



Miniature circuit breaker 400 V D=70 mm 25 kA according to EN 60947-2, 4P, D16

| Model                                                                               |                                 |
|-------------------------------------------------------------------------------------|---------------------------------|
| product brand name                                                                  | SENTRON                         |
| product designation                                                                 | Miniature circuit breaker       |
| General technical data                                                              |                                 |
| number of poles                                                                     | 4                               |
| design of pole                                                                      | 4P                              |
| 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                                     | 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 50 °C rated value                                                              | 15.5 A                          |
| • at 55 °C rated value                                                              | 14.99 A                         |
| • at AC rated value                                                                 | 16 A                            |
| Supply voltage                                                                      |                                 |
| supply voltage                                                                      |                                 |
| • at AC                                                                             | 400 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 IEC 60947-2 rated value                                              | 30 kA                           |
| 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       |
| 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 properties for main switches in accordance with EN 60204-1</b>                 | Yes                                                  |
| <b>product feature halogen-free</b>                                                               | Yes                                                  |
| <b>product feature sealable</b>                                                                   | Yes                                                  |
| <b>product feature silicon-free</b>                                                               | Yes                                                  |
| <b>product extension installable supplementary devices</b>                                        | Yes                                                  |
| <b>Product function</b>                                                                           |                                                      |
| <b>set values setting current (Ii) for I-tripping</b>                                             | 14,5                                                 |
| <b>reference value setting current (Ii) for I-tripping</b>                                        | x I <sub>n</sub>                                     |
| <b>Short circuit</b>                                                                              |                                                      |
| <b>short-circuit current breaking capacity (I<sub>cn</sub>)</b>                                   |                                                      |
| <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>                                                                                |                                                      |
| <b>connectable conductor cross-section solid</b>                                                  |                                                      |
| <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>                                   |
| <b>connectable conductor cross-section stranded</b>                                               |                                                      |
| <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>                                   |
| <b>connectable conductor cross-section finely stranded with core end processing</b>               |                                                      |
| <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>                                   |
| <b>AWG number as coded connectable conductor cross section</b>                                    |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                         | 18                                                   |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                         | 4                                                    |
| <b>tightening torque [lbf-in] with screw-type terminals</b>                                       |                                                      |
| <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                                            |
| <b>tightening torque with screw-type terminals</b>                                                |                                                      |
| <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                                              |
| <b>position of power supply cord</b>                                                              | Any                                                  |
| <b>Mechanical Design</b>                                                                          |                                                      |
| <b>height</b>                                                                                     | 90 mm                                                |
| <b>width</b>                                                                                      | 72 mm                                                |
| <b>depth</b>                                                                                      | 76 mm                                                |
| <b>installation depth</b>                                                                         | 70 mm                                                |
| <b>number of modular width units</b>                                                              | 4                                                    |
| <b>fastening method</b>                                                                           | DIN rail                                             |
| <b>mounting position</b>                                                                          | any                                                  |
| <b>net weight</b>                                                                                 | 594 g                                                |
| <b>Environmental conditions</b>                                                                   |                                                      |
| <b>influence of the surrounding temperature</b>                                                   | max. 95% RH up to 55°C                               |
| <b>standard</b>                                                                                   | IEC / EN 60947-2 / UL1077                            |
| <b>vibration resistance according to IEC 60068-2-6</b>                                            | ±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz |
| <b>ambient temperature during operation</b>                                                       |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                         | -25 °C                                               |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                         | 55 °C                                                |
| <b>ambient temperature during storage</b>                                                         |                                                      |
| <ul style="list-style-type: none"> <li>minimum</li> </ul>                                         | -40 °C                                               |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                         | 75 °C                                                |
| <b>number of test cycles for environmental testing according to IEC 60068-2-30</b>                | 6                                                    |
| <b>Approvals Certificates</b>                                                                     |                                                      |
| <b>General Product Approval</b>                                                                   | other                                                |



[Miscellaneous](#)



other

Environment

[Confirmation](#)



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firmations](#)

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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=5SY8416-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY8416-8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY8416-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8416-8)

CAX-Online-Generator

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

Tender specifications

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





