# **SIEMENS**

### **Datasheet**

## 3VA1140-6GD42-0AA0



CIRCUIT BREAKER 3VA1 IEC FRAME 160 BREAKING CAPACITY CLASS H ICU=70KA @ 415 V 4-POLE, LINE PROTECTION TM210, FTFM, IN=40A OVERLOAD PROTECTION IR=40A FIXED SHORT CIRCUIT PROTECTION II=10 X IN NEUTRAL PROTECTION 100% BUSBAR CONNECTION

Figure similar

| Model                                       |                             |
|---|-----------------------------|
| product brand name                          | SENTRON                     |
| Product designation                         | Molded case circuit breaker |
| Design of the product                       | Line protection             |
| Product variations                          | General Applications        |
| Ground fault monitoring version             | Without                     |
| 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           | TM210                       |

| General technical data  |  |        |  |  |
|---|--|--------|--|--|
| Number of poles   |  | 4      |  |  |
| Trip class / of the L-trip / with I2t characteristic / initial value    |  | 1      |  |  |
| Trip class / of the L-trip / with I2t characteristic / Full-scale value |  | 1      |  |  |
| Electrical endurance (switching cycles)                                 |  |        |  |  |
| • at AC-1 / at 380/415 V / at 50/60 Hz                                  |  | 8 000  |  |  |
| circuit-breaker / Design  |  | 3VA    |  |  |
| Mechanical service life (switching cycles) / typical                    |  | 15 000 |  |  |

| Voltage            |   |     |
|--------------------|---|-----|
| Insulation voltage |   |     |
| Rated value        | V | 800 |

| Protection class  |    |                   |
|---|----|-------------------|
| Protective function of the overcurrent release  |    | Ц                 |
| Switching capacity  |    |                   |
| Switching capacity class of the circuit breaker   |    | Н                 |
|   |    |                   |
| Dissipation   |    |                   |
| Active power loss   | W  | 10.8              |
| • maximum   | VV | 10.0              |
| Electricity   |    |                   |
| Operating current / at 45 °C / Rated value  | Α  | 40                |
| Continuous current / Rated value / maximum  | Α  | 160               |
| Continuous current  |    |                   |
| Rated value   | Α  | 40                |
| Adjustable response value current   |    |                   |
| <ul> <li>of the current-dependent overload release /</li> <li>Full-scale value</li> </ul> | Α  | 1                 |
| • of the instantaneous short-circuit release / initial value                              | Α  | 10                |
| Net weight  | g  | 1 200             |
| Main circuit  |    |                   |
| Operating voltage   |    |                   |
| • with AC / at 50/60 Hz / Rated value   | V  | 690               |
| • for DC / Rated value  | V  | 600               |
| Operating current   |    |                   |
| • at 40 °C / Rated value  | Α  | 40                |
| • at 50 °C / Rated value  | Α  | 40                |
| ● at 55 °C / Rated value  | Α  | 39                |
| • at 60 °C / Rated value  | Α  | 39                |
| • at 65 °C / Rated value  | Α  | 38                |
| • at 70 °C / Rated value  | Α  | 37                |
| Auxiliary circuit   |    |                   |
| Number of CO contacts   |    |                   |
| • for auxiliary contacts  |    | 0                 |
| Suitability   |    |                   |
| Suitability for use   |    | system protection |
| Adjustable parameters   |    |                   |
| Adjustable response value current   |    |                   |
| of I-trip / Full-scale value  | Α  | 10                |
| • for N-conductor protection / initial value  | Α  | 100               |
| • for N-conductor protection / Full-scale value   | Α  | 100               |

