



Areca™

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

Although every effort has been taken to ensure the accuracy of this document it may be necessary, without notice, to make amendments or correct omissions. Specifications subject to change without notice.

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GENERAL INFORMATION

1. General Information

1.1 About This Document

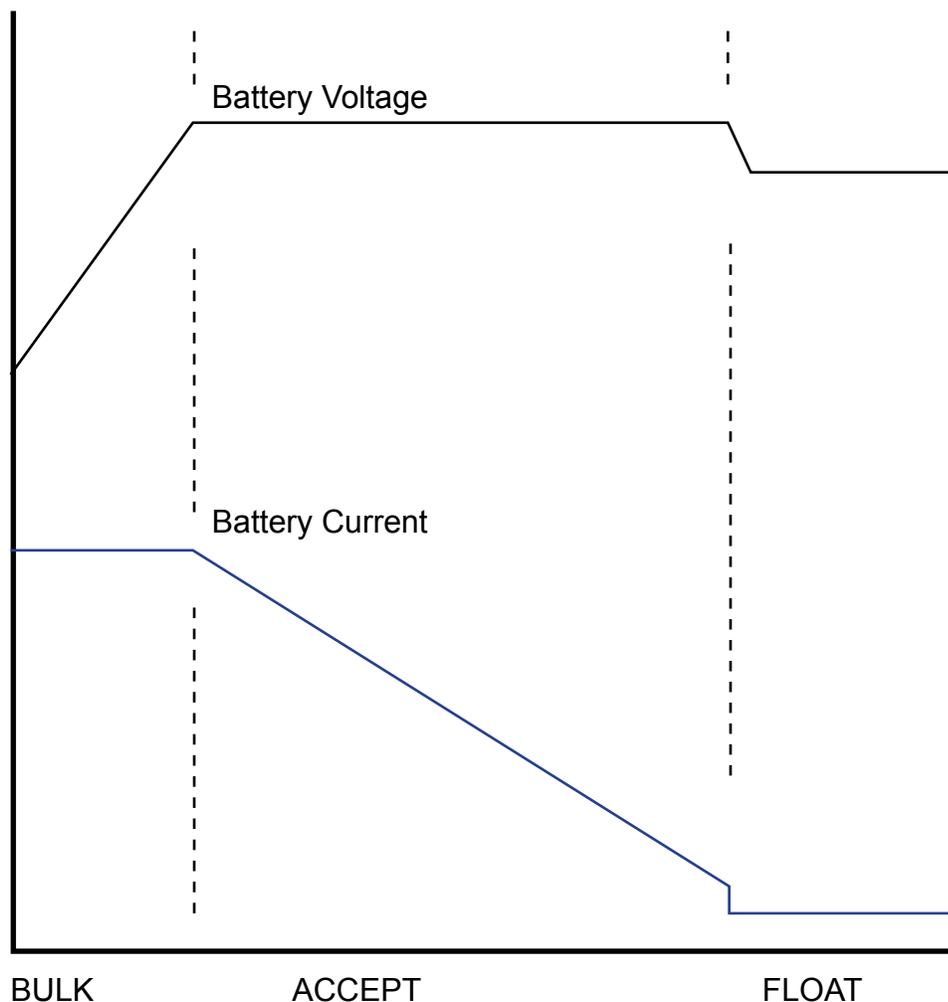
This document is intended to provide the user with guidelines for setting up the Alpha XM3 and XM2 Power Supplies to work with ATX Areca 36-Volt Hybrid Supercapacitor modules.

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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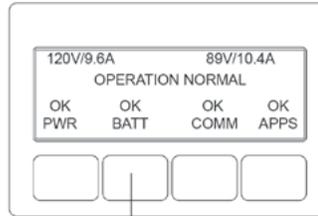
XM3 POWER SUPPLY GUIDE

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



BATTERY INFO MENU	NOTE
BATT CONFIG ENTR	Pressing enter goes to the Battery Configuration menu shown below
BATT VOLTS	Displays combined string voltage
CHARGER CURR	Displays Batt Current for Inverter Mode
CHARGER MODE	Displays current Charger Mode: OFF/FLOAT/REFRESH
IND BATT V	Not displayed if no CMOA or SAG installed
BATT TEMP	Displays battery temperatures (°C)
APPS INFO ENTR	Pressing enter goes to the APPS/INFO menu on APPS Tab ¹
SAG INFO ENTR	Pressing enter goes to the SAG INFO menu shown at right

¹ Displays only if Apps Card is installed.

INDIVIDUAL BATTERY VOLTS MENU
BATT A1 VOLTS ¹
BATT A2 VOLTS ¹
BATT A3 VOLTS ¹
BATT B1 VOLTS ¹
BATT B2 VOLTS ¹
BATT B3 VOLTS ¹
BATT C1 VOLTS ¹
BATT C2 VOLTS ¹
BATT C3 VOLTS ¹
BATT D1 VOLTS ¹
BATT D2 VOLTS ¹
BATT D3 VOLTS ¹
NO BATTERIES ²

¹ Displays only if battery is present.
² Displays if no batteries are present.

SAG INFO
BALANCING STR ¹
DUR REMAIN ##### M ²
A MAX DELTA ##### mV ²
B MAX DELTA ##### mV ²
C MAX DELTA ##### mV ²
D MAX DELTA ##### mV ²
A BAL STAGE MODERATE ²
B BAL STAGE MODERATE ²
C BAL STAGE MODERATE ²
D BAL STAGE MODERATE ²
A SEVERE DUR ##### M ²
B SEVERE DUR ##### M ²
C SEVERE DUR ##### M ²
D SEVERE DUR ##### M ²
BALANCER DIS YES/NO
POWERSAVE MODE YES/NO
NUM OF STRINGS ##
SAG HARDWARE ID

¹ Displays NONE if no strings are being balanced.
² Displays only if string is present.

BATTERY CONFIG MENU	DEFAULT	RANGE	NOTE
BATT MHOS	0	0-2550	
BATT DATES	User programmable		Hidden if no APPS card is installed
BATT MODEL	OTHER		AlphaCell models listed at right
BATT STR DETECT	AUTO	AUTO / MANUAL	
NUM BATT STRINGS	1	1-4	
BATT CAPACITY	100AH	0*, 1-1000	
FLOAT	2.27V/C	2.10-2.35	Automatically set when AlphaCell model is selected.
ACCEPT	2.40V/C	2.20-2.45	
REFRESH	2.45V/C	2.40-2.50	
REST ENABLE	OFF	ON/OFF	
TEMP COMP	5.0MV	0-5.0MV per cell	
EOD TYPE	STRING	IND or STRING	Individual Battery EOD only if sense harness is connected Will display STR OVER for STRING override mode
EOD VOLT	1.75V/C		Hidden if EOD TYPE = STRING
REFRESH ENABLE	ON	ON/OFF	Pressing Enter goes to adjust screen
SAG OPTION			Auto-recognize SAG
SAG FW V1.00.0	AUTO		Hidden if no SAG connected
SAG #####			Hidden if no SAG connected
HEATER MAT	NO	YES/NO	Pressing Enter goes to adjust screen

* BATT CAPACITY should only be set to "0" when no batteries are present to disable NO BATT Alarm.

ALPHACELL BATTERIES
4.0HP
3.5HP
240XTV
195XTV
150XTV
100XTV
18V4XTV
220GXL
195GXL
165GXL
195GOLD
220GOLD
180GXL
210GXL
170XLT
OTHER
NO BATTERY ¹

¹ NO BATTERY will display instead of OK BATTERY if this is selected.

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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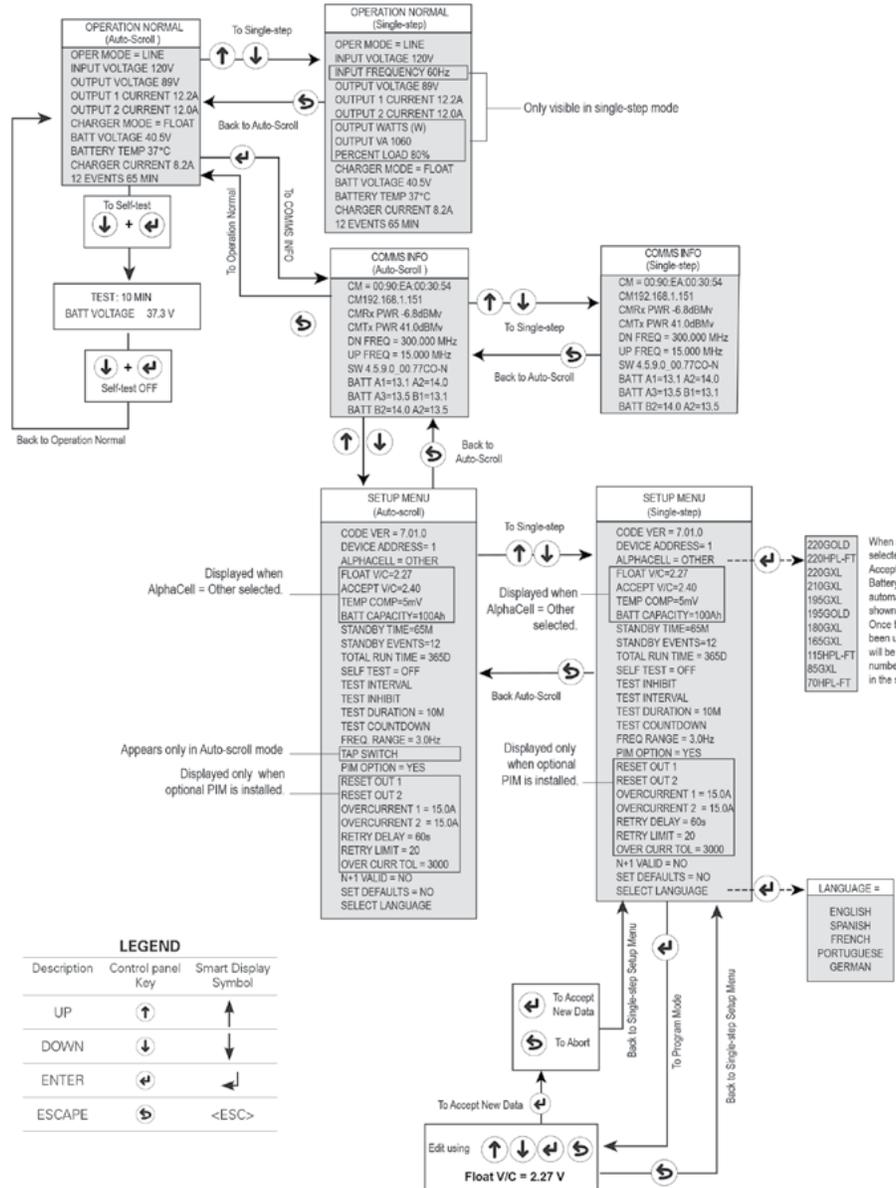
XM2 POWER SUPPLY GUIDE

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

SALES ASSISTANCE

Tel: 289.204.7800 – press 2
Toll-Free: 866.YOUR.ATX (866.968.7289) USA & Canada only
Email: 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
Web: www.atx.com



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