

AC centrifugal fan

backward curved, single inlet
with housing (flange)

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Nominal data

| Type | G2D160-AF02-01 | | | | |
|-------------------------------|-------------------|------|------|------|------|
| Motor | M2D068-EC | | | | |
| 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 | | ml | ml | ml | ml |
| Valid for approval / standard | | CE | CE | CE | CE |
| Speed | min ⁻¹ | 2300 | 2550 | 2300 | 2550 |
| Power input | W | 305 | 335 | 305 | 335 |
| Current draw | A | 0.83 | 0.9 | 0.48 | 0.52 |
| Min. back pressure | Pa | 0 | 300 | 0 | 300 |
| Min. ambient temperature | °C | -25 | -25 | -25 | -25 |
| Max. ambient temperature | °C | 50 | 40 | 50 | 40 |
| Starting current | A | 1.75 | 1.65 | 1.0 | 0.95 |

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 | A |
| Efficiency category | Static |
| Variable speed drive | No |
| Specific ratio* | 1.01 |

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

| | | Actual | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------|--------------|--------------|
| Overall efficiency η_{es} | % | 34 | 25.5 | 32.5 |
| Efficiency grade N | | 45.5 | 37 | 44 |
| Power input P_e | kW | 0.15 | | |
| Air flow q_v | m ³ /h | 390 | | |
| Pressure increase p_{fs} | Pa | 501 | | |
| Speed n | min ⁻¹ | 2685 | | |

Data definition with optimum efficiency. LU-39223
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



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Technical features

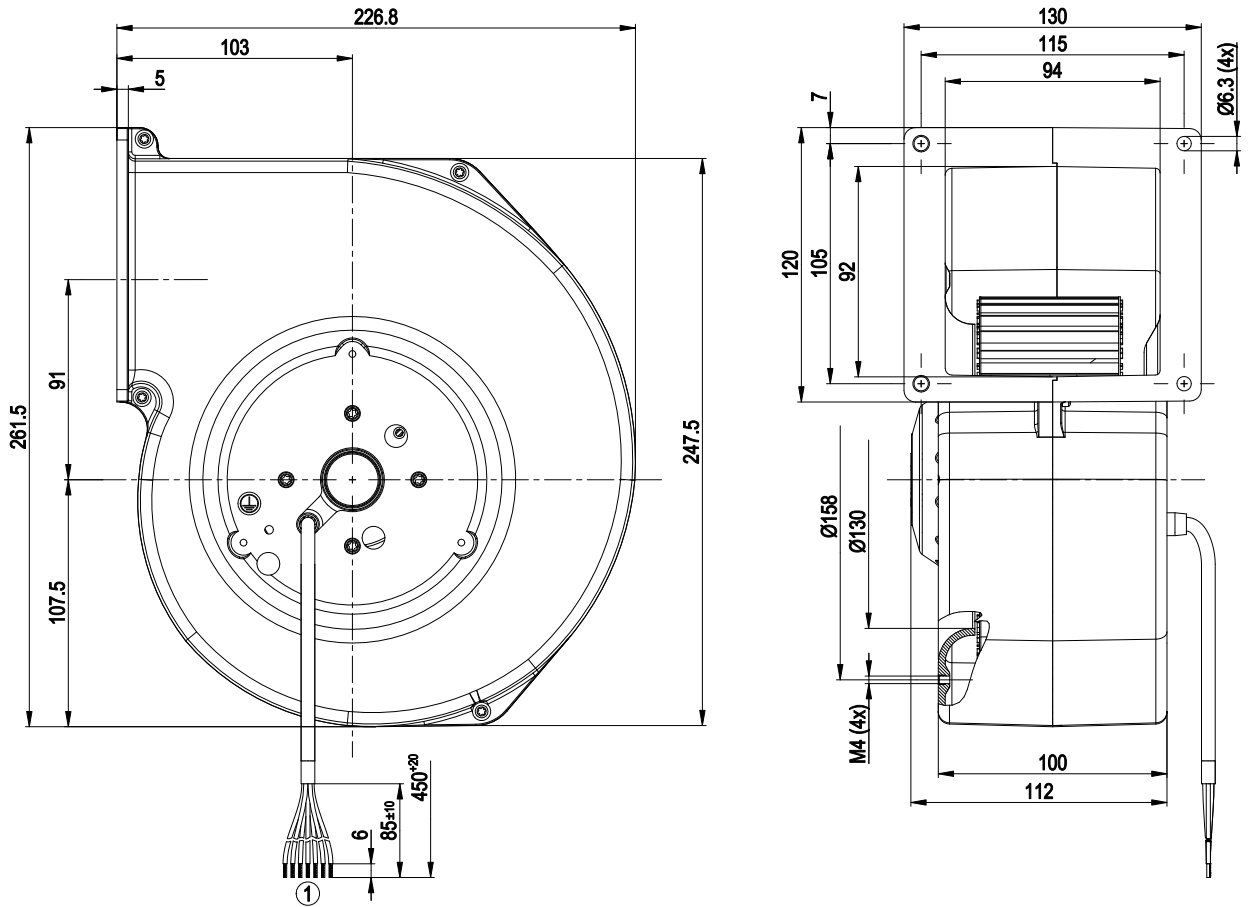
| | |
|---|--|
| Mass | 4 kg |
| Size | 160 mm |
| Surface of rotor | Uncoated |
| Material of impeller | Sheet steel, sendzimir galvanised |
| Housing material | Die-cast aluminium |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 44 |
| Insulation class | "B" |
| Humidity class | F1-1 |
| 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, motor does not have factory-installed overheating protection; CE |
| Approval | CCC |



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Product drawing



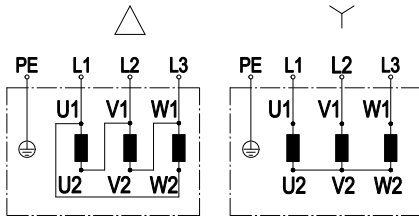
1 Connection line PVC, 7x brass lead tips crimped



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Connection screen



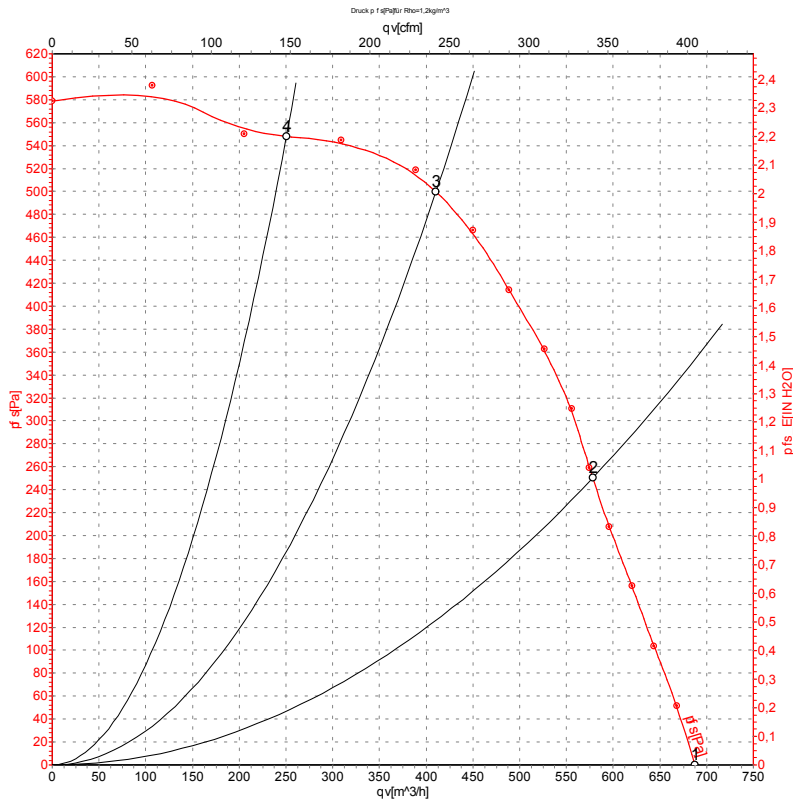
Change direction of rotation by reversing two phases

| | | | | | |
|----|-------------------|----|------------------|----|-----------------|
| | 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



Measurement: LU-39223

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

| | U | f | n | P _e | I | qv | P _{fs} |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | 400 | 50 | 2300 | 305 | 0.48 | 690 | 0 |
| 2 | 400 | 50 | 2470 | 242 | 0.39 | 580 | 250 |
| 3 | 400 | 50 | 2665 | 168 | 0.29 | 410 | 500 |
| 4 | 400 | 50 | 2790 | 114 | 0.23 | 250 | 548 |

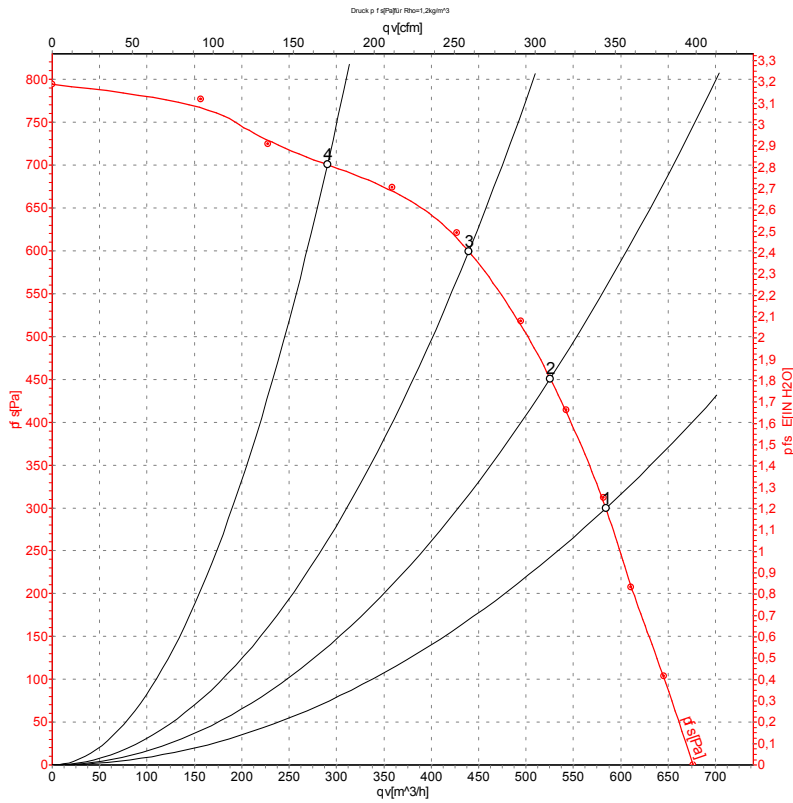
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · P_{fs} = Pressure increase



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Charts: Air flow 60 Hz



Measurement: LU-39224

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

| | U | f | n | P _e | I | qv | P _{fs} |
|---|-----|----|-------------------|----------------|------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | 400 | 60 | 2550 | 335 | 0.52 | 585 | 300 |
| 2 | 400 | 60 | 2720 | 296 | 0.46 | 525 | 450 |
| 3 | 400 | 60 | 2905 | 247 | 0.39 | 440 | 600 |
| 4 | 400 | 60 | 3145 | 176 | 0.29 | 290 | 700 |

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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