



TEST REPORT

IEC 62368-1

Audio/video, information and communication technology equipment

Part 1: Safety requirements

Report Number. : BTL-LVD-1-S2106C129

Tested by (+ signature) : Eli Pan

Eli Pan

Approved by (+ signature) : Ben Liu

Ben Liu

Date of issue : 2021-08-13

Total number of pages : 65

Testing Laboratory : **BTL Inc.**

Address : No.3, JinShaGang 1st Road, ShiXia, DalangTown, DongGuan, China.

Testing Location : Room 108, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.

Applicant's name : **SHENZHEN TENDA TECHNOLOGY CO., LTD**

Address : 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Test specification:

Standard : EN 62368-1:2014+A11:2017,
BS EN 62368-1:2014+A11:2017,
IEC 62368-1:2014 (Second Edition)

Test procedure..... : Service of CE Marking in LVD

Non-standard test method..... : N/A

Test Report Form No...... : IEC62368_1B_1(LVD)

Master TRF : Dated 2017-09

Test item description : AV1000 Gigabit Passthrough Powerline Adapter

Trade Mark..... : Tenda

Manufacturer : Same as applicant

Model/Type reference..... : P6, PH6

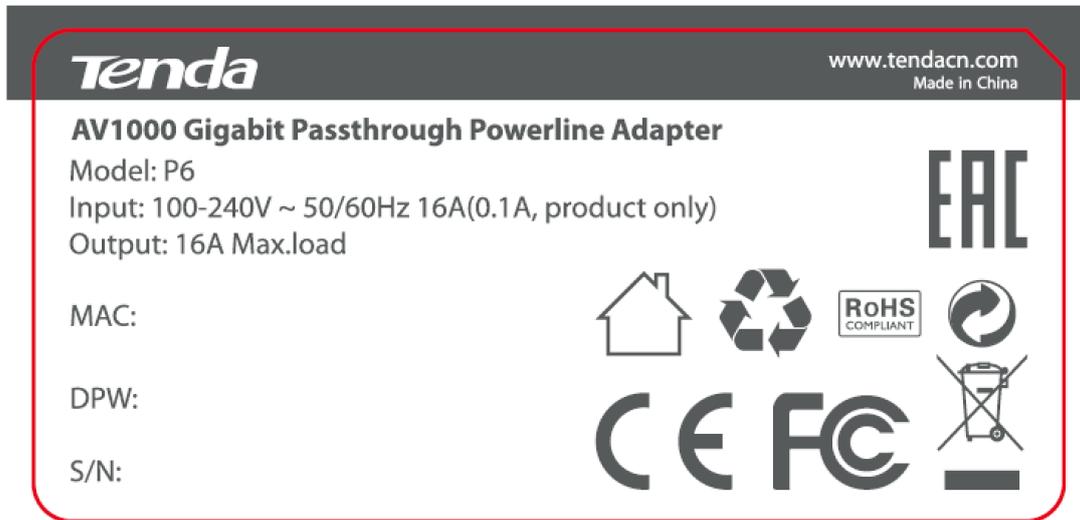
Ratings..... : Input: 100-240Vac 50/60Hz, 16A (0.1A, product only)

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

- Group differences and National differences (11 pages)
- Photo Documentation (7 pages)

Copy of marking plate:

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



Remark: This is a representative label; the others are identical to it except for model name.



TEST ITEM PARTICULARS:	
Classification of use by.....:	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> +____%/ -____% <input type="checkbox"/> None
Supply Connection – Type	<input checked="" type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input type="checkbox"/> other: _____
Considered current rating of protective device as part of building or equipment installation	16 or 13A (for UK) Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility.....:	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC)	<input checked="" type="checkbox"/> OVC I <input type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment	<input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III
Access location	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient:	40°C
IP protection class	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP____
Power Systems	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - 230 V _{L-L}
Altitude during operation (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Altitude of test laboratory (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Mass of equipment (kg)	<input checked="" type="checkbox"/> 0.16kg (approx.)



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	2021-06-21
Date (s) of performance of tests	2021-06-21 to 2021-07-16
GENERAL REMARKS:	
<p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>When determining the test conclusion, the nominal variations in some test parameters have little effect on the uncertainty of the measurement result. The decision rules are based on IEC Guide 115 with complying the relevant requirements of environment and equipment.</p> <p>"(See Enclosure #)" refers to additional information appended to the report.</p> <p>"(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	
Name and address of factory (ies).....	N/A
GENERAL PRODUCT INFORMATION:	
Product Description –	
<ul style="list-style-type: none"> - The equipment under test (EUTs) is an AV1000 Gigabit Passthrough Powerline Adapter for communication technology equipment use. - The adapter's top enclosure is secured to the bottom enclosure by screws. 	
Model Differences –	
<ul style="list-style-type: none"> - All models are similar except for model name. 	
Additional application considerations – (Considerations used to test a component or sub-assembly) –	
<ul style="list-style-type: none"> - Maximum normal load is defined as following: The unit transmitted data continuously through RJ45 port connect to ethernet-only device to the ethernet port of the extender to join the Wi-Fi network, work automatically and continuously. - The equipment disconnect device is considered to be: mains plug. - The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C - The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): RJ-45 port. 	

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:	
(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.)	
Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1	
Source of electrical energy	Corresponding classification (ES)
All primary circuits	ES3
X capacitor connected between L and N	ES3
All secondary circuits	ES1
Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2	
Source of power or PIS	Corresponding classification (PS)
All primary circuits	PS3 (Arcing PIS, Resistive PIS)
All secondary circuits	PS1
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	Corresponding chemical
N/A	N/A
Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2	
Equipment mass	MS1
Sharp edges and corners	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	Corresponding classification (TS)
Accessible surfaces (Plastic enclosure)	TS1 (Consider room ambient of 25 °C)
Internal parts/circuits	TS3
Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1	
Type of radiation	Corresponding classification (RS)
Indicating LED	RS1

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

Refer to **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**

ES
 PS
 MS
 TS
 RS

OVERVIEW OF EMPLOYED SAFEGUARDS

Clause	Possible Hazard			
5.1	Electrically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (ES3: Primary Filter circuit)	Safeguards		
		Basic	Supplementa ry	Reinforced (Enclosure)
Ordinary	ES3: All circuits of power board	N/A	N/A	Enclosure See 5.4.2, 5.4.3, 5.5.3 and 5.5.4
Ordinary	ES3: The circuit connected to AC mains (CX1)	N/A	N/A	See 5.5.2.2
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100Watt circuit)	Safeguards		
		Basic	Supplementa ry	Reinforced
Enclosure	PS3 circuit	See 6.3	V-0	N/A
PCB	PS3 circuit	See 6.3	V-1 or better	N/A
The other components/materials	PS3 circuit	See 6.3	See 6.4.5, 6.4.6	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementa ry	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3: High Pressure Lamp)	Safeguards		
		Basic	Supplementa ry	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementa ry	Reinforced
Ordinary	TS3: Internal component	N/A	N/A	Plastic enclosure



10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementa ry	Reinforced
N/A	N/A	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) "N" – Normal Condition; "A" – Abnormal Condition; "S" Single Fault				

IEC 62368-1 - ATTACHMENT

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 preventing access to ES3 parts, limiting the source supplying outputs to fulfill ES1, and protection in regard to risk of ignition, mechanical-caused injury and thermal burn considered.	P
4.1.15	Markings and instructions.....:	See Annex F.	P
4.4.4	Safeguard robustness		P
4.4.4.2	Steady force tests.....:	(See Annex T.2 and T.4)	P
4.4.4.3	Drop tests.....:	(See Annex T.7)	P
4.4.4.4	Impact tests.....:	Direct plug in equipment	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests.....:		N/A
4.4.4.6	Glass Impact tests.....:	No such glass used.	N/A
4.4.4.7	Thermoplastic material tests.....:	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard.....:	Considered, See Annex T	P
4.4.4.9	Accessibility and safeguard effectiveness	After tests of 4.4.4.2, 4.4.4.3, 4.4.4.7, no safeguard damaged.	P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors	See below.	P
4.6.1	Fix conductors not to defeat a safeguard	All conductors are reliably secured by solder-pin or glued or other mechanical fixing means.	P
4.6.2	10 N force test applied to.....:	10 N applied to all relevant conductors.	P
4.7	Equipment for direct insertion into mains socket - outlets		P
4.7.2	Mains plug part complies with the relevant standard.....:	See separated plug test report.	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	Torque (Nm)	0.068Nm (For EU plug) 0.059Nm (For UK plug)	P
4.8	Products containing coin/button cell batteries	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....	See annex P	P

