SIEMENS

Data sheet

3LD2003-0TK53



SENTRON, Switch disconnector 3LD, emergency switching-off switch, 3- pole, lu: 16 A, operating power / at AC-23 A 400 V: 7.5 kW, front-mounted, rotary operating mechanism, Red / yellow, 4-hole mounting of the handle

product brand name SENTRON product designation Switch disconnector design of the product EMERCENCY-STOP switch display version for switch position indicator manual operation 1 ON + 0 OFF type of switch front mounted design of the actuating element red design of the actuating element red design of the actuating element red design of handle rotary operating mechanism, red/yellow type of the driving mechanism motor drive No Central technical data	Model	
design of the product EMERGENCY-STOP switch display version for switch position indicator manual operation 1 ON - 0 OFF type of switch front mounted design of the actualing element red design of the actualing element red design of the actualing element red design of handle rotary operating mechanism, red/yellow type of the driving mechanism motor drive No Central technical data	product brand name	SENTRON
display version for switch position indicator manual operation 1 ON - 0 OFF type of switch front mounted design of the actuating element red color of the actuating element red design of handle type of the driving mechanism motor drive No O General technical data a number of poles 3 size of switch disconnector 1 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) 6 • at AC-23 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage insulation voltage rated value operating frequency maximum 60 V surge voltage resistance rated value 680 V operating frequency rated value 600 V operating frequency rated value <td< td=""><td>product designation</td><td>Switch disconnector</td></td<>	product designation	Switch disconnector
type of switch front mounted design of the actuating element Short rotary knob codor of the actuating element red design of handle rotary operating mechanism, red/yellow type of the driving mechanism motor drive No General technical data number of poles size of switch disconnector 1 mechanical service life (operating cycles) typical 100 000 electrical endrance (operating cycles) 6 • at AC-23 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage feature insulation voltage rated value 690 V operating voltage 6 • at AC rated value 690 V operating voltage 6 • at AC rated value 690 V operating voltage 6 • at AC rated value 690 V operating voltage 6 • at AC rated value 600 V operating voltage 6 • at AC rated value 60 Hz <td< td=""><td>design of the product</td><td>EMERGENCY-STOP switch</td></td<>	design of the product	EMERGENCY-STOP switch
design of the actuating element Fred color of the actuating element Fred design of handle rotary operating mechanism, red/yellow type of the driving mechanism motor drive No General technical data Immber of poles size of switch disconnector 1 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) typical 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage 690 V surge voltage resistance rated value 690 V surge voltage resistance rated value 690 V operating frequency match value 690 V e in AC rated value 690 V operating requency rated value 700 Hz operating requency rated value 690 V operating requ	display version for switch position indicator manual operation	1 ON - 0 OFF
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design of handle rotary operating mechanism, red/yellow type of the driving mechanism motor drive No Cenaral technical data Inumber of poles size of switch disconnector 1 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 insulation voltage rated value 690 V surge voltage resistance rated value 690 V operating frequency maximum 60 Hz e at AC-rated value 690 V operating frequency rated value 600 V operating requency rated value 690 V operating frequency rated value 690 V operating frequency rated value 600 Hz e maximum 60 Hz protection class IP IP65 degree of protecton NEMA rating 1, 3R, 4X, 12 protection class IP IP65 Dissipation 0.5 W operating state per pole 0.5 W operating state per pole	design of the actuating element	Short rotary knob
type of the driving mechanism motor drive No General technical data	color of the actuating element	red
General technical data Intervention of the second state of switch disconnector 1 number of poles 3 size of switch disconnector 1 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) 6 000 • at AC-23 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage 690 V insulation voltage rated value 690 V operating voltage 610 V • at AC rated value 690 V operating requency rated value 690 V operating frequency rated value 690 V operating requency rated value 690 V operating frequency rated value 690 V operating frequency rated value 60 Hz Protection class IP IP65 protection class IP IP65 Dissipation 0.5 W operating state per pole	design of handle	rotary operating mechanism, red/yellow
number of poles 3 size of switch disconnector 1 mechanical service life (operating cycles) typical 100 000 electrical endurance (operating cycles) 6 000 operating frequency maximum 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage insulation voltage rated value insulation voltage rated value 690 V operating frequency maximum 60 4V operating voltage 690 V europerating voltage 690 V operating voltage 690 V operating requency rated value 690 V operating requency rated value 690 V operating requency rated value 600 L operating frequency rated value 600 L operating frequency rated value 60 Hz Protection class IP IP65 degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP on the front IP65 Dissipation 0.5 W operational current 0.5 W eat AC-21 A at 240 V rated value 16 A eat AC-21 A at 240 V rated valu	type of the driving mechanism motor drive	No
