

circuit breaker 3VA5 UL frame 125 breaking capacity class M 35kA @ 480V 3-pole, line protection TM230, FTAM,  $I_n=110A$  overload protection  $I_r=110A$  fixed short-circuit protection  $I_i=5...10 \times I_n$  without connection



| Model   |                             |
|---|-----------------------------|
| Product brand name  | SENTRON                     |
| Product designation   | Molded-case circuit breaker |
| Product designation / according to UL-File  | MEAS                        |
| Product version   | System protection           |
| Design of the load switch / acc. to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release   | TM230                       |
| Protective function of the overcurrent release  | LI                          |
| Number of poles   | 3                           |
| 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  | 500 V                       |
| Power loss [W] / maximum  | 25.4 W                      |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                        | 8.47 W                      |
| Latching - endurance  | 15 000                      |

|   |         |
|---|---------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 8 000   |
| Electrical endurance (switching cycles) / at AC-1 / at 690 V 50/60 Hz     | 4 000   |
| Electrical endurance (switching cycles) / at 480 V / at 50/60 Hz          | 8 000   |
| Electrical endurance (switching cycles) / at 600 V / at 50/60 Hz          | 4 000   |
| Neutral conductors / upgradeable/retrofitable                             | No      |
| Ground fault monitoring version   | Without |
| Product function  |         |
| • communication function  | No      |
| • other measurement function  | No      |

### Electricity

|   |         |
|---|---------|
| Marking / acc. to UL 489 / 100%-rated breaker                     | No      |
| Max. rated operational voltage of the size of the circuit-breaker | 125 A   |
| Rated continuous current I <sub>u</sub>                           | 110 A   |
| Operating current   |         |
| • at 40 °C  | 110 A   |
| • at 45 °C  | 107.8 A |
| • at 50 °C  | 105.8 A |
| • at 55 °C  | 103.8 A |
| • at 60 °C  | 101.9 A |
| • at 65 °C  | 100 A   |
| • at 70 °C  | 98.2 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 690 V   | 7 kA    |
| Operational short-circuit current breaking capacity (I <sub>cs</sub> ) |         |
| • at 240 V   | 110 kA  |
| • at 415 V   | 55 kA   |
| • at 690 V   | 5 kA    |
| Short-circuit current making capacity (I <sub>cm</sub> )               |         |
| • at 240 V   | 187 kA  |
| • at 415 V   | 121 kA  |
| • at 690 V   | 11.9 kA |

|                                    |   |
|------------------------------------|---|
| Design of short-circuit protection | For breaking capacity values in DC networks, see the 3VA Molded Case Circuit Breaker Manual; link available under Service & Support in the last chapter |
|------------------------------------|---|

### Switching capacity according to UL 489

|  |       |
|--|-------|
| Breaking capacity current  |       |
| <ul style="list-style-type: none"> <li>at 240 V</li> </ul>       | 85 kA |
| <ul style="list-style-type: none"> <li>at 480 V</li> </ul>       | 35 kA |
| <ul style="list-style-type: none"> <li>at 600 Y/347 V</li> </ul> | 18 kA |

### Adjustable parameters

|  |    |
|--|----|
| Ground fault protection / tripping switchable / I2t=ON/OFF | No |
|--|----|

### Mechanical Design

|             |         |
|-------------|---------|
| Height [in] | 5.5 in  |
| Height      | 140 mm  |
| Width [in]  | 3 in    |
| Width       | 76.2 mm |
| Depth [in]  | 3 in    |
| Depth       | 76.5 mm |

### Connections

|   |                    |
|---|--------------------|
| Arrangement of electrical connectors / for main current circuit | Without connection |
| Type of electrical connection / for main current circuit        | Without            |

### Auxiliary circuit

|  |   |
|--|---|
| Number of CO contacts / for auxiliary contacts | 0 |
|--|---|

### Accessories

|  |     |
|--|-----|
| Product extension / optional / motor drive | Yes |
|--|-----|

### 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  |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | No |

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



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

[Miscellaneous](#)



[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=3VA5111-5EC31-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA5111-5EC31-0AA0>

