## **SIEMENS**

Data sheet 3LD2804-0TK51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 125 A, Operating power / at AC-23 A at 400 V: 45 kW, front-mounted, rotary operating mechanism, black, 4-hole mounting 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	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	4	
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	12 W	
Main circuit		
operational current		
at AC-21 at 690 V rated value	125 A	
• at AC-21 A at 240 V rated value	125 A	
• at AC-21 A at 400 V rated value	125 A	
• at AC-21 A at 440 V rated value	125 A	

at AC-23 A at 400 V rated value  operating power  at AC-23 A at 240 V rated value  22 kW	
▼ at AC-23 A at 240 V Tated Value 22 KVV	
at AC-23 A at 400 V rated value     45 kW	
• at AC-23 A at 690 V rated value 37 kW	
• at AC-3 at 240 V rated value 22 kW	
• at AC-3 at 400 V rated value 37 kW	
at AC-3 at 690 V rated value  30 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	
suitability for use switch disconnector  Yes	
suitability for use EMERGENCY OFF switch No	
suitability for use safety switch Yes	
suitability for use maintenance/repair switch  Yes	
Product details	
product feature can be locked into OFF position  Yes	
accessories	
product extension optional	
• motor drive	
• voltage trigger No	
number of connectable NC contacts for auxiliary contacts attachable maximum	
number of connectable NO contacts for auxiliary contacts attachable maximum 3	
number of connectable CO contacts for auxiliary contacts attachable maximum	
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     20 kA	
let-through current with closed switch	
• at 240 V for combination switch + gG fuse maximum 10 kA	
• at 440 V for combination switch + gG fuse maximum 10 kA	
at 690 V for combination switch + gG fuse maximum     permissible  10 kA	
I2t value with closed switch	
• at 240 V for combination switch + gG fuse maximum 104 kA2.s	
• at 440 V for combination switch + gG fuse maximum 104 kA2.s	
• at 690 V for combination switch + gG fuse maximum 104 kA2.s	
design of the fuse link	
• for short-circuit protection of the main circuit required fuse gL/gG: 125 A	
• for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A	
operational current of upstream fuse rated value 125 A	
according UL	
operational current at AC according to UL 508/UL 60947-4-1 125 A rated value	
operating voltage at AC at 50/60 Hz according to UL 508/UL 600 V 60947-4-1 rated value	
active power [hp] at AC at 480 V according to UL 508/UL 75	
60947-4-1 rated value	
active power [hp] at AC at 600 V according to UL 508/UL 100 100 100 100 100 100 100 100 100 10	

