

D4D180-CB01-02

AC centrifugal fan

forward curved, dual inlet
with housing (large flange)



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Nominal data

| | | | | | |
|-------------------------------|-----------------------|----------|----------|------|------|
| Type | D4D180-CB01-02 | | | | |
| Motor | M4D068-GA | | | | |
| 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 ⁻¹ | 1050 | 1030 | 1050 | 1030 |
| Power input | W | 290 | 360 | 290 | 360 |
| Current draw | A | 0.92 | 1.04 | 0.53 | 0.6 |
| Min. back pressure | Pa | 0 | 0 | 0 | 0 |
| Max. ambient temperature | °C | 55 | 30 | 55 | 30 |

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

Data according to ErP directive

| | |
|-----------------------|-------|
| Installation category | B |
| Efficiency category | Total |
| Variable speed drive | No |
| Specific ratio* | 1.00 |

* Specific ratio = $1 + p_r / 100\,000\text{ Pa}$

| | Actual | Request 2013 | Request 2015 |
|-----------------------------|-------------------|--------------|--------------|
| Overall efficiency η_e | 37.1 | 30.1 | 37.1 |
| Efficiency grade N | 49 | 42 | 49 |
| Power input P_e | kW | 0.13 | |
| Air flow q_v | m ³ /h | 900 | |
| Pressure increase p_r | Pa | 198 | |
| Speed n | min ⁻¹ | 1330 | |

Data established at point of optimum efficiency



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Technical features

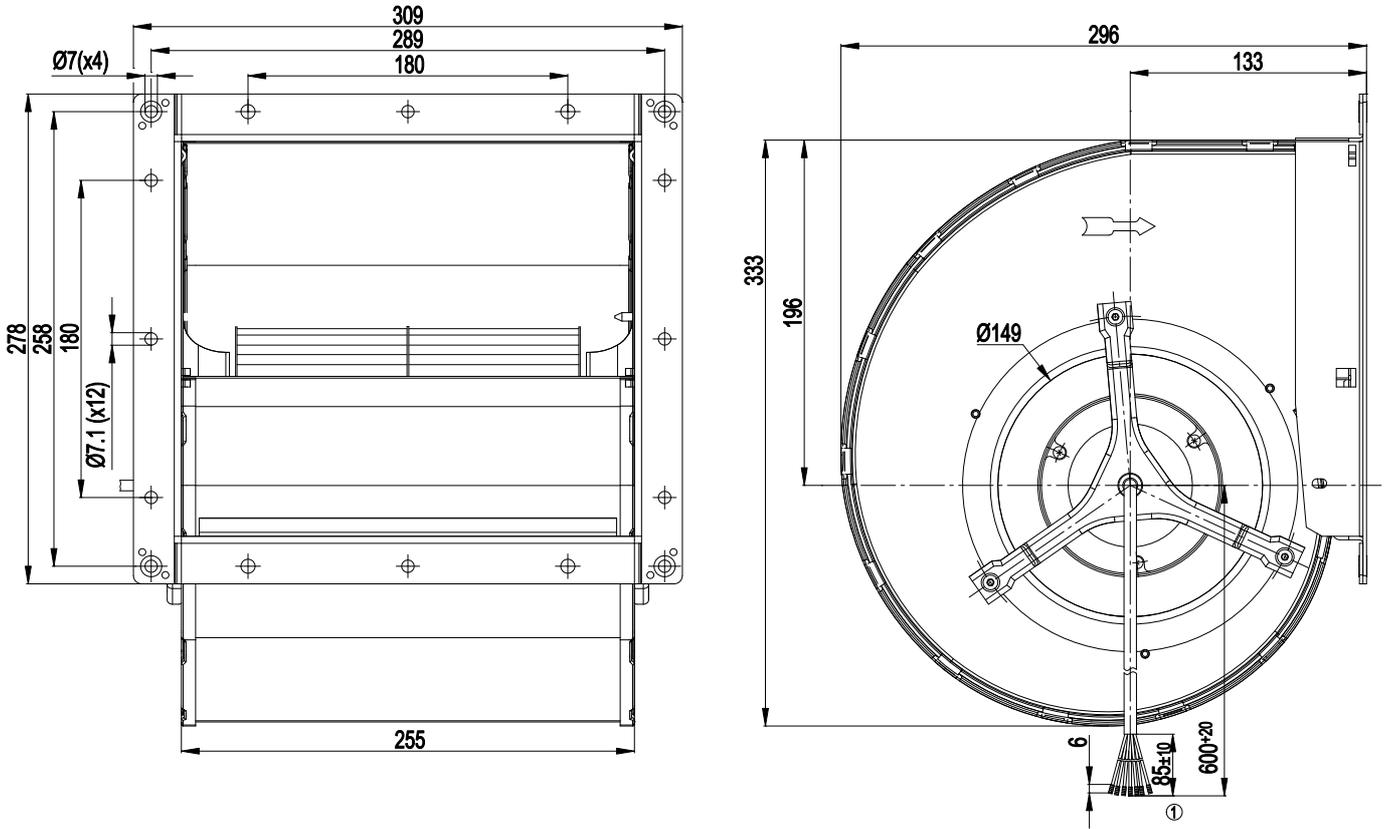
| | |
|---|--|
| Mass | 9.5 kg |
| Size | 180 mm |
| Surface of rotor | Uncoated |
| Material of impeller | Sheet steel, hot-galvanised |
| Housing material | Sheet steel, hot-galvanised |
| Motor suspension | Motor anti-vibration mounted on both sides |
| Direction of rotation | Counter-clockwise, seen on rotor |
| Type of protection | IP 54 |
| Insulation class | "B" |
| Humidity class | F3-1 |
| 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 |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA |
| Protection class | I (if protective earth is connected by customer) |
| Product conforming to standard | EN 60335-1 |
| Approval | CCC |



