## **SIEMENS**

Data sheet 5SY5150-7



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 50 A

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	C
mechanical service life (operating cycles) typical	5 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC/DC
insulation voltage (Ui)	
<ul> <li>at DC rated value</li> </ul>	250 V
<ul> <li>with single-phase operation at AC rated value</li> </ul>	440 V
<ul> <li>with multi-phase operation at AC rated value</li> </ul>	440 V
supply voltage with single-phase operation at AC rated value	230 V
Supply voltage	
supply voltage	
<ul> <li>at AC rated value</li> </ul>	400 V
<ul> <li>at DC rated value</li> </ul>	220 V
value range of the supply voltage frequency	50/60 Hz
operating voltage at DC rated value maximum	250 V
Protection class	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	
<ul> <li>at DC according to IEC 60947-2 rated value</li> </ul>	15 kA
<ul> <li>according to EN 60898 rated value</li> </ul>	10 kA
energy limitation class	3
Dissipation	
power loss [W] for rated value of the current at AC in hot operating state per pole	3.8 W
Current	
operational current	
• at 35 °C rated value	50 A
<ul> <li>at 40 °C rated value</li> </ul>	47.6 A
<ul> <li>at 45 °C rated value</li> </ul>	46.35 A
<ul> <li>at 50 °C rated value</li> </ul>	45.1 A

<ul> <li>at 55 °C rated value</li> </ul>	43.75 A
<ul> <li>at 60 °C rated value</li> </ul>	42.4 A
at AC rated value	50 A
suitability for operation	universal current
Product details	
product component	
combined terminal top	Yes
<ul> <li>combined terminal bottom</li> </ul>	Yes
<ul> <li>neutral conductor switching</li> </ul>	No
product feature	
<ul> <li>properties for main switches in accordance with EN 60204-1</li> </ul>	Yes
• halogen-free	Yes
sealable	Yes
• silicon-free	Yes
product extension installable supplementary devices	Yes
Short circuit	
short-circuit current breaking capacity (Icn)	
at DC according to EN 60898-2	10 kA
Connections	
connectable conductor cross-section solid	0.75 *****
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm²
connectable conductor cross-section stranded	0.75 3
• minimum	0.75 mm²
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section finely stranded with core end processing	0.752
• minimum	0.75 mm <sup>2</sup>
• maximum	25 mm²
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	0.5.11
• minimum	2.5 N·m
• maximum	3.5 N·m
position of power supply cord	AC as required, observe DC polarity
Mechanical Design	
height	90 mm
width	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
fastening method	Quick assembly system
mounting position	any
net weight	172 g
Environmental conditions	050/ 1 5500
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
standard	IEC / EN 60898-2, UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s² at 25 to 150Hz
ambient temperature during operation	40 °C
• minimum	-40 °C
maximum  ambient temperature during storage	70 °C
ambient temperature during storage	40 °C
• minimum	-40 °C 75 °C
maximum  number of test cycles for anyironmental testing according.	6
number of test cycles for environmental testing according to IEC 60068-2-30	
General Product Approval	











General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping

**Miscellaneous** 





**Miscellaneous** 

Special Test Certificate



other Railway Dangerous Good

Environmental Confirmations <u>Miscellaneous</u>

Vibration and Shock

Confirmation

<u>Transport Information</u>

## **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=5SY5150-7

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

https://support.industry.siemens.com/cs/ww/en/ps/5SY5150-7

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

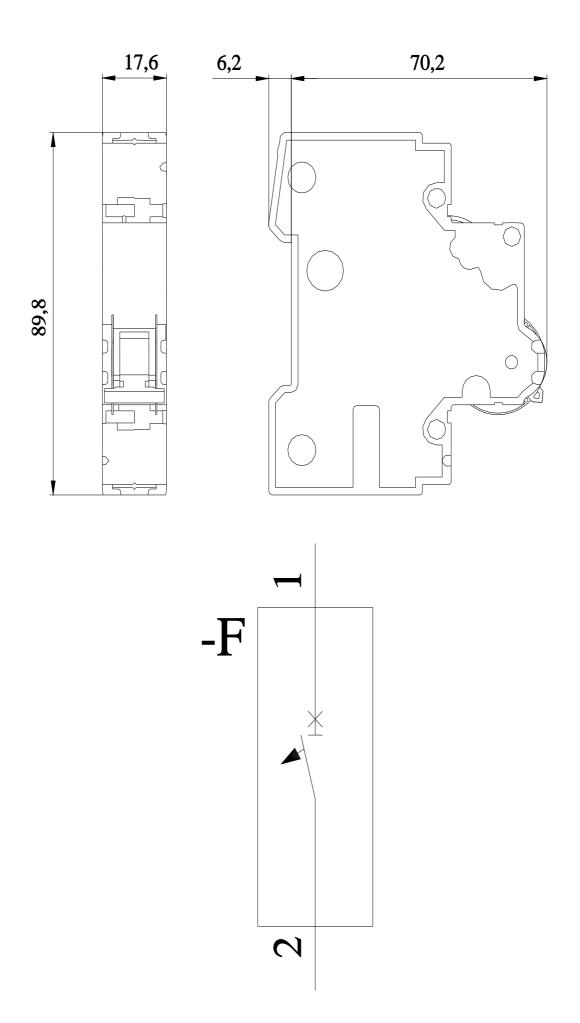
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY5150-7

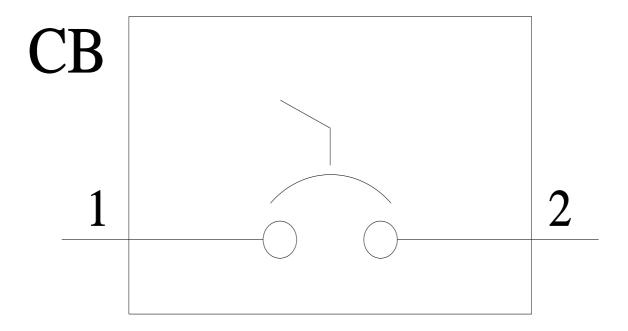
CAx-Online-Generator

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications





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