SHENZHEN GREATSHINE ELECTRONIC TECHNOLOGY CO., LTD

TEST REPORT

Prepared For:	SHENZHEN ZHUORUIFENG TECHNOLOGY CO.,LTD 4th Floor, Building D, Area A, Longquan Industry Park, Tongfuyu,Dalang Street, ongHua New District, Shenzhen City.
Product Name:	Lithium Ion Battery
Model:	902030
Prepared By:	Shenzhen BST Technology Co., Ltd. Building No.23-24, Zhiheng industrial park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China.
Test Date:	Oct. 21, 2016 –Nov. 03, 2016
Date of Report:	Nov. 04, 2016
Report No.:	BST1610696980002Y-1SR-2

TEST REPORT

IEC 62133: 2012 (2nd Edition)

Testing Laboratory:.....:	Shenzhen BST Technology Co., Ltd.
Address .....:	Building No.23-24, Zhiheng industrial park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China
Testing location.....	Shenzhen BST Technology Co., Ltd.
Applicant .....:	SHENZHEN ZHUORUIFENG TECHNOLOGY CO.,LTD
Address .....:	4th Floor, Building D, Area A, Longquan Industry Park, Tongfuyu, Dalang Street, LongHua New District, Shenzhen City.
Manufacturer.....:	SHENZHEN ZHUORUIFENG TECHNOLOGY CO.,LTD
Address .....:	4th Floor, Building D, Area A, Longquan Industry Park, Tongfuyu, Dalang Street, LongHua New District, Shenzhen City.
Test specification:	
Standard.....:	IEC 62133: 2012(2nd Edition)
Test procedure .....:	N/A
Non-standard test method.....:	N/A
Test item description .....:	
Trade Mark .....:	N/A
Model/Type reference .....:	902030
Ratings .....:	Rated Voltage: 3.7 V d.c., Rated Capacity: 500mAh

List of Attachments (including a total number of pages in each attachment):
Attachment 1: Photos

Summary of testing:

Tests performed (name of test and test clause):

Specific requirements and tests (lithium systems)

☐ 5.2 Insulation resistance
☒ 8.2.1 Continuous charging at constant voltage(cells)
☐ 8.2.2 Moulded case stress at high ambient temperature (battery)
☒ 8.3.1 External short circuit (cell)
☒ 8.3.2 External short circuit (battery)
☒ 8.3.3 Free fall
☒ 8.3.4 Thermal abuse (cells)
☒ 8.3.5 Crush (cells)
☒ 8.3.6 Over-charging of battery
☒ 8.3.7 Forced discharge (cells)
☐ 8.3.8 Transport tests
☐ 8.3.9 Design evaluation – Forced internal shortcircuit (cells)

Testing location:
Building No.23-24, Zhiheng industrial park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China

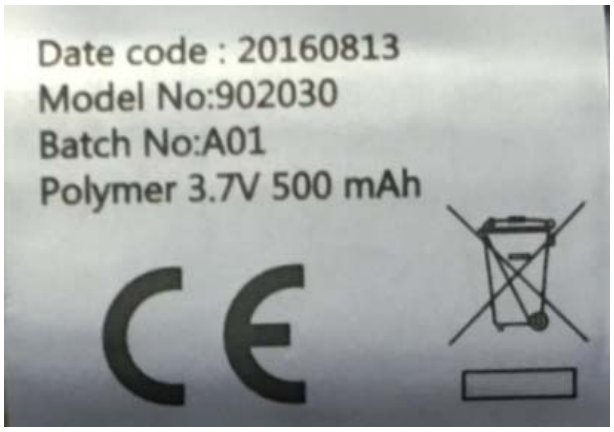
Summary of compliance with National Differences

List of countries addressed:none

☒ **The product fulfils the requirements of IEC 62133: 2012(2nd Edition) (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable)**

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.



Test item particulars.....:	
Classification of installation and use.....:	--
Supply connection.....:	--
Recommend charging method declaired by the manufacturer ..... :	CC/CV
Discharge current (0,2 It A) ..... :	500mA
Specified final voltage ..... :	2.8V
Chemistry ..... :	☐ nickel systems ..... ☒ lithium systems
Recommend of charging limit for lithium system	
Upper limit charging voltage per cell.....:	4.28V
Maximum charging current.....:	1.0A
Charging temperature upper limit.....:	45℃
Charging temperature lower limit.....:	10℃
Polymer cell electrolyte type ..... :	☒ gel polymer ..... ☐ solid polymer
Possible test case verdicts:	
- 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)
Testing.....:	
Date of receipt of test item .....:	2016-10-17
Date (s) of performance of tests.....:	2016-10-21 to 2016-11-03

General remarks:

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 ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

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 ..... :	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :	SHENZHEN ZHUORUIFENG TECHNOLOGY CO.,LTD 4th Floor, Building D, Area A, Longquan Industry Park, Tongfuyu, Dalang Street, LongHua New District, Shenzhen City.

General product information:

Product description:	Lithium Ion Battery
Model of pack:	902030
Rated voltage	3.7 V d.c.
Rated capacity	500mAh
Number of cells in battery pack	one cell
Model of cell	902030
Rated voltage of single cell	3.7 V d.c.
Rated capacity of single cell	500mAh
Other information	Red wire: (+), Black wire: (-)

Prepared by : _____ Engineer

Reviewer : _____ Supervisor

Approved & Authorized Signer : _____ Christina / Manager

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
4	**Parameter measurement tolerances**		**P**
	Parameter measurement tolerances		P
5	**General safety considerations**		**P**
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		N/A
	Insulation resistance (MΩ) ..... :		—
	Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		P
	Orientation of wiring maintains adequate creepage and clearance distances between conductors		P
	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/current management		P
	Batteries are designed such that abnormal temperature rise conditions are prevented		P
	Batteries are designed to be within temperature, voltage and current limits specified by the cell manufacturer		P
	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		P
5.5	Terminal contacts		P

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
	Terminals have a clear polarity marking on the external surface of the battery		P
	The size and shape of the terminal contacts ensure that they can carry the maximum anticipated current		P
	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		P
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	Only one battery	N/A
	Each battery has an independent control and protection		N/A
	Manufacturers of cells make recommendations about 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 separate circuitry to prevent the cell reversal caused by uneven discharges		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 standard		N/A
5.6.2	Design recommendation for lithium systems only		P
	For the battery consisting of a single cell or a single cellblock: - Charging voltage of the cell does not exceed the upper limit of the charging voltage specified in Clause 8.1.2, Table 4; or		P
	- Charging voltage of the cell does not exceed the different upper limit of the charging voltage determined through Clause 8.1.2, NOTE 1.		N/A

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
	For the battery consisting of series-connected plural single cells or series-connected plural cellblocks: - The voltages of any one of the single cells or single cellblocks does not exceed the upper limit of the charging voltage, specified in Clause 8.1.2, Table 4, by monitoring the voltage of every single cell or the single cellblocks; or	Single cell in battery	N/A
	- The voltages of any one of the single cells or single cellblocks does not exceed the different upper limit of the charging voltage, determined through Clause 8.1.2, NOTE 1, by monitoring the voltage of every single cell or the single cellblocks		N/A
	For the battery consisting of series-connected plural single cells or series-connected plural cellblocks: - Charging is stopped when the upper limit of the charging voltage, specified in Clause 8.1.2, Table 4, is exceeded for any one of the single cells or single cellblocks by measuring the voltage of every single cell or the single cellblocks; or	Single cell in battery	N/A
	- Charging is stopped when the upper limit of the different charging voltage, determined through Clause 8.1.2, NOTE 1, is exceeded for any one of the single cells or single cellblocks by measuring the voltage of every single cell or the single cellblocks		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
6	**Type test conditions**		**P**
	Tests were made with the number of cells or batteries specified in Table 1 for nickel-cadmium and nickel-metal hydride systems and Table 2 for lithium systems, using cells or batteries that are not more than six months old		P
	Unless noted otherwise in the test methods, testing was conducted in an ambient of 20°C ± 5°C.		P
7	**Specific requirements and tests (nickel systems)**		**N/A**
7.1	Charging procedure for test purposes	Lithium systems	N/A
7.2	Intended use		N/A
7.2.1	Continuous low-rate charging (cells)		N/A
	Results: No fire. No explosion	(See Table 7.2.1)	N/A

