

TEST REPORT

IEC 62133-1

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 Part 1: Nickel systems

Report Number	: RHDTL260408004
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Address	: Room 101, Building 1, No. 5 of Jinzhong Road, Dongcheng Street, Dongguan City, Guangdong Province, China.
Applicant's name	: Shenzhen Xiaobailan Technology Co., Ltd.
Address	: Room 2912, Anhui Building, No. 6007 Shennan Avenue Futian District, Shenzhen, Guangdong Province China 518026
Test specification:	
Standard	: <input checked="" type="checkbox"/> IEC 62133- 1:2017
Test item description	: 12V Ni-MH Battery Pack
Trade Mark	: Elxjar/YUTSUJO
Manufacturer	: Shenzhen Xiaobailan Technology Co., Ltd.
Address	: Room 2912, Anhui Building, No. 6007 Shennan Avenue Futian District, Shenzhen, Guangdong Province China 518026
Model/Type reference	: DIY12VBare
Ratings	: 12V 2000mAh

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

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Summary of testing:

The unit is charging the empty cell and discharging the full charged cell according to the rating.

Note:

Charging procedures for test purposes:

- (1) Unless otherwise stated, the charging procedure for test purposes is carried out in an ambient temperature of 20±5°C, using the method declared by the manufacturer. Prior to charging, the battery/cell shall have been discharged at 20±5°C at a constant current of 0.2 It A down to a specified final voltage.
- (2) After stabilization for 1 to 4 hours respectively at ambient temperature of highest test temperature 40°C and lowest test temperature 0°C.

Tests performed (name of test and test clause):

- cl.7.1 Charging procedure for test purposes (for Cells);
- cl.7.2.1 Continuous low-rate charging (Cells);
- cl.7.2.2 Vibration (Cells);
- cl.7.2.4 Temperature cycling (Cells);
- cl.7.3.1 Incorrect installation (Cells);
- cl.7.3.2 External short circuit (Cells);
- cl.7.3.3 Free fall (Cells);
- cl.7.3.4 Mechanical shock (crashhazard)(Cells);
- cl.7.3.5 Thermal abuse (Cells);
- cl.7.3.6 Crushing of cells;
- cl.7.3.7 Low pressure (Cells);
- cl.7.3.8 Overcharge (Cells);
- cl.7.3.9 Forced discharge (Cells).

Tests are made with the number of cells and batteries specified in IEC 62133- 1: 2017 (Second Edition) Table 1.

Testing location:

Dongguan HDTL Technology Co., Ltd.
Room 101, Building 1, No. 5 of Jinzhong Road,
Dongcheng Street, Dongguan City, Guangdong
Province, China.

Summary of compliance with National Differences (List of countries addressed):

Republic of Korea

The product fulfils the requirements of EN62133-1: 2017

Use of uncertainty of measurement for decisions on conformity (decision rule) :

No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty (“simple acceptance” decision rule, previously known as “accuracy method”).

Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

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.

12V 2000mAh

12V Ni-MH Battery Pack

DIY12VBare

YYMMDD

Shenzhen Xiaobailan Technology Co., Ltd.



Remark: "YY" means to years; "MM" means to months; "DD" represents day
The "+" represents the anode; The "-" represents the cathode

Test item particulars.....	: 12V Ni-MH Battery Pack
Classification of installation and use.....	: To be defined in final product
Supply connection.....	: Supply by connector
Recommend charging method declared by the manufacturer.....	: CC/CV
Discharge current	: 400mA
Maximum discharging current.....	: 4A
Specified final voltage.....	: 1V
Recommend of charging limit for lithium system	
Upper limit charging voltage per cell.....	: 1.4V
Maximum charging current.....	: 2A
Charging temperature upper limit.....	: 45°C
Charging temperature lower limit.....	: 0°C
Polymer cell electrolyte type.....	: <input type="checkbox"/> gel polymer..... <input type="checkbox"/> solid polymer <input checked="" type="checkbox"/> N/A
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.....	: 2026.04.08
Date (s) of performance of tests.....	: 2026.04.08 ~ 2025.04.17
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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.	
General product information:	
1. The maximum ambient temperature is specified as 45°C.	

