## **SIEMENS**

Data sheet 3LD5220-0TK11



SENTRON, Molded case switch 3LD5 UL, Main switch, 3-pole, certified according to UL489 UL60947-4-1 and IEC60947-3, UL: 60A, SCCR 50kA at 480VAC, Operating power at 480VAC 3-phase: 40hp, IEC: 63A, Operating power at AC-23A at 400V: 30kW, front-mounted, rotary operating mechanism, black, 4-hole mounting of the handle, incl. terminal covers for the infeed side

product brand name product designation design of the product display version / for switch position indicator manual operation type of switch design of the actuating element type of switch design of the actuating element design of the actuating element black color / of the actuating element design of handle type of the driving mechanism / motor drive design of handle type of the driving mechanism / motor drive design of handle type of switch design of handle type of the driving mechanism / motor drive design of handle type of switch disconnector number of poles size of switch disconnector actual electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / 6 000 operating frequency / maximum degree of pollution  Voltago  insulation voltage / rated value	Model		
design of the product display version / for switch position indicator manual operation type of switch design of the actuating element color / of the actuating element design of handle volve of the driving mechanism / motor drive  General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating requency / rated value operating frequency / rated value operating requency / rated value operating voltage  at AC / rated value operating of pollution  be maximum  for HZ  in RA  in	product brand name	SENTRON	
display version / for switch position indicator manual operation  type of switch  design of the actuating element  color / of the actuating element  black  design of handle  type of the driving mechanism / motor drive  No  Ceneral technical data  number of poles  size of switch disconnector  electrical endurance (switching cycles) / typical  floo 000  electrical endurance (switching cycles) / typical  electrical endurance (switching cycles) / typical  floo 000  electrical endurance (switching cycles) /	product designation	3LD UL switch disconnector	
operation type of switch design of the actuating element color / of the actuating element design of handle type of the driving mechanism / motor drive No  General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles)  • at AC-23 / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum  60 Hz  Protection class protection class IP / on the front Dissipation  power loss [IV] / for rated value of the current / at AC / in hot operating state / per pole  Current • at 40 °C / rated value	design of the product	Main switch	
design of the actuating element black color / of the actuating element black design of handle type of the driving mechanism / motor drive No  General technical data  number of poles 3 size of switch disconnector 2 mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / typical electrical endurance (switching cycles) / e at AC-23 A / at 690 V 6000 operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value 690 V surge voltage resistance / rated value 690 V operating frequency / rated value 600 Hz Protection class IP / on the front 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 Current operational current / rated value 63 A operational current / rated value 63 A		1 ON - 0 OFF	
color / of the actuating element design of handle type of the driving mechanism / motor drive No  Ceneral technical data  number of poles size of switch disconnector electrical endurance (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating frequency / rated value • at AC / rated value • minimum • maximum  50 Hz  degree of protection class IP degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [M] / for rated value of the current / at AC / in hot operating state / per pole  Current • at 40 °C / rated value • 63 A operational current • at 40 °C / rated value  63 A	type of switch	front mounted	
design of handle rotary operating mechanism, black type of the driving mechanism / motor drive No  General technical data number of poles 3 size of switch disconnector 2 mechanical service life (switching cycles) / typical 100 000 electrical endurance (switching cycles) 4 6 000 operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value 690 V surge voltage resistance / rated value 690 V operating frequency / maximum 50 tkV operating frequency / rated value 690 V surge voltage resistance / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 690 V operating frequency / rated value 690 V  operating frequency / rated value 690 V  operating frequency / rated value 700 Hz  operation class IP 1 IP65 degree of protection NEMA rating 1, 3R, 4X, 12 protection class IP / on the front IP65  Dissipation   IP65  Dissipation   IP65  Dissipation   IP65  Dissipation   IP65  Operational current / rated value of the current / at AC / in hot operating state / per pole   IP65  Current   Operational current / rated value 63 A	design of the actuating element	Short rotary knob	
type of the driving mechanism / motor drive  General technical data  number of poles 3 size of switch disconnector 2 mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V operating frequency / maximum 50 1/h degree of pollution  Voltage insulation voltage / rated value operating voltage resistance / rated value operating voltage resistance / rated value • at AC / rated value • at AC / rated value • minimum • maximum  Protection class protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current • at 40 °C / rated value • fat AC of rated value operational current • at 40 °C / rated value 63 A	color / of the actuating element	black	
General technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) • at AC-23 A / at 690 V operating frequency / maximum 50 1/h degree of pollution  Voltage insulation voltage / rated value operating voltage • at AC / rated value • minimum • maximum  60 Hz  Protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current • at 40 °C / rated value • for AC / rated value  63 A operational current • at 40 °C / rated value  63 A	design of handle	rotary operating mechanism, black	
