



-EVE Energy CO., LTD Confidential Proprietary-

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|-------------|-----|-------------------|---------------|-------------------|---|
| Model<br>型号 | C40 | Spec No.<br>规格书编号 | RD-C40-S01-LF | Version NO.<br>版本 | A |
|-------------|-----|-------------------|---------------|-------------------|---|

## SPECIFICATION OF PRODUCT

### 产品交付规格书

型号 (Model) : C40

| Designed<br>设计制作 | Designer<br>Checked<br>产品设计审核 | QC<br>Checked<br>品质审核 | Sales<br>Checked<br>销售审核 | Approved<br>批准 |
|------------------|-------------------------------|-----------------------|--------------------------|----------------|
| 江敏               | 杨成                            | 张玉                    |                          | 邵为             |

|                             |
|-----------------------------|
| Customer Signature<br>客户接收栏 |
| 公司名称 (Company name) :       |
| 批 准 (Approved by) :         |
| 日 期 (Signature Date) :      |

2022 年 01 月

EVE Energy CO., LTD  
惠州亿纬锂能股份有限公司



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客户要求 (Customer Request)

| NO.<br>序号 | Special Requirements<br>特殊要求 | Specification<br>标准 |
|-----------|------------------------------|---------------------|
| 1         |                              |                     |
| 2         |                              |                     |
| 3         |                              |                     |
| 4         |                              |                     |
| 5         |                              |                     |

客户代码 (Customer Code) : \_\_\_\_\_

签 字 (Signature) : \_\_\_\_\_

日 期 (Date) : \_\_\_\_\_



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## Revision History

## 变更履历

| Revision NO.<br>版本 | Date<br>日期 | Description<br>更改内容   | Author<br>确认人 |
|--------------------|------------|-----------------------|---------------|
| A                  | 2022.03.10 | First Edition<br>新版发行 | 江敏            |
|                    |            |                       |               |
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## 术语定义 (Definition of Terms)

| Terms<br>术语                   | Definition<br>定义                                                                                                                                                                                                                                                                                      |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product<br>产品                 | "Product" in this specification refers to 20 Ah rechargeable cylindrical lithium ion battery produced by EVE Energy Co., Ltd.<br>本规格书中的“产品”是指惠州亿纬锂能股份有限公司生产的 20Ah 可充电圆柱锂离子电池。                                                                                                                         |
| customer<br>客户                | Refers to the buyer in the product sales contract of EVE Energy Co., Ltd.<br>指《惠州亿纬锂能股份有限公司产品销售合同》中的买方。                                                                                                                                                                                               |
| Nominal Capacity<br>标称容量      | Refers to the median capacity released in accordance with the discharge mode in Article 3.4 of this specification.<br>指按照本规格书第 3.4 条放电模式所放出来的容量中值；                                                                                                                                                    |
| Rate<br>倍率 (C)                | The ratio of the charge/discharge current to the rated capacity value. For example, the battery capacity is 20Ah, when the charging or discharging current is 20A, the charging or discharging rate is 1C.<br>充/放电电流与电池的额定容量值的比率。例如，电池容量为 20Ah，当充电或放电电流为 20A 时，则充电或放电倍率为 1C。                          |
| State of charge<br>荷电状态 (SOC) | Under no-load conditions, the ratio of the battery capacity state to the rated capacity measured in Ah or Wh. For example, if the capacity is 20Ah as 100% SOC, when the capacity is 0Ah, the SOC is 0%.<br>在无负载的情况下，以安培小时或者以瓦特小时为单位计量的电池容量状态与额定容量的比值。如：若将容量为 20Ah 的状态视为 100%SOC，则容量为 0Ah 时，SOC 为 0%。 |
| Standard charging<br>标准充电     | The charging mode described in Article 3.3 of this specification.<br>本规格书第 3.3 条所述的充电模式。                                                                                                                                                                                                              |
| Standard discharging<br>标准放电  | The discharging mode described in Article 3.4 of this specification.<br>本规格书第 3.4 条所述的放电模式。                                                                                                                                                                                                           |
| DC Resistance<br>直流电阻 (DCR)   | The ratio of the voltage changes of the battery to the corresponding current change under working conditions.<br>工作条件下电池的电压变化与相应的电流变化之比。                                                                                                                                                              |
| Units<br>测量单位                 | “V” (Volt) 伏特(V)<br>“A” (Ampere) 安培(A)<br>“Ah” (Ampere-Hour) 安培-小时(Ah)<br>“Wh” (Watt-Hour) 瓦特-小时(Wh)<br>“mΩ” (MilliOhm) 毫欧姆(mΩ)<br>“Hz” (Hertz) 赫兹(Hz)                                                                                                                                                |



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## 1. 基本信息 (Basic Information)

### 1.1. 适用范围 (Scope)

This product specification has been prepared to specify the cylindrical rechargeable lithium-ion cell to be supplied to customer by EVE Energy Co., Ltd.

本产品规格书适用于由惠州亿纬锂能股份有限公司生产的圆柱锂离子电池。

### 1.2. 产品类型 (Description)

Cylindrical Lithium-ion Rechargeable cell.

圆柱锂离子可充性电芯。

### 1.3. 产品型号 (Model Name)

EVE—— C 40

①      ②    ③

① The letter "EVE" defines EVE Energy Co., LTD.

"EVE"代表惠州亿纬锂能股份有限公司。

② The letter "C" defines Aluminous Cylindrical Li-ion rechargeable cell.

"C"代表铝壳圆柱锂离子二次电芯。

③ The letter "40" defines the diameter of the cell.

"40"代表电芯直径为 40 mm。

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## 2. 电池规格参数 (Specification Parameters)

### 2.1. 电池基本参数 (Basic Parameters)

| Item<br>项目                                   | Specification<br>标准 |     | Remarks<br>备注               |
|----------------------------------------------|---------------------|-----|-----------------------------|
| Median Capacity@3.65~2.5V<br>容量中值@3.65~2.5V  | 20500               | mAh | 0.33C discharge<br>0.33C放电  |
| Minimum Capacity@3.65~2.5V<br>最小容量@3.65~2.5V | 19500               | mAh | 0.33C discharge<br>0.33C放电  |
| Nominal Capacity@3.65~2.5V<br>标称容量@3.65~2.5V | 20000               | mAh | 0.5C discharge<br>0.5C放电    |
| AC-IR<br>交流内阻                                | ≤3                  | mΩ  | AC 1 kHz@25°C<br>出货状态30%SOC |
| DC-IR<br>直流内阻                                | ≤8                  | mΩ  | 25°C@2C 30s<br>出货状态30%SOC   |
| End-of-charge Voltage<br>充电限制电压              | 3.65                | V   |                             |
| End-of-charge Current<br>充电截止电流              | 1000                | mA  | 0.05C                       |
| End-of-discharge Voltage<br>放电截止电压           | 2.5<br>2.0          | V   | T>0°C<br>T≤0°C              |
| Nominal Voltage<br>额定电压                      | 3.2                 | V   |                             |
| Standard Charging current<br>标准充电电流          | 10000               | mA  | 0.5C                        |
| Fast charge<br>快速充电电流                        | 20000               | mA  | 1C                          |
| Standard Discharge current<br>标准放电电流         | 10000               | mA  | 0.5C                        |
| Max Continuous Discharge current<br>最大连续放电电流 | 60000               | mA  | 3C                          |



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| Operating Temperature<br>Range (surface temperature of<br>cell)<br>操作温度范围<br>(电芯表面温度) |     | Charging Temp.<br>充电温度    | 0~5°C         | ≤0.25C            |   |
|                                                                                       |     |                           | 5~10°C        | ≤0.3C             |   |
|                                                                                       |     |                           | 10~15°C       | ≤0.4C             |   |
|                                                                                       |     |                           | 15~55°C       | ≤0.5C             |   |
|                                                                                       |     | Discharging Temp.<br>放电温度 | -20~60°C      |                   |   |
|                                                                                       |     | Storage Temp.<br>存储温度     | -20~45°C      | ≤1 month<br>≤1个月  |   |
|                                                                                       |     |                           | 0~45°C        | ≤3 months<br>≤3个月 |   |
|                                                                                       |     |                           | 0~25°C        | ≤1 year<br>≤1年    |   |
|                                                                                       |     | Storage Humidity<br>存储湿度  | ≤70% RH       |                   |   |

## 2.2. 产品规格 (Product Specification)

## 2.2.1. 尺寸、重量指标 (Dimension and Weight)

| NO.<br>序号 | Item<br>项目             | Specification<br>标准                                                          | Test Method Chapter<br>测试方法章节 |
|-----------|------------------------|------------------------------------------------------------------------------|-------------------------------|
| 1         | Cell Dimension<br>电芯尺寸 | Diameter: $\Phi 40.5 \pm 0.3$ mm (coated)<br>直径: $\Phi 40.5 \pm 0.3$ mm (包膜) | 3.5.1.                        |
|           |                        | Height : $135.0 \pm 0.5$ mm (pole contained)<br>高度: $135.0 \pm 0.5$ mm (含极柱) | 3.5.1.                        |
| 2         | Cell Weight<br>重量      | $356 \pm 10$ g                                                               | 3.5.2.                        |

## 2.2.2. 电性能指标 (Electrical Performance)

| NO.<br>序号 | Test Item<br>测试项目 | Specification<br>标准 | Test Method<br>Chapter<br>测试方法章节 |
|-----------|-------------------|---------------------|----------------------------------|
|-----------|-------------------|---------------------|----------------------------------|

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| 1           | 不同温度放电性能<br>(1.0C 放电)<br>Temperature<br>Dependence of<br>Discharge Capacity<br>(1.0C discharge) | -20°C Retention Ratio<br>-20°C容量保持率               | ≥70%                                                                                      | 3.5.3.1.          |   |
|             |                                                                                                 | -10°C Retention Ratio<br>-10°C容量保持率               | ≥80%                                                                                      | 3.5.3.1.          |   |
|             |                                                                                                 | 0°C Retention Ratio<br>0°C容量保持率                   | ≥85%                                                                                      | 3.5.3.1.          |   |
|             |                                                                                                 | 25°C Retention Ratio<br>25°C容量保持率                 | 100%                                                                                      | 3.5.3.1.          |   |
|             |                                                                                                 | 45°C Retention Ratio<br>45°C容量保持率                 | ≥100%                                                                                     | 3.5.3.1.          |   |
|             |                                                                                                 | 60°C Retention Ratio<br>60°C容量保持率                 | ≥100%                                                                                     | 3.5.3.1.          |   |
| 2           | 100% SOC<br>Temperature Charge<br>Retention and<br>Regain<br>100% SOC 荷电保<br>持与恢复能力             | 28d, 25°C                                         | Retention Ratio≥95%<br>Recovery Ratio≥97%<br>容量保持率≥95%，容量恢复率<br>≥97%                      | 3.5.3.2.          |   |
|             |                                                                                                 | 7d, 60°C                                          | Retention Ratio≥92%<br>Recovery Ratio≥95%<br>容量保持率≥92%，容量恢复率<br>95%                       | 3.5.3.2.          |   |
|             |                                                                                                 | 28d, 60°C                                         | Retention Ratio≥85%<br>Recovery Ratio≥90%<br>容量保持率≥85%，容量恢复率<br>90%                       | 3.5.3.2.          |   |
| 3           | 循环<br>(Cycle)                                                                                   | Normal Temperature<br>Cycle Life<br>常温循环寿命        | After 2000 cycles, Capacity<br>retention≥70% Initial capacity<br>2000 周后容量保持率≥70%初始<br>容量 | 3.5.3.3.          |   |
|             |                                                                                                 | 45°C Cycle Life<br>45°C循环寿命                       | After 1000 cycles, Capacity<br>retention≥70% Initial capacity<br>1000 周后容量保持率≥70%初始<br>容量 | 3.5.3.4.          |   |
|             |                                                                                                 | 25°C 90%DOD Cycle<br>Life<br>25°C 90%DOD 循环<br>寿命 | After 3500 cycles, Capacity<br>retention≥70% Initial capacity<br>3500 周后容量保持率≥70%初始<br>容量 | 3.5.3.5.          |   |

## 2.2.3. 安全性能指标 (Safety Performance)

| NO.<br>序号 | Test Item<br>测试项目         | Specification<br>标准              | Test Method Chapter<br>测试方法章节 |
|-----------|---------------------------|----------------------------------|-------------------------------|
| 1         | Over-charge Test<br>过充电测试 | No explosion, no fire<br>不爆炸、不起火 | 3.5.4.1.                      |