| Adjustable response value current / of the current-<br>dependent overload release / initial value                 | А    | 1                  |
|---|------|--------------------|
| Appearance  |      |                    |
| Product details   |      |                    |
| Product component   |      |                    |
| Trip indicator  |      | No                 |
| • display   |      | No                 |
| Voltage trigger   |      | No                 |
| undervoltage release  |      | No                 |
| undervoltage release with leading contact   |      | No                 |
| Product property  |      |                    |
| <ul> <li>for neutral conductors /<br/>upgradeable/retrofittable / Short-circuit and<br/>overload proof</li> </ul> |      | No                 |
| Product expansion   |      |                    |
| <ul><li>optional</li></ul>  |      |                    |
| — motor drive   |      | Yes                |
| Product function  |      |                    |
| Product function  |      |                    |
| <ul> <li>Intrinsic device protection</li> </ul>   |      | Yes                |
| communication function  |      | No                 |
| Phase failure detection   |      | No                 |
| <ul> <li>other measurement function</li> </ul>  |      | No                 |
| Accessories   |      |                    |
| Manufacturer article number / of the supplied basic   |      | 3VA1140-6GD42-0AA0 |
| switch  |      |                    |
| Short circuit   |      |                    |
| Operational short-circuit current breaking capacity (Ics)   |      |                    |
| • at 240 V / Rated value  | kA   | 100                |
| • at 415 V / Rated value  | kA   | 70                 |
| at 440 V / Rated value  | kA   | 36                 |
| at 500 V / Rated value     at 500 V / Rated value   | kA   | 15                 |
| at 690 V / Rated value      at 690 V / Rated value  | kA   | 5                  |
| Maximum short-circuit current breaking capacity (Icu)   | 10 ( |                    |
| • at 240 V / Rated value  | kA   | 100                |
| at 240 V / Rated value     at 415 V / Rated value   | kA   | 70                 |
| • at 440 V / Rated value  | kA   | 36                 |
| at 500 V / Rated value     at 500 V / Rated value   | kA   | 20                 |
|   | kA   | 10                 |
| at 690 V / Rated value  Short-circuit current making canacity (lom)   | NA.  | 10                 |
| Short-circuit current making capacity (lcm)   |      |                    |

| • at 240 V / Rated value | kA | 220 |
|--------------------------|----|-----|
| • at 415 V / Rated value | kA | 154 |
| • at 690 V / Rated value | kA | 17  |

| Connections                                  |                |  |  |
|--|----------------|--|--|
| Arrangement of electrical connectors         |                |  |  |
| • for main current circuit                   | Front terminal |  |  |
| Type of connectable conductor cross-section  |                |  |  |
| • for flat-bar terminal connection / minimum | 12 x 0         |  |  |
| • for flat-bar terminal connection / maximum | 17 x 6.5       |  |  |
| Design of the electrical connection          |                |  |  |
| • for main current circuit                   | Lug terminal   |  |  |

| Mechanical Design |    |                |  |
|-------------------|----|----------------|--|
| Height            | mm | 130            |  |
| Width             | mm | 101.6          |  |
| Depth             | mm | 70             |  |
| 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 Reference code

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

| General Product Approval | EMC | Declaration of | Shipping | other |
|--------------------------|-----|----------------|----------|-------|
|                          |     | Conformity     | Approval |       |





other





other

#### Further information

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

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

Industry Mall (Online ordering system)
<a href="https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11406GD420AA0">https://eb.automation.siemens.com/mall/en/WW/Catalog/Product/3VA11406GD420AA0</a>

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

http://support.automation.siemens.com/WW/view/en/3VA11406GD420AA0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11406GD420AA0">http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3VA11406GD420AA0</a>

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

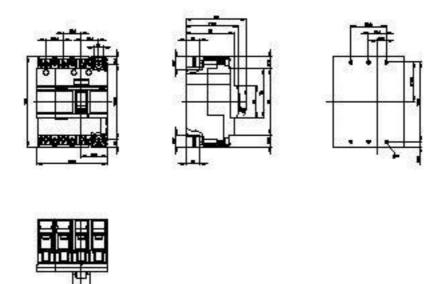


Figure similar

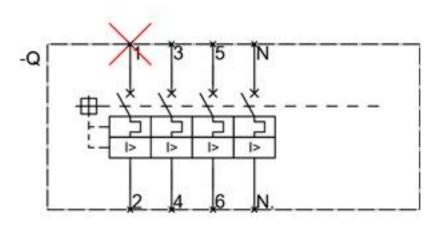


Figure similar

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