PowerPlus Energy LiFe Settings for SMA Sunny Island Inverters

Step one – Basic Configuration using the Installation Assistant.

At step 7 "Battery configuration", select "Valve Regulated Lead Acid (VRLA) as the Battery Type and set the nominal capacity as the total battery size in Ah at the C10 rating

To calculate this, simply add up the total Wh of the battery installed and divide by 48V.

Leave the Nominal Battery Voltage as 48V

Step two – Device configuration.

Enter the "Device Parameter" tab and select "Edit Parameters".

Suggested to enter into the "Protection Mode" and set the SOC limits to ensure there is some capacity for the SI to come back on-line after \sim 09:00.

Then enter into the "Battery" section below.

The following changes need to be set (see screenshots below):

- 1. Maximum Charging Current
- 2. Time for Boost Charge
- 3. Time for Full Charge
- 4. Discharge Cut-off Voltage
- 5. Maximum Discharge Current
- 6. Cell Charge Nominal Voltage for Boost Charging (divide the voltage by 24)
- 7. Cell Charge Nominal Voltage for Full Charging (divide the voltage by 24)
- 8. Cell Charge Nominal Voltage for Float Charge (divide the voltage by 24)
- 9. Temperature Compensation set to 0^o
- 10. Automatic Equalization Charge set to off

IMPORTANT NOTE FOR COLD TEMPERATURE CHARGING

Under most conditions, under continuous operation, PowerPlus Energy LiFe Batteries will maintain an internal operating temperature within the published range.

Extra consideration must be taken in extreme cold temperatures

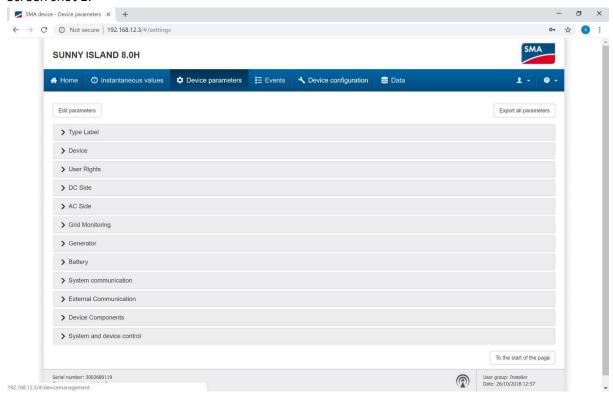
- Operating Temperature: -20° to 60°C
- Charging Temperature: 0° to 45°C

In the event that a PowerPlus Energy LiFe Battery is left idle or non-operational in temperatures below Freezing:

- DO NOT ATTEMPT TO CHARGE THE BATTERY.
- DO NOT CHARGE UNTIL THE BATTERY BANK IS AT OR ABOVE 0°C
- CONTACT PowerPlus Energy FOR ASSISTANCE

Sunny Island Settings for Powerplus

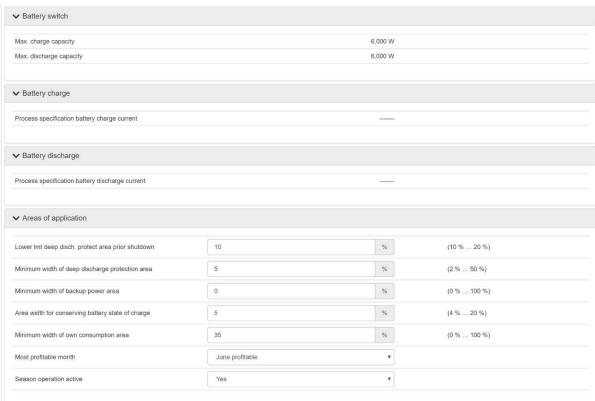
Screen shot 1:



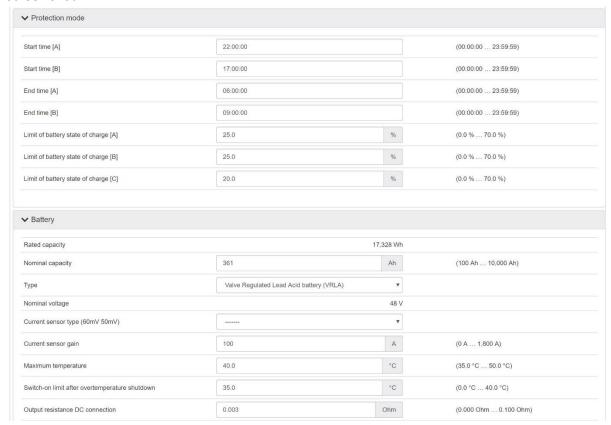
Screen shot 2:

* Charge			
Maximum charging current	103.000	A	(10.000 A 900.000 A)
ime for boost charge	120	min	(1 min 600 min)
ime for equalization charge	1	h	(1 h 48 h)
ime for full charge	3	h	(1 h 20 h)
Discharge cut-off voltage	50.80	V	(35.00 V 63.00 V)
1 naximum discharge current	900.000	А	(0.000 A 900.000 A)
Cell charge nominal voltage for boost charge	2.33	V	(2.20 V 2.70 V)
Cell charge nominal voltage for full charging	2.33	V	(2.30 V 2.70 V)
Cell charge nominal voltage for equalization charge	2.30	V	(2.30 V 2.70 V)
cell charge nominal voltage for float charge	2.25	V	(2.20 V 2.40 V)
Cycle time full charge	1209597	s	(86,400 s 15,552,000 s)
Cycle time equalization charge	15551965	s	(604,800 s 31,536,000 s)
emperature compensation	0.000	V/°C	(0.000 V/°C 0.010 V/°C)
Automatic equalization charge	On	•	
/oltage setpoint with deactivated BMS	54.00	V	(41.00 V 63.00 V)

Screen shot 3:



Screen shot 4:



Screen shot 5:

