

Miniature circuit breaker 230/400 V 10kA, 1-pole, C, 20 A, D=70 mm



Model	
Product brand name	SENTRON
Product designation	Miniature circuit breaker
General technical data	
Number of poles	1
Number of poles / Note	1P
Tripping characteristic class	C
circuit-breaker / Design	5SY4
Mechanical service life (switching cycles) / typical	10 000
Overvoltage category	III
Voltage	
Insulation voltage	
<ul style="list-style-type: none"> with single-phase operation / at AC / rated value 	440 V
<ul style="list-style-type: none"> with multi-phase operation / at AC / rated value 	440 V
Supply voltage / with single-phase operation / at AC / rated value	230 V
Supply voltage	

Type of voltage	AC
Current / at AC / rated value	20 A
Supply voltage	
• at AC / rated value	400 V
Operating voltage	
• at DC / rated value / maximum	72 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
• acc. to IEC 60947-2 / rated value	20 kA
Energy limiting class	3

Dissipation	
Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole	1.7 W

Current	
Tripping residual / rated value / derated current / at 40 Cel	18.78 A
Suitability for operation	Mechanical engineering / industry

Product details	
Product function / neutral conductor switching	No
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

Short circuit	
Breaking capacity short-circuit current (I _{cn})	
• at AC / acc. to UL 1077 and CSA C22.2 No.235	5 kA

Connections	
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
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
Position / of power supply cord	Any

Mechanical Design

Height	90 mm
Width	18 mm
Depth	76 mm
Installation depth	70 mm
Number of width units	1
Mounting type	Quick assembly system
Mounting position	any
Net weight	162 g

Environmental conditions

Influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
Ambient temperature	
<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 / acc. to IEC 60068-2-30	6

Certificates

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

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=5SY4120-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4120-7>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4120-7

CAX-Online-Generator

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

Tender specifications

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



