

# DATA SHEET

12.8V300Ah - GT12V300-LTCAN-A20



Lithium Iron Phosphate Battery

## BATTERY FEATURES & PERFORMANCE

### FEATURES

- ⚡ Lithium Iron Phosphate (LiFePO<sub>4</sub>): the Safest Lithium Technology
- ⚡ Integrated Battery Management System(BMS)
- ⚡ CANBus Communication
- ⚡ Self-heating

### PERFORMANCE

- ⚡ Long Cycle Life>2000cycles @100% DOD
- ⚡ High Density, High Discharge Current, High Temperature Range
- ⚡ Low Weight, Free Maintenance
- ⚡ Fast Charging
- ⚡ Environment Friendly

## ELECTRICAL PARAMETERS

|                 |                         |
|-----------------|-------------------------|
| Nominal Voltage | 12.8V                   |
| Rated Capacity  | 300Ah                   |
| Energy          | 3840Wh                  |
| Resistance      | ≤30m Ω                  |
| Efficiency      | 99%                     |
| Cycle Life      | >2000 cycles @ 100% DOD |
| Self Discharge  | 2% per Month            |

## DISCHARGE PARAMETERS

|                               |                   |
|-------------------------------|-------------------|
| Continuous Discharge Current  | 200A              |
| Pulse Discharge Current       | 600A (<3 seconds) |
| Recommended Volt. Disconnect  | 10V               |
| BMS Discharge Cut-off Voltage | 10V               |
| Reconnect Voltage             | 11.2V             |
| Short Circuit Protection      | 200~600 us        |

## COMPLIANCE CERTIFICATE

|                         |                         |
|-------------------------|-------------------------|
| Certifications          | UL 1642 (cell)          |
|                         | CE                      |
|                         | IEC62133 & CB           |
|                         | KC                      |
|                         | BIS                     |
| Shipping Classification | UN3480, Class 9, UN38.3 |

 Manufactured and distributed by Grand Teton Energy Systems.

Performance may vary depending on application. All Specifications and operation conditions are subject to change without notice. This data is for evaluation purposes only. No guarantee is intended or implied by this data.

Version 001

## MECHANICAL PARAMETERS

|                       |                                  |
|-----------------------|----------------------------------|
| Dimension (L x W x H) | 20.6 in x 10.55 in x 8.8 in      |
| Weight                | 88.18 lbs                        |
| Terminal Type         | M8                               |
| Battery Housing       | ABS, UL-94 V-0                   |
| Housing Protection    | IP56                             |
| Cell Type-Chemistry   | LiFePO <sub>4</sub> Battery Cell |

## CHARGE PARAMETERS

|                            |            |
|----------------------------|------------|
| Charge Method              | CC-CV      |
| Charge Voltage             | 14.4~14.8V |
| Recommended Float Voltage  | 13.8V      |
| Recommended Charge Current | 100A       |
| Maximum Charge Current     | 200A       |
| BMS Charge Cut-Off Voltage | 15.6V      |

## TEMPERATURE PARAMETERS

|                              |                            |
|------------------------------|----------------------------|
| Discharge Temperature        | -40 to 60°C (-40 to 140°F) |
| Charge Temperature           | -30 to 45°C (-22 to 113°F) |
| Storage Temperature          | -40 to 60°C (-40 to 140°F) |
| BMS High Temperature Cut-Off | 80°C (176°F)               |

## BATTERY RECYCLE



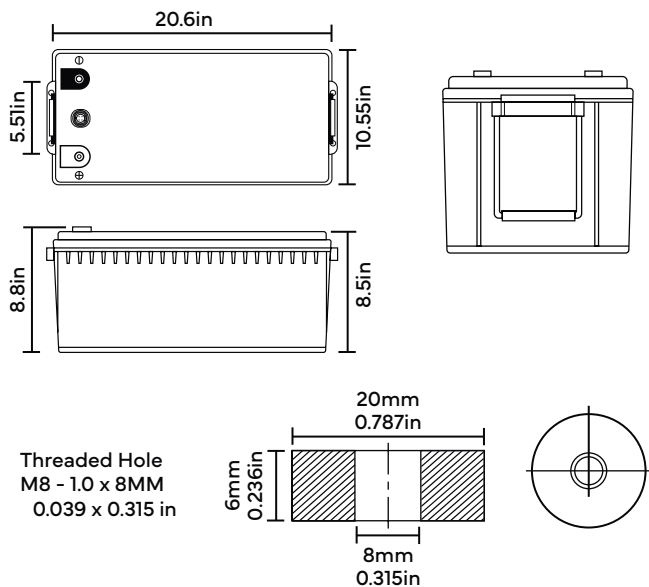
**NOTE:** Do Not Mix With Sealed Lead Acid Batteries When Recycling.  
See Grand Teton User's Manual for Proper Operation.  
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## BATTERY DIMENSIONS

