

D2E133-AM31-05

# AC centrifugal fan

forward-curved

with housing (without flange)

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## Nominal data

|                             |                    |      |
|-----------------------------|--------------------|------|
| Type                        | D2E133-AM31-05     |      |
| Motor                       | M2E068-DF          |      |
| Phase                       |                    | 1~   |
| Nominal voltage             | VAC                | 400  |
| Frequency                   | Hz                 | 50   |
| Method of obtaining data    |                    | fa   |
| Valid for approval/standard |                    | CE   |
| Speed (rpm)                 | min <sup>-1</sup>  | 1500 |
| Power consumption           | W                  | 180  |
| Current draw                | A                  | 0.46 |
| Capacitor                   | µF                 | 1.5  |
| Capacitor voltage           | VDB                | 700  |
| Min. back pressure          | Pa                 | 0    |
| Min. back pressure          | inH <sub>2</sub> O | 0    |
| Min. ambient temperature    | °C                 | -25  |
| Max. ambient temperature    | °C                 | 35   |

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



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## Technical description

|   |   |
|---|---|
| <b>Weight</b>   | 3.5 kg                                  |
| <b>Fan size</b>   | 133 mm                                  |
| <b>Impeller material</b>  | Sheet steel, hot-dip galvanized         |
| <b>Housing material</b>   | Sheet steel, hot-dip galvanized         |
| <b>Motor suspension</b>   | Motor mounted with brackets on one side |
| <b>Direction of rotation</b>  | Clockwise, viewed toward rotor          |
| <b>Degree of protection</b>   | IP44                                    |
| <b>Insulation class</b>   | "B"                                     |
| <b>Moisture (F) / Environmental (H) protection class</b>                          | F1-1                                    |
| <b>Max. permitted ambient temp. for motor (transport/storage)</b>                 | + 80 °C                                 |
| <b>Min. permitted ambient temp. for motor (transport/storage)</b>                 | - 40 °C                                 |
| <b>Installation position</b>  | Any                                     |
| <b>Condensation drainage holes</b>  | None                                    |
| <b>Mode</b>   | S1                                      |
| <b>Motor bearing</b>  | Ball bearing                            |
| <b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b> | < 0.75 mA                               |
| <b>With cable</b>   | Axial                                   |
| <b>Conformity with standards</b>  | CE                                      |

