

**Siemens**  
**EcoTech**



circuit breaker 3VA6 UL Frame 150 breaking capacity class H 65 kA @ 480 V 3-pole, line protection ETU830, LIG, In=100 A overload protection Ir=40 A ...100 A short-circuit protection Ii=1.5...12 x In ground-fault protection Ig=0.2... 1 x In, tg=0.05-0.8s cable connection on two sides



| Model                                                                                                                      |                                         |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| product brand name                                                                                                         | SENTRON                                 |
| product designation                                                                                                        | Molded-case circuit breaker             |
| product designation / according to UL file                                                                                 | HDAE                                    |
| 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                                                                                          | ETU830                                  |
| protection function of the overcurrent release                                                                             | LIG                                     |
| number of poles                                                                                                            | 3                                       |
| General technical data                                                                                                     |                                         |
| insulation voltage / rated value                                                                                           | 800 V                                   |
| operating voltage / at AC / rated value                                                                                    | 690 V                                   |
| power loss [W] / maximum                                                                                                   | 13 W                                    |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 4.33 W                                  |
| mechanical service life (operating cycles) / typical                                                                       | 25 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 14 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 9 800                                   |
| electrical endurance (operating cycles) / at 480 V                                                                         | 14 000                                  |
| electrical endurance (operating cycles) / at 600 V                                                                         | 9 800                                   |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof                     | No                                      |
| ground-fault monitoring version                                                                                            | Summation current formation L-conductor |
| product function                                                                                                           |                                         |
| • communication function                                                                                                   | Yes                                     |
| • other measurement function                                                                                               | Yes                                     |
| Net Weight                                                                                                                 | 2.709 kg                                |
| Current                                                                                                                    |                                         |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                                      |
| operational current                                                                                                        |                                         |
| • at 40 °C                                                                                                                 | 100 A                                   |
| • at 45 °C                                                                                                                 | 100 A                                   |
| • at 50 °C                                                                                                                 | 100 A                                   |
| • at 55 °C                                                                                                                 | 100 A                                   |
| • at 60 °C                                                                                                                 | 100 A                                   |
| • at 65 °C                                                                                                                 | 100 A                                   |
| • at 70 °C                                                                                                                 | 100 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>85 kA<br>2.5 kA  |
| operating short-circuit current breaking capacity (I <sub>cs</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>85 kA<br>2.5 kA  |
| short-circuit current making capacity (I <sub>cm</sub> ) <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>187 kA<br>3.8 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>22 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>  | 40 A<br>100 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>      | 0.5 s<br>25 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>                                       | 150 A<br>1 200 A |
| adjustable current response value current / for G-tripping / with standard characteristic <ul style="list-style-type: none"><li>• initial value</li><li>• full-scale value</li></ul>           | 20 A<br>100 A    |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>      | 0.05 s<br>0.8 s  |
| adjustable response value setting current (I <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul> | 20 A<br>100 A    |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2t</sub> characteristic <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>      | 0.05 s<br>0.8 s  |
| adjustable setting current (I <sub>n</sub> ) / for N-tripping <ul style="list-style-type: none"><li>• minimum</li><li>• maximum</li></ul>                                                      | 0 A<br>0 A       |
| product function / grounding protection                                                                                                                                                        | Yes              |

**Mechanical Design**

|                                                                                                                                             |                      |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| product component <ul style="list-style-type: none"><li>• undervoltage release</li><li>• voltage trigger</li><li>• trip indicator</li></ul> | No<br>No<br>No       |
| height [in]                                                                                                                                 | 7.8 in               |
| height                                                                                                                                      | 198 mm               |
| width [in]                                                                                                                                  | 4.13 in              |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                                                   | 1 x (14 AWG ... 1/0) |
| width                                                                                                                                       | 105 mm               |
| depth [in]                                                                                                                                  | 3.39 in              |

|                                                                 |                                           |
|-----------------------------------------------------------------|-------------------------------------------|
| depth                                                           | 86 mm                                     |
| <b>Connections</b>                                              |                                           |
| arrangement of electrical connectors / for main current circuit | Front connection                          |
| type of electrical connection / for main current circuit        | circular conductor terminal on both sides |
| <b>Auxiliary circuit</b>                                        |                                           |
| number of CO contacts / for auxiliary contacts                  | 0                                         |
| <b>Accessories</b>                                              |                                           |
| product extension / optional / motor drive                      | Yes                                       |
| <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>Environmental footprint</b>                                  |                                           |
| Environmental Product Declaration (EPD)                         | Yes                                       |
| global warming potential [CO2 eq] / total                       | 61.814 kg                                 |
| global warming potential [CO2 eq] / during manufacturing        | 14.6 kg                                   |
| global warming potential [CO2 eq] / during operation            | 48.9 kg                                   |
| global warming potential [CO2 eq] / after end of life           | -2.2 kg                                   |
| Siemens Eco Profile (SEP)                                       | Siemens EcoTech                           |
| reference code / according to IEC 81346-2                       | Q                                         |
| <b>Approvals / Certificates</b>                                 |                                           |
| <b>General Product Approval</b>                                 |                                           |

