



CIRCUIT BREAKER CURR. SENS DC 220V AC  
230/400V 10KA, 1-POLE, B, 16A

| Model                        |  |                                |
|------------------------------|--|--------------------------------|
| product brand name           |  | SENTRON                        |
| Product designation          |  | 5SY miniature circuit breaker  |
| <b>Design of the product</b> |  | 5SY miniature circuit breakers |

| General technical data                                      |  |        |
|---|--|--------|
| <b>Number of poles</b>                                      |  | 1      |
| <b>Number of poles / Note</b>                               |  | 1P     |
| <b>Tripping characteristic class</b>                        |  | B      |
| <b>circuit-breaker / Design</b>                             |  | 5SY5   |
| <b>Mechanical service life (switching cycles) / typical</b> |  | 20 000 |
| <b>Overtoltage category</b>                                 |  | 3      |

| Voltage   |   |     |
|---|---|-----|
| <b>Insulation voltage</b>   |   |     |
| <ul style="list-style-type: none"> <li>• for DC / Rated value</li> </ul>                                | V | 250 |
| <ul style="list-style-type: none"> <li>• with single-phase operation / with AC / Rated value</li> </ul> | V | 250 |
| <ul style="list-style-type: none"> <li>• with multi-phase operation / with AC / Rated value</li> </ul>  | V | 440 |

| Supply voltage                         |    |    |
|--|----|----|
| Supply voltage frequency / Rated value | Hz | 50 |

| Protection class             |  |                                 |
|------------------------------|--|---------------------------------|
| <b>Protection class IP</b>   |  | IP20, with connected conductors |
| <b>Energy limiting class</b> |  | 3                               |

| Switching capacity   |                 |      |
|--|-----------------|------|
| <b>Switching capacity current</b>  |                 |      |
| • for DC / acc. to IEC 60947-2 / Rated value                                   | kA              | 15   |
| • acc. to EN 60898 / Rated value   | kA              | 10   |
| Dissipation  |                 |      |
| <b>Active power loss</b>   |                 |      |
| • for rated value of the current / with AC / in hot operating state / per pole | W               | 1.8  |
| Electricity  |                 |      |
| Current / with AC / Rated value  | A               | 16   |
| Product details  |                 |      |
| Product feature / Touch protection   |                 | Yes  |
| <b>Product component</b>   |                 |      |
| • combined terminal top  |                 | Yes  |
| • combined terminal bottom   |                 | Yes  |
| <b>Product property</b>  |                 |      |
| • Properties for main switches in accordance with EN 60204-1                   |                 | Yes  |
| • halogen-free   |                 | Yes  |
| • sealable   |                 | Yes  |
| • silicon-free   |                 | Yes  |
| Product expansion / can be installed / supplementary devices                   |                 | Yes  |
| Product function   |                 |      |
| Product function / neutral conductor switching                                 |                 | No   |
| Short circuit  |                 |      |
| <b>Breaking capacity short-circuit current (I<sub>cn</sub>)</b>                |                 |      |
| • for DC / acc. to EN 60898-2  | kA              | 10   |
| Number   |                 |      |
| Number of test cycles / for environmental testing / acc. to IEC 60068-2-30     |                 | 6    |
| Connections  |                 |      |
| <b>Connectable conductor cross-section / stranded</b>                          |                 |      |
| • minimum  | mm <sup>2</sup> | 0.75 |
| • maximum  | mm <sup>2</sup> | 35   |
| <b>Connectable conductor cross-section</b>                                     |                 |      |
| • solid  |                 |      |
| — minimum  | mm <sup>2</sup> | 0.75 |
| — maximum  | mm <sup>2</sup> | 35   |
| • finely stranded / with core end processing                                   |                 |      |

