



circuit breaker 3VA4 UL Frame 125 breaking capacity class H 65 kA @ 480 V 3-pole, line protection TM210, FTFM,  $I_n=20$  A overload protection  $I_r=20$  A permanently set short-circuit protection  $I_i=15 \times I_n$  terminal connection

| 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)                                | Yes                                                                        |
| design of the overcurrent release                                                                                          | TM210                                                                      |
| protection function of the overcurrent release                                                                             | LI                                                                         |
| number of poles                                                                                                            | 3                                                                          |
| General technical data                                                                                                     |                                                                            |
| operating voltage / at AC / rated value                                                                                    | 600 V                                                                      |
| power loss [W] / maximum                                                                                                   | 8.5 W                                                                      |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 2.83 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                                                                                                                 | 0.743 kg                                                                   |
| Current                                                                                                                    |                                                                            |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                                                                         |
| operational current                                                                                                        |                                                                            |
| • at 40 °C                                                                                                                 | 20 A                                                                       |
| • at 45 °C                                                                                                                 | 20 A                                                                       |
| • at 50 °C                                                                                                                 | 19 A                                                                       |
| • at 55 °C                                                                                                                 | 19 A                                                                       |
| • at 60 °C                                                                                                                 | 18 A                                                                       |
| • at 65 °C                                                                                                                 | 18 A                                                                       |
| • at 70 °C                                                                                                                 | 17 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 |
| <b>Switching capacity according to UL 489</b>                                             |     |                                                                                     |
| current breaking capacity                                                                 |     |                                                                                     |
| • at 240 V                                                                                |     | 100 kA                                                                              |
| • at 480 Y/277 V                                                                          |     | 65 kA                                                                               |
| • at 480 V                                                                                |     | 65 kA                                                                               |
| • at 600 Y/347 V                                                                          |     | 25 kA                                                                               |
| <b>Adjustable parameters</b>                                                              |     |                                                                                     |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic      |     |                                                                                     |
| • minimum                                                                                 |     | 1 s                                                                                 |
| • maximum                                                                                 |     | 1 s                                                                                 |
| product function / grounding protection                                                   |     | No                                                                                  |
| <b>Mechanical Design</b>                                                                  |     |                                                                                     |
| product component                                                                         |     |                                                                                     |
| • undervoltage release                                                                    |     | No                                                                                  |
| • voltage trigger                                                                         |     | No                                                                                  |
| • trip indicator                                                                          |     | No                                                                                  |
| height [in]                                                                               |     | 5.09 in                                                                             |
| height                                                                                    |     | 129.4 mm                                                                            |
| width [in]                                                                                |     | 3 in                                                                                |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded |     | 1 x (14 AWG - 8 AWG)                                                                |
| width                                                                                     |     | 76.2 mm                                                                             |
| depth [in]                                                                                |     | 2.96 in                                                                             |
| depth                                                                                     |     | 75.1 mm                                                                             |
| <b>Connections</b>                                                                        |     |                                                                                     |
| 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                                                                                 |
| <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                                                                               |
| <b>Approvals / Certificates</b>                                                           |     |                                                                                     |
| <b>General Product Approval</b>                                                           | EMV | other                                                                               |



[Miscellaneous](#)



[Confirmation](#)

|                               |                                             |
|-------------------------------|---------------------------------------------|
| other                         | Environment                                 |
| <a href="#">Miscellaneous</a> | <a href="#">Environmental Confirmations</a> |

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| <b>Further information</b>                                                                                                                                                                                                           |
| Information on the packaging<br><a href="https://support.industry.siemens.com/cs/ww/en/view/109813875">https://support.industry.siemens.com/cs/ww/en/view/109813875</a><br>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=3VA4120-6ED34-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4120-6ED34-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA4120-6ED34-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4120-6ED34-0AA0)

CAX-Online-Generator

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

Tender specifications

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