5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current	(See appended table 5.2)	P
5.2.2.3	Capacitance limits.....	(See appended table 5.2)	P
5.2.2.4	Single pulse limits	No such single pulses generated in the EUT or applied to it.	N/A
5.2.2.5	Limits for repetitive pulses	No such repetitive pulses within the EUT	N/A
5.2.2.6	Ringling signals	No such ringing signals within the EUT	N/A
5.2.2.7	Audio signals	No such audio signals	N/A
5.3	Protection against electrical energy sources	See below	P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons	See only 4.3 and 5.3 to 5.5 which applies to protection between the accessible parts and hazardous parts of other circuits.	P
5.3.2.1	Accessibility to electrical energy sources and safeguards	Only ES1 circuit and the enclosure (safeguard) are accessed to person.	P
5.3.2.2	Contact requirements	No opening of enclosure, no access with test probe (Figure V.1) to any ES3 circuit or parts.	P
	a) Test with test probe from Annex V.....		P
	b) Electric strength test potential (V).....		P
	c) Air gap (mm)		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have taken into account as specified in this Clause 5 and Annex T and natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning	See sub-clause 5.4.8.	P
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied. No insulating compound applied (however see 5.5.4).	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer within the EUT	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such starting pulses within the EUT	N/A
5.4.1.8	Determination of working voltage	(See appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces		P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	See only 5.4.1.10.3 below.	P
5.4.1.10.2	Vicat softening temperature		N/A
5.4.1.10.3	Ball pressure	(See appended table 5.4.1.10.3)	P
5.4.2	Clearances	The highest value in Cl 5.4.2.2 and Cl 5.4.2.3 be used.	P
5.4.2.2	Determining clearance using peak working voltage	Temporary overvoltage 2000V _{peak} assumed. (See appended table 5.4.2.2)	P
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.3)	P
	a) a.c. mains transient voltage	2500 V _{pk} considered for Overvoltage Cat. II	—
	b) d.c. mains transient voltage	No such transient	—
	c) external circuit transient voltage	No such transient	—
	d) transient voltage determined by measurement :	No such transient	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test	Using procedure 2 to determine the clearance according to 5.4.2.3.	N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
5.4.2.5	Multiplication factors for clearances and test voltages	(See only appended tables) Specified the equipment to be operated up to 2000m above sea level. Factor 1.0 according to table 17.	P
5.4.3	Creepage distances	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group	IIIa & IIIb	—
5.4.4	Solid insulation	See below	P
5.4.4.2	Minimum distance through insulation	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation		N/A
5.4.4.4	Solid insulation in semiconductor devices		N/A
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material	See below	P
5.4.4.6.1	General requirements	Two layers as reinforced insulation around transformer	P
5.4.4.6.2	Separable thin sheet material	(See appended table 5.4.9)	P
	Number of layers (pcs)	2 layers min for insulation tape	P
5.4.4.6.3	Non-separable thin sheet material	No such insulation used within the EUT	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	Approved triple insulation wire used	P
5.4.4.9	Solid insulation at frequencies >30 kHz	(See appended Table 5.4.4.9)	P
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	No such insulation of internal wire as part of supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No tests necessary –see only 5.4.4.4.	N/A
5.4.8	Humidity conditioning	Test was performed on product with each source of transformer listed in table 4.1.2	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Relative humidity (%)	93%	—
	Temperature (°C)	40°C	—
	Duration (h)	120h	—
5.4.9	Electric strength test.....	(See appended table 5.4.9)	P
5.4.9.1	Test procedure for a solid insulation type test	(See appended table 5.4.9)	P
5.4.9.2	Test procedure for routine tests	No routine tests considered. To be considered during the relevant national approval.	N/A
5.4.10	Protection against transient voltages between external circuit	No such 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
5.4.11	Insulation between external circuits and earthed circuitry	No such connections for external circuit applied within the EUT	N/A
5.4.11.1	Exceptions to separation between external circuits and earth	No such connections to external circuit as above.	N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V)		—
	Nominal voltage U_{peak} (V)		—
	Max increase due to variation U_{sp}		—
	Max increase due to ageing ΔU_{sa}		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$		—
5.5	Components as safeguards		
5.5.1	General	See below.	P
5.5.2	Capacitors and RC units		N/A
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector	(See appended table 5.5.2.2)	P
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers	(See Annex G.12)	P
5.5.5	Relays	Not used as safeguard.	N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
5.5.6	Resistors	Discharge resistors (R1, R2, RX1 and RX2) used. However test of 5.5.2.2 complied even with fault condition RX1 open circuit therefore not relied upon as safeguard.	P
5.5.7	SPD's		N/A
5.5.7.1	Use of an SPD connected to reliable earthing		N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable	No such external circuits.	N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	See below.	P
5.6.2.1	General requirements	No switch or overcurrent protective device in protective bonding conductor	P
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors	Direct plug-in equipment.	N/A
	Protective earthing conductor size (mm ²)		—
5.6.4	Requirement for protective bonding conductors	See below.	P
5.6.4.1	Protective bonding conductors	Comply with 5.6.6.	P
	Protective bonding conductor size (mm ²).....		—
	Protective current rating (A)	16A (13A for UK)	—
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors	No terminals for protective conductors.	N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm ²), nominal thread diameter (mm).....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		P
5.6.6.1	Requirements		P
5.6.6.2	Test Method Resistance	See appended table 5.6.6.2	P
5.6.7	Reliable earthing	Not permanently connected equipment	N/A
5.7	Prospective touch voltage, touch current and protective conductor current		P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
5.7.2	Measuring devices and networks	Figure 4 and Figure 5 of IEC 60990:1999 was used in determining of the limit of ES1 and ES2.	P
5.7.2.1	Measurement of touch current	(See appended table 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4.5.3 and 5.4 of IEC 60990:1999 applied.	P
	System of interconnected equipment (separate connections/single connection)	Single connection.	—
	Multiple connections to mains (one connection at a time/simultaneous connections).....	Single connection.	—
5.7.4	Earthed conductive accessible parts	(See appended table 5.7.4)	P
5.7.5	Protective conductor current		N/A
	Supply Voltage (V)		—
	Measured current (mA)		—
	Instructional Safeguard		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No external circuits.	N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	No external circuits.	N/A
	a) Equipment with earthed external circuits Measured current (mA)		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....		N/A
6	ELECTRICALLY- CAUSED FIRE		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
6.2.2	Power source circuit classifications	<p>Basic assumptions: primary circuits inside the equipment fire enclosure are declared as of PS3, arcing and resistive PIS except for the circuits of output connector complied with Q.1. No interconnection to building wiring.</p> <p>Construction details: All components and combustible materials are either rated at least V-0 or mounted on minimum V-1 materials. Equipment fire enclosure does not provide with openings.</p>	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault ... :	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault :	(See appended table 6.2.2)	P
6.2.2.4	PS1 :	(See appended table 6.2.2)	P
6.2.2.5	PS2 :		N/A
6.2.2.6	PS3 :	Primary circuits inside enclosure is claimed as PS3	P
6.2.3	Classification of potential ignition sources	All conductors and devices are considered as PIS.	P
6.2.3.1	Arcing PIS :	(See appended table 6.2.3.1)	P
6.2.3.2	Resistive PIS :	(See appended table 6.2.3.1)	P
6.3	Safeguards against fire under normal operating and	abnormal operating conditions	P
6.3.1 (a)	No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials :	No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure	No materials outside enclosure	N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method by control of fire spread applied, V-0 fire enclosure provided.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		P
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	Method by control of fire spread applied as 6.4.1.	N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions..... :		N/A
	Special conditions for temperature limited by fuse		N/A
6.4.4	Control of fire spread in PS1 circuits		P
6.4.5	Control of fire spread in PS2 circuits		N/A
6.4.5.2	Supplementary safeguards	(See appended tables 4.1.2 and Annex G)	P
6.4.6	Control of fire spread in PS3 circuit	<p>Compliance detailed as follows:</p> <ul style="list-style-type: none"> - <u>Printed board</u>: rated min. V-1 - <u>Wire insulation (tubing)</u>: complying with Clause 6. The internal wires are complied with UL 758 standard, which test method and testing condition equal to IEC/EN 60695-11-21; - <u>All other components</u>: at least V-2 except for mounted on min. V-1 material or small parts of combustible material (with mass less than 4g) or components complying to relevant IEC standard. <p><u>Isolating transformer</u>: complying with G.5.3.</p>	P
6.4.7	Separation of combustible materials from a PIS	Fire enclosure provided.	N/A
6.4.7.1	General..... :		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier	No specific barrier provided.	N/A
6.4.8	Fire enclosures and fire barriers	See below.	P
6.4.8.1	Fire enclosure and fire barrier material properties	The V-0 material is used for the fire enclosure (overall enclosure).	P
6.4.8.2.1	Requirements for a fire barrier	No fire barrier used.	N/A
6.4.8.2.2	Requirements for a fire enclosure	The V-0 fire enclosure is used. See above.	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings in fire enclosure.	N/A
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions(mm)	No openings	N/A
	Needle Flame test		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	See appended table 6.4.8.3.3, 6.4.8.3.4, P.2 for details.	P
	Flammability tests for the bottom of a fire enclosure		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c)		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	Fire enclosure is made of V-0 material.	P
6.5	Internal and external wiring		N/A
6.5.1	Requirements		N/A
6.5.2	Cross-sectional area (mm ²)		—
6.5.3	Requirements for interconnection to building wiring		N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	See annex Q.1.	P

7	INJURY CAUSED BY HAZARDOUS SUBSTANCES		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous chemicals within the equipment.	N/A
7.3	Ozone exposure	No ozone production within the equipment.	N/A
7.4	Use of personal safeguards (PPE)		N/A
	Personal safeguards and instructions		—
7.5	Use of instructional safeguards and instructions		N/A
	Instructional safeguard (ISO 7010)		—
7.6	Batteries.....	No battery used.	N/A

8	MECHANICALLY-CAUSED INJURY		P
8.1	General	Mass<7kg, No moving parts in the equipment – see below regarding edges and corners.	P
8.2	Mechanical energy source classifications	Sharp edges and corners, and equipment mass are both classified as MS1	P
8.3	Safeguards against mechanical energy sources	No safeguard is required to be interposed between MS1 and an ordinary person	N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
8.4	Safeguards against parts with sharp edges and corners	Accessible edges and corners of the equipment were rounded and are classified as MS1	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard..... :		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard..... :		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N)		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test..... :		N/A
8.6	Stability	Classification MS1 according to table 35, line 5 and no stability requirements.	P
8.6.1	Product classification		P
	Instructional Safeguard..... :		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force)..... :		N/A
	Position of feet or movable parts..... :		—
8.7	Equipment mounted to wall or ceiling		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)		N/A
8.7.2	Direction and applied force		N/A
8.8	Handles strength	No handles.	N/A
8.8.1	Classification		N/A
8.8.2	Applied Force		N/A
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force		—
8.10	Carts, stands and similar carriers	No carts, stands or similar carriers	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N)		—
8.10.6	Thermoplastic temperature stability (?C)		N/A
8.11	Mounting means for rack mounted equipment	Not such equipment	N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i>		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas	No such parts.	N/A
	Button/Ball diameter (mm)		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	No part considered to be accessible other than enclosure. The equipment evaluated by temperature test. (See appended Tables 9.0, B.2.6, B.3 and B.4)	P
9.3	Safeguard against thermal energy sources	Temperature of enclosure classed as TS1.	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.4.2	Instructional safeguard	Instructional safeguard is not required.	N/A

