

circuit breaker 3VA6 UL frame 150 breaking capacity class H 65kA @ 480V 3-pole, line protection ETU850, LSI,  $I_n=150A$  overload protection  $I_r=60A...150A$  short-circuit protection  $I_{sd}=0.6..10x I_n$ ,  $I_i=1.5..10x I_n$  N conductor protection optionally with external current transformer, up to 160% without connection



| Model   |                             |
|---|-----------------------------|
| Product brand name  | SENTRON                     |
| Product designation   | Molded-case circuit breaker |
| Product designation / according to UL file  | HDAE                        |
| Product version   | System protection           |
| Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release   | ETU850                      |
| Protective function of the overcurrent release  | LSI                         |
| Number of poles   | 3                           |

| General technical data   |        |
|--|--------|
| Rated insulation voltage $U_i$   | 600 V  |
| Max. rated operational voltage $U_e$ with AC 50/60Hz   | 600 V  |
| Power loss [W] / maximum   | 29 W   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole | 9.67 W |
| Mechanical service life (switching cycles) / typical   | 20 000 |

|   |         |
|---|---------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 9 000   |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz     | 5 000   |
| Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz          | 9 000   |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz          | 9 000   |
| Neutral conductors / upgradeable/retrofitable                             | Yes     |
| Ground fault monitoring version   | Without |
| Product function  |         |
| • communication function  | Yes     |
| • other measurement function  | Yes     |

### Current

|  |       |
|--|-------|
| Marking / acc. to UL 489 / 100%-rated breaker    | Yes   |
| Max. rated operational current of the frame size | 150 A |
| Rated continuous current I <sub>u</sub>          | 150 A |
| Operating current                                |       |
| • at 40 °C                                       | 150 A |
| • at 45 °C                                       | 150 A |
| • at 50 °C                                       | 150 A |
| • at 55 °C                                       | 143 A |
| • at 60 °C                                       | 135 A |
| • at 65 °C                                       | 128 A |
| • at 70 °C                                       | 120 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> )     |        |
| • at 240 V   | 110 kA |
| • at 415 V   | 85 kA  |
| • at 690 V   | 2.5 kA |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |        |
| • at 240 V   | 110 kA |
| • at 415 V   | 85 kA  |
| • at 690 V   | 2.5 kA |
| Short-circuit current making capacity (I <sub>cm</sub> )               |        |
| • at 240 V   | 242 kA |
| • at 415 V   | 187 kA |
| • at 690 V   | 3.8 kA |

### Switching capacity according to UL 489

|                           |  |
|---------------------------|--|
| Breaking capacity current |  |
|---------------------------|--|

|            |        |
|------------|--------|
| • at 240 V | 100 kA |
| • at 480 V | 65 kA  |
| • at 600 V | 22 kA  |

#### Adjustable parameters

|   |         |
|---|---------|
| Adjustable response value current / Ir min.                             | 60 A    |
| Adjustable response value current / Ir max.                             | 150 A   |
| Adjustable response value time / tr min.                                | 0.5     |
| Adjustable response value time / tr max.                                | 20      |
| Adjustable response value current / I <sub>sd</sub> min.                | 90 A    |
| Adjustable response value current / I <sub>sd</sub> max.                | 1 500 A |
| Adjustable response value time / tsd min.                               | 0.05 s  |
| Adjustable response value time / tsd max.                               | 0.5 s   |
| Adjustable response value time / tsd min.                               | 0.05 s  |
| Adjustable response value time / tsd max.                               | 0.5 s   |
| Adjustable response value current / I <sub>i</sub> min.                 | 225 A   |
| Adjustable response value current / I <sub>i</sub> max.                 | 1 500 A |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF | No      |

#### Mechanical Design

|             |        |
|-------------|--------|
| Height [in] | 7.8 in |
| Height      | 198 mm |
| Width [in]  | 4.1 in |
| Width       | 105 mm |
| Depth [in]  | 3.4 in |
| Depth       | 86 mm  |

