LIFePO4 Battery

POW-150AH-12.8V

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 1280W continuous load power, capable of powering multiple loads simultaneously.

Flexible Configuration:

Configurable up to 4 in series and 4 in parallel, achieving a total capacity of up to 600Ah, a total voltage of up to 51.2V, and a total energy of up to 30.72kWh.

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 100A, achieving full charge in as little as 1.5 hour.

High Peak Discharge:

Offers a peak discharge current of 250A, sustained for 3 seconds.

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	150Ah
Energy Density	1920Wh
Dimensions (LxWxH)	330x171x215mm
Weight	15kg
Terminal Type	M8
Terminal Torque	8.5Nm
Case Material	ABS
BMS Built-in	Yes
AH Efficiency-round trip	>98%
Self-Discharging Per Month	<3%
Max in Parallel	4
Max in Series	4
Charging Voltage Range	10.8~14.6V
Recommend Charge Voltage	14.6V
Max Charge Voltage	14.6
Recommend Charge Current	30A
Max Continuous Current	100A
Recommend Discharge Voltage	11.2V
Max Discharge Voltage	10.8V
Max Continuous Discharge Current	100A
Peak Discharge Current	250A for 3s
Cycle Life (0.2C, 25℃@80% DOD)	6000 Cycle
Discharge Temperature	-20~55℃
Charge Temperature	0~55℃
Storage Temperature	-20~45℃

BMS CHARACTERISTICS

Primary Charging Protection	Current: 155A	Delay Time: 20s
Second Charging Protection	Current: 200A	Delay Time: 2~3s
Primary Discharging Protection	Current: 155A	Delay Time: 30s
Second Discharging Protection	Current: 200A	Delay Time: 2~3s
Over Charge Voltage Protection (cell)	Voltage: 3.75V	Delay Time: 1~2s
Over Discharge Voltage Protection (cell)	Voltage: 2.2V	Delay Time: 1~2s
Temperature Protection	PCB Temperature	≥95℃
	Recover Temperature	≤85℃
The maximum number of battery packs supported in parallel	Increase capacity without increasing current	

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

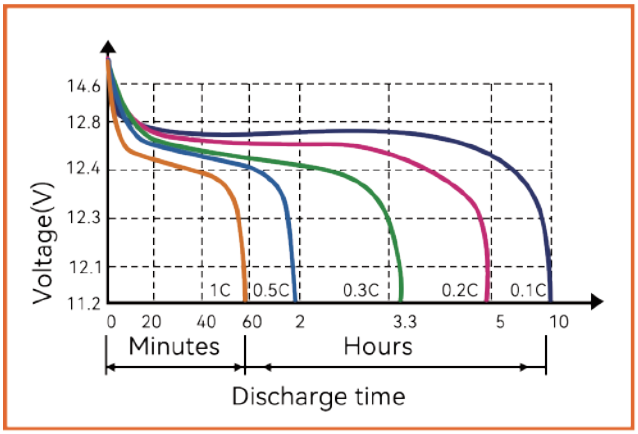
Discharging Time	1h	2h	3h	4h	5h	10h	20h
Discharging Voltage	150A	75A	50A	37.5A	30A	15A	7.5A

Constant Current Discharge Data (Watts@25℃) (Cut off voltage 10.8V)

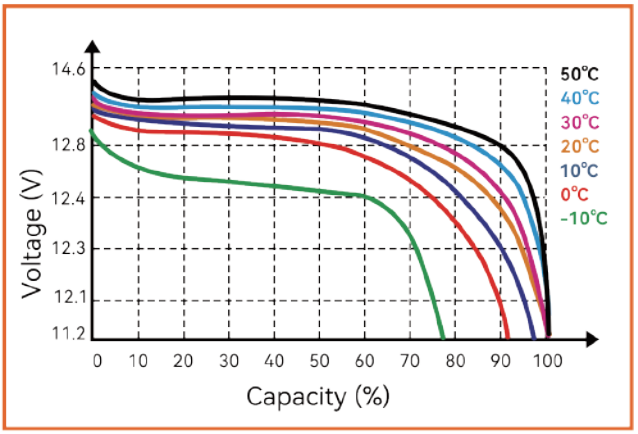
Discharging Time	1h	2h	3h	4h	5h	10h	20h
Discharging Voltage	1920W	960W	640W	480W	384W	192W	96W

PERFORMANCE CURVE

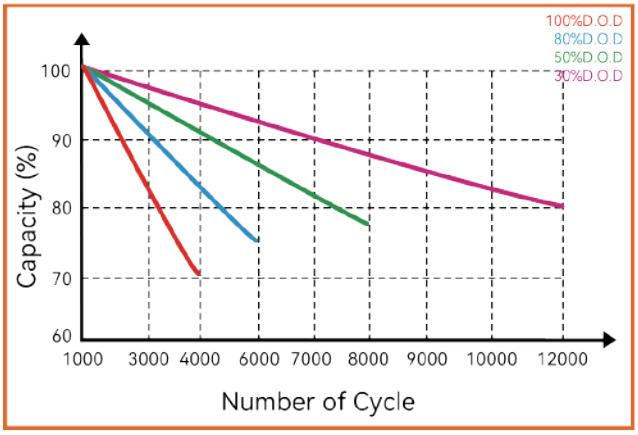
Discharge characteristics (25℃)



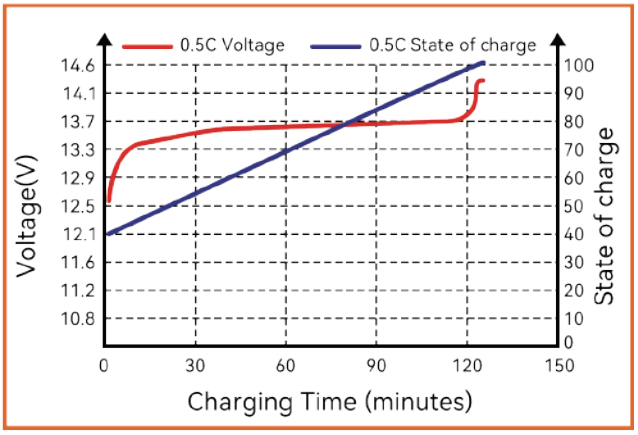
Different Temperature Discharge Curve (0.5C)



Different DOD Discharge cycle life Curve 0.2C 25℃



State of Charge Curve (0.5C,25℃)



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.

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