LEADMAX®

TECHNICAL DATA SHEET
Lithium Iron Phosphate (LiFePO4) Battery

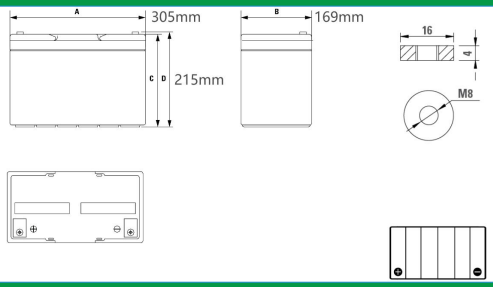
DEEP CYCLE

BATTERY MODEL: LM-12100-LFP (12.8V 100Ah)

Features of LiFePO4 battery

- **Longer Cycle Life:** Offers up to 20times longer cycle life and five times longer float /calendar life than lead acid battery, helping to minimize replacement cost and reduce total cost of ownership.
- **Lighter Weight:** About 40% of the weight of a comparable lead acid battery. A 'drop in' replacement for lead acid batteries.
- **Higher Power:** Delivers twice power of lead acid battery ,even high discharge rate, while maintaining high energy capacity.
- **Wider Temperature Range:** -20°C~60°C.
- **Superior Safety:** Lithium Iron Phosphate chemistry eliminates the risk of explosion or combustion due to high impact, overcharging or short circuit situation.
- **Increased Flexibility:** Modular Design enables deployment of up to up to six battery in parallel.

Physical Dimension



Application

- Electric vehicles, electric mobility
- Solar/wind energy storage system
- UPS, backup power
- Telecommunication
- Medical equipment
- Lighting
- Marine, RV

Specification

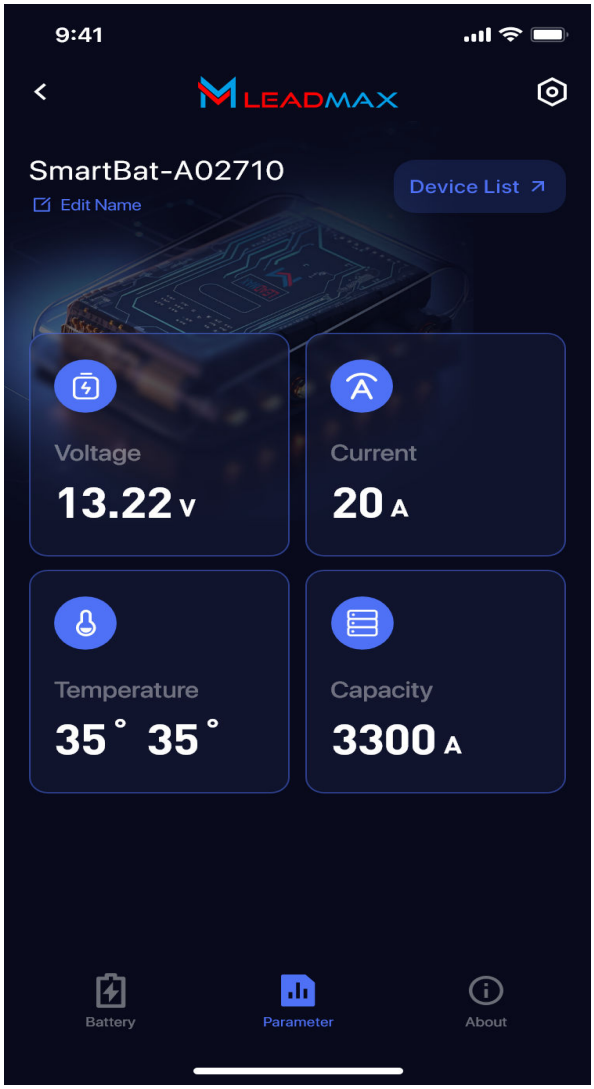
Electrical Characteristics	Nominal Voltage	12.8V
	Nominal Capacity	100Ah
	Energy	1280Wh
	Internal Resistance	≤20mΩ
	Cycle Life	>3000 cycles @1C 100%DOD
	Months Self Discharge	<3%
	Efficiency of Charge	100% @0.5C
	Efficiency of Discharge	96~99% @1C
Standard Charge	Charge Voltage	14.6±0.1V
	Charge Mode	0.2C to 14.4V, then 14.6V,charge current to 0. 02C (CC/CV)
	Charger Current	50A
	Max. Charge Current	100A
	Charge Cut-off Voltage	15.0V±0.1V
Standard Discharge	Continuous Current	100A
	Max. Pulse Current	200A(<3s)
	Discharge Cut-off Voltage	10V
Environmental	Charge Temperature	0 ℃ to 45 ℃ (32F to 113F) @60±25% Relative Humidity
	Discharge Temperature	-20 ℃ to 60 ℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	0 ℃ to 40 ℃ (32F to 104F) @60±25% Relative Humidity
	Water Dust Resistance	IP65
Mechanical	Cell & Method	Prismatic 100AH 4S1P
	Plastic Case	Metal
	Dimensions (mm./in.)	305×169×211/215mm
	Weight (kg./lbs.)	10.5kg
	Terminal	M8
	In parallel	Max 6 pcs
	Bluetooth Function	YES

BMS bluetooth can read battery details:

- Voltage
- Single cell voltage Communication frequency
- Current
- State of charge(SOC)
- Charge or discharge(State)
- Cycles
- Temperature
- Serial Number

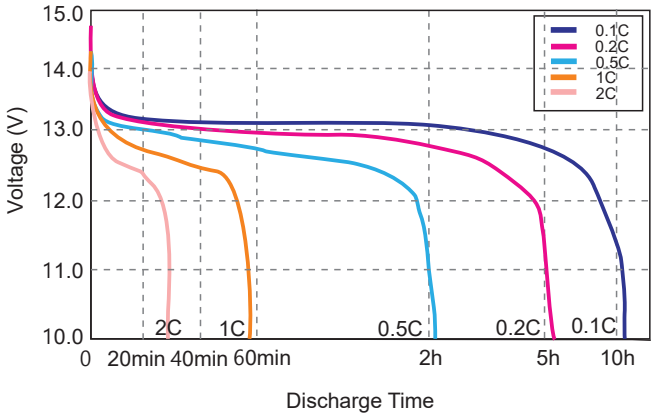
Note:

1. Mobile phone (tablet) hardware needs to support Bluetooth4.0 BLE (Bluetooth low energy)
2. Measuring distance: ≤5m



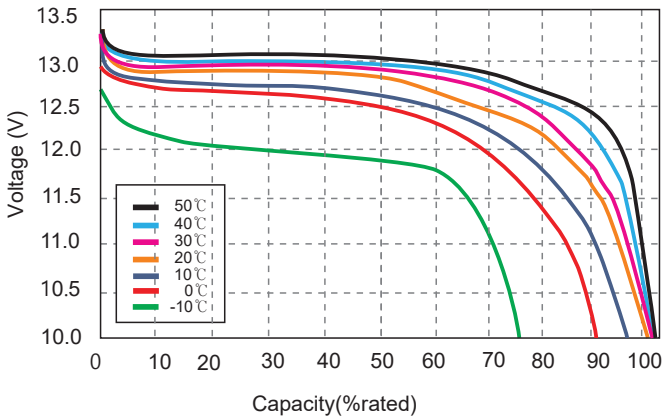
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



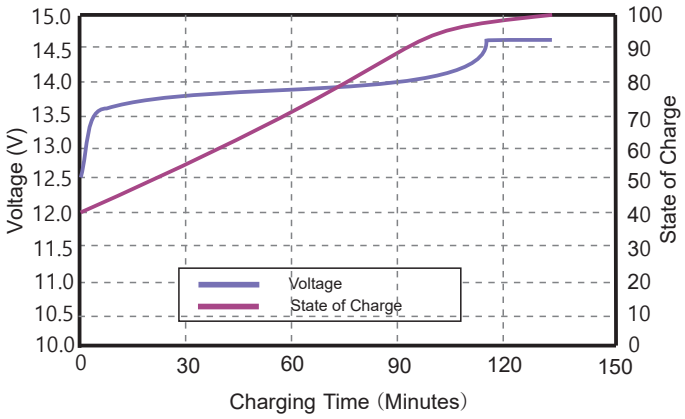
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



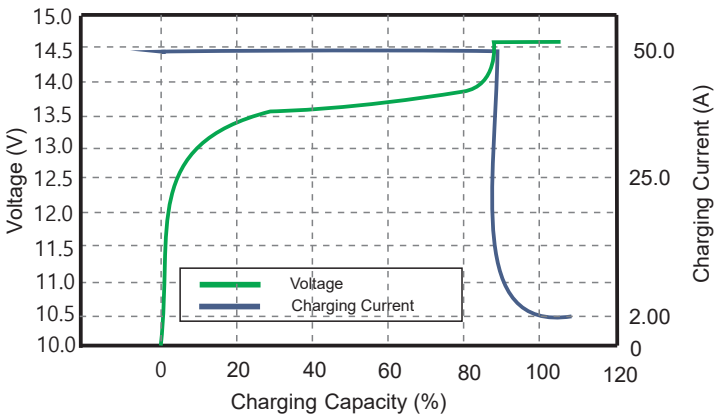
State of Charge Curve

State of Charge Curve @0.5C 25°C



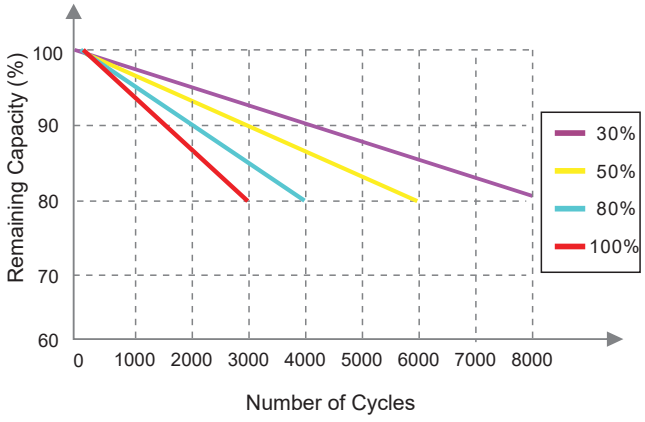
Charging Characteristics

Charging Characteristics @0.5C 25°C



Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve