



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
type of switch	Molded-plastic enclosure for metric threaded joint
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
number of poles note	PE + N
size of switch disconnecter	2
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, 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
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Current

operational current rated value	25 A
operational current	
• at 40 °C rated value	25 A
• at 45 °C rated value	25 A
• at 50 °C rated value	25 A

- at 55 °C rated value
- at AC rated value

25 A
25 A

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 400 V rated value
- at AC-21 A at 440 V rated value
- at AC-23 A at 400 V rated value

25 A
25 A
25 A
25 A
20 A

operating power

- at AC-23 A at 240 V rated value
- at AC-23 A at 400 V rated value
- at AC-23 A at 440 V rated value
- at AC-23 A at 690 V rated value
- at AC-3 at 240 V rated value
- at AC-3 at 400 V rated value
- at AC-3 at 690 V rated value

5 kW
10 kW
9.5 kW
10 kW
4 kW
8 kW
7.5 kW

Auxiliary circuit

number of CO contacts for auxiliary contacts
number of NC contacts for auxiliary contacts
number of NO contacts for auxiliary contacts
operating voltage of auxiliary contacts at AC maximum
continuous current of the auxiliary contact rated value
insulation voltage of the auxiliary switch rated value

0
1
1
500 V
10 A
500 V

Suitability

suitability for use

- main switch
- switch disconnecter
- EMERGENCY OFF switch
- safety switch
- maintenance/repair switch

Yes
Yes
No
Yes
Yes

Product details

product feature can be locked into OFF position

Yes

accessories

product extension optional

- motor drive
- voltage trigger

No
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

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
- at 440 V for combination switch + gG fuse maximum
- at 690 V for combination switch + gG fuse maximum permissible

3.5 kA
3.5 kA
4 kA

I²t value with closed switch

- at 240 V for combination switch + gG fuse maximum
- at 440 V for combination switch + gG fuse maximum
- at 690 V for combination switch + gG fuse maximum

4 kA².s
4 kA².s
4 kA².s

design of the fuse link

- for short-circuit protection of the main circuit required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 25 A
fuse gL/gG: 10 A

operational current of upstream fuse rated value

25 A

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 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	
<ul style="list-style-type: none"> • maximum • minimum 	8 14
type of connectable conductor cross-sections for copper conductor	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • stranded 	1x (1,5...16mm ²) 1x (1,5...10mm ²) 1x (1,5...16mm ²)
type of connectable conductor cross-sections for auxiliary contacts	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • stranded 	lateral auxiliary switch 2x (0,75 ... 2,5mm ²), 1x 4mm ² ; front auxiliary switch 1x (0,75 ... 2,5mm ²) lateral auxiliary switch 2x (0,75 ... 1,5mm ²), 1x 2,5mm ² ; front auxiliary switch 1x 2,5mm ² 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	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary contacts 	box terminal connection terminals
Mechanical Design	
height	164 mm
width	100 mm
depth	118 mm
type of device	fixed mounting
fastening method	Complete unit in enclosure
fastening method	
<ul style="list-style-type: none"> • 4-hole front mounting • front mounting with central attachment • rail mounting 	No Yes No
net weight	502 g
Environmental conditions	
ambient temperature during operation	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> • minimum • maximum 	-25 °C 55 °C
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)



Declaration of Conformity	Test Certificates	Marine / Shipping	other
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other

