

EG4-36100WP LiFePower Battery Manual

OVERVIEW

EG4-36100WP is EG4's newest customized 38.4V100Ah Lithium iron phosphate battery module designed for maximum energy storage to fuel power supplies like UPS, Solar Systems, Portable Devices, Boats, and ATV / Golf Cart applications. This battery module is integrated with a 100AH intelligent BMS inside of the IP68 rated waterproof case. The BMS provides advantages on safety, cycle life, energy density, temperature range, and environmental protections.

ADVANTAGES:

This battery consists of prismatic LFP Cells, Wire, BMS, and Container

- Highest Performance LFP Cells with long life, safety features, and a wide temperature range
- Small Size, Light Weight, **High Energy Density**
- Single Cell Container is fire retardant, stable and safe
- Built-In 100AH BMS with voltage, current, temperature, and health management
- Integrated Bluetooth with APP for monitoring
- 10-20 Year Design Life
- Maintenance Free, Waterproof, 5 Year Warranty

PRODUCT IMAGES (36V/100AH):



BATTERY MODULE SPECIFICATIONS:

	ITEM	SPEC	DETAIL
NOMINAL	VOLTAGE	38.4V	77°F, .2°C
	CAPACITY	100AH	5.12kWh
OPERATING PARAMETERS	CHARGING VOLTAGE REC.	43.2V	
	DISCHARGE VOLTAGE REC.	30V	
	MAXIMUM CHARGE CURRENT	100A constant	
	MAXIMUM DISCHARGE CURRENT	100A constant	30A : RECOMMENDED
	REC. BULK VOLTAGE	42.75V	
	REC. FLOAT VOLTAGE	42.3V	
	REC. ABSORB VOLTAGE	42.3V	
WEIGHT (LBS)		85 LBS	
DIMENSIONS (W D H)		20.4X9.3X 8.6in	
TEMP.	CHARGE RANGE	32°F - 113°F	
	DISCHARGE RANGE	-4°F - 131°F	
	STORAGE RANGE	- 4°F - 113°F	
BMS	BUILT IN BATTERY MANAGEMENT SYSTEM	VOLTAGE, CURRENT, TEMPERATURE MANAGEMENT, CELL BALANCE MANAGEMENT, COMMUNICATION WITH BLUETOOTH IOS SMART DEVICE	EG4 BLUETOOTH APPLICATION
SERVICE LIFE	DESIGN LIFE	>15 YEARS	
	CYCLE LIFE @80% DOD	>7000 TIMES	
WARRANTY		5 YEARS	

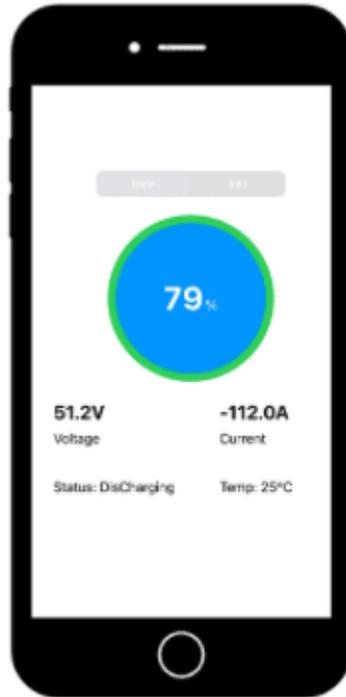
BMS SPECIFICATIONS:

BMS provides complete management and protection for your batteries cells. You can expect

- Voltage Warning and Protection for module and each cell
- Current Warning and Protection
- Temperature Warning and Protection (BMS and Cell Sensors)
- Bluetooth Application Monitoring from Smart Device
- Auto Sleep and Operating Mode, Low Consumption

	ITEM	PARAMETERS	DETAIL	
CHARGE	CELL VOLTAGE PROTECTION	3.9V	DELAY 1S RECOVER @ 3.45V	
	MODULE VOLTAGE PROTECTION	45V	DELAY 1S RECOVER @ 41.5V	
	OVER CHARGE CURRENT 1	>102A	DELAY 10S	
	OVER CHARGE CURRENT 2	≥120A	DELAY 2S	
	TEMPERATURE PROTECTION	<32°F or >158°F	DELAY 1S RECOVER @ >32 F or <140	
DISCHARGE	CELL VOLTAGE PROTECTION	2.3V	DELAY 1S RECOVER @ 3.1V	
	MODULE VOLTAGE PROTECTION	30V	DELAY 1S RECOVER @ 36V	
	OVER CHARGE CURRENT 1	>100A	DELAY 10S RECOVER IN 60S	
	OVER CHARGE CURRENT 2	>150A	DELAY 5S RECOVER IN 60S	
	TEMPERATURE PROTECTION	<32°F or >158°F	DELAY 1S	
	SHORT CIRCUIT	>250A	DELAY .1MS	
BMS SPECS	PCB TEMP PROTECTION	>203 F	DELAY 1S RECOVER @ <167 F	
	CELL BALANCE	100mA	PASSIVE BALANCE CELL V DIFFERENCE >40mV	
	TEMPERATURE ACCURACY	3%	CYCLE MEASURE -40 F - 212 F RANGE	
	VOLTAGE ACCURACY	0.5%	CYCLE MEASURE FOR CELLS AND MODULE	
	CURRENT ACCURACY	3%	CYCLE MEASURE -200 ~ + 200mV RANGE	
	POWER CONSUMPTION WITH DIFFERENT CONDITIONS	<300uA	DELAY 1S	STORAGE & TRANSPORTATION
		<300uA	SLEEP	PROTECTION AND STANDBY
		<40mA	OPERATING	CHARGING & DISCHARGING
	STATE OF CHARGE	5%		INTERNAL CALCULATIONS
COMMUNICATION	BLUETOOTH - EG4 APP IOS AND ANDRIOD SMART DEVICE			

