



# EG4® LIFEPOWER4 48V V2 BATTERY

EG4 Lithium Iron Phosphate battery 51.2V (48V battery) 5.12kWh with 100A internal BMS, composed of (16) UL recognized prismatic 3.2V cells in series which have been tested at >6,000 deep discharge cycles to 80% DoD. Fully charge and discharge this battery daily for over 15 years without issue. Reliable and rigorously tested, with 99% operating efficiency.

**CONFIGURABLE  
INVERTER  
PROTOCOL  
SELECTION**

**\*10-YEAR  
WARRANTY**

**E-STOP  
FUNCTIONALITY**

## >6,000 CYCLES

Charge and discharge confidently with batteries built for long-life and durability using 80% DoD (Depth of Discharge).

## 10-YEAR WARRANTY

Have peace of mind knowing the product has a 10-year standard warranty.

## INVERTER PROTOCOL DIP SWITCH

The inverter protocol DIP switch allows for the selection of the inverter protocol directly from the battery.

## ENHANCED SAFETY FEATURES

E-Stop functionality offers fail-safe operation in potentially high-risk environments. Dual On-Board fire arrestors allow for added peace of mind during operations.

## PARALLEL UP TO 64 BATTERIES

For maximum power, the battery protocol DIP switch option allows up to ~327.7kWh of storage while preserving BMS communications.

\*For information regarding warranty registration on EG4® Electronics products, please navigate to <https://eq4electronics.com/warranty/> and select the corresponding product to begin the registration process.

## TECHNICAL SPECIFICATIONS

MODULE OPERATING PARAMETERS			
PARAMETER	BMS	RECOMMENDED	
VOLTAGE	51.2V	-	
CAPACITY	100Ah	-	
CHARGING VOLTAGE (BULK/ABSORB)	56.8V	-	
LOW DC CUTOFF/SOC CUTOFF	44.8V	48V ± 0.2V*   20%**	
CHARGING CURRENT	100A (Max. continuous)	30A	
DISCHARGING CURRENT	100A (Max. continuous)	-	
MAXIMUM CONTINUOUS DISCHARGE RATE	5.12kW	-	
NAMEPLATE ENERGY CAPACITY	5.12kWh	-	
BMS PARAMETERS			
CHARGE	SPEC	DELAY	RECOVERY
CELL VOLTAGE PROTECTION	3.8V	1s	3.45V
MODULE VOLTAGE PROTECTION	60.0V	1s	55.2V
OVER CHARGING CURRENT 1	>102A	10s	-
OVER CHARGING CURRENT 2	≥120A	3s	-
TEMPERATURE PROTECTION	<23°F or >158°F <-5°C or >70°C	1s	<32°F or >140°F >0°C or 60°C
DISCHARGE			
CELL VOLTAGE PROTECTION	2.3V	1s	3.1V
MODULE VOLTAGE PROTECTION	44.8V	1s	48.0V
OVER DISCHARGING CURRENT 1	>102A	10s	60s
OVER DISCHARGING CURRENT 2	>150A	3s	60s
SHORT-CIRCUIT	>300A	<0.1ms	-
TEMPERATURE PROTECTION	<-4°F or >167°F <-20°C or >75°C	1s	>14°F or <149°F >-10°C or <65°C
PCB TEMP PROTECTION	>221°F (>105°C)	1s	<176°F (<80°C)

GENERAL SPECIFICATIONS			
PARAMETER	SPEC	TYPE	CONDITION
CELL BALANCE	120mA	Passive Balance	Cell Voltage Difference >40mV
TEMPERATURE ACCURACY	3%	Cycle Measurement	Measuring Range 40°F – 212°F (-40°C – 100°C)
VOLTAGE ACCURACY	0.5%	Cycle Measurement	For Cells/Module
CURRENT ACCURACY	3%	Cycle Measurement	Measurement Range +/-200A
SOC	5%	-	Integral Calculation
POWER CONSUMPTION (SLEEP & OFF MODE)	<300uA	-	Storage/Transport/ Standby
POWER CONSUMPTION (OPERATING)	<25mA	-	Charging/Discharging
COMMUNICATION PORTS	RS485/CAN	-	Customizable
MAXIMUM MODULES IN SERIES			1
MAXIMUM MODULES IN PARALLEL			64
E-STOP FUNCTION			Yes
DIMENSION (H×W×D)	6.1 in. × 19 in. × 17.4 in. (155 mm × 442 mm × 470 mm)		
WEIGHT	99.6 lbs. (45.2 kg)		
ENVIRONMENTAL PARAMETERS			
CHARGING RANGE	32°F – 113°F (0°C – 45°C)		
DISCHARGING RANGE	-4°F – 122°F (-20°C – 50°C)		
STORAGE RANGE	-4°F – 122°F (-20°C – 50°C)		
INGRESS PROTECTION	IP20		
STANDARDS AND CERTIFICATIONS			
MODULE	UL 1973 ETL Recognized Component Certification UL9540A (Passed) UL9540 listed with 18kPV-12LV		

*\*When running the battery in open-loop communications, note that battery SOC% and battery voltage do not directly correlate. Raise or lower this value in 0.2V increments.*

*\*\*EG4 recommends this value be set no lower than 20% to maintain the recommended 80% depth of discharge.*

## C H A N G E L O G

### **Version 1.1.2**

- Modified over charge current delay from 20s to 10s
- Modified over discharge current delay from 30s to 10s

### **Version 1.1.1**

- Added CETL logo to cover page
- Modified SOC cutoff row to also show Voltage cut-off

### **Version 1.1**

- Modified spec sheet to show 20% recommended battery cut-off

### **Version 1.0**

- Document published