**G3G250-GN39-01**

# EC centrifugal fan

backward curved, single inlet

with housing (flange), Gas blower for gas-condensing heating



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## Nominal data

| | |
|---|---|
| **Type** | **G3G250-GN39-01** |
| **Motor** | **M3G084-FA** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 115 |
| Nominal voltage range | VAC | 100 .. 130 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed (rpm) | $min^{-1}$ | 4800 |
| Power input | W | 1200 |
| Current draw | A | 13 |
| Min. ambient temperature | °C | -20 |
| Max. ambient temperature | °C | 60 |
| Min. temp. of flow medium | °C | 0 |
| Max. temp. of flow medium | °C | 60 |

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** | 13.2 kg |
| **Size** | 250 mm |
| **Surface of rotor** | Coated in black |
| **Material of protective cover** | Polyflam RPP 374-ND CS1 (UL 97-V0) |
| **Material of impeller** | Aluminium sheet |
| **Housing material** | Die-cast aluminium |
| **Number of blades** | 7 |
| **Direction of rotation** | Clockwise, seen on rotor |
| **Type of protection** | IP 20 |
| **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** | Rotor-side |
| **Operation mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - PFC, passive<br>- Tach output<br>- Over-temperature protected electronics / motor<br>- Line undervoltage detection<br>- Motor current limit<br>- PWM control input<br>- Control input 0-10 V |
| **EMC interference immunity** | Acc. to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | Acc. to EN 61000-6-4 (industrial environment) |
| **Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)** | <= 3.5 mA |
| **Electrical leads** | With plug |
| **Motor protection** | Locked-rotor protection |
| **Protection class** | I (if protective earth is connected by customer) |
| **Approval** | CSA C22.2 No.113; EAC; UL 507 |



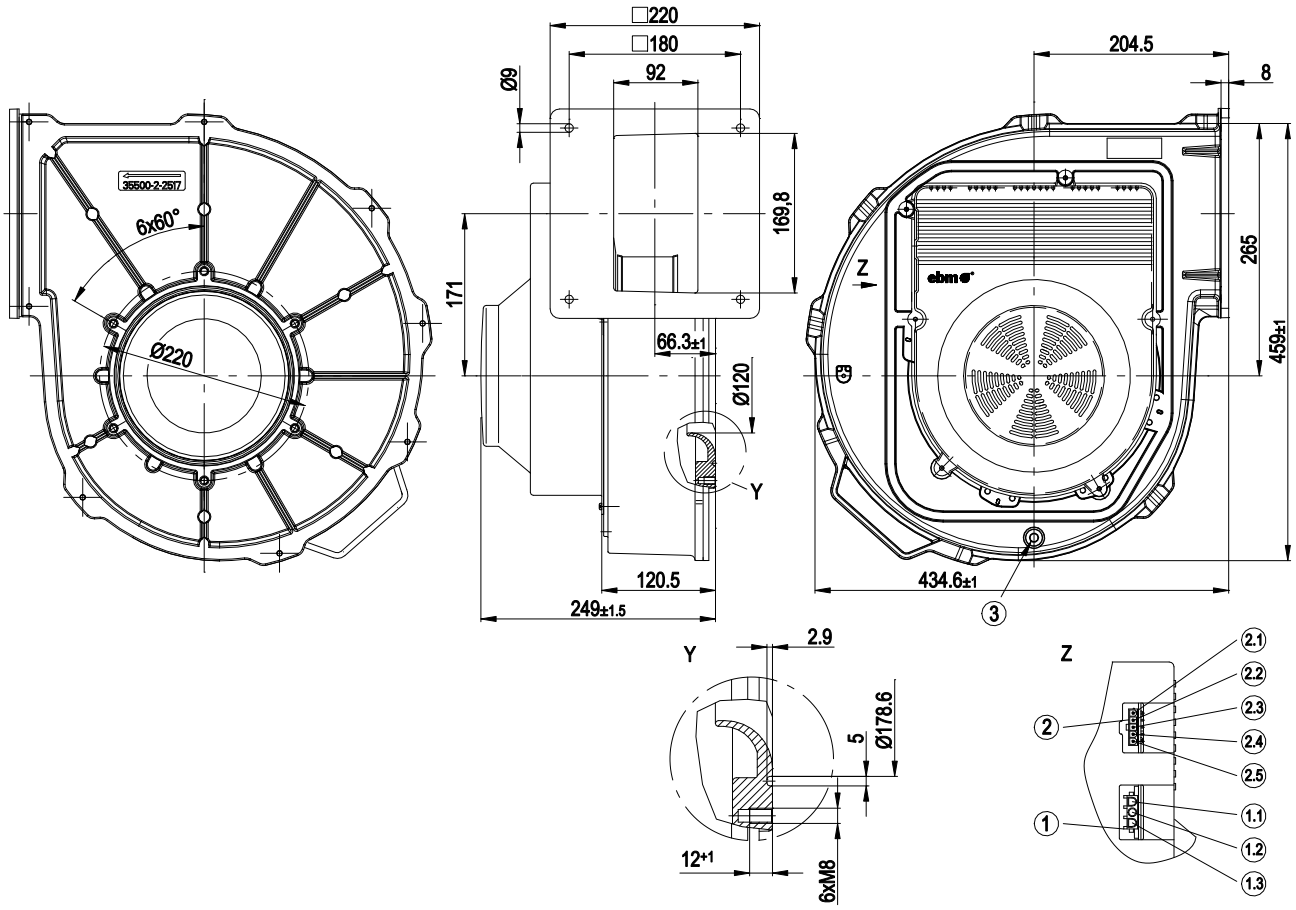
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## Product drawing




