

Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 50 A



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker
General technical data	
Number of poles	1
Number of poles / Note	1P
Tripping characteristic class	C
circuit-breaker / Design	5SY5
Mechanical service life (switching cycles) / typical	5 000
Overvoltage category	III
Voltage	
Insulation voltage	
• 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

Supply voltage	
Type of voltage	AC/DC
Current / at AC / rated value	50 A
Supply voltage	
<ul style="list-style-type: none"> <li>• at AC / rated value</li> <li>• at DC / rated value</li> </ul>	400 V 220 V
Operating voltage	
<ul style="list-style-type: none"> <li>• at DC / rated value / maximum</li> </ul>	250 V
Supply voltage frequency	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	50/60 Hz

Protection class	
Protection class IP	IP20, with connected conductors

Switching capacity	
Switching capacity current	
<ul style="list-style-type: none"> <li>• at DC / acc. to IEC 60947-2 / rated value</li> <li>• acc. to EN 60898 / rated value</li> </ul>	15 kA 10 kA
Energy limiting class	3

Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.8 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	
<ul style="list-style-type: none"> <li>• combined terminal top</li> <li>• combined terminal bottom</li> </ul>	Yes 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 Yes Yes Yes
Product extension / can be installed / supplementary devices	Yes

Short circuit	
Breaking capacity short-circuit current (I <sub>cn</sub> )	
<ul style="list-style-type: none"> <li>• at DC / acc. to EN 60898-2</li> </ul>	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> 0.75 ... 35 mm <sup>2</sup> 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	18 mm
Depth	76 mm
Installation depth	70 mm
Number of width units	1
Mounting type	Quick assembly system
Mounting position	any
Net weight	172 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 -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 F
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### General Product Approval

### Declaration of Conformity

### Test Certificates



[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=5SY5150-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5150-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5150-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5150-7)

### CAX-Online-Generator

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

### Tender specifications

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



