



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, incl. terminal covers for line side

Model	
product brand name	SENTRON
product designation	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	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
Main circuit	
operational current	
• at AC-21 at 690 V rated value	25 A
• at AC-21 A at 240 V rated value	25 A
• at AC-21 A at 400 V rated value	25 A

<ul style="list-style-type: none"> <li>• at AC-21 A at 440 V rated value</li> <li>• at AC-23 A at 400 V rated value</li> </ul>	25 A 20 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-23 A at 240 V rated value</li> <li>• at AC-23 A at 400 V rated value</li> <li>• at AC-23 A at 440 V rated value</li> <li>• at AC-23 A at 690 V rated value</li> <li>• at AC-3 at 240 V rated value</li> <li>• at AC-3 at 400 V rated value</li> <li>• at AC-3 at 690 V rated value</li> </ul>	5 kW 10 kW 9.5 kW 10 kW 4 kW 8 kW 7.5 kW
<b>Auxiliary circuit</b>	
number of CO contacts for auxiliary contacts	0
<b>number of NC contacts for auxiliary contacts</b>	1
<b>number of NO contacts for auxiliary contacts</b>	1
<b>operating voltage of auxiliary contacts at AC maximum</b>	500 V
<b>continuous current of the auxiliary contact rated value</b>	10 A
insulation voltage of the auxiliary switch rated value	500 V
<b>Suitability</b>	
<b>suitability for use main switch</b>	Yes
<b>suitability for use switch disconnecter</b>	Yes
<b>suitability for use EMERGENCY OFF switch</b>	No
<b>suitability for use safety switch</b>	Yes
<b>suitability for use maintenance/repair switch</b>	Yes
<b>Product details</b>	
<b>special product feature</b>	with mounted N and PE terminals
<b>product feature can be locked into OFF position</b>	Yes
<b>Accessories</b>	
<b>product extension optional</b>	
<ul style="list-style-type: none"> <li>• motor drive</li> <li>• voltage trigger</li> </ul>	No No
<b>number of connectable NC contacts for auxiliary contacts attachable maximum</b>	2
<b>number of connectable NO contacts for auxiliary contacts attachable maximum</b>	3
<b>number of connectable CO contacts for auxiliary contacts attachable maximum</b>	0
<b>number of bracket locks maximum</b>	3
<b>hasp thickness of the bracket locks</b>	4 ... 8 mm
<b>Short circuit</b>	
<b>conditional short-circuit current with line-side fuse protection</b>	
<ul style="list-style-type: none"> <li>• at 690 V by gG fuse rated value</li> </ul>	50 kA
<b>let-through current with closed switch</b>	
<ul style="list-style-type: none"> <li>• at 240 V for combination switch + gG fuse maximum</li> <li>• at 440 V for combination switch + gG fuse maximum</li> <li>• at 690 V for combination switch + gG fuse maximum permissible</li> </ul>	3.5 kA 3.5 kA 4 kA
<b>I<sup>2</sup>t value with closed switch</b>	
<ul style="list-style-type: none"> <li>• at 240 V for combination switch + gG fuse maximum</li> <li>• at 440 V for combination switch + gG fuse maximum</li> <li>• at 690 V for combination switch + gG fuse maximum</li> </ul>	4 kA <sup>2</sup> .s 4 kA <sup>2</sup> .s 4 kA <sup>2</sup> .s
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit required</li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 25 A fuse gL/gG: 10 A
<b>operational current of upstream fuse rated value</b>	25 A
<b>according UL</b>	
<b>operational current at AC according to UL 508/UL 60947-4-1 rated value</b>	25 A
<b>operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value</b>	600 V
<b>active power [hp] at AC at 480 V according to UL 508/UL 60947-4-1 rated value</b>	10
<b>active power [hp] at AC at 600 V according to UL 508/UL</b>	15

60947-4-1 rated value	
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	
•	8
•	14
type of connectable conductor cross-sections for copper conductor	
• solid	1x (1,5...16mm <sup>2</sup> )
• finely stranded with core end processing	1x (1,5...10mm <sup>2</sup> )
• stranded	1x (1,5...16mm <sup>2</sup> )
type of connectable conductor cross-sections for auxiliary contacts	
• solid	lateral auxiliary switch 2x (0,75 ... 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 ... 2,5mm <sup>2</sup> )
• finely stranded with core end processing	lateral auxiliary switch 2x (0,75 ... 1,5mm <sup>2</sup> ), 1x 2,5mm <sup>2</sup> ; front auxiliary switch 1x 2,5mm <sup>2</sup>
• stranded	lateral auxiliary switch 2x (0,75 ... 2,5mm <sup>2</sup> ), 1x 4mm <sup>2</sup> ; front auxiliary switch 1x (0,75 ... 2,5mm <sup>2</sup> )
type of electrical connection	
• for main current circuit	box terminal
• for auxiliary contacts	connection terminals

#### Mechanical Design

height	152 mm
width	100 mm
depth	117 mm
type of device	fixed mounting
fastening method	Complete unit in enclosure
fastening method	
• 4-hole front mounting	No
• front mounting with central attachment	Yes
• rail mounting	No
Net Weight	457 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



##### General Product Approval

##### Test Certificates

##### Maritime application

##### other

[Miscellaneous](#)



[Miscellaneous](#)



[Confirmation](#)

#### Environment

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/lowvoltage/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mifb=3LD2164-1TB51-0AB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3LD2164-1TB51-0AB1>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mifb=3LD2164-1TB51-0AB1](https://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3LD2164-1TB51-0AB1)

CAX-Online-Generator

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

Tender specifications

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





