



SENTRON 3LD5 switch disconnecter UL, main switch, 3-pole, approved according to UL 489, UL 60947-4-1 and IEC 60947-3, UL: 150 A, SCCR 50 kA at 480 V AC, operational power @ 480 V AC 3-phase: 100 hp, IEC: 160 A, operational power at AC-23 A at 400 V: 75 kW, front-mounted: rotary operating mechanism, black, 4-hole mounting of the handle, including terminal covers for the infeed side infeed 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	front mounted
design of the actuating element	selector switch
color of the actuating element	black
design of handle	knob-operated mechanism, black
type of the driving mechanism motor drive	No
General technical data	
number of poles	3
size of switch disconnecter	3
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, 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	36 W
Main circuit	
operational current	
• at AC-21 at 690 V rated value	160 A
• at AC-21 A at 240 V rated value	160 A
• at AC-21 A at 400 V rated value	160 A
• at AC-21 A at 440 V rated value	160 A

<ul style="list-style-type: none"> <li>at AC-23 A at 400 V rated value</li> </ul>	160 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>at AC-23 A at 240 V rated value</li> </ul>	45 kW
<ul style="list-style-type: none"> <li>at AC-23 A at 440 V rated value</li> </ul>	75 kW
<ul style="list-style-type: none"> <li>at AC-23 A at 690 V rated value</li> </ul>	55 kW
<ul style="list-style-type: none"> <li>at AC-3 at 240 V rated value</li> </ul>	45 kW
<ul style="list-style-type: none"> <li>at AC-3 at 400 V rated value</li> </ul>	75 kW
<ul style="list-style-type: none"> <li>at AC-3 at 690 V rated value</li> </ul>	45 kW
<b>Auxiliary circuit</b>	
number of CO contacts for auxiliary contacts	0
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
<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>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> </ul>	No
<ul style="list-style-type: none"> <li>voltage trigger</li> </ul>	No
<b>number of connectable NC contacts for auxiliary contacts attachable maximum</b>	3
<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>	5 ... 7.5 mm
<b>Short circuit</b>	
<b>conditional short-circuit current with line-side fuse protection</b>	
<ul style="list-style-type: none"> <li>at 440 V by gG fuse rated value</li> </ul>	50 kA
<ul style="list-style-type: none"> <li>at 690 V by gG fuse rated value</li> </ul>	30 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> </ul>	16 kA
<ul style="list-style-type: none"> <li>at 440 V for combination switch + gG fuse maximum</li> </ul>	16 kA
<ul style="list-style-type: none"> <li>at 690 V for combination switch + gG fuse maximum permissible</li> </ul>	15 kA
<b>I<sub>2t</sub> value with closed switch</b>	
<ul style="list-style-type: none"> <li>at 240 V for combination switch + gG fuse maximum</li> </ul>	223 kA <sup>2</sup> .s
<ul style="list-style-type: none"> <li>at 440 V for combination switch + gG fuse maximum</li> </ul>	223 kA <sup>2</sup> .s
<ul style="list-style-type: none"> <li>at 690 V for combination switch + gG fuse maximum</li> </ul>	223 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> </ul>	Fuse gG: 160 A
<ul style="list-style-type: none"> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 10 A
<b>operational current of upstream fuse rated value</b>	160 A
<b>according UL</b>	
<b>operational current at AC according to UL 489/UL 60947-4-1 rated value</b>	150 A
<b>operational current at AC according to UL 508/UL 60947-4-1 rated value</b>	150 A
<b>operating voltage at AC at 50/60 Hz according to UL 489 rated value</b>	480 V
<b>operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value</b>	480 V
<b>active power [hp] at AC at 480 V according to UL 508/UL</b>	100

<b>60947-4-1 rated value</b>	
<b>short-time withstand current (SCCR) at 480 V according to UL 508/UL 60947-4-1 and UL 489</b>	50 kA
<b>continuous current of upstream fuse according to UL rated value</b>	150 A
<b>type of fuse according to UL</b>	Class J

### Connections

<b>AWG number as coded connectable conductor cross section solid maximum</b>	
•	1
•	4/0
<b>AWG number as coded connectable conductor cross section solid according to UL 489</b>	
• minimum	1
• maximum	4/0
<b>AWG number as coded connectable conductor cross section solid according to CSA C22.2 No. 5-16</b>	
• minimum	3
• maximum	2/0
<b>type of connectable conductor cross-sections for copper conductor</b>	
• solid	1x (16 ...185mm <sup>2</sup> )
• finely stranded with core end processing	1x (16...150mm <sup>2</sup> )
• stranded	1x (16...185mm <sup>2</sup> )
<b>type of connectable conductor cross-sections for auxiliary contacts</b>	
• 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> )
<b>type of electrical connection</b>	
• for main current circuit	box terminal
• for auxiliary contacts	connection terminals