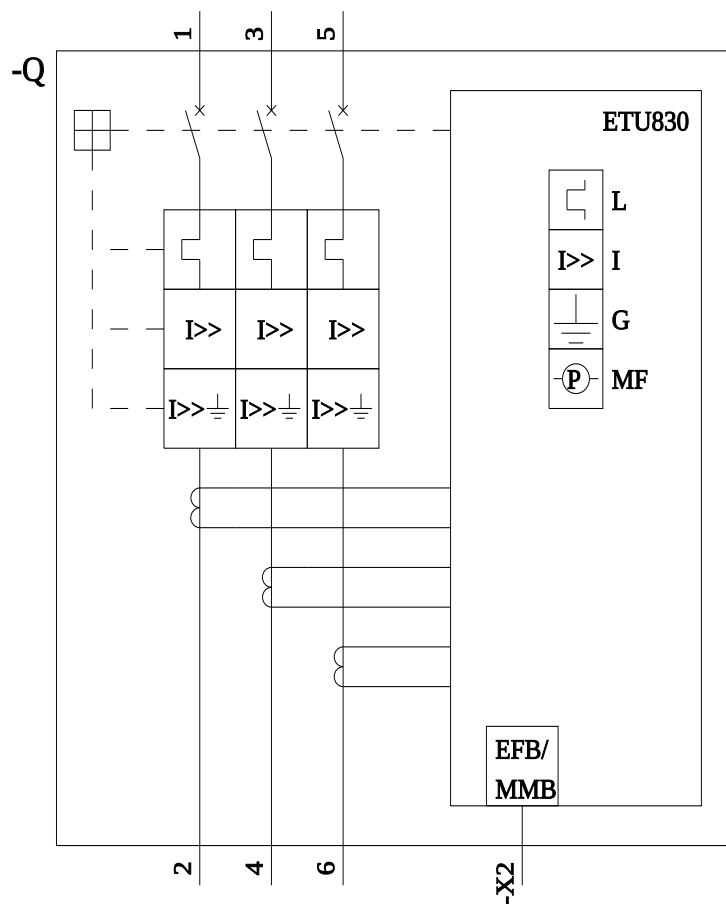
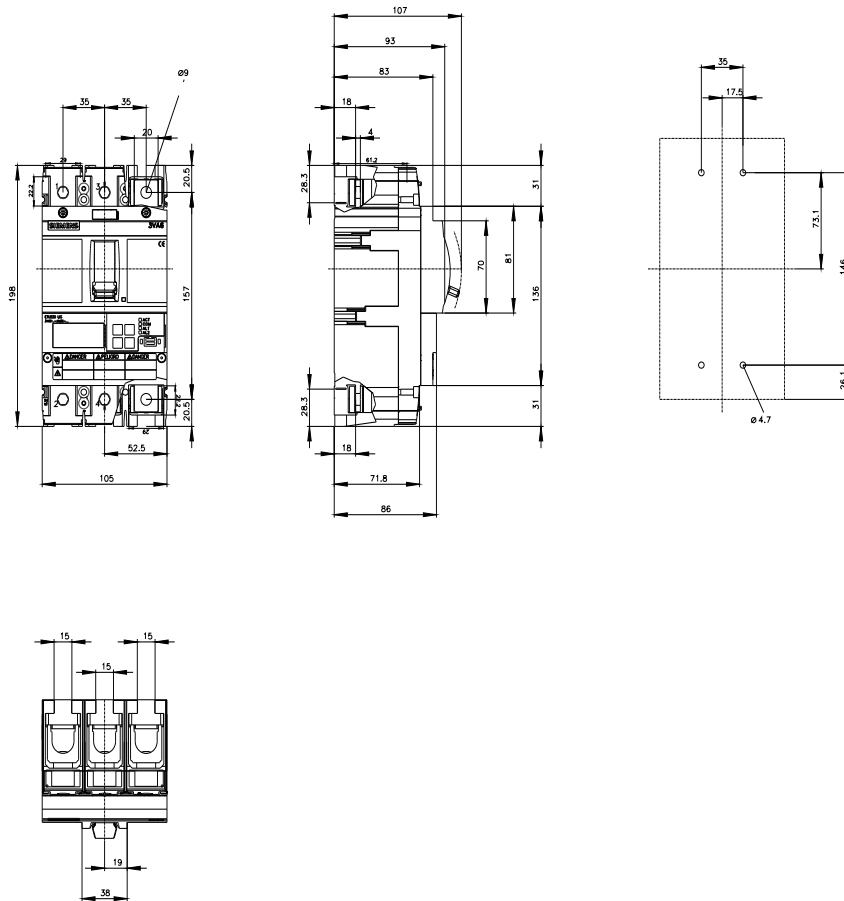


