



circuit breaker 3VA2 IEC frame 100 breaking capacity class H Icu=85kA @ 415V  
4-pole, line protection ETU850, LSI, In=100A overload protection Ir=40A...100A  
short-circuit protection Isd=0.6..10x In, li=1.5..12x In N conductor protection  
adjustable (OFF, up to 100%) nut keeper kit

| 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                                                                                       | 4                           |
| General technical data                                                                                |                             |
| insulation voltage / rated value                                                                      | 800 V                       |
| operating voltage / at AC / rated value                                                               | 690 V                       |
| power loss [W] / maximum                                                                              | 13.5 W                      |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 4.5 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 | No                          |
| ground-fault monitoring version                                                                       | Without                     |
| product function                                                                                      |                             |
| • communication function                                                                              | Yes                         |
| • other measurement function                                                                          | Yes                         |
| Net Weight                                                                                            | 3.2 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                                                       | H                           |
| maximum short-circuit current breaking capacity (Icu)                                                 |                             |
| • at 240 V                                                                                            | 110 kA                      |
| • at 415 V                                                                                            | 85 kA                       |
| • at 440 V                                                                                            | 85 kA                       |
| • at 500 V                                                                                            | 55 kA                       |
| • at 690 V                                                                                            | 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>                                                          | 110 kA<br>85 kA<br>85 kA<br>55 kA<br>2 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 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul> | 242 kA<br>187 kA<br>187 kA<br>121 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>n</sub> ) / for N-tripping                                                                                                                                         |                                              |
| <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                                                                                                                        | 20 A<br>100 A                                |
| design of the N-conductor protection                                                                                                                                                                  | adjustable OFF; 20% to 100%                  |
| 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]                                                                                                                                                                                            | 5.51 in                                      |
| width                                                                                                                                                                                                 | 140 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                                                                                                                                              | on both sides nut keeper kit                 |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum                                                                                                             | 13 x 1 mm                                    |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum                                                                                                             | 25 x 8 mm                                    |

|                                                                                       |        |
|---------------------------------------------------------------------------------------|--------|
| 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>Certificates</b>                                                                   |        |
| reference code / according to IEC 81346-2                                             | Q      |
| <b>General Product Approval</b>                                                       | EMC    |

[Confirmation](#)



[Miscellaneous](#)



|                                  |                          |                          |
|----------------------------------|--------------------------|--------------------------|
| <b>Declaration of Conformity</b> | <b>Test Certificates</b> | <b>Marine / Shipping</b> |
|----------------------------------|--------------------------|--------------------------|



[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                          |              |
|--------------------------|--------------|
| <b>Marine / Shipping</b> | <b>other</b> |
|--------------------------|--------------|



[CCS / China Classification Society](#)

[Miscellaneous](#)

|              |                       |                    |
|--------------|-----------------------|--------------------|
| <b>other</b> | <b>Dangerous Good</b> | <b>Environment</b> |
|--------------|-----------------------|--------------------|

[Confirmation](#)

[Miscellaneous](#)

[Transport Information](#)

[Environmental Confirmations](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3VA2010-6KP42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-6KP42-0AA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2010-6KP42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-6KP42-0AA0)

CAX-Online-Generator

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

Tender specifications

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





