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REV.: <u>A2</u>

SHEET: <u>1</u> of <u>12</u>

# Cell Specification Approval Sheet 电芯芯规格书

## Model/型号:

### C5C2354-01

| Prepared by CPD-EV | Approved by PM | Approved by QA |
|--------------------|----------------|----------------|
| 准备-产品设计部动力组        | 审核-项目管理部       | 审核-品质部         |
| YP/闫鹏              | David/匡春芳      | Mark/李鑫泉       |

|          | Signature 签名            | Date 日期 |
|----------|-------------------------|---------|
|          |                         |         |
| Customer |                         |         |
| Approval | Company Name:<br>公司名称   |         |
| 审核-客户    | Company Stamp :<br>公司盖章 |         |



### PRODUCT

### SPECIFICATION

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#### AMENDMENT RECORDS

#### 修改记录

| Revision | Description/     | Date/      | Prepared/ | Approval/审 |
|----------|------------------|------------|-----------|------------|
| /版本      | 描述               | 日期         | 准备        | 核          |
| A0       | 新版发行             | 2023-07-20 | YP        | Mars       |
| A1       | 更改型号名称、电芯重量、电芯厚度 | 2023-08-18 | YP        | Bob        |
| A2       | 更改电芯容量、重量、电芯厚度   | 2023-08-21 | YP        | Bob        |
|          |                  |            |           |            |
|          |                  |            |           |            |
|          |                  |            |           |            |
|          |                  |            |           |            |
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# PRODUCT

SPECIFICATION

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#### 1. General Information/基本信息

#### 1.1. Scope/范围

This document describes the Product Specification of the Rechargeable Lithium-ion Battery <u>C5C2354-01</u> supplied by Li-Fun (Li-Fun Technology Co., Ltd).

本产品规格书描述的是由湖南立方新能源科技有限责任公司供应的型号为 C5C2354-01 之锂离子二次电芯单体。

1.2. Model/型号: <u>C5C2354-01</u>

#### 1.3. Application/应用:

Rechargeable Lithium-ion Battery for *EV or ESS* Application. *电动车* 或 *储能系统* 用锂离子二次电芯单体。

#### 2. Specification/规格

#### 2.1. Normal Specification/基本规格

| No. | Items/项目   | Specification/规格  |
|-----|--|---|
| 1   | Charge voltage (V)/充电截至电压                                | 3.65  |
| 2   | Nominal voltage (V)/标称电压                                 | 3.2   |
| 3   | Minimal capacity (Ah@0.2C Discharge to 2.0V)/ 最小容量(Cm)   | 46.5(设计容量值,实际容量可能上浮,最终以试产结果为准)  |
| 4   | Typical capacity (Ah@0.2C Discharge to 2.0V)/ 标称容量(Ct)   | 48.0 (设计容量值,实际容量可能上浮,最终以试产结果为准)   |
| 5   | Standard charging method(@25±2°C)/<br>标准充电方法             | 0.2Cm CC Charge to 3.65V, then CV to 0.02Cm cutoff./0.2Cm 恒流充电至 3.65V, 再 CV 至 0.02Cm 截止 |
| 6   | Charging time (h)(Ref.)(@25±2°C)/<br>充电时间                | 5.5h  |
| 7   | Max continuous/pulse charge current (C)/最大连续/脉冲充电电流(10S) | 0.7/1.0   |
| 8   | Max. continuous discharge current (C)/<br>最大连续放电电流       | 1.0   |
| 9   | Max. 10S pulse discharge current (C)/<br>最大 10S 脉冲放电电流   | 1.5   |
| 10  | Operating temperature (°C)/<br>充放电温度窗口                   | Charging temperature/充电温度: 0~45 Discharging temperature/放电温度: -20~60                    |
| 12  | ACIR@RT, 50%-SOC (mohm) /<br>交流阻抗                        | ≤1.2  |
| 13  | Cell Weight Approx. (g)/电芯重量                             | ~870  |
| 14  | Shipping Voltage (V)/出货电压                                | 3.25 ~ 3.33   |



