



circuit breaker 3VA6 UL frame 1600 breaking capacity class M 35kA @ 480 V 3-pole, line protection ETU320, LI, In=1600A overload protection Ir=600A - 1600A short circuit protection Ii=1,5-7,5 x In w/o connection

| Model  |                             |
|--|-----------------------------|
| product brand name   | SENTRON                     |
| product designation  | Molded-case circuit breaker |
| product designation / according to UL file   | MPAE                        |
| 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  | ETU320                      |
| protection function of the overcurrent release   | LI                          |
| 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   | 433 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 433 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                      | No                          |
| ground-fault monitoring version  | without                     |
| product function   |                             |
| • communication function   | No                          |
| • other measurement function   | No                          |
| Net Weight   | 23.9 kg                     |
| Current  |                             |
| marking / according to UL 489 / 100%-rated breaker   | No                          |
| operational current  |                             |
| • at 40 °C   | 1 600 A                     |
| • at 45 °C   | 1 600 A                     |
| • at 50 °C   | 1 600 A                     |
| • at 55 °C   | 1 568 A                     |
| • at 60 °C   | 1 536 A                     |
| • at 65 °C   | 1 504 A                     |
| • at 70 °C   | 1 472 A                     |
| Switching capacity according to IEC 60947  |                             |
| switching capacity class of the circuit breaker  | M                           |
| maximum short-circuit current breaking capacity (Icu)  |                             |

|  |                                    |
|--|------------------------------------|
| <ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 415 V</li> <li>• at 690 V</li> </ul>   | 65 kA<br>50 kA<br>20 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>   | 35 kA<br>25 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>   | 143 kA<br>105 kA<br>63 kA          |
| <b>Switching capacity according to UL 489</b>  |                                    |
| 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>   | 85 kA<br>35 kA<br>25 kA            |
| <b>Adjustable parameters</b>   |                                    |
| 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>                 | 600 A<br>1 600 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>i</sub> ) / for I-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>  | 2 400 A<br>12 000 A                |
| product function / grounding protection  | No                                 |
| <b>Mechanical Design</b>   |                                    |
| 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                           |
| <b>Connections</b>   |                                    |
| 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                             |
| <b>Auxiliary circuit</b>   |                                    |
| number of CO contacts / for auxiliary contacts   | 0                                  |
| <b>Environmental conditions</b>  |                                    |
| 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> | -25 °C<br>70 °C<br>-40 °C<br>80 °C |
| reference code / according to IEC 81346-2  | F                                  |
| <b>Approvals / Certificates</b>  |                                    |
| <b>General Product Approval</b>  |                                    |

[Confirmation](#)



[Miscellaneous](#)

|                          |     |                   |                   |       |
|--------------------------|-----|-------------------|-------------------|-------|
| General Product Approval | EMV | Test Certificates | Marine / Shipping | other |
|--------------------------|-----|-------------------|-------------------|-------|



[Type Test Certificates/Test Report](#)



[Confirmation](#)

[Miscellaneous](#)

|       |                 |             |
|-------|-----------------|-------------|
| other | Dangerous goods | Environment |
|-------|-----------------|-------------|

[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=3VA6816-5HL31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA6816-5HL31-0AA0>

