ECIPower

LiFePO4
Lithium Iron Phosphate
ECI1210

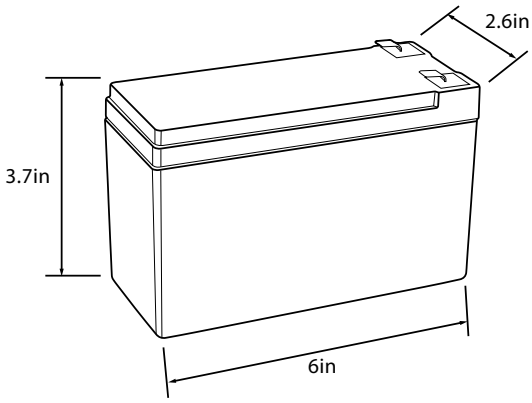
Features:

- High energy density
- Automatic protection with internal battery management system
- Low self-discharge rate
- Long cycle life
- Excellent performance in all operating temperatures

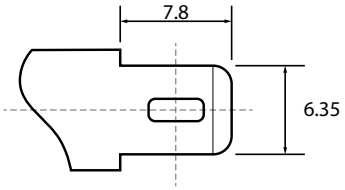
Battery Specifications

Nominal Characteristics		
Nominal Voltage /V		12.8V
Nominal Capacity /Ah (25°C , 0.2C)		≥ 10Ah
Mechanical Characteristics		
Weight		2.25 lbs
Dimensions LxWxH		6 x 2.6 x 3.7 in
Terminal		F2
Electrical Characteristics		
Voltage Window		9.2 – 14.6V
Charge Voltage		14.4V
Standby Voltage		13.8V
Max. Continue Discharge Current		10A
Max. Permanent Discharge Current		20A 10Sec.
Max. Continue Charge Current		5A
Operation Conditions		
Cycle Life (+20°C 0.2C 100%DOD)		>2500 Cycles
Operating Temperature	Discharge: Charge:	- 4 – 140˚F 32 – 140˚F
Storage Temperature		32 – 86˚F
Storage Duration		12 Months at 77˚F
Safety Standard		UI1642 at cell level

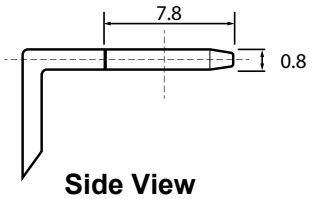
Battery Dimensions:



Terminal Dimensions:



Top View



Side View

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BMS Specifications

Protection	Content	Criteria
Voltage	Charging voltage	DC:14.4V CC/CV
	Balance voltage for single cell	3.525±0.025V
Current	Balance current for single cell	35±5mA
	Current consumption	≤35uA
	Max continuous charge current	≤20A
	Max continuous discharge current	≤20A
	Maximum discharging current (time)	40A/5S
Over-Charge	Over-Charge detection voltage	3.65±0.025V
	Over-Charge detection delay time	0.5~1.5S
	Over-Charge release voltage	3.55±0.05V
Over-Discharge	Over-Discharge detection voltage	2.30±0.05V
	Over-Discharge detection delay time	500~1500mS
	Over-Discharge release voltage	2.7±0.10V
Over-Current	Over-Discharge current detection	50±10A
	Detection delay time 1	50~150mS
	Over-Discharge current detection	100±20A
	Detection delay time 2	5~15mS
	Over-Charge current detection current	20±8A
	Detection delay time	300~800mS
Short Circuit	Short Circuit Protection Current	200A
	Detection delay time	300~800uS
	Detection condition	Exterior short circuit
	Release condition	Cut load, Auto Recovery
Temperature	Detect the temperature of the Mosfet MOS	/
	Charging high temperature protection	50±5 °C
	Charging high temperature release	40~45 °C
	Charging low temperature protection	0±5 °C
	Charging low temperature release	5~10 °C
	Discharge high temperature protection	70±5 °C
	Discharge high temperature release	50~60 °C
	Discharge low temperature protection	-20±5 °C
	Discharge low temperature release	-10~-15 °C
	Temperature protection release condition	25 °C Idle for 60 minutes, charging activation.
	Operating temperature range	-20~+70 °C
	Storage temperature range	0~60 °C