



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS S ICU=36KA @ 415 V 3-POLE, LINE PROTECTION TM210, FTFM, IN=80A OVERLOAD PROTECTION IR=80A FIXED SHORT CIRCUIT PROTECTION II=10 X IN CABLE CONNECTION

Figure similar

| Model   |  |                             |
|---|--|-----------------------------|
| product brand name  |  | SENTRON                     |
| Product designation   |  | Molded case circuit breaker |
| Design of the product   |  | Line protection             |
| Product variations  |  | General Applications        |
| Ground fault monitoring version   |  | Without                     |
| Design of the operating mechanism                                       |  | toggle handle               |
| Type of the driving mechanism / motor drive                             |  | No                          |
| Design of the overcurrent release                                       |  | TM210                       |
| General technical data  |  |                             |
| Number of poles   |  | 3                           |
| Trip class / of the L-trip / with I2t characteristic / initial value    |  | 1                           |
| Trip class / of the L-trip / with I2t characteristic / Full-scale value |  | 1                           |
| Electrical endurance (switching cycles)                                 |  | 8 000                       |
| • at AC-1 / at 380/415 V / at 50/60 Hz                                  |  |                             |
| Mechanical service life (switching cycles) / typical                    |  | 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>         |   | S                 |
| Dissipation  |   |                   |
| <b>Active power loss</b>                                       |   |                   |
| • maximum  | W | 19.2              |
| Electricity  |   |                   |
| <b>Continuous current / Rated value / maximum</b>              | A | 160               |
| Continuous current / Rated value                               | A | 80                |
| <b>Adjustable response value current</b>                       |   |                   |
| • of the current-dependent overload release / Full-scale value | A | 80                |
| • of the instantaneous short-circuit release / initial value   | A | 800               |
| Main circuit   |   |                   |
| <b>Operating voltage</b>                                       |   |                   |
| • at AC / at 50/60 Hz / Rated value                            | V | 690               |
| • at DC / Rated value  | V | 500               |
| <b>Operating current</b>                                       |   |                   |
| • at 40 °C / Rated value                                       | A | 80                |
| • at 50 °C / Rated value                                       | A | 80                |
| • at 55 °C / Rated value                                       | A | 78                |
| • at 60 °C / Rated value                                       | A | 77                |
| • at 65 °C / Rated value                                       | A | 75                |
| • at 70 °C / Rated value                                       | A | 74                |
| 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>                       |   |                   |
| • of I-trip / Full-scale value                                 | A | 800               |
| • for N-conductor protection / initial value                   | A | 0                 |
| • for N-conductor protection / Full-scale value                | A | 0                 |

|   |   |    |
|---|---|----|
| Adjustable response value current / of the current-dependent overload release / initial value | A | 80 |
|---|---|----|

### Product details

|  |  |     |
|--|--|-----|
| <b>Product component</b>   |  |     |
| • display  |  | 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  |
| • other measurement function  |  | No  |

### Short circuit

|  |    |      |
|--|----|------|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |    |      |
| • at 240 V / Rated value   | kA | 55   |
| • at 415 V / Rated value   | kA | 36   |
| • at 440 V / Rated value   | kA | 25   |
| • 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 | 55   |
| • at 415 V / Rated value   | kA | 36   |
| • at 440 V / Rated value   | kA | 25   |
| • at 500 V / Rated value   | kA | 16   |
| • at 690 V / Rated value   | kA | 7    |
| <b>Short-circuit current making capacity (Icm)</b>               |    |      |
| • at 240 V / Rated value   | kA | 121  |
| • at 415 V / Rated value   | kA | 75.6 |
| • at 440 V / Rated value   | kA | 52.5 |
| • at 500 V / Rated value   | kA | 32   |
| • at 690 V / Rated value   | kA | 7.5  |

### Connections

|   |  |                |
|---|--|----------------|
| Arrangement of electrical connectors / for main current circuit |  | Front terminal |
| Type of electrical connection / for main current circuit        |  | Box terminal   |

