



MCB 5SY5 CRH 220V DC 10KA 1P C13

| Model | |
|---|--------------------------------------|
| product brand name | SENTRON |
| product designation | Miniature circuit breaker |
| design of the product | For railway applications |
| 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 | 3 |
| degree of pollution | 3 |
| Voltage | |
| type of voltage of the operating voltage | DC |
| insulation voltage (Ui) | |
| • at DC rated value | 220 V |
| • operational current | |
| — at 40 °C rated value | 11.57 A |
| — at 50 °C rated value | 9.93 A |
| — at 55 °C rated value | 9 A |
| — at 60 °C rated value | 7.96 A |
| • operational current at AC rated value | 13 A |
| Supply voltage | |
| supply voltage | |
| • at AC | 230 V |
| • at DC rated value | 220 V |
| 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 | 10 kA |
| Dissipation | |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 1.4 W |
| suitability for operation | Infrastructure / Industry / Mobility |
| Product details | |
| product feature touch protection | Yes |
| product component | |

| | |
|---|-----|
| • combined terminal top | Yes |
| • combined terminal bottom | Yes |
| • neutral conductor switching | No |
| product feature properties for main switches in accordance with EN 60204-1 | Yes |
| product feature halogen-free | Yes |
| product feature sealable | Yes |
| product feature silicon-free | Yes |
| product extension installable supplementary devices | Yes |

Connections

| | |
|---|----------------------|
| connectable conductor cross-section solid | |
| • minimum | 0.75 mm ² |
| • maximum | 35 mm ² |
| connectable conductor cross-section stranded | |
| • minimum | 0.75 mm ² |
| • maximum | 35 mm ² |
| connectable conductor cross-section finely stranded with core end processing | |
| • minimum | 0.75 mm ² |
| • maximum | 25 mm ² |
| 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 | Consider polarity |

Mechanical Design

| | |
|--------------------------------------|----------|
| height | 90 mm |
| width | 18 mm |
| depth | 76 mm |
| installation depth | 70 mm |
| number of modular width units | 1 |
| fastening method | DIN rail |
| mounting position | any |
| Net Weight | 0.14 kg |

Environmental conditions

| | |
|--|--|
| influence of the surrounding temperature | max. 95% RH up to 55°C, max. 55% RH up to 70°C, max. 35% RH up to 75°C |
| vibration resistance according to IEC 60068-2-6 | ±1mm at 5 to 25 Hz; 50 m/s ² at 25 to 150 Hz and 60 m/s ² at 35 Hz (4 sec) |
| 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 according to IEC 60068-2-30 | 28 |

Approvals Certificates

| | |
|--------------------|--------------------------|
| Environment | General Product Approval |
|--------------------|--------------------------|

[Environmental Con-
firmations](#)

[Environmental Con-
firmations](#)



[Miscellaneous](#)

| | | |
|--------------------------|----------------------|-------|
| General Product Approval | Maritime application | other |
|--------------------------|----------------------|-------|



[Confirmation](#)



[CCS \(China Classification Society\)](#)



| | | |
|-------|---------|-----------------|
| other | Railway | Dangerous goods |
|-------|---------|-----------------|

[Confirmation](#)

[Confirmation](#)

[Transport Information](#)

Further information

Information on the packaging

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

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=5SY5113-7CC12>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY5113-7CC12>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY5113-7CC12

CAX-Online-Generator

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

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





