



Figure similar

CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=16A OVERLOAD PROTECTION IR=16A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL UNPROTECTED CABLE CONNECTION

| Model   |   |                             |
|---|---|-----------------------------|
| product brand name  |   | SENTRON                     |
| Product designation   |   | Molded case circuit breaker |
| <b>Design of the product</b>  |   | Line protection             |
| <b>Product variations</b>   |   | General 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>  |   | TM210                       |
| General technical data  |   |                             |
| <b>Number of poles</b>  |   | 4                           |
| <b>Trip class / of the L-trip / with I<sup>2</sup>t characteristic / initial value</b>    |   | 1                           |
| <b>Trip class / of the L-trip / with I<sup>2</sup>t characteristic / Full-scale value</b> |   | 1                           |
| <b>Electrical endurance (switching cycles)</b>  |   |                             |
| • at AC-1 / at 380/415 V / at 50/60 Hz  |   | 8 000                       |
| <b>circuit-breaker / Design</b>   |   | 3VA                         |
| <b>Mechanical service life (switching cycles) / typical</b>                               |   | 15 000                      |
| 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> |  | H |
|--|--|---|

### Dissipation

|   |   |      |
|---|---|------|
| <b>Active power loss</b>                                    |   |      |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul> | W | 10.6 |

### Electricity

|  |   |     |
|--|---|-----|
| <b>Continuous current / Rated value / maximum</b>  | A | 160 |
| Continuous current / Rated value   | A | 16  |
| <b>Adjustable response value current</b>   |   |     |
| <ul style="list-style-type: none"> <li>• of the current-dependent overload release / Full-scale value</li> </ul> | A | 1   |
| <ul style="list-style-type: none"> <li>• of the instantaneous short-circuit release / initial value</li> </ul>   | A | 10  |

### 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 |
| <ul style="list-style-type: none"> <li>• for DC / Rated value</li> </ul>                | V | 600 |
| <b>Operating current</b>  |   |     |
| <ul style="list-style-type: none"> <li>• at 40 °C / Rated value</li> </ul>              | A | 16  |
| <ul style="list-style-type: none"> <li>• at 50 °C / Rated value</li> </ul>              | A | 16  |
| <ul style="list-style-type: none"> <li>• at 55 °C / Rated value</li> </ul>              | A | 16  |
| <ul style="list-style-type: none"> <li>• at 60 °C / Rated value</li> </ul>              | A | 15  |
| <ul style="list-style-type: none"> <li>• at 65 °C / Rated value</li> </ul>              | A | 15  |
| <ul style="list-style-type: none"> <li>• at 70 °C / Rated value</li> </ul>              | A | 15  |

### Auxiliary circuit

|  |  |   |
|--|--|---|
| Number of CO contacts / for auxiliary contacts |  | 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 | 10 |
| <ul style="list-style-type: none"> <li>• for N-conductor protection / initial value</li> </ul>       | A | 0  |
| <ul style="list-style-type: none"> <li>• for N-conductor protection / Full-scale value</li> </ul>    | A | 0  |
| <b>Adjustable response value current / of the current-dependent overload release / initial value</b> | A | 1  |

### Product details

|                          |  |  |
|--------------------------|--|--|
| <b>Product component</b> |  |  |
|--------------------------|--|--|

|  |  |     |
|--|--|-----|
| • Trip indicator   |  | No  |
| • display  |  | No  |
| • Voltage trigger  |  | No  |
| • undervoltage release   |  | No  |
| • undervoltage release with leading contact  |  | 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="#">3VA1196-6ED46-0AA0</a> |
|---|--|------------------------------------|

### Short circuit

|  |    |     |
|--|----|-----|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |    |     |
| • at 240 V / Rated value   | kA | 100 |
| • at 415 V / Rated value   | kA | 70  |
| • at 440 V / Rated value   | kA | 36  |
| • at 500 V / Rated value   | kA | 15  |
| • at 690 V / Rated value   | kA | 5   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |    |     |
| • at 240 V / Rated value   | kA | 100 |
| • at 415 V / Rated value   | kA | 70  |
| • at 440 V / Rated value   | kA | 36  |
| • at 500 V / Rated value   | kA | 20  |
| • at 690 V / Rated value   | kA | 10  |
| <b>Short-circuit current making capacity (Icm)</b>               |    |     |
| • at 240 V / Rated value   | kA | 220 |
| • at 415 V / Rated value   | kA | 154 |
| • at 690 V / Rated value   | kA | 17  |

### Connections

|   |  |                |
|---|--|----------------|
| Arrangement of electrical connectors / for main current circuit |  | Front terminal |
| Type of connectable conductor cross-section                     |  |                |

|  |  |                                 |
|--|--|---------------------------------|
| • of the round conductor terminal / stranded             |  | 1 x (1.5 - 70 mm <sup>2</sup> ) |
| Type of electrical connection / for main current circuit |  | Box terminal                    |

### Mechanical Design

|               |    |                |
|---------------|----|----------------|
| Height        | mm | 130            |
| Width         | mm | 101.6          |
| Depth         | mm | 70             |
| 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> | <b>other</b> |
|---------------------------------|------------|----------------------------------|--------------------------|--------------|



[other](#)



GL

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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/3VA11966ED460AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA11966ED460AA0/all>

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

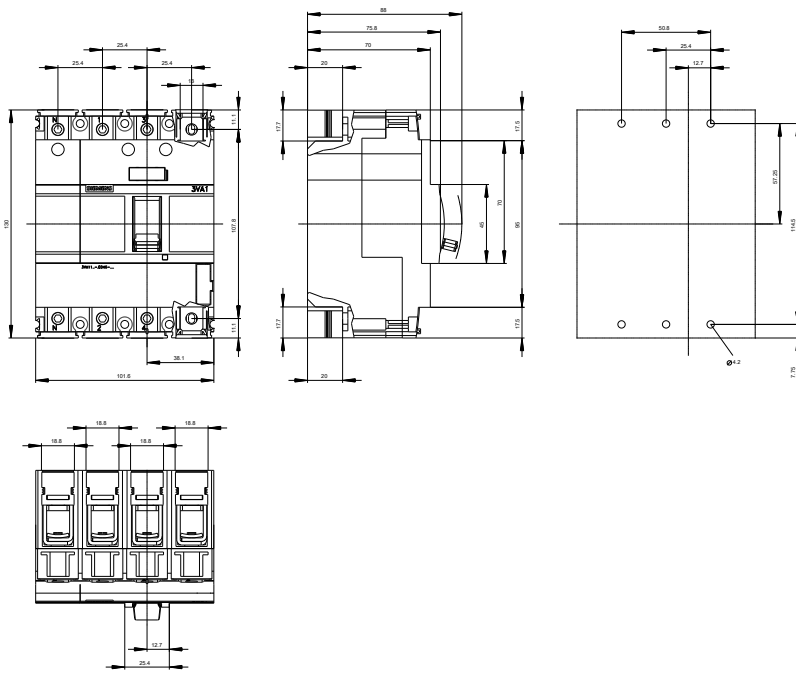
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mfb=3VA11966ED460AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mfb=3VA11966ED460AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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