

Solid State DC Contactors

SSC10-80	(80 Amp)
SSC10-100	(100 Amp)
SSC10-150	(150 Amp)
SSC10-200	(200 Amp)



Key Features

- 100% solid state design - No moving parts to cause arcing and electrical noise.
- Automatic shutdown protection for short-circuit, over-current and high temperature.
- Sealed construction is resistant to mechanical shock and vibration.
- Low on-resistance power switch has low voltage drop and temperature rise.
- Zero Standby Battery Current Draw.
- Compact Size and Low Profile.
- Loss of Ground Shutdown.
- Rubber Terminal Boot Cover Option.

Solid state DC contactor with over current shutdown protection offers many advantages over mechanical solenoid contactors.

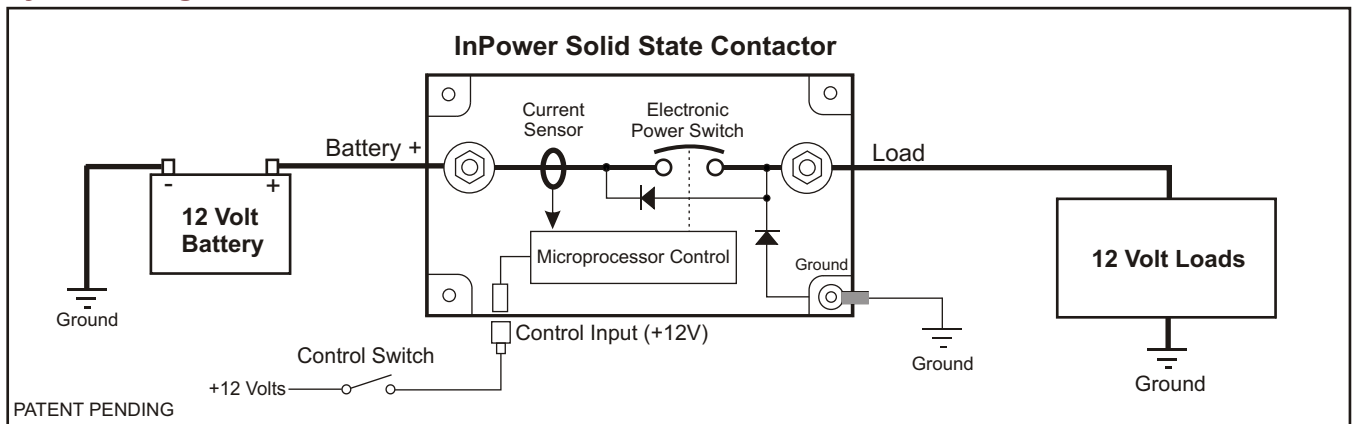
InPower's SSC10 Series is a family of solid state high current DC contactors with positive voltage activated control. These single channel power switches are available in current ratings of 80, 100, 150 and 200 amps. As they have zero battery current draw in the off state they make ideal master battery disconnect switches. An additional benefit is that they can be installed directly in the battery cable with smaller control wires running to the remote activation switches. Other applications include the remote control of high current DC loads such as blower motors, auxiliary air conditioner units, lights, and hydraulic pump motors.

These advanced technology products also feature automatic shutdown for over current, high temperature, and loss of ground conditions. A key design element is the product's extremely efficient, low on-resistance DC power switch. This results in superior performance by producing a low voltage drop and generating only a small amount of internal heat.

Over current protection employs an advanced software-controlled scheme that incorporates a three-stage current/time profile, unlike fuses and mechanical circuit breakers that have one fixed curve determined by their thermal characteristics. The benefit of this approach is that the over current shutdown protection more closely matches the characteristics of the different types of loads with their individual turn-on surges and running amperages.

The contactor is packaged in a totally sealed case, and its four mounting hole pads provide the required connection to ground. The control input utilizes a ¼ inch Faston blade terminal. Connections for the high current DC cables utilize 3/8-16 threaded stainless steel studs with brass contact pads for low contact resistance. They also contain detent grooves that allow rubber terminal boots to be used for additional protection from the environment, as well as from accidental shorting.

