



CIRCUIT BREAKER 3VA2 IEC FRAME 100 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4POLE, LINE PROTECTION ETU860, LSIG, IN=100A OVERLOAD PROTECTION IR=40A ...100A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..12X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 100%) GROUNDFAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,050,8S 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                                                                                                      | 4                           |

| 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 | 13.5 W |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole   | 4.5 W  |
| Mechanical service life (switching cycles) / typical                                             | 20 000 |

|                                                                           |                                             |
|---------------------------------------------------------------------------|---------------------------------------------|
| Electrical endurance (switching cycles) / at AC-1 / at 380/415 V 50/60 Hz | 12 000                                      |
| Neutral conductors / upgradeable/retrofitable                             | No                                          |
| Ground fault monitoring version                                           | Summation current formation L + N conductor |
| Product function                                                          |                                             |
| • communication function                                                  | Yes                                         |
| • other measurement function                                              | Yes                                         |
| Net weight                                                                | 2.95 kg                                     |

## Electricity

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

## Switching capacity according to IEC 60947

|                                                           |        |
|-----------------------------------------------------------|--------|
| Switching capacity class of the circuit breaker           | M      |
| Maximum short-circuit current breaking capacity (Icu)     |        |
| • at 240 V                                                | 85 kA  |
| • at 415 V                                                | 55 kA  |
| • at 440 V                                                | 55 kA  |
| • at 500 V                                                | 36 kA  |
| • at 690 V                                                | 2 kA   |
| Operational short-circuit current breaking capacity (Ics) |        |
| • at 240 V                                                | 85 kA  |
| • at 415 V                                                | 55 kA  |
| • at 440 V                                                | 55 kA  |
| • at 500 V                                                | 36 kA  |
| • at 690 V                                                | 2 kA   |
| Short-circuit current making capacity (Icm)               |        |
| • at 240 V                                                | 187 kA |
| • at 415 V                                                | 121 kA |
| • at 440 V                                                | 121 kA |
| • at 500 V                                                | 76 kA  |
| • at 690 V                                                | 3 kA   |

| Adjustable parameters                                                                           |                              |
|-------------------------------------------------------------------------------------------------|------------------------------|
| Adjustable response value current / I <sub>g</sub> min.                                         | 40 A                         |
| Adjustable response value current / I <sub>g</sub> min.                                         | 100 A                        |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.5                          |
| Adjustable response value current / I <sub>g</sub> min.                                         | 25                           |
| Adjustable response value current / I <sub>g</sub> min.                                         | 60 A                         |
| Adjustable response value current / I <sub>g</sub> min.                                         | 1 000 A                      |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF                              | Yes                          |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.05 s                       |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.5 s                        |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.05 s                       |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.5 s                        |
| Adjustable response value current / I <sub>i</sub> min.                                         | 150 A                        |
| Adjustable response value current / I <sub>i</sub> max.                                         | 1 200 A                      |
| Design of the N-conductor protection                                                            | adjustable OFF; 20% bis 100% |
| Ground fault protection can be switched ON/OFF                                                  | Yes                          |
| Ground fault protection / tripping switchable / I <sub>2t</sub> =ON/OFF                         | Yes                          |
| Adjustable response value current / I <sub>g</sub> min.                                         | 20 A                         |
| Adjustable response value current / I <sub>g</sub> max.                                         | 100 A                        |
| Adjustable response value current / t <sub>g</sub> min.                                         | 0.05 s                       |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.8 s                        |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / min. | 0.2 A                        |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / max. | 1 A                          |

| Mechanical Design |        |
|-------------------|--------|
| Height [in]       | 7.1 in |
| Height            | 181 mm |
| Width [in]        | 5.5 in |
| Width             | 140 mm |
| Depth [in]        | 4.2 in |
| Depth             | 107 mm |

| Connections                                                                             |                |
|-----------------------------------------------------------------------------------------|----------------|
| Arrangement of electrical connectors / for main current circuit                         | Front terminal |
| Type of electrical connection / for main current circuit                                | Lug terminal   |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 13 x 1 mm      |

| 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



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### Test Certificates

### Shipping Approval

[Typprüfbescheinigung/Werkszeugnis](#)

