

LVD20-100-SPC48 100 Amps
LVD20-150-SPC58 150 Amps
LVD20-200-SPC49 200 Amps



Solid state high current low voltage disconnect with over current shutdown protection.

InPower's LVD20 Series Low Voltage Disconnects (LVD) automatically disconnect 12 volt loads from the battery when the battery voltage drops below a critical level. Disconnecting loads prevents excessive battery discharge, thereby reserving a sufficient charge to restart the engine. The LVD contains a solid state disconnect switch that is rated for 100, 150 or 200 amps, and provides automatic fault shutdown protection for over current, short circuit, high temperature and loss of ground conditions. In the event of an under voltage or fault shutdown the disconnect switch will remain latched off. When the fault is cleared the control input voltage must be removed and re-applied to activate the disconnect switch.

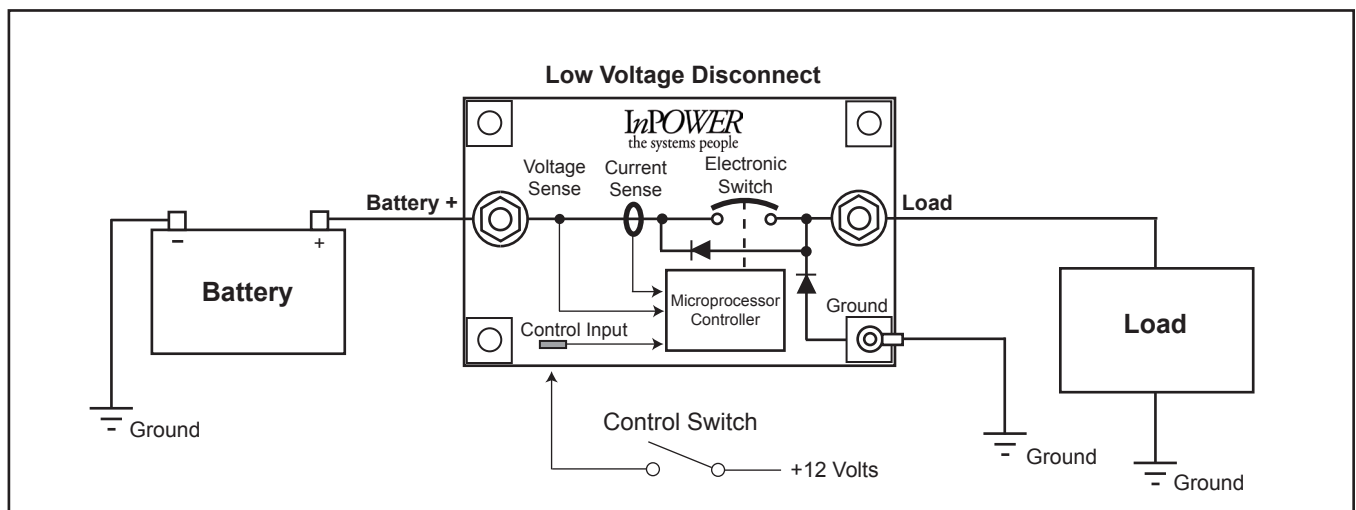
Key Features

- Prevents excessive battery discharge by automatically disconnecting loads.
- 100% solid state design - No moving parts to cause arcing and electrical noise.
- Automatic shutdown protection for short-circuit, over-current, loss of ground and high temperature.
- Sealed construction is resistant to mechanical shock and vibration.
- Compact size and low profile.
- Rubber terminal boot option.

The LVD disconnects contain a control input terminal. When positive voltage is applied to this input the disconnect switch turns on, applying battery voltage to its load output. When the disconnect switch is on, its controller continuously monitors the battery voltage at its battery terminal. When the battery voltage drops below 11.5 volts for 60 seconds the disconnect switch turns off, removing power from its output load terminal. This removes the power draw on the battery. When the battery has been recharged and the battery voltage exceeds the shut off preset voltage the LVD can be manually re-actuated. This is done by removing the control input voltage and re-applying it.

The low voltage disconnect is packaged in a sealed case, and its four mounting hole pads provide the required connection to ground. The control input utilizes a ¼ inch male push-on terminal. Connections for the high current battery and load cables utilize 3/8-16 threaded stainless steel studs with brass contact pads for low contact resistance. A rubber terminal boot is available for protection from accidental shorting.

