**G3G146-ED23-56**

# EC centrifugal fan

forward curved, single inlet

with housing (flange)

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## Nominal data

| | |
|---|---|
| **Type** | **G3G146-ED23-56** |
| **Motor** | **M3G055-CF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Frequency | Hz | 50/60 |
| Type of data definition | | fa |
| Speed | $min^{-1}$ | 2150 |
| Power input | W | 119 |
| Current draw | A | 0.9 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 30 |

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** | 2.4 kg |
| **Size** | 146 mm |
| **Surface of rotor** | Thick layer passivated |
| **Material of impeller** | Sheet steel, galvanised |
| **Housing material** | Sheet steel, hot-dip galvanised |
| **Direction of rotation** | Counter-clockwise, seen on rotor |
| **Type of protection** | IP 44 |
| **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** | Rotor-side |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Control input 0-10 VDC / PWM<br>- Output 10 VDC, max. 1.1 mA<br>- Tach output<br>- Motor current limit<br>- Soft start |
| **EMC interference immunity** | Acc. to EN 61000-6-2 |
| **EMC harmonics** | Acc. to EN 61000-3-2/3 |
| **EMC interference emission** | Acc. to EN 61000-6-3 (household environment) |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Motor protection** | Thermal overload protector (TOP) wired internally |
| **Cable exit** | Variable |
| **Protection class** | I (if protective earth is connected by customer) |
| **Product conforming to standard** | EN 60335-1 |



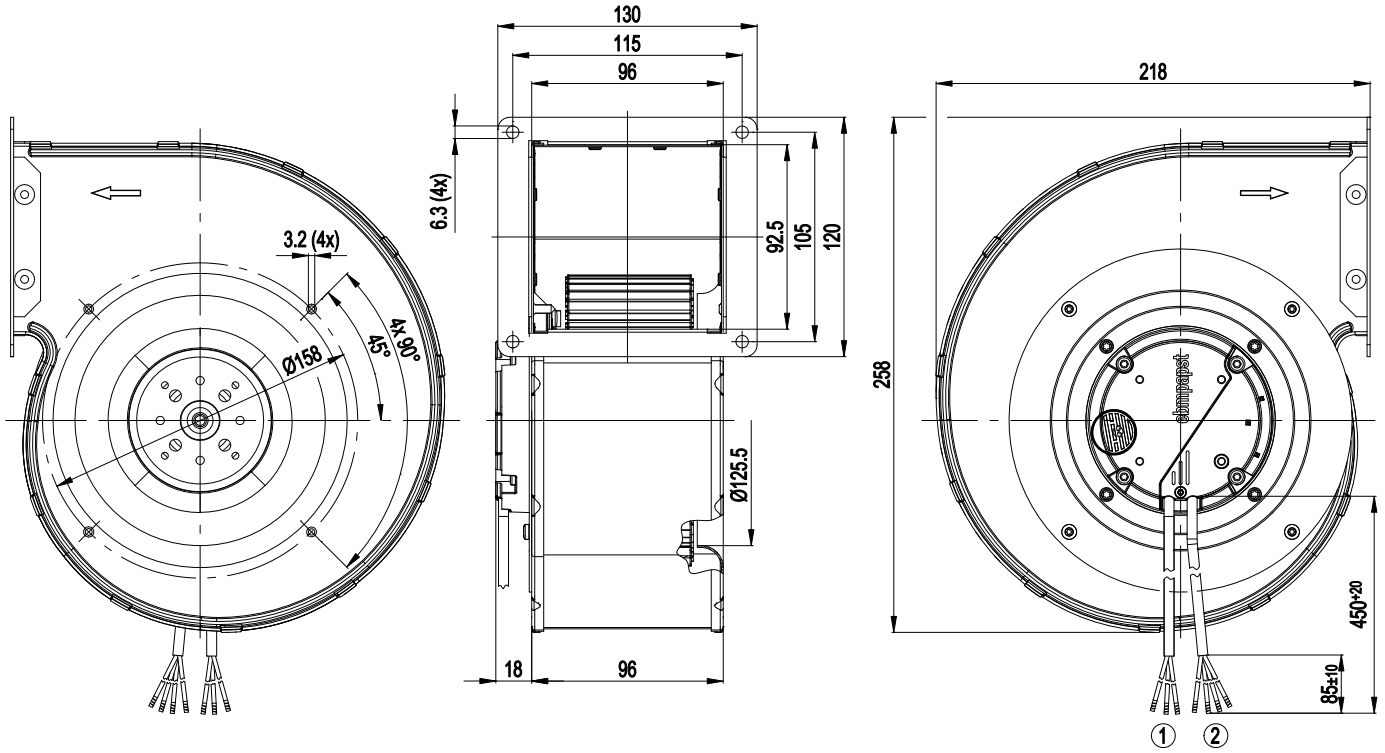
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## Product drawing




