SIEMENS

Data sheet

3LD2504-0TK51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 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 disconnector
design of the product	Main switch
display version for switch position indicator manual operation	1 ON - 0 OFF
type of switch	front mounted
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	3
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	4.5 W
Current	
operational current rated value	63 A
operational current	
 at 40 °C rated value 	63 A
 at 45 °C rated value 	63 A
 at 50 °C rated value 	63 A
 at 55 °C rated value 	63 A

 at AC rated value 	63 A
Main circuit	00 A
operational current	CD A
 at AC-21 at 690 V rated value at AC-21 A at 240 V rated value 	63 A 63 A
• at AC-21 A at 400 V rated value	63 A
• at AC-21 A at 440 V rated value	63 A
• at AC-23 A at 400 V rated value	43 A
operating power	
• at AC-23 A at 240 V rated value	11 kW
• at AC-23 A at 400 V rated value	22 kW
• at AC-23 A at 440 V rated value	22 kW
 at AC-23 A at 690 V rated value 	19 kW
• at AC-3 at 240 V rated value	11 kW
 at AC-3 at 400 V rated value 	19 kW
• at AC-3 at 690 V rated value	15 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	
motor drive	No
voltage trigger	No
number of connectable NC contacts for auxiliary contacts	3
attachable maximum	
number of connectable NO contacts for auxiliary contacts	3
attachable maximum	5
attachable maximum number of connectable CO contacts for auxiliary contacts	0
attachable maximum	
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum	0
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum number of bracket locks maximum hasp thickness of the bracket locks	0 3
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum number of bracket locks maximum	0 3
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum number of bracket locks maximum hasp thickness of the bracket locks Short circuit	0 3
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum number of bracket locks maximum hasp thickness of the bracket locks Short circuit conditional short-circuit current with line-side fuse	0 3
attachable maximum number of connectable CO contacts for auxiliary contacts attachable maximum number of bracket locks maximum hasp thickness of the bracket locks Short circuit conditional short-circuit current with line-side fuse protection	0 3 4 8 mm
attachable maximum number of connectable CO contacts for auxiliary contacts attachable 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	0 3 4 8 mm
attachable maximum number of connectable CO contacts for auxiliary contacts attachable 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	0 3 4 8 mm 50 kA
attachable maximum number of connectable CO contacts for auxiliary contacts attachable 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	0 3 4 8 mm 50 kA 6 kA
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attachable maximum number of connectable CO contacts for auxiliary contacts attachable 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 permissible l2t value with closed switch • at 240 V for combination switch + gG fuse maximum • at 440 V for combination switch + gG fuse maximum output closed switch • at 240 V for combination switch + gG fuse maximum • at 440 V for combination switch + gG fuse maximum • at 440 V for combination switch + gG fuse maximum • at 440 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	0 3 4 8 mm 50 kA 6 kA 6 kA 6 kA 6 kA 6 kA 21 kA2.s
attachable maximum number of connectable CO contacts for auxiliary contacts attachable 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 240 V for combination switch + gG fuse maximum • at 240 V for combination switch + gG fuse maximum • at 440 V for combination switch + gG fuse maximum • at 690 V for combinatio	0 3 4 8 mm 50 kA 6 kA 6 kA 6 kA 6 kA 21 kA2.s 21 kA2.s 21 kA2.s

according UL	
operational current at AC according to UL 508/UL 60947-	63 A
4-1 rated value operating voltage at AC at 50/60 Hz according to UL	600 V
508/UL 60947-4-1 rated value active power [hp] at AC at 480 V according to UL 508/UL	40
60947-4-1 rated value	40
active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value	50
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	175 A
type of fuse according to UL	RK5
Connections	
AWG number as coded connectable conductor cross section solid	
• maximum	6
• minimum	14
type of connectable conductor cross-sections for copper conductor	
• solid	1x (2,535mm²)
 finely stranded with core end processing 	1x (2.516 mm ²)
stranded	1x (2.535mm ²)
type of connectable conductor cross-sections for auxiliary contacts	
• solid	lateral auxiliary switch 2x (0,75 2,5mm ²), 1x 4mm ² ; front auxiliary switch 1x (0,75 2,5mm ²)
• finely stranded with core end processing	lateral auxiliary switch 2x (0,75 1,5mm ²), 1x 2,5mm ² ; front auxiliary switch 1x 2,5mm ²
• stranded	lateral auxiliary switch 2x (0,75 2,5mm ²), 1x 4mm ² ; front auxiliary switch 1x (0,75 2,5mm ²)
type of electrical connection	······································
for main current circuit	box terminal
 for auxiliary contacts 	connection terminals
	connection terminals
Mechanical Design	
	connection terminals 106 mm 90 mm
Mechanical Design height	106 mm
Mechanical Design height width depth	106 mm 90 mm 110.5 mm
Mechanical Design height width	106 mm 90 mm
Mechanical Design height width depth type of device	106 mm 90 mm 110.5 mm fixed mounting
Mechanical Design height width depth type of device fastening method	106 mm 90 mm 110.5 mm fixed mounting
Mechanical Design height width depth type of device fastening method fastening method	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g
Mechanical Design height width depth type of device fastening method fastening method e 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • maximum ambient temperature during storage	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • maximum ambient temperature during storage • minimum	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C
Mechanical Design height width depth type of device fastening method fastening method of fastening method of fastening method of fastening with central attachment of the mounting net weight Environmental conditions ambient temperature during operation of minimum ambient temperature during storage of minimum maximum m	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C 55 °C Declaration of
Mechanical Design height width depth type of device fastening method fastening method of fastening method of fastening method of fastening with central attachment of the mounting net weight Environmental conditions ambient temperature during operation of minimum ambient temperature during storage of minimum maximum m	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C Declaration of Conformity
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum ambient temperature during storage • minimum • maximum General Product Approval	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C Declaration of Conformity
Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum ambient temperature during storage • minimum • maximum General Product Approval	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C Declaration of Conformity C €
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Mechanical Design height width depth type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum ambient temperature during storage • minimum • maximum ambient temperature during storage • minimum • maximum	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C Declaration of Conformity C €
Mechanical Design height width depth type of device fastening method fastening method astening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum ambient temperature during storage • minimum • maximum General Product Approval Confirmation Declaration of Test Cartificates Marine (Shir	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C 20 Declaration of Conformity Conformity Conformity Conformity
Mechanical Design height width depth type of device fastening method fastening method afstening method effort mounting with central attachment e roin mounting with central attachment e rail mounting net weight Environmental conditions ambient temperature during operation e minimum maximum ambient temperature during storage e minimum maximum General Product Approval Confirmatic	106 mm 90 mm 110.5 mm fixed mounting Built-in unit fixed-mounted version Yes No No 405 g -25 °C 55 °C -25 °C 55 °C -25 °C 55 °C 20 Declaration of Conformity Conformity Conformity Conformity



Special Test Certificate



Environmental Confirmations

Miscellaneous

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=3LD2504-0TK51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2504-0TK51

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2504-0TK51

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications









