Test Report issued under the responsibility of:

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

Report Number..... :	AOC250915030S
Date of issue ..... :	2025-09-29
Total number of pages ..... :	75 pages
Name of Testing Laboratory preparing the Report ..... :	Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Applicant's name..... :	Shenzhen Engete Electronic Technology Co., Ltd.
Address ..... :	E207, Hedong Building, Haoyunlai Plaza, Baoan District 80, Hedong Community, Xixiang Street, Baoan District, Shenzhen City
Test specification:	
Standard ..... :	☒ IEC 62368-1:2018 ☒ U.S.A.AND CANADA NATIONAL DIFFERENCES
Test procedure..... :	Test report
Non-standard test method..... :	N/A
TRF template used ..... :	IECEE OD-2020-F1:2020, Ed.1.3
Test Report Form No. ..... :	IEC 62368_1E
Test Report Form(s) Originator.... :	UL(US)
Master TRF ..... :	Dated 2021-02-04

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description .....:	Home audio amplifier
Trade Mark .....:	N/A
Manufacturer.....:	JS ELECTRONICS LTD FLAT/RM 06 BLK A 23/F HOOVER INDUSTRIAL BUILDING 26-38 KWAI CHEONG ROAD, KWAI CHUNG, NT, HK
Model/Type reference .....:	AS60BU, AS25BU, AS35BU, AS29BU, JSU202, SK-985DT, SK-880DT, SK-725DT, SK-635DT, SK-533DT, SK-400DT, SK-336DT, SK-211DT, SK-160DT, AS-22BU, AS-58BU, AS-73BU, AS-87BU, AS-96BU, JSU303, JSU606, JSU202PC, JSU404, JSU5000, AS-35BU PRO
Ratings .....:	Input: 100-240V~, 50/60Hz, 600W

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

☒	**Testing Laboratory:**	Shenzhen AOCE Electronic Technology Service Co., Ltd	
Testing location/ address ..... :		Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China	
Tested by (name, function, signature) ..... :		Bill Hu Technical Engineer	
Approved by (name, function, signature) .. :		Robin Liu Technical Manager	
☐	**Testing procedure: CTF Stage 1:**		
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 2:**		
Testing location/ address ..... :			
Tested by (name + signature) ..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			
☐	**Testing procedure: CTF Stage 3:**		
☐	**Testing procedure: CTF Stage 4:**		
Testing location/ address ..... :			
Tested by (name, function, signature) ..... :			
Witnessed by (name, function, signature) . :			
Approved by (name, function, signature) .. :			

Supervised by (name, function, signature) :		

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

Attachment No.1: National deviation

Attachment No.2: Photo document.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
- IEC 62368-1:2018	Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

Summary of compliance with National Differences (List of countries addressed): United States of America and Canada

☒ **The product fulfils the requirements of CSA/UL 62368-1:2019.**

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.

FTS

Home audio amplifier
AS60BU

Input: 100-240V~, 50/60Hz, 600W

Manufacturer: JS ELECTRONICS LTD

Made in China

Notes:

1. The above marking are the minimum requirements by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.

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:
Considered current rating of protective device.....:	☒ 20A for building; 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
Class of equipment .....:	☐ Class I ☒ Class II ☐ Class III ☐ Not classified ☐ other:
Special installation location .....:	☒ N/A ☐ restricted access area ☐ outdoor location ☐ other:
Pollution degree (PD) .....:	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified T_{ma}.....:	35 °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) .....:	≤7kg

Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement....:	F (Fail)
Testing:	
Date of receipt of test item .....:	2025-08-20
Date (s) of performance of tests .....:	2025-08-20 to 2025-09-19
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.**	
Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☐ **Yes** ☒ **Not applicable**
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) ..... :	JS ELECTRONICS LTD FLAT/RM 06 BLK A 23/F HOOVER INDUSTRIAL BUILDING 26-38 KWAI CHEONG ROAD, KWAI CHUNG, NT, HK
General product information and other remarks: 1. This apparatus is Home audio amplifier used for information technology equipment or audio/video equipment. 2. Maximum ambient temperature is 35°C. 3. The Clearances and Creepage Distances have additionally been assessed for suitability up to 2000 m. 4. All models are same except for the model name. 5. All tests were performed on the model AS60BU.	

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
ES3: All circuits expect for output circuits	Ordinary	N/A	N/A	Enclosure, see 5.3.2, 5.4.2, 5.4.3, 5.5.3, 5.5.4.
ES1: Output of Winding transformer and USB Output	Ordinary	N/A	N/A	N/A
ES1: Accessible parts	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
PS3	Enclosure	See 6.3	Min.V-1	N/A
PS3	PCB	See 6.3	Min.V-0	N/A
PS3	Internal wiring	See 6.3	See 6.5 (Equipment safeguards, rated VW-1)	N/A
PS3	Other combustible components / materials	See 6.3	See 6.4.5, 6.4.6	N/A
PS2	All combustible material for output terminal	See 6.3	V-1 or better	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: Equipment Mass	Ordinary	N/A	N/A	N/A
MS1: Sharp edges and corners	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: All accessible parts	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: LED indicator light	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** (See **OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS**)

