**G3G146-HK07-16**

# EC centrifugal fan

forward curved, single inlet

with housing (flange)

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## Nominal data

| | |
|---|---|
| **Type** | **G3G146-HK07-16** |
| **Motor** | **M3G055-DF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | fa |
| Speed (rpm) | $min^{-1}$ | 2255 |
| Power input | W | 163 |
| Current draw | A | 1.3 |
| Min. back pressure | Pa | 0 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

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

| | | Actual | Request 2015 |
|---|---|---|---|
| 01 Overall efficiency $\eta_{es}$ | % | 39.4 | 32.1 |
| 02 Measurement category | | A | |
| 03 Efficiency category | | Static | |
| 04 Efficiency grade N | | 51.3 | 44 |
| 05 Variable speed drive | | No | |

| | | |
|---|---|---|
| 09 Power input $P_{ed}$ | kW | 0.13 |
| 09 Air flow $q_v$ | $m^3/h$ | 350 |
| 09 Pressure increase $p_{fs}$ | Pa | 564 |
| 10 Speed (rpm) n | $min^{-1}$ | 3050 |
| 11 Specific ratio* | | 1.01 |

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

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

LU-139323

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## Technical features

| | |
|---|---|
| **Mass** | 3.05 kg |
| **Size** | 146 mm |
| **Surface of rotor** | Thick layer passivated |
| **Material of terminal box** | Die-cast aluminium |
| **Material of impeller** | Sheet steel, galvanised |
| **Housing material** | Sheet steel, galvanised |
| **Direction of rotation** | Counter-clockwise, seen on rotor |
| **Type of protection** | IP 54 |
| **Insulation class** | "B" |
| **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, open rotor |
| **Cooling bore / aperture** | Rotor-side |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Output limit<br>- Motor current limit<br>- Soft start<br>- Overvoltage detection<br>- Over-temperature protected electronics / motor |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Electrical leads** | Via terminal box |
| **Motor protection** | Locked-rotor protection |
| **Cable exit** | Variable |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1; CE |
| **Approval** | CCC |



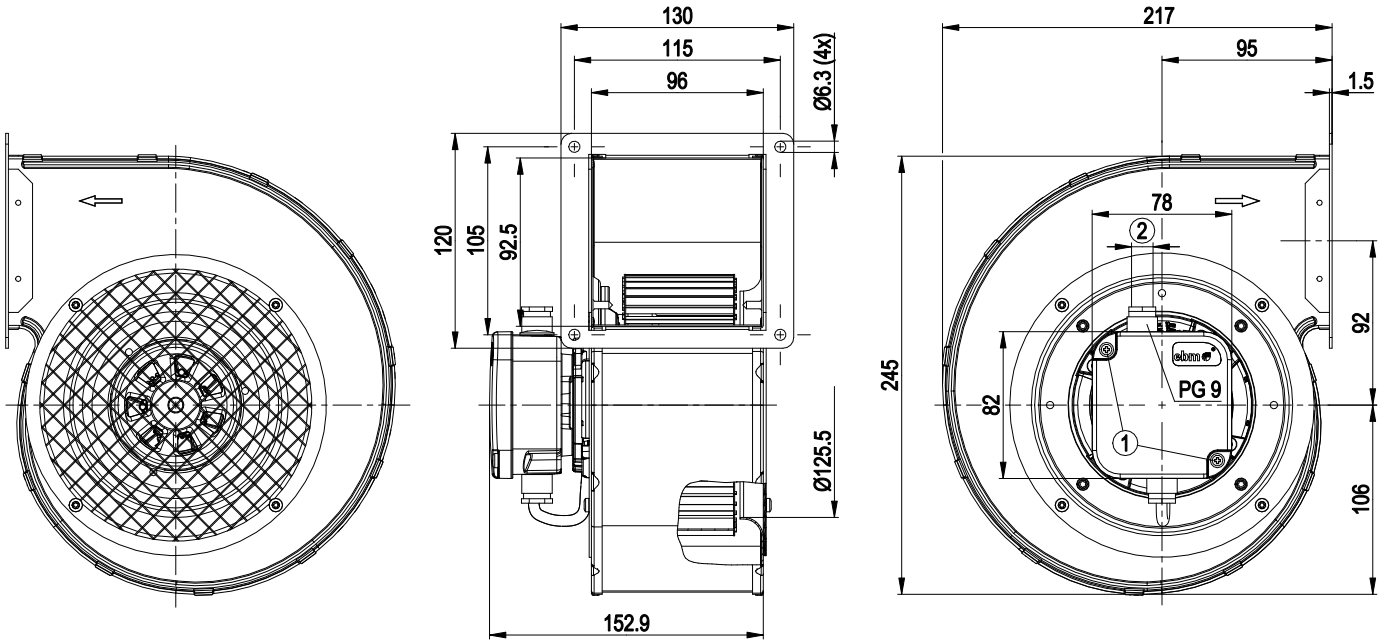
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## Product drawing




| | |
|---|---|
| 1 | Tightening torque 1.3±0.2 Nm |
| 2 | Cable diameter min. 6 mm, max. 8 mm, tightening torque 2±0.3Nm |



