



circuit breaker 3VA5 UL Frame 125 breaking capacity class H 50 kA @ 277 V 1-pole, line protection TM210, FTFM, In=35 A overload protection Ir=35 A permanently set short-circuit protection Ii=10 x In cable connection on two sides

| Model                                                                                                                      |                             |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                                         | SENTRON                     |
| product designation                                                                                                        | Molded-case circuit breaker |
| product designation / according to UL file                                                                                 | H5EAS                       |
| 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                                                                                                            | 1                           |
| General technical data                                                                                                     |                             |
| insulation voltage / rated value                                                                                           | 500 V                       |
| operating voltage / at DC / rated value                                                                                    | 125 V                       |
| operating voltage / at AC / rated value                                                                                    | 415 V                       |
| power loss [W] / maximum                                                                                                   | 3.8 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 3.8 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                                                                                                                 | 0.401 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                        |

|                                                                                                                   |                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Switching capacity according to IEC 60947</b>                                                                  |                                                                                                                                                                |
| switching capacity class of the circuit breaker                                                                   | H                                                                                                                                                              |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )                                                |                                                                                                                                                                |
| • at 240 V                                                                                                        | 55 kA                                                                                                                                                          |
| • at 415 V                                                                                                        | 5 kA                                                                                                                                                           |
| operating short-circuit current breaking capacity (I <sub>cs</sub> )                                              |                                                                                                                                                                |
| • at 240 V                                                                                                        | 55 kA                                                                                                                                                          |
| • at 415 V                                                                                                        | 5 kA                                                                                                                                                           |
| short-circuit current making capacity (I <sub>cm</sub> )                                                          |                                                                                                                                                                |
| • at 240 V                                                                                                        | 121 kA                                                                                                                                                         |
| • at 415 V                                                                                                        | 7.5 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                                                                                         |                                                                                                                                                                |
| • at 120 V                                                                                                        | 100 kA                                                                                                                                                         |
| • at 277 V                                                                                                        | 50 kA                                                                                                                                                          |
| • at 347 V                                                                                                        | 18 kA                                                                                                                                                          |
| <b>Adjustable parameters</b>                                                                                      |                                                                                                                                                                |
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic |                                                                                                                                                                |
| • minimum                                                                                                         | 35 A                                                                                                                                                           |
| • maximum                                                                                                         | 35 A                                                                                                                                                           |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic     |                                                                                                                                                                |
| • minimum                                                                                                         | 1 s                                                                                                                                                            |
| • maximum                                                                                                         | 1 s                                                                                                                                                            |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping                                      |                                                                                                                                                                |
| • minimum                                                                                                         | 350 A                                                                                                                                                          |
| • maximum                                                                                                         | 350 A                                                                                                                                                          |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping                                                    |                                                                                                                                                                |
| • minimum                                                                                                         | 0 A                                                                                                                                                            |
| • maximum                                                                                                         | 0 A                                                                                                                                                            |
| product function / grounding protection                                                                           | No                                                                                                                                                             |
| <b>Mechanical Design</b>                                                                                          |                                                                                                                                                                |
| product component                                                                                                 |                                                                                                                                                                |
| • undervoltage release                                                                                            | No                                                                                                                                                             |
| • voltage trigger                                                                                                 | No                                                                                                                                                             |
| • trip indicator                                                                                                  | No                                                                                                                                                             |
| height [in]                                                                                                       | 5.51 in                                                                                                                                                        |
| height                                                                                                            | 140 mm                                                                                                                                                         |
| width [in]                                                                                                        | 1 in                                                                                                                                                           |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                         | 1 x (14 AWG - 8 AWG)                                                                                                                                           |
| 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                                                          | circular conductor terminal on both sides                                                                                                                      |
| <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                                                                                               |                                                                                                                                                                |
| • during operation / minimum                                                                                      | -25 °C                                                                                                                                                         |
| • during operation / maximum                                                                                      | 70 °C                                                                                                                                                          |
| • during storage / minimum                                                                                        | -40 °C                                                                                                                                                         |
| • during storage / maximum                                                                                        | 80 °C                                                                                                                                                          |

Approvals / Certificates

General Product Approval



|                          |     |                   |
|--------------------------|-----|-------------------|
| General Product Approval | EMV | Test Certificates |
|--------------------------|-----|-------------------|

[Miscellaneous](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

|                      |       |
|----------------------|-------|
| Maritime application | other |
|----------------------|-------|



[Confirmation](#)

