Dc Disconnect Switch

LS60400 SERIES

500 V Dc • 400 A

Type 2L
Dc Ungrounded

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
- Electrical vehicle chargers

Specifications

UL 98B Standards	
Total Voltage Rating	500 V Dc
Amperage Rating	400 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	400 A/500 V Dc
Other Characteristics	
Power Losses at 400 A	18.4 watts
Minimum Connection Wire Range/AWG	300 kcmil/MCM (152 mm^2)
Maximum Connection Wire Range/AWG	350 kcmil/MCM (177 mm^2)
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 REACH
Country of Origin	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 1V) and LDRSF22 (Type 2L)** 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 LDRCU21W** offer protection against direct contact after wiring
- **Spacers LREL21W** increase distance between switch and mounting plate

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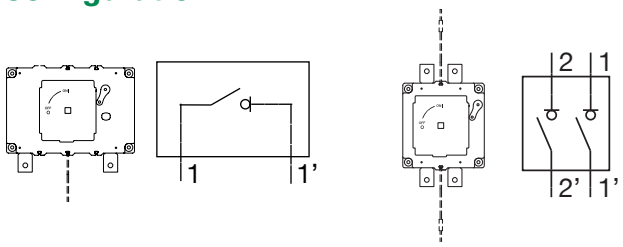
Part Numbering System

LS6 0400 1V S 00L

- Series: LS6
- Amperage: 0400
- Configuration Type: 1V
  - 1V=DC Grounded
  - 2L=DC Unrounded
- Terminal Measurement: S
- UL product: 00L

Configuration



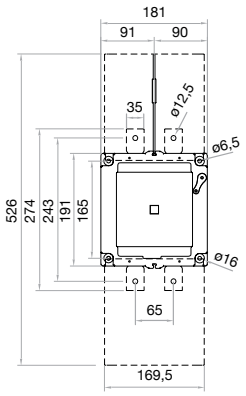
Type 1V | Type 2L

Ordering Information

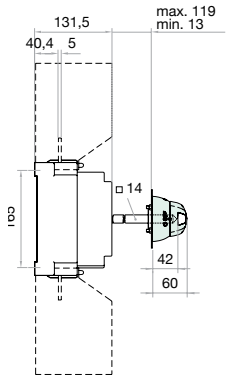
DC DISCONNECT SWITCH					
PART NUMBER	VOLTAGE	AMPERAGE	INSTALLATION	CONFIGURATION	SINGLE UNIT WEIGHT
LS604001VS00L	500 V Dc	400 A	Grounded	Type 1V	2 kg
LS604002LS00L	500 V Dc	400 A	Ungrounded	Type 2L	3 kg

Dimensions Millimeters

Dc Disconnect Switch

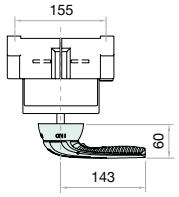


Switch + Direct Handle - Side View



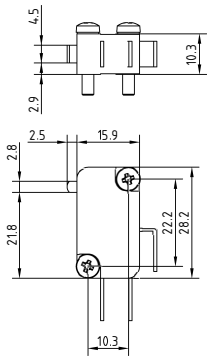
Panel Handle with Shaft

LDSLA21



Auxiliary Contact

LD5AU01



Terminal Lug Measurements

LDRTL22W				
16 MM² MIN --- 350 KCMIL 185 MM² 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