



How To Set Up Fortress Power Lithium Batteries Using SMA SI 4548-6048-US

Introduction

This integration guide will help set up the charge/discharge parameters of Fortress Power batteries as they relate to SMA inverters, as well as closed-loop communication

Datasheets / Manuals: <https://www.fortresspower.com/resources/>

Email: techsupport@fortresspower.com

Discord Support: <https://discord.gg/kxX6QMjKfw>

Phone: (877) 497-6937 x 2

Hours: 8:30AM - 6:30PM EST

Warranty Submittal: <https://www.fortresspower.com/product-warranty/>



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Open Loop Inverter/Charger Settings

Battery Settings (221 #)			
No.	Name	Description	Value
01	BatTyp	Battery type	VRLA
02	BatCpyNom	Nominal battery capacity	LFP-10: 200 Ah per battery eFlex: 105Ah per battery eVault-18.5: 360Ah per battery
03	BatVtgNom	Nominal battery voltage	48V
04	BatTmpMax	Max. Battery Temperature	113 F (45 °C)
05	BatTmpStr	Battery start temp. following stop due to overtemperature	118 F (45 °C)
06	BatWirRes	Power resistor of the battery connection in mOhm	-
07	BatFanTmpStr	Starting Temperature for the "BatFan" function	104 F (40 °C)
Battery Settings (222 #)			
No.	Name	Description	Value
01	BatChrgCurMax	Charging Current of the battery	eVault: 100A per battery LFP10: 80A per battery eFlex: 100A per battery
02	AptTmBoost	Absorption time for normal charge	60 Min
03	AptTmFul	Absorption time for full charge	60 Min
04	AptTmEqu	Absorption time for equalization charge	1H



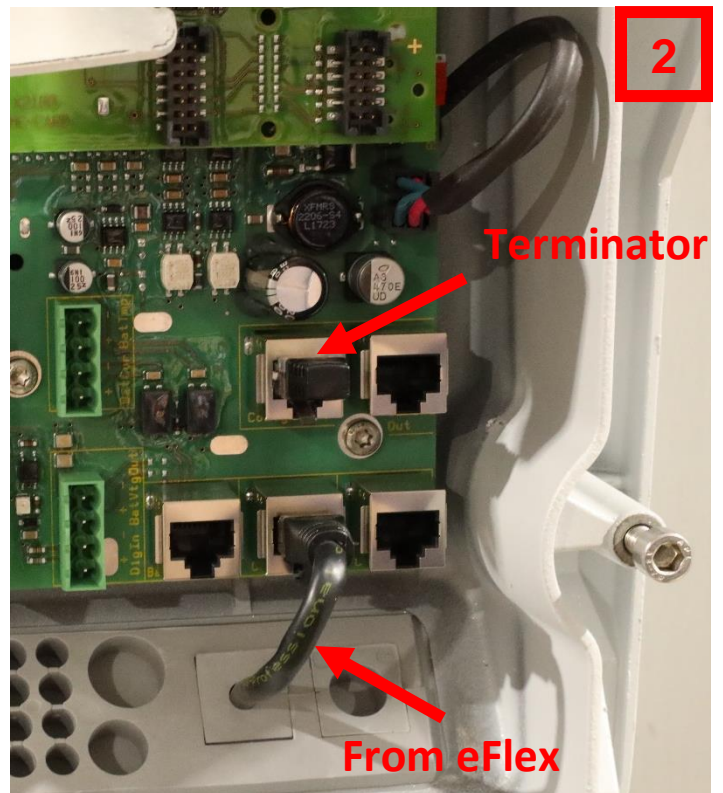
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05	CycTmFul	Cycle Time of full charge	30 Days
06	CycTmEqu	Equalization charge cycle time	180 Days
07	ChrgVtgBoost	Cell Voltage setpoint for normal charge	2.26V
08	ChrgVtgFul	Cell voltage setpoint for full charge	2.3V
09	ChrgVtgEqu	Cell voltage setpoint for equalization charge	2.30V
10	ChrgVtgFlo	Cell Voltage setpoint for float charge	2.26V
11	BatTmpCps	Battery Temperature compensation	0
12	AutoEquChrgEna	Automatic Equalization charge	Disable
BMS Mode Basic / Off (#226)			
No.	Name	Description	Value
01	BatChrgVtgMan	Manual Setpoint of the battery charging voltage with disabled battery management in V	54.5V
02	BatDiChgVtg	Minimum charging voltage of the battery	48V
03	BatDiChgVtgStr	Start voltage after undervoltage detection	48V
04	BatRes	Internal Resistance of the battery	5 mOhm

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Closed Loop Inverter/Charger Settings with the eFlex 5.4

1. Connect a CAT5 cable to the RJ45 port on the open port of your eFlex.
2. Connect this CAT5 cable to the **COMsyncIN** port of the Sunny Island
 - a. The COMsyncOUT port should have an SMA terminator plugged in
3. Navigate to the 01#BatTyp menu. It should show the battery type automatically as LiIon_Ext-BMS
4. Connection is complete. Verify that all of the parameters correspond with the parameters above. The battery capacity may need to be input.





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Please reassess capacity and charge/discharge current settings, when Fortress battery quantities change.

We appreciate your business. Should you have any questions, please don't be hesitate to contact us!

Warm regards,

The Fortress Power team