

# Dc Disconnect Switch

## LS60400 SERIES

1000 V Dc • 400 A

REACH ENE 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

<b>Total Voltage Rating</b>	1000 V dc
<b>Amperage Rating</b>	400 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
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<b>Operational Current</b>	
<b>DC21B Rating</b>	400 A/1000 V dc

#### Other Characteristics

<b>Power Losses at 400 A</b>	36.11 watts
<b>Minimum Connection Wire Range/AWG</b>	300 kcmil/MCM (152 mm <sup>2</sup> )
<b>Maximum Connection Wire Range/AWG</b>	350 kcmil/MCM (177 mm <sup>2</sup> )
<b>Number of Circuits/Switches</b>	1
<b>Mechanical Operations</b>	8,000
<b>Tightening Torque</b>	212 lbf-in (24 N·m)
<b>Material</b>	Plastic housing Silver-plated copper terminals
<b>Base Mounting</b>	Screws
<b>Flammability Rating</b>	UL 94 V-0
<b>Approvals</b>	UL 98B & UL 94 UL Guide WHVA UL Listed E511898 NEC Article 690 for PV systems IEC-60947-3 CE EAC RoHS compliant REACH Spain
<b>Environmental</b>	
<b>Country of Origin</b>	

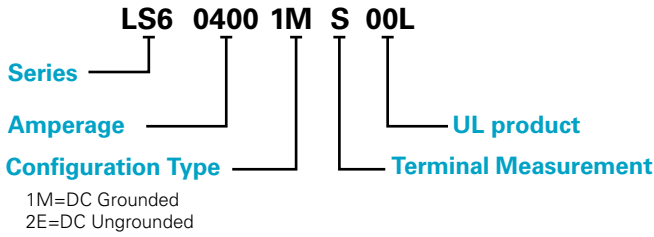
### Recommended Accessories

- Panel handle with shaft LDSLA21** for closed panel door access
- Direct handle LDSLI21** for open panel door access
- Auxiliary contacts LD5LAU01** remotely indicate switch position
- Phase barriers LDRSF21 (Type 1M) and LDRSF23 (Type 2E)** isolate sections to eliminate arcing between the phases
- Terminal lug LDRTL22W** safely connects electrical and mechanical devices (phase barriers must be used in order to maintain the required clearance)
- Terminal shrouds LDRCU23W** offer protection against direct contact after wiring
- Spacers LDREL21W** increase distance between switch and mounting plate

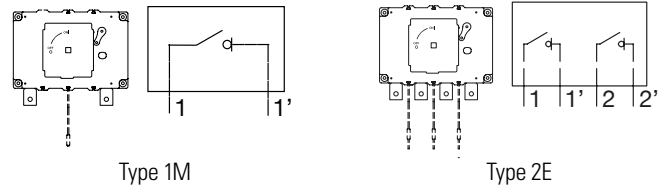
# Dc Disconnect Switch

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### Part Numbering System



### Configuration

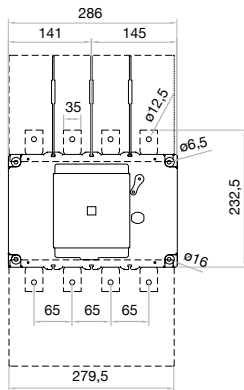


### Ordering Information

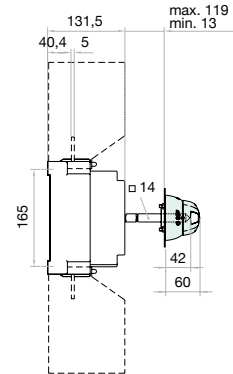
DC DISCONNECT SWITCH					
PART NUMBER	VOLTAGE	AMPERAGE	INSTALLATION	CONFIGURATION	SINGLE UNIT WEIGHT
LS604001MS00L	1000 V dc	400 A	Grounded	Type 1M	2 kg
LS604002ES00L	1000 V dc	400 A	Ungrounded	Type 2E	3 kg

### Dimensions Millimeters

#### Dc Disconnect Switch

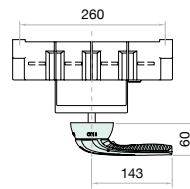


#### Switch + Direct Handle - Side View



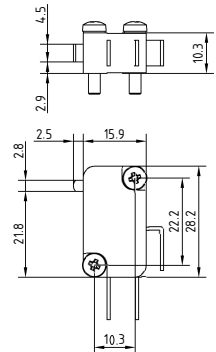
#### Panel Handle with Shaft

LDSLA21




#### Auxiliary Contact

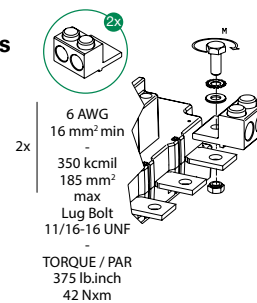
LD5AU01



### Terminal Lug Measurements

LDRTL22W				
3/0 85 MM <sup>2</sup> MIN. --- 400 KCMIL 240 MM <sup>2</sup> MAX.	CONDUCTOR TEMPERATURE RATING 75 °C	 M10	COPPER WIRE ONLY M (TERMINAL TORQUE) (+5%   -10%)	
			N•M	LB.INCH
			24	212

### Torque and Cable Capacity Instructions



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