General product information:

This battery is constructed with 10 Ni-MH Battery in 10S1P, and the cells were passed the standard IEC 62133-1:2017.

The main features of the cell in the battery are shown as below (clause 8.1.1):

Model	Nominal capacity	Nominal voltage	Nominal Charge Current	Nominal Discharge Current	Maximum Charge Current	Maximum Discharge Current	Maximum Charge Voltage	Cut-off Voltage
DIY12VBare	2000mAh	12V	400mA	400mA	2A	4A	14V	10V

The main features of the cell in the battery are shown as below (clause 8.1.2):

Model	Upper limit charge voltage	Taper-off current	Lower charge temperature	Upper charge temperature
DIY12VBare	14V	100mA	0°C	45°C

Construction: N/A

Circuit diagram:N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4	PARAMETER MEASUREMENT TOLERANCES		P
	Parameter measurement tolerances		P
5	GENERAL SAFETY CONSIDERATIONS		P
5.1	General		P
	Cells and batteries so designed and constructed that they are safe under conditions of both intended use and reasonably foreseeable misuse		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		P
	Insulation resistance (MΩ)..... :		—
	Internal wiring and insulation are sufficient to withstand maximum anticipated current, voltage and temperature requirements		P
	Orientation of wiring maintains adequate clearance and creepage 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		P
	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	See above.	P
	Batteries are provided with specifications and charging instructions for equipment manufacturers so that specified chargers are designed to maintain charging within the temperature, voltage and current limits specified	The charging limits specified in the user manual.	P
5.5	Terminal contacts		P

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Clause	Requirement + Test	Result - Remark	Verdict
	The size and shape of the terminal contacts ensure that they can carry the maximum anticipated current	Copper plate contacts complied with the requirements.	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-circuit		P
5.6	Assembly of cells into batteries		N/A
5.6.1	General		P
	Each battery have an independent control and protection for current, voltage, temperature and any other parameter required for safety and to maintain the cells within their operating region		N/A
	This protection may be provided external to the battery such as within the charger or the end devices		P
	If protection is external to the battery, the manufacturer of the battery provide this safety relevant information to the external device manufacturer for implementation		P
	If there is more than one battery housed in a single battery case, each battery have protective circuitry that can maintain the cells within their operating regions		N/A
	Manufacturers of cells specify current, voltage and temperature limits so that the battery manufacturer/designer may ensure proper design and assembly	Current, voltage and temperature limits specified by cell manufacturer.	P
	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 added as appropriate and consideration given to the end-device application		N/A
	The manufacturer of the battery provide a safety analysis of the battery safety circuitry with a test report including a fault analysis of the protection circuit under both charging and discharging conditions confirming the compliance		N/A
5.6.2	Design recommendation		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For the battery consisting of a single cell or a single cellblock, it is recommended that the charging voltage of the cell does not exceed the upper limit of the charging voltage specified in Table 2		N/A
	For the battery consisting of series-connected plural single cells or series-connected plural cellblocks, it is recommended that the voltages of any one of the single cells or single cellblocks does not exceed the upper limit of the charging voltage, specified in Table 2, 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, it is recommended that charging is stopped when the upper limit of the charging voltage 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
	For batteries consisting of series-connected cells or cell blocks, nominal charge voltage not be counted as an overcharge protection		N/A
	For batteries consisting of series-connected cells or cell blocks, cells have closely matched capacities, be of the same design, be of the same chemistry and be from the same manufacturer		N/A
	It is recommended that the cells and cell blocks not discharged beyond the cell manufacturer's specified final voltage		N/A
	For batteries consisting of series-connected cells or cell blocks, cell balancing circuitry incorporated into the battery management system		N/A
5.6.3	Mechanical protection for cells and components of batteries	Consider in end product	P
	Mechanical protection for cells, cell connections and control circuits within the battery provided to prevent damage as a result of intended use and reasonably foreseeable misuse		N/A
	The mechanical protection can be provided by the battery case or it can be provided by the end product enclosure for those batteries intended for building into an end product		P
	The battery case and compartments housing cells designed to accommodate cell dimensional tolerances during charging and discharging as recommended by the cell manufacturer		P

