



circuit breaker 3VA2 IEC Frame 100 breaking capacity class M  $I_{cu}=55 \text{ kA} @ 415 \text{ V}$   
 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 nut keeper kit undervoltage release  
 (UVR) 208-230 V AC 50/60 Hz 2 auxiliary switches HQ 1 trip alarm switch HQ 1  
 electrical alarm switch

| 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                                                                         |
| design of the auxiliary release                                                                       | undervoltage release (UVR)                                                |
| design of the auxiliary switch                                                                        | 2 auxiliary switches + 1 trip alarm switch + 1 electrical alarm switch HQ |
| General technical data                                                                                |                                                                           |
| insulation voltage / rated value                                                                      | 800 V                                                                     |
| operating voltage / at AC / rated value                                                               | 690 V                                                                     |
| power loss [W] / maximum                                                                              | 16 W                                                                      |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole           | 5.33 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                                                                                            | 2.54 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                                                       | M                                                                         |
| maximum short-circuit current breaking capacity ( $I_{cu}$ )                                          |                                                                           |
| • at 240 V                                                                                            | 85 kA                                                                     |
| • at 415 V                                                                                            | 55 kA                                                                     |

|                                                                                                                                                                                                      |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 440 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                                                 | 55 kA<br>36 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> | 85 kA<br>55 kA<br>55 kA<br>36 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>             | 187 kA<br>121 kA<br>121 kA<br>75.5 kA<br>3 kA |
| <b>Adjustable parameters</b>                                                                                                                                                                         |                                               |
| product feature / for L-tripping / can be switched on/off                                                                                                                                            | No                                            |
| adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic <ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>                              | 40 A<br>100 A                                 |
| adjustable response value delay time (tr) / for L-tripping / with I2t 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 (Isd) / of S-trip / with I0t 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 (Isd) / of S-trip / with I2t 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 (tsd) / for S-tripping / with I0t 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 (tsd) / for S-tripping / with I2t 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 (Ii) / 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 (InN) / 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>                                                      | Yes<br>No<br>Yes                              |
| height [in]                                                                                                                                                                                          | 7.13 in                                       |
| height                                                                                                                                                                                               | 181 mm                                        |
| width [in]                                                                                                                                                                                           | 4.13 in                                       |
| width                                                                                                                                                                                                | 105 mm                                        |
| depth [in]                                                                                                                                                                                           | 3.39 in                                       |
| depth                                                                                                                                                                                                | 86 mm                                         |

| Connections                                                                               |                              |
|-------------------------------------------------------------------------------------------|------------------------------|
| 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                          |

| Auxiliary circuit                              |   |
|------------------------------------------------|---|
| number of CO contacts / for auxiliary contacts | 4 |

| Accessories                                       |                                  |
|---------------------------------------------------|----------------------------------|
| product extension / optional / motor drive        | Yes                              |
| manufacturer's article number                     |                                  |
| • of the supplied basic switch                    | <a href="#">3VA20105KP320AA0</a> |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AA12</a>    |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AB12</a>    |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AB22</a>    |
| • of the integrated auxiliary trip unit           | <a href="#">3VA9608-0BB25</a>    |

| Environmental conditions                  |        |
|-------------------------------------------|--------|
| 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      |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



[Confirmation](#)

| General Product Approval | EMV | Test Certificates |  |  |
|--------------------------|-----|-------------------|--|--|
|--------------------------|-----|-------------------|--|--|



EG-Konf.



RCM

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

##### Maritime application



ABS



BUREAU  
VERITAS



DNV



LRS



RMRS

[CCS \(China Classification Society\)](#)

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

[Miscellaneous](#)

[Miscellaneous](#)

[Confirmation](#)



[Transport Information](#)

[Environmental Confirmations](#)

##### 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=3VA2010-5KP32-0DL0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2010-5KP32-0DL0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2010-5KP32-0DL0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-5KP32-0DL0)

