



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 4POLE, LINE PROTECTION ETU350, LSI, IN=40A OVERLOAD PROTECTION IR=16A ...40A SHORT CIRCUIT PROTECTION ISD=1,5... 10 X IR, II=12 X IN NEUTRAL PROTECTION ADJUSTABLE(OFF,100%) CABLE CONNECTION

| Model                                       |  |                             |
|---|--|-----------------------------|
| product brand name                          |  | SENTRON                     |
| Product designation                         |  | Molded case circuit breaker |
| Design of the product                       |  | Line protection             |
| Product variations                          |  | Selective Applications      |
| Ground fault monitoring version             |  | Without                     |
| Design of the auxiliary release             |  | without auxiliary release   |
| Design of the auxiliary switch              |  | Without                     |
| Design of the operating mechanism           |  | toggle handle               |
| Type of the driving mechanism / motor drive |  | No                          |
| Design of the overcurrent release           |  | ETU350                      |

| General technical data   |  |        |
|--|--|--------|
| Number of poles  |  | 4      |
| Trip class / of the L-trip / with I <sup>2</sup> t characteristic / initial value      |  | 0.5    |
| Trip class / of the L-trip / with I <sup>2</sup> t characteristic / Full-scale value   |  | 17     |
| Electrical endurance (switching cycles)  |  | 12 000 |
| <ul style="list-style-type: none"> <li>at AC-1 / at 380/415 V / at 50/60 Hz</li> </ul> |  |        |
| circuit-breaker / Design   |  | 3VA    |
| Mechanical service life (switching cycles) / typical                                   |  | 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> |  | LSI  |

### 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 | 1.6 |

### Electricity

|  |   |     |
|--|---|-----|
| <b>Continuous current / Rated value / maximum</b>  | A | 160 |
| Continuous current / Rated value   | A | 40  |
| Adjustable response value current / of the instantaneous short-circuit release / initial value | A | 12  |

### 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 | 40  |
|  | A | 40  |
|  | A | 40  |
|  | A | 40  |
|  | A | 40  |

### 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> <li>• of the short-time delayed short-circuit release / initial value</li> <li>• of the short-time delayed short-circuit release / Full-scale value</li> </ul> | A | 12   |
|   | A | 1.5  |
|   | A | 10   |
| <b>Adjustable delay time</b>  |   |      |
| <ul style="list-style-type: none"> <li>• of S-trip / with I2t characteristic / initial value</li> <li>• of S-trip / with I2t characteristic / Full-scale value</li> </ul>   | s | 0.02 |
|   | s | 0.4  |
| <b>Adjustable response value current / of the current-dependent overload release / initial value</b>  | A | 0.4  |

## Product details

|  |  |     |
|--|--|-----|
| <b>Product component</b>   |  |     |
| • Trip indicator   |  | No  |
| • display  |  | No  |
| • undervoltage release   |  | 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

|   |  |                                    |
|---|--|------------------------------------|
| <b>Manufacturer article number / of the supplied basic switch</b> |  | <a href="#">3VA2140-7HN46-0AA0</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 | 2.5  |
| <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 | 2.5  |
| <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 | 3.75 |

## Connections

|   |  |                              |
|---|--|------------------------------|
| Arrangement of electrical connectors / for main current circuit |  | Front terminal               |
| Type of connectable conductor cross-section                     |  | 1 x (6-120 mm <sup>2</sup> ) |
| • of the round conductor terminal / stranded                    |  |                              |
| Type of electrical connection / for main current circuit        |  | Box terminal                 |

### Mechanical Design

|               |    |                |
|---------------|----|----------------|
| Height        | mm | 181            |
| Width         | mm | 140            |
| Depth         | mm | 107            |
| Mounting type |    | fixed mounting |

### Environmental conditions

|                              |    |     |
|------------------------------|----|-----|
| <b>Ambient temperature</b>   |    |     |
| • during operation / minimum | °C | -25 |
| • during operation / maximum | °C | 70  |
| • during storage / minimum   | °C | -40 |
| • during storage / maximum   | °C | 80  |

