



CIRCUIT BREAKER 3VA5 UL FRAME 125 BREAKING CAPACITY  
CLASS M 35KA @ 480Y/277 V 3-POLE, LINE PROTECTION  
TM230, FTAM, IN=110A OVERLOAD PROTECTION IR=110A  
FIXED SHORT CIRCUIT PROTECTION II=5...10 X IN W/O  
CONNECTION

| Model                                                                                                                |         |
|----------------------------------------------------------------------------------------------------------------------|---------|
| product brandname                                                                                                    | SENTRON |
| Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes     |
| Number of poles                                                                                                      | 3       |
| General technical data                                                                                               |         |
| Tension assignée d'isolement Ui                                                                                      | 800 V   |
| Max. rated operational voltage Ue with AC 50/60Hz                                                                    | 690 V   |
| Max. rated operational voltage Ue with DC                                                                            | 500 V   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device                     | 25.8 W  |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole                       | 8.6 W   |
| Mechanical service life (switching cycles) / typical                                                                 | 15 000  |
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz                                            | 8 000   |
| Electrical lifetime (switching cycles) / at 480 V / at 50/60 Hz                                                      | 8 000   |

|                                                                 |       |
|-----------------------------------------------------------------|-------|
| Electrical lifetime (switching cycles) / at 600 V / at 50/60 Hz | 4 000 |
| Neutral conductors / upgradeable/retrofitable                   | No    |
| Product function                                                |       |
| • communication function                                        | No    |
| • other measurement function                                    | No    |

#### Electricity

|                                                                   |          |
|-------------------------------------------------------------------|----------|
| Marking / according to UL 489 / 100%-rated breaker                | No       |
| Max. rated operational voltage of the size of the circuit-breaker | 125 A    |
| Courant permanent assigné lu                                      | 110 A    |
| Operating current                                                 |          |
| • at 40 °C                                                        | 110 A    |
| • at 45 °C                                                        | 107.42 A |
| • at 50 °C                                                        | 104.96 A |
| • at 55 °C                                                        | 102.61 A |
| • at 60 °C                                                        | 100.36 A |
| • at 65 °C                                                        | 98.21 A  |
| • at 70 °C                                                        | 96.15 A  |

#### Switching capacity according to IEC 60947

|                                                           |         |
|-----------------------------------------------------------|---------|
| Maximum short-circuit current breaking capacity (Icu)     |         |
| • at 240 V                                                | 85 kA   |
| • at 415 V                                                | 55 kA   |
| • at 690 V                                                | 7 kA    |
| Operational short-circuit current breaking capacity (Ics) |         |
| • at 240 V                                                | 110 kA  |
| • at 415 V                                                | 55 kA   |
| • at 690 V                                                | 5 kA    |
| Short-circuit current making capacity (Icm)               |         |
| • at 240 V                                                | 187 kA  |
| • at 415 V                                                | 121 kA  |
| • at 690 V                                                | 11.9 kA |

#### Switching capacity according to UL 489

|                           |       |
|---------------------------|-------|
| Breaking capacity current |       |
| • at 240 V                | 85 kA |
| • at 480 Y/277 V          | 35 kA |
| • at 600 Y/347 V          | 14 kA |

#### Adjustable parameters

|                                             |       |
|---------------------------------------------|-------|
| Adjustable response value current / Ig min. | 110 A |
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|                                                            |         |
|------------------------------------------------------------|---------|
| Adjustable response value current / li min.                | 550 A   |
| Adjustable response value current / li max.                | 1 100 A |
| 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 |

### 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                |        |
| • during operation / minimum       | -25 °C |
| • during operation / maximum       | 70 °C  |
| • during storage / minimum         | -40 °C |
| • during storage / maximum         | 80 °C  |

### Certificates

|                                                                                        |    |
|----------------------------------------------------------------------------------------|----|
| Equipment marking / 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 | other |
|--------------------------|-----|---------------------------|-------|
|--------------------------|-----|---------------------------|-------|



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### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/lowvoltage/catalogs>

**Industry Mall (Online ordering system)**

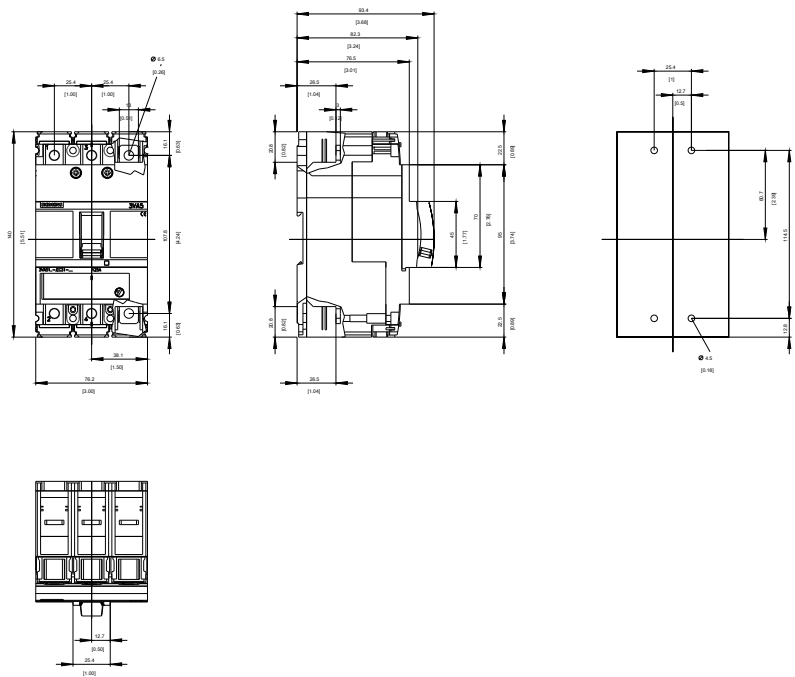
<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA5111-5EC31-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA5111-5EC31-0AA0/all>

**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)



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