

G4D180-FF20-01

# AC centrifugal fan

forward curved, single inlet  
with housing (flange)

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## Nominal data

| Type                          | G4D180-FF20-01    |      |      |      |      |
|-------------------------------|-------------------|------|------|------|------|
| Motor                         | M4D074-DF         |      |      |      |      |
| 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> | 1330 | 1440 | 1330 | 1440 |
| Power input                   | W                 | 175  | 240  | 175  | 240  |
| Current draw                  | A                 | 0.68 | 0.75 | 0.39 | 0.43 |
| Min. back pressure            | Pa                | 0    | 0    | 0    | 0    |
| Min. ambient temperature      | °C                | -25  | -25  | -25  | -25  |
| Max. ambient temperature      | °C                | 60   | 45   | 60   | 45   |

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                                                               | 6 kg                                             |
| Size                                                               | 180 mm                                           |
| Surface of rotor                                                   | Coated in black                                  |
| Material of impeller                                               | Sheet steel, galvanized                          |
| Housing material                                                   | Sheet steel, galvanized                          |
| Direction of rotation                                              | Clockwise, seen on rotor                         |
| Type of protection                                                 | IP 44                                            |
| Insulation class                                                   | "B"                                              |
| Humidity class                                                     | F5                                               |
| Max. permissible ambient motor temp. (transp./ storage)            | + 80 °C                                          |
| Min. permissible ambient motor temp. (transp./storage)             | - 40 °C                                          |
| Mounting position                                                  | Any                                              |
| Condensate discharge holes                                         | Rotor-side                                       |
| Operation mode                                                     | S1                                               |
| Motor bearing                                                      | Ball bearing                                     |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA                                        |
| Cable exit                                                         | Variable                                         |
| Protection class                                                   | I (if protective earth is connected by customer) |
| Product conforming to standard                                     | EN 60335-1; CE                                   |
| Approval                                                           | CCC                                              |

