



Circuit breaker Universal current 440 V DC 400 V AC 10kA, 2-pole, C, 50 A

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	2
design of pole	2P
tripping characteristic class	C
mechanical service life (switching cycles) / typical	5 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage / of the operating voltage	AC/DC
insulation voltage (U _i)	
• at DC / rated value	250 V
• with single-phase operation / at AC / rated value	440 V
• with multi-phase operation / at AC / rated value	440 V
Supply voltage	
supply voltage	
• at AC / rated value	400 V
• at DC / rated value	440 V
value range / of the supply voltage frequency	50/60 Hz
operating voltage / at DC / rated value / maximum	500 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
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	47.6 A
• at 45 °C / rated value	46.35 A
• at 50 °C / rated value	45.1 A
• at 55 °C / rated value	43.75 A

<ul style="list-style-type: none"> at 60 °C / rated value 	42.4 A
<ul style="list-style-type: none"> at AC / rated value 	50 A
suitability for operation	universal current
Product details	
product component	
<ul style="list-style-type: none"> combined terminal top 	Yes
<ul style="list-style-type: none"> combined terminal bottom 	Yes
<ul style="list-style-type: none"> neutral conductor switching 	No
product feature	
<ul style="list-style-type: none"> properties for main switches in accordance with EN 60204-1 	Yes
<ul style="list-style-type: none"> halogen-free 	Yes
<ul style="list-style-type: none"> sealable 	Yes
<ul style="list-style-type: none"> silicon-free 	Yes
product extension / installable / supplementary devices	Yes
Short circuit	
breaking capacity short-circuit current (I _{cn})	
<ul style="list-style-type: none"> at DC / according to EN 60898-2 	10 kA
Connections	
connectable conductor cross-section / solid	
<ul style="list-style-type: none"> minimum 	0.75 mm ²
<ul style="list-style-type: none"> maximum 	35 mm ²
connectable conductor cross-section / stranded	
<ul style="list-style-type: none"> minimum 	0.75 mm ²
<ul style="list-style-type: none"> maximum 	35 mm ²
connectable conductor cross-section / finely stranded / with core end processing	
<ul style="list-style-type: none"> minimum 	0.75 mm ²
<ul style="list-style-type: none"> maximum 	25 mm ²
AWG number / as coded connectable conductor cross section	
<ul style="list-style-type: none"> minimum 	18
<ul style="list-style-type: none"> maximum 	4
tightening torque [lbf-in] / with screw-type terminals	
<ul style="list-style-type: none"> minimum 	22 lbf-in
<ul style="list-style-type: none"> maximum 	31 lbf-in
tightening torque / with screw-type terminals	
<ul style="list-style-type: none"> minimum 	2.5 N·m
<ul style="list-style-type: none"> maximum 	3.5 N·m
position / of power supply cord	AC as required, observe DC polarity
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	337 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 60898-2, 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 	-40 °C
<ul style="list-style-type: none"> maximum 	70 °C
ambient temperature / during storage	
<ul style="list-style-type: none"> minimum 	-40 °C
<ul style="list-style-type: none"> maximum 	75 °C
number of test cycles / for environmental testing /	6

according to IEC 60068-2-30

Certificates

reference code

- according to EN 61346-2
- according to IEC 81346-2

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General Product Approval

[Confirmation](#)



[Miscellaneous](#)



General Product Approval

Declaration of Conformity

Test Certificates

Marine / Shipping

[Miscellaneous](#)



[Miscellaneous](#)

[Special Test Certificate](#)



other

Railway

Dangerous Good

[Environmental Confirmations](#)

[Miscellaneous](#)

[Vibration and Shock](#)

[Confirmation](#)

[Transport Information](#)

Further information

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=5SY5250-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5250-7>

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

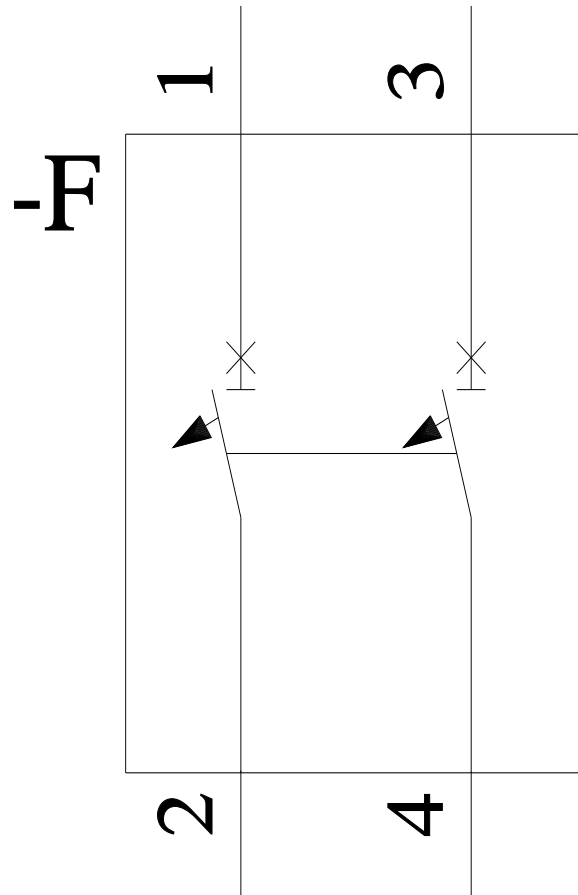
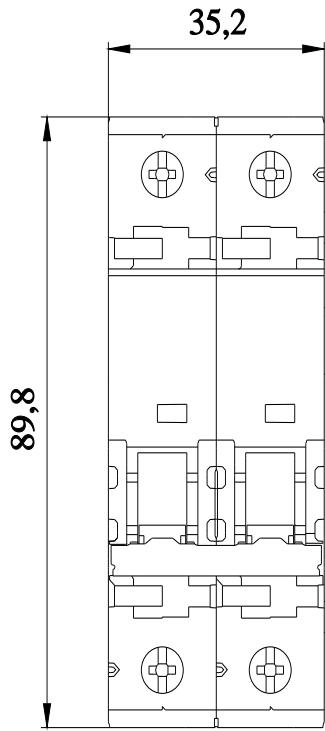
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5250-7

CAX-Online-Generator

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

Tender specifications

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



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