SIEMENS

Data sheet 3LD2003-1TL51



SENTRON, Switch disconnector 3LD, main switch, 4-pole, lu: 16 A, Operating power / at AC-23 A at 400 V: 7.5 kW, front-mounted, 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	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
/oltage	
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	ivit
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 400 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-25 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 690 V rated value	5.5 kW
Auxiliary circuit	5.5 KVV
number of CO contacts for auxiliary contacts	0
	0
number of NC contacts for auxiliary contacts	0
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	V
suitability for use main switch	Yes
suitability for use switch disconnector	Yes
suitability for use EMERGENCY OFF switch	No
suitability for use safety switch	Yes
suitability for use 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 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	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	
• 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	
 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	5 kA

continuous current of upstream fuse according to UL rated value va	UL 508/UL 60947-4-1	
type of connectable conductor cross section solid maximum • 10 • 18 type of connectable conductor cross-sections for copper conductor cross-section solid maximum • 10 • 18 type of connectable conductor cross-sections for copper conductor cross-sections of the productor of t	continuous current of upstream fuse according to UL rated	50 A
AWG number as coded connectable conductor cross section solid maximum 10		RK5
AWG number as coded connectable conductor cross section solid maximum • 10 18 type of connectable conductor cross-sections for copper conductor • solid		
section solid maximum 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 type of connectable conductor cross-sections for auxiliary contacts solid slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded with core end processing stranded with core end processing stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 2,5mm², front auxiliary switch 1x (0,75 2,5mm²) stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded slateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) type of electrical connection sterninal socialized switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²) stranded switch 2x (0,75 2,5mm²), 1x 4mm², front auxiliary switch 1x (0,75 2,5mm²)		
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 type of connectable conductor cross-sections for auxiliary contacts • solid • finely stranded with core end processing • finely stranded with core end processing • stranded • for main current circuit • for main current circuit • for main current circuit • for auxiliary contacts to connection terminals tochanical Dosign theight • device fastening method • farton mounting • 4-hole front mounting • 4-hole front mounting • for int mounting • rail mounting • rail mounting • rail mounting • rail mounting • minimum • m		
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type of connectable conductor cross-sections for auxillary contacts • solid • solid • finely stranded with core end processing • stranded • stranded • stranded • stranded • for main current circuit • for auxiliary contacts • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary contacts • for main current circuit • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • for main current circuit • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) • 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) • 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) • for main current circuit • for main curr	 finely stranded with core end processing 	1x (14mm²)
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• finely stranded with core end processing • finely stranded with core end processing • stranded • stranded • stranded 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 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) type of electrical connection • for main current circuit • for auxiliary contacts box terminal • for auxiliary contacts connection terminals lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal • for auxiliary switch 2x (0,75 2,5mm²) box terminal		
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type of electrical connection • for main current circuit • for auxiliary contacts connection terminals lechanical Design beight width depth 92.5 mm type of device fixed mounting fastening method e 4-hole front mounting • front mounting with central attachment e rail mounting net weight net weight minimum e maximum - 25 °C e maxi	• finely stranded with core end processing	lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²
e for main current circuit e for auxiliary contacts connection terminals lechanical Design height 84 mm width 67 mm depth ye of device fastening method fastening method e 4-hole front mounting e front mounting with central attachment e rail mounting net weight number attractions method e minimum e mi	• stranded	
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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 front mounting with central attachment No rail mounting with central attachment No rail mounting No net weight 218 g nvironmental conditions ambient temperature during operation minimum -25 °C ambient temperature during storage minimum -25 °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 fastening method Yes front mounting with central attachment No front mounting with central attachment No e rail mounting No net weight 218 g nvironmental conditions ambient temperature during operation e minimum e maximum 55 °C ambient temperature during storage e minimum e minimum e -25 °C ambient temperature during storage e minimum e -25 °C ambient temperature during storage e minimum e -25 °C ambient temperature during storage e minimum e -25 °C ambient temperature during storage e minimum e -25 °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 218 g nvironmental conditions ambient temperature during operation • minimum • maximum 55 °C ambient temperature during storage • minimum • minimum • 25 °C ambient temperature during storage • minimum • minimum • 25 °C ambient temperature during storage • minimum • minimum • 25 °C	Mechanical Design	
type of device fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight • minimum • maximum • minimum • maximum • 25 °C • maximum • 25 °C • maximum • 25 °C	height	84 mm
fastening method fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight • minimum • maximum • 25 °C • minimum • 25 °C	width	67 mm
Fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight • minimum • maximum • minimum • maximum • minimum • maximum • 55 °C	depth	92.5 mm
fastening method • 4-hole front mounting • front mounting with central attachment • rail mounting net weight nvironmental conditions ambient temperature during operation • minimum • maximum styres -25 °C ambient temperature during storage • minimum -25 °C ambient temperature during storage • minimum -25 °C ambient temperature during storage • minimum -25 °C	type of device	fixed mounting
4-hole front mounting front mounting with central attachment rail mounting No net weight 218 g nvironmental conditions ambient temperature during operation minimum -25 °C ambient temperature during storage minimum -25 °C ambient temperature during storage minimum -25 °C ambient temperature during storage minimum 55 °C	fastening method	Built-in unit fixed-mounted version
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● rail mounting No net weight 218 g nvironmental conditions ambient temperature during operation -25 °C ● minimum -25 °C ambient temperature during storage -25 °C • minimum -25 °C • maximum 55 °C	4-hole front mounting	Yes
net weight nvironmental conditions ambient temperature during operation in minimum in maximum in maximum in minimum in	 front mounting with central attachment 	No
nvironmental conditions ambient temperature during operation • minimum • maximum 55 °C ambient temperature during storage • minimum -25 °C ambient temperature during storage • minimum -25 °C • maximum 55 °C	rail mounting	No
ambient temperature during operation • minimum • maximum 55 °C ambient temperature during storage • minimum -25 °C ambient temperature during storage • minimum -25 °C • maximum 55 °C	net weight	218 g
● minimum -25 °C ● maximum 55 °C ambient temperature during storage -25 °C ● minimum -25 °C ● maximum 55 °C	Environmental conditions	
 maximum ambient temperature during storage minimum -25 °C maximum 55 °C 	ambient temperature during operation	
ambient temperature during storage	• 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











