

## KARTA KATALOGOWA

# R2E160-AY47-01

Wentylator promieniowy AC, łopatki zakrzywione do przodu, jednostronnie ssący

Producent: ebm-papst



## Dane znamionowe

|                           |                  |
|---------------------------|------------------|
| Napięcie znamionowe       | 1~ 230 V         |
| Częstotliwość             | 50 / 60 Hz       |
| Prędkość obrotowa         | 2100 obr/min     |
| Pobór mocy                | 240 / 280 W      |
| Pobór prądu               | 1,05 / 1,23 A    |
| Kondensator               | 6 µF / 400 V     |
| Maks. wydajność           | 590 m³/h         |
| Maks. ciśnienie statyczne | 575 Pa           |
| Temperatura otoczenia     | maks. 50 / 30 °C |

## Budowa

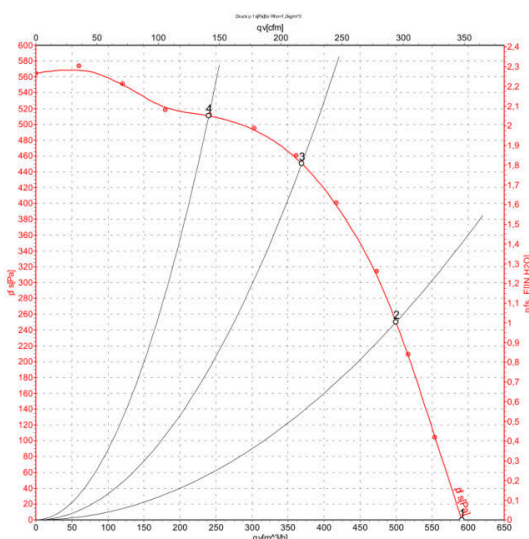
|                        |                                             |
|------------------------|---------------------------------------------|
| Wielkość               | 160 mm                                      |
| Silnik                 | M2E068-EC                                   |
| Materiał wirnika       | blacha stalowa ocynkowana metodą Sendzimira |
| Kierunek obrotów       | w prawo, patrząc na wirnik                  |
| Stopień ochrony        | IP44                                        |
| Klasa izolacji         | B                                           |
| Zabezpieczenie silnika | termik (TOP), podłączony wewnętrznie        |
| Łożyskowanie           | kulkowe                                     |
| Masa                   | 2,6 kg                                      |

## Dane ErP (UE 327/2011)

|                            |          |
|----------------------------|----------|
| Sprawność całkowita        | 27,4 %   |
| Przepływ w pkt. optymalnym | 365 m³/h |
| Przyrost ciśnienia         | 442 Pa   |
| Regulacja prędkości (ErP)  | nie      |

## Charakterystyka przepływowa (50 Hz)

Charts: Air flow 50 Hz



Dane na okładce wg karty katalogowej producenta ebm-papst (oryginał na kolejnych stronach).  
Wartości przy swobodnym wydmuchu; producent zastrzega możliwość zmian.

## Dobór, wycena i dostawa – zapytaj LUFTBERG

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R2E160-AY47-01

# AC centrifugal fan

forward curved, single inlet



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## Nominal data

|                               |                   |      |      |
|-------------------------------|-------------------|------|------|
| Type                          | R2E160-AY47-01    |      |      |
| Motor                         | M2E068-EC         |      |      |
| Phase                         |                   | 1~   | 1~   |
| Nominal voltage               | VAC               | 230  | 230  |
| Frequency                     | Hz                | 50   | 60   |
| Type of data definition       |                   | fa   | ml   |
| Valid for approval / standard |                   | CE   | CE   |
| Speed                         | min <sup>-1</sup> | 2100 | 2100 |
| Power input                   | W                 | 240  | 280  |
| Current draw                  | A                 | 1.05 | 1.23 |
| Motor capacitor               | µF                | 6    | 6    |
| Capacitor voltage             | VDB               | 400  | 400  |
| Min. back pressure            | Pa                | 0    | 50   |
| Max. ambient temperature      | °C                | 50   | 30   |

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

## Data according to ErP directive

|                       |        |
|-----------------------|--------|
| Installation category | A      |
| Efficiency category   | Static |
| Variable speed drive  | No     |
| Specific ratio*       | 1.01   |