EG4 BLUETOOTH APPLICATION DOWNLOAD:



SCAN TO DOWNLOAD

Download the app using the QR codes here. (You may need to enable "Allow install from unknown sources" on Android devices.)



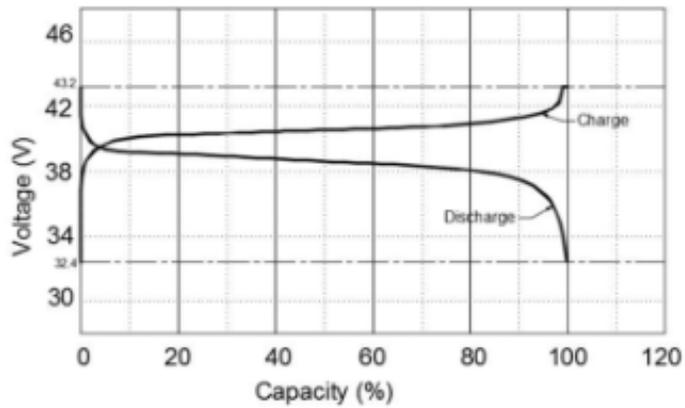
iOS App



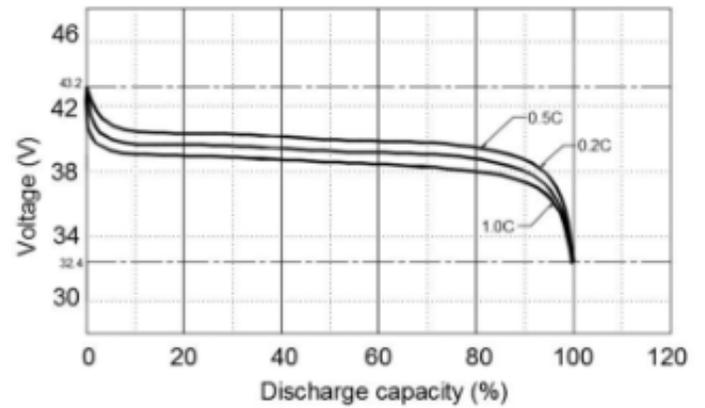
Android App

BATTERY MODULE PERFORMANCE CURVE:

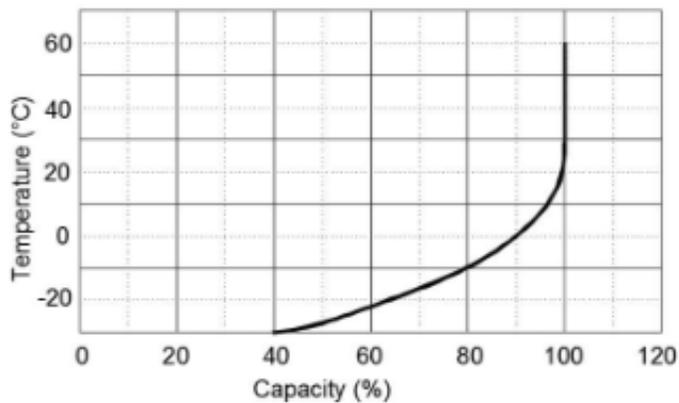
Charge & Discharge curve with 1.0C @ 25°C



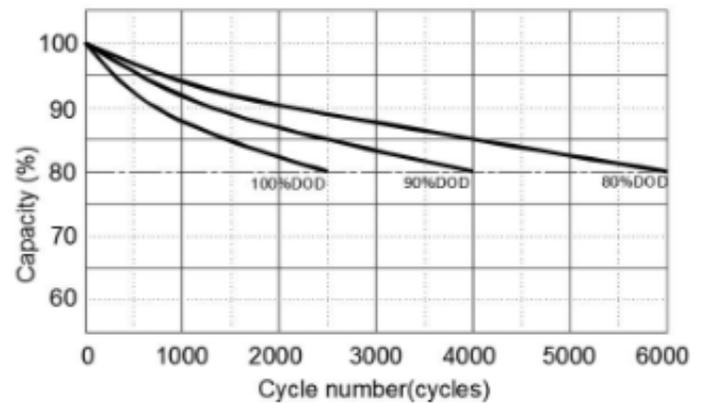
Discharge performance with different rate @ 25°C



Discharge capacity with different temperature @ 0.5C



Cycle life with DOD @ 0.5C, 25°C



Self-discharge @ different temperature

