SIEMENS

Data sheet 3LD2164-0TB51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 25 A, Operating power / at AC-23 A at 400 V: $9.5\,\mathrm{kW}$, molded-plastic encapsulation for metric cable gland, rotary operating mechanism, black

product brand name product designation Switch disconnector design of the product Main switch design of the product Main switch design of the product Main switch 1 ON - 0 OFF lype of switch design of the actuating element Short rotary knob color of the actuating element black design of the actuating element black object the driving mechanism motor drive No Ganaral technical data number of poles number of poles N + PE size of switch disconnector wechanical service life (operating cycles) bypical electrical endurance (operating cycles) • at AC-23 A at 690 V operating frequency maximum degree of polition Voltage insulation voltage resistance rated value • minimum • at AC-2 actual value • minimum • and AC rated value • minimum • and AC rated value • minimum • for Hz degree of protection NEMA rating protection class IP on the front Dissipation power loss IVI) for rated value of the current at AC in hot operating at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 440 V rated value	Model	
design of the product display version for switch position indicator manual operation 1 ON - 0 OFF 1 ype of switch Molded-plastic enclosure for metric threaded joint design of the actuating element color of the actuating element black design of handle rotary operating mechanism, black ype of the driving mechanism motor drive No General technical data number of poles note size of switch disconnector mechanical service life (operating cycles) typical electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical electrical endurance (operating cycles) • at AC-23 A at 690 V operating frequency maximum 50 1/h degree of pollution 3 Voltage insulation voltage rated value operating frequency rated value • minimum • at AC rated value • minimum • min	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 the actuating element black design of the actuating element black type of the driving mechanism motor drive No Ceneral technical data number of poles number of poles note size of switch disconnector mechanical service life (operating cycles) typical electrical endurance (operating cycles) • at AC-23 A at 690 V operating frequency maximum 50 Hz • at AC rated value • minimum • at AC rated value • minimum • at AC rated value • maximum Dissipation Dissipation Dissipation Dissipation Main circuit • at AC-21 A at 240 V rated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 240 V vated value • at AC-21 A at 440 V vated value	product designation	Switch disconnector
type of switch design of the actuating element color of the actuating element design of handle type of the driving mechanism motor drive No Ceneral technical data number of poles number of poles size of switch disconnector electrical endurance (operating cycles) typical electrical endurance (operating cycles) typical electrical endurance (operating cycles) • at AC-23 A at 690 V operating when the disconnect of the cycles of	design of the product	Main switch
design of the actuating element black color of the actuating element black design of handle rotary operating mechanism, black type of the driving mechanism motor drive No General technical data number of poles 3 anumber of poles note N+PE size of switch disconnector 2 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) typical electrical endurance (operating cycles) 4 at AC-23 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 3 Voltage listed and the size of switch disconnector 3 and the size of switch disconnector 4 at AC-21 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 a voltage resistance rated value 690 V 6 000 operating over other or size of switch data the size of switch disconnection of switch data the size of switch data the size of switch disconnection of switch data the size of switch data the switch data the size of switch data the switch data	display version for switch position indicator manual operation	1 ON - 0 OFF
color of the actuating element design of handle rotary operating mechanism, black type of the driving mechanism motor drive No Seneral technical data number of poles number of poles	type of switch	Molded-plastic enclosure for metric threaded joint
design of handle rotary operating mechanism, black type of the driving mechanism motor drive Ceneral technical data number of poles 3 number of poles 0 size of switch disconnector 2 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) typical 100 000 electrical endurance (operating cycles) 100 000 operating frequency maximum 55 1 th 100 000 degree of pollution 3 Voltage 100 000 insulation voltage rated value 690 V 000 000 surge voltage resistance rated value 690 V 000 000 operating frequency rated value 690 V 000 000 000 000 000 000 000 000 000	design of the actuating element	Short rotary knob
type of the driving mechanism motor drive General technical data number of poles 3 number of poles note size of switch disconnector 2 mechanical service life (operating cycles) typical electrical endurance (operating cycles) • at AC-21 A at 690 V operating frequency maximum 50 1/h degree of pollution 3 Voltage • at AC rated value • minimum • maximum 50 Hz • maximum 60 Hz • maximum 60 Hz • maximum 60 Hz • maximum 60 Hz	color of the actuating element	black
General technical data number of poles number of poles note size of switch disconnector general advance (operating cycles) typical electrical endurance (operating cycles) • at AC-23 A at 690 V operating frequency maximum degree of pollution 3 Voltage insulation voltage rated value • porating frequency rated value • minimum • at AC-21 A at 240 V rated value power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit Operational Current • at AC-21 A at 240 V rated value	design of handle	rotary operating mechanism, black