10	RADIATION		P
10.2	Radiation energy source classification	Indicating LED is low power application classified as RS1.	P
10.2.1	General classification	See the following details.	P
10.3	Protection against laser radiation	No such radiation generated from the equipment.	N/A
	Laser radiation that exists equipment:		—
	Normal, abnormal, single-fault..... :		N/A
	Instructional safeguard		—
	Tool..... :		—
10.4	Protection against visible, infrared, and UV radiation	Indicating LED is low power application classified as RS1.	P
10.4.1	General		P
10.4.1.a)	RS3 for Ordinary and instructed persons		N/A
10.4.1.b)	RS3 accessible to a skilled person..... :		N/A
	Personal safeguard (PPE) instructional safeguard..... :		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 . :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque..... :		N/A
10.4.1.f)	UV attenuation..... :		N/A
10.4.1.g)	Materials resistant to degradation UV		N/A
10.4.1.h)	Enclosure containment of optical radiation..... :		N/A
10.4.1.i)	Exempt Group under normal operating conditions..... :		N/A
10.4.2	Instructional safeguard		N/A
10.5	Protection against x-radiation		N/A
10.5.1	X- radiation energy source that exists equipment :		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards..... :		N/A
	Instructional safeguard for skilled person..... :		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation :		—
	Abnormal and single-fault condition :		N/A
	Maximum radiation (pA/kg)..... :		N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A) :		N/A
	Output voltage, unweighted r.m.s..... :		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards :		N/A
	Equipment safeguard prevent ordinary person to RS2..... :		—
	Means to actively inform user of increase sound pressure..... :		—
	Equipment safeguard prevent ordinary person to RS2..... :		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output..... :		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A) :		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A) :		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions		P
B.2.1	General requirements..... :	(See summary of testing for tested models, each loaded according to its output ratings. See also appended table B.2.5.)	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Audio Amplifiers and equipment with audio amplifiers	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	+10 % and -10 % considered.	P
B.2.5	Input test.....	(See appended table B.2.5)	P
B.3	Simulated abnormal operating conditions		P
B.3.1	General requirements.....	(See appended table B.3)	P
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test	The EUT is not connected to DC mains	N/A
B.3.4	Setting of voltage selector	No voltage selector was used.	N/A
B.3.5	Maximum load at output terminals		N/A
B.3.6	Reverse battery polarity	No battery within the EUT	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	Not such equipment.	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	During an abnormal operating condition that does not lead to a single fault condition, all safeguards are remained effective. After restoration of normal operating conditions, all safeguards are compliance with applicable requirements. For abnormal operating condition leads to a consequential fault, the compliance criteria of B.4.8 apply	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited		N/A
B.4.3	Motor tests	No motors used.	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation	See below.	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended table B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended table B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards used.	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors		N/A
B.4.6	Short circuit or disconnect of passive components	(See appended table B.3 & B.4)	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	During and after a single fault condition, a class 1 or class 2 energy sources did not become a class 3 energy source. For a class 3 energy source, during and after a single fault condition, at least one safeguard continued to comply with the relevant safeguard requirements	P
B.4.9	Battery charging under single fault conditions ... :	No battery involved in the EUT	N/A
C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	No UV generated from the equipment.	N/A
C.1.2	Requirements	See above.	N/A
C.1.3	Test method	See above.	N/A
C.2	UV light conditioning test	See above.	N/A
C.2.1	Test apparatus	See above.	N/A
C.2.2	Mounting of test samples	See above.	N/A
C.2.3	Carbon-arc light-exposure apparatus	See above.	N/A
C.2.4	Xenon-arc light exposure apparatus	See above.	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		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V) :		--
	Rated load impedance (Ω) :		--
E.2	Audio amplifier abnormal operating conditions		N/A
F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements	See below.	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Instructions – Language	English	—
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
F.2.2	Graphic symbols 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 required marking is located on the enclosure of the equipment and is easily visible.	P
F.3.2	Equipment identification markings	See copy of marking plate.	P
F.3.2.1	Manufacturer identification	See copy of marking plate.	—
F.3.2.2	Model identification	See copy of marking plate.	—
F.3.3	Equipment rating markings	See copy of marking plate.	P
F.3.3.1	Equipment with direct connection to mains		P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage.....	See copy of marking plate.	—
F.3.3.4	Rated voltage	See copy of marking plate.	—
F.3.3.4	Rated frequency	See copy of marking plate.	—
F.3.3.6	Rated current or rated power	See copy of marking plate.	—
F.3.3.7	Equipment with multiple supply connections	Only one mains supply connection provided.	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	No switch used.	N/A
F.3.5.3	Replacement fuse identification and rating markings.....	Fuse marking on PCB adjacent to fuse: F1: T5AL/250VAC	P
F.3.5.4	Replacement battery identification marking	No such battery on the equipment.	N/A
F.3.5.5	Terminal marking location	See markings specified in F.3.6.1 is not placed on removable parts such as screws.	P
F.3.6	Equipment markings related to equipment classification	See below.	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
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	Neutral conductor terminal		N/A
F.3.6.1.3	Protective bonding conductor terminals		P
F.3.6.2	Class II equipment (IEC60417-5172)		N/A
F.3.6.2.1	Class II equipment with or without functional earth		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A
F.3.7	Equipment IP rating marking :	IPX0.	—
F.3.8	External power supply output marking		N/A
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec, with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking	The accessibility of equipment is evaluated using the test probe of Figure V.1	N/A
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such terminals provided.	N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES2 limits		N/A
	h) Symbols used on equipment	No such symbols used as a safeguard considered.	N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	i) Permanently connected equipment not provided with all-pole mains switch	Not permanently connected equipment.	N/A
	j) Replaceable components or modules providing safeguard function	No such markings.	N/A
F.5	Instructional safeguards	No instructional safeguard is considered as necessary.	N/A
	Where “instructional safeguard” is referenced in the test report it specifies the required elements, location of marking and/or instruction	No instructional safeguard required in the equipment.	N/A

G	COMPONENTS	P	
G.1	Switches	N/A	
G.1.1	General requirements	No switch used.	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays	N/A	
G.2.1	General requirements	No relay used.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices	N/A	
G.3.1	Thermal cut-offs	No thermal cut-off used.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)		N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)		N/A
G.3.1.2	Thermal cut-off connections maintained and secure		N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link used.	N/A
G.3.2.1b)	Thermal links tested as part of the equipment		N/A
	Aging hours (H) :		—
	Single Fault Condition :		—
	Test Voltage (V) and Insulation Resistance (Ω). :		—
G.3.3	PTC Thermistors	No PTC thermistor used.	N/A
G.3.4	Overcurrent protection devices		P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.4		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
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	No such connector with insulated surfaces accessible within the EUT.	N/A
G.4.2	Mains connector configuration	See above	N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	No other connectors likely to be removed by an ordinary person or instructed person where mismatch could occur.	P
G.5	Wound Components		P
G.5.1	Wire insulation in wound components.....	(See Annex J)	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	Spacing is provided for primary and secondary winding of transformer to protect against mechanical stress.	P
G.5.1.2 b)	Construction subject to routine testing		P
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s)		—
	Temperature (°C)		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	Transformers		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1).....:	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	P
	Position.....:	See appended table 4.1.2.	—
	Method of protection	Over current protection by circuit design.	—
G.5.3.2	Insulation	Triple insulation wire used, bobbin and insulation tapes provided.	P
	Protection from displacement of windings.....:	Triple insulation wire used and insulation tapes provided.	—
G.5.3.3	Overload test	(See appended table B.3)	P
G.5.3.3.1	Test conditions	Tested in the complete equipment.	P
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended table B.3)	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	No motor used.	N/A
	Position		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days)		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V)		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		N/A
	Electric strength test (V)		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature		N/A
	Electric strength test (V)		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h)		N/A
	Electric strength test (V)		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage		—
G.6	Wire Insulation		P
G.6.1	General	Approved wire used	P
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements	No such cord provided	N/A
	Type.....		—
	Rated current (A).....		—

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Cross-sectional area (mm ²), (AWG)..... :		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N) :		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm).... :		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry :		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g) :		—
	Diameter (m) :		—
	Temperature (?C)..... :		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire	No such wire.	N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	Varistors		P
G.8.1	General requirements	(See appended table 4.1.2)	P
G.8.2	Safeguard against shock		P
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test :		N/A
G.8.3.3	Temporary overvoltage :		N/A
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No IC current limiter provided within the equipment.	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA :		--
G.9.1 d)	IC limiter output current (max. 5A) :		--
G.9.1 e)	Manufacturers' defined drift :		--
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements	No such resistors.	N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	Capacitor and RC units		P
G.11.1	General requirements	(See appended table 4.1.2) Certified X2, Y1 capacitors complying with IEC60384-14	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors	One Y1 Capacitor provided	P
G.12	Optocouplers		P
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results).....:	Certified optocouplers used. (See appended table 4.1.2)	P
	Type test voltage V _{ini}		—
	Routine test voltage, V _{ini,b}		—
G.13	Printed boards		P
G.13.1	General requirements	See the following details.	P
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board complied with the minimum clearance and creepage requirements	P
G.13.3	Coated printed boards	No coated printed board or multilayer board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction).....:		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Number of insulation layers (pcs)		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements	No coating on component terminals considered to affect creepage or clearances.	N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance		—
D3)	Resistance		—

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General	No telephone ringing signal generated within the equipment.	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringling signal		N/A
H.3.1.1	Frequency (Hz)		—
H.3.1.2	Voltage (V)		—
H.3.1.3	Cadence; time (s) and voltage (V)		—
H.3.1.4	Single fault current (mA):.....		—
H.3.2	Tripping device and monitoring voltage		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage complied with		N/A
H.3.2.2	Tripping device		N/A
H.3.2.3	Monitoring voltage (V)		—

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		P
	General requirements	Certified triple insulation wire used.	P

K	SAFETY INTERLOCKS		N/A
K.1	General requirements	No safety interlock provided.	N/A
K.2	Components of safety interlock safeguard mechanism		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		N/A
K.7.2	Overload test, Current (A)		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

L	DISCONNECT DEVICES		P
L.1	General requirements	AC plug used to disconnect from AC mains.	P
L.2	Permanently connected equipment	Not permanently connected equipment.	N/A
L.3	Parts that remain energized	When AC plug is disconnected no hazardous voltage in the equipment.	P
L.4	Single phase equipment	The mains plug disconnects 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	See above.	P
L.8	Multiple power sources	Only one a.c. mains connection.	N/A

M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements	No battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) .. :		--
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance		--
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature		--
M.4.2.2 b)	Single faults in charging circuitry		--

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)		--
M.6.2	Leakage current (mA)		--
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume V_z (m 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

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing)		N/A
N	ELECTROCHEMICAL POTENTIALS		N/A
	Metal(s) used	No risk of corrosion.	--
O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		P
	Figures O.1 to O.20 of this Annex applied	Considered.	—
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements	See below.	P
P.2.2	Safeguards against entry of foreign object		P
	Location and Dimensions (mm)		—
P.2.3	Safeguard against the consequences of entry of foreign object	See appended table 6.4.8.3.3, 6.4.8.3.4, P.2 in miscellaneous for details.	—
P.2.3.1	Safeguards against the entry of a foreign object	See above.	P
	Openings in transportable equipment		P
	Transportable equipment with metalized plastic parts		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard)		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts	No such construction.	N/A
P.4.2 a)	Conditioning testing		N/A
	T _c (°C)		—
	T _r (°C)		—
	T _a (°C)		—
P.4.2 b)	Abrasion testing		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

P.4.2 c)	Mechanical strength testing		N/A
----------	-----------------------------------	--	-----

