



中国认可
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检测
TESTING
CNAS L13261

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Report No.: KS2304S1901B01R4

UN38.3 Test Report

Samples Name **Rechargeable Li-ion Battery System**

样品名称 可充电锂离子电池系统

Model

型号

CSS-OU-20

Applicant

委托单位

SolarEdge Technologies Ltd.



广东科正技术服务有限公司
KSIGN(Guangdong) Testing Co., Ltd.

TRF No. UN38.3 Rev.7/Amend.1-R1

West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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General Information
基本资料

Sample Name 样品名称	Rechargeable Li-ion Battery System 可充电锂离子电池系统	Model Name 型号	CSS-OU-20
Battery Module Model 电池模组型号	EM-5.1K01	Sample Status 样品状态	Good 良好
Applicant 委托单位	SolarEdge Technologies Ltd.		
Applicant Address 委托单位地址	1 Hamada street Herzliya Pituach 4673335 Israel		
Factory 生产工厂	Shenzhen KSTAR Science & Technology Co., Ltd.Guangming Branch 深圳科士达科技股份有限公司光明分公司		
Factory Address 生产工厂地址	Kstar Tech-Industrial Park, 7th Road, Western Area, Hi-Tech Industrial Zone, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, P.R.China 中国广东省深圳市光明区玉塘街道田寮社区高新园区西片区七号路科士达科技工业园		
Test Method & Criterion 检验方法及判定标准	UNITED NATION "Recommendations on the TRANSPORT OF DANGEROUS GOODS, Manual of Test and Criteria " ST/SG/AC.10/11/Rev.7/Amend.1 38.3 联合国《关于危险品货物运输的建议书试验和标准手册》第七修订版,修正 1 第 38.3 节		
Testing Laboratory 检测单位	KSIGN(Guangdong) Testing Co., Ltd. 广东科正技术服务有限公司 West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China 广东省深圳市宝安区沙井街道沙头社区民主九九工业区福源厂新厂房A区C栋一层西侧, 518104		
Sample Receiving Date 收样接收日期	2024 年 01 月 19 日	Test Date 测试日期	--
Test items 测试项目	Overcharge, Short circuit, Over discharge between the batteries. 过度充电、短路、电池组之间过度放电。		
Conclusion 测试结论	The Rechargeable Li-ion Battery System submitted by SolarEdge Technologies Ltd. the sample's difference between this report and original report KS2304S1901B01 is comply with the requirement of the "Recommendations on the TRANSPORT OF DANGEROUS GOODS, Manual of Test and Criteria " ST/SG/AC.10/11/Rev.7/Amend.1 38.3. No need to test. 由 SolarEdge Technologies Ltd. 送检的可充电锂离子电池系统, 与原报告 KS2304S1901B01 的 样品差异符合《关于危险品货物运输的建议书 试验和标准手册》第七修订版,修正 1 第 38.3 节相 关规定, 无需测试。 Seal/签章: Date of issue/签发日期: 2024 年 02 月 01 日		
Remark 备注	Rechargeable Li-Ion Battery System (the assembled battery) has a rated watt-hour rating of over 6200Wh and consists of 20 lithium ion battery modules that have passed the UN38.3 test (Report No.: KS2302S0811B01R3). 该可充电锂离子电池系统(集成电池组)的额定瓦特-小时数超过 6200Wh, 由 20 个锂 离子电池模组组成, 锂离子电池模组已通过 UN38.3 测试(报告编号: KS2302S0811B01R3)。		

Tested By:
主检
Test Engineer

黄思奇

Checker:
审核
Project Engineer

余振铨

Approver:
批准
Technical Director

杨龙

The assembled battery information:**集成电池组信息:**

Battery type 电池类型	Lithium ion battery 锂离子电池	Nominal Voltage 标称电压	512V
Rated Capacity 额定容量	200Ah	Total Energy 总能量	102.4kWh
Limited Charge Voltage 充电限制电压	576V	Standard Charge Current 标准充电电流	100(50+50)A
Maximum Charge Current 最大充电电流	100(50+50)A	Standard Discharge Current 标准放电电流	100(50+50)A
Maximum Discharge Current 最大放电电流	100(50+50)A	Discharge Cut-off Voltage 放电截止电压	456V
Mass 重量	Appr.: 1400.0kg	Dimension 尺寸(T*W*L)	2380.0*1100.0*1100.0 (mm)

