



circuit breaker 3VT1 standard breaking capacity $I_{cu}=25\text{kA}$, 415V AC 4-pole, line protection trip unit TM, LI $I_n=125\text{A}$ rated current $I_R=100\dots125\text{A}$ overload prot. $I_l=625\dots1250\text{A}$, short-circuit protection N conductor unprotected without auxiliary release without auxiliary/alarm switch with front terminals

| Model | |
|---|-------------------------------------|
| product brand name | SENTRON |
| product designation | 3VT1_5 molded case circuit breakers |
| design of the actuating element | 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 |
| mechanical service life (operating cycles) typical | 20 000 |
| electrical endurance (operating cycles) typical | 6 000 |
| utilization category | A |
| performance class for circuit breaker | N |
| operating frequency maximum | 120 1/h |
| Voltage | |
| surge voltage resistance rated value | 8 kV |
| Protection class | |
| protection class IP | IP40 |
| protection function of the overcurrent release | LI |
| Dissipation | |
| power loss [W] for rated value of the current at AC in hot operating state per pole | 5 W |
| Main circuit | |
| operating frequency | |
| • 1 rated value | 50 Hz |
| • 2 rated value | 60 Hz |
| operational current rated value | 125 A |
| Auxiliary circuit | |
| number of CO contacts for auxiliary contacts | 0 |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| Suitability | |
| suitability for use | system protection |
| suitability for use disconnecting means | Yes |
| Adjustable parameters | |
| adjustable current response value current of the current-dependent overload release initial value | 100 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 |
| • grounding protection | No |
| • for neutral conductors short-circuit and overload proof | No |
| • phase failure detection | No |
| • overload protection | Yes |

Short circuit

| | |
|--|-------|
| operating 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 | screw-type terminals |

Mechanical Design

| | |
|--------------------------|---|
| height | 130 mm |
| width | 100 mm |
| depth | 80 mm |
| fastening method | fixed mounting |
| mounting position | with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back |
| Net Weight | 1.231 kg |

Environmental conditions

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

Certificates

| | |
|---|---|
| reference code according to EN 61346-2 | Q |
| reference code according to IEC 81346-2 | Q |

Approvals Certificates

| Environment | General Product Approval | Test Certificates | other |
|-------------|--------------------------|-------------------|-------|
|-------------|--------------------------|-------------------|-------|

[Environmental Con-
firmations](#)



[Confirmation](#)

[Type Test Certific-
ates/Test Report](#)

[Confirmation](#)



other

[Miscellaneous](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

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

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VT1712-2EC45-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VT1712-2EC45-0AA0>

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

https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1712-2EC45-0AA0

CAX-Online-Generator

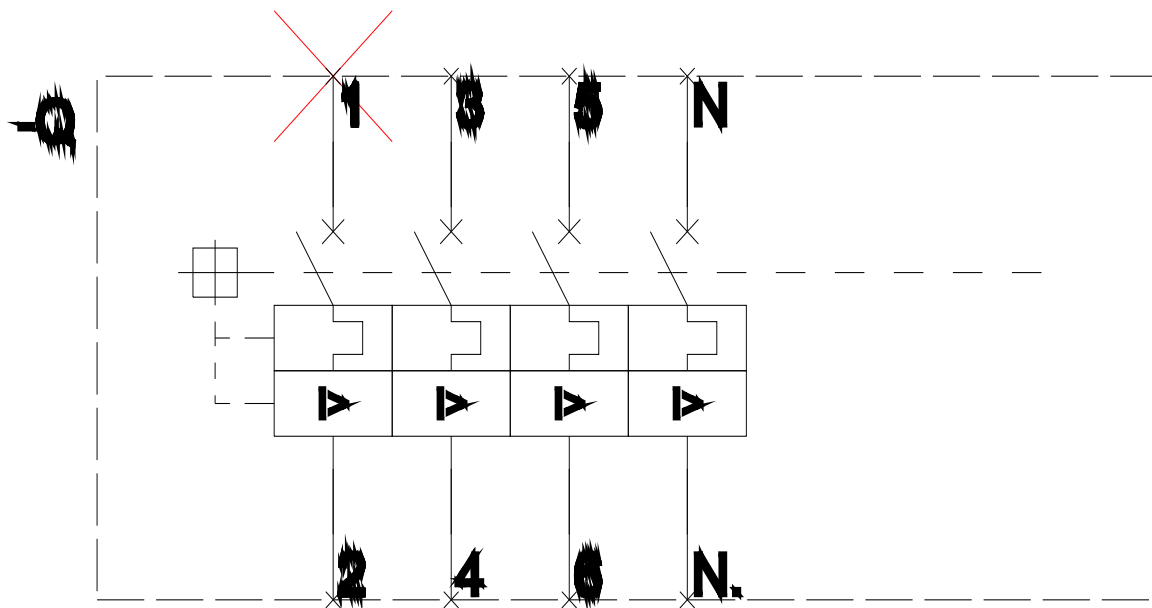
<https://www.siemens.com/cax>

Tender specifications

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

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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