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Clause	Requirement + Test	Result - Remark	Verdict
	For batteries intended for building into a portable end product, testing with the battery installed within the end product considered when conducting mechanical tests		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	Complied. ISO 9001: 2008 certificate provided.	P
5.8	Battery safety components		N/A
	According annex F	See TABLE: Critical components information	N/A

6	TYPE TEST AND SAMPLE SIZE		P
	Tests are made with the number of cells or batteries specified in Table 1 using cells or batteries that are not more than six months old		P
	Coin cells with resistance $\leq 3 \Omega$ (measured according annex D) are tested according table 1	Not coin cells	N/A
	Unless otherwise specified, tests are carried out in an ambient temperature of $20 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$		P
	The safety analysis of 5.6.1 identify those components of the protection circuit that are critical for short-circuit, overcharge and overdischarge protection		N/A
	When conducting the short-circuit test, consideration given to the simulation of any single fault condition that is likely to occur in the protecting circuit that would affect the short-circuit test		N/A

7	SPECIFIC REQUIREMENTS AND TESTS		P
7.1	Charging procedure for test purposes	Test is carried out at $20 \pm 5 \text{ }^\circ\text{C}$ Charging method: CC=400mA for 16 hours	P
7.2	Intended use		P
7.2.1	Continuous low-rate charging (cells)	CC=400mA, Duration: 28days	P
	Results: No fire. No explosion	No fire, no explosion. (See Table 7.2.1)	P
7.2.2	Vibration	Tested complied.	P
	Results: No fire. No explosion. No leakage	No fire, no explosion, no leakage. (See Table 7.2.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
7.2.3	Moulded case stress at high ambient temperature		N/A
	Oven temperature (°C)		/A
	Results: resulting No physical distortion of the battery casing in exposure of internal components		/A
7.2.4	Temperature cycling		N/A
	Results: No fire. No explosion. No leakage.		N/A
7.3	Reasonably foreseeable misuse		P
7.3.1	Incorrect installation cell	Tested complied.	P
	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.		P
	Results: No fire. No explosion.....	No fire, no explosion. (See Table 7.3.1)	P
7.3.2	External short circuit	Tested complied.	P
	The cells or batteries were tested until one of the following occurred: - 24 hours elapsed; or		P
	- The case temperature declined by 20% of the maximum temperature rise		P
	Results: No fire. No explosion.....	No fire, no explosion (See Table 7.3.2)	P
7.3.3	Free fall	Tested complied.	P
	Results: No fire. No explosion.	No fire, no explosion.	P
7.3.4	Mechanical shock (crash hazard)	Tested complied.	P
	Results: No fire. No explosion. No leakage.	No fire, no explosion, no leakage.	P

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Clause	Requirement + Test	Result - Remark	Verdict
7.3.5	Thermal abuse	Tested complied.	P
	Oven temperature (°C)	130°C ±2°C	P
	Results: No fire. No explosion.	No fire, no explosion.	P
7.3.6	Crushing of cells	Tested complied.	P
	The crushing force was released upon: - The maximum force of 13 kN ± 0.78 kN has been applied; or		P
	- An abrupt voltage drop of one-third of the original voltage has been obtained		P
	The cell is prismatic type and a second set of samples was tested, rotated 90° around longitudinal axis compared to the first set	Cylindrical cell.	P
	Results: No fire. No explosion.....	No fire, no explosion. (See Table 7.3.6)	P
7.3.7	Low pressure	Tested complied.	P
7.3.8	Overcharge	Tested complied.	
	Results: No fire. No explosion..... :	No fire, no explosion. (See Table 7.3.8)	P
7.3.9	Forced discharge	Tested complied.	P
	Results: No fire. No explosion..... :	No fire, no explosion. (See Table 7.3.9)	P
8	INFORMATION FOR SAFETY		P
8.1	General		P
	Manufacturers of secondary cells ensure that information is provided about current, voltage and temperature limits of their products	Information for safety mentioned in manufacturer's specifications.	P
	Manufacturers of batteries ensure that equipment manufacturers and, in the case of direct sales, end-users are provided with information to minimize and mitigate hazards	Information for safety mentioned in manufacturer's specifications.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	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, any information relating to hazard avoidance resulting from a system analysis provided to the end user		N/A
	Do not allow children to replace batteries without adult supervision		P
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
	- Swallowing may lead to burns, perforation of soft tissue, and death. Severe burns can occur within 2 h of ingestion		P
	- In case of ingestion of a cell or battery, seek medical assistance promptly		P

