

LiFePO4 Battery

POW-300AH-12.8V

POWMr

Perfect Upgrade Replacement:

The ideal upgrade replacement for lead-acid battery packs with high energy density.

A-Grade Cells:

Safe and efficient.

Long Cycle Life:

0.2C discharge, at 25°C and 80% DOD, cycle life exceeds 6000 cycles.

High Capacity and Endurance:

Supports up to 3840W continuous load power, capable of powering multiple loads simultaneously.

Comprehensive Protection:

Built-in safe, reliable, and highly compatible BMS, ensuring energy storage safety.

More Energy Storage:

Store more energy within the same volume.

Efficient Charging:

Maximum charging current of 200A, achieving full charge in as little as 1.5 hour.

Flexible Configuration:

Configurable up to 4 in series and 4 in parallel, achieving a total capacity of up to 1200Ah, a total voltage of up to 51.2V, and a total energy of up to 61.44kWh.



Overvoltage



Undervoltage



Overcurrent



Short Circuit



Overtemperature

Product Overview

The POW lithium battery series delivers exceptional performance, capacity, and reliability. Utilizing the latest high-power battery technology, the POW lithium batteries are designed for applications in environmentally sensitive areas that require enhanced commercial cycle life capabilities. These batteries are widely used across industrial, residential, commercial, and private sectors, meeting a diverse range of needs. With a maintenance-free structure and advanced design features, the POW lithium series is the ideal choice for various markets, including solar and renewable energy storage, electric vehicles, golf carts, industrial equipment, floor machines, forklifts, aerial work platforms, and robotics; marine, RV, and idle-free solutions; mobile and medical equipment; as well as telecommunications, broadband, and cable TV UPS systems. The POW lithium battery series, with its superior technology and reliability, ensures optimal performance in all applications.

BATTERY SPECIFICATION

Battery Type-Chemistry	LiFePO4
Nominal Voltage	12.8V
Nominal Capacity	300Ah
Energy Density	3840Wh
Dimensions (LxWxH)	522x240x218mm
Weight	≤30kg
Terminal Type	M8
Terminal Torque	10Nm
Case Material	ABS
BMS Built-in	Yes
Internal Resistance	<25 mΩ
AH Efficiency-round trip	>99.5%
Self-Discharging Per Month	<3%
Max in Parallel	4
Max in Series	4
Charging Voltage Range	10.8V~14.6V
Recommend Charge Voltage	14.6V±0.2V
Max Charge Voltage	14.6V±0.2V
Max Continuous Current	200A
Recommend Discharge Voltage	11.2V
Max Discharge Voltage	10.8V
Max Continuous Discharge Current	200A
Cycle Life (0.2C, 25°C@80% DOD)	6000 Cycle
Discharge Temperature	-20~60°C
Charge Temperature	0~45°C
Storage Temperature	-10~30°C

BMS CHARACTERISTICS

Primary Charging Protection	Current: 155A	Delay Time: 1000ms
Second Charging Protection	Current: 200A	Delay Time: 500ms
Primary Discharging Protection	Current: 300A	Delay Time: 5s±3s
Second Discharging Protection	Current: 350A	Delay Time: 3s±2s
Over Charge Voltage Protection (cell)	Voltage: 3.75V	Delay Time: 500ms
Over Discharge Voltage Protection (cell)	Voltage: 2.2V	Delay Time: 500ms
Temperature Protection	PCB Temperature	≥95°C
	Recover Temperature	≤85°C

Constant Current Discharge Data (Amperes@25°C) (Cut off voltage 10.8V)

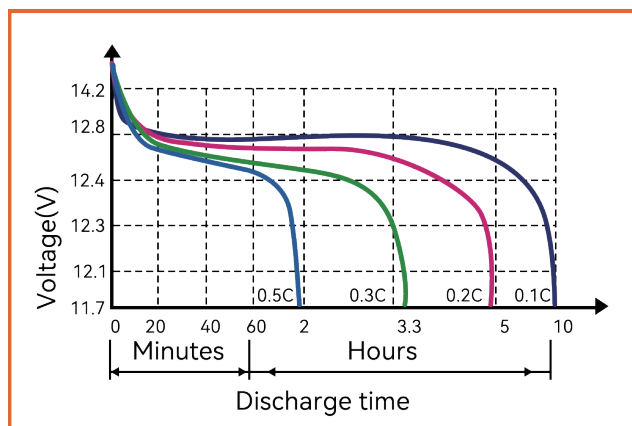
Discharging Time	2h	3h	4h	5h	10h
Discharging Current	150A	100A	75A	60A	30A

