



Miniature circuit breaker 230 V D=70 mm 25 kA according to EN 60947-2, 1P+N, D10

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>	50/60 Hz
value range of the supply voltage frequency	72 V
operating voltage at DC rated value maximum	
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>	40 kA
<ul style="list-style-type: none"> <li>according to IEC 60947-2 rated value</li> </ul>	
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	0.9 W
Current	
operational current	10 A
<ul style="list-style-type: none"> <li>at 45 °C rated value</li> </ul>	9.69 A
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	9.37 A
<ul style="list-style-type: none"> <li>at 55 °C rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>at AC rated value</li> </ul>	
suitability for operation	Mechanical engineering / industry
Product details	
product component	Yes
<ul style="list-style-type: none"> <li>combined terminal top</li> </ul>	

<ul style="list-style-type: none"> <li>combined terminal bottom</li> </ul>	Yes
<ul style="list-style-type: none"> <li>neutral conductor switching</li> </ul>	Yes
product feature	
<ul style="list-style-type: none"> <li>properties for main switches in accordance with EN 60204-1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>halogen-free</li> </ul>	Yes
<ul style="list-style-type: none"> <li>sealable</li> </ul>	Yes
<ul style="list-style-type: none"> <li>silicon-free</li> </ul>	Yes
product extension installable supplementary devices	Yes
<b>Short circuit</b>	
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
<b>Connections</b>	
connectable conductor cross-section solid	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>maximum</li> </ul>	35 mm <sup>2</sup>
connectable conductor cross-section stranded	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>maximum</li> </ul>	35 mm <sup>2</sup>
connectable conductor cross-section finely stranded with core end processing	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	0.75 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>maximum</li> </ul>	25 mm <sup>2</sup>
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	18
<ul style="list-style-type: none"> <li>maximum</li> </ul>	4
tightening torque [lbf-in] with screw-type terminals	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	22 lbf-in
<ul style="list-style-type: none"> <li>maximum</li> </ul>	31 lbf-in
tightening torque with screw-type terminals	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	2.5 N·m
<ul style="list-style-type: none"> <li>maximum</li> </ul>	3.5 N·m
position of power supply cord	Any
<b>Mechanical Design</b>	
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	320 g
<b>Environmental conditions</b>	
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
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> </ul>	-25 °C
<ul style="list-style-type: none"> <li>maximum</li> </ul>	55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> <li>minimum</li> </ul>	-40 °C
<ul style="list-style-type: none"> <li>maximum</li> </ul>	75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	6
<b>Certificates</b>	
reference code	
<ul style="list-style-type: none"> <li>according to EN 61346-2</li> </ul>	F
<ul style="list-style-type: none"> <li>according to IEC 81346-2</li> </ul>	F
<b>General Product Approval</b>	<b>Declaration of Conformity</b>



other

[Environmental Confirmations](#)

[Miscellaneous](#)

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=5SY8510-8>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY8510-8>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY8510-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8510-8)

CAX-Online-Generator

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

Tender specifications

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





