

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
Number of poles / Note	4P
Tripping characteristic class	C
circuit-breaker / Design	5SY4
Mechanical service life (switching cycles) / typical	20 000
Overvoltage category	III
Voltage	
Type of voltage	AC/DC
Insulation voltage	440 V
• with multi-phase operation / at AC / rated value	
Supply voltage	
Supply voltage	400 V
• at AC / rated value	
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
• acc. to IEC 60947-2 / rated value	15 kA
Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	3.8 W
Electricity	
Tripping residual / rated value / derated current / at 40 Cel	48 A
Current / at AC / rated value	50 A
Suitability for operation	Mechanical engineering / industry
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 AC / acc. to UL 1077 and CSA C22.2 No.235	5 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	Any

Mechanical Design

Height	90 mm
Width	72 mm
Depth	76 mm
Mounting position	any
Installation depth	70 mm
Number of width units	4
Mounting type	Quick assembly system
Net weight	644 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
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General Product Approval



CCC



IMQ



UR



VDE



RCM

[Miscellaneous](#)

General Product Approval	Declaration of Conformity	Test Certificates	Shipping Approval
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[KC](#)



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS

Shipping Approval	Railway
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LRS



RINA

[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=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>