No. 序号	Name of test 测试项目名称	Stand requirement or the clause number of standard 标准要求或标准条款号	Test result 测试结果	Test Conclusion 本项结论	Remark 备注
1	Overcharge 过度充电	UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7/Amend.1 38.3.3(g) 联合国《关于危险货物运输的建议书 试验和标准手册》第七修订版, 修正1 第38.3.3(g)	See Appendix 1 见附表 1	Passed 合格	/
2	Short circuits 短路	UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7/Amend.1 38.3.3(g) 联合国《关于危险货物运输的建议书 试验和标准手册》第七修订版, 修正1 第38.3.3(g)	See Appendix 1 见附表 1	Passed 合格	/
3	Over discharge between the batteries 电池组之间 过度放电	UN Manual of Tests and Criteria ST/SG/AC.10/11/Rev.7/Amend.1 38.3.3(g) 联合国《关于危险货物运输的建议书 试验和标准手册》第七修订版, 修正1 第38.3.3(g)	See Appendix 1 见附表 1	Passed 合格	/
Test environment condition 测试环境		Ambient temperature: 20°C-25°C, Ambient humidity: 45%-75% 环境温度: 20°C-25°C; 环境湿度: 45%-75%			

Remark:

备注:

- (1) This report is a change report of the original report KS2304S1901B01, and does not involve new test items. The test items and test data in this report are based on the original report, which was issued on April 14, 2023.
本报告是原报告 KS2304S1901B01 的变更报告, 不涉及新的测试项目, 本报告测试项目和测试数据均基于原报告, 原报告签发于 2023 年 04 月 14 日。
- (2) Changes to the client, labels and colors in this report have not changed the key materials, product design and production processes of the samples in the original report, nor have they changed the production plant.
本报告中变更了委托单位、标签和颜色, 该变更未改变原报告中样品的关键材料, 产品设计和生产工艺, 生产厂也未改变。

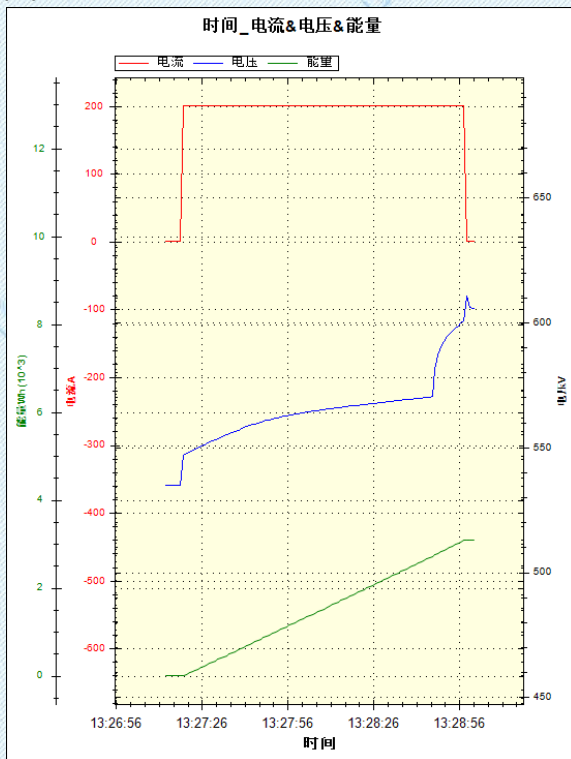
Appendix 1
附表 1

Sample status 样品状态	Pack 1#: one functional assembled battery; Pack 1#: 一个功能正常的集成电池组;	
Name of test 测试项目名称	Requirement of test 测试要求	Test result 测试结果
Overcharge 过度充电	Verify overcharge protection according to the manufacturer's charging method. 按照制造商规定的充电方法, 验证过度充电保护功能。	Pass 合格
Short circuits 短路	Fully charged according to the charging method specified by the manufacturer. The battery shall be subjected to a short circuit condition with a total external resistance of less than 0.1 ohm. Verify short circuit protection. 按照制造商规定的充电方法充满电, 使电池组经受总外电阻小于 0.1Ω 的短路条件, 验证短路保护功能。	Pass 合格
Over discharge between the batteries 电池组之间过度放电	Verify over discharge protection according to the manufacturer's discharging method. 按照制造商规定的放电方法, 验证过度放电保护功能。	Pass 合格
Note备注: 详细测试数据、测试照片见附表2、3、4。 See Attached Tables 2, 3 and 4 for detailed test data and photos.		