Q	CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING		P
Q.1	Limited power sources	See appended table Annex Q.1	P
Q.1.1 a)	Inherently limited output	See appended table Annex Q.1	P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		N/A
Q.1.1 c)	Overcurrent protective device limited output		N/A
Q.1.1 d)	IC current limiter complying with G.9		N/A
Q.1.2	Compliance and test method	See appended table Annex Q.1	P
Q.2	Test for external circuits – paired conductor cable	No such circuit for connection to the EUT	N/A
	Maximum output current (A)		--
	Current limiting method		--

R	LIMITED SHORT CIRCUIT TEST		N/A
R.1	General requirements	No such consideration.	N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A).		N/A

S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	Approved fire enclosure with V-0 material used.	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

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	Samples, material		—
	Wall thickness (mm).....		—
	Conditioning (°C).....		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		—
	Wall thickness (mm).....		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		—
	Wall thickness (mm).....		—
	Conditioning (test condition), (°C).....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N	(See appended table T.2, 5.4.2.2, 5.4.2.3 and 5.4.3)	P
T.3	Steady force test, 30 N	No internal enclosure.	N/A
T.4	Steady force test, 100 N	(See appended table T.4)	P
T.5	Steady force test, 250 N		N/A
T.6	Enclosure impact test	Direct plug in equipment.	N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test	(See appended table T.7)	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

T.8	Stress relief test	(See appended table T.8)	P
T.9	Impact Test (glass)	No glass used.	N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J).....		—
	Height (m)		—
T.10	Glass fragmentation test		N/A
T.11	Test for telescoping or rod antennas	No such antennas provided within the equipment.	N/A
	Torque value (Nm).....		—

U	MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION		N/A
U.1	General requirements	No CRT provided.	N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....		N/A

V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		P
V.1	Accessible parts of equipment	No access with test probes to any hazardous parts	P
V.2	Accessible part criterion		P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4.1.2	TABLE: List of critical components				P
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity 1
01. Plastic Enclosure	SABIC INNOVATIVE PLASTICS B V	940(f1)	Polycarbonate, V-0, Min. 2.3mm thickness, 120°C	UL 94	UL
02. PCB	Interchangeable	Interchangeable	V-1 or better, 130°C	UL 796	UL
03. Plug Holder	SABIC INNOVATIVE PLASTICS B V	940(f1)	V-0, 130°C	UL 94	UL
04. Fuse (F1)	Conquer Electronics Co., Ltd.	MST	T5AL, 250V ac	DIN EN 60127-3 (VDE 0820-3):2015- 11; EN 60127-3:2015 IEC 60127-1:2006	VDE
	ZHONGSHAN LANBAO ELECTRICAL APPLIANCES CO., LTD	TB	T5AL, 250V ac	EN 60127- 1:2006+A1+A2 EN 60127-3:2015	TUV Rh
	KING WAHOO ELECTRONICS CO LTD	KET series	T5AL, 250V ac	EN 60127-3:1996+A2 EN 60127-1:2006	TUV Rh
05. Bridge- Capacitors (CY1)	Hongzhi Enterprises Ltd.	X1Y1 Series	1000pF, 400Vac, 125°C	IEC/EN 60384-14	VDE
	Jyh Chung Electronic Co., Ltd.	JD	1000pF, 400Vac, 125°C	IEC/EN 60384-14	VDE
	JYH HSU (JEC) ELECTRONICS LTD	JD	1000pF, 400Vac, 125°C	IEC/EN 60384-14	VDE
	Dongguan City Dafu Electronics Co. Ltd.	CT7 Y1 Series	1000pF, 400Vac, 125°C	IEC/EN 60384-14	VDE
	Shenzhen Haotian Electronic Co., Ltd.	HT	1000pF, 400Vac, 125°C	IEC/EN 60384-14	VDE
	Hsuan Tai Electronic Co. Ltd.	CY	1000pF, 400Vac, 125 °C	IEC/EN 60384-14	VDE
06. Capacitor (CX1)	Shenzhen Yimanfeng Science and Technology Co., Ltd.	MPX/MKP	X2 type, minimum 275V, maximum 47nF±10%, 110°C	IEC/EN60384-14	VDE
	Dain Electronics Co., Ltd.	MPX	X2 type, minimum 275V, maximum	IEC/EN60384-14	VDE

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test		Result - Remark	Verdict	
			47nF±10%, 110°C		
	Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B	X2 type, minimum 275V, maximum 47nF±10%, 110°C	IEC/EN60384-14	VDE
07. Varistor (RV1)	Hongzhi Enterprises Ltd.	HEL10D561K	350Vdc, 85°C	IEC 61051-1, IEC 61051-2, IEC 61051-2-2	VDE
	Centra Science Corp.	CNR-10D561K	350Vdc, 85°C	IEC 61051-1, IEC 61051-2, IEC 61051-2-2	VDE
	Guangxi New Future Information Industry Co., Ltd.	10D561K	350Vdc, 85°C	IEC 61051-1, IEC 61051-2, IEC 61051-2-2	VDE
08. Optocouplers (U2)	Sharp Corporation	PC817 Option Y	Dti=0.4mm, int. dcr.= 5mm, ext. dcr.=8mm, 100°C	IEC 60747-5-5:2007 EN 60747-5-5	VDE
	Everlight Electronics Co., Ltd.	EL817 (blank; M; S; S1; S2; M2) (blank; V)	Dti. =0.5mm, Ext. Dcr. =8.0mm, 110 °C	IEC 60747-5-5:2007 EN 60747-5-5	VDE
09. Choke (LF1)	Interchangeable	Interchangeable	Min. 105°C	--	--
	Dongguan Tnk Industry Co., Ltd.	TDB072	Min. 105°C	--	--
	Shenzhen Cenker Enterprise Ltd.	CKEE8.3-20mH	Min. 105°C	--	--
10. Chock (L3, L5)	DONGGUAN TNK INDUSTRY CO , LTD	DR0507-121K	105°C	--	--
	Huizhou Deli Electronics Co., Ltd	RL0507-121K-LF	105°C	--	--
11. Chock (L6)	Shenzhen Cenker Enterprise Ltd.	CKPK0511-820uH.K-U3.5	105°C	--	--
	Huizhou Deli Electronics Co., Ltd	RL0511-821K-LF	105°C	--	--
	Dong Guan Sun Mao Electronic Co., Ltd.	L820-511	105°C	--	--
12. PMW IC (U1)	Interchangeable	Interchangeable	Min.725V, min. 0.718A	EN 62368-1	Tested with appliance
13. Bridging Diode (BD1)	--	--	Min. 1.5A, Min. 1000V	--	--

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test		Result - Remark	Verdict	
14. Electrolytic Capacitor (C58)	--	--	Max. 6.8 μ F, Min. 400V, 105°C	--	
15. Transformer (T1)	HUNG KAY INDUSTRIAL CO, LTD	P3-T1	Class B	--	
Bobbin	CHANG CHUN PLASTICS CO., LTD	T375J	V-0, 150°C	UL 94	UL
-Triple Insulation Wire	FURUKAWA ELECTRIC CO LTD	TEX-E	130°C, ϕ 0.25mm	IEC 62368-1:2014	VDE
-Insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT*(c)(g)	130°C, thickness 0.025mm	UL 510	UL
16. Transformer (T3)	Dongguan TNK Industry Co., Ltd.	TNK039	130°C	--	--
	SUMITOMO BAKELITE CO LTD	PM-9630	V-0, 130°C	UL 94	UL
Triple Insulation Wire	FURUKAWA ELECTRIC CO., LTD	TEX-E	130 °C, Class B	IEC 62368-1:2014	VDE
	TeamWork International Corporation	TIWW-B	130 °C, Class B	IEC 62368-1:2014	VDE
17. Mylar sheet	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR117ECOB	V-0, 80°C, Min. 0.4mm thickness	UL94	UL
	SICHUAN DONGFANG INSULATING MATERIAL CO LTD	DFR3A(d), DFR3713A(d), DFR3715A(d), DFR3716A(d), DFR3732A(d), DFR3735A(d), DFR3738A(d), DFR3613A(d), DFR3615A(d), DFR3616A(d), DFR3632A(d), DFR3635A(d), DFR3638A(d)	V-0, 120°C, Min. 0.4mm thickness	UL94	UL
18. Bleeding resistors (R1, R2, RX1, RX2)	Interchangeable	Interchangeable	Max. 1Mohm, min. 1/4W	--	--

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

Supplementary information:

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

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result			N/A
Test position	Surface tested	Force (N)	Duration force applied (s)	
--	--	--	--	
--	--	--	--	

Supplementary information:

5.2	Table: Classification of electrical energy sources						P
5.2.2.2 – Steady State Voltage and Current conditions							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters			ES Class
				U (Vrms or Vpk)	I (A _{pk} or A _{rms})	Hz	
01.	264Vac	Transformer T1 Pin 6 to 7(after D1)	Normal	10.2V	--	DC	ES1
			Abnormal (for all condition in table B.3 & B.4)	10.2V	--	DC	
			Single fault – D1 SC	0	--	DC	
			Single fault – R12 SC	10.2V	--	DC	
			Single fault – C54 SC	0	--	DC	
			Single fault – U2 pin3 to pin4 SC	10.2V	--	DC	
			Single fault – U2 pin1 to pin2 SC	10.2V	--	DC	
			Single fault – U2 pin3 OC	10.2V	--	DC	
			Single fault – U2 pin1 OC	10.2V	--	DC	
			Single fault – R22 SC	0	--	DC	
02.	264Vac	Transformer T3 Pin 1 to 2	Normal	3.20Vpk	--	60	ES1
			Abnormal	3.20Vpk	--	60	
			Single fault-	--	--	--	
03.	264Vac	Transformer T3 Pin 3 to 4	Normal	3.16Vpk	--	60	ES1
			Abnormal	3.16Vpk	--	60	
			Single fault-	--	--	--	

5.2.2.3 - Capacitance Limits

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
1.	264V, 60Hz	L to N	Normal	CX1:0.1uF (±10%)	382	ES3
			Abnormal	--	--	--
			Single fault	--	--	--

5.2.2.4 - Single Pulses

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

5.2.2.5 - Repetitive Pulses

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

Test Conditions:

- Normal –
- Abnormal -

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

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P
	Supply voltage (V)	90Vac/60Hz (Vertical port up)		90Vac/60Hz (Vertical port down)		—
	Ambient T _{min} (°C)	--	--	--	--	—
	Ambient T _{max} (°C)	--	--	--	--	—
	T _{ma} (°C)	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)
Below are internal parts		See below	Shift to 40°C	See below	Shift to 40°C	--

