

Miniature circuit breaker 400 V 10kA, 2-pole, B, 50 A, D=70 mm



| Model   |                           |
|---|---------------------------|
| Product brand name  | SENTRON                   |
| Product designation   | Miniature circuit breaker |
| General technical data  |                           |
| Number of poles   | 2                         |
| Number of poles / Note  | 2P                        |
| Tripping characteristic class   | B                         |
| circuit-breaker / Design  | 5SY4                      |
| Mechanical service life (switching cycles) / typical  | 10 000                    |
| Overvoltage category  | III                       |
| Voltage   |                           |
| Insulation voltage  |                           |
| <ul style="list-style-type: none"> <li>with single-phase operation / at AC / rated value</li> </ul> | 440 V                     |
| <ul style="list-style-type: none"> <li>with multi-phase operation / at AC / rated value</li> </ul>  | 440 V                     |
| Supply voltage / with single-phase operation / at AC / rated value                                  | 230 V                     |
| Supply voltage  |                           |

|                                 |          |
|---------------------------------|----------|
| Type of voltage                 | AC       |
| Current / at AC / rated value   | 50 A     |
| Supply voltage                  |          |
| • at AC / rated value           | 400 V    |
| Operating voltage               |          |
| • at DC / rated value / maximum | 72 V     |
| Supply voltage frequency        |          |
| • rated value                   | 50/60 Hz |

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

|   |       |
|---|-------|
| <b>Switching capacity</b>                   |       |
| Switching capacity current                  |       |
| • at DC / acc. to IEC 60947-2 / rated value | 15 kA |
| • acc. to EN 60898 / rated value            | 10 kA |
| • acc. to IEC 60947-2 / rated value         | 15 kA |
| Energy limiting class                       | 3     |

|   |       |
|---|-------|
| <b>Dissipation</b>  |       |
| Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 4.3 W |

|   |                                   |
|---|-----------------------------------|
| <b>Current</b>  |                                   |
| Tripping residual / rated value / derated current / at 40 Cel | 47.6 A                            |
| Suitability for operation                                     | Mechanical engineering / industry |

|  |     |
|--|-----|
| <b>Product details</b>                                       |     |
| Product function / neutral conductor switching               | No  |
| Product feature / Touch protection                           | Yes |
| Product component  |     |
| • combined terminal top                                      | Yes |
| • combined terminal bottom                                   | Yes |
| Product feature  |     |
| • Properties for main switches in accordance with EN 60204-1 | Yes |
| • halogen-free   | Yes |
| • sealable   | Yes |
| • silicon-free   | Yes |
| Product extension / can be installed / supplementary devices | Yes |

|  |      |
|--|------|
| <b>Short circuit</b>                                       |      |
| Breaking capacity short-circuit current (I <sub>cn</sub> ) |      |
| • at AC / acc. to UL 1077 and CSA C22.2 No.235             | 5 kA |

## Connections

|  |   |
|--|---|
| <ul style="list-style-type: none"><li>• Connectable conductor cross-section<ul style="list-style-type: none"><li>— solid</li><li>— stranded</li></ul></li><li>• Connectable conductor cross-section / finely stranded / with core end processing</li></ul> | 0.75 ... 35 mm <sup>2</sup><br>0.75 ... 35 mm <sup>2</sup><br>0.75 ... 25 mm <sup>2</sup> |
| AWG number / as coded connectable conductor cross section  | 18 ... 4  |
| Tightening torque [lbf·in] / with screw-type terminals   | 22 ... 31 lbf·in  |
| Tightening torque / with screw-type terminals  | 2.5 ... 3.5 N·m   |
| Position / of power supply cord  | Any   |

## Mechanical Design

|                       |                       |
|-----------------------|-----------------------|
| Height                | 90 mm                 |
| Width                 | 36 mm                 |
| Depth                 | 76 mm                 |
| Installation depth    | 70 mm                 |
| Number of width units | 2                     |
| Mounting type         | Quick assembly system |
| Mounting position     | any                   |
| Net weight            | 328 g                 |

## Environmental conditions

|  |  |
|--|--|
| Influence of the surrounding temperature   | max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C |
| Ambient temperature <ul style="list-style-type: none"><li>• during storage</li></ul> | -40 ... +70 °C<br>-40 ... +75 °C                     |

## Certificates

|  |        |
|--|--------|
| Reference code <ul style="list-style-type: none"><li>• acc. to DIN EN 61346-2</li><li>• acc. to DIN EN 81346-2</li></ul> | F<br>F |
|--|--------|

## General Product Approval



CCC



IMQ



UR



VDE



RCM

[Miscellaneous](#)

Declaration of  
Conformity

Test Certificates

Shipping Approval



EG-Konf.

[Special Test Certificate](#)

[Miscellaneous](#)



ABS



BUREAU  
VERITAS

Lloyd's  
Register

LRS

Shipping Ap-  
proval

Railway



RINA

[Confirmation](#)

[Vibration and Shock](#)

## 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=5SY4250-6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4250-6>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4250-6](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4250-6)

**CAX-Online-Generator**

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

**Tender specifications**

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

