

# 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>	

**Rating Uimp** 12 kV

**Operational Current**

**DC21B Rating** 400 A/1000 V dc

#### Other Characteristics

**Power Losses at 400 A** 36.11 watts

**Minimum Connection**

**Wire Range/AWG** 300 kcmil/MCM (152 mm<sup>2</sup>)

**Maximum Connection**

**Wire Range/AWG** 350 kcmil/MCM (177 mm<sup>2</sup>)

**Number of Circuits/Switches** 1

**Mechanical Operations** 8,000

**Tightening Torque** 212 lbf-in (24 N·m)

**Material**

Plastic housing  
Silver-plated copper terminals

**Base Mounting**

Screws

**Flammability Rating**

UL 94 V-0

**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

**Country of Origin**

REACH  
Spain

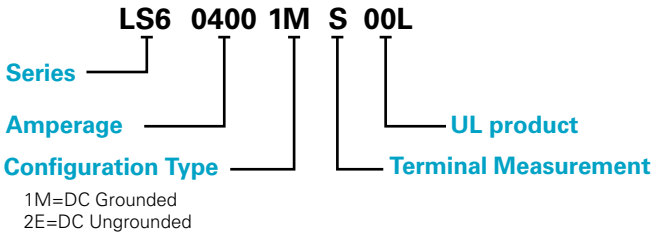
### Recommended Accessories

- 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

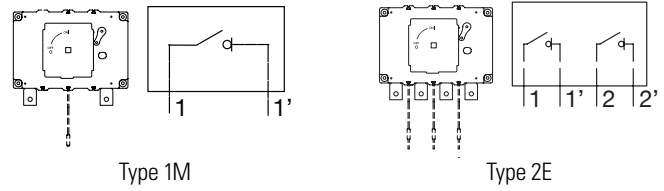
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### Part Numbering System



### Configuration

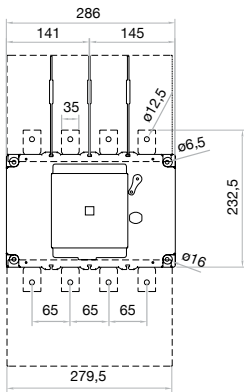


### Ordering Information

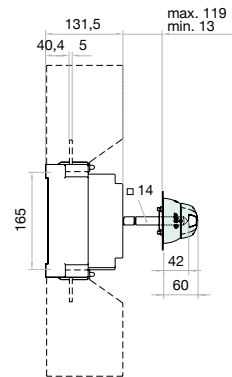
DC DISCONNECT SWITCH					
PART NUMBER	VOLTAGE	AMPERAGE	INSTALLATION	CONFIGURATION	SINGLE UNIT WEIGHT
LS604001MS00L	1000 V dc	400 A	Grounded	Type 1M	2 kg
LS604002ES00L	1000 V dc	400 A	Ungrounded	Type 2E	3 kg

### Dimensions Millimeters

#### Dc Disconnect Switch

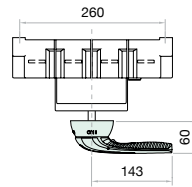


#### Switch + Direct Handle - Side View



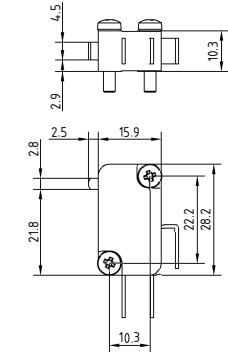
#### Panel Handle with Shaft

LDSL A21




#### Auxiliary Contact

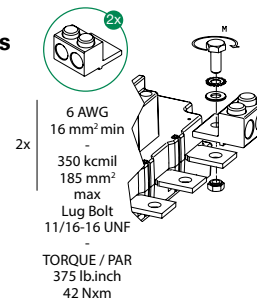
LD5AU01



### Terminal Lug Measurements

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

### Torque and Cable Capacity Instructions



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