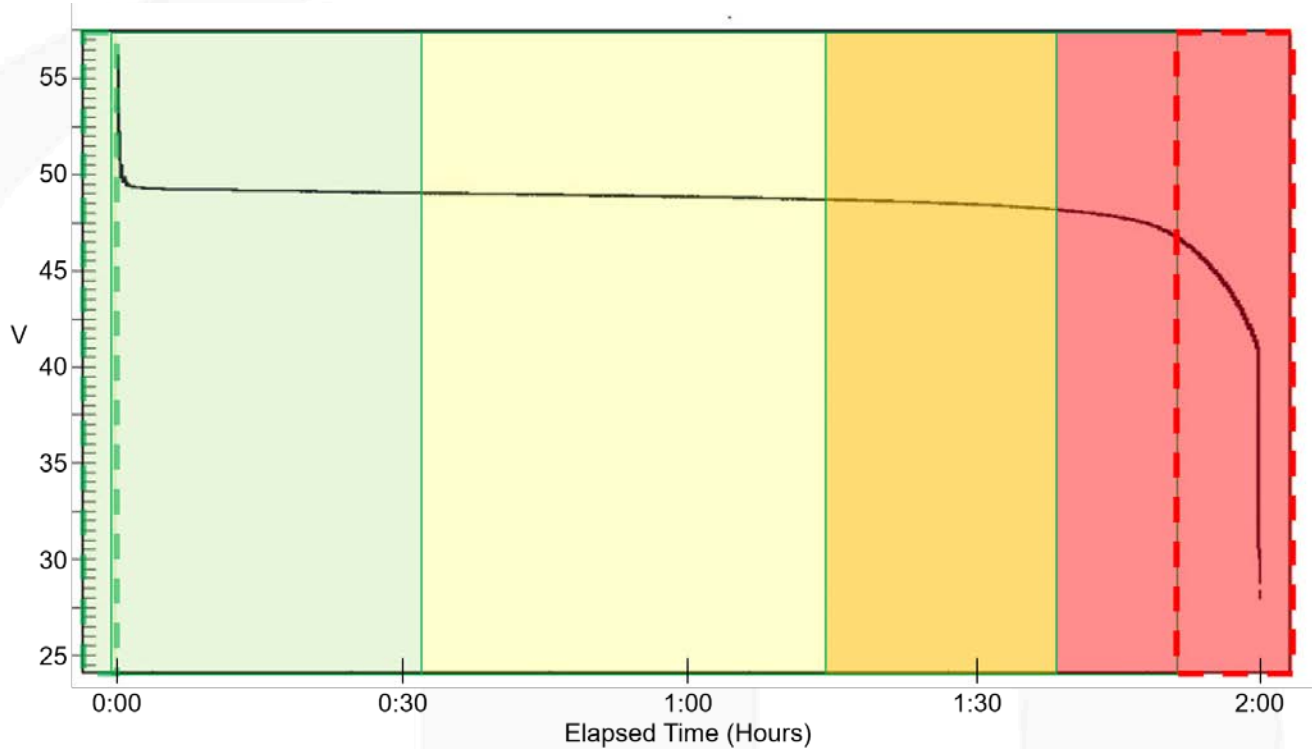


## PHI 3.4 Basic Programming & Troubleshooting



The chart above represents a C/2 discharge for a fixed resistive load

### Recommended Setpoints

	24 V		48 V	
<b>Cycle Life</b>	5,000	10,000	5,000	10,000
<b>Low Battery Cut Out</b>	23.2 V	24.5 V	46.4 V	48.9 V
<b>Bulk Voltage</b>	27 V	27 V	55 V	55 V
<b>Absorb Voltage</b>	28.8 V	28 V	57.6 V	56 V
<b>Absorb Time</b>	1 Hour		1 Hour	
<b>Float Voltage*</b>	27 V		54 V	
<b>Ah (Per Unit)</b>	134 Ah	107.2 Ah	67 Ah	53.6 Ah
<b>Continuous Amps (Per Unit)</b>	45 A	45 A	33 A	33 A

\* Float Voltage is not required. Adjust Float Voltage based on application. Self-discharge is <1% per month

## Basic Troubleshooting

The majority of issues encountered with a SimpliPhi battery bank can be traced back to the voltage set points. To begin troubleshooting, **always verify the voltage set points on all inverters and charge controllers** in the system.

### Over Discharge / Low Battery Voltage Self Protection:

A deeply discharged PHI Battery Module will enter a state of self-protection to avoid excessive discharge.

This voltage point is at approximately **40V**.

At this Voltage the battery will turn off – the breaker will not trip. The BMS will not allow the battery to be discharged.

With a voltmeter, the terminals may measure in the 6-20 V range on a 48 V battery. Do not be alarmed – this is the normal operation when the battery goes into over-discharge protection.

To reset the battery:

1. Cycle the breaker on the Battery or DC Panel
2. Provide a charge current
3. Double check and modify the low battery cut out voltage set point on all inverters and charge controllers in the system

### Over Charge / Over Voltage

The battery will turn off and refuse incoming charge at approximately 62.4 Volts. Over Voltage protection will release at approximately 60 V.

To reset the battery:

1. Cycle the breaker on the Battery or DC Panel
2. Run a discharge cycle
3. Double check and modify the Absorb, Bulk, and EQ voltage set points on all inverters and charge controllers in the system

For further technical support, please contact us at:

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