| | |
|---|---|
| 1 | Connection line H03VV-F3G 0.5; 3 x brass lead tips crimped |
| 2 | Connection line A03VV-F4x0.25; 4 x brass lead tips crimped |



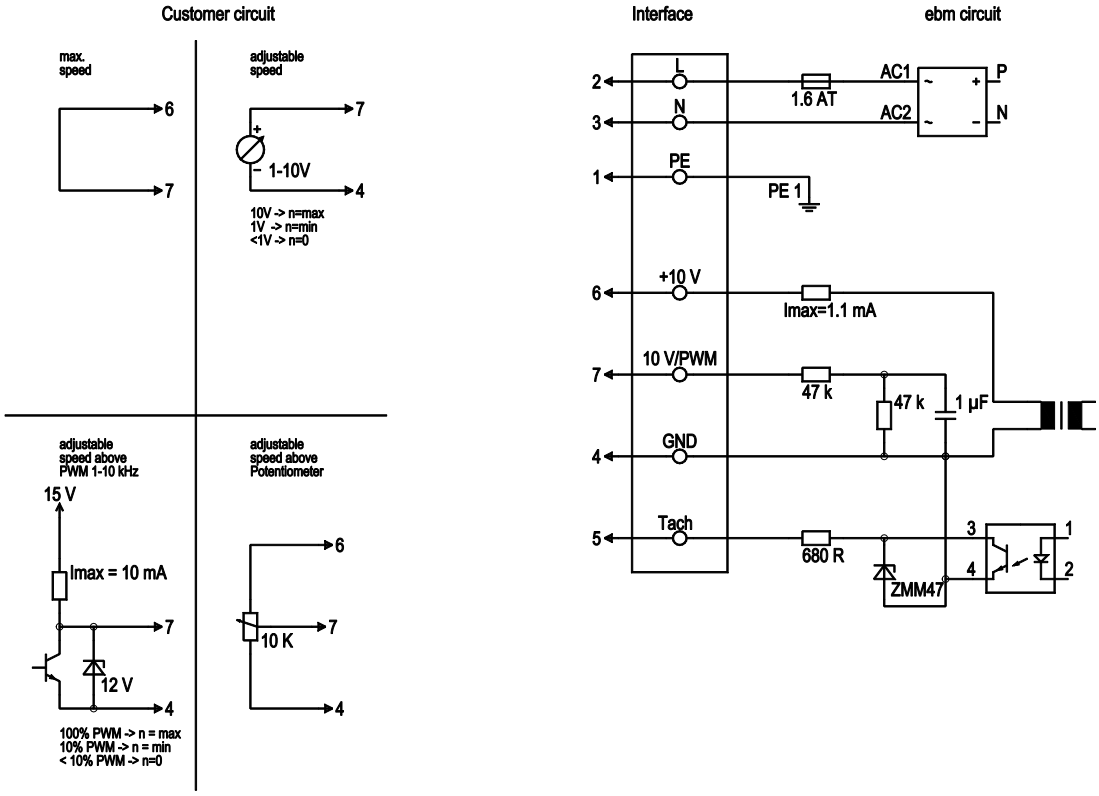
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## Connection screen




