

# PRODUCT SPECIFICATION 产品交付规格书

# Model (型号): INR18650/35V

Designed	RD Checked	QC Checked	Sales Checked	Approved
编制	产品设计审核	品质审核	销售审核	批准
By Brit. 3.7	李政飞	子傳 3.10	Jul 32 427	宋鹏元 2023.325

Customer signature 客户接收栏	
Company name:	
公司名称:	
Approved by:	
批准:	
Signature date:	
日期:	

# February, 2023 EVE Energy Co., Ltd.



Model 型号	INR18650/35V	Spec. No. 规格书编号	PBRI-INR18650/35V-D06-15	Version No. 版本	A
-------------	--------------	--------------------	--------------------------	-------------------	---

## Revision History

## 变更履历

Revision NO. 版本	Date 日期	Description 更改内容	Author 确认人
A	2023.3.1	First Edition 新版发行	钟家太
		and the second	
	1025.00		
			_



Model 型号	INR18650/35V	Spec. No. 规格书编号	PBRI-INR18650/35V-D06-15	Version No. 版本	A
2. Descrip 3. Nomina	(适用范围) tion and Model(基本 I Specifications(規格 Dimensions(外形尺	《信息)	Catalogue(目录)		
. Appear	ance(外观)	****			
. Standar	d Test Condition(标	准测试条件)			
6.1. En	vironment Condition (	环境条件)			
6.2. Me	asuring Equipment(測	慢设备)			ión cina
. Chargin	g Method(充电方法	)			
7.1. Sta	ndard Charge(标准充	电)			
7.2. Raj	nid Charge(快速充电	)			
Electric	al Characteristics (1	电性能)			
8.1. Sta	ndard Discharge Capac	ity(标准放电容量			
8.2. Init	ial Internal Impedance	(内阻)			
8.3. Dis	charge Rate Capabilitie	s(倍率放电性能)	-		
			ity(不同温度放电性能)		
8.5. Cyc	ele Life(循环寿命),				
8.6. Sto	rage Characteristic (存	储性能)			

Model 型号	INR18650/35V	Spec. No. 规格书编号	PBRI-INR18650/35V-D06-15	Version No. 版本	A
9. Mechan	nical Characteristics	(机械性能)			
9.1. Fre	ee Fall Test(跌落測试	)			5
9.2. Vit	bration Test(振动测证	b			5
10. Safet	y(安全性能)				5

10.1	Overcharge Test (过充测试)
10.2	External Short-circuit Test (短路测试)
10.3	Forced Discharge Test (过放测试)
10.4	Heating Test(热冲击测试)6
10,5	Low Pressure Test (低气压测试)6
n.	Status of the Cell as of Ex-factory(电芯出厂状态)
12.	Warranty(质量保证)

13.	Precautions and Safety Instructions (安全守则)
14.	Guide for the use of Lithium-ion Cells (电芯使用指南)
14.	1. General (总则)

14.2.	Charging (充电)
14.3,	Discharging (放电)
14.4.	Storage (存储)8
14.5.	Cycle Life(循环寿命)
14.6.	Design of System (系统设计)
14.7.	Battery Pack Assembly (电池包组装)

### FVF Freeron CO\_LTD Confidential and Propriatary

Model 型号	INR18650/35V	Spec. No. 规格书编号	PBRI-INR18650/35V-D06-15	Version No. 版本	A
4.8. Oth	ners (其他)				
Other	rs(其他)				
Grater	Check Wester 2014;2014;2014;2014;2014;2014;2014;2014;			***************************************	TAXABLE DATE:
Guit					**********
	rage for a Long Time	(长期存放)			
5.1. Sto	(#44)				



Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	Α	
		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		NUCLEAR AND	. 1224-4	

#### 1. Scope (适用范围)

This product specification has been prepared to specify the 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锂离子电芯。

#### 2. Description and Model (基本信息)

2.1 Description (描述) Lithium-ion rechargeable cell (锂离子电芯)

2.2 Model name (型号) INR18650/35V

#### Item Specification 項目 标准 3500mAh Charge: 0.68A, 4.20V, CCCV 68mA cut-off 3.1 Nominal Discharge Capacity 充电: 0.68A 恒流充电至 4.20V, 恒压充电截止电流 68mA 标称容量 Discharge: 0.68A, 2.50V DC cut-off 放电: 0.68A 恒流放电至 2.50V 截止 3400mAh Charge: 0.68A, 4.20V, CCCV 68mA cut-off 3.2 Minimum Discharge Capacity 充电: 0.68A 恒流充电至 4.20V, 恒压充电截止电流 68mA 最小放电容量 Discharge: 0.68A, 2.50V DC cut-off 放电: 0.68A 恒流放电至 2.50V 截止 3.3 Nominal Voltage 3.65V 标称电压 3.4 Standard Charge CCCV, 0.68A, 4.20±0.05V, 68mA cut-off 标准充电 0.68A 恒流充电至 4.20±0.05V; 恒压充电截止电流 68mA 3.5 Rapid Charge CCCV, 1.7A, 4.20±0.05V, 170mA cut-off 快速充电 1.7A 恒流充电至 4.20±0.05V, 恒压充电截止电流 170mA 3.6 Standard Discharge DC, 0.68A, 2.50V cut-off 标准放电 0.68A 恒流放电至 2.50V 截止 DC, 10.2A, 2.50V cut-off (Not for cycle life) 3.7 Max. Continuous Discharge Current 最大持续放电电流 直流放电: 10.2A, 2.50V 截止(不适用于循环) 3.8 Charge/Discharge Voltage Range 4.20-2.50V 充电放电电压区间 3.9 Cell Weight 50.0g Max 最大 50.0g 电池重量

#### 3. Nominal Specifications (規格参数)



Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-1	15	Version No.	Α
3.10 Cell Dime 电芯尺寸		Height: 65.10±0. Diameter: 18.35±	15mm 高度: 65.10±0.15mm =0.10mm 直径: 18.35±0.10mm			
3.11 Operation Temperature (Cell Surface Temperature)		Ambient Temp Charge: 0 to 45 Discharge: -20 to	°C 1	环境温度 充电:0 to 45 ℃ 放电:-20 to 60℃		
使用温度范 (电芯表面温)	Ð	Charge Temperature: 0 to 60°C (recommended recharge release <45°C) Discharge Temperature: -20 to 70°C (recommended re-discharge release <60°C)		充电温度:0 to 60°C (建议重新充电温度<45℃) 放电:-20 to 70°C (建议重新放电温度<60℃)		
3.12 Storage Te	mperature	l year 1年		-2025°C		
(At Shipping SOC) 存储温度	DC)	3 months 3 个月		-20-45°C		
(出货态 SOC	)	1 month 1 个月		20~60°C		

#### 4. Outline Dimensions (外形尺寸)

See the attachment (Fig. 1). (详见附图 1)

#### 5. Appearance (外观)

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

电芯不能有生锈、变色、漏液等可能对电芯产生不利影响的缺陷。

#### 6. Standard Test Condition (标准测试条件)

6.1. Environment Condition (环境条件)

Unless otherwise specified, all tests stated in this specification are conducted at temperature 25±2°C and humidity under 65% RH.

若无特别要求,此规格书上的产品测试条件均为温度: 25±2°C,湿度: <65% RH。

6.2. Measuring Equipment (測量设备)

(1) Amp-meter and Volt-meter (电流表和电压表)

The amp-meter and volt-meter should have an accuracy of the grade 0.5mA and 0.5mV or higher.

电流表和电压表的精度应分别为 0.5mA 和 0.5mV 或以上。

(2) Slide Caliper (游标卡尺)

The slide caliper should have 0.01mm scale.

游标卡尺的测试精度应为 0.01mm。

1	Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A
- 1						100.00

(3) Impedance Meter (电压内阻测试仪)

The impedance meter with AC 1 KHz should be used.

使用频率为1KHz的电压内阻测试仪。

#### 7. Charging Method (充电方法)

7.1. Standard Charge (标准充电)

Standard Charge means charging the cell CCCV with charge current 0.68A (0.2C), constant voltage 4.20V and 68mA cut-off in CV mode at 25±2°C for capacity.

标准充电即在环境温度为 25±2℃ 的条件下,先以恒定电流 0.68A(0.2C)充电至 4.20V,然后恒压充电至电 流小于 68mA。

7.2. Rapid Charge (快速充电)

Rapid Charge means charging the cell CCCV with charge current 1.7A, constant voltage 4.20V and 170mA cut-off in CV mode at 25±2°C.

快速充电即在环境温度为 25±2°C 的条件下,先以恒定电流 1.7A 充电至 4.20V,然后恒压充电至电流小于 170mA。

Item 项目	Test Condition 测试条件	Criteria 检验标准
8.1. Standard Discharge Capacity (标准放电容量)	The Standard Discharge Capacity is the initial discharge capacity of the cell, which is measured with discharge current of 0.68A (0.2C) and cut-off voltage of 2.50V at 25°C after the standard charge. Referring IEC61960 Standard. 标准放电容量即电芯在 25°C下按照标准充电方式充满 电,然后以 0.68A (0.2C) 放电至 2.50V 截止的容量。 (参考 IEC61960 标准)	Standard Discharge Capacity≥ 3400mAh 标准放电容量≥3400mAh
8.2. Initial Internal Impedance (内阻)	Initial Internal Impedance is measured at AC 1KHz at shipping SOC. 使用频率为 AC 1KHz 的电压内阻测试仪测量出货态电 芯的内阻。	Initial Internal Impedance ≤30mΩ 内阻≤30 mΩ

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



Model	INR18650/	35V Spec.	No.	PBRI-INR 186	50/35V-D06-15	Ve	rsion No.	A
		Distance of the			ltem 项目	Discharge Condition 放电条件		
8.3. Discharge Rate		Discharge Capaci various currents in 2.50V cut-off afte	n the folio	owing table and	Current 电流 (A)	0.68		10.2
Capabilities(倍率放电性能)	Sand Charles and Charles	方式充电	8后,以不同的放电	Rate 倍率(C)	0,2		3	
		-Dat le able -B±	2.50¥ 10	ell-Brite	Relative Capacity 相对容量(%)	100%	3	290%
		Capacity comparis measured after sto		ch temperature, ne test environment	ltom 项目	Di	scharge Temp 放电温度	
	ature Dependence Capacity (不同温	according to the b constant current 0		le with discharge C) and 2.50V cut-off	Temperature 温度(*C)	-29	25	55
1.00	电性能)		下按标准	±充电方式充电后,	Rest Time 静策时间(h)	3	3	3
		在不同温度搁置 3h 后以 0.68A(0.2C)恒流放 电至 2.50V 截止电压,		Relative Capacity 相对容量(%)	≥70	100	≥90	
8.5. Cycle L	Charge: Rapid charge (1.7A, 4.20V, 170mA cut-off). Discharge: 3.4A discharge, 3.00V cut-off. Rest Time: 10min after charge and 30min after discharge. 5. Cycle Life (循环寿命) Capacity after 800 cycles. 充电: 快速充电 (1.7A, 4.20V, 170mA 截止) 放电: 3.4A 放电, 3.00V 截止 搁置时间: 充电后搁置 10min, 放电后搁置 30min 循环 800 次		Note: C <sub>6</sub> the firs	周循环容	capacity of			
8.6. Storage Characteristic (存 储性能)	Initial Capacity: Standard discharge capacity. Retention Capacity: The standard discharge capacity after fully standard charged storage at condition in the following table. Recovery Capacity: The standard discharge capacity of three times cycles after fully		Retention Ca Recovery Ca 容量保持等 容量恢复率	Recovery I pacity/ Init =保持容量	ial Capacity tatio= ial Capacity /初始容量・	*100% 100%		
	100550	standard charged s following table.	110000		ltem	Retention	Ratio	Recovery Ratio
		初始容量:标准加	放电容量		项目	容量保	持率	容量恢复率
		保持容量: 60°C存	存储7天	后标准放电容量	60°C7 Days 60°C存储7 天	≥89	%	≥90%
		恢复容量: 25°C存储 28 天后,电芯充满电后 标准放电容量(循环 2 次)		25°C 28 Days 25°C存储 28 天	≥85	%	≥90%	



Model

#### -EVE Energy CO., LTD Confidential and Proprietary-

Spec. No.

PBRI-INR18650/35V-D06-15

#### 9. Mechanical Characteristics (机械性能)

INR18650/35V

Item 项目	Test Method 测试方法	Criteria 检验标准
9.1. Free Fall Test (跌落測试)	Each fully standard charged cell is dropped three times from a height of 1.0m onto a flat concrete floor at 20±5°C. The cells are dropped so as to obtain impacts in random orientations. After the test, the cells shall be put on rest for a minimum of 1h and then a visual inspection shall be performed. Free fall test is according to the IEC62133 standard. 在 20±5°C环境下,充满电的电芯从 1.0m 的高度以随机的方向跌落至水泥地板 3 次,实 验后放置至少 1h 后进行外观检查。 (跌落测试按照 IEC62133 标准进行)	No fire, no explosion. 电芯不起火,不爆炸
9.2. Vibration Test (振动測试)	For X and Y axis with cylindrical cell 7Hz→200Hz→7Hz for 15min, repetition 12 times totally 3 hours, the acceleration 1g during 7 to 18Hz, then amplitude 1.6mm and maximum 8g up to 200Hz. Tests are to be conducted at 20±5°C. Vibration test is according to the UN38.3 standard. 在20±5°C下,充满电的电芯固定在振动台上,振动频率由7Hz增加到200Hz然后再降到 7Hz的时间为15分钟,重复12次,总计3h。从7Hz开始保持1g的加速度直到频率达到 18Hz,保持8g的加速度(振幅1.6mm),直到频率达到200 Hz。 (振动测试按照 UN38.3 标准进行)	No fire, no explosion, no leakage, with less than 10% of OCV drop. 电芯不起火、不爆 炸、不漏液, 电压 下降小于 10%

#### 10. Safety (安全性能)

Item 项目	Test Method 测试方法	Criteria 检验标准
10.1. Overcharge Test(过充测试)	Fully standard discharged cell is charged with 6.8A to 8.4V, until charging time up to 24h. Overcharge test is according to the UN38.3 standards. 先将电芯以标准放电方式放电至截止电压,然后将电芯正负极连接于恒压电源,对电 芯以 6.8A 充电,直到输出电压不低于 8.4V,持续充电 24h 或电压不再增加。 (过充测试按照 UN38.3 标准执行)	No fire, no explosion. 电芯不起火,不爆炸
10.2. External Short-circuit Test (短路测试)	Fully standard charged cell is to be short-circuited by connecting the positive and negative terminals of the cell with a circuit load having are resistance load of 80±20mΩ. Until the test time is lasting to 10min. External short-circuit test is according to the UL1642 standard. 电芯按标准充电方式充满电后,用一外部电阻 80±20mΩ 的导线连接电芯正负极端,便 其外部短路,直到测试时间持续到 10min。 (短路测试按照 UL1642 标准进行)	No fire, no explosion. 电芯不起火,不爆炸
10.3. Forced Discharge Test (記 放測试)	A discharged cell is subjected to a reverse charge at 3.4A (1C) for 90 min at 20±5°C. Forced discharge test is according to the IEC62133 standard. 先将电芯以标准放电方式放电至截止电压,然后在 20±5°C下以 3.4A(1C)强制放电 90min。 (过放测试按照 IEC62133 标准进行)	No fire, no explosion. 电芯不起火,不爆炸



Model INR18650/35V		Spec. No.	PBRI-INR18650/35V-D06-15	Vers	ion No.	A
10.4. Heating Te (热冲击测试)	keep the cell in or st Heating test is acc 将电芯放置于电 10mina	ven for 10 minutes. Fording to the UL164	以 5°C/min 的速率由室温升至 130°C±2°		No fire, no 电芯不起y	
10.5. Low Pressu Test (低气压测试	hours at ambient for tre Low pressure test t) 电芯按标准充电 时。	emperature. is according to the L	至绝对压力为 11.6kPa,温度为室温条件下)		No fire, no and no lead less than OCV drop. 电芯不起; 炸、不漏液 降小于 10%	kage with 10% o 火、不知 (,电压下

#### 11. Status of the Cell as of Ex-factory (电芯出厂状态)

The cell should be shipped in 3.45V to 3.60V charging voltage range (20-30% SOC). 电芯应在 3.45V 至 3.60V (20-30%SOC) 范围内装运。

#### 12. Warranty (质量保证)

The warranty period of cells are made according to business contract. However, even though the problem occurs within this period, EVE won't replace a new cell for free as long as the problem is not due to the failure of EVE manufacturing process or is due to customer's abuse or misuse.

自出货之日起,电芯的保质期限依合同而定。但是,在此期限内,如果非 EVE 的制程原因,而是客户的误 用造成的电芯质量问题,EVE 不承诺免费更换。

EVE will not be responsible for trouble occurred by handling outside of the precautions in instructions.

EVE 对违反安全守则操作所产生的问题不承担任何责任。

EVE will not be responsible for trouble occurred by matching electric circuit, cell pack and charger.

EVE 对与电路、电池组、充电器搭配使用所产生的问题不承担任何责任。

EVE will be exempt from warrantee any defect cells during assembling after acceptance.

出货后客户在电芯组装过程中产生的不良电芯不在 EVE 质量保证的范围之列。

#### 13. Precautions and Safety Instructions (安全守则)

Lithium-ion rechargeable cells subject to abusive conditions can cause damage to the cell and/or personal injury. Please read and observe the standard cell precautions below before using utilization.

滥用锂离子充电电芯可能会造成电芯的损害和人身的伤害。在使用锂离子充电电芯以前,请仔细阅读以下的 安全守则。



Note 1. Customer shall contact EVE in advance if it intends to use the cell in applications or operating conditions other than those described in this document.

注释 1. 如果客户需要将电芯在此文件之外的条件下操作或应用,请先咨询 EVE 相关事宜。

Note 2. EVE will take no responsibility for any accident that occurs when the cell is used under conditions other than those described in this document.

注释 2. 在此文件说明的条件之外使用该电芯而产生的事故, EVE 不承担任何责任。

Note 3. For the sake of safety assurance, please discuss the equipment design, its system and protection circuit of Lithium-ion cell with EVE in advance, and consult about the high rate current, rapid charge and special application in the same way.

注释3. 为了保证电芯在使用过程中的安全,请提前与EVE讨论锂离子电芯的电池包、系统及保护电路设置。 大电流应用、快速充电及其他特殊用途同样需要提前与EVE讨论。

#### 14. Guide for the use of Lithium-ion Cells (电芯使用指南)

14.1.General (总则)

This chapter has been prepared to describe the appropriate cautions and prohibitions, which the customer should take or employ when the customer uses and handles the lithium ion cell to be manufactured and supplied by EVE Energy CO., LTD., in order to obtain optimal performance and safety.

为了达到最佳的性能和保证电芯使用安全,此部分旨在介绍客户在使用和处理 EVE 制造和供应的锂离子电 芯时应注意的事项和禁止事项。

14.2.Charging (充电)

14.2.1. Charging Current (充电电流)

Charging current shall be less than maximum charge current specified in the specification.

电芯应在规格书限定的充电电流范围内充电。

14.2.2. Charging Voltage (充电电压)

Charging shall be done by voltage less than that specified in the specification.

电芯充电电压不得超过规格书中限定的电压。

14.2.3. Charging Temperature (充电温度)

The cell shall be charged within a range of specified temperatures in the specification.

电芯应在规格书限定的充电温度范围内充电。

14.2.4. Reverse Charging (反向充电)

The cell shall be connected, confirming that its poles are correctly aligned. Inverse charging shall be strictly prohibited. If the cell is connected improperly, it may be damaged.

电芯充电连接时应保证正负极连接正确,严禁反向充电。如果电芯正负极连接错误,电芯可能损坏。



	Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A	ľ
4	Company and	with 2004000 1000 10000 00000 111	Contraction of the second		Terston 140.	- 11	L

14.3.Discharging (放电)

14.3.1. Discharging Current (放电电流)

The cell shall be discharged continuously at less than maximum discharging current specified in the specification. In case of the higher discharging current should be set, it shall be discussed with EVE.

电芯应在规格书中限定的最大放电电流放电。如果需要设置更高的放电电流,请与 EVE 讨论。

14.3.2. Discharging Temperature (放电温度)

The cell shall be discharged within a range of temperatures specified in the specification. Otherwise, it may cause loss of performance characteristics.

电芯应在规格书规定的温度范围内放电。否则,可能会导致电芯性能的损失。

14.3.3. Over-discharging (过放电)

The system should equip with a device to prevent further discharging exceeding discharging cut-off voltage specified in the specification.

系统应配备保护板,防止进一步放电,避免电压低于规格书中规定的放电截止电压。

Over-discharging may cause loss of performance characteristics of cell. Over-discharging may occur by

self-discharging if the cell is left for a very long time without any use.

过放电会导致电芯性能的损失。如果电芯放置很长一段时间不使用,电芯自放电可能会导致过放。

The charger should equip with a device to detect voltage of cell box and to determine recharging procedures.

充电器应配置保护板检测电池包电压和确定重新充电程序。

14.4.Storage (存储)

14.4.1. Storage Conditions (存储条件)

The cell should be stored within a range of temperatures specified in the specification. Otherwise, it may cause loss of performance characteristics, leakage and/or rust.

电芯应在规格书规定的温度范围内储存。否则,可能会导致电芯性能的损失,漏液或生锈。

14.4.2. Long Term Storage (长期存储)

The cell should be used within a short period after charging because long-term storage may cause loss of capacity by self-discharging. If long-term storage is necessary, the cell should be stored at lower voltage within a range specified in the specification, because storage with higher voltage may cause more loss of performance characteristics.

电芯充电后应在短时间内使用,因为长期储存可能会因自放电而导致容量损失。如果需要长期存储,电芯应 在规格书规定的范围内以较低的电压存储,因为高电压存储可能会导致电芯性能的损失。 14.5.Cycle Life(循环寿命)

The cell can be charged & discharged repeatedly up to times with a certain level of capacity specified in specification.

Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A

电芯可经历多次充放电循环,达到规格书中指定次数下规定的容量水平。

Cycle life may be determined by conditions of charging, discharging, operating temperature and/or storage.

充放电方式、电芯使用温度或存储条件可以会影响电芯的循环性能。

14.6.Design of System (系统设计)

14.6.1. Connection between the cell and the battery (电芯和电池间的连接)

The cell should not be soldered directly with other cells. Namely, the cell should be welded with leads on its connector and then be soldered with wire or leads to solder. Otherwise, it may cause damage of component, such as separator and insulator, by heat generation.

电芯不能与其他电芯直接焊接。电芯的连接片上应焊接引线,然后用导线或引线焊接到焊盘上。否则,电芯 可能会产热导致隔膜和绝缘垫片损坏。

14.6.2. Positioning the Battery in the System (电芯的放置)

The battery should be positioned as possible as far from heat sources and high temperature components. Otherwise, it may cause loss of characteristics. The recommended spacing between the cells is more than 1mm.

电芯应尽可能远离热源和高温物体。否则,可能会导致电芯性能的损失。电芯之间的距离建议大于 1mm。 14.6.3. Mechanical Shock Protection of the Battery (电池组机械冲击保护)

The battery should be equipped with appropriate shock absorbers in the pack in order to minimize shock, which can damage the cells. Otherwise, it may cause shape distortion, leakage, heat generation and/or rupture and/or open circuit.

电池组应配备合适的减震器,以最大限度地减少震动,避免损坏电芯。否则可能导致电芯发生形变、泄漏、 发热、破裂或断路。

14.6.4. Short-circuit Protection of the Cell (电芯短路保护)

The cell equips with an insulating sleeve to protect short-circuit which may occur during transportation, battery assembly and/or system operation. If the cell sleeve is damaged by some cause such as outside impact, it may cause short-circuit with some wiring inside the battery.

电芯带有绝缘套管,以避免电芯在运输、组装或系统运行过程中发生短路。如果电芯套管因外界撞击等原因 损坏,可能会导致电池组内部的一些线路发生短路。

14.6.5. Connection between the Battery and Charger/System (电池组与充电器/系统之间的连接)

The battery should be designed to be connected only to the specified charger and system. A reverse connection of the battery, even in the specified system, should be avoided by employing special battery design such as a special terminal.

电池组应设计为只能连接到特定充电器和系统。即使在指定的系统中,也应采用特殊的电池设计(如特殊的 电池端子)来避免电池的反向连接。

14.6.6. Pack Design (电池包设计)



Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A
The syst	tem should be equipped	ed with a device t	o monitor each voltage of cell block to	o avoid cell imbaland	ce whic
can cause dar	nage to the cells.				
系统应酬	記置设备监测每个电	芯电压,避免电	芯不平衡造成电池损坏。		
The batt	ery pack or system sh	ould have warning	system such as over temperature, over	voltage, over curren	t, and s
on.					
电池组动	或系统应具有过热、	过压、过流等预	警系统。		
14.7.Battery	Pack Assembly (电池	包组装)			
14.7.1. Pro	hibition of usage of D	amaged Cell(禁	止使用损坏的电芯)		
The cell	should be inspected v	isually before batt	ery assembly.		
电池包装	<b>表配</b> 前应目视检查每	个电芯。			
The cell	should not be used if	sleeve-damage, ca	n-distortion and/or electrolyte-smell is	detected.	
如果电流	古套管损坏、铜壳变	形或有电解液气	味,则电芯不能继续使用。		
14.7.2. Con	nnector Handing (连	<b>接片焊接</b> )			
Excessiv	e force on the cells' te	erminal should be	avoided when external strip connector	is welled.	
焊接连持	<del>接</del> 片时,应避免对两	端施加过大的力。			
14.7.3. Tra	nsportation(运输)				
If the ce	ll is necessary to be tr	ansported to such	as the battery manufacturer, careful p	recautions should be	taken t
avoid damage	e of cell.				
如果电动	5需要运输到电池厂;	家,应采取必要的	的预防措施,以避免电芯损坏。		
14.8.Others	(其他)				
14.8.1. Dis	assembly(拆解)				
The cell	should not be dismant	led from the batte	ry pack.		
电芯不应	立从电池组中拆下。				
Internal	short-circuit caused by	v disassembly may	/ lead to heat generation and/or venting	-	
	己的内部短路可能导致		(77)		
If liquid	leaking from the batte	ry gets into your e	eyes, don't rub your eyes and wash then	n with clean water an	d go to
see a doctor in	122				
如果电池	也泄漏的液体进入你的	的眼睛,不要择服	艮睛,请用清水清洗,并立即去看医	生	

14.8.2. Short-circuiting (短路)

Short-circuit results in very high current which leads to heat generation.

短路会产生非常大的电流,从而导致发热。

An appropriate circuitry should be employed to protect accidental short-circuiting,



Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A	
		10				

使用时应采用正确的线路,防止意外短路。

14.8.3. Incineration (焚烧)

Incinerating and disposing of the cell in fire are strictly prohibited, because it may cause rupture and explosion.

严禁用火焚烧和处置电芯,因为可能会引起电芯破裂和爆炸。

14.8.4. Immersion (浸泡)

Soaking the cell in water is strictly prohibited, because it may cause corrosion and leakage of components to be damaged to functions.

严禁将电芯浸泡在水中,否则会引起电芯的腐蚀和漏液,使电芯的功能受损。

14.8.5. Mixing use (混合使用)

Different types of cell, or same types but different cell manufacturer shall not be used, which may lead to cell imbalance, cell rupture or damage to system due to the different characteristics of cell.

使用不同类型的电芯,或不同的电芯制造商同种类型的电芯,由于电芯的不同特性,可能导致电芯不平衡,

电芯破裂或系统损坏。

14.8.6. Battery Exchange (电芯更换)

Although the cell contains no environmentally hazardous component, such as lead or cadmium, the battery shall be disposed according to the local regulations when it is disposed.

电芯不含铅、镉等有害环境成分,但处理时应按当地法规处理。

The cell should be disposed with a discharged state to avoid heat generation by an inadvertent short-circuit.

电芯应在低电量状态处理,避免因意外短路而产生热量。

14.8.7. Caution (注意事项)

The battery used in this device may present a risk of fire or chemical burn if mistreated.

如果电芯使用不当,可能会导致火灾或化学烧伤。

Do not disassemble, expose to heat above 100°C or incinerate it.

禁止拆解电芯,在100℃以上高温加热或火烧电芯。

Do not expose the cell to extreme heat or flame.

不要将电芯暴露在极热的环境或火焰中。

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. 不要訴卸或修整电芯。 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 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 connect cell to the plug socket or car-cigarette-plug. 不要有电芯与插座连接。 Do not make the direct soldering onto a cell. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将搜索子电芯混合使用。 Do not use Lithium-ion cell in mixture. 不要将搜索子电芯混合使用。 Do not use cor 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(或在太阳底下暴晒的汽车里)。 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、捶打或践蹈电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A
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 use Lithium-ion cell in mixture.   不要将增工资金使用。   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 (或在太阳底下暴晒的汽车里)。   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、捶打或践蹈电芯。   Replace battery with those of EVE only.	Do not r	reverse the polarity of	the cell for any re	ason.		
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 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. 不要直接弹接电芯。 Do not touch a leaked cell directly. 不要直接接触漏液的电芯。 Do not touch a leaked cell directly. 不要直接接触漏液的电芯。 Do not use I lithium-ion cell in mixture. 不要将搜离子电芯混合使用。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践蹈电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要颠	倒电芯的正负极。				
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 unake the direct soldering onto a cell. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将键离子电芯混合使用。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not o	fisassemble or modify	the cell.			
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. 不要直接接触漏液的电芯。 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(或在太阳底下暴晒的汽车里)。 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、捶打或线路电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要拆卸	即或修整电芯。				
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. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将键离子电芯混合使用。 Do not use Lithium-ion cell in mixture. 不要将电芯放置在太阳光直射的地方(或在太阳底下暴晒的汽车里)。 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、捶打或践蹈电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not l	andle or store with m	etallic like necklad	ces, coins or hairpins, etc.		
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. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将锂离子电芯混合使用。 Do not use cor 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(或在太阳底下暴晒的汽车里)。 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、捶打或践蹈电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要和邓	项链、硬币或发夹等	金属物品放置在一	一起。		
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. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将键离子电芯混合使用。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not u	use the cell with consp	icuous damage or	deformation.		
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. 不要直接接触漏液的电芯。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要使明	电芯受到明显的损害	或变形。			
Do not make the direct soldering onto a cell. 不要直接焊接电芯。 Do not touch a leaked cell directly. 不要直接接触漏液的电芯。 Do not use Lithium-ion cell in mixture. 不要将键离子电芯混合使用。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not c	connect cell to the plug	socket or car-cig	arette-plug.		
不要直接焊接电芯。 Do not touch a leaked cell directly. 不要直接接触漏液的电芯。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践蹈电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要将明	电芯与插座连接。				
Do not touch a leaked cell directly. 不要直接接触漏液的电芯。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not n	nake the direct solder	ng onto a cell.			
不要直接接触漏液的电芯。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要直接	妾焊接电芯。				
Do not use Lithium-ion cell in mixture. 不要将键离子电芯混合使用。 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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not to	ouch a leaked cell dire	etly.			
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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要直接	妾接触漏液的电芯。				
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(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not u	ise Lithium-ion cell in	mixture.			
不要将电芯放置在太阳光直射的地方(或在太阳底下暴晒的汽车里)。 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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要将银	理离子电芯混合使用				
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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not u	ise or leave the cell un	der the blazing su	n (or in heated car by sunshine).		
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、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	不要将同	电芯放置在太阳光直	射的地方(或在:	太阳底下暴晒的汽车里)。		
Do not drive a nail into the cell, strike it by hammer or tread it. 不要针刺、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Keep cel	ll away from children.				
不要针刺、捶打或践踏电芯。 Replace battery with those of EVE only. 只能更换 EVE 的电芯。	将电芯加	改置在远离儿童的地	方。			
Replace battery with those of EVE only. 只能更换 EVE 的电芯。	Do not d	lrive a nail into the cel	l, strike it by ham	mer or tread it.		
只能更换 EVE 的电芯。	不要针刺	制、捶打或践踏电芯				
	Replace	battery with those of	EVE only.			
Others (##)	只能更把	與EVE 的电芯。				
	Othere	(甘仲)				

15.1.Storage for a Long Time (长期存放)

If the cell is kept for a long time (3 months or more), it is strongly recommended that the cell is performed one cycle, the voltage of the cell is recommended from 3.50V to 3.80V, the environment should be low-temperature (normally 0~25°C), dry and no corrosive gas.

如果电芯存放时间较长(3 个月或以上),强烈建议电芯进行一次循环,电芯电压建议 3.50V 到 3.80V,环境 应低温(通常为 0~25°C)、干燥且无腐蚀性气体。



1	Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	Α	
---	-------	--------------	-----------	--------------------------	-------------	---	--

15.2.Others (其他)

Any other matters not covered under this specification shall be separately negotiated and confirmed by both parties.

任何本规格书中未提及的事项,须经过双方协商确定。

#### 16. Consultation (联系方式)

Address: EVE Energy Co., Ltd.-EVE Industrial Park on No.38, Huifeng 7th Road, Zhongkai Hi-Tech Zone, Huizhou.

Tel No.: 86-752-2630809

Fax No.: 86-752-2606033

Website: Http://www.evebattery.com.cn

如有疑问,请按以下方式咨询:

地址:中国广东省惠州市仲恺高新区惠风七路 38 号惠州亿纬锂能股份有限公司

电话: 86-752-2630809

传真: 86-752-2606033

网址: Http://www.evebattery.com.cn



Model	INR18650/35V	Spec. No.	PBRI-INR18650/35V-D06-15	Version No.	A
Attachment	(附件):				

Fig1 (图1):



Fig. 1. Outline Dimensions of INR18650/35V 图 1.INR18650/35V 外形尺寸

> 亿纬保密信息,未经允许不得扩数 14/15



Attachment (附件):

Fig 2 (图 2) :



NO.	Part Name 部件名称	Material 材料	Q'Ty 单位
1	Cell 电芯	型号 INR18650/35V	200 pcs/box
2	Packing Bulkhead 刀卡	Cardboard 卡纸	36 pcs/box
3	Box(Packing Case In) 内箱	Corrugated Board 瓦楞纸箱	2 pcs/box
4	Silicagel 干燥剂	Si 硅	2 pcs/box
5	Bag PE/POF 防水袋/热缩膜	PE/POF 聚乙烯/多层共挤聚烯烃热收缩膜	1 pcs/box
6	Box(Packing Case Out) 外箱	corrugated board 瓦楞纸箱	1 pcs/box
7	Tape 胶带	PE 聚乙烯	0.01 rol/box
8	Product Label 产品标签	Art Paper 铜版纸	1 pcs/box