



circuit breaker 3VA4 UL Frame 125 breaking capacity class H 65 kA @ 277 V 1-pole, line protection TM210, FTFM, In=20 A overload protection Ir=20 A permanently set short-circuit protection li=15 x In 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  | 1  |
| General technical data   |  |
| operating voltage / at AC / rated value  | 415 V  |
| power loss [W] / maximum   | 2.8 W  |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 2.8 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/retrofittable / short-circuit and overload proof                     | No   |
| ground-fault monitoring version  | Without  |
| product function   |  |
| • communication function   | No   |
| • other measurement function   | No   |
| Net Weight   | 0.28 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

### Switching capacity according to UL 489

|  |   |
|--|---|
| current breaking capacity  |   |
| <ul style="list-style-type: none"> <li>• at 120 V</li> <li>• at 277 V</li> <li>• at 347 V</li> </ul> | <p>150 kA</p> <p>65 kA</p> <p>25 kA</p> |

### 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>       | <p>1 s</p> <p>1 s</p> |
| 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> | <p>No</p> <p>No</p> <p>No</p> |
| height [in]   | 5.09 in                       |
| height  | 129.4 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]  | 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> | <p>-25 °C</p> <p>70 °C</p> <p>-40 °C</p> <p>80 °C</p> |

### Approvals / Certificates

|                          |     |       |
|--------------------------|-----|-------|
| General Product Approval | EMV | other |
|--------------------------|-----|-------|



[Miscellaneous](#)



[Confirmation](#)

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

[Miscellaneous](#)

[Miscellaneous](#)

[Environmental Confirmations](#)

### Further information

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>  
 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=3VA4120-6ED14-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA4120-6ED14-0AA0>

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

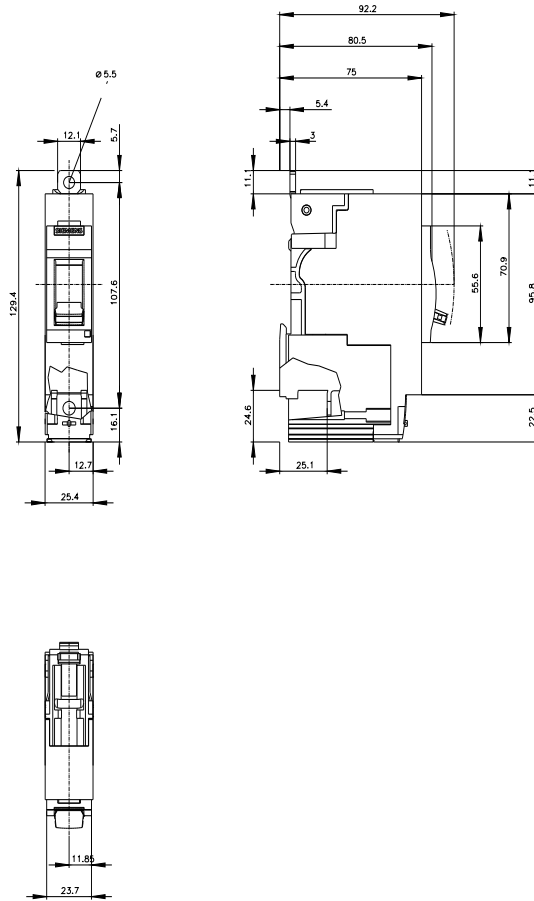
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA4120-6ED14-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA4120-6ED14-0AA0)