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| 2           | Over-discharge Test<br>过放电测试     | No explosion, no fire, no leakage<br>不爆炸、不起火、不漏液 |               | 3.5.4.2.          |   |
| 3           | Short-circuit Test<br>短路测试       | No explosion, no fire<br>不爆炸、不起火                 |               | 3.5.4.3.          |   |
| 4           | Drop Test<br>跌落测试                | No explosion, no fire<br>不爆炸、不起火                 |               | 3.5.4.4.          |   |
| 5           | Crush Test<br>挤压测试               | No explosion, no fire<br>不爆炸、不起火                 |               | 3.5.4.5.          |   |
| 6           | Heating Test<br>加热测试             | No explosion, no fire<br>不爆炸、不起火                 |               | 3.5.4.6.          |   |
| 7           | Sea Water Immersion Test<br>海水浸泡 | No explosion, no fire,<br>不爆炸、不起火                |               | 3.5.4.7.          |   |
| 8           | Low Pressure Test<br>低气压         | No explosion, no fire, no leakage<br>不爆炸、不起火、不漏液 |               | 3.5.4.8.          |   |

### 2.3. 电池图纸 (Outline Dimensions)

See the attachment (Fig. A).

见附录图 A。

### 2.4. 外观 (Appearance)

There shall be no such defects as rust, discoloration, leakage which may adversely affect commercial value of the cell.

电池应无明显擦伤、裂痕、锈渍、变色或电解液泄漏这类对电池商用价值有影响的缺陷。

## 3. 试验条件 (Standard Test Condition)

### 3.1. 环境条件 (Environment Condition)

Unless otherwise specified, all tests stated in this Product Specification should be conducted at temperature  $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$  and humidity  $65\%\pm 20\%$  RH.

若无特别要求，此规格书上的产品测试条件均为温度： $25^{\circ}\text{C}\pm 2^{\circ}\text{C}$ ；湿度： $65\%\pm 20\%$  RH。

### 3.2. 测量设备 (Measuring Equipment)

The accuracy of measuring instruments and meters should meet the following requirements:

测量仪器、仪表准确度应满足以下要求：

- (1) 电压测量装置 (Volt measuring Equipment)： $\pm 0.1\%$ ；
- (2) 电流测量装置 (Amp measuring Equipment)： $\pm 0.1\%$ ；
- (3) 温度测量装置 (Temp measuring Equipment)： $\pm 0.5^{\circ}\text{C}$ ；
- (4) 尺寸测量装置 (Dimension measuring Equipment)： $\pm 0.01\text{mm}$ ；

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(5) 重量测量装置 (Weight measuring Equipment):  $\pm 0.1g$ 。

### 3.3. 标准充电方式 (Standard Charge Method)

The "Standard Charge" means charging the cell at a constant current of 0.5C until the voltage is 3.65V, then charged at a constant voltage of 3.65V until its current is less than 0.05C. For test purpose, charging shall be performed at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

“标准充电”即在环境温度为  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  的条件下，先以恒定电流 0.5C 充电至 3.65V，再以 3.65V 的恒压充电至电流小于 0.05C。

### 3.4. 标准放电方式 (Standard Discharge Method)

The "Standard Discharge" means discharging the cell at a constant current of 0.5C until the voltage is 2.5V. For test purpose, discharging shall be performed at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$

“标准放电”即在环境温度为  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  的条件下，以恒定电流 0.5C 放电到 2.5V。

### 3.5. 测试方法 (Test Method)

#### 3.5.1. 尺寸 (Dimension)

Use a caliper to measure the diameter and height of the cell.

使用卡尺测量电芯直径和高度。

#### 3.5.2. 重量 (Weight)

Use an electronic scale to measure the weight of the battery.

使用电子秤测量电池的重量。

#### 3.5.3. 电性能 (Electrical Characteristics)

##### 3.5.3.1. 不同温度放电性能 (Temperature Dependence of Discharge Capacity)

The cell is measured with discharge constant current of 1C to 2.5V with follow discharge temperature and rest for 6h after the standard charging.

电芯按不同温度搁置 6h 后，以 1C 电流放电至 2.5V ( $\leq 0^{\circ}\text{C}$  时搁置 12h，1C 放电至 2.0V)

##### 3.5.3.2. 100% SOC 荷电保持与恢复能力 (100% SOC Temperature Charge Retention and Regain)

Capacity after storage at certain time and temperature after the standard charged measured with discharge current of 0.5C to cut-off voltage. Then capacity after 0.5C charge and 0.5C discharge for 3 cycles.

