

## SP PRO CHARGE & DISCHARGE SETTINGS

The SP Pro inverter charger can be used with MPS batteries

Care should be taken to adjust settings accordingly when having multiple charging sources.

It is recommended to attach the Selectronic SP Pro battery temperature sensor to the case of the battery that will be the hottest. The use of the temperature sensor will increase the life expectancy of the battery.

The SP Pro pre charge circuit must be used to avoid damage to the batteries.

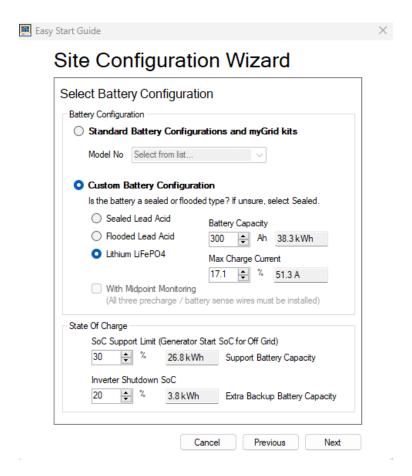
These settings are correct at the time of creation and are subject to change.

DC coupled charging may be used and is recommended by MPS. Adding DC coupled charging can help in black start situations and can smooth out charging at the end of the charge cycle. When using DC coupled charging, it is recommended to set the voltage of the DC coupled device at the below voltages then lower the SP pro voltages by 1 volt. This allows the SP pro to do the bulk charging then allow the DC coupled to finish off the charge cycle. Failure to do this will make the charge sources fight each other.

Model number	SPMC1201	SPLC1200	SPLC1202
Maximum AC Load Power from batteries: 30 secs	18kW	33kW	38kW
1 minute	13.0kW	26.0kW	35.0kW
30 minutes	11.25kW	23.0kW	30.0kW
60 minutes	8.0kW	18.0kW	24.0kW
Continuous 24/7	7.5kW	15kW	20kW
Minimum number of MPS-120-6.4 batteries	6	10	12



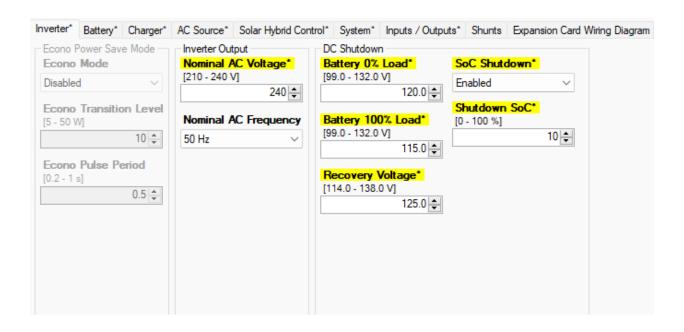
- Select "Custom Battery Configuration"
- Select "Lithium LiFePO4"
- Set the "Battery Capacity" to the battery bank capacity (qty x 100ah)
- Set the "Max Charge Current" to 33.3% or less
- Set "State Of Charge" set points as desired.





## **Inverter Tab**

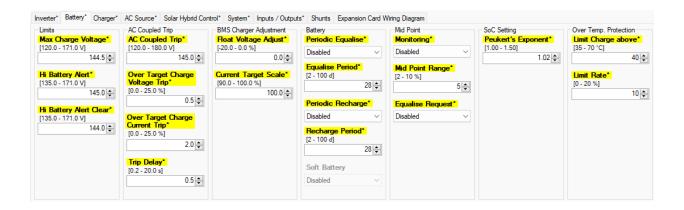
- DC Shutdown
  - o Battery 0% Load 120.0 volts
  - o Battery 100% Load 115.0 volts
  - o Recovery Voltage 125.0 volts
- SoC Shutdown
  - o Enabled
  - 0 10%





## **Battery Tab**

- Limits
  - Max Charge Voltage 144.5.0 volts
  - Hi Battery Alert 145 volts
  - Hi Battery Alert Clear 144 volts
- AC Coupled Trip
  - AC Coupled Trip 145 volts
  - Over Target Charge Voltage Trip 0.5%
  - Over Target Charge Current Trip 2.0%
  - Trip Delay 0.5 second
- Battery
  - Periodic Equalise Disabled
  - o Periodic Recharge Disabled
- SoC Setting
  - o Peukert's Exponent 1.02
- Over Temp. Protection
  - Limit Charge above 40 degrees Celsius
  - Limit rate 10%





## **Charger Menu**

- Charge Settings
  - o Max. Charge Current 33.3%
  - o Initial Return Voltage 132.0 volts
- Initial Stage
  - Voltage 138.0 volts
  - Current 50%
  - Time 1 minute
- Bulk Stage
  - Voltage 139.0 volts
  - o Current 100%
  - Time 5 minutes
- Absorption Stage
  - Voltage 140.0 volts
  - Current 20 %
- Absorb-Float Transition
  - Net Change 1%
  - Change Time 15 minutes
  - Max Time 60 minutes
- Float Stage
  - Voltage 141.0 volts
  - o Current 1%
  - Long Term Voltage 139.0 volts
- Equalise Stage
  - Voltage 140.0 volts
  - Current 10%
  - Time 2 hours

