**R3G210-AC73-10**

# EC circulation blower for hot air

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## Nominal data

| | |
|---|---|
| **Type** | **R3G210-AC73-10** |
| **Motor** | **M3G074-CF** |

| | | |
|---|---|---|
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Frequency | Hz | 50/60 |
| Method of obtaining data | | fa |
| Status | | prelim. |
| Speed (rpm) | $min^{-1}$ | 3100 |
| Power consumption | W | 170 |
| Current draw | A | 1.4 |
| Min. back pressure | Pa | 0 |
| Min. back pressure | in. wg | 0 |
| Max. ambient temperature | °C | 50 |
| Max. temp. of flow medium | °C | 200 |

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

# EC circulation blower for hot air

## Technical description

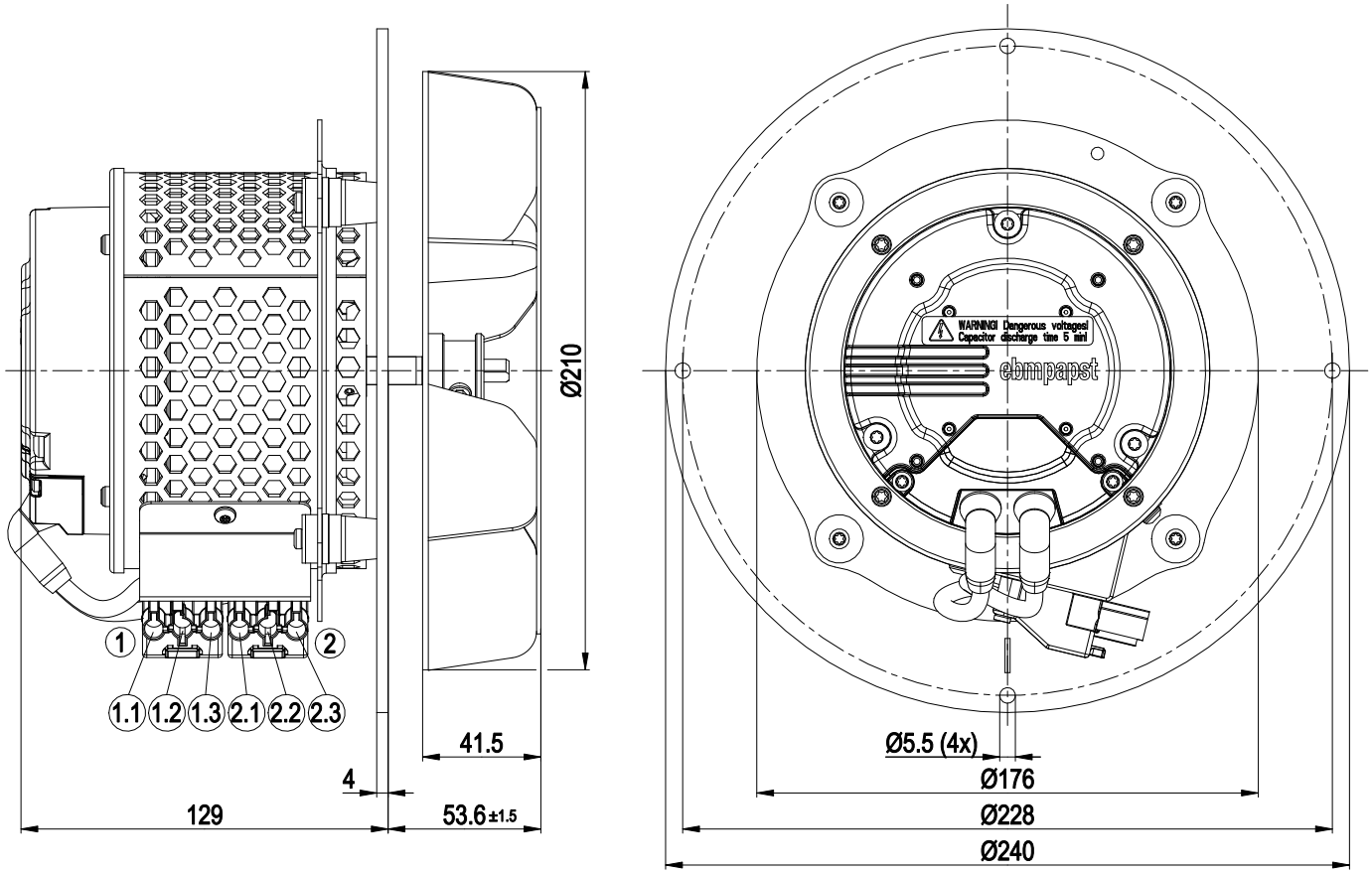
| | |
|---|---|
| **Weight** | 4.8 kg |
| **Size** | 210 mm |
| **Motor size** | 74 |
| **Rotor surface** | Thick-film passivated |
| **Impeller material** | Sheet steel, rust-resistant |
| **Number of blades** | 6 |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP44; installation- and position-dependent |
| **Insulation class** | "B" |
| **Moisture (F) / Environmental (H) protection class** | H1 |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | - 40 °C |
| **Installation position** | Any |
| **Condensation drainage holes** | None |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Technical features** | - Tach output<br>- Power limiter<br>- Motor current limitation<br>- Soft start<br>- Control input 0-10 VDC / PWM<br>- Control interface with SELV potential safely disconnected from the mains<br>- Thermal overload protection for electronics/motor |
| **EMC immunity to interference** | According to EN 61000-6-2 (industrial environment) |
| **EMC interference emission** | According to EN 61000-6-4 (industrial environment) |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | <= 3.5 mA |
| **Motor protection** | Thermal overload protector (TOP) internally connected |
| **With cable** | Variable |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 60335-1; CE |