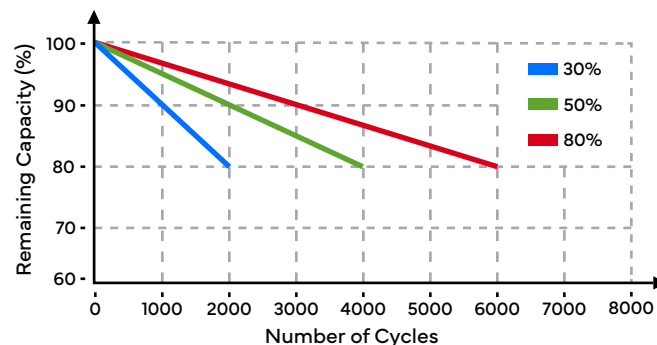


## BATTERY APPLICATIONS

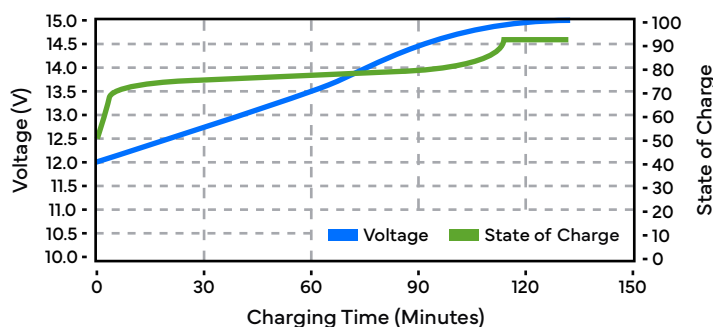
- ⚡ Data Center UPS
- ⚡ Telecom Backup Power
- ⚡ Military Power Supply
- ⚡ Solar Energy Storage System
- ⚡ Solar Street LED Lightings
- ⚡ Autonomously Guided Vehicles (AGVs)
- ⚡ Industrial Robotics & Handling Equipment
- ⚡ Aerial Work Platform
- ⚡ Floor Cleaning Machines
- ⚡ Power Tools, Lawn Mower
- ⚡ Electric Bike & Motorcycles
- ⚡ Electric Mobilities (E-scooters, Wheelchair)
- ⚡ Golf Trolley & Golf Carts
- ⚡ Medical Devices
- ⚡ Electric Ships
- ⚡ Passenger Vehicles



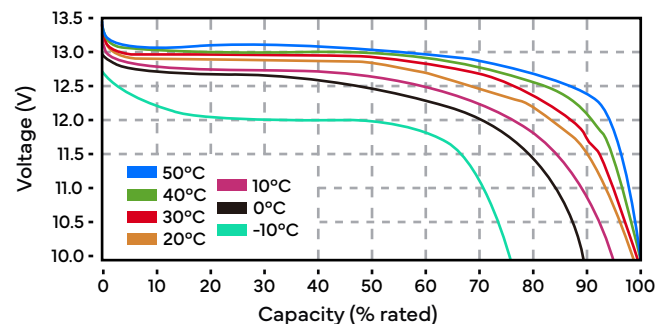
## PERFORMANCE CHARACTERISTICS



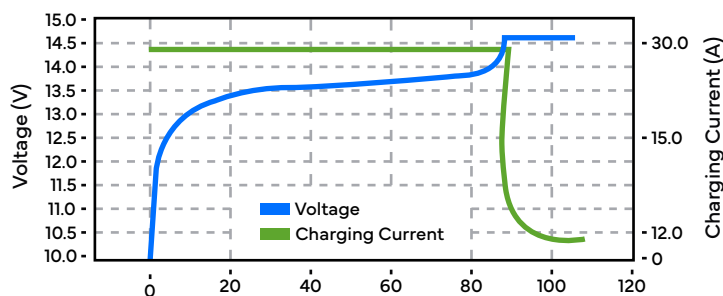
CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)  
DISCHARGE @ 0.5C, 25°C



STATE OF CHARGE CURVE @ 0.5C, 25°C



DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @ 0.5C, 25°C



CHARGING CHARACTERISTICS @ 0.5C, 25°C