## **SIEMENS**

Data sheet 3LD2405-1TL13



SENTRON, Switch disconnector 3LD, emergency switching-off switch, 4-pole, lu=250 A, operating power / at AC-23 A 400 V: 132 kW, front-mounted, knob-operated mechanism, red/yellow, 4-hole mounting of the handle

product brand name product designation design of the product display version / for switch position indicator manual operation type of switch design of the actuating element color / of the actuating element design of the actuating element design of he actuating element red design of he actuating element design of handle type of switch red design of handle whob-operated mechanism, red/yellow type of the driving mechanism / motor drive design of handle type of switch design of handle type of switch disconnector  actual type of switch disconnector  foeneral technical data number of poles  4 size of switch disconnector foeneral technical data number of poles 4 size of switch disconnector 6 mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical	Model	
design of the product display version / for switch position indicator manual operation type of switch design of the actuating element design of the actuating element design of handle type of the driving mechanism / motor drive  General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating voltage at AC / rated value operating frequency / rated value operating voltage at AC / rated value operating frequency / rated value operating of polection NEMA rating 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  Current operational current / rated value  at 40 °C / rated value  50 A operational current  at 40 °C / rated value  250 A operational current  at 40 °C / rated value  250 A	product brand name	SENTRON
display version / for switch position indicator manual operation  type of switch  design of the actuating element  color / of the actuating element  type of switch  front mounted  selector switch  color / of the actuating element  ted  selector switch  knob-operated mechanism, red/yellow  No  Ceneral technical data  number of poles  size of switch disconnector  mechanical service life (switching cycles) / typical  electrical endurance (switching cycles) / typical  electrical endurance (switching cycles) / typical  electrical endurance (switching cycles) / 6 000  operating frequency / maximum  for 1/h  degree of pollution  3  Voltage  insulation voltage / rated value  operating voltage  • at AC / rated value  • minimum  • maximum  for Hz  emaximum  for Hz  protection class IP  rotection class IP  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  Current  operational current / rated value  • at 40 °C / rated value  • 250 A	product designation	3LD Switch disconnector
operation type of switch design of the actuating element color / of the actuating element design of handle type of the driving mechanism / motor drive  General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles)  • at AC-23 / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum  60 Hz  Protection class protection class IP / on the front Dissipation  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating atter / per pole  Current • at 40 °C / rated value • at 40 °C / rated value • at 40 °C / rated value	design of the product	EMERGENCY-STOP switch
design of the actuating element red color / of the actuating element red design of handle knob-operated mechanism, red/yellow type of the driving mechanism / motor drive No  General technical data  number of poles 4 size of switch disconnector 5 mechanical service life (switching cycles) / typical 100 000 electrical endurance (switching cycles) / typical 20 000 operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value 690 V operating voltage resistance / rated value 8 kV operating voltage  • at AC / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 690 V operating ovltage 100 Hz  • minimum 50 Hz • maximum 60 Hz  Protection class IP / on the front IP65  degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP / on the front IP65  Dissipation		1 ON - 0 OFF
color / of the actuating element design of handle type of the driving mechanism / motor drive No	type of switch	front mounted
design of handle knob-operated mechanism, red/yellow type of the driving mechanism / motor drive No  General technical data number of poles 4 size of switch disconnector 5 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 8 kV operating voltage • at AC / rated value 690 V operating frequency / maximum 50 Hz  • minimum 50 Hz • maximum 60 Hz  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  Current operational current / rated value 250 A operational current / rated value 250 A operational current / rated value 250 A	design of the actuating element	selector switch
type of the driving mechanism / motor drive  General technical data  number of poles 4 size of switch disconnector 5 mechanical service life (switching cycles) / typical 100 000 electrical endurance (switching cycles) 6 000 operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value 690 ∨ surge voltage resistance / rated value 8 kV operating frequency / rated value 690 ∨ surge voltage resistance / rated value 690 ∨ operating frequency / rated value 690 ∨ operating frequency / rated value 690 ∨ operating requency / rated value 600 tz  → minimum 50 Hz  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  Current operational current / rated value 250 A  operational current operational current	color / of the actuating element	red
A size of switch disconnector 5 mechanical service life (switching cycles) / typical 100 000 electrical endurance (switching cycles) / typical 200 000 electrical endurance (switching cycles) 6 000 operating frequency / maximum 50 1/h degree of pollution 3  Voltage	design of handle	knob-operated mechanism, red/yellow
number of poles size of switch disconnector  mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V  operating frequency / maximum foot line frequency / rated value of the current / at AC / in hot operating state / per pole  foot line frequency / rated value foot line f	type of the driving mechanism / motor drive	No
size of switch disconnector  mechanical service life (switching cycles) / typical electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  50 1/h  degree of pollution  Voltage  insulation voltage / rated value surge voltage resistance / rated value  • at AC / rated value  • perating frequency / rated value  • minimum  50 Hz  • maximum  50 Hz  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  Current • at 40 °C / rated value  250 A  operational current / rated value  250 A  operational current • at 40 °C / rated value  250 A	General technical data	
mechanical service life (switching cycles) / typical electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value surge voltage resistance / rated value  • at AC / rated value  • at AC / rated value  • at AC / rated value  • minimum  • maximum  50 Hz  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  Current operational current / rated value  • at 40 °C / rated value  250 A  operational current  • at 40 °C / rated value  250 A	number of poles	4
electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  50 1/h  degree of pollution  3  Voltage  insulation voltage / rated value  surge voltage resistance / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • minimum  • maximum  50 Hz  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  Current  operational current / rated value  • at 40 °C / rated value  250 A	size of switch disconnector	5
at AC-23 A / at 690 V operating frequency / maximum degree of pollution  70tage insulation voltage / rated value surge voltage resistance / rated value operating voltage at AC / rated value operating frequency / rated value operating frequency / rated value operating frequency / rated value ominimum ominimu	mechanical service life (switching cycles) / typical	100 000
operating frequency / maximum degree of pollution  7	electrical endurance (switching cycles)	
degree of pollution  Voltage  insulation voltage / rated value 690 V surge voltage resistance / rated value 8 kV  operating voltage  • at AC / rated value 690 V  operating frequency / rated value  • minimum 50 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  Current  operational current / rated value 250 A  operational current  • at 40 °C / rated value 250 A	• at AC-23 A / at 690 V	6 000
insulation voltage / rated value 690 V surge voltage resistance / rated value 8 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  Current operational current / rated value • at 40 °C / rated value 250 A	operating frequency / maximum	50 1/h
insulation voltage / rated value  surge voltage resistance / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  • maximum  50 Hz  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  Current  operational current / rated value  • at 40 °C / rated value  250 A	degree of pollution	3
surge voltage resistance / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  60 Hz   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  Current  operational current / rated value  • at 40 °C / rated value  250 A	Voltage	
operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  Frotection 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  Current  operational current / rated value  operational current  • at 40 °C / rated value  690 V  690	insulation voltage / rated value	690 V
<ul> <li>at AC / rated value</li> <li>operating frequency / rated value</li> <li>minimum</li> <li>maximum</li> <li>fo Hz</li> <li>maximum</li> <li>Hest</li> <li>motection class</li> <li>protection class IP</li> <li>degree of protection NEMA rating</li> <li>protection class IP / on the front</li> <li>IP65</li> <li>Dissipation</li> <li>power loss [W] / for rated value of the current / at AC / in hot operating state / per pole</li> <li>Current</li> <li>operational current / rated value</li> <li>at 40 °C / rated value</li> <li>250 A</li> </ul>	surge voltage resistance / rated value	8 kV
operating frequency / rated value  • minimum  • maximum  60 Hz  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  Current  operational current / rated value  • at 40 °C / rated value  250 A	operating voltage	
<ul> <li>minimum</li> <li>maximum</li> <li>60 Hz</li> </ul> Protection class protection class IP <ul> <li>degree of protection NEMA rating</li> <li>protection class IP / on the front</li> <li>IP65</li> </ul> Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current <ul> <li>operational current / rated value</li> <li>operational current</li> <li>at 40 °C / rated value</li> <li>250 A</li> </ul>	at AC / rated value	690 V
	operating frequency / rated value	
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  Current  operational current / rated value  operational current  • at 40 °C / rated value  IP65  At X, 12  By 1, 3R, 4X, 12  By 1, 3R, 4X, 12  By 250  A So W  A So So A  A So So So A  A So	• minimum	50 Hz
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  Current  operational current / rated value  operational current  • at 40 °C / rated value  250 A	• maximum	60 Hz
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  Current operational current / rated value operational current  • at 40 °C / rated value  250 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  Current  operational current / rated value  operational current  o at 40 °C / rated value  250 A	protection class IP	IP65
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  operational current  • at 40 °C / rated value  250 A	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  Current  operational current / rated value  operational current  • at 40 °C / rated value  250 A	protection class IP / on the front	IP65
hot operating state / per pole  Current  operational current / rated value  operational current  operational current  operational current  250 A  250 A	Dissipation	
operational current / rated value 250 A  operational current  • at 40 °C / rated value 250 A		36 W
operational current  • at 40 °C / rated value 250 A	Current	
• at 40 °C / rated value 250 A	operational current / rated value	250 A
	operational current	
• at 45 °C / rated value 250 A	<ul> <li>at 40 °C / rated value</li> </ul>	250 A
2007	• at 45 °C / rated value	250 A

at 50 °C / rated value	250 A
<ul> <li>at 50 °C / rated value</li> <li>at 55 °C / rated value</li> </ul>	250 A 250 A
at AC / rated value     at AC / rated value	250 A 250 A
Main circuit	2007
operational current	
at AC-21 / at 690 V / rated value	250 A
at AC-21 A / at 240 V / rated value	250 A
at AC-21 A / at 400 V / rated value	250 A
at AC-21 A / at 440 V / rated value	250 A
• at AC-23 A / at 400 V / rated value	224 A
operating power	
at AC-23 A / at 240 V / rated value	75 kW
<ul><li>at AC-23 A / at 400 V / rated value</li></ul>	132 kW
<ul> <li>at AC-23 A / at 440 V / rated value</li> </ul>	132 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>	55 kW
<ul><li>at AC-3 / at 400 V / rated value</li></ul>	110 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	
• main switch	Yes
switch disconnector	Yes
EMERGENCY OFF switch     Action witch	Yes
safety switch     maintenance/repair switch	Yes Yes
maintenance/repair switch  Product details	l es
product details  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 / attachable / maximum	2
number of connectable NO contacts / for auxiliary contacts / attachable / maximum	2
number of connectable CO contacts / for auxiliary contacts / attachable / maximum	0
number of bracket locks / maximum	3
hasp thickness / of the bracket locks	4 6 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>	15 kA
<ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> </ul>	15 kA
at 690 V / for combination switch + gG fuse / maximum permissible	15 kA
I2t value / with closed switch	
<ul> <li>at 240 V / for combination switch + gG fuse / maximum</li> </ul>	557 kA2.s
• at 440 V / for combination switch + gG fuse /	557 kA2.s

and a view view	
maximum	FF7 kAQ a
<ul> <li>at 690 V / for combination switch + gG fuse / maximum</li> </ul>	557 kA2.s
design of the fuse link	
for short-circuit protection of the main circuit / required	fuse gL/gG: 250 A
• for short-circuit protection of the auxiliary switch /	fuse gL/gG: 10 A
required operational current / of upstream fuse / rated value	250 A
· · ·	250 A
according UL	250 A
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	250 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	100
active power [hp] / at AC / at 600 V / according to UL 508/UL 60947-4-1 / rated value	75
short-time withstand current (SCCR) / at 600 V / according to UL 508/UL 60947-4-1	10 kA
continuous current / of upstream fuse / according to UL / rated value	200 A
type of fuse / according to UL	RK5
Connections	
AWG number / as coded connectable conductor cross section / solid	
• minimum	1
• maximum	4/0
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 2,5mm²), 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	
<ul> <li>for main current circuit</li> </ul>	box terminal
for auxiliary contacts	connection terminals
Mechanical Design	
height	169 mm
width	112 mm
depth	94 mm
type of device	fixed mounting
fastening method	Built-in unit fixed-mounted version
fastening method	
4-hole front mounting	Yes
front mounting with central attachment     roll mounting	No No
• rail mounting	No 2.605 c
net weight Environmental conditions	2 605 g
ambient temperature / during operation  • minimum	-25 °C
minimum     maximum	-25 °C
ambient temperature / during storage	
minimum	-25 °C
• maximum	55 °C
	55 C
General Product Approval	Declaration of



Confirmation









Declaration of Conformity

**Test Certificates** 

other



Type Test Certificates/Test Report

Special Test Certificate

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=3LD2405-1TL13

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2405-1TL13

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

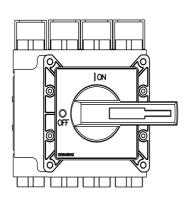
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD2405-1TL13

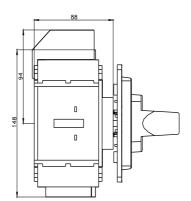
CAx-Online-Generator

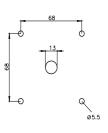
http://www.siemens.com/cax

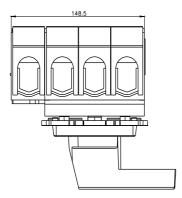
**Tender specifications** 

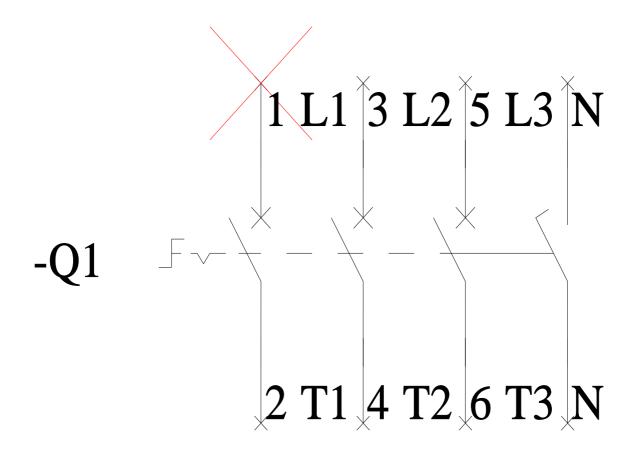
http://www.siemens.com/specifications











-CI

