



SENTRON, Switch disconnecter 3LD, main switch, 3-pole, Iu: 25 A, Operating power / at AC-23 A at 400 V: 9.5 kW, molded-plastic encapsulation for metric screw connection, 1 NC, 1 NO, rotary operating mechanism, black

Model	
product brand name	SENTRON
product designation	3LD Switch disconnecter
design of the product	Main switch
display version / for switch position indicator manual operation	1 ON - 0 OFF
design of the actuating element	Short rotary knob
design of handle	rotary operating mechanism, black
type of the driving mechanism / motor drive	No
General technical data	
number of poles	3
number of poles / note	PE + N
type of device	fixed mounting
type of switch	Molded-plastic enclosure for metric threaded joint
size of switch disconnecter	2
mechanical service life (switching cycles) / typical electrical endurance (switching cycles)	100 000
• at AC-23 A / at 690 V	6 000
I _{2t} value / with closed switch / at 690 V / for combination switch + gG fuse / maximum	4 kA ² .s
let-through I _{2t} value / with closed switch / at 440 V / for combination switch + gG fuse / maximum	4 kA ² .s
operating frequency / maximum	50 1/h
Voltage	
insulation voltage / rated value	690 V
surge voltage resistance / rated value	6 kV
Protection class	
protection class IP	IP65
degree of protection NEMA rating	1, 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	1.1 W
• per conductor / typical	1 W
Current	
operational current	
• at 40 °C / rated value	25 A
• at 45 °C / rated value	25 A
• at 50 °C / rated value	25 A

<ul style="list-style-type: none"> • at 55 °C / rated value 	25 A
<ul style="list-style-type: none"> • at AC / rated value 	25 A
<ul style="list-style-type: none"> • at AC-23 A / at 400 V / rated value 	20 A
<ul style="list-style-type: none"> • at AC-21 / at 690 V / rated value 	25 A
<ul style="list-style-type: none"> • at AC-21 A / at 240 V / rated value 	25 A
<ul style="list-style-type: none"> • at AC-21 A / at 440 V / rated value 	25 A
operational current / of upstream fuse / rated value	25 A
let-through current / with closed switch	
<ul style="list-style-type: none"> • at 440 V / for combination switch + gG fuse / maximum 	3.5 kA
<ul style="list-style-type: none"> • at 690 V / for combination switch + gG fuse / maximum permissible 	4 kA
Main circuit	
operating power	
<ul style="list-style-type: none"> • at AC-23 A / at 240 V / rated value 	5 kW
<ul style="list-style-type: none"> • at AC-23 A / at 400 V / rated value 	10 kW
<ul style="list-style-type: none"> • at AC-23 A / at 440 V / rated value 	9.5 kW
<ul style="list-style-type: none"> • at AC-23 A / at 690 V / rated value 	10 kW
<ul style="list-style-type: none"> • at AC-3 / at 240 V / rated value 	4 kW
<ul style="list-style-type: none"> • at AC-3 / at 400 V / rated value 	8 kW
<ul style="list-style-type: none"> • at AC-3 / at 690 V / rated value 	7.5 kW
operational current / rated value	25 A
Auxiliary circuit	
number of CO contacts / for auxiliary contacts	0
number of NC contacts / for auxiliary contacts	1
number of NO contacts / for auxiliary contacts	1
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	
<ul style="list-style-type: none"> • main switch 	Yes
<ul style="list-style-type: none"> • switch disconnecter 	Yes
<ul style="list-style-type: none"> • EMERGENCY OFF switch 	No
<ul style="list-style-type: none"> • safety switch 	Yes
<ul style="list-style-type: none"> • maintenance/repair switch 	Yes
Appearance	
color / of the actuating element	black
Product details	
product feature	
<ul style="list-style-type: none"> • can be locked into OFF position 	Yes
number of bracket locks / maximum	3
hasp thickness / of the bracket locks / minimum	4 mm
hasp thickness / of the bracket locks / maximum	8 mm
product extension / optional	
<ul style="list-style-type: none"> • motor drive 	No
<ul style="list-style-type: none"> • voltage trigger 	No
Short circuit	
conditional short-circuit current / with line-side fuse protection	
<ul style="list-style-type: none"> • at 690 V / by gG fuse / rated value 	50 kA
according UL	
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	25 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	10
active power [hp] / at AC / at 600 V / according to UL 508/UL 60947-4-1 / rated value	15
short-time withstand current (SCCR) / at 600 V / according	5 kA

to UL 508/UL 60947-4-1	
continuous current / of upstream fuse / according to UL / rated value	50 A
type of fuse / according to UL	RK5
Number	
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	0
Connections	
AWG number / as coded connectable conductor cross section / solid	
• maximum	8
• minimum	14
type of connectable conductor cross-sections / for copper conductor	
• solid	1x (1,5...16mm ²)
• finely stranded / with core end processing	1x (1,5...10mm ²)
• stranded	1x (1,5...16mm ²)
type of connectable conductor cross-sections / for auxiliary contacts	
• solid	lateral auxiliary switch 2x (0,75 ... 2,5mm ²), 1x 4mm ² ; front auxiliary switch 1x (0,75 ... 2,5mm ²)
• 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
Requirements	
design of the fuse link	
• for short-circuit protection of the main circuit / required	fuse gL/gG: 25 A
• for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A
Mechanical Design	
height	164 mm
width	100 mm
depth	118 mm
fastening method	Complete unit in enclosure
fastening method	
• 4-hole front mounting	No
• front mounting with central attachment	Yes
• rail mounting	No
net weight	502 g
Environmental conditions	
ambient temperature / during operation	
• minimum	-25 °C
• maximum	55 °C
ambient temperature / during storage / minimum	-25 °C
General Product Approval	



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[Miscellaneous](#)



Declaration of Conformity

Test Certificates

Marine / Shipping

other



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other

[Environmental Confirmations](#)

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=3LD2164-2TD51-0AE2>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3LD2164-2TD51-0AE2>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD2164-2TD51-0AE2

CAx-Online-Generator

<http://www.siemens.com/cax>

Tender specifications

<http://www.siemens.com/specifications>



