320 Pa   |
| Regulacja obrotów          | nie      |

| Budowa                 |              |
|------------------------|--------------|
| Średnica wirnika       | 225 mm       |
| Materiał wirnika       | tworzywo PA  |
| Liczba łopatek         | 7            |
| Stopień ochrony        | IP44         |
| Klasa izolacji         | F            |
| Zabezpieczenie silnika | termik (TOP) |
| Masa                   | 2,4 kg       |

## Charakterystyka przepływowa

Curves: Air performance 50 Hz


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

Measurement: LU-154575-1

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.

Dane na podstawie karty producenta ebm-papst (oryginał na kolejnych stronach).

Wartości dla 50 Hz / 60 Hz; producent zastrzega możliwość zmian.

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**R2E225-RA92-23**

# AC centrifugal fan

backward-curved, single-intake

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## Nominal data

|                             |                       |      |      |         |
|-----------------------------|-----------------------|------|------|---------|
| Type                        | <b>R2E225-RA92-23</b> |      |      |         |
| Motor                       | <b>M2E068-DF</b>      |      |      |         |
| Phase                       |                       | 1~   | 1~   | 1~      |
| Nominal voltage             | VAC                   | 230  | 230  | 230     |
| Frequency                   | Hz                    | 50   | 60   | 60      |
| Method of obtaining data    |                       | ml   | ml   | ml      |
| Valid for approval/standard |                       | CE   | CE   | UL 2111 |
| Speed (rpm)                 | min <sup>-1</sup>     | 2500 | 2600 | 2600    |
| Power consumption           | W                     | 155  | 210  | 225     |
| Current draw                | A                     | 0.68 | 0.92 | 0.95    |
| Capacitor                   | μF                    | 3.5  | 3.5  | 3.5     |
| Capacitor voltage           | VDB                   | 450  | 450  | 450     |
| Capacitor standard          |                       |      |      | UL      |
| Min. back pressure          | Pa                    | 0    | 0    | 0       |
| Min. back pressure          | in. wg                | 0    | 0    | 0       |
| Min. ambient temperature    | °C                    | -25  | -25  | -25     |
| Max. ambient temperature    | °C                    | 70   | 65   | 65      |
| Starting current            | A                     | 1.25 | 1.2  |         |

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

## Data according to Commission Regulation (EU) 327/2011

|                                   |   | Actual | Req. 2015 |                               |                   |      |
|-----------------------------------|---|--------|-----------|-------------------------------|-------------------|------|
| 01 Overall efficiency $\eta_{es}$ | % | 42.5   | 42.5      | 09 Power consumption $P_e$    | kW                | 0.14 |
| 02 Measurement category           |   | A      |           | 09 Air flow $q_v$             | m³/h              | 705  |
| 03 Efficiency category            |   | Static |           | 09 Pressure increase $p_{fs}$ | Pa                | 320  |
| 04 Efficiency grade N             |   | 62     | 62        | 10 Speed (rpm) n              | min <sup>-1</sup> | 2560 |
| 05 Variable speed drive           |   | No     |           | 11 Specific ratio*            |                   | 1.00 |

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

 \* Specific ratio =  $1 + p_b / 100\,000\text{ Pa}$ 

LU-127147



**R2E225-RA92-23**

# AC centrifugal fan

backward-curved, single-intake

## Technical description

|                                                                            |                                                              |
|----------------------------------------------------------------------------|--------------------------------------------------------------|
| Weight                                                                     | 2.4 kg                                                       |
| Fan size                                                                   | 225 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 as per EN 60034-5 |
| Insulation class                                                           | "F"                                                          |
| Moisture (F) / Environmental (H) protection class                          | H1                                                           |
| Max. permitted ambient temp. for motor (transport/storage)                 | + 80 °C                                                      |
| Min. permitted ambient temp. for motor (transport/storage)                 | - 40 °C                                                      |
| Installation position                                                      | Shaft horizontal or rotor on bottom; rotor on top on request |
| Condensation drainage holes                                                | On rotor side                                                |
| 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                                                                   | UL 1004-3; CSA C22.2 No. 77                                  |