\* Specific ratio = 1 + p<sub>ts</sub> / 100 000 Pa

|                                   |                   | Actual | Request 2013 | Request 2015 |
|-----------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency $\eta_{es}$    |                   | 27.4   | 25.6         | 32.6         |
| Efficiency grade N                |                   | 38.8   | 37           | 44           |
| Power input P <sub>e</sub>        | kW                | 0.16   |              |              |
| Air flow q <sub>v</sub>           | m³/h              | 365    |              |              |
| Pressure increase p <sub>ts</sub> | Pa                | 442    |              |              |
| Speed n                           | min <sup>-1</sup> | 2595   |              |              |

Data established at point of optimum efficiency



**R2E160-AY47-01**

# AC centrifugal fan

forward curved, single inlet

## Technical features

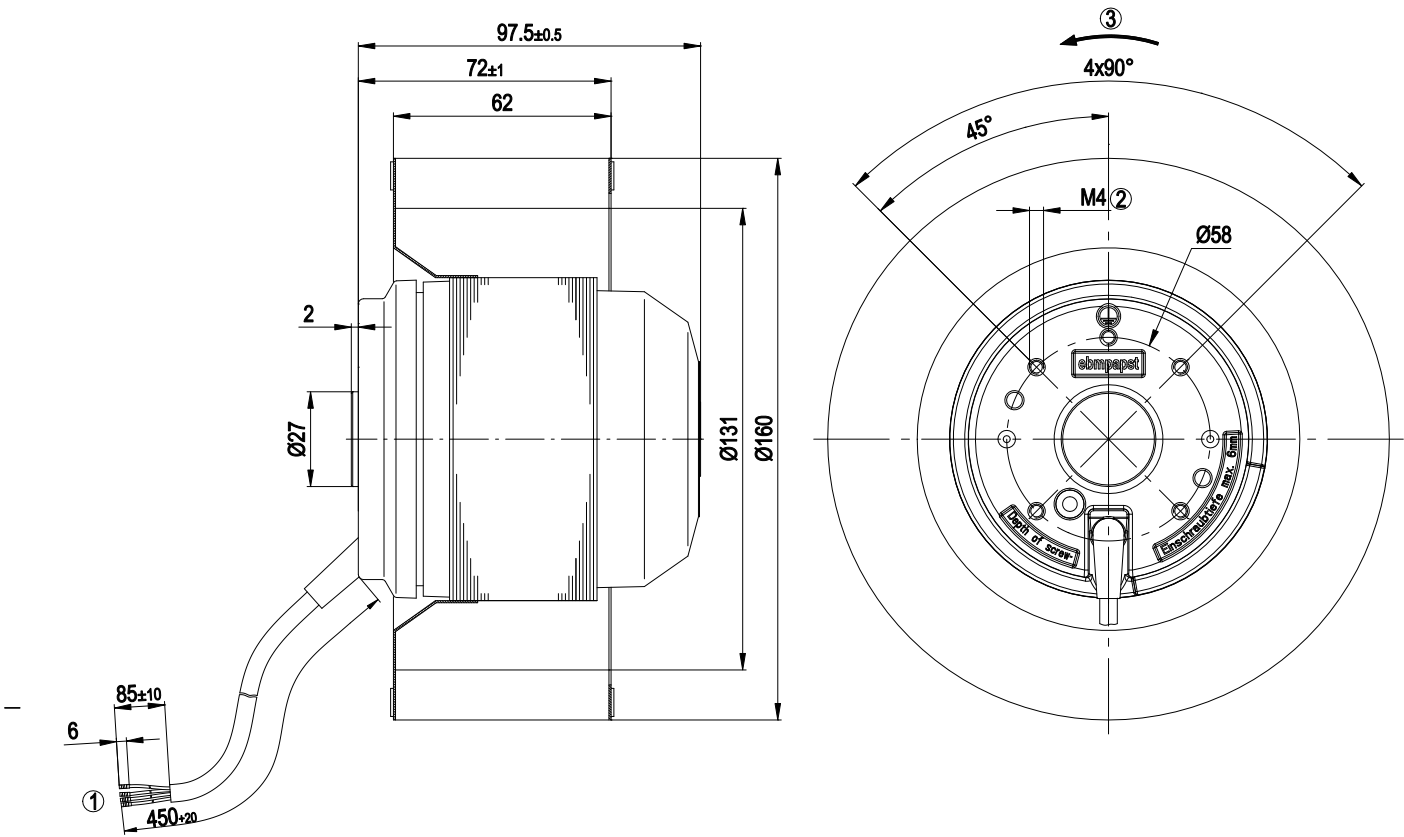
|                                                                    |                                                   |
|--------------------------------------------------------------------|---------------------------------------------------|
| Mass                                                               | 2.6 kg                                            |
| Size                                                               | 160 mm                                            |
| Surface of rotor                                                   | Partially cast in aluminium                       |
| Material of impeller                                               | Sendzimir galvanized sheet steel                  |
| Direction of rotation                                              | Clockwise, seen on rotor                          |
| Type of protection                                                 | IP 44                                             |
| Insulation class                                                   | "B"                                               |
| Humidity class                                                     | F0                                                |
| Max. permissible ambient motor temp. (transp./ storage)            | + 80 °C                                           |
| Min. permissible ambient motor temp. (transp./storage)             | - 40 °C                                           |
| Mounting position                                                  | Any                                               |
| Condensate discharge holes                                         | None                                              |
| 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                                                           | CCC                                               |

