SIEMENS

Data sheet 3LD2013-0TK51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, floor mounting with door coupling, rotary operating mechanism, black, 4-hole mounting of the handle

product brand name SENTRON product designation 3LD Switch disconnector design of the product display version / for switch position indicator manual operation design of the actuating element No Ceneral technical data number of poles 3 type of device fixed mounting fixed mounting fixed mounting fixed mounting 100 000 100 000 100 000 100 00	Madal		
product design af the product design of the product display version / for switch position indicator manual operation design of the actuating element design of the actuating element design of handle type of the driving mechanism / motor drive No General technical data number of poles type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 121 value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage resistance / rated value protection class IP degree of protection NEMA rating prower loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current • at 40 °C / rated value • at 40 °C / rated value • at 40 °C / rated value	Model	·	
design of the product display version / for switch position indicator manual operation design of the actuating element design of handle type of the driving mechanism / motor drive No General technical data number of poles 13 type of device fixed mounting type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum elet-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum voltage insulation voltage / rated value 969 V surge voltage resistance / rated value 690 V 1P65 degree of protection NEMA rating protection class IP protection class IP protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current • at 40 °C / rated value 16 A			
display version / for switch position indicator manual operation design of the actuating element design of handle type of the driving mechanism / motor drive No Ceneral technical data number of poles type of device type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrinough i2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum voltage insulation voltage / rated value surge voltage resistance / rated value protection class IP degree of protection NEMA rating prove loss [W] • or rated value of the current / at AC / in hot operating state / per pole • per conductor / typical • at 40 °C / rated value 10 OND Short rotary knob rotary operating mechanism, black No No Totary operating mechanism, black No No 0 00 2 5 kac s service life (switching voles) / typical 100 000 6 000 2.5 kA2.s 5.5 kA2.s			
operation design of the actuating element going of the actuating element design of handle type of the driving mechanism / motor drive No General technical data Tumber of poles 3 Type of device fixed mounting fixed mounting fixed mounting type of switch disconnector 100 000 electrical endurance (switching cycles) / typical 100 000 electrical endurance (switching cycles) / et at AC-23 A1 at 690 V 600 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum 2.5 kA2.s operating frequency / maximum 50 1/h Voltage insulation voltage / rated value 6 kV Protection class IP 6 degree of protection NEMA rating 7 protection class IP / on the front 1P65 Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical 0.5 W Current • at 40 °C / rated value 16 A			
design of handle type of the driving mechanism / motor drive Ceneral technical data number of poles type of device type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum Voltage insulation voltage / rated value surge voltage resistance / rated value 690 V surge voltage resistance / rated value 690 V protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical • at 40 °C / rated value 16 A		1 ON - 0 OFF 	
type of the driving mechanism / motor drive General technical data number of poles type of device type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum operating frequency / maximum foo 1/h Voltage insulation voltage / rated value foo V surge voltage resistance / rated value for of protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical • at 40 °C / rated value 100 000 6 000 2.5 kA2.s 6 000 2.5 kA2.s 50 1/h	design of the actuating element	Short rotary knob	
rumber of poles type of device fixed mounting type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value surge voltage resistance / rated value protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current • at 40 °C / rated value fixed mounting fixed mounting fixed mounting fixed mounting with door coupling fixed mounting with door coupling fixed mounting with		rotary operating mechanism, black	
number of poles type of device type of switch type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value surge voltage resistance / rated value ferege of protection class IP degree of protection NEMA rating protection class IP / on the front power loss IV / • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical current operational current • at 40 °C / rated value 16 A	type of the driving mechanism / motor drive	No	
type of device type of switch type of switch size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value surge voltage resistance / rated value ference of protection class IP degree of protection NEMA rating protection class IP / on the front power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Oestimate of the current operational current • at 40 °C / rated value 100 000 6 000 2.5 kA2.s 2.5 kA2.s 2.5 kA2.s 2.5 kA2.s 2.5 kA2.s 2.7 kA2.s 2.8 kA2.s 2.8 kA2.s 2.8 kA2.s 2.9 kA2.s 2.9 kA2.s 2.5 kA2.s 2.	General technical data		
