

## Test Report

No. TSNEC2203246801

Date: 05 Jan 2023

Page 1 of 3

Client Name :

Client Address :

Sample Name : Ni-MH Battery 40mAh  
 Model No. : Ni-MH Battery 40mAh  
 Client Ref. Info. : 10mAh/20mAh/30mAh/40mAh/50mAh/60mAh/70mAh/80mAh/100mAh/  
 110mAh/120mAh/160mAh/230mAh/250mAh/280mAh/300mAh/330mAh/  
 350mAh/400mAh/500mAh/600mAh/650mAh/700mAh/800mAh/900mAh/  
 1000mAh.etc  
 ( 1.2V 2.4V 3.6V 4.8V 6.0V 7.2V 8.4V 9.6V 10.8V 12V ) etc

The above sample(s) and information were provided by the client.

SGS Job No. : TP22-010336 - TJ  
 Date of Sample Received : 26 Dec 2022  
 Testing Period : 26 Dec 2022 - 05 Jan 2023  
 Test Requested : Selected test(s) as requested by the client.  
 Test Method(s) : Please refer to next page(s).  
 Test Result(s) : Please refer to next page(s).

Result Summary :

Test Requested	Conclusion
Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU- Heavy Metals Content in Batteries and Accumulators	PASS

Signed for and on behalf of  
 SGS-CSTC Standards Technical Services (Tianjin) Co., Ltd.

*Jason Li*

Jason Li  
 Approved Signatory

scan to see the report



912AA5E1



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

SGS-CSTC Standards Technical Services (Tianjin) Co., Ltd.  
 Chemical Laboratory

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457  
 中国·天津市经济技术开发区第五大街41号SGS大厦

t (86-22) 65288000 www.sgs.com.cn  
 t (86-22) 65288000 sgs.china@sgs.com

Test Result(s) :

Test Part Description :

Specimen No.	SGS Sample ID	Description
SN1	TSN22-032468.001	green battery

Remarks :

- (1) 1 mg/kg = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected ( < MDL )
- (4) "-" = Not Regulated

**Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU- Heavy Metals Content in Batteries and Accumulators**

Test Method : Acid digestion method, analysis was performed by ICP-OES.

<u>Test Item(s)</u>	<u>Limit</u>	<u>Unit</u>	<u>MDL</u>	<u>001</u>
Lead (Pb)	-	% (w/w)	0.0010	ND
Cadmium (Cd)	0.002	% (w/w)	0.0010	ND
Mercury (Hg)	0.0005	% (w/w)	0.0001	ND

Notes :

- (1) Results shown are of total weight of the battery sample.
- (2) According to the Directive 2006/66/EC and its Article 4 amendment of Directive 2013/56/EU, all types of battery shall include the chemical symbol Lead when containing more than 0.004% of Pb.  
Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (  $w=0$  ) stated in ILAC-G8:09/2019.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457  
中国·天津市经济技术开发区第五大街41号SGS大厦

t (86-22) 65288000  
t (86-22) 65288000  
www.sgsgroup.com.cn  
sgs.china@sgs.com

Sample photo:



SGS authenticate the photo on original report only

\*\*\* End of Report \*\*\*



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: [CN.Doccheck@sgs.com](mailto:CN.Doccheck@sgs.com)

SGS Mansion, No.41, The 5th Avenue TEDA, Tianjin, China 300457  
中国·天津市经济技术开发区第五大街41号SGS大厦

t (86-22) 65288000  
t (86-22) 65288000  
www.sgsgroup.com.cn  
sgs.china@sgs.com

	<p><b>Test Report issued under the responsibility of:</b></p> <p>NCB TÜV SÜD PSB Pte Ltd. 1 Science Park Drive, 118221 Singapore Singapore</p>	
<p><b>TEST REPORT</b> <b>IEC 62133-1</b></p> <p><b>Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications -</b> <b>Part 1: Nickel systems</b></p>		
<p>Report Number..... 083-2075901-000 Date of issue..... 2022-02-16 Total number of pages ..... 17 pages</p>		
<p>Applicant's name .....</p> <p>Address.....</p>		
<p><b>Test specification:</b></p> <p>Standard..... IEC 62133-1:2017 Test procedure ..... CB Scheme Non-standard test method ..... N/A</p>		
<p>Test Report Form No. .... IEC62133_1A Test Report Form(s) Originator .... TÜV SÜD Master TRF ..... Dated 2017-09-14</p>		
<p><b>Copyright © 2017 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved.</b></p> <p>This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.</p> <p>If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.</p> <p><b>This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.</b></p>		
<p><b>General disclaimer:</b></p> <p>The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.</p>		

<b>Test item description</b> ..... :	Sealed Rechargeable Ni-MH Button Cell	
<b>Trade Mark</b> ..... :		
<b>Manufacturer</b> .....		
<b>Model/Type reference</b> .....	Ni-MH 40mAh	
<b>Ratings</b> .....	1.2Vd.c, 40mAh	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	TÜV SÜD Certification and Testing (China) Co., Ltd Shanghai Branch
	<b>Testing location/ address</b> ..... :	No. 1999, Duhui Road, Shanghai, 201108, P. R. China
	<b>Tested by (name, function, signature)</b> ..... :	Project Handler (Sun Guoqing) 
	<b>Approved by (name, function, signature)</b> ... :	Project Reviewer (Zhu Chenghong) 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	
	<b>Testing location/ address</b> ..... :	
	<b>Tested by (name, function, signature)</b> ..... :	
	<b>Approved by (name, function, signature)</b> ... :	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	
	<b>Testing location/ address</b> ..... :	
	<b>Tested by (name + signature)</b> .....	
	<b>Witnessed by (name, function, signature) .:</b>	
	<b>Approved by (name, function, signature)</b> ... :	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	
	<b>Testing location/ address</b> ..... :	
	<b>Tested by (name, function, signature)</b> ..... :	
	<b>Witnessed by (name, function, signature) .:</b>	
	<b>Approved by (name, function, signature)</b> ... :	
	<b>Supervised by (name, function, signature) :</b>	



<b>List of Attachments (including a total number of pages in each attachment):</b> Photo document (4 pages)	
<b>Summary of testing:</b>	
<b>Tests performed (name of test and test clause):</b>  <b>NO testing was conducted.</b> <b>Tests in table 1 of IEC 62133-1:2017 is not applicable to button cells.</b>  <b>But other safety document include label are checked and comply with the requirement of IEC 62133-1:2017.</b>	<b>Testing location:</b> TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch Address: No. 1999, Duhui Road, Shanghai, 201108, P. R. China
<b>Summary of compliance with National Differences (List of countries addressed):N/A</b>	

**Copy of marking plate**

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

+  
Ni-MH 40mAh  
HB 125/055  
TROILY

-



<b>Test item particulars.....:</b>	
<b>Classification of installation and use.....:</b>	Use in portable applications
<b>Supply connection.....:</b>	DC terminal
<b>Recommend charging method declared by the manufacturer .....</b>	Charge at constant current 4mA for 16h
<b>Discharge current (0,2 I<sub>t</sub> A) .....</b>	8mA
<b>Specified final voltage .....</b>	1.0V
<b>Chemistry .....</b>	nickel systems
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
<b>Testing.....:</b>	
<b>Date of receipt of test item .....</b>	2022-02-10
<b>Date (s) of performance of tests .....</b>	2022-02-10 to 2022-02-16
<b>General remarks:</b>	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60335-1:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) .....</b>	



**General product information:**

The Sealed Rechargeable Ni-MH Button Cell, model Ni-MH 40mAh, is used in portable applications

Additionally, details information of the cell as following

Item	Specification
Product name	Sealed Rechargeable Ni-MH Button Cell
Type/model	Ni-MH 40mAh
Nominal voltage	1.2V d.c.
Rated capacity	40mAh
Charging current declared by manufacturer	4mA
Charge method	Charge for 16hours at 4mA
Discharge Cut-off voltage	1.0V
Dimensions	11.6mm ( $\pm 0.05$ mm) x 5.6mm( $\pm 0.05$ mm)
Weight	$\leq 2.0$ g

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>Parameter measurement tolerances</b>		<b>P</b>
	Parameter measurement tolerances		P
<b>5</b>	<b>General safety considerations</b>		<b>P</b>
5.1	General		P
5.2	Insulation and wiring		P
	The insulation resistance between the positive terminal and externally exposed metal surfaces of the battery (excluding electrical contact surfaces) is not less than 5 MΩ		
	Insulation resistance (MΩ) ..... :		—
	Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		N/A
	Orientation of wiring maintains adequate creepage and clearance distances between conductors		N/A
	Mechanical integrity of internal connections accommodates reasonably foreseeable misuse		P
5.3	Venting		P
	Battery cases and cells incorporate a pressure relief mechanism or are constructed so that they relieve excessive internal pressure at a value and rate that will preclude rupture, explosion and self-ignition		P
	Encapsulation used to support cells within an outer casing does not cause the battery to overheat during normal operation nor inhibit pressure relief		P
5.4	Temperature, voltage and current management		N/A
	Batteries are designed such that abnormal temperature-rise conditions are prevented		N/A
	Batteries are designed to be within temperature, voltage and current limits specified by the cell manufacturer		N/A
	Batteries are provided with specifications and charging instructions for equipment manufacturers so that associated chargers are designed to maintain charging within the temperature, voltage and current limits specified		N/A
5.5	Terminal contacts		P
	The size and shape of the terminal contacts ensure that they can carry the maximum anticipated current		P

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict
	External terminal contact surfaces are formed from conductive materials with good mechanical strength and corrosion resistance		P
	Terminal contacts are arranged to minimize the risk of short circuits		P
5.6	Assembly of cells into batteries		N/A
5.6.1	If there is more than one battery housed in a single battery case, cells used in the assembly of each battery have closely matched capacities, be of the same design, be of the same chemistry and be from the same manufacturer		N/A
	Battery has some type of safety device or feature for charging.		N/A
	Manufacturers of cells specify current, voltage and temperature limits so that the battery manufacturer /designer may ensure proper design and assembly		N/A
	Batteries that are designed for the selective discharge of a portion of their series connected cells incorporate circuitry to prevent operation of cells outside the limits specified by the cell manufacturer		N/A
	Protective circuit components are added as appropriate and consideration given to the end-device application		N/A
	When testing a battery, the manufacturer of the battery provides a test report confirming the compliance according to this document		N/A
5.7	Quality plan		P
	The manufacturer prepares and implements a quality plan that defines procedures for the inspection of materials, components, cells and batteries and which covers the whole process of producing each type of cell or battery		P
<b>6</b>	<b>Type test and sample size</b>		<b>N/A</b>
	Tests were made with the number of cells or batteries specified in Table 1 using cells or batteries that are not more than six months old		N/A
	Unless noted otherwise in the test methods, testing was conducted in an ambient of 20°C ± 5°C.		N/A
<b>7</b>	<b>Specific requirements and tests</b>		<b>N/A</b>
7.1	Charging procedure for test purposes		N/A
7.2	Intended use		N/A

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict
7.2.1	Continuous low-rate charging (cells)		N/A
	Results: No fire. No explosion	(See Table 7.2.1)	N/A
7.2.2	Vibration		N/A
	Results: No fire. No explosion. No leakage	(See Table 7.2.2)	N/A
7.2.3	Case stress at high ambient temperature(batteries)		N/A
	Oven temperature (°C)..... :		—
	Results: No physical distortion of the battery case resulting in exposure of internal protective components and cells		N/A
7.2.4	Temperature cycling		N/A
	Results: No fire. No explosion. No leakage.		N/A
7.3	Reasonably foreseeable misuse		N/A
7.3.1	Incorrect installation (cells)		N/A
	The test was carried out using: - Four fully charged cells of the same brand, type, size and age connected in series, with one of them reversed; or		N/A
	- A stabilized dc power supply.		N/A
	Results: No fire. No explosion..... :	(See Table 7.3.1)	N/A
7.3.2	External short circuit		N/A
	The cells or batteries were tested until one of the following occurred: - 24 hours elapsed; or		N/A
	- The case temperature declined by 20% of the maximum temperature rise		N/A
	Results: No fire. No explosion..... :	(See Table 7.3.2)	N/A
7.3.3	Free fall		N/A
	Results: No fire. No explosion.		N/A
7.3.4	Mechanical shock (crash hazard)		N/A
	Results: No fire. No explosion. No leakage.		N/A
7.3.5	Thermal abuse (cells)		N/A
	Oven temperature (°C)..... :		—
	Results: No fire. No explosion.		N/A
7.3.6	Crushing of cells		N/A
	The crushing force was released upon: - The maximum force of 13 kN ± 0.78 kN has been applied; or		N/A

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- An abrupt voltage drop of one-third of the original voltage has been obtained		N/A
	The cell is prismatic type and a second set of samples was tested, rotated 90° around longitudinal axis compared to the first set		N/A
	Results: No fire. No explosion..... :	(See Table 7.3.6)	N/A
7.3.7	Low pressure (cells)		N/A
	Chamber pressure (kPa)..... :		—
	Results: No fire. No explosion. No leakage.		
7.3.8	Overcharge		N/A
	Results: No fire. No explosion..... :	(See Table 7.3.8)	N/A
7.3.9	Forced discharge		N/A
	Results: No fire. No explosion..... :	(See Table 7.3.9)	N/A
<b>8</b>	<b>Information for safety</b>		<b>P</b>
8.1	General		P
	The manufacturer of secondary cells ensures that information is provided about current, voltage and temperature limits of their products.		P
	The manufacturer of batteries ensures that equipment manufacturers and, in the case of direct sales, end-users are provided with information to minimize and mitigate hazards.		N/A
	Systems analyses performed by device manufacturers to ensure that a particular battery design prevents hazards from occurring during use of a product		N/A
	As appropriate, information relating to hazard avoidance resulting from a system analysis is provided to the end user .....		N/A
	Guidance is provided in IEC TR 62188 on the design are provided for information in Annex A and Annex B.		N/A
8.2	Small cell and battery safety information		P
	The following warning language is to be provided with the information packaged with the small cells and batteries or equipment using them:		P
	-Keep small cells and batteries which are considered swallowable out of the reach of children.		P

