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Amtsgericht (court of registration) Stuttgart · HRB 590142

**Nominal data**

| Type                        | R2D160-AC02-13    |      |      |
|-----------------------------|-------------------|------|------|
| Motor                       | M2D068-DC         |      |      |
| Phase                       |                   | 3~   | 3~   |
| Nominal voltage             | VAC               | 400  | 400  |
| Wiring                      |                   | Y    | Y    |
| Frequency                   | Hz                | 50   | 60   |
| Method of obtaining data    |                   | fa   | ml   |
| Valid for approval/standard |                   | CE   | CE   |
| Speed (rpm)                 | min <sup>-1</sup> | 2100 | 2400 |
| Power consumption           | W                 | 260  | 270  |
| Current draw                | A                 | 0.41 | 0.42 |
| Min. back pressure          | Pa                | 0    | 300  |
| Min. back pressure          | in. wg            | 0    | 1.2  |
| Min. ambient temperature    | °C                | -25  | -25  |
| Max. ambient temperature    | °C                | 55   | 55   |

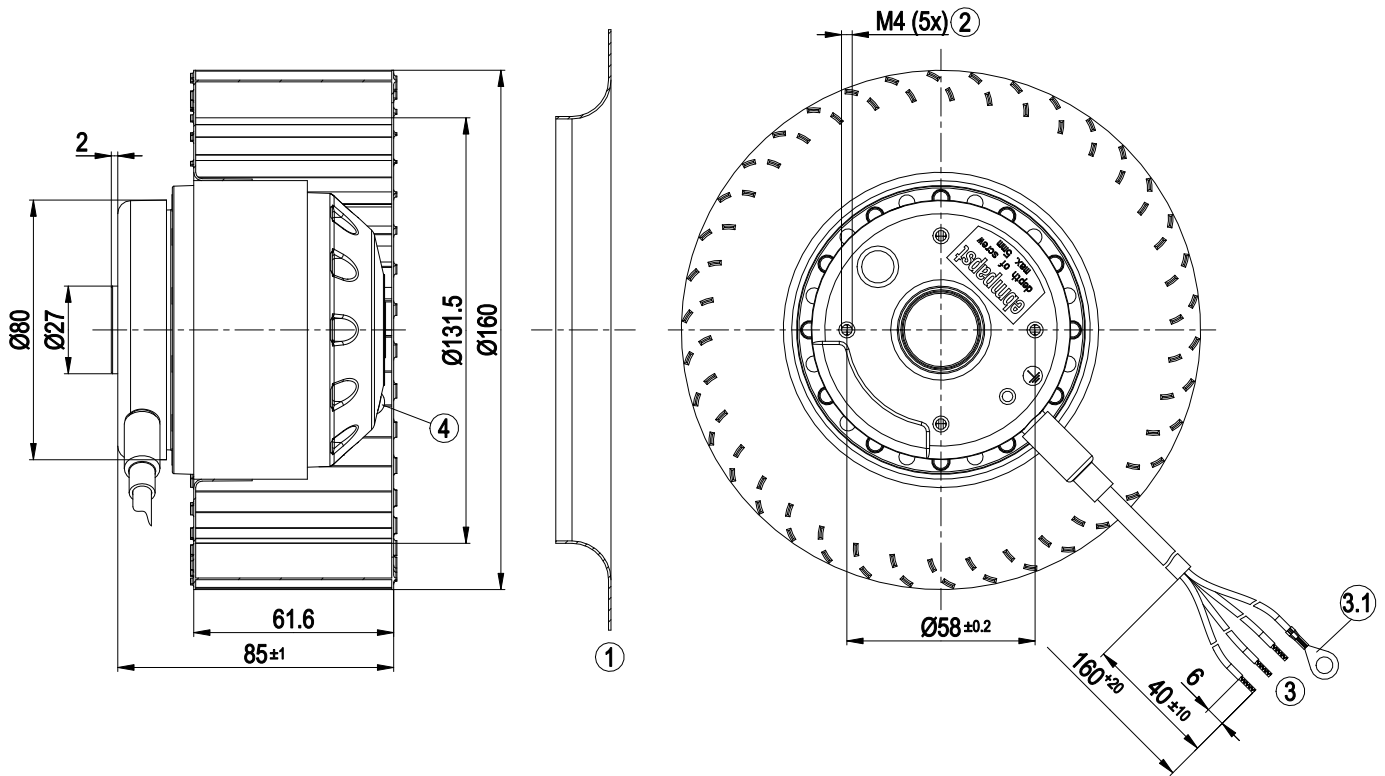
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · oe = Customer equipment  
 Subject to change



