

Constant Power Lithium Battery System for Energy Storage

BRIEF INTRODUCTION

- Our Constant Power Lithium Battery System for Energy Storage utilizes (16) pieces Of 3.2V-200Ah LFP Cells, 8S2P (8-Series / 2-Parallel) with Built-In Communication BMS to satisfy the requirements of High Performance and Operational Reliability as well as Optimized Cyclability.

KEY FEATURES

- Newly offered On-Off / BMS Reset Switch
- Attractive Cycle Life
- Wide Operating Temperature Range
- High Capacity
- Steady Output Voltage
- Low Self-Discharge Rate
- Built-in BMS (Battery Management System)
- To be mounted in an Indoor Environment
- Enclosure Protection Rating = IP54
- Installation = Rack or Floor Standing

ELECTRICAL CHARACTERISTICS

Nominal Voltage	25.6V
Nominal Capacity	400Ah
BMS Communication Port	NONE
Cycle Life	≥ 2000 (0.5C), Room Temperature / 80% Capacity Retention
Battery Energy	25°C / 10,240 Wh (100% DOD @ 0.5C Rate)
	-20°C / 7,168 Wh (100% DOD @ 0.5C Rate)

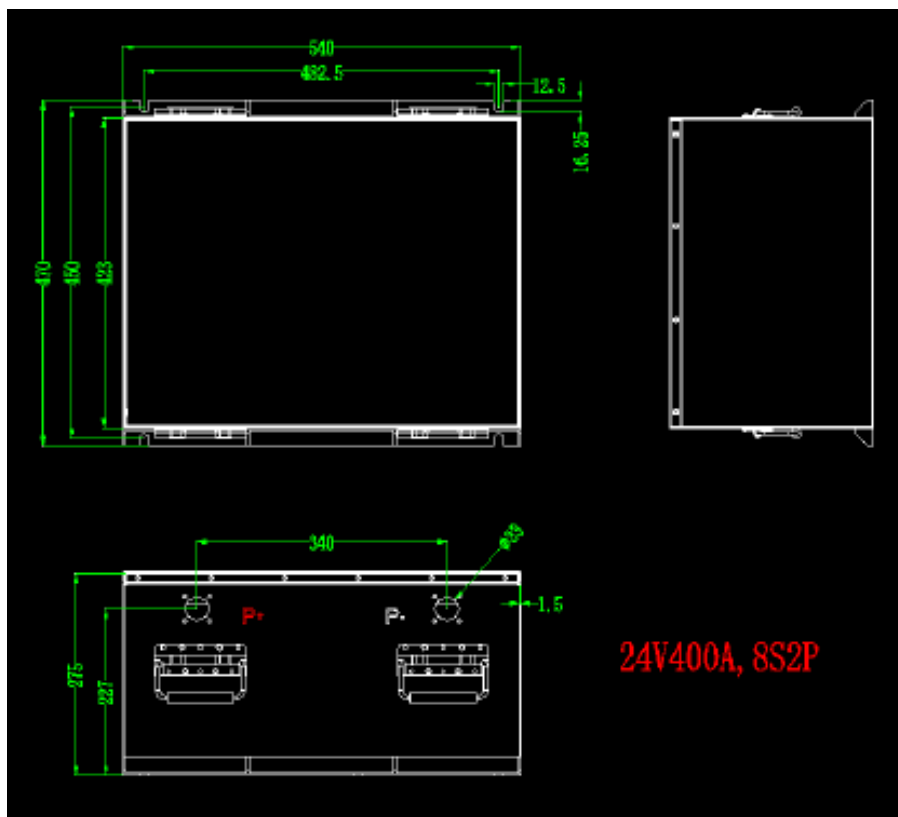
MECHANICAL CHARACTERISTICS

Length	21.25" / 540mm (± 2mm)
Width	18.5" / 470mm (± 2mm)
Height	10.82" / 275mm (± 2mm)
Weight	198 lbs. / ≤ 90kg
Terminal Type	M10
Terminal Torque Setting	135-165 in lbs. / 15.3-18.6N*M

OPERATIONAL CONDITIONS

Charge Method	Constant Current / Constant Voltage (CC-CV)
Max. Charge Voltage	29.2V
Constant Charge Current	≤100A
Constant Discharge Current	≤100A
Peak Discharge Current	200A - 10S
Discharge Cut-off Voltage	20.0 V
Self Discharge Rate	25°C, ≤5% per Month
Charge Temperature	32°F~ 122°F / 0°C~ 50°C
Discharge Temperature	14°F~ 140°F / -10°C ~ 60°C
Storage Temperature	14°F~ 122°F / -10°C ~ 50°C

PHYSICAL CHARACTERISTICS



BATTERY MANAGEMENT SYSTEM / FUNCTION

Applied for 8S Battery Pack., Charge & Discharge is Common Port.

Over Charge Protection Voltage = 3.65V, Over Charge Release Voltage = 3.6V.

Over Discharge Protection Voltage = 2.5V, Over Discharge Release Voltage = 2.8V.

Short Circuit Protection - Yes.

*** Specifications are Subject to Change without Notice *** Copyright Pending

STORAGE & TRANSPORTATION

1. Based on the character of the cell, a proper environment for transportation of the LiFePO₄ battery pack needs to be created to protect the battery.
2. During transportation 50% SOC must be kept to insure that short circuit, appearance of liquid on the battery never occurs.
3. Do not immerse the battery in liquid.

The proposed temperature for long term storage is
14°F ~ 122°F / -10°C ~ 50°C

4. During transportation of the battery, attention must be paid against dropping, turning over and serious stacking.

WARNINGS AND TIPS

*** In order to prevent the battery from leaking, getting hot and exploding. Please pay attention to the following instructions ***

WARNING!

- Never submerge the battery into water. Keep it dry and in a cool place when not in use.
- Do not install or store upside down.
- Never allow metal to contact to the Positive and Negative Terminals.
- Never ship or store the battery with metal.
- Never knock, throw or trample the battery.
- Never puncture or cut the battery with a sharp tool.

TIPS!

Never use or store the battery under high temperatures. Otherwise it may overheat, catch fire or reduce the life span and functionality of the battery. The proposed temperature for long term storage is **14°F ~ 122°F / -10°C ~ 50°C**

- Never throw the battery into a fire. Avoid excessive heat. Dispose of the scrap battery to your supplier and authorized recycling station.
- Never use the battery under a strong static or magnetic field, otherwise damage to the protection system will occur.

- If the battery is leaking and battery electrolyte get in your eyes, do not knead. Wash with water and get medical attention immediately
- If the battery begins to emit a peculiar smell, appears distorted or unconventional during storage, charging or use. Remove the battery for the device, stop charging and stop using.
- Check the Battery Voltage and Relevant Connectors before use.
- Use of a correct Lithium Battery charger is required.
- Prior to charging inspect the battery for improper physical condition and ageing. Do not charge if these conditions exist.
- The battery voltage must not be less than the cut-off voltage. If this problem exists contact your Customer Service Department for proper battery repair and charging.
- The battery should be stored at 50% SOC. It need to be charged if stored for 3 months.
- Clean dirty battery terminals with a clean dry cloth or poor contact / operation may occur.

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ADDITIONAL ROYAL BATTERY LOCATIONS INCLUDE:

BROWARD / MIAMI, FL * PALM BAY, FL * HOLLY HILL (Daytona), FL
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