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### Shipping Approval

other

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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/3VA2010-5KQ42-0AA0>

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

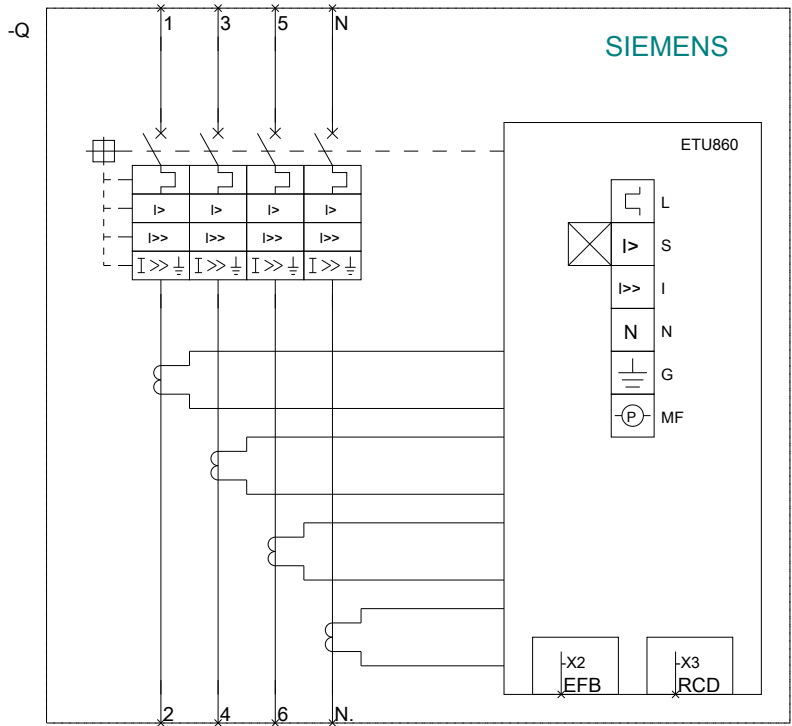
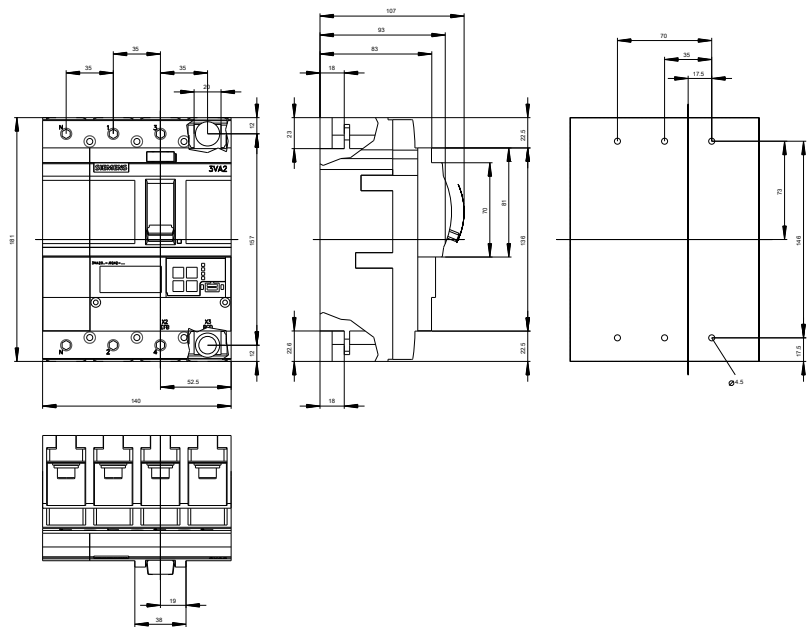
<http://support.automation.siemens.com/WW/view/en/3VA2010-5KQ42-0AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2010-5KQ42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2010-5KQ42-0AA0)

Cx-Online-Generator

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



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