



Miniature circuit breaker 230 V 10kA, 1+N-pole, B, 6 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	B
mechanical service life (operating 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>	10 kA
<ul style="list-style-type: none"> <li>according to EN 60898 rated value</li> </ul>	35 kA
<ul style="list-style-type: none"> <li>according to IEC 60947-2 rated value</li> </ul>	3
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	2.1 W
Current	
operational current	6 A
<ul style="list-style-type: none"> <li>at 35 °C rated value</li> </ul>	5.63 A
<ul style="list-style-type: none"> <li>at 40 °C rated value</li> </ul>	5.44 A
<ul style="list-style-type: none"> <li>at 45 °C rated value</li> </ul>	5.24 A
<ul style="list-style-type: none"> <li>at 50 °C rated value</li> </ul>	5.04 A
<ul style="list-style-type: none"> <li>at 55 °C rated value</li> </ul>	4.82 A
<ul style="list-style-type: none"> <li>at 60 °C rated value</li> </ul>	

<ul style="list-style-type: none"> <li>● at AC rated value</li> </ul>	6 A
suitability for operation	Mechanical engineering / industry
<b>Product details</b>	
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
<b>Short circuit</b>	
short-circuit current breaking capacity (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> <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
<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	333 g
<b>Environmental conditions</b>	
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
<b>General Product Approval</b>	

[Confirmation](#)



[Miscellaneous](#)

General Product Approval	EMC	Declaration of Conformity	Test Certificates
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[Miscellaneous](#)

[Special Test Certificate](#)

Marine / Shipping	other
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[Miscellaneous](#)

other	Railway
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[Environmental Conformations](#)

[Vibration and Shock](#)

[Confirmation](#)

**Further information**

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**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=5SY4506-6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4506-6>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4506-6](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4506-6)

**CAx-Online-Generator**

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

**Tender specifications**

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



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