



CIRCUIT BREAKER 3VA2 IEC FRAME 630 BREAKING CAPACITY CLASS C ICU=110KA @ 415 V 3-POLE, LINE PROTECTION ETU860, LSIG, IN=500A OVERLOAD PROTECTION IR=200A ...500A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..14X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT;UPTO 160% GROUND-FAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,05-0,8S BUSBAR CONNECTION

| Model                                                                                                                |                             |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------|
| product brandname                                                                                                    | SENTRON                     |
| Product designation                                                                                                  | Molded case circuit breaker |
| Design of the product                                                                                                | Line protection             |
| Type of load switch / according to UL 489 / Heating, Air Conditioning, and Refrigeration circuit breaker (HACR Type) | Yes                         |
| Design of the overcurrent release                                                                                    | ETU860                      |
| Protective function of the overcurrent release                                                                       | LSIG                        |
| 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  |
| Active power loss / for rated value of the current / at AC / in hot operating state / per device | 99 W   |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole   | 33 W   |
| Mechanical service life (switching cycles) / typical                                             | 15 000 |

|                                                                           |                                         |
|---------------------------------------------------------------------------|-----------------------------------------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 4 000                                   |
| Neutral conductors / upgradeable/retrofitable                             | Yes                                     |
| Ground fault monitoring version                                           | Summation current formation L-conductor |
| Product function                                                          |                                         |
| • communication function                                                  | Yes                                     |
| • other measurement function                                              | Yes                                     |
| Net weight                                                                | 4.3 kg                                  |

## Electricity

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Marking / according to UL 489 / 100%-rated breaker                | No    |
| Max. rated operational voltage of the size of the circuit-breaker | 630 A |
| Courant permanent assigné Iu                                      | 500 A |
| Operating current                                                 |       |
| • at 40 °C                                                        | 500 A |
| • at 45 °C                                                        | 500 A |
| • at 50 °C                                                        | 500 A |
| • at 55 °C                                                        | 477 A |
| • at 60 °C                                                        | 455 A |
| • at 65 °C                                                        | 432 A |
| • at 70 °C                                                        | 410 A |

## Switching capacity according to IEC 60947

|                                                           |        |
|-----------------------------------------------------------|--------|
| Switching capacity class of the circuit breaker           | C      |
| Maximum short-circuit current breaking capacity (Icu)     |        |
| • at 240 V                                                | 150 kA |
| • at 415 V                                                | 110 kA |
| • at 440 V                                                | 110 kA |
| • at 500 V                                                | 85 kA  |
| • at 690 V                                                | 6 kA   |
| Operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V                                                | 150 kA |
| • at 415 V                                                | 110 kA |
| • at 690 V                                                | 6 kA   |
| Short-circuit current making capacity (Icm)               |        |
| • at 240 V                                                | 330 kA |
| • at 415 V                                                | 242 kA |
| • at 440 V                                                | 242 kA |
| • at 500 V                                                | 187 kA |
| • at 690 V                                                | 9 kA   |

## Adjustable parameters

|                                                                                     |         |
|-------------------------------------------------------------------------------------|---------|
| Adjustable response value current / Ig min.                                         | 200 A   |
| Adjustable response value current / Ig min.                                         | 500 A   |
| Adjustable response value current / Ig min.                                         | 0.5     |
| Adjustable response value current / Ig min.                                         | 20      |
| Adjustable response value current / Ig min.                                         | 300 A   |
| Adjustable response value current / Ig min.                                         | 5 000 A |
| Short-term delayed / tripping switchable / I2t=ON/OFF                               | Yes     |
| Adjustable response value current / Ig min.                                         | 0.05 s  |
| Adjustable response value current / Ig min.                                         | 0.5 s   |
| Adjustable response value current / Ig min.                                         | 0.05 s  |
| Adjustable response value current / Ig min.                                         | 0.5 s   |
| Adjustable response value current / li min.                                         | 750 A   |
| Adjustable response value current / li max.                                         | 7 000 A |
| Design of the N-conductor protection                                                | Without |
| Ground fault protection can be switched ON/OFF                                      | Yes     |
| Ground fault protection / tripping switchable / I2t=ON/OFF                          | Yes     |
| Adjustable response value current / Ig min.                                         | 100 A   |
| Adjustable response value current / Ig max.                                         | 500 A   |
| Adjustable response value current / tg min.                                         | 0.05 s  |
| Adjustable response value current / Ig min.                                         | 0.8 s   |
| Adjustable response value current / for G-tripping / with I2t characteristic / min. | 0.2 A   |
| Adjustable response value current / for G-tripping / with I2t characteristic / max. | 1 A     |

#### Mechanical Design

|             |        |
|-------------|--------|
| Height [in] | 9.8 in |
| Height      | 248 mm |
| Width [in]  | 5.4 in |
| Width       | 138 mm |
| Depth [in]  | 5.4 in |
| Depth       | 137 mm |

