

## KARTA KATALOGOWA

# R1G175-AB63-02

Wentylator promieniowy EC, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst

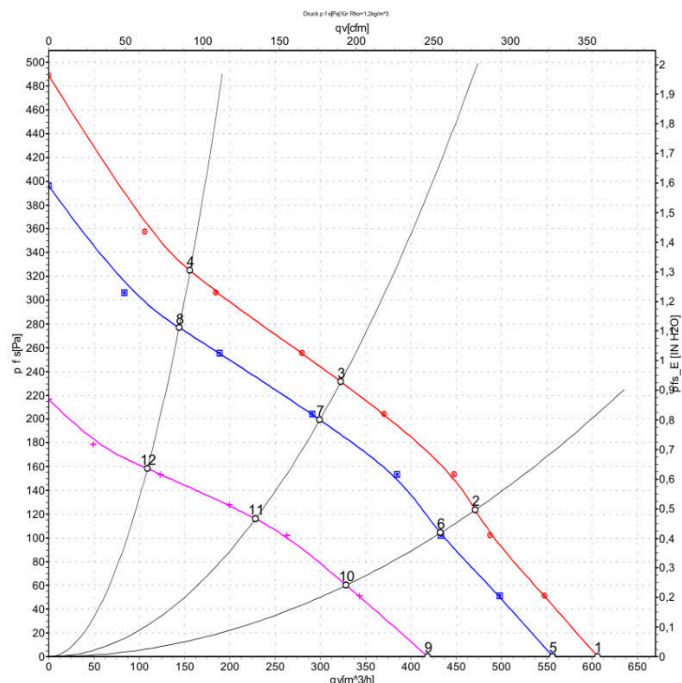


Zdjęcie poglądowe

| Dane znamionowe           |                        | Budowa                 |                                                            |
|---------------------------|------------------------|------------------------|------------------------------------------------------------|
| Napięcie znamionowe       | 24 V DC (16...28 V DC) | Wielkość               | 175 mm                                                     |
| Prędkość obrotowa         | 3100 obr/min           | Silnik                 | M1G055-BD                                                  |
| Pobór mocy                | 34 W                   | Materiał wirnika       | tworzywo PA 6.6 wzmocnione włóknem szklanym                |
| Pobór prądu               | 1,6 A                  | Liczba łopatek         | 7                                                          |
| Maks. wydajność           | 605 m³/h               | Kierunek obrotów       | w prawo, patrząc na wirnik                                 |
| Maks. ciśnienie statyczne | 455 Pa                 | Stopień ochrony        | IP20                                                       |
| Temperatura otoczenia     | -25...+60 °C           | Klasa izolacji         | B                                                          |
| Regulacja obrotów         | 0-10 V / PWM           | Zabezpieczenie silnika | ochrona przed odwrotną polaryzacją i zablokowaniem wirnika |
|                           |                        | Łożyskowanie           | kulkowe                                                    |
|                           |                        | Masa                   | 0,74 kg                                                    |

## Charakterystyka przepływowa

### Curves: Air performance


 Measurement: LU-44776-1  
 Measurement: LU-44775-1  
 Measurement: LU-44777-1

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

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R1G175-AB63-02

EC centrifugal fan  
backward-curved, single-intake

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Nominal data

|                          |                   |          |
|--------------------------|-------------------|----------|
| Type                     | R1G175-AB63-02    |          |
| Motor                    | M1G055-BD         |          |
| Nominal voltage          | VDC               | 24       |
| Nominal voltage range    | VDC               | 16 .. 28 |
| Method of obtaining data |                   | fa       |
| Speed (rpm)              | min <sup>-1</sup> | 3100     |
| Power consumption        | W                 | 34       |
| Current draw             | A                 | 1.6      |
| Min. ambient temperature | °C                | -25      |
| Max. ambient temperature | °C                | 60       |

