



circuit breaker 3VA6 UL frame 1200 breaking capacity class H 65kA @ 480 V 3-pole, line protection ETU850, LSI, In=1200A overload protection Ir=500A - 1200A short circuit protection I<sub>sd</sub>=0,6-10x I<sub>n</sub>, I<sub>li</sub>=1,5-10x I<sub>n</sub> w/o connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | HNAE                        |
| 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 overcurrent release  | ETU850                      |
| protection function of the overcurrent release   | LSI                         |
| number of poles  | 3                           |
| General technical data   |                             |
| insulation voltage / rated value   | 800 V                       |
| operating voltage / at AC / rated value  | 600 V                       |
| power loss [W] / maximum   | 243 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 243 W                       |
| mechanical service life (operating cycles) / typical   | 3 000                       |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V   | 1 500                       |
| electrical endurance (operating cycles) / at AC-1 / at 690 V   | 500                         |
| electrical endurance (operating cycles) / at 480 V   | 1 500                       |
| electrical endurance (operating cycles) / at 600 V   | 500                         |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | Yes                         |
| ground-fault monitoring version  | without                     |
| product function   |                             |
| • communication function   | Yes                         |
| • other measurement function   | Yes                         |
| Net Weight   | 23.9 kg                     |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 1 200 A                     |
| • at 45 °C   | 1 200 A                     |
| • at 50 °C   | 1 200 A                     |
| • at 55 °C   | 1 200 A                     |
| • at 60 °C   | 1 200 A                     |
| • at 65 °C   | 1 200 A                     |
| • at 70 °C   | 1 200 A                     |
| Switching capacity according to IEC 60947  |                             |
| switching capacity class of the circuit breaker  | H                           |
| maximum short-circuit current breaking capacity (I <sub>cu</sub> )   |                             |

|  |                           |
|--|---------------------------|
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>   | 110 kA<br>70 kA<br>30 kA  |
| operating short-circuit current breaking capacity (Ics) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul> | 55 kA<br>35 kA<br>15 kA   |
| short-circuit current making capacity (Icm) <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>             | 242 kA<br>154 kA<br>63 kA |

#### Switching capacity according to UL 489

|  |                          |
|--|--------------------------|
| current breaking capacity <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 480 V</li> <li>• at 600 V</li> </ul> | 100 kA<br>65 kA<br>35 kA |
|--|--------------------------|

#### Adjustable parameters

|  |                             |
|--|-----------------------------|
| adjustable response value setting current (I <sub>r</sub> ) / of the L-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul> | 500 A<br>1 200 A            |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>     | 2.5 s<br>30 s               |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>    | 720 A<br>12 000 A           |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>    | 720 A<br>12 000 A           |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>    | 0.05 s<br>0.5 s             |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>    | 0.05 s<br>0.5 s             |
| adjustable response value setting current (I <sub>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                      | 1 800 A<br>12 000 A         |
| design of the N-conductor protection   | adjustable OFF; 20% to 160% |
| product function / grounding protection  | No                          |

#### Mechanical Design

|  |          |
|--|----------|
| product component <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• trip indicator</li> </ul> | No<br>No |
| height [in]  | 8.14 in  |
| height   | 206.9 mm |
| width [in]   | 8.99 in  |
| width  | 228.4 mm |
| depth [in]   | 16 in    |
| depth  | 406.4 mm |

#### Connections

|   |                   |
|---|-------------------|
| type of electrical connection / for main current circuit                              | without terminals |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)    | silver            |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | silver            |

#### Auxiliary circuit

|  |        |
|--|--------|
| number of CO contacts / for auxiliary contacts | 0      |
| <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  |
| reference code / according to IEC 81346-2      | F      |

#### Approvals / Certificates

##### General Product Approval



[Confirmation](#)



EG-Konf.



