# Data sheet

### 3VA2125-8JQ42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS L ICU=150KA @ 415 V 4POLE, LINE PROTECTION ETU560, LSIG, IN=25A OVERLOAD PROTECTION IR=10A ...25A 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 BUSBAR CONNECTION

| Model                                       |      |   |
|---|------|---|
| product brand name                          | SEI  | NTRON                                     |
| Product designation                         | Mol  | lded case circuit breaker                 |
| Design of the product                       | Line | e protection                              |
| Product variations                          | Sel  | ective Applications                       |
| Ground fault monitoring version             | Sur  | mmation current formation L + N conductor |
| Design of the auxiliary release             | with | nout auxiliaryrelease                     |
| Design of the auxiliary switch              | Wit  | hout                                      |
| Design of the operating mechanism           | tog  | gle handle                                |
| Type of the driving mechanism / motor drive | No   |   |
| Design of the overcurrent release           | ETI  | U560                                      |

| General technical data  |   |        |  |  |
|---|---|--------|--|--|
| Number of poles   |   | 4      |  |  |
| Trip class / of the L-trip / with I2t characteristic / initial value                        |   | 0.5    |  |  |
| Trip class / of the L-trip / with I2t characteristic / Full-scale value                     |   | 25     |  |  |
| Electrical endurance (switching cycles)   |   |        |  |  |
| • 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  |     |                   |  |  |
| Protection class IP   |     | IP40              |  |  |
| Protection class IP / on the front  |     | IP40              |  |  |
| Protective function of the overcurrent release  |     | LSIG              |  |  |
| Switching canacity  |     |                   |  |  |
| Switching capacity Switching capacity class of the circuit breaker                    |     | L                 |  |  |
|   |     | _                 |  |  |
| Dissipation   |     |                   |  |  |
| Active power loss   | 10/ | 0.5               |  |  |
| • maximum   | W   | 0.5               |  |  |
| Electricity   |     |                   |  |  |
| Continuous current / Rated value / maximum  | Α   | 160               |  |  |
| Continuous current / Rated value  | Α   | 25                |  |  |
| Adjustable response value current / of the  | Α   | 1.5               |  |  |
| instantaneous short-circuit release / initial value                                   |     |                   |  |  |
| Main circuit  |     |                   |  |  |
| Operating voltage   |     |                   |  |  |
| • with AC / at 50/60 Hz / Rated value   | V   | 690               |  |  |
| Operating current   |     |                   |  |  |
| • at 40 °C / Rated value  | Α   | 25                |  |  |
| • at 50 °C / Rated value  | Α   | 25                |  |  |
| • at 60 °C / Rated value  | Α   | 25                |  |  |
| • at 65 °C / Rated value  | Α   | 25                |  |  |
| • at 70 °C / Rated value  | Α   | 25                |  |  |
| Auxiliary circuit   |     |                   |  |  |
| Number of NC contacts / for auxiliary contacts  |     | 0                 |  |  |
| Number of NO contacts / for auxiliary contacts  |     | 0                 |  |  |
| Suitability   |     |                   |  |  |
| Suitability for use   |     | system protection |  |  |
| Adjustable parameters   |     |                   |  |  |
| Adjustable response value current   |     |                   |  |  |
| for G-tripping / with I2t characteristic / initial                                    | Α   | 0.6               |  |  |
| value   |     |                   |  |  |
| • for G-tripping / with I2t characteristic / Full-scale value                         | А   | 1                 |  |  |
| <ul> <li>for G-tripping / with standard characteristic /<br/>initial value</li> </ul> | Α   | 0.6               |  |  |
| • for G-tripping / with standard characteristic / Full-scale value                    | Α   | 1                 |  |  |

| <ul> <li>of I-trip / Full-scale value</li> </ul>  | Α | 12   |
|---|---|------|
| <ul> <li>of the short-time delayed short-circuit release /<br/>initial value</li> </ul>                           | А | 0.6  |
| <ul> <li>of the short-time delayed short-circuit release /<br/>Full-scale value</li> </ul>                        | Α | 10   |
| <ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>                                      | Α | 0.6  |
| <ul> <li>of S-trip / with standard characteristic / Full-<br/>scale value</li> </ul>                              | Α | 10   |
| Adjustable delay time   |   |      |
| <ul> <li>for G-tripping / with I2t characteristic / initial value</li> </ul>                                      | S | 0.05 |
| <ul> <li>for G-tripping / with l2t characteristic / Full-scale<br/>value</li> </ul>                               | S | 0.8  |
| • of S-trip / with I2t characteristic / initial value   | s | 0.05 |
| <ul> <li>of S-trip / with I2t characteristic / Full-scale<br/>value</li> </ul>                                    | S | 0.5  |
| <ul> <li>of S-trip / with standard characteristic / initial<br/>value</li> </ul>                                  | S | 0.05 |
| <ul> <li>of S-trip / with standard characteristic / Full-<br/>scale value</li> </ul>                              | S | 0.5  |
| Adjustable response value current / of the current-<br>dependent overload release / initial value                 | A | 0.4  |
| Product details   |   |      |
| Product component   |   |      |
| Trip indicator  |   | No   |
| • display   |   | Yes  |
| • undervoltage release  |   | No   |
| Product property  |   |      |
| <ul> <li>of the circuit breaker with tripping unit / Tripping<br/>characteristic adjustable</li> </ul>            |   | Yes  |
| <ul> <li>for neutral conductors /<br/>upgradeable/retrofittable / Short-circuit and<br/>overload proof</li> </ul> |   | No   |
| Product expansion / optional / motor drive  |   | Yes  |
| Product function  |   |      |
| Product function  |   |      |
| Intrinsic device protection   |   | Yes  |
| <ul> <li>communication function</li> </ul>  |   | Yes  |

