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	3LD 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 (switching cycles) / typical	100 000
electrical endurance (switching 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
Current	
operational current / rated value	25 A
operational current	
 at 40 °C / rated value 	25 A
 at 45 °C / rated value 	25 A

a at 50 °C / rated value	25 /
at 50 °C / rated value at 55 °C / rated value	25 A
at 55 °C / rated value at 6C / rated value	25 A
at AC / rated value Main circuit	25 A
Main circuit	
operational current	0.F. A
• 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	E MAI
• at AC-23 A / at 240 V / rated value	5 kW 10 kW
• at AC-23 A / at 400 V / rated value	9.5 kW
• at AC-23 A / at 440 V / rated value	10 kW
• at AC-23 A / at 690 V / rated value	
at AC-3 / at 240 V / rated valueat AC-3 / at 400 V / rated value	4 kW 8 kW
	7.5 kW
at AC-3 / at 690 V / rated value Auxiliary circuit	7.5 NVV
Auxiliary circuit	0
number of NC contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	0
number of NO contacts / for auxiliary contacts 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	300 V
suitability for use	Voc
main switch a switch disconnector.	Yes
switch disconnectorEMERGENCY OFF switch	Yes No
FIVIERGEINGY OFF SWIICH	INO
safety switch	Yes
safety switchmaintenance/repair switch	
safety switchmaintenance/repair switchProduct details	Yes Yes
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position	Yes
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories	Yes Yes
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes Yes
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive	Yes Yes Yes No
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger	Yes Yes Yes No No
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum	Yes Yes Yes No
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts	Yes Yes Yes No No
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts	Yes Yes Yes No No 2
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts	Yes Yes Yes No No No 2
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum	Yes Yes Yes No No No 2 3
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum	Yes Yes No No O O O O O O O O O O O O O O O O
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum hasp thickness / of the bracket locks	Yes Yes No No 2 3 0 3
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse	Yes Yes No No O O O O O O O O O O O O O O O O
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection	Yes Yes No No No 2 3 4 8 mm
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection at 690 V / by gG fuse / rated value	Yes Yes No No No 2 3 4 8 mm
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection at 690 V / by gG fuse / rated value let-through current / with closed switch at 240 V / for combination switch + gG fuse /	Yes Yes No No 2 3 0 3 4 8 mm
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection at 690 V / by gG fuse / rated value let-through current / with closed switch at 240 V / for combination switch + gG fuse / maximum at 440 V / for combination switch + gG fuse /	Yes Yes No No No 2 3 0 3 4 8 mm
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection at 690 V / by gG fuse / rated value let-through current / with closed switch at 240 V / for combination switch + gG fuse / maximum at 440 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse /	Yes Yes No No No 2 3 4 8 mm 50 kA 3.5 kA
safety switch maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum number of connectable NO contacts / for auxiliary contacts / attachable / maximum number of connectable CO contacts / for auxiliary contacts / attachable / maximum number of bracket locks / maximum number of bracket locks / maximum hasp thickness / of the bracket locks Short circuit conditional short-circuit current / with line-side fuse protection at 690 V / by gG fuse / rated value let-through current / with closed switch at 240 V / for combination switch + gG fuse / maximum at 440 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum at 690 V / for combination switch + gG fuse / maximum permissible 12t value / with closed switch / at 240 V / for combination	Yes Yes Yes No No No 2 3 0 3 4 8 mm 50 kA 3.5 kA 4 kA

I2t value / with closed switch / 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
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	8
• minimum	14
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (1,516mm²)
finely stranded / with core end processing	1x (1,510mm²)
stranded	1x (1,516mm²)
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	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







Special Test Certificate





Marine / Shipping

other



Miscellaneous

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=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

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications











