SIEMENS

Data sheet 3LD2504-1TL51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, lu: 63 A, Operating power / at AC-23 A at 400 V: 22 kW, front-mounted, rotary operating mechanism, black, 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 he actuating element design of he actuating element black color / of the actuating element design of handle type of switch design of handle type of the driving mechanism / motor drive design of handle type of switch design of handle type of switch disconnector number of poles 4 size of switch disconnector 3 mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / 6000 operating frequency / maximum degree of pollution 3 Voltage surge voltage resistance / rated value operating frequency / rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value	Model	
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 handle volve of the driving mechanism / motor drive General technical data number of poles size of switch disconnector at AC-23 A / at 690 V operating frequency / maximum degree of pollution degree of pollution degree of pollution surge voltage at AC / rated value operating frequency / rated value operating often of the front operation 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 / rated value of SA 63 A operational current operational current / rated value operational current of the AC / rated value operational current of the Current operational current of the AC / rated value of SA 63 A operational current of the AC / rated value operational current of the AC / rated value operational current of the AC / rated value of SA	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 black design of handle type of the driving mechanism / motor drive No Ceneral technical data number of poles size of switch disconnector a change of electrical endurance (switching cycles) / typical flow 0000 electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical flow 0000 electrical endurance (switching cycles) / typical flow 0	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 No 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 fogree of pollution Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum found found protection class protection class IP / on the front Dissipation power loss [IV] / for rated value of the current / at AC / in hot operating state / per pole Current • at 40 °C / rated value	design of the product	Main switch
design of the actuating element black color / of the actuating element black design of handle 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 electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / e 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 690 V operating frequency / rated value 600 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 power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value 63 A operational current / rated value 63 A		1 ON - 0 OFF
color / of the actuating element design of handle type of the driving mechanism / motor drive No Ceneral technical data number of poles size of switch disconnector size of switch disconnector at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value operating frequency / rated value operating frequency / rated value ominimum on the control of the control of the current / at AC / in hot operating state / per pole Current operational current / rated value operating state / per pole Current operational current / rated value operational current / rated value of SA GSA GSA A Sa A A A A Black rotary operating mechanism, black No	type of switch	front mounted
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 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 690 V operating frequency / maximum 50 Hz operating frequency / rated value 690 V operating requency / rated value 690 V operating frequency / rated value 690 V operating requency / rated value 690 V operating frequency / rated value 690 Hz Protection class IP 1P65 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 63 A	design of the actuating element	Short rotary knob
type of the driving mechanism / motor drive General technical data number of poles 4 size of switch disconnector 3 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 V surge voltage resistance / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 690 V operating voltage resistance / rated value 690 V operating voltage resistance / rated value 690 V operating requency / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 600 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 63 A operational current / rated value 63 A operational current out 40 °C / rated value	color / of the actuating element	black
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 50 1/h degree of pollution 3 Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum 60 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 • dat AC / rated value of the current • at 40 °C / rated value 63 A operational current • at 40 °C / rated value 63 A	design of handle	rotary operating mechanism, black
number of poles size of switch disconnector 3 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 operating voltage • at AC / rated value operating frequency / 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 • at 40 °C / rated value • at 40 °C / rated value 63 A operational current / rated value 63 A operational current • at 40 °C / rated value 63 A	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 3 Voltage insulation voltage / rated value 690 V surge voltage resistance / rated value 690 V operating voltage • at AC / rated value 690 V operating frequency / rated value 600 Hz Protection class protection class IP degree of protection NEMA rating protection class IP IP65 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 63 A operational current / rated value 63 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	number of poles	4
electrical endurance (switching cycles) • at AC-23 A / at 690 V operating frequency / maximum foo 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 • maximum foo 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 60 00 V 60 0V 60 V	size of switch disconnector	3
at AC-23 A / at 690 V 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 690 V operating frequency / rated value 600 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 63 A operational current 4 at 40 °C / rated value 63 A	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 6 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 63 A operational current • at 40 °C / rated value 63 A	• at AC-23 A / at 690 V	6 000
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 Current operational current / rated value • at 40 °C / rated value 690 V	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 690 V 6 kV 690 V 690	degree of pollution	3
surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum • maximum 50 Hz • maximum 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 • at 40 °C / rated value 68 kV 690 V 690 V	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 • at 40 °C / rated value 63 A	insulation voltage / rated value	690 V
 at AC / rated value operating frequency / rated value minimum maximum fo Hz maximum HP65 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 63 A 	surge voltage resistance / rated value	6 kV
operating frequency / rated value	operating voltage	
	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 other in the state of the current of the curr	• 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 1, 3R, 4X, 12 4.5 W 4.5 W 63 A	maximum	60 Hz
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 1, 3R, 4X, 12 1P65 4.5 W 4.5 W 63 A	Protection class	
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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 63 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 63 A	protection class IP / on the front	IP65
hot operating state / per pole Current operational current / rated value 63 A operational current • at 40 °C / rated value 63 A	Dissipation	
operational current / rated value 63 A operational current • at 40 °C / rated value 63 A		4.5 W
operational current • at 40 °C / rated value 63 A	Current	
• at 40 °C / rated value 63 A	operational current / rated value	63 A
	operational current	
• at 45 °C / rated value 63 A	 at 40 °C / rated value 	63 A
	• at 45 °C / rated value	63 A

