



circuit breaker 3VA5 UL frame 125 breaking capacity class H 50kA @ 277 V 1-pole, line protection TM210, FTFM, In=90A overload protection Ir=90A fixed short-circuit protection li=10 x In UL489 SB (naval), 50 deg. cel. nut keeper kit on both sides

| Model  |                             |
|--|-----------------------------|
| product brand name   | SETRON                      |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | H5EAM                       |
| 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)                      | No                          |
| 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   | 7.13 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                             | 7.13 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   | 0.404 kg                    |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 90 A                        |
| • at 45 °C   | 88 A                        |
| • at 50 °C   | 86 A                        |
| • at 55 °C   | 84 A                        |
| • at 60 °C   | 82 A                        |

|  |  |                          |
|--|--|--------------------------|
| <ul style="list-style-type: none"> <li>at 65 °C</li> <li>at 70 °C</li> </ul>   | 80 A<br>79 A   |                          |
| <b>Switching capacity according to IEC 60947</b>   |  |                          |
| 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 |                          |
| <b>Switching capacity according to UL 489</b>  |  |                          |
| breaking capacity current  |  |                          |
| <ul style="list-style-type: none"> <li>at 120 V</li> <li>at 277 V</li> <li>at 347 V</li> </ul>   | 100 kA<br>50 kA<br>18 kA   |                          |
| <b>Adjustable parameters</b>   |  |                          |
| Adjustable response value current / I <sub>g</sub> min.  | 90 A   |                          |
| Adjustable response value current / I <sub>g</sub> min.  | 90 A   |                          |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF  | No   |                          |
| <b>Mechanical Design</b>   |  |                          |
| height [in]  | 5.51 in  |                          |
| Height   | 140 mm   |                          |
| width [in]   | 1 in   |                          |
| Width  | 25.4 mm  |                          |
| depth [in]   | 3.01 in  |                          |
| depth  | 76.5 mm  |                          |
| <b>Connections</b>   |  |                          |
| arrangement of electrical connectors / for main current circuit  | Front connection   |                          |
| type of electrical connection / for main current circuit   | nut keeper kit on both ends  |                          |
| Type of connectable conductor cross-section, connection screw, width x thickness , min.  | 12 x 1 mm  |                          |
| Type of connectable conductor cross-section, connection screw, width x thickness , max.  | 17 x 6.5 mm  |                          |
| <b>Auxiliary circuit</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   |                          |
| 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> <li>during storage / minimum</li> <li>during storage / maximum</li> </ul> | -25 °C<br>70 °C<br>-40 °C<br>80 °C   |                          |
| <b>Certificates</b>  |  |                          |
| certificate of suitability / as approval for NAVAL (no combat vessels) / supplement SB   | Yes  |                          |
| <b>General Product Approval</b>  | <b>EMC</b>   | <b>Marine / Shipping</b> |

[Confirmation](#)



other

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalog>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3VA5190-6ED12-1AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5190-6ED12-1AA0>

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

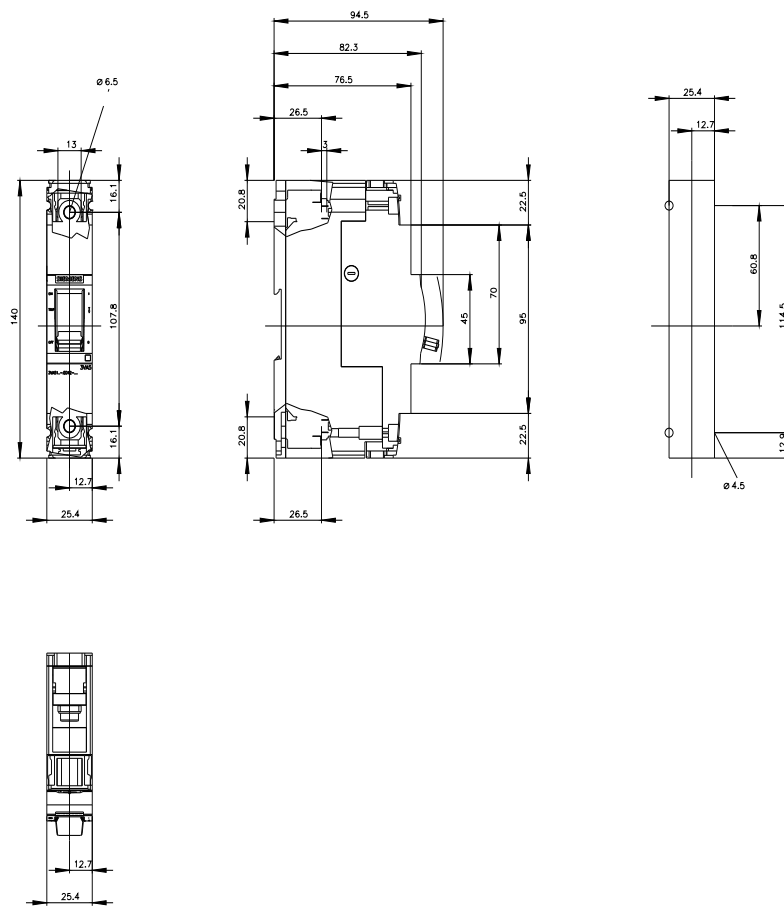
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA5190-6ED12-1AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA5190-6ED12-1AA0)