continuous current of upstream fuse according to UL rated value         200 A           Vispo of fuse according to UL         RK5           AWG number as coded connectable conductor cross section soild maximum         I           4	UL 508/UL 60947-4-1	
value         cype of fuse according to UL         RKS           AWG number as coded connectable conductor cross section solid maximum         1           • • • 10         12           type of connectable conductor cross-sections for copper conductor         12           • type of connectable conductor cross-sections for copper conductor         1 (450mm²)           • finely stranded with core end processing of stranded         1 (450mm²)           • solid         (a (350m²)           • solid         (a (7.52,5mm²)         1 x 4mm², front auxiliary switch 1x (0.752,5mm²), 1 x 4mm², front auxiliary switch 1x (0.752,5mm²)           • stranded         (a lateral auxiliary switch 2x (0.752,5mm²), 1 x 4mm², front auxiliary switch 1x (0.752,5mm²)         2,5mm²           • stranded         (b ro main current circuit         (b ox terminal           • for main current circuit         (box terminal           • for minicul protation         (box terminal <tr< td=""><td></td><td>200 A</td></tr<>		200 A
AWG number as coded connectable conductor cross section solid maximum  • 1  2 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 • stranded with core end processing • stranded • stranded with core end processing • stranded •		
AWG number as coded connectable conductor cross section solid maximum    Table	type of fuse according to UL	RK5
section solid maximum	Connections	
type of connectable conductor cross-sections for copper conductor         Ix (450mm²)           • solid         1x (450mm²)           • innely stranded with core end processing         1x (450mm²)           • stranded         1x (450mm²)           type of connectable conductor cross-sections for auxiliary contacts         ateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²), 1x 2,5mm², 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²)           • stranded         lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm², front auxiliary switch 1x (0,75 2,5mm²)           • stranded         box terminal           • stranded         box terminal           • for main current circuit         box terminal           • for auxiliary contacts         box terminal           • for forminal continuity         for forminal continuity           • for forminal continuity         for forminal continuity           • for form mounting with central attachment         for forminal conditions <t< td=""><td></td><td></td></t<>		
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 finely stranded with core end processing stranded  solid sol	•	1
condid         1x (450mm²)           s solid         1x (450mm²)           e finely stranded with core end processing         1x (450mm²)           type of connectable conductor cross-sections for auxiliary contacts         I (450mm²)           e solid         (aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²)           e finely stranded with core end processing         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm²           e stranded         lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm²           e stranded onnection         (0,75 2,5mm²)           e for main current circuit         box terminal           e for auxiliary contacts         connection terminals           vectorial         112.5 mm           depth         90 mm           depth         112.5 m           type of device         fixed mounting           fastening method         Bull-in unit fixed-mounted version           fastening method         Position mounting           e front mounting with central attachment         No           e rail mounting         Ago g           environmental conditions         25 °C           e minimum         25 °C           e minimum         55 °C	•	12
infinely stranded with core end processing is stranded  type of connectable conductor cross-sections for auxiliary contacts is solid infinely stranded with core end processing infinely stranded infinely stranded with core end processing infinely stranded infinely stranded with core end processing internal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm² internal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm² internal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm² internal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm² internal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm² in	<b>7</b> 1	
type of connectable conductor cross-sections for auxilliary contacts  • solid  • finely stranded with core end processing • stranded  • st	• solid	1x (450mm²)
type of connectable conductor cross-sections for auxiliary contacts  solid sol	<ul> <li>finely stranded with core end processing</li> </ul>	1x (435mm²)
e solid lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) e finely stranded with core end processing lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm² e stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm²) e for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm²)  box terminal experiment circuit box terminal box terminal experiment icrcuit e for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (2,5mm²) box terminal experiment circuit box terminal experiment circuit box terminal experiment experime	• stranded	1x (450mm²)
• 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         • for main current circuit         box terminal           • for auxiliary contacts         connection terminals           Mechanical Design           Method           depth         106 mm           depth         112.5 mm           type of device         fixed mounting           fastening method         Built-in unit fixed-mounted version           fastening method         Yes           • 4-hole front mounting         Yes           • front mounting with central attachment         No           • rail mounting         No           • rail mounting         490 g           Environmental conditions           ambient temperature during operation         - 25 °C           • minimum         - 25 °C           • minim	• solid	
type of electrical connection	<ul> <li>finely stranded with core end processing</li> </ul>	
● for main current circuit         box terminal           ● for auxiliary contacts         connection terminals           Mechanical Design         106 mm           width         90 mm           depth         112.5 mm           type of device         fixed mounting           fastening method         Built-in unit fixed-mounted version           4-hole front mounting         Yes           ● front mounting with central attachment         No           • rail mounting         No           net weight         490 g           Environmental conditions         25 °C           ambient temperature during operation         55 °C           ambient temperature during storage         minimum         -25 °C           • minimum         -25 °C           • minimum         -25 °C           • minimum         -55 °C	• stranded	
• for auxiliary contacts  Mechanical Design  height 106 mm  width 90 mm  depth 112.5 mm  type of device fixed mounting fastening method Built-in unit fixed-mounted version  fastening method Yes  • front mounting with central attachment No  rail mounting No  net weight 490 g  Environmental conditions  ambient temperature during operation  • minimum • maximum 55°C  ambient temperature during storage • minimum • minimum • -25°C ambient temperature during storage • minimum • -25°C • maximum • 55°C	type of electrical connection	
height 106 mm  width 90 mm  depth 112.5 mm  type of device fixed mounting fastening method Built-in unit fixed-mounted version  fastening method Yes  • 4-hole front mounting Yes  • front mounting with central attachment No  • rail mounting  net weight 490 g  Environmental conditions  ambient temperature during operation  • minimum  • maximum  - 25 °C  ambient temperature during storage  • minimum  • minimum  • 25 °C  ambient temperature during storage  • minimum  • maximum  - 25 °C  - 55 °C	• for main current circuit	box terminal
height 106 mm  width 90 mm  depth 112.5 mm  type of device fixed mounting  fastening method Built-in unit fixed-mounted version  fastening method Yes  • 4-hole front mounting Yes  • front mounting with central attachment No  • rail mounting  net weight 490 g  Environmental conditions  ambient temperature during operation  • minimum  • maximum  55°C  ambient temperature during storage  • minimum  • minimum  • 25°C  ambient temperature during storage  • minimum  • minimum  • 25°C  • maximum  55°C	<ul> <li>for auxiliary contacts</li> </ul>	connection terminals
width 90 mm  depth 112.5 mm  type of device fixed mounting  fastening method Built-in unit fixed-mounted version  fastening method Yes  front mounting with central attachment No  rail mounting with central attachment No  rail mounting No  net weight 490 g  Environmental conditions  ambient temperature during operation  minimum -25 °C  ambient temperature during storage  minimum -25 °C  ambient temperature during storage  minimum -25 °C  ambient temperature during storage  minimum -25 °C  maximum 55 °C	Mechanical Design	
depth 112.5 mm   type of device fixed mounting   fastening method Built-in unit fixed-mounted version   e 4-hole front mounting Yes   e front mounting with central attachment No   e rail mounting No   net weight 490 g   Environmental conditions   ambient temperature during operation -25 °C   e maximum 55 °C   ambient temperature during storage -25 °C   e minimum -25 °C   e minimum -55 °C   e maximum 55 °C	height	106 mm
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 • maximum  -25 °C ambient temperature during storage • minimum -25 °C  • maximum  -25 °C  • maximum  -25 °C  55 °C	width	90 mm
fastening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  Environmental conditions  ambient temperature during operation • maximum  • minimum • c-25 °C  ambient temperature during storage • minimum • minimum • -25 °C  ambient temperature during storage • minimum • maximum  55 °C	depth	112.5 mm
fastening method  • 4-hole front mounting • front mounting with central attachment • rail mounting  net weight  Environmental conditions  ambient temperature during operation • minimum • maximum  55°C  ambient temperature during storage • minimum • minimum 55°C	type of device	fixed mounting
4-hole front mounting     front mounting with central attachment     rail mounting     No      ret weight     490 g      mounting  ambient temperature during operation     minimum     maximum     55 °C  ambient temperature during storage     minimum     -25 °C  ambient temperature during storage     minimum     55 °C	fastening method	Built-in unit fixed-mounted version
front mounting with central attachment     rail mounting     No  net weight 490 g  Environmental conditions  ambient temperature during operation     minimum     rail mounting     maximum 55 °C  ambient temperature during storage     minimum     rational conditions  -25 °C	fastening method	
● rail mounting No   net weight 490 g   Environmental conditions   ambient temperature during operation -25 °C   ● maximum 55 °C   ambient temperature during storage -25 °C   ● minimum -25 °C   ● maximum 55 °C	<ul> <li>4-hole front mounting</li> </ul>	Yes
net weight  Environmental conditions  ambient temperature during operation  • minimum  • maximum  55°C  ambient temperature during storage  • minimum  • maximum  -25°C  • maximum  55°C	<ul> <li>front mounting with central attachment</li> </ul>	No
ambient temperature during operation  • minimum  • maximum  55 °C  ambient temperature during storage  • minimum  • maximum  -25 °C  55 °C	rail mounting	No
ambient temperature during operation  • minimum  • maximum  55 °C  ambient temperature during storage  • minimum  • maximum  -25 °C  55 °C	net weight	490 g
<ul> <li>minimum</li> <li>-25 °C</li> <li>maximum</li> <li>55 °C</li> <li>ambient temperature during storage</li> <li>minimum</li> <li>-25 °C</li> <li>maximum</li> <li>55 °C</li> </ul>	Environmental conditions	
<ul> <li>● maximum</li> <li>55 °C</li> <li>ambient temperature during storage</li> <li>● minimum</li> <li>-25 °C</li> <li>● maximum</li> <li>55 °C</li> </ul>	ambient temperature during operation	
ambient temperature during storage	• minimum	-25 °C
<ul> <li>minimum</li> <li>-25 °C</li> <li>maximum</li> <li>55 °C</li> </ul>	• maximum	55 °C
• maximum 55 °C	ambient temperature during storage	
	• minimum	-25 °C
Approvals Certificates	• maximum	55 °C
	Approvals Certificates	

