

13. Label 商标



BUSH *plus*[®]

LiFePO4 BATTERIES
12.8V 100Ah

Use for MARINE & SOLAR
LCD Display

UN 3480

1280Wh

BUSH *plus*[®]

Icons: Boat, Solar Panel, Ellipsis, CE, No Open Flame, Recycle, No Fire

A large green lightning bolt graphic is positioned on the right side of the label.



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8.BMS specifications 保护板规格

8.1 Electrical features 电气特性:

Project 项目	Parameter value 参数值			
	Min. 最小	Type 典型	Max.最大	Unit 单位
Over charge protection voltage 过充保护电压	3.60	3.65	3.70	V
Over charge release voltage 过充保护恢复电压	3.45	3.50	3.55	V
Over discharge protection voltage 过放保护电压	1.90	2.00	2.10	V
Over discharge release voltage 过放保护恢复电压	2.60	2.70	2.80	V
Charge over current protection current 充电过流保护电流	/	/	/	A
Discharge over current protection current 放电过流保护电流	240	260	280	A
Over charge protection delay time 过充保护延时	500	1000	1500	ms
Over discharge protection delay time 过放保护延时	500	1000	1500	ms
Over current protection delay time 过流保护延时	50	100	150	ms
Short protection 短路保护		YES		
Short protection delay time 短路保护延时	100	300	600	us
Active Balance Current 平衡电流	/	/	/	A
Current consumption (Operation) 工作自耗	/	/	50	uA
Current consumption (Power down) 休眠自耗	/	/	20	uA
Impedance 内阻	/	/	10	mΩ
Input voltage (B+ to B-) 输入电压	-0.3	-	15	V
Operating temperature 工作温度	-40	-	+85	°C
0V battery charge function 0V 充电功能	Available			
Communication Function 通讯功能	/			

12.	Fast Discharge 快速放电	Constant Current 1.0C ₅ A end voltage 10V 恒流 1.0C ₅ A放电至 10V	
13.	Maximum Continuous Charge Current 最大持续充电电流	100A	
14.	Maximum Continuous Discharge Current 最大持续放电电流	100A	
15.	Discharge Pulse Current 放电脉冲电流	200A	< 5S
16.	Operation Temperature Range 工作温度范围	Charge: 0~55°C 充电: 0~55°C	60±25% RH.
		Discharge: -20~55°C 放电: -20~55°C	
17.	Weight 重量	Approx11.8Kg 约: 11.8Kg	
18.	Product Dimension 产品尺寸	Height: 229±5mm 高度: 229±5mm	
		Width: 144±5mm 宽度: 144±5mm	
		Thickness:213±5mm 厚度: 213±5mm	
19.	Energy Extension 能量扩展	Max. 2 units in parallel 最大支持 2 个单元并联 Max.Support up to 4 units in series 最大支持 4 个单元串联	The pressure difference of the battery should be less than 500mV when connected in parallel. 电池并联压差小于 500mV When used in series, the voltage of each unit should be consistent, otherwise it will affect the overall capacity 串联使用时各单元电压应一致, 否则将影响整体容量
20.	Ingress Protection 防护等级	IP65	

14.	Discharge Pulse Current 放电脉冲电流	200A	< 30S; Only single cell 仅限单体电芯
15.	Operation Temperature Range 工作温度范围	Charge: 0~55°C 充电: 0~55°C	60±25% RH.
		Discharge: -20~55°C 放电: -20~55°C	