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
7.2.2	Vibration		N/A
	Results: No fire. No explosion. No leakage	(See Table 7.2.2)	N/A
7.2.3	Moulded case stress at high ambient temperature		N/A
	Oven temperature (°C).....:		—
	Results: No physical distortion of the battery casing resulting in exposure if internal components		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 cell		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		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 ± 1 kN has been applied; or		N/A
	- An abrupt voltage drop of one-third of the original voltage has been obtained		N/A

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
	Chamber pressure (kPa)..... :		—
	Results: No fire. No explosion. No leakage.		N/A
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
8	**Specific requirements and tests (lithium systems)**		**P**
8.1	Charging procedures for test purposes		P
8.1.1	First procedure: This charging procedure applied to tests other than those specified in 8.1.2		P
8.1.2	Second procedure: This charging procedure applied to the tests of 8.3.1, 8.3.2, 8.3.4, 8.3.5, and 8.3.9		P
	If a cell's specified upper and/or lower charging temperature exceeds values for the upper and/or lower limit test temperatures of Table 4, the cells were charged at the specified values plus 5 °C for the upper limit and minus 5 °C for the lower limit		N/A
	A valid rationale was provided to ensure the safety of the cell (see Figure A.1) ..... :	See the test result	P
	For a different upper limit charging voltage (i.e. other than for lithium cobalt oxide systems at 4,25 V), the applied upper limit charging voltage and upper limit charging temperatures were adjusted accordingly	The upper limit charging voltage is 4,25 V in specification.	P
	A valid rationale was provided to ensure the safety of the cell (see Figure A.1) ..... :	See the test result	P
8.2	Intended use		P
8.2.1	Continuous charging at constant voltage (cells)		P
	Results: No fire. No explosion..... :	(See Table 8.2.1)	P
8.2.2	Moulded case stress at high ambient temperature (battery)		N/A
	Oven temperature (°C)..... :		—

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
	Results: No physical distortion of the battery casing resulting in exposure if internal components		N/A
8.3	Reasonably foreseeable misuse		P
8.3.1	External short circuit (cell)		P
	The cells 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		P
	Results: No fire. No explosion..... :	(See Table 8.3.1)	P
8.3.2	External short circuit (battery)		P
	The cells were tested until one of the following occurred: - 24 hours elapsed; or		P
	- The case temperature declined by 20% of the maximum temperature rise		N/A
	In case of rapid decline in short circuit current, the battery pack remained on test for an additional one hour after the current reached a low end steady state condition		N/A
	Results: No fire. No explosion..... :	(See Table 8.3.2)	P
8.3.3	Free fall		P
	Results: No fire. No explosion.		P
8.3.4	Thermal abuse (cells)		P
	The cells were held at 130°C ± 2°C for: - 10 minutes; or		P
	- 30 minutes for large cells (gross mass of more than 500 g as defined in IEC 62281)		N/A
	Oven temperature (°C)..... :	130°C	—
	Gross mass of cell (g) ..... :	8.910g	—
	Results: No fire. No explosion.		P
8.3.5	Crush (cells)		P
	The crushing force was released upon: - The maximum force of 13 kN ± 1 kN has been applied; or		P
	- An abrupt voltage drop of one-third of the original voltage has been obtained; or		N/A
	- 10% of deformation has occurred compared to the initial dimension		N/A

