

# AC circulation blower for hot air

backward-curved

**ebm-papst Mulfingen GmbH & Co. KG**  
Bachmühle 2 · D-74673 Mulfingen  
Phone +49 7938 81-0  
Fax +49 7938 81-110  
info1@de.ebmpapst.com  
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen  
Amtsgericht (court of registration) Stuttgart · HRA 590344  
General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen  
Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

|                             |                   |      |      |      |      |
|-----------------------------|-------------------|------|------|------|------|
| Type                        | R2D225-AG02-12    |      |      |      |      |
| Motor                       | M2D068-EC         |      |      |      |      |
| Phase                       |                   | 3~   | 3~   | 3~   | 3~   |
| Nominal voltage             | VAC               | 230  | 230  | 400  | 400  |
| Wiring                      |                   | Δ    | Δ    | Y    | Y    |
| Frequency                   | Hz                | 50   | 60   | 50   | 60   |
| Method of obtaining data    |                   | fa   | fa   | fa   | fa   |
| Valid for approval/standard |                   | CE   | CE   | CE   | CE   |
| Speed (rpm)                 | min <sup>-1</sup> | 2700 | 3000 | 2700 | 3000 |
| Power consumption           | W                 | 165  | 250  | 165  | 250  |
| Current draw                | A                 | 0.50 | 0.67 | 0.29 | 0.39 |
| Min. back pressure          | Pa                | 0    | 0    | 0    | 0    |
| Min. back pressure          | in. wg            | 0    | 0    | 0    | 0    |
| Min. ambient temperature    | °C                | -25  | -25  | -25  | -25  |
| Max. ambient temperature    | °C                | 105  | 75   | 105  | 75   |
| Starting current            | A                 | 1.73 | 1.65 | 1.0  | 0.95 |

