## **SIEMENS**

Data sheet 3LD2164-1TC51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, 25 A, Operating power at AC- 23 A at 400 V: 9.5 kW, molded-plastic encapsulation for metric cable gland, rotary operating mechanism, black

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	Molded-plastic enclosure for metric threaded joint
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
number of poles / note	PE
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, 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	
<ul> <li>at 40 °C / rated value</li> </ul>	25 A

a at 45 °C / rated value	25 A
<ul> <li>at 45 °C / rated value</li> <li>at 50 °C / rated value</li> </ul>	25 A 25 A
at 50 °C / rated value      at 55 °C / rated value	25 A 25 A
at AC / rated value	25 A 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
<ul> <li>at AC-23 A / at 400 V / rated value</li> </ul>	20 A
operating power	
<ul> <li>at AC-23 A / at 240 V / rated value</li> </ul>	5 kW
<ul><li>at AC-23 A / at 400 V / rated value</li></ul>	10 kW
<ul><li>at AC-23 A / at 440 V / rated value</li></ul>	9.5 kW
<ul><li>at AC-23 A / at 690 V / rated value</li></ul>	10 kW
<ul><li>at AC-3 / at 240 V / rated value</li></ul>	4 kW
<ul><li>at AC-3 / at 400 V / rated value</li></ul>	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	V
• main switch	Yes
switch disconnector     EMERGENCY OFF switch	Yes No
safety switch	Yes
maintenance/repair switch	Yes
Product details	165
product feature / can be locked into OFF position	Yes
accessories	165
product extension / optional	
motor drive	No
voltage trigger	No
number of connectable NC contacts / for auxiliary contacts	2
/ attachable / maximum	
number of connectable NO contacts / for auxiliary contacts	3
/ attachable / maximum	
number of connectable CO contacts / for auxiliary contacts / attachable / maximum	0
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	50 kA
let-through current / with closed switch	
<ul> <li>at 240 V / for combination switch + gG fuse / maximum</li> </ul>	3.5 kA
<ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> </ul>	3.5 kA
at 690 V / for combination switch + gG fuse / maximum permissible	4 kA
I2t value / with closed switch / at 240 V / for combination	4 kA2.s
switch + gG fuse / maximum  12t value / with closed switch / at 440 V / for combination	4 kA2.s

switch + aG fuse / maximum	
switch + gG fuse / maximum  12t value / with closed switch / at 690 V / for combination	4 kA2.s
switch + gG fuse / maximum	T IV LE.J
design of the fuse link	
for short-circuit protection of the main circuit /	fuse gL/gG: 25 A
required  • for short-circuit protection of the auxiliary switch /	fuse gL/gG: 10 A
required	
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)
<ul> <li>finely stranded / with core end processing</li> </ul>	1x (1,510mm²)
<ul><li>stranded</li></ul>	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	152 mm
width	100 mm
depth	117 mm
type of device	fixed mounting
fastening method	Complete unit in enclosure
fastening method	
<ul> <li>4-hole front mounting</li> </ul>	No
front mounting with central attachment	Yes
• rail mounting	No
net weight	468 g
Environmental conditions	
ambient temperature / during operation	05.00
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage	25 °C
• minimum	-25 °C 55 °C
maximum     General Product Approval	33 G
General Product Approval	



Confirmation







**Miscellaneous** 

General Product Approval

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Miscellaneous

**Miscellaneous** 



other

Environmental Confirmations

**Miscellaneous** 

## 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=3LD2164-1TC51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2164-1TC51

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2164-1TC51

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications











