

IEC 62619 TEST REPORT

For

Rechargeable Li-ion Battery Module

Model: LFP5.12KWH51.2V-P20R3

Prepared for: Huizhou Epever Technology Co., Ltd.
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Report Number: NCT240525240XI8-1
Date of Test: 2025-01-21 to 2025-02-12
Date of Issue: 2025-02-13

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Reviewed By: Miya Li
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Boris Lin



The results detailed in this test report relate only to the specific sample(s) tested. This report is not to be reproduced except in full, without written approval from NCT Testing Technology.

TEST REPORT IEC 62619	
Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	
Report Number.	NCT240525240XI8-1
Date of issue	2025-02-13
Total number of pages	24 pages
Applicant's name	Huizhou Epever Technology Co., Ltd.
Address	No. 6 Laowu Road, Start-up Area of China-Korea (Huizhou) Industrial Park, Zhongkai District, Huizhou City, Guangdong Province, China.
Test specification:	
Standard	IEC 62619:2022
Test procedure	Test Report
Non-standard test method	N/A
Test item description	Rechargeable Li-ion Battery Module
Trade Mark	
Manufacturer	Same as applicant
Address	Same as applicant
Model/Type reference	LFP5.12KWH51.2V-P20R3
Ratings	48V, 100Ah, 4800Wh

Testing procedure and testing location:	
Testing Laboratory:	
Testing location/ address.....: Shenzhen NCT Testing Technology Co., Ltd. B2A101/B2A201/B2A202, Fuqiao 6th Area, Xintian, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
List of Attachments:	
Appendix 1: 3 pages of Photo Documentation	
Summary of testing:	
Tests performed (name of test and test clause): <u>Test items:</u> cl.7.1 Charging procedures for test purposes (cell and battery system); cl.7.2.1 External short-circuit test (cell); cl.7.2.2 Impact test (cell); cl.7.2.3.2 Whole drop test (cell and battery system); cl.7.2.4 Thermal abuse test (cell); cl.7.2.5 Overcharge test (cell); cl.7.2.6 Forced discharge test (cell); cl.7.3.2 Internal short-circuit test (cell) cl.8.2.2 Overcharge control of voltage (battery system) cl.8.2.3 Overcharge control of current (battery system) cl.8.2.4 Overheating control (battery system) The samples comply with the requirement of IEC 62619:2022.	Testing location: Shenzhen NCT Testing Technology Co., Ltd. B2A101/B2A201/B2A202, Fuqiao 6th Area, Xintian, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Summary of compliance with National Differences	
N/A	

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.

Rechargeable Li-ion Battery Module
Type: LFP5.12KWH51.2V-P20R3



Battery Type	Lithium-ion
Total Energy	5120Wh
Nominal Voltage	51.2Vdc
Rated Capacity	100Ah
Charging Temperature	0°C ~ 50°C
Discharging Temperature	-20°C ~ 50°C
Storage temperature	-10°C ~ 35°C
Relative humidity	20%~80%
Maximum charging current	50A
Maximum discharge current	100A
Degree of protection	IP20
Operating Condition	Indoor
Size (L*W*H)	495mm*510mm*150mm
Weight	47.8±0.5KG

CE
UN38.3

RoHS



S/N	 EP51210024N1900001
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Huizhou Epever Technology Co., Ltd.

Made In China

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DISPOSAL OF BATTERIES SHOULD FOLLOW LOCAL REGULATIONS.

Remark: Polarity is reflected on the surface of the battery.

Test item particulars	
Classification of installation and use	To be defined in final product
Supply connection	DC connector
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	2024-12-24
Date (s) of performance of tests	2025-01-21 to 2025-02-12
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.	
Name and address of factory (ies)..... : Same as applicant	

