SIEMENS

Data sheet 3LD2504-1TP51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 63 A, Operating power / at AC-23 A at 400 V: 22 kW, front-mounted, 1 NC, 1 NO, 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 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) • at AC-23 A / at 680 V operating frequency / maximum degree of pollution Voltage insulation voltage / rated value operating voltage • at AC / trated value • minimum • naximum 50 Hz • maximum 60 Hz Protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value • d3 A operational current / rated value • at 40 °C / rated value	Model		
design of the product display version / for switch position indicator manual operation lype of switch front mounted feesign of the actuating element color / of the actuating element black design of handle rotary operating mechanism, black lype of the driving mechanism / motor drive foeneral technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A 1 at 690 V operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value operating requency / rated value • minimum • maximum Protection class IP degree of protection NEMA rating protection class IP lossipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current • at 4 °C / rated value operational current / rated value operational current / rated value operational current / rated value of 63 A operational current / rated value operational current / rated value operational current / rated value of 63 A operational current / rated value operational current / rated value operational current / rated value of 63 A operational current / rated value operational current / rated value of 63 A operational current / rated value operational current / rated value operational current / rated value of 63 A operational current / rated value	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 General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / operating frequency / maximum degree of pollution 3 at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3 surge voltage resistance / rated value operating frequency / rated value • at AC / rated value • minimum • maximum 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 • operational current / rated value operational current / rated value 63 A operational current • at 40 °C / rated value	product designation	3LD Switch disconnector	
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 Foenral 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 A 1 a 690 V operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value • at AC / rated value • at AC / rated value • minimum • maximum 50 Hz • maximum 50 Hz • maximum 50 Hz • maximum 50 Hz 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 Current operational current / rated value	design of the product	Main switch	
design of the actuating element black color / of the actuating element black classing of handle type of the driving mechanism / motor drive No General technical data number of poles 3 size of switch disconnector 3 mechanical service life (switching cycles) / typical 100 000 electrical endurance (switching cycles) / typical 20 000 electrical endurance (switching cycles) / 6 000 operating frequency / maximum 50 1/h degree of pollution 3 Voltage insulation voltage / rated value 690 V operating voltage resistance / rated value 690 V operating voltage - at AC / rated value 690 V operating frequency / raximum 50 Hz operating frequency / rated value 690 V operating to obtain the first of the first object of the current / at AC / in hot operating state / per pole 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 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) • 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 • minimum 50 Hz • maximum 50 Hz • maximum 50 Hz • maximum 50 Hz fold Hz Protection class IP degree of protection NEMA rating protection class IP / or the front Dissipation 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 • at 40 °C / rated value • 63 A	type of switch	front mounted	
design of handle type of the driving mechanism / motor drive No Ceneral 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 for oldinge / rated value surge voltage resistance / rated value operating voltage • at AC / rated value • at AC / rated value operating frequency / rated value for old voltage / rated value operating frequency / rated value operating frequency / rated value • at AC / rated value operating frequency / rated value operation class IP degree of protection class IP degree of 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 operat	design of the actuating element	Short rotary knob	
type of the driving mechanism / motor drive General technical data number of poles 3 3 3 3 3 3 3 3 3	color / of the actuating element	black	
Seneral technical data number of poles 3 size of switch disconnector 3 100 000	design of handle	rotary operating mechanism, black	
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 7 voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum operating frequency / rated value • minimum foo 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 63 A operational current • at 40 °C / rated value • 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 degree of pollution 7 voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum operating frequency / rated value o maximum Frotection 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 • at 40 °C / rated value 64 000 65 000 66 000 690 V	General technical data		
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 surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum • maximum Frotection 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	number of poles	3	
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at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage at AC / rated value operating frequency / rated value operating frequency / rated value ominimum o	mechanical service life (switching cycles) / typical	100 000	
operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value operating frequency / rated value ominimum source ominimum sour	electrical endurance (switching cycles)		
degree of pollution Voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value ominimum ominimu	• 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 63 A operational current • at 40 °C / rated value 63 A	operating frequency / maximum	50 1/h	
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 63 A operational current • at 40 °C / rated value 63 A	degree of pollution	3	
surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum • 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 6 kV 6 kV 690 V 69	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 690 V 690	insulation voltage / rated value	690 V	
at AC / rated value operating frequency / rated value iminimum	surge voltage resistance / rated value	6 kV	
operating frequency / rated value	operating voltage		
 minimum maximum 60 Hz 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 Current operational current / rated value 63 A operational current at 40 °C / rated value 63 A 	at AC / rated value	690 V	
● maximum 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 Current operational current / rated value operational current ● at 40 °C / rated value 63 A	operating frequency / rated value		
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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 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	Protection class		
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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 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	1
number of NO contacts / for auxiliary contacts	1
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	No
safety switch	Yes
maintenance/repair switch	Yes
Product details	V
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	2
/ 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
I2t 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	
• at 690 V / for combination switch + gG fuse /	21 kA2.s
maximum	
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 60947-4-1 / rated value	63 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	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 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
Mechanical Design	
height	106 mm
width	90 mm
depth two of devices	110.5 mm
type of device fastening method	fixed mounting Built-in unit fixed-mounted version
fastening method	Duite in drift incu-modrited version
4-hole front mounting	Yes
front mounting with central attachment	No
• rail mounting	No
net weight	423 g
Environmental conditions	
ambient temperature / during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage	
• minimum	-25 °C
• maximum	55 °C
General Product Approval	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=3LD2504-1TP51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2504-1TP51

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2504-1TP51

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications













