TEST REPORT
UL 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number.....:	UNIA26060405SR-01
Date of issue.....:	Jul. 24, 2026
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Approved by (+ signature) .....:	Liuze

Name of Testing Laboratory preparing the Report.....:	Shenzhen United Testing Technology Co., Ltd. D101&D401, No. 107, Kaicheng High-Tech Park, Taoyuan Community, Dalang Sub-District, Longhua District, Shenzhen, Guangdong, China
Testing location:	Same as above
Applicant's name.....:	Zhanjiang Sunyung Industrial Co. ,Ltd
Address.....:	No. 6 Huagang Road, Huagang Industrial Park, Xiashan District, Zhanjiang, 524017, Guangdong, China
Test specification:	
Standard.....:	UL 62368-1:2025
Test procedure.....:	Safety report
Non-standard test method.....:	N/A
TRF template used.....:	IECEE OD-2020-F1:2023, Ed.1.6
Test Report Form No.....:	IEC62368_1F
Test Report Form(s) Originator.....:	UL Solutions (US)
Master TRF.....:	Dated 2023-08-18

Test item description.....:	Fingerprint Lock
Trademark(s).....:	N/A
Manufacturer.....:	Zhanjiang Sunyung Industrial Co. ,Ltd No. 6 Huagang Road, Huagang Industrial Park, Xiashan District, Zhanjiang, 524017, Guangdong,China
Model/Type reference.....:	F0053, F0054, F0055, F0056, F0057, F0058, F0059, F0060, F0061, F0062
Ratings.....:	INPUT: 5V⎓1A Battery: 3.7V, 250mAh

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

Summary of testing:

Tests performed (name of test, test clause and date test performed):	**Testing location:**
The items tested on the submitted samples were found to comply with the requirements of: - UL 62368-1:2025	Shenzhen United Testing Technology Co., Ltd. D101&D401, No. 107, Kaicheng High-Tech Park, Taoyuan Community, Dalang Sub-District, Longhua District, Shenzhen, Guangdong, China

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.

Fingerprint Lock
Model: F0053
INPUT: 5V ⎓ 1A

Zhanjiang Sunyung Industrial Co. ,Ltd
Made In China

Test item particulars:	
Product group.....:	☒ end product ☐ built-in component
Classification of use by.....:	☒ Ordinary person ☐ Children likely present ☐ Instructed person ☐ Skilled person
Supply connection.....:	☐ AC mains ☐ DC mains ☒ not mains connected: ☒ ES1 ☐ ES2 ☐ ES3
Supply tolerance .....:	☐ +10%/-10% ☐ +20%/-15% ☐ + %/ - % ☒ None
Supply connection – type .....:	☐ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☐ direct plug-in ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☒ other: Not direct connected to the mains
Considered current rating of protective device....:	☐ 16 A; Location: ☐ building ☐ equipment ☒ N/A
Equipment mobility.....:	☐ movable ☐ hand-held ☐ transportable ☐ direct plug-in ☒ stationary ☐ for building-in ☐ wall/ceiling-mounted ☐ SRME/rack-mounted ☐ other:
Overvoltage category (OVC) .....:	☐ OVC I ☐ OVC II ☐ OVC III ☐ OVC IV ☒ other: Not direct connected to the mains
Class of equipment .....:	☐ Class I ☐ Class II ☐ Class II with functional earthing ☒ Class III ☐ Not classified
Special installation location .....:	☒ N/A ☐ restricted access area ☐ outdoor location ☐
Pollution degree (PD) .....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified T_{ma}.....:	40 °C ☐ Outdoor: minimum °C
IP protection class .....:	☒ IPX0 ☐ IP___
Power systems .....:	☐ TN ☐ TT ☐ IT - V_{L-L} ☒ not AC mains
Altitude during operation (m) .....:	☒ 2000 m or less ☐ m
Altitude of test laboratory (m) .....:	☒ 2000 m or less ☐ m
Mass of equipment (kg) .....:	Approx. 0.18kg

Possible test case verdicts:	
- test case does not apply to the test object or not test.....:	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.....:	Jun. 05, 2026
Date (s) of performance of tests.....:	Jun. 05, 2026 to Jun. 11, 2026

General remarks:

"(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.

General product information and other remarks:

Fingerprint Lock, powered by 5V certificated power supply, housed with plastic enclosure, for indoors use only.

Model difference:

1. All models have same construction and circuit principle; But difference from the model name.
2. The differences do not influence the safety performance of the product.
3. All tests were conducted on the model F0053 and the test result was pass.

OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS				
Clause	**Possible Hazard**			
5	Electrically-caused injury			
Class and Energy Source (e.g. ES3: Primary circuit)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
ES1: Input circuit	Ordinary	N/A	N/A	N/A
6	Electrically-caused fire			
Class and Energy Source (e.g. PS2: 100 Watt circuit)	Material part (e.g. Printed board)	Safeguards		
		B	1st S	2nd S
PS2: All internal circuit	Combustible materials within equipment	Equipment safeguard (e.g., no ignition occurs)	Equipment safeguards	N/A
PS1: Internal battery	Output of battery	N/A	N/A	N/A
7	Injury caused by hazardous substances			
Class and Energy Source (e.g. Ozone)	Body Part (e.g., Skilled)	Safeguards		
		B	S	R
N/A	N/A	N/A	N/A	N/A
8	Mechanically-caused injury			
Class and Energy Source (e.g. MS3: Plastic fan blades)	Body Part (e.g. Ordinary)	Safeguards		
		B	S	R
MS1: Edges and corners	Ordinary	N/A	N/A	N/A
MS1: Equipment mass	Ordinary	N/A	N/A	N/A
MS1: Height	Ordinary	N/A	N/A	N/A
9	Thermal burn			
Class and Energy Source (e.g. TS1: Keyboard caps)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
TS1:Metal enclosure	Ordinary	N/A	N/A	N/A
10	Radiation			
Class and Energy Source (e.g. RS1: PMP sound output)	Body Part (e.g., Ordinary)	Safeguards		
		B	S	R
RS1: Indicated LED	Ordinary	N/A	N/A	N/A
Supplementary Information: "B" – Basic Safeguard; "S" – Supplementary Safeguard; "R" – Reinforced Safeguard				

ENERGY SOURCE DIAGRAM
Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems. Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings
☒ **ES** ☒ **PS** ☒ **MS** ☒ **TS** ☒ **RS**

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies	See below	P
4.1.2	Use of components	Components and subassemblies which are comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards. (See appended table 4.1.2)	P
4.1.3	Equipment design and construction		P
4.1.4	Specified ambient temperature for outdoor use (°C) ..... :		N/A
4.1.5	Constructions and components not specifically covered		N/A
4.1.8	Liquids, refrigerants and liquid filled components (LFCs)	(See Clause G.15)	N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness	See below	P
4.4.3.1	General		P
4.4.3.2	Steady force tests	(See Clause T.3, T.4, T.5)	P
4.4.3.3	Drop tests	(See Clause T.7)	N/A
4.4.3.4	Impact tests	(See Clause T.6)	P
4.4.3.5	Internal accessible safeguard tests	(See Clause T.3)	N/A
4.4.3.6	Glass impact tests	(See Clause T.9)	N/A
4.4.3.7	Glass fixation test		N/A
	Glass impact test (1J)	(See Clause T.9)	N/A
	Push/pull test (10 N)		N/A
4.4.3.8	Thermoplastic material tests		N/A
4.4.3.9	Air comprising a safeguard		P
4.4.3.10	Accessibility, glass, safeguard effectiveness		P
4.4.4	Displacement of a safeguard by an insulating liquid		N/A
4.4.5	Safety interlocks	(See Annex K)	N/A
***4.5**	**Explosion**		P
*4.5.1	General		P
*4.5.2	No explosion during normal/abnormal operating conditions	(See Clause B.2, B.3)	P
	No harm by explosion during single fault conditions	(See Clause B.4)	P
4.6	**Fixing of conductors and conductive parts**		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Fix conductors and conductive parts not to defeat a safeguard		N/A
	Compliance is checked by test.....:	(See Clause T.2)	N/A
4.7	**Equipment for direct insertion into mains socket–outlets**		N/A
4.7.2	Mains plug part complies with relevant standard.....:		N/A
4.7.3	Torque (Nm)..... :		N/A
4.8	**Equipment containing coin or button cell batteries**		N/A
4.8.1	General	No such coin/button cell batteries.	N/A
4.8.2	Instructional safeguard.....:		N/A
4.8.3	Coin or button cell battery compartment, door or cover construction		N/A
	Open torque test		N/A
4.8.4.2	Stress relief test	(See Clause T.8)	N/A
4.8.4.3	Battery replacement test		N/A
4.8.4.4	Drop test	(See Clause T.7)	N/A
4.8.4.5	Impact test	(See Clause T.6)	N/A
4.8.4.6	Crush test		N/A
4.8.5	Compliance		N/A
	30N force test with test probe		N/A
	20N force test with test hook		N/A
4.9	**Likelihood of fire or shock due to entry of conductive object**		N/A
4.10	**Component requirements**		P
4.10.1	Disconnect device		N/A
4.10.2	Switches and relays		N/A
4.10.3	Mains power supply cords		N/A
4.10.4	Batteries and their protection circuits	(See Annex M)	P

5	**ELECTRICALLY-CAUSED INJURY**		P
5.2	**Classification and limits of electrical energy sources**		P
5.2.2	ES1 and ES2 limits		P
5.2.2.2	Steady-state voltage and current limits.....:		P
5.2.2.3	Capacitance limits..... :		N/A
5.2.2.4	Single pulse limits.....:		N/A
5.2.2.5	Limits for repetitive pulses.....:		N/A
5.2.2.6	Ringing signals		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.2.7	Audio signals		N/A
5.3	**Protection against electrical energy sources**		N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		N/A
5.3.1 a)	ES2/ES3 circuits that are not ES2/ES3 mains		N/A
5.3.1 b)	Skilled persons not unintentional contact ES3 bare conductors		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
	Accessibility to outdoor equipment bare parts		N/A
5.3.2.2	Contact requirements		N/A
	Test with test probe from Annex V..... :		—
5.3.2.2 a)	Air gap – electric strength test potential (V)..... :		N/A
5.3.2.2 b)	Air gap – distance (mm) ..... :		N/A
5.3.2.3	Compliance		N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.4	**Insulation materials and requirements**		N/A
5.4.1.2	Properties of insulating material		N/A
5.4.1.3	Compliance		N/A
	Non-hygroscopic materials		N/A
5.4.1.4	Maximum operating temperature for insulating materials..... :		N/A
5.4.1.5	Pollution degrees..... :		—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling test		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage..... :		N/A
5.4.1.9	Insulating surfaces		N/A
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		N/A
*5.4.1.10.2	Vicat test..... :		N/A
5.4.1.10.3	Ball pressure test..... :		N/A
5.4.2	Clearances		N/A
5.4.2.1	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Clearances in circuits connected to AC Mains, Alternative method		N/A
5.4.2.2	Procedure 1 for determining clearance		N/A
	Temporary overvoltage .....:		—
5.4.2.3	Procedure 2 for determining clearance		N/A
5.4.2.3.2.2	AC mains transient voltages..... :		—
5.4.2.3.2.3	DC mains transient voltages ..... :		—
5.4.2.3.2.4	External circuit transient voltages.....:		—
*5.4.2.3.2.5	Transient voltage determined by measurement..... :		—
5.4.2.3.3	Exceptions of determining required withstand voltage..... :		N/A
5.4.2.3.4	Determining clearances using required withstand voltage..... :		N/A
5.4.2.4	Determining the adequacy of a clearance using an electric strength test ..... :		N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....:		—
5.4.2.6	Clearance measurement..... :		N/A
5.4.3	Creepage distances		N/A
5.4.3.1	General		N/A
5.4.3.3	Material group and CTI..... :		—
5.4.3.4	Creepage distances measurement..... :		N/A
5.4.4	Solid insulation		N/A
*5.4.4.1	General requirements		N/A
5.4.4.2	Minimum distance through insulation ..... :		N/A
5.4.4.3	Insulating compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Insulating compound forming cemented joints		N/A
5.4.4.6	Thin sheet material		N/A
5.4.4.6.1	General requirements		N/A
5.4.4.6.2	Separable thin sheet material		N/A
	Number of layers (pcs) .....:		N/A
5.4.4.6.3	Non-separable thin sheet material		N/A
	Number of layers (pcs) .....:		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material..... :		N/A
*5.4.4.6.5	Mandrel test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz, E_P, K_R, d, V_{PW} (V)..... :	(See appended table 5.4.4.9)	N/A
	Alternative by electric strength test, tested voltage (V), K_R..... :	(See appended tables 5.4.4.9 and 5.4.9)	N/A
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
5.4.5.3	Insulation resistance (MΩ)..... :		N/A
	Electric strength test..... :	(See appended table 5.4.9)	N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	No such insulation of internal wire as part of supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning		N/A
	Relative humidity (%), temperature (°C), duration (h)..... :		—
5.4.9	Electric strength test	(See appended table 5.4.9)	N/A
5.4.10	Safeguards against transient voltages from external circuits		N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
*5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test..... :	(See appended table 5.4.9)	N/A
5.4.10.3	Verification for insulation breakdown..... :		N/A
5.4.11	Separation between external circuits and earth		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Surge suppressors bridge separation between external circuit and earth		N/A
	Rated operating voltage U_{op} (V)..... :		—
	Nominal voltage U_{peak} (V)..... :		—
	Max increase due to variation ΔU_{sp} ..... :		—
	Max increase due to ageing ΔU_{sa} ..... :		—
5.4.11.3	Test method and compliance..... :	(See appended table 5.4.9)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test voltage (V) of additional test.....:		—
	Measured current (mA) of additional test.....:		N/A
5.4.12	Insulating liquid		N/A
5.4.12.1	General requirements		N/A
5.4.12.2	Electric strength of an insulating liquid.....:	(See appended table 5.4.9)	N/A
5.4.12.3	Compatibility of an insulating liquid		N/A
	Thermal classification of IEC 60085..... :		—
5.4.12.4	Container for insulating liquid		N/A
5.5	**Components as safeguards**		N/A
5.5.1	General		N/A
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Capacitor discharge after disconnection of a connector.....:	(See appended table 5.5.2.2)	N/A
5.5.3	Transformers		N/A
5.5.4	Optocouplers	(See Clause 5.4 or Clause G.12)	N/A
5.5.5	Relays	(See Clause 5.4)	N/A
5.5.6	Resistors	(See Clause G.10)	N/A
	Application type of resistors..... :		—
5.5.7	Surge suppressors	(See Clause G.8)	N/A
	GDT.....:		N/A
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable.....:		N/A
	Insulation resistance (MΩ)..... :		N/A
	Electric strength test.....:	(See appended table 5.4.9)	N/A
5.5.9	Safeguards for socket-outlets in outdoor equipment		N/A
	RCD rated residual operating current (mA).....:		—
5.6	**Protective conductor**		N/A
5.6.2	Requirements for protective conductors		N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirements for protective earthing conductors		N/A
	Protective earthing conductor size (mm^2) ..... :		—
	Protective earthing conductor serving as a reinforced safeguard		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Protective earthing conductor serving as a double safeguard		N/A
5.6.4	Requirements for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm^2).....:		—
5.6.4.2	Protective current rating (A)..... :		—
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Terminal size for connecting protective earthing conductors (mm)..... :		N/A
	Terminal size for connecting protective bonding conductors (mm).....:		N/A
	Relevant IEC standard.....:		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective bonding system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test method.....:	(See appended table 5.6.6)	N/A
5.6.6.3	Resistance (Ω) or voltage drop.....:	(See appended table 5.6.6)	N/A
5.6.7	Reliable connection of a protective earthing conductor		N/A
5.6.8	Functional earthing		N/A
	Conductor size (mm^2)..... :		N/A
	Class II with functional earthing marking ..... :		N/A
	Appliance inlet cl & cr (mm)..... :		N/A
5.7	**Prospective touch voltage, touch current and protective conductor current**		N/A
5.7.2	Measuring devices and networks		N/A
5.7.2.1	Measurement of touch current		N/A
5.7.2.2	Measurement of voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections		N/A
5.7.4	Unearthed accessible parts.....:	(See appended table 5.7.4)	N/A
5.7.5	Earthed accessible conductive parts..... :	(See appended table 5.7.5)	N/A
5.7.6	Requirements when touch current exceeds ES2 limits		N/A
	Protective conductor current (mA)..... :		N/A
	Instructional Safeguard.....:		N/A
5.7.7	Prospective touch voltage and touch current associated with external circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.7.1	Touch current from coaxial cables		N/A
5.7.7.2	Prospective touch voltage and touch current associated with paired conductor cables		N/A
5.7.8	Summation of touch currents from external circuits		N/A
	a) Equipment connected to an earthed external circuit, current (mA)..... :		N/A
	b) Equipment connected to an unearthed external circuit, current (mA)..... :		N/A
5.8	**Backfeed safeguard in battery backed up supplies**		N/A
	Mains terminal ES..... :	(See appended table 5.8)	N/A
	Air gap (mm)..... :	(See appended table 5.4.2, 5.4.3)	N/A

