



Miniature circuit breaker 230/400 V 10kA, 1-pole, D, 0.5 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	D
mechanical service life (operating cycles) typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC
<b>insulation voltage (Ui)</b>	
• 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
operational current	
• at 40 °C rated value	0.47 A
• at 50 °C rated value	0.44 A
• at 55 °C rated value	0.42 A
• at 60 °C rated value	0.4 A
• at AC rated value	0.5 A
Supply voltage	
supply voltage	
• at AC	400 V
value range of the supply voltage frequency	50/60 Hz
Protection class	
protection class IP	IP20, with connected conductors
Breaking Capacity	
switching capacity current	
• at DC according to IEC 60947-2 rated value	15 kA
• according to EN 60898 rated value	10 kA
• according to IEC 60947-2 rated value	35 kA
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	0.8 W
suitability for operation	Infrastructure / Industry
Product details	
product feature touch protection	Yes
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>	No
<b>product feature</b>	
<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>Product function</b>	
set values setting current (Ii) for I-tripping	13,5
reference value setting current (Ii) for I-tripping	x In
<b>Short circuit</b>	
short-circuit current breaking capacity (Icn)	
<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	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
<b>fastening method</b>	Quick assembly system
mounting position	any
net weight	166 g
<b>Environmental conditions</b>	
standard	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> </ul>	-40 °C
<ul style="list-style-type: none"> <li>maximum</li> </ul>	70 °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>Environmental footprint</b>	
Environmental Product Declaration (EPD)	Yes
Global Warming Potential [CO2 eq] total	13.3 kg
Global Warming Potential [CO2 eq] during manufacturing	0.713 kg

Global Warming Potential [CO2 eq] during operation	12.7 kg
Global Warming Potential [CO2 eq] after end of life	-0.062 kg

### Approvals Certificates

#### General Product Approval



[Confirmation](#)



General Product Approval	EMV	Test Certificates
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[Miscellaneous](#)



[Miscellaneous](#)



[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Special Test Certificate](#)



other	Railway	Environment
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[Confirmation](#)

[Miscellaneous](#)

[Special Test Certificate](#)

[Confirmation](#)



[Environmental Confirmations](#)

#### Environment

[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=5SY4105-8>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/5SY4105-8>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4105-8](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4105-8)
- CAX-Online-Generator  
<http://www.siemens.com/cax>
- Tender specifications  
<http://www.siemens.com/specifications>



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