



SENTRON, Molded case switch 3LD5 UL, Main switch, 3-pole, certified according to UL489 UL60947-4-1 and IEC60947-3, UL: 150A, SCCR 50kA at 480VAC, Operating power at 480VAC 3-phase: 100hp, IEC: 160A, Operating power at AC-23A at 400V: 75kW, front-mounted, rotary operating mechanism, black, 4-hole mounting of the handle, incl. terminal covers for the 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
• at AC-23 A at 400 V rated value	160 A

operating power	
<ul style="list-style-type: none"> <li>• at AC-23 A at 240 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>	<p>45 kW</p> <p>75 kW</p> <p>55 kW</p> <p>45 kW</p> <p>75 kW</p> <p>45 kW</p>
<b>Auxiliary circuit</b>	
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
<b>Suitability</b>	
suitability for use	
<ul style="list-style-type: none"> <li>• main switch</li> <li>• switch disconnecter</li> <li>• EMERGENCY OFF switch</li> <li>• safety switch</li> <li>• maintenance/repair switch</li> </ul>	<p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>Yes</p>
<b>Product details</b>	
product feature can be locked into OFF position	Yes
<b>accessories</b>	
product extension optional	
<ul style="list-style-type: none"> <li>• motor drive</li> <li>• voltage trigger</li> </ul>	<p>No</p> <p>No</p>
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	5 ... 7.5 mm
<b>Short circuit</b>	
conditional short-circuit current with line-side fuse protection	
<ul style="list-style-type: none"> <li>• at 440 V by gG fuse rated value</li> <li>• at 690 V by gG fuse rated value</li> </ul>	<p>50 kA</p> <p>30 kA</p>
let-through current with closed switch	
<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>	<p>16 kA</p> <p>16 kA</p> <p>15 kA</p>
I <sup>2</sup> t value with closed switch	
<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>	<p>223 kA<sup>2</sup>.s</p> <p>223 kA<sup>2</sup>.s</p> <p>223 kA<sup>2</sup>.s</p>
design of the fuse link	
<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>	<p>Fuse gG: 160 A</p> <p>fuse gL/gG: 10 A</p>
operational current of upstream fuse rated value	160 A
<b>according UL</b>	
operational current at AC according to UL 489/UL 60947-4-1 rated value	150 A
operational current at AC according to UL 508/UL 60947-4-1 rated value	150 A
operating voltage at AC at 50/60 Hz according to UL 489 rated value	480 V
operating voltage at AC at 50/60 Hz according to UL 508/UL 60947-4-1 rated value	480 V
active power [hp] at AC at 480 V according to UL 508/UL 60947-4-1 rated value	100
short-time withstand current (SCCR) at 480 V according to UL	50 kA

508/UL 60947-4-1 and UL 489	
continuous current of upstream fuse according to UL rated value	150 A
type of fuse according to UL	Class J

### Connections

AWG number as coded connectable conductor cross section solid maximum	
<ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>	1 4/0
AWG number as coded connectable conductor cross section solid according to UL 489	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	1 4/0
AWG number as coded connectable conductor cross section solid according to CSA C22.2 No. 5-16	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	3 2/0
type of connectable conductor cross-sections for copper conductor	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• stranded</li> </ul>	1x (16 ...185mm <sup>2</sup> ) 1x (16...150mm <sup>2</sup> ) 1x (16...185mm <sup>2</sup> )
type of connectable conductor cross-sections for auxiliary contacts	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• stranded</li> </ul>	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> ) 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> 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	
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary contacts</li> </ul>	box terminal connection terminals

### Mechanical Design

height	178 mm
width	113 mm
depth	93 mm
type of device	fixed mounting
fastening method	Built-in unit fixed-mounted version
fastening method	
<ul style="list-style-type: none"> <li>• 4-hole front mounting</li> <li>• front mounting with central attachment</li> <li>• rail mounting</li> </ul>	Yes No No
net weight	1 650 g

### Environmental conditions

ambient temperature during operation	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	-25 °C 55 °C
ambient temperature during storage	
<ul style="list-style-type: none"> <li>• minimum</li> <li>• maximum</li> </ul>	-25 °C 55 °C

### Approvals Certificates

#### General Product Approval



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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=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, ...)

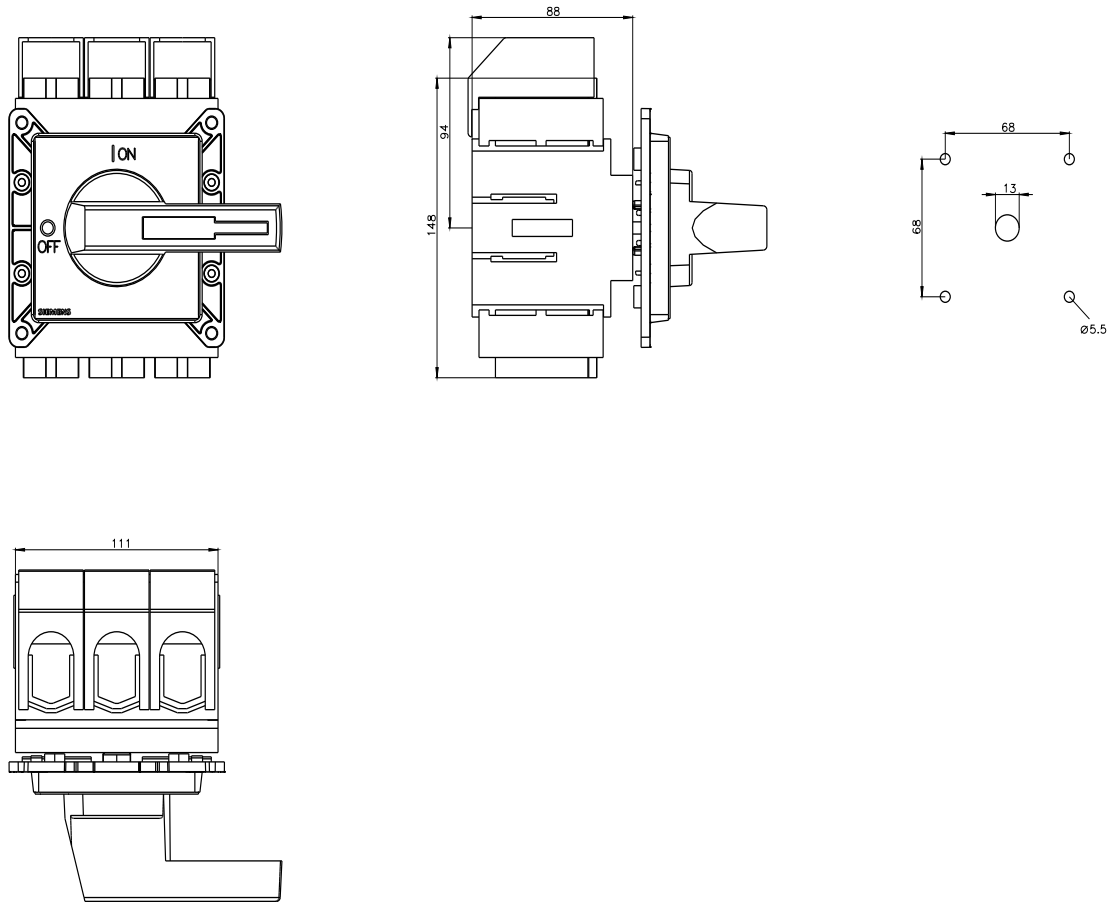
[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3LD5820-0TK11](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD5820-0TK11)

CAX-Online-Generator

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

Tender specifications

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



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