

LFP12300 (12V300Ah)



This series of Lithium batteries developed for replacement of lead acid battery, mainly be utilized of ESS(Energy Storage Systems) solution , Using high-rate LiFePO₄ (LFP) cells and BMS system, and integrating a remote real-time monitoring system and an intelligent management module, to ensure safe and reliable system operations in the whole lifecycle. Its smart management structure can accurately monitor the status of each component in the system to ensure stable system performance and safety of users. Comparing with standard lead-acid batteries, it provides up to 15 times the cycle life 6000 cycles @0.2C, 80% DOD 25+/-5°C) and design life 20 years, thereby help to minimize replacement costs and reduce total cost of ownership.

LiFePO₄ batteries are widely used in Various Energy storage systems, Electric vehicles, electric mobility, RV' s, Boats, AGV' s and off-grid, Electric power stations, Communication base station ,UPS, Solar energy and wind power storage system, And All fields using VRLA batteries

Applications



BATTERY SPECIFICATIONS

Battery type-Chemistry	LiFePO ₄	Voltage Window	10.8-14.6V
Nominal Voltage	12.8V	Recommend Charge Voltage	14.2V
Nominal Capacity	300Ah	Max Charge Voltage	14.6V
Energy Density	3840Wh	Recommend Charge Current	60A
Dimensions(LxWxH)	522*240*218mm	Max Charge Current	200A
Weight	29KGS	Recommend Discharge Voltage	11.2V
Terminal Type	M8	Max Discharge Voltage	10.8V
Terminal Torque	10NM	Max Continuous Discharge	200A
Case Material	ABS	Current Peak Discharge Current	350A/3S
BMS build-in	Yes	Cycle life(0.2C, 25°C@80% DOD)	6000 Cycles
AH Efficiency – round trip	>98%	Discharge Temperature	(- 20 to 55)°C
Self Discharge per Month	<3%	Charge Temperature	(0 to 55)°C
Max in Parallel	4PCS	Storage Temperature	(- 20 to 45)°C
Max in Series	4PCS	Heating Function	Optional
LCD Screen	Optional	Bluetooth(App)	Optional

BMS CHARACTERISTICS

Primary Charging Protection	Current: 210A	Delay Time: 5~10s
Second Charging Protection	Current: 280A	Delay Time: 2s
Primary Discharging Protection	Current: 280A	Delay Time: 5~10s
Second Discharging Protection	Current: 350A	Delay Time: 2~3s
Over Charge Voltage Protection	Voltage(cell): 3.7V	Delay Time: 1~2s
Over Discharge Voltage Protection	Voltage(cell): 2.5V	Delay Time: 1~2s
Temperature Protection	PCB Temperature 95 °C	
Communication Port	Recover 85 °C	

No

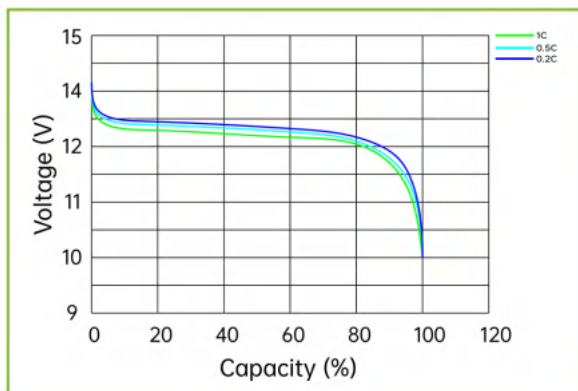
Constant Current Discharge Data (Amperes @ 25°C)

Discharge Time	\	2h	3h	4h	5h	10h	/
Cut off voltage (10.8V)	\	150A	100A	75A	60A	30A	/

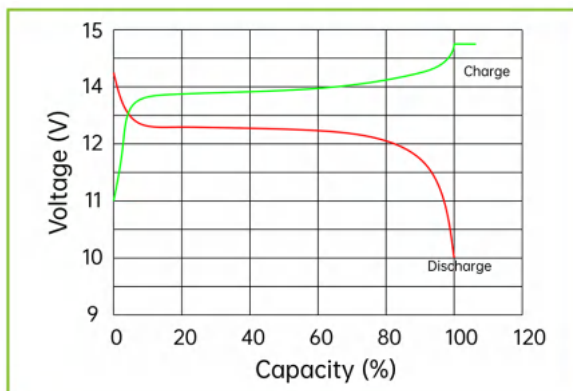
Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	\	2h	3h	4h	5h	10h	/
Cut of voltage (10.8V)	\	1920W	1280W	960W	768W	384W	/

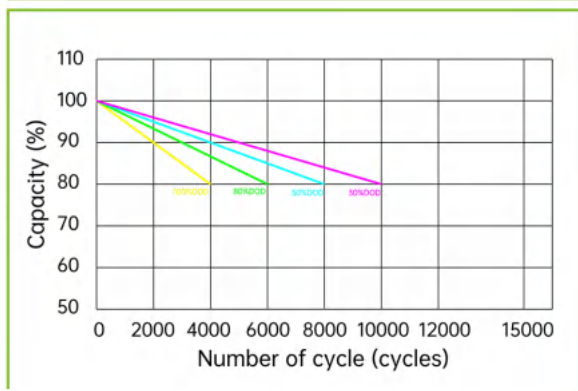
Discharge Performance at 25°C



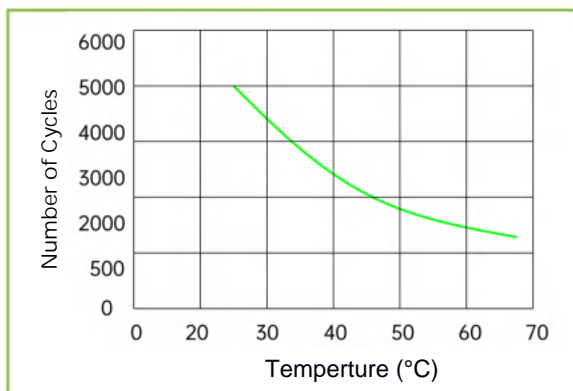
Discharge Performance at 25°C



Cycle life in relation to depth of discharge at 0.2C 25°C



Cycle life in relation to temperature at 25°C



Note 1: Please always refer to the latest edition of our technical manual that published on our website to ensure safe and efficient operation.

Note 2: When make parallel connection, please discharge batteries fully, then recharge after parallel connected; when series connect, please keep batteries with same remain capacity.

Note 3: Parallel connection is only for longer backup time, not for larger output power.