



CIRCUIT BREAKER 3VA2 IEC FRAME 250 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 3POLE, LINE PROTECTION ETU320, LI, IN=160A OVERLOAD PROTECTION IR=64A ...160A SHORT CIRCUIT PROTECTION II=12 X IN BUSBAR CONNECTION

| Model                                                                                     |   |                             |
|-------------------------------------------------------------------------------------------|---|-----------------------------|
| product brand name                                                                        |   | SENTRON                     |
| Product designation                                                                       |   | Molded case circuit breaker |
| <b>Design of the product</b>                                                              |   | Line protection             |
| <b>Product variations</b>                                                                 |   | Selective Applications      |
| <b>Ground fault monitoring version</b>                                                    |   | Without                     |
| <b>Design of the auxiliary release</b>                                                    |   | without auxiliary release   |
| <b>Design of the auxiliary switch</b>                                                     |   | Without                     |
| <b>Design of the operating mechanism</b>                                                  |   | toggle handle               |
| <b>Type of the driving mechanism / motor drive</b>                                        |   | No                          |
| <b>Design of the overcurrent release</b>                                                  |   | ETU320                      |
| General technical data                                                                    |   |                             |
| <b>Number of poles</b>                                                                    |   | 3                           |
| <b>Trip class / of the L-trip / with I<sup>2</sup>t characteristic / initial value</b>    |   | 0.5                         |
| <b>Trip class / of the L-trip / with I<sup>2</sup>t characteristic / Full-scale value</b> |   | 17                          |
| <b>Electrical endurance (switching cycles)</b>                                            |   |                             |
| • at AC-1 / at 380/415 V / at 50/60 Hz                                                    |   | 10 000                      |
| <b>circuit-breaker / Design</b>                                                           |   | 3VA                         |
| <b>Mechanical service life (switching cycles) / typical</b>                               |   | 20 000                      |
| Voltage                                                                                   |   |                             |
| Insulation voltage / Rated value                                                          | V | 800                         |
| Protection class                                                                          |   |                             |

|                                                       |  |      |
|-------------------------------------------------------|--|------|
| <b>Protection class IP</b>                            |  | IP40 |
| Protection class IP / on the front                    |  | IP40 |
| <b>Protective function of the overcurrent release</b> |  | LI   |

### Switching capacity

|                                                        |  |   |
|--------------------------------------------------------|--|---|
| <b>Switching capacity class of the circuit breaker</b> |  | C |
|--------------------------------------------------------|--|---|

### Dissipation

|                                                             |   |      |
|-------------------------------------------------------------|---|------|
| <b>Active power loss</b>                                    |   |      |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul> | W | 19.7 |

### Electricity

|                                                                                                |   |     |
|------------------------------------------------------------------------------------------------|---|-----|
| <b>Continuous current / Rated value / maximum</b>                                              | A | 250 |
| Continuous current / Rated value                                                               | A | 160 |
| Adjustable response value current / of the instantaneous short-circuit release / initial value | A | 1.5 |

### Main circuit

|                                                                                                                                                                                                                    |   |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|
| <b>Operating voltage</b>                                                                                                                                                                                           |   |     |
| <ul style="list-style-type: none"> <li>• with AC / at 50/60 Hz / Rated value</li> </ul>                                                                                                                            | V | 690 |
| <b>Operating current</b>                                                                                                                                                                                           |   |     |
| <ul style="list-style-type: none"> <li>• at 40 °C / Rated value</li> <li>• at 50 °C / Rated value</li> <li>• at 60 °C / Rated value</li> <li>• at 65 °C / Rated value</li> <li>• at 70 °C / Rated value</li> </ul> | A | 160 |
|                                                                                                                                                                                                                    | A | 160 |
|                                                                                                                                                                                                                    | A | 160 |
|                                                                                                                                                                                                                    | A | 160 |
|                                                                                                                                                                                                                    | A | 160 |

### Auxiliary circuit

|                                                       |  |   |
|-------------------------------------------------------|--|---|
| <b>Number of NC contacts / for auxiliary contacts</b> |  | 0 |
| <b>Number of NO contacts / for auxiliary contacts</b> |  | 0 |

### Suitability

|                            |  |                   |
|----------------------------|--|-------------------|
| <b>Suitability for use</b> |  | system protection |
|----------------------------|--|-------------------|

### Adjustable parameters

|                                                                                                      |   |       |
|------------------------------------------------------------------------------------------------------|---|-------|
| <b>Adjustable response value current</b>                                                             |   |       |
| <ul style="list-style-type: none"> <li>• of I-trip / Full-scale value</li> </ul>                     | A | 12    |
| <b>Adjustable response value current / of the current-dependent overload release / initial value</b> | A | 0.394 |

### Product details

|                                                                                                                       |  |    |
|-----------------------------------------------------------------------------------------------------------------------|--|----|
| <b>Product component</b>                                                                                              |  |    |
| <ul style="list-style-type: none"> <li>• Trip indicator</li> <li>• display</li> <li>• undervoltage release</li> </ul> |  | No |
|                                                                                                                       |  | No |
|                                                                                                                       |  | No |
| <b>Product property</b>                                                                                               |  |    |

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| • for neutral conductors / upgradeable/retrofitable / Short-circuit and overload proof | No  |
| Product expansion / optional / motor drive                                             | Yes |

### Product function

|                               |     |
|-------------------------------|-----|
| <b>Product function</b>       |     |
| • Intrinsic device protection | Yes |
| • communication function      | No  |
| • Phase failure detection     | No  |
| • other measurement function  | No  |

### Accessories

|                                                            |                                    |
|------------------------------------------------------------|------------------------------------|
| Manufacturer article number / of the supplied basic switch | <a href="#">3VA2216-7HL32-0AA0</a> |
|------------------------------------------------------------|------------------------------------|

