

# BMS - Battery Management System

Project		Parameter	Specification	Unit
Current	Charging	Over-current in Charging	230	A
		Release Time	32	S
		Protection delay time	10	S
	Dis-charging	Over-current in Dis-charging	230	A
		Release Time	32	S
		Protection delay time	32	S
Voltage	Single Cell	Over-voltage	3.85	V
		Over-voltage release	3.8	V
		Protection delay time	2	S
		Under-voltage	3	V
		Over-voltage release	3.1	V
		Protection delay time	30	S
	Pack	Over-voltage	15.4	V
		Over-voltage release	15.2	V
		Protection delay time	2	S
		Under-voltage	12	V
		Over-voltage release	12.4	V
		Protection delay time	30	S
Temperature	Charging	High Temperature protection in Charging	60	°C
		High Temperature release	55	°C
		Protection delay time	5	S
		Low Temperature protection in Charging	0	°C
		Low Temperature release	5	°C
		Protection delay time	5	S
	Dis-charging	High Temperature protection in Dis-charging	65	°C
		High Temperature release	60	°C
		Protection delay time	5	S
		Low Temperature protection in Dis-charging	-20	°C
		Low Temperature release	-10	°C
		Protection delay time	5	S

## Charging Tips

### About Charging Voltage

Based on the characteristics of Lithium Iron Phosphate(LiFeP04) batteries, the voltage measured by all LiFeP04 batteries during charging is not the real voltage of the battery. Therefore, after charging and disconnecting the battery from the power source, the voltage of the battery will gradually drop to its real voltage. If you need to test the real voltage of the battery, please charge and disconnect the power supply and test its voltage after putting it aside for over 15 mins.

### Charging Methods

Use 14.6V lithium battery charger to maximize the capacity.

Recommend Charging Voltage:Between 14.2V to 14.6V

Recommend Charging Current:

0.2C The battery will be fully charged in around 5hrs to 100% capacity.

0.5C The battery will be fully charged in around 2hrs to around 97% capacity.

### Inverter/Controller

·Select"12V(14.6V)LI(LiFeP04) Mode" or

·Select "User Mode" to enter values according to below parameters:

<b>CHARGING</b>	Charging Limit Voltage	14.6V
	Over Voltage Disconnect Voltage	15.0V
	Over Voltage Reconnect Voltage	14.2V
	Equalizer Charging Voltage	14.0V
	Float Charging Voltage	13.8V
	Boost Charging Voltage	13.8V
<b>DISCHARGING</b>	Boost Reconnect Charging Voltage	13.2V
	Low Voltage Disconnect Voltage	12.0V
	Low Voltage Reconnect Voltage	12.4V
	Under Voltage Warning Voltage	11.6V
	Under Voltage Warning Reconnect Voltage	12.0V
	Discharging Limit Voltage	10.4V
<b>OTHERS</b>	Over Discharge Disconnect Voltage	10.4V
	Over Discharge Reconnect Voltage	11.6V
	Over-Discharge Delay Time	0.8S
	Equalize Duration	120min
Boost Interva	Not Suitable for Lithium Batteries	
Boost Duration	120min	