### CAX-Online-Generator

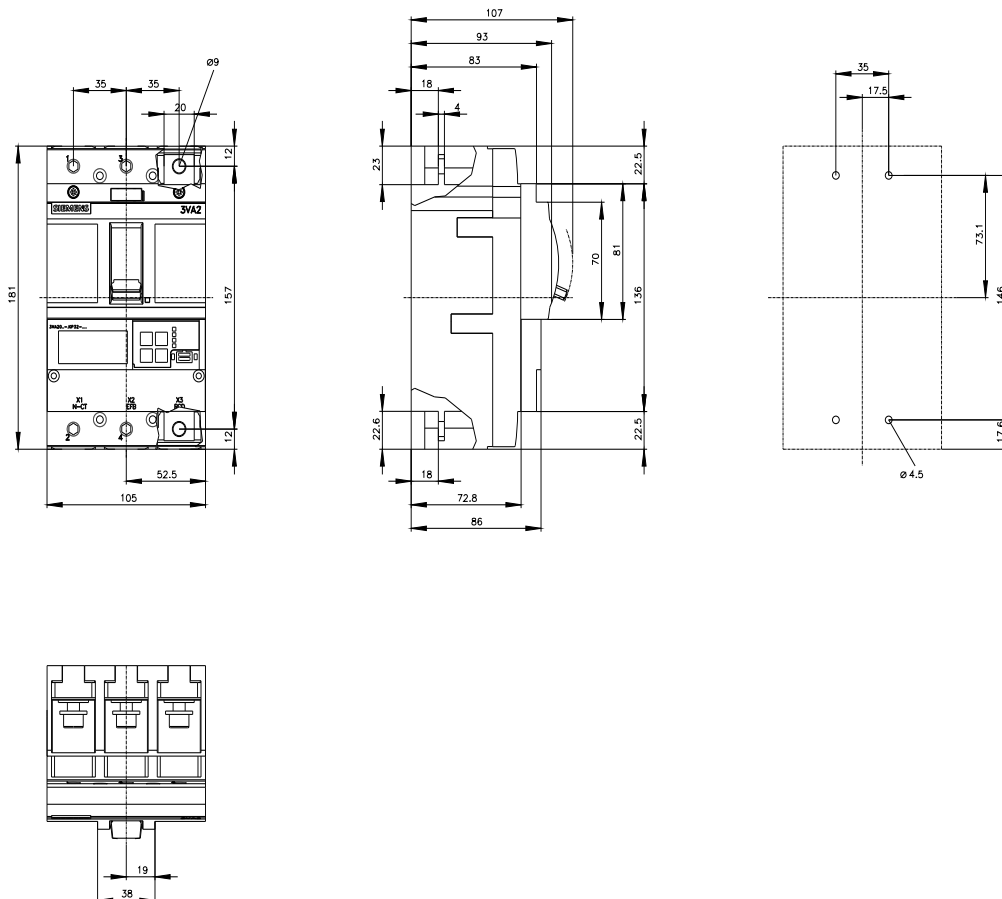
<https://www.siemens.com/cax>

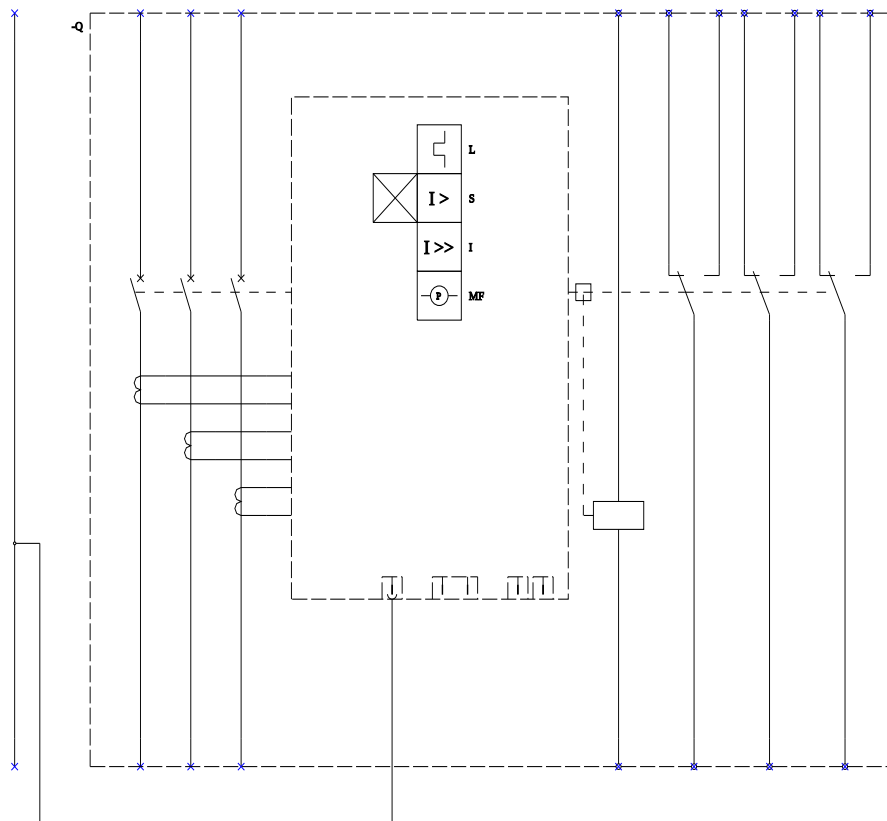
### Tender specifications

<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>)





L (Long Time Delay / Überlastschutz); S (Short Time Delay / Kurzschlusschutz, kurzzeilverzögert);  
I (Instantaneous / Kurzschlusschutz, unverzögert); MF (Metering function / Messfunktion);

last modified:

4/23/2026 