9	MARKING		P
9.1	Cell marking	The final product is battery	N/A
	Cells marked as specified in IEC 61960, except coin cells		N/A
	Coin cells whose external surface area is too small to accommodate the markings on the cells show the designation and polarity		N/A
	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
9.2	Battery marking		P
	Batteries marked as specified in IEC 61960, except for coin batteries	Battery marked as specified in IEC 61960-3: 2017	P
	Coin batteries whose external surface area is too small to accommodate the markings on the batteries show the designation and polarity. Batteries also marked with an appropriate caution statement		N/A
	Terminals have clear polarity marking on the external surface of the battery		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Batteries with keyed external connectors designed for connection to specific end products need not be marked with polarity markings if the design of the external connector prevents reverse polarity connections		P
9.3	Caution for ingestion of small cells and batteries	Not small cell and battery.	N/A
	Coin cells and batteries identified as small batteries according to 8.2 include a caution statement regarding the hazards of ingestion in accordance with 8.2		N/A
	When small cells and batteries are intended for direct sale in consumer-replaceable applications, caution for ingestion given on the immediate package		N/A
9.4	Other information		P
	Storage and disposal instructions	Information for storage and disposal instructions mentioned in manufacturer's specifications.	P
	Recommended charging instructions	Information for recommended charging instructions mentioned in manufacturer's specifications.	P

10	PACKAGING AND TRANSPORT		N/A
	Packaging for coin cells not small enough to fit within the limits of the ingestion gauge of Figure 3	Not coin cells.	N/A
	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		N/A

ANNEX A	CHARGING AND DISCHARGING 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

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Clause	Requirement + Test	Result - Remark	Verdict
A.3.2.3	Safety requirements, when different upper limit charging voltage is applied		N/A
A.4	Consideration of temperature and charging current		P
A.4.1	General		P
A.4.2	Recommended temperature range	See A.4.2.2.	P
A.4.2.1	General		P
A.4.2.2	Safety consideration when a different recommended temperature range is applied	Consider in end product	P
A.4.3	High temperature range		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 the high temperature range		N/A
A.4.3.4	Safety considerations when specifying a new upper limit in the high temperature range		N/A
A.4.4	Low temperature range		N/A
A.4.4.1	General		N/A
A.4.4.2	Explanation of safety viewpoint	Consider in end product	N/A
A.4.4.3	Safety considerations, when specifying charging conditions in the 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.4.6	Consideration of discharge		P
A.4.6.1	General		P
A.4.6.2	Final discharge voltage and explanation of safety viewpoint	Consider in end product	N/A
A.4.6.3	Discharge current and temperature range	NTC provided, consider in end product	N/A
A.4.6.4	Scope of application of the discharging current		N/A
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
A.5.3	Disassembly of charged cell		N/A
A.5.4	Shape of nickel particle		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A.5.5	Insertion of nickel particle in cylindrical cell		N/A
A.5.5.1	Insertion of nickel particle in winding core		N/A
A.5.5.2	Marking the position of the nickel particle on both ends of the winding core of the separator		N/A
A.5.6	Insertion of nickel particle in prismatic cell		N/A
A.6	Experimental procedure of the forced internal short-circuit test		N/A
A.6.1	Material and tools for preparation of nickel particle		N/A
A.6.2	Example of a nickel particle preparation procedure		N/A
A.6.3	Positioning (or placement) of a nickel particle		N/A
A.6.4	Damaged separator precaution		N/A
A.6.5	Caution for rewinding separator and electrode		N/A
A.6.6	Insulation film for preventing short-circuit		N/A
A.6.7	Caution when disassembling a cell		N/A
A.6.8	Protective equipment for safety		N/A
A.6.9	Caution in the case of fire during disassembling		N/A
A.6.10	Caution for the disassembling process and pressing the electrode core		N/A
A.6.11	Recommended specifications for the pressing device		N/A
ANNEX B	RECOMMENDATIONS TO EQUIPMENT MANUFACTURERS AND BATTERY ASSEMBLERS		P
ANNEX C	RECOMMENDATIONS TO THE END-USERS		P
ANNEX D	MEASUREMENT OF THE INTERNAL AC RESISTANCE FOR COIN CELLS		N/A
D.1	General	Not coin cells.	N/A
D.2	Method		N/A
	A sample size of three coin cells is required for this measurement.....:	(See appended table D.2)	N/A
	Coin cells with an internal resistance of less than or equal to 3 Ω are subjected to the testing according to Clause 6 and Table 1		N/A
	Coin cells with an internal resistance greater than 3 Ω require no further testing		N/A
ANNEX E	PACKAGING AND TRANSPORT		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
ANNEX F	COMPONENT STANDARDS REFERENCES		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾
Cell	Shenzhen Xiaobailan Technology Co., Ltd.	1.2V, 2000mA	1.2V, 2000mAh	IEC 62133-1: 2017	Test with appliance
- Electrolyte	--	--	--	--	Test with appliance
- Separator	--	--	--	--	Test with appliance
-Negative electrode	--	--	--	--	Test with appliance
-Positive electrode	--	--	--	--	Test with appliance

