Dc Disconnect Switch

LS60250 500 V DC SERIES

500 V dc • 250 A • 1 Pole
500 V dc • 250 A • 2 Pole (250 V dc per pole)

2 Pole (Type 2L)
Dc Ungrounded

1 Pole (Type 1V)
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

Specifications

UL 98B Standards	
Total Voltage Rating	500 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 Rating Uimp	12 kV
Operational Current DC21B Rating	250 A / 500 V dc
Other Characteristics	
Power Losses at 250 A	2 Pole (2L): 5.15 watts/pole 1 Pole (1V): 10.08 watts total
Minimum Connection Wire Range / AWG	400 kcmil/MCM (203 mm^2)
Maximum Connection Wire Range / AWG	500 kcmil/MCM (253 mm^2)
Number of Circuits/Switches	1
Mechanical Operations	8,000
Tightening Torque	159 lbf-in (18 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 REACH
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 1V) and LDRSF12 (Type 2L)** 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 LDRCU11W** offer protection against direct contact after wiring
- **Spacers LDREL11W** increase distance between switch and mounting plate

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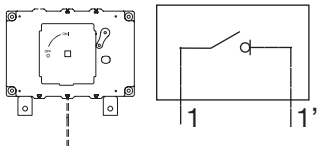
Part Numbering System

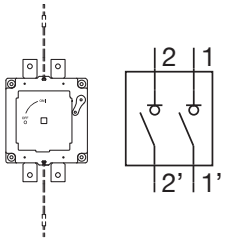
LS6 0250 1V S 00L

- **Series** — LS6
- **Amperage** — 0250
- **Configuration Type** — 1V
  - 1V = 1 Pole
  - 2L = 2 Pole
- **Terminal Measurement** — S
- **UL product** — 00L

Configuration



Type 1V (1 Pole)



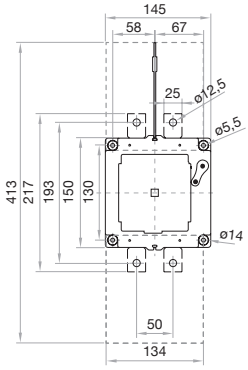
Type 2L (2 Pole)

Ordering Information

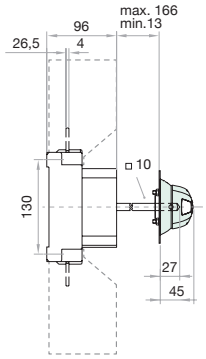
DC DISCONNECT SWITCH						
SERIES	TOTAL VOLTAGE	AMPERAGE	INSTALLATION	CONFIGURATION	POLES	SINGLE UNIT WEIGHT
LS602501VS00L	500 V dc	250 A	Grounded	Type 1V	1	2 kg
LS602502LS00L	500 V dc	250 A	Ungrounded	Type 2L	2	3 kg

Dimensions Millimeters

Dc Disconnect Switch

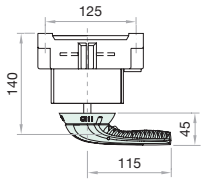


Switch + Direct Handle - Side View



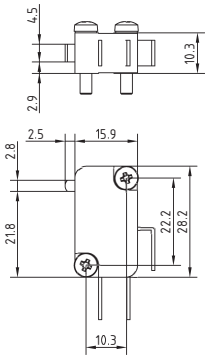
Panel Handle with Shaft

LDSSA11



Auxiliary Contact

LD5AU01



Terminal Lug Measurements

LDRTL11W				
3/0 85 MM² MIN --- 400 KCMIL 240 MM² 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