## **SIEMENS**

Data sheet 3LD5810-0TK13



SENTRON, Molded case switch 3LD5 UL, Emergency switching-off, 3-pole, certified according to UL489 UL60947-4-1 and IEC60947-3, UL: 150A, SCCR 50kA at 480VAC, Operating power at 480VAC 3-phase: 100hp, IEC: 160A, Operating power at AC-23A at 400V: 75kW, floor mounting with door coupling rotary operating mechanism, defeatable, emergency switching-off, 4-hole mounting of the handle, without tolerance compensation, incl. terminal covers for the infeed side

Model		
product brand name	SENTRON	
product designation	3LD UL switch disconnector	
design of the product	EMERGENCY-STOP switch	
display version / for switch position indicator manual operation	1 ON - 0 OFF	
design of the actuating element	door-coupling rotary operating mechanism	
design of handle	rotary operating mechanism, red/yellow	
type of the driving mechanism / motor drive	No	
General technical data		
number of poles	3	
type of device	fixed mounting	
type of switch	Floor mounting with door coupling	
size of switch disconnector	3	
mechanical service life (switching cycles) / typical	100 000	
electrical endurance (switching cycles)		
• at AC-23 A / at 690 V	6 000	
I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	223 kA2.s	
let-through I2t value / with closed switch / at 440 V / for combination switch + gG fuse / maximum	223 kA2.s	
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	IP65	
degree of protection NEMA rating	1, 3R, 4X, 12	
protection class IP / on the front	IP65	
Dissipation		
power loss [W]		
<ul> <li>for rated value of the current / at AC / in hot operating state / per pole</li> </ul>	36 W	
per conductor / typical	36 W	
Current		
operational current		
• at 40 °C / rated value	160 A	
• at 45 °C / rated value	160 A	
• at 50 °C / rated value	160 A	
• at 55 °C / rated value	160 A	

at AC / rated value	160 A
<ul><li>at AC-23 A / at 400 V / rated value</li></ul>	160 A
<ul><li>at AC-21 / at 690 V / rated value</li></ul>	160 A
<ul><li>at AC-21 A / at 240 V / rated value</li></ul>	160 A
at AC-21 A / at 440 V / rated value	160 A
operational current / of upstream fuse / rated value	160 A
let-through current / with closed switch	
<ul> <li>at 440 V / for combination switch + gG fuse /</li> </ul>	16 kA
maximum	
<ul> <li>at 690 V / for combination switch + gG fuse / maximum permissible</li> </ul>	15 kA
·	
Main circuit	
operating power	
<ul><li>at AC-23 A / at 240 V / rated value</li></ul>	45 kW
<ul><li>at AC-23 A / at 440 V / rated value</li></ul>	75 kW
<ul><li>at AC-23 A / at 690 V / rated value</li></ul>	55 kW
<ul><li>at AC-3 / at 240 V / rated value</li></ul>	45 kW
<ul><li>at AC-3 / at 400 V / rated value</li></ul>	75 kW
at AC-3 / at 690 V / rated value	45 kW
operational current / rated value	160 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 for use	
main switch	Yes
switch disconnector	Yes
EMERGENCY OFF switch	Yes
safety switch	Yes
maintenance/repair switch	Yes
Appearance	
	rod
color / of the actuating element	red
Product details	
product feature	
can be locked into OFF position	Yes
number of bracket locks / maximum	3
hasp thickness / of the bracket locks / minimum	
	5 mm
hasp thickness / of the bracket locks / maximum	7.5 mm
special product feature	
	7.5 mm
special product feature  product extension / optional  motor drive	7.5 mm
special product feature product extension / optional	7.5 mm defeatable door-coupling handle
special product feature  product extension / optional  motor drive	7.5 mm defeatable door-coupling handle
special product feature product extension / optional      motor drive     voltage trigger	7.5 mm defeatable door-coupling handle
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse	7.5 mm defeatable door-coupling handle
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection	7.5 mm defeatable door-coupling handle  No No
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value	7.5 mm defeatable door-coupling handle  No No  50 kA
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value  according UL  operational current / at AC / according to UL 489/UL	7.5 mm defeatable door-coupling handle  No No  50 kA
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value  according UL  operational current / at AC / according to UL 489/UL 60947-4-1 / rated value  operational current / at AC / according to UL 508/UL	7.5 mm defeatable door-coupling handle  No No No  50 kA 30 kA
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value  according UL  operational current / at AC / according to UL 489/UL 60947-4-1 / rated value	7.5 mm defeatable door-coupling handle  No No  50 kA 30 kA
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value  according UL  operational current / at AC / according to UL 489/UL 60947-4-1 / rated value  operational current / at AC / according to UL 508/UL 60947-4-1 / rated value  operating voltage / at AC / at 50/60 Hz / according to UL	7.5 mm defeatable door-coupling handle  No No  50 kA 30 kA  150 A
special product feature  product extension / optional  • motor drive  • voltage trigger  Short circuit  conditional short-circuit current / with line-side fuse protection  • at 440 V / by gG fuse / rated value  • at 690 V / by gG fuse / rated value  according UL  operational current / at AC / according to UL 489/UL 60947-4-1 / rated value  operational current / at AC / according to UL 508/UL 60947-4-1 / rated value  operating voltage / at AC / at 50/60 Hz / according to UL 489 / rated value  operating voltage / at AC / at 50/60 Hz / according to UL	7.5 mm defeatable door-coupling handle  No No  50 kA 30 kA  150 A  480 V

508/UL 60947-4-1 / rated value	
short-time withstand current (SCCR) / at 480 V / according to UL 508/UL 60947-4-1 and UL 489	50 kA
continuous current / of upstream fuse / according to UL / rated value	150 A
type of fuse / according to UL	Class J
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	
• minimum	1
• maximum	4/0
AWG number / as coded connectable conductor cross section / solid / according to UL 489	
• minimum	1
AWG number / as coded connectable conductor cross section / solid / according to CSA C22.2 No. 5-16	
• minimum	3
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (16185mm²)
<ul> <li>finely stranded / with core end processing</li> </ul>	1x (16150mm²)
stranded	1x (16185mm²)
type of connectable conductor cross-sections / for	
auxiliary contacts	
• solid	lateral auxiliary switch 2x (0,75 $\dots$ 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 $\dots$ 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	
<ul> <li>for main current circuit</li> </ul>	box terminal
<ul> <li>for auxiliary contacts</li> </ul>	connection terminals
Requirements	
design of the fuse link	
<ul> <li>for short-circuit protection of the main circuit / required</li> </ul>	Fuse gG: 160 A
<ul> <li>for short-circuit protection of the auxiliary switch / required</li> </ul>	fuse gL/gG: 10 A
Mechanical Design	
height	178 mm
width	113 mm
depth	158 mm
fastening method	Built-in unit fixed-mounted version
fastening method	
4-hole front mounting	Yes
front mounting with central attachment	No
• rail mounting	No
net weight	1 900 g
	1 300 g
Environmental conditions	
ambient temperature / during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage / minimum	-25 °C
General Product Approval	Declaration of Conformity



Confirmation









other

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=3LD5810-0TK13

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD5810-0TK13

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

http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD5810-0TK13

**CAx-Online-Generator** 

http://www.siemens.com/cax

**Tender specifications** 

http://www.siemens.com/specifications

