



Miniature circuit breaker 400 V 10kA, 2-pole, B, 80 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	2
design of pole	2P
tripping characteristic class	B
mechanical service life (operating cycles) typical	10 000
overvoltage category	3
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
insulation voltage (Ui)	
<ul style="list-style-type: none"> <li>with single-phase operation at AC rated value</li> <li>with multi-phase operation at AC rated value</li> </ul>	440 V 440 V
<ul style="list-style-type: none"> <li>operational current                             <ul style="list-style-type: none"> <li>at 40 °C rated value</li> <li>at 50 °C rated value</li> <li>at 55 °C rated value</li> <li>at 60 °C rated value</li> </ul> </li> <li>operational current at AC rated value</li> </ul>	76.16 A 72.16 A 70 A 67.84 A 80 A
Supply voltage	
supply voltage	
<ul style="list-style-type: none"> <li>at AC</li> <li>at DC rated value</li> </ul>	400 V 60 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
Breaking Capacity	
switching capacity current	
<ul style="list-style-type: none"> <li>at DC according to IEC 60947-2 rated value</li> <li>according to EN 60898 rated value</li> <li>according to IEC 60947-2 rated value</li> </ul>	15 kA 10 kA 10 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	6.7 W
suitability for operation	Infrastructure / Industry

Product details	
product feature touch protection	Yes
product component	
• combined terminal top	Yes
• combined terminal bottom	Yes
• neutral conductor switching	No
product feature properties for main switches in accordance with EN 60204-1	Yes
product feature halogen-free	Yes
product feature sealable	Yes
product feature silicon-free	Yes
product extension installable supplementary devices	Yes
Product function	
set values setting current (Ii) for I-tripping	4
reference value setting current (Ii) for I-tripping	x I <sub>n</sub>
Short circuit	
short-circuit current breaking capacity (I <sub>cn</sub> )	
• at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
connectable conductor cross-section solid	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section stranded	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section finely stranded with core end processing	
• minimum	0.75 mm <sup>2</sup>
• maximum	25 mm <sup>2</sup>
AWG number as coded connectable conductor cross section	
• minimum	18
• maximum	4
tightening torque [lbf·in] with screw-type terminals	
• minimum	22 lbf·in
• maximum	31 lbf·in
tightening torque with screw-type terminals	
• minimum	2.5 N·m
• maximum	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	DIN rail
mounting position	any
Net Weight	339 g
Environmental conditions	
influence of the surrounding temperature	max. 95% RH up to 55°C, max. 55% RH up to 70°C, max. 35% RH up to 75°C
standard	IEC / EN 60947-2
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	
• minimum	-40 °C
• maximum	70 °C
ambient temperature during storage	
• minimum	-40 °C
• maximum	75 °C

number of test cycles for environmental testing according to IEC 60068-2-30

6

#### Approvals Certificates

Environment

General Product Approval

[Environmental Confirmations](#)



[Environmental Confirmations](#)

[Miscellaneous](#)



[Confirmation](#)

General Product Approval

Test Certificates

other



[Special Test Certificate](#)

[Miscellaneous](#)



[Confirmation](#)

Railway

[Special Test Certificate](#)

[Confirmation](#)

#### Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SY4280-6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4280-6>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4280-6](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4280-6)

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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