Supplementary information:

¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.

7.2.1	TABLE: Continuous low rate charge (cells)					P
Model	Recommended charging method, (CC, CV, or CC/CV)	Recommended charging voltage Vc,(Vdc)	Recommended charging current Irec, (mA)	OCV at start of test, (Vdc)	Results	
C01	CC	1.40	400	1.35	P	
C02	CC	1.40	400	1.36	P	
C03	CC	1.40	400	1.34	P	
C04	CC	1.40	400	1.37	P	
C05	CC	1.40	400	1.35	P	
Supplementary information: No fire, no explosion						

7.2.2	TABLE: Vibration (cells)		P
Model	OCV at start of test, (Vdc)		Results
C06	1.37		P
C07	1.36		P
C08	1.35		P
C09	1.34		P
C10	1.36		P
Supplementary information: No fire or explosion, no leakage			

7.3.1	TABLE: Incorrect installation (cells)		P
Model	OCV of reversed cell, (Vdc)		Results
C11	1.38		P
C12	1.37		P
C13	1.36		P
C14	1.37		P
C15	1.35		P
plementary information: No fire or explosion			

7.3.2 TABLE: External short circuit (cells)					P
Model	Ambient (at 25°C or 55°C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature rise ΔT_c , (°C)	Results
C16	23.3	1.36	80	71.0	P
C17	23.8	1.37	80	88.3	P
C18	23.7	1.35	80	74.9	P
C19	23.9	1.36	80	80.5	P
C20	23.2	1.37	80	76.4	P
C21	55.7	1.35	80	86.7	P
C22	55.4	1.36	80	83.4	P
C23	55.4	1.37	80	77.6	P
C24	55.2	1.35	80	79.0	P
C25	55.6	1.36	80	81.5	P
Supplementary information: No fire or explosion					