## Technical description

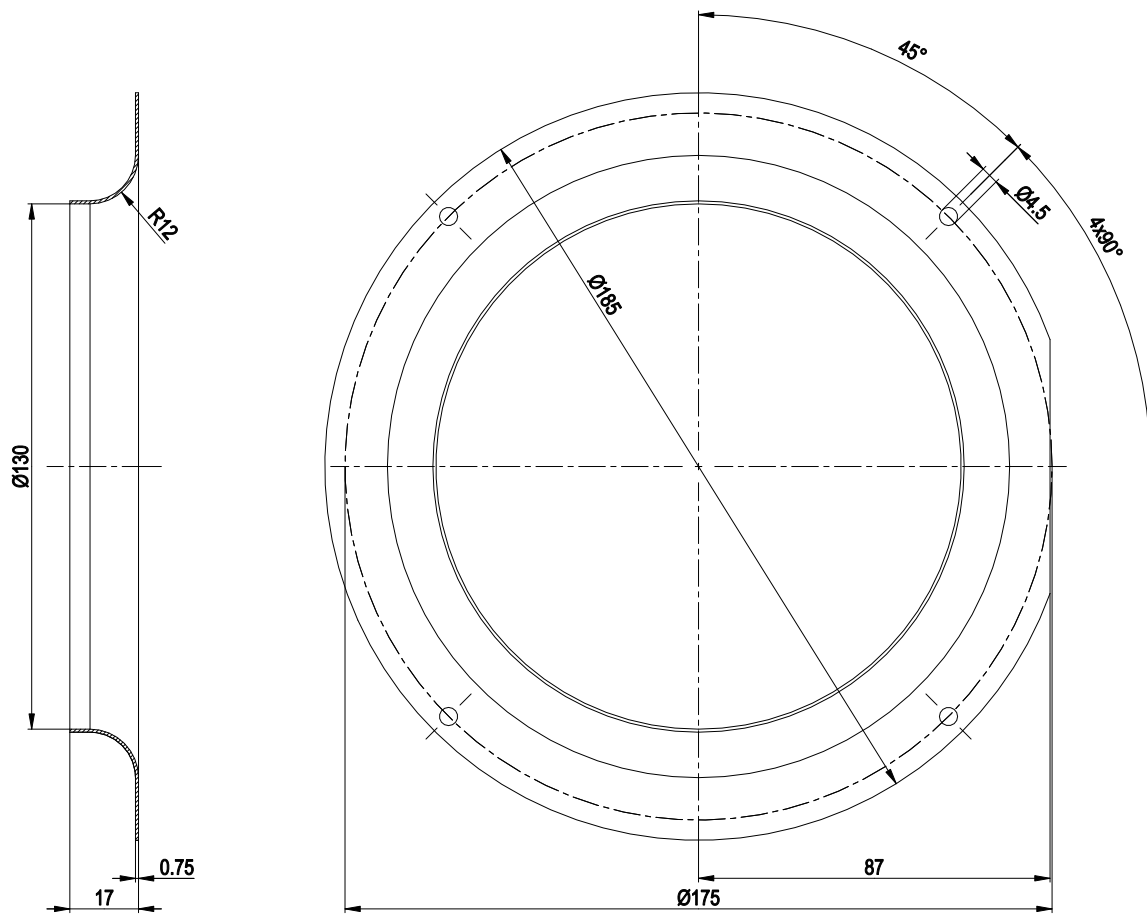
|                                                                            |                                                                              |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Weight                                                                     | 2.2 kg                                                                       |
| Size                                                                       | 160 mm                                                                       |
| Motor size                                                                 | 68                                                                           |
| Impeller material                                                          | Sheet steel, painted black                                                   |
| Direction of rotation                                                      | Clockwise, viewed toward rotor                                               |
| Degree of protection                                                       | IP44                                                                         |
| 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                                                      | Any                                                                          |
| 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                                                                    |
| With cable                                                                 | Lateral                                                                      |
| Protection class                                                           | I (with customer connection of protective earth)                             |
| Conformity with standards                                                  | EN 60335-1, motor does not have factory-installed overheating protection; CE |
| Approval                                                                   | UL 1004-1; EAC; CSA C22.2 No. 100                                            |