|  |                 |      |
|--|-----------------|------|
| — minimum  | mm <sup>2</sup> | 0.75 |
| — maximum  | mm <sup>2</sup> | 25   |
| <b>AWG number / as coded connectable conductor cross section</b> |                 |      |
| • minimum  |                 | 14   |
| • maximum  |                 | 4    |
| <b>Tightening torque [lbf·in] / with screw-type terminals</b>    |                 |      |
| • minimum  | lbf·in          | 22   |
| • maximum  | lbf·in          | 26   |
| <b>Tightening torque / with screw-type terminals</b>             |                 |      |
| • minimum  | N·m             | 2.5  |
| • maximum  | N·m             | 3    |
| Position / of power supply cord                                  |                 | Any  |

| Mechanical Design     |    |                       |
|-----------------------|----|-----------------------|
| Height                | mm | 90                    |
| Width                 | mm | 18                    |
| Depth                 | mm | 76                    |
| mounting position     |    | any                   |
| Installation depth    | mm | 70                    |
| Number of width units |    | 1                     |
| Mounting type         |    | Quick assembly system |

| Environmental conditions                     |    |   |
|--|----|---|
| Influence of the surrounding temperature     |    | Max. 95% humidity   |
| Shock resistance / acc. to IEC 60068-2-27    |    | 150m/s <sup>2</sup> at 11ms half-sine                                   |
| Vibration resistance / acc. to IEC 60068-2-6 |    | 50m/s <sup>2</sup> at 25 to 150Hz and 60m/s <sup>2</sup> at 35Hz (4sec) |
| <b>Ambient temperature</b>                   |    |   |
| • minimum                                    | °C | -25   |
| • maximum                                    | °C | 55  |
| • during storage / minimum                   | °C | -40   |
| • during storage / maximum                   | °C | 75  |

| Certificates                               |  |   |
|--|--|---|
| Equipment marking / acc. to DIN EN 61346-2 |  | F |

|                          |                           |                   |
|--------------------------|---------------------------|-------------------|
| General Product Approval | Declaration of Conformity | Test Certificates |
|--------------------------|---------------------------|-------------------|



CCC



GOST



VDE



EG-Konf.

[other](#)

**other**

[other](#)

**Further information**

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/5SY51166>

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

<http://support.automation.siemens.com/WW/view/en/5SY51166/all>

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

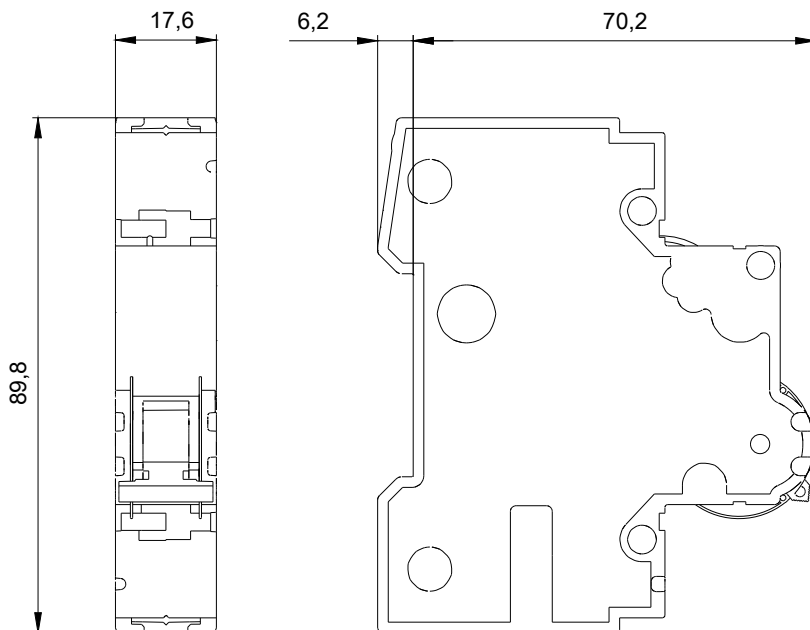
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY51166](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY51166)

**CAX-Online-Generator**

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

**Tender specifications**

<http://ausschreibungstexte.siemens.com/tiplv>



last modified:

11.03.2015