## **SIEMENS**

Data sheet 3LD2144-0TK51



SENTRON, Switch disconnector 3LD, main switch, 3-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	3
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
<ul> <li>at AC-23 A at 400 V rated value</li> </ul>	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	3
number of connectable NO contacts for auxiliary contacts attachable maximum	5
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	3.5 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
• at 440 V for combination switch + gG fuse maximum	4 kA2.s
• at 690 V for combination switch + gG fuse maximum	4 kA2.s
design of the fuse link	
• for short-circuit protection of the main circuit required	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

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  type of connectable conductor cross-sections for auxiliary contacts  • solid • finely stranded with core end processing • stranded  type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • finely stranded with core end processing • stranded  type of electrical connection • for main current circuit • for auxiliary switch 2x (0,75 2,5mm²), 1x 2,5mm²; front auxiliary switch 1x (0,75 2,5mm²)  * type of electrical connection • for auxiliary contacts  **Connection terminals**  **Mechanical Design  **Wechanical Design  **Wed depth • depth of device fastening method  • 4-hole front mounting • front mounting with central attachment • front mounting with central attachment • rail mounting with central attachment • rail mounting with central attachment • respectively.  **The depth of the mounting of the m		
AWG number as coded connectable conductor cross section solid  maximum minimum minimum miner conductor solid inely stranded with core end processing stranded type of connectable conductor cross-sections for auxiliary contacts solid inely stranded with core end processing stranded 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) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 2,5mm², front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) contacts stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) contaction stranded strand	continuous current of upstream fuse according to UL rated value	50 A
AWG number as coded connectable conductor cross section solid  maximum minimum  14  type of connectable conductor cross-sections for copper conductor esolid infinely stranded with core end processing infinely stranded with core end processing stranded 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) stranded with core end processing lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded with core end processing stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) stranded lateral auxiliary switc	type of fuse according to UL	RK5
solid	Connections	
• minimum         14           type of connectable conductor cross-sections for copper conductor         Ix (1,516mm²)           • solid         1x (1,516mm²)           • stranded         1x (1,516mm²)           type of connectable conductor cross-sections for auxiliary contacts         tr (1,516mm²)           • solid         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           • solid         lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x (0,75 2,5mm²)           • stranded         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           • stranded         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           • stranded         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           • stranded         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           • stranded         stranded		
type of connectable conductor cross-sections for copper conductor  • solid • finely stranded with core end processing • stranded 1x (1,516mm²) 1x (1,516m	• maximum	8
conductor	• minimum	14
finely stranded with core end processing         stranded		
type of connectable conductor cross-sections for auxiliary contacts  • solid  • solid  • finely stranded with core end processing • stranded  • for main current circuit • for auxiliary contacts   • for auxiliary contacts   • stranded	• solid	1x (1,516mm²)
type of connectable conductor cross-sections for auxiliary contacts  • solid  • solid  • finely stranded with core end processing • stranded  • stranded  • stranded  • for main current circuit • for auxiliary contacts   • for mainical Design  height  width  depth  451.5 mm  type of device  fastening method  • 4-hole front mounting with central attachment • front mounting • front much fixed front mounting • front much fixed fron	<ul> <li>finely stranded with core end processing</li> </ul>	1x (1,510mm²)
contacts  • solid  • solid  • finely stranded with core end processing  • stranded  • stranded  • stranded  • stranded  type of electrical connection  • for auxiliary contacts  • for auxiliary contacts  • for auxiliary contacts  • stranded  • str	• stranded	1x (1,516mm²)
• finely stranded with core end processing ilateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm² • stranded ilateral 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 • for auxiliary contacts  Mechanical Design  height 83 mm width 67 mm  depth 451.5 mm  type of device fixed mounting fastening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  431 g		
e stranded 2,5mm² lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)  type of electrical connection	• solid	
type of electrical connection  • for main current circuit • for auxiliary contacts  Mechanical Design  height  83 mm  width  67 mm  depth  451.5 mm  type of device fastening method  astening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  (0,75 2,5mm²)  box terminal box terminal connection terminals  83 mm  431 g	finely stranded with core end processing	
	• stranded	
● for auxiliary contacts  Mechanical Design  height 83 mm  width 67 mm  depth 451.5 mm  type of device fixed mounting fastening method  ● 4-hole front mounting ● front mounting with central attachment ● rail mounting  net weight  ○ for auxiliary contacts  connection terminals  83 mm  451.5 mm  fixed mounting  fixed mounting  No  Ves  Yes  1431 g	type of electrical connection	
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	for main current circuit	box terminal
height  width  67 mm  depth  451.5 mm  type of device fixed mounting  fastening method  e 4-hole front mounting  front mounting with central attachment e rail mounting  net weight  83 mm  83 mm  867 mm  881 mm  898 mm  899 mm  890	for auxiliary contacts	connection terminals
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 • front mounting with central attachment • rail mounting  net weight 431 g	Mechanical Design	
depth 451.5 mm  type of device fixed mounting  fastening method Built-in unit fixed-mounted version  fastening method	height	83 mm
type of device fixed mounting  fastening method Built-in unit fixed-mounted version  fastening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  fixed mounting  No  Yes  Yes  431 g	width	67 mm
fastening method fastening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  • Built-in unit fixed-mounted version  No  Yes  431 g	depth	451.5 mm
fastening method  • 4-hole front mounting  • front mounting with central attachment  • rail mounting  ret weight  • 4-hole front mounting  No  Yes  431 g	type of device	fixed mounting
• 4-hole front mounting         • front mounting with central attachment         • rail mounting         • rail mounting         • rail mounting         • 431 g	fastening method	Built-in unit fixed-mounted version
• front mounting with central attachment • rail mounting  net weight  Yes  431 g	fastening method	
● rail mounting  Yes  net weight  431 g	4-hole front mounting	No
net weight 431 g	<ul> <li>front mounting with central attachment</li> </ul>	Yes
ÿ .	• rail mounting	Yes
Environmental conditions	net weight	431 g
	Environmental conditions	
ambient temperature during operation	ambient temperature during operation	
• minimum -25 °C	- · · · · · · · · · · · · · · · · · · ·	-25 °C
• maximum 55 °C	maximum	55 °C
ambient temperature during storage	ambient temperature during storage	
• minimum -25 °C	• minimum	-25 °C
• maximum 55 °C	maximum	55 °C
General Product Approval	General Product Approval	





Confirmation





**Miscellaneous** 

General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







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=3LD2144-0TK51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2144-0TK51

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2144-0TK51

**CAx-Online-Generator** 

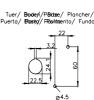
http://www.siemens.com/cax

**Tender specifications** 

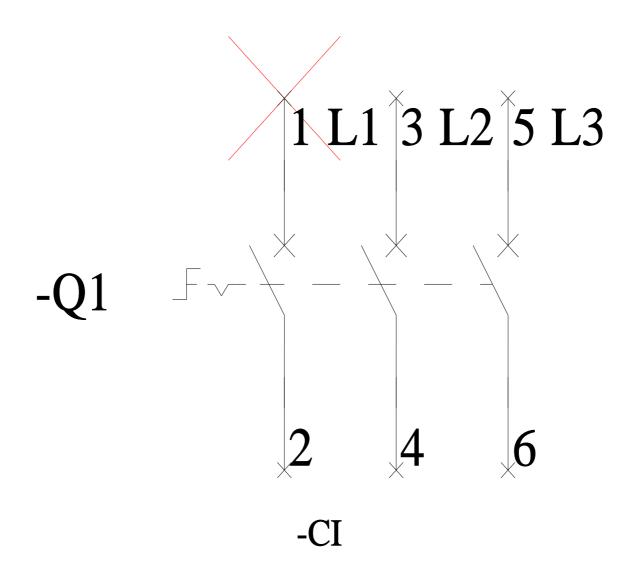
http://www.siemens.com/specifications

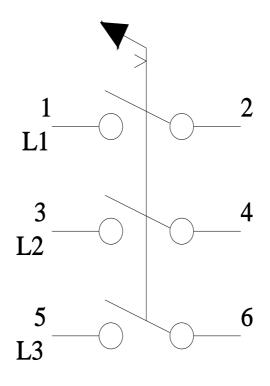












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