



Miniature circuit breaker 400 V 10kA, 3+N-pole, D, 10 A for railway applications

| Model   |                                 |
|---|---------------------------------|
| product brand name  | SENTRON                         |
| product designation   | Miniature circuit breaker       |
| design of the product   | For railway applications        |
| General technical data  |                                 |
| number of poles   | 4                               |
| design of pole  | 3P+N                            |
| tripping characteristic class   | D                               |
| mechanical service life (operating cycles) typical                                  | 10 000                          |
| overvoltage category  | 3                               |
| degree of pollution   | 3                               |
| Voltage   |                                 |
| type of voltage of the operating voltage  | AC                              |
| insulation voltage (Ui)   |                                 |
| • with multi-phase operation at AC rated value                                      | 440 V                           |
| • operational current   |                                 |
| — at 40 °C rated value  | 9.4 A                           |
| — at 50 °C rated value  | 8.76 A                          |
| — at 55 °C rated value  | 8.42 A                          |
| — at 60 °C rated value  | 8.07 A                          |
| • operational current at AC rated value   | 10 A                            |
| Supply voltage  |                                 |
| supply voltage  |                                 |
| • at AC   | 400 V                           |
| • at DC rated value   | 60 V                            |
| value range of the supply voltage frequency   | 50/60 Hz                        |
| operating voltage at DC rated value maximum   | 72 V                            |
| Protection class  |                                 |
| protection class IP   | IP20, with connected conductors |
| Breaking Capacity   |                                 |
| switching capacity current  |                                 |
| • according to EN 60898 rated value   | 10 kA                           |
| Dissipation   |                                 |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 0.9 W                           |
| suitability for operation   | Infrastructure / Industry       |
| Product details   |                                 |
| product feature touch protection  | Yes                             |

|   |     |
|---|-----|
| <b>product component</b>  |     |
| • combined terminal top   | Yes |
| • combined terminal bottom  | Yes |
| • neutral conductor switching   | Yes |
| <b>product feature properties for main switches in accordance with EN 60204-1</b> | Yes |
| <b>product feature halogen-free</b>   | Yes |
| <b>product feature sealable</b>   | Yes |
| <b>product feature silicon-free</b>   | Yes |
| <b>product extension installable supplementary devices</b>                        | Yes |

### Connections

|   |                      |
|---|----------------------|
| <b>connectable conductor cross-section solid</b>                                    |                      |
| • minimum   | 0.75 mm <sup>2</sup> |
| • maximum   | 35 mm <sup>2</sup>   |
| <b>connectable conductor cross-section stranded</b>                                 |                      |
| • minimum   | 0.75 mm <sup>2</sup> |
| • maximum   | 35 mm <sup>2</sup>   |
| <b>connectable conductor cross-section finely stranded with core end processing</b> |                      |
| • minimum   | 0.75 mm <sup>2</sup> |
| • maximum   | 25 mm <sup>2</sup>   |
| <b>tightening torque [lbf·in] with screw-type terminals</b>                         |                      |
| • minimum   | 22 lbf·in            |
| • maximum   | 31 lbf·in            |
| <b>tightening torque with screw-type terminals</b>                                  |                      |
| • minimum   | 2.5 N·m              |
| • maximum   | 3.5 N·m              |
| <b>position of power supply cord</b>  | Any                  |

### Mechanical Design

|                                      |          |
|--------------------------------------|----------|
| <b>height</b>                        | 90 mm    |
| <b>width</b>                         | 72 mm    |
| <b>depth</b>                         | 76 mm    |
| <b>installation depth</b>            | 70 mm    |
| <b>number of modular width units</b> | 4        |
| <b>fastening method</b>              | DIN rail |
| <b>mounting position</b>             | any      |
| <b>Net Weight</b>                    | 0.66 kg  |

### Environmental conditions

|  |  |
|--|--|
| <b>influence of the surrounding temperature</b>                                    | max. 95% RH up to 55°C, max. 55% RH up to 70°C, max. 35% RH up to 75°C                           |
| <b>standard</b>  | IEC / EN 60898-1   |
| <b>vibration resistance according to IEC 60068-2-6</b>                             | ±1mm at 5 to 25 Hz; 50 m/s <sup>2</sup> at 25 to 150 Hz and 60 m/s <sup>2</sup> at 35 Hz (4 sec) |
| <b>ambient temperature during operation</b>  |  |
| • minimum  | -40 °C   |
| • maximum  | 70 °C  |
| <b>ambient temperature during storage</b>  |  |
| • minimum  | -40 °C   |
| • maximum  | 75 °C  |
| <b>number of test cycles for environmental testing according to IEC 60068-2-30</b> | 28   |

### Approvals Certificates

|                    |                                 |
|--------------------|---------------------------------|
| <b>Environment</b> | <b>General Product Approval</b> |
|--------------------|---------------------------------|

[Environmental Confirmations](#)



[Environmental Confirmations](#)

[Miscellaneous](#)



[Confirmation](#)

|                                 |              |                |
|---------------------------------|--------------|----------------|
| <b>General Product Approval</b> | <b>other</b> | <b>Railway</b> |
|---------------------------------|--------------|----------------|



Confirmation



Confirmation

#### 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=5SY4610-8CC11>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY4610-8CC11>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY4610-8CC11](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY4610-8CC11)

**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=)





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