



Circuit breaker Universal current 440 V DC 400 V AC 10kA, 2-pole, C, 20A

| 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/DC |
| insulation voltage (U _i) | |
| • 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 | |
| supply voltage | |
| • at AC / rated value | 400 V |
| • at DC / rated value | 440 V |
| value range / of the supply voltage frequency | 50/60 Hz |
| operating voltage / at DC / rated value / maximum | 500 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 |
| • at 55 °C / rated value | 16.8 A |

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| <ul style="list-style-type: none"> at 60 °C / rated value at AC / rated value | 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 | |
| breaking capacity short-circuit current (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 | 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 | 324 g |
| Environmental conditions | |
| influence of the surrounding temperature | max. 95% to 55°C, max. 55% to 70°C, max. 35% to 75°C |
| 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 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 / | 6 |

according to IEC 60068-2-30

Certificates

reference code

- according to EN 61346-2
- according to IEC 81346-2

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General Product Approval

[Confirmation](#)



[Miscellaneous](#)



General Product Approval

Declaration of Conformity

Test Certificates

Marine / Shipping

[Miscellaneous](#)



[Special Test Certificate](#)

[Miscellaneous](#)



other

Railway

Dangerous Good

[Environmental Confirmations](#)

[Miscellaneous](#)

[Confirmation](#)

[Vibration and Shock](#)

[Transport Information](#)

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=5SY5220-7>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5220-7>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5220-7

CAX-Online-Generator

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

Tender specifications

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



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