



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 16A

| 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                                |
| <b>insulation voltage (Ui)</b>  |                                      |
| • 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                                |
| operational current   |                                      |
| • at 40 °C rated value  | 15.02 A                              |
| • at 50 °C rated value  | 13.98 A                              |
| • at 55 °C rated value  | 13.44 A                              |
| • at 60 °C rated value  | 12.86 A                              |
| • at AC rated value   | 16 A                                 |
| Supply voltage  |                                      |
| supply voltage  |                                      |
| • at AC   | 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      |
| Breaking 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 | 1.6 W                                |
| suitability for operation   | Infrastructure / Industry / Mobility |

| Product details  |  |
|--|--|
| product feature touch protection   | Yes  |
| product component  |  |
| <ul style="list-style-type: none"> <li>combined terminal top</li> </ul>                                      | 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>                                | No   |
| <b>product feature</b>   |  |
| <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  |
| Short circuit  |  |
| 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  |
| Connections  |  |
| 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  | AC as required, observe DC polarity                  |
| Mechanical Design  |  |
| height   | 90 mm  |
| width  | 18 mm  |
| depth  | 76 mm  |
| installation depth   | 70 mm  |
| number of modular width units  | 1  |
| <b>fastening method</b>  | Quick assembly system                                |
| mounting position  | any  |
| net weight   | 163 g  |
| Environmental conditions   |  |
| standard   | 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> </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  |
| Environmental footprint  |  |
| Environmental Product Declaration (EPD)  | Yes  |
| Global Warming Potential [CO <sub>2</sub> eq] total  | 13.3 kg  |
| Global Warming Potential [CO <sub>2</sub> eq] during manufacturing   | 0.73 kg  |

|   |           |
|---|-----------|
| Global Warming Potential [CO2 eq] during operation  | 12.7 kg   |
| Global Warming Potential [CO2 eq] after end of life | -0.069 kg |

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#### General Product Approval



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#### Environment

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### 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=5SY5116-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5116-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5116-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5116-7)

#### CAX-Online-Generator

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

#### Tender specifications

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



# CB



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