



# BIG BEARD BATTERY™ BBB 12V300 THE ORIGINAL



## GENERAL SPECIFICATIONS:

- Battery Type: LiFePO4 (Lithium Iron Phosphate)
- Cell type: Prismatic
- Nominal Voltage: 12.8V
- Nominal Capacity: 305Ah
- Energy: 7680Wh (7.68 kWh)
- Cycle Life:  $\geq 4000$  cycles at 80% Depth of Discharge (DOD)
- Design Life: 11 years

## ELECTRICAL CHARACTERISTICS:

- Nominal Voltage: 12.8V
- Operating Voltage Range: 11V – 14.6V
- Max Continuous Discharge Current: 250A
- Peak Discharge Current: 450A (up to 10 seconds)
- Max Continuous Charge Current: 250A
- Charge Cut-off Voltage: 14.6V  $\pm$  0.2V
- Discharge Cut-off Voltage: 11.2V
- C-rate: 0.5C for recommended discharge, 1C for max continuous discharge

## PHYSICAL SPECIFICATIONS:

- Dimensions (L x W x H): 14.25" L x 7.5" W x 10.75" H
- Weight: 62lbs
- Terminal Type: threaded terminal post
- Case Material: metal

## PERFORMANCE CHARACTERISTICS:

- Self-Discharge Rate:  $\leq 3\%$  per month
- Efficiency:  $\geq 96\%$  round-trip
- Temperature Range:
- Discharge Temperature: 34°F to 120°F (internal self-heating will turn on at 34°F)
- Charge Temperature: 32°F to 113°F
- Storage Temperature: (-4°F to 113°F)

## SAFETY AND PROTECTIONS:

- **Battery Management System (BMS):**
- Overcharge Protection
- Over-discharge Protection
- Overcurrent Protection
- Short Circuit Protection
- Thermal Protection
- Internal heating turn on temp 34° and turn off temp 40°
- Cell Balancing- Active at 3.4v on each cell
- On off/switch for storage mode

## APPLICATIONS:

- Solar Energy Storage
- RV/Off-grid Use
- Off-grid Power Systems
- Backup Power

## WARRANTY:

- 11-year limited warranty
- 11-year expected lifespan