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Clause	Requirement + Test	Result - Remark	Verdict
4	**GENERAL REQUIREMENTS**		P
4.1.1	Acceptance of materials, components and subassemblies	(See appended Table 4.1.2.)	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G	P
4.1.3	Equipment design and construction	Evaluation of safeguards regarding access to ES3 and to limiting the outputs to fulfill ES1, and protection in regard to risk of spread of fire, mechanical-caused injury and thermal burn considered.	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 and liquid filled components (LFC)		N/A
4.1.15	Markings and instructions	(See Annex F)	P
4.4.3	Safeguard robustness		P
4.4.3.1	General		P
4.4.3.2	Steady force tests	(See Clause T.5)	P
4.4.3.3	Drop tests		N/A
4.4.3.4	Impact tests	(See Clause T.6)	P
4.4.3.5	Internal accessible safeguard tests		N/A
4.4.3.6	Glass impact tests		N/A
4.4.3.7	Glass fixation tests		N/A
	Glass impact test (1J)		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	All safeguard remains effective	P
4.4.4	Displacement of a safeguard by an insulating liquid		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.4.5	Safety interlocks		N/A
4.5	**Explosion**		P
4.5.1	General	No explosion observed during normal / abnormal / single fault conditions.	P
4.5.2	No explosion during normal/abnormal operating condition	(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**		P
	Fix conductors not to defeat a safeguard		P
	Compliance is checked by test ..... :	(See Clause T.2)	P
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/button cell batteries**		N/A
4.8.1	General	No coin/button cell batteries.	N/A
4.8.2	Instructional safeguard ..... :		N/A
4.8.3	Battery compartment door/cover construction		N/A
	Open torque test		N/A
4.8.4.2	Stress relief test		N/A
4.8.4.3	Battery replacement test		N/A
4.8.4.4	Drop test		N/A
4.8.4.5	Impact test		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**		P
4.10	**Component requirements**		P
4.10.1	Disconnect Device	(See Annex L)	P
4.10.2	Switches and relays	(See appended table 4.1.2.)	P
5	**ELECTRICALLY-CAUSED INJURY**		P
5.2	**Classification and limits of electrical energy sources**		P
5.2.2	ES1, ES2 and ES3 limits	(See appended table 5.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.2.2	Steady-state voltage and current limits .....:	(See appended table 5.2)	P
5.2.2.3	Capacitance limits .....:		N/A
5.2.2.4	Single pulse limits .....:	No single pulse introduced	N/A
5.2.2.5	Limits for repetitive pulses .....:	No repetitive pulses introduced	N/A
5.2.2.6	Ringing signals	No ringing signals.	N/A
5.2.2.7	Audio signals	(See Clause E.1)	P
5.3	**Protection against electrical energy sources**		P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		P
5.3.1 a)	Accessible ES1/ES2 derived from ES2/ES3 circuits		P
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	ES2 or ES3 source cannot access by ordinary persons	P
	Accessibility to outdoor equipment bare parts	No outdoor equipment.	N/A
5.3.2.2	Contact requirements		P
	Test with test probe from Annex V	No bare parts at ES2 or ES3 basic safeguard could be accessed by operator.	—
5.3.2.2 a)	Air gap – electric strength test potential (V) .....:		N/A
5.3.2.2 b)	Air gap – distance (mm) .....:	>0.2	P
5.3.2.3	Compliance		P
5.3.2.4	Terminals for connecting stripped wire	No such structure	N/A
5.4	**Insulation materials and requirements**		P
5.4.1.2	Properties of insulating material		P
5.4.1.3	Material is non-hygroscopic		P
5.4.1.4	Maximum operating temperature for insulating materials .....:	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
5.4.1.5	Pollution degrees .....:	PD2	P
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied.	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 .....:	(See appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces	Considered.	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted		P
5.4.1.10.2	Vicat test.....:		N/A
5.4.1.10.3	Ball pressure test .....:	(See appended table 5.4.1.10.3)	P
5.4.2	Clearances	(See appended table 5.4.2, 5.4.3)	P
5.4.2.1	General requirements		P
	Clearances in circuits connected to AC Mains, Alternative method		P
5.4.2.2	Procedure 1 for determining clearance	(See appended table 5.4.2, 5.4.3)	P
	Temporary overvoltage .....:	2000Vpeak.	—
5.4.2.3	Procedure 2 for determining clearance	(See appended table 5.4.2, 5.4.3)	P
5.4.2.3.2.2	a.c. mains transient voltage.....:	2500Vpeak.	—
5.4.2.3.2.3	d.c. mains transient voltage .....:		—
5.4.2.3.2.4	External circuit transient voltage.....:		—
5.4.2.3.2.5	Transient voltage determined by measurement .....:		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test .....:	Not such procedure used.	N/A
5.4.2.5	Multiplication factors for clearances and test voltages .....:	Up to 2000m, Factor 1.0	N/A
5.4.2.6	Clearance measurement .....:	(See appended table 5.4.2, 5.4.3)	P
5.4.3	Creepage distances	(See appended table 5.4.2, 5.4.3)	P
5.4.3.1	General	See below.	P
5.4.3.3	Material group .....:	IIIa or IIIb	—
5.4.3.4	Creepage distances measurement .....:	(See appended table 5.4.2, 5.4.3)	P
5.4.4	Solid insulation		P
5.4.4.1	General requirements		P
5.4.4.2	Minimum distance through insulation .....:	(See appended table 5.4.4.2)	P
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	No such construction within the EUT	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6	Thin sheet material		P
5.4.4.6.1	General requirements	At least 2 layers of insulation tape are used for reinforced insulation and are not expected to be subject to handling or abrasion during ordinary or instructed person servicing.	P
5.4.4.6.2	Separable thin sheet material	Two layers are provided as reinforced insulation any one layer passed the electric strength test for reinforced insulation.	P
	Number of layers (pcs) .....:	2-layer min.	P
5.4.4.6.3	Non-separable thin sheet material	No 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
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) ..... :		N/A
	Alternative by electric strength test, tested voltage (V), K_R ..... :		N/A
5.4.5	Antenna terminal insulation	No antenna is used.	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 .....:		N/A
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		P
	Relative humidity (%), temperature (°C), duration (h) ..... :	95%, 40°C, 120h	—
5.4.9	Electric strength test	(See appended table 5.4.9)	P
5.4.9.1	Test procedure for type test of solid insulation.....:	Method 1 used.	P
5.4.9.2	Test procedure for routine test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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..... :		N/A
5.4.10.3	Verification for insulation breakdown for impulse test ..... :		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	No connection to external circuits with transient voltage.	N/A
5.4.11.2	Requirements		N/A
	SPDs 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 ..... :		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 ..... :		N/A
5.4.12.3	Compatibility of an insulating liquid ..... :		N/A
5.4.12.4	Container for insulating liquid ..... :		N/A
5.5	**Components as safeguards**		P
5.5.1	General		P
5.5.2	Capacitors and RC units		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	(See Annex G.5.3)	P
5.5.4	Optocouplers		N/A
5.5.5	Relays	(See Annex G.2)	P
5.5.6	Resistors		N/A
5.5.7	SPDs	No such varistor used	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.8	Insulation between the mains and an external circuit consisting of a coaxial cable ..... :		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	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^2) ..... :		—
	Protective earthing conductor serving as a reinforced safeguard		N/A
	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)..... :		N/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
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..... :		N/A
5.6.6.3	Resistance (Ω) or voltage drop..... :		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**		P
5.7.2	Measuring devices and networks		P

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.2.1	Measurement of touch current	(See appended table 5.7.4)	P
5.7.2.2	Measurement of voltage	(See appended table 5.7.4)	P
5.7.3	Equipment set-up, supply connections and earth connections		P
5.7.4	Unearthed accessible parts ..... :	Touch current at unearthed accessible conductive parts is not exceeding ES1 limits. (See appended table 5.7.4)	P
5.7.5	Earthed accessible conductive parts ..... :		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	No connection to external circuits with transient voltage.	N/A
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 earthed external circuits, current (mA) ..... :		N/A
	b) Equipment connected to unearthed external circuits, current (mA) ..... :		N/A
5.8	**Backfeed safeguard in battery backed up supplies**		N/A
	Mains terminal ES ..... :		N/A
	Air gap (mm) ..... :		N/A

6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	**Classification of PS and PIS**		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)	P
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, B.2.6)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Combustible materials outside fire enclosure .....:	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
6.4	**Safeguards against fire under single fault conditions**		P
6.4.1	Safeguard method	Method of Control fire spread is 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		P
6.4.3.1	Supplementary safeguards		P
6.4.3.2	Single Fault Conditions ..... :		P
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		N/A
6.4.5	Control of fire spread in PS2 circuits	See below.	P
6.4.5.2	Supplementary safeguards	All component in PS2 and PS3 is mounted on V-0 Class material of printed boards and comply with the requirements of the relevant IEC components standard, see appended table 4.1.2 and annex G.	P
6.4.6	Control of fire spread in PS3 circuits	All component in PS3 complies with clause (min. V-1 class material) complies with 6.4.8, see appended table 4.1.2 and annex G.	P
6.4.7	Separation of combustible materials from a PIS	All circuitry and component are considered as PIS. External enclosure material is min.V-1 class material, see appended table 4.1.2	P
6.4.7.2	Separation by distance	All component and part comply with these requirements.	P
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers	Equipment enclosure was evaluated as a fire enclosure.	P
6.4.8.2	Fire enclosure and fire barrier material properties	See the following details.	P
6.4.8.2.1	Requirements for a fire barrier	No fire barrier is used.	N/A
6.4.8.2.2	Requirements for a fire enclosure	Metal enclosure	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier	See below	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions	No fire barrier is used.	N/A
6.4.8.3.3	Top openings and properties	No openings	N/A
	Openings dimensions (mm)..... :		N/A
6.4.8.3.4	Bottom openings and properties	No openings	N/A
	Openings dimensions (mm)..... :		N/A
	Flammability tests for the bottom of a fire enclosure		N/A
	Instructional Safeguard.....:		N/A
6.4.8.3.5	Side openings and properties	No such openings fall within the area indicated by the 15mm in Figure 44	P
	Openings dimensions (mm)..... :	3mm X 28mm max	P
6.4.8.3.6	Integrity of a fire enclosure, condition met: a), b) or c)..... :	No such door or cover can be opened by ordinary persons.	N/A
6.4.8.4	Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating ..... :	The arcing PIS greater than 13mm and the arcing PIS greater than 5mm.	P
6.4.9	Flammability of insulating liquid.....:		N/A
6.5	**Internal and external wiring**		P
6.5.1	General requirements		P
6.5.2	Requirements for interconnection to building wiring ..... :	The material of VW-1 on internal wiring were considered compliance equal to equivalent to IEC/TS 60695-11-21 relevant standards.	P
6.5.3	Internal wiring size (mm^2) for socket-outlets..... :		N/A
6.6	**Safeguards against fire due to the connection to additional equipment**		P

7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		N/A
7.2	**Reduction of exposure to hazardous substances**		N/A
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)..... :		—
7.6	**Batteries and their protection circuits**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	Safeguards		P
	Instructional Safeguard.....:	Accessible edges and corners of the equipment are rounded and are classified as MS1.	P
8.4.2	Sharp edges or corners	MS1	P
8.5	**Safeguards against moving parts**		N/A
8.5.1	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
	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
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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		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	General		N/A
	Instructional safeguard.....:		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	Mount means type .....:		N/A
8.7.2	Test methods		N/A
	Test 1, additional downwards force (N).....:		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
8.8.1	General		N/A
8.8.2	Handle strength test		N/A
	Number of handles.....:		—
	Force applied (N) .....:		—
8.9	**Wheels or casters attachment requirements**		N/A
8.9.2	Pull test		N/A
8.10	**Carts, stands and similar carriers**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.10.1	General		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		N/A
8.10.5	Mechanical stability		N/A
	Force applied (N) .....:		—
8.10.6	Thermoplastic temperature stability		N/A
8.11	**Mounting means for slide-rail mounted equipment (SRME)**		N/A
8.11.1	General		N/A
8.11.2	Requirements for slide rails		N/A
	Instructional Safeguard.....:		N/A
8.11.3	Mechanical strength test		N/A
8.11.3.1	Downward force test, force (N) applied.....:		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		N/A
8.12	**Telescoping or rod antennas**		N/A
	Button/ball diameter (mm) .....:		—