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2.2. Recommended Charge Specification/建议充电规格

| No | Item              | Specification/规格   | Condition/条件          |
|----|-------------------|--------------------|-----------------------|
|    | Standard Charge/  | 0.2C <sub>m</sub>  | Constant Current/恒定电流 |
| 1  | 标准充电              | 3.60V              | Constant Voltage/恒定电压 |
| 1  |                   | 0.02C <sub>m</sub> | Cut off Current/截止电流  |
|    |                   | +10~+45°C          | Temperature/温度        |
|    | Semi-fast Charge/ | 0.5C <sub>m</sub>  | Constant Current/恒定电流 |
| 2  | 中速充电              | 3.60V              | Constant Voltage/恒定电压 |
| 2  |                   | 0.05C <sub>m</sub> | Cut off Current/截止电流  |
|    |                   | +15~+45°C          | Temperature/温度        |
|    | Fast Charge/      | 0.7C <sub>m</sub>  | Constant Current/恒定电流 |
| 2  | 快速充电              | 3.65V              | Constant Voltage/恒定电压 |
| 3  |                   | 0.02C              | Cut off Current/截止电流  |
|    |                   | +23~+45℃           | Temperature/温度        |

2.3. Operating Temperature Specification/操作温度规格

| No | Item                            | Specification         | Condition   |
|----|---------------------------------|-----------------------|---|
| 1  | Continuous Operation<br>适宜之操作环境 | 5 ~ 45°C              | Continuous operation is a condition where the battery will experience on a frequent basis and maintain its designed performance./连续运行环境下电芯将频繁经历并保持其设计性能 |
| 2  | Excursion<br>拓展之操作环境            | -20 ~5°C<br>45 ~ 60°C | Excursion is a condition where the battery may experience on an infrequent basis and be used with reduced performance. /拓展环境下电芯使用性能会降低                  |

2.4. Protection Limit Specification/保护限制

| No | Item  | Specification | Condition  |
|----|---|---------------|--|
| 1  | 1 <sup>st</sup> Over Voltage Limit/<br>一级过充电压保护     | ≤3.75V        | The battery may experience this voltage on an infrequent basis. When the battery's voltage reaches this limit, the charging power shall be reduced to zero./电芯可能会偶尔经历这种电压。当电芯电压达到该限制时,充电功率应降至零。    |
| 2  | 2   |               | The battery shall not be used over this limit.电芯使用不应高于该限制。   |
| 3  | 1 <sup>st</sup> Under Voltage<br>Limit/一级过放电压保<br>护 | ≥1.95V        | The battery may experience this voltage on an infrequent basis. When the battery's voltage reaches this limit, the discharging power shall be reduced to zero./电芯可能会偶尔经历这种电压。当电芯电压达到该限制时,放电功率应降至零。 |
| 4  | 2 <sup>nd</sup> Under Voltage<br>Limit/二级过放电压保<br>护 | ≥1.9V         | The battery shall not be used below this limit. /电芯使用不应低于该限制。  |



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3. Appearance/外观

| No. | Item        | Specification   |  |
|-----|-------------|---|--|
|     | Appearance/ | There shall be no such defects as deep scratch, crack, rust, discoloration or |  |
| 1   | 外观          | leakage, which may adversely affect the commercial value of the cell./不得存     |  |
| 1   |             | 在可能对电芯商业价值产生不利影响的深划痕、裂纹、锈蚀、变色或泄漏  |  |
|     |             | 等缺陷。  |  |

