



CIRCUIT BREAKER 3VA2 IEC FRAME 100 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 4POLE, LINE PROTECTION ETU860, LSIG, IN=40A OVERLOAD PROTECTION IR=16A ...40A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..12X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 160%) GROUNDFAULT, SWITCHABLE IG=0,4... 1 X IN, TG=0,05-0,8S BUSBAR CONNECTION

| Model                                          |                             |
|------------------------------------------------|-----------------------------|
| product brandname                              | SETRON                      |
| Product designation                            | Molded case circuit breaker |
| Design of the product                          | Line protection             |
| 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 | 2.2 W                                       |
| Active power loss / for rated value of the current / at AC / in hot operating state / per pole   | 0.73 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

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Max. rated operational voltage of the size of the circuit-breaker | 100 A |
| Courant permanent assigné Iu                                      | 40 A  |
| Operating current                                                 |       |
| • at 40 °C                                                        | 40 A  |
| • at 45 °C                                                        | 40 A  |
| • at 50 °C                                                        | 40 A  |
| • at 55 °C                                                        | 40 A  |
| • at 60 °C                                                        | 40 A  |
| • at 65 °C                                                        | 40 A  |
| • at 70 °C                                                        | 40 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. | 16 A |
| Adjustable response value current / I <sub>g</sub> min. | 40 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.                                         | 24 A                         |
| Adjustable response value current / I <sub>g</sub> min.                                         | 400 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.                                         | 60 A                         |
| Adjustable response value current / I <sub>i</sub> max.                                         | 480 A                        |
| Design of the N-conductor protection                                                            | adjustable OFF; 40% bis 160% |
| 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.                                         | 16 A                         |
| Adjustable response value current / I <sub>g</sub> max.                                         | 40 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. | 0.4 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      |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 25 x 8.5       |

#### 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 |
|--------------------------------------------|---|

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

| Test Certificates                                 | Shipping Approval                                                                                      |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <a href="#">Typprüfbescheinigung/Werkszeugnis</a> | <br>ABS               |
| <a href="#">Sonstige</a>                          | <br>BUREAU VERITAS |
| <a href="#">spezielle Prüfbescheinigungen</a>     | <br>GL              |
| <a href="#">n</a>                                 |                                                                                                        |

| Shipping Approval                                                                           | other                    |
|---------------------------------------------------------------------------------------------|--------------------------|
| <br>LRS  | <a href="#">Sonstige</a> |
| <br>RMRS |                          |

## Further information

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VA2040-5KQ42-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA2040-5KQ42-0AA0/all>

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

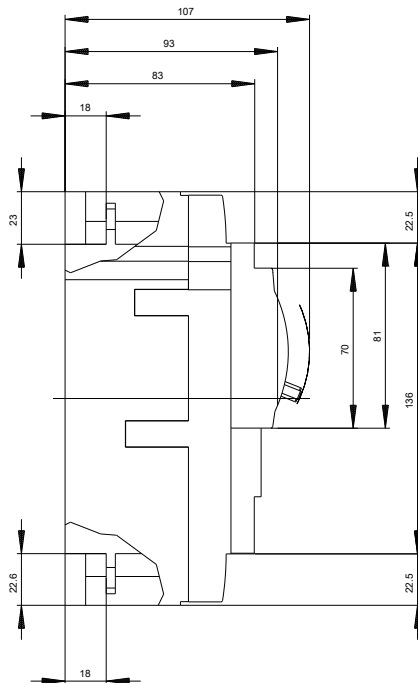
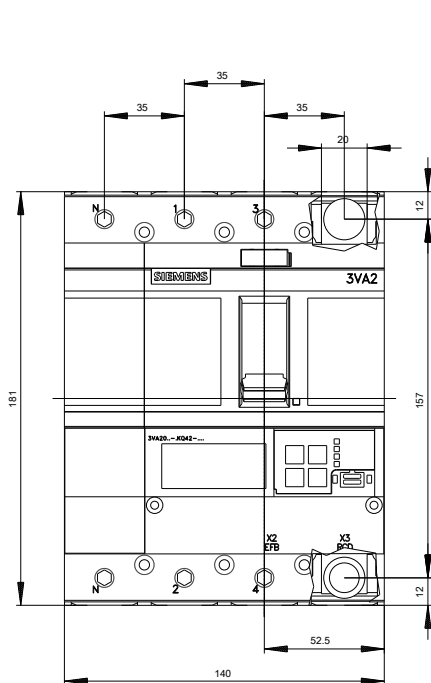
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2040-5KQ42-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2040-5KQ42-0AA0)

