

Inverter/Charger

| SW3000 Inverter/Charger | Set Point | Desired Outcome |
|--|------------------|--|
| Inverter Low battery cut out | 12.7V | 17.5% SOC |
| Inverter Low battery cut out delay | 6m | V drop from high draw loads will not trigger low battery cut off instantly |
| Inverter High battery cut out | 14.6V | |
| Battery Capacity | 1216A | Actual per manufacturer (17.5 - 92.5% SOC is 912Ah, 11.5KWh) |
| Max charge rate | 100% | 150A max output charger |
| Charge cycle | 2 stage no float | LiFePO4 does not need float |
| Default battery temp | Warm | No Voltage adjustment for temperature needed |
| Recharge Volts | 12.7V | |
| Absorb Time | 1m | Absorb is not needed for LiFePO4 |
| Equalize support | Disabled | Equalize is not needed for LiFePO4, BMU will balance cells when charging |
| Charger Bulk Voltage | 14.4V | |
| Charger Bulk Terminate Voltage | 14.2V | Stops charging at 92% SOC, max V 3.45V/cell at 130A charge |
| Charger Absorb Voltage | 13.7V | |
| Charger Float Voltage | 13.6V | |
| Battery charging temperature compensation | 0mV/C | |
| | | |

BMS

| Overkill Solar BMS | Set Point | Unit | Desired Outcome |
|----------------------------|-----------|---|-----------------|
| Number of cells | 4 | | |
| Total battery capacity | 608000 | mAh | |
| Total cycle capacity | 425000 | mAh | |
| Cell full voltage | 3500 | mV | |
| Cell minimal voltage | 3220 | mV | |
| Cell self – discharge rate | 0.2 | % | |
| Cell 80% capacity voltage | 3350 | mV | |
| Cell 60% capacity voltage | 3300 | mV | |
| Cell 40% capacity voltage | 3250 | mV | |
| Cell 20% capacity voltage | 3200 | mV | |
| Balancer start voltage | 3400 | mV | |
| Delta to balance | 15 | mV | |
| Balancer enabled | Y | | |
| Balance only when charging | Y | | |
| Switch | Y | Enable if you're BMS has additional switch to control the protection board | |
| Load detect | Y | If on, you need to disconnect the load after a short circuit to make output working again | |
| LED enabled | N | For BMS with LED soldered on only. Turns them on | |
| LED cap. | N | Display SOC level on LED | |

BMS protection

| Overkill Solar BMS | Trigger value | | Release value | | Delay | |
|------------------------------------|----------------------|----|----------------------|----|--------------|------|
| Cell over voltage | 3650 | mV | 3500 | mV | | 2 s |
| Cell under voltage | 2875 | mV | 3000 | mV | | 2 s |
| Battery over voltage | 14450 | mV | 14000 | mV | | 2 s |
| Battery under voltage | 10000 | mV | 12000 | mV | | 2 s |
| Charge over current | 130000 | mA | 32 | s | | 10 s |
| Discharge over current | 130000 | mA | 32 | s | | 10 s |
| Charge over temperature | 65 | °C | 55 | °C | | 2 s |
| Charge under temperature | 1 | °C | 10 | °C | | 2 s |
| Discharge over temperature | 75 | °C | 65 | °C | | 2 s |
| Discharge under temperature | -10 | °C | 0 | °C | | 2 s |
| | | | | | | |

BMS-1

| | | | |
|---|-------|--------------------------------|--|
| 7:15pm CST | 260 | | |
| 126A until 7:33 | 37.8 | | |
| 132 until 11:13 | 484 | | |
| Overnight | -71 | | |
| 130A 7:39 to 9:18 | 214.5 | 3.450V / cell max | |
| | 925.3 | | |
| max 3.45V/cell at 130A charge 14.2 charger bulk terminate V | | 60min at 12-15A cell V 3.31 | |