

EC centrifugal fan

forward-curved, single-intake

with housing (flange)

G3G120-BC07-19 ebmpapst Datasheet

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Limited partnership · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Muldingen GmbH · Headquarters Muldingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

| | | |
|--------------------------|--------------------|------------|
| Type | G3G120-BC07-19 | |
| Motor | M3G055-BD | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Method of obtaining data | | fa |
| Speed (rpm) | min ⁻¹ | 2780 |
| Power consumption | W | 85 |
| Current draw | A | 0.7 |
| Min. back pressure | Pa | 0 |
| Min. back pressure | inH ₂ O | 0 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 40 |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



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Technical description

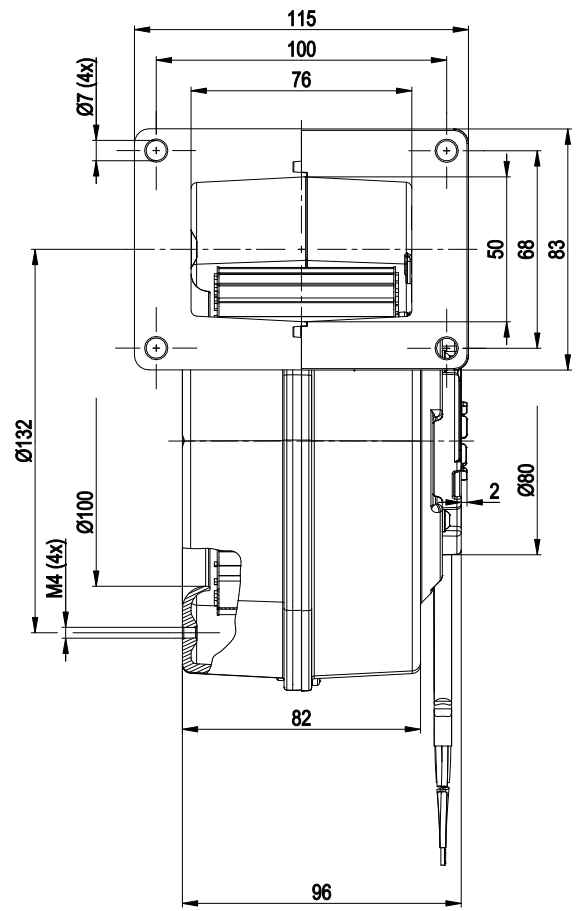
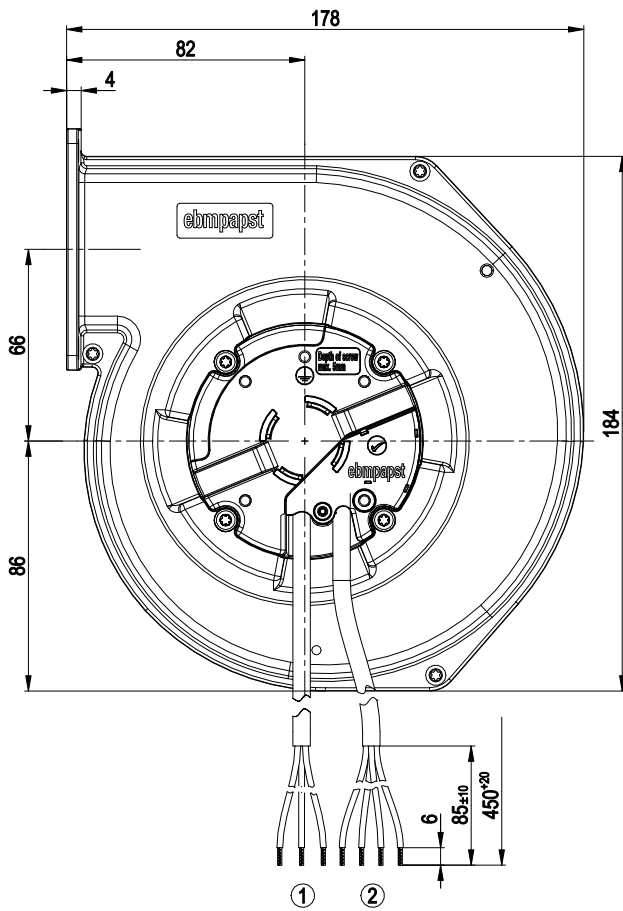
| | |
|---|---|
| Weight | 1.6 kg |
| Fan size | 120 mm |
| Rotor surface | Thick-film passivated |
| Impeller material | Sheet steel, galvanized |
| Housing material | Die-cast aluminum |
| Direction of rotation | Clockwise, viewed toward rotor |
| Degree of protection | IP54 |
| Insulation class | "B" |
| Max. permitted ambient temp. for motor (transport/storage) | + 80 °C |
| Min. permitted ambient temp. for motor (transport/storage) | - 40 °C |
| Installation position | Shaft horizontal or rotor on bottom; rotor on top on request |
| Condensation drainage holes | None, open rotor |
| Mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection |
| EMC immunity to interference | According to EN 61000-6-2 (industrial environment) |
| EMC circuit feedback | According to EN 61000-3-2/3 |
| EMC interference emission | According to EN 55022 (class B, household environment), the application may require ferritic damping in the cable due to the conditions of installation. |
| Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system) | <= 3.5 mA |
| Motor protection | Locked-rotor protection |
| With cable | Variable |
| Protection class | I (with customer connection of protective earth) |
| Conformity with standards | CE |
| Approval | UL 2111; CSA C22.2 No. 77 |