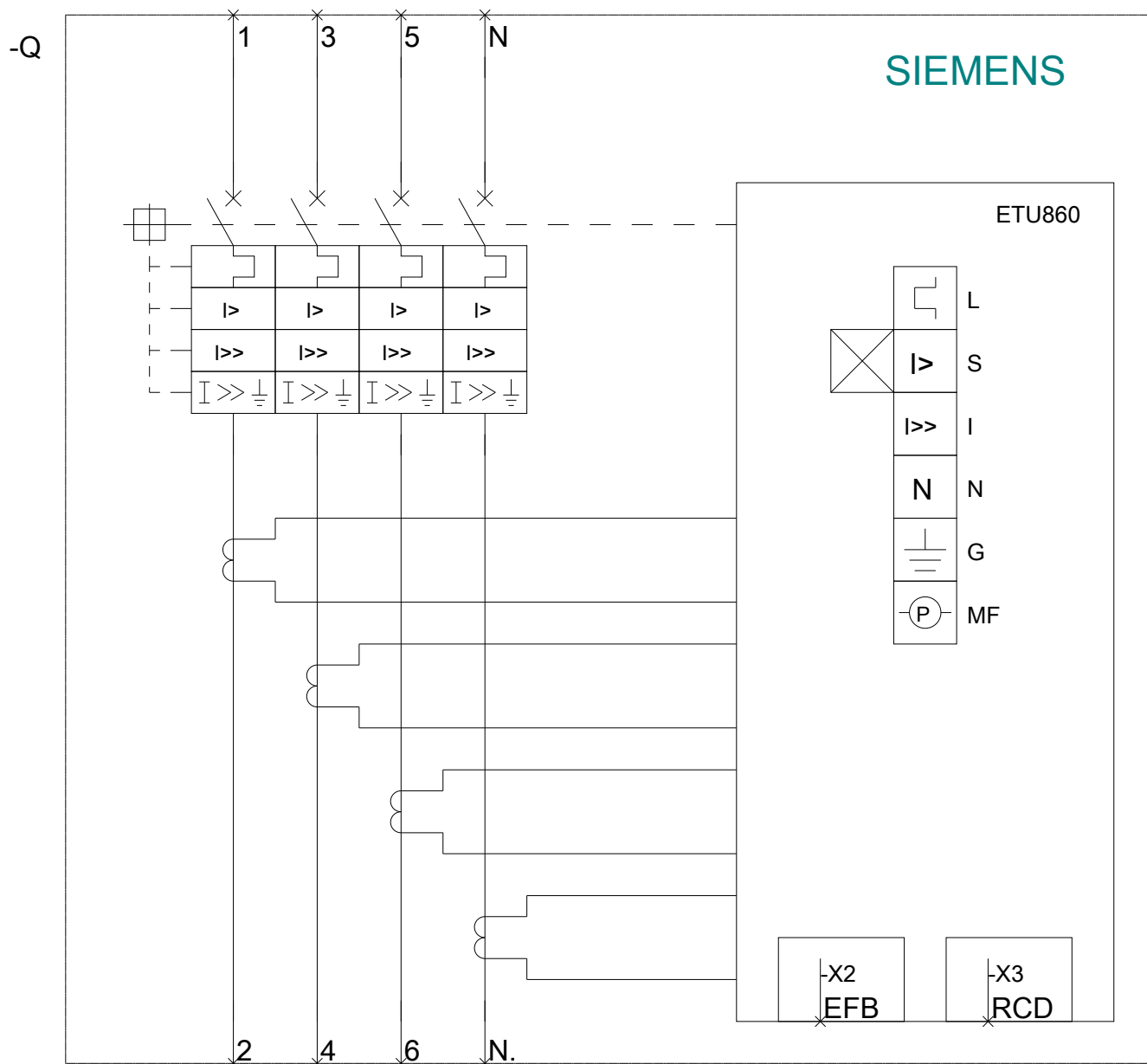
**CAX-Online-Generator**

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

**Tender specifications**

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





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