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	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	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
Current	
operational current rated value	25 A
operational current	
 at 40 °C rated value 	25 A
 at 45 °C rated value 	25 A
 at 50 °C rated value 	25 A
at 55 °C rated value	25 A

at AC rated value	25 A
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	
at AC-23 A at 240 V rated value	5 kW
 at AC-23 A at 400 V rated value 	10 kW
 at AC-23 A at 440 V rated value 	9.5 kW
at AC-23 A at 690 V rated value	10 kW
• at AC-3 at 240 V rated value	4 kW
• at AC-3 at 400 V rated value	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	Voc
main switch switch disconnector	Yes Yes
EMERGENCY OFF switch	No
safety switch	Yes
maintenance/repair switch	Yes
Product details	163
r roduct details	
product feature can be locked into OFF position	Voc
product feature can be locked into OFF position	Yes
accessories	Yes
accessories product extension optional	
accessories product extension optional motor drive	No
accessories product extension optional motor drive voltage trigger	No No
accessories product extension optional motor drive	No
product extension optional	No No
accessories product extension optional	No No 3
product extension optional	No No 3
product extension optional	No No 3 5
product extension optional	No No 3 5 0
product extension optional	No No 3 5
product extension optional	No No 3 5 0
product extension optional	No No 3 5 0
product extension optional	No No 3 5 0
product extension optional	No No 3 5 0 3 4 8 mm
product extension optional	No No 3 5 0 3 4 8 mm
product extension optional	No No 3 5 0 3 4 8 mm
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA
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 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 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 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 maximum	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA
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 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 240 V for combination switch + gG fuse maximum • at 240 V for combination switch + gG fuse maximum • at 240 V for combination switch + gG fuse maximum • at 240 V for combination switch + gG fuse maximum	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA 4 kA 50 kA
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA 4 kA 4 kA2.s 4 kA2.s 4 kA2.s 4 kA2.s
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA
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 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 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 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	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA 4 kA 4 kA 5 kA 5 kA 5 kA 5 kA 6 kA 7 kA 7 kA 8
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA 4 kA 4 kA 5 kA 5 kA 6
product extension optional	No No 3 5 0 3 4 8 mm 50 kA 3.5 kA 3.5 kA 4 kA 4 kA 4 kA 5 kA 5 kA 5 kA 5 kA 6 kA 7 kA 7 kA 8

according UL	
operational current at AC according to UL 508/UL 60947-	25 A
4-1 rated value	
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	431 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	
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Special Test Certificate





Marine / Shipping

other



Miscellaneous

Environmental Confirmations

Further information

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











