

# TEST REPORT

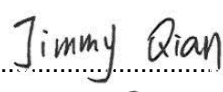
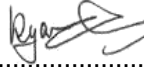
**Product Name** : Datahub  
**Model Number** : Datahub1000

**Prepared For:** SOLAX POWER NETWORK TECHNOLOGY  
(ZHEJIANG) CO. , LTD.  
No.288, Shizhu Road, Tonglu Economic  
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**Date of Test** : December 11, 2021 to December 15, 2021  
**Date of Report** : December 20, 2021  
**Report Number** : ENB2111250113S00301R



<b>TEST REPORT</b> <b>IEC 62368-1</b> <b>J62368-1 (H30)</b> <b>Audio/video, information and communication technology equipment</b> <b>Part 1: Safety requirements</b>	
Report Reference No.....:	ENB2111250113S00301R
Date of issue.....:	December 20, 2021
Total number of pages.....:	70 pages
<b>Testing Laboratory</b> .....	EMTEK(NINGBO) CO.,LTD.
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Tested by (name + signature).....:	Jimmy Qian 
Approved by (+ signature) .....	Ryan Zhu 
<b>Applicant's name</b> .....:	SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO. , LTD.
Address.....:	No.288, Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province 310000,P. R. CHINA
<b>Manufacturer's name</b> .....	SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO. , LTD.
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<b>Factory's name</b> .....	SOLAX POWER NETWORK TECHNOLOGY (ZHEJIANG) CO. , LTD.
Address .....	No.288, Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province 310000,P. R. CHINA
<b>Test specification:</b>	
Standard .....	J62368-1 (H30)
Test procedure .....	PSE report
Non-standard test method.....:	N/A
<b>Test item description</b> ..... :	Datahub
Trade Mark .....	SolaX Power
Model/Type reference.....:	Datahub1000
Ratings.....:	Input: 12V $\overline{\text{---}}$ , 2A, Class III (Adaptor was use: Approval Model ABT020120A, Input: 100-240V~,50/60Hz, 1.5A, Output: DC12V 2A, Class II)

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

- Japan Differences
- Attachment I: Photos

**Summary of testing:**

-All tests were performed on mode Datahub1000 and passed.

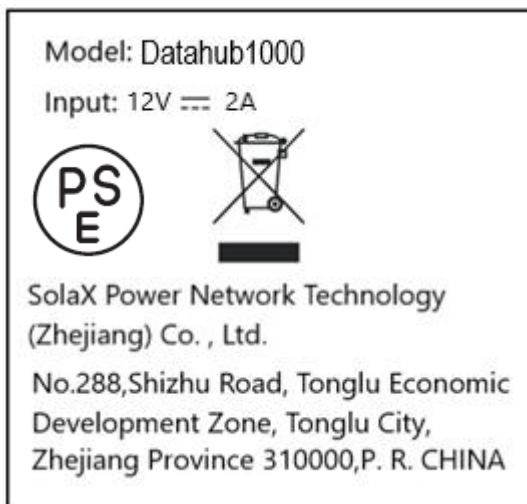
**Summary of compliance with National Differences:**

Japan Differences

**The product fulfils the requirements of \_\_\_ J62368-1 (H30) \_\_\_\_\_ (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable)**

**Copy of marking plate:**

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



**Remark:**

- The above markings are the minimum requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.
- Above information was labelled or silk-screened on rear enclosure.

TEST ITEM PARTICULARS:	
Classification of use by .....	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection.....	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance .....	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> +____%/ -____% <input type="checkbox"/> None
Supply Connection – Type .....	<input checked="" type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input type="checkbox"/> other:____
Considered current rating of protective device as part of building or equipment installation .....	N/A Installation location: <input type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility .....	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC) .....	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment .....	<input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III
Access location .....	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD) .....	<input type="checkbox"/> PD 1 <input type="checkbox"/> PD 2 <input checked="" type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient:	25 °C
IP protection class .....	<input type="checkbox"/> IPX0 <input checked="" type="checkbox"/> IP20
Power Systems .....	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - ____ V L-L
Altitude during operation (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ____ m
Altitude of test laboratory (m) .....	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ____ m
Mass of equipment (kg) .....	<input checked="" type="checkbox"/> __0.417__ kg
POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object.....	N/A
- test object does meet the requirement .....	P (Pass)
- test object does not meet the requirement .....	F (Fail)

<b>TESTING:</b>	
Date of receipt of test item.....:	November 25, 2021
Date (s) of performance of tests.....:	December 11, 2021 to December 15, 2021
<b>GENERAL REMARKS:</b>	
<p>The test results presented in this report relate only to the object tested.  This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.  Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	
<b>GENERAL PRODUCT INFORMATION:</b>	
Product Description – 1. The equipment under test is a Class III Datahub. 2. Operating ambient temperature (Tma): 25 °C.	
<b>Model Differences</b>	
N/A	
<b>Additional application considerations – (Considerations used to test a component or sub-assembly) –</b>	
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<b>ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:</b>	
<p>(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)</p> <p>(Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)</p>	
<p><b>Electrically-caused injury (Clause 5):</b></p> <p>(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)</p> <p>Example: +5 V dc input <span style="float: right;">ES1</span></p>	
<b>Source of electrical energy</b>	<b>Corresponding classification (ES)</b>
All circuits inside the equipment enclosure	ES1
<p><b>Electrically-caused fire (Clause 6):</b></p> <p>(Note: List sub-assembly or circuit designation and corresponding energy source classification)</p> <p>Example: Battery pack (maximum 85 watts): <span style="float: right;">PS2</span></p>	
<b>Source of power or PIS</b>	<b>Corresponding classification (PS)</b>
All circuits inside the equipment enclosure	PS2
<p><b>Injury caused by hazardous substances (Clause 7)</b></p> <p>(Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.)</p> <p>Example: Liquid in filled component <span style="float: right;">Glycol</span></p>	
<b>Source of hazardous substances</b>	<b>Corresponding chemical</b>
N/A	N/A
<p><b>Mechanically-caused injury (Clause 8)</b></p> <p>(Note: List moving part(s), fan, special installations, etc. &amp; corresponding MS classification based on Table 35.)</p> <p>Example: Wall mount unit <span style="float: right;">MS2</span></p>	
<b>Source of kinetic/mechanical energy</b>	<b>Corresponding classification (MS)</b>
Sharp edges and corners	MS1
Equipment mass	MS1
<p><b>Thermal burn injury (Clause 9)</b></p> <p>(Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.)</p> <p>Example: Hand-held scanner – thermoplastic enclosure <span style="float: right;">TS1</span></p>	
<b>Source of thermal energy</b>	<b>Corresponding classification (TS)</b>
Accessiblesurfaces	TS1
<p><b>Radiation (Clause 10)</b></p> <p>(Note: List the types of radiation present in the product and the corresponding energy source classification.)</p> <p>Example: DVD – Class 1 Laser Product <span style="float: right;">RS1</span></p>	
<b>Type of radiation</b>	<b>Corresponding classification (RS)</b>
DIFFUSIVE LED	RS1

