

MINIATURE CIRCUIT-BREAKER UNIV. CUR. DC 220V AC
230/400V 10KA, 1-POLE, C, 20A FOR RAILWAY APPLICATIONS



Model	
product brandname	SENTRON
Product designation	5SY miniature circuit breaker
Design of the product	5SY miniature circuit breakers
General technical data	
Number of poles	1
Number of poles / Note	1P
Tripping characteristic class	C
circuit-breaker / Design	5SY5
Mechanical service life (switching cycles) / typical	20 000
Overvoltage category	3
Voltage	
Type of voltage	AC/DC
Insulation voltage	
• at DC / rated value	250 V
• with single-phase operation / at AC / rated value	250 V
• with multi-phase operation / at AC / rated value	440 V

Supply voltage	
Supply voltage / at AC / rated value	400 V
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	1.7 W
• maximum	1.7 W
Electricity	
Current / at AC / rated value	20 A
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

Mechanical Design

Height	90 mm
Width	18 mm
Depth	76 mm
Mounting position	any
Installation depth	70 mm
Number of width units	1
Mounting type	Quick assembly system
Net weight	165 g

Environmental conditions

Influence of the surrounding temperature	Max. 95% humidity
Shock resistance / acc. to IEC 60068-2-27	150m/s ² at 11ms half-sine
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	-40 °C 70 °C -40 °C 75 °C

Certificates

Equipment marking / acc. to DIN EN 61346-2	F
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General Product Approval			Declaration of Conformity	Test Certificates
 CCC	 VDE		sonstig	 EG-Konf.

other
sonstig

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/5SY5120-7KK11>

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

<http://support.automation.siemens.com/WW/view/en/5SY5120-7KK11/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5120-7KK11

CAX-Online-Generator

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

Tender specifications

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



