SIEMENS

Data sheet



circuit breaker 3VA1 IEC Frame 100 breaking capacity class N Icu=25 kA @ 415 V 4-pole, line protection TM210, FTFM, ln=25 A overload protection lr=25 A permanently set short-circuit protection li=12.8 x In N conductor unprotected nut keeper kit

| Model | | |
|--|-----------------------------|--|
| product brand name | SENTRON | |
| product designation | Molded case circuit breaker | |
| design of the product | Line protection | |
| design of the overcurrent release | TM210 | |
| protection function of the overcurrent release | LI | |
| number of poles | 4 | |
| General technical data | | |
| insulation voltage / rated value | 800 V | |
| operating voltage / at DC / rated value | 600 V | |
| operating voltage / at AC / rated value | 690 V | |
| power loss [W] / maximum | 8.5 W | |
| power loss [W] / for rated value of the current / at AC / in hot operating state / per pole | 2.83 W | |
| mechanical service life (operating cycles) / typical | 20 000 | |
| electrical endurance (operating cycles) / at AC-1 / at 380/415 V | 9 000 | |
| electrical endurance (operating cycles) / at AC-1 / at 690 V | 6 300 | |
| product feature / for neutral conductors / upgradable/retrofittable / short-circuit and overload proof | No | |
| ground-fault monitoring version | Without | |
| product function | | |
| communication function | No | |
| other measurement function | No | |
| Net Weight | 1.225 kg | |
| Current | | |
| operational current | | |
| • at 40 °C | 25 A | |
| • at 45 °C | 25 A | |
| ● at 50 °C | 25 A | |
| • at 55 °C | 24 A | |
| • at 60 °C | 24 A | |
| • at 65 °C | 23 A | |
| ● at 70 °C | 23 A | |
| Switching capacity according to IEC 60947 | | |
| switching capacity class of the circuit breaker | N | |
| maximum short-circuit current breaking capacity (Icu) | | |
| • at 240 V | 36 kA | |
| • at 415 V | 25 kA | |
| • at 440 V | 16 kA | |
| ● at 500 V | 5 kA | |
| ● at 690 V | 5 kA | |

| operating short-circuit current breaking capacity (lcs) | |
|---|--|
| • at 240 V | 36 kA |
| • at 415 V | 25 kA |
| • at 440 V | 16 kA |
| ● at 500 V | 5 kA |
| • at 690 V | 5 kA |
| short-circuit current making capacity (Icm) | |
| • at 240 V | 75.6 kA |
| • at 415 V | 52.5 kA |
| • at 440 V | 32 kA |
| ● at 500 V | 7.5 kA |
| ● at 690 V | 7.5 kA |
| design of short-circuit protection | For switching power values in DC networks, see the 3VA molded case circuit breaker device manual; link to be found under Service & Support in the last chapter |
| Adjustable parameters | |
| product feature / for L-tripping / can be switched on/off | No |
| adjustable response value setting current (Ir) / of the L-trip / with I2t characteristic | |
| • minimum | 25 A |
| • maximum | 25 A |
| adjustable response value delay time (tr) / for L-tripping / with I2t characteristic | |
| • minimum | 1s |
| • maximum | 1 s |
| adjustable response value setting current (li) / for I-tripping | |
| • minimum | 320 A |
| • maximum | 320 A |
| adjustable setting current (InN) / for N-tripping | |
| • minimum | 0 A |
| • maximum | 0 A |
| design of the N-conductor protection | without |
| product function / grounding protection | No |
| Mechanical Design | |
| product component | |
| undervoltage release | No |
| voltage trigger | No |
| trip indicator | No |
| height [in] | 5.12 in |
| height | 130 mm |
| width [in] | 4 in |
| width | 101.6 mm |
| depth [in] | 2.76 in |
| depth | 70 mm |
| Connections | |
| arrangement of electrical connectors / for main current circuit | Front terminal |
| type of electrical connection / for main current circuit | nut keeper kit on both ends |
| type of connectable conductor cross-sections / for flat-bar terminal connection / minimum | 12 x 1 mm |
| type of connectable conductor cross-sections / for flat-bar terminal connection / maximum | 17 x 6,5 mm |
| design of the surface / of the connections / on the top of the switch (N, 1, 3, 5) $$ | Silver |
| design of the surface / of the connections / on the bottom of the switch (N, 2, 4, 6) $$ | Tin |
| Auxiliary circuit | |
| number of CO contacts / for auxiliary contacts | 0 |
| Accessories | |
| product extension / optional / motor drive | No |
| Environmental conditions | |
| protection class IP / on the front | IP40 |
| ambient temperature | |
| during operation / minimum | -25 °C |
| • | |

| during operation / maximum | 70 °C |
|--|---------|
| during storage / minimum | -40 °C |
| during storage / maximum | 80 °C |
| Environmental footprint | |
| Environmental Product Declaration(EPD) | Yes |
| Global Warming Potential [CO2 eq] / total | 190 kg |
| Global Warming Potential [CO2 eq] / during manufacturing | 4.67 kg |

186 kg

Q

-0.826 kg

Approvals / Certificates

General Product Approval





Confirmation





Miscellaneous

General Product Approval

EMV

Global Warming Potential [CO2 eq] / during operation

Global Warming Potential [CO2 eq] / after end of life

reference code / according to IEC 81346-2

Test Certificates

Marine / Shipping





Special Test Certificate

Miscellaneous

Type Test Certificates/Test Report



Marine / Shipping









CCS (China Classification Society) **Miscellaneous**

other

other

Environment

Confirmation

Miscellaneous





Environmental Confirmations

Environmental Confirmations

Further information

Information on the packaging

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

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=3VA1025-3ED42-0AA0

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

https://support.industry.siemens.com/cs/ww/en/ps/3VA1025-3ED42-0AA0

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

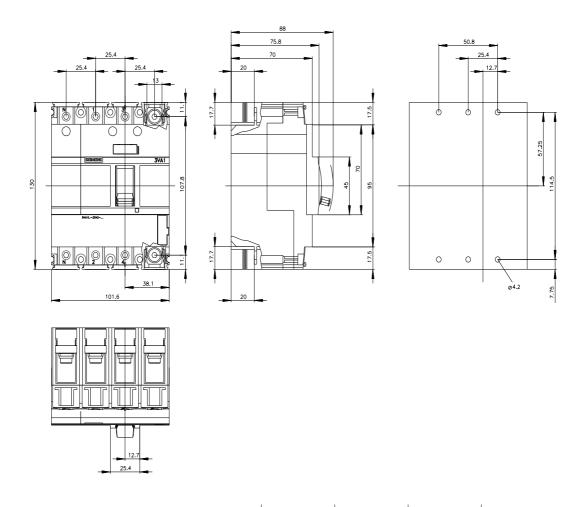
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1025-3ED42-0AA0

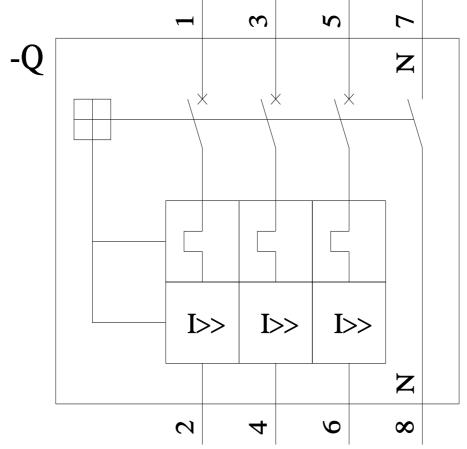
CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications





last modified: 3/11/2024 🖸

