



Miniature circuit breaker 400 V 10kA, 4-pole, C, 50 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	4
design of pole	4P
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 _i)	
• 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
• 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
Switching 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	15 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
• at 40 °C rated value	48 A
• at 45 °C rated value	47 A
• at 50 °C rated value	45.95 A

<ul style="list-style-type: none"> • at 55 °C rated value • at 60 °C rated value • at AC rated value 	<p>44.9 A 43.8 A 50 A</p>
suitability for operation	Mechanical engineering / industry
Product details	
product component	
<ul style="list-style-type: none"> • combined terminal top • combined terminal bottom • neutral conductor switching 	<p>Yes Yes No</p>
product feature	
<ul style="list-style-type: none"> • properties for main switches in accordance with EN 60204-1 • halogen-free • sealable • silicon-free 	<p>Yes Yes Yes Yes</p>
product extension installable supplementary devices	Yes
Short circuit	
short-circuit current breaking capacity (I _{cn})	
<ul style="list-style-type: none"> • at AC according to UL 1077 and CSA C22.2 No.235 	5 kA
Connections	
connectable conductor cross-section solid	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.75 mm² 35 mm²</p>
connectable conductor cross-section stranded	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.75 mm² 35 mm²</p>
connectable conductor cross-section finely stranded with core end processing	
<ul style="list-style-type: none"> • minimum • maximum 	<p>0.75 mm² 25 mm²</p>
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • minimum • maximum 	<p>18 4</p>
tightening torque [lbf-in] with screw-type terminals	
<ul style="list-style-type: none"> • minimum • maximum 	<p>22 lbf-in 31 lbf-in</p>
tightening torque with screw-type terminals	
<ul style="list-style-type: none"> • minimum • maximum 	<p>2.5 N·m 3.5 N·m</p>
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	644 g
Environmental conditions	
influence of the surrounding temperature standard	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-1, IEC / EN 60947-2 / UL1077
vibration resistance according to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s ² at 25 to 150Hz
ambient temperature during operation	
<ul style="list-style-type: none"> • minimum • maximum 	<p>-40 °C 70 °C</p>
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum • maximum 	<p>-40 °C 75 °C</p>
number of test cycles for environmental testing according to IEC 60068-2-30	6
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)

General Product Approval

EMC

Declaration of Conformity

[KC](#)



[Miscellaneous](#)



EG-Konf.

Test Certificates

Marine / Shipping

[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping

other

Railway



[Miscellaneous](#)

[Confirmation](#)

[Environmental Conformations](#)

[Confirmation](#)

[Vibration and Shock](#)

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=5SY4450-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4450-7>

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

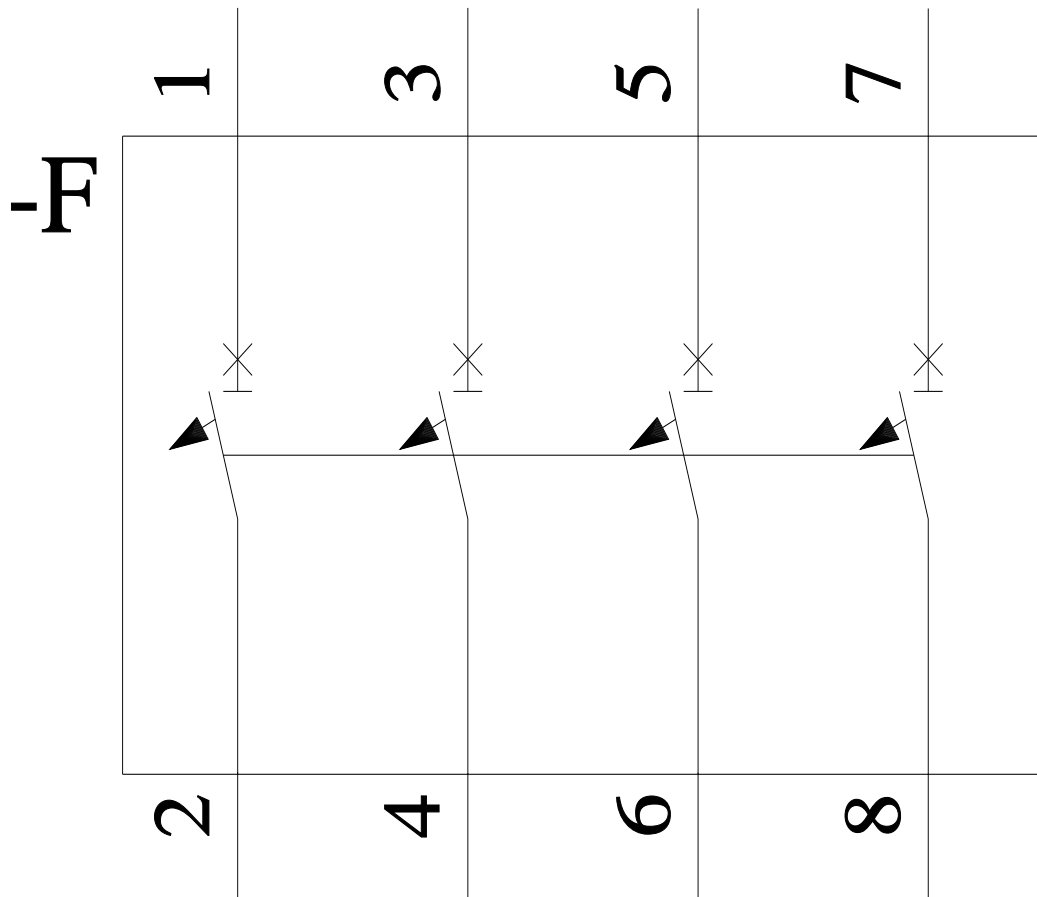
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4450-7

CAX-Online-Generator

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

Tender specifications

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



CB