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electrical endurance (operating cycles) 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage insulation voltage rated value insulation voltage rated value 690 V surge voltage resistance rated value 6 kV operating frequency rated value 6 kV operating voltage 6 kV operating frequency rated value 6 kV operating frequency rated value 690 V e at AC rated value 690 V operating frequency rated value 6 kV operating frequency rated value 60 Hz Protection class 10 Hz protection class IP IP65 degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP on the front IP65 Dissipation 0.5 W operational current 0.5 W operational current 16 A • at AC-21 at 240 V rated value 16 A • at AC-21 A at 440 V rated value 16 A • at AC-21 A at 440 V rated value 16 A	size of switch disconnector	1
• at AC-23 A at 690 V 6 000 operating frequency maximum 50 1/h degree of pollution 3 Voltage insulation voltage rated value insulation voltage resistance rated value 690 V operating voltage 64 KV operating voltage 690 V operating voltage 690 V operating voltage 690 V operating frequency rated value 60 Hz Protection class IP IP65 degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP on the front IP65 Dissipation 0.5 W power toss [W] for rated value of the current at AC in hot operating state per pole 0.5 W Main circuit 0.5 W operational current 16 A • at AC-21 At 240 V rated value 16 A • at AC-21 A at 400 V rated value 16 A • at	mechanical service life (operating cycles) typical	100 000
operating frequency maximum50 1/hdegree of pollution3Voltageinsulation voltage rated value690 Vsurge voltage resistance rated value6 kVoperating voltage690 V• at AC rated value690 Voperating frequency rated value690 V• minimum50 Hz• maximum60 HzProtection classProtection class IPprotection NEMA rating1, 3R, 4X, 12protection NEMA rating1, 3R, 4X, 12protection Sig VI for rated value of the current at AC in hot operating state per pole0.5 Woperational current60 A• at AC-21 A at 240 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A	electrical endurance (operating cycles)	
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• at AC rated value690 Voperating frequency rated value50 Hz• minimum60 HzProtection classIP65degree of protection NEMA rating1, 3R, 4X, 12protection class IP on the frontIP65degree of protection NEMA rating1, 3R, 4X, 12protection class IP on the frontIP65DissipationIP65Dissipation0.5 Woperating state per pole0.5 WMain circuit0.5 Woperational current16 A• at AC-21 at 240 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A	surge voltage resistance rated value	6 kV
operating frequency rated value50 Hz• minimum60 HzProtection classProtection class IPprotection class IPIP65degree of protection NEMA rating1, 3R, 4X, 12protection class IP on the frontIP65DissipationIP65Dissipation0.5 Woperating state per pole0.5 WMain circuitoperational current• at AC-21 at 690 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A	operating voltage	
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• maximum60 HzProtection classIP65degree of protection NEMA rating1, 3R, 4X, 12protection class IP on the frontIP65DissipationIP65Dewer loss [W] for rated value of the current at AC in hot operating state per pole0.5 WMain circuit0.5 Woperational current16 A• at AC-21 A at 240 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A	operating frequency rated value	
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protection class IP on the frontIP65Dissipation0.5 Wpower loss [W] for rated value of the current at AC in hot operating state per pole0.5 WMain circuit0.5 Woperational current16 A• at AC-21 at 690 V rated value16 A• at AC-21 A at 240 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 440 V rated value16 A• at AC-21 A at 440 V rated value16 A	protection class IP	IP65
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power loss [W] for rated value of the current at AC in hot operating state per pole 0.5 W Main circuit	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 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 440 V rated value • at AC-21 A at 440 V rated value	Dissipation	
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• at AC-21 at 690 V rated value16 A• at AC-21 A at 240 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 440 V rated value16 A	Main circuit	
• at AC-21 A at 240 V rated value16 A• at AC-21 A at 400 V rated value16 A• at AC-21 A at 440 V rated value16 A	operational current	
 at AC-21 A at 400 V rated value at AC-21 A at 440 V rated value 16 A 16 A 	• at AC-21 at 690 V rated value	16 A
• at AC-21 A at 440 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-23 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	4 1444
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 	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	
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	Yes
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	3
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	
	16 A
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	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
•	18
type of connectable conductor cross-sections for copper	
conductor	
• solid	1x (16mm²)
 finely stranded with core end processing 	1x (14mm²)
• stranded	1x (16mm ²)
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 1,5mm ²), 1x 2,5mm ² ; front auxiliary switch 1x 2,5mm ²
• stranded	lateral auxiliary switch 2x (0,75 2,5mm ²), 1x 4mm ² ; front auxiliary switch 1x (0,75 2,5mm ²)
type of electrical connection	
for main current circuit	box terminal
for auxiliary contacts	connection terminals
Mechanical Design	
height	84 mm
width	67 mm
depth	92.5 mm
· · · · · · · · · · · · · · · · · · ·	fixed mounting
type of device	Built-in unit fixed-mounted version
fastening method	Built-In unit fixed-mounted version
fastening method	Ver
• 4-hole front mounting	Yes
front mounting with central attachment	No
rail mounting	No
net weight	203 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 CE UK EG-Konf, UK	
General Product Approval Marine / Ship	ping other
Miscellaneous ERC	Lloyds Register us
Environment	
Environmental Con- firmations	

