



Manual **EN**

操作手册 **中文**

BL Series LiFePO4 Battery

**WARNING****READ ALL INSTRUCTIONS****STORAGE**

Prolonged storage in high temperature and/or humid environment will damage the battery. The battery should be stored in a dry and well-ventilated environment. The ideal storage temperature is below 25°C. If temperature exceeds 55°C, the battery will be damaged, especially when the battery is stored for more than 50 days. The preferred charge storage capacity should be between 70% and 80%, and the reading should be 13.2V. When necessary, check the voltage and charge once every 30 days.

1. PRODUCT INTRODUCTION

The BL series LiFePO₄ battery is safe and reliable whilst being small and lightweight, with a long life and fast charging. Comparing the BL series LiFePO₄ battery with similar batteries, the volume and weight are around a third and a half respectively than that of ordinary lead-acid batteries. The building battery management system (BMS) provides multiple protection: over-charge, over-discharge, over-current, and over-temperature. The BL series LiFePO₄ battery will last at least 2000 full cycles before minimal performance changes. This means it can last up to seven years, depending on the frequency of use. It can also be charged and discharged under high current without affecting its expected lifespan. BL series LiFePO₄ battery can be used with solar inverter, vehicles, electricity grid and many other charging methods, It is very suitable for use in various vehicles, such as electric boats, caravans, RVs, etc.

1.1 PRODUCT FEATURES

Waterproof and dust-proof, IP67.

Battery balance function.

Multiple batteries to increase system capacity.

Connect in series for a 24V battery system.

Removable M8 bolt.

Maintenance-free.

Integrated handle for easy and safe handling.

Display battery information via Bluetooth (optional).



2. PRODUCT PARAMETERS

Model	BL-1280	BL-1280(Bluetooth)
Nominal Voltage	12.8V	12.8V
Nominal Capacity	100Ah (Grade A 3.2V 100Ah battery cell)	100Ah (Grade A 3.2V 100Ah battery cell)
Usable Capacity	100Ah	100Ah
Energy	1280Wh	1280Wh
Charge time	1-2 hours	1-2 hours
Charge Voltage	14.6V	14.6V
Discharge Cut-off Voltage	10V	10V
Standard Charge Current	100A	100A
Max. Charging Current	100A	100A
Max. Continuous Discharge Current	100A/1C Rating	100A/1C Rating
Max. Discharge Current 3 Seconds	200A/2C Rating	200A/2C Rating
Cycle Life	4000 times	4000 times
Internal Impedance	$\leq 50\text{m}\Omega$	$\leq 50\text{m}\Omega$
Working Temperature Range Charge	-20C--60C	-20C--60C
Storage Temperature	-10C--50C	-10C--50C
Dimensions (mm)	330 *173*215	330 *173*215
Weight (KG)	11	11
SOC Display	/	Bluetooth