ENERGY SOURCE DIAGRAM				
Indicate which energy sources are included in the energy source diagram. Insert diagram below				
<input type="checkbox"/> ES <input type="checkbox"/> PS <input type="checkbox"/> MS <input type="checkbox"/> TS <input type="checkbox"/> RS				
OVERVIEW OF EMPLOYED SAFEGUARDS				
Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
Ordinary	ES1: All circuits inside the equipment enclosure	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Combustible materials within equipment fire enclosure	PS2: All circuits inside the equipment enclosure	1. No ignition occurred. 2. No parts exceeding 90% of its spontaneous ignition temperature.	1. Min. V-0 PCB. 2. Metal enclosure	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3:High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: Accessible surfaces	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	RS1: DIFFUSIVE LED	N/A	N/A	N/A

**Supplementary Information:**

- (1) See attached energy source diagram for additional details.
- (2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault



IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>GENERAL REQUIREMENTS</b>		P
4.1.1	Acceptance of materials, components and subassemblies		P
4.1.2	Use of components		P
4.1.3	Equipment design and construction		P
4.1.15	Markings and instructions.....:	(See Annex F)	P
4.4.4	Safeguard robustness		P
4.4.4.2	Steady force tests.....:	(See Annex T.2, T.3, T.4, T.5)	P
4.4.4.3	Drop tests.....:	(See Annex T.7)	P
4.4.4.4	Impact tests.....:	(See Annex T.6)	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests.....:		N/A
4.4.4.6	Glass Impact tests.....:		N/A
4.4.4.7	Thermoplastic material tests.....:	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard.....:		N/A
4.4.4.9	Accessibility and safeguard effectiveness	No class 3 energy sources become accessible to an ordinary person or an instructed person. No glass is used. All other safeguards remain effective.	P
4.5	Explosion		N/A
4.6	Fixing of conductors		N/A
4.6.1	Fix conductors not to defeat a safeguard		N/A
4.6.2	10 N force test applied to.....:		N/A
4.7	Equipment for direct insertion into mains socket - outlets		N/A
4.7.2	Mains plug part complies with the relevant standard.....:		N/A
4.7.3	Torque (Nm).....:		N/A
4.8	Products containing coin/button cell batteries		N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery.....:		--
4.8.4	Battery Compartment Mechanical Tests.....:		N/A

4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....:		N/A

<b>5</b>	<b>ELECTRICALLY-CAUSED INJURY</b>		<b>P</b>
5.2.1	Electrical energy source classifications.....:	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits	All circuits inside enclosure were ES1	P
5.2.2.2	Steady-state voltage and current.....:	(See appended table 5.2)	P
5.2.2.3	Capacitance limits.....:	No such component used	N/A
5.2.2.4	Single pulse limits.....:	No such pulse	N/A
5.2.2.5	Limits for repetitive pulses.....:	No such pulse	N/A
5.2.2.6	Ringling signals.....:	No ringling signals	N/A
5.2.2.7	Audio signals.....:	No Audio signals	N/A
5.3	Protection against electrical energy sources	Only ES1 energy source within the equipment	N/A
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		N/A
5.3.2.1	Accessibility to electrical energy sources and safeguards		N/A
5.3.2.2	Contact requirements		N/A
	a) Test with test probe from Annex V.....:		N/A
	b) Electric strength test potential (V).....:		N/A
	c) Air gap (mm).....:		N/A
5.3.2.4	Terminals for connecting stripped wire	No such terminals	N/A
5.4	Insulation materials and requirements		N/A
5.4.1.2	Properties of insulating material	Only ES1 energy source, only function insulation required	N/A
5.4.1.3	Humidity conditioning.....:	(See sub-clau	N/A
5.4.1.4	Maximum operating temperature for insulating materials.....:		N/A
5.4.1.5	Pollution degree.....:	Pollution degree 2	--
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		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 softening temperature..... :		N/A
5.4.1.10.3	Ball pressure ..... :		N/A
5.4.2	Clearances		N/A
5.4.2.2	Determining clearance using peak working voltage		N/A
5.4.2.3	Determining clearance using required withstand voltage ..... :		N/A
	a) a.c. mains transient voltage ..... :		--
	b) d.c. mains transient voltage ..... :		--
	c) external circuit transient voltage ..... :		--
	d) transient voltage determined by measurement ..... :		--
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 ..... :		N/A
5.4.3	Creepage distances ..... :		N/A
5.4.3.1	General		N/A
5.4.3.3	Material Group ..... :	Material Group IIIb	
5.4.4	Solid insulation		N/A
5.4.4.2	Minimum distance through insulation ..... :		N/A
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	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
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
5.4.4.7	Solid insulation in wound components		N/A
5.4.4.9	Solid insulation at frequencies >30 kHz ..... :		N/A
5.4.5	Antenna terminal insulation	No such terminal used	N/A
5.4.5.1	General		N/A

5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ).....:		--
5.4.6	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 .....		N/A
5.4.9.1	Test procedure for a solid insulation type test		N/A
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		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.....:		N/A
5.4.11	Insulation between external circuits and earthed circuitry .....		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage $U_{op}$ (V).....:		--
	Nominal voltage $U_{peak}$ (V).....:		--
	Max increase due to variation $U_{sp}$ .....		--
	Max increase due to ageing $\Delta U_{sa}$ .....		--
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ .....		--
5.5	Components as safeguards		
5.5.1	General		N/A
5.5.2	Capacitors and RC units	No such capacitors and RC units used	N/A
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector.....:		N/A

5.5.3	Transformers	No such component	N/A
5.5.4	Optocouplers	No such component	N/A
5.5.5	Relays	No such component	N/A
5.5.6	Resistors	No such component	N/A
5.5.7	SPD's	No such component	N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable.....:		N/A
5.6	Protective conductor		N/A
5.6.2	Requirement 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	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm <sup>2</sup> ) .....		--
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm <sup>2</sup> ). .....		--
	Protective current rating (A)..... :		--
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm <sup>2</sup> ), nominal thread diameter (mm). .....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance (Ω).....:		N/A
5.6.7	Reliable earthing		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 prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections		N/A

	System of interconnected equipment (separate connections/single connection) .....		--
	Multiple connections to mains (one connection at a time/simultaneous connections) .....		--
5.7.4	Earthed conductive accessible parts .....		N/A
5.7.5	Protective conductor current		N/A
	Supply Voltage (V).....		--
	Measured current (mA).....		--
	Instructional Safeguard.....		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits		N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	a) Equipment with earthed external circuits Measured current (mA).....		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA) .....		N/A

<b>6</b>	<b>ELECTRICALLY- CAUSED FIRE</b>		<b>P</b>
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		<b>P</b>
6.2.2	Power source circuit classifications	Refer to Energy Source identification and classification table for power source	<b>P</b>
6.2.2.1	General		<b>P</b>
6.2.2.2	Power measurement for worst-case load fault ... :	(See appended table 6.2.2)	<b>P</b>
6.2.2.3	Power measurement for worst-case power source fault .....	(See appended table 6.2.2)	<b>P</b>
6.2.2.4	PS1 .....		<b>N/A</b>
6.2.2.5	PS2 .....	(See appended table 6.2.2)	<b>P</b>
6.2.2.6	PS3 .....		<b>N/A</b>
6.2.3	Classification of potential ignition sources		<b>P</b>
6.2.3.1	Arcing PIS .....		<b>N/A</b>
6.2.3.2	Resistive PIS .....	(See appended table 6.2.3.2)	<b>P</b>
6.3	Safeguards against fire under normal operating and abnormal operating conditions		<b>P</b>