### Certificates

|                          |  |   |
|--------------------------|--|---|
| <b>Equipment marking</b> |  |   |
| • acc. to DIN EN 61346-2 |  | Q |
| • acc. to DIN EN 81346-2 |  | Q |

|                                 |            |                                  |                          |
|---------------------------------|------------|----------------------------------|--------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> | <b>Shipping Approval</b> |
|---------------------------------|------------|----------------------------------|--------------------------|



[other](#)



|                          |              |
|--------------------------|--------------|
| <b>Shipping Approval</b> | <b>other</b> |
|--------------------------|--------------|

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### Further information

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

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

**Industry Mall (Online ordering system)**

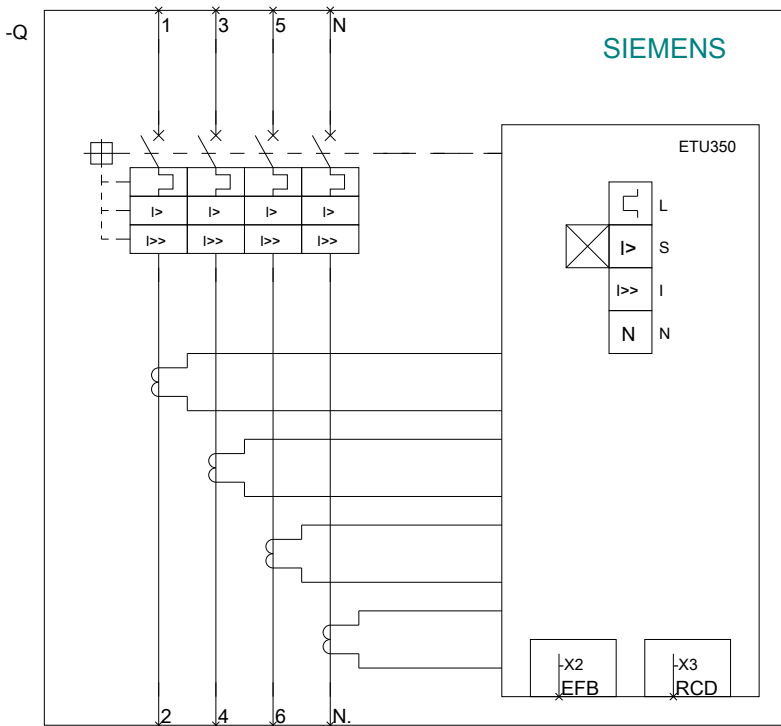
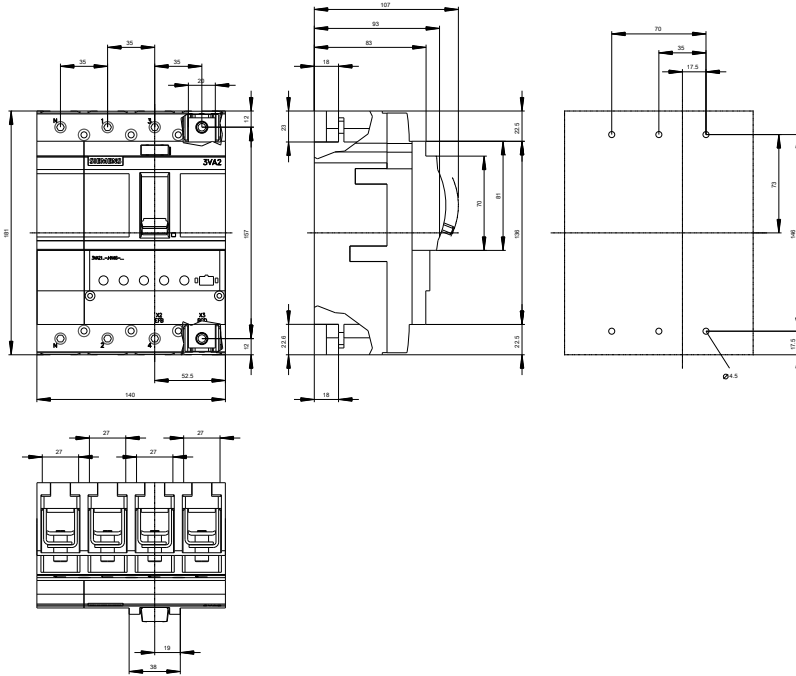
<https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA21407HN460AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA21407HN460AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA21407HN460AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA21407HN460AA0)



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