

R3G190-RC05-03

EC centrifugal fan - RadiCal®

backward curved, single inlet



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Nominal data

| | | |
|--------------------------|-------------------|------------|
| Type | R3G190-RC05-03 | |
| Motor | M3G055-BI | |
| Phase | | 1~ |
| Nominal voltage | VAC | 230 |
| Nominal voltage range | VAC | 200 .. 240 |
| Frequency | Hz | 50/60 |
| Type of data definition | | ml |
| Speed | min ⁻¹ | 3200 |
| Power input | W | 83 |
| Current draw | A | 0.75 |
| Min. ambient temperature | °C | -25 |
| Max. ambient temperature | °C | 60 |

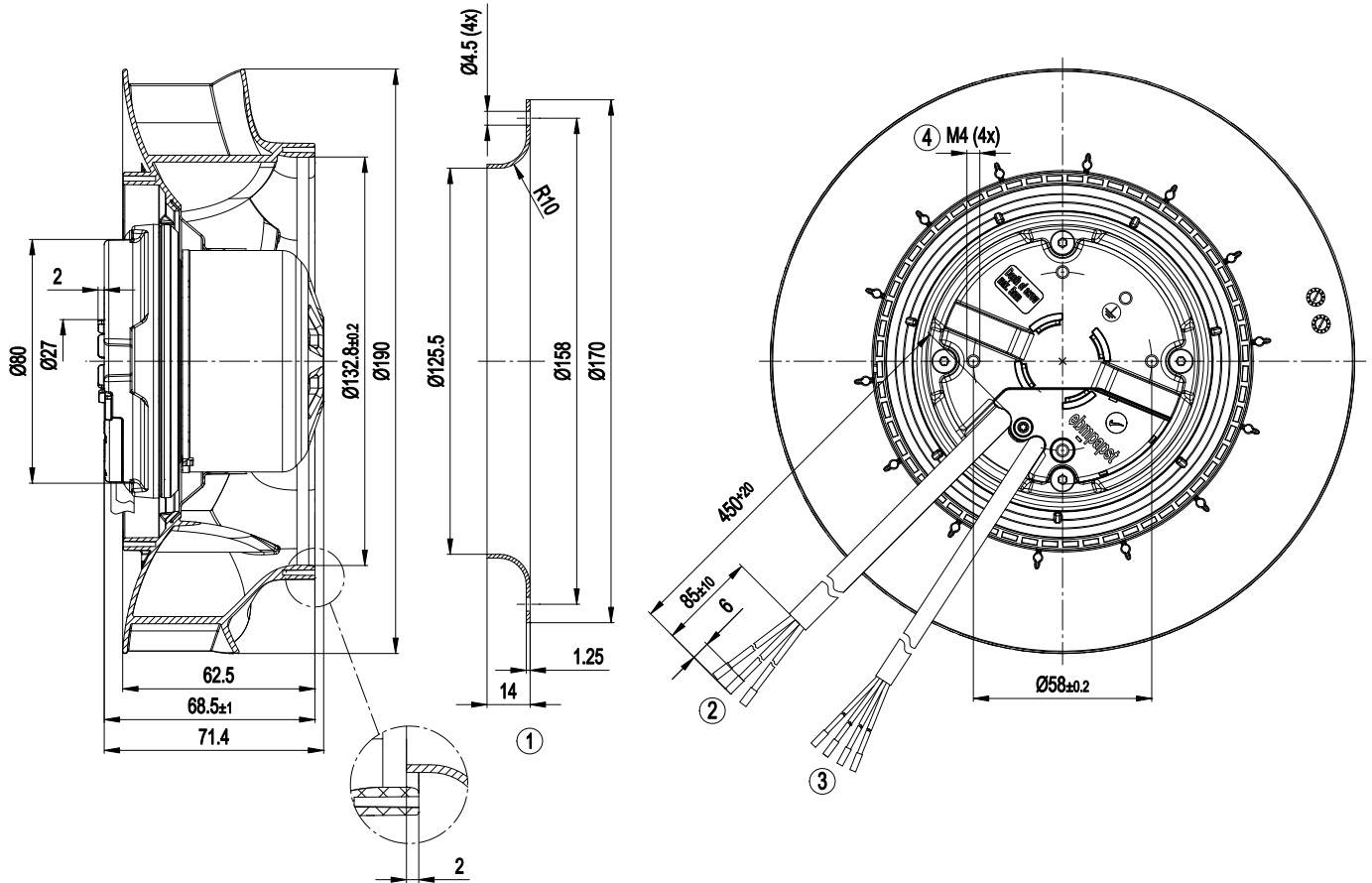
ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations