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.....:	All accessible surfaces are classified as TS1 (See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
9.3.2	Test method and compliance	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
9.4	**Safeguards against thermal energy sources**		P
9.5	**Requirements for safeguards**		P
9.5.1	Equipment safeguard		P
9.5.2	Instructional safeguard.....:		N/A
9.6	**Requirements for wireless power transmitters**		N/A
9.6.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.6.2	Specification of the foreign objects		N/A
9.6.3	Test method and compliance .....:		N/A

10	**RADIATION**		P
10.2	**Radiation energy source classification**		P
10.2.1	General classification	See Energy source identification and classification table.	P
	Lasers ..... :		—
	Lamps and lamp systems..... :	RS1	—
	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)**		P
10.4.1	General requirements	LED indicator considered as RS1, no safeguard required	P
	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 enclosures		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 ..... :		—
10.5.3	Maximum radiation (pA/kg)..... :		—
10.6	**Safeguards against acoustic energy sources**		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output $L_{Aeq,T}$, dB(A).....:		N/A
	Unweighted RMS output voltage (mV).....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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 B.1.5)	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 ..... :	(See Annex E)	P
B.2.3	Supply voltage and tolerances	+10% and -10% for a.c. mains.	P
B.2.5	Input test ..... :	(See appended table B.2.5)	P
B.3	**Simulated abnormal operating conditions**		P
B.3.1	General		P
B.3.2	Covering of ventilation openings	(See appended tables B.3, B.4)	P
	Instructional safeguard ..... :	TS1	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	(See appended tables B.3, B.4)	P
B.3.6	Reverse battery polarity		N/A
B.3.7	Audio amplifier abnormal operating conditions	(See appended tables B.3, B.4)	P
B.3.8	Safeguards functional during and after abnormal operating conditions ..... :	(See appended tables B.3, B.4)	P
B.4	**Simulated single fault conditions**		P
B.4.1	General		P
B.4.2	Temperature controlling device	(See appended tables B.3, B.4)	P
B.4.3	Blocked motor test	(See appended tables B.3, B.4)	P
B.4.4	Functional insulation	(See appended tables B.3, B.4)	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards	N/A
B.4.5	Short-circuit and interruption of electrodes in tubes and semiconductors	(See appended tables B.3, B.4)	P
B.4.6	Short circuit or disconnection of passive components	(See appended tables B.3, B.4)	P
B.4.7	Continuous operation of components	The equipment is continuous operating type and no such components intended for short time operation or intermittent operation.	N/A
B.4.8	Compliance during and after single fault conditions ..... :	(See appended tables B.3, B.4)	P
B.4.9	Battery charging and discharging under single fault conditions		N/A
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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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
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 CONTAINING AUDIO AMPLIFIERS**		P
E.1	**Electrical energy source classification for audio signals**		P
	Maximum non-clipped output power (W)..... :	(See appended table B.3, B.4)	—
	Rated load impedance (Ω) ..... :	(See appended table 4.1.2)	—
	Open-circuit output voltage (V)..... :	(See appended table B.3, B.4)	—
	Instructional safeguard ..... :	ES1, not required	—
E.2	**Audio amplifier normal operating conditions**		P
	Audio signal source type ..... :	(See appended table B.2.5)	—
	Audio output power (W)..... :	(See appended table B.2.5)	—
	Audio output voltage (V) ..... :	(See appended table B.2.5)	—
	Rated load impedance (Ω) ..... :	(See appended table 4.1.2)	—
	Requirements for temperature measurement	(See appended table 5.4.1.4, 9.3, B.1.5, B.2.6)	P
E.3	Audio amplifier abnormal operating conditions	(See appended table B.3, B.4)	P
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	**General**		P
	Language ..... :	English. Versions in other languages will be provided when national certificate approval.	—
F.2	**Letter symbols and graphical symbols**		P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P

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Clause	Requirement + Test	Result - Remark	Verdict
F.2.2	Graphic symbols according to IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P
F.3	**Equipment markings**		P
F.3.1	Equipment marking locations	The equipment marking is located on the surface and is easily visible.	P
F.3.2	Equipment identification markings	See below.	P
F.3.2.1	Manufacturer identification ..... :	See copy of marking plate	P
F.3.2.2	Model identification ..... :	See copy of marking plate	P
F.3.3	Equipment rating markings	See copy of marking plate	P
F.3.3.1	Equipment with direct connection to mains	See copy of marking plate	P
F.3.3.2	Equipment without direct connection to mains	See copy of marking plate	P
F.3.3.3	Nature of the supply voltage..... :	See copy of marking plate	P
F.3.3.4	Rated voltage..... :	See copy of marking plate	P
F.3.3.5	Rated frequency ..... :	See copy of marking plate	P
F.3.3.6	Rated current or rated power..... :	See copy of marking plate	P
F.3.3.7	Equipment with multiple supply connections	Only one connection.	N/A
F.3.4	Voltage setting device	No voltage setting device.	N/A
F.3.5	Terminals and operating devices	See below.	P
F.3.5.1	Mains appliance outlet and socket-outlet markings ..... :		N/A
F.3.5.2	Switch position identification marking..... :	The identification markings are marking on the switch	P
F.3.5.3	Replacement fuse identification and rating markings ..... :	The Fuse is located within the equipment and not replaceable by an ordinary person or an instructed person	P
	Instructional safeguards for neutral fuse ..... :		N/A
F.3.5.4	Replacement battery identification marking ..... :		N/A
F.3.5.5	Neutral conductor terminal		N/A
F.3.5.6	Terminal marking location		P
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal..... :		N/A
F.3.6.1.2	Protective bonding conductor terminals ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.6.2	Equipment class marking ..... :	See copy of marking plate.	P
F.3.6.3	Functional earthing terminal marking ..... :		N/A
F.3.7	Equipment IP rating marking ..... :	IPX0	N/A
F.3.8	External power supply output marking ..... :		N/A
F.3.9	Durability, legibility and permanence of marking	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
F.4	**Instructions**		P
	a) Information prior to installation and initial use	Relevant safety caution texts and installation instruction are available	P
	b) Equipment for use in locations where children not likely to be present		N/A
	c) Instructions for installation and interconnection	Relevant safety caution texts and installation instruction are available.	P
	d) Equipment intended for use only in restricted access area		N/A
	e) Equipment intended to be fastened in place		N/A
	f) Instructions for audio equipment terminals		N/A
	g) Protective earthing used as a safeguard		N/A
	h) Protective conductor current exceeding ES2 limits		N/A
	i) Graphic symbols used on equipment		N/A
	j) Permanently connected equipment not provided with all-pole mains switch		N/A
	k) Replaceable components or modules providing safeguard function		N/A
	l) Equipment containing insulating liquid		N/A
	m) Installation instructions for outdoor equipment		N/A
F.5	Instructional safeguards		P
G	**COMPONENTS**		P
G.1	**Switches**		P
G.1.1	General	(See appended table 4.1.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
G.1.2	Ratings, endurance, spacing, maximum load	(See appended table 4.1.2)	P
G.1.3	Test method and compliance		N/A
G.2	**Relays**		P
G.2.1	Requirements	(See appended table 4.1.2)	P
G.2.2	Overload test		P
G.2.3	Relay controlling connectors supplying power to other equipment		P
G.2.4	Test method and compliance		P
G.3	**Protective devices**		P
G.3.1	Thermal cut-offs		N/A
	Thermal cut-outs separately approved according to IEC 60730 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		N/A
G.3.2	Thermal links		N/A
G.3.2.1	a) Thermal links tested separately according to IEC 60691 with specifics		N/A
	b) Thermal links tested as part of the equipment		N/A
G.3.2.2	Test method and compliance		N/A
G.3.3	PTC thermistors		N/A
G.3.4	Overcurrent protection devices	Approved fuse is used (See appended table 4.1.2)	P
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**		P
G.4.1	Spacings		P
G.4.2	Mains connector configuration..... :	Approved AC inlet used	P
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	No misconnection likely.	P
G.5	**Wound components**		P
G.5.1	Wire insulation in wound components		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.1.2	Protection against mechanical stress	Physical separation is provided by tubing on both secondary leads and primary leads.	P
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	No insulation breakdown		N/A
G.5.3	Transformers		P
G.5.3.1	Compliance method..... :	The transformers meet the requirements given in G.5.3.2 and G.5.3.3.	P
	Position ..... :	T1	P
	Method of protection..... :	Over current protection by circuit design.	P
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation.	P
	Protection from displacement of windings..... :	By core and insulating tape	—
G.5.3.3	Transformer overload tests	(See appended tables B.3, B.4)	P
G.5.3.3.1	Test conditions	Tested in the complete equipment.	P
G.5.3.3.2	Winding temperatures	(See appended table B.3, B.4)	P
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

