



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=85KA @ 415 V 4POLE, LINE PROTECTION ETU860, LSIG, IN=63A OVERLOAD PROTECTION IR=25A ...63A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..12X IN NEUTRAL PROTECTION ADJUSTABLE (OFF, UPTO 160%) GROUNDFAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,050,8MS CABLE CONNECTION

| Model                                       |  |   |
|---|--|---|
| product brand name                          |  | SENTRON                                     |
| Product designation                         |  | Molded case circuit breaker                 |
| Design of the product                       |  | Line protection                             |
| Product variations                          |  | Selective Applications                      |
| Ground fault monitoring version             |  | Summation current formation L + N conductor |
| Design of the auxiliary release             |  | without auxiliary release                   |
| Design of the auxiliary switch              |  | Without                                     |
| Design of the operating mechanism           |  | toggle handle                               |
| Type of the driving mechanism / motor drive |  | No  |
| Design of the overcurrent release           |  | ETU860                                      |

| General technical data  |   |        |
|---|---|--------|
| Number of poles   |   | 4      |
| Trip class / of the L-trip / with I <sup>2</sup> t characteristic / initial value           |   | 0.5    |
| Trip class / of the L-trip / with I <sup>2</sup> t characteristic / Full-scale value        |   | 25     |
| Electrical endurance (switching cycles)<br>• at AC-1 / at 380/415 V / at 50/60 Hz           |   | 12 000 |
| Total disconnection time / for G-tripping / with standard characteristic / initial value    | s | 0.05   |
| Total disconnection time / for G-tripping / with standard characteristic / Full-scale value | s | 0.8    |
| circuit-breaker / Design  |   | 3VA    |
| Mechanical service life (switching cycles) / typical  |   | 20 000 |

| 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>  |   | LSIG              |
| Switching capacity   |   |                   |
| <b>Switching capacity class of the circuit breaker</b>   |   | H                 |
| Dissipation  |   |                   |
| <b>Active power loss</b>   |   |                   |
| • maximum  | W | 4                 |
| Electricity  |   |                   |
| <b>Continuous current / Rated value / maximum</b>  | A | 160               |
| Continuous current / Rated value   | A | 63                |
| Adjustable response value current / of the instantaneous short-circuit release / initial value | A | 1.5               |
| Main circuit   |   |                   |
| <b>Operating voltage</b>   |   |                   |
| • with AC / at 50/60 Hz / Rated value  | V | 690               |
| <b>Operating current</b>   |   |                   |
| • at 40 °C / Rated value   | A | 63                |
| • at 50 °C / Rated value   | A | 63                |
| • at 60 °C / Rated value   | A | 63                |
| • at 65 °C / Rated value   | A | 63                |
| • at 70 °C / Rated value   | A | 63                |
| Auxiliary circuit  |   |                   |
| <b>Number of NC contacts / for auxiliary contacts</b>  |   | 0                 |
| <b>Number of NO contacts / for auxiliary contacts</b>  |   | 0                 |
| Suitability  |   |                   |
| <b>Suitability for use</b>   |   | system protection |
| Adjustable parameters  |   |                   |
| <b>Adjustable response value current</b>   |   |                   |
| • for G-tripping / with I <sup>2</sup> t characteristic / initial value                        | A | 0.25              |
| • for G-tripping / with I <sup>2</sup> t characteristic / Full-scale value                     | A | 1                 |
| • for G-tripping / with standard characteristic / initial value                                | A | 0.25              |
| • for G-tripping / with standard characteristic / Full-scale value                             | A | 1                 |

|  |   |      |
|--|---|------|
| • of I-trip / Full-scale value   | A | 12   |
| • of the short-time delayed short-circuit release / initial value                                    | A | 0.6  |
| • of the short-time delayed short-circuit release / Full-scale value                                 | A | 10   |
| • of S-trip / with standard characteristic / initial value   | A | 0.6  |
| • of S-trip / with standard characteristic / Full-scale value  | A | 10   |
| <b>Adjustable delay time</b>   |   |      |
| • for G-tripping / with I2t characteristic / initial value   | s | 0.05 |
| • for G-tripping / with I2t characteristic / Full-scale value  | s | 0.8  |
| • of S-trip / with I2t characteristic / initial value  | s | 0.05 |
| • of S-trip / with I2t characteristic / Full-scale value   | s | 0.5  |
| • of S-trip / with standard characteristic / initial value   | s | 0.05 |
| • of S-trip / with standard characteristic / Full-scale value  | s | 0.5  |
| <b>Adjustable response value current / of the current-dependent overload release / initial value</b> | A | 0.4  |

### Product details

|  |  |     |
|--|--|-----|
| <b>Product component</b>   |  |     |
| • Trip indicator   |  | No  |
| • display  |  | Yes |
| • undervoltage release   |  | No  |
| <b>Product property</b>  |  |     |
| • of the circuit breaker with tripping unit / Tripping characteristic adjustable       |  | Yes |
| • 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      |  | Yes |
| • Phase failure detection     |  | No  |
| • other measurement function  |  | Yes |

### Accessories

|  |  |                                    |
|--|--|------------------------------------|
| Manufacturer article number / of the supplied basic switch |  | <a href="#">3VA2163-6KQ46-0AA0</a> |
|--|--|------------------------------------|