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
	Results: No fire. No explosion..... :	(See Table 8.3.5)	P
8.3.6	Over-charging of battery		P
	Test was continued until the temperature of the outer casing: - Reached steady state conditions (less than 10°C change in 30-minute period); or		N/A
	- Returned to ambient		P
	Results: No fire. No explosion..... :	(See Table 8.3.6)	P
8.3.7	Forced discharge (cells)		P
	Results: No fire. No explosion..... :	(See Table 8.3.7)	P
8.3.8	Transport tests		N/A
	Manufacturer's documentation provided to show compliance with UN Recommendations on Transport of Dangerous Goods		N/A
8.3.9	Design evaluation – Forced internal short circuit (cells)		N/A
	The cells complied with national requirement for .....:		—
	The pressing was stopped upon: - A voltage drop of 50 mV has been detected; or		N/A
	- The pressing force of 800 N (cylindrical cells) or 400 N (prismatic cells) has been reached		N/A
	Results: No fire ..... :	(See Table 8.3.9)	N/A

9	**Information for safety**		**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.		P
	Systems analyses performed by device manufacturers to ensure that a particular battery design prevents hazards from occurring during use of a product		P
	As appropriate, information relating to hazard avoidance resulting from a system analysis is provided to the end user ..... :		P

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
10	**Marking**		**P**
10.1	Cell marking	Not checked	—
	Cells marked as specified in the applicable cell standards: IEC 61951-1, IEC 61951-2 or IEC 61960.	Not checked	—
10.2	Battery marking	Not checked	—
	Batteries marked in accordance with the requirements for the cells from which they are assembled.	Not checked	—
	Batteries marked with an appropriate caution statement.	Not checked	—
10.3	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
11	**Packaging**		**P**
	The materials and packaging design are chosen so as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of environmental contaminants.		P
Annex A	**Charging range of secondary lithium ion cells for safe use**		**P**
A.1	General		P
A.2	Safety of lithium-ion secondary battery		P
A.3	Consideration on charging voltage		P
A.3.1	General		P
A.3.2	Upper limit charging voltage		P
A.3.2.1	General		P
A.3.2.2	Explanation of safety viewpoint		P
A.3.2.3	Safety requirements, when different upper limit charging voltage is applied		P
A.4	Consideration of temperature and charging current		P
A.4.1	General		P
A.4.2	Recommended temperature range		P
A.4.2.1	General		P

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict
A.4.2.2	Safety consideration when a different recommended temperature range is applied		P
A.4.3	High temperature range	The upper charging temperature is 45 °C in specification.	N/A
A.4.3.1	General		N/A
A.4.3.2	Explanation of safety viewpoint		N/A
A.4.3.3	Safety considerations when specifying charging conditions in high temperature range		N/A
A.4.3.4	Safety consideration when specifying new upper limit in high temperature range		N/A
A.4.4	Low temperature range	The lower charging temperature is 10 °C in specification.	N/A
A.4.4.1	General		N/A
A.4.4.2	Explanation of safety viewpoint		N/A
A.4.4.3	Safety considerations, when specifying charging conditions in low temperature range		N/A
A.4.4.4	Safety considerations when specifying a new lower limit in the low temperature range		N/A
A.4.5	Scope of the application of charging current		P
A.5	Sample preparation		N/A
A.5.1	General		N/A
A.5.2	Insertion procedure for nickel particle to generate internal short		N/A
	The insertion procedure carried out at 20°C±5°C and under -25 °C of dew point		N/A
A.5.3	Disassembly of charged cell		N/A
A.5.4	Shape of nickel particle		N/A
A.5.5	Insertion of nickel particle to cylindrical cell		N/A
A.5.5.1	Insertion of nickel particle to winding core		N/A
A.5.5.2	Mark the position of nickel particle on the both end of winding core of the separator		N/A
A.5.6	Insertion of nickel particle to prismatic cell		N/A

