SIEMENS

Data sheet 3LD2013-1TL51



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, 4-hole mounting of the handle

Model	
product brand name	SENTRON
product designation	Switch disconnector
design of the product	Main switch
display version for switch position indicator manual operation	1 ON - 0 OFF
type of switch	Floor mounting with door coupling
design of the actuating element	Short rotary knob
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	4
size of switch disconnector	1
mechanical service life (operating cycles) typical	100 000
electrical endurance (operating 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	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	0.5 W
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
	10 A
operating power • at AC-23 A at 240 V rated value 4	4 kW
	3 kW
	7.5 kW
	3 kW
	3 kW
	6 kW
	5.5 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	
	500 V
,	10 A
The stage of the s	500 V
Suitability	
	/es ,
	/es
	No .
	/es
	⁄es
Product details	
product feature can be locked into OFF position Y	res
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	3
number of connectable CO contacts for auxiliary contacts attachable maximum	
number of bracket locks maximum 3	3
hasp thickness of the bracket locks 4	4 8 mm
Short circuit	
conditional short-circuit current with line-side fuse protection	
• at 690 V by gG fuse rated value 5	50 kA
let-through current with closed switch	
• at 240 V for combination switch + gG fuse maximum 3	3 kA
• at 440 V for combination switch + gG fuse maximum 3	3 kA
• at 690 V for combination switch + gG fuse maximum permissible	3 kA
I2t value with closed switch	
• at 240 V for combination switch + gG fuse maximum 2	2.5 kA2.s
• at 440 V for combination switch + gG fuse maximum 2	2.5 kA2.s
• at 690 V for combination switch + gG fuse maximum 3	B kA2.s
design of the fuse link	
• for short-circuit protection of the main circuit required fu	use gL/gG: 20 A
• for short-circuit protection of the auxiliary switch required fu	use gL/gG: 10 A
operational current of upstream fuse rated value 2	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	500 V
active power [hp] at AC at 480 V according to UL 508/UL 60947-4-1 rated value	7.5
60947-4-1 rated value	7.5

continuous current of upstream fuse according to UL rated value RK5 Connectors AWG number as coded connectable conductor cross section solid maximum 10 AWG number as coded connectable conductor cross section solid maximum 10 Uppe of connectable conductor cross-sections for copper conductor 18 type of connectable conductor cross-sections for copper conductor 1x (1.6mm²) e solid 1x (1.6mm²) finely stranded with core end processing 1x (1.6mm²) e solid 1x (1.6mm²) finely stranded with core end processing 1x (1.6mm²) e finely stranded with core end processing 1 alereal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) e finely stranded with core end processing 1 alereal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) e for main current circuit 6 for main current circuit 6 for main current circuit 8 for main current circuit e for main current circuit 9 fox maxiliary contacts 8 mm dopth 9 fox multipay contacts 9 fixed mounting dopth 9 fixed mounting 9 fixed mounting e fort mounting with central attachment 9 fixed mount	UL 508/UL 60947-4-1	
value RK5 Onnections RK5 AWG number as coded connectable conductor cross section solid maximum 10 escaled processing conductor 18 type of connectable conductor cross-sections for copper conductor 1x (16mm²) e solid 1x (14mm²) e finely stranded with core end processing 1x (14mm²) e solid 1x (15mm²) e solid 1x (14mm²) e solid 1x (14m		50 A
AWG number as coded connectable conductor cross section solid maximum • 10 18 type of connectable conductor cross-sections for copper conductor • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • stranded • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • stranded • for auxiliary contacts • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary contacts • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for auxiliary switch 2x (0,75 2,5mm²) • for		
AWG number as coded connectable conductor cross section solid maximum Pacific	type of fuse according to UL	RK5
section solid maximum • 10 • 10 type of connectable conductor cross-sections for copper conductor • solid • inely stranded with core end processing • stranded type of connectable conductor cross-sections for auxiliary stranded with core end processing • stranded type of connectable conductor cross-sections for auxiliary contacts • solid • inely stranded with core end processing • finely stranded with core end processing • stranded tipe of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • stranded tipe of electrical connectable contuctor cross-sections for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² • stranded tipe of electrical connection • for main current circuit • for main current circuit • for main current circuit • for 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 • for main current circuit • for main current circuit • for auxiliary contacts • connection terminals • for main current circuit •	Connections	
type of connectable conductor cross-sections for copper conductor		
type of connectable conductor cross-sections for copper conductor solid finely stranded with core end processing stranded type of connectable conductor cross-sections for auxiliary contacts solid finely stranded with core end processing stranded stranded stranded tiberal auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) type of electrical connection for auxiliary contacts type of electrical connection for auxiliary contacts box terminal for auxiliary contacts connection terminals depth for auxiliary contacts 48 mm depth fixed for min fixed mounting fixed mounting fixed mounting fastening method fastening method fastening method stranden method for front mounting with central attachment shall mounting for front mounting with central attachment shall mounting fixed mounting method evaluation to the fixed mounting fixed m	•	10
conductor 1x (16mm³) solid 1x (16mm³) effirely stranded with core end processing 1x (14mm²) stranded 1x (16mm²) type of connectable conductor cross-sections for auxiliary contacts Ialeral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) witch 2x (0,75 1,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e slinely stranded with core end processing Ialeral auxiliary switch 2x (0,75 1,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e stranded Ialeral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e stranded Ialeral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e stranded Ialeral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e stranded Ialeral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² e for auxiliary contacts box terminal e for auxiliary contacts 84 mm e for auxiliary contacts 67 mm e for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 67 mm² e for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 67 mm² e for auxiliary switch 2x (0,75 2,5mm²),	•	18
• finely stranded 1x (14mm²) type of connectable conductor cross-sections for auxillary contacts solid • 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 4mm²; front auxiliary switch 1x 2,5mm² • stranded lateral auxiliary switch 2x (0,75 1,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² • stranded connection connection switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² • for main current circuit 60 x terminal • for auxiliary contacts 60 x terminal • for auxiliary contacts 67 mm • detrical Consection 84 mm • for auxiliary contacts 67 mm • detrical Design 84 mm • for auxiliary contacts 67 mm • for main current circuit 67 mm • for main current circuit 67 mm • for device fixed mounting • fastening method 8ull-tin unit fixed-mounted version • fastening method 92 s • reliam mounting 4-25 °C • reliam conditions 25 °C	7 1	
type of connectable conductor cross-sections for auxilliary contacts • solid • slinely stranded with core end processing • stranded • s	• solid	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) lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x (0,75 2,5mm²) lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm² lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x	 finely stranded with core end processing 	1x (14mm²)
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 • stranded 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) • stranded • for dectrical connection • for main current circuit • for auxiliary contacts • connection terminals • connection terminals • for main current circuit • for auxiliary contacts • connection terminals • for main current circuit • for main current circuit • for main current circuit • for main munting • for main current circuit • fastening method • 429.5 mm • fastening method • 44-hole front mounting • 44-hole front mounting • forth mounting with central attachment • rail mounting • forth mounting with central attachment • rail mounting • 422 g • revironmental conditions **Total mounting • minimum • 25 °C • minimum • 25 °C • minimum • maximum • 62 °C • minimum • maximum • 75 °C	stranded	1x (16mm²)
• finely stranded with core end processing • finely stranded with core end processing • stranded • for electrical connection • for main current circuit • for auxiliary contacts • for auxiliary contacts ### Manual Contention ### August 10		
e stranded 2,5mm² lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) type of electrical connection	• solid	
type of electrical connection • for main current circuit • for auxiliary contacts **Cechanical Design** **Mechanical Design** **Medith** **Medith	 finely stranded with core end processing 	
• for main current circuit • for auxiliary contacts connection terminals Mechanical Design height 84 mm 67 mm depth 429.5 mm type of device fastening method 4-hole front mounting • front mounting with central attachment • rail mounting net weight able temperature during operation • minimum • maximum • minimum • 55 °C ambient temperature during storage • minimum • minimum • minimum • 25 °C • maximum • minimum • 7-5 °C • 55 °C	• stranded	
of or auxiliary contacts connection terminals Mechanical Design height 84 mm width 67 mm depth 429.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version 4-hole front mounting Yes of ront mounting with central attachment No • rail mounting Yes net weight 422 g Environmental conditions Terminant conditions ambient temperature during operation - 25 °C • maximum -25 °C ambient temperature during storage minimum -25 °C • minimum -25 °C • maximum 55 °C	type of electrical connection	
height 84 mm width 67 mm depth 429.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version fastening method Yes	for main current circuit	box terminal
height 84 mm width 67 mm depth 429.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version fastening method Yes • front mounting with central attachment No • rail mounting Yes net weight 422 g environmental conditions 422 g environmental conditions 55 °C ambient temperature during operation -25 °C • maximum 55 °C ambient temperature during storage 6 minimum • minimum -25 °C • maximum 55 °C	 for auxiliary contacts 	connection terminals
width 67 mm depth 429.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version 4-hole front mounting Yes front mounting with central attachment No rail mounting Yes net weight 422 g Environmental conditions ambient temperature during operation minimum minimu	Mechanical Design	
depth 429.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version fastening method	height	84 mm
fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight environmental conditions ambient temperature during operation • maximum • minimum • maximum -25 °C ambient temperature during storage • minimum • maximum -25 °C -25 °C -25 °C -55 °C	width	67 mm
Fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • maximum • minimum • c.25 °C ambient temperature during storage • minimum • minimum • -25 °C ambient temperature during storage • minimum • maximum	depth	429.5 mm
fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum 55°C ambient temperature during storage • minimum • minimum • 25°C ambient temperature during storage • minimum • 25°C ambient temperature during storage • minimum • 55°C	type of device	fixed mounting
4-hole front mounting front mounting with central attachment rail mounting Yes net weight 422 g convironmental conditions ambient temperature during operation minimum -25 °C ambient temperature during storage minimum -25 °C ambient temperature during storage minimum -55 °C ambient temperature during storage minimum -55 °C	fastening method	Built-in unit fixed-mounted version
front mounting with central attachment rail mounting net weight Environmental conditions ambient temperature during operation	fastening method	
● rail mounting Yes net weight 422 g Environmental conditions ambient temperature during operation -25 °C ● maximum 55 °C ambient temperature during storage -25 °C ● minimum -25 °C ● maximum 55 °C	 4-hole front mounting 	Yes
net weight Environmental conditions ambient temperature during operation • minimum • maximum 55°C ambient temperature during storage • minimum • maximum -25°C • maximum 55°C	 front mounting with central attachment 	No
ambient temperature during operation	rail mounting	Yes
ambient temperature during operation	net weight	422 g
 minimum -25 °C maximum 55 °C ambient temperature during storage minimum -25 °C maximum 55 °C 	Environmental conditions	
● maximum55 °Cambient temperature during storage● minimum-25 °C● maximum55 °C	ambient temperature during operation	
ambient temperature during storage ● minimum -25 °C ● maximum 55 °C	• minimum	-25 °C
 minimum -25 °C maximum 55 °C 	• maximum	55 °C
• maximum 55 °C	ambient temperature during storage	
	• minimum	-25 °C
pprovals Certificates	• maximum	55 °C
	Approvals Certificates	

