

DATA SHEET

12.8V400Ah - GT12V400-LTCAN-A20



Lithium Iron Phosphate Battery

BATTERY FEATURES & PERFORMANCE

FEATURES

- ⚡ Lithium Iron Phosphate (LiFePO₄): the Safest Lithium Technology
- ⚡ Integrated Battery Management System(BMS)
- ⚡ ModBus
- ⚡ 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	400Ah
Energy	5120Wh
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	1000A (<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
	CE
	IEC62133 & CB
	KC
Shipping Classification	BIS
	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	99 lbs
Terminal Type	M8
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP56
Cell Type-Chemistry	LiFePO ₄ 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



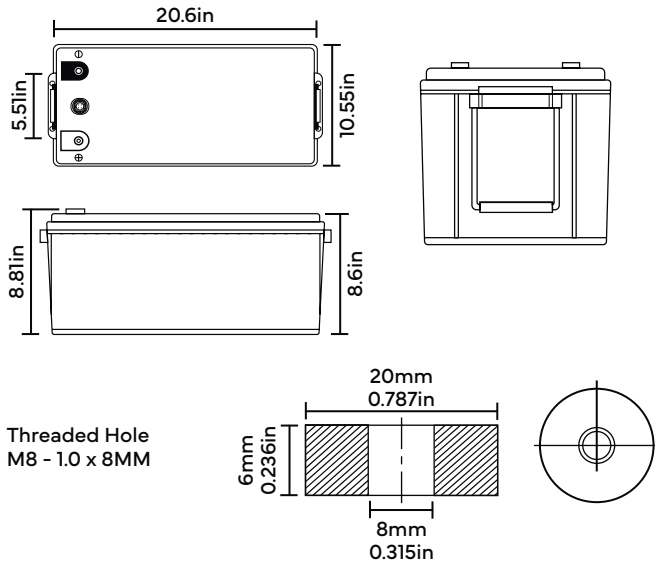
NOTE: Do Not Mix With Sealed Lead Acid Batteries When Recycling.
See Grand Teton User's Manual for Proper Operation.
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BATTERY DIMENSIONS

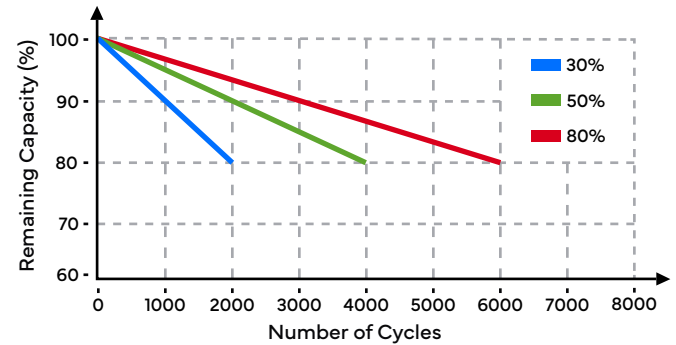


BATTERY APPLICATIONS

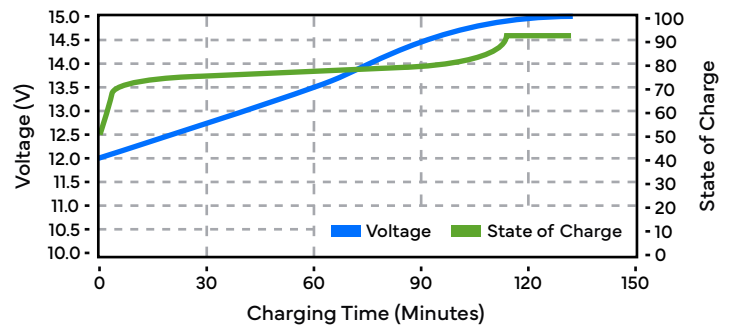
- ⚡ Data Center UPS
- ⚡ Telecom Backup Power
- ⚡ Military Power Supply
- ⚡ Solar Energy Storage System
- ⚡ Solar Street LED Lightings
- ⚡ Autonomously Guided Vehicles (AGVs)
- ⚡ Industrial Robotics & Handling Equipment
- ⚡ Aerial Work Platform
- ⚡ Floor Cleaning Machines
- ⚡ Power Tools, Lawn Mower
-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



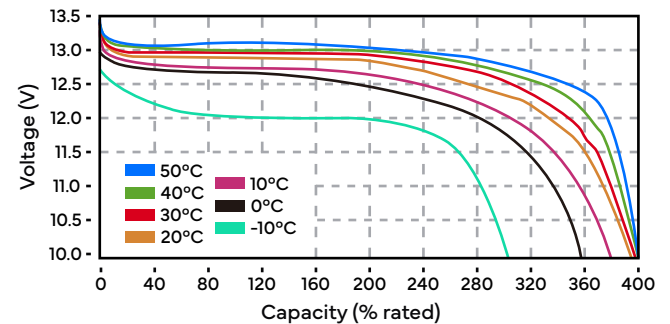
PERFORMANCE CHARACTERISTICS



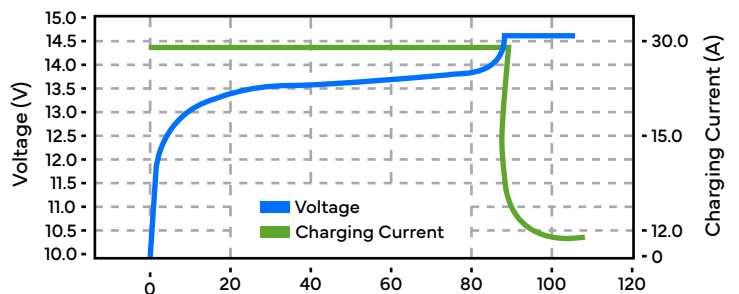
CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)
DISCHARGE @ 0.5C, 25°C



STATE OF CHARGE CURVE @ 0.5C, 25°C



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



CHARGING CHARACTERISTICS @ 0.5C, 25°C