Constant Current Discharge Data (Amperes@25°C) (Cut off voltage 10.8V)

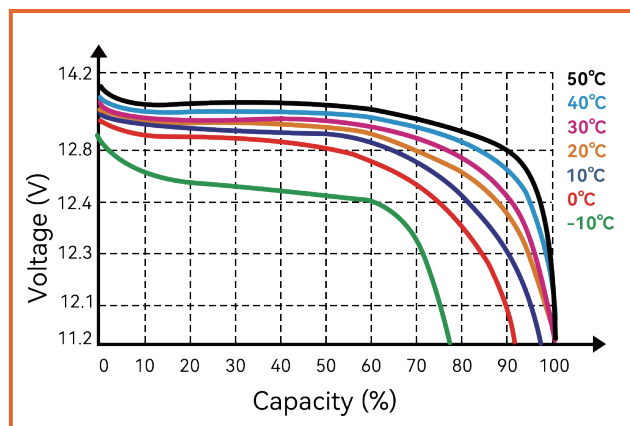
Discharging Time	2h	3h	4h	5h	10h
Discharging Power	1920W	1280W	960W	768W	384W

PERFORMANCE CURVE

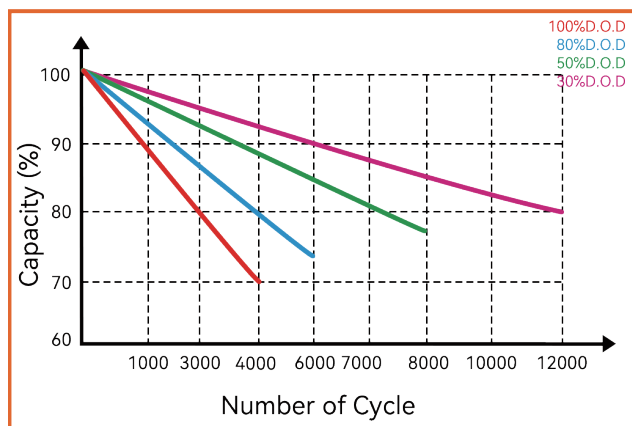
Discharge characteristics (25°C)



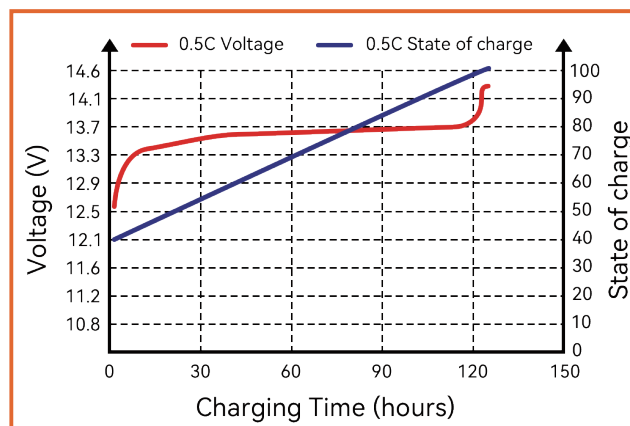
Discharge Temperature Discharge Curve (0.5C)



Different DOD Discharge Cycle Life Curve 0.2C 25°C



State of Charge Curve (0.5C, 25°C)



Dimension



Precautions

- Note 1:** Please always refer to the latest version of the technical manual published on our website to ensure safe and efficient operation.
- Note 2:** For parallel connections, fully discharge the batteries before connecting them in parallel, and then recharge them. For series connections, ensure the remaining capacity of each battery is the same.
- Note 3:** Parallel connections are intended only to extend backup time, not to increase output power.
- Note 4:** The company assumes no responsibility for any accidents caused by not following this user manual.

POWMR

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