SIEMENS

## Data sheet 3LD2003-1TP51



SENTRON, switch disconnector 3LD, main switch, 3-pole, Iu: 16 A, operating power / at AC-23 A at 400 V: 7.5 kW, front-mounted, 1 NC, 1 NO, rotary operating mechanism, black, 4-hole mounting of the handle

| | |
|---|---|
| **Model** | |
| **product brand name** | SENTRON |
| **product designation** | Switch disconnector |
| **design of the product** | Main switch |
| **display version for switch position indicator manual operation** | 1 ON - 0 OFF |
| **type of switch** | front mounted |
| **design of the actuating element** | Short rotary knob |
| **color of the actuating element** | black |
| **design of handle** | rotary operating mechanism, black |
| **type of the driving mechanism motor drive** | No |
| **General technical data** | |
| **number of poles** | 3 |
| **size of switch disconnector** | 1 |
| **mechanical service life (operating cycles) typical** | 100 000 |
| electrical endurance (operating cycles) | |
| ● at AC-23 A at 690 V | 6 000 |
| **operating frequency maximum** | 50 1/h |
| **degree of pollution** | 3 |
| **Voltage** | |
| insulation voltage rated value | 690 V |
| **surge voltage resistance rated value** | 6 kV |
| **operating voltage** | |
| ● at AC rated value | 690 V |
| **operating frequency rated value** | |
| ● minimum | 50 Hz |
| ● maximum | 60 Hz |
| **Protection class** | |
| **protection class IP** | IP65 |
| **degree of protection NEMA rating** | 1, 3R, 4X, 12 |
| protection class IP on the front | IP65 |
| **Dissipation** | |
| **power loss [W] for rated value of the current at AC in hot operating state per pole** | 0.33 W |
| **Main circuit** | |
| **operational current** | |
| ● at AC-21 at 690 V rated value | 16 A |
| ● at AC-21 A at 240 V rated value | 16 A |
| ● at AC-21 A at 400 V rated value | 16 A |


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|---|---|
| ● at AC-21 A at 440 V rated value | 16 A |
| ● at AC-23 A at 400 V rated value | 16 A |
| **operating power** | |
| ● at AC-23 A at 240 V rated value | 4 kW |
| ● at AC-23 A at 400 V rated value | 8 kW |
| ● at AC-23 A at 440 V rated value | 7.5 kW |
| ● at AC-23 A at 690 V rated value | 8 kW |
| ● at AC-3 at 240 V rated value | 3 kW |
| ● at AC-3 at 400 V rated value | 6 kW |
| ● at AC-3 at 690 V rated value | 5.5 kW |
| **Auxiliary circuit** | |
| **number of CO contacts for auxiliary contacts** | 0 |
| **number of NC contacts for auxiliary contacts** | 1 |
| **number of NO contacts for auxiliary contacts** | 1 |
| **operating voltage of auxiliary contacts at AC maximum** | 500 V |
| **continuous current of the auxiliary contact rated value** | 10 A |
| **insulation voltage of the auxiliary switch rated value** | 500 V |
| **Suitability** | |
| **suitability for use main switch** | Yes |
| **suitability for use switch disconnector** | Yes |
| **suitability for use EMERGENCY OFF switch** | No |
| **suitability for use maintenance/repair switch** | Yes |
| **Product details** | |
| **product feature can be locked into OFF position** | Yes |
| **Accessories** | |
| **product extension optional** | |
| ● motor drive | No |
| ● voltage trigger | No |
| **number of connectable NC contacts for auxiliary contacts attachable maximum** | 2 |
| **number of connectable NO contacts for auxiliary contacts attachable maximum** | 2 |
| **number of connectable CO contacts for auxiliary contacts attachable maximum** | 0 |
| **number of bracket locks maximum** | 3 |
| **hasp thickness of the bracket locks** | 4 ... 8 mm |
| **Short circuit** | |
| **conditional short-circuit current with line-side fuse protection** | |
| **● at 690 V by gG fuse rated value** | 50 kA |
| **let-through current with closed switch** | |
| **● at 240 V for combination switch + gG fuse maximum** | 3 kA |
| **● at 440 V for combination switch + gG fuse maximum** | 3 kA |
| **● at 690 V for combination switch + gG fuse maximum permissible** | 3 kA |
| **I2t value with closed switch** | |
| **● at 240 V for combination switch + gG fuse maximum** | 2.5 $kA^2 \cdot s$ |
| **● at 440 V for combination switch + gG fuse maximum** | 2.5 $kA^2 \cdot s$ |
| **● at 690 V for combination switch + gG fuse maximum** | 3 $kA^2 \cdot s$ |
| **design of the fuse link** | |
| **● for short-circuit protection of the main circuit required** | fuse gL/gG: 20 A |
| **● for short-circuit protection of the auxiliary switch required** | fuse gL/gG: 10 A |
| **operational current of upstream fuse rated value** | 20 A |
| **according UL** | |
| **operational current at AC according to UL 508/UL 60947-4-1 rated value** | 16 A |
| **operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value** | 600 V |
| **active power [hp] at AC at 480 V according to UL 508/UL** | 7.5 |