电芯按规定充电，以不同温度和时间存储后，以 0.5C 电流放电至截止电压测试容量保持容量，电芯以 0.5C 充电，再以 0.5C 放电循环 3 次，第三次为恢复容量。



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### 3.5.3.3. 常温寿命循环 (Normal Temperature Cycle Life)

Each cycle is an interval between 0.5C charges to 3.65V with 0.05C cut-off and 0.5C discharge with 2.5V cut-off at 25°C±2°C. Record the capacity after 2000cycles at 25°C.

电芯以 0.5C 电流充电至 3.65V，0.05C 电流截止，以 0.5C 电流放电至 2.5V，25°C±2°C 连续进行充放电循环 2000 次后，记录常温容量。

### 3.5.3.4. 45°C循环寿命 (45°C Cycle Life)

Each cycle is an interval between 0.5C charges to 3.65V with 0.05C cut-off and 0.5C discharge with 2.5V cut-off at 45°C±2°C. Record the capacity after 1000cycles.

电芯以 0.5C 电流充电至 3.65V，0.05C 电流截止，以 0.5C 电流放电至 2.5V，45°C±2°C 连续进行充放电循环 1000 次，记录容量。

### 3.5.3.5. 25°C 90%DOD 循环寿命 (25°C 90%DOD Cycle Life)

Each cycle is an interval between 0.5C charge and discharge at 25°C±2°C. Record the capacity after 3500 cycles at 25°C.

电芯以 0.5C 电流在 25°C±2°C 连续进行 90%DOD 充放电循环 3500 次，记录常温容量。

## 3.5.4. 安全性能 (Safety Test)

All below tests are carried out on the equipment with forced ventilation and explosion-proof device. Before test, all cells should be charged in accordance with 3.2.

下述试验应在有强制排风条件及防爆措施的装置内进行，在试验前所有的电芯都按 3.2 规定标准充电方式充电后再进行以下试验。

### 3.5.4.1. 过充电测试 (Over-charge Test)

Stop charging after charging with constant 1C current until reaching 1.5 times of the charging termination voltage or charging time reaching 1.5h.

以 1C 电流恒流充电至达到充电终止电压的 1.5 倍，或充电时间达到 1.0h 后停止充电。

### 3.5.4.2. 过放电 (Over-discharge Test)

Discharge at a constant current of 1C for 90 minutes and observe for 1 h.

以 1C 恒流放电 90min 后，观察 1h.

### 3.5.4.3. 短路测试 (Short-circuit Test)

Short-circuit the standard charged cell by connecting positive and negative terminal by less 5 mΩ wire for 10min.

使用外部线路总电阻 < 5 mΩ 短接电芯的正负极 10min。

### 3.5.4.4. 跌落测试 (Drop Test)

Drop the positive or negative terminal of the cell down freely from the height of 1.5m to the cement ground once.

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将电芯的正极或者负极端子朝下从 1.5m 高度处自由跌落到水泥地面上 1 次。

#### 3.5.4.5. 挤压测试 (Crush Test)

A cell is to be crushed between two flat surfaces. The force for the crushing is to be applied by a hydraulic ram or similar force mechanism. The flat surfaces are to be brought in contact with the cells and the crushing is to be continued until voltage reaches 0V, the deformation reaches 15%, or the squeezing force reaches 100kN or 1000 times the weight of the test subject.

将电芯置于挤压设备的两个挤压平面之间，用液压油缸或类似的力挤压，挤压面与电芯接触，当电压达到 0V 或变形量达到 15%或挤压力达到 100kN 或 1000 倍实验对象重量后停止挤压。

#### 3.5.4.6. 加热测试 (Heating Test)

A cell is to be heated in a gravity convection or circulating air oven. The temperature of the oven is to be raised at a rate of  $5^{\circ}\text{C}\pm 2^{\circ}\text{C}$  per minute to a temperature of  $130^{\circ}\text{C}\pm 2^{\circ}\text{C}$  and remain for 30 min and observed 1h.

