## **SIEMENS**

Data sheet 3LD5220-0TL11



SENTRON, Molded case switch 3LD5 UL, Main switch, 4-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 design of the actuating element design 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 the driving mechanism / motor drive 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 the driving mechanism / motor drive design of handle type of the driving mechanism / motor drive design of witch disconnector  active of switch disconnector  active of the driving mechanism, black  No  degree of switch disconnector  active of the driving mechanism, black  No  degree of switch disconnector  active of the driving mechanism, black  non  active of the driving mechanism, black  non  active of the driving mechanism, black  notation whole  active of the driving mechanism, black  active of the driving mechanism, black  notation whole  active of the driving mechanism, black  notation whole  active of the driving mechanism, black  active of the driving mechanism, black  notation whole  active  | 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 the actuating element design of handle type of the driving mechanism / motor drive design of handle type of the driving mechanism / motor drive No  General technical data number of poles 4 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 • at AC / rated value • minimum • maximum 60 Hz  Protection class IP on the front power loss [W] / for rated value of the current / at AC / in hot operating state / per pole  Current • power loss [W] / for rated value operating atter / per pole  Current • att 40 °C / rated value  operational current / rated value   | 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 type of the driving mechanism / motor drive No  Ceneral 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 A / at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating frequency / rated value • at AC / rated value • at AC / rated value • minimum • maximum  EP65  degree of protection NEMA rating protection class IP / on the front Dissipation  power loss [W] / for rated value operational current / rated value   | product designation                                  | 3LD UL switch disconnector        |  |  |
| 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  Ceneral technical data number of poles size of switch disconnector mechanical service life (switching cycles) / typical electrical endurance (switching cycles) / e at AC-23 A f at 690 V operating frequency / maximum degree of pollution 3  Voltage insulation voltage / rated value operating voltage at AC / rated value e minimum operating frequency / rated value e minimum foo Hz emaximum foo Hz emaximum foo Hz eprotection class IP degree of protection NEMA rating protection class IP / on the front Dissipation  power loss [W] / for rated value operating state / per pole  Current operational current / rated value operating state / per pole  Current operational current / rated value 63 A operational current / rated value   | design of the product                                | Main switch                       |  |  |
| design of the actuating element black color / of the driving mechanism / motor drive No  |  | 1 ON - 0 OFF                      |  |  |
| color / of the actuating element design of handle type of the driving mechanism / motor drive  Ceneral technical data  number of poles size of switch disconnector electrical endurance (switching cycles) / typical 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  • at AC / rated value  • minimum  50 Hz  • ob Hz  • maximum  50 Hz  fold Hz  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  operational current / rated value  • at 40 °C / rated value  • operational current / rated value  operational 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 type of the driving mechanism / motor drive  No  Ceneral 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  Voltage insulation voltage / rated value surge voltage resistance / rated value • at AC / rated value  • at AC / rated value  • at AC / rated value  • at AC / rated value  • be operating frequency / rated value  • at AC / rated value  • protection class IP degree of protection NEMA rating protection class IP / on the front  Dissipation  Dissipation  power loss IWJ / for rated value of the current / at AC / in hot operating state / per pole  Current  operational current / rated value  • at 40 °C / rated value   | design of the actuating element                      | Short rotary knob                 |  |  |
| type of the driving mechanism / motor drive    General technical data  | 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 degree of pollution 3  Voltage insulation voltage / rated value operating voltage resistance / rated value • at AC / rated value • at AC / rated value • minimum • maximum  60 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 • at 40 °C / rated value  63 A operational current / rated value 63 A   | design of handle                                     | rotary operating mechanism, black |  |  |
| 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  Voltage  insulation voltage / rated value  surge voltage resistance / rated value  operating voltage  • at AC / rated value  • minimum  • maximum  50 Hz  e 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  • at 40 °C / rated value  63 A  operational current / rated value  63 A  operational current  • at 40 °C / rated value  • 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  degree of pollution  70tage  insulation voltage / rated value  surge voltage resistance / rated value  • at AC / rated value  • at AC / rated value  • minimum  operating frequency / rated value  • maximum  foo 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  • at 40 °C / rated value  63 A   | 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 63 A  operational current • at 40 °C / rated value 64 600  6 0 | number of poles                                      | 4                                 |  |  |
| electrical endurance (switching cycles)  • at AC-23 A / at 690 V  operating frequency / maximum  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  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  63 A  | size of switch disconnector                          | 2                                 |  |  |
| at AC-23 A / at 690 V operating frequency / maximum degree of pollution  3  Voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage at AC / rated value operating frequency / rated value operating frequency / rated value ominimum o  | mechanical service life (switching cycles) / typical | 100 000                           |  |  |
| operating frequency / maximum degree of pollution  7 voltage insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value operating frequency / rated value operating frequency / rated value ominimum ominimu | electrical endurance (switching cycles)              |                                   |  |  |
| degree of pollution  Voltage  insulation voltage / rated value surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value ominimum ominimu | • 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 63 A operational current • at 40 °C / rated value 63 A  | operating frequency / maximum                        | 50 1/h                            |  |  |
| 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 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 63 A  operational current  • at 40 °C / rated value 63 A  | degree of pollution                                  | 3                                 |  |  |
| surge voltage resistance / rated value operating voltage • at AC / rated value operating frequency / rated value • minimum • maximum   | 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  690 V  690  | insulation voltage / rated value                     | 690 V                             |  |  |
| at AC / rated value  operating frequency / rated value  minimum  maximum  for 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  | surge voltage resistance / rated value               | 6 kV                              |  |  |
| operating frequency / rated value  | operating voltage                                    |                                   |  |  |
| <ul> <li>minimum</li> <li>maximum</li> <li>60 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>63 A</li> </ul> operational current <ul> <li>at 40 °C / rated value</li> <li>63 A</li> </ul>   | at AC / rated value                                  | 690 V                             |  |  |
| ● maximum  Protection class  protection class IP  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  60 Hz  IP65  A   | operating frequency / rated value                    |                                   |  |  |
| 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  IP65  7.5 W  63 A  | • 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  | <ul><li>maximum</li></ul>                            | 60 Hz                             |  |  |
| 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  1, 3R, 4X, 12  IP65  7.5 W  7.5 W  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  • at 40 °C / rated value  IP65  7.5 W  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   | 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                              |  |  |
|  | <ul> <li>at 45 °C / rated value</li> </ul>           | 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   | 63 A     |
| Main circuit  | 00 A     |
| 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  |
| • at AC-23 A / at 400 V / rated value   | 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    |
| • at AC-3 / at 690 V / rated value  | 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   |          |
| main switch   | Yes      |
| <ul> <li>switch disconnector</li> </ul>   | Yes      |
| <ul> <li>EMERGENCY OFF switch</li> </ul>  | No       |
| <ul><li>safety switch</li></ul>   | Yes      |
| <ul> <li>maintenance/repair switch</li> </ul>                                     | Yes      |
| Product details   |          |
| product feature / can be locked into OFF position                                 | Yes      |
| accessories   |          |
| product extension / optional  |          |
| motor drive   | No       |
| <ul> <li>voltage trigger</li> </ul>   | No       |
| number of connectable NC contacts / for auxiliary contacts / attachable / maximum | 2        |
| number of connectable NO contacts / for auxiliary contacts / attachable / maximum | 2        |
| number of connectable CO contacts / for auxiliary contacts / attachable / maximum | 0        |
| number of bracket locks / maximum   | 1        |
| 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 /<br/>maximum</li> </ul>     | 8 kA     |
| <ul> <li>at 440 V / for combination switch + gG fuse /<br/>maximum</li> </ul>     | 8 kA     |
| at 690 V / for combination switch + gG fuse / maximum permissible                 | 7 kA     |
| l2t value / with closed switch  ● at 240 V / for combination switch + gG fuse /   | 30 kA2.s |
| maximum   | 00 NAZ.3 |