#### 4. Performance Specification/性能规格

#### 4.1. Standard Test Condition/标准测试条件

| No | Item                    | Specification  |  |
|----|-------------------------|--|--|
|    |                         | Unless otherwise specified, "0.2C charge" shall consist of charging              |  |
|    | 0.20 (1)                | at constant current of 0.2*C <sub>m</sub> A. The cell shall then be charged at   |  |
|    |                         | constant voltage of 3.65V while the charging current is tapering to              |  |
| 1  | 0.2C Charge/<br>0.2C 充电 | $0.02*C_m$ A. For test purposes, charging shall be performed at 25 $\pm$         |  |
|    | 0.20 元电                 | 2°C./除非另有规定,"0.2C充电"指用0.2*Cm 的恒定电流充电   |  |
|    |                         | 至3.65V,达到3.65V后充电电流逐渐减少到0.02*Cm时停止充电。  |  |
|    |                         | 出于测试目的,应在25±2℃下进行充电。   |  |
|    | 0.2C Discharge/         | "0.2C Discharge" shall consist of discharging at a constant current of           |  |
|    | 0.2C 放电                 | 0.2*C <sub>m</sub> A to 2.0V. Discharging shall be performed at 25±2°C unless    |  |
| 2  |                         | otherwise noted (such as capacity versus temperature)./ "0.2C 放电"                |  |
|    |                         | 指用 0.2*Cm 的恒定电流放电至 2.0V。除非另有说明(例如容量  |  |
|    |                         | 与温度),否则应在 25±2℃下进行放电。  |  |
|    | 0.5C-Charge/0.5C-Dis    | Cells shall be discharged at constant current of 0.5*C <sub>m</sub> A to 2.5V.   |  |
|    | charge Cycle/           | Cells shall be charged at constant current of 0.5*C <sub>m</sub> A to 3.65V with |  |
| 3  | 0.5C 充电/0.5C 放电         | end current of 0.05*C <sub>m</sub> A. Cells shall be left for 10 minutes after   |  |
|    | 循环                      | both charge and discharge./电芯使用 0.5*Cm A 恒定电流放电至                                 |  |
|    |                         | 2.5V,使用 0.5*Cm A 电流恒流恒压充电至 3.65V,截止电流为   |  |
|    |                         | 0.05*CmA。充电和放电结束后,电芯应静置10分钟。   |  |
|    | 1.0C-Discharge          | "1.0C Discharge at low temperature" means discharging at a                       |  |
| 4  | @Low Temperature/       | constant current of 1.0*C <sub>m</sub> A to1.5V. Discharging shall be            |  |
| -  | 低温下 1.0C 放电             | performed at testing temperature./ "1.0C低温放电"表示用1.0*Cm                           |  |
|    |                         | 恒定电流在低温下放电至1.5V。放电应在测试温度下进行。   |  |
|    | Constant Current        | Cells shall be charged at constant current without constant voltage              |  |
| 5  | Charge (CC)/            | charge./电芯应在恒定电流下充电,无需恒定电压充电。  |  |
|    | 恒流充电                    |  |  |

#### 4.2. Electrical Characteristics/电气性能\*

| No | Items   | Test Method and Condition  | Criteria   |
|----|---|--|------------|
| 1  | Initial Capacity/<br>初始容量                           | Cells shall be charged per 4.1.1 and discharged per 4.1.2 within 1h after full charge. Take the maximum value as the cell capacity after 5 cycles./电芯按照4.1.1进行充电,并在充满电后 1h内按照4.1.2进行放电。循环5次后取最大值 作为电芯容量。 | ≥46.5Ah    |
| 2  | Dependency Capacity<br>@ Low Temperature/<br>低温放电性能 | Cells shall be charged per 4.1.1 at 25 ± 2 ℃ and discharged per 4.1.4 at -20℃./电芯应在25±2℃下按照4.1.1进行充电,并在-20℃下按照4.1.4进行放电。   | ≥40% of Cm |

<sup>\*</sup> Determined using Begin-of-Life batteries (within 30days from the production date).



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### 4.3. Durability Specification/寿命