### Mechanical Design

|               |    |     |
|---------------|----|-----|
| <b>Height</b> | mm | 130 |
|---------------|----|-----|

|               |    |                |
|---------------|----|----------------|
| Width         | mm | 76.2           |
| 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>Test Certificates</b> | <b>Shipping Approval</b> |
|---------------------------------|------------|----------------------------------|--------------------------|--------------------------|



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DNV



GL

|                          |              |
|--------------------------|--------------|
| <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/3VA11804ED360AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA11804ED360AA0/all>

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

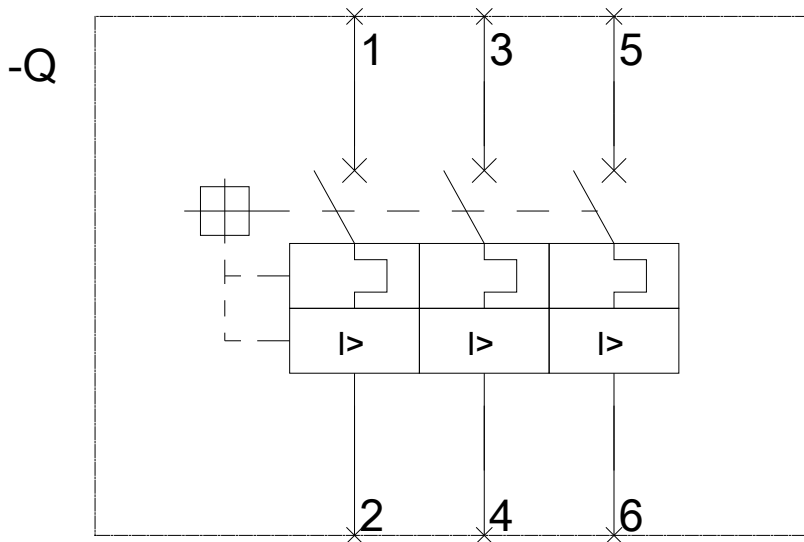
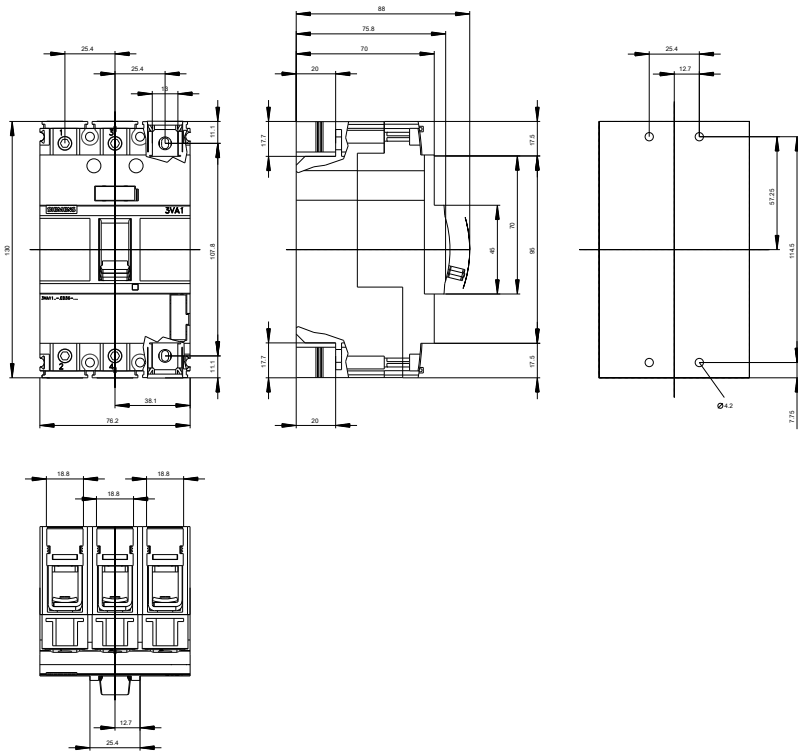
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**CAX-Online-Generator**

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

**Tender specifications**

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



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