#### Connections

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

#### 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  |

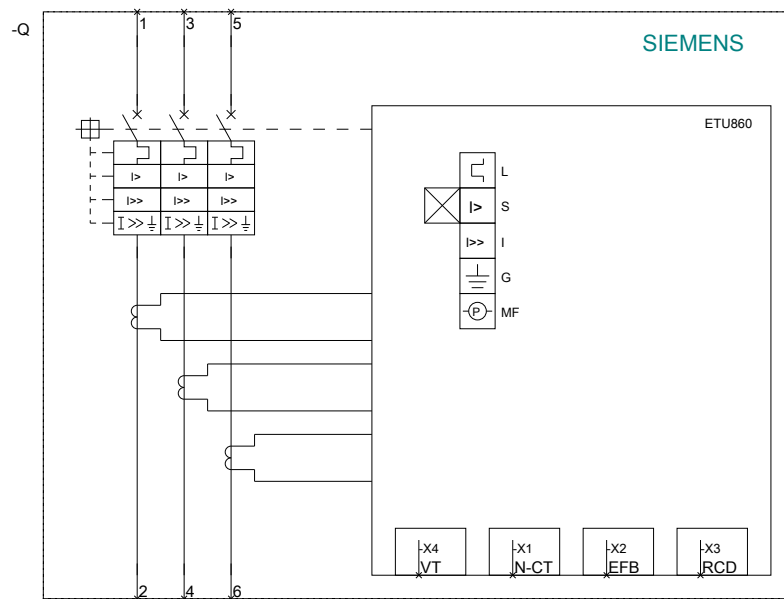
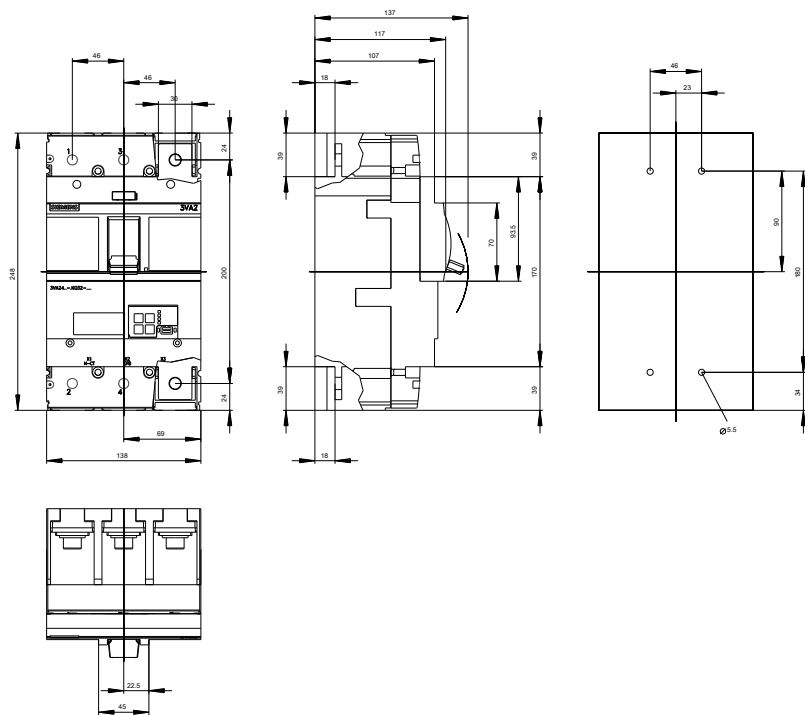
| Certificates                                                                           |    |
|----------------------------------------------------------------------------------------|----|
| Equipment marking / acc. to DIN EN 81346-2                                             | Q  |
| Certificate of suitability / as approval for NAVAL (no combat vessels) / Supplement SB | No |

| General Product Approval                                                                 | EMC                                                                                      | Declaration of Conformity                                                                       | Test Certificates                                 |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <br>CCC | <br>RCM | <br>EG-Konf. | <a href="#">Typprüfbescheinigung/Werkszeugnis</a> |
| <br>VDE | <br>EAC |                                                                                                 |                                                   |

| Test Certificates       | Shipping Approval                                                                         |                                                                                                      |                                                                                          |                                                                                             |                                                                                              |
|-------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <a href="#">sonstig</a> | <br>ABS | <br>BUREAU VERITAS | <br>GL | <br>LRS | <br>RMRS |

| other                   |
|-------------------------|
| <a href="#">sonstig</a> |

| Further information                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Information- and Downloadcenter (Catalogs, Brochures,...)</b><br><a href="http://www.siemens.com/lowvoltage/catalogs">http://www.siemens.com/lowvoltage/catalogs</a>                                                                                                           |
| <b>Industry Mall (Online ordering system)</b><br><a href="https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA2450-7KQ32-0AA0">https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA2450-7KQ32-0AA0</a>                                                    |
| <b>Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)</b><br><a href="http://support.automation.siemens.com/WW/view/en/3VA2450-7KQ32-0AA0/all">http://support.automation.siemens.com/WW/view/en/3VA2450-7KQ32-0AA0/all</a>                                    |
| <b>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)</b><br><a href="http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-7KQ32-0AA0">http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2450-7KQ32-0AA0</a> |
| <b>CAX-Online-Generator</b><br><a href="http://www.siemens.com/cax">http://www.siemens.com/cax</a>                                                                                                                                                                                |
| <b>Tender specifications</b><br><a href="http://www.siemens.com/specifications">http://www.siemens.com/specifications</a>                                                                                                                                                         |



**last modified:**

10/29/2016