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Product drawing

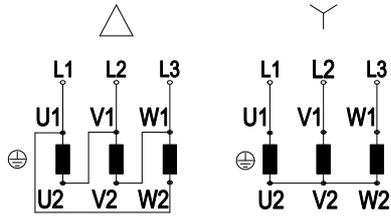


1 Connection line halogen- and silicone-free AWG20; 7x brass lead tips crimped

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Connection screen



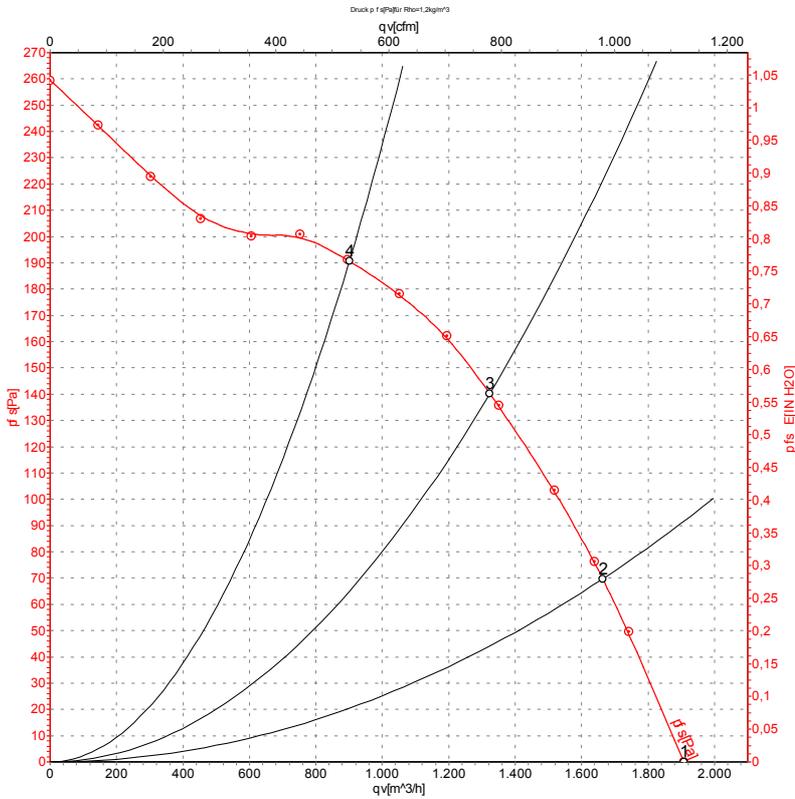
Note: Direction of rotation changes when two phases are reversed

