



circuit breaker 3VA5 UL Frame 125 breaking capacity class S 25 kA @ 480 V 2-pole, line protection TM210, FTFM, In=50 A overload protection Ir=50 A permanently set short-circuit protection Ii=10 x In without connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | SEAS                        |
| design of the product  | System protection           |
| design of the load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| design of the load switch / according to UL 489 / High-Intensity-Discharge circuit breaker (HID Type)                      | Yes                         |
| design of the load switch / according to UL 489 / Switching Duty circuit breaker (SWD Type)                                | No                          |
| design of the overcurrent release  | TM210                       |
| protection function of the overcurrent release   | LI                          |
| number of poles  | 2                           |
| General technical data   |                             |
| insulation voltage / rated value   | 500 V                       |
| operating voltage / at DC / rated value  | 250 V                       |
| operating voltage / at AC / rated value  | 415 V                       |
| power loss [W] / maximum   | 8 W                         |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 4 W                         |
| mechanical service life (operating cycles) / typical   | 20 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 8 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 4 000                       |
| electrical endurance (operating cycles) / at 480 V   | 8 000                       |
| electrical endurance (operating cycles) / at 600 V   | 4 000                       |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | No                          |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 645 g                       |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 50 A                        |
| • at 45 °C   | 49 A                        |
| • at 50 °C   | 48 A                        |
| • at 55 °C   | 47 A                        |
| • at 60 °C   | 46 A                        |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 65 °C</li> <li>• at 70 °C</li> </ul>   | 45 A<br>44 A   |
| <b>Switching capacity according to IEC 60947</b>   |  |
| switching capacity class of the circuit breaker  | S  |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> ) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> </ul>  | 55 kA<br>36 kA   |
| operating short-circuit current breaking capacity (I <sub>cs</sub> ) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> </ul>  | 55 kA<br>36 kA   |
| short-circuit current making capacity (I <sub>cm</sub> ) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> </ul>  | 121 kA<br>75.5 kA  |
| design of short-circuit protection   | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |
| <b>Switching capacity according to UL 489</b>  |  |
| current breaking capacity <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 Y/347 V</li> </ul>   | 65 kA<br>25 kA<br>14 kA  |
| <b>Adjustable parameters</b>   |  |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul> | 50 A<br>50 A   |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>     | 1 s<br>1 s   |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                      | 500 A<br>500 A   |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>  | 0 A<br>0 A   |
| product function / grounding protection  | No   |
| <b>Mechanical Design</b>   |  |
| product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul>  | No<br>No<br>No   |
| height [in]  | 5.51 in  |
| height   | 140 mm   |
| width [in]   | 2 in   |
| width  | 50.8 mm  |
| depth [in]   | 3.01 in  |
| depth  | 76.5 mm  |
| <b>Connections</b>   |  |
| arrangement of electrical connectors / for main current circuit  | Without connection   |
| type of electrical connection / for main current circuit   | Without  |
| <b>Auxiliary circuit</b>   |  |
| number of CO contacts / for auxiliary contacts   | 0  |
| <b>Accessories</b>   |  |
| product extension / optional / motor drive   | No   |
| <b>Environmental conditions</b>  |  |
| 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> </ul>   | -25 °C<br>70 °C  |

- during storage / minimum
- during storage / maximum

-40 °C

80 °C

reference code / according to IEC 81346-2

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### Approvals / Certificates

#### General Product Approval



[Miscellaneous](#)



[Miscellaneous](#)



#### General Product Approval

EMV



[Confirmation](#)



#### Test Certificates

#### Maritime application

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Maritime application

#### other

#### Environment



[Miscellaneous](#)

[Confirmation](#)

[Environmental Confirmations](#)

### 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=3VA5150-4ED21-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5150-4ED21-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5150-4ED21-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5150-4ED21-0AA0)

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=)



**CB**



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