

FULLRIVER[®]

BATTERY

SOLAR CONFIGURATION SETTINGS:



Battery Setup Settings

| | |
|------------------------------|--------------------------|
| Battery Capacity: | Bank Ah |
| Max A Charge: | Up to 25% of bank Ah* |
| Max A Discharge: | Up to 200% of bank Ah*** |
| TEMPCO: | -4mV/C/Cell |
| Use Battery Voltage Charged: | Unchecked |
| Use Battery % Charged: | Checked |
| Float Voltage: | 13.7V/27.3V/54.6V** |
| Absorption Voltage: | 14.7V/29.4V/58.8V** |
| Equalization Voltage: | 14.7V/29.4V/58.8V** |

* - Exception to current limit for DC400-6 on the external threaded stud, 80A max.
 ** - 12V/24V/48V systems, respectively
 *** - We do not recommend more than 300A for most systems, roughly 14kW draw.

| | |
|----------------------------|--|
| Days: | 30 Days |
| Hours: | 0.0 Hours |
| Gen Charge: | Dependent on system, consult solar installer |
| Grid Charge: | Dependent on system, consult solar installer |
| Shutdown Voltage: | 11.6V/23.2V/46.4V** (20%) |
| Low Battery: | 11.8V/23.6V/47.2V** (30%) |
| Restart: | 12.4V/24.8V/49.6V** (40%) |
| Battery Charge Efficiency: | 94.0% |
| Battery Empty Voltage: | 11.5V/23.0V/46.0V** |

Note: We do not recommend equalizing AGM batteries, these settings are set to avoid accidental equalization cycles. For Battery Resistance, please consult spec sheet for battery, then multiply total units in bank.

Notes:

SOLAR CONFIGURATION SETTINGS:

GENERIC SETTINGS

| | |
|---|---|
| Bulk Voltage: | 14.7V/29.4V/58.8V** |
| Absorption Voltage: | 14.7V/29.4V/58.8V** |
| Float Voltage : | 13.7V/27.3V/54.6V** |
| Absorption Time : | See Formula for Time Calculation |
| Float Time: | Unlimited |
| Current Limit: | Up to 25% of bank Ah* |
| Tail Current/Absorb End Amps/Ending Amps: | 1.75% of bank AH |
| Temperature Compensation: | -4mV/°C/Cell |
| Equalization Voltage : | 14.7V/29.4V/58.8V** |
| Equalization Time: | 0 Hrs |
| Equalization : | Disabled |
| Time Calculation Formula: | $[(AH * DOD) / Charge Amps * 0.85] = \text{Time in Hours, typically 2-3, max 4.}$ |

Note: We do not recommend equalizing AGM batteries, these settings are set to avoid accidental equalization cycles.

* - Exception to current limit for DC400-6 on the external threaded stud, 80A max.

** - 12V/24V/48V systems, respectively

48V LBCO Guidelines based on ~25% DOD (Voltage vs expected load in kW)

| DC400-6 (1 String) | DC1150-2 (1 String) | DC400-6 (2 Strings) | DC1150-2 (2 Strings) |
|--------------------|---------------------|---------------------|----------------------|
| 49.6V - 1.0kW | 50.4V - 2.9kW | 49.6V - 2.0kW | 50.4V - 5.8kW |
| 48.8V - 1.9kW | 49.6V - 5.2kW | 48.8V - 3.8kW | 49.6V - 10.4kW |
| 48.0V - 3.3kW | 48.8V - 9.3kW | 48.0V - 6.6kW | 48.0V - 34.2kW |
| 47.2V - 5.5kW | 48.0V - 17.1kW | 47.2V - 11.0kW | |

Bank AH Examples

2x DC400-6 in 12V = 400Ah
 4x DC400-6 in 12V = 800Ah
 4x DC400-6 in 24V = 400Ah
 8x DC400-6 in 24V = 800Ah
 8x DC400-6 in 48V = 400Ah
 16x DC400-6 in 48V = 800Ah
 24x DC400-6 in 48V = 1200Ah

6x DC1150-2 in 12V = 1150Ah
 12x DC1250-2 in 12V = 2300Ah
 12x DC1150-2 in 24V = 1150Ah
 24x DC1150-2 in 24V = 2300Ah
 24x DC1150-2 in 48V = 1150Ah
 48x DC1150-2 in 48V = 2300Ah
 72x DC1150-2 in 48V = 3450Ah

AGS Settings

24 Hr - LBCO + 1.0V
 2 Hr - LBCO + 0.5V
 2 Min - LBCO + 0.2V
 30 Sec - LBCO + 0.1V

These guidelines are estimates based off of average voltages observed in our testing and may vary slightly from one production batch to another. The numbers represent discharging at 77F/25C, and can vary greatly with the known impacts of ambient temperature differences. If you are unsure of any settings listed in this sheet, please consult a certified solar installer.