| | | | | | |
|----|------------------|----|-----------------|----|-------|
| 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-105049

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_{wA} measured as per ISO 13347 / L_{pA} 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 _e | I | qv | p _{fs} |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 400 | 50 | 1050 | 290 | 0.53 | 1910 | 0 |
| 2 | Y | 400 | 50 | 1150 | 238 | 0.47 | 1665 | 70 |
| 3 | Y | 400 | 50 | 1240 | 190 | 0.42 | 1325 | 140 |
| 4 | Y | 400 | 50 | 1330 | 138 | 0.37 | 900 | 190 |

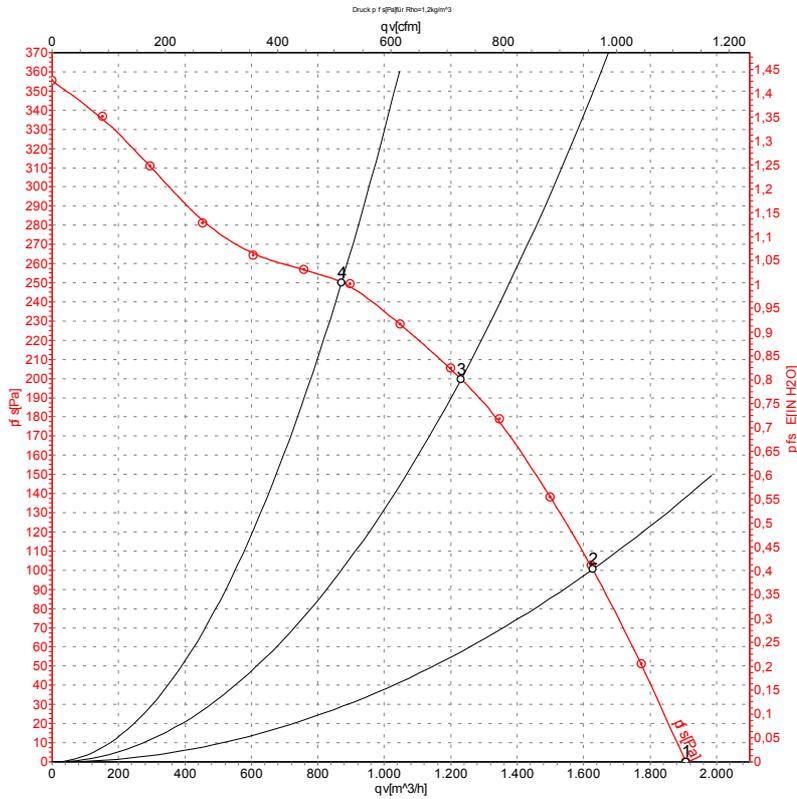
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase



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Charts: Air flow 60 Hz



Measurement: LU-105050

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_{wA} measured as per ISO 13347 / L_{pA} 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 _e | I | qv | p _{fs} |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | Y | 400 | 60 | 1030 | 360 | 0.60 | 1910 | 0 |
| 2 | Y | 400 | 60 | 1230 | 280 | 0.50 | 1625 | 100 |
| 3 | Y | 400 | 60 | 1390 | 219 | 0.41 | 1230 | 200 |
| 4 | Y | 400 | 60 | 1515 | 166 | 0.34 | 870 | 250 |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

