



Miniature circuit breaker 400 V 10kA, 2-pole, C, 20 A, D=70 mm

Model	
product brand name	SENTRON
product designation	Miniature circuit breaker
General technical data	
number of poles	2
design of pole	2P
tripping characteristic class	C
mechanical service life (switching cycles) / typical	10 000
overvoltage category	III
degree of pollution	3
Voltage	
type of voltage / of the operating voltage	AC
insulation voltage (Ui)	
• 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
operating voltage / at DC / rated value / maximum	72 V
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 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 45 °C / rated value	18.14 A
• at 50 °C / rated value	17.48 A
• at 55 °C / rated value	16.8 A
• at 60 °C / rated value	16.08 A

• at AC / rated value	20 A
suitability for operation	Mechanical engineering / industry
<b>Product details</b>	
product component / 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
product extension / installable / supplementary devices	Yes
<b>Short circuit</b>	
breaking capacity short-circuit current (I <sub>cn</sub> )	
• at AC / acc. to UL 1077 and CSA C22.2 No.235	5 kA
<b>Connections</b>	
connectable conductor cross-section / solid	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section / stranded	
• minimum	0.75 mm <sup>2</sup>
• maximum	35 mm <sup>2</sup>
connectable conductor cross-section / finely stranded / with core end processing	
• minimum	0.75 mm <sup>2</sup>
• maximum	25 mm <sup>2</sup>
AWG number / as coded connectable conductor cross section	
• minimum	18
• maximum	4
tightening torque [lbf·in] / with screw-type terminals	
• minimum	22 lbf·in
• maximum	31 lbf·in
tightening torque / with screw-type terminals	
• minimum	2.5 N·m
• maximum	3.5 N·m
position / of power supply cord	Any
<b>Mechanical Design</b>	
height	90 mm
width	36 mm
depth	76 mm
installation depth	70 mm
number of modular width units	2
fastening method	Quick assembly system
mounting position	any
net weight	318 g
<b>Environmental conditions</b>	
influence of the surrounding temperature	max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C
vibration resistance / acc. to IEC 60068-2-6	±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz
ambient temperature / during operation	
• minimum	-40 °C
• maximum	70 °C
ambient temperature / during storage	
• minimum	-40 °C
• maximum	75 °C
number of test cycles / for environmental testing / acc. to IEC 60068-2-30	6

## Certificates

reference code

- acc. to DIN EN 61346-2
- acc. to IEC 81346-2

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### General Product Approval



[Miscellaneous](#)

[KC](#)

General Product Approval

EMC

Declaration of Conformity

Test Certificates

Marine / Shipping



[Miscellaneous](#)

[Special Test Certificate](#)



Marine / Shipping

other

Railway



[Miscellaneous](#)

[Confirmation](#)

Railway

[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=5SY4220-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4220-7>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4220-7](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4220-7)

CAX-Online-Generator

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

Tender specifications

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