type of switch size of switch disconnector size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value surge voltage resistance / rated value 690 V surge voltage resistance / rated value 6 kV Protection class protection class IP degree of protection NEMA rating 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 • per conductor / typical O.5 W Current operational current • at 40 °C / rated value 16 A	number of poles	3	
size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V Izt value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through Izt value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value insulation voltage / rated value for other or other	type of device	fixed mounting	
mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value surge voltage resistance / rated value for operating started value for operation class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical current operational current • at 40 °C / rated value 100 000 6 000 2.5 kA2.s 2.5	type of switch	Floor mounting with door coupling	
electrical endurance (switching cycles) • at AC-23 A / at 690 V 12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through 12t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum operating frequency / maximum operating frequency / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value 690 V surge voltage resistance / rated value 6 kV Protection class protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Operational current • at 40 °C / rated value 16 A	size of switch disconnector	1	
at AC-23 A / at 690 V I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum operating frequency / maximum Voltage insulation voltage / rated value surge voltage resistance / rated value for voltage r	mechanical service life (switching cycles) / typical	100 000	
12t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum 2.5 kA2.s	electrical endurance (switching cycles)		
switch + gG fuse / maximum let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value 690 V surge voltage resistance / rated value 6 kV Protection class protection class IP degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Output Outpu	• at AC-23 A / at 690 V	6 000	
combination switch + gG fuse / maximum operating frequency / maximum 50 1/h Voltage insulation voltage / rated value insulation voltage / rated value 690 V surge voltage resistance / rated value 6 kV Protection class protection class IP degree of protection NEMA rating 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 • per conductor / typical Operational current operational current • at 40 °C / rated value 16 A		2.5 kA2.s	
insulation voltage / rated value surge voltage resistance / rated value 6 kV Protection class protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Operational current • at 40 °C / rated value 690 V 68V Protection class IP 1, 3R, 4X, 12 1, 3R, 4X, 12 1, 3R, 4X, 12 0.5 W 0.5 W 0.5 W 16 A		2.5 kA2.s	
insulation voltage / rated value surge voltage resistance / rated value 6 kV Protection class protection class IP 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 • per conductor / typical Current operational current • at 40 °C / rated value 6 kV IP65 0.5 W 0.5 W 0.5 W 16 A	operating frequency / maximum	50 1/h	
surge voltage resistance / rated value 6 kV Protection class protection class IP 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 • per conductor / typical 0.5 W Current operational current • at 40 °C / rated value 16 A	Voltage		
protection class IP degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Outrent operational current • at 40 °C / rated value IP65 UP65 0, 5 W 0.5 W 0.5 W 16 A	insulation voltage / rated value	690 V	
protection class IP degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current operational current • at 40 °C / rated value	surge voltage resistance / rated value	6 kV	
degree of protection NEMA rating protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current operational current • at 40 °C / rated value 1, 3R, 4X, 12 IP65 0.5 W 0.5 W 16 A	Protection class		
protection class IP / on the front Dissipation power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Ourrent operational current • at 40 °C / rated value IP65 0.5 W 0.5 W	protection class IP	IP65	
power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Ourrent operational current • at 40 °C / rated value output Dissipation Output Ou	degree of protection NEMA rating	1, 3R, 4X, 12	
power loss [W] • for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current operational current • at 40 °C / rated value 16 A	protection class IP / on the front	IP65	
• for rated value of the current / at AC / in hot operating state / per pole • per conductor / typical Current operational current • at 40 °C / rated value 0.5 W	Dissipation		
operating state / per pole • per conductor / typical Current operational current • at 40 °C / rated value 16 A	power loss [W]		
Current operational current • at 40 °C / rated value 16 A		0.5 W	
operational current • at 40 °C / rated value 16 A	 per conductor / typical 	0.5 W	
• at 40 °C / rated value 16 A	Current		
	operational current		
• at 45 °C / rated value 16 A	 at 40 °C / rated value 	16 A	
	 at 45 °C / rated value 	16 A	

 at 50 °C / rated value 	16 A
 at 55 °C / rated value 	16 A
 at AC / rated value 	16 A
at AC-23 A / at 400 V / rated value	16 A
at AC-21 / at 690 V / rated value	16 A
at AC-21 A / at 240 V / rated value	16 A
at AC-21 A / at 440 V / rated value	16 A
operational current / of upstream fuse / rated value	20 A
let-through current / with closed switch	
 at 440 V / for combination switch + gG fuse / maximum 	3 kA
at 690 V / for combination switch + gG fuse / maximum permissible	3 kA
Main circuit	
operating power	
 at AC-23 A / at 240 V / rated value 	4 kW
at AC-23 A / at 400 V / rated value	7.5 kW
at AC-23 A / at 440 V / rated value	7.5 kW
at AC-23 A / at 690 V / rated value	7.5 kW
at AC-3 / at 240 V / rated value	3 kW
at AC-3 / at 400 V / rated value	5.5 kW
at AC-3 / at 690 V / rated value	5.5 kW
operational current / rated value	16 A
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	Yes
Suitability suitability for use	Yes Yes
Suitability suitability for use • main switch	
Suitability suitability for use • main switch • switch disconnector	Yes
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch	Yes No
Suitability suitability for use main switch switch disconnector EMERGENCY OFF switch safety switch	Yes No Yes
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance	Yes No Yes
suitability suitability for use	Yes No Yes Yes
suitability suitability for use main switch switch disconnector EMERGENCY OFF switch safety switch maintenance/repair switch Appearance color / of the actuating element	Yes No Yes Yes
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details	Yes No Yes Yes
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details product feature	Yes No Yes Yes Yes black
suitability suitability for use main switch switch disconnector EMERGENCY OFF switch safety switch maintenance/repair switch Appearance color / of the actuating element Product details product feature can be locked into OFF position	Yes No Yes Yes black Yes
suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details product feature • can be locked into OFF position number of bracket locks / maximum	Yes No Yes Yes Yes Yes 3
suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details product feature • can be locked into OFF position number of bracket locks / maximum hasp thickness / of the bracket locks / minimum	Yes No Yes Yes Yes black Yes 3 4 mm
suitability suitability for use	Yes No Yes Yes Yes black Yes 3 4 mm
suitability suitability for use	Yes No Yes Yes black Yes 3 4 mm 8 mm
suitability suitability for use	Yes No Yes Yes black Yes 3 4 mm 8 mm
Suitability suitability for use	Yes No Yes Yes black Yes 3 4 mm 8 mm
suitability suitability for use	Yes No Yes Yes black Yes 3 4 mm 8 mm
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details product feature • can be locked into OFF position number of bracket locks / maximum hasp thickness / of the bracket locks / minimum hasp thickness / of the bracket locks / maximum product extension / optional • motor drive • voltage trigger Short circuit conditional short-circuit current / with line-side fuse protection • at 690 V / by gG fuse / rated value	Yes No Yes Yes black Yes 3 4 mm 8 mm No No
Suitability suitability for use • main switch • switch disconnector • EMERGENCY OFF switch • safety switch • maintenance/repair switch Appearance color / of the actuating element Product details product feature • can be locked into OFF position number of bracket locks / maximum hasp thickness / of the bracket locks / minimum hasp thickness / of the bracket locks / maximum product extension / optional • motor drive • voltage trigger Short circuit conditional short-circuit current / with line-side fuse protection • at 690 V / by gG fuse / rated value according UL operational current / at AC / according to UL 508/UL	Yes No Yes Yes black Yes 3 4 mm 8 mm No No
suitability suitability for use	Yes No Yes Yes Yes black Yes 3 4 mm 8 mm No No
Suitability suitability for use	Yes No Yes Yes Yes black Yes 3 4 mm 8 mm No No No

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
Number	
number of connectable NC contacts / for auxiliary contacts / attachable / maximum	3
number of connectable NO contacts / for auxiliary contacts / attachable / maximum	5
number of connectable CO contacts / for auxiliary contacts / attachable / maximum	0
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)
 finely stranded / with core end processing 	1x (14mm²)
• stranded	1x (16mm²)
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
Requirements	
design of the fuse link	
 for short-circuit protection of the main circuit / required 	fuse gL/gG: 20 A
 for short-circuit protection of the auxiliary switch / required 	fuse gL/gG: 10 A
Mechanical Design	
height	84 mm
width	67 mm
depth	429.5 mm
fastening method	Built-in unit fixed-mounted version
fastening method	
4-hole front mounting	Yes
front mounting with central attachment	No
• rail mounting	Yes
net weight	411 g
Environmental conditions	
ambient temperature / during operation	05.10
• minimum ·	-25 °C
• maximum	55 °C
ambient temperature / during storage / minimum	-25 °C
General Product Approval	













Declaration of Conformity

Test Certificates

Marine / Shipping

other



Special Test Certificate





Environmental Confirmations <u>Miscellaneous</u>

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=3LD2013-0TK51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2013-0TK51

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2013-0TK51

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications