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



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# EC centrifugal fan

backward-curved, single-intake

## Technical description

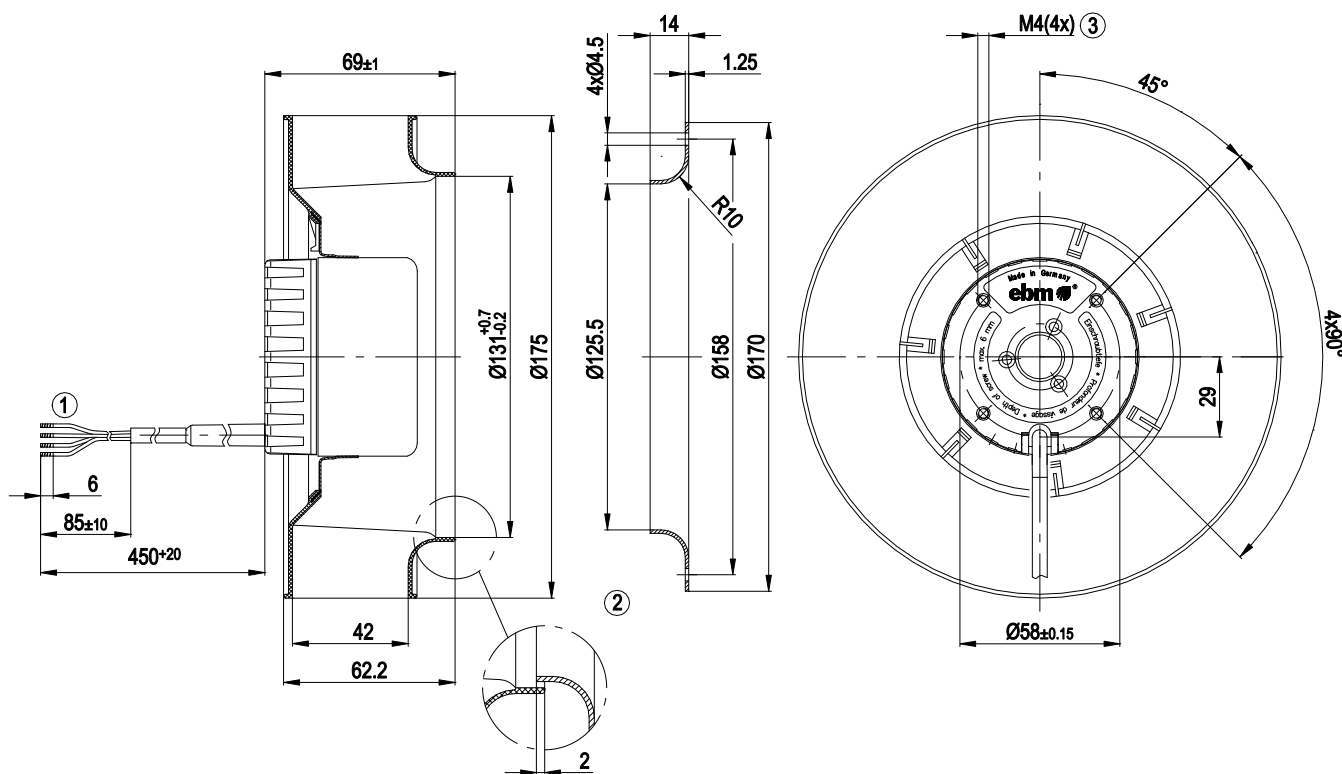
|                                                            |                                                                                               |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Weight                                                     | 0.74 kg                                                                                       |
| Size                                                       | 175 mm                                                                                        |
| Motor size                                                 | 55                                                                                            |
| Rotor surface                                              | Thick-film passivated                                                                         |
| Impeller material                                          | PA 6.6 plastic, glass-fiber reinforced                                                        |
| Number of blades                                           | 7                                                                                             |
| Direction of rotation                                      | Clockwise, viewed toward rotor                                                                |
| Degree of protection                                       | IP20                                                                                          |
| Insulation class                                           | "B"                                                                                           |
| Moisture (F) / Environmental (H) protection class          | F0; 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                                      | Any                                                                                           |
| Condensation drainage holes                                | None                                                                                          |
| Mode                                                       | S1                                                                                            |
| Motor bearing                                              | Ball bearing                                                                                  |
| Technical features                                         | - Tach output<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM |
| EMC immunity to interference                               | According to EN 61000-6-2 (industrial environment)                                            |
| EMC interference emission                                  | According to EN 55022 (Class B, household environment)                                        |
| Motor protection                                           | Reverse polarity and locked-rotor protection                                                  |
| With cable                                                 | Variable                                                                                      |
| Conformity with standards                                  | EN 60950-1                                                                                    |
| Approval                                                   | EAC; UL 1004-1; CSA C22.2 No. 77                                                              |

