

# Enjoybot Lithium Iron Phosphate LiFePO4 Deep Cycle Battery 12V 400Ah



**MSDS**



## DIMENSIONAL SPECIFICATIONS



## ELECTRICAL SPECIFICATIONS

|                       |                     |
|-----------------------|---------------------|
| Nominal Voltage       | 12.8V               |
| Nominal Capacity      | 400Ah, 5120Wh       |
| Cell Type - Chemistry | LiFePO4             |
| Cycle Life            | 5000 times @80% DOD |
| BMS Rating            | 250A                |

## MECHANICAL SPECIFICATIONS

|                      |   |
|----------------------|---|
| Dimensions(L xW x H) | 20.47 x 10.59 x 8.66 inch<br>520 x 269 x 220 mm |
| Weight               | 85.98 lbs (39kg)                                |
| Terminal             | M8*16mm (L)                                     |
| Case Material        | ABS Plastic                                     |
| Waterproof Rating    | IP65  |

## HIGH QUALITY LITHIUM BATTERY

- High energy density: Provides long runtimes and has a large storage capacity.
- Longer lifespan: Can undergo more charge and discharge cycles, resulting in longer service life.
- Enhanced stability and safety: Less susceptible to safety issues like overheating and fire.
- Environmentally friendly: No liquid, non-toxic, and causes less pollution to the environment.
- Fast charging: Reduces users' charging time.

## CHARGE SPECIFICATIONS

|                                  |                |
|----------------------------------|----------------|
| Recommended Charge Current       | 80 A           |
| Max. Continuous Charging Current | 125A           |
| Recommended Charge Voltage       | 14.2 V – 14.6V |
| Max. Batteries in Series         | 4              |
| Max. Batteries in Parallel       | 10             |
| Max. Configuration               | 4S4P           |

## TEMPERATURE SPECIFICATIONS

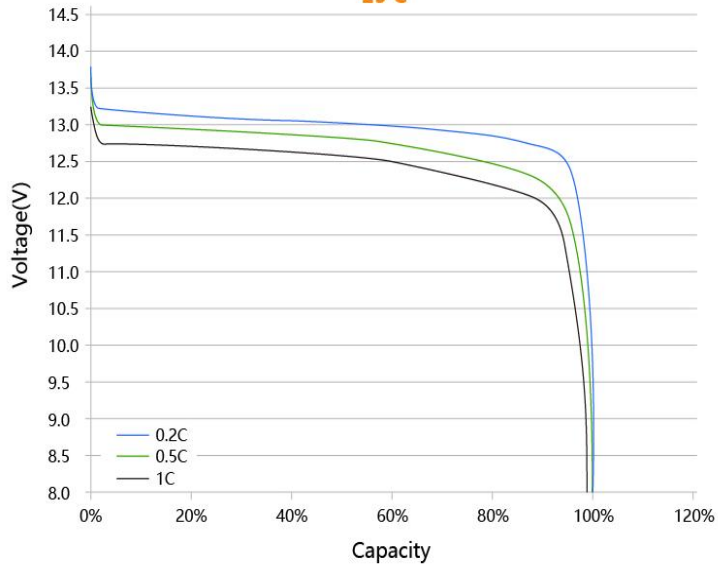
|                              |                                |
|------------------------------|--------------------------------|
| Charge Temperature           | 32 ~ 122 °F (0 ~ 50 °C)        |
| Discharge Temperature        | -4 ~ 140 °F (-20 ~ 60 °C)      |
| Storage Temperature          | 14 ~ 122 °F (-10 ~ 50°C)       |
| High Temp Cut-Off / Recovery | 167 °F (75 °C) / 122°F (50 °C) |
| Low Temp Cut-Off / Recovery  | 32 °F (0 °C) / 41°F (5 °C)     |

## DISCHARGE SPECIFICATIONS

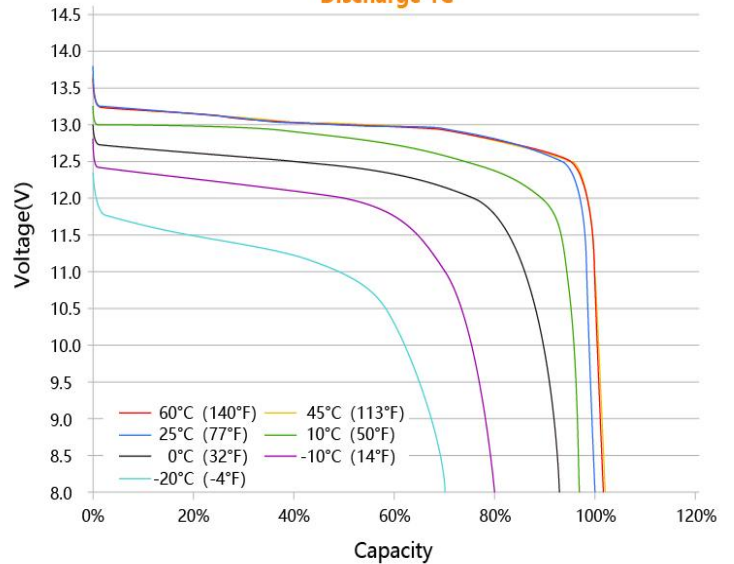
|                                   |             |
|-----------------------------------|-------------|
| Max. Continuous Discharge Current | 250A        |
| Peak Discharge Current            | 875A (3-5s) |
| Max Depth of Discharge (DOD)      | 100%        |
| Max. Load /Inverter Power         | 3200W       |

# PERFORMANCE CHARACTERISTICS

Discharge Voltage Characteristics at Various Rates  
25°C



Discharge Voltage Characteristics at Various Temperatures  
Discharge 1C



## STATE OF CHARGE (SOC)

| Charge     |             | Discharge  |             |
|------------|-------------|------------|-------------|
| Voltage(V) | Electricity | Voltage(V) | Electricity |
| 11.85      | 0%          | 13.4~13.8  | 100%        |
| 13.01      | 10%         | 13.38      | 90%         |
| 13.21      | 20%         | 13.37      | 80%         |
| 13.33      | 30%         | 13.37      | 70%         |
| 13.33      | 40%         | 13.26      | 60%         |
| 13.33      | 50%         | 13.23      | 50%         |
| 13.35      | 60%         | 13.21      | 40%         |
| 13.45      | 70%         | 13.15      | 30%         |
| 13.45      | 80%         | 13.04      | 20%         |
| 13.45      | 90%         | 12.91      | 10%         |
| 13.6       | 100%        | 11.85      | 0%          |

\*12.8V LiFePO4 battery laboratory test data (for reference only)

## MPPT PARAMETER SETTINGS

### Charging:

Charging Limit Voltage: 14.2V

Over Voltage Disconnect Voltage: 14.6V

Over Voltage Reconnect Voltage: 13.8V

Float Charging Voltage: 13.8V

### Discharging:

Low Voltage Disconnect Voltage: 11.6V

Low Voltage Reconnect Voltage: 12.4V

Under Voltage Warning Voltage: 12.8V

## APPLICATIONS



Golf Cart



RV, Camper



Solar



Trolling Motor

## ALL-ROUND PROTECTION WITH BMS



Overcharge Protection



High/Low Temperature Protection



Short-circuit Protection



Over-discharge Protection



Overload Protection



Battery Cell Balancing