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict
	-Swallowing may lead to burns, perforation of soft tissue, and death. Severe burns can occur within 2h of ingestion.		P
	-In case of ingestion of a cell or battery, seek medical assistance promptly.		P
<b>9</b>	<b>Marking</b>		<b>P</b>
9.1	Cell marking		P
	Cells marked as specified in the applicable cell standards: IEC 61951-1 or IEC 61951-2.	IEC 61951-2	P
	By agreement between the cell manufacturer and the battery and/or end product manufacturer, component cells used in the manufacture of a battery need not be marked.		N/A
	However, cell marking can be indicated with the battery, the instructions and/or the specifications.		P
9.2	Battery marking		N/A
	Batteries marked as specified in the applicable cell standards: IEC 61951-1 or IEC 61951-2.		N/A
	Batteries marked with an appropriate caution statement.		N/A
	Terminals have clear polarity marking on the external surface of the battery.		N/A
	Batteries with keyed external connector need not be marked with polarity markings if the design of the external connector prevents reverse polarity connections		N/A
9.3	Caution for ingestion of small cells and batteries		P
	Small cells and batteries determined to be small are including a caution statement regarding the hazards of ingestion in accordance with 8.2.		P
	Small cells and batteries are intended for direct sale in consumer-replaceable applications, caution for ingestion are given on the immediate package.		P
9.4	Other information		P
	Storage and disposal instructions marked on or supplied with the battery.		P
	Recommended charging instructions marked on or supplied with the battery.		P
<b>10</b>	<b>Packaging</b>		<b>P</b>

<b>IEC 62133-1</b>			
<b>Clause</b>	<b>Requirement + Test</b>	<b>Result - Remark</b>	<b>Verdict</b>
	Packaging for button cells are not be small enough to fit within the limits of the ingestion gauge of Figure 2		P
	Annex C for information regarding packaging		P
<b>Annex A (informative)</b>	<b>Recommendations to equipment manufacturers and battery assemblers</b>		P
<b>Annex B (informative)</b>	<b>Recommendations to the end-users</b>		P
<b>Annex C (informative)</b>	<b>Packaging</b>		P

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Critical components information					P
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
Cell		Ni-MH 40mAh	1.2V / 40mA	IEC 62133-1: 2017	-
- Electrolyte		-	KOH, LiOH, NaOH	-	-
- Separator	Laizhou Lianyou Jinhao New Material CO., LTD	LHDH30	Polypropylene Thickness: 0.3mm Width: 8.85mm	-	-
-Positive electrode		-	Ni(OH) <sub>2</sub> , CoO φ : 8.3mm thickness: 1.65 ± 0.01mm	-	-
-Negative electrode		-	hydrogen storage metal φ : 8.3mm thickness: 1.06 ± 0.01mm	-	-
-Can	FOSHAN NANHAI XINGGUANG BATTERY MATERIAL CO.,LTD	-	SPCC φ 11.65*5.15mm	-	-
-Outer PVC	NANJING AOFENG CAPACITIVE EQUIPMENT FACTORY	-	PVC 18.5*8.4mm	-	-

**Supplementary information:**

<sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039.



IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict

7.2.1	TABLE: Continuous low rate charge (cells)					N/A
Model	Recommended charging method, (CC, CV, or CC/CV)	Recommended charging voltage $V_c$ , (Vdc)	Recommended charging current $I_{rec}$ , (A)	OCV at start of test, (Vdc)	Results	

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

7.2.2	TABLE: Vibration		N/A
Model	OCV at start of test, (Vdc)	Results	

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict

7.3.1	TABLE: Incorrect installation (cells)			N/A
Model	OCV of reversed cell, (Vdc)		Results	

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

7.3.2	TABLE: External short circuit					N/A
Model	Ambient (at 20°C ± 5°C or 55°C ± 5°C)	OCV at start of test, (Vdc)	Resistance of circuit, (Ω)	Maximum case temperature rise ΔT, (°C)	Results	

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict

7.3.6	TABLE: Crush			N/A
Model	OCV at start of test, (Vdc)	OCV at removal of crushing force, (Vdc)	Results	

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

7.3.8	TABLE: Overcharge			N/A
Model	OCV prior to charging, (Vdc)	Maximum charge current, (A)	Time for charging, (hours)	Results

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)



IEC 62133-1			
Clause	Requirement + Test	Result - Remark	Verdict

7.3.9	TABLE: Forced discharge (cells)			N/A
Model	OCV before application of reverse charge, (Vdc)	Measured reverse charge $I_r$ , (A)	Time for reversed charge, (minutes)	Results

**Supplementary information:**

- No fire or explosion
- No leakage
- Leakage
- Fire
- Explosion
- Bulge
- Others (please explain)

--End of Report--