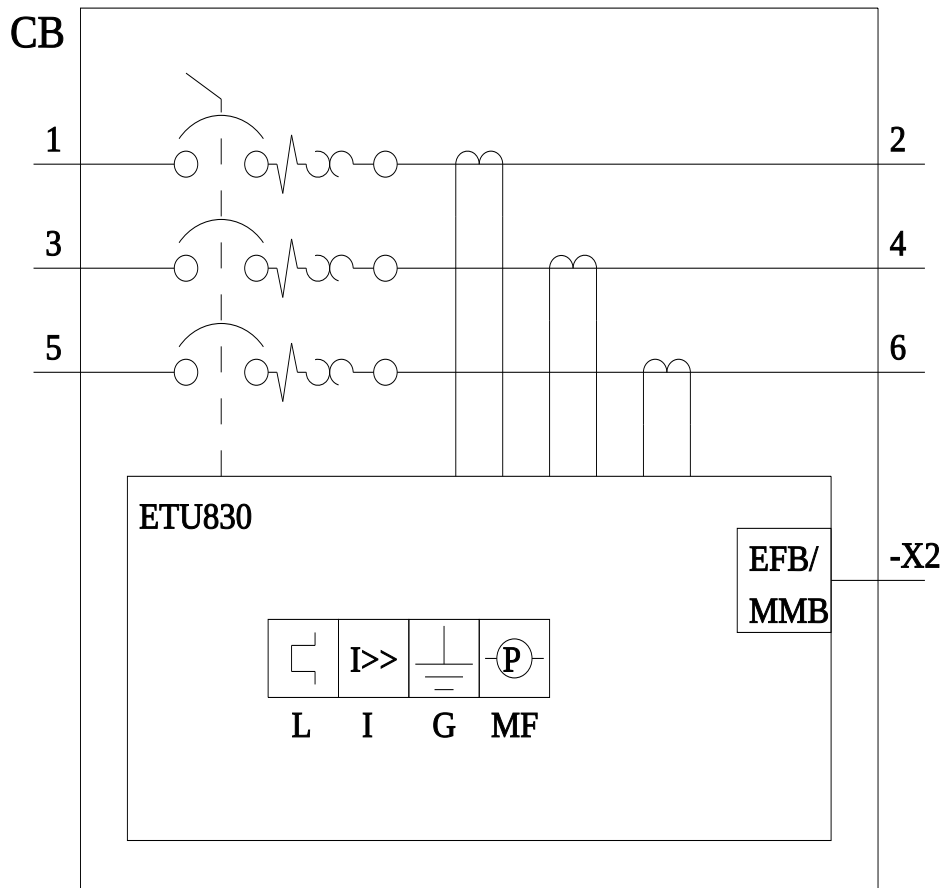
[Miscellaneous](#)

|                          |                         |                      |                               |
|--------------------------|-------------------------|----------------------|-------------------------------|
| General Product Approval | EMV                     | Maritime application | other                         |
|                          | <a href="#">BIS CRS</a> |                      |                               |
|                          |                         |                      | <a href="#">Confirmation</a>  |
|                          |                         |                      | <a href="#">Miscellaneous</a> |

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| Dangerous goods                       | Environment                                 |
| <a href="#">Transport Information</a> |                                             |
|                                       |                                             |
|                                       | <a href="#">Environmental Confirmations</a> |

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| <b>Further information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>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></p> <p>Information- and Downloadcenter (Catalogs, Brochures,...)<br/> <a href="http://www.siemens.com/lowvoltage/catalogs">http://www.siemens.com/lowvoltage/catalogs</a></p> <p>Industry Mall (Online ordering system)<br/> <a href="https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6110-6KM36-0AA0">https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA6110-6KM36-0AA0</a></p> <p>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)<br/> <a href="https://support.industry.siemens.com/cs/ww/en/ps/3VA6110-6KM36-0AA0">https://support.industry.siemens.com/cs/ww/en/ps/3VA6110-6KM36-0AA0</a></p> <p>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)<br/> <a href="http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6110-6KM36-0AA0">http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6110-6KM36-0AA0</a></p> <p>CAX-Online-Generator<br/> <a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a></p> <p>Tender specifications<br/> <a href="http://www.siemens.com/specifications">http://www.siemens.com/specifications</a></p> |





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