#### Connections

|   |                    |
|---|--------------------|
| Arrangement of electrical connectors / for main current circuit | Without connection |
| Type of electrical connection / for main current circuit        | Without            |

#### Auxiliary circuit

|  |   |
|--|---|
| Number of CO contacts / for auxiliary contacts | 0 |
|--|---|

#### Accessories







|  |     |
|--|-----|
| Product extension / optional / motor drive | Yes |
|--|-----|




#### Environmental conditions

|                                    |        |
|------------------------------------|--------|
| 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  |

## Certificates

|  |     |
|--|-----|
| Reference code / acc. to DIN EN 81346-2  | Q   |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | Yes |

| General Product Approval   | EMC  |
|--|--|
|  CCC<br> CSA<br> UL<br> UL |  EAC<br> RCM |

| Declaration of Conformity  | Shipping Approval   | other  |
|--|---|--|
|  EG-Konf. |  ABS |  LRS<br><a href="#">Miscellaneous</a> |

## Further information

### 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?mfb=3VA6115-6KP31-2AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6115-6KP31-2AA0>

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

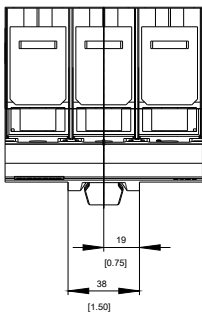
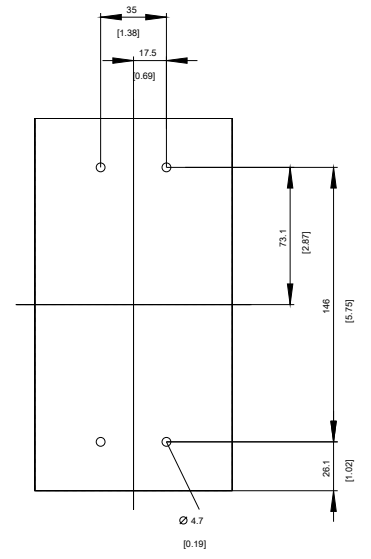
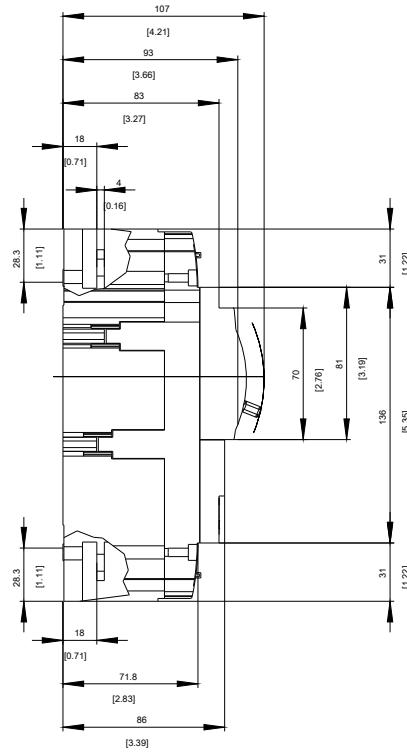
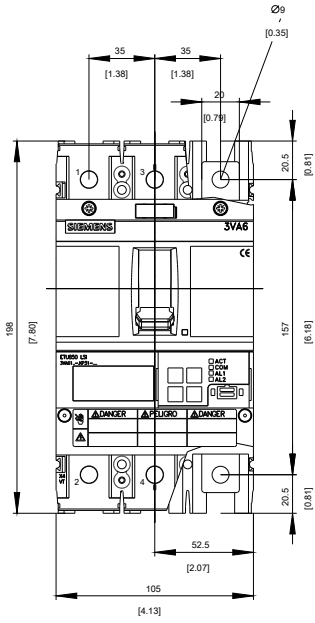
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA6115-6KP31-2AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA6115-6KP31-2AA0)

