



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
number of poles / note	2P
tripping characteristic class	C
mechanical service life (switching cycles) / typical	5 000
overvoltage category	III
degree of pollution	3
Voltage	
insulation voltage	
• 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	
type of voltage	AC/DC
supply voltage	
• at AC / rated value	400 V
• at DC / rated value	440 V
operating voltage / at DC / rated value / maximum	500 V
supply voltage frequency / rated value	50/60 Hz
Protection class	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. 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

<ul style="list-style-type: none"> • at 50 °C / rated value • at 55 °C / rated value • at 60 °C / rated value • at AC / rated value 	45.1 A 43.75 A 42.4 A 50 A
suitability for operation	universal current
Product details	
product function / neutral conductor switching	No
product feature / touch protection	Yes
product component <ul style="list-style-type: none"> • combined terminal top • combined terminal bottom 	Yes Yes
product feature <ul style="list-style-type: none"> • properties for main switches in accordance with EN 60204-1 • halogen-free • sealable • silicon-free 	Yes Yes Yes Yes
product extension / installable / supplementary devices	Yes
Short circuit	
breaking capacity short-circuit current (I _{cn}) <ul style="list-style-type: none"> • at DC / acc. to EN 60898-2 	10 kA
Connections	
connectable conductor cross-section / solid <ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 35 mm ²
connectable conductor cross-section / stranded <ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 35 mm ²
connectable conductor cross-section / finely stranded / with core end processing <ul style="list-style-type: none"> • minimum • maximum 	0.75 mm ² 25 mm ²
AWG number / as coded connectable conductor cross section <ul style="list-style-type: none"> • minimum • maximum 	18 4
tightening torque [lbf·in] / with screw-type terminals <ul style="list-style-type: none"> • minimum • maximum 	22 lbf·in 31 lbf·in
tightening torque / with screw-type terminals <ul style="list-style-type: none"> • minimum • maximum 	2.5 N·m 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
vibration resistance / acc. 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 	-40 °C 70 °C

ambient temperature / during storage	
<ul style="list-style-type: none"> • minimum • maximum 	<p>-40 °C</p> <p>75 °C</p>
number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6

Certificates

reference code	
<ul style="list-style-type: none"> • acc. to DIN EN 61346-2 • acc. to IEC 81346-2 	<p>F</p> <p>F</p>

General Product Approval	Declaration of Conformity
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[Miscellaneous](#)



Test Certificates	Railway
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[Miscellaneous](#)

[Special Test Certificate](#)

[Confirmation](#)

[Vibration and Shock](#)

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>

