

circuit breaker 3VT1 standard breaking capacity $I_{cu}=25\text{kA}$, 415V AC
 4-pole, line protection trip unit TM, $I_n=40\text{A}$ rated current $I_R=40\text{A}$
 overload protection $I_l=160\text{A}$, short-circuit prot. 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 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 | LI |
| Dissipation | |
| Power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 1.33 W |
| Current | |
| Operating current / at 45 °C / rated value | 38 A |
| Continuous current / rated value | 40 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 | 40 A |
| • of instantaneous short-circuit trip unit / initial value | 160 A |
| • of instantaneous short-circuit trip unit / Full-scale value | 160 A |
| Main circuit | |
| Operating frequency | |
| • 1 / rated value | 50 Hz |
| • 2 / rated value | 60 Hz |
| Operating current | |
| • at 40 °C / rated value | 40 A |
| • at 50 °C / rated value | 38 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 |
| • Disconnecting means | 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 | |
| Product function | |
| • of thermal overload trip unit | fixed |
| • Ground fault protection | No |
| • for neutral conductors / Short-circuit and overload proof | No |
| • 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 | screw-type terminals |
| Mechanical Design | |
| Height | 130 mm |
| Width | 100 mm |
| Depth | 80 mm |
| Mounting type | fixed mounting |
| Mounting position | with vertical mounting surface +/-180° rotatable, with vertical mounting surface +/- 30° tiltable to the front and back |
| Net weight | 1.336 kg |
| • during operation | -40 ... +55 °C |
| • during storage | -40 ... +55 °C |
| Certificates | |
| Reference code | |
| • acc. to DIN EN 61346-2 | Q |
| • acc. to DIN EN 81346-2 | Q |

| | |
|--|--|
| Test Certificates | other |
| 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=3VT1704-2EA45-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VT1704-2EA45-0AA0>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VT1704-2EA45-0AA0

CAX-Online-Generator

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

Tender specifications

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

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