UL



UL

##### General Product Approval

##### EMV

##### Test Certificates

##### Marine / Shipping



VDE

[Miscellaneous](#)



RCM

[Type Test Certificates/Test Report](#)



ABS

##### other

##### Dangerous goods

##### Environment

[Miscellaneous](#)

[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

[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=3VA6712-6KP31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6712-6KP31-0AA0>

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

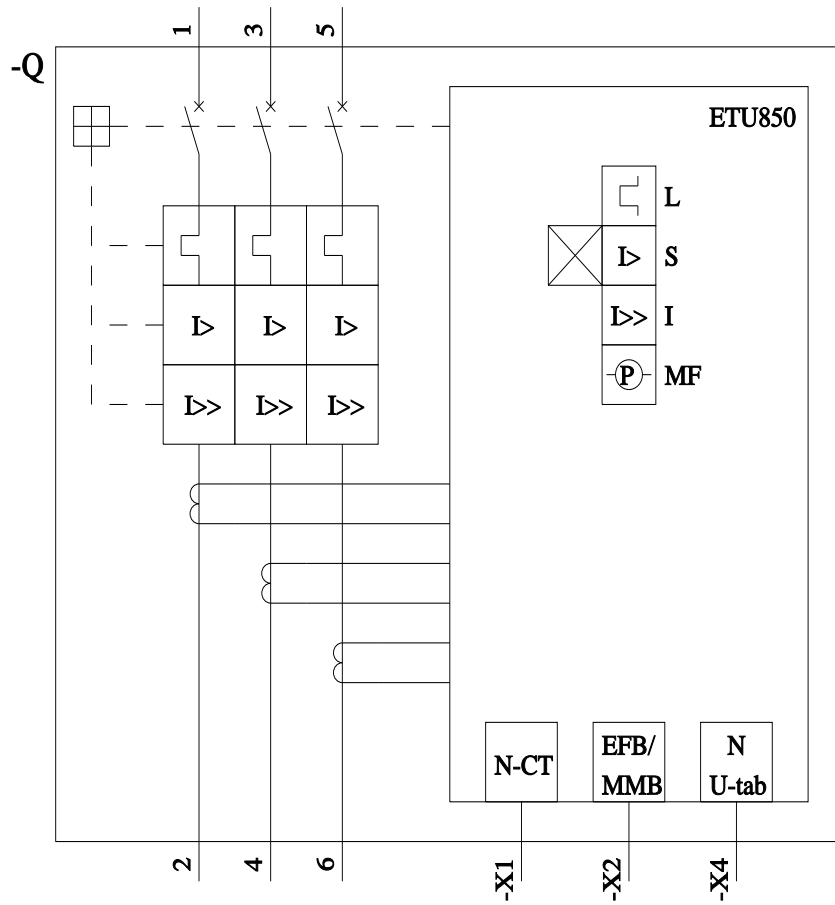
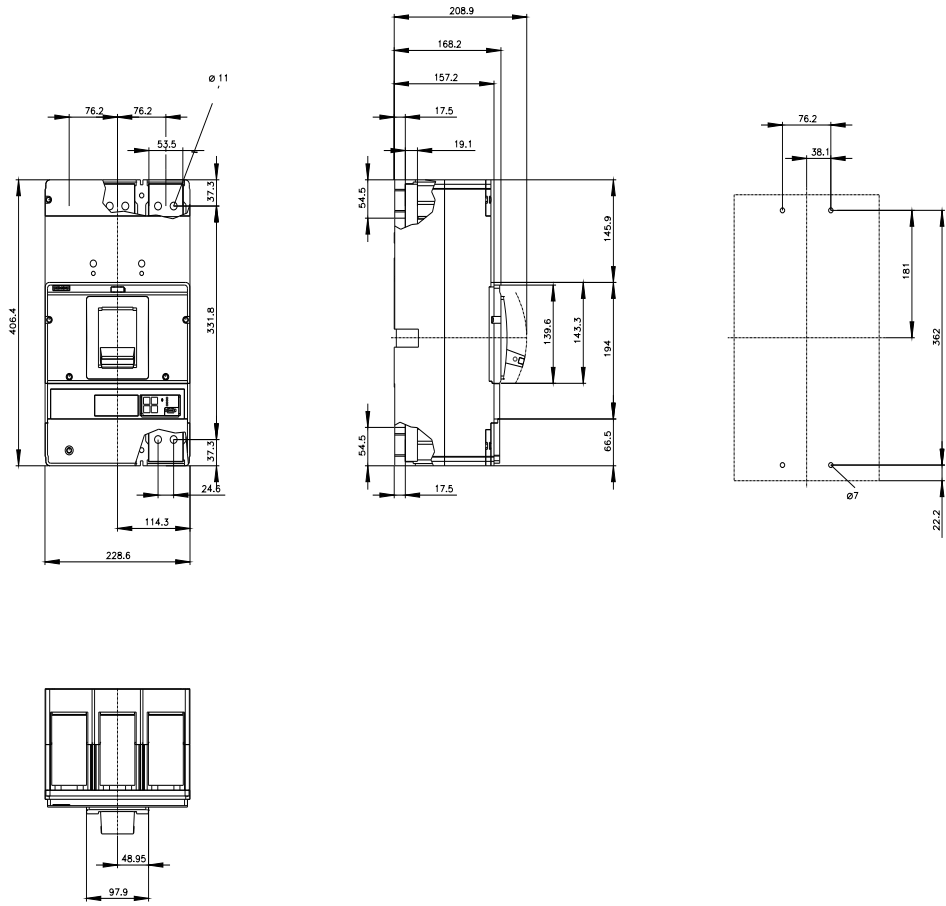
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6712-6KP31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6712-6KP31-0AA0)

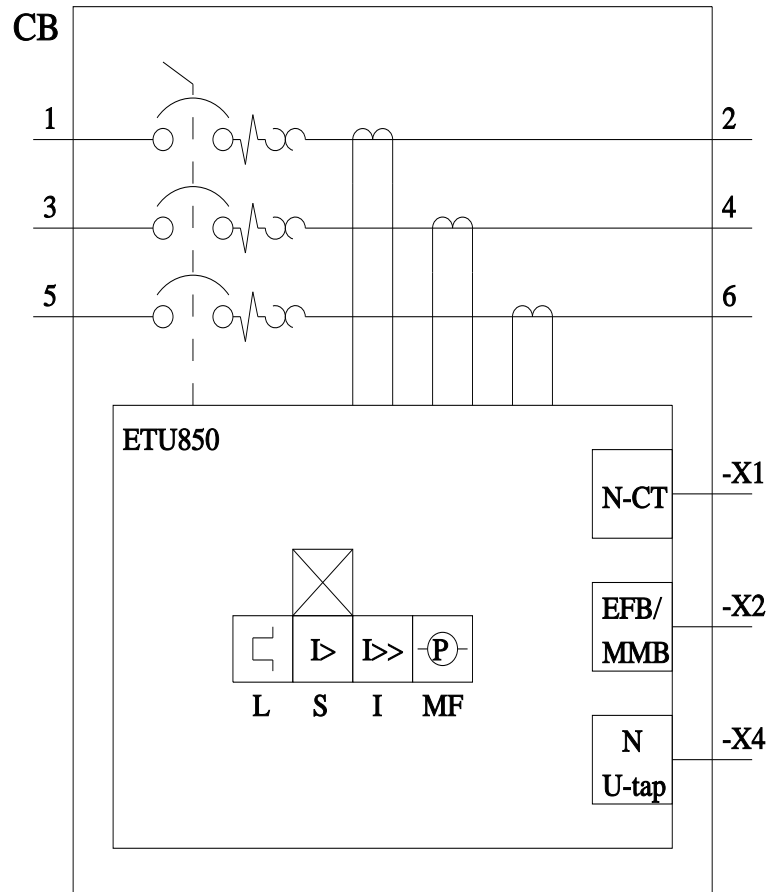
##### CAX-Online-Generator

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

##### Tender specifications

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





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