SIEMENS

Data sheet 3LD2003-1TP51



SENTRON, Switch disconnector 3LD, main switch, 3-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, front-mounted, 1 NC, 1 NO, 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	front mounted
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	3
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
operating power	ΙΟ Λ
at AC-23 A at 240 V rated value	4 kW
at AC-23 A at 240 V rated value at AC-23 A at 400 V rated value	8 kW
at AC-23 A at 440 V rated value at AC-23 A at 440 V rated value	7.5 kW
at AC-23 A at 440 V rated value at AC-23 A at 690 V rated value	8 kW
at AC-23 A at 690 V rated value at AC-3 at 240 V rated value	3 kW
at AC-3 at 400 V rated value	6 kW
at AC-3 at 400 V rated value at AC-3 at 690 V rated value	5.5 kW
Auxiliary circuit	5.5 KVV
number of CO contacts for auxiliary contacts	0
	1
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	500 V
operating voltage of auxiliary contacts at AC maximum continuous current of the auxiliary contact rated value	10 A
insulation voltage of the auxiliary switch rated value	500 V
Suitability	500 V
	Voc
suitability for use main switch	Yes Yes
suitability for use switch disconnector	Yes No
suitability for use EMERGENCY OFF switch	
suitability for use safety switch	Yes Yes
suitability for use maintenance/repair switch	res
Product details product feature can be locked into OFF position	Yes
accessories	100
product extension optional	
motor drive	No
voltage trigger	No
number of connectable NC contacts for auxiliary contacts	2
attachable maximum	
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	3 kA
• at 440 V for combination switch + gG fuse maximum	3 kA
at 690 V for combination switch + gG fuse maximum permissible	3 kA
I2t value with closed switch	0.5140
• at 240 V for combination switch + gG fuse maximum	2.5 kA2.s
at 440 V for combination switch + gG fuse maximum	2.5 kA2.s
at 690 V for combination switch + gG fuse maximum	3 kA2.s
design of the fuse link	fine of (50, 20 A
for short-circuit protection of the main circuit required for short circuit protection of the qualitary quitely 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	16 A
operational current at AC according to UL 508/UL 60947-4-1	600 V
operational current at AC according to UL 508/UL 60947-4-1 rated value operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value	
rated value operating voltage at AC at 50/60 Hz according to UL 508/UL	7.5
rated value operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value active power [hp] at AC at 480 V according to UL 508/UL	7.5 10

