

MOLDED CASE SWITCH 3VA5 UL FRAME 125 MAX SHORT  
CIRCUIT CURR. RATING 65KA @ 480Y/277V 3-POLE, LINE  
PROTECTION MCS110, IN=100A WITHOUT OVERLOAD  
PROTECTION SELF PROTECTION Ii=16 X IN W/O CONNECTION



| Model   |                             |
|---|-----------------------------|
| Product brand name  | SENTRON                     |
| Product designation   | Molded-case circuit breaker |
| Design of the product   | Molded case switch          |
| Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release   | MCS110                      |
| Protective function of the overcurrent release  | I                           |
| Number of poles   | 3                           |

| General technical data   |        |
|--|--------|
| Tension assignée d'isolement Ui  | 800 V  |
| Max. rated operational voltage Ue with AC 50/60Hz  | 690 V  |
| Max. rated operational voltage Ue with DC  | 500 V  |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 19.2 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole   | 6.4 W  |
| Mechanical service life (switching cycles) / typical   | 15 000 |

|   |         |
|---|---------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000   |
| Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz          | 8 000   |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz          | 4 000   |
| Neutral conductors / upgradeable/retrofitable                             | No      |
| Ground fault monitoring version   | Without |
| Product function  |         |
| • communication function  | No      |
| • other measurement function  | No      |

### Electricity

|   |          |
|---|----------|
| Marking / acc. to UL 489 / 100%-rated breaker                     | No       |
| Max. rated operational voltage of the size of the circuit-breaker | 125 A    |
| Courant permanent assigné Iu                                      | 100 A    |
| Operating current   |          |
| • at 40 °C  | 100 A    |
| • at 45 °C  | 97.656 A |
| • at 50 °C  | 95.42 A  |
| • at 55 °C  | 93.284 A |
| • at 60 °C  | 91.24 A  |
| • at 65 °C  | 89.286 A |
| • at 70 °C  | 87.41 A  |

### Switching capacity according to IEC 60947

|   |        |
|---|--------|
| Maximum short-circuit current breaking capacity (Icu)     |        |
| • at 240 V  | 150 kA |
| • at 415 V  | 70 kA  |
| • at 690 V  | 10 kA  |
| Operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V  | 150 kA |
| • at 415 V  | 70 kA  |
| • at 690 V  | 5 kA   |
| Short-circuit current making capacity (Icm)               |        |
| • at 240 V  | 330 kA |
| • at 415 V  | 154 kA |
| • at 690 V  | 17 kA  |

### Adjustable parameters

|   |         |
|---|---------|
| Adjustable response value current / Ii min. | 1 600 A |
| Adjustable response value current / Ii max. | 1 600 A |

|  |    |
|--|----|
| Ground fault protection / tripping switchable / I2t=ON/OFF | No |
|--|----|

### Mechanical Design

|             |         |
|-------------|---------|
| Height [in] | 5.5 in  |
| Height      | 140 mm  |
| Width [in]  | 3 in    |
| Width       | 76.2 mm |
| Depth [in]  | 3 in    |
| Depth       | 76.5 mm |

### Connections

|   |                    |
|---|--------------------|
| Arrangement of electrical connectors / for main current circuit | Without connection |
| Type of electrical connection / for main current circuit        | Without            |

### Auxiliary circuit

|  |   |
|--|---|
| Number of CO contacts / for auxiliary contacts | 0 |
|--|---|

### Accessories

|  |     |
|--|-----|
| Product extension / optional / motor drive | Yes |
|--|-----|

### Environmental conditions

|  |  |
|--|--|
| Protection class IP / on the front   | IP40   |
| Ambient temperature  |  |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> <li>• during operation / maximum</li> <li>• during storage / minimum</li> <li>• during storage / maximum</li> </ul> | <ul style="list-style-type: none"> <li>-25 °C</li> <li>70 °C</li> <li>-40 °C</li> <li>80 °C</li> </ul> |

### Certificates

|  |    |
|--|----|
| Equipment marking / acc. to DIN EN 81346-2   | Q  |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | No |

| General Product Approval   |   | EMC   | Declaration of Conformity  | Shipping Approval   |  |
|--|---|---|--|---|--|
| <br>CSA | <br>UL |  | <br>RCM | <br>EG-Konf. | <br>ABS |

#### other

[Miscellaneous](#)

#### 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=3VA5110-1BB31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5110-1BB31-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5110-1BB31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5110-1BB31-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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