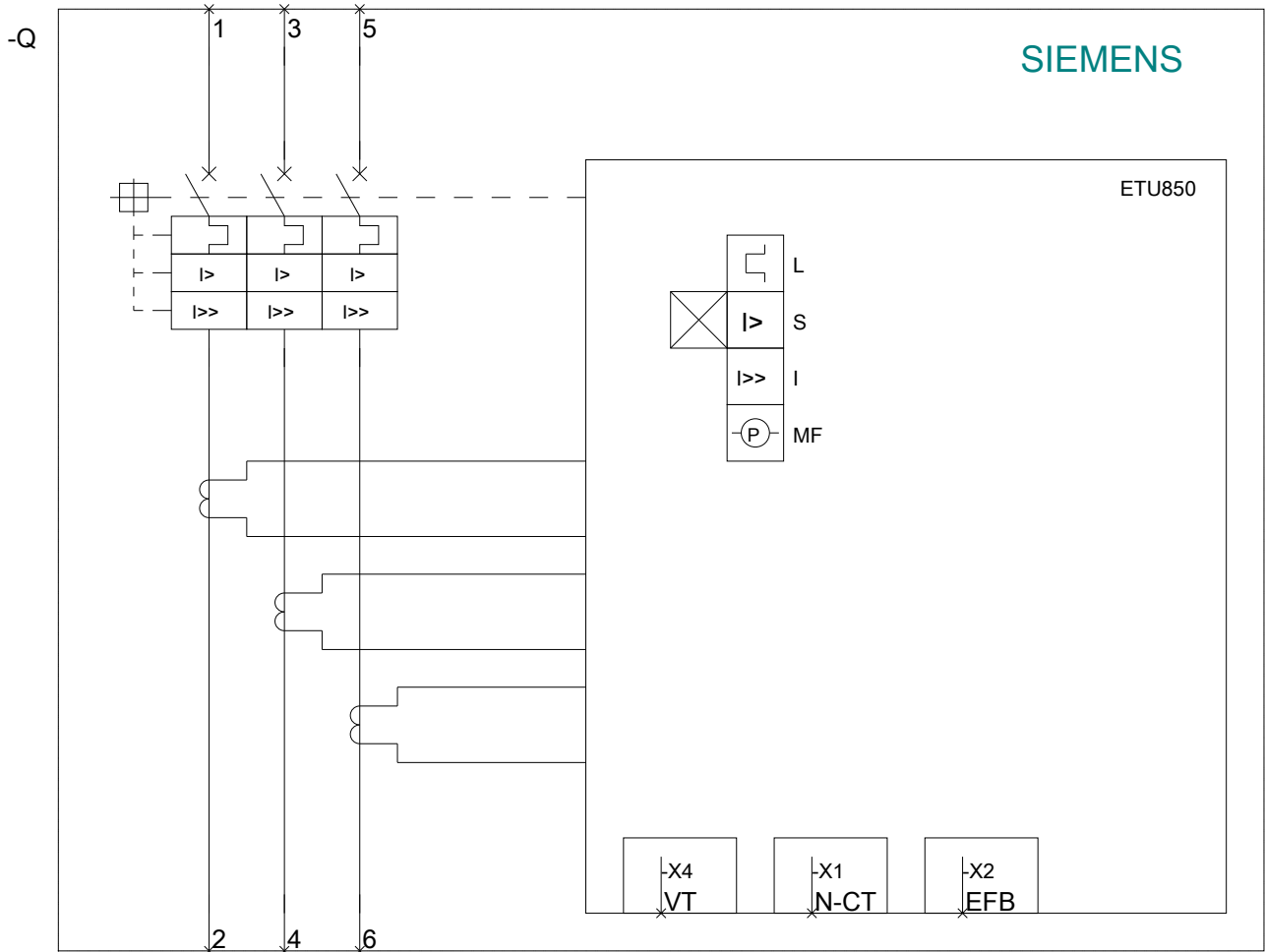
### CAX-Online-Generator

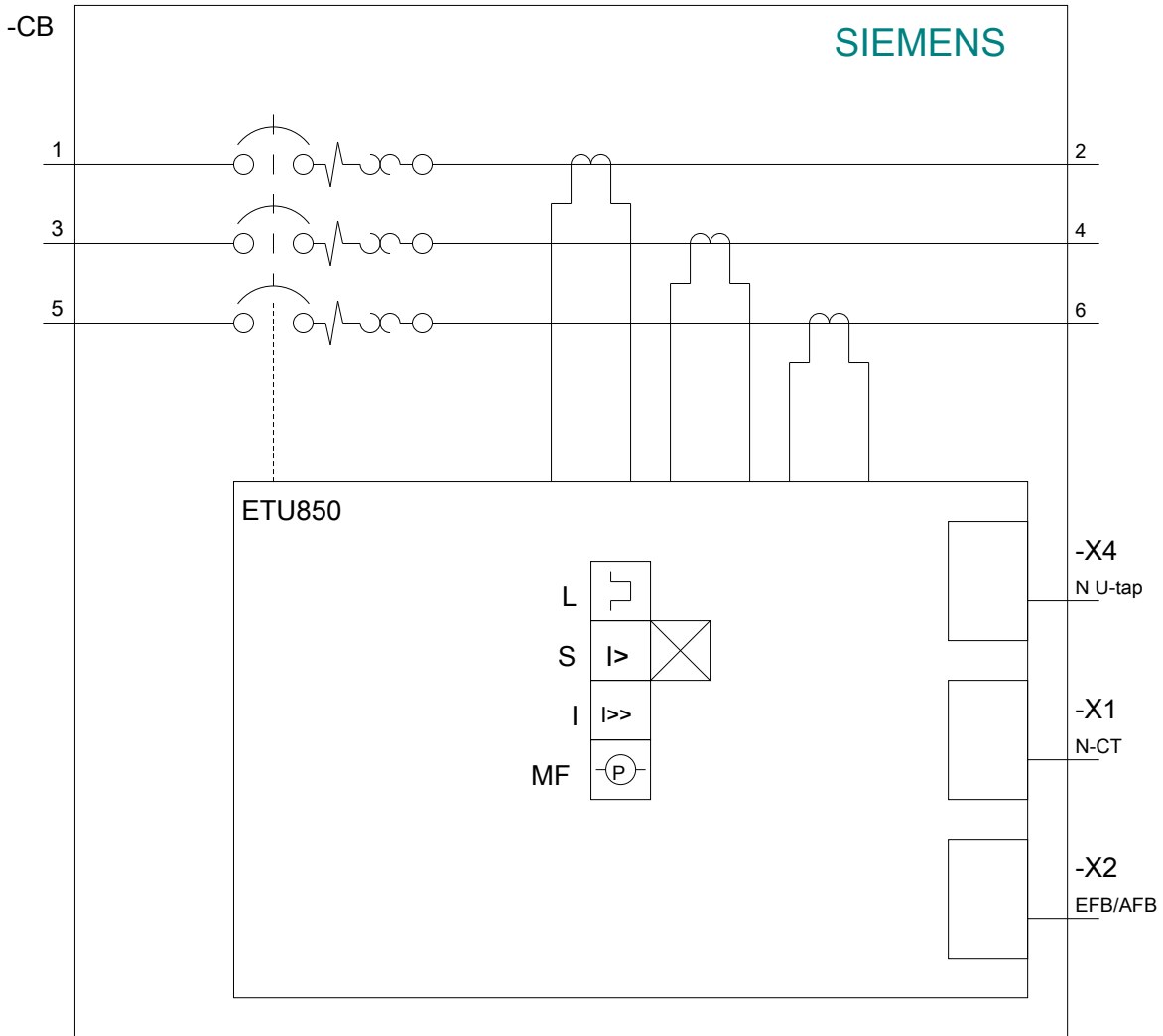
<http://www.siemens.com/cax>

### Tender specifications

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







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