6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	**Classification of power sources and potential ignition sources**		P
6.2.2	Power source circuit classifications.....:	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources	(See appended table 6.2.2)	P
6.2.3.1	Arcing PIS .....:	(See appended table 6.2.3.1)	N/A
6.2.3.2	Resistive PIS .....:	(See appended table 6.2.3.2)	P
6.3	**Safeguards against fire under normal operating and abnormal operating conditions**		P
6.3.1	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials..... :	(See appended table 5.4.1.4, 9.3, B.1.5 and B.2.6)	P
	Combustible materials not inside a fire enclosure.....:		P
6.4	**Safeguards against fire under single fault conditions**		P
6.4.1	Safeguard method.....:	Method Control fire spread used (see Sub-Clause 6.4.5)	—
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	Use of control of fire spread.	N/A
6.4.3.1	Supplementary safeguards		N/A
6.4.3.2	Single fault conditions..... :	(See appended table B.4)	N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards		N/A
6.4.6	Control of fire spread in PS3 circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.7	Separation of combustible materials from a PIS		P
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier	No specific barrier provided.	N/A
6.4.8	Fire enclosures and fire barriers		P
6.4.8.2	Fire enclosure and fire barrier material properties	Min.V-1 fire enclosure used.	P
6.4.8.2.1	Requirements for a fire barrier		N/A
6.4.8.2.2	Requirements for a fire enclosure		P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings in fire enclosure.	P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top openings and properties		N/A
	Openings dimensions (mm)..... :		N/A
	Flammability tests for the top of a fire enclosure	(See Clause S.2)	N/A
6.4.8.3.4	Bottom openings and properties		N/A
	Openings dimensions (mm)..... :		N/A
	Flammability tests for the bottom of a fire enclosure	(See Clause S.3)	N/A
	Instructional Safeguard..... :		N/A
6.4.8.3.5	Side openings and properties		N/A
	Openings dimensions (mm)..... :		N/A
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)..... :		N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating..... :		P
6.4.9	Flammability of insulating liquid		N/A
	Auto ignition temperature (°C)..... :		N/A
	Flashpoint temperature (°C)..... :		N/A
6.5	**Internal and external wiring**		P
6.5.1	General requirements	See below.	P
6.5.2	Requirements for interconnection to building wiring ..... :	No such interconnection to building wiring.	N/A
6.5.3	Internal wiring size (mm^2) for socket-outlets..... :	No such interconnection to building wiring.	N/A
6.6	**Safeguards against fire due to the connection to additional equipment**		N/A

7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**	P
***7.2**	**Reduction of exposure to hazardous substances**	P

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Clause	Requirement + Test	Result - Remark	Verdict
***7.3**	**Ozone exposure**		N/A
***7.4**	**Use of personal safeguards or personal protective equipment (PPE)**		N/A
	Personal safeguards and instructions..... :		—
7.5	**Use of instructional safeguards and instructions**		N/A
	Instructional safeguard (ISO 7010)..... :		—

8	**MECHANICALLY-CAUSED INJURY**		P
8.2	**Mechanical energy source classifications**		P
8.3	**Safeguards against mechanical energy sources**		P
8.4	**Safeguards against parts with sharp edges and corners**		P
8.4.1	Requirements		N/A
	Instructional Safeguard..... :		—
8.4.2	Compliance criteria		N/A
8.5	**Safeguards against moving parts**		N/A
8.5.1	Requirements		N/A
	Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts		N/A
	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
	A manually activated stopping device for moving MS3		N/A
	Moving MS3 parts only accessible to skilled person		N/A
8.5.2	Instructional safeguard..... :		N/A
8.5.4	Special categories of equipment containing moving parts		N/A
8.5.4.1	General		N/A
8.5.4.2	Equipment containing work cells with MS3 parts		N/A
8.5.4.2.1	Protection of persons in the work cell		N/A
8.5.4.2.2	Access protection override		N/A
8.5.4.2.2.1	Override system		N/A
8.5.4.2.2.2	Visual indicator		N/A
8.5.4.2.3	Emergency stop system		N/A
	Maximum stopping distance from the point of activation (m)..... :		N/A
	Space between end point and nearest fixed mechanical part (mm)..... :		N/A
8.5.4.2.4	Endurance requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Mechanical system subjected to 100 000 cycles of operation		N/A
	- Mechanical function check and visual inspection		N/A
	- Cable assembly.....:		N/A
8.5.4.3	Equipment having electromechanical device for destruction of media		N/A
8.5.4.3.1	Equipment safeguards		N/A
8.5.4.3.2	Instructional safeguards against moving parts..... :		N/A
8.5.4.3.3	Disconnection from the supply		N/A
8.5.4.3.4	Cut type and test force (N)..... :		N/A
8.5.4.3.5	Compliance		N/A
8.5.5	High pressure lamps	No such Lamps provided	N/A
	Explosion test.....:		N/A
8.5.5.3	Glass particles dimensions (mm)..... :		N/A
8.6	**Stability of equipment**		N/A
8.6.1	Requirements		N/A
	Instructional safeguard for MS2 and MS3 television sets.....:		N/A
8.6.2	Static stability		N/A
8.6.2.2	Static stability test.....:		N/A
8.6.2.3	Downward force test		N/A
8.6.3	Relocation stability		N/A
	Wheels diameter (mm)..... :		—
	Tilt test		N/A
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test..... :		N/A
8.7	**Equipment mounted to wall, ceiling or other structure**		N/A
8.7.1	Requirements		N/A
	Mount means type.....:		N/A
8.7.2	Test methods		N/A
	Test 1, additional downwards force (N)..... :		N/A
	Horizontal force to a wall or another structure		N/A
	Test 2, number of attachment points and test force (N).....:		N/A
	Test 3, nominal diameter (mm) and applied torque (Nm)..... :		N/A
8.8	**Handles strength**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.8.1	General	No handles.	N/A
8.8.2	Handle strength test		N/A
	Number of handles.....:		—
	Weight applied (kg)..... :		—
8.9	**Wheels or casters attachment requirements**		N/A
8.9.2	Pull test	No such parts.	N/A
8.10	**Carts, stands and similar carriers**		N/A
8.10.1	General	No such parts.	N/A
8.10.2	Marking and instructions.....:		N/A
8.10.3	Cart, stand or carrier loading test		N/A
	Loading force applied (N)..... :		N/A
8.10.4	Cart, stand or carrier impact test	(See Clause T.6)	N/A
	Loading force applied (N) on each supporting surface..... :		N/A
8.10.5	Mechanical stability		N/A
	Force applied (N).....:		N/A
8.10.6	Thermoplastic temperature stability	(See Clause T.8)	N/A
8.11	**Mounting means for slide-rail mounted equipment (SRME)**		N/A
8.11.1	General	No such equipment.	N/A
8.11.2	Requirements		N/A
	Instructional Safeguard.....:		N/A
8.11.3	Mechanical strength test		N/A
8.11.3.1	Downward force test, force applied (N)..... :		N/A
8.11.3.2	Lateral push force test		N/A
8.11.3.3	Integrity of slide rail end stops		N/A
8.11.4	Compliance criteria		N/A
8.12	**Telescoping or rod antennas**		N/A
	No sharp edges or points		N/A
	Button/ball diameter (mm)..... :		N/A

9	**THERMAL BURN INJURY**		P
9.2	**Thermal energy source classifications**		P
9.3	**Touch temperature limits**		P
9.3.1	Touch temperatures of accessible parts.....:	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
9.3.2	Test method and compliance		P

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Clause	Requirement + Test	Result - Remark	Verdict
9.4	**Safeguards against thermal energy sources**		N/A
9.5	**Requirements for safeguards**		N/A
9.5.1	Equipment safeguard		N/A
9.5.2	Instructional safeguard.....:		N/A
9.6	**Requirements for wireless power transmitters**		N/A
9.6.1	General		N/A
9.6.2	Specification of the foreign objects		N/A
9.6.3	Test method and compliance criteria.....:	(See appended table 9.6)	N/A
10	**RADIATION**		P
10.2	**Radiation energy source classifications**		P
10.2.1	General classification		P
	Lasers.....:		—
	Lamps and lamp systems.....:		—
	Image projectors.....:		—
	X-Ray.....:		—
	Personal music player.....:		—
10.3	**Safeguards against laser radiation**		N/A
	The standard(s) equipment containing laser(s) comply.....:		N/A
10.4	**Safeguards against optical radiation from lamps and lamp systems (including LED types)**		N/A
10.4.1	General requirements		N/A
	Instructional safeguard provided for accessible radiation level needs to exceed		N/A
	Risk group marking and location.....:		N/A
	Information for safe operation and installation		N/A
10.4.2	Requirements for equipment safeguards		N/A
	UV radiation exposure.....:		N/A
10.4.3	Instructional safeguard.....:		N/A
10.5	**Safeguards against X-radiation**		N/A
10.5.1	Requirements		N/A
	Instructional safeguard for skilled persons.....:		N/A
10.5.3	Maximum radiation (pA/kg).....:		N/A
10.6	**Safeguards against acoustic energy sources**		N/A
10.6.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
10.6.2	Classification		N/A
	Acoustic output $L_{Aeq,T}$, dB(A)..... :		N/A
	Unweighted RMS output voltage (mV)..... :		N/A
	Digital output signal (dBFS).....:		N/A
10.6.3	Requirements for dose-based systems		N/A
10.6.3.1	General requirements		N/A
10.6.3.2	Dose-based warning and automatic decrease		N/A
10.6.3.3	Exposure-based warning and requirements		N/A
	30 s integrated exposure level (MEL30).....:		N/A
	Warning for MEL ≥ 100 dB(A).....:		N/A
10.6.4	Measurement methods		N/A
10.6.5	Protection of persons		N/A
	Instructional safeguards.....:		N/A
10.6.6	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.6.1	Corded listening devices with analogue input		N/A
	Listening device input voltage (mV).....:		N/A
10.6.6.2	Corded listening devices with digital input		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A)..... :		N/A
10.6.6.3	Cordless listening devices		N/A
	Max. acoustic output $L_{Aeq,T}$, dB(A)..... :		N/A