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Product drawing



- | | |
|---|-------------------------------------|
| 1 | Cable PVC AWG20, 3x crimped splices |
| 2 | Cable PVC AWG22, 4x crimped splices |

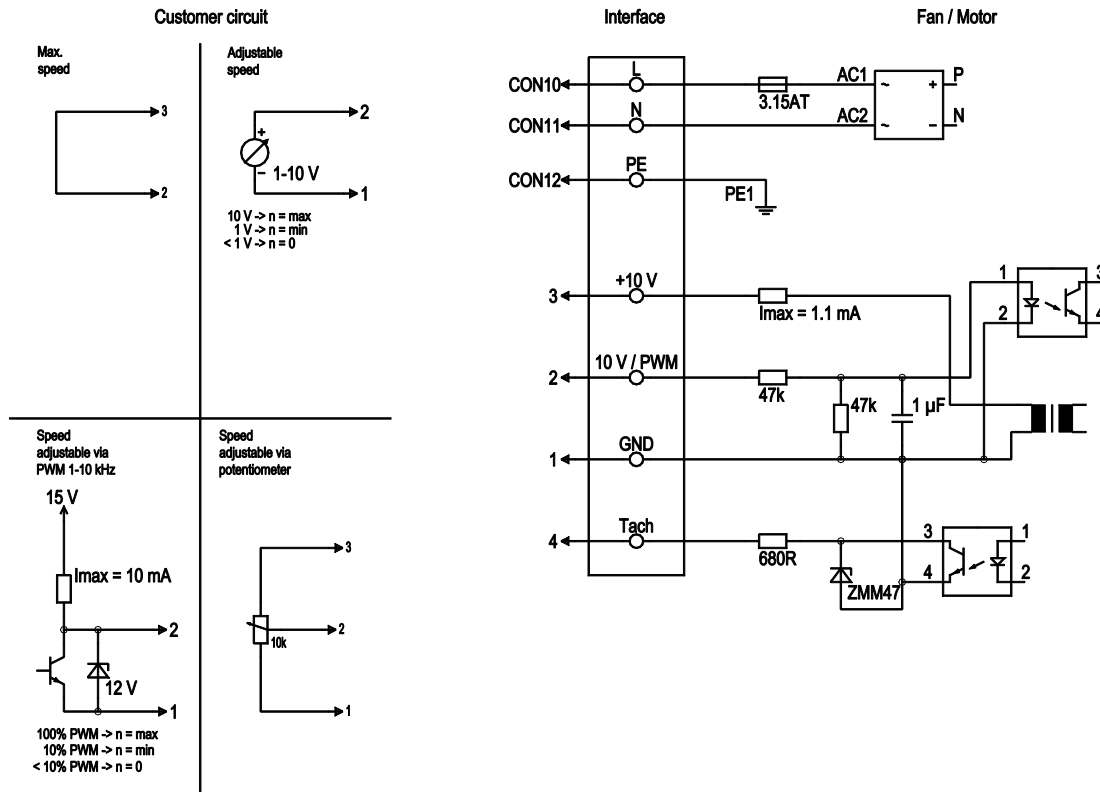


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Connection diagram



| No. | Conn. | Designation | Color | Function/assignment |
|-----|-------|--------------------|--------------|--|
| | CON10 | L | black | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range |
| | CON11 | N | blue | Neutral conductor |
| | CON12 | PE | green/yellow | Protective earth |
| | 1 | GND | blue | GND connection for control interface |
| | 2 | 0-10V PWM | yellow | Control input 0-10 V or PWM, electrically isolated |
| | 3 | 10 V / max. 1,1 mA | red | Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof |
| | 4 | Tacho | white | Tach output: open collector, 1 pulse per revolution, electrically isolated |

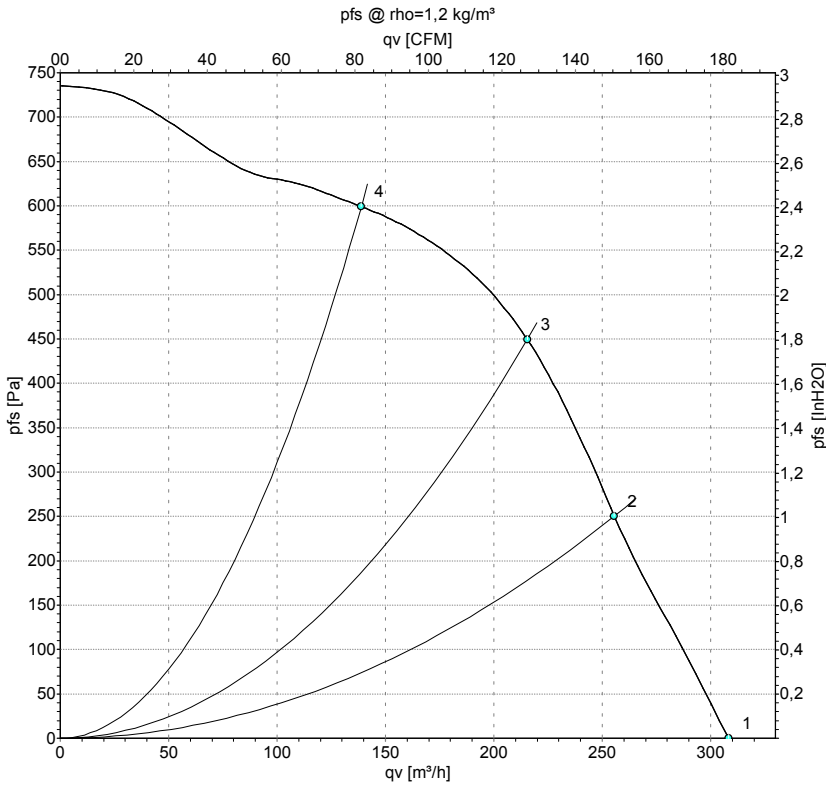


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Curves: Air performance 50 Hz



Measurement: LU-160448-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

| | U | f | n | P _{ed} | I | qv | p _{fs} | qv | p _{fs} |
|---|-----|----|-------------------|-----------------|------|-------------------|-----------------|-----|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa | CFM | inH2O |
| 1 | 230 | 50 | 2780 | 85 | 0.70 | 310 | 0 | 180 | 0.00 |
| 2 | 230 | 50 | 3260 | 82 | 0.70 | 255 | 250 | 150 | 1.00 |
| 3 | 230 | 50 | 3530 | 79 | 0.69 | 215 | 450 | 125 | 1.81 |
| 4 | 230 | 50 | 3900 | 60 | 0.55 | 140 | 600 | 80 | 2.41 |

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