R2E160-AY47-01

AC centrifugal fan

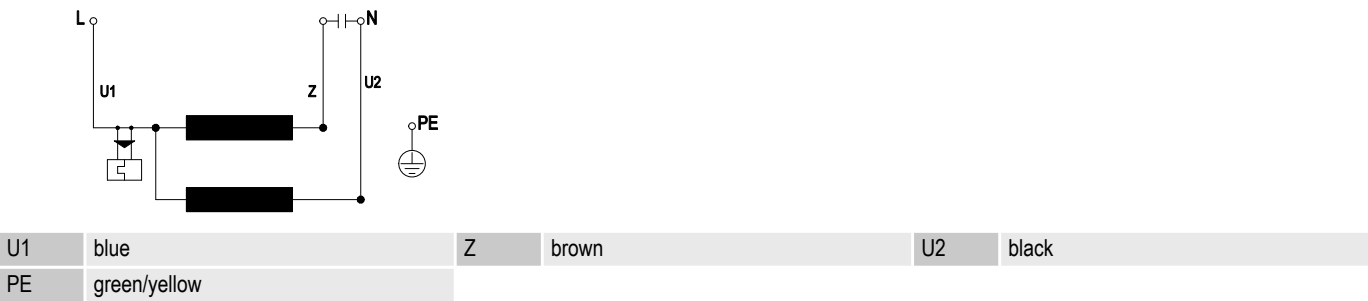
forward curved, single inlet

Product drawing



|   |                                                 |
|---|-------------------------------------------------|
| 1 | Connection line PVC, 4x brass lead tips crimped |
| 2 | Screw depth max. 5 mm                           |
| 3 | Direction of rotation clockwise, seen on rotor  |