|  | No. | Item                   | Specification      | Condition  |
|--|-----|------------------------|--------------------|--|
|  |     |                        |                    | Cells shall be charged per 4.1.1 and stored in a                     |
|  |     |                        |                    | temperature-controlled environment at 60°C for 7                     |
|  |     |                        |                    | days. After storage, the cells should be taken out from              |
|  |     |                        | Capacity-Retention | the 60°C to the RT environment. When the                             |
|  |     | Storage at High        | ≥95% of Initial /  | temperature of surface back to RT, cell shall be                     |
|  | 1   |                        | 容量保持率≥95%          | discharged per 4.1.2 and charged cycled per 4.1.1                    |
|  | 1   | Temperature/<br>高温存放性能 | Capacity-Recovery  | for 3 cycles to obtain the retention & recovered                     |
|  |     | 同価行以注形                 | ≥96% of Cm/        | capacity./电芯应按照4.1.1进行充电,并在60℃的温                                     |
|  |     |                        | 容量恢复率≥96%          | 控环境中储存7天。储存结束后,将电芯从60℃的  |
|  |     |                        |                    | 室温环境中取出。当表面温度恢复到RT时,电芯   |
|  |     |                        |                    | 应按照4.1.2进行放电和4.1.1进行充电,循环3次,   |
|  |     |                        |                    | 以获得保持和恢复容量   |
|  |     |                        |                    | Cells shall be discharged and charged per 4.1.3 2000                 |
|  |     |                        |                    | cycles at $25\pm2^{\circ}$ C. A force of $100\pm5$ Kgf is applied to |
|  |     |                        |                    | the maximum surface (thickness direction) of the cell                |
|  |     | Cycle Life at          |                    | using two metal plates with adaptive spacing during                  |
|  | 2   | 25°C/                  | ≥ 75%              | the cycle. The last discharge capacity is to be                      |
|  | 2   | 25 C/<br>  循环寿命-I      | <i>&gt; 1370</i>   | compared with the first in percentage./电芯在25±                        |
|  |     | 加沙尔亚-1                 |                    | 2℃下按照4.1.3进行放电和充电2000次循环。循环  |
|  |     |                        |                    | 过程中使用两个间距自适应的金属平板对电芯最  |
|  |     |                        |                    | 大面(厚度方向)施加100±5Kgf的力。将最后一  |
|  |     |                        |                    | 次放电容量与第一次放电容量进行百分比比较。  |

### 4.4. Safety Specification/安全特性

|    | atety Specification/女生特性                    |                                    |   |  |  |
|----|---|------------------------------------|---|--|--|
| No | Item  | Specification                      | Condition   |  |  |
| 1  | Vibration Test/<br>振动测试                     | No Leakage/<br>不漏液                 | Cells charged per 4.1.1 shall be vibrated for 1 hour per each of the three mutually perpendicular axes (x,y, z). The vibration is a sinusoidal waveform with a logarithmic sweep between 7 Hz and 200 Hz and back to 7 Hz traversed in 15 minutes./电芯按照4.1.1充电后,在三个相互垂直的轴(x、y、z)上各振动1小时。振动为正弦波形,对数扫频在7 Hz和200 Hz之间,并在15分钟内返回7 Hz。 |  |  |
| 2  | Impact Test/<br>重物冲击                        | No Explode,<br>No Fire/不爆<br>炸,不起火 | The cell charged per 4.1.1 is to be placed on a flat surface. Onto a 15.8 mm diameter bar placed across the center of the sample, a 9.1 kg mass is to be dropped from a height of 61 ± 2.5 cm./按照4.1.1充电的电芯,放置在平坦的表面上,将9.1 kg的物体从61±2.5 cm的高度掉落到电芯中心直径为15.8 mm的棒上。  |  |  |
| 3  | Over-discharge<br>Test/<br>过放电测试            | No Explode,<br>No Fire/不爆<br>炸,不起火 | Cells charged per 4.1.1 shall be discharged at constant<br>Current of 1.0Ct for 90 minutes./按照4.1.1充电的电芯使<br>用1.0Ct恒定电流放电90min  |  |  |
| 4* | External Short<br>Circuiting Test/<br>外短路测试 | No Explode,<br>No Fire/不爆<br>炸,不起火 | Cells shall be charged as per 4.1.1, and the positive and the negative terminal is connected with a total resistance of less than $5m\Omega$ for $10$ minutes. /电芯应按4.1.1进行充电,之后正负极耳使用总电阻 $30\pm10m\Omega$ 的导线连接,持续   |  |  |