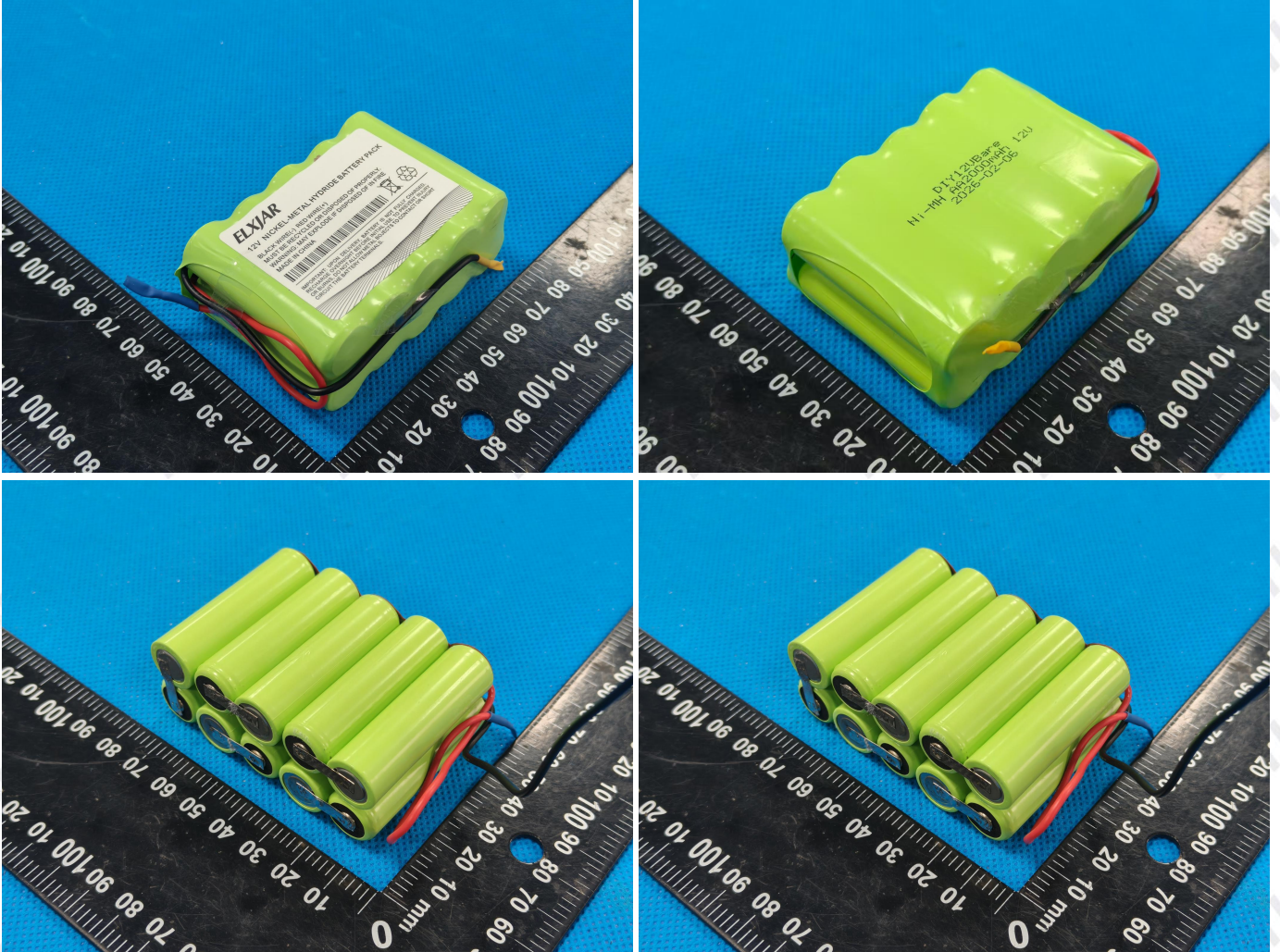
7.3.2 TABLE: External short circuit (batteries)					N/A
Model	Ambient (at 25°C or 55°C 5. °C)	OCV at start of test, (Vdc)	Resistance of circuit, (mΩ)	Maximum case temperature rise ΔT_c , (°C)	Results
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Supplementary information: No fire or explosion					

7.3.6		TABLE: Crush			P
Model	OCV at start of test, (Vdc)	OCV at removal of crushing force, (Vdc)	Results		
C26	1.38	--	P		
C27	1.36	--	P		
C28	1.33	--	P		
C29	1.37	--	P		
C30	1.36	--	P		
Supplementary information: No fire or explosion					

7.3.8		TABLE: Overcharge (batteries)			N/A
Model	OCV prior to charging, (Vdc)	Maximum charge current, (mA)	Time for charging, (hours)	Results	
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Supplementary information: No fire or explosion					

7.3.9		TABLE: Forced discharge (cells)			P
Model	OCV before application of reverse charge, (Vdc)	Measured reverse charge I_r , (mA)	Time for reversed charge, (minutes)	Results	
C31	1.33	400mA	90	P	
C32	1.35	400mA	90	P	
C33	1.33	400mA	90	P	
C34	1.36	400mA	90	P	
C35	1.37	400mA	90	P	
Supplementary information: No fire or explosion					

Photos



--- End of Report ---