| Line | No. | Signal | Colour | Function / assignment |
|---|---|---|---|---|
| 1 | 1 | PE | green/yellow | Protective earth |
| 1 | 2 | L | brown | Power supply 230 VAC, 50-60 Hz, see type plate for voltage range |
| 1 | 3 | N | blue | Neutral conductor |
| 2 | 4 | GND | blue | GND - Connection for control interface |
| 2 | 5 | Tach | white | Tach output: Open Collector, 1 pulse per revolution, electrically isolated |
| 2 | 6 | 10V | red | max. 1.1 mA, voltage output 10 V/1.1 mA, electrically isolated, not short-circuit-proof |
| 2 | 7 | 0-10 V PWM | yellow | Control input 0 - 10 V or PWM, electrically isolated |



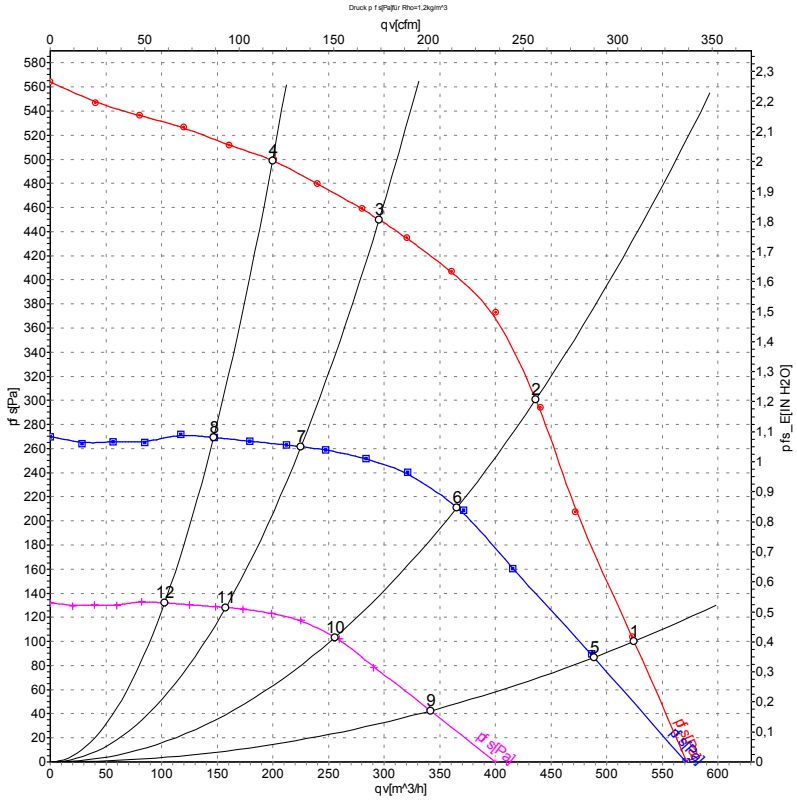
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## Charts: Air flow 50 Hz




Measurement: LU-70983

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 | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa |
| 1 | 230 | 50 | 2150 | 119 | 0.90 | 525 | 100 |
| 2 | 230 | 50 | 2385 | 118 | 0.87 | 435 | 300 |
| 3 | 230 | 50 | 2625 | 95 | 0.71 | 295 | 450 |
| 4 | 230 | 50 | 2725 | 78 | 0.58 | 200 | 500 |
| 5 | 230 | 50 | 2000 | 96 | 0.71 | 490 | 87 |
| 6 | 230 | 50 | 2000 | 69 | 0.51 | 365 | 212 |
| 7 | 230 | 50 | 2000 | 42 | 0.31 | 225 | 262 |
| 8 | 230 | 50 | 2000 | 31 | 0.23 | 145 | 269 |
| 9 | 230 | 50 | 1400 | 33 | 0.24 | 340 | 43 |
| 10 | 230 | 50 | 1400 | 24 | 0.18 | 255 | 104 |
| 11 | 230 | 50 | 1400 | 14 | 0.11 | 160 | 128 |
| 12 | 230 | 50 | 1400 | 11 | 0.08 | 105 | 132 |

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



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