number of poles  size of switch disconnector  2 mechanical service life (switching cycles) / typical  electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  degree of pollution  7 objection voltage / rated value  insulation voltage / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  Protection class IP  degree of protection NEMA rating  protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 40 °C / rated value  63 A  operational current / rated value  63 A  operational current  • at 40 °C / rated value  63 A	type of the driving mechanism / motor drive	No	
size of switch disconnector  mechanical service life (switching cycles) / typical  electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  for the form of the form of the form of the current / at AC / in hot operating state / per pole  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  • at 40 °C / rated value  for the form of the	General technical data		
mechanical service life (switching cycles) / typical electrical endurance (switching cycles)  • at AC-23 A / at 690 V operating frequency / maximum 50 1/h degree of pollution 3  Voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value  • minimum  • maximum  50 Hz  Protection class IP degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current operational current / rated value  • at 40 °C / rated value  63 A operational current  • at 40 °C / rated value  • at 40 °C / rated value  6 800 V  6	number of poles	3	
electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  foo 1/h  degree of pollution  Voltage  insulation voltage / rated value  surge voltage resistance / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  foo Hz  Protection class  protection class IP  degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current operational current / rated value 63 A  operational current • at 40 °C / rated value 65 6000  66000  670000  67000  67000  67000  67000  67000  67000  67000  67000  670000  6700	size of switch disconnector	2	
at AC-23 A / at 690 V 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 690 V operating frequency / rated value 600 Hz  Protection class protection class IP degree of protection NEMA rating protection class IP / on the front Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current operational current / rated value 63 A operational current 4 at 40 °C / rated value 63 A	mechanical service life (switching cycles) / typical	100 000	
operating frequency / maximum degree of pollution  7	electrical endurance (switching cycles)		
degree of pollution  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  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  Current operational current / rated value 63 A  operational current • at 40 °C / rated value 63 A	• at AC-23 A / at 690 V	6 000	
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  Current operational current / rated value • at 40 °C / rated value 690 V	operating frequency / maximum	50 1/h	
insulation voltage / rated value  surge voltage resistance / rated value  operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  • maximum  50 Hz  Protection class  protection class IP  degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  • at 40 °C / rated value  690 V  6 kV  690 V  690	degree of pollution	3	
surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum • maximum  50 Hz • maximum  Frotection class  protection class IP degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current operational current / rated value • at 40 °C / rated value 68 kV  690 V  690 V	Voltage		
operating voltage  • at AC / rated value  operating frequency / rated value  • minimum  • maximum  50 Hz  Frotection class  protection class IP  degree of protection NEMA rating protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  • at 40 °C / rated value  63 A	insulation voltage / rated value	690 V	
<ul> <li>at AC / rated value</li> <li>operating frequency / rated value</li> <li>minimum</li> <li>maximum</li> <li>fo Hz</li> </ul> Protection class protection class IP <ul> <li>degree of protection NEMA rating</li> <li>protection class IP / on the front</li> <li>IP65</li> </ul> Dissipation power loss [W] / for rated value of the current / at AC / in hot operating state / per pole Current <ul> <li>operational current / rated value</li> <li>of 3 A</li> </ul> operational current <ul> <li>at 40 °C / rated value</li> <li>63 A</li> </ul>	surge voltage resistance / rated value	6 kV	
operating frequency / rated value	operating voltage		
	at AC / rated value	690 V	
	operating frequency / rated value		
protection class IP  degree of protection NEMA rating 1, 3R, 4X, 12  protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  operational current  other in the state of the current of the curr	• minimum	50 Hz	
protection class IP  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  Current  operational current / rated value  operational current  • at 40 °C / rated value  1, 3R, 4X, 12  7.5 W  7.5 W  63 A	• maximum	60 Hz	
degree of protection NEMA rating 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  Current operational current / rated value operational current • at 40 °C / rated value  63 A	Protection class		
protection class IP / on the front  Dissipation  power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  operational current  • at 40 °C / rated value  IP65  7.5 W  63 A  63 A	protection class IP	IP65	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  operational current  • at 40 °C / rated value  63 A	degree of protection NEMA rating	1, 3R, 4X, 12	
power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  operational current  • at 40 °C / rated value  63 A	protection class IP / on the front	IP65	
hot operating state / per pole  Current  operational current / rated value 63 A  operational current  • at 40 °C / rated value 63 A	Dissipation		
operational current / rated value 63 A  operational current  • at 40 °C / rated value 63 A		7.5 W	
operational current  • at 40 °C / rated value 63 A	Current		
• at 40 °C / rated value 63 A	operational current / rated value	63 A	
	operational current		
• at 45 °C / rated value 63 A	<ul> <li>at 40 °C / rated value</li> </ul>	63 A	
	• at 45 °C / rated value	63 A	

