



circuit breaker 3VA6 UL Frame 800 breaking capacity class H 65 kA @ 480 V 3-pole, line protection ETU856, LSI, In=800 A overload protection Ir=315 A ...800 A short-circuit protection Isd=0.6..10x In, li=1.5..10x In neutral conductor protection optionally with ext. CT up to 160% ground fault alarm signaled via EFB300 or COM cable connection on two sides

| Model                                                                                                                      |                                         |
|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| product brand name                                                                                                         | SENTRON                                 |
| product designation                                                                                                        | Molded-case circuit breaker             |
| product designation / according to UL file                                                                                 | HMAE                                    |
| 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                                                                                          | ETU856                                  |
| protection function of the overcurrent release                                                                             | LSI-G-alarm only                        |
| 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                                                                                                   | 231 W                                   |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole                                | 77 W                                    |
| mechanical service life (operating cycles) / typical                                                                       | 10 000                                  |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                                           | 5 800                                   |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                                               | 4 000                                   |
| electrical endurance (operating cycles) / at 480 V                                                                         | 5 800                                   |
| electrical endurance (operating cycles) / at 600 V                                                                         | 4 000                                   |
| product feature / for neutral conductors / upgradable/retrofitable / short-circuit and overload proof                      | Yes                                     |
| ground-fault monitoring version                                                                                            | Summation current formation L-conductor |
| product function                                                                                                           |                                         |
| • communication function                                                                                                   | Yes                                     |
| • other measurement function                                                                                               | Yes                                     |
| Net Weight                                                                                                                 | 17.755 kg                               |
| Current                                                                                                                    |                                         |
| marking / according to UL 489 / 100%-rated breaker                                                                         | No                                      |
| operational current                                                                                                        |                                         |
| • at 40 °C                                                                                                                 | 800 A                                   |
| • at 45 °C                                                                                                                 | 800 A                                   |
| • at 50 °C                                                                                                                 | 800 A                                   |
| • at 55 °C                                                                                                                 | 776 A                                   |
| • at 60 °C                                                                                                                 | 752 A                                   |
| • at 65 °C                                                                                                                 | 708 A                                   |
| • at 70 °C                                                                                                                 | 664 A                                   |
| Switching capacity according to IEC 60947                                                                                  |                                         |
| switching capacity class of the circuit breaker                                                                            | H                                       |
| 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>                                                         | 110 kA<br>85 kA<br>35 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> | 110 kA<br>85 kA<br>19 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>187 kA<br>74 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> | 150 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>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>  | 315 A<br>800 A              |
| adjustable response value delay time (t <sub>r</sub> ) / for L-tripping / with I <sub>2</sub> t 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>sd</sub> ) / of S-trip / with I <sub>0</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>     | 480 A<br>8 000 A            |
| adjustable response value setting current (I <sub>sd</sub> ) / of S-trip / with I <sub>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>     | 480 A<br>8 000 A            |
| adjustable response value delay time (t <sub>sd</sub> ) / for S-tripping / with I <sub>0</sub> t 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>2</sub> t 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>                                        | 1 200 A<br>8 000 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>            | 160 A<br>800 A              |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>0</sub> t 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>2</sub> t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul> | 160 A<br>800 A              |
| adjustable response value delay time (t <sub>g</sub> ) / for G-tripping / with I <sub>2</sub> t 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>nN</sub> ) / for N-tripping <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                      | 0 A<br>0 A                  |
| design of the N-conductor protection                                                                                                                                                               | adjustable OFF; 20% to 160% |

|                                                                                           |                       |
|-------------------------------------------------------------------------------------------|-----------------------|
| product function / grounding protection                                                   | Yes                   |
| <b>Mechanical Design</b>                                                                  |                       |
| product component                                                                         |                       |
| • undervoltage release                                                                    | No                    |
| • voltage trigger                                                                         | No                    |
| • trip indicator                                                                          | No                    |
| height [in]                                                                               | 12.91 in              |
| height                                                                                    | 328 mm                |
| width [in]                                                                                | 8.27 in               |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded | 4 x (4/0 - 500 kcmil) |
| width                                                                                     | 210 mm                |
| depth [in]                                                                                | 4.72 in               |
| depth                                                                                     | 120 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 | No |

|                                           |        |
|-------------------------------------------|--------|
| <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 | Q      |

|                                 |  |
|---------------------------------|--|
| <b>Approvals / Certificates</b> |  |
| <b>General Product Approval</b> |  |



[Miscellaneous](#)



|     |                      |       |                 |
|-----|----------------------|-------|-----------------|
| EMV | Maritime application | other | Dangerous goods |
|-----|----------------------|-------|-----------------|



[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

|                    |
|--------------------|
| <b>Environment</b> |
|--------------------|

[Environmental Conformations](#)

|                            |
|----------------------------|
| <b>Further information</b> |
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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=3VA6580-6KT36-0AA0>

