## **SIEMENS**

## Data sheet

## 3VA2216-8JQ42-0AA0



CIRCUIT BREAKER 3VA2 IEC FRAME 250 BREAKING CAPACITY CLASS L ICU=150KA @ 415 V 4POLE, LINE PROTECTION ETU560, LSIG, IN=160A OVERLOAD PROTECTION IR=64A ...160A 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   |   | 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 auxiliaryrelease                    |
| 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  |   | ETU560                                      |
| 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-<br>scale value                    |   | 25  |
| Electrical endurance (switching cycles)  |   |   |
| • at AC-1 / at 380/415 V / at 50/60 Hz   |   | 10 000                                      |
| Total disconnection time / for G-tripping / with<br>standard characteristic / initial value    | S | 0.05  |
| Total disconnection time / for G-tripping / with<br>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               |
| Drotation close  |   |                   |
| Protection class Protection class IP   | _ | IP40              |
| Protection class IP / on the front   |   | IP40              |
| Protective function of the overcurrent release                               |   | LSIG              |
|  |   |                   |
| Switching capacity   |   |                   |
| Switching capacity class of the circuit breaker                              |   | L                 |
| Dissipation  |   |                   |
| Active power loss  |   |                   |
| • maximum  | W | 19.7              |
|  | _ |                   |
| Electricity Continuous current / Rated value / maximum                       | A | 250               |
| Continuous current / Rated value   | A | 160               |
| Adjustable response value current / of the                                   | A | 1.5               |
| instantaneous short-circuit release / initial value                          |   |                   |
|  |   |                   |
| Main circuit   | _ |                   |
| Operating voltage  | V | 690               |
| • with AC / at 50/60 Hz / Rated value  | V | 090               |
| Operating current  | • | 400               |
| • at 40 °C / Rated value   | A | 160               |
| • at 50 °C / Rated value   | A | 160               |
| • at 60 °C / Rated value   | A | 160               |
| • at 65 °C / Rated value   | A | 160               |
| • at 70 °C / Rated value   | A | 160               |
| Auxiliary circuit  |   |                   |
| Number of NC contacts / for auxiliary contacts                               |   | 0                 |
| Number of NO contacts / for auxiliary contacts                               |   | 0                 |
| Cuitabilit <i>u</i>  |   |                   |
| Suitability Suitability for use  |   | system protection |
|  |   |                   |
| Adjustable parameters  |   |                   |
| Adjustable response value current  |   |                   |
| <ul> <li>for G-tripping / with I2t characteristic / initial value</li> </ul> | A | 0.2               |
| • for G-tripping / with I2t characteristic / Full-scale                      | А | 1                 |
| value  |   |                   |
| • for G-tripping / with standard characteristic /                            | А | 0.2               |
| initial value  |   |                   |
| <ul> <li>for G-tripping / with standard characteristic /</li> </ul>          | А | 1                 |
| Full-scale value   |   |                   |

| <ul> <li>of I-trip / Full-scale value</li> </ul>  | А | 12   |
|---|---|------|
| <ul> <li>of the short-time delayed short-circuit release /<br/>initial value</li> </ul>                           | A | 0.6  |
| <ul> <li>of the short-time delayed short-circuit release /<br/>Full-scale value</li> </ul>                        | A | 10   |
| <ul> <li>of S-trip / with standard characteristic / initial value</li> </ul>                                      | А | 0.6  |
| <ul> <li>of S-trip / with standard characteristic / Full-<br/>scale value</li> </ul>                              | A | 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 I2t characteristic / Full-scale value</li> </ul>                                   | S | 0.8  |
| <ul> <li>of S-trip / with I2t characteristic / initial value</li> </ul>   | s | 0.05 |
| <ul> <li>of S-trip / with I2t characteristic / Full-scale value</li> </ul>  | S | 0.5  |
| <ul> <li>of S-trip / with standard characteristic / initial 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-   | А | 0.4  |
| dependent overload release / initial value  |   |      |
| 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  |   |      |
| <ul> <li>Intrinsic device protection</li> </ul>   |   | Yes  |
| communication function  |   | Yes  |
| Phase failure detection   |   | No   |
|   |   |      |

Accessories

• other measurement function

No

Manufacturer article number / of the supplied basic switch

| Short circuit   |    |     |
|---|----|-----|
| Operational short-circuit current breaking capacity   |    |     |
| (lcs)   |    |     |
| • 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 (Icm)           | -  |     |
| • 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                    |                |
| <ul> <li>for flat-bar terminal connection / minimum</li> </ul> | 13 x 1 mm      |
| <ul> <li>for flat-bar terminal connection / maximum</li> </ul> | 25 x 8.5       |
| Type of electrical connection / for main current circuit       | Lug terminal   |

| Mechanical Design |    |                |  |
|-------------------|----|----------------|--|
| Height            | mm | 181            |  |
| Width             | mm | 140            |  |
| Depth             | mm | 107            |  |
| Mounting type     |    | fixed mounting |  |

| Environmental conditions                       |    |     |  |
|--|----|-----|--|
| Ambient temperature                            |    |     |  |
| <ul> <li>during operation / minimum</li> </ul> | °C | -25 |  |
| <ul> <li>during operation / maximum</li> </ul> | °C | 70  |  |
| <ul> <li>during storage / minimum</li> </ul>   | °C | -40 |  |
| <ul> <li>during storage / maximum</li> </ul>   | °C | 80  |  |

| Certificates                   |               |     |    |       |                |          |
|--------------------------------|---------------|-----|----|-------|----------------|----------|
| Equipment mar                  | king          |     |    |       |                |          |
| <ul> <li>acc. to DI</li> </ul> | N EN 61346-2  |     |    | Q     |                |          |
| • acc. to DI                   | N EN 81346-2  |     |    | Q     |                |          |
| General Pro                    | duct Approval |     | EM | С     | Declaration of | Shipping |
|                                |               |     |    |       | Conformity     | Approval |
| (m)                            | DE            | 103 |    | other | CE             | ĴÅ       |

| Shipping | other |
|----------|-------|
| Approval |       |
|          | other |
| GL       |       |

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## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/lowvoltage/catalogs

Industry Mall (Online ordering system)

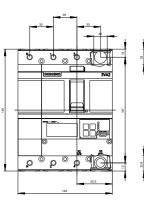
https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA22168JQ420AA0

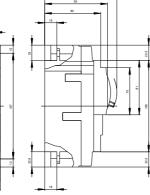
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3VA22168JQ420AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA22168JQ420AA0

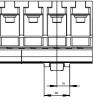
CAx-Online-Generator http://www.siemens.com/cax

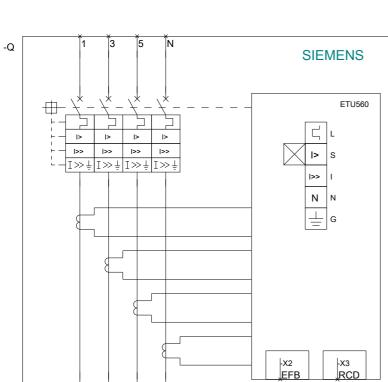
Tender specifications http://ausschreibungstexte.siemens.com/tiplv





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