

SENTRON, Switch disconnecter 3LD, main switch, 4-pole, Iu: 63 A, Operating power / at AC-23 A at 400 V: 22 kW, front-mounted, rotary operating mechanism, black, 4-hole mounting of the handle



Model	
Product brand name	SENTRON
Product designation	3LD Switch disconnecter
Design of the product	Main switch
Display version / for switch position indicator manual operation	1 ON - 0 OFF
Design of the operating mechanism	Short rotary knob
Design of handle	rotary operating mechanism, black
Type of the driving mechanism / motor drive	No
General technical data	
Number of poles	4
Type of device	fixed mounting
Type of switch	front mounted
Size of switch disconnecter	3
Electrical endurance (switching cycles)	
• at AC-23 A / at 690 V	6 000
I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	21 kA2.s

Let-through I <sub>2t</sub> value / with closed switch / at 440 V / for combination switch + gG fuse / maximum	21 kA <sup>2</sup> .s
Mechanical service life (switching cycles) / typical	100 000
Operating frequency / maximum	50 1/h

### Voltage

Insulation voltage / rated value	690 V
Surge voltage resistance / rated value	6 kV
Operating current / at AC / rated value	63 A
Operating voltage <ul style="list-style-type: none"> <li>• at AC / at 50/60 Hz / rated value</li> </ul>	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] <ul style="list-style-type: none"> <li>• for rated value of the current / at AC / in hot operating state / per pole</li> <li>• per conductor / typical</li> </ul>	4.5 W 4.5 W
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### Current

Operating current <ul style="list-style-type: none"> <li>• at AC-23 A / at 690 V / rated value</li> <li>• at AC-23 A / at 400 V / rated value</li> <li>• at AC-22 A / at 690 V / rated value</li> <li>• at AC-21 / at 690 V / rated value</li> <li>• at AC-21 A / at 240 V / rated value</li> <li>• at AC-21 A / at 440 V / rated value</li> <li>• at AC-22 A / at 240 V / rated value</li> <li>• at AC-22 A / at 440 V / rated value</li> <li>• at AC-23 A / at 240 V / rated value</li> <li>• at AC-23 A / at 440 V / rated value</li> </ul>	22 A 43 A 63 A 63 A 63 A 63 A 63 A 63 A 43 A 43 A
Operating current / of upstream fuse / rated value	63 A
Let-through current / with closed switch <ul style="list-style-type: none"> <li>• at 440 V / for combination switch + gG fuse / maximum</li> <li>• at 690 V / for combination switch + gG fuse / maximum permissible</li> </ul>	6 kA 6 kA
Short-time withstand current (I <sub>cw</sub> ) <ul style="list-style-type: none"> <li>• limited to 1 s / rated value</li> <li>• at 690 V / limited to 1 s / rated value</li> </ul>	1 260 A 1 260 A

### Main circuit

Operating frequency	
<ul style="list-style-type: none"> <li>• initial value</li> <li>• Full-scale value</li> </ul>	50 Hz 60 Hz
Operating power	
<ul style="list-style-type: none"> <li>• at AC-23 A / at 240 V / rated value</li> <li>• at AC-23 A / at 400 V / at 50/60 Hz / rated value</li> <li>• at AC-23 A / at 400 V / rated value</li> <li>• at AC-23 A / at 440 V / rated value</li> <li>• at AC-23 A / at 690 V / rated value</li> <li>• at AC-3 / at 240 V / rated value</li> <li>• at AC-3 / at 400 V / rated value</li> <li>• at AC-3 / at 690 V / rated value</li> </ul>	11 kW 22 kW 22 kW 22 kW 18.5 kW 11 kW 18.5 kW 15 kW
Operating current / rated value	63 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
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	
<ul style="list-style-type: none"> <li>• Main switch</li> <li>• switch disconnecter</li> <li>• EMERGENCY OFF switch</li> <li>• safety switch</li> <li>• maintenance/repair switch</li> </ul>	Yes Yes No Yes Yes

### Appearance

Color / of the actuating element	black
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### Product details

<ul style="list-style-type: none"> <li>• Product function / can be locked into OFF position</li> </ul>	Yes
Number of bracket locks / maximum	3
Hasp thickness / of the bracket locks / minimum	4 mm
Hasp thickness / of the bracket locks / maximum	8 mm
Product extension / optional	
<ul style="list-style-type: none"> <li>• motor drive</li> <li>• Voltage trigger</li> </ul>	No No

Short circuit	
Conditional short-circuit current / with line-side fuse protection	
<ul style="list-style-type: none"> <li>at 690 V / by gG fuse / rated value</li> </ul>	50 kA
according UL	
Operating current / at AC / acc. to UL 508 / rated value	63 A
Operating voltage / at AC / at 50/60 Hz / acc. to UL 508 / rated value	600 V
Active power [hp] / at AC / at 480 V / acc. to UL 508 / rated value	40
Active power [hp] / at AC / at 600 V / acc. to UL 508 / rated value	50
Short-time withstand current (SCCR) / at 600 V / acc. to UL 508	5 kA
Continuous current / of upstream fuse / according to UL / rated value	175 A
Type of fuse / according to UL	RK5
Number	
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
Connections	
AWG number / as coded connectable conductor cross section / solid	
<ul style="list-style-type: none"> <li>maximum</li> <li>minimum</li> </ul>	6 14
Type of connectable conductor cross-sections / for copper conductor	
<ul style="list-style-type: none"> <li>solid</li> <li>finely stranded / with core end processing</li> <li>stranded</li> </ul>	1x (2,5...35mm <sup>2</sup> ) 1x (2.5...16 mm <sup>2</sup> ) 1x (2,5..35mm <sup>2</sup> )
Type of connectable conductor cross-sections / for auxiliary contacts	
<ul style="list-style-type: none"> <li>solid</li> <li>finely stranded / with core end processing</li> <li>stranded</li> </ul>	lateral auxiliary switch 2x (0,75 ... 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 ... 2,5mm <sup>2</sup> ) lateral auxiliary switch 2x (0,75 ... 1,5mm <sup>2</sup> ), 1x 2,5mm <sup>2</sup> ; front auxiliary switch 1x 2,5mm <sup>2</sup> lateral auxiliary switch 2x (0,75 ... 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 ... 2,5mm <sup>2</sup> )
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 / required