B	**NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS**		P
B.1	**General**		P
B.1.5	Temperature measurement conditions	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
B.1.6	Specific output conditions		P
B.2	**Normal operating conditions**		P
B.2.1	General requirements..... :		P
	Audio Amplifiers and equipment containing an audio amplifiers..... :		N/A
B.2.3	Supply voltage and tolerances		P
B.2.5	Input test.....:	(See appended table B.2.5)	P
B.2.6.4	Equipment intended for building-in or rack-mounting	Not such equipment.	N/A
B.3	**Simulated abnormal operating conditions**		P

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.1	General		P
B.3.2	Covering of ventilation openings	No openings.	N/A
	Instructional safeguard.....:		N/A
B.3.3	DC mains polarity test		N/A
B.3.4	Setting of voltage selector	No voltage selector	N/A
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity		N/A
B.3.7	Audio amplifier abnormal operating conditions	(See Clause E.3.2)	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions..... :	(See appended table B.3, B.4)	P
B.4	**Simulated single fault conditions**		P
B.4.1	General		P
B.4.2	Temperature controlling device	No such devices.	N/A
B.4.3	Blocked motor test		N/A
B.4.4	Functional insulation		P
B.4.4.1	Short circuit of clearances for functional insulation		P
B.4.4.2	Short circuit of creepage distances for functional insulation		P
B.4.4.3	Short circuit of functional insulation on coated printed boards		N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors		N/A
B.4.6	Short circuit or disconnection of passive components		N/A
B.4.7	Continuous operation of components		N/A
B.4.8	Compliance criteria during and after single fault conditions..... :	(See appended table B.3, B.4)	P
B.4.9	Battery charging and discharging under single fault conditions	(See Annex M)	P
C	**UV RADIATION**		N/A
C.1	**Protection of materials in equipment from UV radiation**		N/A
C.1.2	Requirements		N/A
C.1.3	Test method and compliance criteria		N/A
C.2	**UV light conditioning test**		N/A
C.2.1	Test apparatus..... :		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure test		N/A
C.2.4	Xenon-arc light-exposure test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
D	**TEST GENERATORS**		N/A
D.1	**Impulse test generators**		N/A
D.2	**Antenna interface test generator**		N/A
D.3	**Electronic pulse generator**		N/A
E	**TEST CONDITIONS FOR EQUIPMENT INTENDED TO AMPLIFY AUDIO SIGNALS**		N/A
E.1	**Electrical energy source classification for audio signals**		N/A
	Maximum non-clipped output power (W)..... :		—
	Rated load impedance (Ω) ..... :		—
	Open-circuit output voltage (V)..... :		—
	Instructional safeguard..... :		—
E.2	**Audio signals used during test**		N/A
E.2.1	Pink noise test signal		N/A
E.2.2	Sine-wave signal		N/A
E.3	**Operating conditions of equipment containing an audio amplifier**		N/A
E.3.1	Normal operating conditions		N/A
E.3.2	Abnormal operating conditions		N/A
E.3.3	Audio equipment temperature measurement conditions..... :		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	**General**		P
	Language ..... :		—
F.2	**Letter symbols and graphical symbols**		P
F.2.1	Letter symbols according to IEC 60027-1	Letter symbols are used according to IEC 60027-1	P
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	Graphic symbols are used according to IEC 60417-1 or ISO 3864-2 or ISO 7000	P
F.3	**Equipment markings**		P
F.3.1	Equipment marking locations	Markings are on the exterior of equipment.	P
F.3.2	Equipment identification markings	See below	P
F.3.2.1	Manufacturer identification ..... :	See copy of marking plate for detail.	—
F.3.2.2	Model identification ..... :	See copy of marking plate for detail.	—

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.3	Equipment rating markings	See below.	P
F.3.3.1	Equipment with direct connection to mains		N/A
F.3.3.2	Equipment without direct connection to mains		P
F.3.3.3	Nature of the supply voltage..... :	⎓	—
F.3.3.4	Rated voltage..... :	See copy of marking plate for detail.	—
F.3.3.5	Rated frequency.....:		—
F.3.3.6	Rated current or rated power.....:	See copy of marking plate for detail.	—
F.3.3.7	Equipment with multiple supply connections	No such equipment.	N/A
F.3.4	Voltage setting device	No voltage setting device.	N/A
F.3.5	Markings on terminals and operating devices	No such device.	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings :		N/A
F.3.5.2	Switch position identification marking.....:	No switch.	—
F.3.5.3	Replacement fuse identification and rating markings.....:		—
	Instructional safeguards for neutral fuse.....:		—
F.3.5.4	Replacement battery identification marking..... :		—
F.3.5.5	Neutral conductor terminal		N/A
F.3.5.6	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification		N/A
F.3.6.1	Class I equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal.....:		—
F.3.6.1.2	Protective bonding conductor terminals .....:		—
F.3.6.2	Equipment class marking..... :		—
F.3.6.3	Functional earthing terminal marking..... :		—
F.3.7	Equipment IP rating marking.....:	IPX0 declared.	—
F.3.8	External power supply unit output marking.....:		—
F.3.9	Durability, legibility and permanence of markings	All markings required are easily discernible under normal lighting conditions.	P
F.3.10	Test for permanence of markings	After rubbing test by water and petroleum spirit, the marking still legible; it is not easily possible to remove the marking plate and show no curling.	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.4	**Instructions**		P
	– Information prior to installation and initial use		N/A
	– Equipment for use in locations where children not likely to be present		N/A
	– Instructions for installation and interconnection		N/A
	– Equipment intended for use only in restricted access area		N/A
	– Equipment intended to be fastened in place		N/A
	– Instructions for audio equipment terminals		N/A
	– Protective earthing used as a safeguard		N/A
	– Protective conductor current exceeding ES2 limits		N/A
	– Graphic symbols used on equipment		P
	– Permanently connected equipment not provided with all-pole mains switch		N/A
	– Replaceable components or modules providing safeguard function		N/A
	– Equipment containing insulating liquid		N/A
	– Installation instructions for outdoor equipment		N/A
F.5	Instructional safeguards		N/A
G	**COMPONENTS**		P
G.1	**Switches**		N/A
G.1.1	General	No switch.	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.1.3	Test method and compliance criteria		N/A
G.2	**Relays**		N/A
G.2.1	Requirements and compliance criteria	No relays.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supplying power to other equipment		N/A
G.2.4	Test method and compliance criteria		N/A
G.3	**Protective devices**		N/A
G.3.1	Thermal cut-offs		N/A
	Thermal cut-outs separately approved according to IEC 60730-1 with conditions indicated in a) & b)		N/A
	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Test method and compliance criteria		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.3.2	Thermal links		N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics	No such devices within the equipment.	N/A
	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance criteria		N/A
G.3.3	PTC thermistors		N/A
G.3.4	Overcurrent protection devices		N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions..... :		N/A
G.4	**Connectors**		N/A
G.4.1	Spacings		N/A
G.4.2	Mains connectors configuration.....:		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
G.5	**Wound components**		N/A
G.5.1	Wire insulation in wound components		N/A
G.5.1.2	Protection against mechanical stress		N/A
G.5.2	Endurance test		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Test time (days per cycle)..... :		—
	Test temperature (°C)..... :		—
G.5.2.3	Wound components supplied from the mains		N/A
G.5.2.4	Compliance criteria		N/A
G.5.3	Transformers		N/A
G.5.3.1	General		N/A
	Compliance method.....:		N/A
G.5.3.2	Insulation		N/A
	Protection from displacement of windings..... :		—
G.5.3.3	Transformer overload tests		N/A
G.5.3.3.1	Test conditions		N/A
	Position.....:		N/A
	Method of protection.....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.3.2	Winding temperatures		N/A
G.5.3.3.3	Winding temperatures - alternative test method		N/A
G.5.3.4	Transformers using FIW		N/A
G.5.3.4.1	General		N/A
	FIW wire nominal diameter.....:		—
G.5.3.4.2	Transformers with basic insulation only		N/A
G.5.3.4.3	Transformers with double insulation or reinforced insulation.....:		N/A
G.5.3.4.4	Transformers with FIW wound on metal or ferrite core		N/A
G.5.3.4.5	Thermal cycling test and compliance		N/A
G.5.3.4.6	Partial discharge test		N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements		N/A
G.5.4.2	Motor overload test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) .....:		—
	Electric strength test.....:		N/A
G.5.4.5	Running overload test for DC motors		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test.....:		N/A
G.5.4.5.3	Alternative method		N/A
	Electric strength test.....:		N/A
G.5.4.6	Locked-rotor overload test for DC motors		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature (°C).....:		N/A
	Electric strength test.....:		N/A
G.5.4.6.3	Alternative method		N/A
	Electric strength test.....:		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage (V).....:		—
G.6	**Wire Insulation**		P
G.6.1	General		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.6.2	Enamelled winding wire insulation		N/A
G.7	**Mains power supply cords and interconnection cables**		N/A
G.7.1	General requirements		N/A
	Type..... :		—
G.7.2	Cross sectional area (mm^2 or AWG)..... :		N/A
G.7.3	Cord anchorages and strain relief		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N).....:		N/A
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm).....:		N/A
G.7.3.2.4	Strain relief and cord anchorage material		N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Test method and compliance criteria		N/A
	Overall diameter or minor overall dimension, *D* (mm).....:		—
	Radius of curvature after test (mm)..... :		—
G.7.6	Supply wiring space		N/A
G.7.6.1	General requirements		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Requirements		N/A
G.7.6.2.2	Test with 8 mm strand		N/A
G.8	**Varistors**		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguards against fire		N/A
G.8.2.1	General		N/A
G.8.2.2	Varistor overload test		N/A
G.8.2.3	Temporary overvoltage test		N/A
G.9	**Integrated circuit (IC) current limiters**		N/A
G.9.1	Requirements		N/A
	IC limiter output current (max. 5A)..... :		—
	Manufacturers' defined drift ..... :		—
G.9.2	Test Program		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.9.3	Compliance criteria		N/A
G.10	**Resistors**		N/A
G.10.1	General	No such resistors.	N/A
G.10.2	Conditioning		N/A
G.10.3	Resistor test		N/A
	Changes of resistance (%).....:		N/A
	Measured current with the lowest resistance value :		N/A
G.10.4	Voltage surge test		N/A
	Changes of resistance (%).....:		N/A
G.10.5	Impulse test		N/A
	Changes of resistance (%).....:		N/A
G.10.6	Overload test		N/A
	Changes of resistance (%).....:		N/A
G.11	**Capacitors and RC units**		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	**Optocouplers**		N/A
	Optocouplers comply with IEC 60747-5-5 with specifics		N/A
	Type test voltage $V_{ini,a}$.....:		—
	Routine test voltage, $V_{ini,b}$.....:		—
G.13	**Printed boards**		P
G.13.1	General requirements		P
G.13.2	Uncoated printed boards		P
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation.....:		N/A
	Number of insulation layers (pcs) .....:		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2	Test method and compliance criteria		N/A
G.14	**Coating on components terminals**		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.14.1	Requirements ..... :	(See Clause G.13)	N/A
G.15	**Pressurized liquid filled components or LFC assemblies**		N/A
G.15.1	Requirements		N/A
G.15.2	Test methods and compliance criteria for self-contained LFC		N/A
G.15.2.1	Hydrostatic pressure test, applied test pressure..... :		N/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test, the change of tensile strength (%)..... :		N/A
G.15.2.4	Vibration test		N/A
G.15.2.5	Thermal cycling test, test temperature (°C)..... :		N/A
G.15.2.6	Force test		N/A
G.15.2.7	Compliance criteria		N/A
G.15.3	Test methods and compliance for a modular LFC		N/A
G.15.3.2	Hydrostatic pressure test, applied test pressure..... :		N/A
G.15.3.3	Creep resistance test		N/A
G.15.3.4	Tubing and fittings compatibility test, the change of tensile strength (%)..... :		N/A
G.15.3.5	Thermal cycle test, test temperature (°C)..... :		N/A
G.15.3.6	Force test		N/A
G.15.3.7	Compliance criteria		N/A
G.16	**IC including capacitor discharge function (ICX)**		N/A
G.16.1	Condition for fault tested is not required		N/A
	ICX with associated circuitry tested in equipment		N/A
	ICX tested separately		N/A
G.16.2	Tests		N/A
	Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test..... :		—
	Mains voltage that impulses to be superimposed on..... :		—
	Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test..... :		—
G.16.3	Capacitor discharge test..... :	(See appended table 5.5.2.2)	N/A
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	**General**		N/A
H.2	**Method A**		N/A
H.3	**Method B**		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) ..... :		—
H.3.1.2	Voltage (V) ..... :		—
H.3.1.3	Cadence; time (s) and voltage (V) ..... :		—
H.3.1.4	Single fault condition current (mA):..... :		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)..... :		N/A
J	**INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION**		N/A
J.1	**General**		N/A
	Winding wire insulation..... :		—
	Solid round winding wire, diameter (mm)..... :		N/A
	Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm^2)..... :		N/A
J.2/J.3	Tests and Manufacturing		—
K	**SAFETY INTERLOCKS**		N/A
K.1	**General requirements**		N/A
	Instructional safeguard..... :		N/A
K.2	**Components of safety interlock safeguard mechanism**		N/A
K.3	**Inadvertent change of operating mode**		N/A
K.4	**Interlock safeguard override**		N/A
K.5	**Fail-safe**		N/A
K.5.1	Under single fault condition		N/A
K.6	**Mechanically operated safety interlocks**		N/A
K.6.1	Endurance requirement		N/A
K.7	**Interlock circuit isolation**		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements		N/A
	In circuit connected to mains, separation distance for contact gaps (mm)..... :		N/A
	In circuit isolated from mains, separation distance for contact gaps (mm)..... :		N/A
	Electric strength test before and after the test of K.7.2..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
K.7.2	Overload test, Current (A)..... :		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A
L	**DISCONNECT DEVICES**		N/A
L.1	**General requirements**		N/A
L.2	**Permanently connected equipment**		N/A
	Instructions for permanently connected equipment		N/A
L.3	**Parts that remain energized**		N/A
L.4	**Single-phase equipment**		N/A
	Instructions for single pole disconnect device		N/A
L.5	**Three-phase equipment**		N/A
L.6	**Switches as disconnect devices**		N/A
L.7	**Plugs as disconnect devices**		N/A
	Instructions for pluggable equipment		—
L.8	**Multiple power sources**		N/A
	Instructional safeguard.....:		N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		P
M.1	**General requirements**		P
M.2	**Safety of batteries and their cells**		P
M.2.1	Batteries and their cells comply with relevant IEC standards.....:	(See appended table 4.1.2)	P
M.3	**Protection circuits for batteries provided within the equipment**		P
M.3.1	Requirements		P
M.3.2	Test method		P
	Overcharging of a rechargeable battery	(See table M)	P
	Excessive discharging		P
	Unintentional charging of a non-rechargeable battery		N/A
	Reverse charging of a rechargeable battery		N/A
M.3.3	Compliance criteria		P
M.4	**Additional safeguards for equipment containing a secondary lithium battery**		P
M.4.1	General		P
	IEC 62133-2 batteries used for sub-system power powering application.....:		P
M.4.2	Charging safeguards		P
M.4.2.1	Requirements		P

