## SIEMENS

SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 160 A, Operating power / at AC-23 A at $400 \mathrm{~V}: 75 \mathrm{~kW}$, front-mounted, knoboperated mechanism, black, 4-hole mounting of the handle


| Model | SENTRON |
| :--- | :--- |
| product brand name | 3LD Switch disconnector |
| product designation | Main switch |
| design of the product | 1 ON - 0 OFF |
| display version / for switch position indicator manual <br> operation | selector switch |
| design of the operating mechanism | No |
| design of handle | 3 |
| type of the driving mechanism / motor drive | fixed mounting |
| General technical data | front mounted |
| number of poles | 5 |
| type of device | 100000 |
| type of switch | 6000 |
| size of switch disconnector |  |
| mechanical service life (switching cycles) |  |
| $\bullet$ etypical | electrical endurance (switching cycles) |
| • at AC-23 A / at 690 V |  |


| 12 t value / with closed switch / at $690 \mathrm{~V} /$ for combination switch + gG fuse / maximum | 185 kA2.s |
| :---: | :---: |
| let-through I2t value / with closed switch / at $440 \mathrm{~V} /$ for combination switch +gG fuse / maximum | 185 kA2.s |
| operating frequency / maximum | 50 1/h |
| Voltage |  |
| insulation voltage / rated value | 690 V |
| surge voltage resistance / rated value | 8 kV |
| operating current / at AC / rated value | 160 A |
| operating voltage <br> - at AC / at $50 / 60 \mathrm{~Hz}$ / rated value | 690 V |
| 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] <br> - for rated value of the current / at AC / in hot operating state / per pole <br> - per conductor / typical | $\begin{aligned} & 36 \mathrm{~W} \\ & 36 \mathrm{~W} \end{aligned}$ |
| Current |  |
| operating current <br> - at AC-23 A / at $690 \mathrm{~V} /$ rated value <br> - at AC-23 A / at $400 \mathrm{~V} /$ rated value <br> - at AC-22 A / at $690 \mathrm{~V} /$ rated value <br> - at $\mathrm{AC}-21$ / at $690 \mathrm{~V} /$ rated value <br> - at AC-21 A / at $240 \mathrm{~V} /$ rated value <br> - at AC-21 A / at $440 \mathrm{~V} /$ rated value <br> - at AC-22 A / at $240 \mathrm{~V} /$ rated value <br> - at AC-22 A / at $440 \mathrm{~V} /$ rated value <br> - at AC-23 A / at $240 \mathrm{~V} /$ rated value <br> - at AC-23 A / at $440 \mathrm{~V} /$ rated value | $\begin{aligned} & 47 \mathrm{~A} \\ & 132 \mathrm{~A} \\ & 140 \mathrm{~A} \\ & 160 \mathrm{~A} \\ & 160 \mathrm{~A} \\ & 160 \mathrm{~A} \\ & 140 \mathrm{~A} \\ & 140 \mathrm{~A} \\ & 140 \mathrm{~A} \\ & 132 \mathrm{~A} \end{aligned}$ |
| operating current / of upstream fuse / rated value | 160 A |
| let-through current / with closed switch <br> - at $440 \mathrm{~V} /$ for combination switch +gG fuse / maximum <br> - at $690 \mathrm{~V} /$ for combination switch +gG fuse / maximum permissible | 15 kA <br> 15 kA |
| short-time withstand current (Icw) <br> - limited to $1 \mathrm{~s} /$ rated value <br> - at $690 \mathrm{~V} /$ limited to $1 \mathrm{~s} /$ rated value | $\begin{aligned} & 4000 \mathrm{~A} \\ & 4000 \mathrm{~A} \end{aligned}$ |

## Main circuit

| operating frequency |  |
| :---: | :---: |
| - initial value | 50 Hz |
| - full-scale value | 60 Hz |
| operating power |  |
| - at AC-23 A / at $240 \mathrm{~V} /$ rated value | 75 kW |
| - at AC-23 A / at $400 \mathrm{~V} /$ at $50 / 60 \mathrm{~Hz} /$ rated value | 75 kW |
| - at $\mathrm{AC}-23 \mathrm{~A} /$ at $400 \mathrm{~V} /$ rated value | 75 kW |
| - at $\mathrm{AC}-23 \mathrm{~A} /$ at $440 \mathrm{~V} /$ rated value | 75 kW |
| - at $\mathrm{AC}-23 \mathrm{~A} /$ at $690 \mathrm{~V} /$ rated value | 45 kW |
| - at AC-3 / at $240 \mathrm{~V} /$ rated value | 35 kW |
| - at AC-3 / at $400 \mathrm{~V} /$ rated value | 50 kW |
| - at AC-3 / at $690 \mathrm{~V} /$ rated value | 37 kW |
| operating current / rated value | 160 A |


