## **SIEMENS**

Data sheet 5SY4501-5



Miniature circuit breaker 230 V 10kA, 1+N-pole, A, 1 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	A	
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 (Ui)		
with single-phase operation at AC rated value	250 V	
supply voltage with single-phase operation at AC rated value	230 V	
operational current		
<ul> <li>at 40 °C rated value</li> </ul>	0.95 A	
<ul> <li>at 50 °C rated value</li> </ul>	0.9 A	
at 55 °C rated value	0.88 A	
• at 60 °C rated value	0.85 A	
at AC rated value	1 A	
Supply voltage		
supply voltage		
at AC rated value	230 V	
at DC rated value	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> <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	
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	2.1 W	
Product details		
product component		
<ul> <li>combined terminal top</li> </ul>	Yes	

<ul> <li>combined terminal bottom</li> </ul>	Yes
neutral conductor switching	Yes
product feature	
<ul> <li>properties for main switches in accordance with EN 60204-1</li> </ul>	Yes
<ul> <li>halogen-free</li> </ul>	Yes
• sealable	Yes
• silicon-free	Yes
product extension installable supplementary devices	Yes
Product function	
set values setting current (li) for I-tripping	2,5
reference value setting current (Ii) for I-tripping	x In
Short circuit	
short-circuit current breaking capacity (Icn)	
• at AC according to UL 1077 and CSA C22.2 No.235	5 kA
Connections	
connectable conductor cross-section solid	
	0.752
• minimum	0.75 mm²
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section stranded	0.752
• minimum	0.75 mm²
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section finely stranded with core end processing	
minimum	0.75 mm²
• 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	
• 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	Quick assembly system
mounting position	any
net weight	328 g
Environmental conditions	
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
standard	
	IEC / EN 60898-1, IEC / EN 60947-2 / 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	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	
General Product Approval	





Confirmation







General Product Approval Test Certificates Marine / Shipping

**Miscellaneous** 

EAC

Miscellaneous

Special Test Certificate Miscellaneous



Marine / Shipping other Railway Environment

Lloyd's Register **Confirmation** 

**Miscellaneous** 

Confirmation

Environmental Confirmations

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=5SY4501-5

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

https://support.industry.siemens.com/cs/ww/en/ps/5SY4501-5

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

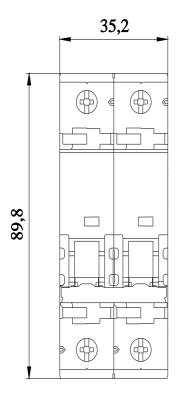
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=5SY4501-5

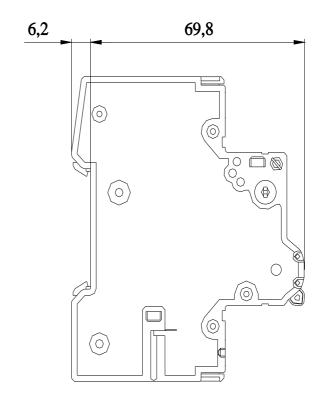
**CAx-Online-Generator** 

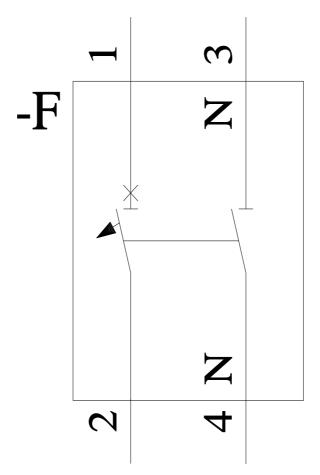
http://www.siemens.com/cax

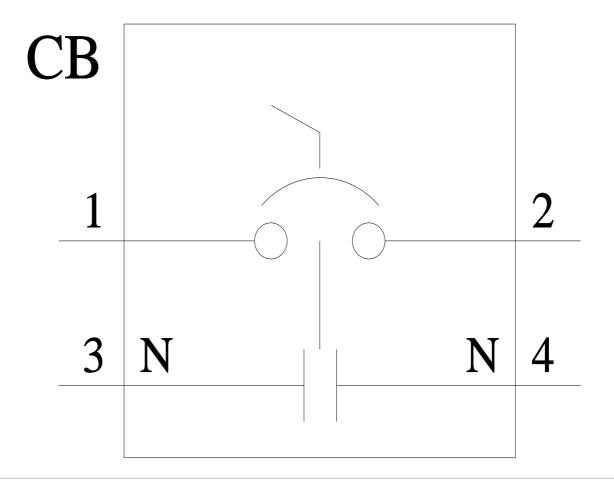
Tender specifications

http://www.siemens.com/specifications









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