

# Dc Disconnect Switch

LS7R0500

1500 V Dc • 500 A

REACH ENEC CE IEC UL RoHS



## Description

The Littelfuse LS7R dc series is an energy-efficient, compact disconnect switch that quickly breaks or resumes the flow of current safely to prevent shock hazards when trying to isolate circuits or repair systems. It is a 1500 V dc disconnect for ungrounded systems.

## Features/Benefits

- The patented operation system minimizes damage caused by arcs upon disconnection to increase product reliability and longevity
- Streamline design eliminates the need for external bridging links (jumpers) to lower heat dissipation for increased energy efficiency, decreased installation and maintenance time, and reduced footprint for added design flexibility
- High-level disconnection insulation provides a barrier to stop conduction when switch is in off position for added safety
- The self-cleaning blade contacts eliminate performance degradation (from increased electrical resistance over time) to ensure consistent behavior across the product's lifespan
- The internally-located "sandwich-type" 2-contact symmetrical design mitigates the electromagnetic force of repulsion to offer enhanced functionality in short-circuit conditions
- Meets UL 94 flammability requirements with self-extinguishing/non-flammable materials to prevent fires

## Applications

- Solar/PV systems: combiner boxes, recombiner boxes and inverters
- Energy storage systems: disconnection of batteries, containerized batteries
- Oil & gas: dc drives
- Railway: earthing switches and battery disconnection
- UPS: switching and isolation of batteries
- Electrical vehicle chargers

## Specifications

### UL 98B Standards

|                             |                             |
|-----------------------------|-----------------------------|
| <b>Total Voltage Rating</b> | 1500 V dc                   |
| <b>Amperage Rating</b>      | 500 A                       |
| <b>SCCR Rating</b>          | 10 kA                       |
| <b>Ambient Temperature</b>  | -20 to 50 °C (-4 to 122 °F) |

### IEC 60947-3 Standards

|                                     |           |
|-------------------------------------|-----------|
| <b>Insulation Voltage Rating Ui</b> | 1500 V dc |
| <b>Impulse Withstand Voltage</b>    |           |

|                    |       |
|--------------------|-------|
| <b>Rating Uimp</b> | 12 kV |
|--------------------|-------|

|                            |                   |
|----------------------------|-------------------|
| <b>Operational Current</b> |                   |
| <b>DC21B Rating</b>        | 500 A / 1500 V dc |

### Other Characteristics

|                              |             |
|------------------------------|-------------|
| <b>Power Losses at 500 A</b> | 33.05 watts |
|------------------------------|-------------|

### Maximum Busbar

|                         |                                                        |
|-------------------------|--------------------------------------------------------|
| <b>Connection Range</b> | 2 bars x 5 mm (.20") <b>H</b> x 32 mm (1.25") <b>L</b> |
|-------------------------|--------------------------------------------------------|

|                                    |   |
|------------------------------------|---|
| <b>Number of Circuits/Switches</b> | 1 |
|------------------------------------|---|

|                          |                     |
|--------------------------|---------------------|
| <b>Tightening Torque</b> | 212 lbf-in (24 N·m) |
|--------------------------|---------------------|

|                 |                                                   |
|-----------------|---------------------------------------------------|
| <b>Material</b> | Plastic housing<br>Silver-plated copper terminals |
|-----------------|---------------------------------------------------|

|                      |        |
|----------------------|--------|
| <b>Base Mounting</b> | Screws |
|----------------------|--------|

|                            |           |
|----------------------------|-----------|
| <b>Flammability Rating</b> | UL 94 V-0 |
|----------------------------|-----------|

|                  |                                                                                                                    |
|------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Approvals</b> | UL 98B & UL 94<br>UL Guide WHVA<br>UL Listed E511898<br>NEC Article 690 for PV systems<br>IEC-60947-3<br>CE<br>EAC |
|------------------|--------------------------------------------------------------------------------------------------------------------|

|                      |                |
|----------------------|----------------|
| <b>Environmental</b> | RoHS compliant |
|----------------------|----------------|

|  |       |
|--|-------|
|  | REACH |
|--|-------|

|                          |       |
|--------------------------|-------|
| <b>Country of Origin</b> | Spain |
|--------------------------|-------|

## Recommended Accessories

- **Panel Handle with Shaft LDSSA11**  
For closed panel door access
- **Direct Handle LDSSI11**  
For open panel door access
- **Auxiliary Contact LDMAU11**  
Remotely indicates switch position
- **Spacers LDME11**  
Increase distance between switch and mounting plate