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.4.7	Routine test		N/A
G.5.4	Motors		P
G.5.4.1	General requirements		P
G.5.4.2	Motor overload test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4.2	Locked-rotor overload test		N/A
	Test duration (days) ..... :		—
G.5.4.5	Running overload test for DC motors		N/A
G.5.4.5.2	Tested in the unit		N/A
G.5.4.5.3	Alternative method		N/A
G.5.4.6	Locked-rotor overload test for DC motors		P
G.5.4.6.2	Tested in the unit		P
	Maximum Temperature ..... :	(See appended table B.3, B.4)	P
G.5.4.6.3	Alternative method		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 ..... :		—
G.6	**Wire Insulation**		P
G.6.1	General		P
G.6.2	Enamelled winding wire insulation		P
G.7	**Mains supply cords**		P
G.7.1	General requirements		P
	Type ..... :	(See appended table 4.1.2)	—
G.7.2	Cross sectional area (mm^2 or AWG) ..... :	Complied with Table G.7.	P
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		P
G.7.3.2	Cord strain relief		P
G.7.3.2.1	Requirements		P
	Strain relief test force (N) ..... :	100N	P
G.7.3.2.2	Strain relief mechanism failure		P
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		P
G.7.4	Cord Entry		P

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Clause	Requirement + Test	Result - Remark	Verdict
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		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	No Varistor used.	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	No IC current limiters used.	N/A
	IC limiter output current (max. 5A)..... :		—
	Manufacturers' defined drift ..... :		—
G.9.2	Test Program		N/A
G.9.3	Compliance		N/A
G.10	**Resistors**		N/A
G.10.1	General		N/A
G.10.2	Conditioning		N/A
G.10.3	Resistor test		N/A
G.10.4	Voltage surge test		N/A
G.10.5	Impulse test		N/A
G.10.6	Overload test		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

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements ..... :		N/A
G.15	**Pressurized liquid filled components**		N/A
G.15.1	Requirements		N/A
G.15.2	Test methods and compliance		N/A
G.15.2.1	Hydrostatic pressure test		N/A
G.15.2.2	Creep resistance test		N/A
G.15.2.3	Tubing and fittings compatibility test		N/A
G.15.2.4	Vibration test		N/A
G.15.2.5	Thermal cycling test		N/A
G.15.2.6	Force test		N/A
G.15.3	Compliance		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

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Clause	Requirement + Test	Result - Remark	Verdict
	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..... :		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
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 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**		P
J.1	**General**		P
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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.6.2	Test method and compliance ..... :		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
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**		P
L.1	**General requirements**	Appliance coupler used for disconnect device	P
L.2	**Permanently connected equipment**		N/A
L.3	**Parts that remain energized**		N/A
L.4	**Single-phase equipment**	The disconnect device disconnect both poles simultaneously.	P
L.5	**Three-phase equipment**		N/A
L.6	**Switches as disconnect devices**		N/A
L.7	**Plugs as disconnect devices**		P
L.8	**Multiple power sources**		N/A
	Instructional safeguard ..... :		N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		N/A
M.1	**General requirements**		N/A
M.2	**Safety of batteries and their cells**		N/A
M.2.1	Batteries and their cells comply with relevant IEC standards ..... :		N/A
M.3	**Protection circuits for batteries provided within the equipment**		N/A
M.3.1	Requirements		N/A
M.3.2	Test method		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Overcharging of a rechargeable battery		N/A
	Excessive discharging		N/A
	Unintentional charging of a non-rechargeable battery		N/A
	Reverse charging of a rechargeable battery		N/A
M.3.3	Compliance		N/A
M.4	**Additional safeguards for equipment containing a portable secondary lithium battery**		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Requirements		N/A
M.4.2.2	Compliance ..... :		N/A
M.4.3	Fire enclosure ..... :		N/A
M.4.4	Drop test of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation and procedure for the drop test		N/A
M.4.4.3	Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): ..... :		N/A
M.4.4.4	Check of the charge/discharge function		N/A
M.4.4.5	Charge / discharge cycle test		N/A
M.4.4.6	Compliance		N/A
M.5	**Risk of burn due to short-circuit during carrying**		N/A
M.5.1	Requirement		N/A
M.5.2	Test method and compliance		N/A
M.6	**Safeguards against short-circuits**		N/A
M.6.1	External and internal faults		N/A
M.6.2	Compliance		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
	Calculated hydrogen generation rate ..... :		N/A
M.7.2	Test method and compliance		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

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Clause	Requirement + Test	Result - Remark	Verdict
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 batteries with aqueous electrolyte**		N/A
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**		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		N/A
	Instructional safeguard ..... :		N/A
N	**ELECTROCHEMICAL POTENTIALS**		N/A
	Material(s) used..... :		—
O	**MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES**		P
	Value of *X* (mm)..... :	Measurement is in accordance with applicable figures.	—
P	**SAFEGUARDS AGAINST CONDUCTIVE OBJECTS**		P
P.1	**General**		P
P.2	**Safeguards against entry or consequences of entry of a foreign object**		P
P.2.1	General		P
P.2.2	Safeguards against entry of a foreign object		P
	Location and Dimensions (mm) ..... :	3mm X 28mm max	—
P.2.3	Safeguards against the consequences of entry of a foreign object	The rectangular opening is covered by the speaker. Within the projected volume as depicted in Figure P.3 there are no bare conductive parts of ES3 or PS3 circuits.	P

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Clause	Requirement + Test	Result - Remark	Verdict
P.2.3.1	Safeguard requirements		N/A
	The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment		N/A
	Transportable equipment with metalized plastic parts..... :		N/A
P.2.3.2	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		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) ..... :		—
	Duration (weeks)..... :		—
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		P
Q.1	**Limited power sources**		P
Q.1.1	Requirements		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output	(See appended table Q.1)	P
	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 ..... :	(See appended table Q.1)	P
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	Cord/cable used for test ..... :		—
R.4	**Compliance**		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) ..... :		—
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		N/A
	Mounting of samples ..... :		—
	Wall thickness (mm) ..... :		—
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 exceeding 4 000 W**		N/A
	Samples, material ..... :		—
	Wall thickness (mm) ..... :		—
	Conditioning (°C) ..... :		—
T	**MECHANICAL STRENGTH TESTS**		P
T.1	**General**		P
T.2	**Steady force test, 10 N ..... :**	(See appended table T.2)	P
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 T.5)	P
T.6	**Enclosure impact test**	(See appended table T.6)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Fall test		P
	Swing test		P
T.7	**Drop test ..... :**		N/A
T.8	**Stress relief test..... :**		N/A
T.9	**Glass Impact Test .....:**		N/A
T.10	**Glass fragmentation test**		N/A
	Number of particles counted.....:	No such glass provided.	N/A
T.11	**Test for telescoping or rod antennas**		N/A
	Torque value (Nm) ..... :	No such antennas provided.	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**		P
V.1	**Accessible parts of equipment**		P
V.1.1	General	Following the probes test specified in this annex Figure V.1, V.2, V.5 are suitable.	P
V.1.2	Surfaces and openings tested with jointed test probes		P
V.1.3	Openings tested with straight unjointed test probes		N/A
V.1.4	Plugs, jacks, connectors tested with blunt probe		P
V.1.5	Slot openings tested with wedge probe		N/A
V.1.6	Terminals tested with rigid test wire		P
V.2	**Accessible part criterion**		P
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	**Resistance to corrosion**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
Y.4	**Gaskets**		N/A
Y.4.1	General		N/A
Y.4.2	Gasket tests		N/A
Y.4.3	Tensile strength and elongation tests		N/A
	Alternative test methods ..... :		N/A
Y.4.4	Compression test		N/A
Y.4.5	Oil resistance		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
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

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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)]	
264Vac	Primary circuits supplied by a.c. mains supply	Normal	--	--	SS	--	ES3 (declared)
		Abnormal – see table B.3, B.4 for detail	--	--	SS	--	
		Single fault – see table B.3, B.4 for detail	--	--	SS	--	
264Vac	Transformer Green (13V) to Green (0V)	Normal	18.4Vpk	--	SS	--	ES1
		Abnormal – see table B.3, B.4 for detail	18.4Vpk	--	SS	--	
		Single fault – see table B.3, B.4 for detail	18.4Vpk	--	SS	--	
264Vac	USB-A Output "+" to "-"	Normal	Max.5.03 Vdc	--	SS	--	ES1
		Abnormal – see table B.3, B.4 for detail	Max.5.03 Vdc	--	SS	--	
		Single fault – see table B.3, B.4 for detail	Max.5.03 Vdc	--	SS	--	
264Vac	USB-A output terminal "+/-" to GND	Normal	--	0.182mApk	SS	--	ES1
		Abnormal – see table B.3, B.4 for detail	--	0.182mApk	SS	--	
		Single fault – see table B.3, B.4 for detail	--	0.182mApk	SS	--	
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				P
Location	RMS voltage (V)	Peak voltage (V)	Frequency (Hz)	Comments	
Red 220V~					

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Clause	Requirement + Test	Result - Remark	Verdict

Red-Green (13V)	225	352	60	--
Red-Green (0V)	240	368	60	--
Red 0V~				
Red-Green (13V)	19	26	60	--
Red-Green (0V)	0.0	0	60	--
Supplementary information:				
Tested voltage: Input: 240Vac, 60Hz; load: Maximum normal working.				

