

Circuit breaker Universal current 440 V DC 400 V AC 10kA, 2-pole, B, 50 A



| 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                                                                              | 5SY5                      |
| Mechanical service life (switching cycles) / typical                                                  | 5 000                     |
| Oversvoltage category                                                                                 | III                       |
| Voltage                                                                                               |                           |
| Insulation voltage                                                                                    |                           |
| <ul style="list-style-type: none"> <li>• at DC / rated value</li> </ul>                               | 250 V                     |
| <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                                                                                        |                           |
| Type of voltage                                                                                       | AC/DC                     |

|                                 |          |
|---------------------------------|----------|
| Current / at AC / rated value   | 50 A     |
| Supply voltage                  |          |
| • at AC / rated value           | 400 V    |
| • at DC / rated value           | 440 V    |
| Operating voltage               |          |
| • at DC / rated value / maximum | 500 V    |
| Supply voltage frequency        |          |
| • rated value                   | 50/60 Hz |

#### Protection class

|                     |                                 |
|---------------------|---------------------------------|
| Protection class IP | IP20, with connected conductors |
|---------------------|---------------------------------|

#### Switching capacity

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

#### Dissipation

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

#### Current

|                                                               |                   |
|---------------------------------------------------------------|-------------------|
| Tripping residual / rated value / derated current / at 40 Cel | 47.6 A            |
| Suitability for operation                                     | universal current |

#### Product details

|                                                              |     |
|--------------------------------------------------------------|-----|
| 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 |

#### Short circuit

|                                                            |       |
|------------------------------------------------------------|-------|
| Breaking capacity short-circuit current (I <sub>cn</sub> ) |       |
| • at DC / acc. to EN 60898-2                               | 10 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                                                                                                                                                                                                                                    | AC as required, observe DC polarity                                                       |

### 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            | 339 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 |
|-----------------------------------------------------------------------------------------------------------------------------|--------|

|                                 |                                  |                          |
|---------------------------------|----------------------------------|--------------------------|
| <b>General Product Approval</b> | <b>Declaration of Conformity</b> | <b>Test Certificates</b> |
|---------------------------------|----------------------------------|--------------------------|



[Miscellaneous](#)



[Miscellaneous](#)

### Railway

[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=5SY5250-6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5250-6>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5250-6](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5250-6)

**CAX-Online-Generator**

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

**Tender specifications**

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