## General Product Approval







Confirmation





**General Product Approval** 

Marine / Shipping

other

Miscellaneous







Miscellaneous

Confirmation

Environment

Environmental Confirmations

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=3LD2804-0TK51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2804-0TK51

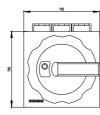
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2804-0TK51

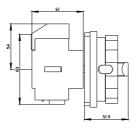
**CAx-Online-Generator** 

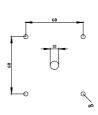
http://www.siemens.com/cax

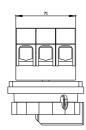
Tender specifications

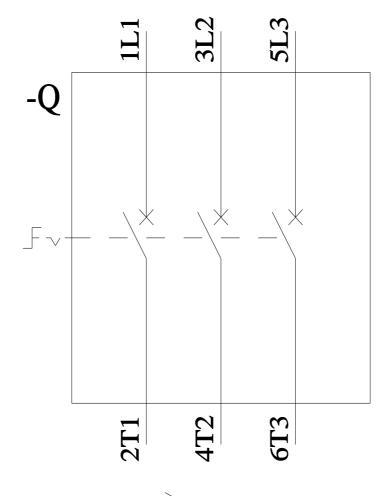
http://www.siemens.com/specifications

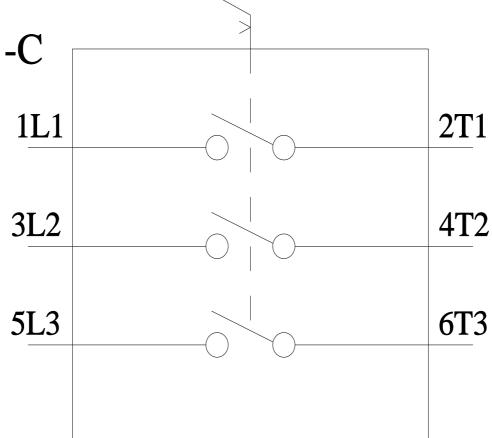












last modified: 6/20/2023 🖸