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**			P
Allowed impression diameter (mm).....:	≤ 2 mm			—
Object/Part No./Material	Manufacturer/trademark	Thickness (mm)	Test temperature (°C)	Impression diameter (mm)
AC connector	Foshan Jinhao Electric Appliance Co., LTD	2.0	125	1.28
Supplementary information:				
--				

5.4.2, 5.4.3	**TABLE: Minimum Clearances/Creepage distance**							P
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)
Basic / supplementary:								
Different polarity of L/N before fuse F1	<420	<250	60	1.5	>3.0	--	2.5	>3.0
Different polarity of fuse F1	<420	<250	60	1.5	>3.0	--	2.5	>3.0
Reinforced:								
Primary winding to core	<420	<250	60	3.0	>6.0	--	5.0	>6.0
core to secondary winding	<420	<250	60	3.0	>6.0	--	5.0	>6.0

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Clause	Requirement + Test	Result - Remark	Verdict

Primary winding to secondary winding	<420	<250	60	3.0	>6.0	--	5.0	>6.0
Primary to accessible conductive parts	<420	<250	60	3.0	>6.0	--	5.0	>6.0
Supplementary information:								
1) Only for frequency above 30 kHz 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied) 3) For clearance and creepage did not describe above are far larger than limit above.								

5.4.4.2	**TABLE: Minimum distance through insulation**			P
Distance through insulation (DTI) at/of	Peak voltage (V)	Insulation	Required DTI (mm)	Measured DTI (mm)
Insulation tape	<420Vac	Reinforce	2 layers	Min. 2 layers
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:						
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5.4.9	**TABLE: Electric strength tests**		P
Test voltage applied between:	Voltage shape (Surge, Impulse, AC, DC, etc.)	Test voltage (V)	Breakdown Yes / No
Basic/supplementary			
L to N (with F1 opened)	DC	2500VDC	No
Reinforced:			
L/N to output terminal	DC	4000VDC	No
L/N to Enclosure	DC	4000VDC	No
Primary to secondary of transformer T1	DC	4000VDC	No
Insulation tape used in and around transformer T1 (single layer)	DC	4000VDC	No
Supplementary information:			
--			

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Clause	Requirement + Test	Result - Remark	Verdict

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: ☐ bleeding resistor rating: ☐ ICX: 1) Normal operating condition (e.g., normal operation, or open fuse), 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:				
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5.7.4	TABLE: Unearthed accessible parts					P
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)	
USB-A Output terminals	Normal	264Vac	Max.5.02Vdc	--	50	ES1
	Abnormal – see table B.3, B.4 for detail	264Vac	Max.5.02Vdc	--	50	ES1
	Single fault – see table B.3, B.4 for detail	264Vac	Max.5.02Vdc	--	50	ES1
Accessible surface with metal foil	Normal	264Vac	--	0.127mApk	50	ES1
	Abnormal – see table B.3, B.4 for detail	264Vac	--	0.127mApk	50	ES1
	Single fault – see table B.3, B.4 for detail	264Vac	--	0.127mApk	50	ES1
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit						

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Clause	Requirement + Test	Result - Remark	Verdict

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:					
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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							

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 internal circuits except for external output terminal	--	--	--	--	--	PS3 (Declared)
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.						

6.2.3.1	TABLE: Determination of Arcing PIS				P
Location	Open circuit voltage after 3 s (Vpk)	Measured r.m.s current (A)	Calculated value	Arcing PIS? Yes / No	
All internal circuits except for external output terminal	--	--	--	Yes (declaration)	
Supplementary information:					
--					

6.2.3.2	TABLE: Determination of resistive PIS			P
Location	Operating and fault condition	Dissipate power (W)	Resistive PIS?	

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Clause	Requirement + Test	Result - Remark	Verdict

			Yes / No
All internal circuits / components	--	--	Yes (declaration)
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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9.6	**TABLE: Temperature measurements for wireless power transmitters**								N/A
Supply voltage (V)..... :	--								—
Max. transmit power of transmitter (W)..... :	--								—
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)	
--	--	--	--	--	--	--	--	--	
Supplementary information:									
--									

5.4.1.4, 9.3, B.1.5, B.2.6	**TABLE: Temperature measurements**				P
Supply voltage (V).....	Condition 1		Condition 2		—
Ambient temperature during test T_{amb} (°C) .	25.0	35.0	25.0	35.0	—
Maximum measured temperature T of part/at:	T (°C)				Allowed T_{max} (°C)
Switch	27.7	--	31.2	--	77
Main volume knob	26.5	--	27.4	--	60
Metal enclosure near USB-A port, outside	27.8	--	29.3	--	51
Primary wire	37.0	47.0	52.6	62.6	80
T1 coil	44.6	54.6	80.8	90.8	100

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Clause	Requirement + Test	Result - Remark	Verdict

Secondary wire	35.8	45.8	52.8	62.8	80
Metal enclosure near T1, inside	36.6	46.6	56.9	66.9	--
Metal enclosure near T1, outside	34.9	--	52.0	--	60
AS-14F-12VDC-2H Body	42.4	52.4	56.3	66.3	85
L1 coil	40.1	50.1	70.0	80.0	110
E4 body	31.6	41.6	41.4	51.4	105
L2 coil	32.1	42.1	37.2	47.2	110
E1 body	31.4	41.4	35.2	45.2	105
DC fan body	33.5	43.5	39.9	49.9	70
PCB near D28	48.3	58.3	73.1	83.1	130
PCB near U7	30.9	40.9	40.2	50.2	130
PCB near IC1	39.8	49.8	45.6	55.6	130
PCB near IC2	33.5	43.5	37.0	47.0	130
PCB near USB	32.1	42.1	35.6	45.6	130
PCB near U3A	33.3	43.3	36.9	46.9	130
PCB near U2A	29.3	39.3	33.2	43.2	130
PCB near U2B	32.4	42.4	37.2	47.2	130
Internal wire	26.4	36.4	26.8	36.8	80
C3 body	32.5	42.5	42.9	52.9	85
Power cord	27.7	37.7	28.6	38.6	105
Supply voltage (V).....	Condition 3		Condition 4		—
Ambient temperature during test T_{amb} (°C) .	25.0	35.0	25.0	35.0	—
Maximum measured temperature *T* of part/at:	*T* (°C)				Allowed T_{max} (°C)
Switch	32.2	--	35.7	--	77
Main volume knob	31.0	--	31.9	--	60
Metal enclosure near USB-A port, outside	32.3	--	33.8	--	51
Primary wire	41.5	51.5	57.1	67.1	80
T1 coil	49.1	59.1	85.3	95.3	100
Secondary wire	40.3	50.3	57.3	67.3	80
Metal enclosure near T1, inside	41.1	51.1	61.4	71.4	--
Metal enclosure near T1, outside	39.4	--	56.5	--	60
AS-14F-12VDC-2H Body	46.9	56.9	60.8	70.8	85
L1 coil	44.6	54.6	74.5	84.5	110

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Clause	Requirement + Test	Result - Remark	Verdict

E4 body	36.1	46.1	45.9	55.9	105
L2 coil	36.6	46.6	41.7	51.7	110
E1 body	35.9	45.9	39.7	49.7	105
DC fan body	38.0	48.0	44.4	54.4	70
PCB near D28	52.8	62.8	77.6	87.6	130
PCB near U7	35.4	45.4	44.7	54.7	130
PCB near IC1	44.3	54.3	50.1	60.1	130
PCB near IC2	38.0	48.0	41.5	51.5	130
PCB near USB	36.6	46.6	40.1	50.1	130
PCB near U3A	37.8	47.8	41.4	51.4	130
PCB near U2A	33.8	43.8	37.7	47.7	130
PCB near U2B	36.9	46.9	41.7	51.7	130
Internal wire	30.9	40.9	31.3	41.3	80
C3 body	37.0	47.0	47.4	57.4	85
Power cord	32.2	42.2	33.1	43.1	105

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
Transformer Primary coil	25.0	13.159	25.3	15.112	81.1	100	A
Transformer Secondary coil	25.0	0.404	25.3	0.508	89.4	100	A

Supplementary information:

Condition 1: Input: 90Vac/60Hz, AUDIO-IN mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (4Ω): 30.11V/226.2*2, USB-A load 5V/0.1A.

Condition 2: Input: 264Vac/60Hz, AUDIO-IN mode mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (4Ω): 30.11V/226.2*2, USB-A load 5V/0.1A.

Condition 3: Input: 90Vac/60Hz, AUDIO-IN mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (16Ω): 59.86V/223.9*2, USB-A load 5V/0.1A.

Condition 4: Input: 264Vac/60Hz, AUDIO-IN mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (16Ω): 59.86V/223.9*2, USB-A load 5V/0.1A.

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
90	50	7.630	--	568.28	--	F1	7.630	Condition A
90	60	7.817	--	568.28	--	F1	7.817	
100	50	7.004	--	568.20	600	F1	7.004	
100	60	7.071	--	568.23	600	F1	7.071	
240	50	3.429	--	568.26	600	F1	3.429	
240	60	3.448	--	568.27	600	F1	3.448	

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Clause	Requirement + Test					Result - Remark		Verdict
264	50	3.141	--	568.33	--	F1	3.141	
264	60	3.169	--	568.36	--	F1	3.169	
90	50	7.429	--	572.53	--	F1	7.429	Condition B
90	60	7.521	--	572.60	--	F1	7.521	
100	50	6.776	--	572.39	600	F1	6.776	
100	60	6.837	--	572.46	600	F1	6.837	
240	50	3.319	--	572.39	600	F1	3.319	
240	60	3.345	--	572.41	600	F1	3.345	
264	50	2.995	--	572.38	--	F1	2.995	
264	60	3.046	--	572.42	--	F1	3.046	
Supplementary information:								
Condition A: AUDIO-IN mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (4Ω): 30.11V/226.2*2, USB-A load 5V/0.1A. Condition B: AUDIO-IN mode, 1/8 of max. non-clipped audio output power with 1kHz signal, Output port (16Ω): 59.86V/223.9*2, USB-A load 5V/0.1A.								

B.3, B.4	**TABLE: Abnormal operating and fault condition tests**						P
Ambient temperature T_{amb} (°C)..... :					25°C if not specified		—
Power source for EUT: Manufacturer, model/type, outputrating .. :					--		—
Component No.	Condition	Supply voltage (V)	Test time	Fuse no.	current (A)	Observation	
IC2 Pin 7-9	SC	264Vac	30mins	F1	3.046	Unit normal working, no damage, no hazards.	
IC2 Pin 28-31	SC	264Vac	30mins	F1	1.142	The audio signal input shutdown, other units normal working, no damage, no hazard.	
IC1 Pin 5-6	SC	264Vac	30mins	F1	3.046	Unit normal working, no damage, no hazards.	
Q5 Pin 1-5	SC	264Vac	30mins	F1	1.142	The audio signal input shutdown, other units normal working, no damage, no hazard.	
Q1 Pin 1-5	SC	264Vac	30mins	F1	1.142	The audio signal input shutdown, other units normal working, no damage, no hazard.	
Speakers	Max. non-clipped audio	264Vac	1h	F1	4.241	When the transformer temperature reaches the	

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Clause	Requirement + Test				Result - Remark	Verdict
	output power					operating temperature of the thermostat, the input will be disconnected. After the transformer temperature drops normally, the unit will recover normal operation. No damaged, no hazardous, can be recovered after troubleshooting T1 coil: 142.9°C; Metal enclosure near T1, outside: 65.4°C; Metal enclosure near battery, outside: 25.3°C; Power cord: 42.2°C; Switch: 40.4°C; volume knob: 30.6°C; Metal enclosure near USB-A port, outside: 30.8°C; Ambient: 25.0°C
Openings	Blocked	264Vac	4h17mins	F1	3.046	The unit operated under the fault condition and ran for thermal equilibrium. No hazard, No damage. T1 coil: 90.3°C; Metal enclosure near T1, outside: 69.2°C; Metal enclosure near battery, outside: 25.2°C; Power cord: 29.4°C; Switch: 44.2°C; Volume knob: 48.4°C; Metal enclosure near USB-A port, outside: 54.4°C; Ambient: 25.0°C
USB-A	OL	264Vac	3h7mins	F1	3.145	The unit operated under the fault condition and ran for thermal equilibrium. No hazard, No damage. Max. load current 0.4A, Unit protect when USB output overloaded with 0.45A, the audio signal input is also shutdown. No damage, no hazard. T1 coil: 81.2°C; Metal enclosure near T1, outside: 53.7°C;

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Clause	Requirement + Test				Result - Remark	Verdict
						Metal enclosure near battery, outside: 25.8°C; Power cord: 29.2°C; Switch: 32.0°C; Volume knob: 29.3°C; Metal enclosure near USB-A port, outside: 30.0°C; Ambient: 25.0°C
Transformer output (T1):13V	OL	264Vac	3h14mins	F1	4.225	The unit operated under the fault condition and ran for thermal equilibrium. No hazard, No damage. Max. load current 8.4A, Unit protect when transformer output overloaded with 8.45A, the thermostat will disconnect the AC input. No damage, no hazard. T1 coil: 132.6°C; Primary wire: 70.7°C; Secondary wire: 66.3°C; Ambient: 25.0°C
Transformer output (T1):13V	SC	264Vac	30mins	F1	4.021	The unit current rises and the coil temperature rises until the thermostat disconnects the AC input. No hazard, No damage. T1 coil: 139.1°C; Ambient: 25.0°C
Thermostat	SC	264Vac	30mins	F1	3.046	Unit normal working, no damage, no hazards.
Thermostat	OC	264Vac	30mins	F1	0	Unit shutdown, no damage, no hazards.
USB-A	SC	264Vac	30mins	F1	1.142	The audio signal input shutdown, other units normal working, no damage, no hazard.
Supplementary information:						
Abbreviation: SC= short circuit; OC= open circuit; OL= Overload						

M.3	**TABLE: Protection circuits for batteries provided within the equipment**	N/A
Is it possible to install the battery in a reverse polarity position? .....:	--	—
Equipment Specification	Charging	

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Clause	Requirement + Test	Result - Remark	Verdict

	Voltage (V)			Current (A)		
	--			--		
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)		
--	--	--	--	--	--	--
Note: The tests of M.3.2 are applicable only when above appropriate data is not available.						
Specified battery temperature (°C) ..... :				--		—

Component No.	Fault condition	Charge/ discharge mode	Test time	Temp. (°C)	Current (A)	Voltage (V)	Observation
--	--	--	--	--	--	--	--
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**		N/A
Maximum specified charging voltage (V) ..... :		--	—
Maximum specified charging current (A) ..... :		--	—
Highest specified charging temperature (°C) ..... :		--	—
Lowest specified charging temperature (°C) ..... :		--	—

Battery manufacturer/type	Operating and fault condition	Measurement			Observation
		Charging voltage (V)	Charging current (A)	Temp. (°C)	
--	--	--	--	--	--
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)**						P
Output Circuit	Condition	U_{oc} (V)	Time (s)	I_{sc} (A)		S (VA)	
				Meas.	Limit	Meas.	Limit
USB-A	Normal	5.02	5	0.4	8	1.98	100

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Clause	Requirement + Test	Result - Remark	Verdict

Output:5V	IC2 pin 7-9 SC	0	5	0	8	0	100
	R51 SC	0	5	0	8	0	100
	E11 SC	0	5	0	8	0	100
Supplementary Information:							
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T.2, T.3, T.4, T.5	**TABLE: Steady force test**					P
Part/Location	Material	Thickness (mm)	Probe	Force (N)	Test Duration (s)	Observation
Internal components / wire	--	--	V.2	10	5	No reduction the clearances and creepage distances.
Top enclosure	Metal	Min. 1.0	--	250	5	No damage, No hazard
Side enclosure	Metal	Min. 1.0	--	250	5	No damage, No hazard
Bottom enclosure	Metal	Min. 1.0	--	250	5	No damage, No hazard
Supplementary information:						
--						