• at 50 °C / rated value	63 A
at 50 C / rated value     at 55 °C / rated value	63 A
at AC / rated value      at AC / rated value	63 A
Main circuit	
operational current	
at AC-21 / at 690 V / rated value	63 A
at AC-21 A / at 240 V / rated value	63 A
• at AC-21 A / at 400 V / rated value	63 A
at AC-21 A / at 440 V / rated value	63 A
• at AC-23 A / at 400 V / rated value	63 A
operating power	
at AC-23 A / at 240 V / rated value	18.5 kW
<ul><li>at AC-23 A / at 400 V / rated value</li></ul>	30 kW
<ul><li>at AC-23 A / at 440 V / rated value</li></ul>	30 kW
<ul> <li>at AC-23 A / at 690 V / rated value</li> </ul>	37 kW
<ul><li>at AC-3 / at 240 V / rated value</li></ul>	18.5 kW
<ul><li>at AC-3 / at 400 V / rated value</li></ul>	30 kW
<ul><li>at AC-3 / at 690 V / rated value</li></ul>	30 kW
Auxiliary circuit	
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
insulation voltage / of the auxiliary switch / rated value	500 V
Suitability	
suitability for use	
<ul><li>main switch</li></ul>	Yes
<ul> <li>switch disconnector</li> </ul>	Yes
<ul> <li>EMERGENCY OFF switch</li> </ul>	No
<ul><li>safety switch</li></ul>	Yes
maintenance/repair switch	Yes
Product details	
product feature / can be locked into OFF position	Yes
accessories	
product extension / optional	
<ul><li>motor drive</li></ul>	No
voltage trigger	No
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	4 6 mm
Short circuit	
conditional short-circuit current / with line-side fuse protection	
<ul> <li>at 440 V / by gG fuse / rated value</li> </ul>	50 kA
at 690 V / by gG fuse / rated value	50 kA
let-through current / with closed switch	
<ul> <li>at 240 V / for combination switch + gG fuse / maximum</li> </ul>	8 kA
<ul> <li>at 440 V / for combination switch + gG fuse / maximum</li> </ul>	8 kA
<ul> <li>at 690 V / for combination switch + gG fuse / maximum permissible</li> </ul>	7 kA
I2t value / with closed switch  • at 240 V / for combination switch + gG fuse /	30 kA2.s
maximum	

• at 440 V / for combination switch + gG fuse /	30 kA2.s	
maximum	24 kA2 a	
<ul> <li>at 690 V / for combination switch + gG fuse / maximum</li> </ul>	24 kA2.s	
design of the fuse link		
<ul> <li>for short-circuit protection of the main circuit / required</li> </ul>	fuse gL/gG: 63 A	
for short-circuit protection of the auxiliary switch / required	fuse gL/gG: 10 A	
operational current / of upstream fuse / rated value	63 A	
according UL		
operational current / at AC / according to UL 489/UL 60947-4-1 / rated value	60 A	
operational current / at AC / according to UL 508/UL 60947-4-1 / rated value	60 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	30	
short-time withstand current (SCCR) / at 480 V / according to UL 508/UL 60947-4-1 and UL 489	50 kA	
continuous current / of upstream fuse / according to UL / rated value	60 A	
type of fuse / according to UL	Class J	
Connections		
AWG number / as coded connectable conductor cross section / solid		
• maximum	1	
• minimum	12	
AWG number / as coded connectable conductor cross section / solid / according to UL 489		
• minimum	12	
• maximum	1	
AWG number / as coded connectable conductor cross section / solid / according to CSA C22.2 No. 5-16		
• minimum	10	
• maximum	4	
type of connectable conductor cross-sections / for copper conductor		
• solid	1x (450mm²)	
finely stranded / with core end processing     stranded	1x (435mm²)	
stranded  type of connectable conductor cross-sections / for	1x (450mm²)	
auxiliary contacts  • solid	lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary	
• finely stranded / with core end processing	switch 1x (0,75 2,5mm²) lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary	
• stranded	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	
type of electrical connection	switch 1x (0,75 2,5mm²)	
type of electrical connection  • for main current circuit	box terminal	
for auxiliary contacts	connection terminals	
Mechanical Design		
height	104 mm	
width	90 mm	
depth	108 mm	
type of device	fixed mounting	
fastening method	Built-in unit fixed-mounted version	
fastening method		
4-hole front mounting	Yes	
<ul> <li>front mounting with central attachment</li> </ul>	No	

rail mounting	No			
net weight	380 g			
Environmental conditions				
ambient temperature / during operation				
• minimum	-25 °C			
• maximum	55 °C			
ambient temperature / during storage				
• minimum	-25 °C			
• maximum	55 °C			
General Product Approval		Declaration of Conformity		



Confirmation









## other

**Miscellaneous** 

## **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=3LD5220-0TK11

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD5220-0TK11

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

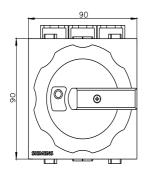
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD5220-0TK11

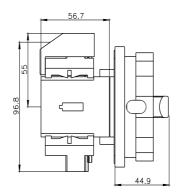
**CAx-Online-Generator** 

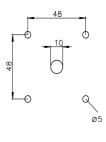
http://www.siemens.com/cax

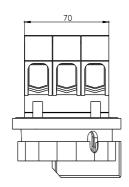
**Tender specifications** 

http://www.siemens.com/specifications









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