锂离子电芯规格书

Specification
For
Lithium-ion Rechargeable Cell

电芯型号：C18650CC

Cell Type : C18650CC

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Approved	**Checked**	**Designed**	
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Contents 目录

1 preface 前言

This specification describes the type and size, performance, technical characteristics, warning and caution of the lithium ion rechargeable cell. The specification only applies to C18650CC cell supplied by Shenzhen BAK Li-Ion Battery Co., Ltd.

本标准描述了圆柱型锂离子电芯的外型尺寸、特性、技术要求及注意事项。本标准适用于深圳市比克电池有限公司生产的圆柱型 C18650CC 锂离子电芯。

2 Definition 定义

2.1 Rated capacity:

标称容量：

Rated capacity=2600mAh. the capacity obtained when a cell is discharged at 5-hours rate to voltage 3.0 V at 22.5±2.5℃ 。

标称容量 Cap=2600mAh，指在 22.5±2.5℃环境下，以 5 小时率放电至终止电压 3.0 V 时的容量.

2.2 Standard charge method

标准充电方式：

At 22.5±2.5℃, charged to 4.2V at a constant current of 0.8C, and then, charged continuously with constant voltage of 4.2V until the charged current drops below 0.01C.

指在 22.5±2.5℃环境下，以 0.8C 的电流恒流充电至单体电芯电压 4.2 V 后，转为恒压 4.2 V 充电，至充电电流小于 0.01C 时，停止充电。

2.3 Standard discharge method:

标准放电方式：

At 22.5±2.5℃, discharged to 3.0 V at a constant current of 0.5C.

指在 22.5±2.5℃环境下，以 0.5C 的电流恒流放电至单体电芯电压 3.0 V。

3 Cell type bar code and size 电芯型号及尺寸

3.1 Description and model 电芯说明及型号

Description: Cylindrical Li-ion rechargeable cell

Model: ICR18650-2600mAh

18650 型号的圆柱锂离子二次电芯

3.2 Cell bar code and explanation 电芯喷码及说明

Figure 1

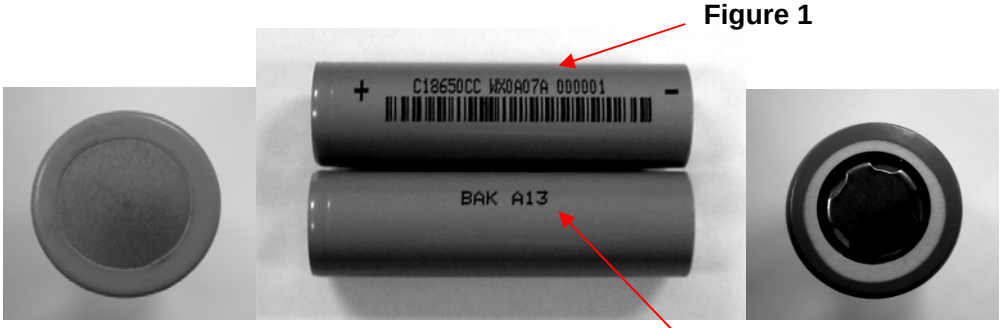


Figure 2

Cell bar code includes two parts:

电芯喷码包括两个部分的内容：

Part one(Figure 1)：

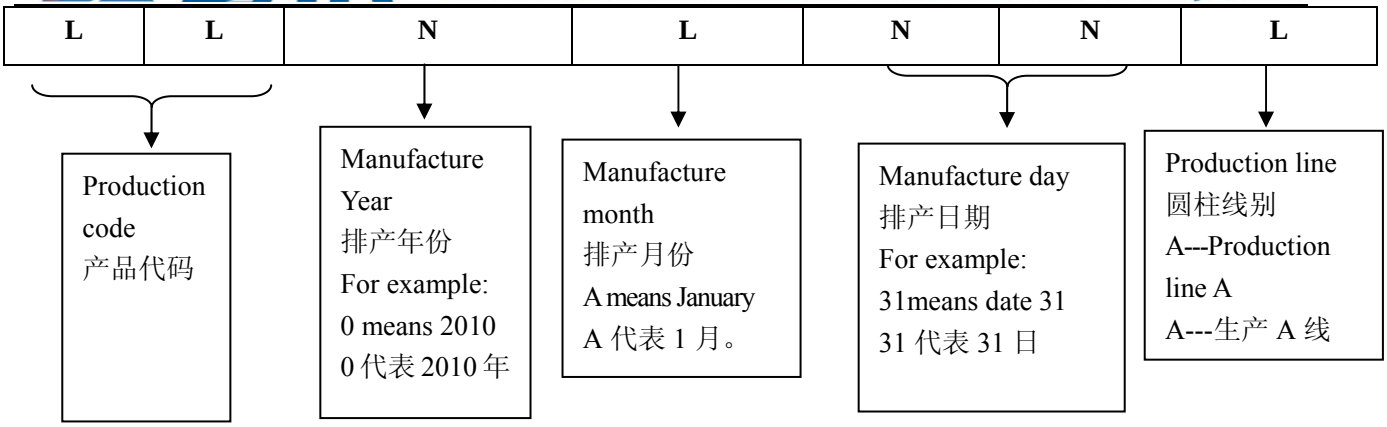
Cell type + Cell batch code + Cell ordinal code

电芯型号+ 电芯批号 + 电芯顺序码

For example：例如： C18650CC + WX0A31A + 000001

Cell batch code definition as following（N means Number, L means Letter）:

电芯批号如下（其中，N 代表数字，L 代表字母），显示如下：



Part two (Figure 2):

	Company code +Cell grade code		
	公司代码	＋	等级码
For example：	BAK	＋	A13

3.3 Cell size 电芯尺寸

Cell physical dimension listed in Figure 3(unit: mm).