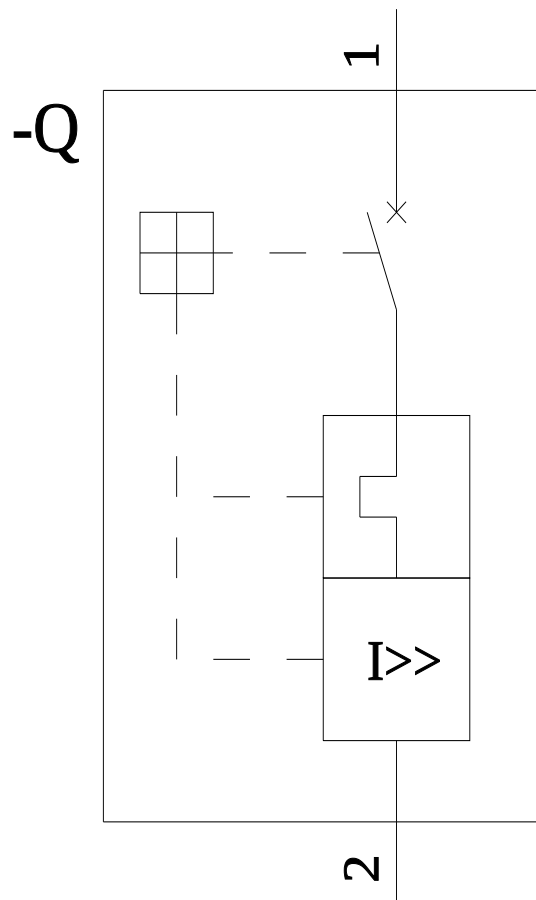
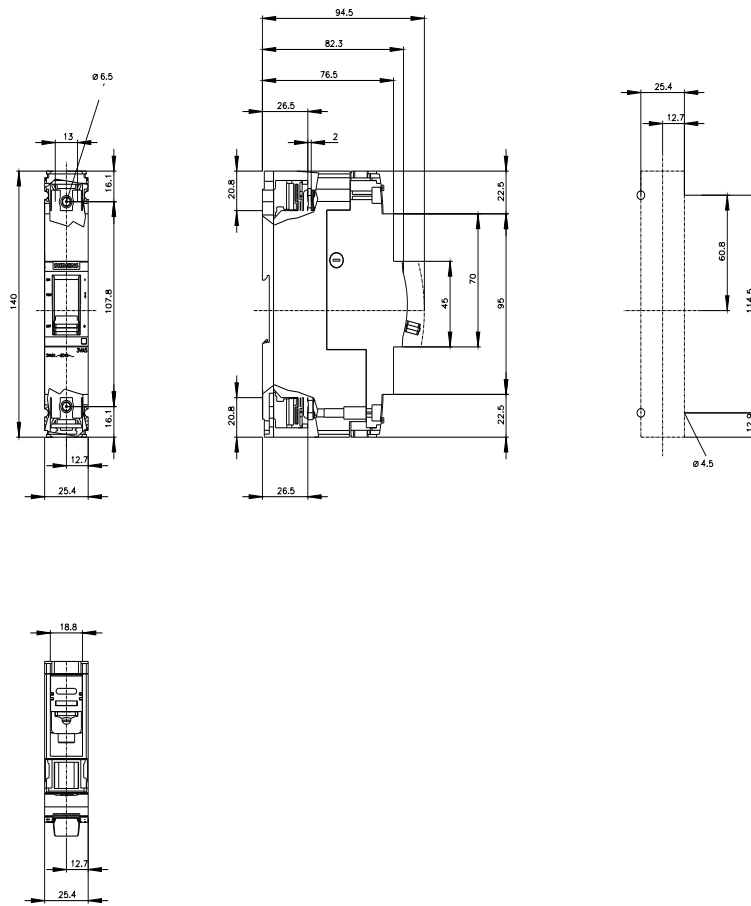
|       |             |
|-------|-------------|
| other | Environment |
|-------|-------------|

[Miscellaneous](#)

[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,...)  
<http://www.siemens.com/lowvoltage/catalogs>  
 Industry Mall (Online ordering system)  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA5135-6ED16-0AA0>  
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)  
<https://support.industry.siemens.com/cs/ww/en/ps/3VA5135-6ED16-0AA0>  
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)  
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5135-6ED16-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5135-6ED16-0AA0)  
 CAx-Online-Generator  
<http://www.siemens.com/cax>  
 Tender specifications  
<http://www.siemens.com/specifications>





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