System Diagram



Solid State Contactors

SSC10 Series Specifications

	<u>SSS10-80</u>	<u>SSC10-100</u>	<u>SSC10-150</u>	<u>SSC10-200</u>
Maximum Current Rating: Max. current at 110° F (43°C)*				
Type A mounting**	80 Amps	100 Amps	150 Amps	200 Amps
Type B mounting**	60 Amps	75 Amps	100 Amps	125 Amps
On-Resistance at maximum temperature and current:	2.2 milliohms	2.2 milliohms	1.1 milliohms	0.75 milliohms

* Mounting surface temperature

** Mounting Surface Types:

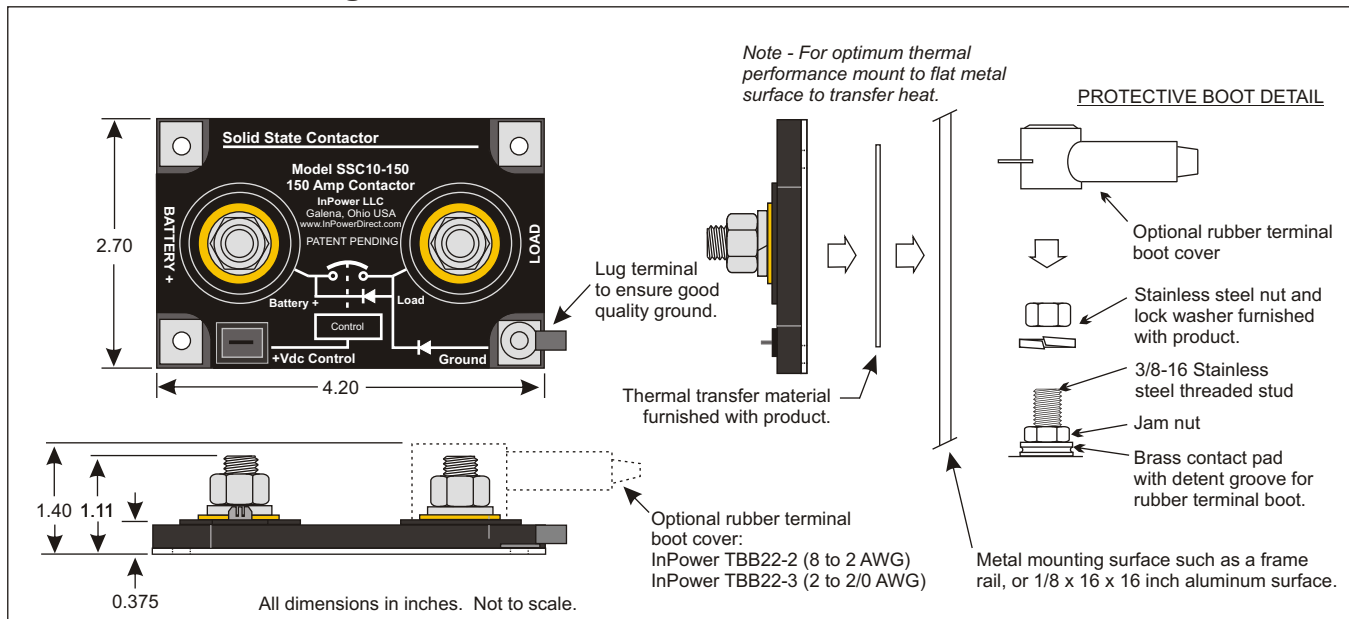
Type A - Mounting surface such as a steel vehicle frame rail or aluminum plate 0.125" x 16" x 16" or larger.

Type B - Mounting surface such as wood, plastic or free air.

Operating Voltage Range:	+9.5 to +18.5 volts (14.2 volt nominal)
Case Maximum Temperature:	+185°F (+85° C)
Turn-On Delay:	2 milliseconds
Turn-Off Delay:	2 milliseconds
Control Connector Type:	0.250 inch male Faston blade terminal
Control Input Voltage:	>+9.5 Vdc to activate; <+8.0 Vdc to deactivate
Control Input Current:	Zero current draw when input is deactivated. When input is activated, current draw is 10 milliamps @13.5 Vdc input voltage.
Weight:	0.30 lbs (0.136 kg)
Dimensions:	2.7 x 4.2 x 0.925 inches (68.6 x 106.7 x 23.5 mm)
Power Terminals:	Two (2) 3/8 - 16 threaded stainless steel studs, with nuts and lock washers. Rubber terminal boot covers are optional.

PATENT PENDING

Mechanical Drawing



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PDS-46G 030608

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Specifications subject to change without notice.