## **SIEMENS**

Data sheet 3LD2103-2EP51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, lu: 25 A, Operating power / at AC-23 A at 400 V: 9.5 kW, front-mounted, 1 NC, 1 NO, 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	4
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, 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	
<ul> <li>at 40 °C / rated value</li> </ul>	25 A
• at 45 °C / rated value	25 A

at 50 °C / rated value	25 A
<ul> <li>at 50 °C / rated value</li> <li>at 55 °C / rated value</li> </ul>	25 A 25 A
at SS *C / rated value     at AC / rated value	25 A 25 A
Main circuit	25 A
operational current	25 A
• at AC-21 / at 690 V / rated value	25 A 25 A
• at AC-21 A / at 240 V / rated value	25 A
• at AC-21 A / at 400 V / rated value	
• 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 240 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
	4 kW
at AC-3 / at 240 V / rated value  at AC-3 / at 400 V / rated value  at AC-3 / at 400 V / rated value	8 kW
at AC-3 / at 400 V / rated value  at AC-3 / at 600 V / rated value	
at AC-3 / at 690 V / rated value  Applicate size of the size	7.5 kW
Auxiliary circuit	0
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	1
number of NO contacts / for auxiliary contacts	1
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
<ul><li>safety switch</li><li>maintenance/repair switch</li></ul>	
<ul><li>safety switch</li><li>maintenance/repair switch</li></ul> Product details	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
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 / attachable / maximum  number of connectable NO contacts / for auxiliary contacts / attachable / maximum	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 No 1
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 1
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  Yes  No No 1 1 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 bracket locks / maximum	Yes Yes  No No 1 1 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	Yes Yes  No No 1 1 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 1 1 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     at 690 V / by gG fuse / rated value  let-through current / with closed switch	Yes Yes  No No No 1 1 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 1 1 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 1 1 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 1  1  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 /	Yes Yes  No No No 1  1  0  3 4 8 mm  50 kA  3.5 kA
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  No No No 1  1  0  3 4 8 mm  50 kA  3.5 kA  4 kA

I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum  design of the fuse link  • for short-circuit protection of the main circuit / required  • for short-circuit protection of the auxiliary switch / required  operational current / of upstream fuse / rated value  according UL  operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	4 kA2.s  fuse gL/gG: 25 A  fuse gL/gG: 10 A
design of the fuse link	
for short-circuit protection of the main circuit / required     for short-circuit protection of the auxiliary switch / required     operational current / of upstream fuse / rated value     according UL     operational current / at AC / according to UL 508/UL	
required operational current / of upstream fuse / rated value according UL operational current / at AC / according to UL 508/UL	fuse gL/gG: 10 A
according UL operational current / at AC / according to UL 508/UL	
operational current / at AC / according to UL 508/UL	25 A
operational current / at AC / according to UL 508/UL	
	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)
stranded	1x (1,516mm²)
type of connectable conductor cross-sections / for	
auxiliary contacts	
	switch 1x (0,75 2,5mm²)
<ul> <li>finely stranded / with core end processing</li> </ul>	switch 1x 2,5mm <sup>2</sup>
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	
for auxiliary contacts	connection terminals
	connection terminals
for auxiliary contacts  Mechanical Design  height	84 mm
for auxiliary contacts  Mechanical Design	84 mm 67 mm
for auxiliary contacts      Mechanical Design     height     width     depth	84 mm 67 mm 92.5 mm
● for auxiliary contacts  Mechanical Design height width depth type of device	84 mm 67 mm 92.5 mm fixed mounting
for auxiliary contacts      Mechanical Design     height     width     depth     type of device     fastening method	84 mm 67 mm 92.5 mm
● for auxiliary contacts  Mechanical Design height width depth type of device fastening method fastening method	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version
● for auxiliary contacts  Mechanical Design height width depth type of device fastening method fastening method ● 4-hole front mounting	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes
● for auxiliary contacts  Mechanical Design height width depth type of device fastening method fastening method ● 4-hole front mounting ● front mounting with central attachment	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No
● for auxiliary contacts  Mechanical Design height width depth type of device fastening method fastening method ● 4-hole front mounting ● front mounting with central attachment ● rail mounting	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No
for auxiliary contacts  Mechanical Design  height     width     depth     type of device     fastening method     fastening method	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No
● for auxiliary contacts  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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No
● for auxiliary contacts  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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g
for auxiliary contacts      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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g
for auxiliary contacts      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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g
for auxiliary contacts      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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g  -25 °C 55 °C
for auxiliary contacts      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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g  -25 °C 55 °C
for auxiliary contacts      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	84 mm 67 mm 92.5 mm fixed mounting Built-in unit fixed-mounted version  Yes No No 240 g  -25 °C 55 °C
type of electrical connection	lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxil switch 1x 2,5mm² lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxilia switch 1x (0,75 2,5mm²) box terminal



Confirmation







<u>Miscellaneous</u>

**General Product Approval** 

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Special Test Certificate





Marine / Shipping

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=3LD2103-2EP51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2103-2EP51

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2103-2EP51

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications