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict

7.2.1	**TABLE: Continuous low rate charge (cells)**	**N/A**

7.2.2	**TABLE: Vibration**	**N/A**

7.3.1	**TABLE: Incorrect installation (cells)**	**N/A**

7.3.2	**TABLE: External short circuit**	**N/A**

7.3.6	**TABLE: Crush**	**N/A**

7.3.8	**TABLE: Overcharge**	**N/A**

7.3.9	**TABLE: Forced discharge (cells)**	**N/A**

8.2.1	**TABLE: Continuous charging at constant voltage (cells)**	**P**

Model	Recommended charging voltage V_c, (Vdc)	Recommended charging current I_{rec}, (A)	OCV at start of test, (Vdc)	Results
902030	4.28	0.250	4.243	P
902030	4.28	0.250	4.239	P
902030	4.28	0.250	4.238	P
902030	4.28	0.250	4.233	P
902030	4.28	0.250	4.239	P

Supplementary information:

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

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict

8.3.1	TABLE: External short circuit (cell)				P
Model	**Ambient, (°C)**	**OCV at start of test, (Vdc)**	**Resistance of circuit, (Ω)**	**Maximum case temperature, (°C)**	**Results**
Samples charged at charging temperature upper limit					
902030	23.9	4.241	0.08	92.3	P
902030	23.9	4.239	0.08	91.6	P
902030	23.8	4.243	0.08	91.8	P
902030	23.9	4.241	0.08	90.6	P
902030	23.8	4.241	0.08	94.7	P
Samples charged at charging temperature lower limit					
902030	23.8	4.182	0.08	98.2	P
902030	23.6	4.176	0.08	93.6	P
902030	23.8	4.181	0.08	97.1	P
902030	23.8	4.176	0.08	97.0	P
902030	23.6	4.181	0.08	93.8	P

Supplementary information:

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

8.3.2	TABLE: External short circuit (battery)				P
Model	**Ambient, (°C)**	**OCV at start of test, (Vdc)**	**Resistance of circuit, (Ω)**	**Maximum case temperature rise ΔT, (°C)**	**Results**
Samples charged at charging temperature upper limit					
902030	55.7	4.242	0.08	Shut down immediately Tested for 24 h	P
902030	55.4	4.241	0.08		P
902030	55.5	4.241	0.08		P
902030	55.5	4.240	0.08		P
902030	55.7	4.241	0.08		P
Samples charged at charging temperature lower limit					
902030	55.3	4.173	0.08	Shut down	P

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict

902030	55.4	4.177	0.08	immediately Tested for 24 h	P
902030	55.7	4.174	0.08		P
902030	55.1	4.174	0.08		P
902030	55.8	4.173	0.08		P

Supplementary information:

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

8.3.5	TABLE: Crush				P
Model	**OCV at start of test, (Vdc)**	**OCV at removal of crushing force, (Vdc)**	**Width/ diameter of cell before crush, (mm)**	**Required deformation for crush, (mm)**	**Results**
Samples charged at charging temperature upper limit					
902030	4.236	4.236	--	--	P
902030	4.240	4.240	--	--	P
902030	4.240	4.240	--	--	P
902030	4.239	4.239	--	--	P
902030	4.240	4.240	--	--	P

Supplementary information:

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

8.3.6	TABLE: Over-charging of battery			P
Constant charging current (A) ..... :			**1.0**	—
Supply voltage (Vdc) ..... :			**4.28**	—
Model	**OCV before charging, (Vdc)**	**Resistance of circuit, (Ω)**	**Maximum outer casing temperature, (°C)**	**Results**
902030	3.342	---	23.6	P

IEC 62133: 2012			
Clause	Requirement + Test	Result - Remark	Verdict

902030	3.306	---	23.5	P
902030	3.457	---	23.6	P
902030	3.387	---	23.7	P
902030	3.466	---	23.2	P

Supplementary information:

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

8.3.7	TABLE: Forced discharge (cells)	P

Model	OCV before application of reverse charge, (Vdc)	Measured Reverse charge I_t, (A)	Time for reversed charge, (minutes)	Results
902030	3.431	0.5	90	P
902030	3.474	0.5	90	P
902030	3.326	0.5	90	P
902030	3.429	0.5	90	P
902030	3.322	0.5	90	P

Supplementary information:

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

8.3.9	TABLE: Forced internal short circuit (cells)	N/A

Attachment 1: Photos