

# 20009-CT-12V50Ah Battery Spec

## 产品规格书

Model:  
型号: 20009-CT-12V50Ah

Customer Code:  
客户代码: \_\_\_\_\_

Customer P/N:  
客户型号: \_\_\_\_\_

Nominal Voltage:  
标称电压: 12.8V

Capacity:  
容量: 50Ah

<b>Draft</b> 起草	<b>Checking</b> 审核	<b>Approved</b> 批准	<b>Customer Confirmation</b> 客户确认
Cathy			

## Revision History 版本记录

Revision 版本	Date 日期	Editor 编著	Contents 内容
A0	2020-03-16	Cathy	Draft
A1	2020-03-26	Cathy	Change sample photo and label 更改样品照及标签
A2	2020-06-24	Cathy	Change sample photo and label 更改样品照及标签
A3	2020-07-09	Kenny	Adjust performance parameters 调整性能参数
A4	2023-07-06	Zhenxianguang	Change warning labels, precautions, adjust performance parameters, and add packing information 更改警告标签, 注意事项, 调整性能参数, 增加装箱资料

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## 1. Application 应用

替换 12V 铅酸电池等后备电源

For replacement the 12V lead-acid battery in power backup system.

备注：本规格书为驰普集团描述其自主产品用。任何升级更改都不会主动通知。如需要最新的规格书，请跟我公司业务员联系。

Remark: This spec is for the Independent Products from CTECHI Group. Any upgrade without notification. Please contact with our sales to get the updated spec.

## 2. Basic Information 基本信息

Description 描述:	Rechargeable LiFePO4 battery pack 可充磷酸铁锂电池包
Cell Type 电芯:	V0809 IFP28148115
PCM 保护板:	CT-4S
Chemistry 化学成份:	LiFePO4 磷酸铁锂
Cell configuration 电芯配置:	1P4S
Voltage Nominal 标称电压:	12.8V
Capacity Nominal 标称容量:	50Ah
Rated Capacity 额定容量:	49Ah(0.2C discharge to cut-off voltage25°C 0.2C 放电到截止电压 25°C)
Energy 能量:	640Wh
Additional Function 其它功能:	均衡功能
Protection 保护:	<ul style="list-style-type: none"> <li>A. Over Charge Protection 过充保护</li> <li>B. Over Discharge Protection 过放保护</li> <li>C. Over Current Protection 过流保护</li> <li>D. Short Protection 短路保护</li> </ul>

## 3. Electrical Characters 电气特性

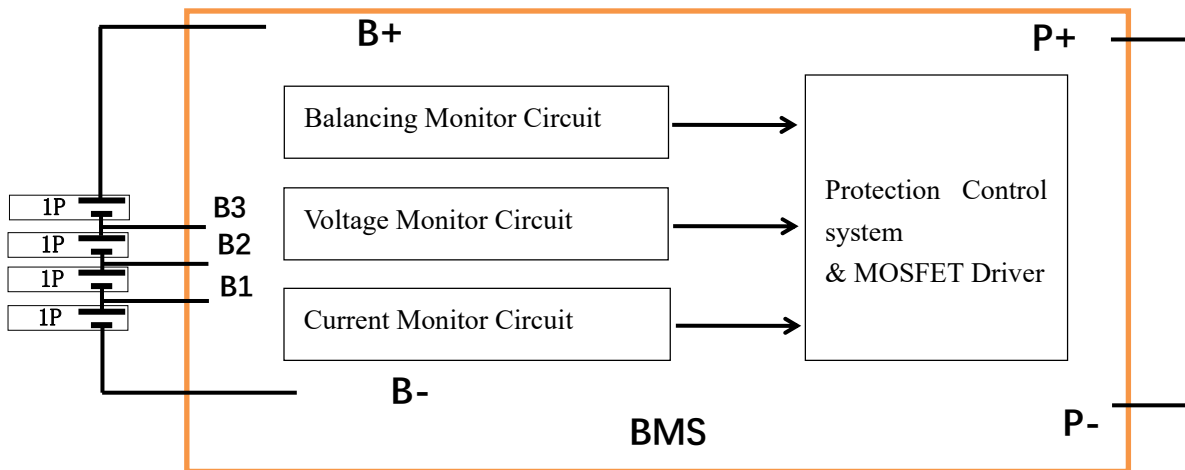
Items 项目	Parameter 参数
Charging Method 充电方式	CC-CV 恒流恒压
Charging Voltage 充电电压	14.4V±0.02V
Over Charging Protect 过充保护	3.75±0.025V
Standard Charging Current 标准充电电流	10A (0.2C)
Max. Charging Current 最大充电电流	50A
Cut-off Charging Current 充电结束电流	1A (0.02C)
Standard Discharging Current 标准放电电流	10A (0.2C)
Max. Discharging Current 最大放电电流	50A
Discharging cut-off Voltage 放电结束电压	10V
Over Discharging Protect 过放保护	2.2±0.08V
Over Charge Current 过充电流	/
Over Discharge Current 过放电流	315±60A
Internal Resistance 内阻	<150mOhm
balancing voltage 均衡电压	3.3±0.03V
balancing current 均衡电流	50-150mA
Standard Charge Temperature 标准充电工作温度	0~45°C
Standard Discharge Temperature 标准放电工作温度	-20~60°C

Storage Humidity 存储湿度	65%RH not condensed (无凝结)
Storage Temperature 存储温度	-20~60°C
Weight 重量	About 5.21Kg

## 4. Certification 认证

T.B.D.

## 5. System Block Diagram 系统框图



## 6. Mechanical Information 结构信息

### 6.1. Sample Picture 样品照



Battery display, 4 strings 电量显示屏, 4 串。



## 6.2. Drawing of Label 标签图

Color stick, pearlescent paper covering subfilm, 215\*173mm.

彩签, 珠光纸覆亚膜, 215\*173mm。



Warning label, pearl paper covered with sub-membrane, 100\*60mm..







警告标签, 珠光纸覆亚膜, 100\*60mm。



PET dumb silver label requirements; label length 70mm,

width 50mm, date changes with shipping time, format example is as follows:

PET 哑银标签要求：标签长 70mm，宽 50mm，日期随出货时间更改，格式示例如下：

	<p> <b>Model: 20009-CT-12V50Ah</b>  <b>Voltage: 12.8V(Chr.Voltage14.4V)</b>  <b>Capacity: 50Ah(640Wh)</b>  <b>Max. Chr.Current: 50A</b>  <b>Max. Dis.Current: 50A</b> </p>
<p><b>CTECHI</b></p>	 200092020062400001
<ul style="list-style-type: none"> <li>● Don't disassemble battery or repack the battery.</li> <li>● Don't make the battery short circuit.</li> <li>● Don't put the battery into humid place or in water.</li> <li>● Don't put the battery near to high temperature environment.</li> </ul>	
<div style="display: flex; align-items: center; justify-content: center;">     <span style="margin-left: 20px;"><b>Made in China</b></span> </div>	

### 6.3. Packing 包装信息

UN box packing, two in a box, seven sides separated by pearl cotton, built-in moisture-proof bag desiccant, equipped with M6 screws, outer box label, indicating the model number and other information.

UN 箱包装，一箱装两个，七个面用珍珠棉隔开，内置防潮袋干燥剂，配置 M6 螺丝，外箱标签，注明型号数量等信息。





## 7. Caution and prohibition 注意事项

Before using and handling the pack, see carefully attached “Handling Instruction for Rechargeable Lithium ion battery Pack”. 在使用和处理包装之前，请参阅“可充电锂离子电池包的处理说明书”。

For safety reasons rechargeable batteries are not shipped in a low remaining capacity state. Charge before using.

为了安全起见，可充电电池禁止在低剩余容量状态下运输。使用前请充电。

A maximum of 4 batteries can be used in series. The operating current in parallel shall not exceed 50A

电池组最大允许 4 个串联使用，工作电流不得超过 50A。

## 8. Warranty 保修

Manufacturer will be responsible for replacing the battery pack against defects or poor workmanship for 12 months from the date of shipping. Any other problem caused by malfunction of the equipment or misuse of the battery is battery is not covered under this warranty.

电池包从发货之日起 12 个月内出现缺陷或做工不佳等问题由厂商负责更换。任何由于设备故障或使用不当造成的问题，不在本保修范围之内。

## 9. Handling Instruction Guide for Li-ion Battery Pack 锂离子电池包使用说明书

### 9.1. General 总括

Battery packs supplied by CTECHI or CPKD have to be handle carefully according to the specification. Here are some more to be followed.