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## Product drawing



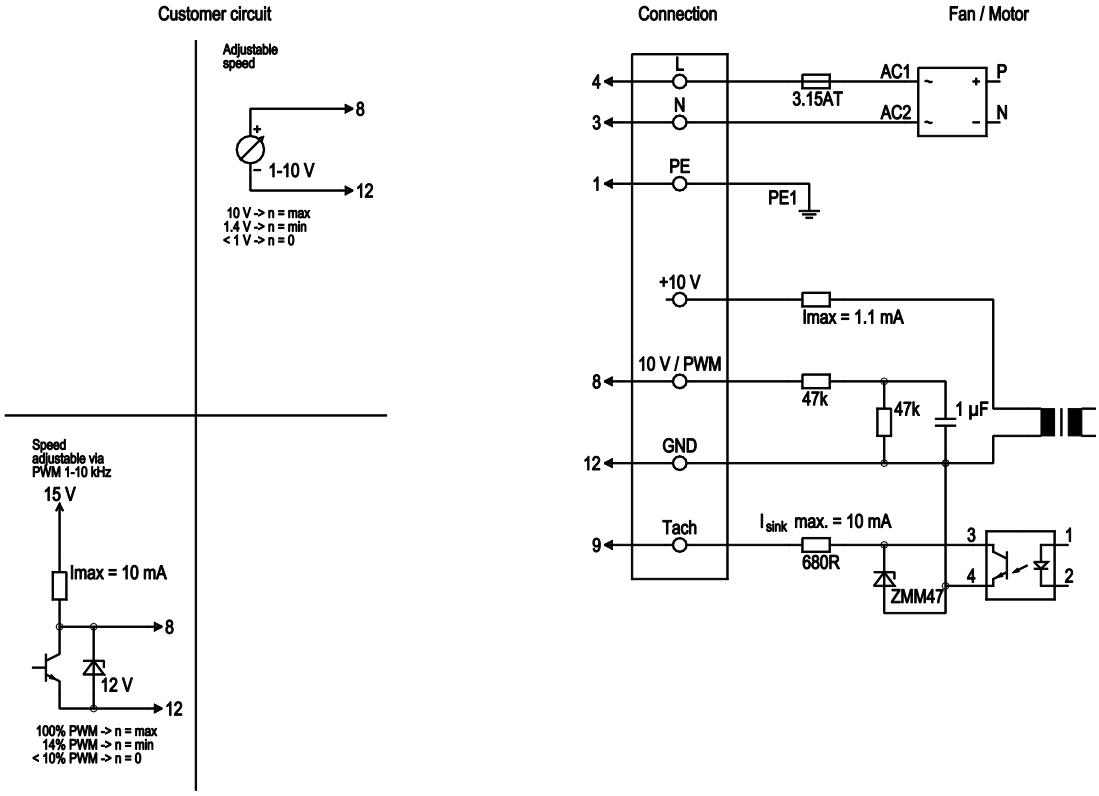

| | |
|---|---|
| 1 | 3-pole connector housing Wieland 93.631.4757.0 |
| 1.1 | 0-10 V PWM (yellow) |
| 1.2 | GND (blue) |
| 1.3 | Tach (white) |
| 2 | 3-pole connector housing Wieland 93.631.4257.0 |
| 2.1 | N (blue) |
| 2.2 | PE (green/yellow) |
| 2.3 | L (black) |