| <ul> <li>at 440 V / for combination switch + gG fuse /<br/>maximum</li> </ul>                       | 30 kA2.s  |  |
|---|---|--|
| <ul> <li>at 690 V / for combination switch + gG fuse /<br/>maximum</li> </ul>                       | 24 kA2.s  |  |
| design of the fuse link   |   |  |
| for short-circuit protection of the main circuit / required   | fuse gL/gG: 63 A  |  |
| <ul> <li>for short-circuit protection of the auxiliary switch /<br/>required</li> </ul>             | 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  | 60 A  |  |
| 60947-4-1 / rated value   | 60 A  |  |
| operational current / at AC / according to UL 508/UL 60947-4-1 / rated value                        | 00 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)   |  |
| <ul> <li>finely stranded / with core end processing</li> </ul>                                      | 1x (435mm²)   |  |
| stranded  | 1x (450mm²)   |  |
| type of connectable conductor cross-sections / for auxiliary contacts                               |   |  |
| • solid   | lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary switch 1x (0,75 2,5mm²) |  |
| • finely stranded / with core end processing  | lateral auxiliary switch 2x (0,75 1,5mm²), 1x 2,5mm²; front auxiliary switch 1x 2,5mm²      |  |
| • stranded  | lateral auxiliary switch 2x (0,75 2,5mm²), 1x 4mm²; front auxiliary 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   | 103 mm  |  |
| depth   | 108 mm  |  |
| type of device  | fixed mounting  |  |
| fastening method  | Built-in unit fixed-mounted version   |  |
|   | Dane in drift incommod version  |  |
| fastening method  | Vec   |  |
| 4-hole front mounting     front mounting with control attachment                                    | 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=3LD5220-0TL11

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

https://support.industry.siemens.com/cs/ww/en/ps/3LD5220-0TL11

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

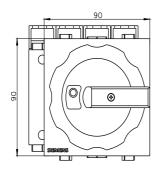
http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3LD5220-0TL11

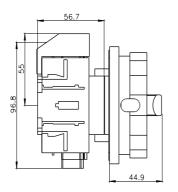
**CAx-Online-Generator** 

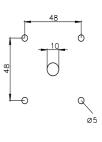
http://www.siemens.com/cax

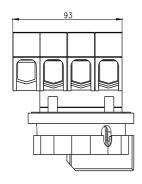
**Tender specifications** 

http://www.siemens.com/specifications









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