



circuit breaker 3VA2 IEC frame 250 breaking capacity class M  
 $I_{cu}=55kA @ 415V$  4-pole, line protection ETU320, LI,  $I_n=250A$   
 overload protection  $I_r=100A...250A$  short-circuit protection  $I_i=1.5...10$   
 $x I_n$  N conductor protection adjustable (OFF, 50%, 100%) nut keeper  
 kit undervoltage release (UVR) 120-127V AC 50/60Hz 2 auxiliary  
 switches HQ 1 trip alarm switch HQ

| Model   |   |
|---|---|
| Product brand name  | SENTRON                                       |
| Product designation   | Molded case circuit breaker                   |
| Product version   | Line protection                               |
| Design of the overcurrent release   | ETU320  |
| Protective function of the overcurrent release                            | LI  |
| Number of poles   | 4   |
| Design of the auxiliary release   | Undervoltage release (UVR)                    |
| Auxiliary contact version   | 2 auxiliary switches + 1 trip alarm switch HQ |
| General technical data  |   |
| Rated insulation voltage $U_i$  | 800 V   |
| Max. rated operational voltage $U_e$ with AC 50/60Hz                      | 690 V   |
| Power loss [W] / maximum  | 50.5 W  |
| Latching - endurance  | 20 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 10 000  |
| Neutral conductors / upgradeable/retrofitable                             | No  |
| Ground fault monitoring version   | Without                                       |
| Product function  |   |

|                              |         |
|------------------------------|---------|
| • communication function     | No      |
| • Phase failure detection    | No      |
| • other measurement function | No      |
| Net weight                   | 3.29 kg |

### Current

|  |       |
|--|-------|
| Max. rated operational current of the frame size | 250 A |
| Rated continuous current I <sub>u</sub>          | 250 A |
| Operating current                                |       |
| • at 40 °C                                       | 250 A |
| • at 45 °C                                       | 250 A |
| • at 50 °C                                       | 250 A |
| • at 55 °C                                       | 241 A |
| • at 60 °C                                       | 232 A |
| • at 65 °C                                       | 222 A |
| • at 70 °C                                       | 213 A |

### Switching capacity according to IEC 60947

|  |        |
|--|--------|
| Switching capacity class of the circuit breaker                        | M      |
| Maximum short-circuit current breaking capacity (I <sub>cu</sub> )     |        |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 kA  |
| • at 440 V   | 55 kA  |
| • at 500 V   | 36 kA  |
| • at 690 V   | 3 kA   |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |        |
| • at 240 V   | 85 kA  |
| • at 415 V   | 55 kA  |
| • at 440 V   | 55 kA  |
| • at 500 V   | 36 kA  |
| • at 690 V   | 3 kA   |
| Short-circuit current making capacity (I <sub>cm</sub> )               |        |
| • at 240 V   | 187 kA |
| • at 415 V   | 121 kA |
| • at 440 V   | 121 kA |
| • at 500 V   | 79 kA  |
| • at 690 V   | 5.1 kA |

### Adjustable parameters

|   |       |
|---|-------|
| Adjustable response value current / I <sub>r</sub> min. | 100 A |
| Adjustable response value current / I <sub>r</sub> max. | 250 A |
| Adjustable response value time / t <sub>r</sub> min.    | 0.5   |
| Adjustable response value time / t <sub>r</sub> max.    | 15    |

|  |         |
|--|---------|
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF | No      |
| Adjustable response value current / I <sub>i</sub> min.            | 375 A   |
| Adjustable response value current / I <sub>i</sub> max.            | 2 500 A |

### Mechanical Design

|        |        |
|--------|--------|
| Height | 181 mm |
| Width  | 140 mm |
| Depth  | 86 mm  |

### Connections

|   |                |
|---|----------------|
| Arrangement of electrical connectors / for main current circuit                         | Front terminal |
| Type of electrical connection / for main current circuit                                | Lug terminal   |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 13 x 1 mm      |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 25 x 8.5       |

### Auxiliary circuit

|   |     |
|---|-----|
| Product component   |     |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> </ul>                      | Yes |
| <ul style="list-style-type: none"> <li>• Voltage trigger</li> </ul>                           | No  |
| <ul style="list-style-type: none"> <li>• undervoltage release with leading contact</li> </ul> | No  |
| <ul style="list-style-type: none"> <li>• Trip indicator</li> </ul>                            | Yes |
| Number of CO contacts / for auxiliary contacts  | 3   |

### Accessories

|   |                                    |
|---|------------------------------------|
| Product extension / optional / motor drive  | Yes                                |
| Manufacturer's article number   |                                    |
| <ul style="list-style-type: none"> <li>• of the supplied basic switch</li> </ul>                    | <a href="#">3VA2225-5HL42-0AA0</a> |
| <ul style="list-style-type: none"> <li>• of the integrated auxiliary switch/alarm switch</li> </ul> | <a href="#">3VA9988-0AA12</a>      |
| <ul style="list-style-type: none"> <li>• of the integrated auxiliary switch/alarm switch</li> </ul> | <a href="#">3VA9988-0AB12</a>      |
| <ul style="list-style-type: none"> <li>• of the integrated auxiliary trip</li> </ul>                | 3VA9608-0BB24                      |

### Environmental conditions

|  |        |
|--|--------|
| Protection class IP / on the front   | IP40   |
| Ambient temperature  |        |
| <ul style="list-style-type: none"> <li>• during operation / minimum</li> </ul> | -25 °C |
| <ul style="list-style-type: none"> <li>• during operation / maximum</li> </ul> | 70 °C  |
| <ul style="list-style-type: none"> <li>• during storage / minimum</li> </ul>   | -40 °C |
| <ul style="list-style-type: none"> <li>• during storage / maximum</li> </ul>   | 80 °C  |

### Certificates

|   |   |
|---|---|
| Reference code / acc. to DIN EN 81346-2 | Q |
|---|---|

|                          |     |
|--------------------------|-----|
| General Product Approval | EMC |
|--------------------------|-----|



[Miscellaneous](#)



|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------|-------------------|-------------------|



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



|                   |       |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[CCS / China Classification Society](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)

### Further information

**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=3VA2225-5HL42-0CH0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA2225-5HL42-0CH0>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2225-5HL42-0CH0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2225-5HL42-0CH0)

**CAX-Online-Generator**

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

**Tender specifications**

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





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