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| **60947-4-1 rated value** | |
| **active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value** | 10 |
| **short-time withstand current (SCCR) at 600 V according to UL 508/UL 60947-4-1** | 5 kA |
| **continuous current of upstream fuse according to UL rated value** | 50 A |
| **type of fuse according to UL** | RK5 |
| **Connections** | |
| **AWG number as coded connectable conductor cross section solid maximum** | |
| ● | 10 |
| ● | 18 |
| **type of connectable conductor cross-sections for copper conductor** | |
| ● solid | 1x (1...6mm²) |
| ● finely stranded with core end processing | 1x (1...4mm²) |
| ● stranded | 1x (1..6mm²) |
| **type of connectable conductor cross-sections for auxiliary contacts** | |
| ● **solid** | lateral auxiliary switch 2x (0,75 ... 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 ... 2,5mm²) |
| ● **finely stranded with core end processing** | lateral auxiliary switch 2x (0,75 ... 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm² |
| ● **stranded** | lateral auxiliary switch 2x (0,75 ... 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 ... 2,5mm²) |
| type of electrical connection | |
| ● **for main current circuit** | box terminal |
| ● **for auxiliary contacts** | connection terminals |
| **Mechanical Design** | |
| **height** | 84 mm |
| **width** | 67 mm |
| **depth** | 93 mm |
| **type of device** | fixed mounting |
| **fastening method** | Built-in unit fixed-mounted version |
| **fastening method** | |
| ● 4-hole front mounting | Yes |
| ● front mounting with central attachment | No |
| ● rail mounting | No |
| **Net Weight** | 227 g |
| **Environmental conditions** | |
| **ambient temperature during operation** | |
| ● minimum | -25 °C |
| ● maximum | 55 °C |
| **ambient temperature during storage** | |
| ● minimum | -25 °C |
| ● maximum | 55 °C |

**Approvals Certificates**

| **Environment** | | **General Product Approval** | | | |
|---|---|---|---|---|---|
| Environmental Con-firmations | Environmental Con-firmations | | | | |

| **General Product Approval** | | | | | **Maritime application** |
|---|---|---|---|---|---|
| Miscellaneous | | Confirmation | | | |

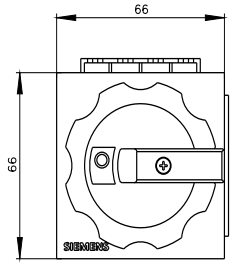

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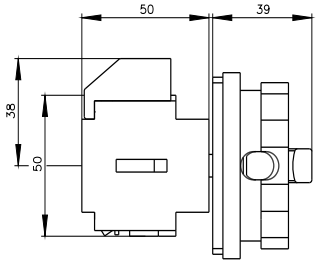
| Maritime application | other |
|---|---|

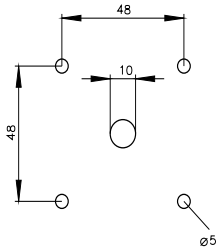
Confirmation

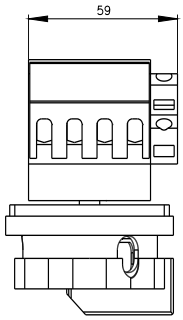
## Further information

**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=3LD2003-1TP51
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3LD2003-1TP51
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**
https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2003-1TP51
**CAx-Online-Generator**
https://www.siemens.com/cax
**Tender specifications**
https://www.siemens.com/specifications
**Kennlinien**
https://curves.simaris.siemens.com/curves/3LD2003-1TP51