6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 C for unknown materials .....	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure	No such materials	N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Control fire spread method used	P
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		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions .....		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits	No PS1 circuit	N/A
6.4.5	Control of fire spread in PS2 circuits	Min. V-0 PCB used, other internal combustible material has a mass of less than 4g or comply class V-2 or better.	P
6.4.5.2	Supplementary safeguards .....	(See appended tables 4.1.2)	P
6.4.6	Control of fire spread in PS3 circuit	No PS3 circuit	N/A
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General.....		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	See below	P
6.4.8.1	Fire enclosure and fire barrier material properties	Metal 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	No openings	N/A
6.4.8.3.1	Fire enclosure and fire barrier openings		N/A
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions(mm) .....	No openings	N/A
	Needle Flame test		N/A

6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....	No openings	N/A
	Flammability tests for the bottom of a fire enclosure .....		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....		N/A
6.5	Internal and external wiring		N/A
6.5.1	Requirements		N/A
6.5.2	Cross-sectional area (mm <sup>2</sup> ) .....		--
6.5.3	Requirements for interconnection to building wiring .....		N/A
6.6	Safeguards against fire due to connection to additional equipment		N/A
	External port limited to PS2 or complies with Clause Q.1		N/A

<b>7</b>	<b>INJURY CAUSED BY HAZARDOUS SUBSTANCES</b>		N/A
7.2	Reduction of exposure to hazardous substances		N/A
7.3	Ozone exposure		N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions .....		--
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010) .....		--
7.6	Batteries.....		N/A

<b>8</b>	<b>MECHANICALLY-CAUSED INJURY</b>		P
8.1	General		P
8.2	Mechanical energy source classifications	Sharp edges and corners, and equipment mass are both classified as MS1	P
8.3	Safeguards against mechanical energy sources	No safeguard is required to be interposed between MS1 and an ordinary person	N/A
8.4	Safeguards against parts with sharp edges and corners	Accessible edges and corners of the equipment were rounded and are classified as MS1	N/A
8.4.1	Safeguards		N/A



8.5	Safeguards against moving parts		N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard..... :		--
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks .....		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard.....:		--
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N) .....		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test.....:		N/A
8.6	Stability		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:		--
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force .....		--
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt .....		--
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force).....:		N/A
	Position of feet or movable parts.....:		--
8.7	Equipment mounted to wall or ceiling		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface) .....		N/A
8.7.2	Direction and applied force.....:		N/A
8.8	Handles strength		N/A
8.8.1	Classification		N/A
8.8.2	Applied Force .....		N/A
8.9	Wheels or casters attachment requirements		N/A

8.9.1	Classification		N/A
8.9.2	Applied force .....		--
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard .....		--
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force .....		--
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N) .....		--
8.10.6	Thermoplastic temperature stability ( C) .....		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable N .....		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas .....		N/A
	Button/Ball diameter (mm) .....		--

<b>9</b>	<b>THERMAL BURN INJURY</b>		<b>P</b>
9.2	Thermal energy source classifications	Accessible surfaces are classified as TS1.	P
9.3	Safeguard against thermal energy sources	No safeguards are required between TS1 and ordinary person	N/A
9.4	Requirements for safeguards		N/A
9.4.1	Equipment safeguard		N/A
9.4.2	Instructional safeguard .....		N/A

<b>10</b>	<b>RADIATION</b>		<b>P</b>
10.2	Radiation energy source classification	Indicator light in low power application considered as RS1 according to the IEC/EN 62471	P
10.2.1	General classification		N/A
10.3	Protection against laser radiation		N/A
	Laser radiation that exists equipment:		--

	Normal, abnormal, single-fault..... :		N/A
	Instructional safeguard .....		--
	Tool..... :		--
10.4	Protection against visible, infrared, and UV radiation		N/A
10.4.1	General		N/A
10.4.1.a)	RS3 for Ordinary and instructed persons .....		N/A
10.4.1.b)	RS3 accessible to a skilled person..... :		N/A
	Personal safeguard (PPE) instructional safeguard..... :		--
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 . :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions .....		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque..... :		N/A
10.4.1.f)	UV attenuation .....		N/A
10.4.1.g)	Materials resistant to degradation UV .....		N/A
10.4.1.h)	Enclosure containment of optical radiation..... :		N/A
10.4.1.i)	Exempt Group under normal operating conditions..... :		N/A
10.4.2	Instructional safeguard .....		N/A
10.5	Protection against x-radiation		N/A
10.5.1	X- radiation energy source that exists equipment :		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards..... :		N/A
	Instructional safeguard for skilled person..... :		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation .....		--
	Abnormal and single-fault condition .....		N/A
	Maximum radiation (pA/kg)..... :		N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A)..... :		N/A
	Output voltage, unweighted r.m.s..... :		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards .....		N/A
	Equipment safeguard prevent ordinary person to		--

	RS2..... :		
	Means to actively inform user of increase sound pressure..... :		--
	Equipment safeguard prevent ordinary person to RS2..... :		--
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) $L_{Aeq}$ acoustic pressure output..... :		--
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)..... :		--
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A)..... :		--

<b>B</b>	<b>NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS</b>		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements..... :	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers..... :		N/A
B.2.3	Supply voltage and tolerances	12VDC	P
B.2.5	Input test..... :	Not directed connected to the mains, No input power/current marking	N/A
B.3	Simulated abnormal operating conditions		N/A
B.3.1	General requirements..... :		N/A
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of 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	Abnormal operating conditions as specified in Clause E.2.		N/A
B.3.8	Safeguards functional during and after abnormal operating conditions		N/A
B.4	Simulated single fault conditions		N/A

B.4.2	Temperature controlling device open or short-circuited .....	No Temperature controlling device used.	N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature .....		N/A
B.4.4	Short circuit of functional insulation		N/A
B.4.4.1	Short circuit of clearances for functional insulation		N/A
B.4.4.2	Short circuit of creepage distances for functional insulation		N/A
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 disconnect of passive components		N/A
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		N/A
B.4.9	Battery charging under single fault conditions ... :		N/A
<b>C</b>	<b>UV RADIATION</b>		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		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 apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
<b>D</b>	<b>TEST GENERATORS</b>		N/A
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A
<b>E</b>	<b>TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS</b>		N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V) .....		--
	Rated load impedance ( $\Omega$ ) .....		--
E.2	Audio amplifier abnormal operating conditions		N/A

F	<b>EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS</b>	P
F.1	General requirements	P
	Instructions – Language .....: English	--
F.2	Letter symbols and graphical symbols	P
F.2.1	Letter symbols according to IEC60027-1	P
	Letter symbols for quantities and units are compliance with IEC 60027-1	
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	P
	Graphic symbols are compliance with IEC 60417 or ISO 3864-2 or ISO 7000	
F.3	Equipment markings	P
F.3.1	Equipment marking locations	P
	Equipment marking is located on its exterior surface and is readily visible	
F.3.2	Equipment identification markings	P
F.3.2.1	Manufacturer identification .....:	--
F.3.2.2	Model identification .....:	--
	See marking plate for details	
F.3.3	Equipment rating markings	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 supply voltage.....:	--
F.3.3.4	Rated voltage .....:	--
	See marking plate for details	
F.3.3.4	Rated frequency .....:	--
F.3.3.6	Rated current or rated power .....:	--
	See marking plate for details	
F.3.3.7	Equipment with multiple supply connections	N/A
F.3.4	Voltage setting device	N/A
F.3.5	Terminals and operating devices	N/A
F.3.5.1	Mains appliance outlet and socket-outlet markings.....:	N/A
F.3.5.2	Switch position identification marking .....:	N/A
F.3.5.3	Replacement fuse identification and rating markings.....:	N/A
F.3.5.4	Replacement battery identification marking .....:	N/A
F.3.5.5	Terminal marking location	N/A
F.3.6	Equipment markings related to equipment classification	N/A
	Class III apparatus	
F.3.6.1	Class I Equipment	N/A
	Class III apparatus	
F.3.6.1.1	Protective earthing conductor terminal	N/A

F.3.6.1.2	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		N/A
F.3.6.2.1	Class II equipment with or without functional earth	Without functional earth	N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking .....	Equipment is not intended for other than IPX0.	--
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking	Marking label is tested in appliance	P
F.3.10	Test for permanence of markings	After the test, the marking remains legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits		N/A
	h) Symbols used on equipment		N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
j)	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards		N/A
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A
<b>G</b>	<b>COMPONENTS</b>		N/A
<b>G.1</b>	<b>Switches</b>		N/A
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
<b>G.2</b>	<b>Relays</b>		N/A
G.2.1	General requirements		N/A

G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
<b>G.3</b>	<b>Protection Devices</b>		N/A
G.3.1	Thermal cut-offs	No thermal cut-offs	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	No thermal links	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691		N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H) .....		--
	Single Fault Condition .....		--
	Test Voltage (V) and Insulation Resistance ( ) :		--
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.3.5		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
<b>G.4</b>	<b>Connectors</b>		N/A
G.4.1	Spacings		N/A
G.4.2	Mains connector configuration .....		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
<b>G.5</b>	<b>Wound Components</b>		N/A
G.5.1	Wire insulation in wound components.....		N/A
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°		N/A
G.5.1.2 b)	Construction subject to routine testing		N/A
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s) .....		--



	Temperature ( C) .....		--
G.5.2.3	Wound Components supplied by mains		N/A
<b>G.5.3</b>	<b>Transformers</b>		N/A
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1).....		N/A
	Position.....		--
	Method of protection .....		--
G.5.3.2	Insulation		N/A
	Protection from displacement of windings.....		--
G.5.3.3	Overload test .....		N/A
G.5.3.3.1	Test conditions		N/A
G.5.3.3.2	Winding Temperatures testing in the unit		N/A
G.5.3.3.3	Winding Temperatures - Alternative test method		N/A
<b>G.5.4</b>	<b>Motors</b>		N/A
G.5.4.1	General requirements		N/A
	Position .....		--
G.5.4.2	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) .....		--
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V) .....		--
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		--
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....		N/A
	Electric strength test (V) .....		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h) .....		N/A
	Electric strength test (V) .....		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 .....		--
<b>G.6</b>	<b>Wire Insulation</b>		N/A
G.6.1	General		N/A
G.6.2	Solvent-based enamel wiring insulation		N/A
<b>G.7</b>	<b>Mains supply cords</b>		N/A
G.7.1	General requirements		N/A
	Type.....		--
	Rated current (A) .....		--
	Cross-sectional area (mm <sup>2</sup> ), (AWG).....		--
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) .....		--
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm)....		--
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry .....	(See appended table 5.4.11.1)	N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) .....		--
	Diameter (m) .....		--
	Temperature ( C) .....		--
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
<b>G.8</b>	<b>Varistors</b>		N/A
G.8.1	General requirements		N/A
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test .....		N/A
G.8.3.3	Temporary overvoltage .....		N/A
<b>G.9</b>	<b>Integrated Circuit (IC) Current Limiters</b>		N/A

G.9.1 a)	Manufacturer defines limit at max. 5A.		N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA .....		--
G.9.1 d)	IC limiter output current (max. 5A) .....		--
G.9.1 e)	Manufacturers' defined drift .....		--
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
<b>G.10</b>	<b>Resistors</b>		N/A
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
<b>G.11</b>	<b>Capacitor and RC units</b>		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
<b>G.12</b>	<b>Optocouplers</b>		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results) .....		N/A
	Type test voltage $V_{ini}$ .....		--
	Routine test voltage, $V_{ini,b}$ .....		--
<b>G.13</b>	<b>Printed boards</b>		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
	Compliance with cemented joint requirements (Specify construction) .....		--
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.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
<b>G.14</b>	<b>Coating on components terminals</b>		N/A
G.14.1	Requirements ..... :		N/A
<b>G.15</b>	<b>Liquid filled components</b>		N/A
G.15.1	General requirements		N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
<b>G.16</b>	<b>IC including capacitor discharge function (ICX)</b>		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage ..... :		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage ..... :		--
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance ..... :		--
D3)	Resistance ..... :		--
<b>H</b>	<b>CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
H.1	General		N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringling 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 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 complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V) .....		--
<b>J</b>	<b>INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		N/A
	General requirements		N/A
<b>K</b>	<b>SAFETY INTERLOCKS</b>		N/A
K.1	General requirements		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
	Compliance .....		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method .....		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location) .....		N/A
K.7.2	Overload test, Current (A) .....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test .....		N/A
<b>L</b>	<b>DISCONNECT DEVICES</b>		N/A
L.1	General requirements		N/A
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		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

L.8	Multiple power sources		N/A
<b>M</b>	<b>EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS</b>		N/A
M.1	General requirements		N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) ... :		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance ..... :		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature ..... :		--
M.4.2.2 b)	Single faults in charging circuitry ..... :		--
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A

M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) .....		N/A
M.6.2	Leakage current (mA) .....		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume $V_z$ (m <sup>3</sup> /s).....		--
M.8.2.3	Correction factors .....		--
M.8.2.4	Calculation of distance $d$ (mm) .....		--
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) .....		N/A
<b>N</b>	<b>ELECTROCHEMICAL POTENTIALS</b>		N/A
	Metal(s) used .....	Pollution degree considered	--
<b>O</b>	<b>MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES</b>		N/A
	Figures O.1 to O.20 of this Annex applied.....		--
<b>P</b>	<b>SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS</b>		N/A
P.1	General requirements	No openings	N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) .....		--
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A

	Transportable equipment with metalized plastic parts .....		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) .....		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	T <sub>c</sub> (°C).....		--
	T <sub>r</sub> (°C) .....		--
	T <sub>a</sub> (°C).....		--
P.4.2 b)	Abrasion testing .....		N/A
P.4.2 c)	Mechanical strength testing .....		N/A
<b>Q</b>	<b>CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING</b>		P
Q.1	Limited power sources		P
Q.1.1 a)	Inherently limited output		P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method		N/A
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A) .....		--
	Current limiting method.....		--
<b>R</b>	<b>LIMITED SHORT CIRCUIT TEST</b>		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A). .....		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) .....	--
	Conditioning ( C).....	--
	Test flame according to IEC 60695-11-5 with conditions as set out	N/A
	Test specimen does not show any additional hole	N/A
S.3	Flammability test for the bottom of a fire enclosure	N/A
	Samples, material .....	--
	Wall thickness (mm) .....	--
	Cheesecloth did not ignite	N/A
S.4	Flammability classification of materials	N/A
S.5	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 (test condition), ( C).....	--
	Test flame according to IEC 60695-11-20 with conditions as set out	N/A
	After every test specimen was not consumed completely	N/A
	After fifth flame application, flame extinguished within 1 min	N/A