| | |
|---|---|
| 1 | 3-pole strip to fit mating connector (not included in standard scope of delivery) tyco No. 350766-1, female connector tyco No. 926884-1 |
| 1.1 | L |
| 1.2 | N |
| 1.3 | PE |
| 2 | 5-pole strip to fit mating connector (not included in standard scope of delivery) Molex No. 39-01-4050, female connector Molex No. 39-00-0059 |
| 2.1 | + |
| 2.2 | Speed monitoring |
| 2.3 | 0-10 VDC control input |
| 2.4 | PWM input |
| 2.5 | - |
| 3 | Pressure tap optionally available |
| Y | Detail Y |
| Z | View Z / plug assignment |



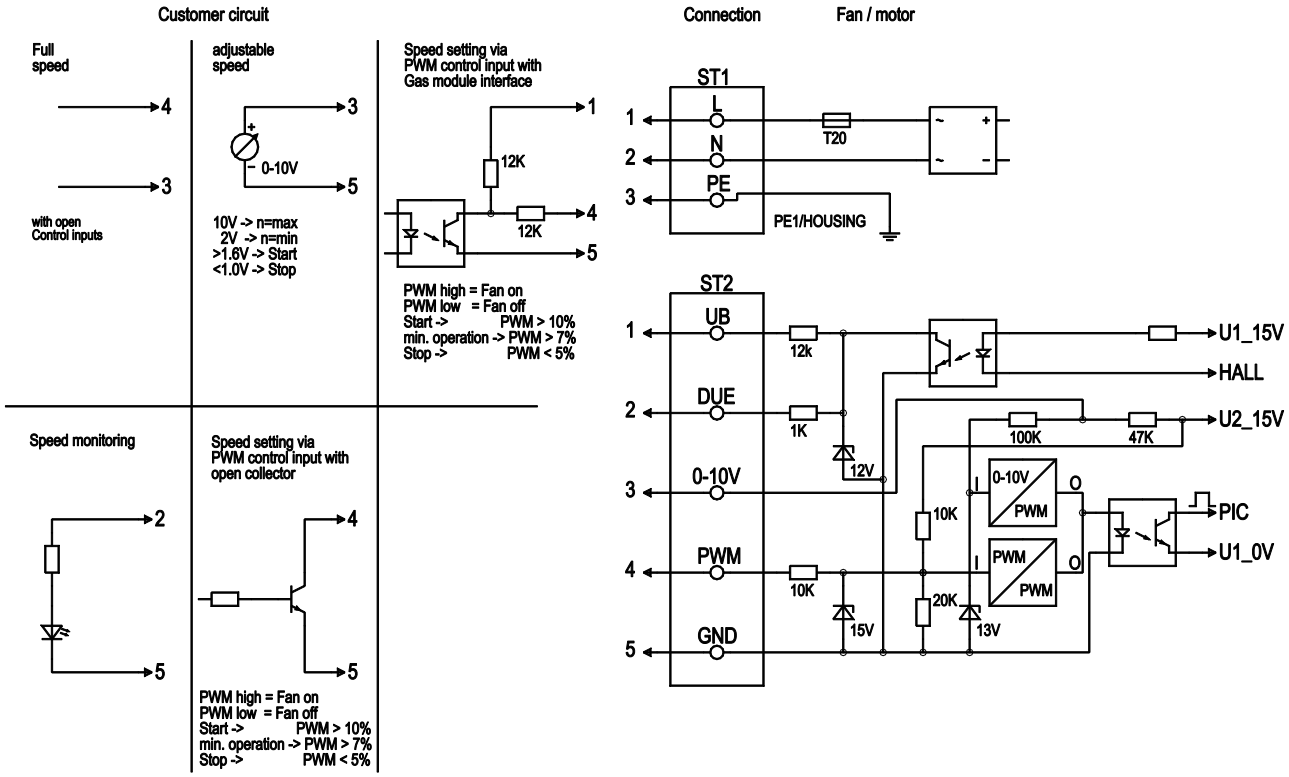
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## Connection screen