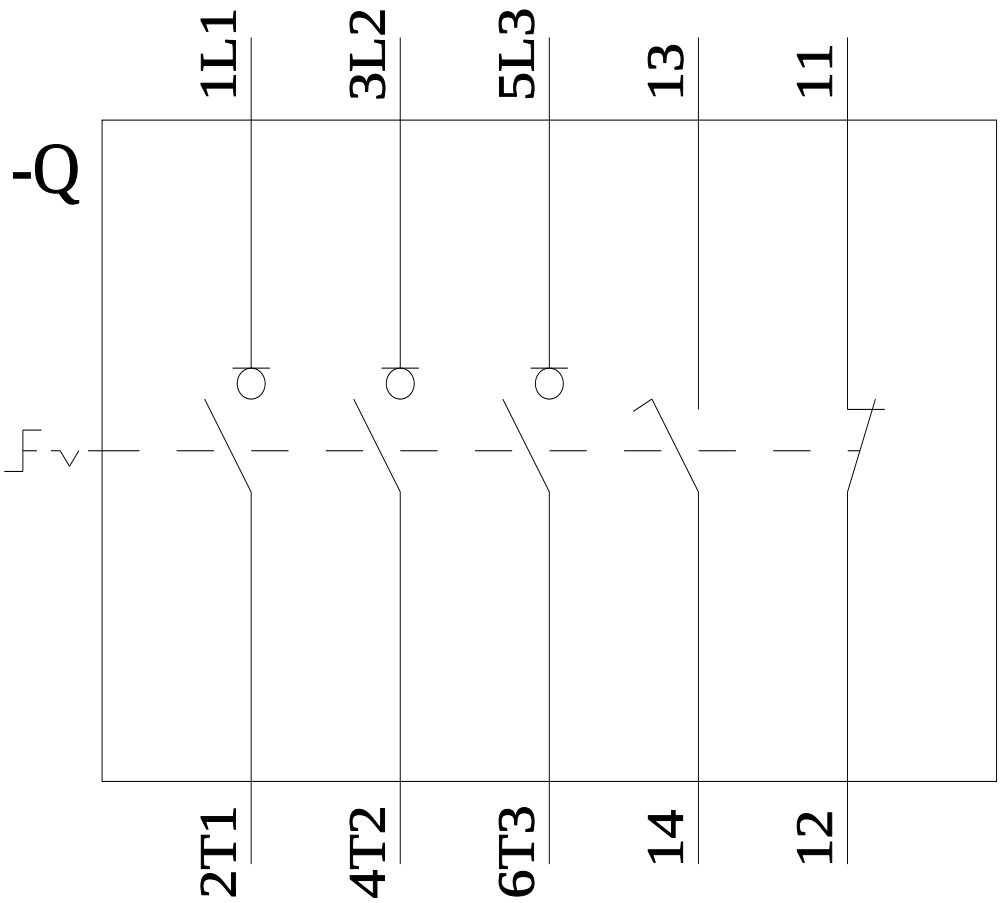



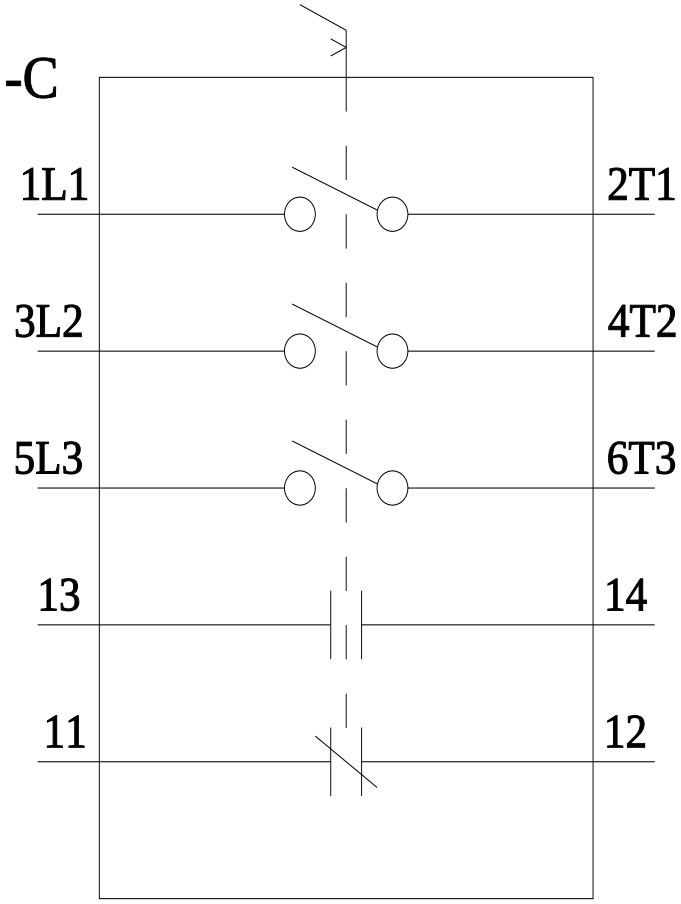





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