## SIEMENS

## Data sheet

## 3LD5810-0TL13



SENTRON, Molded case switch 3LD5 UL, Emergency switching-off, 4-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			
type of switch	Floor mounting with door coupling			
design of the actuating element	door-coupling rotary operating mechanism			
color / of the actuating element	red			
design of handle	rotary operating mechanism, red/yellow			
type of the driving mechanism / motor drive	No			
General technical data				
number of poles	4			
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			
operating frequency / maximum	50 1/h			
degree of pollution	3			
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] / for rated value of the current / at AC / in hot operating state / per pole	36 W			
Current				
operational current / rated value	160 A			
operational current				
<ul> <li>at 40 °C / rated value</li> </ul>	160 A			
<ul> <li>at 45 °C / rated value</li> </ul>	160 A			
<ul> <li>at 50 °C / rated value</li> </ul>	160 A			
<ul> <li>at 55 °C / rated value</li> </ul>	160 A			
<ul> <li>at AC / rated value</li> </ul>	160 A			
Main circuit				
operational current				

<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
<ul> <li>at AC-21 A / at 400 V / rated value</li> </ul>	160 A
<ul> <li>at AC-21 A / at 440 V / rated value</li> </ul>	160 A
• at AC-23 A / at 400 V / rated value	160 A
operating power	
at AC-23 A / at 240 V / rated value	45 kW
• at AC-23 A / at 440 V / rated value	75 kW
at AC-23 A / at 690 V / rated value	55 kW
• at AC-3 / at 240 V / rated value	45 kW
<ul> <li>at AC-3 / at 400 V / rated value</li> </ul>	75 kW
<ul> <li>at AC-3 / at 690 V / rated value</li> </ul>	45 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	Vee
• main switch	Yes
switch disconnector	Yes
EMERGENCY OFF switch	Yes
<ul> <li>safety switch</li> </ul>	Yes
<ul> <li>maintenance/repair switch</li> </ul>	Yes
Product details	
special product feature	defeatable door-coupling handle
product feature / can be locked into OFF position	Yes
accessories	
product extension / optional	No
product extension / optional • motor drive	No
product extension / optional • motor drive • voltage trigger number of connectable NC contacts / for auxiliary contacts	No No 2
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	No
product extension / optional • motor drive • voltage trigger number of connectable NC contacts / for auxiliary contacts / attachable / maximum	No 2
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	No 2 3
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	No 2 3 0
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	No 2 3 0 3
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 Short circuit	No 2 3 0 3
product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum         <ul> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> </li> <li>Short circuit         <ul> <li>conditional short-circuit current / with line-side fuse</li> </ul> </li>	No 2 3 0 3
product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / for auxiliary contacts</li> <li><i>i</i> attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> <li>Short circuit</li> <li>conditional short-circuit current / with line-side fuse protection</li>	No 2 3 0 3 5 7.5 mm
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 Short circuit conditional short-circuit current / with line-side fuse protection • at 440 V / by gG fuse / rated value	No 2 3 0 3 5 7.5 mm 50 kA
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 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	No 2 3 0 3 5 7.5 mm
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         hasp thickness / of the bracket locks         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         let-through current / with closed switch         • at 240 V / for combination switch + gG fuse /	No 2 3 0 3 5 7.5 mm 50 kA
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         hasp thickness / of the bracket locks         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         let-through current / with closed switch	No 2 3 0 3 5 7.5 mm 50 kA 30 kA
<pre>product extension / optional</pre>	No 2 3 0 3 5 7.5 mm 50 kA 30 kA 16 kA
<pre>product extension / optional</pre>	No 2 3 0 3 5 7.5 mm 50 kA 30 kA 16 kA 16 kA
<ul> <li>product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> </li> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> Short circuit <ul> <li>conditional short-circuit current / with line-side fuse protection</li> <li>at 440 V / by gG fuse / rated value</li> <li>at 690 V / by gG fuse / rated value</li> <li>let-through current / with closed switch</li> <li>at 240 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 490 V / for combination switch + gG fuse / maximum</li> </ul>	No 2 3 0 3 5 7.5 mm 50 kA 30 kA 16 kA 16 kA
<ul> <li>product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> </li> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> Short circuit <ul> <li>conditional short-circuit current / with line-side fuse protection</li> <li>at 440 V / by gG fuse / rated value</li> <li>at 690 V / by gG fuse / rated value</li> </ul> let-through current / with closed switch <ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 490 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> </ul>	No 2 3 0 3 5 7.5 mm 50 kA 30 kA 16 kA 16 kA 16 kA 15 kA
<ul> <li>product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> </li> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> Short circuit conditional short-circuit current / with line-side fuse protection <ul> <li>at 440 V / by gG fuse / rated value</li> <li>at 690 V / by gG fuse / rated value</li> </ul> let-through current / with closed switch <ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 420 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> </ul>	No 2 3 0 3 57.5 mm 50 kA 30 kA 16 kA 16 kA 15 kA 223 kA2.s
<ul> <li>product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> </li> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> Short circuit <ul> <li>conditional short-circuit current / with line-side fuse protection <ul> <li>at 440 V / by gG fuse / rated value</li> <li>at 690 V / by gG fuse / rated value</li> </ul> </li> <li>let-through current / with closed switch <ul> <li>at 240 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 640 V / for combination switch + gG fuse / maximum</li> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 640 V / for combination switch + gG fuse / maximum</li> <li>at 640 V / for combination switch + gG fuse / maximum</li> <li>at 640 V / for combination switch + gG fuse / maximum</li> </ul> </li> </ul>	No 2 3 0 3 57.5 mm 50 kA 30 kA 16 kA 16 kA 16 kA 15 kA 223 kA2.s 223 kA2.s
<ul> <li>product extension / optional <ul> <li>motor drive</li> <li>voltage trigger</li> </ul> </li> <li>number of connectable NC contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable NO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of connectable CO contacts / for auxiliary contacts / attachable / maximum</li> <li>number of bracket locks / maximum</li> <li>hasp thickness / of the bracket locks</li> </ul> Short circuit <ul> <li>conditional short-circuit current / with line-side fuse protection <ul> <li>at 440 V / by gG fuse / rated value</li> <li>at 690 V / by gG fuse / rated value</li> </ul> </li> <li>let-through current / with closed switch <ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> <li>at 690 V / for combination switch + gG fuse / maximum</li> </ul> </li> </ul>	No 2 3 0 3 57.5 mm 50 kA 30 kA 16 kA 16 kA 16 kA 15 kA 223 kA2.s 223 kA2.s