<b>T</b>	<b>MECHANICAL STRENGTH TESTS</b>		<b>P</b>
T.1	General requirements		P
T.2	Steady force test, 10 N .....		N/A
T.3	Steady force test, 30 N .....		N/A
T.4	Steady force test, 100 N .....		N/A
T.5	Steady force test, 250 N .....	(See appended table T5)	P
T.6	Enclosure impact test		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test .....	(See appended table T7)	P
T.8	Stress relief test .....	(See appended table T8)	P
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J) .....		--
	Height (m) .....		--
T.10	Glass fragmentation test .....		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm) .....		--
<b>U</b>	<b>MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION</b>		<b>N/A</b>
U.1	General requirements		N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen .....		N/A
<b>V</b>	<b>DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)</b>		<b>N/A</b>
V.1	Accessible parts of equipment		N/A
V.2	Accessible part criterion		N/A

## IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict
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4.1.2	TABLE: List of critical components					P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1</sup>	
Metal enclosure	--	--	Thickness min.1.5mm	EN 62368- 1	Test with appliance	
PCB	Interchangeable	Interchangeable	V-0, 130°C,	UL 796	UL	
Adapter	GUANGDONG ABT INDUSTRIAL CO., LTD.	ABT020120A	Input:100-240V~, 50/60Hz, 1.5A, Output: DC12.0V 2.0A	IEC 62368- 1 J 62368-1	TUV SUD Cert. PSB-JP-2020-0188	

Supplementary information:

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

2) Description line content is optional. Main line description needs to clearly detail the component used for testing

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.8.4, 4.8.5	<b>TABLE: Lithium coin/button cell batteries mechanical tests</b>		N/A
(The following mechanical tests are conducted in the sequence noted.)			
4.8.4.2	<b>TABLE: Stress Relief test</b>		—
	<b>Part</b>	<b>Material</b>	<b>Oven Temperature (°C)</b>
	Remote control	--	--
4.8.4.3	<b>TABLE: Battery replacement test</b>		—
Battery part no. ....:			—
Battery Installation/withdrawal		Battery Installation/Removal Cycle	Comments
		1	--
		2	--
		3	--
		4	--
		5	--
		6	--
		8	--
		9	--
		10	--
4.8.4.4	<b>TABLE: Drop test</b>		—
	Impact Area	Drop Distance	Drop No.
			1
			2
			3
4.8.4.5	<b>TABLE: Impact</b>		—
	Impacts per surface	Surface tested	Impact energy (Nm)
			2
			2
			2
4.8.4.6	<b>TABLE: Crush test</b>		—
	Test position	Surface tested	Crushing Force (N)
			Duration force applied (s)
			--
Supplementary information:			

## IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict
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4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result			N/A
Test position	Surface tested	Force (N)	Duration force applied (s)	
		--	--	
Supplementary information:				

5.2	Table: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	12V	All circuit	Normal	N/A	N/A	N/A	ES1
			Abnormal	N/A	N/A	N/A	
			Single fault – SC/OC	N/A	N/A	N/A	

5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class	
				Capacitance, nF	Upk (V)		
--	--	--	Normal	--	--	--	
			Abnormal	--	--		
			Single fault – SC/OC				

5.2.2.4 - Single Pulses							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Duration (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

## IEC 62368-1

Clause	Requirement + Test	Result - Remark	Verdict
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### 5.2.2.5 - Repetitive Pulses

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				Off time (ms)	Upk (V)	Ipk (mA)	
--	--	--	Normal	--	--	--	--
			Abnormal	--	--	--	
			Single fault – SC/OC	--	--	--	

Test Conditions:

Normal –

Abnormal -

Supplementary information: SC=Short Circuit, OC=Short Circuit

IEC 62368-1						
Clause	Requirement + Test	Result - Remark			Verdict	
<b>5.4.1.4, 6.3.2, 9.0, B.2.6</b>	<b>TABLE: Temperature measurements</b>				<b>P</b>	
	Supply voltage (V) .....	12V	--	--	--	--
	Ambient T <sub>min</sub> ( C) .....	--	--	--	--	--
	Ambient T <sub>max</sub> ( C) .....	--	--	--	--	--
	T <sub>ma</sub> ( C) .....	25.0	--	--	--	--
Maximum measured temperature T of part/at:		T ( C)			Allowed T <sub>max</sub> ( C)	
Enclosure of adaptor		29.2	--	--	--	77(TS1)
DC inlet		29.4	--	--	--	Ref.
C18 body		35.0	--	--	--	105
L2 body		43.7	--	--	--	130
C36 body		31.1	--	--	--	105
PCB near BZ1		30.8	--	--	--	130
LED cover		30.6	--	--	--	Ref.
PCB near TVS27		31.7	--	--	--	130
RY2 body		30.9	--	--	--	Ref.
TX1 coil		33.3	--	--	--	Ref.
PCB near TX1		33.5	--	--	--	130
PCB near U14		32.3	--	--	--	130
PCB near U7		34.7	--	--	--	130
PCB near U1		29.9	--	--	--	130
PCB near J4		34.0	--	--	--	130
PCB near U8		30.7	--	--	--	130
PCB near U25		31.9	--	--	--	130
Button body		29.1	--	--	--	77(TS1)
RS485 terminal		29.1	--	--	--	77(TS1)
Metal enclosure		28.9	--	--	--	60(TS1)
Ambient		25.0	--	--	--	--
Supplementary information:						

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

Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> ( )	t <sub>2</sub> (°C)	R <sub>2</sub> ( )	T ( C)	Allowed T <sub>max</sub> ( C)	Insulation class
--	--	--	--	--	--	--	--

Supplementary information:  
 Note 1: T<sub>ma</sub> should be considered as directed by applicable requirement  
 Note 2: T<sub>ma</sub> is not included in assessment of Touch Temperatures (Clause 9)

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm) .....			
Object/ Part No./Material	Manufacturer /trademark	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	Test temperature ( C)	Impression diameter (mm)	
--	--	--	--	
Supplementary information:				

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						N/A
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (Hz) <sup>1</sup>	Required cl (mm)	cl (mm) <sup>2</sup>	Required <sup>d3</sup> cr (mm)	cr (mm)
--	--	--	--	--	--	--	--

Supplementary information:  
 Note 1: Only for frequency above 30 kHz  
 Note 2: See table 5.4.2.4 if this is based on electric strength test  
 Note 3: Provide Material Group



IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>5.4.2.3</b>	<b>TABLE: Minimum Clearances distances using required withstand voltage</b>		N/A
	<b>Overvoltage Category (OV):</b>		--
	<b>Pollution Degree:</b>		--
Clearance distanced between:		Required withstand voltage	Required cl (mm)
--		--	--
Supplementary information:			

<b>5.4.2.4</b>	<b>TABLE: Clearances based on electric strength test</b>			N/A
Test voltage applied between:		Required cl (mm)	Test voltage (kV) peak/ r.m.s. / d.c.	Breakdown Yes / No
--		--	--	--
Supplementary information:				

<b>5.4.4.2, 5.4.4.5 c) 5.4.4.9</b>	<b>TABLE: Distance through insulation measurements</b>					N/A
Distance through insulation di at/of:		Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)
Plastic enclosure						
Supplementary information:						

<b>5.4.9</b>	<b>TABLE: Electric strength tests</b>			N/A
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:				
--		--	--	--
Basic/supplementary:				
--		--	--	--
Reinforced:				
Plastic enclosure		--	--	No

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>5.4.9</b>	<b>TABLE: Electric strength tests</b>		<b>N/A</b>
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)
			Breakdown Yes / No
Routine Tests:			
--		--	--
Supplementary information:			

<b>5.5.2.2</b>	<b>TABLE: Stored discharge on capacitors</b>				<b>N/A</b>
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification
	L/N	Normal	N/A		
Supplementary information:					
X-capacitors installed for testing are:					
<input type="checkbox"/> bleeding resistor rating:					
<input type="checkbox"/> ICX:					
Notes:					
A. Test Location:					
Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth					
B. Operating condition abbreviations:					
N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition					

<b>5.6.6.2</b>	<b>TABLE: Resistance of protective conductors and terminations</b>				<b>N/A</b>
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Supplementary information:					

<b>5.7.2.2, 5.7.4</b>	<b>TABLE: Earthed accessible conductive part</b>		<b>N/A</b>
Supply voltage .....			—
Location		Test conditions specified in 6.1	Touch

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
		of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	current (mA)
		1	
		2*	
		3	
		4	
		5	
		6	
		8	
Supplementary Information:			
Notes:			
[1] Supply voltage is the anticipated maximum Touch Voltage			
[2] Earthed neutral conductor [Voltage differences less than 1% or more]			
[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3			
[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.			
[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.			

6.2.2	Table: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s <sup>*)</sup>	PS Classification
A	DC inlet	Power (W) ...:	--	34.94	PS2
		VA (V) :	--	11.78	
		IA (A) :	--	2.97	
Supplementary Information:					
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits					

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				N/A
Location	Open circuit voltage After 3 s (V <sub>p</sub> )	Measured r.m.s current (I <sub>rms</sub> )	Calculated value (V <sub>p</sub> x I <sub>rms</sub> )	Arcing PIS? Yes / No	

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
All primary circuits and secondary circuits inside the equipment enclosure	*	*	*	*
<p>Supplementary information:</p> <p>An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (<math>V_p</math>) and normal operating condition rms current (<math>I_{rms}</math>) is greater than 15.</p>				

6.2.3.2	Table: Determination of Potential Ignition Sources (Resistive PIS)				N/A
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
All primary circuits and secondary circuits inside the equipment enclosure	*	*	*	*	
<p>Supplementary Information:</p> <p>A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.</p> <p>If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.</p> <p>A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, <u>or</u> (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.</p>					

8.5.5	TABLE: High Pressure Lamp		N/A
Description	Values	Energy Source Classification	
Lamp type .....		—	
Manufacturer .....		—	
Cat no.....		—	
Pressure (cold) (MPa) .....		MS_	
Pressure (operating) (MPa).....		MS_	
Operating time (minutes).....		—	
Explosion method.....		—	

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Max particle length escaping enclosure (mm):		MS_
	Max particle length beyond 1 m (mm)..... :		MS_
	Overall result .....		
Supplementary information:			

B.2.5	TABLE: Input test							P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status	
12	0.11	2	1.32	--	--	--	Normal condition	
Supplementary information:-- Equipment may be have rated current or rated power or both. Both should be measured								

B.3	TABLE: Abnormal operating condition tests								N/A
Ambient temperature ( C) .....					See below			--	
Power source for EUT: Manufacturer, model/type, output rating .....					--			--	
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. ( C)	Observation	
--	--	--	--	--	--	--	--	--	
Supplementary information: Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4.									

B.4	TABLE: Fault condition tests								N/A
-----	------------------------------	--	--	--	--	--	--	--	-----

IEC 62368-1								
Clause	Requirement + Test	Result - Remark					Verdict	
Ambient temperature ( °C) .....					See below			
Power source for EUT: Manufacturer, model/type, output rating .....					--			
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. ( °C)	Observation
--	--	--	--	--	--	--	--	--
Supplementary information:								

Annex M	TABLE: Batteries								N/A
The tests of Annex M are applicable only when appropriate battery data is not available									
Is it possible to install the battery in a reverse polarity position? .....									
	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									
Test results:								Verdict	
- Chemical leaks									
- Explosion of the battery									
- Emission of flame or expulsion of molten metal									
- Electric strength tests of equipment after completion of tests									
Supplementary information:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries								N/A
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IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp (C)	
	Normal				
	Abnormal				
	Single fault –SC/OC				
	Normal				
	Abnormal				
	Single fault – SC/OC				

Supplementary Information:

Battery identification	Charging at $T_{lowest}$ ( C )	Observation	Charging at $T_{highest}$ ( C )	Observation

Supplementary Information:

<b>Annex Q.1</b>	<b>TABLE: Circuits intended for interconnection with building wiring (LPS)</b>	<b>P</b>
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Note: Measured UOC (V) with all load circuits disconnected:

Output Circuit	Components	U <sub>oc</sub> (V)	I <sub>sc</sub> (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
RS485-1 A+ to B-	Normal	4.90	0.0032	8	0.016	100
RS485-1 A+ to GND	Normal	4.90	0.0028	8	0.014	100
USB	Normal	4.99	0.92	8	4.28	100
TYPE-C	Normal	5.02	0.93	8	4.56	100
POE(45,t o 78)	Normal	0	0	8	0	100

Supplementary Information:

SC=Short circuit, OC=Open circuit

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

<b>T.2, T.3, T.4, T.5</b>	<b>TABLE: Steady force test</b>		P
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Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
Top/Side/Bottom	Metal	Min.1.5	250	5s	No damaged

Supplementary information:

<b>T.6, T.9</b>	<b>TABLE: Impact tests</b>			N/A
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Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation
--	--	--	--	--

Supplementary information:

<b>T.7</b>	<b>TABLE: Drop tests</b>			P
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Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation
Top/Side/Bottom	Metal	Min. 1.5mm	1000	No damaged, no hazards.

Supplementary information:

<b>T.8</b>	<b>TABLE: Stress relief test</b>				N/A
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Part/Location	Material	Thickness (mm)	Oven Temperature ( C)	Duration (h)	Observation
--	--	--	--	--	--

Supplementary information:



IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ATTACHMENT TO TEST REPORT</b> <b>IEC 62368-1</b> <b>(JAPAN) NATIONAL DIFFERENCES</b> <b>(Audio/video, information and communication technology equipment – Part 1: Safety requirements)</b>			
Differences according to ..... : J62368-1 (H30)			
Attachment Form No..... : JP_ND_IEC62368_1B			
Attachment Originator ..... : UL (JP)			
Master Attachment..... : Date 2018-11-22			
Copyright © 2018 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
	<b>National Differences</b>		—
4.1.2	Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this standard or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these.		P
5.6.1	Mains socket-outlet and appliance outlet shall comply with Clause G.4.2A if they are incorporated as part of the equipment.	No mains socket-outlet and appliance outlet.	N/A
5.6.2.1	Mains connection of class 0I equipment: Instructional safeguard in accordance with Clause F.3.6.1A; Mains plug having a lead wire for protective earthing connection of class 0I equipment; Independent main protective earthing terminal installed by ordinary person.		N/A
5.6.2.2	This requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector.		N/A
5.6.3	In case of class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall comply with either of the following: – use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having size and strength that are equivalent to or more than the above copper wire – single core cord or single core cable with 1.25 mm <sup>2</sup> or more cross-sectional area		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.3	For class 0I equipment that is provided with mains socket-outlet in the configuration as specified in JIS C 8282 series or JIS C 8303, or otherwise being considered to comply with relevant regulations, or that is provided with mains appliance outlet as specified in JIS C 8283-2-2 for the purpose of interconnection, the measurement is conducted on the system of the interconnected equipment having a single connection to the mains.		N/A
5.7.4	In case of class 0I equipment, touch current shall not exceed 1.41 mA peak or for sinusoidal wave, 1.0 mA r.m.s. when measured using the network specified in Figure 4 of IEC 60990.		N/A
6.4.3.3	A fuse complying with JIS C 6575 series or a fuse having equivalent characteristics shall open within 1 s. For Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”. A fuse not complying with JIS C 6575 series shall be tested with the breaking capacity taken into account.		N/A
8.5.4.2.1	Only three-phase stationary equipment rated more than 200 V ac can be considered as being for use in locations where children are not likely to be present, when complying with Clause F.4.		N/A
8.5.4.2.2	For equipment installed where children may be present, an instructional safeguard shall be provided by easily understandable wording in accordance with Clause F.5, except that element 3 is optional.		N/A
8.5.4.2.4	The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then the wedge probe per Figure V.4 shall not contact any moving part.		N/A
8.5.4.2.5	The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part. Instructional safeguard shall not be used instead of equipment safeguard for preventing access to hazardous moving parts.		N/A
9.2.6, Table 38	Handles, Knobs, grips, etc. and external surfaces either held, touched or worn against the body in normal use (> 1 min) <sup>b,c</sup>		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
F.3.5.1	Instructional safeguard of class 0I equipment in accordance with Clause F.5 when a mains socket-outlet as specified in JIS C 8282 series, JIS C 8303 or relevant regulation to which class I equipment can be connected is provided in accordance with Clause G.4.2A except for the cases where the socket-outlet is accessible only to skilled persons.		N/A
F.3.5.3	If the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic.		N/A
F.3.6.1A	Marking for class 0I equipment The requirements of Clauses F.3.6.1.1 and F.3.6.1.3 shall be applied to class 0I equipment. For class 0I equipment, a marking of instructions and instructional safeguard shall be provided regarding the earthing connection.		N/A
F.3.6.2.1	Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10), shall not be used for class I equipment or class 0I equipment.	Class III equipment	N/A
F.4	Instruction for audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1 and F.3.6.1A. Installation instruction for the protective earthing connection for class 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment.		N/A
G.3.2.1	The thermal link when tested as a separate component, shall comply with the requirements of JIS C 6691 or have properties equivalent to or better than that.		N/A
G.3.4	Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the relevant part of JIS C 6575 (corresponding to IEC60127) or shall have equivalent characteristics. If there are no applicable IEC standards, overcurrent protective devices used as a safeguard shall comply with their applicable IEC standards.		N/A
G.4.1	This requirement is not applicable to Clauses G.4.2 and G.4.2A.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	<p>Mains connector shall comply with JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series.</p> <p>Mains plugs and socket-outlets shall comply with JIS C 8282 series, JIS C 8303, IEC 60309 series, or have equivalent or better performance.</p> <p>A power supply cord set provided with appliance connector that can fit appliance inlet complying with JIS C 8283-1 shall comply with JIS C 8286.</p> <p>Construction preventing mechanical stress not to transmit to the soldering part of inlet terminal.</p> <p>Consideration for an equipment rated not more than 125 V provided with Type C14 and C18 appliance coupler complying with JIS C 8283 series.</p>	Approved adapter used	N/A
G.4.2A	Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively.		N/A
G.7.1	A mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor.		N/A
G.8.3.3	Withstand $1,71 \times 1.1 \times U_0$ for 5 s.		N/A

Picture

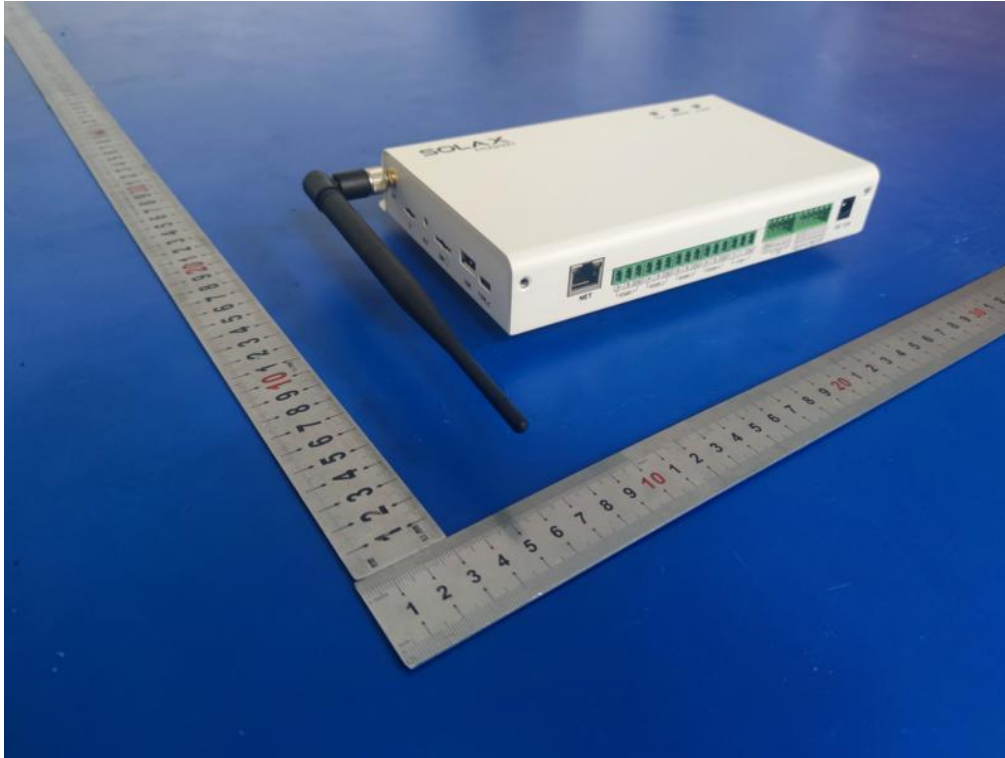


Figure 1. Over View 1

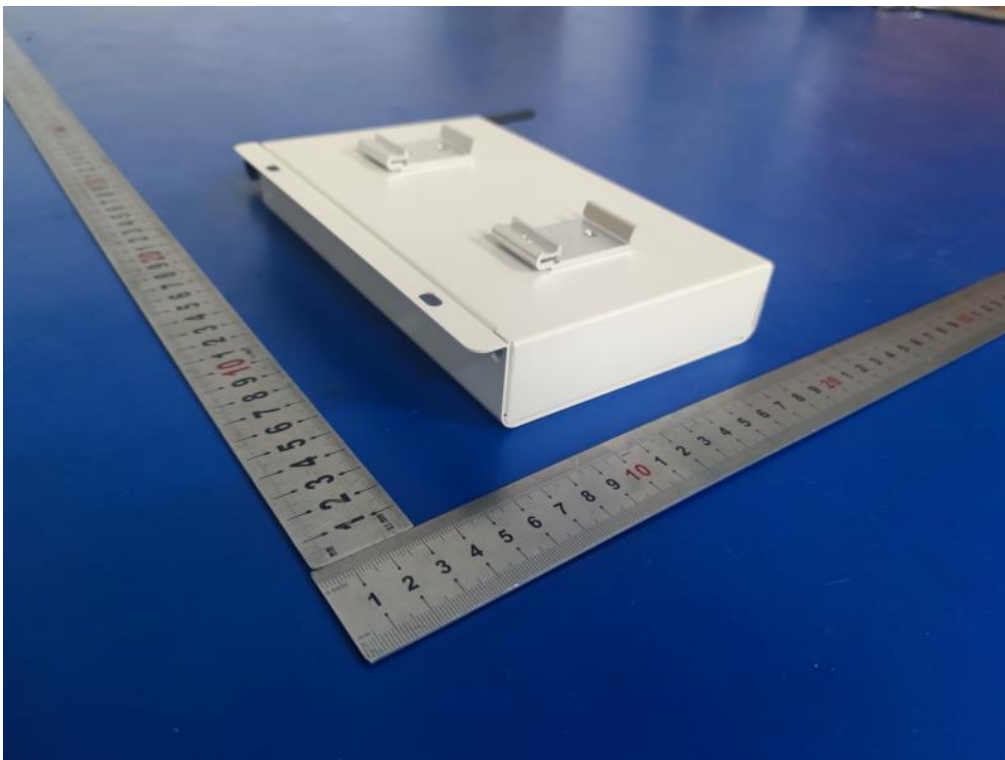


Figure 2. Over View 2

Pictures



Figure 3. Rear View



Figure 4. Side View

Pictures



Figure 5. Internal View

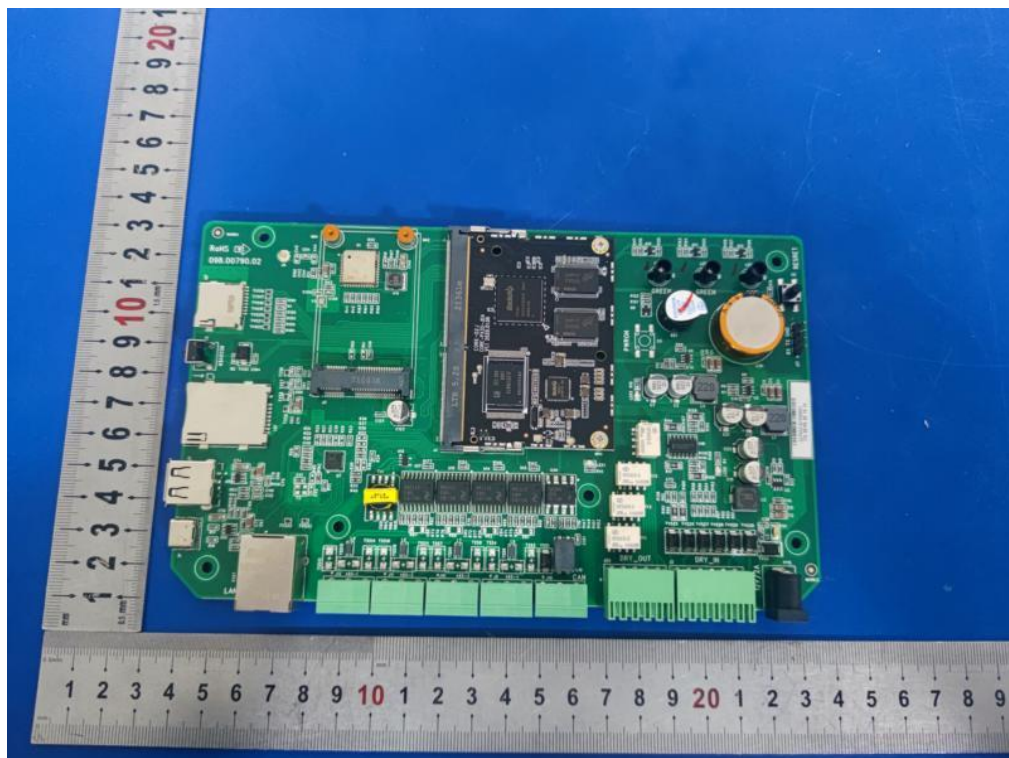


Figure 6. PCB over View

Pictures

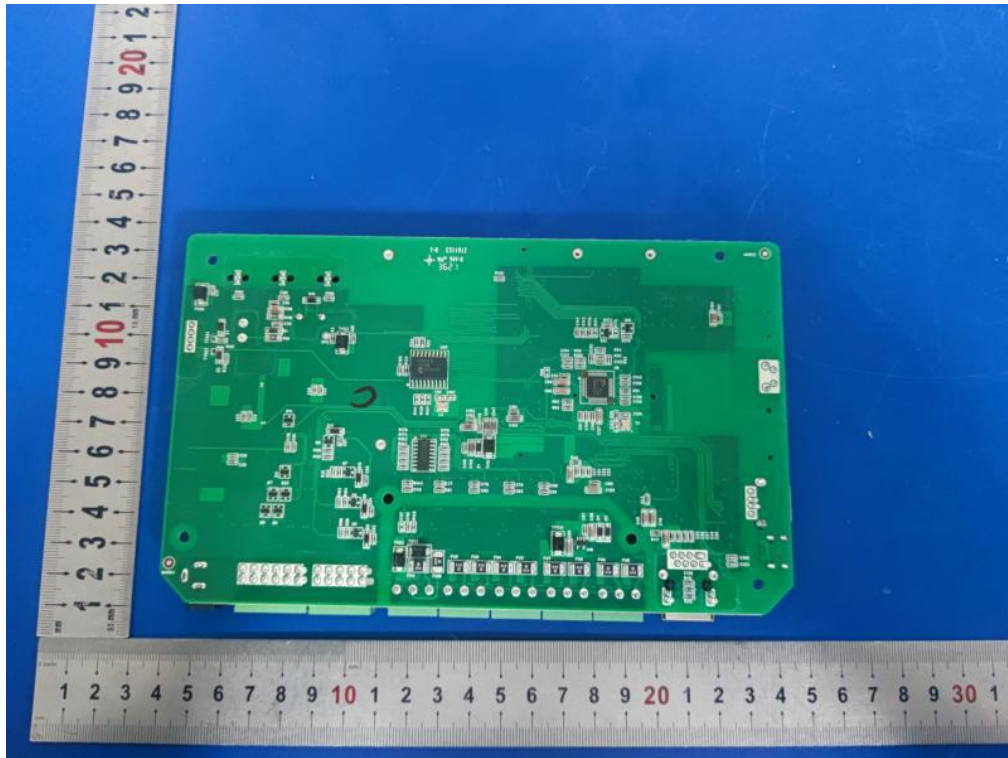


Figure 7. Waste container



Figure 8. Adapter view



Pictures



Figure 9. Adapter label view

-----End-----

# 声明

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