SSC20 Series

Solid State Contactors

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

Key Features

- Sealed Metal Case
- Compact Size and Low Profile
- Status LED Indicator
- 100 % Solid State Construction
- Automatic Over-Current, Under-Voltage and Over-Temperature Fault Shutdown Protection
- Loss of Ground Detection
- Protective Terminal Boot Option

Ordering Guide

Model	Description
SSC20-100	Solid-state contactor, 100 Amp
SSC20-150	Solid-state contactor, 150 Amp
SSC20-200	Solid-state contactor, 200 Amp

Technical Description

The SSC20 Series is InPower's second generation family of high current solid-state DC contactors.These single channel power switches are available in continuous current ratings of 100, 150 and 200 amps. Low on-resistance solid-state switches and high current fly back diodes provide not only outstanding surge current capability for starting high in-rush current loads but also maximum voltage spike suppression for high inductive loads.

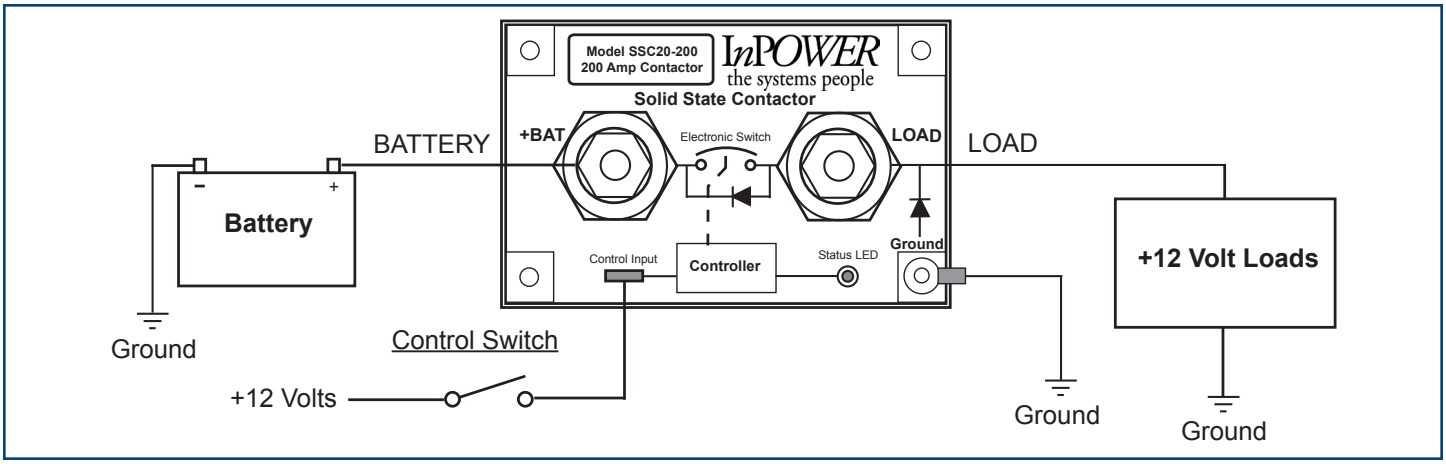
Applications include high current DC loads such as master battery disconnect switching, blower motors, auxiliary air conditioner units, lights, and hydraulic motors.

Packaging: The solid-state contactors are sealed and packaged in an anodized aluminum case. Four corner mounting hole pads provide the required connection to ground. The control input utilizes a ¼ inch Faston blade terminal. ⅜"-16 threaded stainless steel studs with brass contact pads provide low contact resistance for connection to battery cables.

A **LED Status Indicator** displays a *steady on* when the contactor is on and operating normally, or *flashes* when the contactor has automatically turned off as a result of a detected fault such as loss of ground, over-current, under-voltage or over-temperature. A fault is automatically reset when the control input voltage is removed.

Voltage Hysteresis on the control input ensures high electrical noise immunity. An input control voltage greater than +8 volts will turn the contactor on and a voltage of less than +4 volts will turn the contactor off. The control input appears as 120 K-Ohm resistance to ground.

System Diagram



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Specifications

Maximum Current Rating:	SSC20-100	SSC20-150	SSC20-200
Max. current rating at 110° F (43° C)*			
Type A Mounting**	100 Amps	150 Amps	200 Amps
Type B Mouniting**	75 Amps	100 Amps	125 Amps
On-resistance at maximum temperature and current:	2.2 milliohms	1.1 milliohms	0.75 milliohms

* Mounting surface temperature

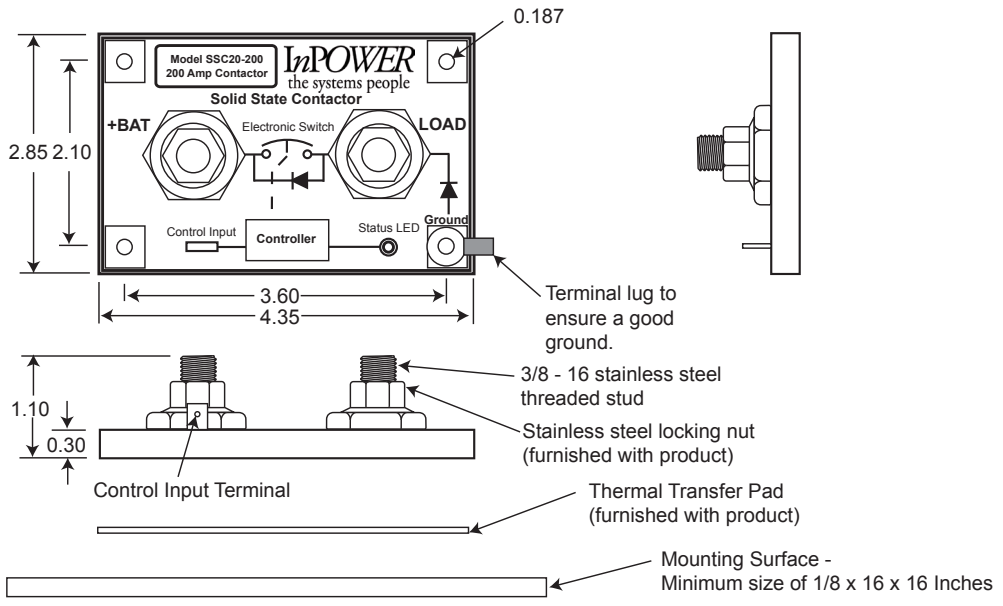
** Mounting suface types:

Type A - Mounting surface such as an aluminum plate 0.125 x 16 x 16 inch or larger.

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

Operating Voltage Range:	+7.5 to +20.0 volts
Case Maximum Temperature:	+185° F (85° C)
Low Battery Voltage Trip:	+7.25 to +7.50 Vdc for 250 milliseconds
Loss of Ground Trip:	250 milliseconds
Over-Current Trip:	100% to 110% of rated amperage for 500 milliseconds
Logic Power Current Draw	
With Status LED Off:	80 milliwatts
With Status LED On:	150 milliwatts
Turn-On Delay:	25 milliseconds
Turn-Off Delay:	25 milliseconds
Control Connector Type:	0.25 inch male Faston blade terminal
Control Input Voltage:	>+8.0 Vdc to activate, <+4.0 Vdc to deactivate
Control Input Resistance:	120 K Ohm to ground
BAT+ to LOAD Terminal	
Leakage Current:	75 microamps maximum
Weight:	0.40 lbs (0.181 kg)
Dimensions:	2.85 (72.29 mm) x 4.35 (110.49) x 1.10 inches (27.94 mm)
Power Terminals:	Two (2) 3/8 - 16 threaded stainless steel studs, with locking nuts.

Mechanical Drawing



All dimensions in inches. Do not scale.