T.6, T.9	**TABLE: Impact test**				P
Location/part	Material	Thickness (mm)	Height (mm)	Observation	
Top enclosure	Metal	Min. 1.0	1300	No damage, No hazard	
Side enclosure	Metal	Min. 1.0	1300	No damage, No hazard	
Bottom enclosure	Metal	Min. 1.0	1300	No damage, No hazard	
Supplementary information:					
--					

T.7	**TABLE: Drop test**				N/A
Location/part	Material	Thickness (mm)	Height (mm)	Observation	
--	--	--	--	--	
Supplementary information:					
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T.8	**TABLE: Stress relief test**	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Location/Part	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation
--	--	--	--	--	--
Supplementary information:					
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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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4.1.2	TABLE: Critical components information				P
Object / part No.	Manufacturer / trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1)]
Metal enclosure	Interchangeable	Interchangeable	Metal, Min. thickness: 1.0 mm	IEC/EN 62368-1	Test in appliance
PCB	LONGYAN CITY HUNG TO PCB CO LTD	HT-M1	V-0, 130 °C	UL 94	UL E327182
Internal wire (Primary)	Interchangeable	Interchangeable	Min. 300 V, Min. 105 °C, Min. VW-1	UL 758	UL
Internal wire (Secondary)	Interchangeable	Interchangeable	Min. 300 V, Min. 80 °C, Min. VW-1	UL 758	UL
Power cord	Ningbo Qiaopu Electric Co., Ltd.	H03VV-F	2×0.75mm^2	UL 62	UL
-Fuse(F1)	XC Electronics (Shen Zhen) Corp. Ltd.	5F	F10A 250V	UL 248	UL E249609
Power switch	Yueqing Leniu Electronics Co., Ltd	KCD1	AC 250V, 10A, 1E+4, T85	IEC 61058-1	CB (CQC): Certif. No.: CN46511 Report No.: CTIHEA6348
-Thermostat	XC Electronics (Shenzhen) Corp. Ltd.	KSD9700	250V, A, 50°C	IEC/EN 60730-1 IEC/EN 60730-2-9	TÜV Rh: Certif. No.: R 50352062
Transformer (T1)	Enping Guanglei Hardware Accessories Processing Shop	GU-180-OM-L	Class A	IEC/EN 62368-1	Test in appliance
-Insulation tape	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX*	130°C	UL 510A	UL E246820
(Alternative)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ*(b)	130°C	UL 510A	UL E165111
-Primary lead wire	QIFURUI ELECTRONICS CO	1672	Rated min. 18 AWG, 300 V, 105 °C, Min. VW-1	UL 758	UL E211048
(Alternative)	Interchangeable	Interchangeable	Rated min. 12 AWG, 300 V, 105 °C, Min. VW-1	UL 758	UL

-Primary winding	TONGLING KINGKONG ELECTRONICS TECHNOLOGY CO LTD	xUEWA/180	180 °C	UL 1446	UL E250244
-Secondary lead wire	QIFURUI ELECTRONICS CO	1015	Rated min. 18 AWG (blue-black-blue) and 20AWG (green- green) and 20 AWG (yellow-black- yellow), 600 V, 105 °C, Min. VW-1	UL 758	UL E211048
-Secondary winding	TONGLING KINGKONG ELECTRONICS TECHNOLOGY CO LTD	xUEWA/180	180 °C	UL 1446	UL E250244
-Primary and Secondary Insulation	Mylar Specialty Films	Mylar 800	105 °C	UL 94	UL E93687
-Tube	GUANGDONG FOSHAN CITY SHUNDE QIAOCHENG INSULATION MATERIAL CO LTD	2753-3	300 V, VW-1	UL 224	UL E238534
-Thermostat	Baoying Saftty Electronic Technology Co., Ltd.	BW-BMC-130°C	250V, 6A, 10E3, 130°C	IEC/EN 60730-1 IEC/EN 60730-2-9	VDE 40042780
Relay (RY1)	Xiamen Hongfa Electroacoustic Co., Ltd.	JQX-115F Serie(s)	250VAC, 8A, 1e4, 85°C	IEC/EN 61810-1	VDE 116934
Supplementary information:					
[1] Provided evidence ensures the agreed level of compliance. See OD-2039. [2] Description line content is optional. Main line description needs to clearly detail the component used for testing.					

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 62368-1

U.S.A. AND CANADA NATIONAL DIFFERENCES

(AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY EQUIPMENT – PART 1: SAFETY REQUIREMENTS)

Differences according to.....:	CSA/UL 62368-1:2019
TRF template used: .....:	IECEE OD-2020-F3, Ed. 1.1
Attachment Form No.....:	US_CA_ND_IEC62368_1E
Attachment Originator .....:	UL(US)
Master Attachment.....:	Dated 2022-03-04

IEC 62368-1 - US and Canadian National Differences
Special National Conditions based on Regulations and Other 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 (CEC), 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.		P
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/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 (1DV.3)	For protection against direct lightning strikes, reference is made to NFPA 780 and CAN/CSA-B72 for additional requirements.		N/A

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
1 (DV.5)	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.		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.		P
4.8 (4.8.3, 4.8.4.5, 4.8.5)	Coin / button cell batteries have modified special construction and performance requirements.		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 CEC requirements.*		N/A
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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
5.7.8 (5.7.8.1)	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.		P
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 Tables 11 and 12 of the CEC.		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 Section 400.4 of the NEC and Rule 4-012 of the CEC, 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
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.		P

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
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
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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
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.”		P
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
Annex DVA (G.3.4)	Suitable NEC/CEC 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 CEC 10-400 and 10-612.		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/CEC 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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
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 (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 725.121(C), 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
	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC 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 CEC, 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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
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/CEC.		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 for D.C. mains.		N/A
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 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 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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVH (DVH.3.3)	When field connection to an external circuit is via wires (example, free conductors), the wires are not smaller than 18 AWG (0.82 mm^2) and the free length of the wire inside an outlet box or wiring compartment is 150 mm or more.		N/A
Annex DVH (DVH.3.4)	Size of protective earthing conductors and terminals	(See sub-clause 5.6.5)	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		N/A
Annex DVH (DVH.4.2)	Volume of wiring compartment		N/A
Annex DVH (DVH.4.3)	Separation of circuits		N/A
Annex DVH (DVH.5)	Equipment markings and instructional safeguards		N/A
Annex DVH (DVH.5.1)	Identification of protective earthing terminal		N/A
Annex DVH (DVH.5.2)	Identification of terminal for earthed conductor (neutral)		N/A
Annex DVH (DVH.5.3)	Identification of terminals for aluminium conductors		N/A
Annex DVH (DVH.5.4)	Wire temperature ratings		N/A
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

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict

Equipment's combined with US plug (Class II)

Supplementary tests on plug portion are according to ANSI/UL 1310

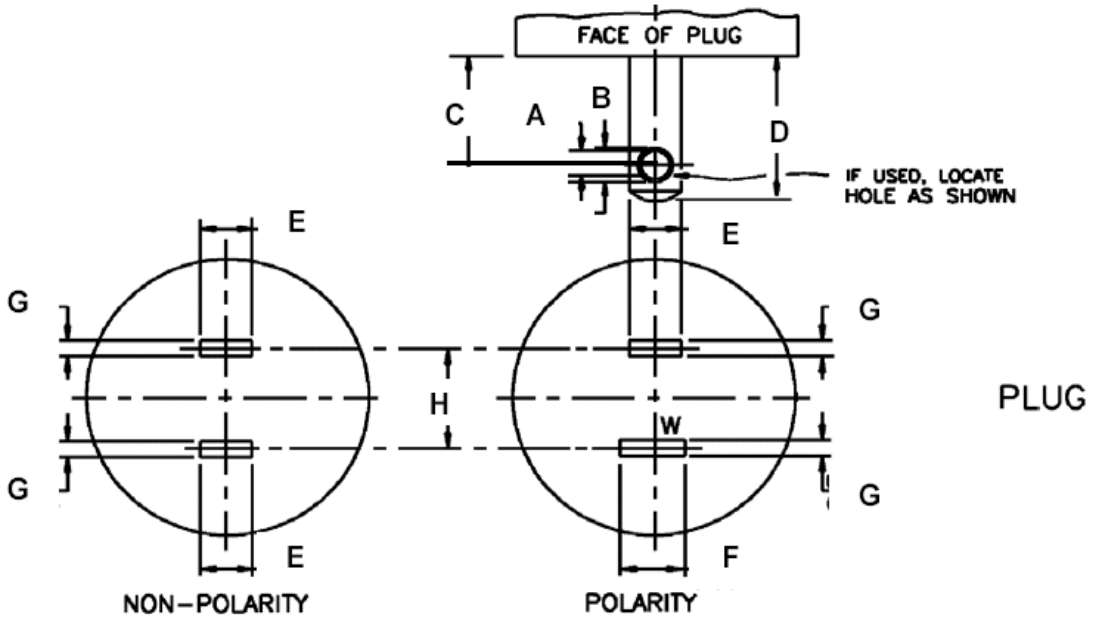
	Requirement - Test	Result-Remark (Equipment)	Verdit
1	**Dimensions**		**-**
1.1	Checked according to NEMA WD 6-2002 figure 1-15		N/A
1.2	Checked according to figure 7.1, 7.5, sub-clauses 7.11, 7.16 of ANSI/UL 1310		N/A
2	**Direct Plug-In Blade Secureness Test**		**-**
2.1	Each blade subject to pull test (89N / 2 min) and then two blade subject to pull test (89N / 2min) together. The displacement of each blade shall not exceed 2.4 mm measured 2 minute after remove the weight. (clause 43 of ANSI/UL 1310)		N/A
3	**Direct Plug-In Security of Input Contacts Test**		-
3.1	Push test of each blade (133N / 1 min); (clause 44.1.2 of ANSI/UL 1310)		N/A