### Short circuit

|                                                                  |    |     |
|------------------------------------------------------------------|----|-----|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |    |     |
| • at 240 V / Rated value                                         | kA | 150 |
| • at 415 V / Rated value                                         | kA | 110 |
| • at 440 V / Rated value                                         | kA | 110 |
| • at 500 V / Rated value                                         | kA | 85  |
| • at 690 V / Rated value                                         | kA | 3   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |    |     |
| • at 240 V / Rated value                                         | kA | 150 |
| • at 415 V / Rated value                                         | kA | 110 |
| • at 440 V / Rated value                                         | kA | 110 |
| • at 500 V / Rated value                                         | kA | 85  |
| • at 690 V / Rated value                                         | kA | 3   |
| <b>Short-circuit current making capacity (Icm)</b>               |    |     |
| • at 240 V / Rated value                                         | kA | 330 |
| • at 415 V / Rated value                                         | kA | 242 |
| • at 440 V / Rated value                                         | kA | 242 |
| • at 500 V / Rated value                                         | kA | 187 |
| • at 690 V / Rated value                                         | kA | 4.5 |

### Connections

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| Arrangement of electrical connectors / for main current circuit | Front terminal |
| Type of connectable conductor cross-section                     |                |
| • for flat-bar terminal connection / minimum                    | 13 x 1 mm      |
| • for flat-bar terminal connection / maximum                    | 25 x 8.5       |
| Type of electrical connection / for main current circuit        | Lug terminal   |

### Mechanical Design

|               |    |                |
|---------------|----|----------------|
| Height        | mm | 181            |
| Width         | mm | 105            |
| Depth         | mm | 107            |
| Mounting type |    | fixed mounting |

### Environmental conditions

#### Ambient temperature

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

### Certificates

#### Equipment marking

|                          |   |
|--------------------------|---|
| • acc. to DIN EN 61346-2 | Q |
| • acc. to DIN EN 81346-2 | Q |

#### General Product Approval

#### EMC

#### Declaration of Conformity

#### Shipping Approval



[other](#)



#### Shipping Approval

other

[other](#)



GL

### 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/3VA22167HL320AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA22167HL320AA0/all>

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

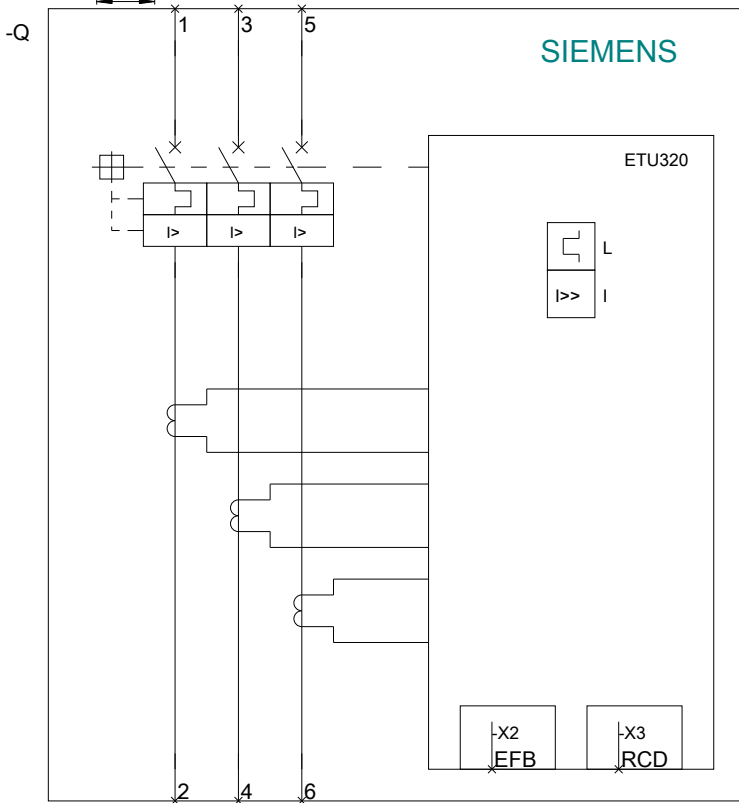
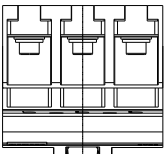
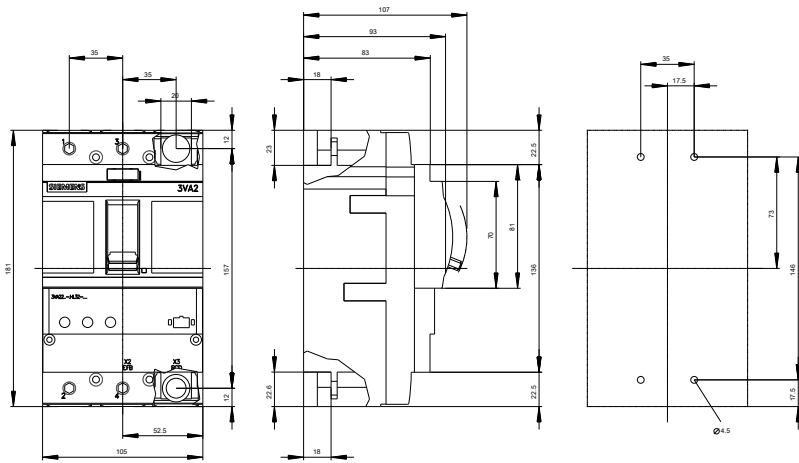
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA22167HL320AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA22167HL320AA0)

#### CAX-Online-Generator

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

#### Tender specifications

<http://ausschreibungstexte.siemens.com/tiplv>



**last modified:**

11.03.2015