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|  |    |                        |                                    | 10分钟。   |  |
|--|----|------------------------|------------------------------------|---|--|
|  |    |                        | No Explode,<br>No Fire/不爆<br>炸,不起火 | Cells charged per 4.1.1, and the cell shall be heated in a  |  |
|  | 5  | Heating Test/<br>热冲击测试 |                                    | circulating air oven at a rate of 5°C per minute. The test shall be terminated when the temperature of the cell |  |
|  |    |                        |                                    | reaches 130°C for 30 minutes./电芯按照4.1.1充电后,在  |  |
|  |    |                        |                                    | 循环空气烘箱中以5℃/min的速度加热。当电芯温度达  |  |
|  |    |                        |                                    | 到130℃时保持30分钟,测试完成。  |  |
|  |    |                        |                                    | Cells charged per 4.1.1 are to be crushed against the   |  |
|  |    |                        |                                    | crushing apparatus. The test shall be terminated at a   |  |
|  |    |                        |                                    | displacement of 15% of the cell's height, or the force does   |  |
|  |    | Crush Test/            | No Explode,                        | 100KN or 1000*weigh of cell,,or the cell voltage reaches  |  |
|  | 6  | · 挤压测试                 | No Fire/不爆                         | 0V. The test shall be performed with one of three axes (x,  |  |
|  |    |                        | 炸,不起火                              | y, z) of each cell./电芯按4.1.1充电后,用挤压机进行挤   |  |
|  |    |                        |                                    | 压, 电压达到0V, 或形变量达到15%, 或挤压力达到  |  |
|  |    |                        |                                    | 100KN,或压力达到1000倍实验对象重量后,测试完成。   |  |
|  |    |                        |                                    | 试验应在每个电芯的三个轴(x、y、z)其中之一进行   |  |
|  |    | Overcharge<br>过充测试     | No Explode,<br>No Fire/不爆<br>炸,不起火 | Cells should be charged per 4.1.1, then overcharged at  |  |
|  |    |                        |                                    | 1Cm constant current with one power source applied ≥  |  |
|  |    |                        |                                    | 5.0V on the cell terminals, when the voltage be charged to  |  |
|  |    |                        |                                    | 4.62V(1.1times of standard charge cut-off voltage) or SOC   |  |
|  | 7* |                        |                                    | reached to 115%,the test should be stopped. Then observe  |  |
|  |    |                        |                                    | for 1 hour at testing environment./按照4.1.1对电芯进行充  |  |
|  |    |                        |                                    | 电,然后在电芯端子上施加一个≥5.0V的电源,以1Cm   |  |
|  |    |                        |                                    | 的恒定电流对电芯进行过充电, 当电压充电至4.62V(标  |  |
|  |    |                        |                                    | 准充电截止电压的1.1倍)或SOC达到115%时,停止测  |  |
|  |    |                        |                                    | 试,在试验环境中观察1小时。  |  |
|  | 8  | Nail Test<br>穿钉测试      | No Explode,<br>No Fire/不爆<br>炸,不起火 | Cells should be charged per 4.1.1, then using one steel nail  |  |
|  |    |                        |                                    | with a diameter of 3mm, impale through the largest surface  |  |
|  |    |                        |                                    | of the cell with one standard speed, and after stay1minute  |  |
|  |    |                        |                                    | pull out the nail from the cell./电芯按照4.1.1充电,然后使  |  |
|  |    |                        |                                    | 用一个直径为3mm的钢钉,以一个标准速度刺穿电芯的   |  |
|  |    |                        |                                    | 最大表面,停留1分钟后将钉子从电芯中拔出。   |  |

备注\* Item 4 & Item 7, 应在加压状态下实施,建议压力 0.05~0.1 Mpa。

#### 5. Caution and Prohibition in Handing/操作提示和禁止事项

Below is warning for using the lithium ion rechargeable battery. Mishandling of the battery may cause heat, fire and deterioration in performance. Be sure to observe the following. /以下为锂离子二次电芯的操作提示及禁止事项。

#### Cautions/注意事项

- ◆ When using the application equipped with the battery, refer to the user's manual before usage. Please read the specific charger manual before charging. /使用设备前请参照用户手册.给电芯充电前请阅读专用充电器操作手册。
- ◆ When the cell is not charged after long exposure to the charger, discontinue charging. /长时间置于充电器上而不充电,请切断充电。
- ◆ Please check the positive (+) and negative (-) direction before packing. /进行成组前,请检查电芯的正负极性。
- ◆ When a lead plate or wire is connected to the cell for packing, check out insulation not to short-circuit. /当使用导柱或线材进行电芯包组装时,做好绝缘防护,避免短路。