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## Connection diagram



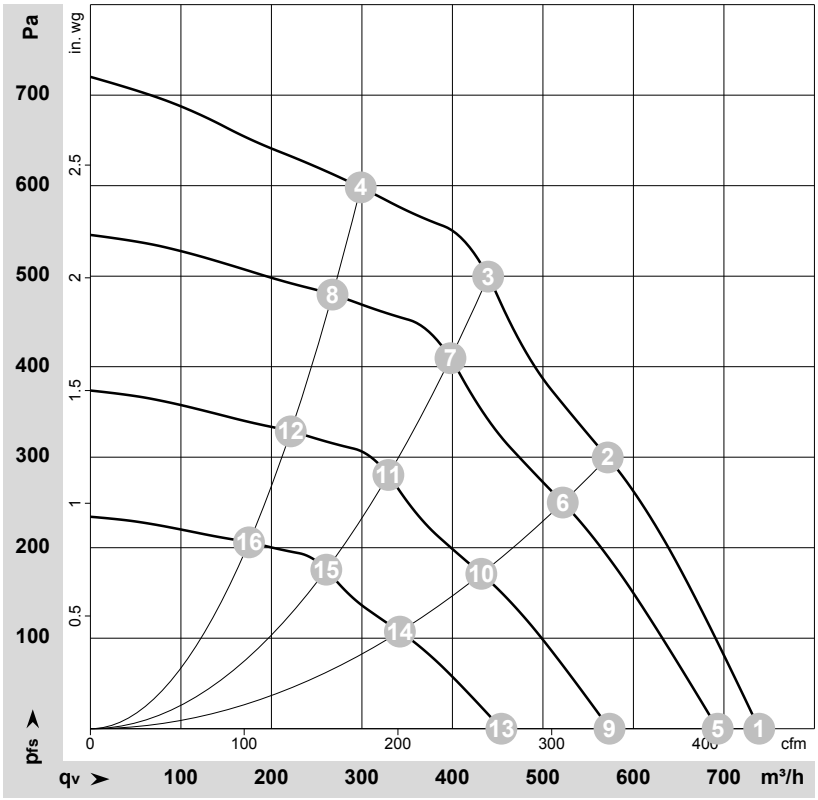

| No. | Conn. | Designation | Color | Function/assignment |
|---|---|---|---|---|
| | 4 | L | black | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range |
| | 3 | N | blue | Neutral conductor |
| | 1 | PE | green/yellow | Protective earth |
| | 8 | 0-10 V PWM | yellow | Control input 0-10 V or PWM, electrically isolated |
| | 12 | GND | blue | GND connection for control interface |
| | 9 | Tach | white | Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA |



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## Curves: Air performance 50 Hz




ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-191895-1

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

| | Wired | U | f | n | $P_{ed}$ | I | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | $m^3/h$ | Pa | cfm | in. wg |
| 1 | 1~ | 230 | 50 | 3100 | 170 | 1.40 | 740 | 0 | 435 | 0.00 |
| 2 | 1~ | 230 | 50 | 3175 | 170 | 1.40 | 570 | 300 | 335 | 1.20 |
| 3 | 1~ | 230 | 50 | 3205 | 159 | 1.29 | 440 | 500 | 260 | 2.01 |
| 4 | 1~ | 230 | 50 | 3235 | 138 | 1.14 | 300 | 600 | 175 | 2.41 |
| 5 | 1~ | 230 | 50 | 2900 | 141 | 1.14 | 695 | 0 | 410 | 0.00 |
| 6 | 1~ | 230 | 50 | 2900 | 128 | 1.04 | 520 | 250 | 305 | 1.00 |
| 7 | 1~ | 230 | 50 | 2900 | 118 | 0.96 | 400 | 411 | 235 | 1.65 |
| 8 | 1~ | 230 | 50 | 2900 | 99 | 0.82 | 270 | 481 | 160 | 1.93 |
| 9 | 1~ | 230 | 50 | 2400 | 80 | 0.64 | 575 | 0 | 340 | 0.00 |
| 10 | 1~ | 230 | 50 | 2400 | 73 | 0.59 | 430 | 171 | 255 | 0.69 |
| 11 | 1~ | 230 | 50 | 2400 | 67 | 0.54 | 330 | 281 | 195 | 1.13 |
| 12 | 1~ | 230 | 50 | 2400 | 56 | 0.46 | 220 | 329 | 130 | 1.32 |
| 13 | 1~ | 230 | 50 | 1900 | 40 | 0.32 | 455 | 0 | 265 | 0.00 |
| 14 | 1~ | 230 | 50 | 1900 | 36 | 0.29 | 340 | 107 | 200 | 0.43 |
| 15 | 1~ | 230 | 50 | 1900 | 33 | 0.27 | 260 | 176 | 155 | 0.71 |
| 16 | 1~ | 230 | 50 | 1900 | 28 | 0.23 | 175 | 206 | 105 | 0.83 |

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · $P_{ed}$ = Power consumption · I = Current draw · $q_V$ = Air flow · $p_{fs}$ = Pressure increase



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