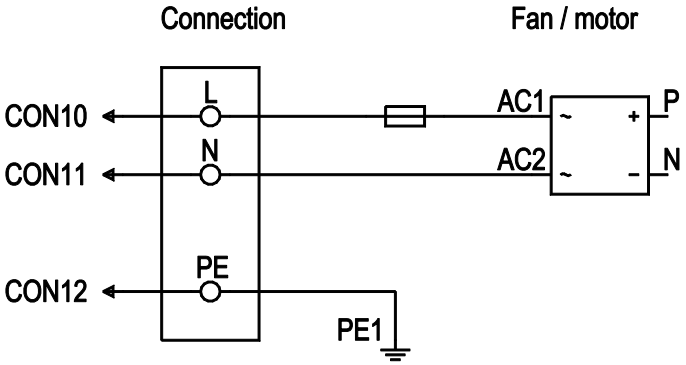
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## Connection screen




| No. | Conn. | Designation | Colour | Function / assignment |
|---|---|---|---|---|
| | CON 10 | L | black | Power supply 230 VAC, 50 - 60 Hz, for voltage range refer to rating plate |
| | CON 11 | N | blue | Neutral conductor |
| | CON 12 | PE | green/yellow | Protective earth |



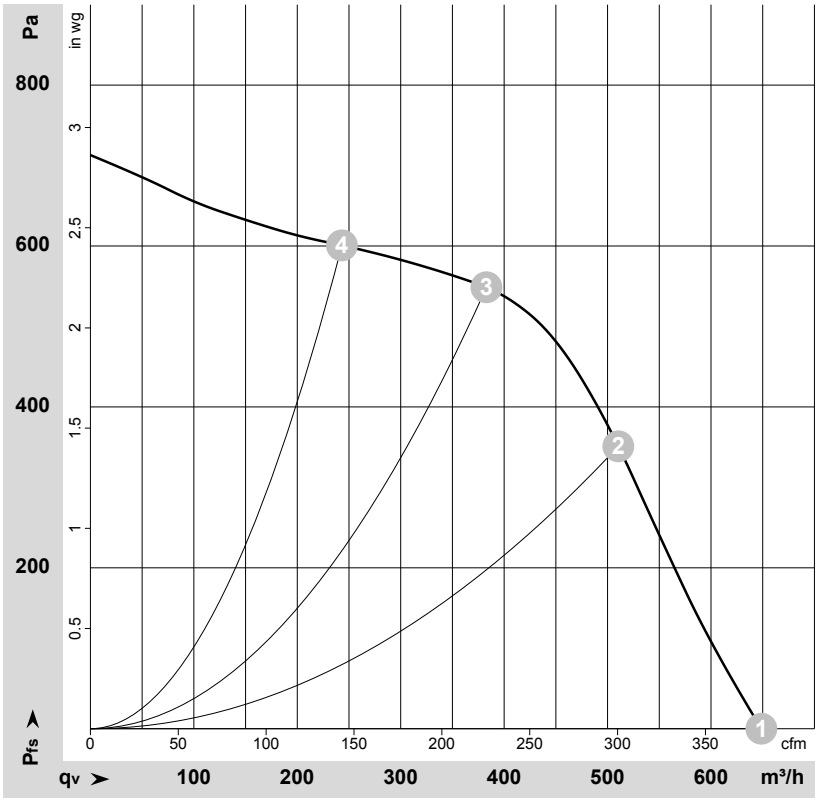
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## Charts: Air flow 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-139323-1

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 | $P_{ed}$ | I | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | inH2O |
| 1 | 230 | 50 | 2255 | 163 | 1.30 | 70 | 77 | 650 | 0 | 380 | 0.00 |
| 2 | 230 | 50 | 2690 | 163 | 1.30 | 68 | 75 | 510 | 350 | 300 | 1.41 |
| 3 | 230 | 50 | 3015 | 149 | 1.22 | 67 | 74 | 385 | 550 | 225 | 2.21 |
| 4 | 230 | 50 | 3165 | 113 | 0.96 | 68 | 75 | 245 | 600 | 145 | 2.41 |

U = Supply voltage · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power input · I = Current draw · $LpA_{in}$ = Sound pressure level inlet side · $LwA_{in}$ = Sound power level inlet side · $q_V$ = Air flow
$p_{fs}$ = Pressure increase



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