Miscellaneous

General Product Approval

Marine / Shipping

other

Environment







Miscellaneous

Confirmation

Environmental Confirmations

Environment

Environmental Con-

Information on the packaging

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=3LD2003-1TL51

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2003-1TL51

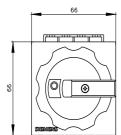
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2003-1TL51

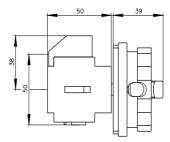
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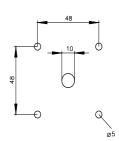
http://www.siemens.com/cax

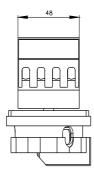
Tender specifications

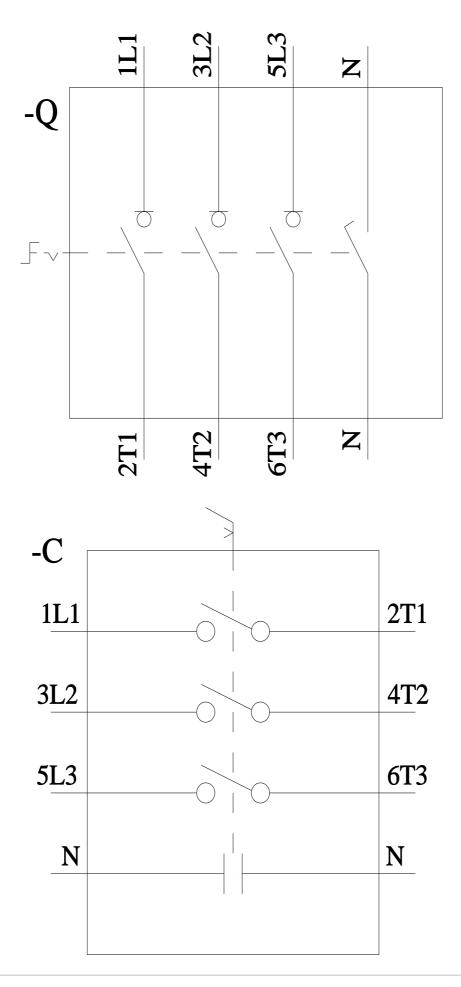
http://www.siemens.com/specifications











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