Technical features

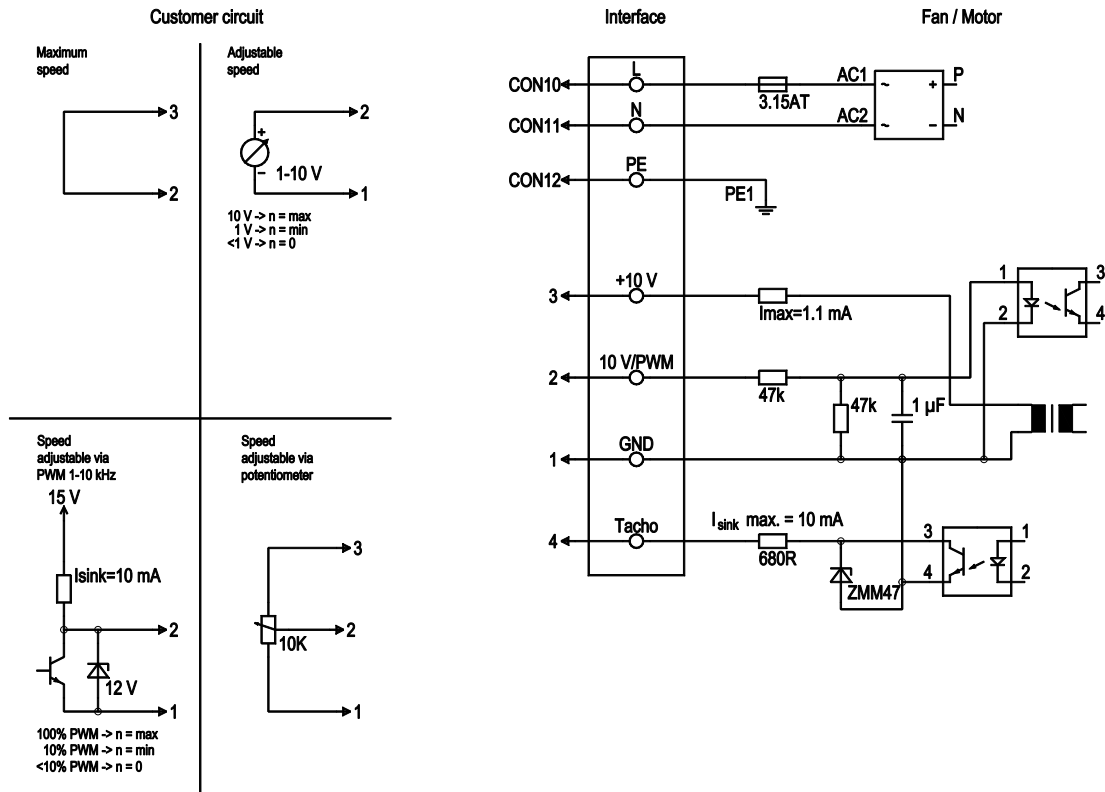
| | |
|---|--|
| Mass | 1.1 kg |
| Size | 190 mm |
| Surface of rotor | Thick layer passivated |
| Material of electronics housing | Die-cast aluminium |
| Material of impeller | PA plastic |
| Number of blades | 7 |
| Direction of rotation | Clockwise, seen on rotor |
| Type of protection | IP 54 |
| 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 |
| Operation mode | S1 |
| Motor bearing | Ball bearing |
| Technical features | <ul style="list-style-type: none"> - Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor |
| EMC interference immunity | Acc. to EN 61000-6-2 (industrial environment) |
| EMC harmonics | Acc. to EN 61000-3-2/3 |
| EMC interference emission | Acc. to EN 55022 (Class B, household environment), on account of the installation conditions, ferritic damping in the connection line may be required for the application. |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | <= 3.5 mA |
| 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 |