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict
3.2	Then the same specimen subject to push test of all blades (178N / 1 min); (clause 44.1.3 of ANSI/UL 1310) The blades shall not loosen.		N/A
3.3	Folding and retracting blades subject to 6000 cycle rotating		N/A
3.3.1	The removable blades of the unit shall withstand 6000 cycles of removal and attachment.		N/A
3.4	After test, it shall Be operational Not expose live part Not influence plug and unplug to receptacle Comply with test of clause 43, 44.1.2, 44.1.3 Not alter the temperature rise of blade contact under normal operation		N/A

Attachment No.1	IEC62368_1E - ATTACHMENT		
Clause	Requirement + Test	Result - Remark	Verdict

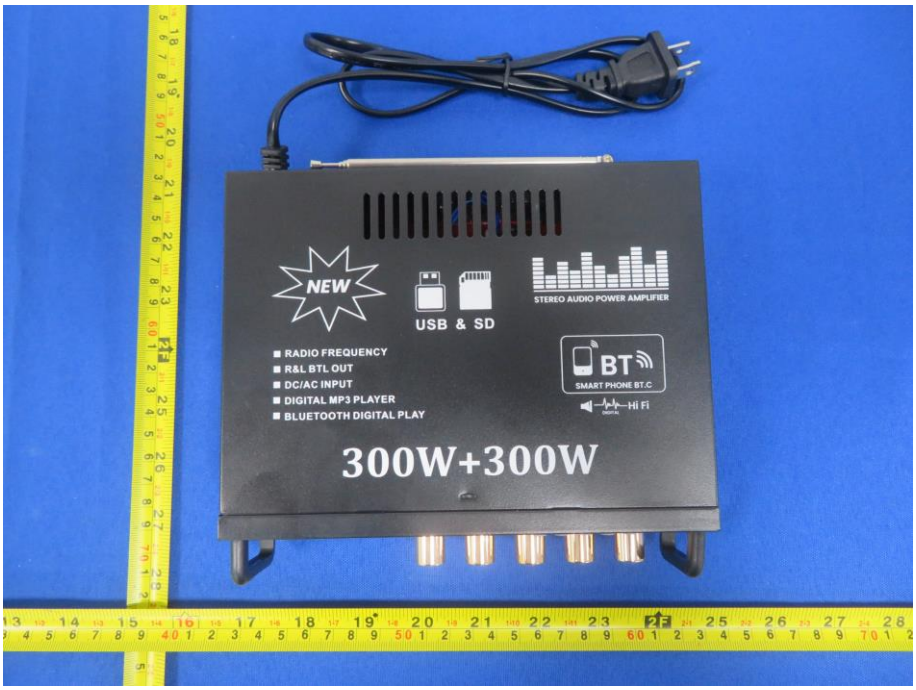
Dimension Checking for Two-pin plugs of NA (15 A, 125 V)

According to (NEMA WD 6-2002 Figure 1-15)



Symbol	Requirement (inch)	Measured (inch)		Symbol	Requirement (inch)	Measured (inch)
A	0.120 - 0.130	--		E	0.240 - 0.260	--
B	0.151- 0.161	--		F	0.307 - 0.322	--
C	0.449 - 0.479	--		G	0.055 - 0.065	--
D	0.625 - 0.718	--		H	0.495 - 0.505	--

Photos



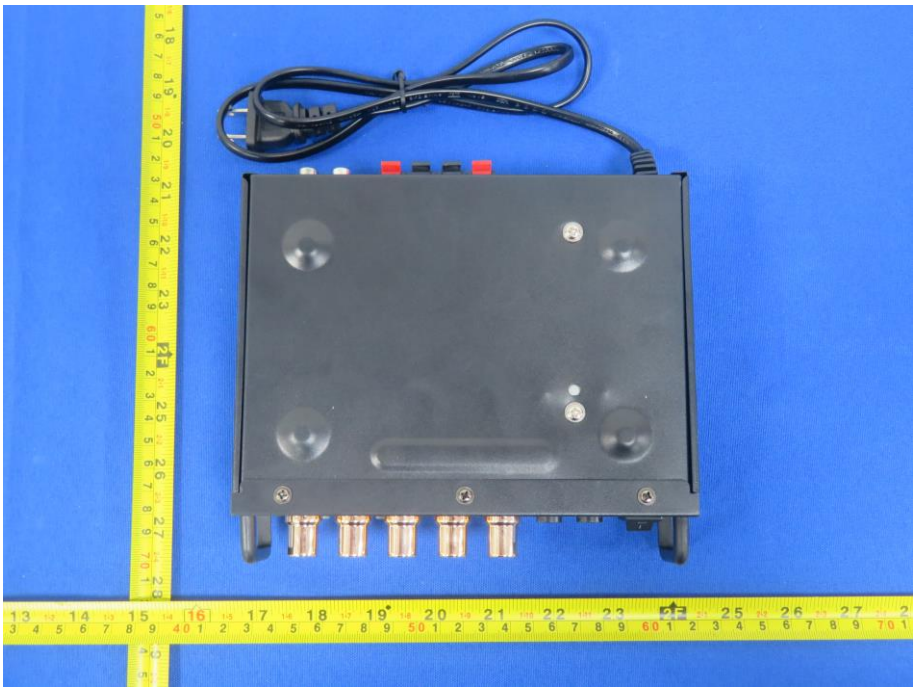
Overview

Overview

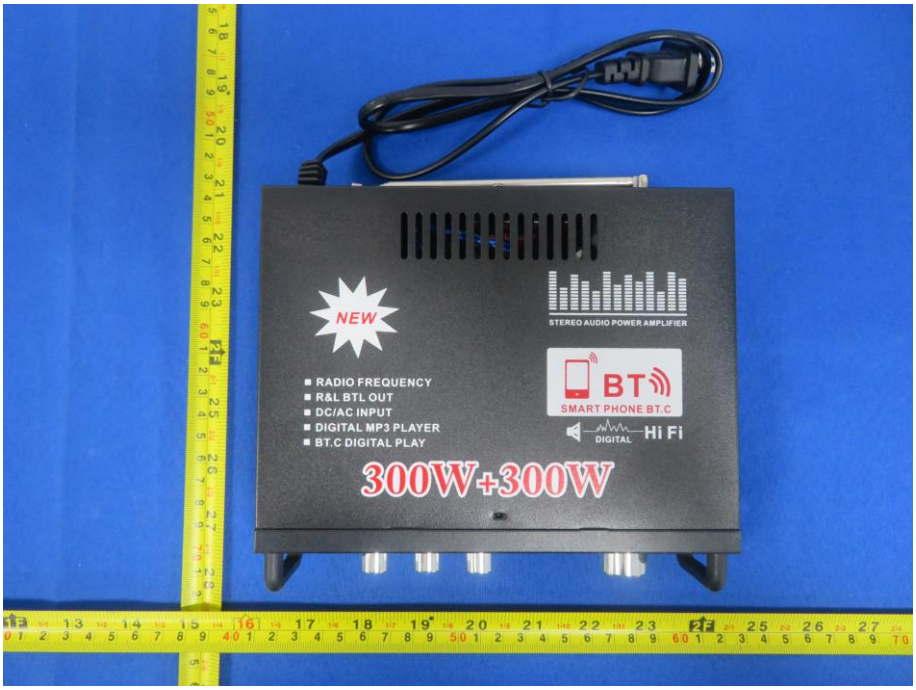
Overview

Overview

Overview



Overview



Overview

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