# Dc Disconnect Switch

## LS7R0500

### Part Numbering System

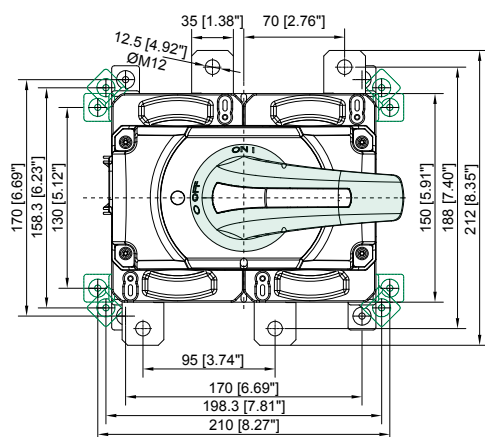


### Ordering Information

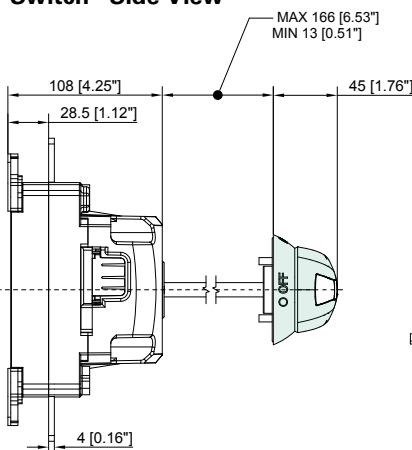
| DC DISCONNECT SWITCH |           |          |              |               |                    |
|----------------------|-----------|----------|--------------|---------------|--------------------|
| PART NUMBER          | VOLTAGE   | AMPERAGE | INSTALLATION | CONFIGURATION | SINGLE UNIT WEIGHT |
| LS7R05002PS00L       | 1500 V dc | 500 A    | Ungrounded   | Type 2P       | 3 kg               |

### Dimensions Millimeters (Inches)

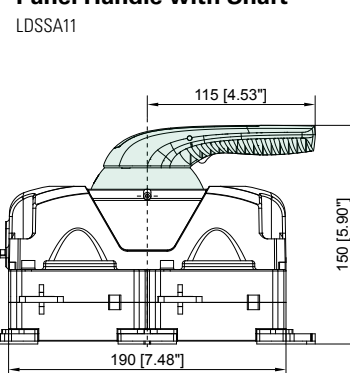
Dc Disconnect Switch



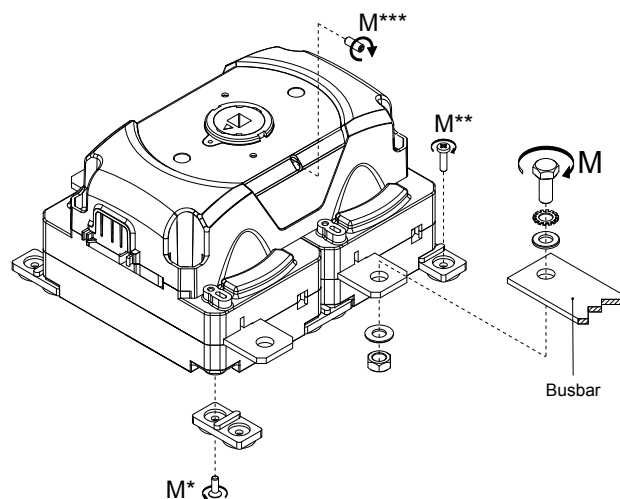
Switch - Side View



Panel Handle with Shaft



Switch - 3D Installation View



Busbar

| QTY |       | COPPER BUSBAR<br>M (TERMINAL TORQUE)<br>(+5 %   -10 %) |          | COPPER BUSBAR<br>H MAX<br>(CU)                |       | COPPER BUSBAR<br>L MAX<br>(CU) |      |
|-----|-------|--------------------------------------------------------|----------|-----------------------------------------------|-------|--------------------------------|------|
|     |       | N•M                                                    | LBF•INCH | MM                                            | INCH  | MM                             | INCH |
| 2   | M12   | 24                                                     | 212      | 5                                             | 13/64 | 32                             | 1¼   |
| M   |       | M (+5 %   -10 %)                                       |          | MINIMUM BUSBAR SECTION<br>ACCORDING TO UL 98B |       |                                |      |
|     |       | N•M                                                    | LBF•INCH |                                               |       |                                |      |
| *   | T20   | M4                                                     | 1.2      | 10.6                                          |       |                                |      |
| **  | —     | M4                                                     | 1.5      | 13.3                                          |       |                                |      |
| *** | Allen | M5                                                     | 1.5      | 13.3                                          |       |                                |      |

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