required	fund at /= 0+ 40 A		
<ul> <li>for short-circuit protection of the auxiliary switch / required</li> </ul>	fuse gL/gG: 10 A		
operational current / of upstream fuse / rated value	160 A		
according UL			
operational current / at AC / according to UL 489/UL 60947-4-1 / rated value	150 A		
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	150 A		
operating voltage / at AC / at 50/60 Hz / according to UL 489 / rated value	480 V		
operating voltage / at AC / at 50/60 Hz / according to UL 508/UL 60947-4-1 / rated value	480 V		
active power [hp] / at AC / at 480 V / according to UL 508/UL 60947-4-1 / rated value	100		
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		
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		
• maximum	4/0		
AWG number / as coded connectable conductor cross section / solid / according to CSA C22.2 No. 5-16			
• minimum	3		
maximum     trac of connectable conductor processory (for connectable)	2/0		
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 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 2,5mm <sup>2</sup> )		
<ul> <li>finely stranded / with core end processing</li> </ul>	lateral auxiliary switch 2x (0,75 1,5mm <sup>2</sup> ), 1x 2,5mm <sup>2</sup> ; front auxiliary switch 1x 2,5mm <sup>2</sup>		
• stranded	lateral auxiliary switch 2x (0,75 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 2,5mm <sup>2</sup> )		
type of electrical connection			
• for main current circuit	box terminal		
for auxiliary contacts	connection terminals		
Mechanical Design	170		
height	178 mm		
width	151 mm		
depth type of device	158 mm		
type of device fastening method	fixed mounting Built-in unit fixed-mounted version		
fastening method			
4-hole front mounting	Yes		
<ul> <li>front mounting with central attachment</li> </ul>	No		
rail mounting	No		
net weight	2 400 g		
Environmental conditions			
ambient temperature / during operation			
• minimum	-25 °C		

<ul> <li>maximum</li> </ul>		5	5 °C		
ambient temperatu	re / during storage				
<ul> <li>minimum</li> </ul>		-2	25 °C		
<ul> <li>maximum</li> </ul>		5	5 °C		
General Product Approval				Declaration of Conformity	
	<u>Confirmation</u>		EAC	C C EG-Konf.	UK CA

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=3LD5810-0TL13 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3LD5810-0TL13 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD5810-0TL13 CAx-Online-Generator http://www.siemens.com/cax Tender specifications http://www.siemens.com/specifications



