



Miniature circuit breaker 230 V 10kA, 1+N-pole, D, 10A, D=70 mm

| Model                                                                               |                                 |
|-------------------------------------------------------------------------------------|---------------------------------|
| product brand name                                                                  | SENTRON                         |
| product designation                                                                 | Miniature circuit breaker       |
| General technical data                                                              |                                 |
| number of poles                                                                     | 2                               |
| design of pole                                                                      | 1P+N                            |
| tripping characteristic class                                                       | D                               |
| mechanical service life (operating cycles) typical                                  | 10 000                          |
| overvoltage category                                                                | III                             |
| degree of pollution                                                                 | 3                               |
| Voltage                                                                             |                                 |
| type of voltage of the operating voltage                                            | AC                              |
| insulation voltage (Ui)                                                             |                                 |
| • with single-phase operation at AC rated value                                     | 250 V                           |
| supply voltage with single-phase operation at AC rated value                        | 230 V                           |
| operational current                                                                 |                                 |
| • at 40 °C rated value                                                              | 9.39 A                          |
| • at 50 °C rated value                                                              | 8.74 A                          |
| • at 55 °C rated value                                                              | 8.4 A                           |
| • at 60 °C rated value                                                              | 8.04 A                          |
| • at AC rated value                                                                 | 10 A                            |
| Supply voltage                                                                      |                                 |
| supply voltage                                                                      |                                 |
| • at AC rated value                                                                 | 230 V                           |
| • at DC rated value                                                                 | 60 V                            |
| value range of the supply voltage frequency                                         | 50/60 Hz                        |
| operating voltage at DC rated value maximum                                         | 72 V                            |
| Protection class                                                                    |                                 |
| protection class IP                                                                 | IP20, with connected conductors |
| Breaking Capacity                                                                   |                                 |
| switching capacity current                                                          |                                 |
| • at DC according to IEC 60947-2 rated value                                        | 15 kA                           |
| • according to EN 60898 rated value                                                 | 10 kA                           |
| • according to IEC 60947-2 rated value                                              | 20 kA                           |
| Dissipation                                                                         |                                 |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 0.9 W                           |
| Product details                                                                     |                                 |
| product component                                                                   |                                 |
| • combined terminal top                                                             | Yes                             |

|                                                                                                              |                                                      |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <ul style="list-style-type: none"> <li>combined terminal bottom</li> </ul>                                   | Yes                                                  |
| <ul style="list-style-type: none"> <li>neutral conductor switching</li> </ul>                                | Yes                                                  |
| product feature                                                                                              |                                                      |
| <ul style="list-style-type: none"> <li>properties for main switches in accordance with EN 60204-1</li> </ul> | Yes                                                  |
| <ul style="list-style-type: none"> <li>halogen-free</li> </ul>                                               | Yes                                                  |
| <ul style="list-style-type: none"> <li>sealable</li> </ul>                                                   | Yes                                                  |
| <ul style="list-style-type: none"> <li>silicon-free</li> </ul>                                               | Yes                                                  |
| product extension installable supplementary devices                                                          | Yes                                                  |
| <b>Product function</b>                                                                                      |                                                      |
| set values setting current (Ii) for I-tripping                                                               | 16                                                   |
| reference value setting current (Ii) for I-tripping                                                          | x In                                                 |
| <b>Short circuit</b>                                                                                         |                                                      |
| short-circuit current breaking capacity (Icn)                                                                |                                                      |
| <ul style="list-style-type: none"> <li>at AC according to UL 1077 and CSA C22.2 No.235</li> </ul>            | 5 kA                                                 |
| <b>Connections</b>                                                                                           |                                                      |
| connectable conductor cross-section solid                                                                    |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 0.75 mm <sup>2</sup>                                 |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 35 mm <sup>2</sup>                                   |
| connectable conductor cross-section stranded                                                                 |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 0.75 mm <sup>2</sup>                                 |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 35 mm <sup>2</sup>                                   |
| connectable conductor cross-section finely stranded with core end processing                                 |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 0.75 mm <sup>2</sup>                                 |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 25 mm <sup>2</sup>                                   |
| AWG number as coded connectable conductor cross section                                                      |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 18                                                   |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 4                                                    |
| tightening torque [lbf-in] with screw-type terminals                                                         |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 22 lbf-in                                            |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 31 lbf-in                                            |
| tightening torque with screw-type terminals                                                                  |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | 2.5 N-m                                              |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 3.5 N-m                                              |
| position of power supply cord                                                                                | Any                                                  |
| <b>Mechanical Design</b>                                                                                     |                                                      |
| height                                                                                                       | 90 mm                                                |
| width                                                                                                        | 36 mm                                                |
| depth                                                                                                        | 76 mm                                                |
| installation depth                                                                                           | 70 mm                                                |
| number of modular width units                                                                                | 2                                                    |
| fastening method                                                                                             | Quick assembly system                                |
| mounting position                                                                                            | any                                                  |
| net weight                                                                                                   | 301 g                                                |
| <b>Environmental conditions</b>                                                                              |                                                      |
| influence of the surrounding temperature                                                                     | max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C |
| standard                                                                                                     | IEC / EN 60898-1, IEC / EN 60947-2 / UL1077          |
| vibration resistance according to IEC 60068-2-6                                                              | ±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz |
| ambient temperature during operation                                                                         |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | -40 °C                                               |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 70 °C                                                |
| ambient temperature during storage                                                                           |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                                    | -40 °C                                               |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                    | 75 °C                                                |
| number of test cycles for environmental testing according to IEC 60068-2-30                                  | 6                                                    |
| <b>Approvals Certificates</b>                                                                                |                                                      |
| <b>General Product Approval</b>                                                                              |                                                      |



[Confirmation](#)



#### General Product Approval

#### EMV

#### Test Certificates



[Miscellaneous](#)



[Miscellaneous](#)

[Special Test Certificate](#)

#### Marine / Shipping

#### other



[Miscellaneous](#)

#### other

#### Railway

#### Environment

[Confirmation](#)

[Confirmation](#)

[Environmental Confirmations](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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?mlfb=5SY4510-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4510-8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4510-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4510-8)

CAX-Online-Generator

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

Tender specifications

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



# CB



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