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=3LD2003-0TK53

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD2003-0TK53

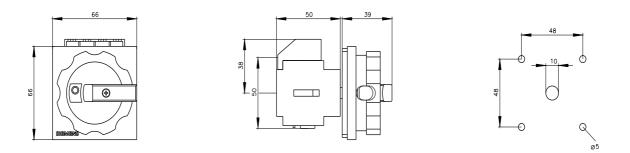
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...) http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2003-0TK53

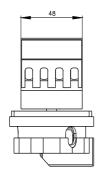
CAx-Online-Generator

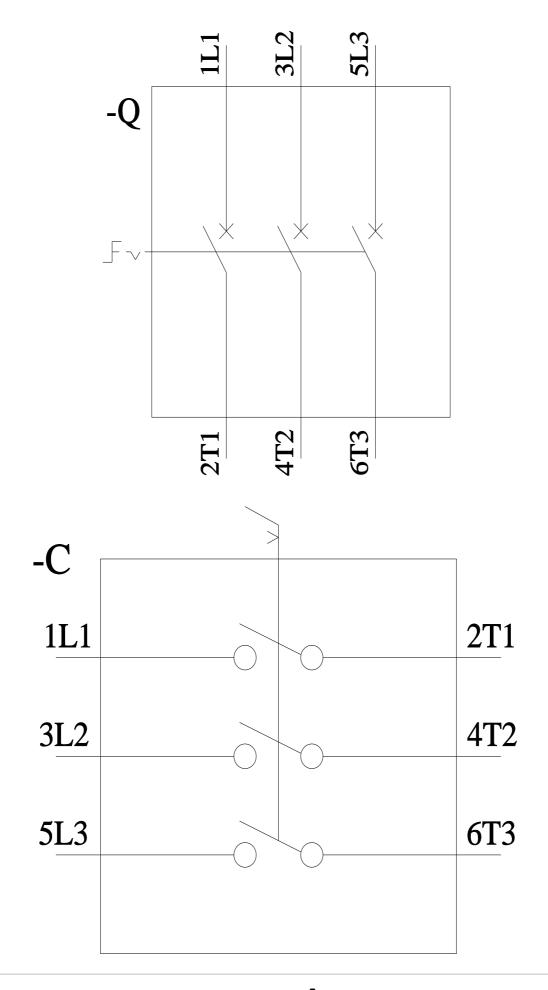
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Tender specifications

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