



circuit breaker 3VA5 UL frame 125 breaking capacity class S 25kA @ 277 V 1-pole, line protection TM210, FTFM, In=35A overload protection Ir=35A fixed short-circuit protection li=10 x In UL489 SB (naval), 50 deg. cel. cable connection on both sides

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | SEAM                        |
| Product version  | 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  | 1                           |
| General technical data   |                             |
| operating voltage / at AC / rated value  | 415 V                       |
| power loss [W] / maximum   | 3.8 W                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                             | 3.8 W                       |
| mechanical service life (switching cycles) / typical   | 20 000                      |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz  | 8 000                       |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz  | 4 000                       |
| electrical endurance (switching cycles) / at 480 V   | 8 000                       |
| electrical endurance (switching cycles) / at 600 V   | 4 000                       |
| Neutral conductors / upgradeable/retrofitable  | No                          |
| ground-fault monitoring version  | without                     |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 0.398 kg                    |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 35 A                        |
| • at 45 °C   | 34 A                        |
| • at 50 °C   | 34 A                        |
| • at 55 °C   | 33 A                        |
| • at 60 °C   | 33 A                        |
| • at 65 °C   | 32 A                        |
| • at 70 °C   | 32 A                        |

### Switching capacity according to IEC 60947

|   |  |
|---|--|
| switching capacity class of the circuit breaker | S  |
| 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 |

### Switching capacity according to UL 489

|                           |       |
|---------------------------|-------|
| breaking capacity current |       |
| • at 120 V                | 65 kA |
| • at 277 V                | 25 kA |
| • at 347 V                | 14 kA |

### Adjustable parameters

|   |                                  |
|---|----------------------------------|
| product feature / for L-tripping / selectable characteristic function   | No                               |
| type of value list setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                   | Fest                             |
| reference value setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                      | x I <sub>n</sub>                 |
| set values setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                           | 1                                |
| adjustable response factor setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / minimum | 1                                |
| adjustable response factor setting current (I <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / maximum | 1                                |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic / minimum   | 35 A                             |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic / maximum   | 35 A                             |
| type of value list delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                        | Fest                             |
| reference value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                           | s                                |
| set values delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic                                | 1                                |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / minimum       | 1 s                              |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic / maximum       | 1 s                              |
| product feature / for S-tripping / independent of direction / selectable characteristic function                              | No                               |
| product feature / for I-tripping / can be switched on/off   | No                               |
| design of I-trip / adjustable   | No                               |
| reference value setting current (I <sub>i</sub> ) / for I-tripping  | x I <sub>n</sub>                 |
| set values setting current (I <sub>i</sub> ) / for I-tripping   | 10                               |
| adjustable response factor setting current (I <sub>i</sub> ) / for I-tripping / minimum                                       | 10                               |
| adjustable response factor setting current (I <sub>i</sub> ) / for I-tripping / maximum                                       | 10                               |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping / minimum  | 350 A                            |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping / maximum  | 350 A                            |
| product feature / for G-tripping / selectable characteristic function   | No                               |
| product feature / with neutral conductor protection / can be switched on/off  | No                               |
| product feature / with neutral conductor protection / adjustable  | Yes                              |
| type of value list setting current (I <sub>nN</sub> ) / for N-tripping  | St                               |
| reference value setting current (I <sub>nN</sub> ) / for N-tripping   | x I <sub>n</sub>                 |
| adjustable absolute value setting current (I <sub>nN</sub> ) / for N-tripping / minimum                                       | 0 A                              |
| adjustable absolute value setting current (I <sub>nN</sub> ) / for N-tripping / maximum                                       | 0 A                              |
| tripping characteristic / of the lower tolerance band   | AK_3VA5_1_35A_TM2_SuMuH_uT       |
| tripping characteristic / of the upper tolerance band   | AK_3VA5_1_35A_TM2_SuMuH_oT       |
| let-through energy characteristic / at 240 V  | DE_3VA5_1_35A_TM210_line_1p_240V |
| let-through energy characteristic / at 415 V  | DE_3VA5_1_35A_TM210_line_1p_415V |
| type of value list setting current (I <sub>i</sub> ) / for I-tripping   | Fest                             |

|  |                                  |
|--|----------------------------------|
| tripping characteristic / of the let-through current characteristic / at 240 V                           | DS_3VA5_1_35A_TM210_line_1p_240V |
| tripping characteristic / of the let-through current characteristic / at 415 V                           | DS_3VA5_1_35A_TM210_line_1p_415V |
| Adjustable response value current / I <sub>g</sub> min.  | 35 A                             |
| adjustable current response value current / of the current-dependent overload release / full-scale value | 35 A                             |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF                                  | No                               |