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.4.2.2	Test		P
M.4.2.2.1	General		P
M.4.2.2.2	Abnormal operating conditions		P
M.4.2.2.3	Single fault conditions		P
M.4.2.3	Compliance criteria.....:		P
M.4.3	Fire enclosure.....:		P
M.4.4	Drop test of equipment containing a secondary lithium battery		P
M.4.4.2	Preparation and procedure for the drop test		P
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): .....:	0.04V, 0.92%	P
M.4.4.4	Check of the charge/discharge function		P
M.4.4.5	Charge / discharge cycle test		P
M.4.4.6	Compliance criteria		P
M.5	**Risk of burn due to short-circuit during carrying**		P
M.5.1	Requirement		P
M.5.2	Test method and compliance criteria		P
M.6	**Safeguards against short-circuits**		P
M.6.1	External and internal faults		P
M.6.2	Compliance criteria		P
M.7	**Risk of explosion from lead acid and NiCd batteries**		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
	Calculated hydrogen generation rate..... :		N/A
M.7.2	Test method and compliance criteria		N/A
	Minimum air flow rate, *Q* (m^3/h).....:		N/A
M.7.3	Ventilation tests		N/A
M.7.3.1	General		N/A
M.7.3.2	Ventilation test – alternative 1		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.3.3	Ventilation test – alternative 2		N/A
	Obtained hydrogen generation rate.....:		N/A
M.7.3.4	Ventilation test – alternative 3		N/A
	Hydrogen gas concentration (%).....:		N/A
M.7.4	Marking.....:		N/A
M.8	**Protection against internal ignition from external spark sources of rechargeable batteries with aqueous electrolyte**		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.8.1	General		N/A
M.8.2	Test method		N/A
M.8.2.1	General		N/A
M.8.2.2	Estimation of hypothetical volume V_Z (m^3/s)..... :		—
M.8.2.3	Correction factors.....:		—
M.8.2.4	Calculation of distance *d* (mm) .....:		—
M.9	**Preventing electrolyte spillage**		P
M.9.1	Protection from electrolyte spillage		P
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	**Instructions to prevent reasonably foreseeable misuse**		P
	Instructional safeguard.....:		N/A
N	**ELECTROCHEMICAL POTENTIALS**		N/A
	Material(s) used..... :		—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		N/A
	Value of *X* (mm)..... :		—
P	**SAFEGUARDS AGAINST CONDUCTIVE OBJECTS**		N/A
P.1	**General**		N/A
P.2	**Safeguards against entry or consequences of entry of a foreign object**		N/A
P.2.1	General		N/A
	Location and Dimensions (mm) .....:		—
P.2.2	Safeguard requirements		N/A
	The ES3 and PS3 keep-out volume in Figure P.4 not applicable to transportable equipment		N/A
	Transportable equipment with metalized plastic parts..... :		N/A
P.2.3	Consequence of entry test..... :		N/A
P.3	**Safeguards against spillage of internal liquids**		N/A
P.3.1	General		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Compliance criteria		N/A
P.4	**Metallized coatings and adhesives securing parts**		N/A
P.4.1	General		N/A
P.4.2	Tests		N/A
	Conditioning, T_C (°C)..... :		—

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Duration (weeks)..... :		—
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		N/A
Q.1	**Limited power sources**		N/A
Q.1.1	Requirements		N/A
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output		N/A
	d) Overcurrent protective device limited output		N/A
	e) IC current limiter complying with G.9		N/A
Q.1.2	Test method and compliance criteria..... :		N/A
	Current rating of overcurrent protective device (A) :		N/A
Q.2	**Test for external circuits – paired conductor cable**		N/A
	Maximum output current (A) ..... :		N/A
	Current limiting method..... :		—
R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	**General**		N/A
R.2	**Test setup**		N/A
	Overcurrent protective device for test..... :		—
R.3	**Test method**		N/A
	Cord/cable used for test..... :		—
R.4	**Compliance criteria**		N/A
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
S.1	**Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W**		N/A
	Samples, material..... :		—
	Wall thickness (mm)..... :		—
	Conditioning (°C)..... :		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	**Flammability test for fire enclosure and fire barrier integrity**		N/A
	Samples, material..... :		—
	Wall thickness (mm)..... :		—

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Conditioning (°C)....:		—
	- Material did not show any additional holes for combustible materials		N/A
	- Cheesecloth did not ignite for top openings		N/A
S.3	**Flammability test for the bottom of a fire enclosure**		N/A
S.3.1	Mounting of samples		N/A
S.3.2	Test method and compliance criteria		N/A
	Mounting of samples ....:		—
	Wall thickness (mm)....:		—
	Cheesecloth did not ignite		N/A
S.4	**Flammability classification of materials**		N/A
S.5	**Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W**		N/A
	Samples, material....:		—
	Wall thickness (mm)....:		—
	Conditioning (°C)....:		—
S.6	**Grille covering material, cloth, and reticulated foam**		N/A
	Samples, material....:		—
	Measured distance from the centre of the fuel tablet (mm)....:		N/A
T	**MECHANICAL STRENGTH TESTS**		P
T.1	**General**		P
T.2	**Steady force test, 10 N ....:**	(See appended table T.2, T.3, T.4, T.5)	N/A
T.3	**Steady force test, 30 N ....:**	(See appended table T.2, T.3, T.4, T.5)	N/A
T.4	**Steady force test, 100 N ....:**	(See appended table T.2, T.3, T.4, T.5)	N/A
T.5	**Steady force test, 250 N ....:**	(See appended table T.2, T.3, T.4, T.5)	P
T.6	**Enclosure impact test**	(See appended table T.6, T.9)	P
	Fall test		P
	Swing test		N/A
T.7	**Drop test ....:**	(See appended table T.7)	N/A
T.8	**Stress relief test....:**	(See appended table T.8)	N/A
T.9	**Glass Impact Test....:**	(See appended table T.6, T.9)	N/A
T.10	**Glass fragmentation test**		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Number of particles counted..... :		N/A
T.11	**Test for telescoping or rod antennas**		N/A
	Torque value (Nm) ..... :		N/A
U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION**		N/A
U.1	**General**		N/A
	Instructional safeguard.....:		N/A
U.2	**Test method and compliance for non-intrinsically protected CRTs**		N/A
U.3	**Protective screen**		N/A
V	**DETERMINATION OF ACCESSIBLE PARTS**		N/A
V.1	**Accessible parts of equipment**		N/A
V.1.1	General		N/A
V.1.2	Surfaces and openings tested with jointed test probes		N/A
V.1.3	Openings tested with straight unjointed test probes		N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe		N/A
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		N/A
V.2	**Accessible part criterion**		N/A
X	**ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS)**		N/A
	Clearance..... :		N/A
Y	**CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES**		N/A
Y.1	**General**		N/A
Y.2	**Resistance to UV radiation**		N/A
Y.3	**Resistance to corrosion**		N/A
Y.3.1	Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by..... :		N/A
Y.3.2	Test apparatus		N/A
Y.3.3	Water – saturated sulphur dioxide atmosphere		N/A
Y.3.4	Test procedure.....:		N/A
Y.3.5	Compliance criteria		N/A
Y.4	**Gaskets**		N/A
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Y.4.3	Tensile strength and elongation tests, changes of tensile strength and elongation.....:		N/A
	Alternative test methods.....:		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance, change of swell / shrink (%)..... :		N/A
Y.4.6	Securing means		N/A
Y.5	**Protection of equipment within an outdoor enclosure**		N/A
Y.5.1	General		N/A
Y.5.2	Protection from moisture		N/A
	Relevant tests of IEC 60529 or Y.5.3..... :		N/A
Y.5.3	Water spray test		N/A
Y.5.4	Protection from plants and vermin		N/A
Y.5.5	Protection from excessive dust		N/A
Y.5.5.1	General		N/A
	Relevant tests of IEC 60529 or Y.5.5.2 or Y.5.5.3.. :		N/A
Y.5.5.2	IP5X equipment		N/A
Y.5.5.3	IP6X equipment		N/A
Y.6	**Mechanical strength of enclosures**		N/A
Y.6.1	General		N/A
Y.6.2	Impact test.....:		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT to TRF IEC62368_1F

ATTACHMENT TO TEST REPORT
IEC 62368-1:2023
CANADA and US NATIONAL DIFFERENCES
(Audio/Video, information and communication technology equipment – Part 1:Safety requirements)

Differences according to.....:	UL 62368-1:2025 issued July 31, 2025
TRF template used:.....:	IECEE OD-2020-F3:2024, Ed. 1.3
Attachment Form No.....:	CA_US_ND_IEC62368_1F
Attachment Originator.....:	UL Solutions (US)
Master Attachment.....:	Dated 2025-08-25

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	National Differences		
1 (1DV.1) (1.3)	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CE Code), Part 1, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.		N/A
1 (1DV.2.1)	This standard includes additional requirements for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities. See Annex DVB.		N/A
1 (1DV.2.2)	This standard includes additional requirements for equipment intended for mounting under cabinets. See Annex DVC.		N/A
1 (1DV.2.3)	IEC 62368-3 clause 5 for DC power transfer at ES1 or ES2 voltage levels is considered informative. IEC 62368-3 clause 6 for remote power feeding telecommunication (RFT) circuits is considered normative (see ITU K.50). Alternatively, equipment with RFT circuits are given in either UL 2391 or CSA C22.2 No. 60950-21/UL 60950-21. RFT-C circuits are not permitted unless the RFT-C circuit complies with RFT-V limits (≤ 200V per conductor to earth).		N/A
1(1DV2.4)	This standard does not cover Modular Data Centers (MDCs), only the information and communication technology equipment contained within.		N/A
1 (1DV.2.5)	For industrial Additive Manufacturing Equipment (industrial 3D printers), refer to UL 2011, CSA C22.2 No. 301.		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
1 (1DV.3)	For protection against direct lightning strikes, reference is made to NFPA 780 and CAN/CSA-B72 for additional requirements.		N/A
1 (1DV.4)	For Battery Backup Systems in separate cabinets, refer to ANSI/CAN/UL 1973.		N/A
	For Stationary Standby Batteries covered in Article 480 of the NEC, refer to UL 1989.		N/A
	For Energy Storage Systems (ESS) covered in Article 706 of the NEC, refer to ANSI/CAN/UL 9540.		N/A
1 (DV.5)	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.		N/A
1 (1DV.6)	Fault-Managed (Class 4) Power Systems covered in Article 726 of the NEC are required to comply with UL 1400-1.		N/A
4.1 (4.1.8)	For equipment using refrigerants, refer to CSA C22.2 No. 60335-2-40/UL 60335-2-40, CSA C22.2 No. 61010-2-011, and UL 61010-2-011.		N/A
4.1 (4.1.17)	For lengths exceeding 3.05 m, external interconnecting cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.		N/A
4.6 (4.6.2)	Wire-wrap terminals have special construction and performance requirements.		N/A
4.8 (4.8.1, 4.8.5)	Equipment likely to be accessible to children with coin or button cell batteries is required to comply with UL 4200A. This requirement applies whether the coin or button cell battery is replaceable or non-replaceable. This requirement does not apply to professional equipment. Note: additional UL 4200A TRF attachment is appended to end of this ND TRF.		N/A
5.4.2.3.2 (5.4.2.3.2.1)	Surge Arrestors and Transient Voltage Surge Suppressors installed external to the equipment are required to comply with the appropriate NEC and CE Code requirements.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.9	Receptacles rated 125-V, single phase, 15- or 20-A accessible to either ordinary, instructed, or skilled persons are required to be provided with GFCI Protection for Personnel if the equipment containing the receptacles is installed outdoors. The protection devices are required to comply with UL 943, and CAN/CSA C22.2 No.144.		N/A
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.7, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment.		N/A
5.7.8 (5.7.8.1, 5.7.9.1)	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
6.5.1	PS3 wiring outside a fire enclosure is required to comply with single fault testing in B.4, or be current limited per one of the permitted methods.		N/A
Annex F (F.3.3.9)	Output terminals provided for supply of other equipment, except mains supply, are required to be marked with a maximum rating or reference to equipment permitted to be connected.		N/A
Annex F (F.3.7)	Outdoor Enclosures are required to be classified and marked in accordance with UL 50 or 50E, or CAN/CSA C22.2 No. 94.1 or 94.2.		N/A
Annex G (G.7)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC and associated requirements of the CE Code.		N/A
	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
	Power supply cords for outdoor equipment are required to be suitable outdoor use type as required by Article 400.4 of the NEC and Rule 4-012 of the CE Code, i.e., marked “W.”		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A

