



switch disconnecter 3VA1 IEC frame 250 4-pole SD100, In=250A without overload protection w/o short-circuit protection nut keeper kit

| Model                                                                                    |                             |
|------------------------------------------------------------------------------------------|-----------------------------|
| product brand name                                                                       | SENTRON                     |
| product designation                                                                      | Molded case circuit breaker |
| product version                                                                          | General applications        |
| design of the product                                                                    | in MCCB design              |
| number of poles                                                                          | 4                           |
| design of the auxiliary release                                                          | without                     |
| design of the auxiliary switch                                                           | Without                     |
| 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                       |
| surge voltage resistance / rated value                                                   | 8 kV                        |
| power loss [W] / maximum                                                                 | 57 W                        |
| mechanical service life (operating cycles) / typical                                     | 20 000                      |
| type of device                                                                           | fixed mounting              |
| suitability for use / switch disconnecter                                                | Yes                         |
| suitability for use / main switch                                                        | Yes                         |
| suitability for use / safety switch                                                      | Yes                         |
| suitability for use / EMERGENCY OFF switch                                               | Yes                         |
| suitability for use / maintenance/repair switch                                          | Yes                         |
| product function / communication function                                                | No                          |
| Net Weight                                                                               | 1.982 kg                    |
| Current                                                                                  |                             |
| short-time withstand current (I <sub>cw</sub> ) / at AC / limited to 0.5 s / rated value | 3 kA                        |
| operational current / rated value                                                        | 250 A                       |
| operational current                                                                      |                             |
| • at 40 °C                                                                               | 250 A                       |
| • at 45 °C                                                                               | 250 A                       |
| • at 50 °C                                                                               | 250 A                       |
| • at 55 °C                                                                               | 243 A                       |
| • at 60 °C                                                                               | 237 A                       |
| • at 65 °C                                                                               | 230 A                       |
| • at 70 °C                                                                               | 223 A                       |
| let-through I <sub>2t</sub> value / at AC-23 B                                           |                             |
| • at 400 V / maximum permissible                                                         | 1 810 000 A²·s              |
| • at 500 V / maximum permissible                                                         | 1 660 000 A²·s              |
| • at 690 V / maximum permissible                                                         | 1 140 000 A²·s              |

|                                                                                          |                                      |
|------------------------------------------------------------------------------------------|--------------------------------------|
| let-through current (Ic) / at AC-23 B                                                    |                                      |
| • at 400 V / maximum permissible                                                         | 29 kA                                |
| • at 500 V / maximum permissible                                                         | 18.7 kA                              |
| • at 690 V / maximum permissible                                                         | 14.9 kA                              |
| <b>Switching capacity according to IEC 60947</b>                                         |                                      |
| <b>short-circuit current making capacity (Icm) / with line-side fuse protection</b>      |                                      |
| • at 690 V / by molded case circuit breaker / maximum                                    | 17 kA                                |
| • at 415 V / by molded case circuit breaker / maximum                                    | 154 kA                               |
| conditional short-circuit current (Iq) / rated value                                     | 3 000 A                              |
| <b>conditional short-circuit current (Iq) / with line-side fuse protection</b>           |                                      |
| • at 690 V / by molded case circuit breaker / rated value                                | 10 kA                                |
| • at 240 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000, 1, 2, type gL/gG) / rated value | 100 kA                               |
| • at 415 V / by LV HRC fuse link 3NA, 3ND (sizes 00/000, 1, 2, type gL/gG) / rated value | 70 kA                                |
| <b>Mechanical Design</b>                                                                 |                                      |
| overvoltage category                                                                     | IV                                   |
| fastening method                                                                         | screw fixing                         |
| fastening method / 4-hole front mounting                                                 | Yes                                  |
| fastening method / front mounting with central attachment                                | No                                   |
| fastening method / rail mounting                                                         | No                                   |
| product component                                                                        |                                      |
| • undervoltage release                                                                   | No                                   |
| • voltage trigger                                                                        | No                                   |
| • undervoltage release with leading contact                                              | No                                   |
| • trip indicator                                                                         | No                                   |
| product feature / interlock                                                              | No                                   |
| height                                                                                   | 158 mm                               |
| width                                                                                    | 140 mm                               |
| depth                                                                                    | 70 mm                                |
| display version / for switch position indicator                                          | Handle switch position On, Trip, Off |
| design of the actuating element                                                          | toggle handle                        |
| type of the driving mechanism / motor drive                                              | No                                   |
| <b>Connections</b>                                                                       |                                      |
| arrangement of electrical connectors / for main current circuit                          | Front terminal                       |
| type of electrical connection / for main current circuit                                 | busbar connection                    |
| 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)    | Silver                               |
| <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>Accessories</b>                                                                       |                                      |
| product extension / auxiliary switch                                                     | No                                   |
| product extension / optional / motor drive                                               | Yes                                  |
| <b>Environmental conditions</b>                                                          |                                      |
| 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                                |
| <b>Environmental footprint</b>                                                           |                                      |
| global warming potential [CO2 eq] / total                                                | 285.47 kg                            |
| global warming potential [CO2 eq] / during manufacturing                                 | 6.87 kg                              |
| global warming potential [CO2 eq] / during operation                                     | 279 kg                               |

|                                                       |          |
|-------------------------------------------------------|----------|
| global warming potential [CO2 eq] / after end of life | -0.78 kg |
| reference code / according to IEC 81346-2             | Q        |

#### Approvals / Certificates

##### General Product Approval



[Miscellaneous](#)



| EMV | Test Certificates | Maritime application |  |  |  |
|-----|-------------------|----------------------|--|--|--|
|-----|-------------------|----------------------|--|--|--|



[Type Test Certificates/Test Report](#)

[Miscellaneous](#)

[Special Test Certificate](#)



| Maritime application | other |  |  |  |  |
|----------------------|-------|--|--|--|--|
|----------------------|-------|--|--|--|--|



[Confirmation](#)

[Miscellaneous](#)

#### Environment



[Environmental Confirmations](#)

[Environmental Confirmations](#)

#### 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=3VA1225-1AA42-0AA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3VA1225-1AA42-0AA0>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VA1225-1AA42-0AA0](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VA1225-1AA42-0AA0)

##### CAX-Online-Generator

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

##### Tender specifications

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





