



Miniature circuit breaker 400 V 25kA, 4-pole, 20 A, D=70 mm only magnetic tripping

| Model   |                                  |
|---|----------------------------------|
| product brand name  | SENTRON                          |
| product designation   | Miniature circuit breaker        |
| design of the product   | Only magnetic tripping operation |
| General technical data  |                                  |
| number of poles   | 4                                |
| design of pole  | 4P                               |
| 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 single-phase operation at AC rated value                                     | 440 V                            |
| • with multi-phase operation at AC rated value                                      | 440 V                            |
| • operational current at AC rated value   | 20 A                             |
| Supply voltage  |                                  |
| supply voltage  |                                  |
| • at AC   | 400 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 IEC 60947-2 rated value  | 30 kA                            |
| energy limitation class   | 3                                |
| Dissipation   |                                  |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 1.6 W                            |
| suitability for operation   | Infrastructure / Industry        |
| 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  |
| <b>Product function</b>  |  |
| set values setting current (Ii) for I-tripping                               | 14   |
| reference value setting current (Ii) for I-tripping                          | x In   |
| <b>Short circuit</b>   |  |
| short-circuit current breaking capacity (Icn)                                |  |
| • at AC according 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  | 72 mm  |
| depth  | 76 mm  |
| installation depth   | 70 mm  |
| number of modular width units  | 4  |
| fastening method   | DIN rail   |
| mounting position  | any  |
| Net Weight   | 628 g  |
| <b>Environmental conditions</b>  |  |
| influence of the surrounding temperature                                     | max. 95% RH up to 45°C                               |
| vibration resistance according to IEC 60068-2-6                              | ±1mm at 5 to 25Hz; 50m/s <sup>2</sup> at 25 to 150Hz |
| ambient temperature during operation   |  |
| • minimum  | -25 °C   |
| • maximum  | 45 °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   |
| <b>Approvals Certificates</b>  |  |
| Environment  | General Product Approval                             |



General Product Approval

other



[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=5SY8420-8BB08>

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

<https://support.industry.siemens.com/cs/ww/en/ps/5SY8420-8BB08>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=5SY8420-8BB08](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=5SY8420-8BB08)

CAX-Online-Generator

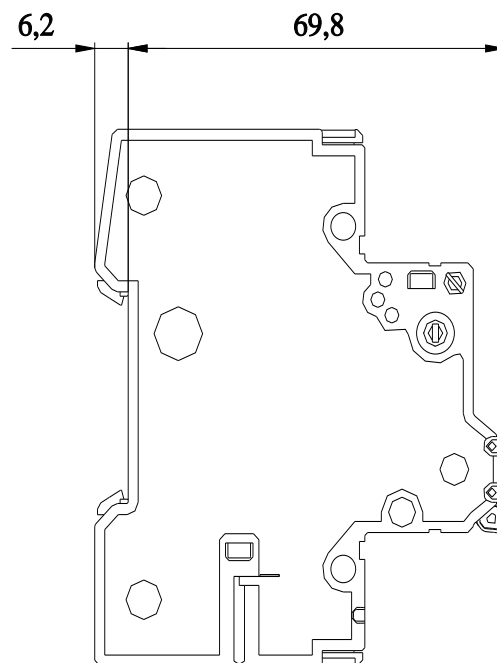
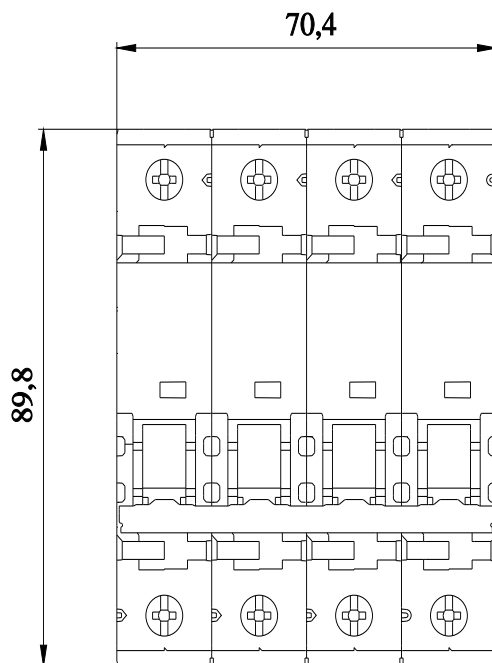
<https://www.siemens.com/cax>

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=)





last modified:

9/12/2025

