



circuit breaker 3VA4 UL Frame 125 breaking capacity class H 65 kA @ 480 V 2-pole, line protection TM210, FTFM,  $I_n=45$  A overload protection  $I_r=45$  A permanently set short-circuit protection  $I_i=10 \times I_n$

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | HEAB                        |
| 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   |                             |
| operating voltage / at AC / rated value  | 480 V                       |
| power loss [W] / maximum   | 7 W                         |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 3.5 W                       |
| mechanical service life (operating cycles) / typical   | 15 000                      |
| 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                          |
| ground-fault monitoring version  | Without                     |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 0.514 kg                    |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 45 A                        |
| • at 45 °C   | 44 A                        |
| • at 50 °C   | 43 A                        |
| • at 55 °C   | 43 A                        |
| • at 60 °C   | 42 A                        |
| • at 65 °C   | 41 A                        |
| • at 70 °C   | 40 A                        |
| Switching capacity according to IEC 60947  |                             |

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

|  |                                   |
|--|-----------------------------------|
| current breaking capacity  |                                   |
| <ul style="list-style-type: none"> <li>at 240 V</li> <li>at 480 Y/277 V</li> <li>at 480 V</li> <li>at 600 Y/347 V</li> </ul> | 100 kA<br>65 kA<br>65 kA<br>25 kA |

#### Adjustable parameters

|  |            |
|--|------------|
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic |            |
| <ul style="list-style-type: none"> <li>minimum</li> <li>maximum</li> </ul>           | 1 s<br>1 s |
| product function / grounding protection  | 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<br>No<br>No    |
| height [in]   | 5.09 in           |
| height  | 129.4 mm          |
| width [in]  | 2 in              |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                               | 1 x (8 AWG - 3/0) |
| width   | 50.8 mm           |
| depth [in]  | 2.96 in           |
| depth   | 75.1 mm           |

#### Connections

|   |  |
|---|--|
| arrangement of electrical connectors / for main current circuit                       | output side: circular conductor connection |
| type of electrical connection / for main current circuit                              | Infeed side: Low tab                       |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | Tin  |

#### 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 |

#### 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=3VA4145-6ED24-3AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4145-6ED24-3AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA4145-6ED24-3AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4145-6ED24-3AA0)

##### CAX-Online-Generator

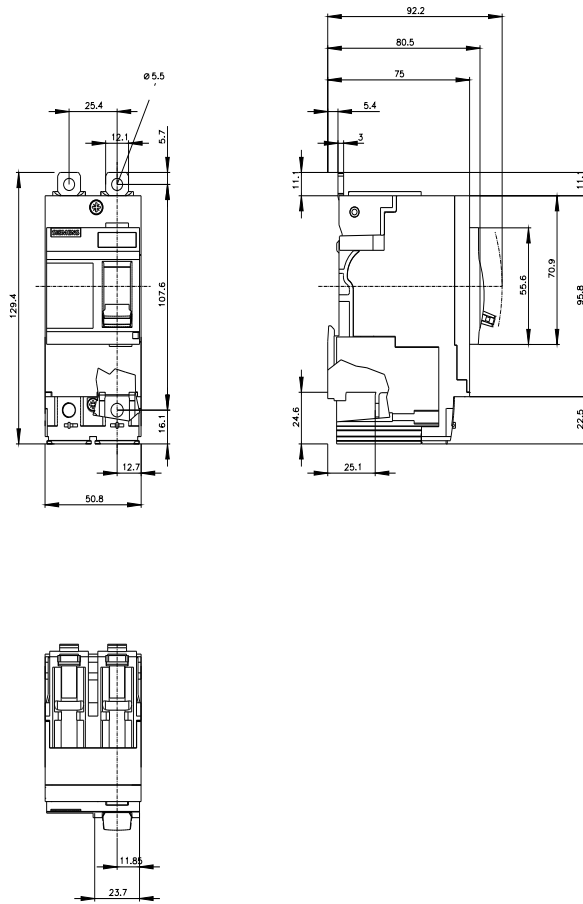
<https://www.siemens.com/cax>

##### 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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