fuse gL/gG: 63 A

fuse gL/gG: 10 A

## Mechanical Design

Height

106 mm

Width

90 mm

Depth

110.5 mm

Mounting type

Built-in unit fixed-mounted version

Mounting type

- front mounting with 4-hole attachment
- front mounting with central attachment
- rail mounting

Yes

No

No

Net weight

489 g

## Environmental conditions

Ambient temperature / during operation

- minimum
- maximum

-25 °C

55 °C

Ambient temperature / during storage / minimum

-25 °C

## Certificates

Reference code

- acc. to DIN EN 61346-2
- acc. to DIN EN 81346-2

S

SF

### General Product Approval

### Declaration of Conformity

### Test Certificates

### other



CCC



CSA



UL



EG-Konf.

[Special Test Certificate](#)

[Environmental Confirmations](#)

## 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=3LD2504-1TL51>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3LD2504-1TL51>

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

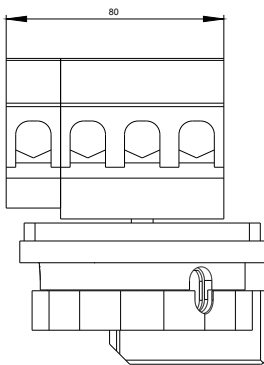
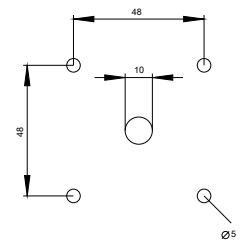
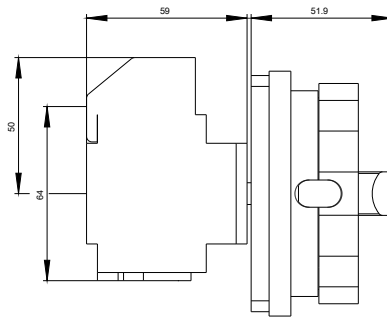
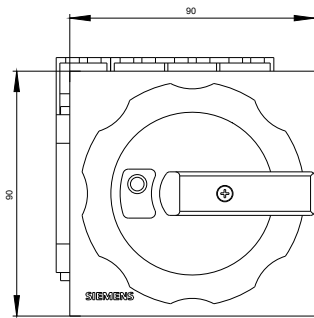
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3LD2504-1TL51](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2504-1TL51)

CAX-Online-Generator

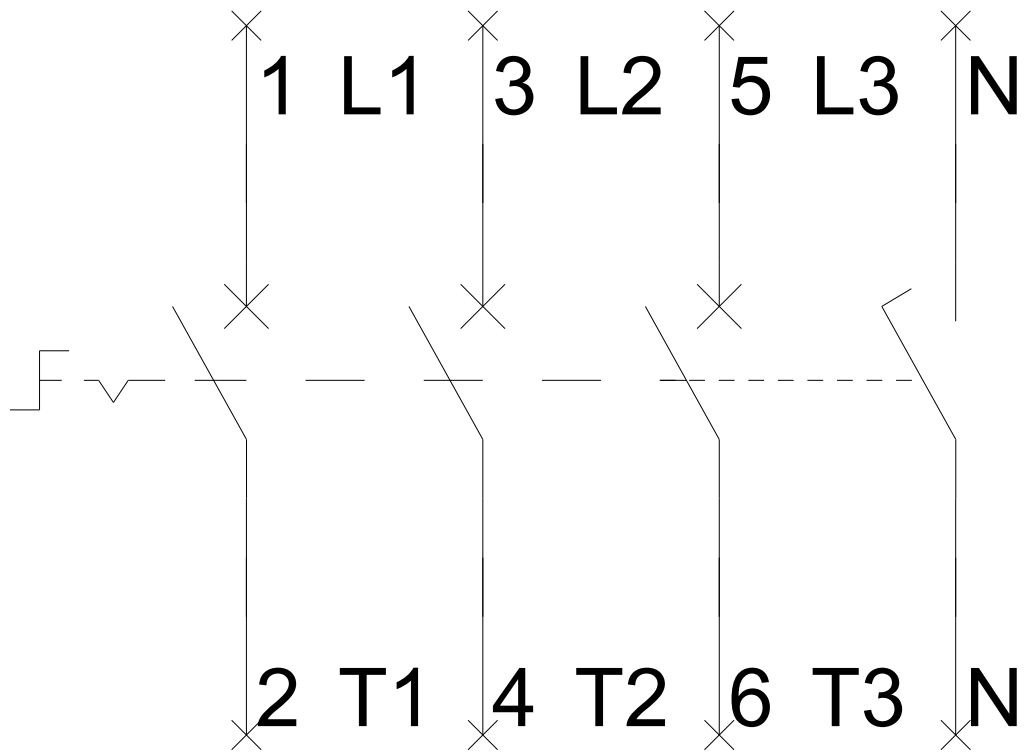
<http://www.siemens.com/cax>

Tender specifications

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



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