

CIRCUIT BREAKER 3VT1 STANDARD BREAKING  
CAPACITY ICU=25KA,  
415V AC 4-POLE,  
SYSTEM PROTECTION ELECTRONIC TRIP UNIT TM,  
LI IN= 63A RATED CURRENT IR= 50... 63A OVERLOAD  
PROT. II= 315... 630A,  
SHORT-CIRCUIT PROTECTION N CONDUCTOR W/O  
PROTECTION W/O AUXILIARY TRIP UNIT W/O  
AUXILIARY/ALARM SWITCH WITHOUT AUXILIARY  
RELEASE WITHOUT AUXILIARY/ALARM SWITCH

| Technical data:                                         |     |                   |
|---------------------------------------------------------|-----|-------------------|
| Width                                                   | mm  | 100               |
| Height                                                  | mm  | 130               |
| Depth                                                   | mm  | 80                |
| Acceptability for application                           |     | system protection |
| Design of the overcurrent release                       |     | TM                |
| Product function / ground-fault protection              |     | No                |
| Continuous current / rated value                        | A   | 63                |
| Operating voltage / for main current circuit            |     |                   |
| • at 50 Hz / for AC / maximum                           | V   | 690               |
| • at 60 Hz / for AC / maximum                           | V   | 690               |
| • for DC / maximum                                      | V   | 440               |
| Impulse voltage resistance / rated value                | kV  | 8                 |
| Number of poles                                         |     | 4                 |
| Active power loss / maximum                             | W   | 6                 |
| Operating cycles / maximum                              | 1/h | 120               |
| Operating frequency                                     |     |                   |
| • 1 / rated value                                       | Hz  | 50                |
| • 2 / rated value                                       | Hz  | 60                |
| Breaking capacity limit short-circuit current (Icu)     |     |                   |
| • at 240 V / rated value                                | kA  | 40                |
| • at 415 V / rated value                                | kA  | 25                |
| • at 500 V / rated value                                | kA  | 12                |
| • at 690 V / rated value                                | kA  | 6                 |
| Breaking capacity operating short-circuit current (Ics) |     |                   |
| • at 240 V / rated value                                | kA  | 20                |
| • at 415 V / rated value                                | kA  | 13                |

|                                                                                                 |    |                                                                                                                         |
|-------------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------|
| • at 500 V / rated value                                                                        | kA | 6                                                                                                                       |
| • at 690 V / rated value                                                                        | kA | 3                                                                                                                       |
| <b>Ultimate short-circuit current making capacity (I<sub>cm</sub>) / at 415 V / rated value</b> | kA | 52                                                                                                                      |
| <b>Adjustable response current / of the current-dependent overload release</b>                  |    |                                                                                                                         |
| • initial value                                                                                 | A  | 50                                                                                                                      |
| • final value                                                                                   | A  | 63                                                                                                                      |
| <b>Adjustable response current / of the non-delayed short-circuit release</b>                   |    |                                                                                                                         |
| • initial value                                                                                 | A  | 315                                                                                                                     |
| • final value                                                                                   | A  | 630                                                                                                                     |
| <b>Type of mounting</b>                                                                         |    | fixed mounting                                                                                                          |
| <b>Design of the electrical connection / for main current circuit</b>                           |    | box terminals                                                                                                           |
| <b>Arrangement of electrical connectors / for main current circuit</b>                          |    | front side                                                                                                              |
| <b>Number of NC contacts / for auxiliary contacts</b>                                           |    | 0                                                                                                                       |
| <b>Number of NO contacts / for auxiliary contacts</b>                                           |    | 0                                                                                                                       |
| <b>Number of change-over switches / for auxiliary contacts</b>                                  |    | 0                                                                                                                       |
| <b>Product component</b>                                                                        |    |                                                                                                                         |
| • undervoltage release mechanism                                                                |    | No                                                                                                                      |
| • Voltage trigger                                                                               |    | No                                                                                                                      |
| • undervoltage release with leading contact                                                     |    | No                                                                                                                      |
| <b>Suitability for use / circuit breaker</b>                                                    |    | Yes                                                                                                                     |
| <b>Item designation</b>                                                                         |    |                                                                                                                         |
| • according to DIN EN 61346-2                                                                   |    | Q                                                                                                                       |
| <b>Ambient temperature</b>                                                                      |    |                                                                                                                         |
| • during operating                                                                              |    |                                                                                                                         |
| • minimum                                                                                       | °C | -40                                                                                                                     |
| • maximum                                                                                       | °C | 55                                                                                                                      |
| • during storage                                                                                |    |                                                                                                                         |
| • minimum                                                                                       | °C | -40                                                                                                                     |
| • maximum                                                                                       | °C | 55                                                                                                                      |
| <b>Derating temperature / for the rated value of the continuous current</b>                     | °C | 40                                                                                                                      |
| <b>Protection class IP</b>                                                                      |    | IP40                                                                                                                    |
| <b>Product function</b>                                                                         |    |                                                                                                                         |
| • overload protection                                                                           |    | No                                                                                                                      |
| • for zero conductors / short-circuit and overload protection                                   |    | No                                                                                                                      |
| • of the thermal overload release                                                               |    | adjustable                                                                                                              |
| <b>mounting position</b>                                                                        |    | with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back |

|                                                         |        |
|---------------------------------------------------------|--------|
| Mechanical operating cycles as operating time / typical | 20,000 |
| Electrical operating cycles as operating time / typical | 6,000  |

#### Certificates/approvals:

General Product Approval

other



CCC



GOST

[other](#)

#### Further information:

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

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

Industry Mall (Online ordering system)

<http://www.siemens.com/lowvoltage/mall>

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

<http://support.automation.siemens.com/WW/view/en/3VT1706-2EC46-0AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VT1706-2EC46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1706-2EC46-0AA0)

CAX-Online-Generator

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

last change:

Feb 11, 2013