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## Product drawing



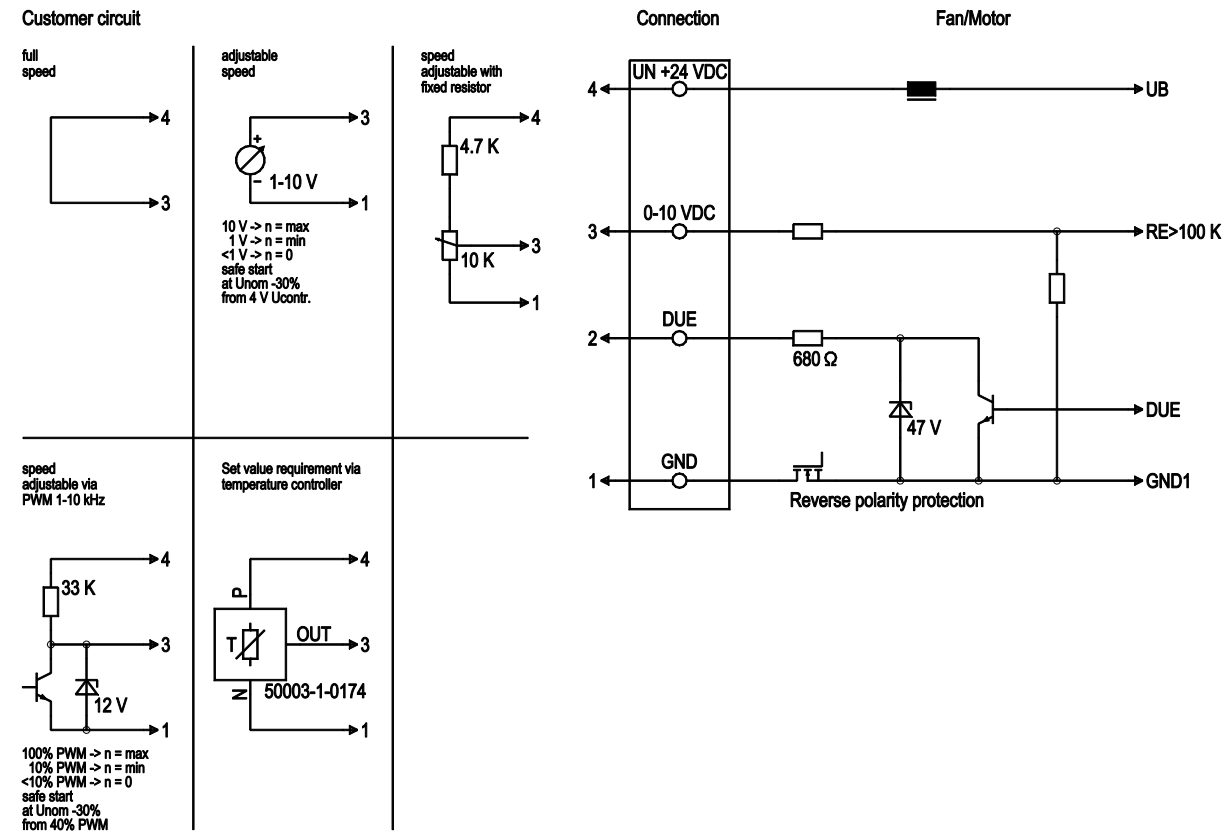
- |   |                                                                           |
|---|---------------------------------------------------------------------------|
| 1 | Cable AWG20, 4x crimped splices                                           |
| 2 | Accessory part: inlet ring 09576-2-4013 not included in scope of delivery |
| 3 | Max. clearance for screw 6 mm                                             |

