

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
circuit-breaker / Design	5SY5
Mechanical service life (switching cycles) / typical	10 000
Overvoltage category	III
Voltage	
Type of voltage	AC/DC
Insulation voltage	
• at DC / rated value	250 V
• with multi-phase operation / at AC / rated value	440 V
Supply voltage	
Supply voltage	
• at AC / rated value	400 V

Supply voltage frequency	
• rated value	50/60 Hz
Protection class	
Protection class IP	IP20, with connected conductors
Energy limiting class	3
Switching capacity	
Switching capacity current	
• at DC / acc. to IEC 60947-2 / rated value	15 kA
• acc. to EN 60898 / rated value	10 kA
Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.8 W
Electricity	
Current / at AC / rated value	50 A
Suitability for operation	universal current
Product details	
Product feature / Touch protection	Yes
Product component	
• combined terminal top	Yes
• combined terminal bottom	Yes
Product feature	
• Properties for main switches in accordance with EN 60204-1	Yes
• halogen-free	Yes
• sealable	Yes
• silicon-free	Yes
Product extension / can be installed / supplementary devices	Yes
Product function	
Product function / neutral conductor switching	No
Short circuit	
Breaking capacity short-circuit current (I _{cn})	
• at DC / acc. to EN 60898-2	10 kA
Number	
Number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6
Connections	
Connectable conductor cross-section / stranded	
• minimum	0.75 mm ²

• maximum	35 mm ²
Connectable conductor cross-section	
• solid — minimum — maximum • finely stranded / with core end processing — minimum — maximum	0.75 mm ² 35 mm ² 0.75 mm ² 25 mm ²
AWG number / as coded connectable conductor cross section	
• minimum • maximum	14 4
Tightening torque [lbf·in] / with screw-type terminals	
• minimum • maximum	22 lbf·in 26 lbf·in
Tightening torque / with screw-type terminals	
• minimum • maximum	2.5 N·m 3 N·m
Position / of power supply cord	AC as required, observe DC polarity

Mechanical Design

Height	90 mm
Width	36 mm
Depth	76 mm
Mounting position	any
Installation depth	70 mm
Number of width units	2
Mounting type	Quick assembly system
Net weight	337 g

Environmental conditions

Degree of pollution	3
Influence of the surrounding temperature	Max. 95% humidity
Vibration resistance / acc. to IEC 60068-2-6	50m/s ² at 25 to 150Hz and 60m/s ² at 35Hz (4sec)
Ambient temperature	
• minimum • maximum • during storage / minimum • during storage / maximum	-25 °C 55 °C -40 °C 75 °C

Certificates

Reference code	
• acc. to DIN EN 61346-2	F

General Product Approval			Declaration of Conformity	Test Certificates
 CCC	 UR	 VDE	Miscellaneous	 EG-Konf.
				Miscellaneous

Railway	
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>

