



SENTRON 3LD5 switch disconnecter UL, EMERGENCY-OFF 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, red/yellow, 4-hole mounting of the handle, including terminal covers for the infeed side

| Model   |                                     |
|---|-------------------------------------|
| product brand name  | SENTRON                             |
| product designation   | Switch disconnecter                 |
| design of the product   | EMERGENCY-STOP 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  | red                                 |
| design of handle  | knob-operated mechanism, red/yellow |
| 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                               |

|   |                        |
|---|------------------------|
| <ul style="list-style-type: none"> <li>• at AC-21 A at 440 V rated value</li> </ul>                               | 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 disconnector</b>  | Yes                    |
| <b>suitability for use EMERGENCY OFF switch</b>   | Yes                    |
| <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<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> </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                  |

|   |  |
|---|--|
| 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 508/UL 60947-4-1 and UL 489      | 50 kA  |
| continuous current of upstream fuse according to UL rated value                               | 150 A  |
| type of fuse according to UL  | Class J  |
| <b>Connections</b>  |  |
| AWG number as coded connectable conductor cross section solid maximum                         |  |
| •   | 1  |
| •   | 4/0  |
| AWG number as coded connectable conductor cross section solid according to UL 489             |  |
| • minimum   | 1  |
| • maximum   | 4/0  |
| AWG number as coded connectable conductor cross section solid according to CSA C22.2 No. 5-16 |  |
| • minimum   | 3  |
| • maximum   | 2/0  |
| type of connectable conductor cross-sections for copper conductor                             |  |
| • 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> )  |
| 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   |
| <b>Mechanical Design</b>  |  |
| height  | 178 mm   |
| width   | 113 mm   |
| depth   | 93 mm  |
| type of device  | fixed mounting   |
| fastening method  | Built-in unit fixed-mounted version  |
| fastening method  |  |
| • 4-hole front mounting   | Yes  |
| • front mounting with central attachment  | No   |
| • rail mounting   | No   |
| Net Weight  | 2.115 kg   |
| <b>Environmental conditions</b>   |  |
| ambient temperature during operation  |  |
| • minimum   | -25 °C   |
| • maximum   | 55 °C  |
| ambient temperature during storage  |  |
| • minimum   | -25 °C   |
| • maximum   | 55 °C  |
| <b>Approvals Certificates</b>   |  |
| Environment   | General Product Approval   |



General Product Ap-  
proval

other



Confirmation



### 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=3LD5820-0TK13>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3LD5820-0TK13>

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

[https://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3LD5820-0TK13](https://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3LD5820-0TK13)

#### CAX-Online-Generator

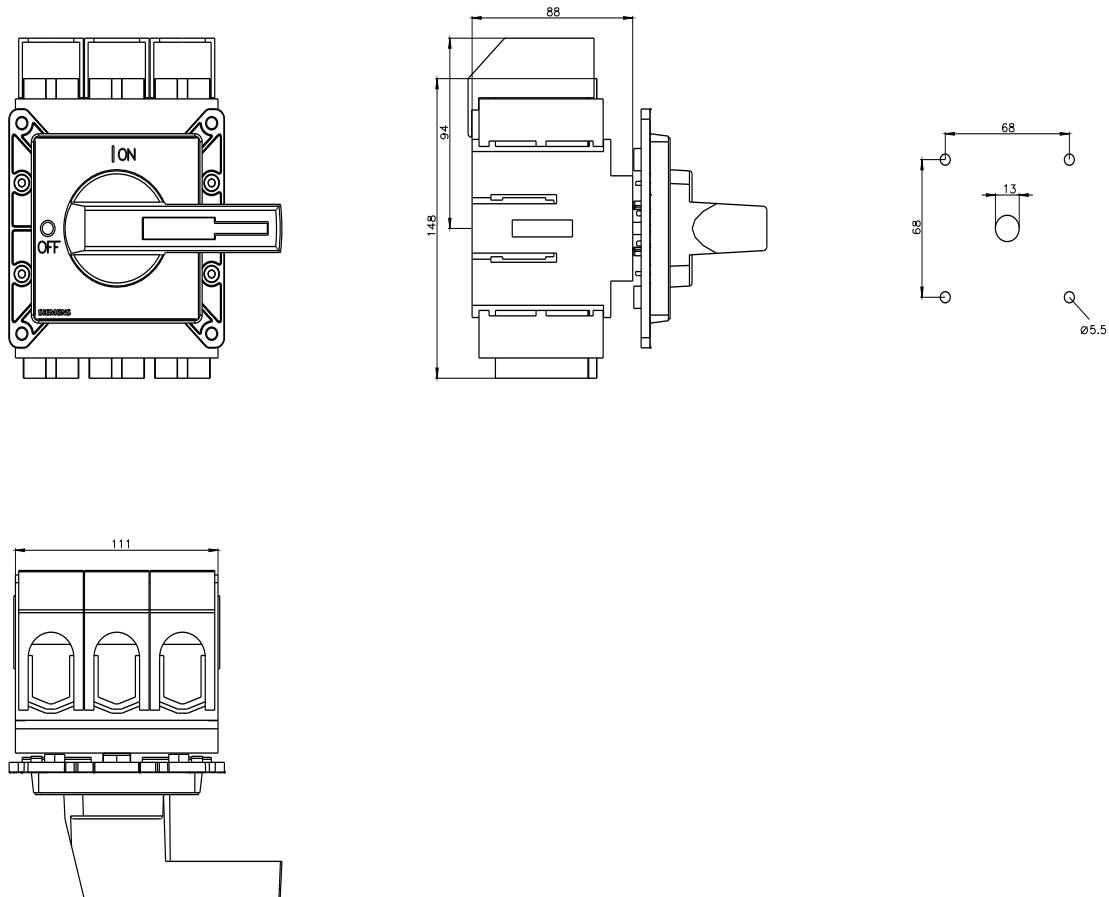
<https://www.siemens.com/cax>

#### Tender specifications

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

#### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP='HAUPT'></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>)





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