General Product Approval







Confirmation





General Product Approval

Marine / Shipping

other

Miscellaneous







Confirmation

Miscellaneous

Environment

Environmental Confirmations

Environmental Confirmations

Further information

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=3LD2013-1TL51

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3LD2013-1TL51

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2013-1TL51

CAx-Online-Generator

http://www.siemens.com/cax

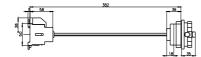
Tender specifications

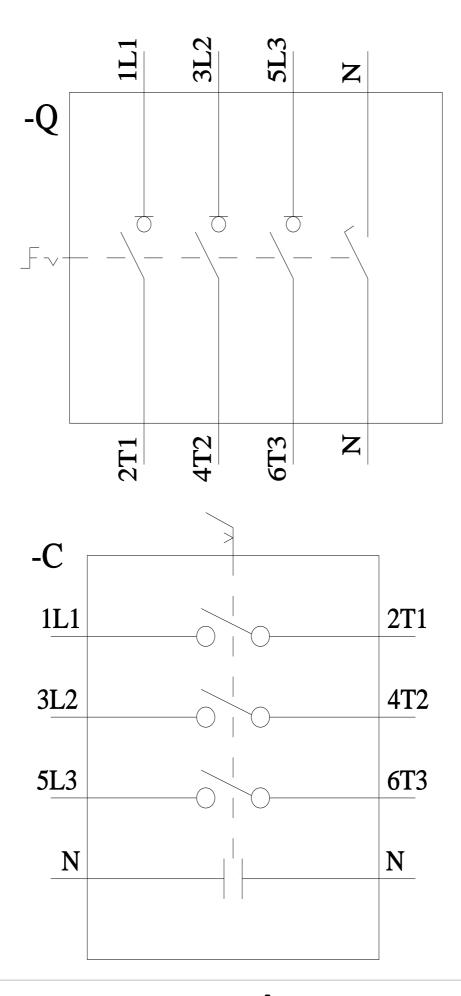
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