



Miniature circuit breaker 230 V 10kA, 1+N-pole, D, 13 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	2
design of pole	1P+N
tripping characteristic class	D
mechanical service life (switching cycles) typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (U <sub>i</sub> )	250 V
<ul style="list-style-type: none"> <li>with single-phase operation at AC rated value</li> </ul>	230 V
supply voltage with single-phase operation at AC rated value	230 V
Supply voltage	
supply voltage	230 V
<ul style="list-style-type: none"> <li>at AC rated value</li> </ul>	230 V
value range of the supply voltage frequency	50/60 Hz
operating voltage at DC rated value maximum	72 V
Protection class	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	15 kA
<ul style="list-style-type: none"> <li>at DC according to IEC 60947-2 rated value</li> </ul>	15 kA
<ul style="list-style-type: none"> <li>according to EN 60898 rated value</li> </ul>	10 kA
<ul style="list-style-type: none"> <li>according to IEC 60947-2 rated value</li> </ul>	20 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	1.4 W
Current	
operational current	13 A
<ul style="list-style-type: none"> <li>at 35 °C rated value</li> </ul>	13 A
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>	12.38 A
<ul style="list-style-type: none"> <li>at 45 °C rated value</li> </ul>	12.05 A
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	11.73 A
<ul style="list-style-type: none"> <li>at 55 °C rated value</li> </ul>	11.38 A
<ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>	11.02 A
<ul style="list-style-type: none"> <li>at AC rated value</li> </ul>	13 A

**Product details**

product component	
<ul style="list-style-type: none"> <li>combined terminal top</li> <li>combined terminal bottom</li> <li>neutral conductor switching</li> </ul>	Yes 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 installable supplementary devices	Yes

**Short circuit**

breaking capacity short-circuit current (I <sub>cn</sub> )	
<ul style="list-style-type: none"> <li>at AC according to UL 1077 and CSA C22.2 No.235</li> </ul>	5 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	Any

**Mechanical Design**

height	90 mm
width	36 mm
depth	76 mm
installation depth	70 mm
number of modular width units	2
fastening method	Quick assembly system
mounting position	any
net weight	301 g

**Environmental conditions**

influence of the surrounding temperature standard	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz
ambient temperature during operation	
<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> <li>maximum</li> </ul>	-40 °C 75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	6

**Certificates**

reference code	
<ul style="list-style-type: none"> <li>according to EN 61346-2</li> <li>according to IEC 81346-2</li> </ul>	F F

## General Product Approval

[Confirmation](#)



[Miscellaneous](#)

General Product Approval

EMC

Declaration of Conformity

Test Certificates



[Special Test Certificate](#)

[Miscellaneous](#)

Marine / Shipping

other



[Miscellaneous](#)

other

Railway

[Environmental Confirmations](#)

[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=5SY4513-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4513-8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4513-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4513-8)

CAx-Online-Generator

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

Tender specifications

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



# CB



