



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 04A

| Model   |                                 |
|---|---------------------------------|
| product brand name  | SENTRON                         |
| product designation   | Miniature circuit breaker       |
| General technical data  |                                 |
| number of poles   | 1                               |
| design of pole  | 1P                              |
| tripping characteristic class   | C                               |
| mechanical service life (operating cycles) typical                                  | 10 000                          |
| overvoltage category  | III                             |
| degree of pollution   | 3                               |
| Voltage   |                                 |
| type of voltage of the operating voltage  | AC/DC                           |
| insulation voltage (U <sub>i</sub> )  |                                 |
| • at DC rated value   | 250 V                           |
| • with single-phase operation at AC rated value                                     | 440 V                           |
| • with multi-phase operation at AC rated value                                      | 440 V                           |
| supply voltage with single-phase operation at AC rated value                        | 230 V                           |
| Supply voltage  |                                 |
| supply voltage  |                                 |
| • at AC rated value   | 400 V                           |
| • at DC rated value   | 220 V                           |
| value range of the supply voltage frequency   | 50/60 Hz                        |
| operating voltage at DC rated value maximum   | 250 V                           |
| Protection class  |                                 |
| protection class IP   | IP20, with connected conductors |
| Switching capacity  |                                 |
| switching capacity current  |                                 |
| • at DC according to IEC 60947-2 rated value  | 15 kA                           |
| • according to EN 60898 rated value   | 10 kA                           |
| energy limitation class   | 3                               |
| Dissipation   |                                 |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 1.3 W                           |
| Current   |                                 |
| operational current   |                                 |
| • at 35 °C rated value  | 4 A                             |
| • at 40 °C rated value  | 3.76 A                          |
| • at 45 °C rated value  | 3.63 A                          |
| • at 50 °C rated value  | 3.5 A                           |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 55 °C rated value</li> <li>• at 60 °C rated value</li> <li>• at AC rated value</li> </ul>  | 3.36 A<br>3.22 A<br>4 A  |
| suitability for operation  | universal current  |
| <b>Product details</b>   |  |
| product component  |  |
| <ul style="list-style-type: none"> <li>• combined terminal top</li> <li>• combined terminal bottom</li> <li>• neutral conductor switching</li> </ul>                               | Yes<br>Yes<br>No   |
| product feature  |  |
| <ul style="list-style-type: none"> <li>• properties for main switches in accordance with EN 60204-1</li> <li>• halogen-free</li> <li>• sealable</li> <li>• silicon-free</li> </ul> | Yes<br>Yes<br>Yes<br>Yes   |
| product extension installable supplementary devices  | Yes  |
| <b>Short circuit</b>   |  |
| short-circuit current breaking capacity (I <sub>cn</sub> )   |  |
| <ul style="list-style-type: none"> <li>• at DC according to EN 60898-2</li> </ul>  | 10 kA  |
| <b>Connections</b>   |  |
| connectable conductor cross-section solid  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 0.75 mm <sup>2</sup><br>35 mm <sup>2</sup>                                       |
| connectable conductor cross-section stranded   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 0.75 mm <sup>2</sup><br>35 mm <sup>2</sup>                                       |
| connectable conductor cross-section finely stranded with core end processing   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 0.75 mm <sup>2</sup><br>25 mm <sup>2</sup>                                       |
| AWG number as coded connectable conductor cross section  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 18<br>4  |
| tightening torque [lbf-in] with screw-type terminals   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 22 lbf-in<br>31 lbf-in   |
| tightening torque with screw-type terminals  |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | 2.5 N·m<br>3.5 N·m   |
| position of power supply cord  | AC as required, observe DC polarity  |
| <b>Mechanical Design</b>   |  |
| height   | 90 mm  |
| width  | 18 mm  |
| depth  | 76 mm  |
| installation depth   | 70 mm  |
| number of modular width units  | 1  |
| fastening method   | Quick assembly system  |
| mounting position  | any  |
| net weight   | 164 g  |
| <b>Environmental conditions</b>  |  |
| influence of the surrounding temperature standard  | max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C<br>IEC / EN 60898-2, 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> <li>• maximum</li> </ul>   | -40 °C<br>70 °C  |
| ambient temperature during storage   |  |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>   | -40 °C<br>75 °C  |
| number of test cycles for environmental testing according to IEC 60068-2-30  | 6  |
| <b>General Product Approval</b>  |  |



[Confirmation](#)



[Miscellaneous](#)



|                          |                           |                   |                   |
|--------------------------|---------------------------|-------------------|-------------------|
| General Product Approval | Declaration of Conformity | Test Certificates | Marine / Shipping |
|--------------------------|---------------------------|-------------------|-------------------|

[Miscellaneous](#)



EG-Konf.



[Special Test Certificate](#)

[Miscellaneous](#)



LRS

|       |         |                |
|-------|---------|----------------|
| other | Railway | Dangerous Good |
|-------|---------|----------------|

[Environmental Confirmations](#)

[Miscellaneous](#)

[Confirmation](#)

[Vibration and Shock](#)

[Transport Information](#)

#### Further information

##### 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=5SY5104-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5104-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5104-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5104-7)

##### CAX-Online-Generator

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

##### Tender specifications

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



**CB**