电芯尺寸示意图 如图 3 所示（单位：mm）。

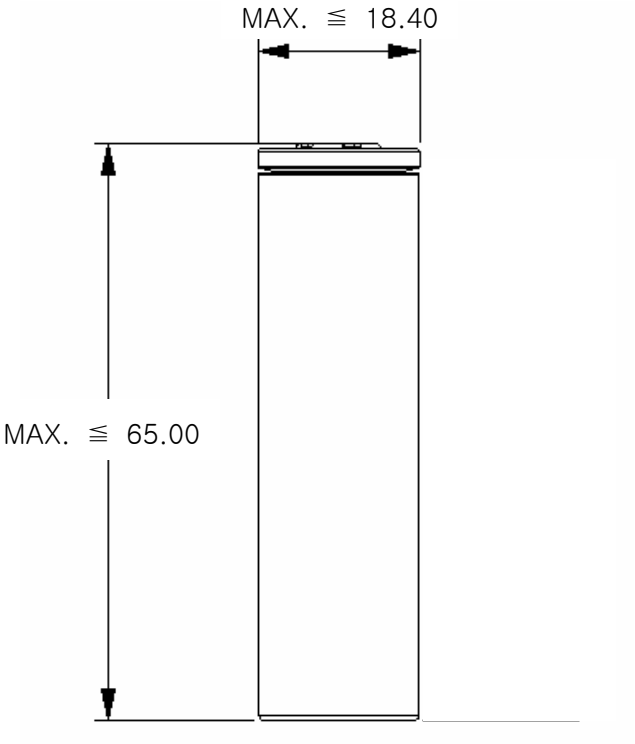


Figure 3/ 图 3

4 Cell specification (fresh cell tested at 22.5±2.5℃, standard charge and discharge unless otherwise specified

电芯规格（除非有特殊说明，否则所有测试要求为：温度在 22.5±2.5℃条件下，样品为新电池，充放电制度为标准充电和标准放电）

ITEM 项目	SPECIFICATION 规格
Nominal capacity 标称容量	2600 mAh@0.2C
Minimum capacity 最小容量	2500 mAh@0.2C
Nominal voltage 标称电压	3.7 V
Max Charging voltage 充电电压	4.2 ±0.05 V
Discharge ending voltage 放电终止电压	3.0 ±0.05 V
Max charge current 最大充电电流	1C when T≥10℃ 0.2C when 10℃＞T≥0℃
Max discharge current 最大放电电流	2C when T≥0℃ 1C when 0℃＞T≥-10℃ 0.5C when -10℃＞T≥-20℃
recommended charge and discharge cell surface temperature 充放电过程中电芯表面的建议温度	Charge: 0～45℃ Discharge: -20～60℃ 充电时：0～45℃ 放电时：-20～60℃
Maximum allowable charge and discharge cell surface temperature. Charging and discharging at these conditions will shorten cell cycle life. 充放电过程中电芯表面的短时间最大温度（在这些情况下充放电将会导致电池循环寿命很快衰减）	Charge: 60℃ Discharge: 75℃ 充电时：60℃ 放电时：75℃
Humidity range 湿度范围	0～90%RH（noncondensing，不冷凝）
Internal resistance 内阻	≤70 mΩ(AC Impedance, 1000 Hz)
Cell dimension 电芯尺寸	Height ： 65.0 mm Max 最大高度：65.0 mm Diameter ： 18.4mm Max 最大直径：18.4 mm
Weight 重量	≤48g

5 Technical characteristics 技术要求

5.1 Electronic performance 电性能

(Fresh cells, tested at 22.5±2.5℃, standard charge and discharge unless otherwise specified
（除非有特殊说明，否则所有测试要求为：温度在 22.5±2.5℃条件下，样品为新电池，充放电制度为标准充电和标准放电）

NO. 序号	ITEM 测试项目	CRITERION 性能标准
5.1.1	Discharge rate capability 倍率放电性能	$\frac{\text{Discharge capacity at 0.5C}}{\text{Discharge capacity at 0.2C}} \geq 95\%$; $\frac{\text{0.5C放电容量}}{\text{0.2C放电容量}} \geq 95\%$; $\frac{\text{Discharge capacity at 1.0C}}{\text{Discharge capacity at 0.2C}} \geq 90\%$; $\frac{\text{1.0C放电容量}}{\text{0.2C放电容量}} \geq 90\%$; $\frac{\text{Discharge capacity at 2.0C}}{\text{Discharge capacity at 0.2C}} \geq 80\%$; $\frac{\text{2.0C放电容量}}{\text{0.2C放电容量}} \geq 80\%$
5.1.2	Cycle life 循环寿命	$\frac{\text{Discharge capacity of 300th cycle}}{\text{original capacity}} \geq 80\%$; $\frac{\text{第300次循环的放电容量}}{\text{初始放电容量}} \geq 80\%$
5.1.3	High-Low temperature discharge performance 高低温放电性能	$\frac{\text{Discharge capacity at -10}^{O}\text{C}}{\text{Discharge capacity at 25}^{O}\text{C}} \geq 55\%$; $\frac{\text{-10}^{O}\text{C 放电容量}}{\text{25}^{O}\text{C放电容量}} \geq 55\%$ $\frac{\text{Discharge capacity at 0}^{O}\text{C}}{\text{Discharge capacity at 25}^{O}\text{C}} \geq 75\%$; $\frac{\text{0}^{O}\text{C 放电容量}}{\text{25}^{O}\text{C放电容量}} \geq 75\%$ $\frac{\text{Discharge capacity at 60}^{O}\text{C}}{\text{Discharge capacity at 25}^{O}\text{C}} \geq 95\%$; $\frac{\text{60}^{O}\text{C 放电容量}}{\text{25}^{O}\text{C放电容量}} \geq 95\%$
5.1.4	Storage performance 存储性能	$\frac{\text{Residual capacity after 28days storage}}{\text{Original discharge capacity}} \geq 95\%$; $\frac{\text{存储28天后残余容量}}{\text{初始放电容量}} \geq 95\%$ $\frac{\text{Recover capacity after 28days storage}}{\text{Original discharge capacity}} \geq 97\%$; $\frac{\text{存储28天后恢复容量}}{\text{初始放电容量}} \geq 97\%$

5.2 Environmental and safety characteristics 环境适应性能和安全性能

Meets UL1642 and ROHS (UL registration no.09CA63004)
UL1642 认证编码 09CA63004
ROHS

6 Package picture

包装图片



Small box **big box** **pallet**

(100pcs cells in a small box, 2 small boxes in a big box)

7 Warning and cautions in handling the lithium-ion cell

电芯使用时警告事项及注意事项

To prevent the possibility of the cell from leaking, heating, explosion, please observe the following precautions:

为防止电芯可能发生泄露，发热，爆炸，请注意以下预防措施：

- Don't immerse the cell in water.
- 严禁将电芯浸入水中，保存不用时，应放置在阴凉干燥的环境中。
- Don't use and leave the cell near a heat source such as fire or heater.
- 禁止将电芯在热高温源旁，如火，加热器等旁边使用和留置。
- When charging, use a cell charger specifically for that purpose.
- 充电时请选用锂离子电芯专用充电器。
- Don't reverse the positive and negative terminals.
- 严禁颠倒正负极后使用电芯。
- Don't connect the cell to an electrical outlet directly.
- 严禁将电芯直接插入电源插座。
- Don't discard the cell in fire or heater.
- 禁止将电芯丢入火或加热器中。
- Don't connect the positive and negative terminal directly with metal objects.
- 禁止用金属直接连接电芯正负极，造成短路。
- Don't transport and store the cell together with metal objects such as necklaces, hairpins.
- 禁止将电芯与金属，如发卡、项链等一起运输或存储。
- Don't strike, throw or trample the cell.
- 禁止敲击，抛掷或踩踏电芯等。
- Don't directly solder the cell.
- 禁止直接焊接电芯。
- Don't pierce the cell with a nail or other sharp object.
- 禁止用钉子或其它利器刺穿电芯。

Caution 小心

- Don't use or leave the cell at very high temperature conditions (for example, strong direct sunlight or a vehicle in extremely hot conditions).
- 禁止在高温下（直热的阳光下或很热的汽车中）使用或放置电芯，否则可能会引起电芯过热，起火或功能失效，寿命减短。
- If the cell leaks and the electrolyte get into your eyes, don't wipe eyes, instead, thoroughly rinse the eyes

with clean running water for at least 15 minutes, and immediately seek medical attention. Otherwise, eyes injury can result.

- 如果电芯发生泄露，电解液进入眼睛，请不要搓揉，应用清水冲洗眼睛，必要时请立即前往医院接受治疗，否则会伤害眼睛。
- If the cell gives off an odor, generates heat, becomes discolored or deformed, or in any way appear abnormal during usage, recharging or storage, immediately remove it from the device or cell charger and stop using it.
- 如果电芯发出异味，发热，变色，变形或使用、存储、充电过程中出现任何异常现象，立即将电芯从装置或充电器中移开并停用。
- In case the cell terminals get dirty, clean the terminals with a dry cloth before use.
- 如果电芯弄脏，使用前应用干布抹净。

8 The restriction of the use of hazardous substances 有害物质控制要求 This model of lithium-ion cell is in accordance with our company's request of "environmental substances control standard".
本型号锂离子电芯符合本公司"环境物质控制标准"要求！

8 Contact information 联系方式

If you have any questions regarding the cell, please contact the following address:
如有疑问，请按以下地址联系：

Headquarter： BAK Industrial Park on Kuichong Road, Longgang District, Shenzhen. (518119)
厂址：深圳市龙岗区葵涌街道比克工业园(518119)
Tel ： +86-755-89770063 89770538 Fax ：+86-755-89770564
电话： +86-755-89770063 89770538 传真：+86-755-89770564