UL 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
Annex Q (Q.3)	Equipment with paired conductor and/or coax communications cables/wiring connected to building wiring are required to have special voltage, current, power and marking requirements.		N/A
Annex DVA (1)	Equipment that is designed such that it may be powered from a separate electrical service, is required to meet applicable requirements for service equipment for control and protection of services and their installation and complies with Article 230 of the National Electrical Code (NEC), NFPA 70 and Section 6 of the Canadian Electrical Code, Part I, CSA C22.1.		N/A
	Equipment intended for use in spaces used for environmental air (plenums) are subjected to special flammability requirements for heat and visible smoke release.		N/A
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. and Canadian Regulations.		N/A
	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
	Storage batteries and battery management equipment, other than associated with lead-acid batteries, and including battery backup systems that are not an integral part of stationary AV and ICT equipment, such as provided in separate cabinets, are required to be certified (listed) to the appropriate standard(s) for such storage batteries and equipment.		N/A
	Non-Industrial Additive Manufacturing Equipment (non-Industrial 3D Printers) have special limitations in accordance with NFPA 1 and the International Code Council (ICC) International Fire Code (IFC).		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Network Connected Life Safety Equipment AV/ICT equipment used in life safety applications shall incorporate cybersecurity safeguards establishing its ability to withstand unauthorized updates and malicious attacks while continuing to perform its intended safety functionality.		N/A
Annex DVA (4.8)	See 4.8.		N/A
Annex DVA (5.6)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.		N/A
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.		N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a minimum flammability classification of V-1.		N/A
Annex DVA (10.3)	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (10.5)	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (F.3.3.4)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or that are lower than the “Normal Operating Condition” in Table 2 of CAN/CSA C22.2 No. 235.”		N/A
Annex DVA (F.3.3.6)	Equipment identified for ITE (computer) room installation is required to be marked with the rated current.		N/A
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position, where mounted in an enclosure, vertically mounted disconnect switches and circuit breakers with vertical operating means extending outside the enclosure are required to indicate in a location visible when accessing the external operating means whether the switch or circuit breaker is in the open (off) or closed (on) position.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Annex DVA (G.3.4)	Suitable NEC/CE Code branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
	Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable.		N/A
Annex DVA (G.4.2)	Equipment with isolated ground (earthing) receptacles is required to comply with NEC 250.146(D) and CE Code 10-400 and 10-614.		N/A
Annex DVA (G.4.3)	Interconnection of units by conductors supplied by a limited power source, or a Class 2 circuit defined in the NEC/CE Code may have field wiring connections other than specified in DVH.3, such as wire-wrap and crimp-on types, if the limited power source and Class 2 circuits are separated from all other circuits by barriers, routing or fixing.		N/A
Annex DVA (G.5.3)	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A
Annex DVA (G.5.4)	Motor control devices are required for cord- connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
Annex DVA (G.7)	Flexible cords used outdoors are required to have the suffix “W” marked on the flexible cord.		N/A
Annex DVA (G.8)	Safety circuits for personnel protection that are subject to damage from surge events shall have surge protection installed within or immediately adjacent to the control panel.		N/A
Annex DVA (M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the ITE room remote power-off circuit.		N/A
Annex DVA (Q)	If applicable per NEC 725.60(C) and CE Code 16-350, some limited power sources supplied from AV/ICT equipment are required to have a label indicating the maximum voltage and rated current output for per conductor for each connection point. Where multiple connection points have the same rating, a single label is permitted to be used.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CE Code Part 1are required to be marked with the voltage rating and "Class 2" or equivalent. The marking is located adjacent to the terminals and visible during wiring.		N/A
	Applicable parts of Chapter 8 of the NEC, and Rules 54 and 60 of the CE Code, may be applicable to ITE installed outdoors with connections to communication systems.		N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.		N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.		N/A
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These equipment and components include: appliance couplers, attachment plugs, battery backup systems, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, modular data centres, power supply cords, some power distribution equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables.		P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.		N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are required to be in accordance with the NEC/CE Code.		N/A
Annex DVH (DVH.2.1)	For safe and reliable connection to a mains, permanently connected equipment is to be provided.		N/A
Annex DVH (DVH.2.2)	Additional considerations are applicable for D.C. mains.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.3.2.1)	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified.		N/A
Annex DVH (DVH.3.2.3)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).		N/A
Annex DVH (DVH.3.2.4)	All associated mains supply terminals are to be located in proximity to each other and to the main protective earthing terminal, if any.		N/A
Annex DVH (DVH.3.2.5)	Terminals are required to be located, guarded or insulated so that, should a strand of a conductor escape when the conductor is fitted, there is no likelihood of accidental contact between such a strand and accessible conductive parts or unearthed conductive parts separated from accessible conductive parts by supplementary insulation only.		N/A
Annex DVH (DVH.3.3)	When field connection to an external circuit is via wires (example, free conductors), the wires are required to be not smaller than 18 AWG (0.82 mm^2) and the free length of the wire inside an outlet box or wiring compartment is required to be 150 mm or more.		N/A
Annex DVH (DVH.3.4)	Size of protective earthing conductors and terminals are required to comply with specified national conditions.		N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
Annex DVH (DVH.4.1)	Wire bending space are required to comply with specified national conditions.		N/A
Annex DVH (DVH.4.2)	Volume of wiring compartment is required to comply with specified national conditions.		N/A
Annex DVH (DVH.4.3)	Separation of circuits is required to comply with specified national conditions.		N/A
Annex DVH (DVH.5)	Equipment markings and instructional safeguards are required to comply with specified national conditions.		P
Annex DVH (DVH.5.1)	Identification of protective earthing terminal required to comply with specified national conditions.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.5.2)	Identification of terminal for earthed conductor (neutral) is required to comply with specified national conditions.		N/A
Annex DVH (DVH.5.3)	Identification of terminals for aluminium conductors is required to comply with specified national conditions.		N/A
Annex DVH (DVH.5.4)	Wire temperature ratings are required to comply with specified national conditions.		P
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.		N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.		N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Classification of electrical energy sources						P
Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters				ES Class
			U (V)	I (mA)	Type[1)]	Additional Info [2)]	
5VDC	INPUT	Normal	5VDC	--	--	--	ES1
		Abnormal	5VDC	--	--	--	
		Single fault – SC/OC	--	--	--	--	
--	Internal battery	Normal	4.2VDC	--	--	--	ES1
		Abnormal	4.2VDC	--	--	--	
		Single fault – SC/OC	--	--	--	--	
Supplementary information:							
1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc. 2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc.							

5.4.1.8	TABLE: Working voltage measurement				N/A
Location	Peak voltage (V)	RMS voltage (V)	Frequency (Hz)	Comments	
Supplementary information:					

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Method..... :	ISO 306 / B50		—
Object/ Part No./Material	Manufacturer/trademark	Thickness (mm)	T softening (°C)
Supplementary information:			

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			N/A
Allowed impression diameter (mm)..... :	≤ 2 mm			—
Object/Part No./Material	Manufacturer/trademark	Thickness (mm)	Test temperature (°C)	Impression diameter (mm)
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.2, 5.4.3	TABLE: Minimum Clearances/Creepage distance							N/A
Clearance (cl) and creepage distance (cr) at/of/between:	U_p (V)	U_{rms} (V)	Freq [1] (Hz)	Required cl (mm)	cl (mm)	E.S. [2] (V)	Required cr (mm)	cr (mm)
Supplementary information:								
1) Only for frequency above 30 kHz 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied)								

5.4.4.2	TABLE: Minimum distance through insulation			N/A
Distance through insulation (DTI) at/of	Peak voltage (V)	Insulation	Required DTI (mm)	Measured DTI (mm)
Supplementary information:				

5.4.4.9	TABLE: Solid insulation at frequencies >30 kHz					N/A
Insulation material	E_P	Frequency (kHz)	K_R	Thickness d (mm)	Insulation	V_{PW} (Vpk)
Supplementary information:						
According to table 5.4.9 and 5.4.4.9, electric strength test voltage of clause 5.4.9 were more than requirement of clause 5.4.4.9. Details see table 5.4.9.						

5.4.9	TABLE: Electric strength tests		N/A
Test voltage applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Supplementary information:			

5.5.2.2	TABLE: Stored discharge on capacitors				N/A
Location	Supply voltage (V)	Operating and fault condition [1]	Switch position	Measured voltage (Vpk)	ES Class
Supplementary information:					
X-capacitors installed for testing:					

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Clause	Requirement + Test	Result - Remark	Verdict

[ ] bleeding resistor rating:
[ ] ICX:
1) Normal operating condition (e.g., normal operation), SC= short circuit, OC= open circuit

5.6.6	TABLE: Resistance of protective conductors and terminations				N/A
Location	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Supplementary information:					

5.7.4	TABLE: Unearthed accessible parts					N/A
Location	Operating and fault conditions	Supply Voltage (V)	Parameters			ES class
			Voltage (V_{rms} or V_{pk})	Current (A_{rms} or A_{pk})	Freq. (Hz)	
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit						

5.7.5	TABLE: Earthed accessible conductive part			N/A
Supply voltage (V)....:				—
Phase(s) .... :	[ ] Single Phase; [ ] Three Phase: [ ] Delta [ ] Wye			
Power Distribution System .... :	[ ] TN [ ]TT [ ] IT			
Location	Fault Condition No in IEC 60990 clause 6.2.2	Touch current (mA)	Comment	
Supplementary Information:				

5.8	TABLE: Backfeed safeguard in battery backed up supplies					N/A
Location	Supply voltage (V)	Operating and fault condition	Time (s)	Open-circuit voltage (V)	Touch current (A)	ES Class
Supplementary information:						
Abbreviation: SC= short circuit, OC= open circuit						

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Clause	Requirement + Test	Result - Remark	Verdict

6.2.2	TABLE: Power source circuit classifications					P
Location	Operating and fault condition	Voltage (V)	Current (A)	Max. Power[1)] (W)	Time (S)	PS class
All circuit in equipment	Normal condition	--	--	--	5	PS2#
Battery	Normal condition	3.23	3.12	10.07	3	PS1
Battery	SC DW01(2-5)	0	0	0	3	PS1
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit 1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3. # The product was supplied by 5VDC power source which output was classified as PS2.						

6.2.3.1	TABLE: Determination of Arcing PIS			N/A
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No
Supplementary information:				

6.2.3.2	TABLE: Determination of resistive PIS		P
Location	Operating and fault condition	Dissipate power (W)	Resistive PIS? Yes / No
All internal circuit and components	--	--	Yes
Supplementary information:			
Abbreviation: SC= short circuit; OC= open circuit			

8.5.5	TABLE: High pressure lamp			N/A
Lamp manufacturer	Lamp type	Explosion method	Longest axis of glass particle (mm)	Particle found beyond 1 m Yes / No
Supplementary information:				

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Clause	Requirement + Test	Result - Remark	Verdict

9.6	TABLE: Temperature measurements for wireless power transmitters	N/A
Supply voltage (V).....:		—
Max. transmitting power (W)..... :		—

Part A [1)]

Foreign objects	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm	
	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
Steel disc								
Aluminium ring								
Aluminium foil								
Measurement temperature T of part/at:	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm	
	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)

Part B [2)]

Foreign objects	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm	
	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)	Object (°C)	Ambient (°C)
Steel disc								
Aluminium ring								
Aluminium foil								
Measurement temperature T of part/at:	w/o receiver and direct contact		with receiver and direct contact		with receiver and at distance of 2 mm		with receiver and at distance of 5 mm	
	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)	T (°C)	Ambient (°C)

Supplementary information:

1) The test is performed by powering up the transmitter and then placing each of the foreign objects specified in 9.6.2 in direct contact with the transmitter.

2) The test is performed by first placing each of the foreign objects specified in 9.6.2 in direct contact with the transmitter and then powering up transmitter.