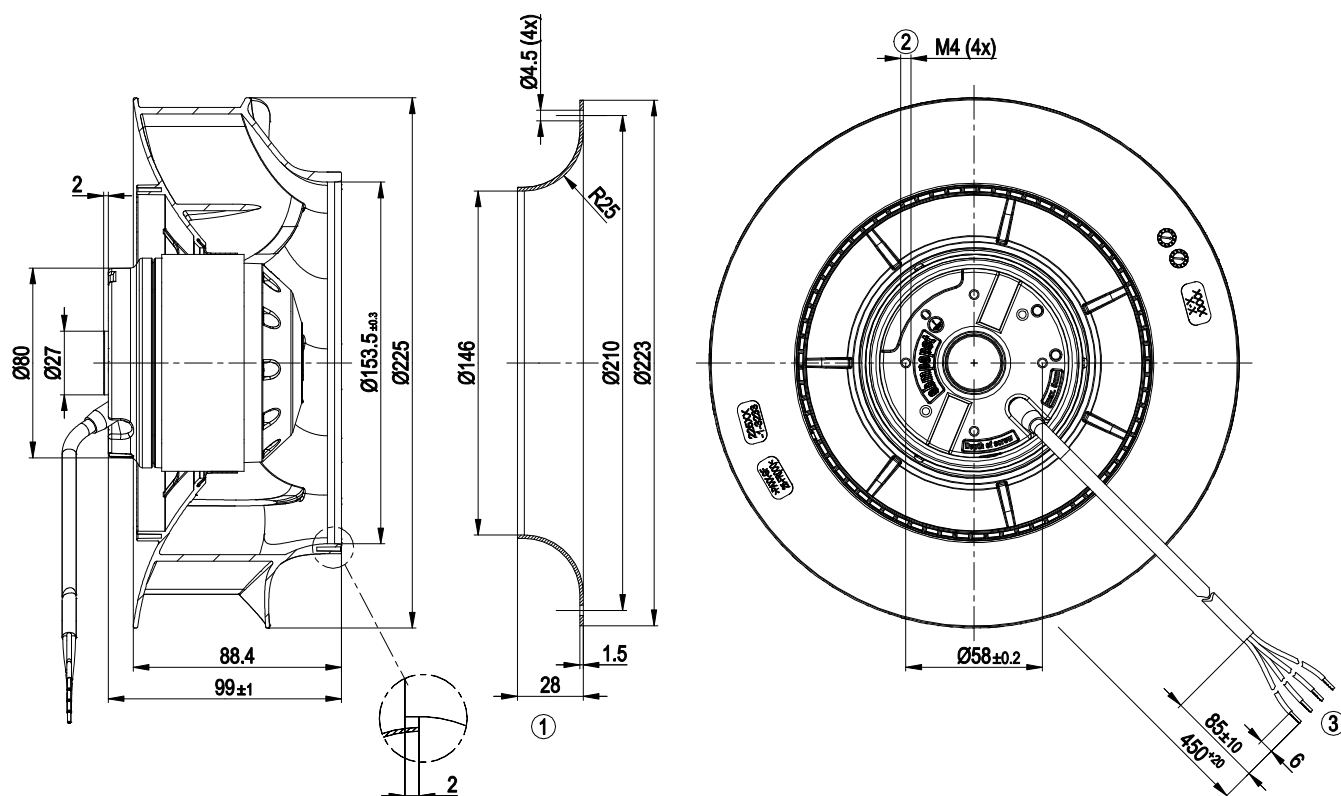


**R2E225-RA92-23**

# AC centrifugal fan

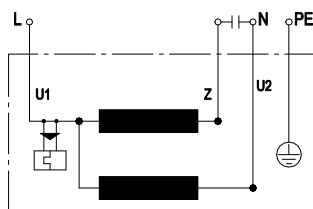
backward-curved, single-intake

## Product drawing



- |   |                                                                           |
|---|---------------------------------------------------------------------------|
| 1 | Accessory part: inlet ring 96358-2-4013 not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm                                             |
| 3 | Cable PFA AWG20 (green/yellow AWG18), 4x crimped splices                  |

## Connection diagram



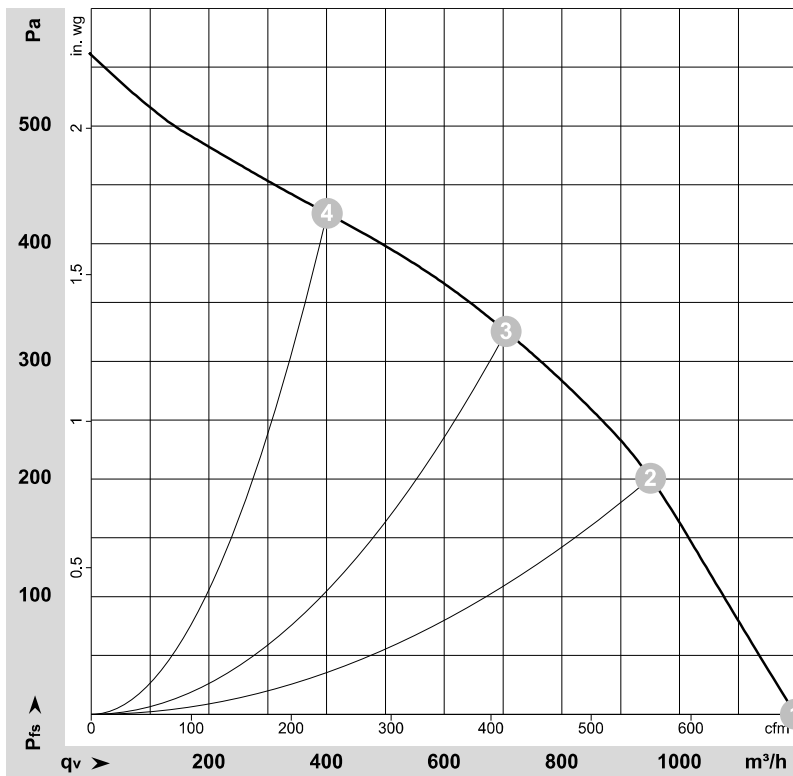
|    |              |   |       |    |       |
|----|--------------|---|-------|----|-------|
| U1 | blue         | Z | brown | U2 | black |
| PE | green/yellow |   |       |    |       |