continuous current of upstream fuse according to UL rated value RK5 Connections AWG number as coded connectable conductor cross section solld maximum 10 AWG number as coded connectable conductor cross section solld maximum 10 4 c	UL 508/UL 60947-4-1	
value RK5 Onnections RK5 AWG number as coded connectable conductor cross section solid maximum 10 escaled processing set stranded with core end processing of finely stranded with core end processing stranded strand		50 A
AWG number as coded connectable conductor cross section solid maximum • 10 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 • stranded with core end processing • stranded vith core end processing • solid • finely stranded with core end processing • solid • finely stranded with core end processing • solid • finely stranded with core end processing • stranded • solid • finely stranded with core end processing • stranded • stranded • finely stranded with core end processing • stranded • finely stranded with core end processing • stranded •		
AWG number as coded connectable conductor cross section solid maximum Comparison of the procession	type of fuse according to UL	RK5
section solid maximum	Connections	
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 type of connectable conductor cross-sections for auxiliary contacts solid soli		
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 side solid so	•	10
condid 1x (16mm²) 4 solid 1x (14mm²) 4 stranded 1x (14mm²) 4 stranded 1x (14mm²) 4 stranded 1x (16mm²) 4 specifical connectable conductor cross-sections for auxiliary contacts I aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) syrich 2x (0,75 1,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded with core end processing I aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded I aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded connection I aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded connection I aleral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded connection So terminal 4 for auxiliary contacts So terminal 4 stranded with core end processing Baterial auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² 4 stranded So terminal 4 stranded So terminal 4 stranded So terminal 4 stranded So terminal 4 stranded	•	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 2,5mm²; front auxiliary switch 1x 2,5mm² • stranded lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x 2,5mm² • stranded connection obx terminal • for main current circuit obx terminal • for auxiliary contacts obx terminals width 67 mm depth 92.5 mm type of device fixed mounting fastening method fixed mounting • 4-hole front mounting Yes • 4-hole front mounting with central attachment No • rail mounting Yes • front mounting with central attachment No • rail mounting 25 °C • minimum -25 °C • maximum -25 °C • minimum -25 °C • minimum -25 °C • minimum	7 1	
type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • stranded • str	• solid	1x (16mm²)
type of connectable conductor cross-sections for auxiliary contacts solid sol	 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) • for dectrical connection • for main current circuit • for auxiliary contacts • connection terminals ###################################	• stranded	1x (16mm²)
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	 finely stranded with core end processing 	
• for main current circuit • for auxiliary contacts connection terminals Mechanical Design height 84 mm depth 92.5 mm type of device fastening method 4-hole front mounting • front mounting with central attachment • rail mounting net weight ambient temperature during operation • minimum • 55 °C ambient temperature during storage • minimum • minimum • minimum • 25 °C • maximum • minimum • 7-5 °C • 55 °C	• stranded	
• for auxiliary contacts Mochanical Design height 84 mm width 67 mm depth 92.5 mm type of device fixed mounting fastening method • 4-hole front mounting with central attachment nerill mounting with central attachment No • rail mounting net weight 217 g Environmental conditions ambient temperature during operation • minimum	type of electrical connection	
height 84 mm width 67 mm depth 92.5 mm type of device fixed mounting fastening method Built-in unit fixed-mounted version fastening method Yes • 4-hole front mounting Yes • front mounting with central attachment No • rail mounting net weight 217 g Environmental conditions ambient temperature during operation • minimum • maximum - 25 °C ambient temperature during storage • minimum • minimum • -25 °C ambient temperature during storage • minimum • minimum • -25 °C 55 °C	• for main current circuit	box terminal
height 84 mm width 67 mm depth 92.5 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 No net weight 217 g Intervironmental conditions ambient temperature during operation -25 °C e maximum 55 °C ambient temperature during storage - minimum e minimum -25 °C e minimum -25 °C e maximum 55 °C	 for auxiliary contacts 	connection terminals
width 67 mm depth 92.5 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 No net weight 217 g Environmental conditions ambient temperature during operation minimum	Mechanical Design	
depth 92.5 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 • minimum • -25 °C ambient temperature during storage • minimum • maximum • maximum • maximum • 55 °C	width	67 mm
Fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight Environmental conditions ambient temperature during operation • minimum • maximum fastening method Built-in unit fixed-mounted version No Yes No No 217 g Environmental conditions ambient temperature during operation • minimum • -25 °C ambient temperature during storage • minimum • -25 °C ambient temperature during storage • minimum • minimum • -25 °C ambient temperature during storage • minimum • minimum • -25 °C	depth	92.5 mm
fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting No net weight 217 g Environmental conditions ambient temperature during operation • minimum • maximum 55°C ambient temperature during storage • minimum • minimum 55°C	type of device	fixed mounting
4-hole front mounting front mounting with central attachment rail mounting No net weight 217 g Environmental conditions ambient temperature during operation minimum	fastening method	Built-in unit fixed-mounted version
front mounting with central attachment rail mounting No net weight 217 g Environmental conditions ambient temperature during operation minimum -25 °C maximum minimum -25 °C ambient temperature during storage minimum -25 °C ambient temperature during storage minimum 55 °C	fastening method	
● rail mounting No net weight 217 g Environmental conditions ambient temperature during operation -25 °C ● maximum -25 °C ambient temperature during storage -25 °C • minimum -25 °C • minimum -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 -25°C 55°C	 front mounting with central attachment 	No
ambient temperature during operation	rail mounting	No
ambient temperature during operation	net weight	217 g
 minimum -25 °C maximum 55 °C ambient temperature during storage minimum -25 °C maximum 55 °C 	Environmental conditions	
● maximum 55 °C ambient temperature during storage -25 °C ● minimum -25 °C ● maximum 55 °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
Approvals 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=3LD2003-1TP51

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3LD2003-1TP51

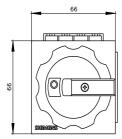
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax en.aspx?mlfb=3LD2003-1TP51

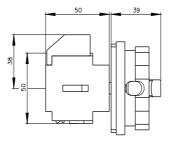
CAx-Online-Generator

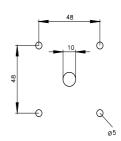
http://www.siemens.com/cax

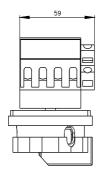
Tender specifications

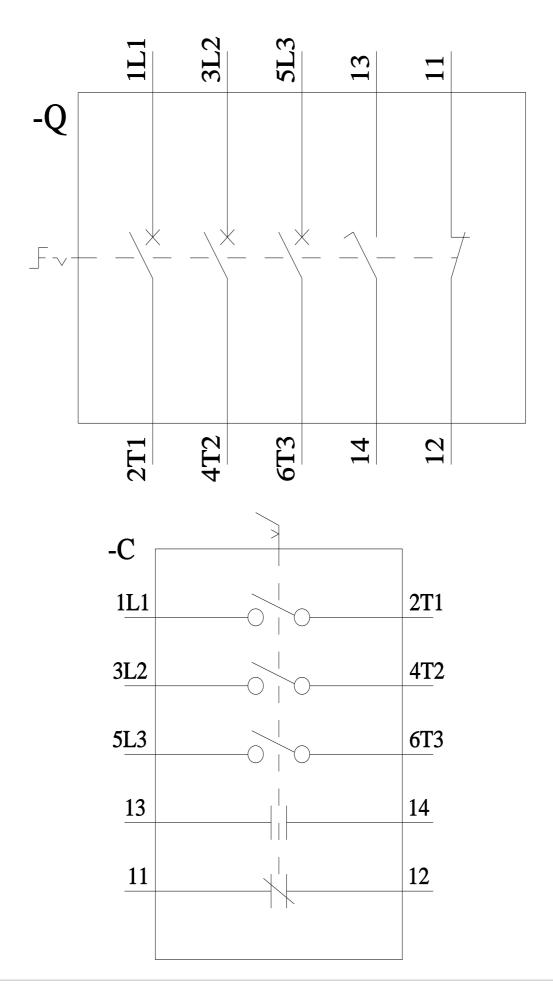
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