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Clause	Requirement + Test	Result - Remark	Verdict

5.4.1.4, 9.3, B.1.5, B.2.6	TABLE: Temperature measurements				P
Supply voltage (V).....:	5V Charging	4.2V Discharging	--	--	—
Ambient temperature during test T_{amb} (°C).....:	See below	See below	--	--	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
PCB near U1	47.5	44.4	--	--	130
Internal wire	45.2	44.1	--	--	105
Battery	44.8	43.5	--	--	Ref.
Motor winding	45.1	44.4	--	--	110
Enclosure inside	44.2	43.1	--	--	Ref.
Enclosure outside	42.6	41.8	--	--	48+15=63
Ambient	40.0	40.0	--	--	--
Touch temperature for accessible parts:					
Enclosure outside	27.6	26.8	--	--	48
Ambient	25.0	25.0	--	--	--

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

B.2.5	TABLE: Input test								P
U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status	
5	--	0.31	1	1.55	--	--	--	Normal working	
4.2	--	0.09	0.25	0.38	--	--	--	Normal working	

Supplementary information:

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Clause	Requirement + Test	Result - Remark	Verdict

B.2.5, E.3.1	TABLE: Input test for equipment containing audio amplifiers	N/A

Operation Condition:	Signal type	Frequency (Hz)	Output loads (Ω)	Load setup
A1	Sine wave input	1000	--	All channels driven, (maximum) non-clipped output power
A2	Peak response frequency	--	--	All channels driven, (maximum) non-clipped output power
B1	Sine wave input	1000	--	All channels driven, 1/8 non-clipped output power
B2	Peak response frequency	--	--	All channels driven, 1/8 non-clipped output power
C	Band-limited pink noise signal	N/A	--	All channels driven, 1/8 non-clipped output power

Input									Amplifier Output			
Cond.	U (V)	Hz	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Ch.	U (V)	P (W)	Load (Ω)

Supplementary information:

B.3, B.4	TABLE: Abnormal operating and fault condition tests	P
Ambient temperature T_{amb} (°C)..... :	25.0 or See below	—
Power source for EUT: Manufacturer, model/type, outputrating... :	--	—

Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	Observation
Battery	Over charging	5.0	7hrs	--	--	EUT got the steady state finally. No chemical leaks, no explosion of battery causing injury to user, no emission of flame or expulsion of molten metal outside enclosure. No hazards.
Battery	Over discharging	4.2	7hrs	--	--	EUT got the steady state finally. No chemical leaks, no explosion of battery causing injury to user, no emission of flame or expulsion of molten metal outside enclosure. No hazards.
Battery	SC	5.0	2hrs	--	--	EUT got the steady state finally. No chemical leaks, no

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Clause	Requirement + Test				Result - Remark		Verdict
						explosion of battery causing injury to user, no emission of flame or expulsion of molten metal outside enclosure. No hazards.	
Battery	SC	4.2	2hrs	--	--	EUT got the steady state finally. No chemical leaks, no explosion of battery causing injury to user, no emission of flame or expulsion of molten metal outside enclosure. No hazards.	

Supplementary information:

Test table is provided to record fault conditions for all applicable energy sources including Thermal burn injury.

SC: Short-circuited; OC: Open-circuited; OL: Overloaded.

The test result shown all safeguards remained effective, all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.

The test result shown no Class 1 or 2 energy source become Class 3 level during and after single fault condition.

For component damaged without Fuse opened condition have been repeated twice (three tests total) with same result.

The same as result test conducted all fuse sources, see table 4.1.2 for details.

The overloaded condition is according to annex G.5.3.3. Winding Limit for T1 winding: 175 °C – 10 °C = 165 °C, Enclosure outside: 87°C

During single fault operating condition test, the output voltage did not increase by more than 10% of its rated output voltage under normal operating condition (For other outlet or connector at ES1)

M.3	**TABLE: Protection circuits for batteries provided within the equipment**						P
Is it possible to install the battery in a reverse polarity position?.....:					No		—
Equipment Specification	Charging						
	Voltage (V)				Current (A)		
	5				1		
Manufacturer/type	Battery specification						
	Non-rechargeable batteries		Rechargeable batteries				
	Discharging current (A)	Unintentional charging current (A)	Charging		Discharging current (A)	Reverse charging current (A)	
			Voltage (V)	Current (A)			
SUM751525	--	--	4.2	0.25	0.25	--	
Note: The tests of M.3.2 are applicable only when above appropriate data is not available.							
Specified battery temperature (°C).....:					Charging: 5-45		
Component No.	Fault condition	Charge/ discharge mode	Test time	Temp. (°C)	Current (A)	Voltage (V)	Observation

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Clause	Requirement + Test				Result - Remark			Verdict
DW01(2-5)	SC	Charge	10mins	--	0	4.2	Unit shutdown immediately and recoverable. NL, NS, NE, NF.	
DW01(2-5)	SC	discharge	10mins	--	0	4.2	Unit shutdown immediately and recoverable. NL, NS, NE, NF.	
Supplementary information:								
Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal.								

M.4.2	**TABLE: Charging safeguards for equipment containing a secondary lithium battery**					**P**
Maximum specified charging voltage (V)..... :				4.2		—
Maximum specified charging current (A) .....:				0.25		—
Highest specified charging temperature (°C) .....:				45		
Lowest specified charging temperature (°C) .....:				5		
Battery manufacturer/type	Operating and fault condition	Measurement			Observation	
		Charging voltage (V)	Charging current (A)	Temp. (°C)		
SUM751525	Normal	4.2	0	5	Unit stop charging when the temperature of the battery exceeds the lowest specified charging temperature	
SUM751525	Normal	4.2	0	45	Unit stop charging when the temperature of the battery lower than the highest specified charging temperature	
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature						

Q.1	**TABLE: Circuits intended for interconnection with building wiring (LPS)**						**N/A**
Output Circuit	Condition	U_{oc} (V)	Time (s)	I_{sc} (A)		S (VA)	
				Meas.	Limit	Meas.	Limit
	Normal condition				8		100
	SC				8		100
Supplementary Information:							

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Clause	Requirement + Test	Result - Remark	Verdict

SC=Short circuit, OC=Open circuit

T.2, T.3, T.4, T.5	TABLE: Steady force test	P

Location/Part	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation
Enclosure top	Metal	Min.1.1	--	250	5	Enclosure remained intact, no crack/opening developed. No insulation breakdown.
Enclosure side	Metal	Min.1.1	--	250	5	Enclosure remained intact, no crack/opening developed. No insulation breakdown.
Enclosure bottom	Metal	Min.1.1	--	250	5	Enclosure remained intact, no crack/opening developed. No insulation breakdown.

Supplementary information:

T.6, T.9	TABLE: Impact test	P

Location/Part	Material	Thickness (mm)	Height (mm)	Observation
Enclosure top	Metal	Min.1.1	1300	After the drop test, enclosure remained intact, no reacking/opening developed in the enclosure joint. No insulation breakdown.
Enclosure side	Metal	Min.1.1	1300	After the drop test, enclosure remained intact, no reacking/opening developed in the enclosure joint. No insulation breakdown.
Enclosure bottom	Metal	Min.1.1	1300	After the drop test, enclosure remained intact, no reacking/opening developed in the enclosure joint. No insulation breakdown.

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

T.7	TABLE: Drop test				N/A
Location/Part	Material	Thickness (mm)	Height (mm)	Observation	
Supplementary information:					

T.8	TABLE: Stress relief test				N/A
Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
Supplementary information:					

X	TABLE: Alternative method for determining minimum clearances distances		N/A
Clearance distanced between:	Peak of working voltage (V)	Required cl (mm)	Measured cl (mm)
Supplementary information:			

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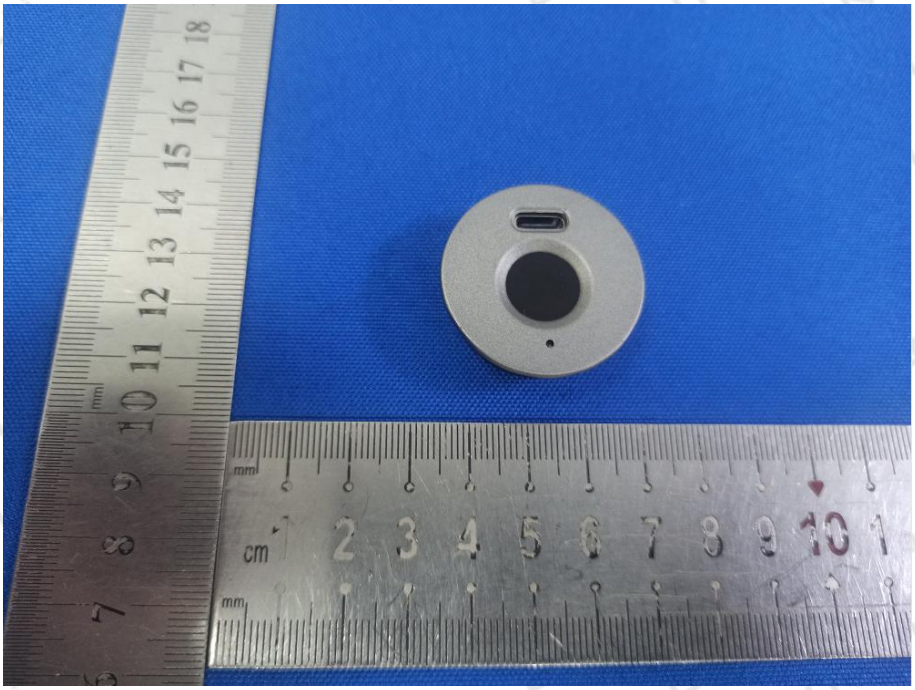
Clause	Requirement + Test	Result - Remark	Verdict

4.1.2	TABLE: Critical components information				P
Object / part No.	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
PCB	SHENZHEN BOMIN ELECTRONIC CO LTD	BM1-A1	V-0, 130°C	UL 796	UL E213371
Internal wire	ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1015	105°C, min. 18AWG, 600V.	UL 758	UL E333601
Li-ion Polymer Battery	Dongguan SUM Electronics Technology Co., Ltd	SUM751525	3.7V, 250mAh	UL 62133-2	Test report No.: SSP26060610-1
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance. See OD-2039.					

Attachment 1

Photo documentation



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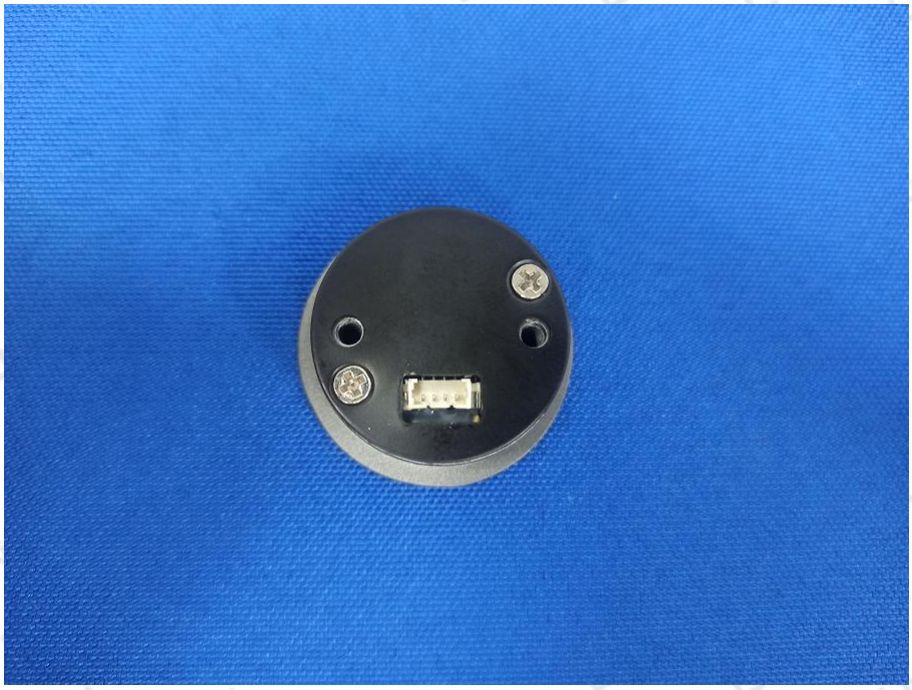

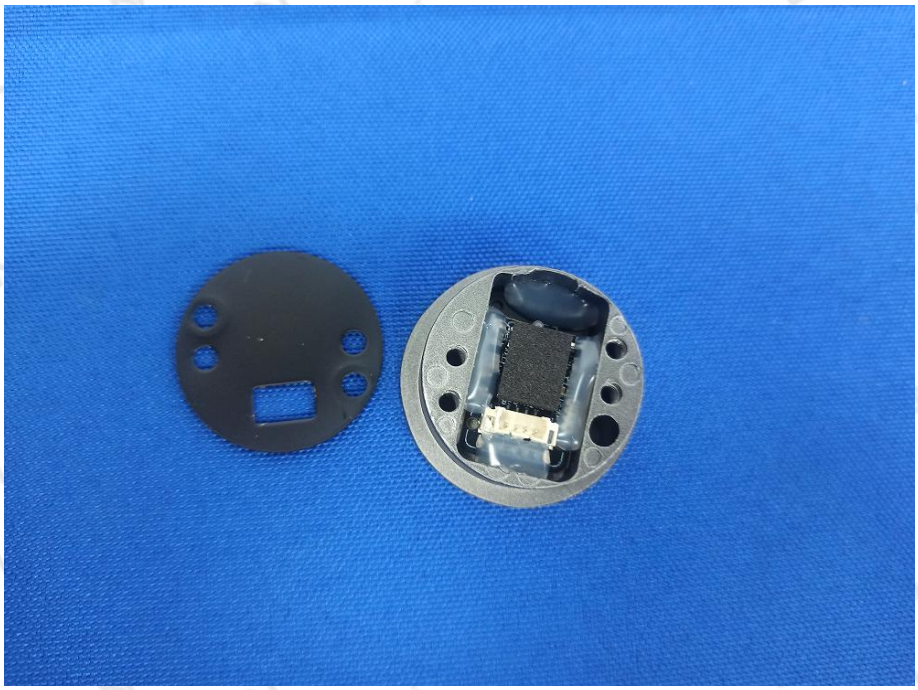

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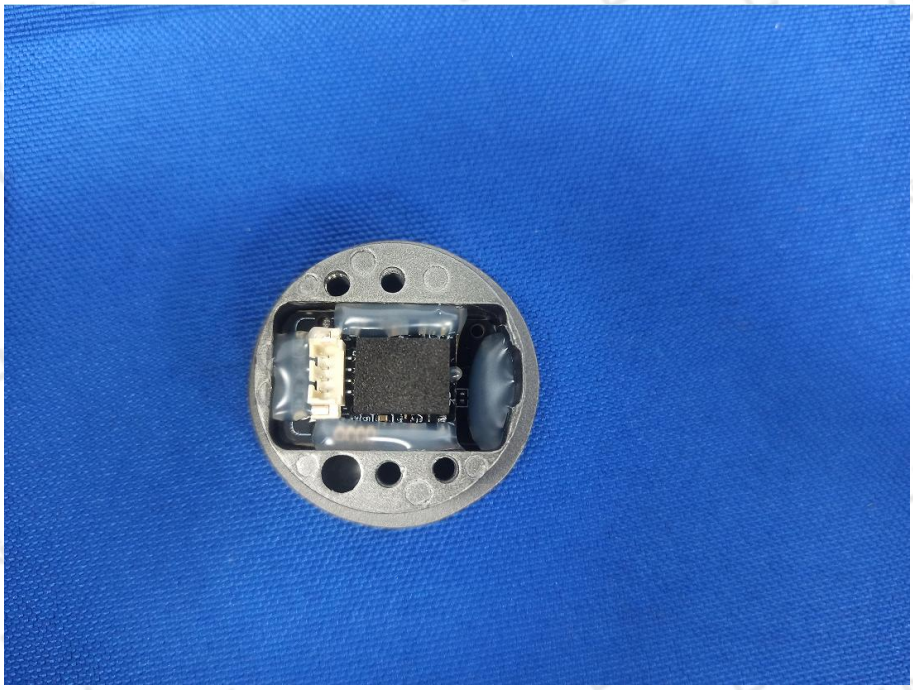

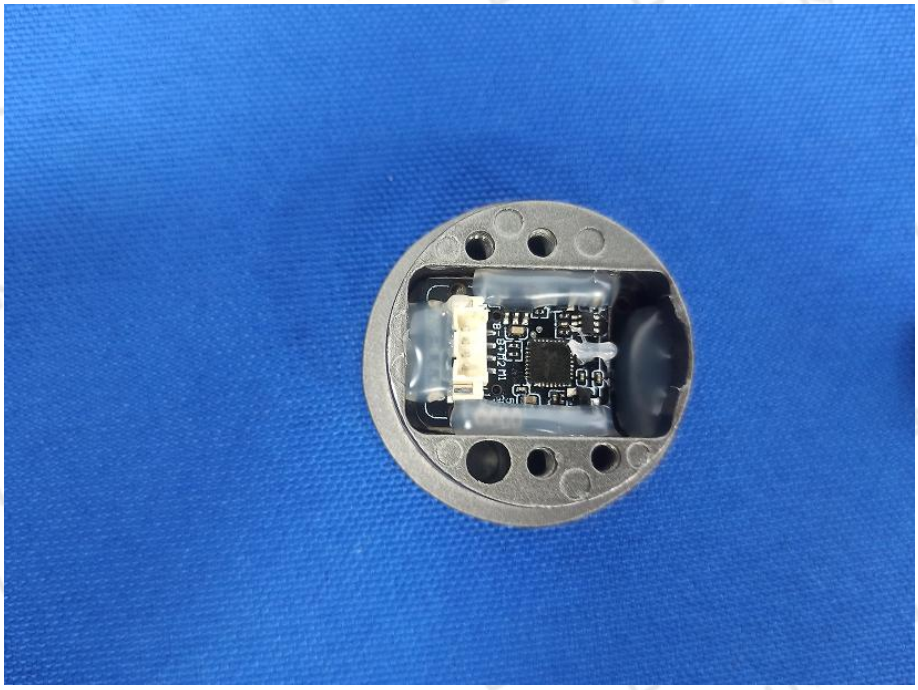

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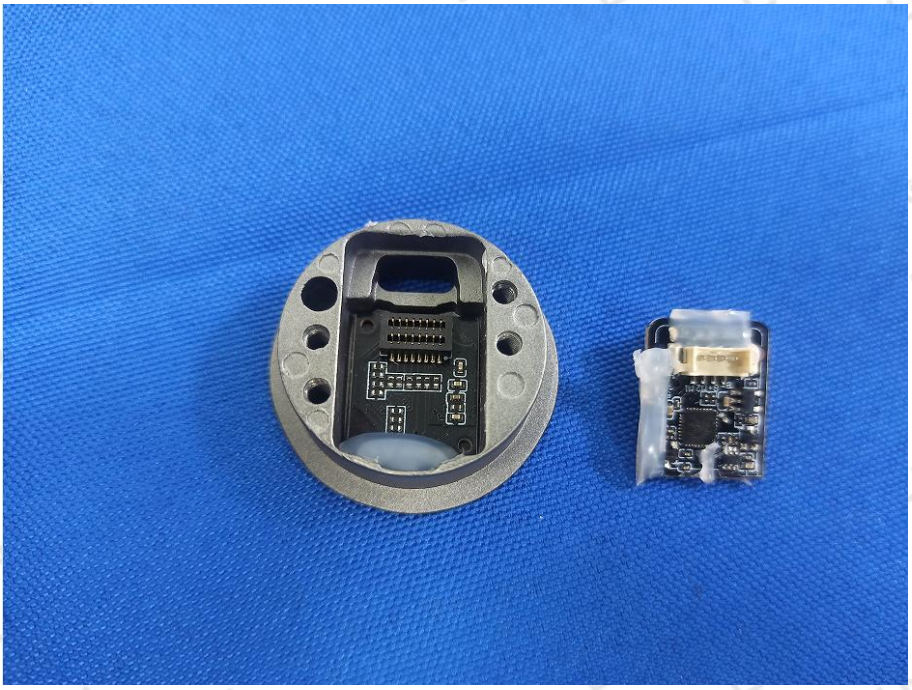

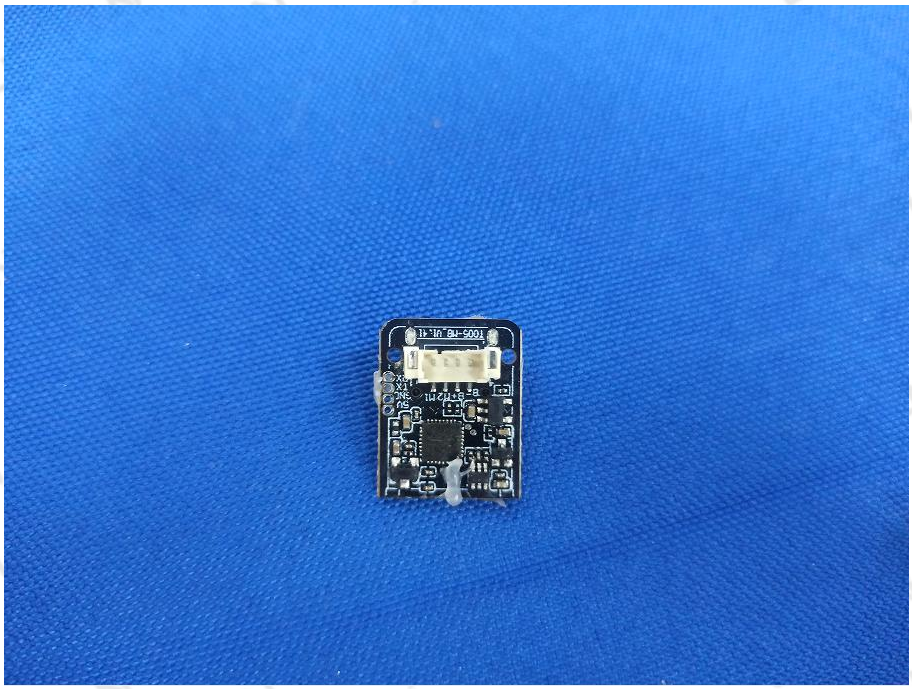

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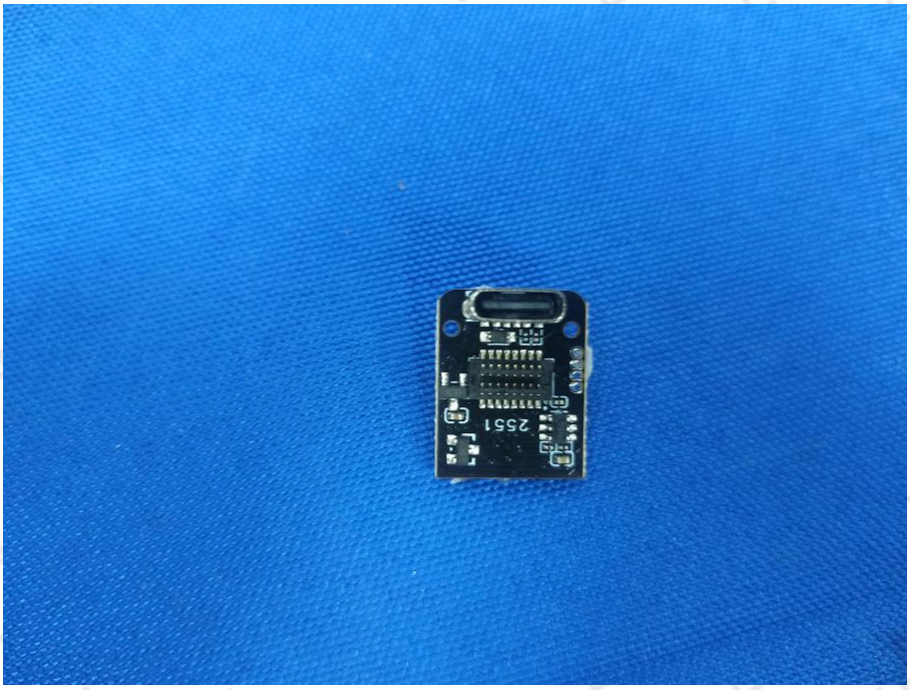

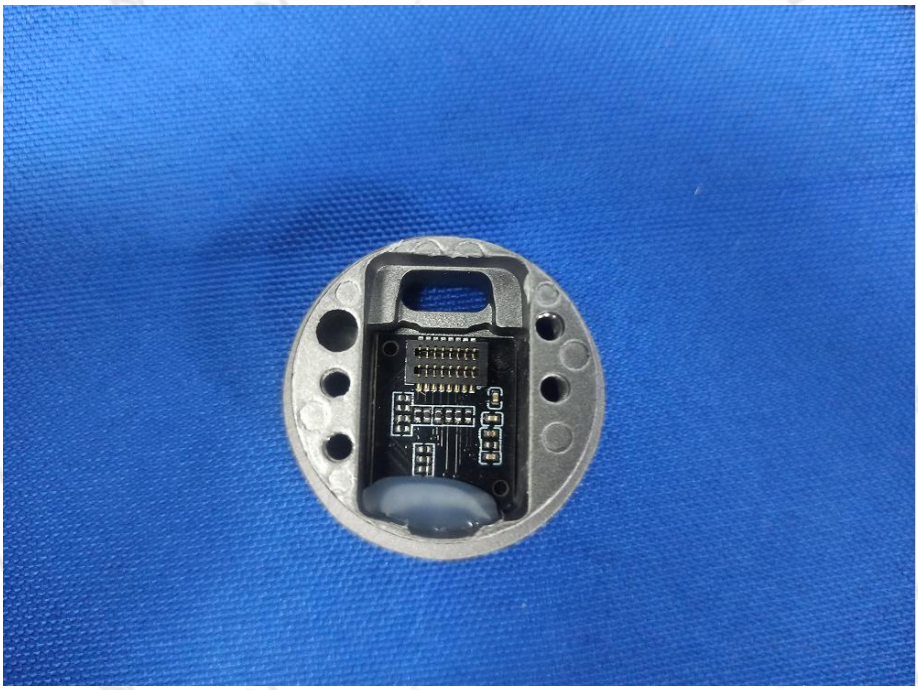

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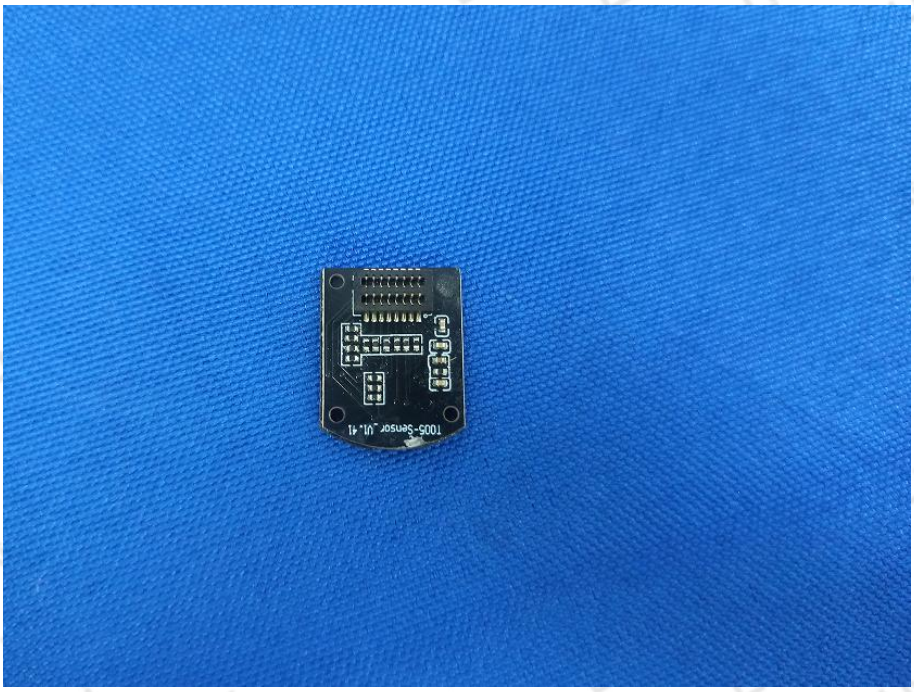

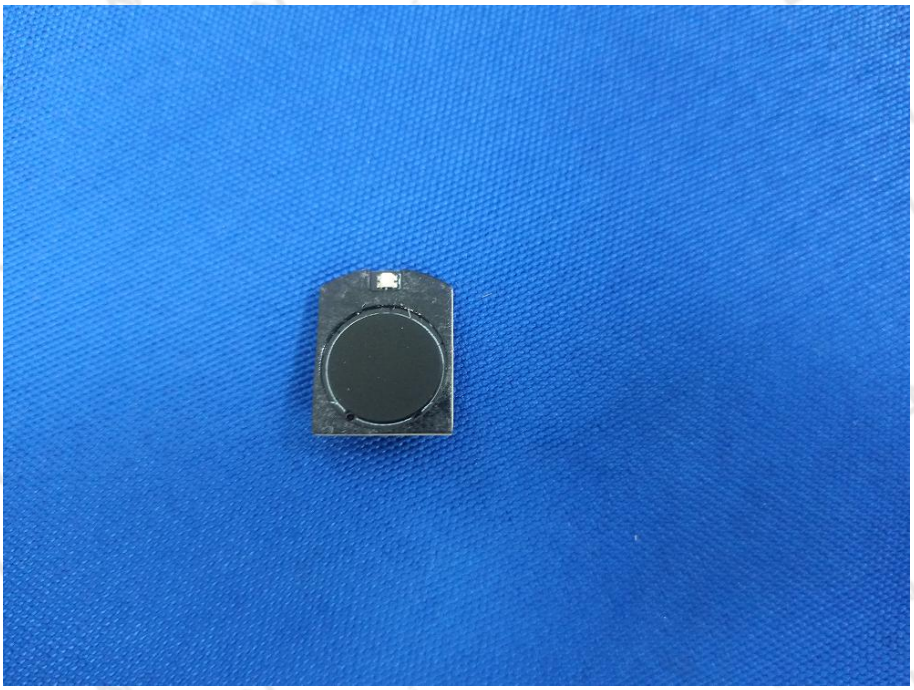

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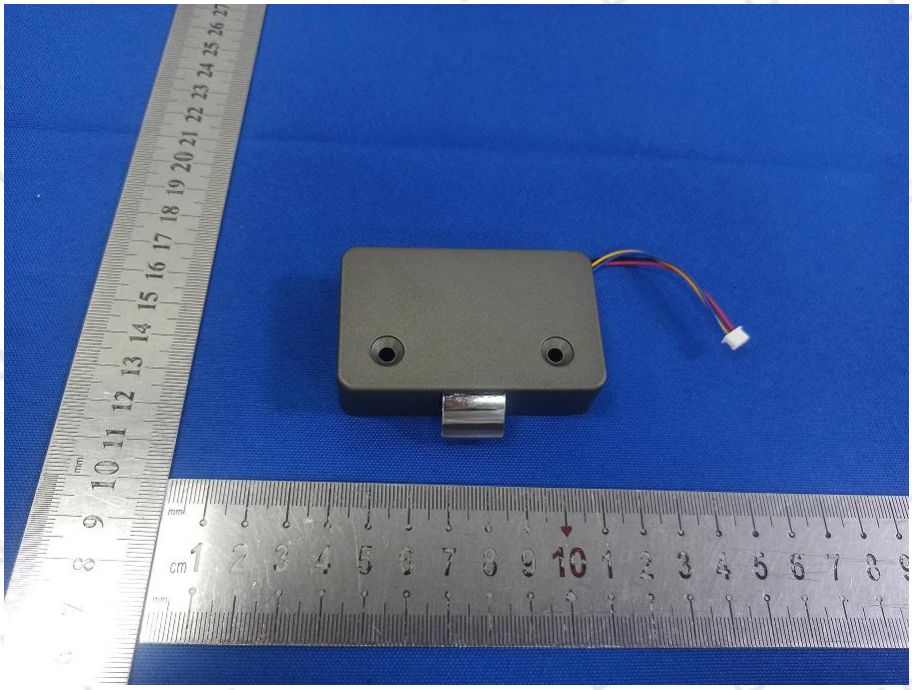

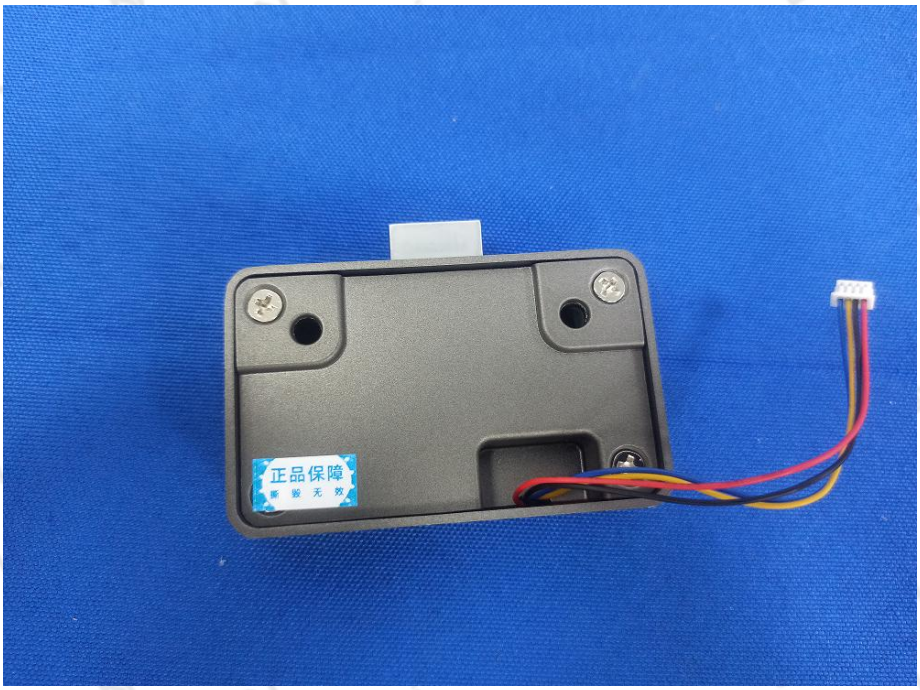

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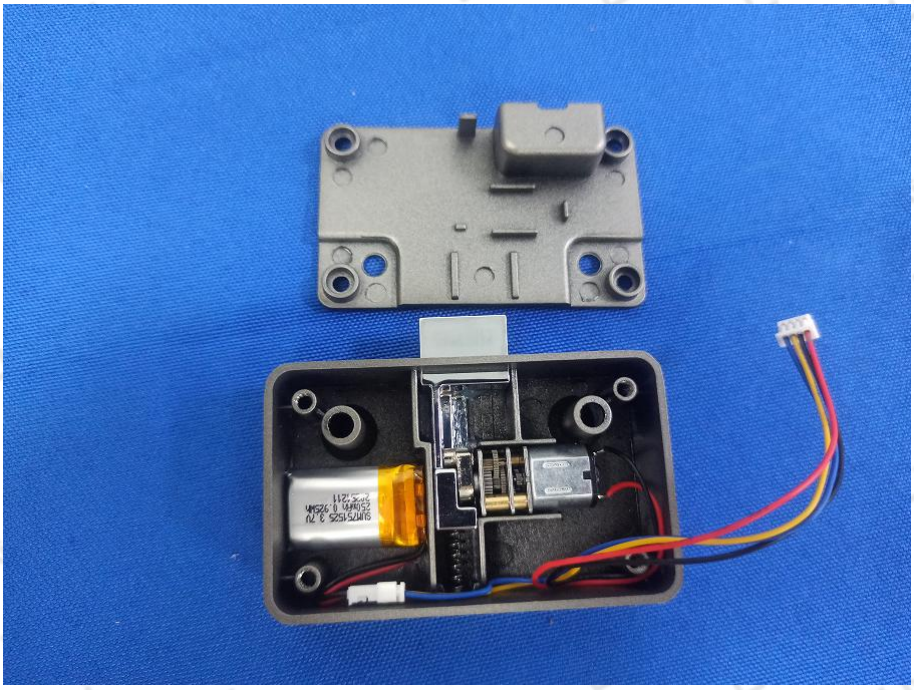

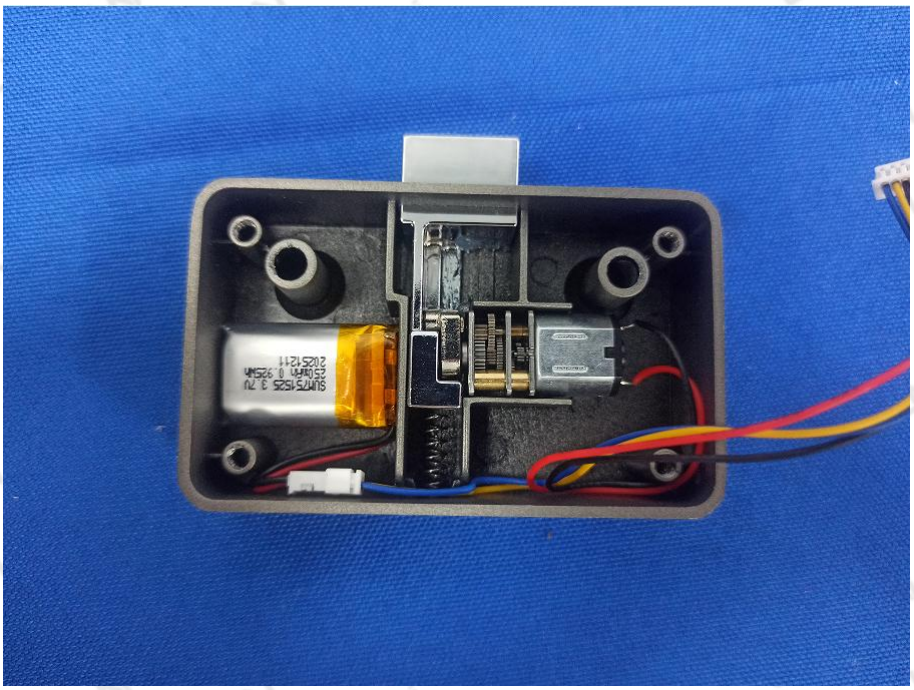

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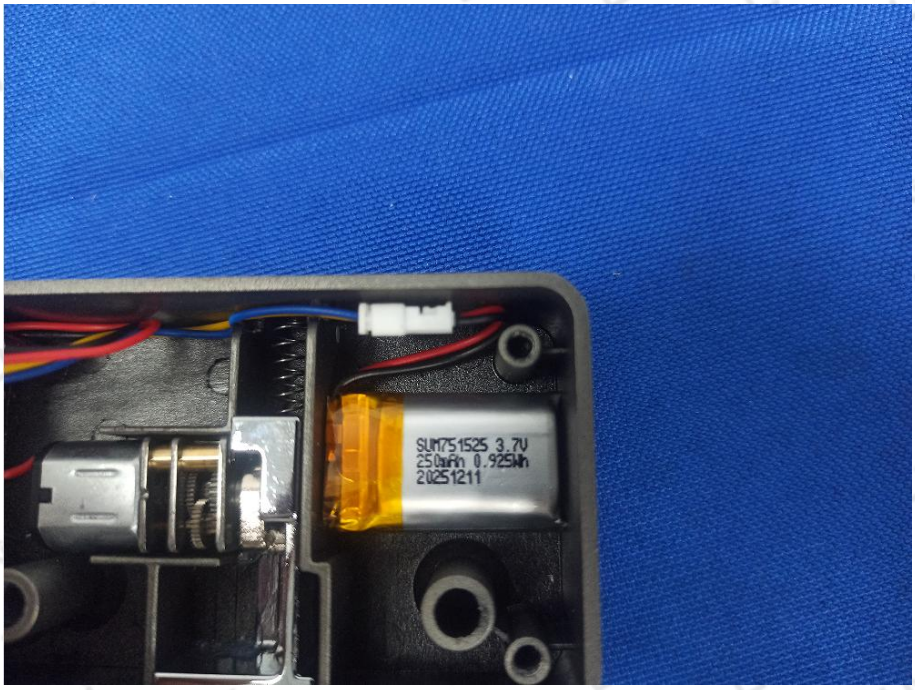

End of report

Statement

1. This report must have the signature of the authorized signatory and the special seal of the report, otherwise it will be considered invalid. If there is no anti-counterfeiting electronic seal of the laboratory in the report in PDF format or it is displayed as "×", the report is invalid.

2. This report shall not be modified, added or deleted without authorization.

3. The results of this report are only valid for the samples provided by Applicant to our laboratory for inspection (That is, samples received by our laboratory.Without special explanation, it refers to the samples presented in th e report "Sample Photo(s)").

4. If there is any objection to the test data and conclusions of this report, please submit it in writing within 10 working days after the date of issuance of the report.

5. Without the written consent of the laboratory, this report shall not be copied (except for full copy), nor shall it be used as publicity materials or advertising.

6. The cover of the report is for decoration only, not included in the body of the report.

7. The paper report issued by our laboratory has the same effect as the electronic report. In case of any difference between the two, the electronic report shall prevail.

8. The Chinese and English reports issued by our laboratory have the same effect. In case of any difference in understanding, the Chinese version shall prevail.

9. Please provide the complete report documents issued by our laboratory when inquiring the report.

10. For cases where compliance is determined based on test values, when relevant specifications, standards, documents, and customers have no relevant requirements and no other special instructions, the test report issued by this laboratory is carried out in full value and adopts ILAC-G8:09 /2019 "Simple Acceptance Rule" for judgment.

11. Items with * are not in the range of A2LA.