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◆ Battery must be stored separately. /电芯必须隔离存放。

- ◆ Battery must be stored in a dry area with low temperature (≤25°C) for long-term storage. /电芯如需长期存储,应存储在干燥和低温(≤25°C)环境下。
- ◆ Do not place the battery in direct sunlight or heat.不要将电芯放在阳关直射处或热源附件。
- ◆ Do not use the battery in high static energy environment where the protection device can be damaged. /不要将电 芯放置在可能损害电芯保护装置的高能态环境下。
- ◆ When rust or smell is detected on first use, please return the product to the seller immediately. /在第一次使用电芯时,如发现有生锈或有味道,请立即退回厂商。
- ◆ The battery must be away from children or pets. /电芯必须远离儿童或宠物。
- ◆ When cell life span shortens after long usage, please exchange to new cells. /当电芯长期使用后至寿命终止后,请更换新电芯。
- ◆ Do not wear metallic objects (ex. ring, watch, accessory, etc.) while handling battery cells. /不要穿戴金属物品 (例如: 戒指、手表等配饰) 操作电芯。
- ◆ When use cells for an assembly of module or pack, the "first-in, first-out" (FIFO) principle should be applied. /当 用电芯组装模组或电芯组时,适用"先入先出的原则"。
- ◆ Charge time should not be longer than specified in the manual. /充电时间不应超出手册中规格。
- ◆ Do not expose the battery to the outside of the operating temperature range specified in this document. /不要超出规定的温度范围操作电芯。
- ◆ Do not charge and discharge with the maximum current for uninterrupted cycle. /规格书中的最大充电或放电电流不适用于不间断循环。
- ◆ It should be noted that during the long period when the cell is not used, it may be in a certain over-discharge state due to its self-discharge characteristics. To prevent the occurrence of over-discharge, the cell should be charged regularly and its voltage should be maintained between 3.3 and 3.5v.Over-discharge will lead to the loss of cell performance and battery function。/ 需要注意,在电芯长期未使用期间,它可能会因其它自放电特性而处于某种过放电状态。为防止过放电的发生,电芯应定期充电,将其电压维持在 3.3~3.5V 之间。过放电会导致电芯性能、电芯功能的丧失
- ◆ If manual soldering is used, please pay attention to the following to ensure the function of the electric cell: a) the temperature control of the soldering iron can prevent static electricity; b) the temperature of the soldering iron shall not exceed 350°C; c) the soldering time shall not exceed 3s; d) no more than 5 times of soldering; e) secondary welding must be carried out after the polar ear is cooled; f) direct heating of the cell is prohibited. Above 100°C will cause cell damage. /如使用手工锡焊,须注意以下事项,以保证电芯的功能: a) 烙铁的温度可控能防静电; b) 烙铁温度不能超过 350°C; c) 锡焊时间不能超过 3s; d) 锡焊次数不能超过 5 次; e) 必须在极耳冷却后再进行二次焊接; f) 禁止直接加热电芯,高于 100°C会导致电芯损坏

#### Prohibitions/禁止

- ◆ Do not use different charger. /禁止使用非标配充电器。
- ◆ Do not charge with more than maximum charge rate. /禁止超出最大充电倍率充电。
- ◆ Do not disassemble or reconstruct the battery. 禁止拆解和重组电芯。
- ◆ Do not throw or cause impact.禁止丢抛电芯或其他可能引起撞击的动作。
- ◆ Do not pierce a hole in the battery with sharp things. (such as nail, knife, pencil, drill) /禁止尖锐物插入电芯
- ◆ Do not use with other batteries or cells. /禁止和其他电芯混用。
- ◆ Do not solder on battery directly. /禁止直接在电芯上面上锡。
- ◆ Do not press the battery with overload in manufacturing process. /禁止在制程中过度挤压。



