

Dc Disconnect Switch

LS60250 SERIES

1000 V Dc • 250 A

REACH ENEC CE IEC UL RoHS



Type 2E
Dc Ungrounded



Type 1M
Dc Grounded with Handle Attached



Description

The Littelfuse LS6 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.

Features/Benefits

- 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

| | |
|-----------------------------|-----------------------------|
| Total Voltage Rating | 1000 V dc |
| Amperage Rating | 250 A |
| SCCR Rating | 10 kA |
| Ambient Temperature | -20 to 50 °C (-4 to 122 °F) |

IEC 60947-3 Standards

| | |
|-------------------------------------|-----------|
| Insulation Voltage Rating Ui | 1500 V dc |
| Impulse Withstand Voltage | |

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|----------------------------|-------|
| Rating Uimp | 12 kV |
| Operational Current | |

| | |
|---------------------|-----------------|
| DC21B Rating | 250 A/1000 V dc |
|---------------------|-----------------|

Other Characteristics

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|------------------------------|-------------|
| Power Losses at 250 A | 19.59 watts |
|------------------------------|-------------|

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|--|--------------------------------------|
| Minimum Connection Wire Range/AWG | 400 kcmil/MCM (203 mm ²) |
|--|--------------------------------------|

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|--|--------------------------------------|
| Maximum Connection Wire Range/AWG | 500 kcmil/MCM (253 mm ²) |
|--|--------------------------------------|

| | |
|------------------------------------|---|
| Number of Circuits/Switches | 1 |
|------------------------------------|---|

| | |
|------------------------------|-------|
| Mechanical Operations | 8,000 |
|------------------------------|-------|

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|--------------------------|---------------------|
| Tightening Torque | 159 lbf-in (18 N·m) |
|--------------------------|---------------------|

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|-----------------|---|
| Material | Plastic housing Silver-plated copper terminals |
|-----------------|---|

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|----------------------|--------|
| Base Mounting | Screws |
|----------------------|--------|

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|----------------------------|-----------|
| Flammability Rating | UL 94 V-0 |
|----------------------------|-----------|

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

| | |
|----------------------|----------------|
| Environmental | RoHS compliant |
|----------------------|----------------|

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|--------------------------|-------|
| Country of Origin | Spain |
|--------------------------|-------|

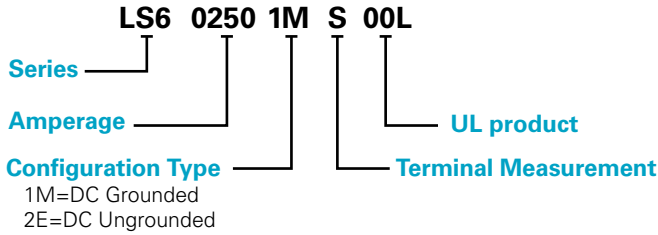
Recommended Accessories

- Panel handle with shaft LDSSA11** for closed panel door access
- Direct handle LDSI11** for open panel door access
- Auxiliary contacts LD5LAU01** remotely indicate switch position
- Phase barriers LDRSF11 (Type 1M) and LDRSF13 (Type 2E)** isolate sections to eliminate arcing between the phases
- Terminal lug LDRTL11W** safely connects electrical and mechanical devices (phase barriers must be used in order to maintain the required clearance)
- Terminal shrouds LDRCU13W** offer protection against direct contact after wiring
- Spacers LDREL11W** increase distance between switch and mounting plate

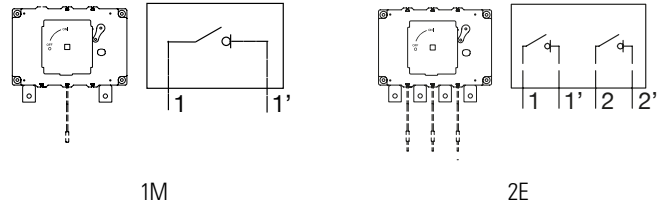
Dc Disconnect Switch

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Part Numbering System



Configuration

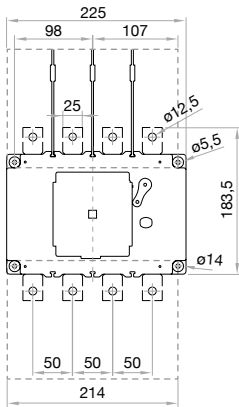


Ordering Information

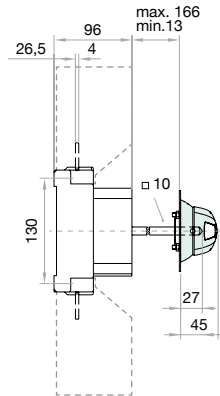
| DC DISCONNECT SWITCH | | | | | |
|----------------------|-----------|----------|--------------|---------------|--------------------|
| PART NUMBER | VOLTAGE | AMPERAGE | INSTALLATION | CONFIGURATION | SINGLE UNIT WEIGHT |
| LS602501MS00L | 1000 V dc | 250 A | Grounded | Type 1M | 2 kg |
| LS602502ES00L | 1000 V dc | 250 A | Ungrounded | Type 2E | 3 kg |

Dimensions Millimeters

Dc Disconnect Switch

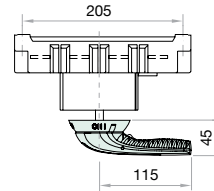


Switch + Direct Handle - Side View



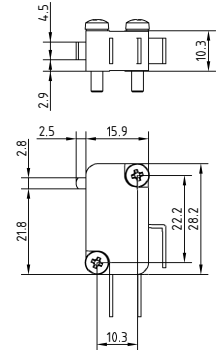
Panel Handle with Shaft

LDSSA11




Auxiliary Contact

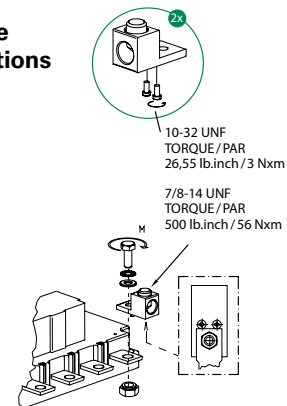
LD5AU01



Terminal Lug Measurements

| LDRTL11W | | | | |
|--|------------------------------------|---|---|----------|
| 3/0 85 MM ² MIN. --- 400 KCMIL 240 MM ² MAX. | CONDUCTOR TEMPERATURE RATING |  | COPPER WIRE ONLY M (TERMINAL TORQUE) (+5% -10%) | |
| | | | N•M | LB. INCH |
| | 75 °C | M10 | 18 | 159 |

Torque and Cable Capacity Instructions



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