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Connection diagram



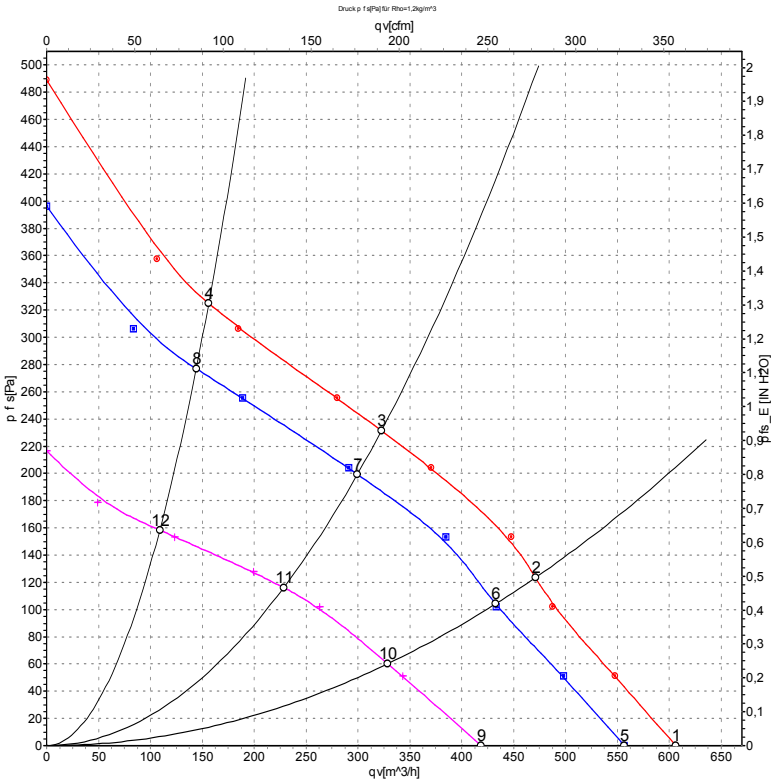
| No. | Conn. | Designation | Color  | Function/assignment                                     |
|-----|-------|-------------|--------|---------------------------------------------------------|
| 1   | 4     | Un +24 VDC  | red    | Power supply 24 VDC, maximum ripple 3.5%                |
| 1   | 3     | 0-10 VDC    | yellow | Control input Re > 100 K                                |
| 1   | 2     | DUE         | white  | Tach output, 2 pulses per revolution, Isink max = 10 mA |
| 1   | 1     | GND         | blue   | Reference ground                                        |



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Curves: Air performance



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Measured values

|    | U  | n                 | P <sub>ed</sub> | I    | q <sub>v</sub> | P <sub>ts</sub> | q <sub>v</sub> | P <sub>ts</sub> |
|----|----|-------------------|-----------------|------|----------------|-----------------|----------------|-----------------|
|    | V  | min <sup>-1</sup> | W               | A    | m³/h           | Pa              | cfm            | in. wg          |
| 1  | 28 | 3375              | 46              | 1.83 | 605            | 0               | 355            | 0.00            |
| 2  | 28 | 3170              | 48              | 1.97 | 470            | 123             | 275            | 0.49            |
| 3  | 28 | 3105              | 49              | 2.01 | 325            | 231             | 190            | 0.93            |
| 4  | 28 | 3255              | 47              | 1.91 | 155            | 325             | 90             | 1.30            |
| 5  | 24 | 3100              | 34              | 1.60 | 555            | 0               | 330            | 0.00            |
| 6  | 24 | 2915              | 39              | 1.79 | 435            | 100             | 255            | 0.40            |
| 7  | 24 | 2885              | 39              | 1.82 | 300            | 200             | 175            | 0.80            |
| 8  | 24 | 3010              | 37              | 1.69 | 145            | 275             | 85             | 1.10            |
| 9  | 16 | 2320              | 16              | 1.10 | 420            | 0               | 245            | 0.00            |
| 10 | 16 | 2225              | 17              | 1.21 | 330            | 60              | 195            | 0.24            |
| 11 | 16 | 2205              | 18              | 1.24 | 230            | 116             | 135            | 0.47            |
| 12 | 16 | 2270              | 16              | 1.15 | 110            | 158             | 65             | 0.63            |

U = Voltage · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>ts</sub> = Pressure increase