## Product drawing



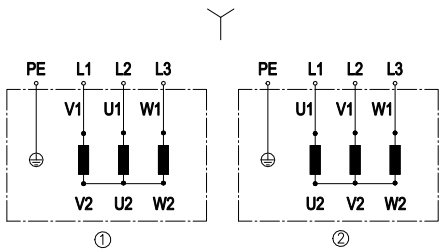
|     |                                                                           |
|-----|---------------------------------------------------------------------------|
| 1   | Accessory part: inlet ring 09588-2-4013 not included in scope of delivery |
| 2   | Max. clearance for screw 5 mm                                             |
| 3   | Cable PFA AWG20 (green/yellow AWG18)                                      |
|     | 3x splice                                                                 |
| 3.1 | PE (green/yellow), ring terminal Ø 4.3                                    |
| 4   | Condensation drainage holes sealed with expanding rivets                  |

## Accessory part



Accessory part: inlet ring 09588-2-4013 not included in scope of delivery

Connection diagram



Change of rotation direction by reversing two phases

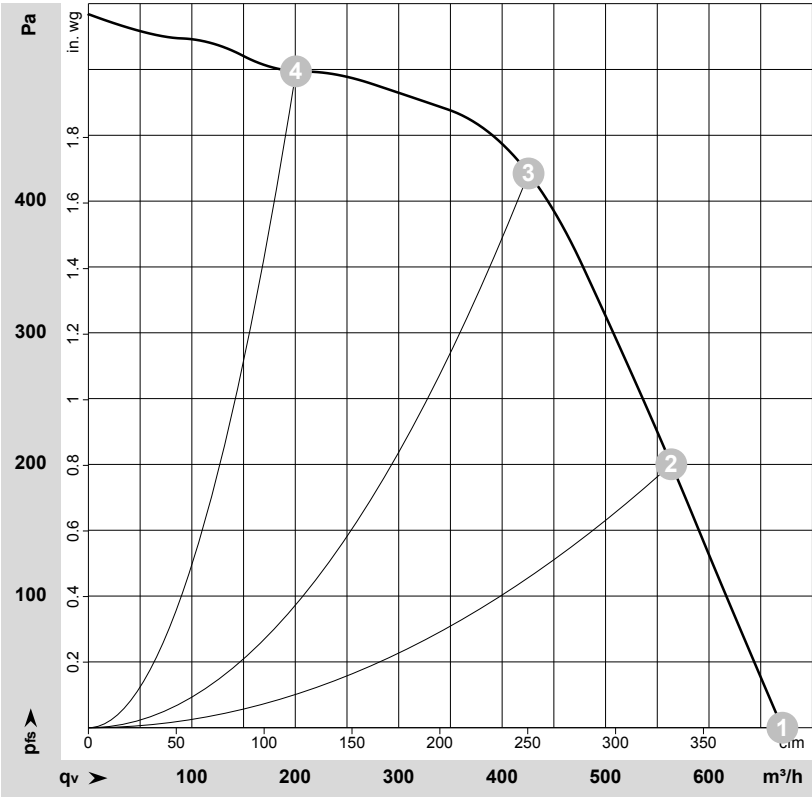
|    |                            |
|----|----------------------------|
|    | Three-phase motor          |
| Y  | Star connection            |
| 1  | Counterclockwise operation |
| L1 | = V1 = blue                |
| L2 | = U1 = black               |
| L3 | = W1 = brown               |
| 2  | Clockwise operation        |
| L1 | = U1 = black               |
| L2 | = V1 = blue                |
| L3 | = W1 = brown               |
| PE | green/yellow               |