将电芯放在电热鼓风干燥箱中加热，温度以  $5^{\circ}\text{C}\pm 2^{\circ}\text{C}$  /min 的速率由室温升至  $130^{\circ}\text{C}\pm 2^{\circ}\text{C}$  并保持 30min，观察 1h。

#### 3.5.4.7. 海水浸泡 (Sea Water Immersion Test)

The cell was immersed in 3.5%NaCl solution (mass fraction, simulated seawater composition at normal temperature) for 2h.

将电芯完全浸入 3.5%NaCl 溶液（质量分数，模拟常温下的海水成分）中搁置 2h。

#### 3.5.4.8. 低气压 (Low Pressure Test)

The cell was placed in a low pressure box, the pressure in the test box was adjusted to 11.6kPa, the temperature was room temperature, then standing and observed for 1h.

电芯放入低气压箱中，调节试验箱中气压为 11.6kPa，温度为室温，静置 6h，观察 1h。

### 4. 电池操作说明及注意事项 (Cell Operation Instruction and Precautions)

#### 4.1. 储存建议 (Storage Recommendations)

##### 4.1.1. 短期存放 (Short Period Storage)

\* Storage the cell at temperature of  $0^{\circ}\text{C} \sim 45^{\circ}\text{C}$  (less than 3 months), low humidity and no corrosive gas atmosphere.

电芯短期存放（不超过 3 个月）应储存在  $0^{\circ}\text{C}\sim 45^{\circ}\text{C}$  温度范围，低湿度和不含腐蚀性气体的环境中。

\* No press on the cell

不要让电芯承受任何压力。

##### 4.1.2. 长期存放 (Long Period Storage)

\* In case of long period storage (more than 3 months), storage the cell at temperature range of  $0^{\circ}\text{C}\sim 25^{\circ}\text{C}$ , low



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humidity, no corrosive gas atmosphere.

电芯长期存放（超过 3 个月）应存储在 0°C~25°C 温度范围，低湿度和不含腐蚀性气体的环境中。

- \* No press on the cell.

不要让电芯承受任何压力。

#### 4.2. 运输 (Shipment)

The capacity of delivery cell is approximately at 30% of charging. It is not specified more than 30% capacity remain at customer, because of self-discharge. During transportation, keep the cell from acutely vibration, impacting, solarization, drenching.

出货电芯处于 30% 充电状态，由于电芯存在自耗，运送到客户端的电芯无法完全保证 30% 荷电量。运输过程应防止剧烈振动、冲击、日晒雨淋。

#### 4.3. 操作说明 (Operation Instruction)

##### 4.3.1. 充电 (Charging)

- \* Charge the cell in an ambient temperature range of 0°C to 55°C.

电芯充电环境温度范围为 0°C~55°C。

- \* Charge the cell at a constant current of 10000mA until 3.65V is attained. Charge rates greater than 20000mA are not recommended.

以 10000mA 的电流恒流充电至 3.65V，超过 20000mA 的电流建议不要使用。

- \* Maintain charge voltage at 3.65V for 1hour (recommended for maximum capacity).

保持恒压 3.65V 充电 1 小时（最大容量）。

- \* Cell must be charged with constant current-constant voltage method.

必须使用恒流恒压方式对电芯进行充电。

##### 4.3.1.1. 温度梯度充电方案 (Temperature gradient charging scheme)

| Charge Current<br>充电电流 | SOC  | Temperature Gradient<br>温度梯度 |          |           |           |           |
|------------------------|------|------------------------------|----------|-----------|-----------|-----------|
|                        |      | 0°C~5°C                      | 5°C~10°C | 10°C~15°C | 15°C~45°C | 45°C~55°C |
|                        | 100% | 0.05C                        | 0.05C    | 0.05C     | 0.05C     | 0.05C     |
|                        | 90%  | 0.15C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 80%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 70%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 60%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 50%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 40%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |
|                        | 30%  | 0.25C                        | 0.3C     | 0.4C      | 0.5C      | 0.5C      |

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|             | 20% | 0.25C             | 0.3C          | 0.4C | 0.5C | 0.5C              |   |
|             | 10% | 0.25C             | 0.3C          | 0.4C | 0.5C | 0.5C              |   |
|             | 0%  | 0.25C             | 0.3C          | 0.4C | 0.5C | 0.5C              |   |