System Diagram



LVD20 Series

Low Voltage Disconnects

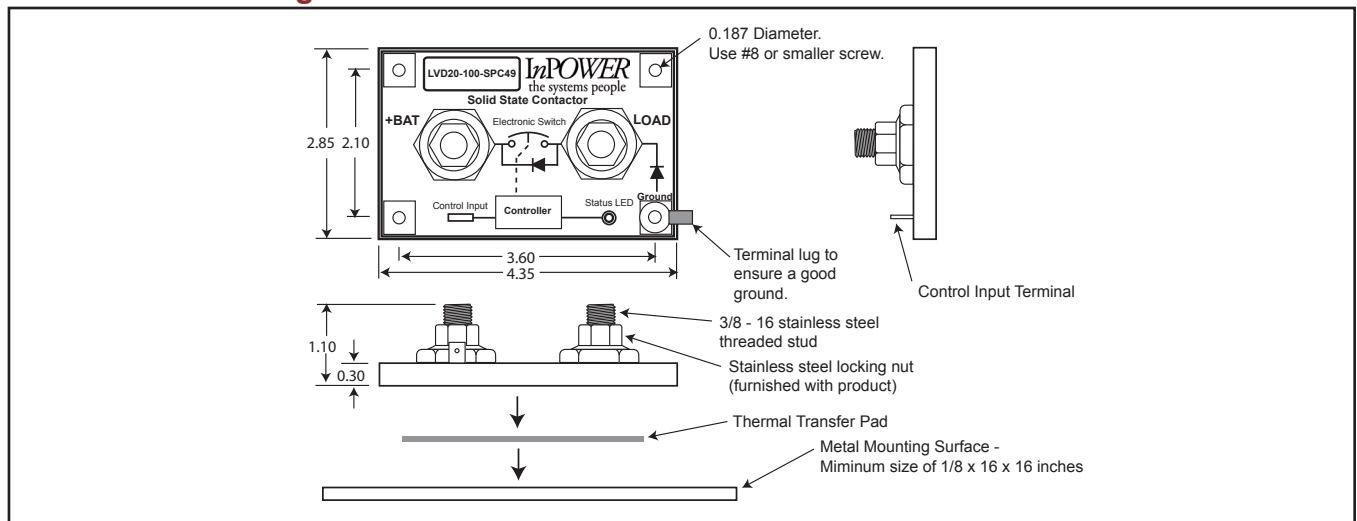
Specifications

Maximum Current Rating:	<u>LVD20-100-SPC48</u>	<u>LVD20-150-SPC58</u>	<u>LVC20-200-SPC49</u>
	100 Amps	150 Amps	200 Amps
Operating Voltage Range:	+9.5 to 18.5 Volts		
Shut Off Voltage:	<11.5 Vdc		
Shut Off Time Period:	60 Seconds		
	Note - The disconnect switch will shut off when the battery voltage remains below 11.5 volts for 60 seconds. To reset and activate the disconnect switch the control input voltage must be removed and re-applied.		
Control Input Voltage:	>9.5 Vdc to activate; <8.5 Vdc to deactivate.		
Control Input Terminal:	0.25 inch male push-on blade terminal		
Power Terminals:	Two 3/8 - 16 threaded stainless steel studs with locking nuts. Rubber terminal protective boots are available.		
Fault Shutdown Reset:	For over current, short circuit, over temperature or loss of ground shut-downs the fault must be cleared, then the control input voltage must be removed and re-applied to actuate the disconnect switch.		
Weight:	0.40 lbs (0.18 kg)		
Dimensions:	2.85 x 4.35 x 1.10 inches (72.3 x 110.5 x 27.9 mm)		
Status LED Indicator:	On steady when disconnect switch is on. Flashes during fault or low voltage shut down. Off when the disconnect switch is off.		
Fault Shutdown Conditions:			
Over-Current Trip:	100% to 110% of rated amperage for 500 milliseconds		
Loss of Ground Trip:	250 milliseconds		
Maximum Temperature Trip:	Case temperature > 185° F (85° C)		

Product Customization

LVD20 Series low voltage disconnects can be customized to meet your application's specific requirements. Typical modifications include changes to the low voltage set point, low voltage shutdown timer and disabling the control input for completely automatic operation. Contact InPower for details on the many variations that are available.

Mechanical Drawing



InPower LLC
3555 Africa Road
Galena, Ohio 43021
Tel: 740-548-0965
Fax: 740-548-2302
www.InPowerDirect.com

Offered by: