



Miniature circuit breaker 230 V 10kA, 1+N-pole, A, 25A, 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                                                       | A                               |
| 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                           |
| 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 |
| Switching 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 | 3.3 W                           |
| Current                                                                             |                                 |
| operational current                                                                 |                                 |
| • at 35 °C rated value                                                              | 25 A                            |
| • at 40 °C rated value                                                              | 23.8 A                          |
| • at 45 °C rated value                                                              | 23.18 A                         |
| • at 50 °C rated value                                                              | 22.55 A                         |
| • at 55 °C rated value                                                              | 21.88 A                         |
| • at 60 °C rated value                                                              | 21.2 A                          |

|                                                                                                                |                                                      |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC rated value</li> </ul>                                          | 25 A                                                 |
| suitability for operation                                                                                      | Mechanical engineering / industry                    |
| <b>Product details</b>                                                                                         |                                                      |
| 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>                                | 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>Short circuit</b>                                                                                           |                                                      |
| short-circuit current breaking capacity (I <sub>cn</sub> )                                                     |                                                      |
| <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                                                                                                     | 328 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>General Product Approval</b>                                                                                |                                                      |

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[Miscellaneous](#)

Declaration of Conformity

Test Certificates

Marine / Shipping



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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=5SY4525-5>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4525-5>

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

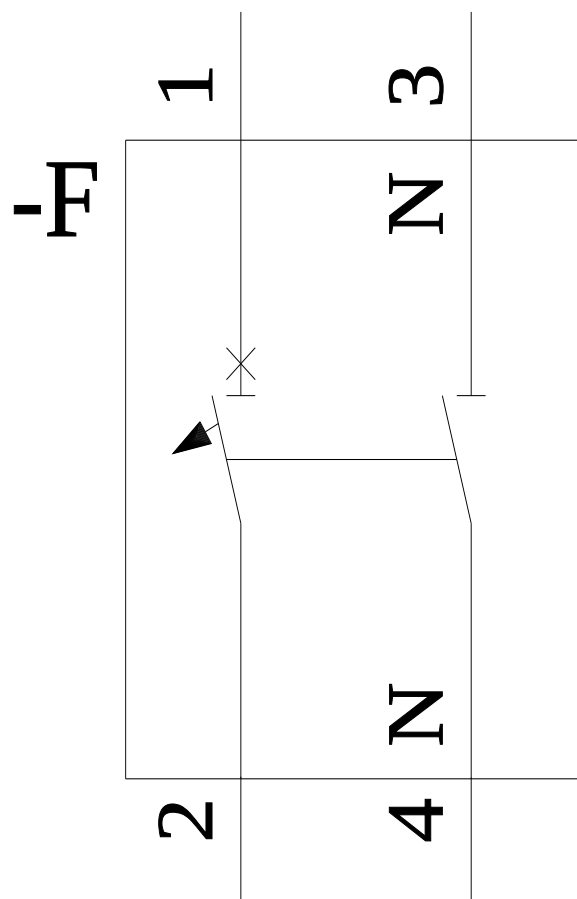
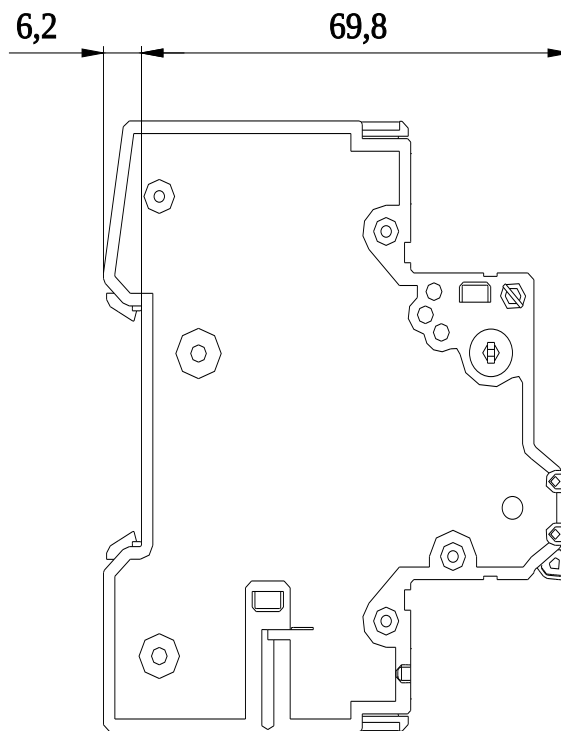
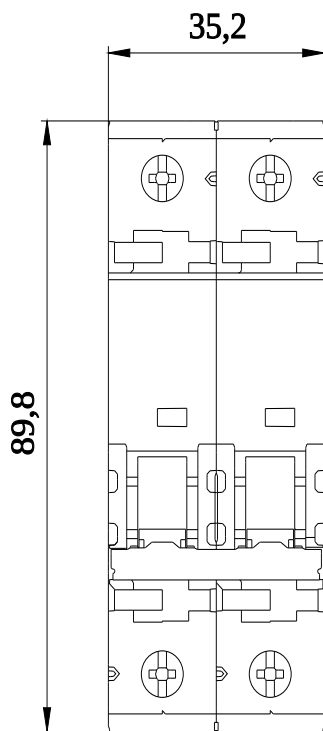
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4525-5](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4525-5)

CAX-Online-Generator

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

Tender specifications

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



# CB