#### 4.3.2. 放电 (Discharging)

- \* Recommended cut-off voltage to 2.5V. Recommended max continuous discharge current is 60000mA.  
建议放电终止电压为 2.5V，建议最大持续恒流放电电流为 60000mA。
- \* For maximum performance, discharge the cell in an ambient temperature range of -20°C to 60°C.  
为了达到较好的性能，电芯的放电环境温度范围为-20°C~60°C。

#### 4.3.3. 电芯防范措施 (Standard Cell Precaution)

- \* Do not expose the cell to extreme heat or flame.  
不要将电芯暴露在极热或有火星的环境中。
- \* Do not short circuit, over-charge or over-discharge the cell.  
不要将电芯短路，过充或过放。
- \* Do not subject the cell to strong mechanical shocks.  
不要使电芯承受过重的机械冲击。
- \* Do not immerse the cell in water or sea water, or get it wet.  
不要将电芯浸入海水或水中，或者使其吸湿。
- \* Do not reverse the polarity of the cell for any reason.  
不要颠倒电芯的正负极。
- \* Do not disassemble or modify the cell.  
不要拆卸或修整电芯。
- \* Do not handle or store with metallic like necklaces, coins or hairpins, etc.  
不要和项链、硬币或发夹等金属物品放置在一起。
- \* Do not use the cell with conspicuous damage or deformation.  
不要使电芯受到明显的损害或变形。
- \* Do not connect cell to the plug socket or car-cigarette-plug.  
不要将电芯与插座连接。
- \* Do not make the direct soldering onto a cell.  
不要直接焊接电芯。
- \* Do not touch a leaked cell directly.  
不要直接接触泄漏的电芯。
- \* Do not use for other equipment.  
不要将电芯用于其它设备。
- \* Do not use Lithium-ion cell in mixture.  
不要将锂离子电芯混合使用。
- \* Do not use or leave the cell under the blazing sun (or in heated car by sunshine).  
不要将电芯放置在太阳光直射的地方。

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- \* Keep cell away from children.  
将电芯放置在远离儿童的地方。
- \* Do not drive a nail into the cell, strike it by hammer or tread it.  
不要针刺、锤打或践踏电芯。
- \* Do not give cell impact or fling it.  
不要撞击或投掷电芯。

#### 4.4.其他 (Others)

For the sake of safety assurance, if there are equipment design, lithium ion cell system protection circuit, fast charging and other special application, please consult EVE first.

为了安全起见，如有设备设计，锂离子电池系统保护电路或高电流，快速充电和其它方面的特殊应用，请先咨询亿纬公司相关事宜。

### 5. 联系方式 (Consultation)

As to the obscurity, contact the following:

Address: No.68 jingnan Avenue, Duodao District, High-tech Zone, Jingmen, Hubei Province, China

Email: [sales@evebattery.com](mailto:sales@evebattery.com)

Website: <http://www.evepower.com>

如有疑问，请按以下方式咨询：

地址：中国·湖北省荆门市高新区·掇刀区荆南大道 68 号

联系邮箱：[sales@evebattery.com](mailto:sales@evebattery.com)

网 址：<http://www.evepower.com>

#### 附图一：C40 图纸 (Attachment I: C40 drawing)

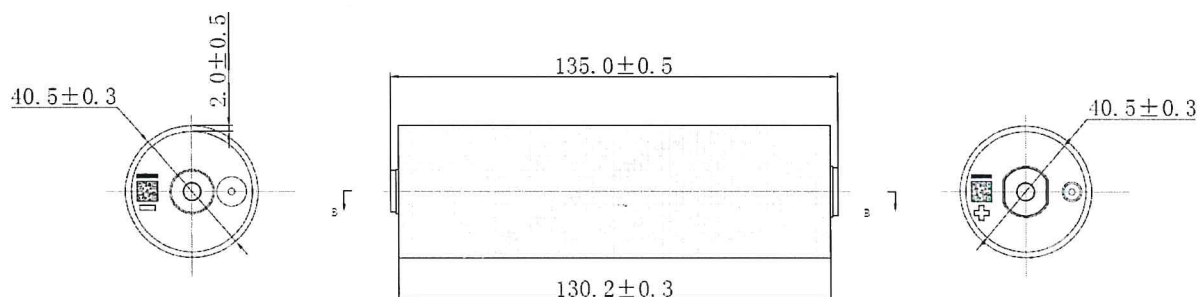


Figure A (图 A)