a at 50 °C / rated value	63 A
 at 50 °C / rated value at 55 °C / rated value 	63 A 63 A
at SS *C / rated value at AC / rated value	63 A
Main circuit	03 A
operational current	
at AC-21 / at 690 V / rated value	63 A
at AC-21 A / at 240 V / rated value	63 A
at AC-21 A / at 400 V / rated value	63 A
at AC-21 A / at 440 V / rated value	63 A
at AC-23 A / at 400 V / rated value	43 A
operating power	
at AC-23 A / at 240 V / rated value	11 kW
at AC-23 A / at 400 V / rated value	22 kW
 at AC-23 A / at 440 V / rated value 	22 kW
at AC-23 A / at 690 V / rated value	19 kW
at AC-3 / at 240 V / rated value	11 kW
at AC-3 / at 400 V / rated value	19 kW
at AC-3 / at 690 V / rated value	15 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	V
• main switch	Yes
switch disconnectorEMERGENCY OFF switch	Yes No
safety switch	Yes
maintenance/repair switch	Yes
Product details	163
product feature / can be locked into OFF position	Yes
accessories	
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 8 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	
 at 240 V / for combination switch + gG fuse / maximum 	6 kA
at 440 V / for combination switch + gG fuse / maximum	6 kA
at 690 V / for combination switch + gG fuse / maximum permissible	6 kA
12t value / with closed switch	
 at 240 V / for combination switch + gG fuse / maximum 	21 kA2.s
• at 440 V / for combination switch + gG fuse /	21 kA2.s

maximum	04140
 at 690 V / for combination switch + gG fuse / maximum 	21 kA2.s
design of the fuse link	
for short-circuit protection of the main circuit / required	fuse gL/gG: 63 A
for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A
operational current / of upstream fuse / rated value	63 A
according UL	
operational current / at AC / according to UL 508/UL	63 A
60947-4-1 / rated value	
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	40
active power [hp] / at AC / at 600 V / according to UL 508/UL 60947-4-1 / rated value	50
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	175 A
type of fuse / according to UL	RK5
Connections	
AWG number / as coded connectable conductor cross section / solid	
• maximum	6
• minimum	14
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (2,535mm²)
 finely stranded / with core end processing 	1x (2.516 mm²)
stranded	1x (2,535mm²)
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 \dots 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 \dots 2,5mm²)
type of electrical connection	
for main current circuit	box terminal
for auxiliary contacts	connection terminals
Mechanical Design	
height	106 mm
width	90 mm
depth	110.5 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	No No
• rail mounting	No
net weight	489 g
Environmental conditions	
ambient temperature / during operation	35 °C
• minimum	-25 °C 55 °C
maximum ambient temperature / during storage	00 0
ambient temperature / during storage	-25 °C
• minimum	
minimum maximum General Product Approval	55 °C Declaration of



Confirmation





EHC



Declaration of Conformity

Test Certificates

other



Special Test Certificate

Miscellaneous

Environmental Confirmations

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=3LD2504-1TL51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2504-1TL51

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

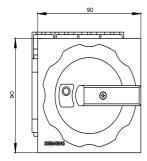
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2504-1TL51

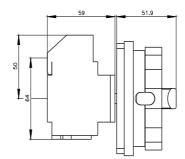
CAx-Online-Generator

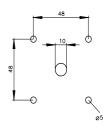
http://www.siemens.com/cax

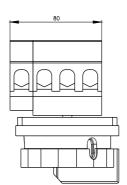
Tender specifications

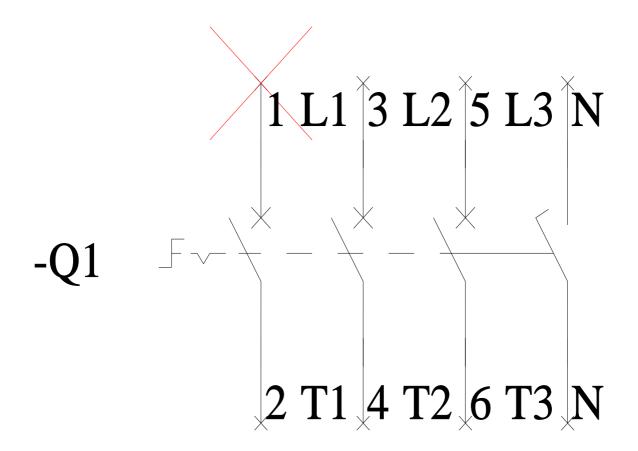
http://www.siemens.com/specifications











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