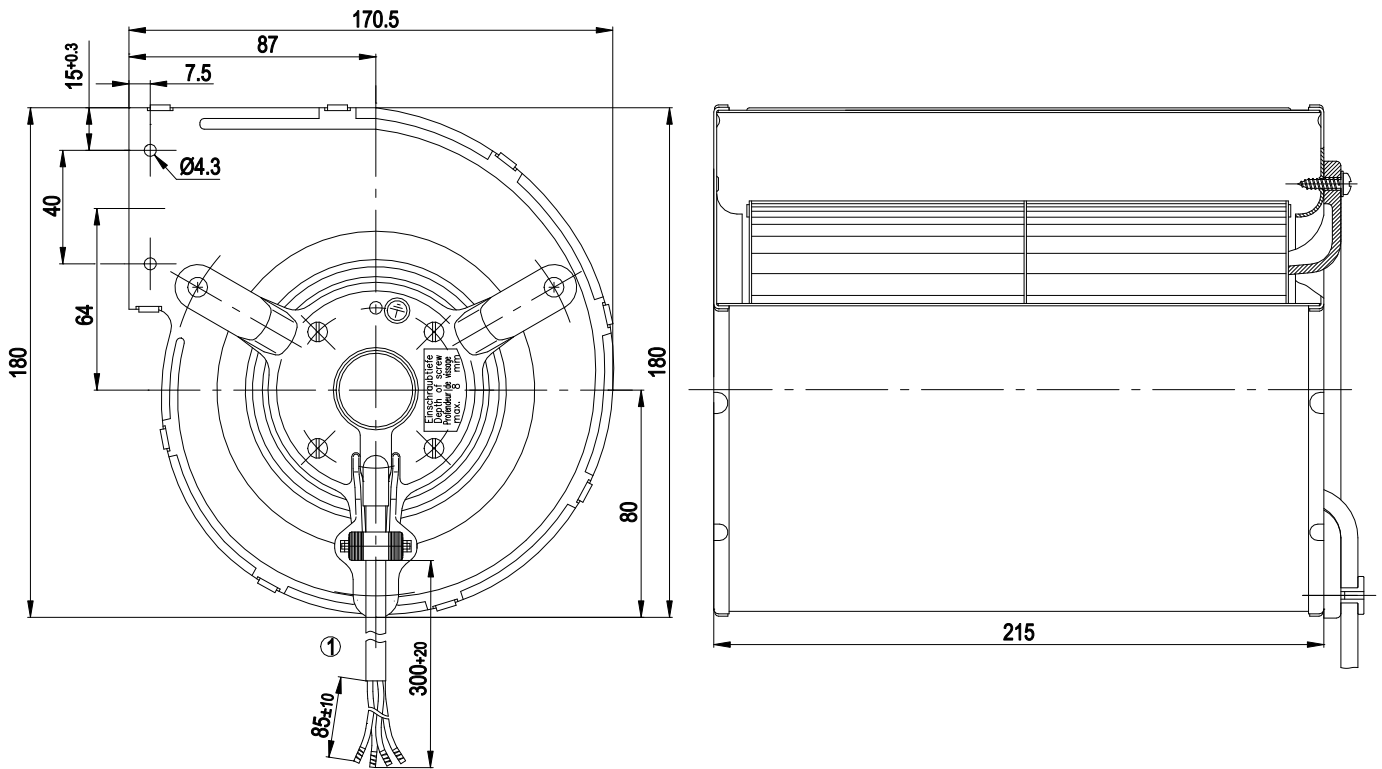


## AC centrifugal fan

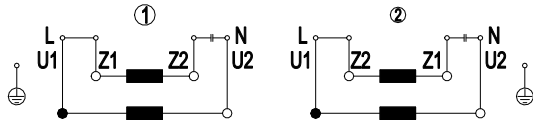
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## Product drawing

1 Cable PVC 4x 0.5 mm<sup>2</sup>, 4x crimped splices

### Connection diagram



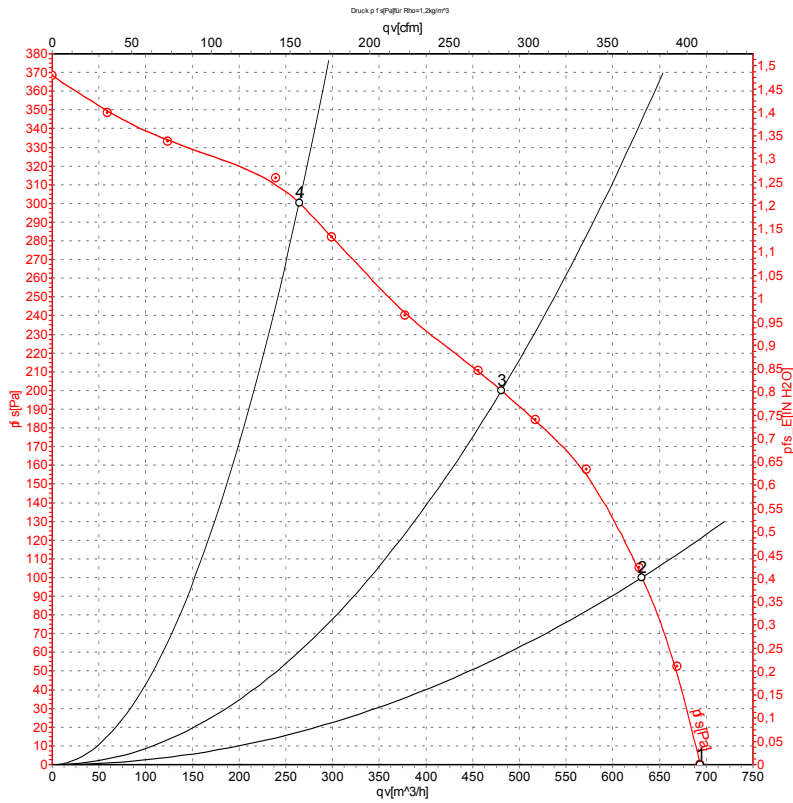
Single-phase AC motor with motor run capacitor

|    |                            |
|----|----------------------------|
| 1  | Clockwise operation        |
| 2  | Counterclockwise operation |
| U1 | black                      |
| U2 | gray                       |
| Z1 | blue                       |
| Z2 | brown                      |

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## Curves: Air performance 50 Hz



Measurement: LU-60404-1

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    | qv                | p <sub>fs</sub> | qv  | p <sub>fs</sub>    |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|-----|--------------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | CFM | inH <sub>2</sub> O |
| 1 | 400 | 50 | 1500              | 180            | 0.46 | 695               | 0               | 410 | 0.00               |
| 2 | 400 | 50 | 1900              | 161            | 0.40 | 630               | 100             | 370 | 0.40               |
| 3 | 400 | 50 | 2305              | 134            | 0.34 | 480               | 200             | 285 | 0.80               |
| 4 | 400 | 50 | 2665              | 100            | 0.26 | 265               | 300             | 155 | 1.20               |

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