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

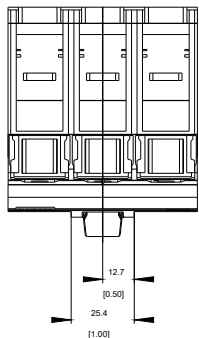
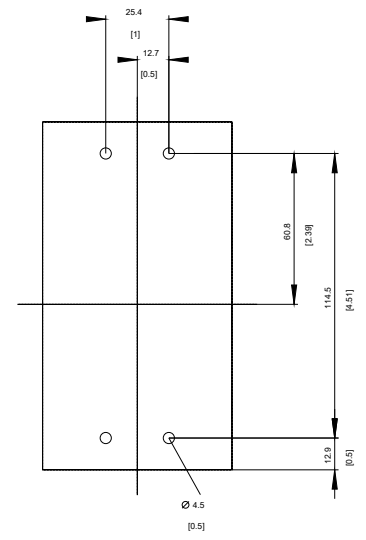
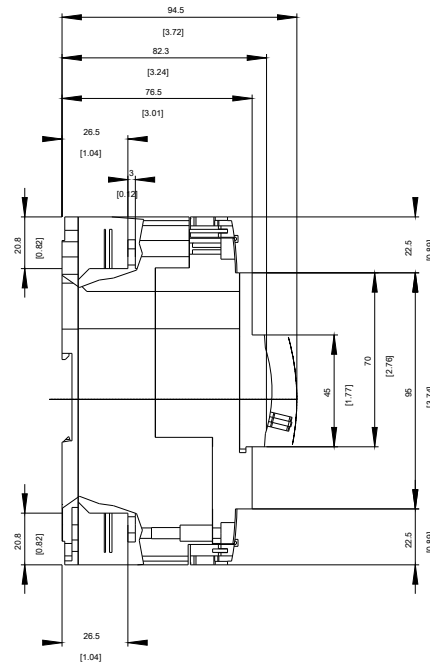
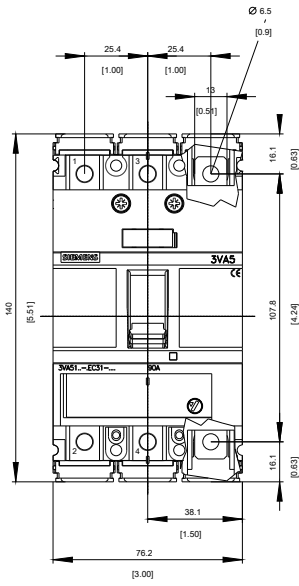
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA5111-5EC31-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA5111-5EC31-0AA0)

