



CIRCUIT BREAKER 3VA2 IEC FRAME 160 BREAKING CAPACITY CLASS M ICU=55KA @ 415 V 3-POLE, LINE PROTECTION ETU560, LSIG, IN=160A OVERLOAD PROTECTION IR=63A ...160A SHORT CIRCUIT PROTECTION ISD=0,6..10X IN, II=1,5..10X IN NEUTRAL PROTECTION OPTIONAL WITH EXT. CT GROUND-FAULT, SWITCHABLE IG=0,2... 1 X IN, TG=0,05-0,8S BUSBAR CONNECTION UNDERVOLTAGE RELEASE (UVR) 120-127 V AC 50/60 HZ 2 AUXILIARY SWITCH HQ 1 TRIP ALARM SWITCH HQ

| Model                                                                                            |                                               |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------|
| product brandname                                                                                | SETRON                                        |
| Product designation                                                                              | Molded case circuit breaker                   |
| Design of the product                                                                            | Line protection                               |
| Design of the overcurrent release                                                                | ETU560                                        |
| Protective function of the overcurrent release                                                   | LSIG                                          |
| Number of poles                                                                                  | 3                                             |
| Design of the auxiliary release                                                                  | Undervoltage release (UVR)                    |
| Design of the auxiliary switch                                                                   | 2 auxiliary switches + 1 trip 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 | 28 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                                                    | Yes                                           |
| Ground fault monitoring version                                                                  | Summation current formation L-conductor       |

|                              |        |
|------------------------------|--------|
| Product function             |        |
| • communication function     | Yes    |
| • Phase failure detection    | No     |
| • other measurement function | No     |
| Net weight                   | 2.5 kg |

#### Electricity

|                                                                   |       |
|-------------------------------------------------------------------|-------|
| Max. rated operational voltage of the size of the circuit-breaker | 160 A |
| Courant permanent assigné Iu                                      | 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 / I <sub>g</sub> min. | 64 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.                                         | 20      |
| Adjustable response value current / I <sub>g</sub> min.                                         | 96 A    |
| Adjustable response value current / I <sub>g</sub> min.                                         | 1 600 A |
| Short-term delayed / tripping switchable / I <sub>2t</sub> =ON/OFF                              | Yes     |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.05 s  |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.5 s   |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.05 s  |
| Adjustable response value current / I <sub>g</sub> min.                                         | 0.5 s   |
| Adjustable response value current / I <sub>i</sub> min.                                         | 240 A   |
| Adjustable response value current / I <sub>i</sub> max.                                         | 1 600 A |
| Ground fault protection can be switched ON/OFF                                                  | Yes     |
| Adjustable response value current / I <sub>g</sub> min.                                         | 32 A    |
| Adjustable response value current / I <sub>g</sub> max.                                         | 160 A   |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / min. | 0.2 A   |
| Adjustable response value current / for G-tripping / with I <sub>2t</sub> characteristic / max. | 1 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                                | Lug terminal   |
| Type of connectable conductor cross-section, connection screw, width x thickness , min. | 13 x 1 mm      |
| Type of connectable conductor cross-section, connection screw, width x thickness , max. | 25 x 8.5       |

#### Auxiliary circuit

|                                                |     |
|------------------------------------------------|-----|
| Product component                              |     |
| • undervoltage release                         | Yes |
| • Voltage trigger                              | No  |
| • undervoltage release with leading contact    | No  |
| • Trip indicator                               | Yes |
| Number of CO contacts / for auxiliary contacts | 3   |

#### Accessories

|                                            |                                    |
|--------------------------------------------|------------------------------------|
| Product extension / optional / motor drive | Yes                                |
| Manufacturer's article number              |                                    |
| • of the supplied basic switch             | <a href="#">3VA2116-5JQ32-0AA0</a> |

- of the integrated auxiliary switch/alarm switch
- of the integrated auxiliary switch/alarm switch
- of the integrated auxiliary trip

[3VA9988-0AA12](#)

[3VA9988-0AB12](#)

[3VA9608-0BB24](#)

## Environmental conditions

|                                    |        |
|------------------------------------|--------|
| Protection class IP / on the front | IP40   |
| Ambient temperature                |        |
| • during operation / minimum       | -25 °C |
| • during operation / maximum       | 70 °C  |
| • during storage / minimum         | -40 °C |
| • during storage / maximum         | 80 °C  |

## Certificates

Equipment marking / acc. to DIN EN 81346-2 Q

### General Product Approval

### EMC

### Declaration of Conformity



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### Test Certificates

### Shipping Approval

[Typprüfbescheinigung/Werkszeugnis](#)

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### Shipping Approval

other



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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/3VA2116-5JQ32-0CH0>

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

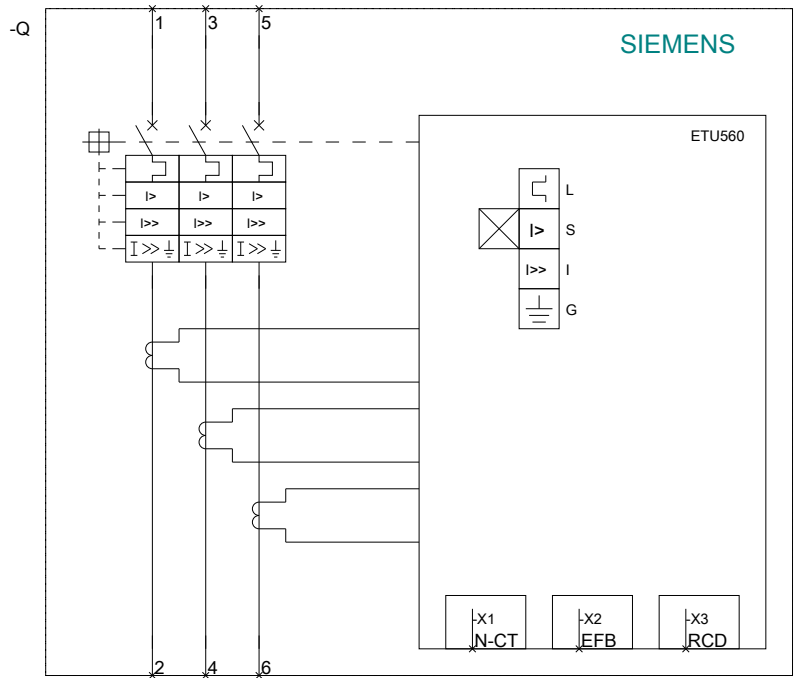
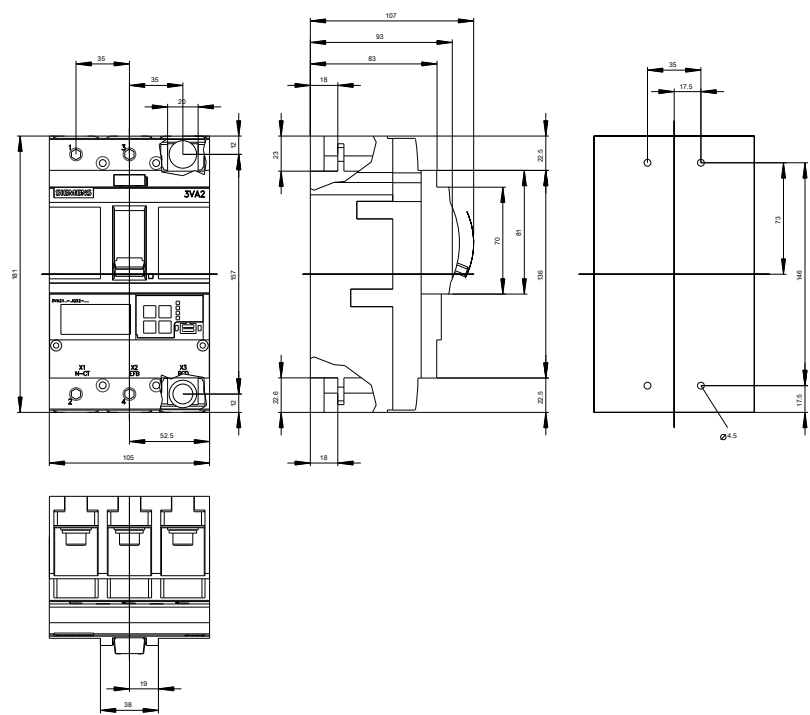
<http://support.automation.siemens.com/WW/view/en/3VA2116-5JQ32-0CH0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA2116-5JQ32-0CH0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA2116-5JQ32-0CH0)

### CAX-Online-Generator

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



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