Product drawing



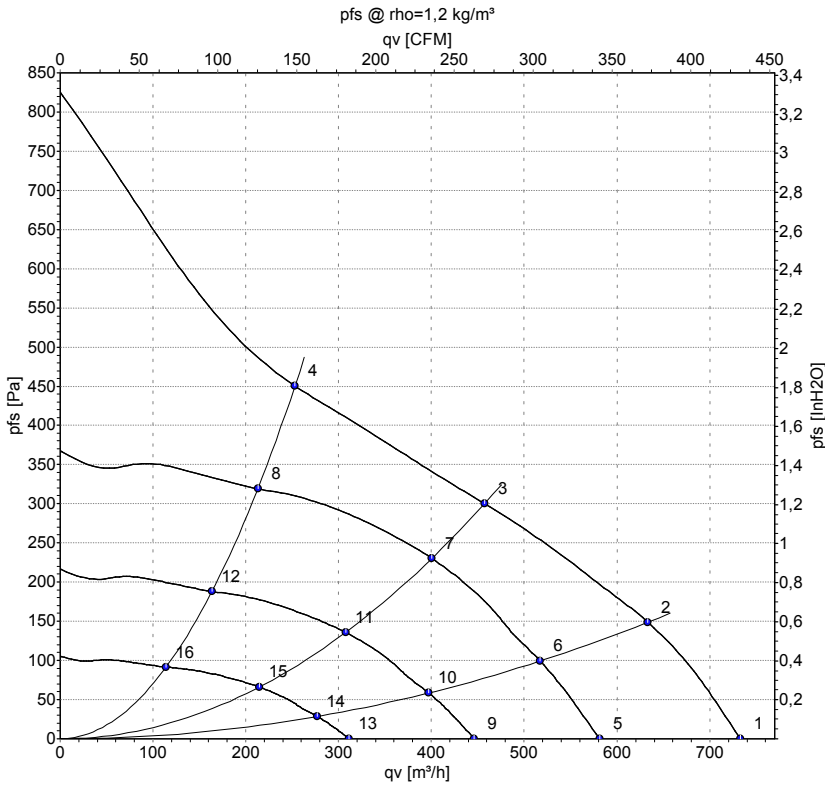
| | |
|---|---|
| 1 | Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery |
| 2 | Connection line PVC AWG20, 3x brass lead tips crimped |
| 3 | Connection line PVC AWG22, 4 x brass lead tips crimped |
| 4 | Depth of screw max. 5 mm |

Connection screen



| No. | Conn. | Designation | Colour | Function / assignment |
|-----|-------|----------------|--------------|---|
| | CON10 | L | black | Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate |
| | 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 | 10V/ max 1.1mA | red | Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof |
| | 4 | Tach | white | Tach output: open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA |

Charts: Air flow 50 Hz



Measured values

| | U | f | n | P _{ed} | I | qv | P _{fs} |
|----|-----|----|-------------------|-----------------|------|-------------------|-----------------|
| | V | Hz | min ⁻¹ | W | A | m ³ /h | Pa |
| 1 | 230 | 50 | 3530 | 83 | 0.75 | 735 | 0 |
| 2 | 230 | 50 | 3430 | 83 | 0.75 | 635 | 150 |
| 3 | 230 | 50 | 3200 | 83 | 0.75 | 455 | 300 |
| 4 | 230 | 50 | 3325 | 83 | 0.75 | 255 | 450 |
| 5 | 230 | 50 | 2800 | 49 | 0.45 | 580 | 0 |
| 6 | 230 | 50 | 2800 | 52 | 0.47 | 515 | 100 |
| 7 | 230 | 50 | 2800 | 57 | 0.52 | 400 | 230 |
| 8 | 230 | 50 | 2800 | 53 | 0.49 | 215 | 319 |
| 9 | 230 | 50 | 2150 | 24 | 0.25 | 445 | 0 |
| 10 | 230 | 50 | 2150 | 26 | 0.25 | 395 | 59 |
| 11 | 230 | 50 | 2150 | 28 | 0.28 | 310 | 136 |
| 12 | 230 | 50 | 2150 | 26 | 0.27 | 165 | 188 |
| 13 | 230 | 50 | 1500 | 10.0 | 0.10 | 310 | 0 |
| 14 | 230 | 50 | 1500 | 11 | 0.11 | 275 | 29 |
| 15 | 230 | 50 | 1500 | 12 | 0.12 | 215 | 66 |
| 16 | 230 | 50 | 1500 | 11 | 0.12 | 115 | 91 |

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