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark				Verdict
01. L1 coil (Power board 1)	115.2	115.1	115.6	115.5	130	
02. L2 coil (Power board 1)	122.1	122.0	125.4	125.3	130	
03. CX1 body (Power board 1)	80.3	80.2	86.4	86.3	110	
04. RV1 body (Power board 2)	79.1	79.0	63.6	63.5	85	
05. LF1 coil (Power board 2)	78.7	78.6	61.8	61.7	105	
06. CX1 body (Power board 2)	65.8	65.7	54.2	54.1	110	
07. C58 body (Power board 2)	65.9	65.8	55.1	55.0	105	
08. PWB near BD1 (Power board 2)	62.6	62.5	52.9	52.8	130	
09. T1 coil (Power board 2)	64.5	64.4	54.8	54.7	110	
10. T1 cord (Power board 2)	64.1	64.0	54.7	54.6	110	
11. CY1 body (Power board 2)	55.9	55.8	49.4	49.3	125	
12. U2 body (Power board 2)	53.7	53.6	48.0	47.9	100	
13. C59 body (Power board 2)	53.1	53.0	47.4	47.3	105	
14. PWB near U2 (Power board 2)	63.0	62.9	53.4	53.3	130	
15. L7 body (Main board)	60.0	59.9	53.6	53.5	105	
16. PWB near U5 (Main board)	61.7	61.6	55.0	54.9	105	
17. T3 coil (Main board)	70.4	70.3	61.3	61.2	110	
18. L1 body (Main board)	60.3	60.2	54.5	54.4	105	
19. PWB near U1 (Main board)	60.9	60.8	54.7	54.6	105	
20. Plastic enclosure inside near L2	55.9	55.8	48.9	48.8	--	
Ambient	40.1	40.0	40.1	40.0	--	
Accessible parts						
Plastic enclosure outside near L2	38.7	40.8	34.8	37.8	77	
Plug holder	60.0	62.1	57.7	60.7	130	
Button body	36.2	38.3	31.4	34.4	77	
Ambient	22.9	25.0	22.0	25.0	--	
	Supply voltage (V)	264Vac/60Hz (Vertical port up)		264Vac/60Hz (Vertical port down)		—
	Ambient T _{min} (°C)	--	--	--	--	—
	Ambient T _{max} (°C)	--	--	--	--	—
	T _{ma} (°C)	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)
Below are internal parts		See below	Shift to 40°C	See below	Shift to 40°C	--
01. L1 coil (Power board 1)	113.9	113.1	102.5	101.7	130	

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark				Verdict
--------	--------------------	-----------------	--	--	--	---------

02. L2 coil (Power board 1)	121.8	121.0	114.9	114.1	130
03. CX1 body (Power board 1)	79.3	78.5	73.7	72.9	110
04. RV1 body (Power board 2)	80.1	79.3	63.0	62.2	85
05. LF1 coil (Power board 2)	79.6	78.8	61.5	60.7	105
06. CX1 body (Power board 2)	66.9	66.1	54.8	54.0	110
07. C58 body (Power board 2)	67.6	66.8	56.1	55.3	105
08. PWB near BD1 (Power board 2)	64.6	63.8	54.6	53.8	130
09. T1 coil (Power board 2)	66.9	66.1	56.4	55.6	110
10. T1 cord (Power board 2)	66.4	65.6	56.2	55.4	110
11. CY1 body (Power board 2)	58.5	57.7	51.5	50.7	125
12. U2 body (Power board 2)	57.4	56.6	51.2	50.4	100
13. C59 body (Power board 2)	54.9	54.1	48.8	48.0	105
14. PWB near U2 (Power board 2)	67.4	66.6	57.3	56.5	130
15. L7 body (Main board)	61.2	60.4	53.6	52.8	105
16. PWB near U5 (Main board)	62.6	61.8	54.6	53.8	105
17. T3 coil (Main board)	71.1	70.3	59.2	58.4	110
18. L1 body (Main board)	61.3	60.5	54.1	53.3	105
19. PWB near U1 (Main board)	61.8	61.0	54.3	53.5	105
20. Plastic enclosure inside near L2	57.5	56.7	50.5	49.7	--
Ambient	40.8	40.0	40.8	40.0	--

Accessible parts

Plastic enclosure outside near L2	46.7	46.7	47.5	47.5	77
Plug holder	78.1	78.1	83.4	83.4	130
Button body	44.4	44.4	45.1	45.1	77
Ambient	25.0	25.0	25.0	25.0	--

Supplementary information:

- The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) of 40 °C.
- The temperatures were measured under the worse case normal mode defined in clause B.2.1.
- Temperature limits are calculated as follows:
Winding components providing safety isolation:
Class B → T_{max} = 120 -10=110 °C

Temperature T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--

Supplementary information:

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm).....:	--		—
Object/ Part No./Material	Manufacturer/t rademark	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	Test temperature (°C)	Impression diameter (mm)	
Plug holder / 940(f1)	SABIC INNOVATIVE PLASTICS B V	125	1.1	
Supplementary information:				

5.4.1.8	TABLE: Working voltage measurement				P
Location	RMS voltage (V)	Peak voltage (V)	Frequency (kHz)	Comments	
T1 pin 1 to pin 6	227	408	--	--	
T1 pin 1 to pin 7	226	364	--	--	
T1 pin 2 to pin 6	242	480	100	Max. V peak	
T1 pin 2 to pin 7	246	476	--	Max. V rms	
T1 pin 4 to pin 6	211	344	--	--	
T1 pin 4 to pin 7	212	396	--	--	
T1 pin 5 to pin 6	212	352	--	--	
T1 pin 5 to pin 7	212	344	--	--	
T3 pin 3 to pin 1	250	360	0.064	Max. V rms/ Max. V peak	
T3 pin 3 to pin 2	250	360	--	--	
T3 pin 4 to pin 1	250	360	--		
T3 pin 4 to pin 2	250	360	--		
CY1 primary to secondary	211	340	--	--	
U2 pin3 to pin1	176	360	--	--	
U2 pin3 to pin2	176	364	--	--	
U2 pin4 to pin1	177	364	--	--	

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

U2 pin4 to pin2	178	364	--	--
-----------------	-----	-----	----	----

Supplementary information: 240Vac, 60Hz

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
-----------------------------------	--	--	--	--	--	--	----------

Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ₃ cr (mm)	cr (mm)
L to N on PCB (before fuse F1)	420	250	0.06	1.5	10.0	2.5	10.0
L to GND	420	250	0.06	1.5	3.6	2.5	3.6
N to GND	420	250	0.06	1.5	3.6	2.5	3.6
Fuse (F1) terminal	420	250	0.06	1.5	2.6	2.5	2.6
Primary components (BD1) to accessible enclosure	420	250	0.06	3.0	6.7	5.0	6.7
Under Y capacitor CY1 on PCB trace side	420	250	0.06	3.0	7.2	5.0	7.2
Primary trace to secondary trace of PCB under T1	480	250	100	3.0	6.7	5.0	6.7
T1 primary to secondary	480	250	100	3.0	5.6	5.0	5.6
T1 core to secondary	480	250	100	3.0	6.9	5.0	6.9
T3 primary to secondary	360	250	0.064	3.0	6.4	5.0	6.4
T3 primary to core	360	250	0.064	1.5	3.2	2.5	3.2
T3 secondary to core	360	250	0.064	1.5	3.2	2.5	3.2

Supplementary information:

- Only for frequency above 30kHz
- See table 5.4.2.4 if this is based on electric strength test
- Provide Material Group IIIa/IIIb
- Primary to secondary components and internal wire (with 10N);
- FI=Functional Insulation, RI=Reinforced Insulation.
- The core of T3 considered as middle, the insulation between secondary / primary to core is basic insulation, Triple insulated wire used in T3 primary and secondary windings.

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage		P
----------------	---	--	----------

	Overtoltage Category (OV):		II
--	-----------------------------------	--	----

	Pollution Degree:		2
--	--------------------------	--	---

Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)
See table 5.4.2.2, 5.4.2.4 and 5.4.3	2500	Basic insulation: 1.5	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
	Overvoltage Category (OV):			II
	Pollution Degree:			2
Clearance distanced between:	Required withstand voltage	Required cl (mm)	Measured cl (mm)	
		Reinforced insulation: 3.0		
Supplementary information: Using procedure 2 to determine the clearance. IEC 62368-1 clearance requirements for 2000 m above sea level (Normal barometric pressure 54.0 kPa). The required clearance is multiplied by the altitude correction factor (1.0), as specified in Table 17				

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

5.4.4.2, 5.4.4.5 c) 5.4.4.9	TABLE: Distance through insulation measurements					P
Distance through insulation di at/of:	Peak voltage (V)	Frequency (kHz)	Material	Required DTI (mm)	DTI (mm)	
Plastic enclosure	480	100	Plastic	min. 0.4	See Table 4.1.2	
Optical coupler (U2)	480	100	Plastic	min. 0.4	See Table 4.1.2	
Supplementary information:						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Between L and N removing the fuse	DC	2500	No	
Unit: Primary to secondary	DC	4000	No	
Unit: Primary to plastic enclosure with foil	DC	4000	No	
Transformer T1: Primary to Secondary	DC	4000	No	
Transformer T1: Core to Secondary	DC	4000	No	
Transformer T3: Primary to Secondary	DC	4000	No	

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No	
Transformer T3: Primary to Core	DC	2500	No	
Transformer T3: Secondary to Core	DC	2500	No	
One layers of insulation tape (all source)	DC	4000	No	
Supplementary information: 1. All sources of insulation tape listed in table 4.1.2 have been considered				

5.5.2.2	TABLE: Stored discharge on capacitors					P
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
264Vdc, 60Hz	L to N	Normal	ON	4Vdc	ES1	
264Vdc, 60Hz	L to N	RX1 OC	ON	10Vdc	ES1	
264Vdc, 60Hz	L to N	R1 OC	ON	8Vdc	ES1	
264Vdc, 60Hz	L to N	U1 OC	ON	8Vdc	ES1	
Supplementary information: - X-capacitors installed for testing are: CX1=47nF. - Bleeding resistors rating: R1=R2=RX1=RX2=1MΩ Notes: A. Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition SC – Short Circuit; OC – Open Circuit						

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

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		N/A
Supply voltage	--	—	
Location	Test conditions specified in 6.1 of		Touch current

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

	IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7	(mA)
--	1	--
	2*	--
	3	--
	4	--
	5	--
	6	--
	8	--

Supplementary Information:

- Overall capacity:

Notes:

[1] Supply voltage is the anticipated maximum Touch Voltage

[2] Earthed neutral conductor [Voltage differences less than 1% or more]

[3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3

[4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.

