SIEMENS

Data sheet 3LD2044-1TL51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, floor mounting with door coupling, rotary operating mechanism, black, central mounting 22.5 mm 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 Short rotary knob design of the actuating element black 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 Voltage insulation voltage / rated value operating frequency / rated value • minimum • maximum 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 operating state / per pole Current operational current / rated value operating state / per pole Current operational current / rated value operating state / per pole Current operational current / rated value operational current / rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value operational current / rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value operational current / 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 rotary operating mechanism / motor drive design of handle rotary operating mechanism, black type of the driving mechanism / motor drive No Ceneral technical data number of poles size of switch disconnector at AC-23 A / at 690 V operating frequency / maximum degree of pollution Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum Fool Hz • maximum Fool Hz degree of protection NEMA rating prover loss [M] / for rated value 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 operating state / per pole Current Operational current / rated value of the current / at AC / in hot operating state / per pole Current Operational current / rated value operational current / rated value operational current / rated value of operational current / rated value operational current / rated value of the current / at AC / in hot operating state / per pole Current 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) • at AC-23 A / at 690 V operating frequency / maximum degree of pollution Voltage insulation voltage / rated value operating voltage • at AC-/ rated value • minimum • maximum for hat endurance tyrated value • minimum • maximum for hat endurance tyrated value • minimum • maximum for hat endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • maximum for hz endurance tyrated value • minimum • to Hz endurance tyrated value • to Hz	product designation	3LD Switch disconnector	
operation type of switch design of the actuating element color / of the actuating element black rotary operating mechanism, black 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) / et at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3 Voltage insulation voltage / rated value operating voltage resistance / rated value operating frequency / rated value operating frequency / rated value surge voltage resistance / rated value operating frequency / rated value operating frequency / rated value insulation voltage / rated value operating frequency / rated value operating frequency / rated value insulation voltage / rated value operating frequency / rated value insulation voltage / rated value insul	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 Ceneral technical data number of poles 4 size of switch disconnector 1 mechanical service life (switching cycles) / typical 100 000 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 6 kV operating voltage estance / rated value 690 V operating frequency / rated value 690 Hz Protection class IP 60 Hz Protection class IP 1P65 degree of protection NEMA rating 1, 3R, 4X, 12 IP65 Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value 16 A operational current / rated value 16 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 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 frequency / rated value • at AC / rated value • at AC / rated value • minimum • maximum Protection class protection class IP degree of protection NEMA rating protection class IP / or the front plossipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current central technical data rotary operating mechanism, black rotary operating mechanism, black rotary operating mechanism, black 10 volu 0000 4 4 4 4 4 4 4 6 6 6 6 7 6 6 7 7 7 8 8	type of switch	Floor mounting with door coupling	
design of handle type of the driving mechanism / motor drive Seneral technical data	design of the actuating element	Short rotary knob	
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 • minimum so Hz • maximum for Hz protection class protection class IP degree of protection NEMA rating 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 operational current 16 A operational current	color / of the actuating element	black	
Seneral technical data number of poles 4	design of handle	rotary operating mechanism, black	
number of poles size of switch disconnector 1 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 6 kV operating voltage • at AC / rated value 9 operating 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 operational current / rated value 16 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 70 tage 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 operational current / rated value 100 000 6 000 6 000 6 90 V 6 8V 6 90 V 6 8V 6 90 V 6 90 V 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	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 operating voltage • at AC / rated value operating frequency / rated value • minimum • maximum 50 Hz Protection class 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 16 A operational current / rated value 16 A	number of poles	4	
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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 • 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 16 A operational current	electrical endurance (switching cycles)		
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operating voltage	insulation voltage / rated value	690 V	
at AC / rated value operating frequency / rated value ominimum omaximum omaximum of 0 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 16 A operational current	surge voltage resistance / rated value	6 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 IP65 Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current operational current / rated value 16 A operational current	operating voltage		
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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 16 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 1, 3R, 4X, 12 IP65 0.5 W 16 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 Current operational current / rated value 16 A operational current	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	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 16 A	protection class IP / on the front	IP65	
hot operating state / per pole Current operational current / rated value operational current	Dissipation		
operational current / rated value 16 A operational current		0.5 W	
operational current	Current		
	operational current / rated value	16 A	
	operational current		
• at 40 °C / rated value	 at 40 °C / rated value 	16 A	
• at 45 °C / rated value 16 A	• at 45 °C / rated value	16 A	

a at EO °C / rotad value	16 A
• at 50 °C / rated value	16 A
at 55 °C / rated value at AC / rated value	16 A
at AC / rated value	16 A
Main circuit	
operational current	
• at AC-21 / at 690 V / rated value	16 A
• at AC-21 A / at 240 V / rated value	16 A
at AC-21 A / at 400 V / rated value	16 A
• at AC-21 A / at 440 V / rated value	16 A
at AC-23 A / at 400 V / rated value	16 A
operating power	
• at AC-23 A / at 240 V / rated value	4 kW
• at AC-23 A / at 400 V / rated value	8 kW
• at AC-23 A / at 440 V / rated value	7.5 kW
• at AC-23 A / at 690 V / rated value	8 kW
at AC-3 / at 240 V / rated value at AC-3 / at 400 V / rated value at AC-3 / at 400 V / rated value at AC-3 / at 400 V / rated value at AC-3 / at 400 V / rated value at AC-3 / at 400 V / rated value	3 kW
• at AC-3 / at 400 V / rated value	6 kW
at AC-3 / at 690 V / rated value Applications alreads	5.5 kW
Auxiliary circuit	0
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	0
number of NO contacts / for auxiliary contacts 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
EINERGENOT OF SWICH	140
 safety switch 	Yes
safety switchmaintenance/repair switch	Yes Yes
maintenance/repair switch	Yes Yes
maintenance/repair switch Product details	Yes
maintenance/repair switch Product details product feature / can be locked into OFF position	
maintenance/repair switch Product details product feature / can be locked into OFF position accessories	Yes
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes Yes
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive	Yes Yes No
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger	Yes Yes
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive	Yes Yes No No
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional motor drive voltage trigger number of connectable NC contacts / for auxiliary contacts	Yes Yes No No
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes Yes No No 2
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 0
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No 2 3 0
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No 2 3 0
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No 2 3 0
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 4 8 mm
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 4 8 mm
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 0 3 4 8 mm
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 0 3 4 8 mm
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 0 3 4 8 mm
maintenance/repair switch Product details product feature / can be locked into OFF position accessories product extension / optional	Yes No No No 2 3 4 8 mm 50 kA 3 kA 3 kA 3 kA

I2t value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	3 kA2.s
design of the fuse link	
for short-circuit protection of the main circuit / required	fuse gL/gG: 20 A
 for short-circuit protection of the auxiliary switch / required 	fuse gL/gG: 10 A
operational current / of upstream fuse / rated value	20 A
according UL	
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	16 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	7.5
active power [hp] / at AC / at 600 V / according to UL 508/UL 60947-4-1 / rated value	10
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	10
• minimum	18
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (16mm²)
 finely stranded / with core end processing 	1x (14mm²)
stranded	1x (16mm²)
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	84 mm
width	67 mm
depth	451.5 mm
type of device	fixed mounting
fastening method	Built-in unit fixed-mounted version
fastening method	
 4-hole front mounting 	No
 front mounting with central attachment 	Yes
• rail mounting	Yes
net weight	441 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	





Confirmation





Miscellaneous

General Product Approval

Declaration of Conformity

Test Certificates

Marine / Shipping







Special Test Certificate





other

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=3LD2044-1TL51

 ${\bf Service \& Support~(Manuals,~Certificates,~Characteristics,~FAQs,...)}$

https://support.industry.siemens.com/cs/ww/en/ps/3LD2044-1TL51

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2044-1TL51

CAx-Online-Generator

http://www.siemens.com/cax

Tender specifications

http://www.siemens.com/specifications