CTECHI 或 CPKD 提供的电池包必须根据规格书正确使用。如下：

### 9.2. Storage of pack 电池组的储存

The packs are requested to be stored under the following conditions: 电池包请按以下条件下储存：

a. Indoor storage in a cool circumstances without direct sun light on the packs or cartons.

存放在室内阴凉的处，禁止阳光暴晒。

b. Store batteries in a dry location with low humidity, and a temperature range of - 20°C to +30°C. In case of the long term storage.

长期存放的情况下，需将电池放在干燥（湿度低）的地方，温度范围为-20° C 至+ 30°

c. As long-term storage can accelerate battery self-discharge and lead to the deactivation of the batteries. To minimize the deactivation effect, store battery packs in a temperature range of +10°C to +30°C.

由于长期存储会加速电池自放电并导致电池的停用。为了最大限度地减少电池消耗，请将电池包放在+ 10° C 至+ 30° C 的温度范围内。

d. When charging for the first time after long-term storage, deactivation of the packs may have led to decreased capacity. Recover such packs to original performance through repeating several cycles of full charging and discharging.

长时间储存后首次充电时，电池包的停用可能导致容量降低。通过重复几次完全充电和放电循环，将这些电池包恢复到原始性能。

e. When store packs for more than 6 month, charge at least once charring require per 6 months to prevent leakage and deterioration in performance due to self-discharging.

当电池包长期储存时，每 6 个月至少需要补电一次，以防止由于自放电而造成的泄漏和性能下降。



### 9.3. Charging pack 电池包充电

- a. Use suitable charger with the specified voltage and current. We strongly recommend CTECH and CPKD smart battery charger. We can recommend the usage or specification of the charger manufacturing. If you want to get the information about it, please contact us.

使用指定电压和电流的合适充电器。我们强烈推荐使用 CTECH 和 CPKD 智能电池充电器。我们可以推荐充电器制造的规格和使用。如果您想获取有关信息，请与我们联系。

- b. Never attempt reverse charging. Charring with polarity reversed can cause a reversal in battery polarity, causing gas pressure inside of the battery to rise, which can be lead to leakage of the batteries in the pack.

切勿尝试反向充电。极性反转的充电可能导致电池极性反转，导致电池内部的气压升高，这可能导致电池中的电解液泄漏。

- c. Avoid overcharging. Repeated overcharging can be lead to deterioration in pack performance. And Over-heat occurred.

避免过度充电。重复过充可能导致包装性能下降。导致电池过热。

- d. Charging efficiency drops at temperatures above 40°C.

充电温度在 40° C 以上会导致充电效率下降。

### 9.4. Protection from unexpected damaged to pack 防止电池包意外损坏

- a. (+) and/or (-) terminals must not be connected in metal wire, necklace, chains.

(+) 正极和/或负极 ( - ) 端子不得连接在金属线，项链，链条中。

- b. Do not drop packs from height in order to prevent them from possible malfunction or damage.

不要从高处抛掷电池包，以防止它们发生故障或损坏。

- c. Do not twist or bend packs in order to prevent possible damage.

不要扭曲或弯曲电池包，以防止可能的损坏。

### 9.5. For Safety 安全条款

- a. Do not disassemble packs. 不要拆卸电池包。

- b. Do not use pack when something abnormal found such as smells, deformation, discoloration, and so on.

出现异常现象时，如气味，变形，变色等，请勿使用电池包。

- d. Do not re-use Li-ion cells or other parts after removing from the packs.

从电池包中取出后，请勿重新使用锂离子电池或其他部件。

- e. When the electrolyte leakage occurs, do not touch the liquid.

当发生电解液泄漏时，请勿接触液体。

- f. Once watered, packs may have potential malfunctions. Do not use those packs.

一旦碰水，电池包可能有潜在的故障。不要使用这些电池包。

- g. Do not have packs in the hot-temperature (60°C or more).

禁止在高温（60° C 或更高）下使用电池包。

- h. Do not put packs into fire.

电池包禁止接触火源。

- i. Do not crush/nail pack.

禁止碾压或钉子刺穿电池包

- j. Do not apply solder directly to packs.

禁止将焊料直接焊在电池包上。