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- ◆ Do not use old and new cells together for packing. /禁止新老电芯在同一个电芯模组内混搭使用。
- ◆ Do not expose the battery to high heat. (such as fire) /禁止将电芯暴露在高温或过热处,例如火中。
- ◆ Do not put the battery into a microwave or high-pressure container. /禁止将电芯放入微波或高压容器内。
- ◆ Do not use the battery reversed. /禁止反转。
- ◆ Do not connect positive (+) and negative (-) with conductive materials (such as metal, wire). /禁止正负极直接短接(如使用金属、电线等)
- ◆ Do not allow the battery to be immersed in or wet with water or sea-water. /不允许将电芯浸入水中和被水淋。
- ◆ Do not deform the battery cell (e.g. bending the terrace area or the pouch sealing area) without written agreement with the battery manufacturer. /在没有征得制造商书面同意前,禁止将电芯弄变形(例如弯折易于形变的台阶或封装区域)。

#### Others/其他

◆ Any matters that this specification does not cover should be conferred between the customer and Li-Fun. /本规格 书中之未尽事宜需客户与敝司共同确认。

#### Disclaimer/免责申明

- ◆ If the product demand company is not used according to the regulations in the specification, the social influence is caused, and the reputation of the LF is influenced, the LF will be investigated for the responsibility of the requirement unit. According to the degree of influence on the LF, the product demand company needs to provide compensation for the LF. /如果由于产品需要单位不按本说明书中的规定进行使用,造成社会性影响,并对立方的声誉造成影响的,立方将会追究需求单位的责任。根据对立方造成的影响程度,产品需求单位需向立方提供赔偿。
- ◆ LF reserves the right to modify the specifications and performance parameters of the product. The buyer needs to confirm the latest status of the LF in advance before ordering the LF product. If the customer has different opinions on the appearance of the cell, both parties shall solve it through friendly negotiation. /立方保留对产品的规格及性能参数修改的权利。买方在订购立方产品前,需要与立方提前确认产品的最新状态。若客户对电芯外观有不同意见,双方友好协商解决。



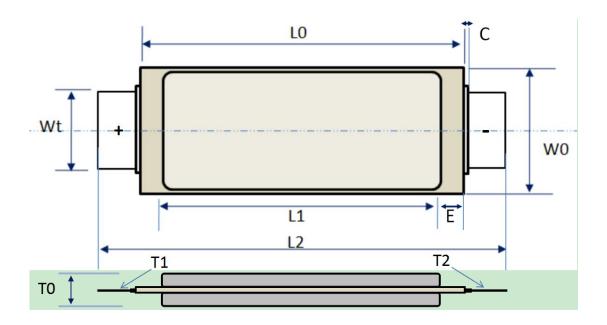
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### 6. Drawing /图纸

(all unit in mm, not in scale/单位为毫米,未按比例绘制)



| Items | Description  | Dimension |
|-------|--|-----------|
| ТО    | Thickness for shipping without mylar(mm), measure with 100± 15kgf pressure | ≤11.0     |
| W0    | Width(mm)  | 121.0±2.0 |
| L0    | Length(mm)-Cell body   | ≤354.0    |
| L2    | Length(mm)-with Tab Lead   | 417.0±5.0 |
| L1    | Length without top sealing(mm)   | 325.0±2.0 |
| Wt    | Tab width(mm)  | 45.0±0.2  |
| T1    | Cathode tab thickness(mm)  | 0.40±0.03 |
| T2    | Anode tab thickness(mm)  | 0.30±0.03 |
| Е     | Top sealing width (mm)   | 14.0±3.0  |
| С     | Sealant outside length(mm)   | 0.5~3.5   |



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# Customer Inquiry/客户调查

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The customer is requested to write down your information and contact Li-Fun in advance, When the customer needs applications or operating conditions other than those described in this document. Li-Fun could design and build such products according to your special request.

尊敬的客户,如您需要在此规格书描述之外的范围内应用产品,可将需求信息反馈给敝司。立方将根据您的特殊要求设计和制造相关产品。

| No. | Special Request /要求 | Criteria /条件 |
|-----|---------------------|--------------|
| 1   |                     |              |
| 2   |                     |              |
| 3   |                     |              |
| 4   |                     |              |
| 5   |                     |              |

| Company Name: | Signature: | Date: |  |
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