



Circuit breaker Universal current 220 V DC 230/400 V AC 10kA, 1-pole, C, 03A

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
operational current	
• at 40 °C rated value	2.82 A
• at 50 °C rated value	2.62 A
• at 55 °C rated value	2.52 A
• at 60 °C rated value	2.41 A
• at AC rated value	3 A
Supply voltage	
supply voltage	
• at AC	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
Breaking 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	1.3 W
suitability for operation	Infrastructure / Industry / Mobility

Product details	
product feature touch protection	Yes
product component	
<ul style="list-style-type: none"> combined terminal top 	Yes
<ul style="list-style-type: none"> combined terminal bottom 	Yes
<ul style="list-style-type: none"> neutral conductor switching 	No
product feature	
<ul style="list-style-type: none"> properties for main switches in accordance with EN 60204-1 	Yes
<ul style="list-style-type: none"> halogen-free 	Yes
<ul style="list-style-type: none"> sealable 	Yes
<ul style="list-style-type: none"> silicon-free 	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 	0.75 mm ²
<ul style="list-style-type: none"> maximum 	35 mm ²
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
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> minimum 	18
<ul style="list-style-type: none"> maximum 	4
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
tightening torque with screw-type terminals	
<ul style="list-style-type: none"> minimum 	2.5 N·m
<ul style="list-style-type: none"> maximum 	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	165 g
Environmental conditions	
standard	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 	-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 according to IEC 60068-2-30	6
Environmental footprint	
Environmental Product Declaration (EPD)	Yes
Global Warming Potential [CO ₂ eq] total	13.3 kg
Global Warming Potential [CO ₂ eq] during manufacturing	0.73 kg

Global Warming Potential [CO2 eq] during operation	12.7 kg
Global Warming Potential [CO2 eq] after end of life	-0.069 kg

Approvals Certificates

General Product Approval



[Confirmation](#)



General Product Approval

Test Certificates

Marine / Shipping

other

[Miscellaneous](#)



[Miscellaneous](#)

[Special Test Certificate](#)



[Confirmation](#)

other

Railway

Dangerous goods

Environment

[Miscellaneous](#)

[Special Test Certificate](#)

[Confirmation](#)

[Transport Information](#)



Environment

[Environmental Confirmations](#)

[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=5SY5103-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5103-7>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5103-7

CAX-Online-Generator

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

Tender specifications

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



CB



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