## Accessories

• Phase failure detection

• other measurement function

No No

| Manufacturer article number / of the supplied basic switch |    | 3VA2125-8JQ42-0AA0 |
|--|----|--------------------|
| Short circuit  |    |                    |
| Operational short-circuit current breaking capacity (Ics)  |    |                    |
| at 240 V / Rated value                                     | kA | 200                |
| at 415 V / Rated value                                     | kA | 150                |
| • at 440 V / Rated value                                   | kA | 150                |
| • at 500 V / Rated value                                   | kA | 100                |
| • at 690 V / Rated value                                   | kA | 18                 |
| Maximum short-circuit current breaking capacity (Icu)      | _  |                    |
| • at 240 V / Rated value                                   | kA | 200                |
| • at 415 V / Rated value                                   | kA | 150                |
| • at 440 V / Rated value                                   | kA | 150                |
| • at 500 V / Rated value                                   | kA | 100                |
| • at 690 V / Rated value                                   | kA | 24                 |
| Short-circuit current making capacity (lcm)                |    |                    |
| ● at 240 V / Rated value                                   | kA | 440                |
| ● at 415 V / Rated value                                   | kA | 330                |
| ● at 440 V / Rated value                                   | kA | 330                |
| ● at 500 V / Rated value                                   | kA | 220                |
| ● at 690 V / Rated value                                   | kA | 48                 |
| Connections  |    |                    |
| Arrangement of electrical connectors / for main            |    | Front terminal     |
| current circuit  |    |                    |
| Type of connectable conductor cross-section                |    | 42 4               |
| • for flat-bar terminal connection / minimum               |    | 13 x 1 mm          |
| • for flat-bar terminal connection / maximum               |    | 25 x 8.5           |
| Type of electrical connection / for main current circuit   |    | Lug terminal       |
| Mechanical Design  |    |                    |
| Height   | mm | 181                |
| Width  | mm | 140<br>107         |
| Depth  Mounting type                                       | mm | fixed mounting     |
|  |    |                    |
| Environmental conditions  Ambient temperature              |    |                    |
| during operation / minimum                                 | °C | -25                |
| during operation / maximum                                 | °C | 70                 |
| during storage / minimum                                   | °C | -40                |
| during storage / maximum                                   | °C | 80                 |
| saming area and a commission                               |    |                    |

#### Certificates **Equipment marking** • acc. to DIN EN 61346-2 Q Q • acc. to DIN EN 81346-2 **General Product Approval EMC Declaration of Shipping** Conformity **Approval** other

**Shipping** other **Approval** 



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/3VA21258JQ420AA0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA21258JQ420AA0/all

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

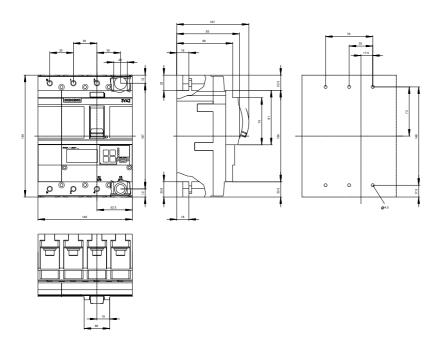
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA21258JQ420AA0

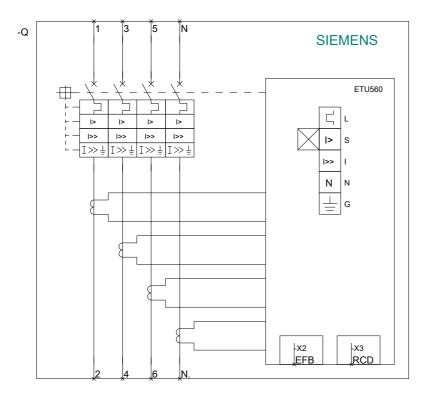
**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://ausschreibungstexte.siemens.com/tiplv





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