



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 3-POLE, LINE PROTECTION ETU350, LSI, IN=160A OVERLOAD PROTECTION IR=63A ...160A SHORT CIRCUIT PROTECTION ISD=1,5... 10 X IR, II=10 X IN CABLE CONNECTION SHUNT TRIP (STL) 12-30 V DC; 24 V AC 50/60 HZ 2 AUXILIARY SWITCH HQ 1 TRIP ALARM SWITCH HQ 1 ELECTRICAL ALARM SWITCH HQ

| Model                                          |                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------|
| product brandname                              | SENTRON                                                                   |
| Product designation                            | Molded case circuit breaker                                               |
| Design of the product                          | Line protection                                                           |
| Design of the overcurrent release              | ETU350                                                                    |
| Protective function of the overcurrent release | LSI                                                                       |
| Number of poles                                | 3                                                                         |
| Design of the auxiliary release                | Shunt trip (STL)                                                          |
| Design of the auxiliary switch                 | 2 auxiliary switches + 1 trip alarm switch + 1 electrical alarm switch HQ |

| 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 | 25.5 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 | Without |
| Product function                |         |
| • communication function        | No      |
| • Phase failure detection       | No      |
| • other measurement function    | No      |
| Net weight                      | 2.64 kg |

#### Electricity

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Max. rated operational voltage of the size of the circuit-breaker | 160 A |
| Courant permanent assigné lu                                      | 160 A |
| Operating current                                                 |       |
| • at 40 °C                                                        | 160 A |
| • at 45 °C                                                        | 160 A |
| • at 50 °C                                                        | 160 A |
| • at 55 °C                                                        | 154 A |
| • at 60 °C                                                        | 148 A |
| • at 65 °C                                                        | 142 A |
| • at 70 °C                                                        | 136 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                                                | 2.5 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                                                | 2.5 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                                                | 79 kA   |
| • at 690 V                                                | 4.25 kA |

#### Adjustable parameters

|                                             |      |
|---------------------------------------------|------|
| Adjustable response value current / Ig min. | 63 A |
|---------------------------------------------|------|

|                                                                    |         |
|--------------------------------------------------------------------|---------|
| Adjustable response value current / I <sub>g</sub> min.            | 160 A   |
| Adjustable response value current / I <sub>g</sub> min.            | 0.5     |
| Adjustable response value current / I <sub>g</sub> min.            | 17      |
| Adjustable response value current / I <sub>g</sub> min.            | 240 A   |
| Adjustable response value current / I <sub>g</sub> min.            | 1 600 A |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF | No      |
| Adjustable response value current / I <sub>g</sub> min.            | 0.02 s  |
| Adjustable response value current / I <sub>g</sub> min.            | 0.4 s   |
| Adjustable response value current / I <sub>i</sub> min.            | 1 600 A |
| Adjustable response value current / I <sub>i</sub> max.            | 1 600 A |

### Mechanical Design

|        |        |
|--------|--------|
| Height | 181 mm |
| Width  | 105 mm |
| Depth  | 86 mm  |

### Connections

|                                                                                 |                              |
|---------------------------------------------------------------------------------|------------------------------|
| Arrangement of electrical connectors / for main current circuit                 | Front terminal               |
| Type of electrical connection / for main current circuit                        | Box terminal                 |
| Type of connectable conductor cross-section, round conductor terminal, stranded | 1 x (6-120 mm <sup>2</sup> ) |

### Auxiliary circuit

|                                                |     |
|------------------------------------------------|-----|
| Product component                              |     |
| • undervoltage release                         | No  |
| • Voltage trigger                              | Yes |
| • undervoltage release with leading contact    | No  |
| • Trip indicator                               | Yes |
| Number of CO contacts / for auxiliary contacts | 4   |

### Accessories

|                                                   |                                    |
|---------------------------------------------------|------------------------------------|
| Product extension / optional / motor drive        | Yes                                |
| Manufacturer's article number                     |                                    |
| • of the supplied basic switch                    | <a href="#">3VA2116-5HN36-0AA0</a> |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AA12</a>      |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AB12</a>      |
| • of the integrated auxiliary switch/alarm switch | <a href="#">3VA9988-0AB22</a>      |
| • of the integrated auxiliary trip                | 3VA9688-0BL30                      |

### Environmental conditions

|                                    |        |
|------------------------------------|--------|
| Protection class IP / on the front | IP40   |
| Ambient temperature                |        |
| • during operation / minimum       | -25 °C |
| • during operation / maximum       | 70 °C  |

- during storage / minimum
- during storage / maximum

-40 °C

80 °C

## Certificates

Equipment marking / acc. to DIN EN 81346-2

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### General Product Approval

EMC

Declaration of  
Conformity



CCC



VDE



[sonstig](#)



RCM



EG-Konf.

### Test Certificates

### Shipping Approval

[Typprüfbescheinigung/Werkszeugnis](#)

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ABS



BUREAU  
VERITAS



GL



LRS

### Shipping Approval

other



RMRS

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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/3VA2116-5HN36-0HL0>

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

<http://support.automation.siemens.com/WW/view/en/3VA2116-5HN36-0HL0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2116-5HN36-0HL0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-5HN36-0HL0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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