## **SIEMENS**

Data sheet 3LD2144-1TL51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, lu: 25 A, Operating power / at AC-23 A at 400 V: 9.5 kW, floor mounting with door coupling, rotary operating mechanism, black, central mounting 22.5 mm 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	Floor mounting with door coupling
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	4
size of switch disconnector	2
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	1.1 W
Main circuit	
operational current	
• at AC-21 at 690 V rated value	25 A
• at AC-21 A at 240 V rated value	25 A
• at AC-21 A at 400 V rated value	25 A
• at AC-21 A at 440 V rated value	25 A
• at AC-23 A at 400 V rated value	20 A

operating power	
<ul> <li>at AC-23 A at 240 V rated value</li> </ul>	5 kW
<ul> <li>at AC-23 A at 400 V rated value</li> </ul>	10 kW
<ul> <li>at AC-23 A at 440 V rated value</li> </ul>	9.5 kW
<ul> <li>at AC-23 A at 690 V rated value</li> </ul>	10 kW
<ul> <li>at AC-3 at 240 V rated value</li> </ul>	4 kW
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	8 kW
at AC-3 at 690 V rated value	7.5 kW
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	
main switch	Yes
switch disconnector	Yes
EMERGENCY OFF switch	No
• safety switch	Yes
maintenance/repair switch	Yes
Product details	
product feature can be locked into OFF position	Yes
accessories	
product extension optional	
<ul> <li>motor drive</li> </ul>	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	3
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	
<ul> <li>at 240 V for combination switch + gG fuse maximum</li> </ul>	3.5 kA
<ul> <li>at 440 V for combination switch + gG fuse maximum</li> </ul>	3.5 kA
<ul> <li>at 690 V for combination switch + gG fuse maximum permissible</li> </ul>	4 kA
I2t value with closed switch	
• at 240 V for combination switch + gG fuse maximum	4 kA2.s
<ul> <li>at 440 V for combination switch + gG fuse maximum</li> </ul>	4 kA2.s
• at 690 V for combination switch + gG fuse maximum	4 kA2.s
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit required</li> </ul>	fuse gL/gG: 25 A
for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
operational current of upstream fuse rated value	25 A
according UL	
operational current at AC according to UL 508/UL 60947-4-1 rated value	25 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 60947-4-1 rated value	10
active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value	15
short-time withstand current (SCCR) at 600 V according to UL 508/UL 60947-4-1	5 kA

type of fuse according to UL  RK5  Connections  AWG number as coded connectable conductor cross section solid  • maximum  • minimum  type of connectable conductor cross-sections for copper conductor  • solid  • finely stranded with core end processing  • solid  • solid  • solid  • solid  • stranded  • solid  • stranded  • solid  • stranded  • solid  • stranded  • solid  • solid  • stranded  • solid  • stranded  • solid  • solid  • stranded  • solid  • solid  • solid  • solid  • solid  • stranded  • solid  • sol
AWG number as coded connectable conductor cross section solid  • maximum  • minimum  14  type of connectable conductor cross-sections for copper conductor  • solid  • finely stranded with core end processing  • stranded  • solid  • solid  • type of connectable conductor cross-sections for copper conductor  • solid  • finely stranded with core end processing  • stranded  1x (1,516mm²)
AWG number as coded connectable conductor cross section solid  • maximum  • minimum  14  type of connectable conductor cross-sections for copper conductor  • solid  • finely stranded with core end processing  • stranded  1x (1,516mm²)
* maximum     * minimum     * minimum     * solid     * solid     * finely stranded with core end processing     * solid     * solid     * stranded  * solid  * solid  * stranded  * solid  * solid  * stranded  * stranded  * solid  *
<ul> <li>minimum</li> <li>type of connectable conductor cross-sections for copper conductor</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>stranded</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>solid</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)</li> <li>finely stranded with core end processing</li> <li>stranded</li> <li>lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²</li> <li>stranded</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm²</li> <li>stranded</li> </ul>
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  • solid  • finely stranded with core end processing of the solid 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
conductor  • solid  • finely stranded with core end processing  • stranded  type of connectable conductor cross-sections for auxiliary contacts  • solid  • solid  • finely stranded with core end processing  • solid  • solid  • finely stranded with core end processing  • stranded  • solid  • stranded
<ul> <li>finely stranded with core end processing</li> <li>stranded</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>finely stranded with core end processing</li> <li>stranded</li> <li>ateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)</li> <li>lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²</li> <li>stranded</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x</li> </ul>
<ul> <li>stranded</li> <li>type of connectable conductor cross-sections for auxiliary contacts</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>stranded</li> <li>stranded</li> <li>tx (1,516mm²)</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)</li> <li>lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²</li> <li>stranded</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x</li> </ul>
type of connectable conductor cross-sections for auxiliary contacts  • solid  • solid  • finely stranded with core end processing  • stranded
<ul> <li>contacts</li> <li>solid</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)</li> <li>finely stranded with core end processing</li> <li>lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²</li> <li>stranded</li> <li>lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x</li> </ul>
(0,75 2,5mm²)  • finely stranded with core end processing  • stranded  (0,75 2,5mm²)  lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²  e stranded  (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x
2,5mm²  ● stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x
(0,10 111 2,011111 )
type of electrical connection
• for main current circuit box terminal
• for auxiliary contacts connection terminals
Mechanical Design
height 83 mm
width 67 mm
depth 451.5 mm
type of device fixed mounting
fastening method Built-in unit fixed-mounted version
fastening method
4-hole front mounting     No
• front mounting with central attachment  Yes
• rail mounting Yes
net weight 445 g
Environmental conditions
ambient temperature during operation
• minimum -25 °C
• maximum 55 °C
ambient temperature during storage
• minimum -25 °C
• maximum 55 °C
General Product Approval





Confirmation





Miscellaneous

General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping

EAC





Special Test Certificate





Marine / Shipping

other

Environment



Miscellaneous

Confirmation

Environmental Confirmations

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3LD2144-1TL51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2144-1TL51

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2144-1TL51

**CAx-Online-Generator** 

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

**Tender specifications** 

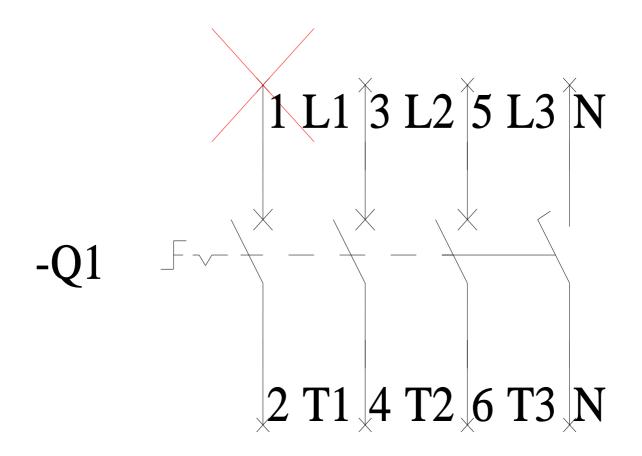
http://www.siemens.com/specifications



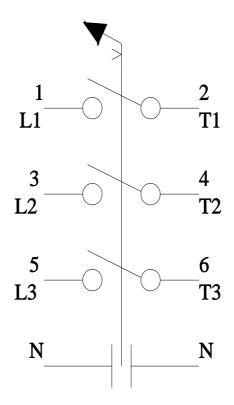








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