# AC centrifugal fan

forward-curved, single-intake

## Curves: Air performance 50 Hz



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

Measurement: LU-126463-1

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>st</sub> | q <sub>v</sub> | p <sub>st</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | cfm            | in. wg          |
| 1 | 400 | 50 | 2100              | 260            | 0.41 | 670               | 0               | 395            | 0.00            |
| 2 | 400 | 50 | 2260              | 205            | 0.33 | 565               | 200             | 330            | 0.80            |
| 3 | 400 | 50 | 2470              | 156            | 0.27 | 425               | 420             | 250            | 1.69            |
| 4 | 400 | 50 | 2740              | 89             | 0.20 | 200               | 500             | 120            | 2.01            |

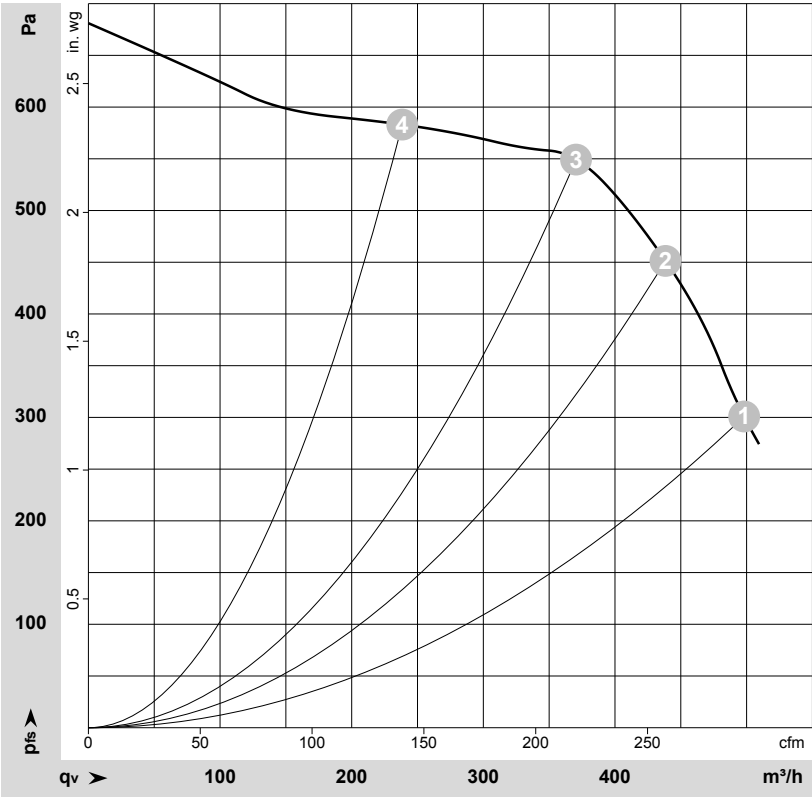
U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>st</sub> = Pressure increase



# AC centrifugal fan

forward-curved, single-intake

Curves: Air performance 60 Hz



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

Measurement: LU-23900-1

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 | 2400              | 270            | 0.42 | 500               | 300             | 295            | 1.20            |
| 2 | 400 | 60 | 2550              | 228            | 0.35 | 440               | 450             | 260            | 1.81            |
| 3 | 400 | 60 | 2730              | 200            | 0.31 | 370               | 550             | 220            | 2.21            |
| 4 | 400 | 60 | 2910              | 165            | 0.26 | 240               | 580             | 140            | 2.33            |

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