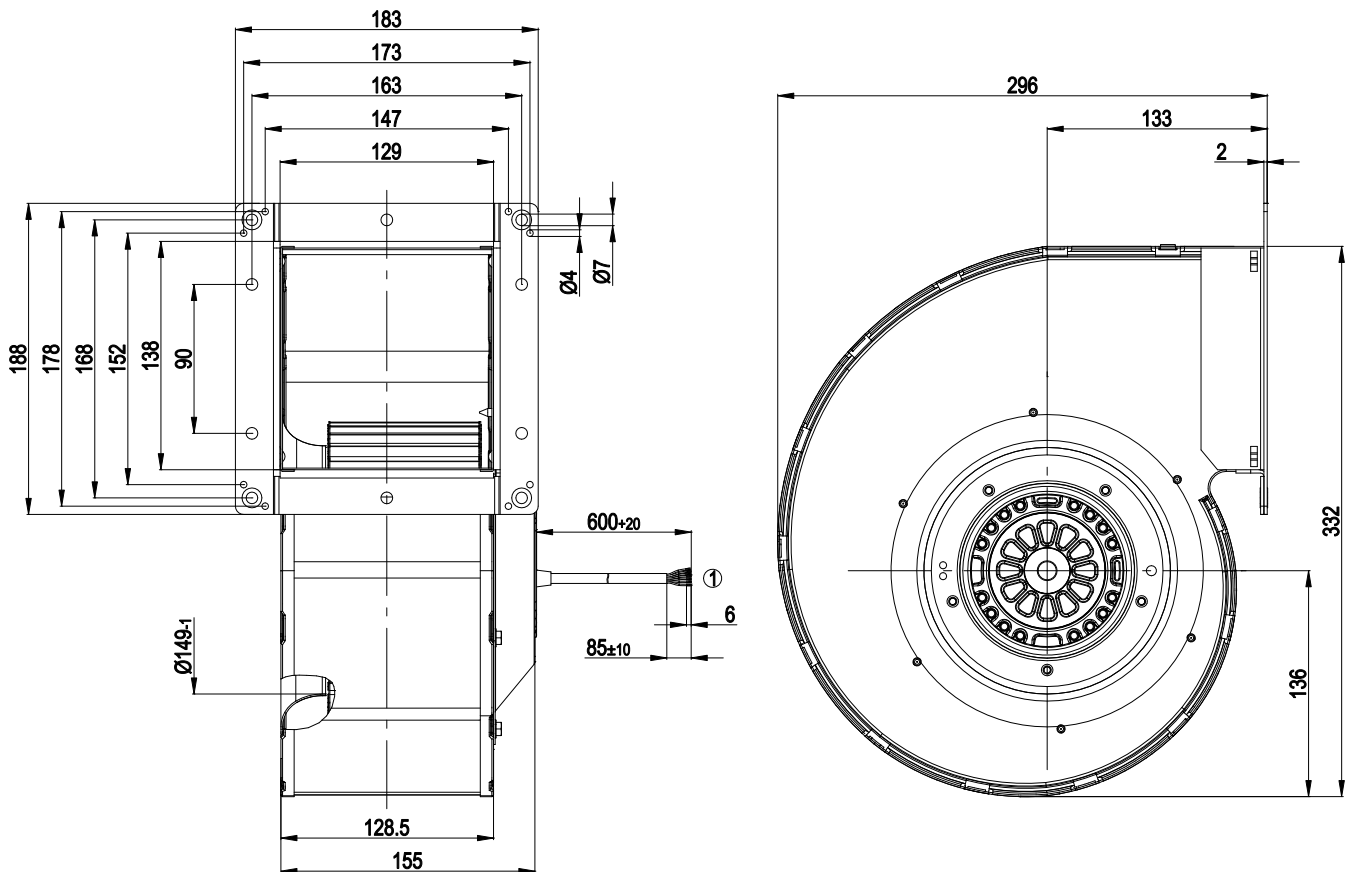


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### Product drawing



1 Connection line PVC, 7x brass lead tips crimped

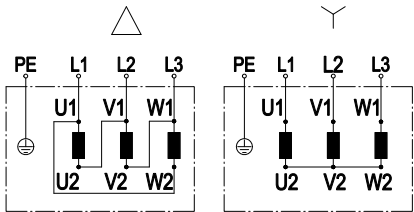


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Connection screen



Change direction of rotation by reversing two phases

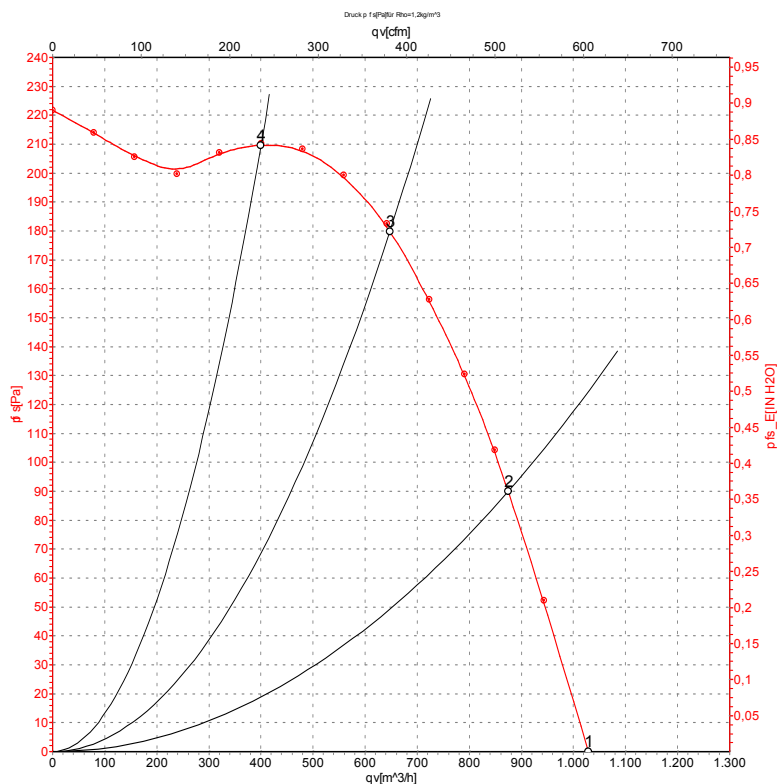
|    |                   |    |                  |    |                 |
|----|-------------------|----|------------------|----|-----------------|
|    | Three-phase motor | Δ  | Delta connection | Y  | Star connection |
| L1 | = U1 = black      | L2 | = V1 = blue      | L3 | = W1 = brown    |
| U2 | green             | V2 | white            | W2 | yellow          |
| PE | green/yellow      |    |                  |    |                 |