| No. | Conn. | Designation | Function / assignment |
|---|---|---|---|
| ST1 | 1; 2; 3 | L; N; PE | Power supply 115 VAC, 50 - 60 Hz, phase, neutral, protective earth |
| ST2 | 1 | UB | External voltage 16 - 45 VDC, residual ripple +/- 3.5%, SELV |
| ST2 | 2 | Tach | Speed monitoring, 3 pulses per revolution, SELV |
| ST2 | 3 | 0 - 10 V | Control input 0 - 10 V, impedance 100k, SELV |
| ST2 | 4 | PWM | Control input PWM, 1 - 6 kHz, SELV |
| ST2 | 5 | GND | Power supply 230 VAC, 50 - 60 Hz, phase, neutral, protective earth |



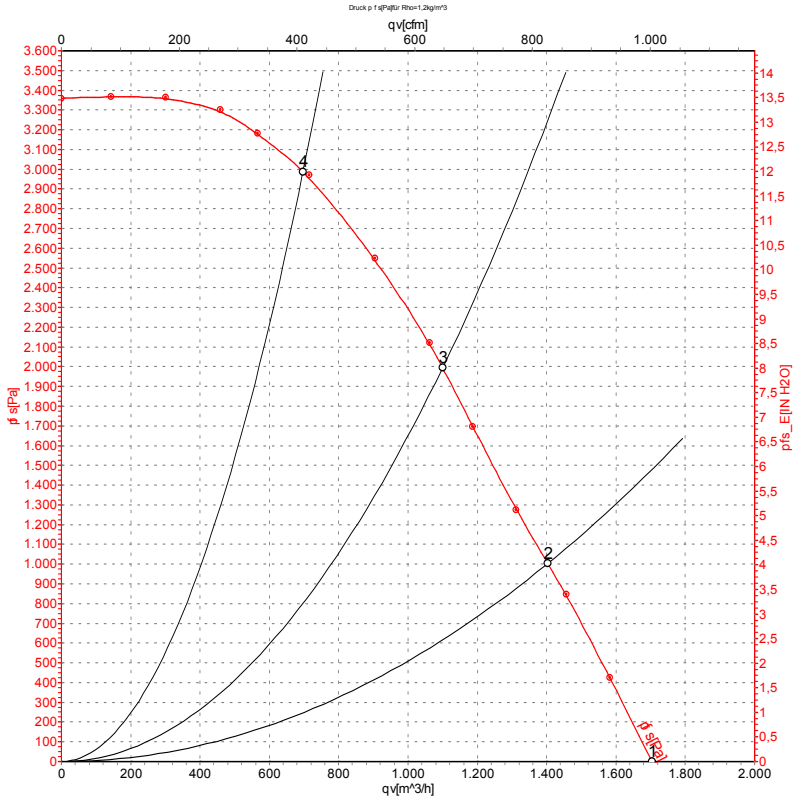
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## Charts: Air flow 50 Hz




Measurement: LU-73322-1

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 | $LpA_{in}$ | qv | $p_{fs}$ | qv | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | V | Hz | $min^{-1}$ | W | A | dB(A) | $m^3/h$ | Pa | CFM | inH2O |
| 1 | 115 | 50 | 4925 | 1152 | 12.40 | 91 | 1705 | 0 | 1005 | 0.00 |
| 2 | 115 | 50 | 4770 | 1200 | 13.00 | 89 | 1405 | 1000 | 825 | 4.01 |
| 3 | 115 | 50 | 4830 | 1182 | 12.76 | 81 | 1100 | 2000 | 645 | 8.03 |
| 4 | 115 | 50 | 5090 | 1056 | 11.43 | 79 | 695 | 3000 | 410 | 12.04 |

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



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