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

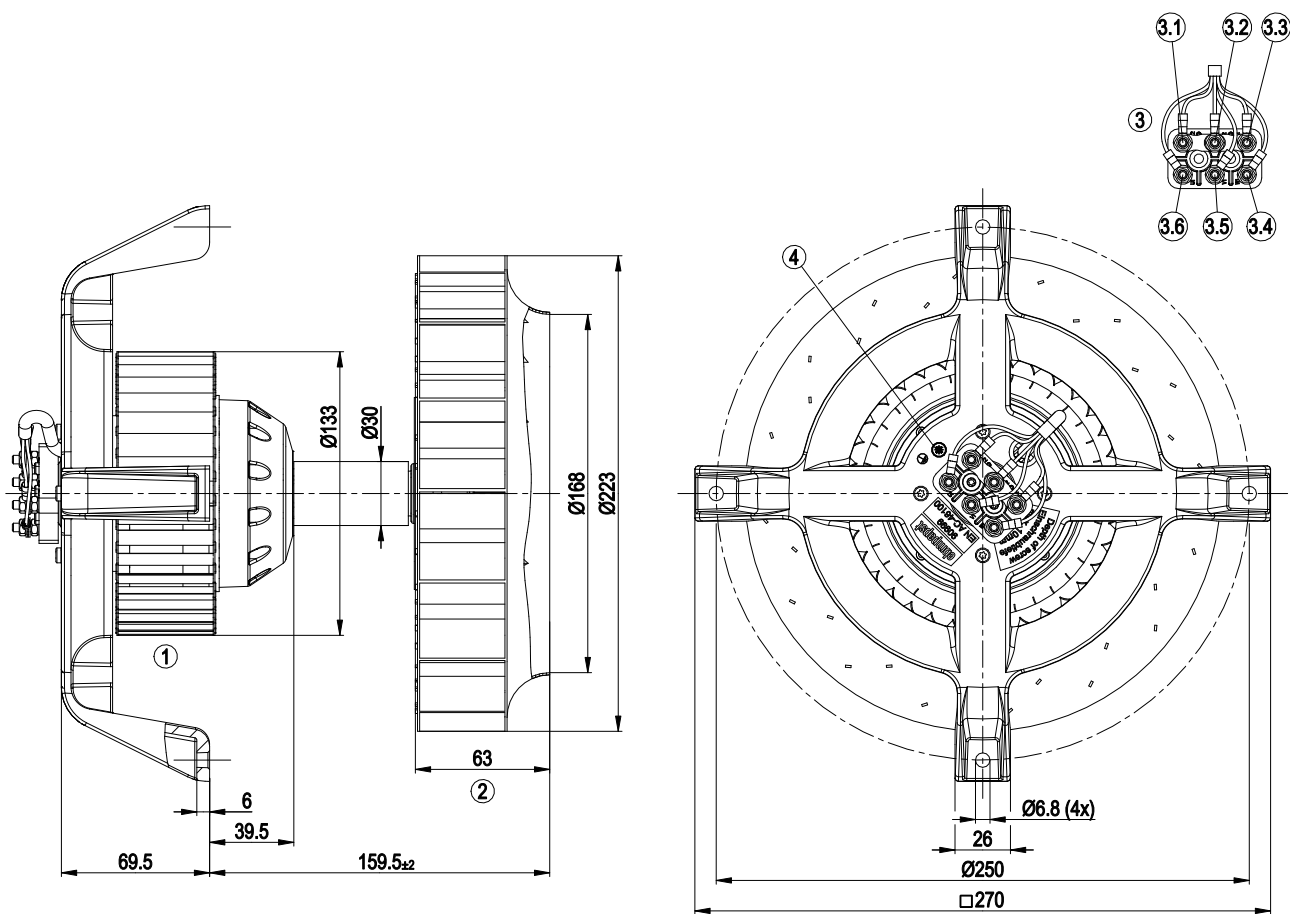
## Technical description

|                                                                            |                                                                                    |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Weight                                                                     | 4 kg                                                                               |
| Size                                                                       | 225 mm                                                                             |
| Motor size                                                                 | 68                                                                                 |
| Rotor surface                                                              | Unpainted                                                                          |
| Motor suspension                                                           | Motor mounted with brackets on one side                                            |
| Direction of rotation                                                      | Clockwise, viewed toward rotor                                                     |
| Degree of protection                                                       | IP20                                                                               |
| Insulation class                                                           | "F"                                                                                |
| Moisture (F) / Environmental (H) protection class                          | F1-1; H0+                                                                          |
| 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                                                                          |
| Electrical hookup                                                          | Via terminal strip                                                                 |
| With cable                                                                 | Axial                                                                              |
| Protection class                                                           | I (if protective earth is connected by customer to the housing's connection point) |
| Conformity with standards                                                  | CE                                                                                 |

# AC circulation blower for hot air

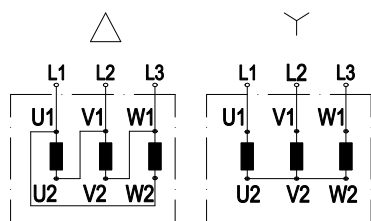
backward-curved

Product drawing



|     |                                                                  |
|-----|------------------------------------------------------------------|
| 1   | Centrifugal fan impeller (sheet steel, galvanized)               |
| 2   | Centrifugal fan impeller (sheet steel, rust- and acid-resistant) |
| 3.1 | yellow                                                           |
| 3.2 | green                                                            |
| 3.3 | white                                                            |
| 3.4 | brown                                                            |
| 3.5 | blue                                                             |
| 3.6 | black                                                            |
| 4   | M4 screw for fastening ground connector                          |
|     | Max. clearance for screw 5 mm                                    |

