



**Areca™**

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## Hybrid Supercapacitor Energy Storage

Alpha XM3 and XM2 Configuration Guidelines



## Revision History

| REVISION | DATE      | AUTHOR         | DESCRIPTION            |
|----------|-----------|----------------|------------------------|
| Draft    | 3/1/2023  | Tony Renfro    | Preliminary Document   |
| 1.0      | 3/9/2023  | Tony Renfro    | Updates to document    |
| 1.1      | 4/1/2023  | Tony Renfro    | Updates to include XM2 |
| A        | 4/11/2023 | Rozana Montoya | Initial Release        |
|          |           |                |                        |
|          |           |                |                        |
|          |           |                |                        |
|          |           |                |                        |
|          |           |                |                        |

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# GENERAL INFORMATION

## 1. General Information

### 1.1 About This Document

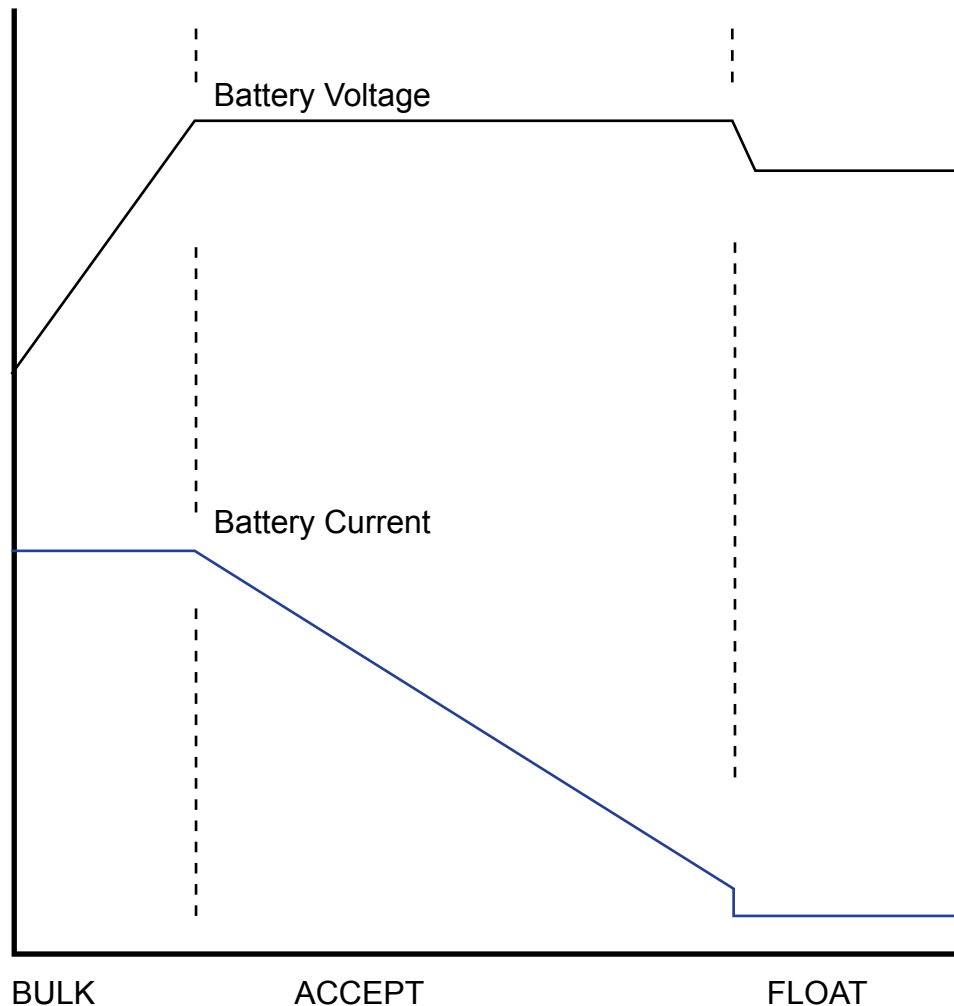
This document is intended to provide the user with guidelines for setting up the Alpha XM3 and XM2 Power Supplies to work with ATX Areca 36-Volt Hybrid Supercapacitor modules.

