

Enjoybot Lithium Iron Phosphate LiFePO4 Deep Cycle Battery 12V 280Ah



MSDS



DIMENSIONAL SPECIFICATIONS



ELECTRICAL SPECIFICATIONS

| | |
|-----------------------|---------------------|
| Nominal Voltage | 12.8V |
| Nominal Capacity | 280Ah, 3584Wh |
| Cell Type - Chemistry | LiFePO4 |
| Cycle Life | 5000 times @80% DOD |
| BMS Rating | 200A |

MECHANICAL SPECIFICATIONS

| | |
|----------------------|--|
| Dimensions(L xW x H) | 520 x 269 x 220 inch 522 x 240 x 218 mm |
| Weight | 58.42 lbs (26.5kg) |
| 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 | 40 A |
| Max. Continuous Charging Current | 100A |
| Recommended Charge Voltage | 14.2 V – 14.6V |
| Max. Batteries in Series | 4 |
| Max. Batteries in Parallel | 10 |
| Max. Configuration | 4S4P |

TEMPERATURE SPECIFICATIONS

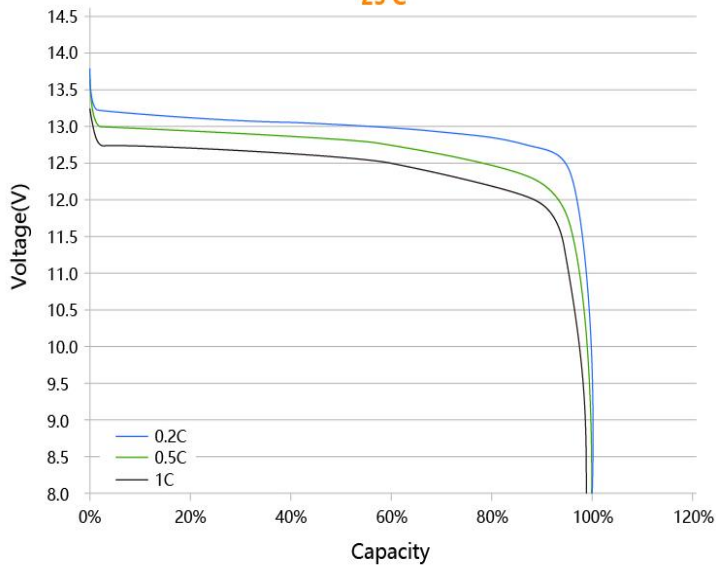
| | |
|------------------------------|--------------------------------|
| Charge Temperature | 32 ~ 122 °F (0 ~ 50 °C) |
| Discharge Temperature | -4 ~ 140 °F (-20 ~ 60 °C) |
| Storage Temperature | 14 ~ 122 °F (-10 ~ 50°C) |
| High Temp Cut-Off / Recovery | 167 °F (75 °C) / 122°F (50 °C) |
| Low Temp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

DISCHARGE SPECIFICATIONS

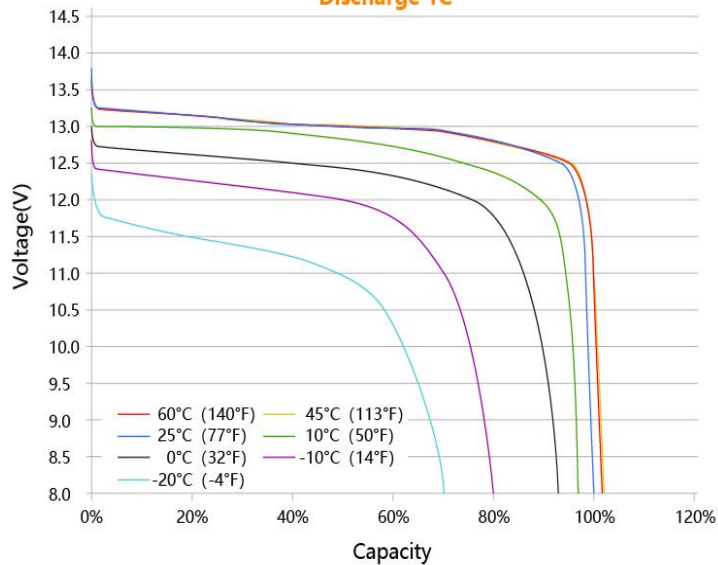
| | |
|-----------------------------------|-------------|
| Max. Continuous Discharge Current | 200A |
| Peak Discharge Current | 700A (3-5s) |
| Max Depth of Discharge (DOD) | 100% |
| Max. Load /Inverter Power | 2560W |

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