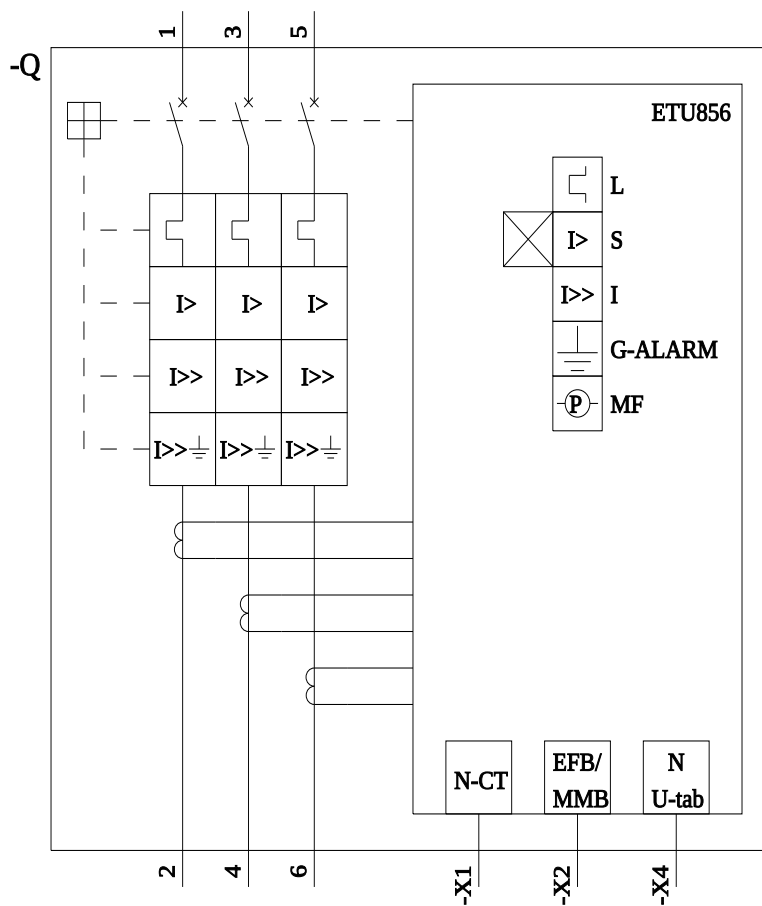
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

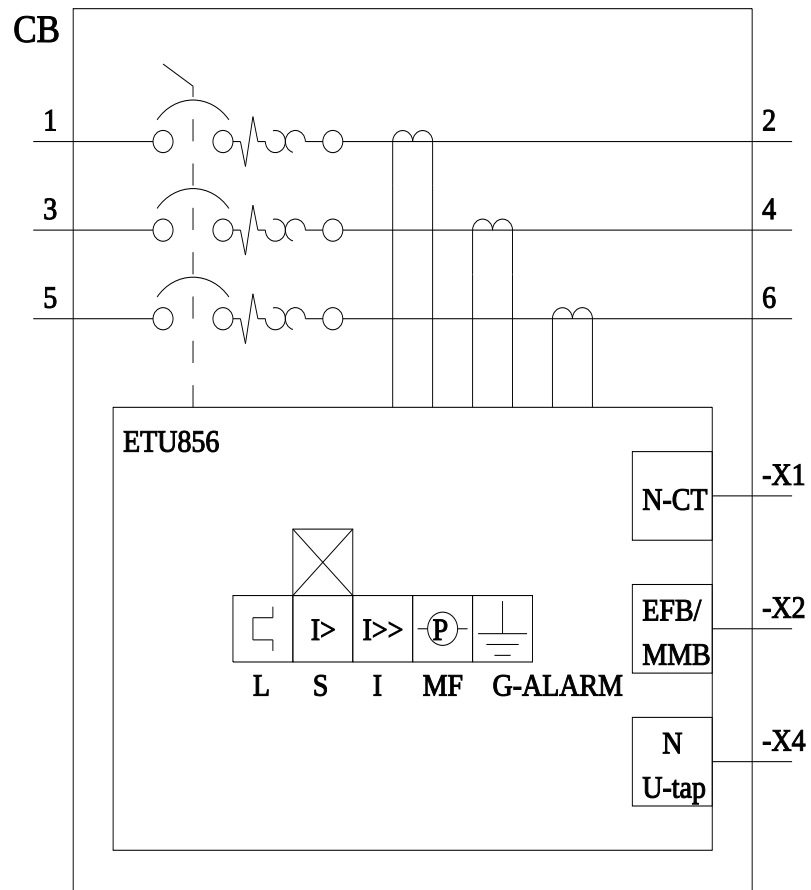
<https://support.industry.siemens.com/cs/ww/en/ps/3VA6580-6KT36-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA6580-6KT36-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA6580-6KT36-0AA0)

**CAX-Online-Generator**





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