



Miniature circuit breaker 230 V D=70 mm 25 kA according to EN 60947-2, 1P+N, D4

| 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 (switching 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                             |
| 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 IEC 60947-2 rated value                                              | 50 kA                             |
| Dissipation                                                                         |                                   |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 1.2 W                             |
| Current                                                                             |                                   |
| operational current                                                                 |                                   |
| • at 45 °C rated value                                                              | 4 A                               |
| • at 50 °C rated value                                                              | 3.88 A                            |
| • at 55 °C rated value                                                              | 3.75 A                            |
| • at AC rated value                                                                 | 4 A                               |
| suitability for operation                                                           | Mechanical engineering / industry |
| Product details                                                                     |                                   |
| product component                                                                   |                                   |
| • combined terminal top                                                             | Yes                               |

|                                                                                                                                                                            |                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <ul style="list-style-type: none"> <li>combined terminal bottom</li> <li>neutral conductor switching</li> </ul>                                                            | Yes<br>Yes                                           |
| 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>                                                                                                                                                       |                                                      |
| breaking capacity short-circuit current (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> <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                                                                                                                                              | 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                                                                                                                                                                 | 307 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 |
| 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>                                                                                                 | -25 °C<br>55 °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>Certificates</b>                                                                                                                                                        |                                                      |
| reference code                                                                                                                                                             |                                                      |
| <ul style="list-style-type: none"> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> </ul>                                                                | F<br>F                                               |
| <div>General Product Approval</div> <div>Declaration of Conformity</div>                                                                                                   |                                                      |

## other

[Miscellaneous](#)[Environmental Con-  
firmations](#)

## Further information

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=5SY8504-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY8504-8>

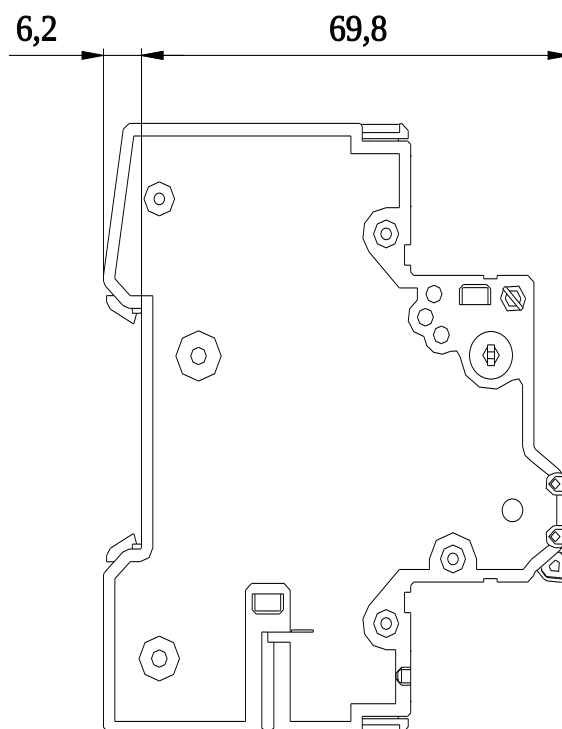
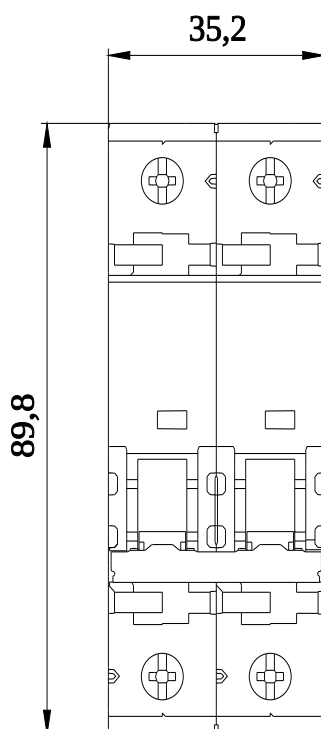
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY8504-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8504-8)

CAx-Online-Generator

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

Tender specifications

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



CB