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## Charts: Air flow 50 Hz



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.

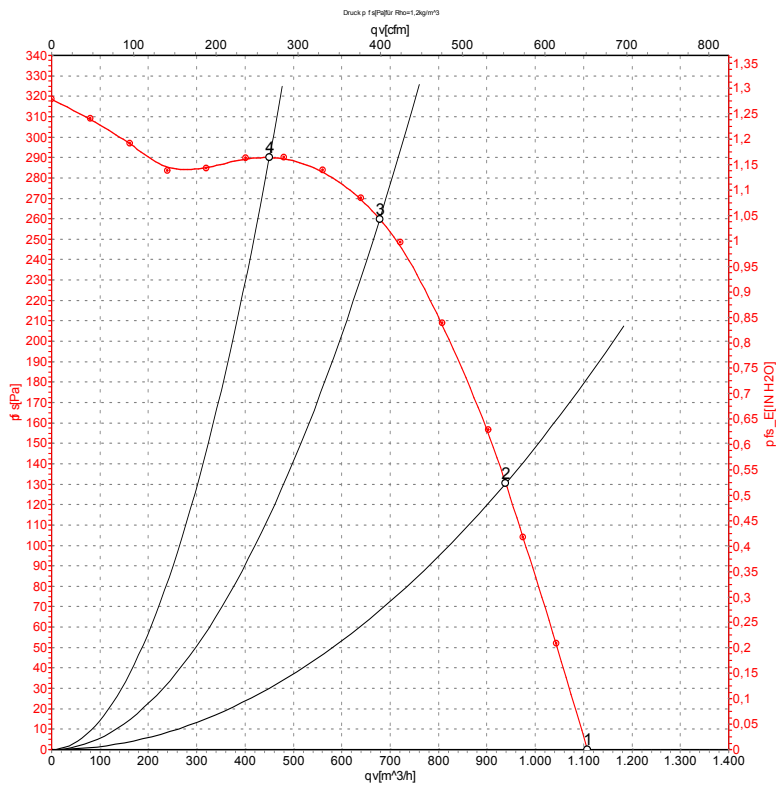
## Measured values

|   | Conn. | U   | f  | n                 | P <sub>e</sub> | I    | qv   | p <sub>ts</sub> |
|---|-------|-----|----|-------------------|----------------|------|------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | Y     | 400 | 50 | 1330              | 175            | 0.39 | 1030 | 0               |
| 2 | Y     | 400 | 50 | 1360              | 153            | 0.36 | 875  | 90              |
| 3 | Y     | 400 | 50 | 1410              | 116            | 0.34 | 650  | 180             |
| 4 | Y     | 400 | 50 | 1445              | 87             | 0.33 | 400  | 210             |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>ts</sub> = Pressure increase



## Charts: Air flow 60 Hz



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

|   | Conn. | U   | f  | n                 | P <sub>e</sub> | I    | qv   | p <sub>ts</sub> |
|---|-------|-----|----|-------------------|----------------|------|------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | Y     | 400 | 60 | 1440              | 240            | 0.43 | 1110 | 0               |
| 2 | Y     | 400 | 60 | 1515              | 204            | 0.38 | 940  | 130             |
| 3 | Y     | 400 | 60 | 1625              | 143            | 0.30 | 680  | 260             |
| 4 | Y     | 400 | 60 | 1690              | 102            | 0.26 | 450  | 290             |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>ts</sub> = Pressure increase