

Residual current operated circuit breaker, 4-pole, type B, selective,  
In: 80 A, 300 mA, Un AC: 400 V



| Model  |                              |
|--|------------------------------|
| Product brand name   | SENTRON                      |
| Product designation  | RCCB                         |
| Design of the product  | Selective                    |
| General technical data   |                              |
| Number of poles  | 4                            |
| Size of installation devices / acc. to DIN 43880   | 1                            |
| Protection against electrical shock  | Finger and back-of-hand safe |
| Short-circuit current rating   | 10 kA                        |
| circuit-breaker / Design   | 5SM3                         |
| Mechanical service life (switching cycles) / typical   | 10 000                       |
| Switching function / short-term delayed  | No                           |
| Overvoltage category   | III                          |
| Supply voltage   |                              |
| Current / at AC / rated value  | 80 A                         |
| <ul style="list-style-type: none"> <li>• Supply voltage / at AC / rated value</li> <li>• Supply voltage / for testing equipment / minimum</li> </ul> | 400 V<br>195 V               |

- rated value

50 Hz

### Protection class

|                     |   |
|---------------------|---|
| Protection class IP | IP20, if the distribution board is installed, with connected conductors |
|---------------------|---|

### Switching capacity

|   |        |
|---|--------|
| Switching capacity current / according to IEC 61008-1 / rated value | 0.8 kA |
|---|--------|

### Dissipation

|   |       |
|---|-------|
| Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 4.3 W |
|---|-------|

### Current

|   |        |
|---|--------|
| Tripping residual current / rated value | 300 mA |
|---|--------|

Tripping residual / rated value / derated current

|             |        |
|-------------|--------|
| • at 40 Cel | 80 A   |
| • at 45 Cel | 80 A   |
| • at 50 Cel | 76.8 A |
| • at 55 Cel | 73.6 A |
| • at 60 Cel | 70.4 A |
| • at 65 Cel | 67.2 A |
| • at 70 Cel | 64 A   |

|                       |   |
|-----------------------|---|
| Type of fault current | B |
|-----------------------|---|

|                                      |                          |
|--------------------------------------|--------------------------|
| I <sup>2</sup> t-value / permissible | 70 000 A <sup>2</sup> ·s |
|--------------------------------------|--------------------------|

|  |      |
|--|------|
| Surge current resistance / rated value | 5 kA |
|--|------|

|                     |         |
|---------------------|---------|
| Operating frequency | 50/60Hz |
|---------------------|---------|

### Product details

|                                |     |
|--------------------------------|-----|
| Product feature / silicon-free | Yes |
|--------------------------------|-----|

|  |     |
|--|-----|
| Product extension / can be installed / supplementary devices | Yes |
|--|-----|

### Connections

Connectable conductor cross-section

|            |                            |
|------------|----------------------------|
| • solid    | 1.5 ... 25 mm <sup>2</sup> |
| • stranded | 1.5 ... 25 mm <sup>2</sup> |

|   |               |
|---|---------------|
| Tightening torque / with screw-type terminals | 2.5 ... 3 N·m |
|---|---------------|

|                                 |   |
|---------------------------------|---|
| Position / of power supply cord | Top or bottom (bottom for SIGRES function also in switched-off state) |
|---------------------------------|---|

### Mechanical Design

|        |       |
|--------|-------|
| Height | 90 mm |
|--------|-------|

|       |       |
|-------|-------|
| Width | 72 mm |
|-------|-------|

|       |       |
|-------|-------|
| Depth | 77 mm |
|-------|-------|

|                    |       |
|--------------------|-------|
| Installation depth | 70 mm |
|--------------------|-------|

|                       |   |
|-----------------------|---|
| Number of width units | 4 |
|-----------------------|---|

|                   |                |
|-------------------|----------------|
| Mounting type     | DIN rail (REG) |
| Mounting position | any            |
| Net weight        | 570 g          |

#### Environmental conditions

|                     |                |
|---------------------|----------------|
| Ambient temperature | -25 ... +45 °C |
| • during storage    | -40 ... +75 °C |

#### Certificates

|                          |   |
|--------------------------|---|
| Reference code           |   |
| • acc. to DIN EN 61346-2 | F |
| • acc. to DIN EN 81346-2 | F |

|                                 |                          |              |
|---------------------------------|--------------------------|--------------|
| <b>General Product Approval</b> | <b>Test Certificates</b> | <b>other</b> |
|---------------------------------|--------------------------|--------------|

[Miscellaneous](#)

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#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=5SM3647-5>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/5SM3647-5>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=5SM3647-5](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=5SM3647-5)

##### CAX-Online-Generator

<http://www.siemens.com/cax>

##### Tender specifications

<http://www.siemens.com/specifications>