### Short circuit

|  |    |      |
|--|----|------|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |    |      |
| • at 240 V / Rated value   | kA | 110  |
| • at 415 V / Rated value   | kA | 85   |
| • at 440 V / Rated value   | kA | 85   |
| • at 500 V / Rated value   | kA | 55   |
| • at 690 V / Rated value   | kA | 2.5  |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |    |      |
| • at 240 V / Rated value   | kA | 110  |
| • at 415 V / Rated value   | kA | 85   |
| • at 440 V / Rated value   | kA | 85   |
| • at 500 V / Rated value   | kA | 55   |
| • at 690 V / Rated value   | kA | 2.5  |
| <b>Short-circuit current making capacity (Icm)</b>               |    |      |
| • at 240 V / Rated value   | kA | 242  |
| • at 415 V / Rated value   | kA | 187  |
| • at 440 V / Rated value   | kA | 187  |
| • at 500 V / Rated value   | kA | 121  |
| • at 690 V / Rated value   | kA | 3.75 |

### 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 (6-120 mm <sup>2</sup> ) |
| Type of electrical connection / for main current circuit        |  | Box terminal                 |

### Mechanical Design

|               |    |                |
|---------------|----|----------------|
| Height        | mm | 181            |
| Width         | mm | 140            |
| Depth         | mm | 107            |
| 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

|                   |  |  |
|-------------------|--|--|
| Equipment marking |  |  |
|-------------------|--|--|

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

Q

Q

|                                 |            |                                  |                          |
|---------------------------------|------------|----------------------------------|--------------------------|
| <b>General Product Approval</b> | <b>EMC</b> | <b>Declaration of Conformity</b> | <b>Shipping Approval</b> |
|---------------------------------|------------|----------------------------------|--------------------------|



CCC



VDE

[other](#)

EG-Konf.



DNV

|                          |              |
|--------------------------|--------------|
| <b>Shipping Approval</b> | <b>other</b> |
|--------------------------|--------------|

[other](#)

GL

## 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/3VA21636KQ460AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VA21636KQ460AA0/all>

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

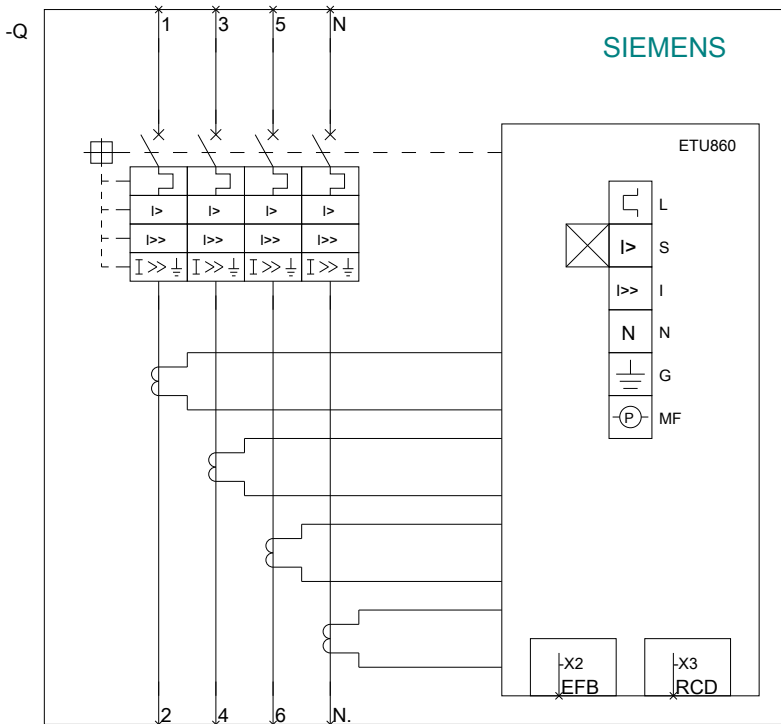
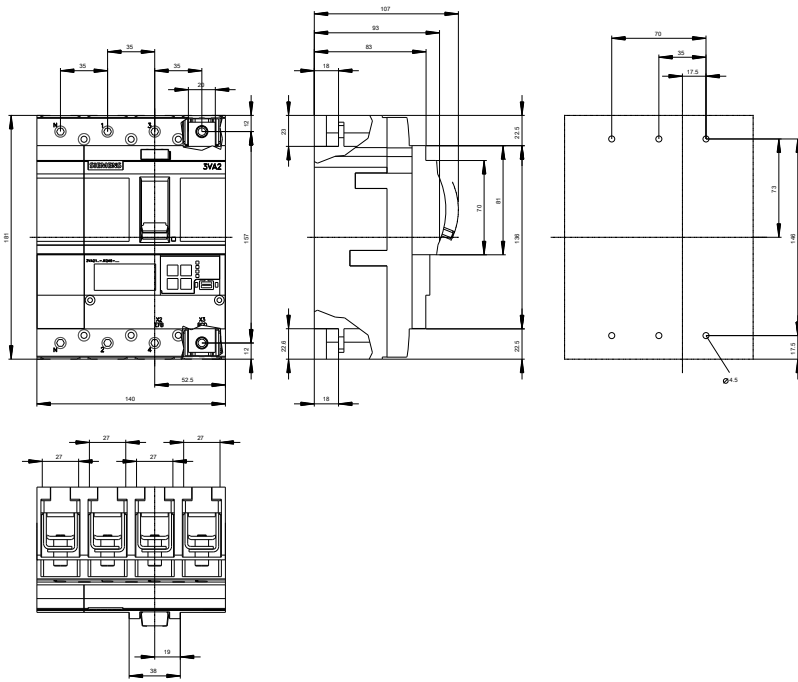
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA21636KQ460AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA21636KQ460AA0)

### CAX-Online-Generator

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

### Tender specifications

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



**last modified:**

11.03.2015