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

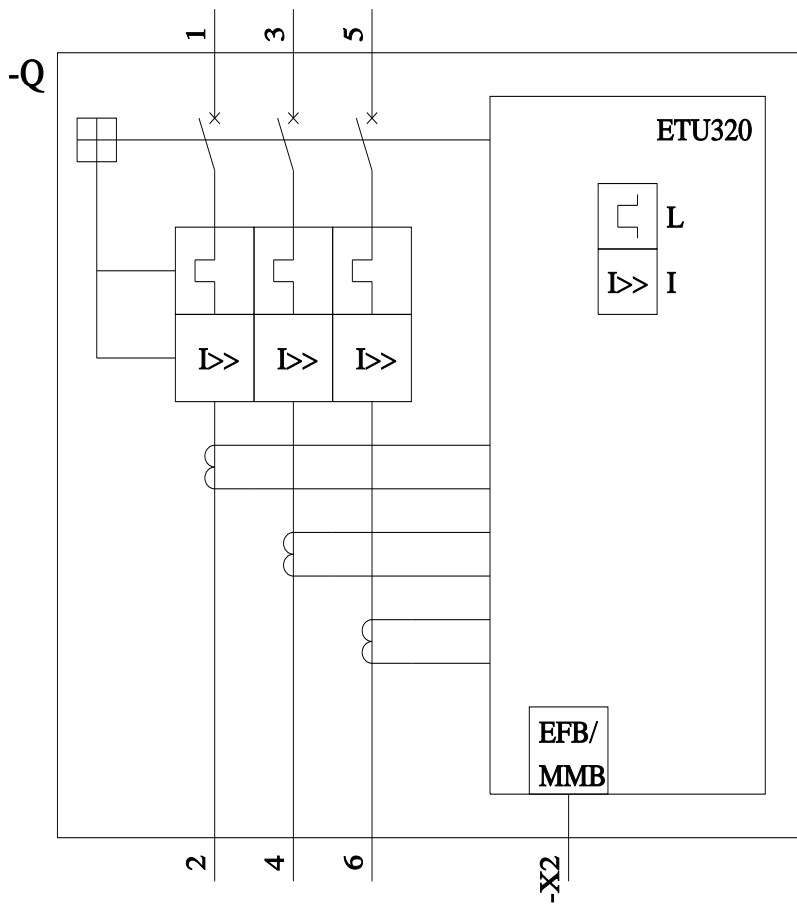
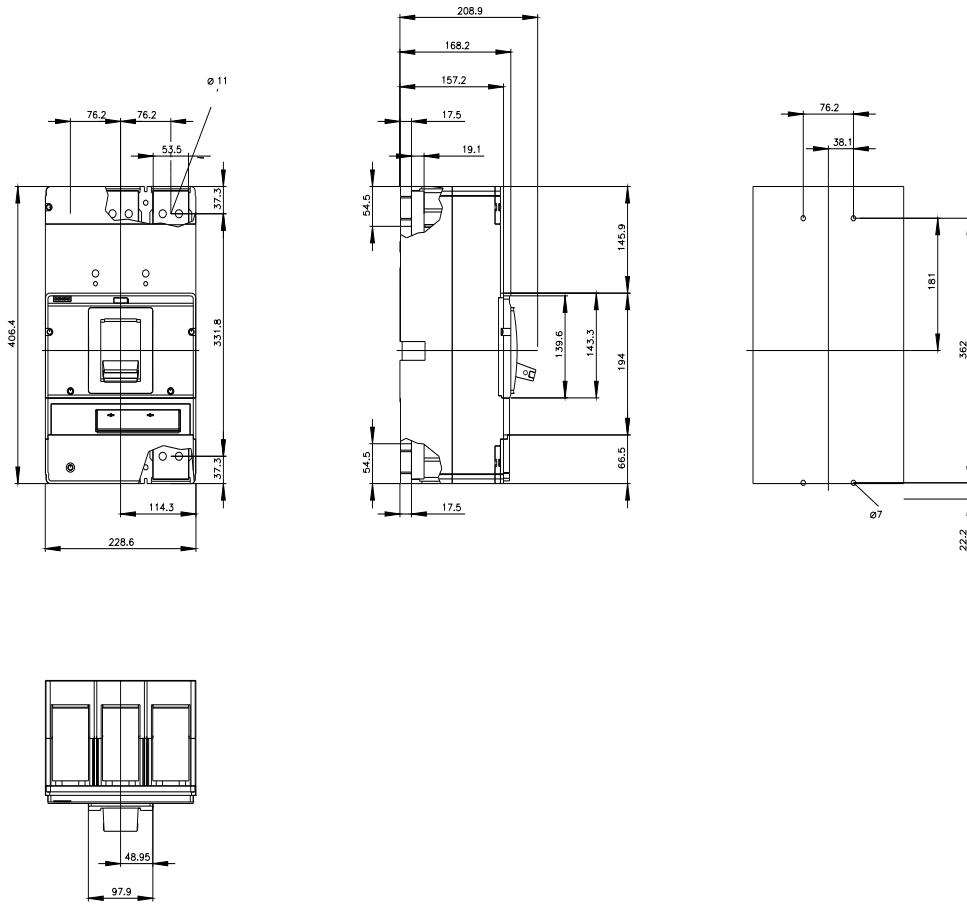
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6816-5HL31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6816-5HL31-0AA0)

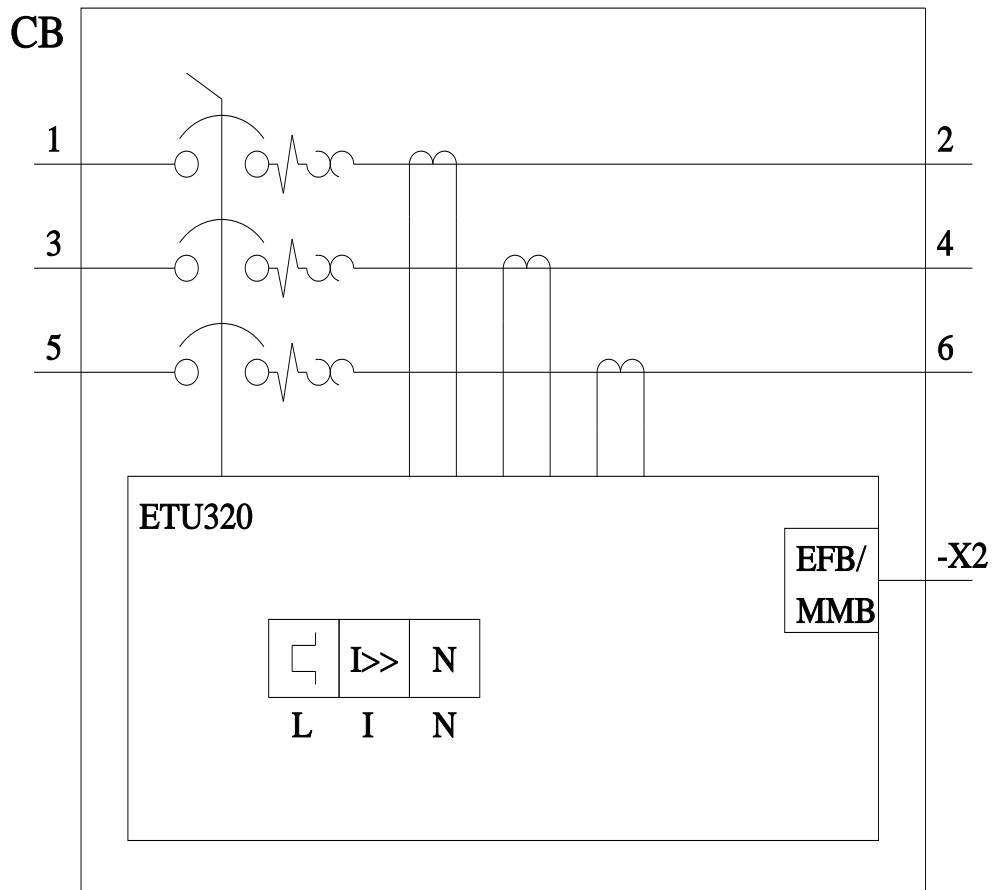
CAX-Online-Generator

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

Tender specifications

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





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