## **SIEMENS**

Data sheet 3LD2054-0TK51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, front-mounted, 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	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	1
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	0.5 W
Current	
operational current / rated value	16 A
operational current	
<ul> <li>at 40 °C / rated value</li> </ul>	16 A
<ul> <li>at 45 °C / rated value</li> </ul>	16 A

a at E0 °C / rated value	16 A
• at 50 °C / rated value	16 A
at 55 °C / rated value     at AC / rated value	16 A
at AC / rated value	16 A
Main circuit	
operational current	
• at AC-21 / at 690 V / rated value	16 A
• at AC-21 A / at 240 V / rated value	16 A
<ul><li>at AC-21 A / at 400 V / rated value</li></ul>	16 A
• at AC-21 A / at 440 V / rated value	16 A
at AC-23 A / at 400 V / rated value	16 A
operating power	
• at AC-23 A / at 240 V / rated value	4 kW
• at AC-23 A / at 400 V / rated value	8 kW
• at AC-23 A / at 440 V / rated value	7.5 kW
• at AC-23 A / at 690 V / rated value	8 kW
• at AC-3 / at 240 V / rated value	3 kW
at AC-3 / at 400 V / rated value	6 kW
at AC-3 / at 690 V / rated value  Applicate strength	5.5 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 500 V
insulation voltage / of the auxiliary switch / rated value	500 V
Suitability	
suitability for use	V
• main switch	Yes
<ul><li>switch disconnector</li><li>EMERGENCY OFF switch</li></ul>	Yes No
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safety switch	Yes
<ul><li>safety switch</li><li>maintenance/repair switch</li></ul>	
<ul><li>safety switch</li><li>maintenance/repair switch</li><li>Product details</li></ul>	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 2 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  No No No 2 2 0
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 2 2 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  hasp thickness / of the bracket locks	Yes Yes  No No 2 2 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 2 2 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 protection	Yes Yes  No No No 2 2 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	Yes Yes  No No No 2 2 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 /	Yes Yes  No No No 2 2 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 2 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  Yes  No No No 2 2 2 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 permissible  12t value / with closed switch / at 240 V / for combination	Yes Yes  Yes  No No No 2 2 0 3 4 8 mm  50 kA 3 kA 3 kA

I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	3 kA2.s
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit / required</li> </ul>	fuse gL/gG: 20 A
for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A
operational current / of upstream fuse / rated value	20 A
according UL	
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	16 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	7.5
active power [hp] / at AC / at 600 V / according to UL 508/UL 60947-4-1 / rated value	10
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	10
• minimum	18
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (16mm²)
<ul> <li>finely stranded / with core end processing</li> </ul>	1x (14mm²)
stranded	1x (16mm²)
type of connectable conductor cross-sections / for auxiliary contacts	
• solid	2x (0.75 2.5 mm²), 1x 4 mm²
<ul><li>finely stranded / with core end processing</li></ul>	2x (0.75 1.5 mm²), 1x 2.5 mm²
• stranded	2x (0.75 2.5 mm²), 1x 4 mm²
type of electrical connection	
for main current circuit	box terminal
for auxiliary contacts	connection terminals
Mechanical Design	
height	84 mm
width	67 mm
depth	116.5 mm
type of device	fixed mounting
fastening method	Built-in unit fixed-mounted version
fastening method	
<ul> <li>4-hole front mounting</li> </ul>	No
• front mounting with central attachment	Yes
• rail mounting	No
net weight	208 g
Environmental conditions	
ambient temperature / during operation	05 %0
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage	25 °C
• minimum	-25 °C 55 °C
maximum     Concret Product Approved.	00 C
General Product Approval	



Confirmation







<u>Miscellaneous</u>

General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Special Test Certificate





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=3LD2054-0TK51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2054-0TK51

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2054-0TK51

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications