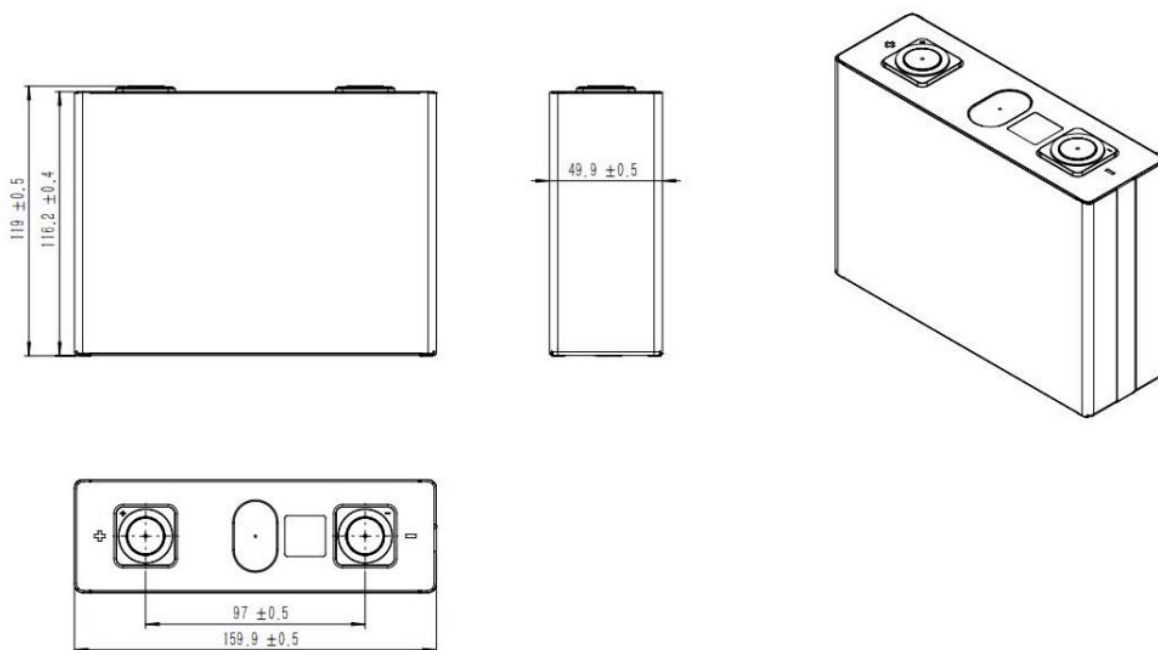
General product information:

The battery consists of sixteen lithium-ion batteries (16S1P), with overcharge, overdischarge, overcurrent, short-circuit prevention circuit.

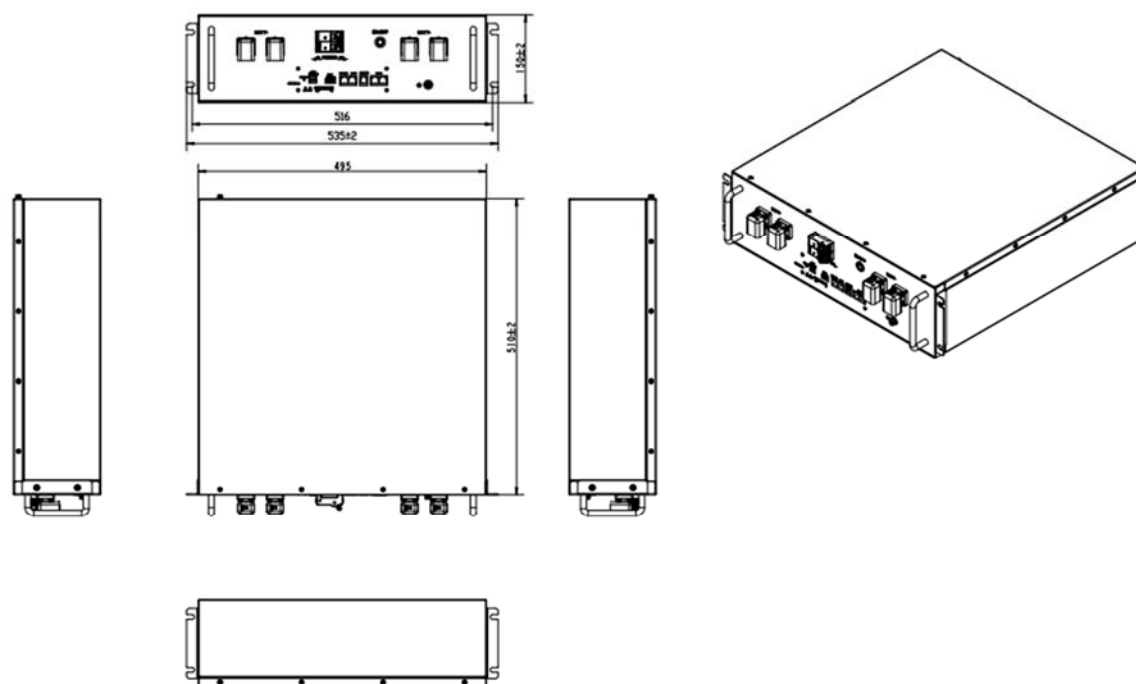
The main features of the cell and battery are shown as below

Cell and battery	Cell	Battery System
Model Name	DLP50160118	LFP5.12KWH51.2V-P20R3
Rated capacity (Ah)	100	100
Nominal voltage (V)	3.2	51.2
Standard Charge Current (A)	50	50
Standard Discharge Current (A)	50	50
Maximum continuous charge current (A)	106	50
Maximum continuous discharge current (A)	100	100
Charge temperature Range (°C)	0-55	0-50
Discharge temperature Range (°C)	-20~55	-20~50
Standard Charge Voltage (V)	3.65	57.6
Upper limit Charging Voltage (V)	3.65	57.6
End-of-discharge Voltage (V)	2.5	43.2
Weight (Kg)	1.965±0.1	48.5±0.5
Structure	☐ Cylindrical ☒ Prismatic	16 Series & 1 Parallel
Recommend charging method declared by the manufacturer	Charge the cell at constant current 50A until voltage reaches 3.65V, then charge at constant voltage 3.65V till charge current is 5A	Charge the battery at constant current 50A until voltage reaches 57.6V, then charge at constant voltage 57.6V till charge current is 5A
Further Configuration of Battery Management System		
Overcharge Voltage Protection (V)	3.65±0.2/Cell, 58.4±0.1/Pack	
Overcharge Current Protection (A)	55A	
Charge Thermal Protection (°C)	55	

Construction:

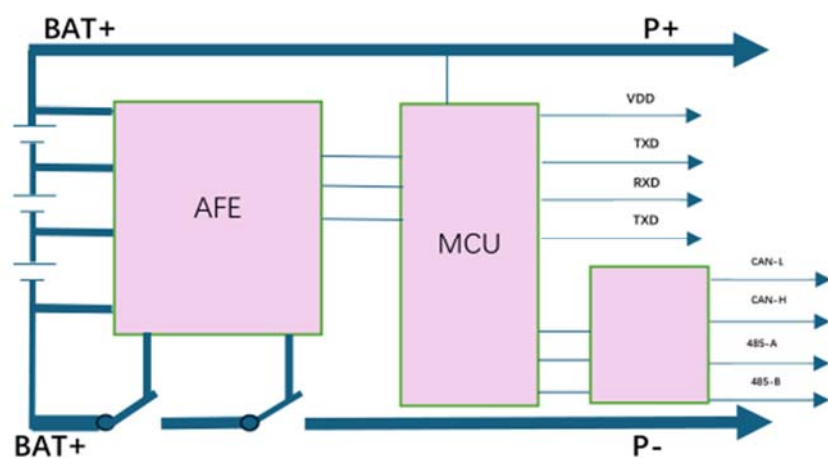


Cell (Unit: mm)



Battery (Unit: mm)

Circuit diagram:



IEC 62619: 2022			
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 are safe under conditions of both intended use and reasonably foreseeable misuse... :	Clause 6, Clause 7, 8.1, and 8.2. See also table 5.1 for Critical components information	P
	Reduce the risk of injuries from moving parts	No moving parts	N/A
5.2	Insulation and wiring		P
	Voltage, current, altitude, and humidity requirements		P
	Adequate clearances and creepage distances between connectors and live parts at different voltages or between live parts and non-current-carrying accessible parts		P
	Protect from hazardous live parts, including during installation		P
	The mechanical integrity of internal connections		P
5.3	Venting		P
	Pressure relief function		P
	Encapsulation used to support cells within an outer casing		P
5.4	Temperature/voltage/current management		P
	The design prevents abnormal temperature-rise	Overcharge, over discharge, over current and short-circuit proof circuit used in this battery. See tests of clause 7 and 8.	P
	Voltage, current, and temperature limits of the cells		P
	Specifications and charging instructions for equipment manufacturers		P
5.5	Terminal contacts of the battery pack and/or battery system		P
	Polarity marking(s)		P
	Polarity marking not provided for keyed external connector		N/A
	Capability to carry the maximum anticipated current		P
	External terminal contact surfaces		P
	Terminal contacts are arranged to minimize the risk of short circuits		P

IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict

5.6	Assembly of cells, modules, or battery packs into battery systems		P
5.6.1	General		P
	Independent control and protection method(s)		P
	Recommendations of cell operating limits, mounting advice, storage conditions and other design recommendations by the cell manufacturer		P
	Batteries designed for the selective discharge of a portion of their series connected cells		N/A
	Protective circuit component(s) and consideration to the end-device application		P
5.6.2	Battery system design		P
	The voltage control function		P
	Maximum charging/discharging current of the cell are not exceeded		P
5.7	Operating region of lithium cells and battery systems for safe use		P
	The cell operating region..... :	Listed in the specification of cell.	P
	Designation of battery system to comply with the cell operating region	Information mentioned in manufacturer's specifications.	P
5.8	System lock (or system lock function)		P
	Non-resettable function to stop battery operation		P
	Manual with procedure for resetting of battery operation		P
	Emergency battery final discharge		P
5.9	Quality plan		P
	Manufacturing quality plan (for example: ISO9001, etc.) prepared and implemented..... :	Complied. Quality plan provided.	P
	The process capabilities and the process controls		P

6	TYPE TEST CONDITIONS		P
6.1	General		P
6.2	Test items		P
	Cells or batteries that are not more than six months old (See Table 1 of IEC 62619)		P
	Capacity confirmation of the cells or batteries		P
	Default ambient temperature of test, 25 °C ± 5 °C		P

7	SPECIFIC REQUIREMENTS AND TESTS		P
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IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict
7.1	Charging procedure for test purposes		P
	The battery discharged to a specified final voltage prior to charging		P
	The cells or batteries charged using the method specified by the manufacturer..... :	The method mentioned in manufacturer's specifications.	P
7.2	Reasonably foreseeable misuse		P
7.2.1	External short-circuit test (cell or cell block)		P
	Short circuit with total resistance of 30 m $\pm$ 10 m at 25 °C $\pm$ 5 °C	Tested complied.	P
	Results: no fire, no explosion	See Table 7.2.1.	P
7.2.2	Impact test (cell or cell block)	Tested complied.	P
	Cylindrical cell, longitudinal axis impact		N/A
	Prismatic cell, longitudinal axis and lateral axis impact		P
	Results: no fire, no explosion.	No fire, no explosion	P
7.2.3	Drop test (cell or cell block, and battery system)		P
7.2.3.1	General		P
7.2.3.2	Whole drop test (cell or cell block, and battery system)		P
	Description of the Test Unit..... :	Cell	—
	Mass of the test unit (kg)..... :	Cell: 1.98	—
	Height of drop (m)..... :	Cell: 1.0	—
	Results: no fire, no explosion	No fire, no explosion.	P
7.2.3.3	Edge and corner drop test (cell or cell block, and battery system)		P
	Description of the Test Unit..... :	Battery system	—
	Mass of the test unit (kg)..... :	Battery system: 45.6	—
	Height of drop (m)..... :	Battery: 0.05	—
	Results: no fire, no explosion		P
7.2.4	Thermal abuse test (cell or cell block)	Tested complied.	P
	Results: no fire, no explosion	No fire, no explosion	P
7.2.5	Overcharge test (cell or cell block)	Tested complied.	P
	For those battery systems that are provided with only a single protection for the charging voltage control		—
	Results: no fire, no explosion..... :	See Table 7.2.5.	P
7.2.6	Forced discharge test (cell or cell block)	Tested complied.	P

IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict

	Cells connected in series in the battery system		P
	Redundant or single protection for discharge voltage control provided in battery system		P
	Target Voltage	-3.65V applied.	P
	Maximum discharge current of the cell, I_m	100A	P
	Discharge current for forced discharge, 1.0 I_t	100A	P
	Discharging time, $t = (1 I_t / I_m) \times 90$ (min.)	90min	P
	Results: no fire, no explosion	See Table 7.2.6.	P
7.3	Considerations for internal short-circuit – Design evaluation		P
7.3.1	General		P
7.3.2	Internal short-circuit test (cell)		P
	Samples preparation procedure: In accordance with Clause A.5 and A.6 of IEC 62133-2:2017		P
	Tested per 7.3.2 b) in an ambient temperature of $25^\circ\text{C} \pm 5^\circ\text{C}$.		P
	The appearance of the short-circuit location recorded by photograph or other means	(See Table 7.3.2)	—
	The pressing was stopped - When a voltage drop of 50 mV was detected; or		N/A
	- The pressing force of 800 N (cylindrical cells) or 400 N (prismatic cells) was reached	400N for prismatic cell.	P
	Results: no fire	See Table 7.3.2.	P
7.3.3	Propagation test (battery system)	cl. 7.3.2 for cell have tested.	N/A
	Method to create a thermal runaway in one cell ...		N/A
	Results: No external fire from the battery system, no battery case rupture		N/A

8	BATTERY SYSTEM SAFETY (CONSIDERING FUNCTIONAL SAFETY)		P
8.1	General requirements		N/A
	Functional safety analysis for critical controls		N/A
	Conduct of a process hazard analysis for both the cell manufacturing process and the battery system manufacturing process		N/A
	Conduct of risk assessment and mitigation of the battery system		N/A
8.2	Battery management system (or battery management unit)		P
8.2.1	Requirements for the BMS		P

IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict
	The safety integrity level (SIL) target of the BMS		P
	The charge control evaluated by tests in clauses 8.2.2 to 8.2.4		P
8.2.2	Overcharge control of voltage (battery system)		P
	The exceeded charging voltage applied to the whole battery system		P
	The exceeded charging voltage applied to only a part of the battery system, such as the cell(s)..... :		N/A
	Results: no fire, no explosion..... :	See Table 8.2.2.	P
	The BMS terminated the charging before exceeding the upper limit charging voltage	Tested complied.	P
8.2.3	Overcharge control of current (battery system)		P
	Results: no fire, no explosion..... :	See Table 8.2.3	P
	The BMS detected the overcharging current and controlled the charging to a level below the maximum charging current	Tested complied.	P
8.2.4	Overheating control (battery system)		P
	The cooling system, if provided, was disconnected		N/A
	Elevated temperature for charging, 5 °C above maximum operating temperature..... :	55°C used.	P
	Results: no fire, no explosion..... :	See Table 8.2.4.	P
	The BMS detected the overheat temperature and terminated charging	Tested complied.	P
	The battery system operated as designed during test		P
9	EMC		N/A
	Battery system fulfil EMC requirements of the end-device application..... :	Intended for to be tested in the end use application.	N/A
10	INFORMATION FOR SAFETY		P
	The cell manufacturer provides information about current, voltage and temperature limits of their products	Provided in the specification.	P
	The battery system manufacturer provides information regarding how to mitigate hazards to equipment manufacturers or end-users.	Provided in the specification.	P
11	MARKING AND DESIGNATION (REFER TO CLAUSE 5 OF IEC 62620)		P

IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict

	The marking items shown in Table 1 in IEC 62620 indicated on the cell, battery system or instruction manual.	See page 3	P
	Cell or battery system has clear and durable markings		P
	Cell designation		N/A
	Battery designation	See marking.	P
	Battery structure formulation	See marking.	P

12	PACKAGING AND TRANSPORT		P
	Refer to Annex D		P

ANNEX A	OPERATING REGION OF CELLS FOR SAFE USE		P
A.1	General		P
A.2	Charging conditions for safe use		P
A.3	Consideration on charging voltage		P
A.4	Consideration on temperature		P
A.5	High temperature range		N/A
A.6	Low temperature range		N/A
A.7	Discharging conditions for safe use		P
A.8	Example of operating region		P

ANNEX B	PROCEDURE OF 7.3.3 PROPAGATION TEST BY LASER IRRADIATION		N/A
B.1	General		N/A
B.2	Test conditions		N/A
B.2.1	Cell test (preliminary test)		N/A
	The cell fully charged according to the manufacturer recommended conditions		—
	Laser irradiation point on the cell		—
	Output power of laser irradiation		—
	Tested in an ambient temperature of 25 °C ± 5 °C		N/A
	Repeat of cell test for 3 times		N/A
B.2.2	Battery system test (main test)		N/A
	The battery system fully charged according to the manufacturer recommended conditions		—
	Target cell to be laser irradiated		—

IEC 62619: 2022			
Clause	Requirement + Test	Result - Remark	Verdict

	The irradiation point on the target cell same or similar as that on the cell test		
	Output power of laser irradiation..... :		—
	Tested in an ambient temperature of 25 °C ± 5 °C		N/A

ANNEX C	PROCEDURE OF 7.3.3 PROPAGATION TEST BY METHODS OTHER THAN LASER		N/A
C.1	General		N/A
C.2	Test conditions:		N/A
	– The battery fully charged according to the manufacturer recommended conditions..... :		—
	– Target cell forced into thermal runaway :		—
	– A specially prepared sample (e.g. a heater or a hole for nail penetration provided) used for ease of testing..... :		—
C.3	Method used for initiating the thermal runaway. 1) Heater (Heater, Burner, Laser, Inductive heating 2) Overcharge 3) Nail penetration of the cell 4) Combination of above methods 5) Other methods..... :		—

ANNEX D	PACKAGING AND TRANSPORT		N/A
	The materials and pack design chosen in a way as to prevent the development of unintentional electrical conduction, corrosion of the terminals and ingress of environmental contaminants		N/A
	Regulations concerning international transport of secondary lithium batteries		N/A

5.1	TABLE: Critical components information					N/A
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Critical components information are not displayed due to the applicant's confidentiality requirement.						
Supplementary information:						
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.						



7.2.1	TABLE: External short-circuit test (cell or cell block)					P
Sample No.	Ambient (at 25°C ± 5°C)	OCV at start of test (V dc)	Resistance of Circuit (mΩ)	Maximum Case Temperature Rise ΔT (°C)	Results	
NCT240525240 X-C1#	23.3	3.36	28.2	85.0	A, E	
NCT240525240 X-C2#	23.3	3.37	27.8	84.5	A, E	
NCT240525240 X-C3#	23.3	3.37	28.2	84.7	A, E	
Supplementary information: A - No fire or Explosion B - Fire C - Explosion D - The test was completed after 6 h E - The test was completed after the cell casing cooled to 20% of the maximum temperature rise F - Other (Please explain): ____						

7.2.5	TABLE: Overcharge test (cell or cell block)					P
Sample No.	OCV at start of test (V dc)	OCV at end of test (V dc)	Measured Maximum Charging Current (A)	Measured Maximum Charging Voltage (V dc)	Max. Cell Case Temperature, (°C)	Results
NCT24052524 0X-C13#	2.86	3.55	100	4.015	37.8	A, E
NCT24052524 0X-C14#	2.86	3.56	100	4.015	38.1	A, E
NCT24052524 0X-C15#	2.86	3.55	100	4.015	38.2	A, E
Supplementary information: Results: A - No fire or Explosion B - Fire C - Explosion D - Test concluded when temperature reached a steady state condition E - Test concluded when temperature returned to ambient F - Other (Please explain): ____						

7.2.6		TABLE: Forced discharge test (cell or cell block)				P
Sample No.	OCV before applying reverse charge, (V dc)	Target Voltage (V dc)	Measured Reverse Charge Current It, (A)	Total Time for Reversed Charge Application (min)	Results	
NCT24052524 0X-C16#	2.86	-3.65	100	90	A	
NCT24052524 0X-C17#	2.87	-3.65	100	90	A	
NCT24052524 0X-C18#	2.87	-3.65	100	90	A	
Supplementary information: Results: A - No fire or Explosion B - Fire C - Explosion D - Other (Please explain): ____						

7.3.2		TABLE: Internal short-circuit test (cell)				P
Sample No.	OCV at start of test, (V dc)	Particle location ¹⁾	Maximum applied pressure, (N)	Results		
NCT240525240 X-C19#	3.38	1	400	A, E		
NCT240525240 X-C20#	3.37	1	400	A, E		
NCT240525240 X-C21#	3.39	1	400	A, E		
NCT240525240 X-C22#	3.38	1	400	A, E		
NCT240525240 X-C23#	3.38	1	400	A, E		

Supplementary information:

¹⁾Identify one of the following:

- 1: Nickel particle inserted between positive and negative (active material) coated area.
- 2: Nickel particle inserted between positive aluminium foil and negative active material coated area.

Results:

A - No fire or explosion

B – Fire

C - Explosion

D – Test concluded when 50 mV voltage drop occurred prior to reaching force limit

E – Test concluded when 400 N pressure was reached and 50 mV voltage drop was not achieved

F – Test was concluded when fire or explosion occurred

G- Other (Please explain): __

Remark: There is no particle location 2 in this product.

7.3.3	TABLE: Propagation test (battery system)					N/A
Sample No.	OCV of Battery System Before Test, (V dc)	OCV of Target Cell Before Test, (V dc)	Maximum Cell Case Temperature, (°C)	Maximum DUT Enclosure Temperature, (°C)	Results	
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--	--	--	--	--	--	
Method of cell failure ¹⁾		Location of target cell		Area for fire protection (m ²)		
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Supplementary information:

- 1) Cell can be failed through applied heat, overcharge, nail penetration or combinations of these failures or other acceptable methods. See supporting documentation for details on cell failure method
- 2) If the battery system has no outer covering, the manufacturer is required to specify the area for fire protection.

Results:

A – No fire external to DUT enclosure or area for fire protection or no battery case rupture

B – Fire external to DUT enclosure or area for fire protection

C – Explosion

D – Battery case rupture

E- Other (Please explain): __

8.2.2	TABLE: Overcharge control of voltage (battery system)					P
Sample No.	OCV at start of test for Cell/Cell Blocks, (V dc)	Maximum Charging Current, (A)	Max. Charging Voltage, (V dc)	Max. Voltage of Cell/Cell Blocks, (V dc)	Results	
NCT240525240 X-B2#	2.85 Min	50	54.55	3.65	A, D, F	
			Charge Voltage Applied Battery System: 1)			
			Whole		Part	
			60.231		--	
Supplementary information: 1. The exceeded voltage can be applied to only a part of the system such as the cell(s) in the battery system per Figure 6 of IEC 62619, if it is difficult to do it in using the whole battery system. Results: A - No Fire or Explosion B – Fire C - Explosion D - The voltage of the measured cells or cell blocks did not exceed the upper limit charging voltage E - The voltage of the measured cells or cell blocks did exceed the upper limit charging voltage F - All function of battery system did operate as intended during the test. G - All function of battery system did not operate as intended during the test. H - Other (Please explain): _____						

8.2.3	TABLE: Overcharge control of current (battery system)				P
Sample No.	OCV at start of test, (V dc)	Max. Charging Current, (A)	Max. Charging Voltage, (V dc)	Results	
NCT240525240X – B2#	45.95	50	47.17	A, D, F	
Supplementary information: Results: A – No fire or Explosion B – Fire C – Explosion D - Overcurrent sensing function of BMU did operate and then charging stopped E - Overcurrent sensing function of BMU did not operate and then charging stopped F - All function of battery system did operate as intended during the test. G - All function of battery system did not operate as intended during the test. H - Other (Please explain): _____					

8.2.4	TABLE: Overheating control (battery system)			P
Model No.	OCV at start(SOC 50%) of test, V dc	Maximum Charging Current, A	Maximum Charging Voltage, V dc	
NCT240525240X-B2#	51.25	50	54.67	
Maximum Specified Temperature of Battery System, °C		Maximum Measured Cell Case Temperature, °C	Results	
50.0		55.3	A, D, F	
Supplementary information:				
Results:				
A – No fire or Explosion				
B – Fire				
C – Explosion				
D - Temperature sensing function of BMU did operate and then charging stopped				
E - Temperature sensing function of BMU did not operate and then charging stopped				
F - All function of battery system did operate as intended during the test.				
G - All function of battery system did not operate as intended during the test.				
H - Other (Please explain): _____				

