



circuit breaker 3VA1 IEC frame 250 breaking capacity class S  
 $I_{cu}=36kA @ 415V$  4-pole, line protection TM240, ATAM,  $I_n=200A$   
 overload protection  $I_r=140A...200A$  short-circuit protection  $I_i=5...10 \times I_n$   
 N conductor protection 100% nut keeper kit shunt trip (STL) 220-250V DC; 208-277V AC 2 auxiliary switches HQ

| Model   |                             |
|---|-----------------------------|
| Product brand name  | SENTRON                     |
| Product designation   | Molded case circuit breaker |
| Product version   | Line protection             |
| Design of the overcurrent release   | TM240                       |
| Protective function of the overcurrent release                            | LI                          |
| Number of poles   | 4                           |
| Design of the auxiliary release   | Shunt trip (STL)            |
| Auxiliary contact version   | 2 auxiliary switches HQ     |
| General technical data  |                             |
| Rated insulation voltage $U_i$  | 800 V                       |
| Max. rated operational voltage $U_e$ with AC 50/60Hz                      | 690 V                       |
| Max. rated operational voltage $U_e$ with DC                              | 600 V                       |
| Latching - endurance  | 15 000                      |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000                       |
| 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                   | 2.2 kg |

### Current

|  |       |
|--|-------|
| Max. rated operational current of the frame size | 250 A |
| Rated continuous current I <sub>u</sub>          | 200 A |
| Operating current                                |       |
| • at 40 °C                                       | 200 A |
| • at 45 °C                                       | 200 A |
| • at 50 °C                                       | 200 A |
| • at 55 °C                                       | 194 A |
| • at 60 °C                                       | 188 A |
| • at 65 °C                                       | 182 A |
| • at 70 °C                                       | 176 A |

### Switching capacity according to IEC 60947

|  |  |
|--|--|
| Switching capacity class of the circuit breaker                        | S  |
| Maximum short-circuit current breaking capacity (I <sub>cu</sub> )     |  |
| • at 240 V   | 55 kA  |
| • at 415 V   | 36 kA  |
| • at 440 V   | 25 kA  |
| • at 690 V   | 7 kA   |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |  |
| • at 240 V   | 55 kA  |
| • at 415 V   | 36 kA  |
| • at 440 V   | 25 kA  |
| • at 690 V   | 5 kA   |
| Short-circuit current making capacity (I <sub>cm</sub> )               |  |
| • at 240 V   | 121 kA   |
| • at 415 V   | 75.6 kA  |
| • at 690 V   | 11.9 kA  |
| Design of short-circuit protection                                     | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |

### Adjustable parameters

|   |       |
|---|-------|
| Adjustable response value current / I <sub>r</sub> min. | 140 A |
| Adjustable response value current / I <sub>r</sub> max. | 200 A |
| Adjustable response value time / t <sub>r</sub> min.    | 1     |
| Adjustable response value time / t <sub>r</sub> max.    | 1     |

|  |         |
|--|---------|
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF | No      |
| Adjustable response value current / I <sub>i</sub> min.            | 1 000 A |
| Adjustable response value current / I <sub>i</sub> max.            | 2 000 A |
| Design of the N-conductor protection                               | 100%    |

### Mechanical Design

|        |        |
|--------|--------|
| Height | 158 mm |
| Width  | 140 mm |
| Depth  | 70 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         |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 25 x 8         |

### Auxiliary circuit

|  |  |
|--|--|
| Product component  |  |
| <ul style="list-style-type: none"> <li>• undervoltage release</li> <li>• Voltage trigger</li> <li>• undervoltage release with leading contact</li> <li>• Trip indicator</li> </ul> | <p>No</p> <p>Yes</p> <p>No</p> <p>No</p> |
| Number of CO contacts / for auxiliary contacts   | 2  |

### Accessories

|   |   |
|---|---|
| Product extension / optional / motor drive  | Yes   |
| Manufacturer's article number   |   |
| <ul style="list-style-type: none"> <li>• of the integrated auxiliary switch/alarm switch</li> <li>• of the integrated auxiliary trip</li> </ul> | <p><a href="#">3VA9988-0AA12</a></p> <p>3VA9688-0BL33</p> |

### Environmental conditions

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

### Certificates

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

|                          |     |                           |
|--------------------------|-----|---------------------------|
| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|



CCC



VDE

[Miscellaneous](#)



RCM



EG-Konf.

|                   |                   |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

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



RMRS

[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=3VA1220-4GF42-0KC0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1220-4GF42-0KC0>

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

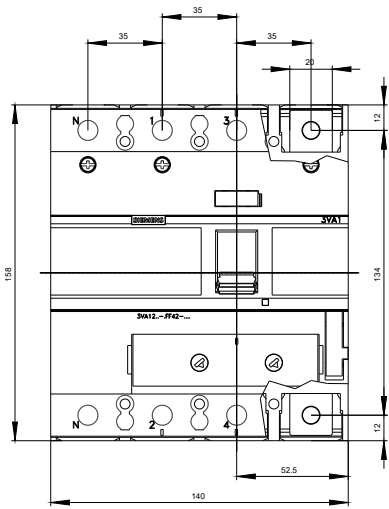
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1220-4GF42-0KC0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1220-4GF42-0KC0)

### CAX-Online-Generator

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

### Tender specifications

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





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