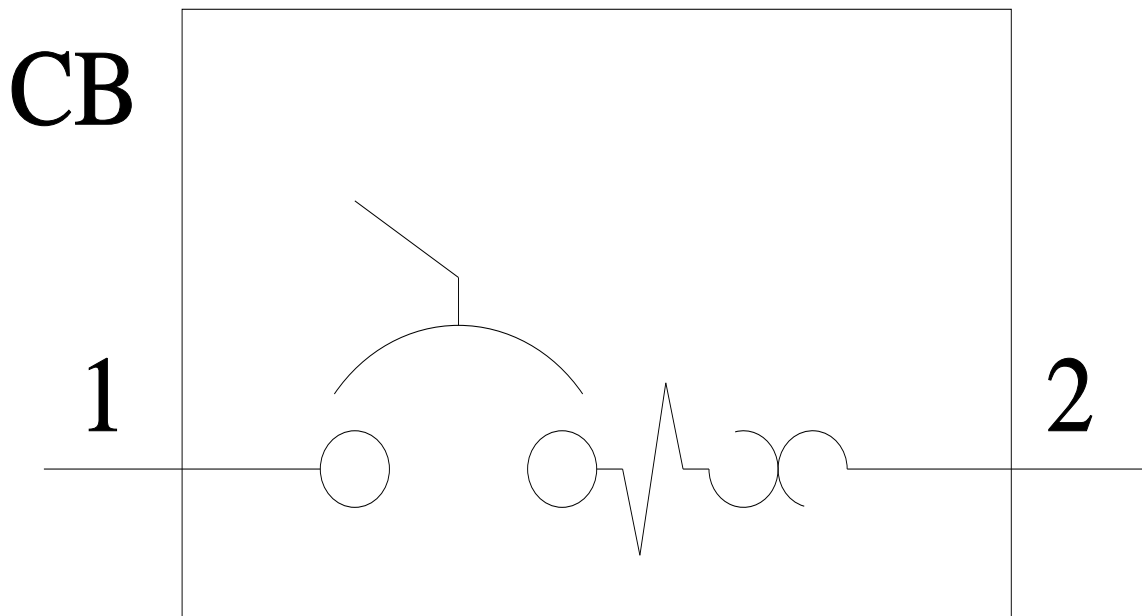
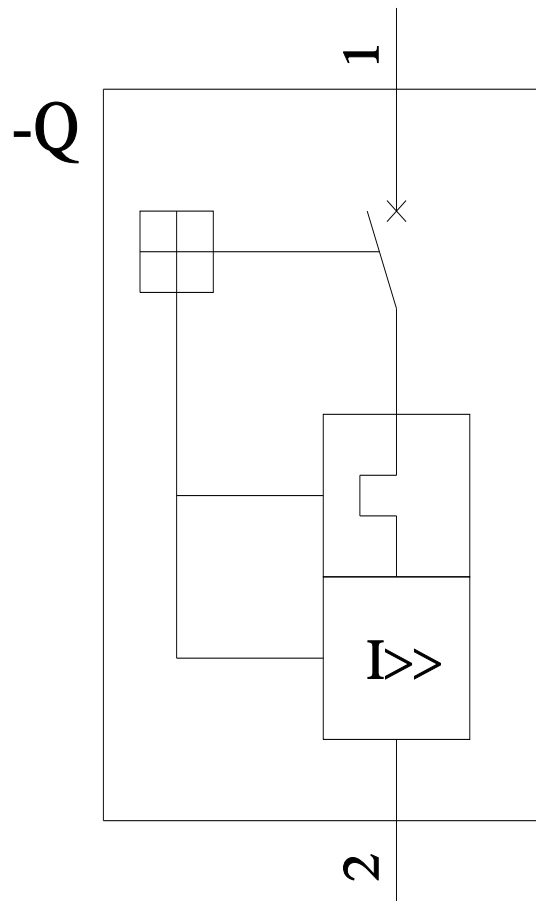
CAX-Online-Generator

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

Tender specifications

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





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