9	TABLE: EMC				N/A
Standard used for EMC test:					
Sample No.	EMC Test Item	Battery Condition	EMC Test Level/ Parameters	Compliance Criteria	Results
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Supplementary information:

Battery Condition During EMC test

1 – In Operation Mode, [] Supplied at ____, [] Load at ____

2 – In non-operation Mode, Battery state of charge (SOC) before test at around ____

Compliance Criteria and Test Results:

A – No fire or Explosion

B – Fire

C – Explosion

D – Battery system did operate as intended during the test.

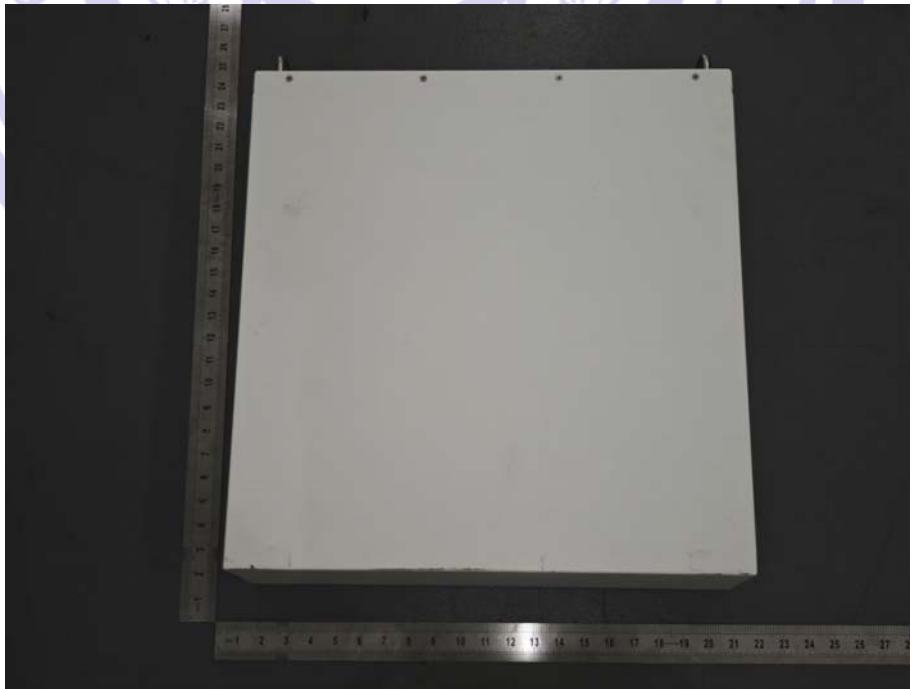
E - All function of battery system did operate as intended after the test.

F - All function of battery system did not operate as intended during the test, (Please explain): ____

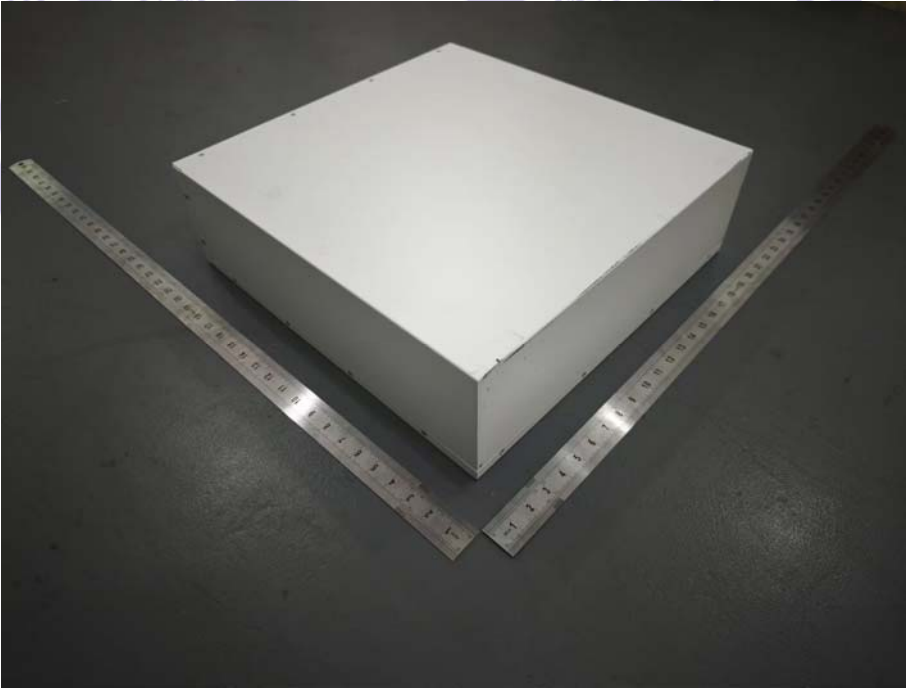
G - Other (Please explain): ____

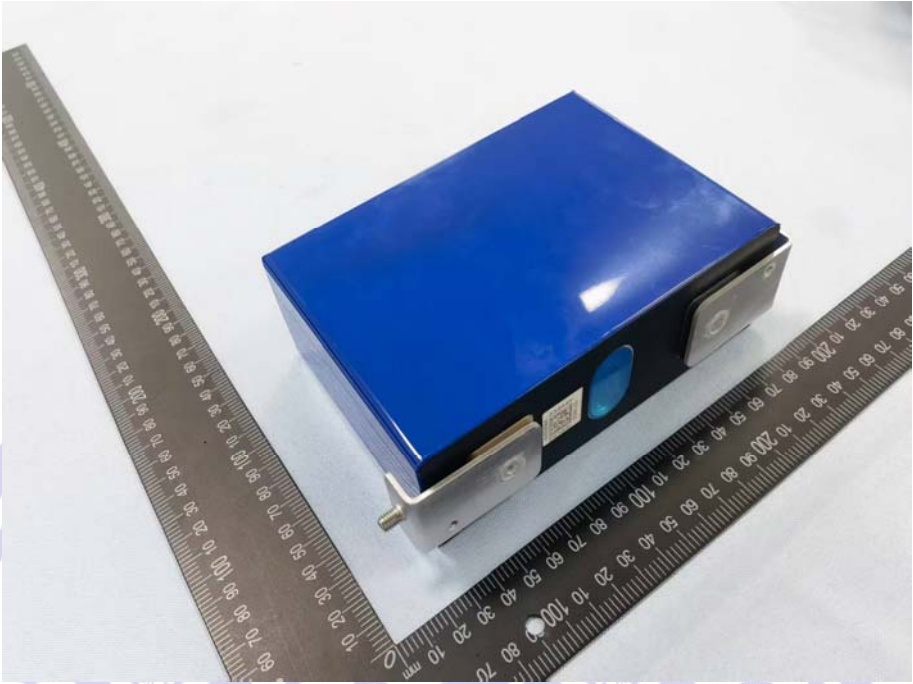


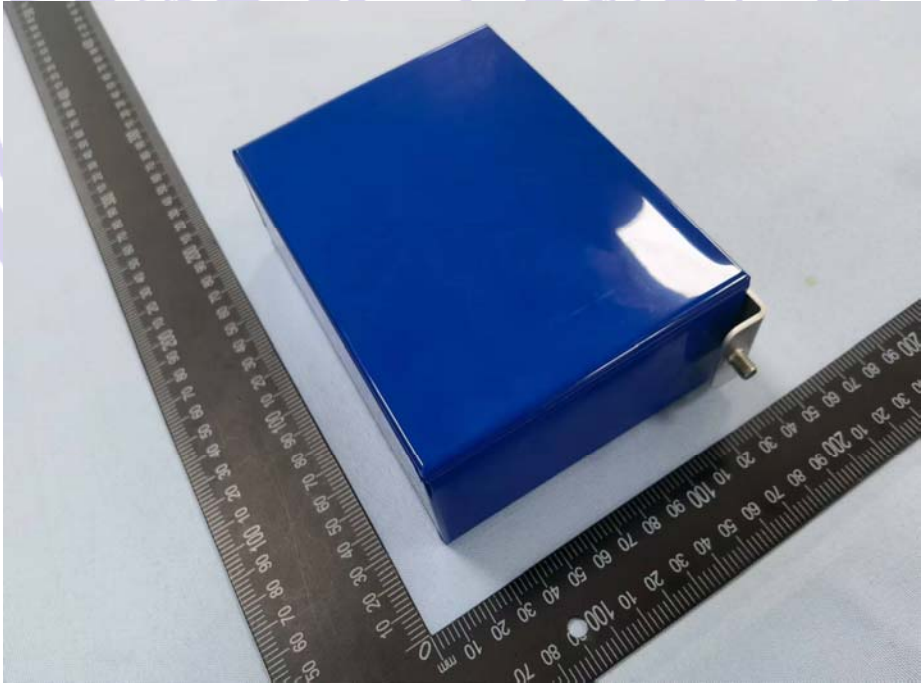
**Appendix 1:
Photo Documentation**

Details of:	Fig.1–Front view of battery
	
Details of:	Fig.2–Back view of battery
	

Details of:	Fig.3–View of battery
	

Details of:	Fig.4–View of battery
	

Details of:	Fig.5–Front view of cell
	

Details of:	Fig.6–Back view of cell
	

---End of Test Report---