number of poles 3 number of poles note N + PE size of switch disconnector 2 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage Village insulation voltage rated value 690 V surge voltage resistance rated value 6 kV operating frequency rated value 690 V operating frequency rated value 690 V operating frequency rated value 600 Hz Protection class Protection class IP protection class IP IP65 degree of protection NEMA rating 1, 4X, 12 protection class IP on the front IP65 Dissipation 1.1 W operating state per pole Main circuit operational current 25 A • at AC-21 A at 240 V rated value 25 A • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	type of the driving mechanism motor drive	No
number of poles note	General technical data	
size of switch disconnector 2 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating 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 6 kV operating voltage 6 kV operating frequency rated value 690 V operating frequency rated value 690 V operating frequency rated value 60 Hz maximum 50 Hz maximum 60 Hz Protection class protection class IP IP65 degree of protection NEMA rating 1, 4X, 12 protection class IP on the front IP65 Dissipation 1.1 W operating state per pole Main circuit operating state per pole 4 at AC-21 at 690 V rated value 25 A e at AC-21 A at 240 V rated value 25 A e at AC-21 A at 400 V rated value 25 A	number of poles	3
mechanical service life (operating cycles) typical electrical endurance (operating 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 690 V operating requency 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, 4X, 12 protection class IP on the front protection class IP on the front Dissipation power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit • at AC-21 at 690 V rated value • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value • 25 A • at AC-21 A at 400 V rated value	number of poles note	N + PE
electrical endurance (operating cycles) • at AC-23 A at 690 V operating frequency maximum 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 • minimum 60 Hz Protection class protection class IP degree of protection NEMA rating protection class IP of the front Dissipation power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit operational current • at AC-21 at 690 V rated value 25 A • at AC-21 A at 240 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	size of switch disconnector	2
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 IP65 Dissipation power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit operational current at AC-21 at 690 V rated value 25 A at AC-21 A at 240 V rated value 25 A at AC-21 A at 4400 V rated value 25 A at AC-21 A at 400 V rated value 25 A	mechanical service life (operating cycles) typical	100 000
operating frequency maximum 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 • minimum • maximum 50 Hz • maximum 60 Hz Protection class protection class IP degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value 25 A • at AC-21 A at 400 V rated value 25 A		
degree of pollution 3 Voltage insulation voltage rated value 690 V surge voltage resistance rated value 680 V 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, 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 Main circuit operational current • at AC-21 at 690 V rated value 25 A • at AC-21 A at 240 V rated value 25 A • at AC-21 A at 400 V rated value 25 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 50 Hz • maximum 60 Hz Protection class protection class IP IP65 degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value 25 A • at AC-21 At 240 V rated value 25 A • at AC-21 At 240 V rated value 25 A • at AC-21 At 4400 V rated value 25 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 800 Hz Protection class protection class IP IP65 degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 240 V rated value • 25 A	degree of pollution	3
surge voltage resistance rated value 6 kV operating voltage	Voltage	
operating voltage • at AC rated value operating frequency rated value • minimum • maximum foot 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value	insulation voltage rated value	690 V
at AC rated value operating frequency rated value minimum	surge voltage resistance rated value	6 kV
operating frequency rated value • minimum • maximum 50 Hz Frotection class protection class IP degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value 25 A	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 Main circuit operational current at AC-21 at 690 V rated value at AC-21 A at 240 V rated value at AC-21 A at 400 V rated value at AC-21 A at 400 V rated value 25 A at AC-21 A at 400 V rated value 25 A 	at AC rated value	690 V
● maximum Protection class protection class IP degree of protection NEMA rating 1, 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 Main circuit operational current ● at AC-21 at 690 V rated value ● at AC-21 A at 240 V rated value ● at AC-21 A at 400 V rated value 25 A ● at AC-21 A at 400 V rated value 25 A	operating frequency rated value	
protection class IP IP65 degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	• minimum	50 Hz
protection class IP degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	• maximum	60 Hz
degree of protection NEMA rating 1, 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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	Protection class	
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 Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	protection class IP	IP65
power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	degree of protection NEMA rating	1, 4X, 12
power loss [W] for rated value of the current at AC in hot operating state per pole Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	protection class IP on the front	IP65
operating state per pole Main circuit operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A	Dissipation	
operational current • at AC-21 at 690 V rated value • at AC-21 A at 240 V rated value • at AC-21 A at 400 V rated value 25 A • at AC-21 A at 400 V rated value 25 A		1.1 W
 at AC-21 at 690 V rated value at AC-21 A at 240 V rated value at AC-21 A at 400 V rated value 25 A 25 A 	Main circuit	
 at AC-21 A at 240 V rated value at AC-21 A at 400 V rated value 25 A 	operational current	
at AC-21 A at 400 V rated value 25 A	• at AC-21 at 690 V rated value	25 A
	• at AC-21 A at 240 V rated value	25 A
at AC-21 A at 440 V rated value 25 A	• at AC-21 A at 400 V rated value	25 A
	• at AC-21 A at 440 V rated value	25 A

