



circuit breaker 3VT1 standard breaking capacity Icu=25kA, 415V AC  
4-pole, line protection trip unit TM, LIN In=100A rated current  
IR=80...100A overload prot. II=500...1000A, short-circuit protection N  
conductor protected without auxiliary release without auxiliary/alarm  
switch

| Model                                                |                                     |
|------------------------------------------------------|-------------------------------------|
| Product brand name                                   | SENTRON                             |
| Product designation                                  | 3VT1_5 molded case circuit breakers |
| Design of the operating mechanism                    | toggle handle                       |
| Type of the driving mechanism / motor drive          | No                                  |
| Design of the overcurrent release                    | TM                                  |
| General technical data                               |                                     |
| Number of poles                                      | 4                                   |
| Size of the circuit-breaker                          | 3VT1                                |
| Electrical endurance (switching cycles) / typical    | 6 000                               |
| Usage category                                       | A                                   |
| Performance class for circuit breaker                | N                                   |
| Mechanical service life (switching cycles) / typical | 20 000                              |
| Operating frequency / maximum                        | 120 1/h                             |
| Voltage                                              |                                     |
| Insulation voltage / rated value                     | 690 V                               |
| Surge voltage resistance / rated value               | 8 kV                                |
| Protection class                                     |                                     |

|                                                                                              |                   |
|----------------------------------------------------------------------------------------------|-------------------|
| Protection class IP                                                                          | IP40              |
| Protective function of the overcurrent release                                               | LIN               |
| <b>Dissipation</b>                                                                           |                   |
| Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  | 3.33 W            |
| <b>Electricity</b>                                                                           |                   |
| Operating current / at 45 °C / rated value                                                   | 91 A              |
| Continuous current / rated value                                                             | 100 A             |
| Derating temperature / for the rated value of the continuous current                         | 40 °C             |
| Adjustable pick-up value current                                                             |                   |
| • of the current-dependent overload release / Full-scale value                               | 100 A             |
| • of instantaneous short-circuit trip unit / initial value                                   | 500 A             |
| • of instantaneous short-circuit trip unit / Full-scale value                                | 1 000 A           |
| <b>Main circuit</b>                                                                          |                   |
| Operating frequency                                                                          |                   |
| • 1 / rated value                                                                            | 50 Hz             |
| • 2 / rated value                                                                            | 60 Hz             |
| Operating voltage                                                                            |                   |
| • rated value / maximum                                                                      | 690 V             |
| • for main current circuit / at AC / at 50 Hz / maximum                                      | 690 V             |
| • for main current circuit / at AC / at 60 Hz / maximum                                      | 690 V             |
| • for main current circuit / at DC / maximum                                                 | 440 V             |
| Operating current                                                                            |                   |
| • at 40 °C / rated value                                                                     | 100 A             |
| • at 50 °C / rated value                                                                     | 91 A              |
| <b>Auxiliary circuit</b>                                                                     |                   |
| Number of CO contacts / for auxiliary contacts                                               | 0                 |
| Number of NC contacts / for auxiliary contacts                                               | 0                 |
| Number of NO contacts / for auxiliary contacts                                               | 0                 |
| <b>Suitability</b>                                                                           |                   |
| Suitability for use                                                                          | system protection |
| • Disconnecting means                                                                        | Yes               |
| <b>Adjustable parameters</b>                                                                 |                   |
| Adjustable pick-up value current / of the current-dependent overload release / initial value | 80 A              |

## Product details

|                                             |     |
|---------------------------------------------|-----|
| Product component                           |     |
| • Trip indicator                            | No  |
| • Auxiliary switch                          | No  |
| • Voltage trigger                           | No  |
| • undervoltage release                      | No  |
| • undervoltage release with leading contact | No  |
| Product extension / optional / motor drive  | Yes |

## Product function

|                                                             |            |
|-------------------------------------------------------------|------------|
| Product function                                            |            |
| • of thermal overload trip unit                             | adjustable |
| • Ground fault protection                                   | No         |
| • for neutral conductors / Short-circuit and overload proof | Yes        |
| • Phase failure detection                                   | No         |
| • Overload protection                                       | Yes        |

## Short circuit

|                                                           |       |
|-----------------------------------------------------------|-------|
| Operational short-circuit current breaking capacity (Ics) |       |
| • at 240 V / rated value                                  | 20 kA |
| • at 415 V / rated value                                  | 13 kA |
| • at 500 V / rated value                                  | 6 kA  |
| • at 690 V / rated value                                  | 3 kA  |
| Maximum short-circuit current breaking capacity (Icu)     |       |
| • at 240 V / rated value                                  | 40 kA |
| • at 415 V / rated value                                  | 25 kA |
| • at 500 V / rated value                                  | 12 kA |
| • at 690 V / rated value                                  | 6 kA  |

## Connections

|                                                                 |              |
|-----------------------------------------------------------------|--------------|
| Arrangement of electrical connectors / for main current circuit | front side   |
| Type of electrical connection / for main current circuit        | box terminal |

## Mechanical Design

|                   |                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| Height            | 130 mm                                                                                                                  |
| Width             | 100 mm                                                                                                                  |
| Depth             | 80 mm                                                                                                                   |
| Mounting position | with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back |
| Mounting type     | fixed mounting                                                                                                          |
| Net weight        | 1.336 kg                                                                                                                |

## Environmental conditions

|                              |        |
|------------------------------|--------|
| Ambient temperature          |        |
| • during operation / minimum | -40 °C |
| • during operation / maximum | 55 °C  |
| • during storage / minimum   | -40 °C |
| • during storage / maximum   | 55 °C  |

## Certificates

|                          |   |
|--------------------------|---|
| Reference code           |   |
| • acc. to DIN EN 61346-2 | Q |
| • acc. to DIN EN 81346-2 | Q |

| General Product Approval | Declaration of Conformity | Test Certificates | other |
|--------------------------|---------------------------|-------------------|-------|
|--------------------------|---------------------------|-------------------|-------|



CCC



EG-Konf.

[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Manufacturer Declaration](#)

## Further information

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

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

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VT1710-2EJ46-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VT1710-2EJ46-0AA0>

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

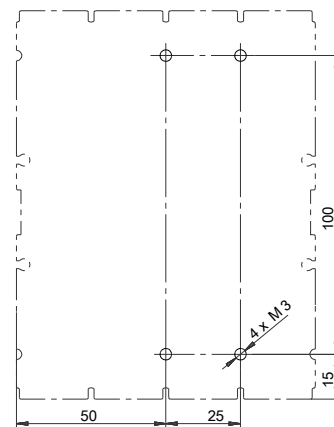
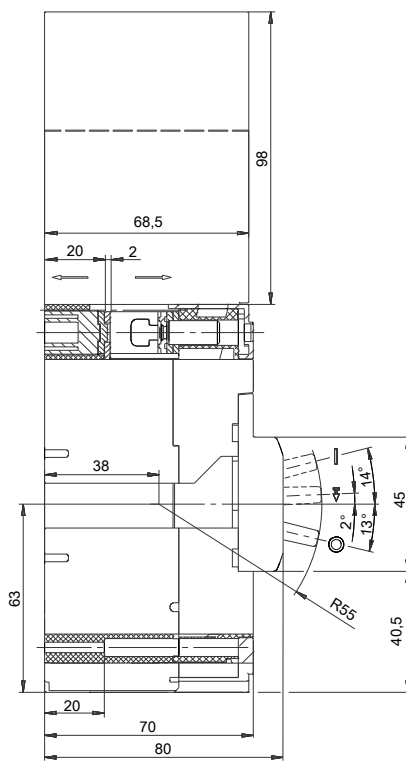
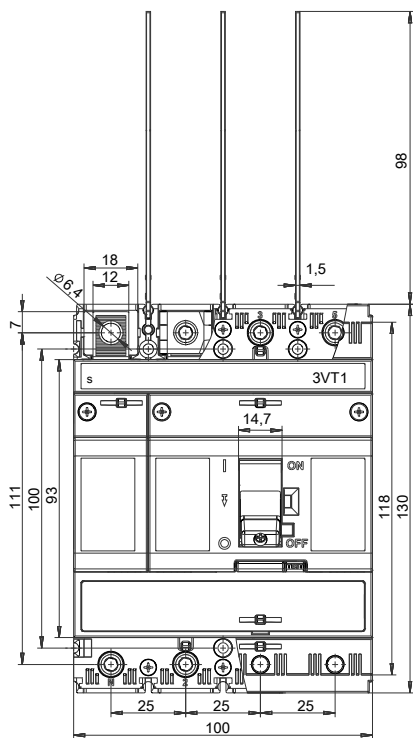
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VT1710-2EJ46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1710-2EJ46-0AA0)

**CAX-Online-Generator**

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

**Tender specifications**

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



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