### Mechanical Design

|   |                   |
|---|-------------------|
| product component   |                   |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• voltage trigger</li> <li>• trip indicator</li> </ul> | No                |
| height [in]   | 5.51 in           |
| Height  | 140 mm            |
| width [in]  | 1 in              |
| Type of connectable conductor cross-section, round conductor terminal, stranded   | 1 x (8 AWG - 3/0) |
| Width   | 25.4 mm           |
| depth [in]  | 3.01 in           |
| depth   | 76.5 mm           |

### Connections

|   |   |
|---|---|
| arrangement of electrical connectors / for main current circuit | Front connection                          |
| type of electrical connection / for main current circuit        | circular conductor terminal on both sides |

### Auxiliary circuit

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

### Accessories

|  |    |
|--|----|
| product extension / optional / motor drive | No |
|--|----|

### 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> | -25 °C<br>70 °C<br>-40 °C<br>80 °C |

### Certificates

|  |     |
|--|-----|
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB | Yes |
|--|-----|

|                                 |            |                                  |
|---------------------------------|------------|----------------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> |
|---------------------------------|------------|----------------------------------|



[Confirmation](#)



[Miscellaneous](#)



|                                  |                          |
|----------------------------------|--------------------------|
| <b>Declaration of Conformity</b> | <b>Marine / Shipping</b> |
|----------------------------------|--------------------------|



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?mifb=3VA5135-4ED16-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5135-4ED16-1AA0>

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

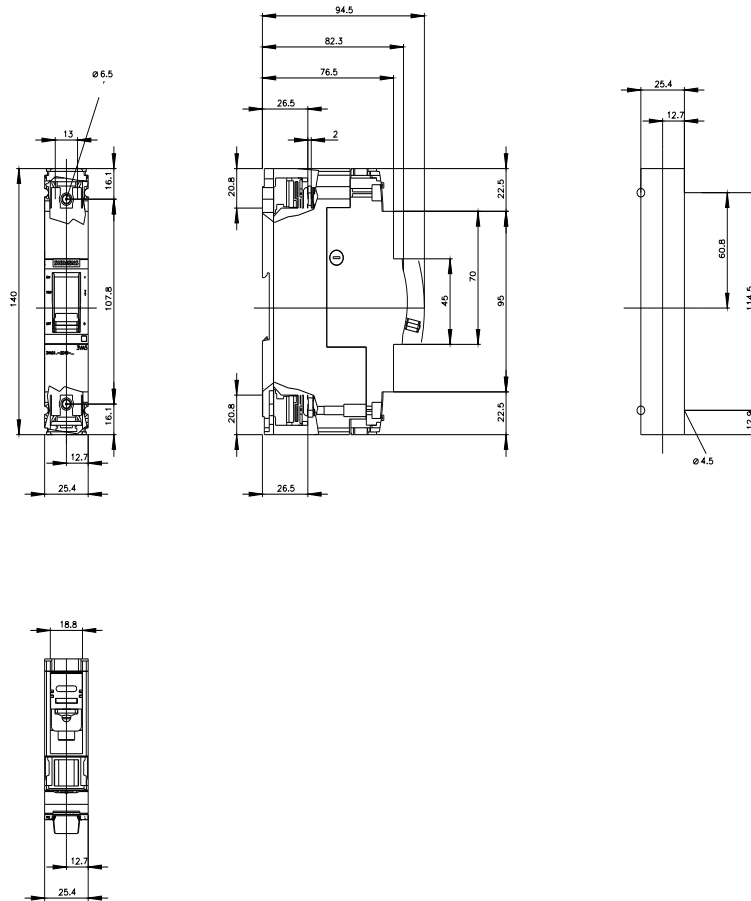
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mifb=3VA5135-4ED16-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3VA5135-4ED16-1AA0)

CAX-Online-Generator

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

Tender specifications

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





last modified:

7/14/2022 