R2E225-RA92-23

# AC centrifugal fan

backward-curved, single-intake

## Curves: Air performance 50 Hz



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

Measurement: LU-154575-1

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

|   | Wired | U   | f  | n                 | P <sub>e</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | q <sub>v</sub> | P <sub>fs</sub> | q <sub>v</sub> | P <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-------------------|----------------|-----------------|----------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | dB(A)             | dB(A)             | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 1~    | 230 | 50 | 2660              | 132            | 0.58 | 66                | 73                | 1195           | 0               | 705            | 0.00            |
| 2 | 1~    | 230 | 50 | 2500              | 155            | 0.68 | 63                | 70                | 950            | 200             | 560            | 0.80            |
| 3 | 1~    | 230 | 50 | 2555              | 150            | 0.66 | 58                | 66                | 705            | 325             | 415            | 1.30            |
| 4 | 1~    | 230 | 50 | 2625              | 138            | 0.60 | 63                | 70                | 400            | 425             | 235            | 1.71            |

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

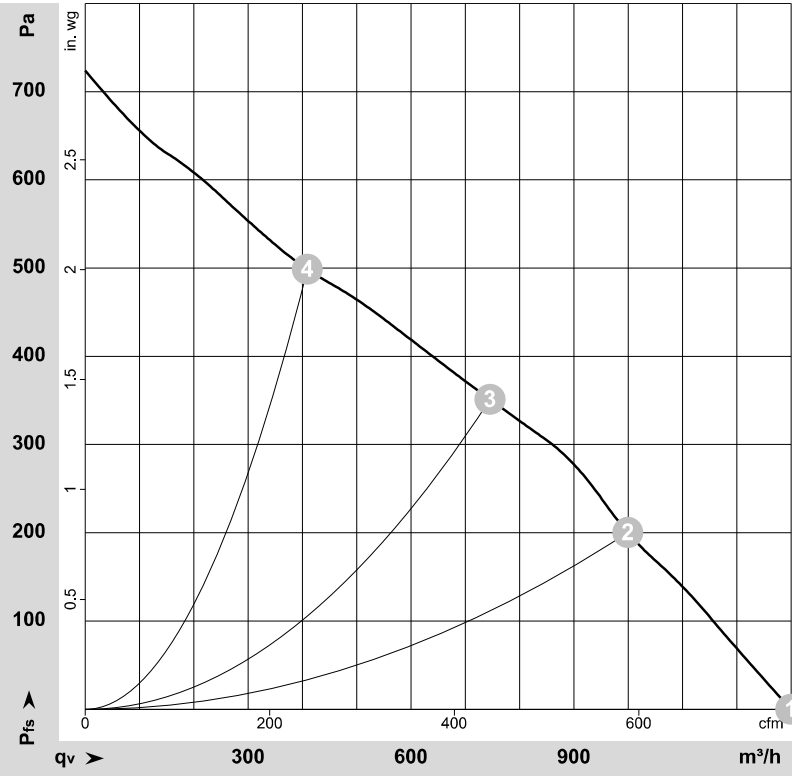


R2E225-RA92-23

AC centrifugal fan

backward-curved, single-intake

Curves: Air performance 60 Hz



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

Measurement: LU-127148-1

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

|   | Wired | U   | f  | n                 | P <sub>e</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | q <sub>v</sub> | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-------------------|----------------|-----------------|----------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | dB(A)             | dB(A)             | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 1~    | 230 | 60 | 2930              | 187            | 0.81 | 69                | 76                | 1300           | 0               | 765            | 0.00            |
| 2 | 1~    | 230 | 60 | 2700              | 210            | 0.92 | 64                | 71                | 1000           | 200             | 590            | 0.80            |
| 3 | 1~    | 230 | 60 | 2700              | 207            | 0.90 | 60                | 68                | 745            | 350             | 440            | 1.41            |
| 4 | 1~    | 230 | 60 | 2860              | 192            | 0.83 | 67                | 75                | 410            | 500             | 240            | 2.01            |

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