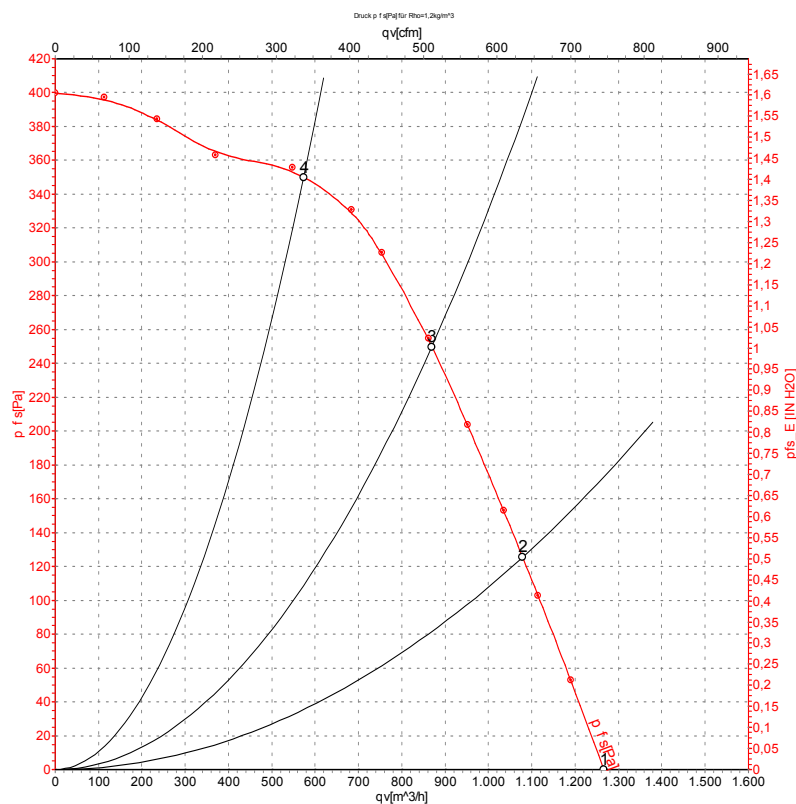
Connection diagram



Change of rotation direction by reversing two phases

|     |                   |    |                  |    |                 |
|-----|-------------------|----|------------------|----|-----------------|
|     | Three-phase motor | Δ  | Delta connection | Y  | Star connection |
| L 1 | = U1 = black      | L2 | = V1 = blue      | L3 | = W1 = brown    |
| U2  | green             | V2 | white            | W2 | yellow          |

Curves: Air performance 50 Hz



Measurement: LU-23648-1

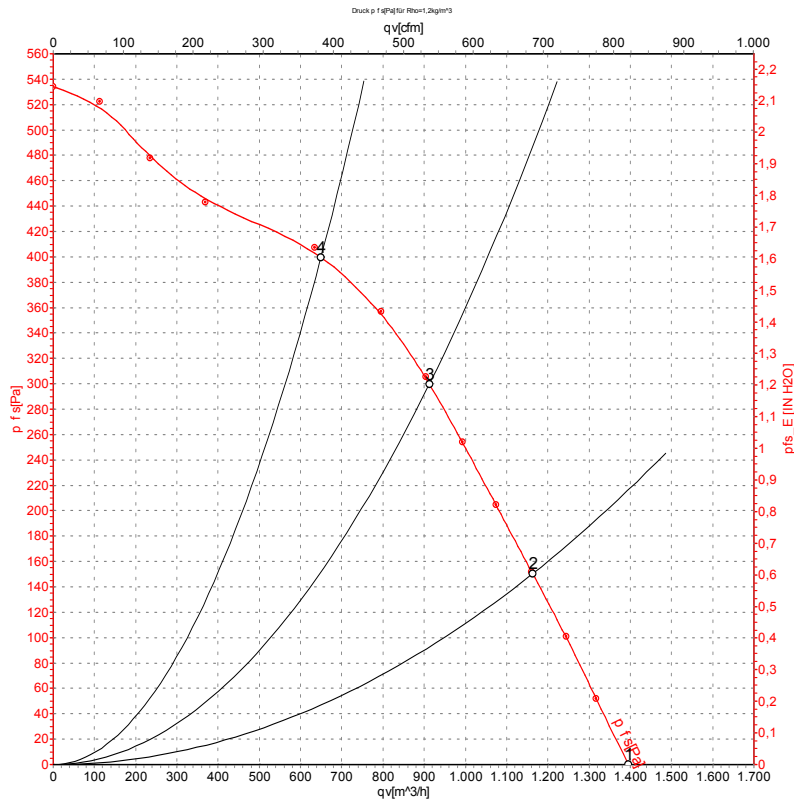
Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the 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 <sub>e</sub> | I    | q <sub>v</sub> | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|----------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h           | Pa              | cfm            | in. wg          |
| 1 | 400 | 50 | 2700              | 165            | 0.29 | 1265           | 0               | 745            | 0.00            |
| 2 | 400 | 50 | 2665              | 185            | 0.33 | 1080           | 125             | 635            | 0.50            |
| 3 | 400 | 50 | 2640              | 197            | 0.34 | 870            | 250             | 510            | 1.00            |
| 4 | 400 | 50 | 2660              | 188            | 0.33 | 575            | 350             | 335            | 1.41            |

U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

**Curves: Air performance 60 Hz**



Measurement: LU-23649-1

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 <sub>e</sub> | I    | q <sub>v</sub>    | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | cfm            | in. wg          |
| 1 | 400 | 60 | 3000              | 250            | 0.39 | 1395              | 0               | 820            | 0.00            |
| 2 | 400 | 60 | 2890              | 275            | 0.43 | 1165              | 150             | 685            | 0.60            |
| 3 | 400 | 60 | 2830              | 290            | 0.45 | 915               | 300             | 535            | 1.20            |
| 4 | 400 | 60 | 2860              | 280            | 0.43 | 650               | 400             | 380            | 1.61            |

U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[ebm-papst:](#)

[R2D225-AG02-12](#)