

# Battery Specification

## 电池说明书

**MODEL**

型号: 12.8V200Ah--4S2P

**Nominal Capacity**

标称容量: 200Ah

**Project number**

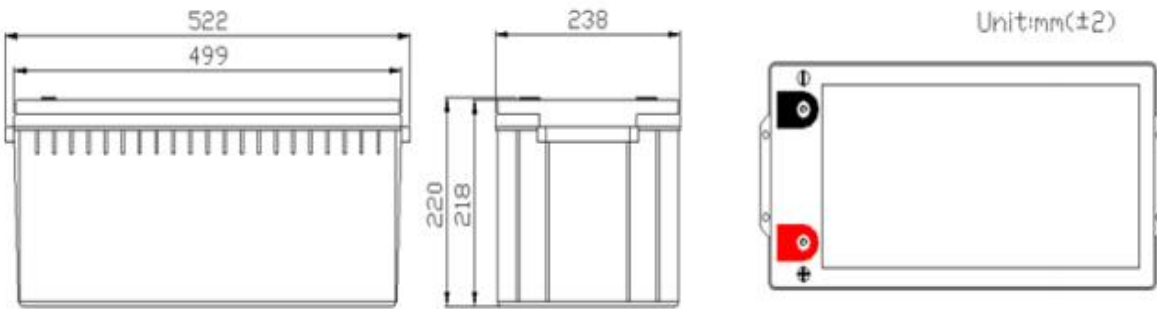
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### 1.Initial Size 初始尺寸



**Product Size产品尺寸:**

T (Total length) (长度)	522.0±2.0	W( Width ) (宽度)	238.0±2.0	H( Height ) (高度)	(218-220) ±2.0
L (lead wire length) 引出线长	/	terminal 端子	M8	Power 功率	2560Wh
PCM Protection Board PCM 保护板	JBD-SP04S034-L4S-200A JBD-SP04S034-L4S-200A-嘉百达			Electric cell 电芯	亿纬 100Ah 亿纬 100Ah
Appearance 外观	12V200Ah- Black lead acid shell 12V200Ah- 黑色铅酸壳				

2. Battery picture 电池图片



**3. Product Specifications 产品规格参数**

No. 序号	Catalog 目录	Specification Requirements 规格要求
3.1	Typical capacity 典型容量	200Ah (0.1C discharge) 200Ah (0.1C 放电)
	Minimum capacity 最小容量	200Ah (0.1C discharge) 200Ah (0.1C 放电)
3.2	Nominal voltage 标称电压	12.8V
3.3	Shipping Voltage 出货电压	13.1~13.5V
3.4	Standard charging voltage 标准充电电压	CC/CV,20A,14.6V (0.1Ccharging)
		CC/CV,20A,14.6V (0.1C 充电)
3.5	Standard discharge 标准放电	CC,20A,10V (0.1Cdischarge )
		CC,20A,10V (0.1C 放电)
3.6	Charge cutoff voltage 充电截止电压	14.6V
3.7	Charge cutoff current 充电截止电流	0.02C 4A (At CV mode)
3.8	Discharge cut-off voltage 放电截止电压	10V
3.9	Charge time 充电时间	10-11 hours (standard charge) 10-11 小时(0.1C)
3.10	Fast charge/discharge current 快速充放电电流	100A (0.5C)
3.11	Maximum continuous charge/discharge current 最大持续充放电电流	200A (1C)
3.12	Recommended charge current 建议充电电流	20A (0.1C)
3.13	Maximum load/inverter power 最大负载/逆变器功率	2560W
3.14	Initial internal resistance 初始内阻	Max: ≤30mΩ
3.15	Weight 重量	(约): 净重 22 Kg, 毛重 23 Kg

3.16	Operating temperature range 工作温度范围	1: Charging 0° C~50° C (32° F~122° F) 2: Discharge -20° C~60° C (-49° F~140° F) 3: Storage -10° C~50° C (-14° F~122° F) 4: Low temperature cut-off protection (charging) 0° C±4° C (32° F±39.2° F) 5: Low temperature cut-off protection (discharge) -20° C±4° C (-4° F±39.2° F) 1: 充电 0° C~50° C (32° F~122° F) 2: 放电 -20° C~60° C (-49° F~140° F) 3: 存储 -10° C~50° C (-14° F~122° F) 4: 低温切断保护 (充电) 0° C±4° C (32° F±39.2° F) 5: 低温切断保护 (放电) -20° C±4° C (-4° F±39.2° F)
3.17	Cycle life 循环寿命	>2000 cycles (100% DoD) 3000 cycles, 80% DoD >2000 个周期 (100%DoD) 3000 个周期, 80%DoD
3.18	Waterproof rating 防水等级	IP65
3.19	Appearance 外观	No scratches, deformation, oil, leakage, breakage 无划痕、变形、油污、漏液、破损
3.20	Terminal type 端子类型	M8