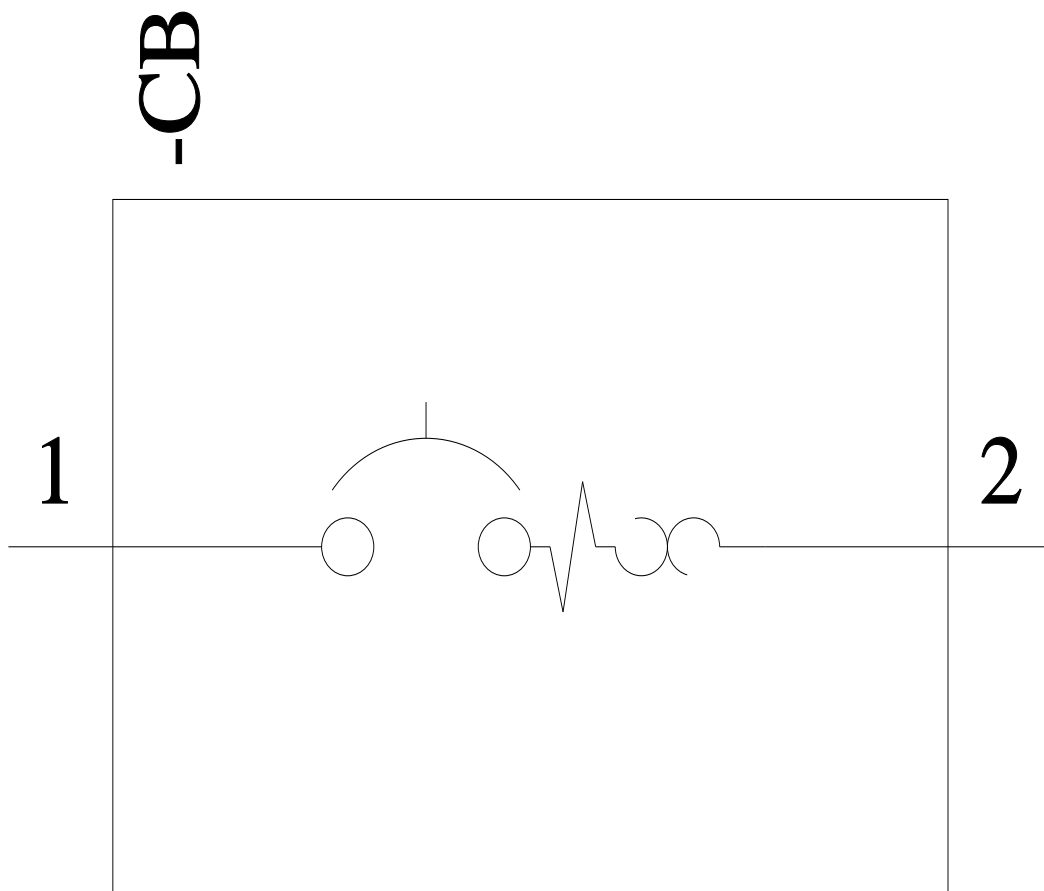
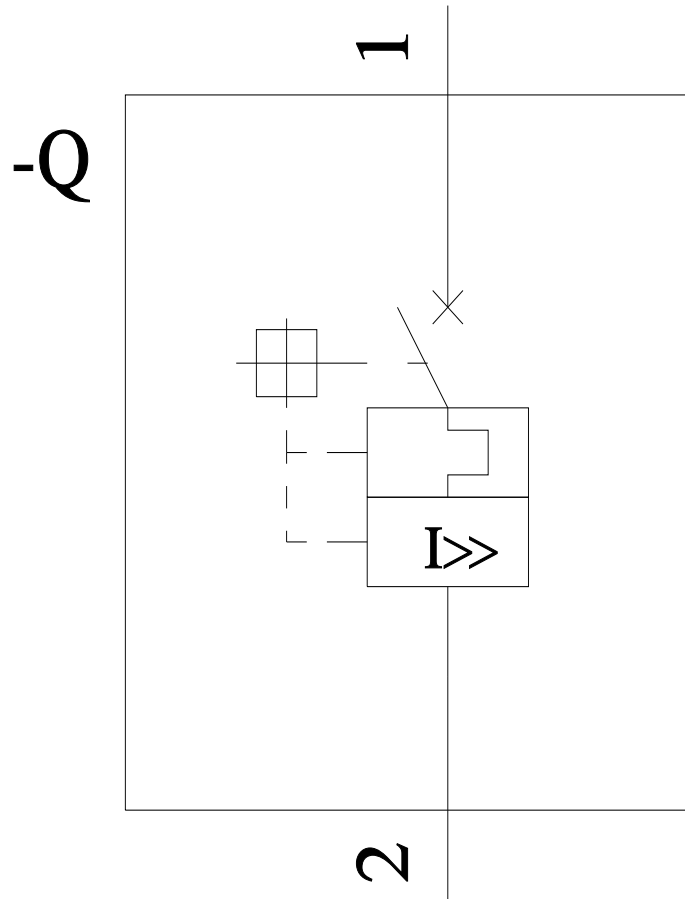
CAX-Online-Generator

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

Tender specifications

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





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