



Figure similar

CIRCUIT BREAKER 3VT1 STANDARD BREAKING CAPACITY  
ICU=25KA, 415V AC 4-POLE, SYSTEM PROTECTION  
OVERCURRENT RELEASE TM, LIN IN= 40A RATED CURRENT  
IR= 40A OVERLOAD PROTECTION II= 160A, SHORT-CIRC.  
PROT. N CONDUCTOR W/PROTECTION WITHOUT AUXILIARY  
RELEASE WITHOUT AUXILIARY/ALARM SWITCH

| Model                                                |                                     |
|------------------------------------------------------|-------------------------------------|
| product brandname                                    | 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               |
| Dissipation                                                                                                                  |                   |
| Power loss [W]                                                                                                               |                   |
| <ul style="list-style-type: none"> <li>for rated value of the current / at AC / in hot operating state / per pole</li> </ul> | 1.33 W            |
| <ul style="list-style-type: none"> <li>maximum</li> </ul>                                                                    | 4 W               |
| Electricity                                                                                                                  |                   |
| Continuous current / rated value                                                                                             | 40 A              |
| Derating temperature / for the rated value of the continuous current                                                         | 40 °C             |
| Adjustable pick-up value current                                                                                             |                   |
| <ul style="list-style-type: none"> <li>of the current-dependent overload release / Full-scale value</li> </ul>               | 40 A              |
| <ul style="list-style-type: none"> <li>of instantaneous short-circuit trip unit / initial value</li> </ul>                   | 160 A             |
| <ul style="list-style-type: none"> <li>of instantaneous short-circuit trip unit / Full-scale value</li> </ul>                | 160 A             |
| Main circuit                                                                                                                 |                   |
| Operating frequency                                                                                                          |                   |
| <ul style="list-style-type: none"> <li>1 / rated value</li> </ul>                                                            | 50 Hz             |
| <ul style="list-style-type: none"> <li>2 / rated value</li> </ul>                                                            | 60 Hz             |
| Operating voltage                                                                                                            |                   |
| <ul style="list-style-type: none"> <li>rated value / maximum</li> </ul>                                                      | 690 V             |
| <ul style="list-style-type: none"> <li>for main current circuit / at AC / at 50 Hz / maximum</li> </ul>                      | 690 V             |
| <ul style="list-style-type: none"> <li>for main current circuit / at AC / at 60 Hz / maximum</li> </ul>                      | 690 V             |
| <ul style="list-style-type: none"> <li>for main current circuit / at DC / maximum</li> </ul>                                 | 440 V             |
| Operating current                                                                                                            |                   |
| <ul style="list-style-type: none"> <li>at 40 °C / rated value</li> </ul>                                                     | 40 A              |
| <ul style="list-style-type: none"> <li>at 50 °C / rated value</li> </ul>                                                     | 38 A              |
| Suitability                                                                                                                  |                   |
| Suitability for use                                                                                                          | system protection |
| <ul style="list-style-type: none"> <li>Disconnecting means</li> </ul>                                                        | Yes               |
| Adjustable parameters                                                                                                        |                   |
| Adjustable pick-up value current / of the current-dependent overload release / initial value                                 | 40 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

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

## Short circuit

|                                                                  |       |
|------------------------------------------------------------------|-------|
| <b>Operational short-circuit current breaking capacity (Ics)</b> |       |
| • 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  |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |       |
| • 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 terminals |

## Mechanical Design

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

## Environmental conditions

|                              |        |
|------------------------------|--------|
| <b>Ambient temperature</b>   |        |
| • during operation / minimum | -40 °C |

- during operation / maximum
- during storage / minimum
- during storage / maximum

55 °C  
-40 °C  
55 °C

## Certificates

### Equipment marking

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

Q  
Q

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



CCC



EG-Konf.

[Typprüfbescheinigung/Werkszeugnis](#)

[Umweltbestätigung](#)

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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/3VT1704-2EH46-0AA0>

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

<http://support.automation.siemens.com/WW/view/en/3VT1704-2EH46-0AA0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VT1704-2EH46-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1704-2EH46-0AA0)

### CAX-Online-Generator

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

### Tender specifications

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

