

Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 13A



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	10 000
Overvoltage category	III
Degree of pollution	3
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 / with single-phase operation / at AC / rated value	230 V
<b>Supply voltage</b>	
Type of voltage	AC/DC
Operating current / at AC / rated value	13 A
Supply voltage	
• at AC / rated value	400 V
• at DC / rated value	220 V
Operating voltage	
• at DC / rated value / maximum	250 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
Energy limiting class	3
<b>Dissipation</b>	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.4 W
<b>Current</b>	
Tripping residual / rated value / derated current / at 40 Cel	12.38 A
Suitability for operation	universal current
<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

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	
Connectable conductor cross-section / solid	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.75 mm <sup>2</sup> 35 mm <sup>2</sup>
Connectable conductor cross-section / stranded	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.75 mm <sup>2</sup> 35 mm <sup>2</sup>
Connectable conductor cross-section / finely stranded / with core end processing	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	0.75 mm <sup>2</sup> 25 mm <sup>2</sup>
AWG number / as coded connectable conductor cross section	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	18 4
Tightening torque [lbf·in] / with screw-type terminals	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	22 lbf·in 31 lbf·in
Tightening torque / with screw-type terminals	
<ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>	2.5 N·m 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	169 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>minimum</li> <li>maximum</li> </ul>	-40 °C 70 °C
Ambient temperature / during storage	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	-40 °C

- maximum

75 °C

Number of test cycles / for environmental testing /  
acc. to IEC 60068-2-30

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## Certificates

Reference code

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

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## General Product Approval

Declaration of  
Conformity

Test Certific-  
ates



CCC



UR



VDE

[Miscellaneous](#)



EG-Konf.

[Miscellaneous](#)

Test Certific-  
ates

Railway

[Special Test Certi-  
ficate](#)

[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=5SY5113-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5113-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY5113-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5113-7)

**CAX-Online-Generator**

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

**Tender specifications**

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



