



circuit breaker 3VA2 IEC Frame 100 breaking capacity class C  $I_{cu}=110 \text{ kA @ 415 V}$  3-pole, line protection ETU850, LSI,  $I_n=100 \text{ A}$  overload protection  $I_r=40 \text{ A} \dots 100 \text{ A}$  short-circuit protection  $I_{sd}=0.6 \dots 10 \times I_n$ ,  $I_i=1.5 \dots 12 \times I_n$  neutral conductor protection optionally with external current transformer, up to 160% terminal connection

| Model                                                                                                 |                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                                    | SENTRON                     |
| product designation                                                                                   | Molded case circuit breaker |
| design of the product                                                                                 | Line protection             |
| 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                                                               | 690 V                       |
| power loss [W] / maximum                                                                              | 7.7 W                       |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 2.57 W                      |
| mechanical service life (operating cycles) / typical                                                  | 25 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V                                      | 15 000                      |
| electrical endurance (operating cycles) / at AC-1 / at 690 V                                          | 10 500                      |
| 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                                                                                            | 2.5 kg                      |
| Current                                                                                               |                             |
| 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                                                       | C                           |
| maximum short-circuit current breaking capacity ( $I_{cu}$ )                                          |                             |
| • at 240 V                                                                                            | 150 kA                      |

|                                                                                                                                              |                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 415 V</li> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                     | 110 kA<br>110 kA<br>85 kA<br>2 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 150 kA<br>110 kA<br>110 kA<br>85 kA<br>2 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 330 kA<br>242 kA<br>242 kA<br>187 kA<br>3 kA |
| <b>Adjustable parameters</b>                                                                                                                 |                                              |
| product feature / for L-tripping / can be switched on/off                                                                                    | No                                           |
| 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>sd</sub> ) / of S-trip / with I <sub>0t</sub> characteristic                               |                                              |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                               | 60 A<br>1 000 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>                                                               | 60 A<br>1 000 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>                                                               | 150 A<br>1 200 A                             |
| adjustable setting current (I <sub>nN</sub> ) / for N-tripping                                                                               |                                              |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                               | 20 A<br>160 A                                |
| design of the N-conductor protection                                                                                                         | adjustable OFF; 20% to 160%                  |
| product function / grounding protection                                                                                                      | No                                           |
| <b>Mechanical Design</b>                                                                                                                     |                                              |
| 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]                                                                                                                                  | 7.13 in                                      |
| height                                                                                                                                       | 181 mm                                       |
| width [in]                                                                                                                                   | 4.13 in                                      |
| type of connectable conductor cross-sections / of the round conductor terminal / stranded                                                    | 1 x (6 - 120 mm <sup>2</sup> )               |
| width                                                                                                                                        | 105 mm                                       |

|                                                                                       |                           |
|---------------------------------------------------------------------------------------|---------------------------|
| depth [in]                                                                            | 3.39 in                   |
| depth                                                                                 | 86 mm                     |
| <b>Connections</b>                                                                    |                           |
| arrangement of electrical connectors / for main current circuit                       | Front terminal            |
| type of electrical connection / for main current circuit                              | double-sided box terminal |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5)    | tin                       |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) | tin                       |
| <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>                                                        |                           |
| 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](#)



[Confirmation](#)

| General Product Approval                                                                        | EMV                                                                                        | Test Certificates             |                                          |                                                    | Maritime application                                                                         |
|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------|------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------|
| <br>EG-Konf. | <br>RCM | <a href="#">Miscellaneous</a> | <a href="#">Special Test Certificate</a> | <a href="#">Type Test Certificates/Test Report</a> | <br>ABS |

| Maritime application                                                                | other                                                                               |                                                                                            |                                                                                     |                                                    |                               |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------|
|  |  | <br>LRS |  | <a href="#">CCS (China Classification Society)</a> | <a href="#">Miscellaneous</a> |

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

| Environment |
|-------------|
|-------------|



#### Further information

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**Information for data generation and storage**

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<https://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2010-7KP36-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-7KP36-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2010-7KP36-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-7KP36-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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

**Characteristic curves**

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)

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