#### 4.Basic parameters of protection board 保护板基本参数

	项目(Project)	规格(Specification)			单位(Unit)
		最小值 MIN	典型值 TYP	最大值 MAX	
过压和欠压保护 (Overvoltage and undervoltage protection)	过充保护电压(Overvoltage)	3.72	3.75	3.78	V
	过充保护延时(Overvoltage delay)	1000	2000	3000	mS
	过充保护释放(Overvoltage release)	3.55	3.60	3.65	V
	过放保护电压(Undervoltage)	2.10	2.20	2.30	V
	过放保护延时(Undervoltage delay)	1000	2000	3000	mS
	过放保护释放(Undervoltage release)	2.50	2.60	2.70	V
	过放保护释放条件(Undervoltage release conditions)	60S 内电压自恢复或者充电恢复(60S voltage self-recovery or charge recovery)			
充电过流保护 (Overcurrent Charge)	充电过流保护值(Overcurrent Charge protection value)	210	220	230	A
	充电过流延时(Overcurrent Charge delay)	5	10	15	S
	充电过流释放条件(Charge over current release conditions)	延时 32S 后自动恢复(Automatic recover after a delay of 32S)			
放电过流保护 (Overcurrent Discharge)	一级放电过流保护值 (1th Overcurrent Discharge)	210	220	230	A
	一级放电过流保护延迟 (1th Overcurrent Discharge delay)	5	10	15	S
	二级放电过流保护电流值 (2th Overcurrent Discharge )	496	620	744	A
	二级放电过流 2 保护延迟 (2th Overcurrent Discharge delay)	320	640	1280	mS
	放电过流保护恢复条件 (Overcurrent Discharge release)	延时 32S 后自动恢复(Automatic recover after a delay of 32S)			
短路保护 (Short Circuit Discharge)	短路保护电流(Short circuit protection current)	1600	2000	2400	A
	短路保护延迟时间(Short circuit protection delay time)	200	400	800	uS
	短路保护恢复(Short circuit protection recovery)	断开负载后延时 30s 恢复。(Recover after 30S delay after disconnecting the load.)			
	短路说明: 短路电流小于最小值或高于最大值可能会造成短路保护失效, 短路电流超过3000A, 不保证有短路保护, 也不建议做短路保护测试。 (Short-circuit description: The short-circuit current is less than the minimum value or higher than the maximum value, which may cause the short-circuit protection to fail, and the short-circuit current exceeds 3000A, short-circuit protection is not guaranteed, and short-circuit protection testing is not recommended.)				

充电高温保护 Overtemperature Charge	温度保护值 (Temperature protection value)	62	65	68	°C
	温度保护释放值 (Temperature protection release value)	52	55	58	°C
充电低温保护 (无加热功能) Undertemperature Charge (no heating function)	温度保护值 (Temperature protection value)	-15	-10	-5	°C
	温度保护释放值 (Temperature protection release value)	-10	-5	0	°C
充电低温保护 (带加热功能) Undertemperature Charge (with heating function)	温度保护值 (Temperature protection value)	/	/	/	°C
	温度保护释放值 (Temperature protection release value)	/	/	/	°C
放电高温保护 Overtemperature Discharge	温度保护值 (Temperature protection value)	72	75	78	°C
	温度保护释放值 (Temperature protection release value)	62	65	68	°C
放电高温保护 Undertemperature Discharge	温度保护值 (Temperature protection value)	-25	-20	-15	°C
	温度保护释放值 (Temperature protection release value)	-15	-10	-5	°C
FET 高温保护(内置) high temperature protection of FET(Built-in)	温度保护值 (Temperature protection value)	85	90	95	°C
	温度保护释放值 (Temperature protection release value)	65	70	75	°C
均衡功能 (Balance Function)	均衡开启电压 (Equalization turn-on voltage)	3.27	3.30	3.33	V
	开启压差 (Difference opening voltage value)		15		mV
	均衡电流 (Balance current)	50		150	mA
	均衡模式 (Balance model)	充电均衡 (Charge equalization)			
	均衡类型 (Balance type)	脉冲模式 (Pulsed model)			