### 1.2 Prerequisites

Alpha XM3 or XM2 Power Supply and ATX Hybrid Supercapacitor installed in the proper outside plant cabinet.

### 1.3 Preliminary Information

- Charge cycle information – Alpha PS Battery Configuration set to “Other”
- Bulk = Constant Current Mode
- Accept = Constant Voltage Mode
- Float = Constant Voltage Mode



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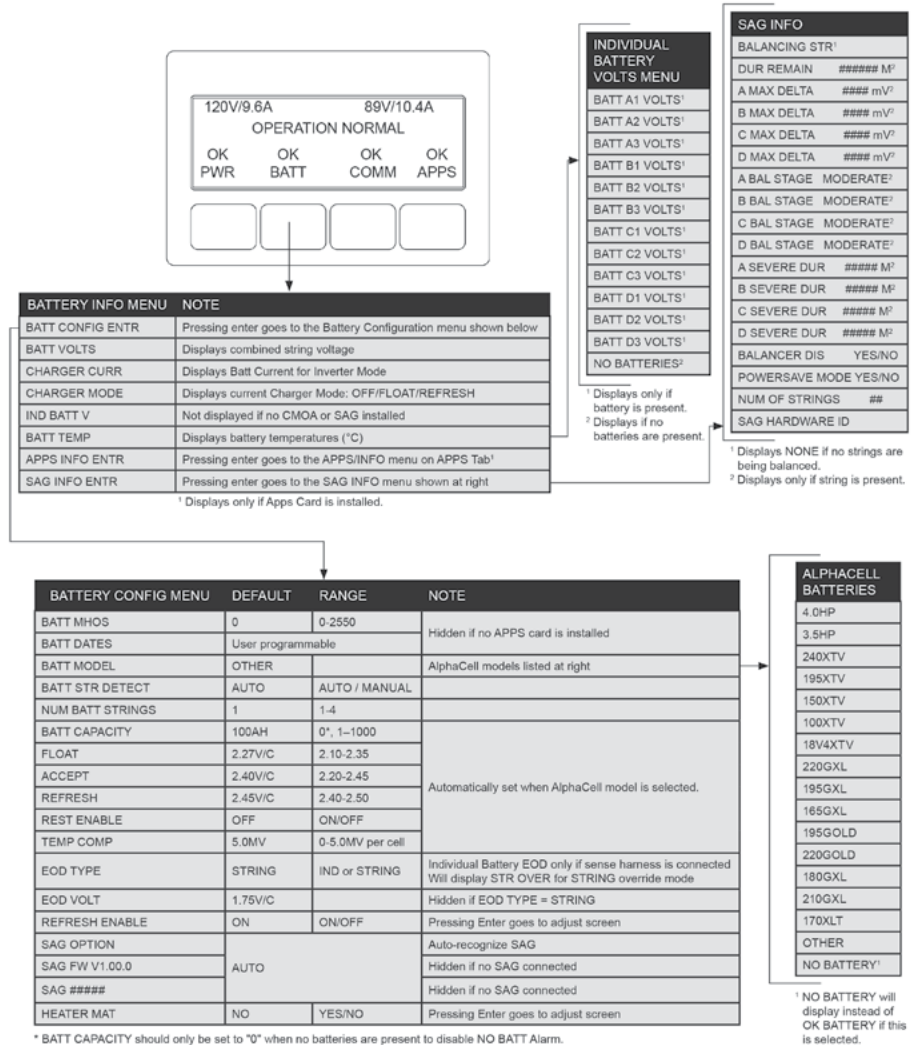
# XM3 POWER SUPPLY GUIDE

## 2. XM3 Power Supply Guide

### 2.1 XM3 Power Supply Configuration Settings

#### XM3 Configuration Settings for use with ATX Areca Hybrid Supercapacitor

- Battery Model = Other
- Num Battery Strings = 1
- Battery Capacity
  - 100AH / 3.57
  - 60AH / 2.3
- Float = 2.14 V/C
- Accept = 2.3 V/C
- Temp Comp = 0.0
- Refresh Enable = Off