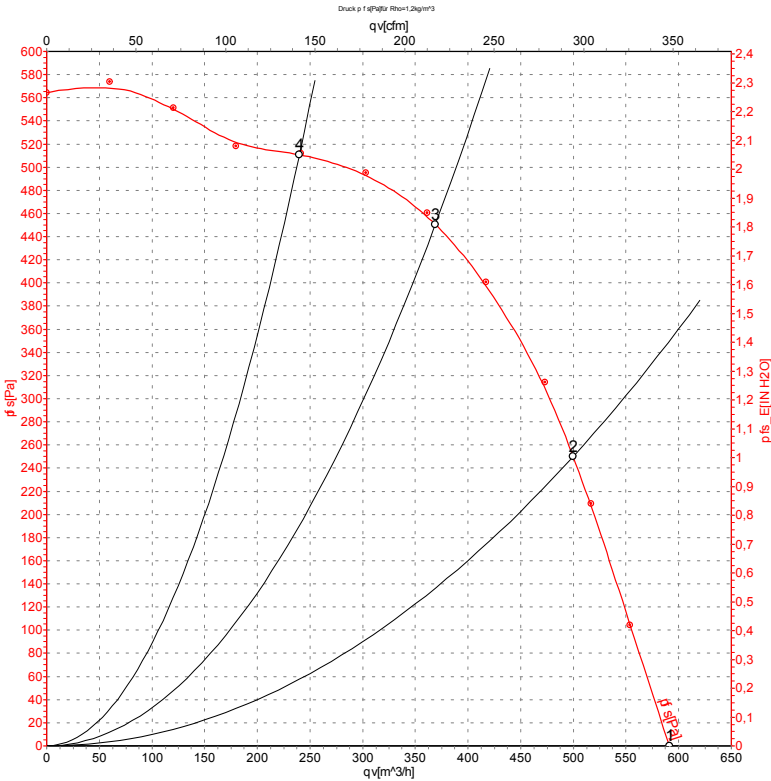
Connection screen



R2E160-AY47-01

AC centrifugal fan  
forward curved, single inlet

Charts: Air flow 50 Hz



Measurement: LU-104987

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 <sub>e</sub> | I    | qv   | p <sub>f</sub> s |
|---|-----|----|-------------------|----------------|------|------|------------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa               |
| 1 | 230 | 50 | 2100              | 240            | 1.05 | 590  | 0                |
| 2 | 230 | 50 | 2375              | 200            | 0.87 | 500  | 250              |
| 3 | 230 | 50 | 2585              | 164            | 0.71 | 370  | 450              |
| 4 | 230 | 50 | 2715              | 137            | 0.59 | 240  | 510              |

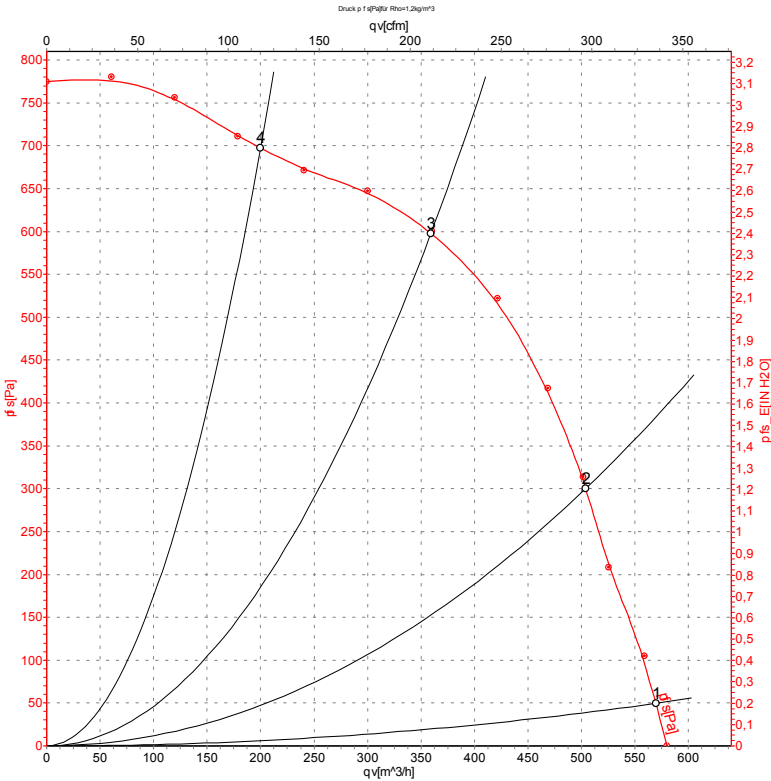
U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>f</sub>s = Pressure increase



R2E160-AY47-01

AC centrifugal fan  
 forward curved, single inlet

Charts: Air flow 60 Hz



Measurement: LU-104989  
 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 <sub>e</sub> | I    | qv   | P <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | 230 | 60 | 2100              | 280            | 1.23 | 570  | 50              |
| 2 | 230 | 60 | 2500              | 258            | 1.12 | 505  | 300             |
| 3 | 230 | 60 | 2940              | 210            | 0.94 | 360  | 600             |
| 4 | 230 | 60 | 3180              | 172            | 0.80 | 200  | 700             |

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase

