



Miniature circuit breaker 400 V D=70 mm 25 kA according to EN 60947-2, 3P+N, C16

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	4
design of pole	3P+N
tripping characteristic class	C
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> )	
• with single-phase operation at AC rated value	440 V
• with multi-phase operation at AC rated value	440 V
supply voltage with single-phase operation at AC rated value	230 V
Supply voltage	
supply voltage	
• at AC rated value	400 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	
• at DC according to IEC 60947-2 rated value	15 kA
• according to IEC 60947-2 rated value	30 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	1.6 W
Current	
operational current	
• at 45 °C rated value	16 A
• at 50 °C rated value	15.5 A
• at 55 °C rated value	14.99 A
• at AC rated value	16 A
suitability for operation	Mechanical engineering / industry
Product details	
product component	

<ul style="list-style-type: none"> <li>• combined terminal top</li> </ul>	Yes
<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

### Short circuit

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

### Connections

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

### Mechanical Design

height	90 mm
width	72 mm
depth	76 mm
installation depth	70 mm
number of modular width units	4
fastening method	Quick assembly system
mounting position	any
net weight	608 g

### Environmental conditions

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

### General Product Approval

### Declaration of Conformity

[Confirmation](#)



[Miscellaneous](#)



[Miscellaneous](#)

[Environmental Confirmations](#)

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=5SY8616-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY8616-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY8616-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8616-7)

**CAX-Online-Generator**

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

**Tender specifications**

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