• at AC-23 A at 400 V rated value	20 A
operating power	
at AC-23 A at 240 V rated value	5 kW
• at AC-23 A at 400 V rated value	10 kW
• at AC-23 A at 440 V rated value	9.5 kW
• at AC-23 A at 690 V rated value	10 kW
• at AC-3 at 240 V rated value	4 kW
• at AC-3 at 400 V rated value	8 kW
 at AC-3 at 690 V rated value 	7.5 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
Suitability	
suitability for use	
main switch	Yes
 switch disconnector 	Yes
EMERGENCY OFF switch	No
safety switch	Yes
maintenance/repair switch	Yes
Product details	
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	3
number of connectable NO contacts for auxiliary contacts attachable maximum	5
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 	3.5 kA
 at 440 V for combination switch + gG fuse maximum 	3.5 kA
at 690 V for combination switch + gG fuse maximum permissible	4 kA
I2t value with closed switch	
 at 240 V for combination switch + gG fuse maximum 	4 kA2.s
• at 440 V for combination switch + gG fuse maximum	4 kA2.s
at 690 V for combination switch + gG fuse maximum	4 kA2.s
design of the fuse link	
for short-circuit protection of the main circuit required	fuse gL/gG: 25 A
for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
operational current of upstream fuse rated value	25 A
according UL	05.4
operational current at AC according to UL 508/UL 60947-4-1 rated value	25 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	10
active power [hp] at AC at 600 V according to UL 508/UL 60947-4-1 rated value	15
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	50 A
type of fuse according to UL	RK5
Connections	
AWG number as coded connectable conductor cross section solid maximum	
•	8
•	14
type of connectable conductor cross-sections for copper conductor	
• solid	1x (1,516mm²)
 finely stranded with core end processing 	1x (1,510mm²)
• stranded	1x (1,516mm²)
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	152 mm
width	100 mm
depth	117 mm
type of device	fixed mounting
fastening method	Complete unit in enclosure
fastening method	
4-hole front mounting	No
 front mounting with central attachment 	Yes
• rail mounting	No
net weight	467 g
Environmental conditions	
ambient temperature during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature during storage	
• minimum	-25 °C
• maximum	55 °C
Approvals Certificates	

General Product Approval







Confirmation





General Product Approval

Test Certificates

Marine / Shipping

other



Miscellaneous



Miscellaneous



Confirmation

Environment other

Miscellaneous

Environmental Confirmations

Environmental Con-firmations

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3LD2164-0TB51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2164-0TB51

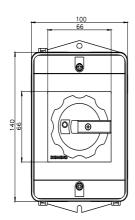
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2164-0TB51

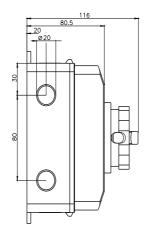
CAx-Online-Generator

http://www.siemens.com/cax

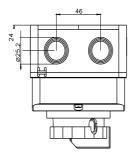
Tender specifications

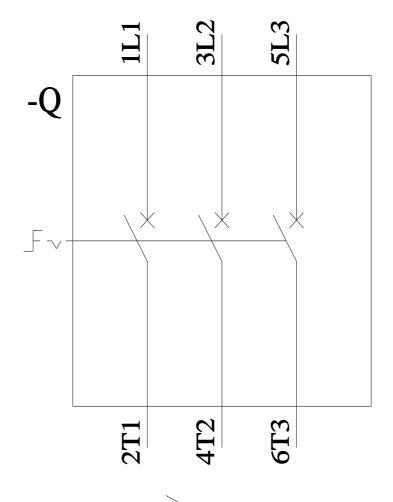
http://www.siemens.com/specifications

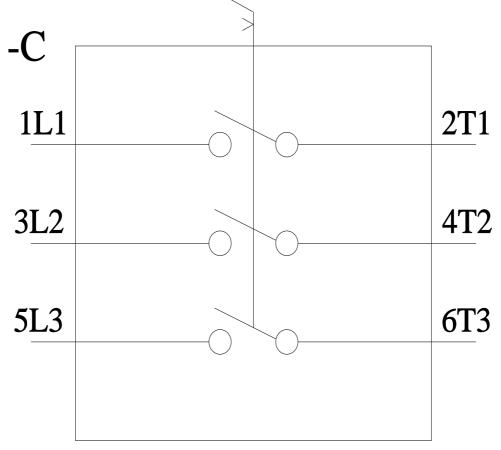












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