Appendix 2

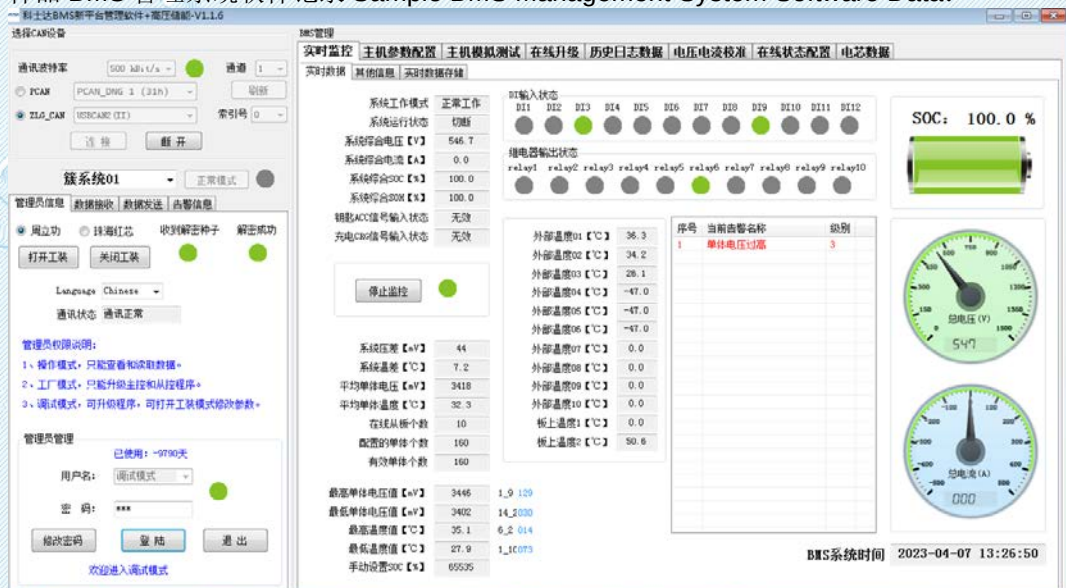
附表 2

试验设备数据 Test Equipment Data:



Test records-
Overcharge
试验记录-
过度充电

样品 BMS 管理系统软件记录 Sample BMS Management System Software Data:



Test description:

During the test, the sample will trigger overcharge protection, and the output voltage of the sample is 0V. The sample has the overcharge protection function, and the test is qualified.