### CAX-Online-Generator

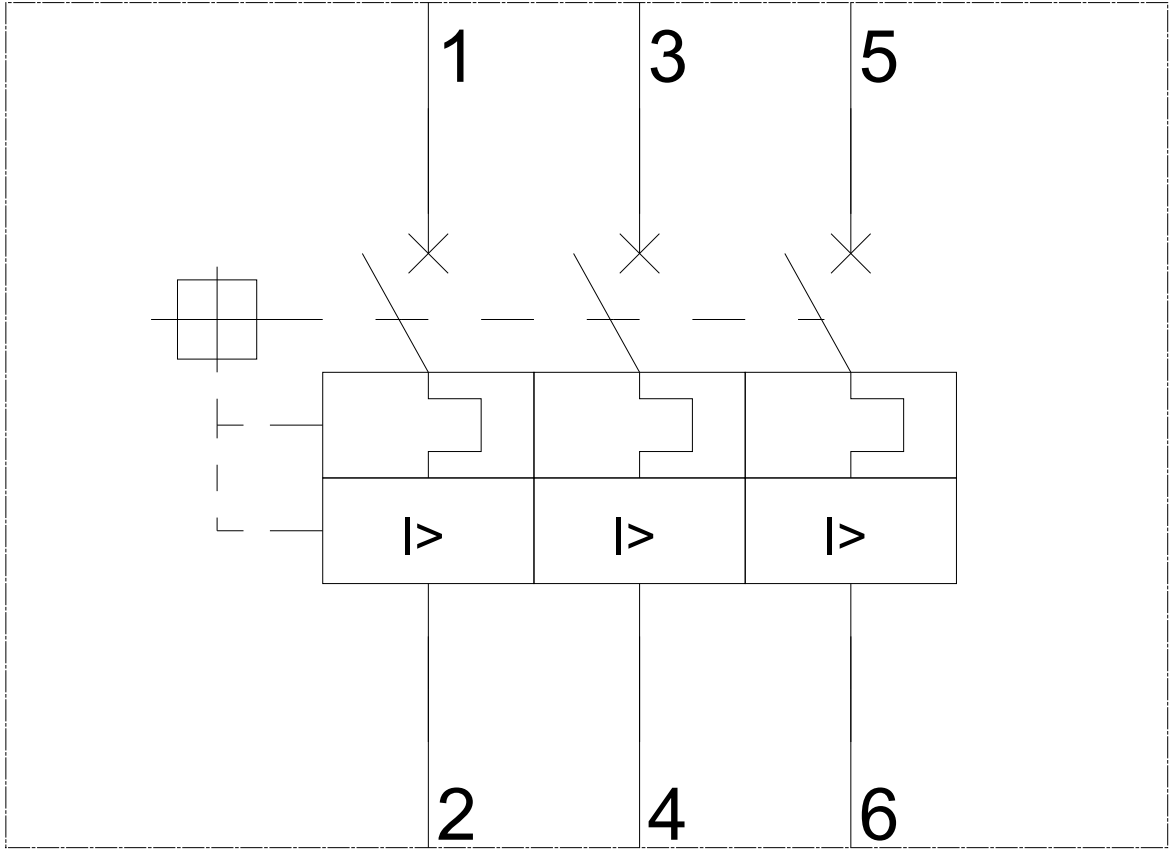
<http://www.siemens.com/cax>

### Tender specifications

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

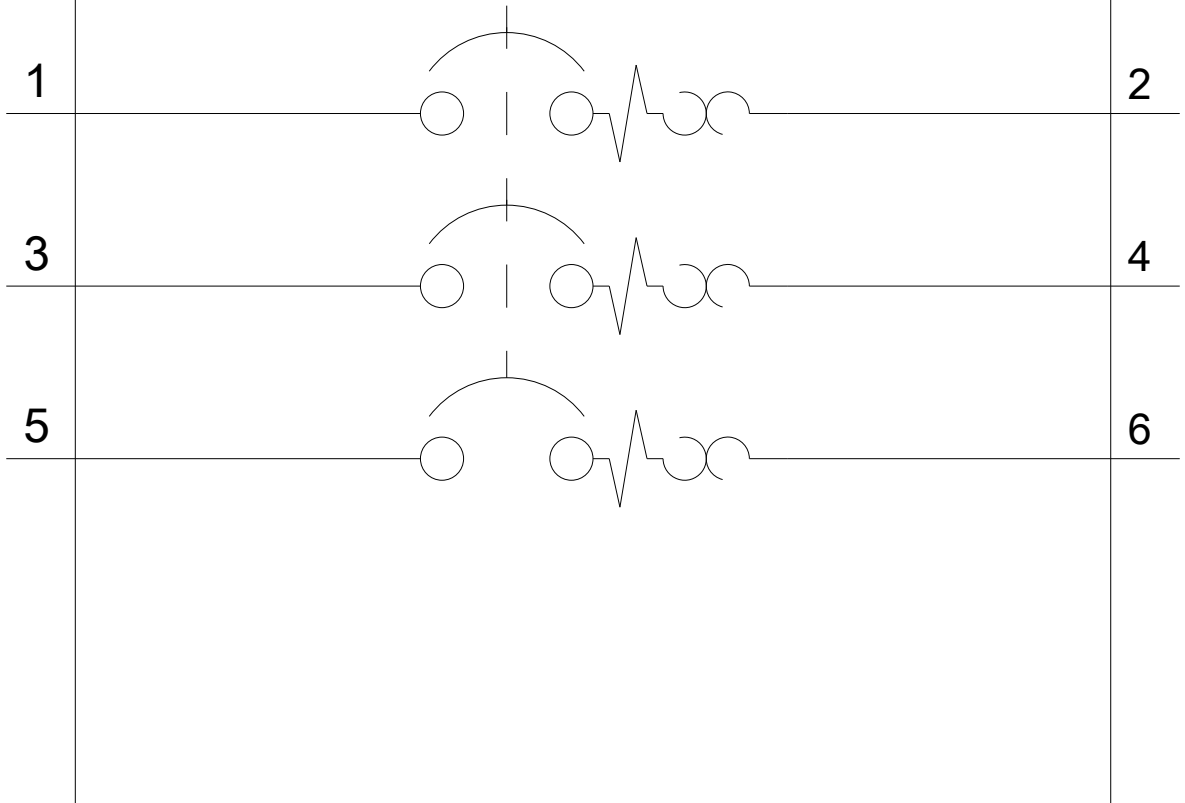


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