6. Battery Pack Specifications 电池组规格

No. 序号	Item 项目	Rated Performance 产品性能		Remark 备注
1.	Cell Model 组合方式	4S1P		
2.	Communication Function 通讯功能	/		
3.	Way to work 工作方式	Use alone or in parallel		
4.	Rated Capacity 额定容量	Typical 标称容量	100Ah	Discharge at 0.5C ₅ A after standard charge fully. 标准充电后 0.5C ₅ A 放电
5.	Nominal Voltage 标称电压	12.8V		
6.	Discharge cut-off voltage 放电终止电压	10V		
7.	Charging Voltage 充电截止电压	14.6V		
8.	Internal resistance 内阻	≤20mΩ		AC Impedance, 1KHz AC 1KHz 交流阻抗
9.	Standard Charge 标准充电	Constant current 0.5C ₅ A charge to 14.6V, Then constant voltage 14.6V to current below 0.05C ₅ A cutoff. 恒流 0.5C ₅ A 充电至 14.6V, 然后恒压 14.6V 至电流低于 0.05C ₅ A 截止。		Charge time: Approx 3.0h. 充电时间约 3.0 小时
10.	Standard Discharge 标准放电	Constant Current 0.2C ₅ A end voltage 10V 恒流 0.2C ₅ A 放电至 10V		
11.	Fast Charge 快速充电	Constant current 1.0C ₅ A charge to 14.6V, Then constant voltage 14.6V to current below 0.05C ₅ A cutoff. 恒流 1.0C ₅ A 充电至 14.6V, 然后恒压 14.6V 至电流低于 0.05C ₅ A 截止。		Charge time : Approx 1.5h. 充电时间约 1.5 小时

5. Cell specifications 电芯规格

No. 序号	Item 项目	Rated Performance 产品性能		Remark 备注
1.	Cell Model 电芯型号	LF100MA-100Ah-3.2V		
2.	Rated Capacity 额定容量	Typical 标称容量	100Ah	Discharge at 0.5C ₅ A after standard charge fully. 标准充电后 0.5C ₅ A放电
		Minimum 最小容量	98Ah	
3.	Nominal Voltage 标称电压	3.2V		
4.	Shipment voltage 出货电压	3.2~3.35V		
5.	Discharge cut-off voltage 放电终止电压	2.5V		
6.	Charging Voltage 充电电压	3.65±0.05V		
7.	Internal resistance 内阻	≤0.5mΩ		AC Impedance, 1KHz AC 1KHz 交流阻抗
8.	Standard Charge 标准充电	Constant current 0.5C ₅ A charge to 3.65V,Then constant voltage 3.65V to current below 0.05C ₅ A cutoff. 恒流 0.5C ₅ A充电至 3.65V, 然后恒压 3.65V至电流低于 0.05C ₅ A截止。		Charge time: Approx 3.0h. 充电时间约 3.0 小时
9.	Standard Discharge 标准放电	Constant Current 0.5C ₅ A end voltage 2.5V 恒流 0.5C ₅ A 放电至 2.5V		
10.	Fast Charge 快速充电	Constant current 1.0C ₅ A charge to 3.65V,Then constant voltage 3.65V to current below 0.05C ₅ A cutoff. 恒流 1.0C ₅ A充电至 3.65V, 然后恒压 3.65V至电流低于 0.05C ₅ A截止。		Charge time : Approx1.5h. 充电时间约 1.5 小时
11.	Fast Discharge 快速放电	Constant Current 1.0C ₅ A end voltage 2.5V 恒流 1.0C ₅ A放电至 2.5V		
12.	Maximum Continuous Charge Current 最大持续充电电流	1.0C ₅ A		
13.	Maximum Continuous Discharge Current 最大持续放电电流	1.0C ₅ A		Only single cell 仅限单体电芯

2. Product Configuration 产品构成

No. 编号	Item Name 名称	Specification 规格型号	Qty 用量	Remark 备注
1	Cell 电芯	LF100MA -100Ah 3.2V	4	
2	BMS 保护板	4 strings lithium iron same port 100A 4串铁锂同口 100A	1	
3	Connector 插头	Red 接线端子红色 M6 螺母柱	1	
		Black 接线端子黑色 M6 螺母柱	1	
4	Shell 外壳	ABS	1	

3. Port definitions 端口定义

