

A2D170-AA04-01

# AC axial fan

straight blades (A series)

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## Nominal data

|                               |                   |      |      |      |      |
|-------------------------------|-------------------|------|------|------|------|
| Type                          | A2D170-AA04-01    |      |      |      |      |
| Motor                         | M2D068-BF         |      |      |      |      |
| Phase                         |                   | 3~   | 3~   | 3~   | 3~   |
| Nominal voltage               | VAC               | 230  | 230  | 400  | 400  |
| Connection                    |                   | Δ    | Δ    | Y    | Y    |
| Frequency                     | Hz                | 50   | 60   | 50   | 60   |
| Type of data definition       |                   | fa   | fa   | fa   | fa   |
| Valid for approval / standard |                   | CE   | CE   | CE   | CE   |
| Speed                         | min <sup>-1</sup> | 2750 | 3100 | 2750 | 3100 |
| Power input                   | W                 | 45   | 43   | 45   | 43   |
| Current draw                  | A                 | 0.23 | 0.16 | 0.13 | 0.09 |
| Min. ambient temperature      | °C                | -25  | -25  | -25  | -25  |
| Max. ambient temperature      | °C                | 55   | 70   | 55   | 70   |

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



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## Technical features

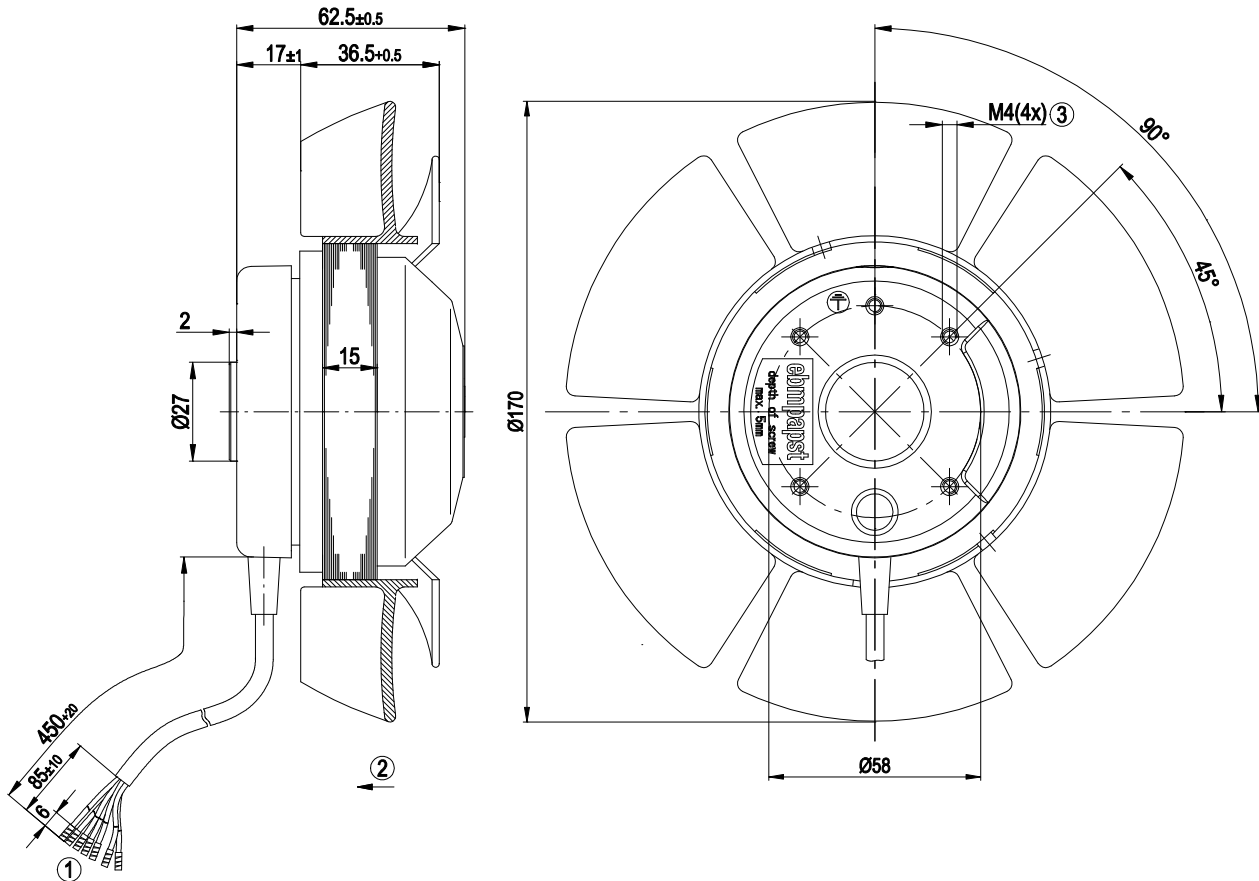
|                                                         |                                                  |
|---------------------------------------------------------|--------------------------------------------------|
| Mass                                                    | 1.18 kg                                          |
| Size                                                    | 170 mm                                           |
| Surface of rotor                                        | Coated in black                                  |
| Material of impeller                                    | Die-cast aluminium                               |
| Number of blades                                        | 6                                                |
| Direction of air flow                                   | "V"                                              |
| Direction of rotation                                   | Counter-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                                     |
| Leakage current                                         | < 0.75 mA                                        |
| Cable exit                                              | Lateral                                          |
| Protection class                                        | I (if protective earth is connected by customer) |
| Approval                                                | CCC                                              |



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## Product drawing

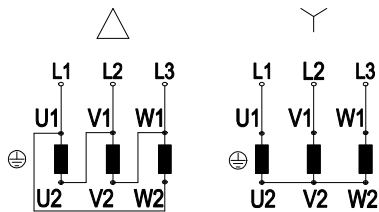


- |   |                                                                           |
|---|---------------------------------------------------------------------------|
| 1 | Connection line PVC 7 x 0.5 mm <sup>2</sup> ; 7 x brass lead tips crimped |
| 2 | Direction of air flow "V"                                                 |
| 3 | Depth of screw max. 5 mm                                                  |

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Connection screen



Note: Direction of rotation changes when two phases are reversed

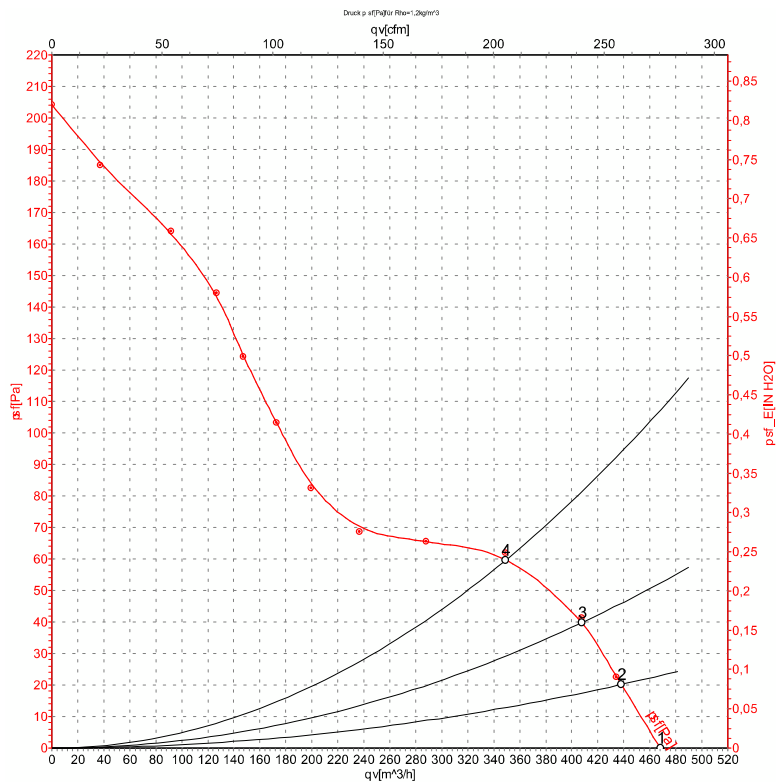
|    |                  |    |                 |    |       |
|----|------------------|----|-----------------|----|-------|
| Δ  | Delta connection | Y  | Star connection | L1 | black |
| L2 | blue             | L3 | brown           | U1 | black |
| V1 | blue             | W1 | brown           | U2 | green |
| V2 | white            | W2 | yellow          |    |       |



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## Charts: Air flow 50 Hz



Measurement: LU-25208

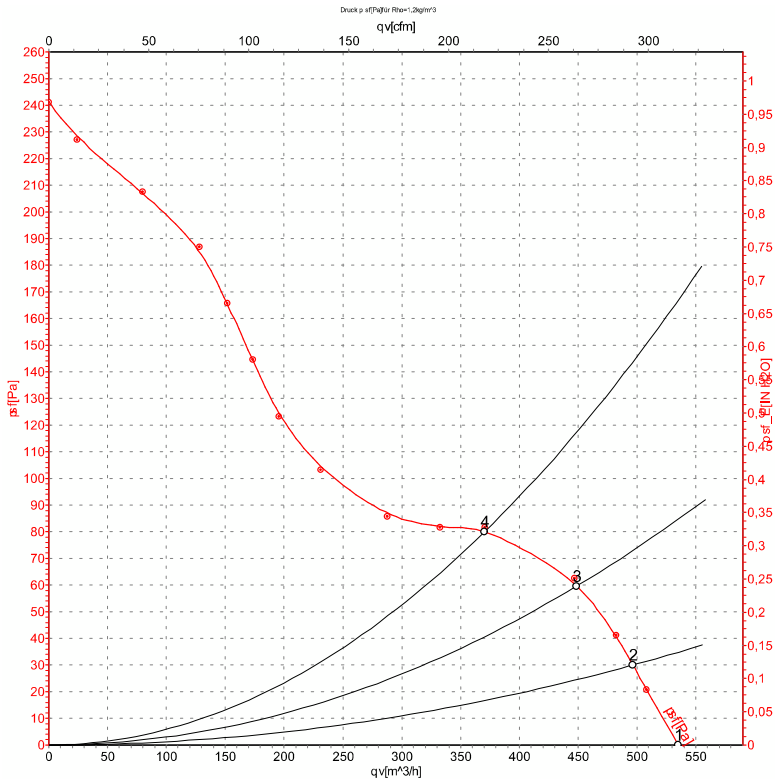
Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions 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>sf</sub> |
|---|-----|----|-------------------|----------------|------|------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | 400 | 50 | 2710              | 42             | 0.12 | 470  | 0               |
| 2 | 400 | 50 | 2705              | 42             | 0.12 | 440  | 20              |
| 3 | 400 | 50 | 2685              | 43             | 0.12 | 410  | 40              |
| 4 | 400 | 50 | 2675              | 44             | 0.12 | 350  | 60              |



### Charts: Air flow 60 Hz



Measurement: LU-25209

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: L<sub>WA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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>sf</sub> |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
|   | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1 | 400 | 60 | 3100              | 39             | 0.09 | 535               | 0               |
| 2 | 400 | 60 | 3065              | 41             | 0.09 | 495               | 30              |
| 3 | 400 | 60 | 3015              | 43             | 0.09 | 450               | 60              |
| 4 | 400 | 60 | 3000              | 44             | 0.09 | 370               | 80              |