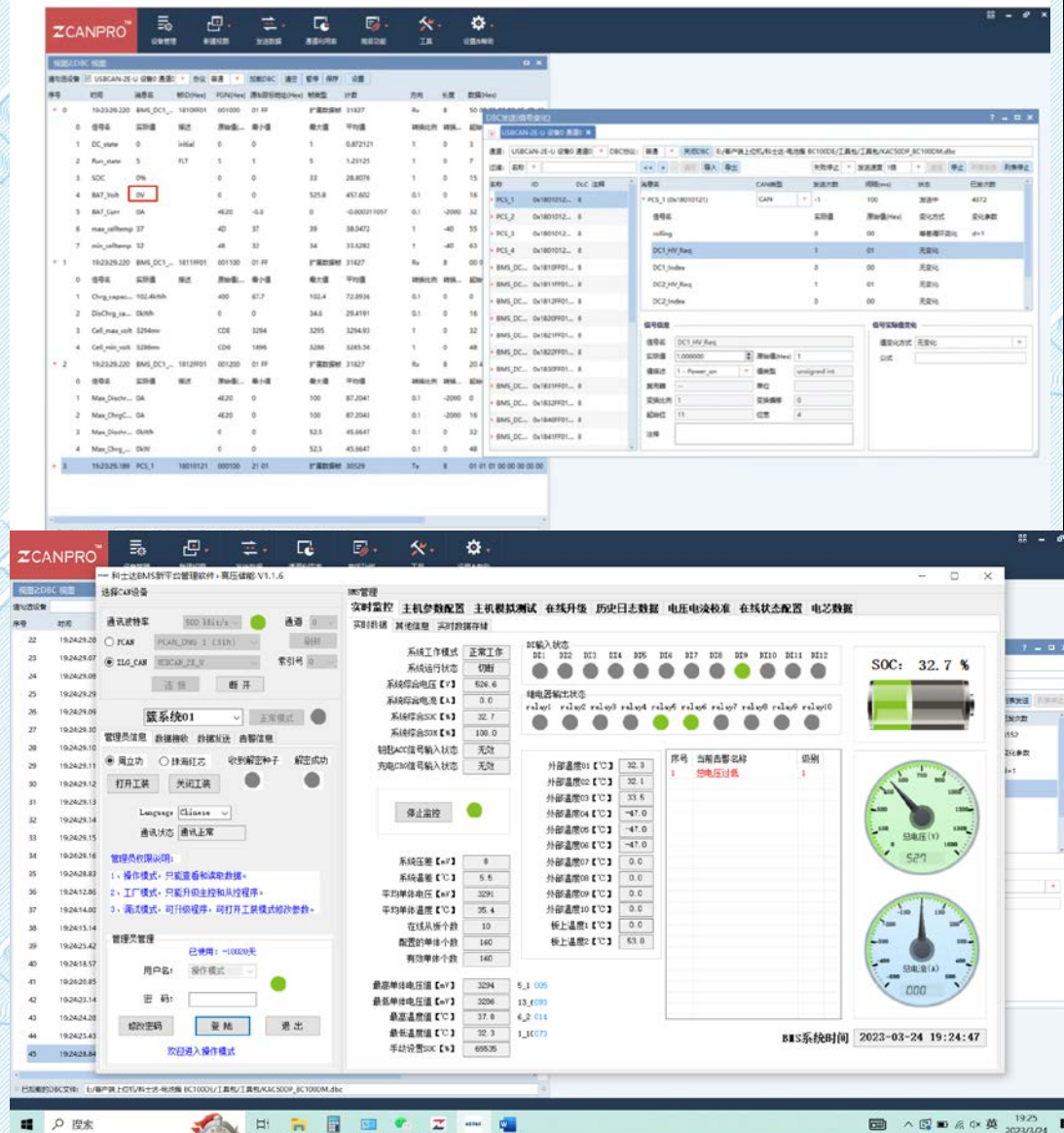
试验描述:

样品在试验过程中会触发过充保护，样品输出电压为 0V，该样品具备过充保护功能，测试合格。

Appendix 3

附表 3

样品 BMS 管理系统软件记录 Sample BMS Management System Software Data:



Test records-
Short circuits
试验记录-
短路

Test description:

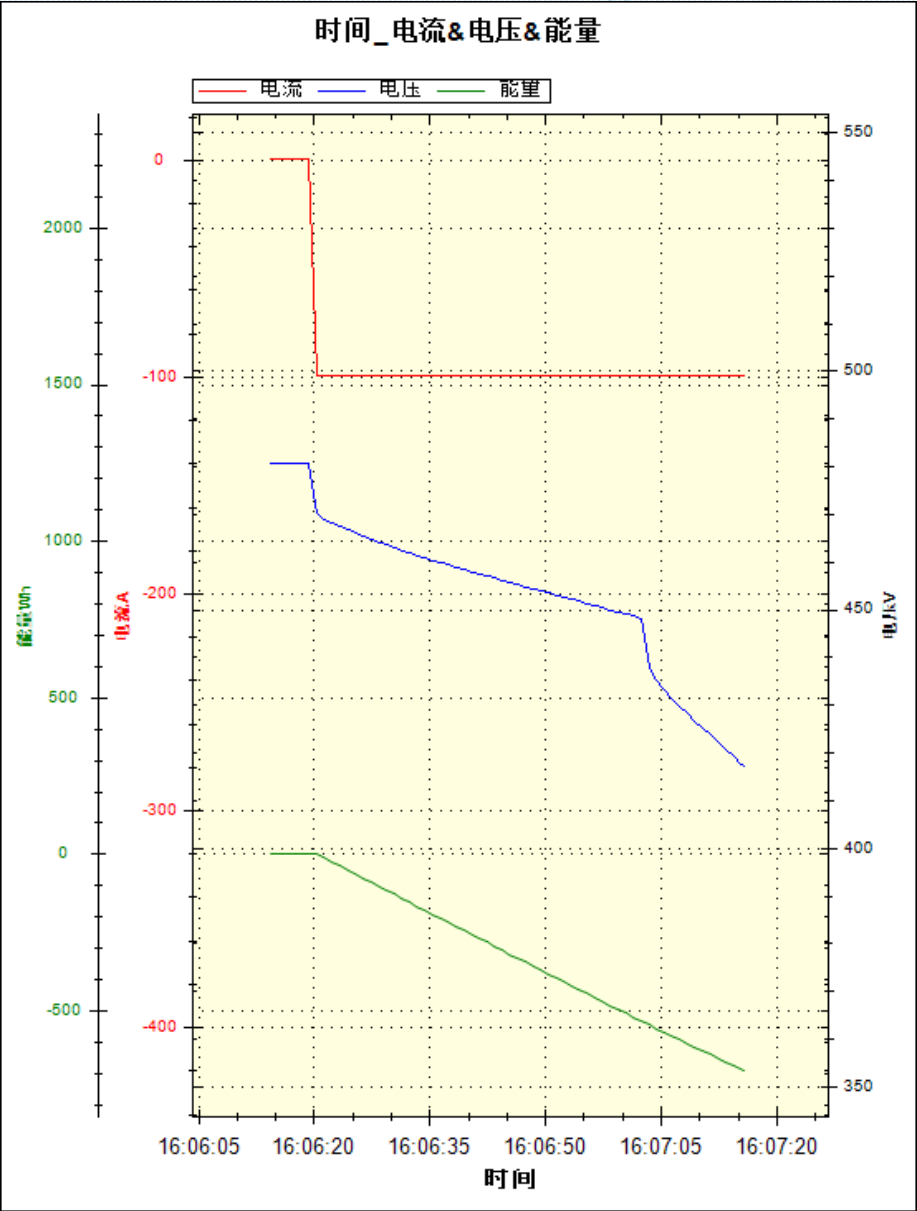
The sample will trigger short-circuit protection during the test, and the BMS management system will cut off operation. The BAT voltage is 0V. The sample has short-circuit protection function and has passed the test

试验描述:

样品在试验过程中会触发短路保护，BMS 管理系统切断运行，BAT 电压 0V，该样品具备短路保护功能，测试合格。

Appendix 4
附表 4

试验设备数据Test Equipment Data:



Test records-
Over discharge
between the
batteries
试验记录-
电池组之间过度
放电

Test description:

During the test, the sample will trigger over discharge protection, and the output voltage of the sample is 0V. The sample has an over discharge protection function, and the test is qualified.

试验描述:

样品在试验过程中会触发过放保护，样品输出电压为 0V，该样品具备过放保护功能，测试合格。

Photos of samples
样品图片

Assembled Battery / 集成电池组



Assembled Battery / 集成电池组



Battery Label 电池铭牌

Battery module/内含电池模组



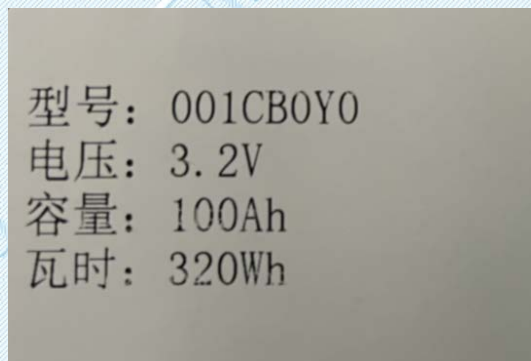
Battery module appearance
电池模组外观



Battery module Label (With Wh)
电池模组铭牌(含 Wh)



Cell
电芯



Cell label
电芯标签

Important Notice

注意事项

1. The report is invalid if it is not stamped with the "Testing Special Stamp" and the "Riding Seam Stamp".

报告未加盖“检验检测专用章”和“骑缝章”无效。

2. The test report is invalid without the signatures of Approver, Reviewer and Testing engineer.

本报告书无批准人、审核人、及主检人签名无效。

3. The test report can not be partially copied unless prior written approval is issued from our lab.

检测报告未经本实验室书面批准，不得部分复制。

4. The report is invalid when anything of following happens – illegal transfer, reproduce, embezzlement, imposture, modification or tampering in any media form.

私自转让、复制、盗用、冒用、涂改、或以任何媒体形式篡改的报告无效。

5. Product information and customer information provided by the applicant, we are not responsible for its authenticity.

产品信息和客户信息由申请人提供，我们不对其真实性负责。

6. The test report is valid for the tested samples only.

本报告仅对本次测试样品有效。

7. If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

如对本报告有异议，可在收到报告后15天内向本单位申诉，逾期不予受理。

检测单位： 广东科正技术服务有限公司

Laboratory KSIGN(Guangdong) Testing Co., Ltd.

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--- End of Report ---

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