[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=3LD2164-2TD51-0AE2>

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

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

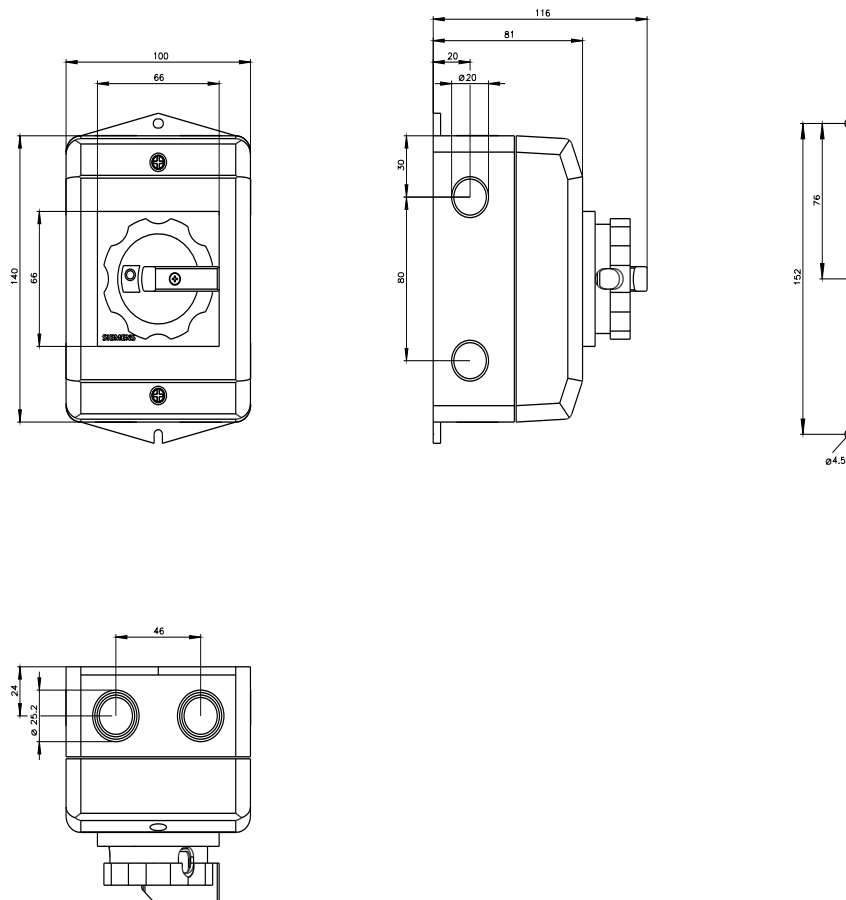
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

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

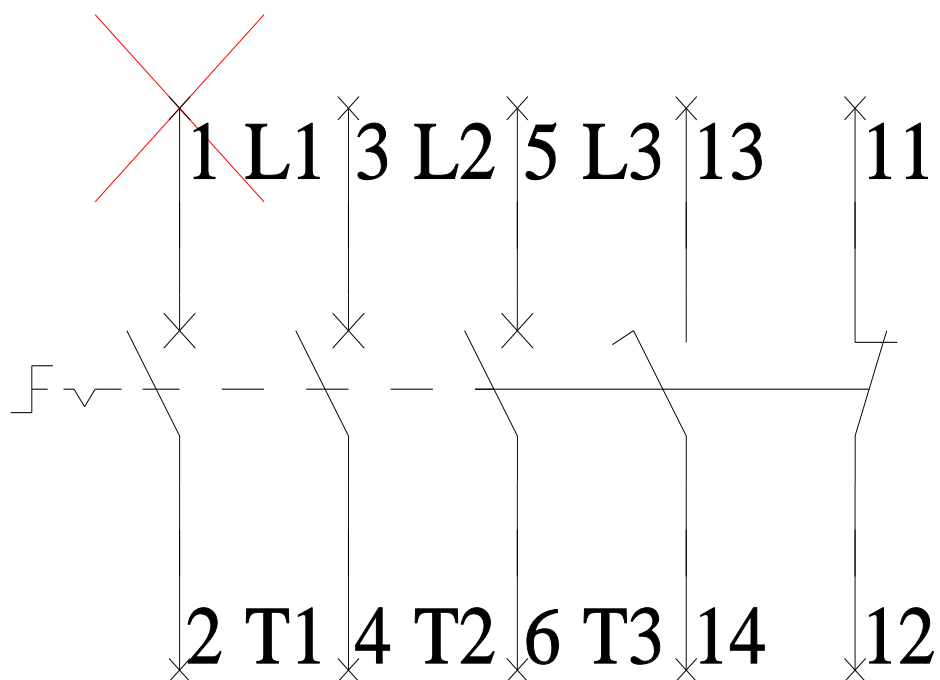
CAx-Online-Generator

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

Tender specifications

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

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