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# 12.8V LITHIUM IRON PHOSPHATE BATTERY PACK

## User Instruction





## Product Description

The Li-FePO4 battery is used for energy storage in field of household, commercial, UPS and other electrical equipment. It has advantage of long cycle life, high safety software protection, strong housing, exquisite looks and easy installation, etc.

## Product Specifications

Items		Condition	Specification				
Nominal Capacity		Standard charge/discharge	30.0Ah	50.0Ah	100.0Ah	150.0Ah	200.0Ah
Nominal Voltage		Average	12.8V	12.8V	12.8V	12.8V	12.8V
Internal Impedance		at 1KHz after 50% charge	≤20mΩ	≤20mΩ	≤18mΩ	≤10mΩ	≤10mΩ
Standard Charging		Constant current Constant voltage End current Cut off	15A 14.6V 1A	25A 14.6V 1A	50A 14.6V 1A	50A 29.2V 1A	100A 29.2V 1A
Charging Voltage		/	14.6V	14.6V	14.6V	14.6V	14.6V
Max. Continuous Charge Current		25±3°C	30A	50A	100A	100A	200A
Standard Discharging		Constant current End voltage Cut off	15A 10V	25A 10V	50A 10V	50A 10V	100A 10V
Max Continuous Discharge Current		25±3°C	30A	50A	100A	100A	200A
Cycle Life		0.2C, 80% DOD, 25±3°C	6000 times				
Operating Temperature	Charge	/	0°C~ 55°C				
	Discharge	/	-20°C~ 55°C				
Storage Temperature		1 month 3 month 6 month upon	-20°C~ 45°C -20°C~ 35°C 0°C~ 35°C				
Communication Function		/					

## Electrical Specification

Unless there is special requirement, the test shall be done under temperature of  $25\pm 2^{\circ}\text{C}$  and with relative humidity of 45~85%.)

Items	Test Condition	Criteria							
1.1 Standard Charge	The standard charge means charge the battery in temperature below $25\pm 3^{\circ}\text{C}$ with initial charge current of 15 / 25/50/50/100A and with constant voltage of 14.6V, then charge with constant voltage of 14.6V and with floating current taper to 1A cut-off (Charger should be exclusively using lithium ion rechargeable battery, with an accuracy of $\pm 0.05\text{V}$ ).	/							
1.2 Standard Discharge	Charge in accordance with the standard and then discharge to voltage 10V with discharge current of 15/25/50/50/100A. The gap time for charge and discharge is 30 minutes	Minimum Capacity $\geq$ 30.0、 50.0、 100.0、 150.0、 200.0Ah							
Discharge Character		At $-10^{\circ}\text{C}$ : Discharge Capacity $\geq 50\%$							
	Discharge current	Discharge Temperature							
	0.5C	<table border="1"> <thead> <tr> <th>-10°C</th> <th>0°C</th> <th>20°C</th> <th>40°C</th> </tr> </thead> <tbody> <tr> <td><math>\geq 50\%</math></td> <td><math>\geq 60\%</math></td> <td><math>\geq 95\%</math></td> <td><math>\geq 95\%</math></td> </tr> </tbody> </table>	-10°C	0°C	20°C	40°C	$\geq 50\%$	$\geq 60\%$	$\geq 95\%$
-10°C	0°C	20°C	40°C						
$\geq 50\%$	$\geq 60\%$	$\geq 95\%$	$\geq 95\%$						
	Batteries shall be charged according to 1.1 and discharged in accordance with the above mentioned temperature. The discharge capacity shall meet the standard. Batteries shall be stored for 4 hours at the test temperature	At $0^{\circ}\text{C}$ : Discharge capacity $\geq 60\%$  At $25^{\circ}\text{C}$ Discharge capacity $\geq 95\%$  At $40^{\circ}\text{C}$ Discharge capacity $\geq 95\%$							

## Bluetooth connection

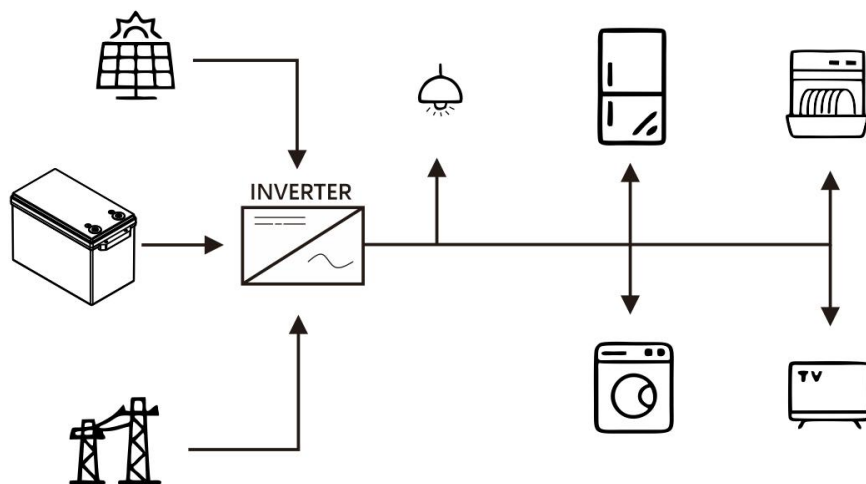


If you need to use this product to connect to an app, please scan the QR code on the packaging first to download and install the corresponding app. Then open the app and follow the prompts to connect via Bluetooth. If you encounter any problems, please contact customer service for assistance. (30A and 50A do not come with Bluetooth)

## BMS Parameter

NO.	Item		12.8V30Ah	12.8V50Ah	12.8V100Ah	12.8V150Ah	12.8V200Ah
1	Power Consumption	Low power consumption mode	≤50μA	≤50μA	≤100μA	≤100μA	≤200μA
2	Over charge Protection	Over charge detection voltage	3.75V				
		Over charge release voltage	3.38V				
3	Over discharge protection	Over discharge detection voltage	2.2V				
		Over discharge release voltage	2.7V				
4	Over current protection	Charging over current detection current 1 detection time	35A (1S)	55A (1S)	110A (1S)	110A (1S)	210A (1S)
		Discharging over current detection current 1 detection time	35A (1S)	55A (1S)	110A (1S)	110A (1S)	210A (1S)
		Discharging over current detection current 2 detection time	≥50A(100ms)	≥80A(100ms)	≥330A(100ms)	≥330A(100ms)	≥760A(100ms)
5	Temp. Protection	Detection temperature	65±2°C				

## Wiring diagram



## Transportation

During transportation, please keep the battery from acutely vibration, impacting, over-exposure to the sun and drenching.

## Storage

- 1.Storage environment requirement: under temperature of 25±2°C and relative humidity of 45~85%.
2. This power box must be charged every six months, and a complete charging and discharging work must be down in every nine months.