| Auxiliary circuit | 0 |
| :--- | :--- |
| number of CO contacts / for auxiliary contacts | 0 |
| number of NC contacts / for auxiliary contacts | 0 |
| number of NO contacts / for auxiliary contacts | 500 V |
| operating voltage / of auxiliary contacts / at AC / <br> maximum | 10 A |
| continuous current / of the auxiliary contact / rated <br> value | 500 V |
| insulation voltage / of the auxiliary switch / rated <br> value |  |


| Suitability |  |
| :---: | :---: |
| suitability for use |  |
| - main switch | Yes |
| - switch disconnector | Yes |
| - EMERGENCY OFF switch | No |
| - safety switch | Yes |
| - maintenance/repair switch | Yes |
| Appearance |  |
| color / of the actuating element | black |
| Product details |  |
| - product function / can be locked into OFF position | Yes |
| number of bracket locks / maximum | 3 |
| hasp thickness / of the bracket locks / minimum | 4 mm |
| hasp thickness / of the bracket locks / maximum | 6 mm |
| product extension / optional <br> - motor drive | No |

- voltage trigger

No

| Short circuit |  |
| :---: | :---: |
| conditional short-circuit current / with line-side fuse protection <br> - at $690 \mathrm{~V} /$ by gG fuse / rated value | 50 kA |
| according UL |  |
| operating current / at AC / according to UL 508/UL 60947-4-1 / rated value | 180 A |
| operating voltage / at AC / at $50 / 60 \mathrm{~Hz}$ / according to UL 508/UL 60947-4-1 / rated value | 600 V |
| active power [hp] / at AC / at $480 \mathrm{~V} /$ according to UL 508/UL 60947-4-1 / rated value | 75 |
| active power [hp] / at AC / at $600 \mathrm{~V} /$ according to UL 508/UL 60947-4-1 / rated value | 50 |
| short-time withstand current (SCCR) / at 600 V / according to UL 508/UL 60947-4-1 | 10 kA |
| continuous current / of upstream fuse / according to UL / rated value | 200 A |
| type of fuse / according to UL | RK5 |

## Number

| number of connectable NC contacts / for auxiliary <br> contacts / attachable / maximum | 3 |
| :--- | :--- |
| number of connectable NO contacts / for auxiliary <br> contacts / attachable / maximum | 3 |
| number of connectable CO contacts / for auxiliary <br> contacts / attachable / maximum | 0 |

## Connections

AWG number / as coded connectable conductor cross section / solid

- minimum
- maximum
type of connectable conductor cross-sections / for copper conductor
- solid
- finely stranded / with core end processing
- stranded
type of connectable conductor cross-sections / for auxiliary contacts
- solid
- finely stranded / with core end processing
- stranded

1
$4 / 0$

1x (16 ... $185 \mathrm{~mm}^{2}$ )
1x (16... $150 \mathrm{~mm}^{2}$ )
1x (16...185 $\mathrm{mm}^{2}$ )
lateral auxiliary switch $2 \mathrm{x}\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right), 1 \times 4 \mathrm{~mm}^{2}$; front auxiliary switch $1 \mathrm{x}\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right)$
lateral auxiliary switch $2 \times\left(0,75 \ldots 1,5 \mathrm{~mm}^{2}\right), 1 \times 2,5 \mathrm{~mm}^{2}$; front auxiliary switch $1 \times 2,5 \mathrm{~mm}^{2}$
lateral auxiliary switch $2 \mathrm{x}\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right), 1 \mathrm{x} 4 \mathrm{~mm}^{2}$; front auxiliary switch $1 \times\left(0,75 \ldots 2,5 \mathrm{~mm}^{2}\right)$
type of electrical connection

- for main current circuit
- for auxiliary contacts
box terminal
connection terminals


## Requirements

design of the fuse link

- for short-circuit protection of the main circuit /
required
- for short-circuit protection of the auxiliary switch
fuse gL/gG: 10 A / required


## Mechanical Design

| height |
| :--- |
| width |
| depth |
| mounting type |
| - mounting type / front mounting with 4-hole |
| attachment |
| - mounting type / front mounting with central |
| $\quad$ attachment |
| - mounting type / rail mounting |

## Environmental conditions

ambient temperature / during operation

- minimum
- maximum
ambient temperature / during storage / minimum


## Certificates

## reference code

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2
$-25^{\circ} \mathrm{C}$
$55^{\circ} \mathrm{C}$
$-25^{\circ} \mathrm{C}$

| General Product Approval | Declaration of <br> Conformity | Test Certificates |
| :--- | :--- | :--- |
| CCC | $\frac{\text { Type Test Certific- }}{\frac{\text { Special Test Certi- }}{\text { ficate }}}$ |  |


| other |
| :--- |
| Environmental Con- |
| firmations |

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=3LD2305-0TK11
Service\&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3LD2305-0TK11
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2305-0TK11

## CAx-Online-Generator

http://www.siemens.com/cax
Tender specifications
http://www.siemens.com/specifications


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