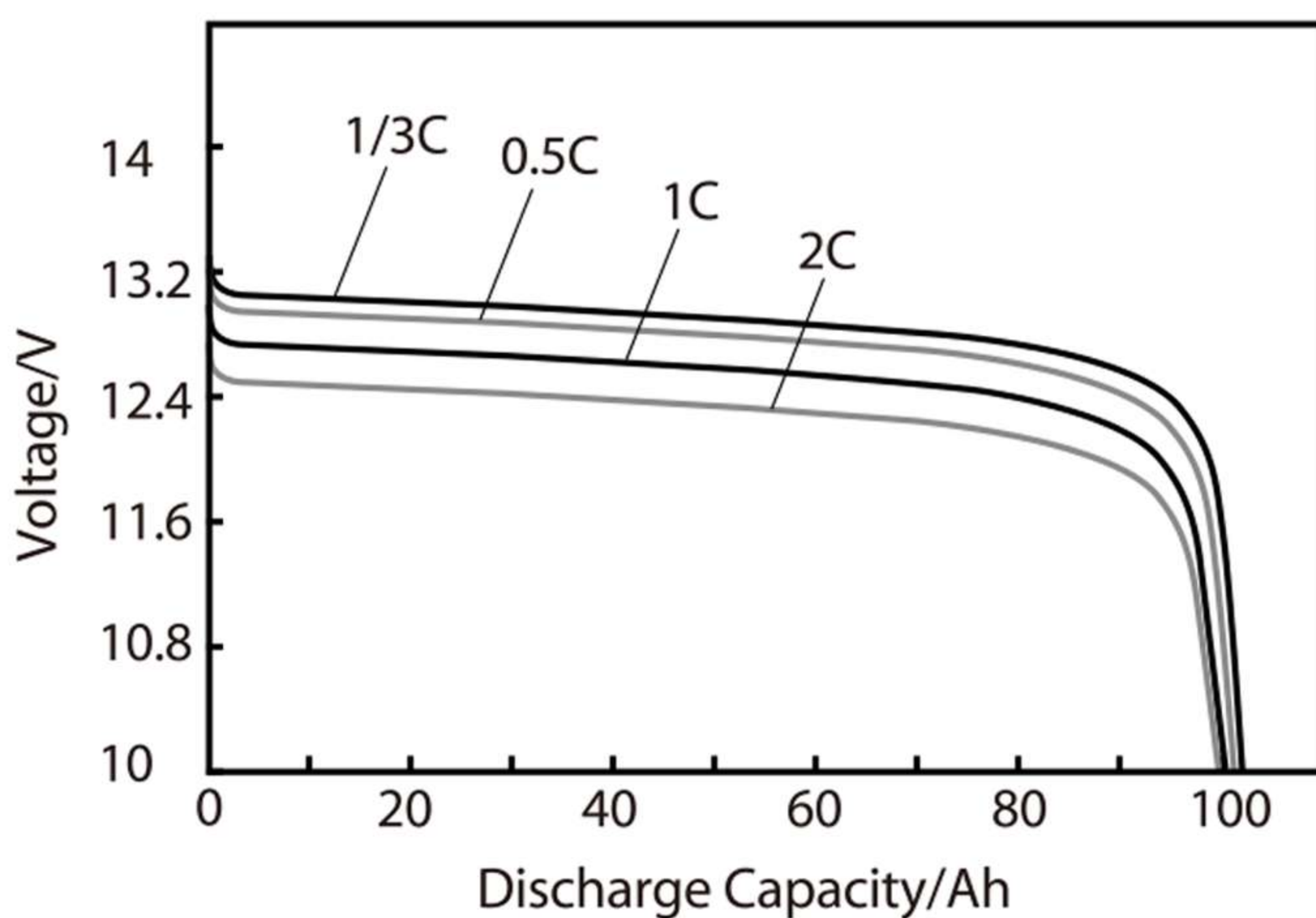
3. BATTERY CHARGING

The BL series LiFePO4 battery can be recharged by solar, automobile and grid power. Please use 4 stage lithium ion phosphate chargers to charge the battery. If the battery is not charged by a special 4 stage lithium iron phosphate charger, the charger needs to meet the following specifications.

Item	Parameter	
	ROCK100	ROCK100 (Bluetooth)
Maximum charging voltage	14.4V-14.6V	14.4V-14.6V
Floating charging voltage	13.5V	13.5V
Charging current	≤100A	≤100A

4. CHARGING TIMES

The BL series LiFePO4 battery is a lithium iron phosphate cell, so the discharge curve is different from the previous lead-acid battery. Please refer to the following chart and table for the capacities corresponding to different voltage:



SOC	Voltage
100%	13.432
90%	13.32
80%	13.316
70%	13.312
60%	13.244
50%	13.168
40%	13.152
30%	13.136
20%	13.012
10%	12.824
0%	11.312

The above data are at 25°C, and the voltage will vary with the ambient temperature.



WARNING

When expanding the capacity in parallel, the batteries should be of the same type, and the voltage of the batteries should be consistent, and the voltage difference should not be greater than 0.02V.

When the batteries are connected in series to from a 24V battery system, it is necessary to ensure that the batteries are of the same model, the voltage of the batteries is consistent, and the voltage difference is not greater than 0.02V.

Do not use or store the battery near a heat source (such as fire or heater). If the battery leaks or emits any odor, remove it immediately from near an open flame.

Do not use the battery immediately if there are problems such as drum or liquid leakage.

Do not put the battery in water or wet it.

Do not put the battery into the fire or heat it.

Do not connect the battery directly to the wall socket or car lighting socket.

Do not use wires or other metal objects to short circuit the positive and negative terminals of battery.

Do not pierce the battery shell with nails or other sharp objects.

Do not hammer or pedal the battery.

Do not hit, throw, or mechanically shock the battery.

Do not disassemble the battery in any way.

Do not place batteries in microwave ovens or pressure vessels.

Do not use it in combination with primary batteries (such as dry batteries) or batteries of different capacities, models and varieties.