



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 20A

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	1
design of pole	1P
tripping characteristic class	C
mechanical service life (operating cycles) typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage of the operating voltage	AC/DC
insulation voltage (Ui)	
• 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 with single-phase operation at AC rated value	230 V
Supply voltage	
supply voltage	
• at AC rated value	400 V
• at DC rated value	220 V
value range of the supply voltage frequency	50/60 Hz
operating voltage at DC rated value maximum	250 V
Protection class	
protection class IP	IP20, with connected conductors
Switching capacity	
switching capacity current	
• at DC according to IEC 60947-2 rated value	15 kA
• according 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	1.7 W
Current	
operational current	
• at 35 °C rated value	20 A
• at 40 °C rated value	18.78 A
• at 45 °C rated value	18.14 A
• at 50 °C rated value	17.48 A

<ul style="list-style-type: none"> • at 55 °C rated value • at 60 °C rated value • at AC rated value 	16.8 A 16.08 A 20 A
suitability for operation	universal current
Product details	
product component	
<ul style="list-style-type: none"> • combined terminal top • combined terminal bottom • neutral conductor switching 	Yes Yes No
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	
short-circuit current breaking capacity (I _{cn})	
<ul style="list-style-type: none"> • at DC according 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	18 mm
depth	76 mm
installation depth	70 mm
number of modular width units	1
fastening method	Quick assembly system
mounting position	any
net weight	167 g
Environmental conditions	
influence of the surrounding temperature standard	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C IEC / EN 60898-2, UL1077
vibration resistance according 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 	-40 °C 75 °C
number of test cycles for environmental testing according to IEC 60068-2-30	6
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)



General Product Approval	Declaration of Conformity	Test Certificates		Marine / Shipping
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[Miscellaneous](#)



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)



LRS

other	Railway	Dangerous Good	Environment
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[Miscellaneous](#)

[Confirmation](#)

[Confirmation](#)

[Vibration and Shock](#)

[Transport Information](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=5SY5120-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5120-7>

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

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

CAX-Online-Generator

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

Tender specifications

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



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