



## Technical Description

InPower's SSC3 Series of Solid State Contactors are the ideal solution for intelligently switching power to auxiliary loads. InPower's SSC3 Series replaces outmoded 12V mechanical contactors and uses proven patented solid-state contactor and Cool Terminal technology.

Sophisticated microprocessor algorithms monitor over-current, over-voltage, under-voltage, and over-temperature conditions and create an intelligent switch that can shutdown if dangerous conditions exist.

LoadLogic technology automatically compensates for different types of loads, starting difficult loads, yet accurately detecting a dead short fault.

The LOAD is connected to the BAT+ when the SSC3 is turned ON by  $> +8.0V$  on INPUT. (See **SSC3 Owner's Manual OM-216**).

Applying a voltage  $> +8.0$  volts to the SSC3 INPUT terminal will turn the SSC3 "ON" connecting the BAT+ to the LOAD terminal. A voltage of  $< +4.0$  volts control turns the SSC3 "OFF" isolating the two terminals. This can be controlled manually via a switch, or by connecting the INPUT to the Ignition signal so that all loads are switched off automatically with the ignition.

The 4 Lug model allows the SSC3 to serve as a high current junction block. Multiple SSC3s of the same rating may be paralleled.

In addition, the 4 Lug model allows parallel power cabling between the auxiliary and chassis batteries. Parallel power cabling significantly reduces overall cable cost and increases wiring efficiency. (See **White Paper 1.042.HCC**)

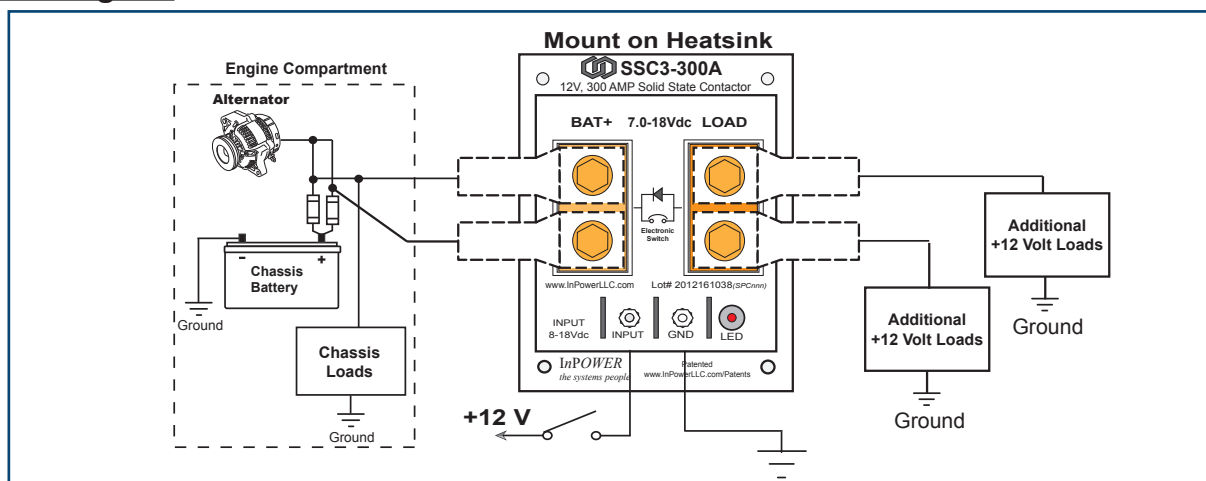
## Ordering Guide

Model	Description
SSC3-300	Solid-state contactor, 300 Amp
SSC3-300-SPC	Custom operation configuration

## Key Features

- Ideal Auxiliary Battery Isolation
- Bidirectional Charging
- LED Indicator - Switch Status (On/Off)
- Boost start the vehicle from the auxiliary battery if the chassis battery voltage is low
- LoadLogic technology - Compensates for different loads (load startup and faults).
- Solid state - no moving parts
- Extremely efficient - No need for a massive heat sink
- Over-current, Over-Voltage, and Over-Temperature protection
- Custom actions (Timer Delays, Thresholds) are available via Factory Programming (SPCs)

## System Diagram



# SSC3-300

# Automatic 300 Amp Programmable Solid State Contactor

## Specifications

### SSC3-300

Maximum Current Rating:	300 Amps Continuous
Operating Voltage:	+7.0 to +18.0 volts
Operating Temperature:	-40° to +185° F (85° C)
Low Battery Voltage Trip:	<7.00 for ≥ 250 milliseconds on BAT+
Loss of Ground Trip:	250 milliseconds
Over-Current Trip:	305 Amps +/-2 Amps for 1 Sec
Shorted Load Detect:	250 milliseconds
LED Indicator:	SW State (ON/OFF), FAULT (FLASH)
Standby Current Draw:	12.5 milliamps max.
Turn-On/Off Delay:	25 milliseconds
INPUT Control Voltage:	>+8.0 VDC ON, <+4.0 VDC OFF
INPUT Resistance:	120 K Ohm to ground
BAT+ to LOAD Leakage:	0.075 milliamps maximum

## Mechanical

Power Terminals:	Engineered Brass Bus Bar
Weight:	0.50 lbs
Dimensions:	4.125" W x 5.125" L x 1.20" H
Power Terminals:	3/8 - 16 Brass Bolts with Copper Washers (10 to 15 Foot Lbs)
INPUT, GND Terminals:	8-32 4-5 Inch Pounds
Ground Connection:	8-32 Ground stud for connection
Mounting Bolts ( <i>User Provided</i> ):	#8-32 (4 to 5 Inch Pounds)

## Mechanical Drawing

All dimensions in inches.  
Do not scale.

**Do Not Stack Lugs!**

**!IMPORTANT!**

- Mount unit with 144 sq. inches of > 0.125 sheet metal for proper heat dissipation.
- Not for under-hood mounting
- Only use the supplied 3/8 - 16 Brass Bolts and Copper Washers - **Do Not Substitute**
- Protect lugs with boots or dielectric grease