### Mechanical Design

<b>height</b>	178 mm
<b>width</b>	113 mm
<b>depth</b>	93 mm
<b>type of device</b>	fixed mounting
<b>fastening method</b>	Built-in unit fixed-mounted version
<b>fastening method</b>	
• 4-hole front mounting	Yes
• front mounting with central attachment	No
• rail mounting	No
<b>Net Weight</b>	2.103 kg

### Environmental conditions

<b>ambient temperature during operation</b>	
• minimum	-25 °C
• maximum	55 °C
<b>ambient temperature during storage</b>	
• minimum	-25 °C
• maximum	55 °C

### Approvals Certificates

<b>General Product Approval</b>	other
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other	Environment
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**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?mlfb=3LD5820-0TK11>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3LD5820-0TK11>

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

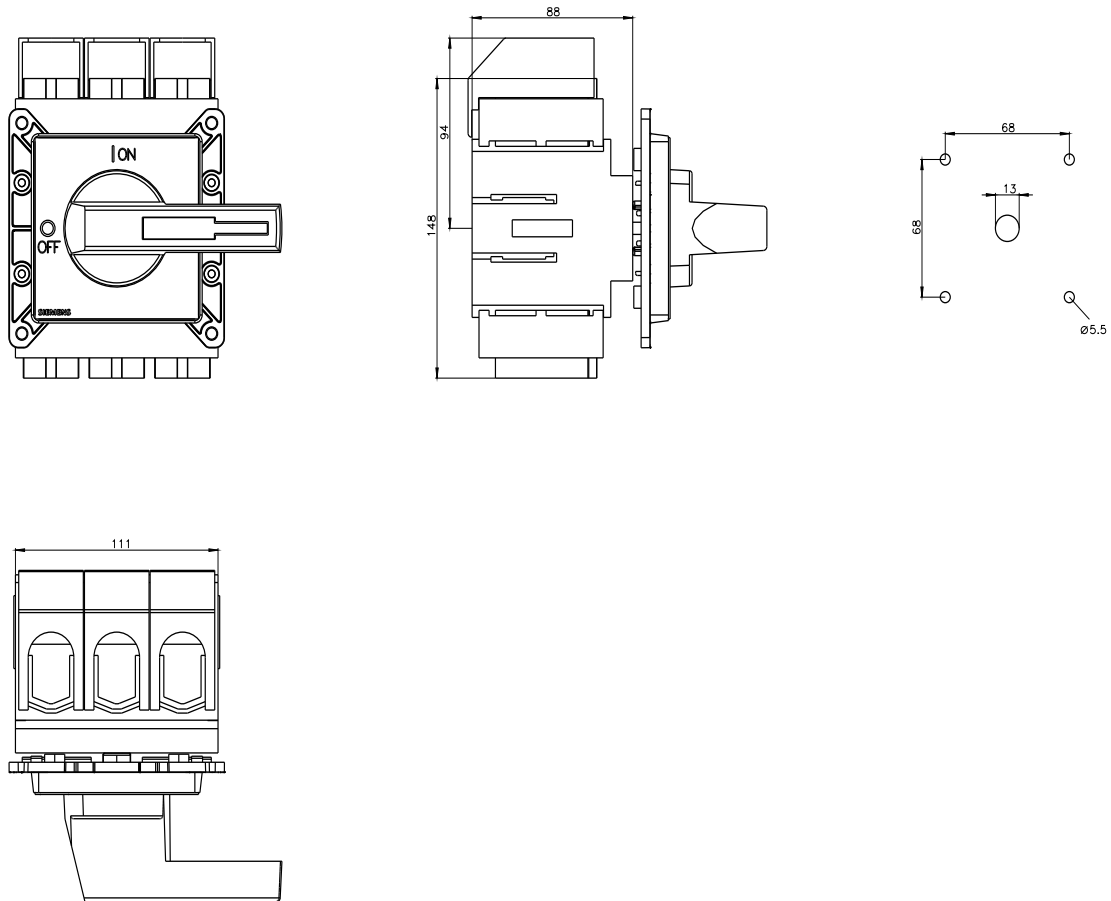
[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3LD5820-0TK11](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD5820-0TK11)

**CAX-Online-Generator**

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

**Tender specifications**

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



last modified:

10/14/2025

