



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 2A

| 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 (Ui)   |                                 |
| • 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  | 1.9 A                           |
| • at 50 °C rated value  | 1.8 A                           |
| • at 55 °C rated value  | 1.75 A                          |
| • at 60 °C rated value  | 1.7 A                           |
| • at AC rated value   | 2 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 | 1.2 W                           |

|   |  |
|---|--|
| <b>suitability for operation</b>  | Infrastructure / Industry / Mobility                 |
| <b>Product details</b>  |  |
| <b>product feature touch protection</b>   | Yes  |
| product component   |  |
| • combined terminal top   | Yes  |
| • combined terminal bottom  | Yes  |
| • neutral conductor switching   | No   |
| <b>product feature</b>  |  |
| • properties for main switches in accordance with EN 60204-1                        | Yes  |
| • halogen-free  | Yes  |
| • sealable  | Yes  |
| • silicon-free  | Yes  |
| product extension installable supplementary devices                                 | Yes  |
| <b>Short circuit</b>  |  |
| <b>short-circuit current breaking capacity (Icn)</b>                                |  |
| • at DC according to EN 60898-2   | 10 kA  |
| <b>Connections</b>  |  |
| <b>connectable conductor cross-section solid</b>                                    |  |
| • minimum   | 0.75 mm <sup>2</sup>                                 |
| • maximum   | 35 mm <sup>2</sup>                                   |
| <b>connectable conductor cross-section stranded</b>                                 |  |
| • minimum   | 0.75 mm <sup>2</sup>                                 |
| • maximum   | 35 mm <sup>2</sup>                                   |
| <b>connectable conductor cross-section finely stranded with core end processing</b> |  |
| • minimum   | 0.75 mm <sup>2</sup>                                 |
| • maximum   | 25 mm <sup>2</sup>                                   |
| <b>AWG number as coded connectable conductor cross section</b>                      |  |
| • minimum   | 18   |
| • maximum   | 4  |
| <b>tightening torque [lbf-in] with screw-type terminals</b>                         |  |
| • minimum   | 22 lbf-in  |
| • maximum   | 31 lbf-in  |
| <b>tightening torque with screw-type terminals</b>                                  |  |
| • minimum   | 2.5 N·m  |
| • maximum   | 3.5 N·m  |
| position of power supply cord   | AC as required, observe DC polarity                  |
| <b>Mechanical Design</b>  |  |
| <b>height</b>   | 90 mm  |
| <b>width</b>  | 18 mm  |
| <b>depth</b>  | 76 mm  |
| <b>installation depth</b>   | 70 mm  |
| <b>number of modular width units</b>  | 1  |
| <b>fastening method</b>   | DIN rail   |
| <b>mounting position</b>  | any  |
| <b>net weight</b>   | 172 g  |
| <b>Environmental conditions</b>   |  |
| <b>standard</b>   | 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 |
| <b>ambient temperature during operation</b>   |  |
| • minimum   | -40 °C   |
| • maximum   | 70 °C  |
| <b>ambient temperature during storage</b>   |  |
| • minimum   | -40 °C   |
| • maximum   | 75 °C  |
| <b>number of test cycles for environmental testing according to IEC 60068-2-30</b>  | 6  |
| <b>Environmental footprint</b>  |  |
| Environmental Product Declaration(EPD)  | Yes  |
| global warming potential [CO2 eq] total   | 13.3 kg  |

|  |           |
|--|-----------|
| global warming potential [CO2 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 |

#### Approvals Certificates

##### General Product Approval



[Miscellaneous](#)

| General Product Approval | Test Certificates | Marine / Shipping | other |
|--------------------------|-------------------|-------------------|-------|
|--------------------------|-------------------|-------------------|-------|



[Miscellaneous](#)

[Special Test Certificate](#)



[Confirmation](#)

[Miscellaneous](#)

| Railway | Dangerous goods | Environment |
|---------|-----------------|-------------|
|---------|-----------------|-------------|

[Special Test Certificate](#)

[Confirmation](#)

[Transport Information](#)



[Environmental Confirmations](#)

##### Environment

[Environmental Confirmations](#)

#### 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=5SY5102-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5102-7>

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

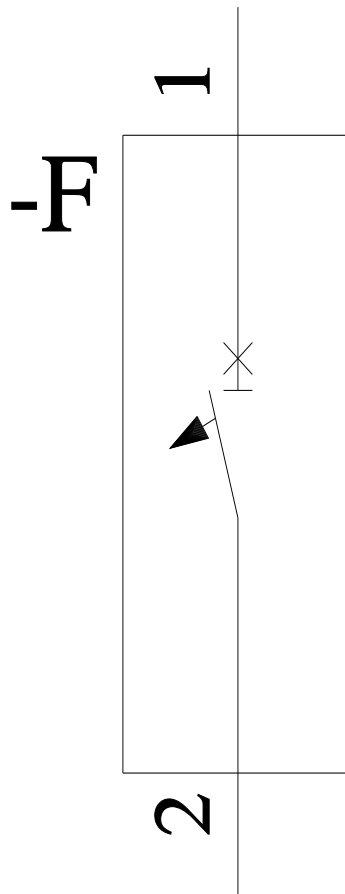
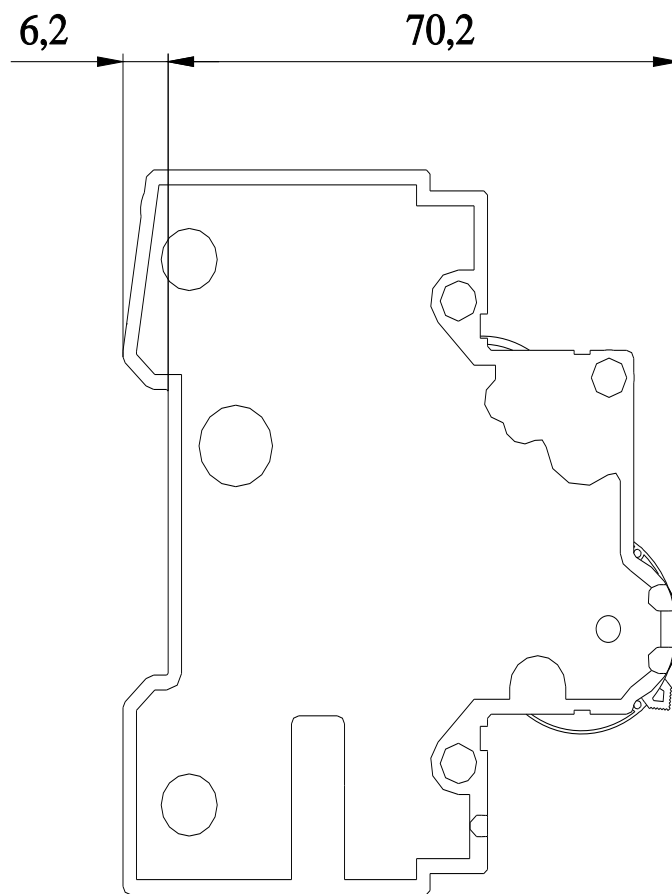
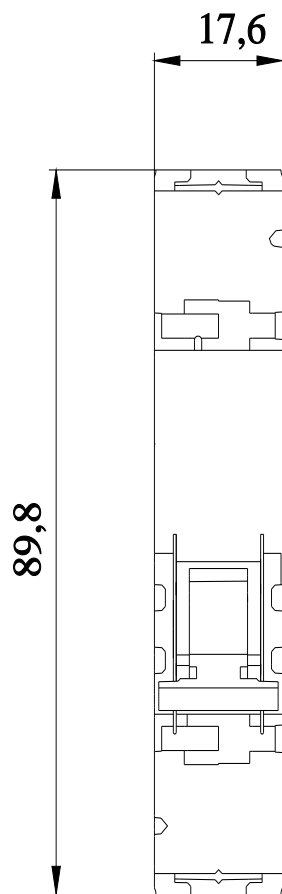
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5102-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5102-7)

CAX-Online-Generator

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

Tender specifications

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



# CB



last modified:

4/15/2025 