### 2.2 XM3 Power Supply Configuration Steps

- Set Alpha Cell BATT Model option to "Other"
- Set Battery string to "1"
- Confirm Battery capacity is set to 100AH for 3.57 unit or 60AH for 2.3 unit
- Set Float voltage to 2.14V/C
- Set Accept voltage to 2.30V/C
- Set Temp Comp for PTS sensor to 0.0mV

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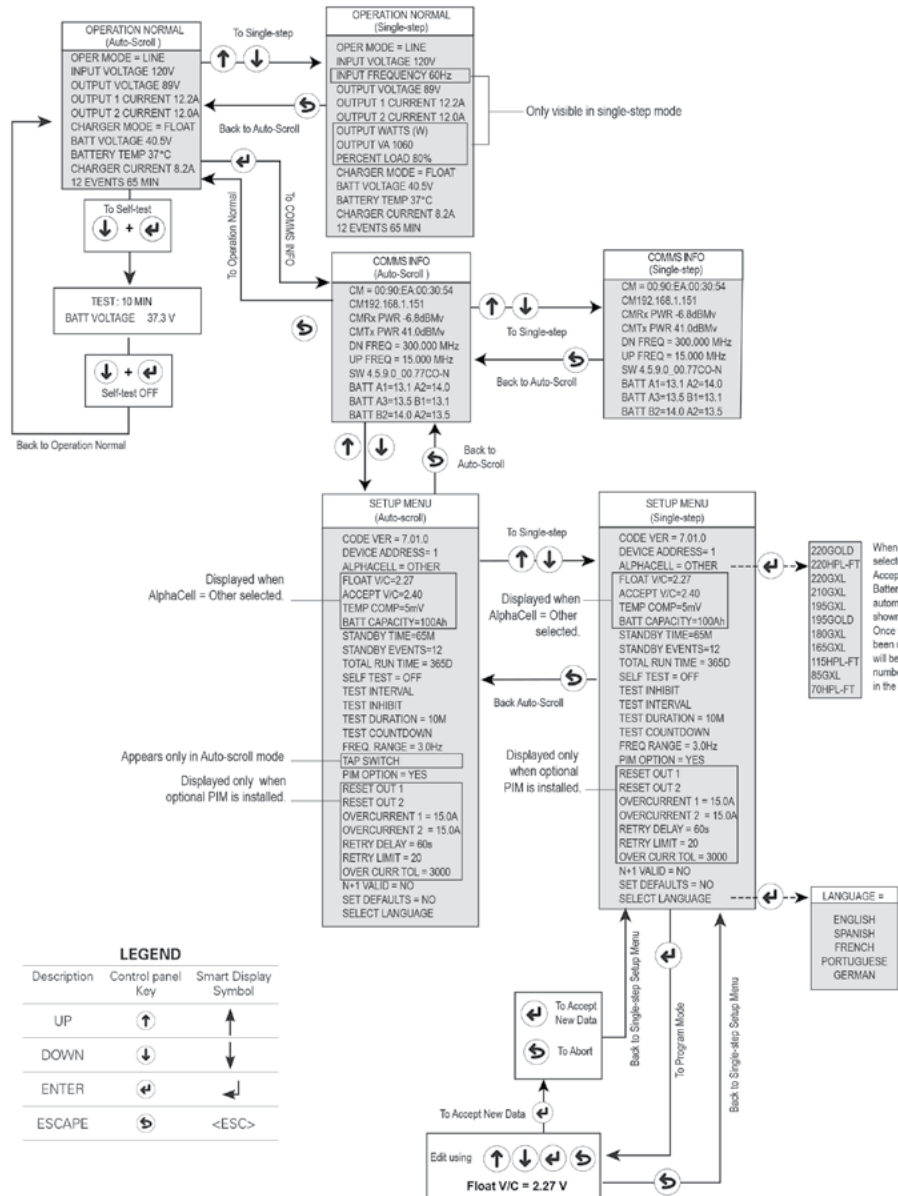
# XM2 POWER SUPPLY GUIDE

## 3. XM2 POWER SUPPLY GUIDE

### 3.1 XM2 Power Supply Configuration Setting

#### XM2 Configuration Settings for use with ATX Areca Hybrid Supercapacitor

- Battery Model = Other
- Num Battery Strings =1
- Battery Capacity
  - 100AH / 3.57
  - 60AH / 2.3
- Float = 2.14 V/C
- Accept = 2.3 V/C
- Temp Comp = 0.0
- Refresh Enable = Off



### 3.2 XM2 Power Supply Configuration Steps

- Set Alpha Cell BATT Model option to "Other"
- Set Battery string to "1"
- Confirm Battery capacity is set to 100AH for 3.57 Unit or 60AH for 2.3 Unit
- Set Float voltage to 2.14V/C
- Set Accept voltage to 2.30V/C
- Set Temp Comp for PTS sensor to 0.0mV

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## PRECISION TEMPERATURE SENSOR (PTS)

### 4. Precision Temperature Sensor (PTS)

In some systems the PTS is utilized for VRLA type batteries, the ATX hybrid supercapacitor does not have the same heating impact as VRLA type batteries so this is optional. If used, the TEMP COMP *must* be set to 0.0mV but it is recommended to set this value to 0.0mV as a standard when utilizing the hybrid supercapacitor.



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## HYBRID SUPERCAPACITOR LED INDICATOR LIGHTS

### 5. Hybrid Supercapacitor LED Indicator Lights

#### Capacity Indication Explanation

| STATE                                                                                                     |         | CHARGE                                                                               |                                                                                      |                                                                                      |                                                                                      | DISCHARGE                                                                              |                                                                                        |                                                                                        |                                                                                        |
|-----------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Capacity Indicator                                                                                        |         | L4  | L3  | L2  | L1  | L4  | L3  | L2  | L1  |
| Capacity (%)                                                                                              | 0~25%   | OFF                                                                                  | OFF                                                                                  | OFF                                                                                  | Flash2                                                                               | OFF                                                                                    | OFF                                                                                    | OFF                                                                                    | ON                                                                                     |
|                                                                                                           | 25~50%  | OFF                                                                                  | OFF                                                                                  | Flash2                                                                               | ON                                                                                   | OFF                                                                                    | OFF                                                                                    | ON                                                                                     | ON                                                                                     |
|                                                                                                           | 50~75%  | OFF                                                                                  | Flash2                                                                               | ON                                                                                   | ON                                                                                   | OFF                                                                                    | ON                                                                                     | ON                                                                                     | ON                                                                                     |
|                                                                                                           | 75~100% | Flash2                                                                               | ON                                                                                   | ON                                                                                   | ON                                                                                   | ON                                                                                     | ON                                                                                     | ON                                                                                     | ON                                                                                     |
| Running Indicator Light  |         | ON                                                                                   |                                                                                      |                                                                                      |                                                                                      | Flash3                                                                                 |                                                                                        |                                                                                        |                                                                                        |

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## SERVICE & SUPPORT

### 6. SERVICE & SUPPORT

#### 6.1 Contact ATX Networks

Please contact ATX Technical Support for assistance with any ATX products. Please contact ATX to obtain a valid RMA number for any ATX products that require service and are in or out-of-warranty before returning a failed module to ATX.

##### TECHNICAL SUPPORT

Tel: 289.204.7800 – press 1  
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only  
Email: [support@atx.com](mailto:support@atx.com)

##### SALES ASSISTANCE

Tel: 289.204.7800 – press 2  
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only  
Email: [insidesales@atx.com](mailto:insidesales@atx.com)

##### FOR HELP WITH AN EXISTING ORDER

Tel: 289.204.7800 – press 3  
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only  
Email: [orders@atx.com](mailto:orders@atx.com)  
Web: [www.atx.com](http://www.atx.com)



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