[5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

6.2.2		Table: Electrical power sources (PS) measurements for classification			P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s ^{*)}	PS Classification
Transformer T1 Pin 6 to 7 (after D1)	Normal	Power (W) :	4.86	--	PS1
		V _A (V) :	10.33	--	
		I _A (A) :	0.47	--	
Transformer T1 Pin 6 to 7 (after D1)	Single fault R12 SC	Power (W) :	4.96	--	PS1
		V _A (V) :	10.32	--	
		I _A (A) :	0.48	--	
Transformer T1 Pin 6 to 7 (after D1)	Single fault C54 SC	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
Transformer T1 Pin 6 to 7 (after D1)	Single fault D1 SC	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
Transformer T1 Pin 6 to 7	Single fault U1 pin4 to pin SC	Power (W) :	0	--	PS1
		V _A (V) :	0	--	

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
(after D1)	I_A (A) :	0	--
Transformer T1 Pin 6 to 7 (after D1)	Single fault U1 pin4 to pin3 SC	Power (W) :	0
		V_A (V) :	0
		I_A (A) :	0
Transformer T1 Pin 6 to 7 (after D1)	Single fault U1 pin8 to pin2 SC	Power (W) :	0
		V_A (V) :	0
		I_A (A) :	0
Transformer T1 Pin 6 to 7 (after D1)	Single fault U1 pin8 to pin3 S-C	Power (W) :	0
		V_A (V) :	0
		I_A (A) :	0
Transformer T1 Pin 6 to 7 (after D1)	Single fault R22 S-C	Power (W) :	0
		V_A (V) :	0
		I_A (A) :	0
Transformer T1 Pin 6 to 7 (after D1)	Single fault C56 S-C	Power (W) :	0
		V_A (V) :	0
		I_A (A) :	0

Supplementary Information:

(*) Measurement taken only when limits at 3 seconds exceed PS1 limits

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				P
Location	Open circuit voltage After 3 s (V_p)	Measured r.m.s current (I_{rms})	Calculated value ($V_p \times I_{rms}$)	Arcing PIS? Yes / No	
--	--	--	--	--	

Supplementary information:

- All primary components are considered to arcing PIS (declaration).

6.2.3.2	Table: Determination of Potential Ignition Sources (Resistive PIS)				P
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
See below.	--	--	--	--	--

Supplementary Information:

- All primary components and secondary components are considered to resistive PIS (declaration).

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

6.4.8.3.3, 6.4.8.3.4, P.2	TABLE: Top and bottom openings in fire or electrical enclosure		P
Location		Dimension (mm)	Comments
All sides		--	No openings
Supplementary information:			

8.5.5	TABLE: High Pressure Lamp		N/A
Description		Values	Energy Source Classification
Lamp type.....		--	—
Manufacturer		--	—
Cat no.		--	—
Pressure (cold) (MPa).....		--	MS_
Pressure (operating) (MPa)		--	MS_
Operating time (minutes)		--	—
Explosion method		--	—
Max particle length escaping enclosure (mm)		--	MS_
Max particle length beyond 1 m (mm).....		--	MS_
Overall result		--	
Supplementary information:			

B.2.5	TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
90V, 50Hz	16.14	--	1433	--	F1	16.14	Normal maximum load
90V, 60Hz	16.18	--	1428	--	F1	16.18	Normal maximum load
100V, 50Hz	16.18	16	1604	--	F1	16.18	Normal maximum load
100V, 60Hz	16.19	16	1598	--	F1	16.19	Normal maximum load
240V, 50Hz	16.01	16	3816	--	F1	16.01	Normal maximum load
240V, 60Hz	16.02	16	3814	--	F1	16.02	Normal maximum load
264V, 50Hz	16.06	--	4208	--	F1	16.06	Normal maximum load
264V, 60Hz	16.07	--	4247	--	F1	16.07	Normal maximum load

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

Supplementary information:

- Equipment may be have rated current or rated power or both. Both should be measured
- Load condition: See page 4 for details

B.3 TABLE: Abnormal operating condition tests								P
Ambient temperature (°C)						25°C, if not specified		—
Power source for EUT: Manufacturer, model/type, output rating						--		—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Transformer T1 pin 7 to pin 6 (after D1)	Overload	264Vac	9hrs	F1	16.07A to 16.08A to 16.09A to 16.10A to 16.07A	T1 coil	105.3	The unit shut down, When Transformer T1 pin 7 to pin 6 (after D1) overload to 0.35A, no damage, no hazard
						T1 core	111.2	
						PWB near BD1	119.5	
						PWB near U5	56.3	
						Metal enclosure near U5	26.2	
Ambient	22.7							

Supplementary Information:

- Results Key: NB=No indication of dielectric breakdown; IP=Internal protection operated (list component); CD=Components damaged (list damaged components); @ = Tests were repeated 2 more times (Totally 3 times) and get the same result; I/P = Input; O/P = Output, NSF=No Ignition, TC=Touch Current measured, TV= Touch Voltage measured.

B.4 TABLE: Fault condition tests								P
Ambient temperature (°C)						25°C, if not specified		—
Power source for EUT: Manufacturer, model/type, output rating						--		—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
+10V output "+" to "-"	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
BD1	Short circuit	264	1s	F1	0	--	--	F1 opened immediately NT, NC, NB.
C58	Short circuit	264	1s	F1	0	--	--	F1 opened immediately NT, NC, NB.

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test					Result - Remark		Verdict
U1 Pin 4 to Pin 5, 6, 7, 8	Short circuit	264	1s	F1	0	--	--	F1 opened immediately NT, NC, NB.
U1 Pin 4 to Pin 2	Short circuit	264	1s	F1	0	--	--	F1 opened immediately NT, NC, NB.
R22	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
T1 Pin1 to Pin2	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
T1 Pin4 to Pin5	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
T1 Pin6 to Pin7	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
U2 pin1 to pin2	Short circuit	264	10mins	F1	16.07	--	--	Unit operate normally, no damage, no hazard. NT, NC, NB.
U2 pin3 to pin4	Short circuit	264	10mins	F1	16.07	--	--	Unit operate normally, no damage, no hazard. NT, NC, NB.
U2 pin1	Open circuit	264	10mins	F1	16.07	--	--	Unit operate normally, no damage, no hazard. NT, NC, NB.
U2 pin3	Open circuit	264	10mins	F1	16.07	--	--	Unit operate normally, no damage, no hazard. NT, NC, NB.

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test					Result - Remark		Verdict
D1	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
C54	Short circuit	264	10mins	F1	0.014	--	--	The unit shut down immediately. Recovered. NT, NC, NB.
R12	Short circuit	264	10mins	F1	16.07	--	--	Unit operate normally, no damage, no hazard. NT, NC, NB.

Supplementary Information:

- After fuse opened condition, all sources of fuses were repeated and came out the same result.
- Results Key: NB=No indication of dielectric breakdown; IP=Internal protection operated (list component); CD=Components damaged (list damaged components); @ = Tests were repeated 2 more times (Totally 3 times) and get the same result; I/P = Input; O/P = Output, NSF=No Ignition, TC=Touch Current measured, TV= Touch Voltage measured.

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

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

Annex M	TABLE: Batteries	N/A							
The tests of Annex M are applicable only when appropriate battery data is not available		--							
Is it possible to install the battery in a reverse polarity position?..... :		--							
	Non-rechargeable batteries		Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Supplementary information:									

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries	N/A			
Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp (C)	
--	Normal	--	--	--	--
--	Abnormal	--	--	--	--
--	Single fault –SC/OC	--	--	--	--
--	Normal	--	--	--	--
--	Abnormal	--	--	--	--
--	Single fault – SC/OC	--	--	--	--
Supplementary Information:					
Battery identification	Charging at T _{lowest} (°C)	Observation	Charging at T _{highest} (°C)	Observation	
--	--	--	--	--	--
--	--	--	--	--	--
Supplementary Information:					

Annex Q.1	TABLE: Circuits intended for interconnection with building wiring (LPS)	P				
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
RJ45 port All pins to return	Normal	0	0	8	0	100

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

Supplementary Information:
SC=Short circuit, OC=Open circuit

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
All component list in table 5.4.2.2	--	--	10	5	All safeguards remain effective.	
Top enclosure	*	*	100	5	No cracking, all safeguards remain effective.	
Side enclosure	*	*	100	5	No cracking, all safeguards remain effective.	
Bottom enclosure	*	*	100	5	No cracking, all safeguards remain effective.	

Supplementary information: * See appended table 4.1.2

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

Supplementary information:

T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Top enclosure	*	*	1000	All safeguards remain effective.	
Side enclosure	*	*	1000	All safeguards remain effective.	
Bottom enclosure	*	*	1000	All safeguards remain effective.	

Supplementary information: * See appended table 4.1.2

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



IEC 62368-1 - ATTACHMENT

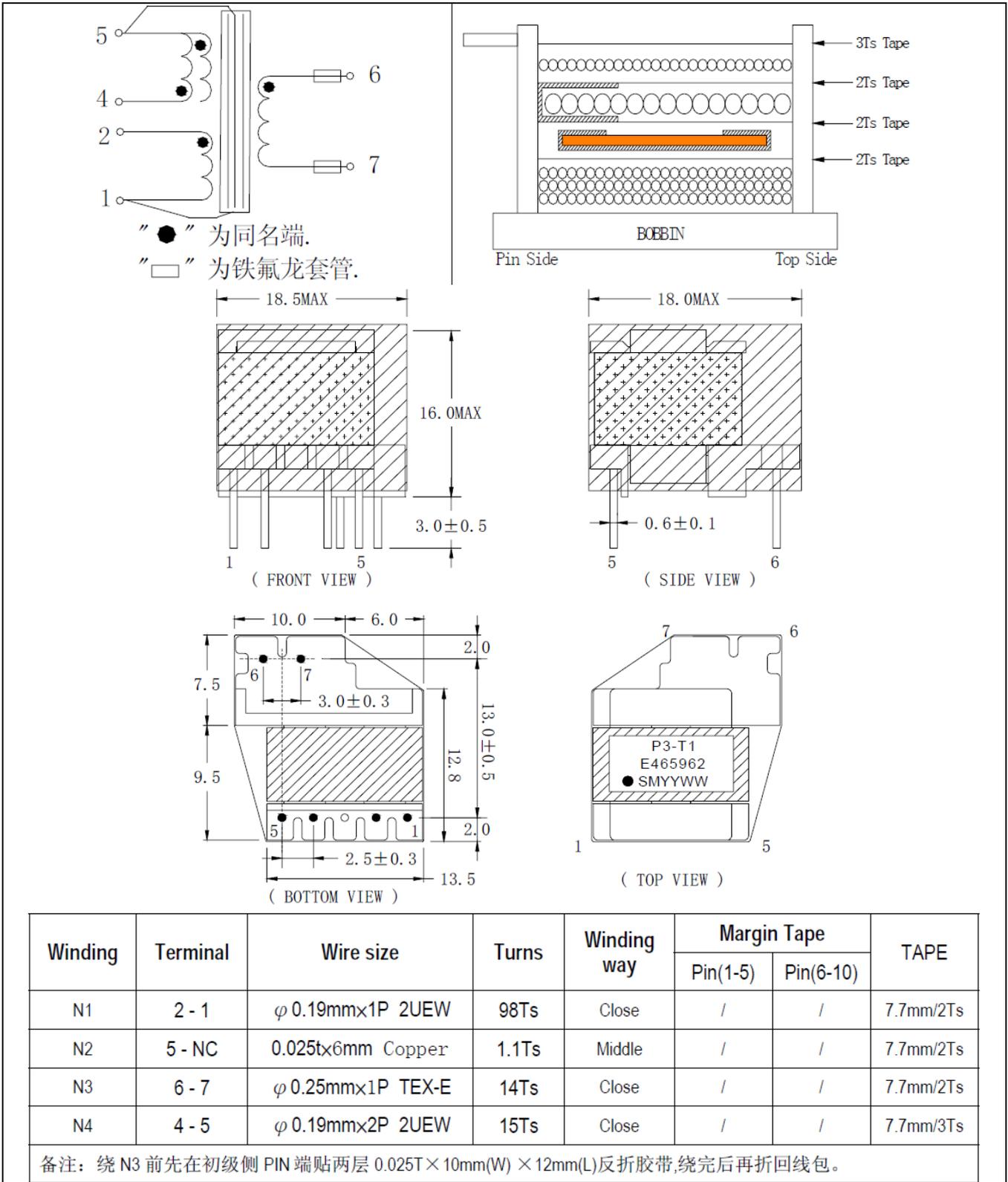
Clause	Requirement + Test		Result - Remark		Verdict
Enclosure	*	*	70	7	All safeguards remain effective.
Supplementary information: * See appended table 4.1.2					

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.2	TABLE: Transformer insulation		P
Construction details:			
Transformer: T1			
Manufacture: See table 4.1.2			
Type: See table 4.1.2			
Recurring peak voltage		480V	
Frequency		100kHz	
Required clearance insulation		Procedure 2 (From Table 13 and Table 15)	
- For reinforced		3.0 mm	
- For basic		1.5 mm	
Effective voltage rms		250V	
Required creepage insulation (From Table 18 or Table 19 which is greater, Pollution degree 2, Material group IIIa+IIIb)		--	
- For reinforced		5.0mm	
- For basic		2.5 mm	
Measured min. clearances			
- Prim-sec (pri. winding to secondary winding)		5.6mm	
- Prim-core (pri. winding to core)		*	
- Sec-core (sec. winding to core)		6.9mm	
* Triple insulation wire used on Secondary, core as primary			
Measured min. creepages			
- Prim-sec (pri. winding to secondary winding)		5.6mm	
- Prim-core (pri. winding to core)		*	
- Sec-core (sec. winding to core)		6.9mm	
Construction:			
Transformer T1:			

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------



IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

序号 NO.	项目 ITEM	材料描述 MATERIAL DESCRIPTION	供应商 SUPPLIERS	认证号 UL NO
1	骨架 BOBBIN	EE-13 立式 (5+2Pin) T375J 150°C	CHANG CHUN PLASTICS CO.,LTD 长春人造树脂厂股份有限公司	E59481
2	磁芯 CORE	EE-13 PC40 或同等材质	WUXI SPINEL MAGNETLCS CO.,LTD 无锡斯贝尔磁性材料有限公司	
3	漆包线/WIRE	XUEW-NY 130°C	SHENZHEN DAYANG INDUSTRY CO.,LTD 深圳市大阳通用实业有限公司	E176101
4	三层绝缘线 TRIPLE INSULATED WIRE	TEX-E 130°C	FURUKAWA ELECTRIC CO.,LTD 古河电气有限公司	UL:E206440 VDE:006735
5	胶带 TAPE	CT 130°C (基材厚度:0.025mm)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD 靖江亚华压敏胶有限公司	E165111
6	锡/SOLDER	99.3% Sn, 0.7%Cu	DONG GUAN CITY YUE CHENG TIN CO.,LTD 东莞市粤成锡业有限公司	N/A
7	凡立水 VARNISHES	JX-1150(a) 155°C	YUEYANG GREEN TECHNOLOGY CO.,LTD 岳阳市格瑞科技有限公司	E303754

Transformer T1:	
Pin numbers	
- Prim.	4-5, 2-1
- Sec.	6-7
Bobbin	
- Material	Refer to table 4.1.2
- Thickness	Refer to table 4.1.2
Solid insulation at frequency higher than 30 kHz	
- $V_W = E_P \times K_R \times d$ (From Table 21 and Table 22)	$17 \times 0.71 (< 100\text{kHz}) \times 0.4 = 5.576 \text{ kV}$
- For reinforced insulation: $V_W > 2 \times 1.2 \times V_{PW}$	Complied
- For basic/supplimentanry insulation: $V_W > 1.2 \times V_{PW}$	Complied

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.2	TABLE: Transformer insulation		P
Construction details:			
Transformer: T3			
Manufacture: See table 4.1.2			
Type: See table 4.1.2			
Recurring peak voltage		360V	
Frequency		0.064kHz	
Required clearance insulation		Procedure 2 (From Table 13 and Table 15)	
- For reinforced		3.0 mm	
- For basic		1.5 mm	
Effective voltage rms		250V	
Required creepage insulation (From Table 18 or Table 19 which is greater, Pollution degree 2, Material group IIIa+IIIb)		--	
- For reinforced		5.0mm	
- For basic		2.5 mm	
Measured min. clearances			
- Prim-sec (pri. winding to secondary winding)		6.4mm	
- Prim-core (pri. winding to core)		3.2mm	
- Sec-core (sec. winding to core)		3.2mm	
* Triple insulation wire used on Secondary, core as primary			
Measured min. creepages			
- Prim-sec (pri. winding to secondary winding)		6.4mm	
- Prim-core (pri. winding to core)		3.2mm	
- Sec-core (sec. winding to core)		3.2mm	
Construction:			
Transformer T3:			

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

序号 NO.	项目 ITEM	材料描述 MATERIAL DESCRIPTION	供应商 SUPPLIERS	认证号 UL NO
1	骨架 BOBBIN	BASE-003 (2+2Pin) PM9630	SUMITOMO BAKELITE CO LTD	E41429
2	磁芯 CORE	RH 43 材 磁芯	ZHEJIAMH ANCI ELECTRONIC CO.,LTD TDG HOLDING CO.,LTD HENGDIAN GROUP DMEGC MAGNETICS CO.,LTD	
3	三层绝缘线 TRIPLE INSULATED WIRE	W(18 to 40)ScccExxxxxxxxxxxxx+	NEW ENGLAND WIRE TECHNOLOGIES CORP	E205791 VDE:135444
		DIWW-B	TEAMWORK INTERNATIONAL CORPORATION	E321186 VDE:40024497
		TEX-E, TEX-EA	FURUKAWA ELECTRIC CO LTD	E206440 TUV:T9251520
4	标签/LABEL	透明底黑字	SHEN ZHEN YIXINLONG	E229633
5	VARNISH	844@ JS-812	JIAOXING JIASHENG INSULATION MATERIALS CO.,LTD GUANGDONG JIANXIN TECHNOLOGY CO LTD	E320847 E339578
6				
7	绝缘等级 INSULATIONCLASS	Class B		

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
--------	--------------------	-----------------	---------

Transformer T3:			
Pin numbers			
- Prim.		1-2	
- Sec.		3-4	
Bobbin			
- Material		Refer to table 4.1.2	
- Thickness		Refer to table 4.1.2	
Solid insulation at frequency higher than 30 kHz			
- $V_W = E_P \times K_R \times d$ (From Table 21 and Table 22)		$17 \times 0.71 (< 100\text{kHz}) \times 0.4 = 5.576 \text{ kV}$	
- For reinforced insulation: $V_W > 2 \times 1.2 \times V_{PW}$		Complied	
- For basic/supplimentanry insulation: $V_W > 1.2 \times V_{PW}$		Complied	

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

ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements)			
Differences according to: BS EN 62368-1:2014+A11:2017 EN 62368-1:2014+A11:2017			
Attachment Form No.: EU_GD_IEC62368_1B_II			
Attachment Originator: --			
Master Attachment: --			
Copyright © 2015 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE)			

	GENELEC COMMON MODIFICATIONS (EN)					P
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".					P
CONTENT S	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords					P
	Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list:					P
	0.2.1	Note	1	Note 3	4.1.15	Note
	4.7.3	Note 1 and 2	5.2.2.2	Note	5.4.2.3.2.2 Table 13	Note c
	5.4.2.3.2.4	Note 1 and 3	5.4.2.5	Note 2	5.4.5.1	Note
	5.5.2.1	Note	5.5.6	Note	5.6.4.2.1	Note 2 and 3
	5.7.5	Note	5.7.6.1	Note 1 and 2	10.2.1 Table 39	Note 2, 3 and 4
	10.5.3	Note 2	10.6.2.1	Note 3	F.3.3.6	Note 3
	For special national conditions, see Annex ZB.					P
1	Add the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted					P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	within the EU: see Directive 2011/65/EU.		
4.Z1	<p>Add the following new subclause after 4.9:</p> <p>To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>		N/A
5.4.2.3.2.4	<p>Add the following to the end of this subclause:</p> <p>The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.</p>		N/A
10.2.1	<p>Add the following to ^{c)} and ^{d)} in table 39:</p> <p>For additional requirements, see 10.5.1.</p>		N/A
10.5.1	<p>Add the following after the first paragraph:</p> <p><i>For RS 1 compliance is checked by measurement under the following conditions:</i></p> <p><i>In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to</i></p>		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p><i>give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</i></p> <p>NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.</p> <p><i>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</i></p> <p><i>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</i></p> <p><i>For RS1, the dose-rate shall not exceed 1 μSv/h taking account of the background level.</i></p> <p>NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</p>		
10.6.1	<p>Add the following paragraph to the end of the subclause:</p> <p>EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p>		N/A
10.Z1	<p>Add the following new subclause after 10.6.5.</p> <p>10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</p> <p>The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).</p> <p>For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566</p>		N/A
G.7.1	<p>Add the following note:</p> <p>NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.</p>		N/A
Bibliography	<p>Add the following standards:</p>		P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>Add the following notes for the standards indicated:</p> <p>IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.</p>		
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
4.1.15	<p>Denmark, Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag"</p>		N/A
4.7.3	United Kingdom	Shall be evaluated during the	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex</p>	national approval.	
5.2.2.2	<p>Denmark After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>		N/A
5.4.11.1 and Annex G	<p>Finland and Sweden To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-</p>		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 		
5.5.2.1	<p>Norway After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p>		N/A
5.5.6	<p>Finland, Norway and Sweden To the end of the subclause the following is added: Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.</p>		N/A
5.6.1	<p>Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. <i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>		N/A
5.6.4.2.1	<p>Ireland and United Kingdom After the indent for pluggable equipment type A, the following is added: – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.</p>		N/A
5.6.5.1	<p>To the second paragraph the following is added: The range of conductor sizes of flexible cords to</p>		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm² to 1,5 mm² in cross-sectional area.</p>		
5.7.5	<p>Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>		N/A
5.7.6.1	<p>Norway and Sweden To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p>		N/A

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.</p>		
5.7.6.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .</p>		N/A
F.1	<p>Italy</p> <p>The following requirements shall be fulfilled:</p> <ul style="list-style-type: none"> • The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to EN 60555-2). Note/Nota <i>EN 60555-2 has since been replaced by IEC 60107-1:1997.</i> • TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. • Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. • The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: <i>Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del</i> 		N/A

IEC 62368-1 - ATTACHMENT

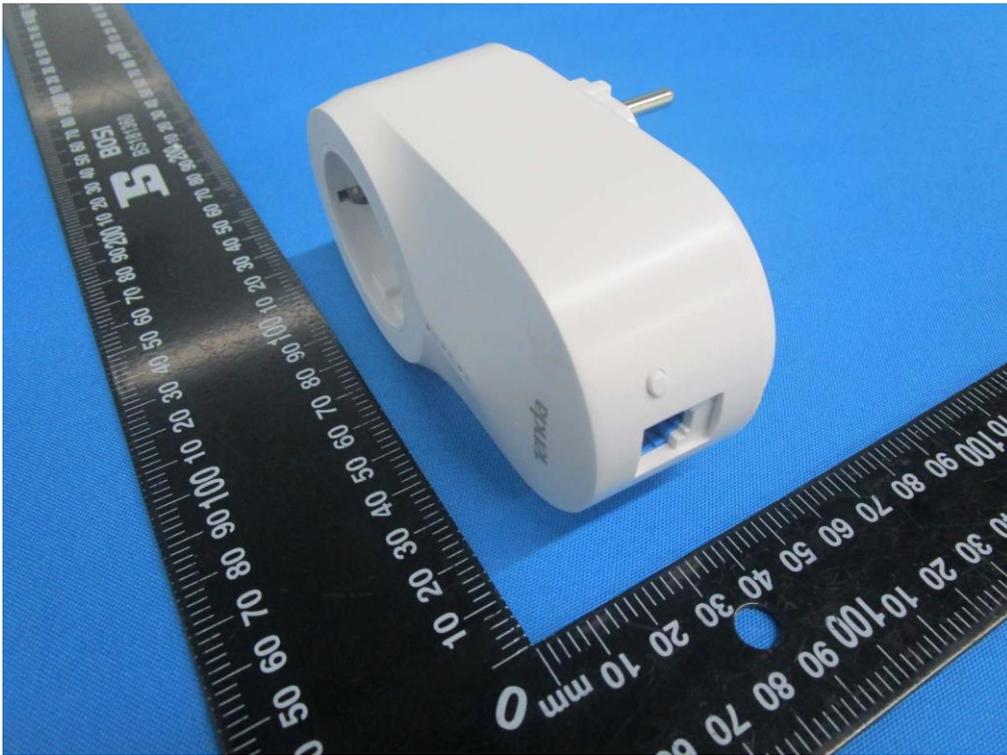
Clause	Requirement + Test	Result - Remark	Verdict
	<p><i>D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.</i></p> <ul style="list-style-type: none"> The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form: D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT S for stereo T for Teletext pT for retrofittable teletext <p><i>Justification:</i> Ministerial Decree of 26 March 1992 : National rules for television receivers trade.</p> <p>NOTE/NOTA: Ministerial decree above contains additional, but not safety relevant requirements</p>		
G.4.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p>	Shall be evaluated during the national approval.	P

IEC 62368-1 - ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
	<p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p><i>Justification:</i> Heavy Current Regulations, Section 6c</p>		
G.4.2	<p>United Kingdom</p> <p>To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.</p>		N/A
G.7.1	<p>United Kingdom</p> <p>To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>	Shall be evaluated during the national approval.	P
G.7.1	<p>Ireland</p> <p>To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard</p>		N/A
G.7.2	<p>Ireland and United Kingdom</p> <p>To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm²</p>		N/A

IEC 62368-1 - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	is allowed for equipment which is rated over 10 A and up to and including 13 A.		
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		P
10.5.2	<p>Germany</p> <p>The following requirement applies:</p> <p>For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking.</p> <p><i>Justification:</i></p> <p>German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.</p> <p>NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de</p>		N/A

PHOTOS



External view-1 (EU plug)

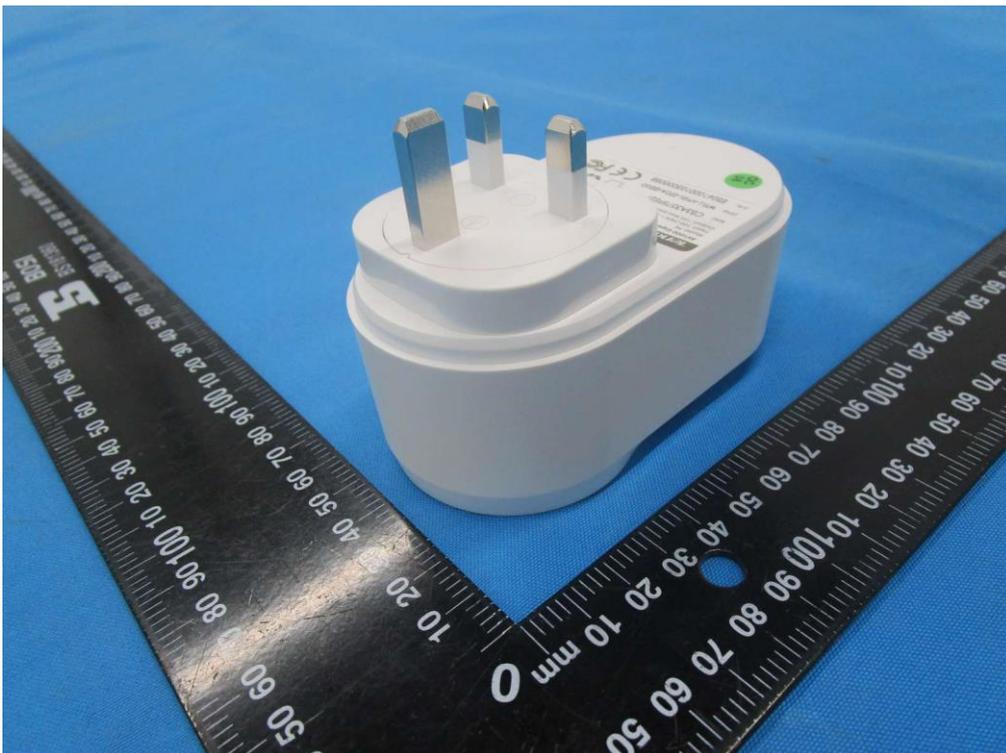


External view-2 (EU plug)

PHOTOS

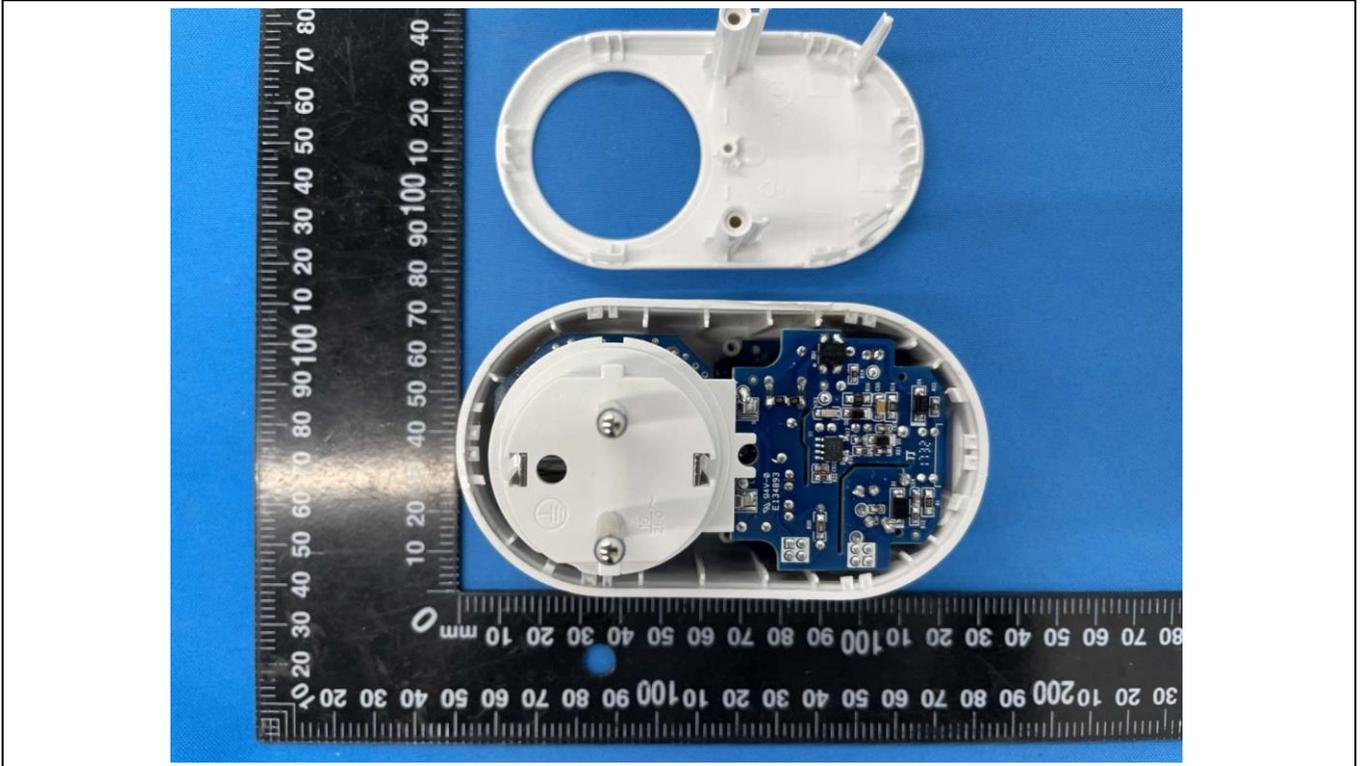


External view-3 (UK plug)

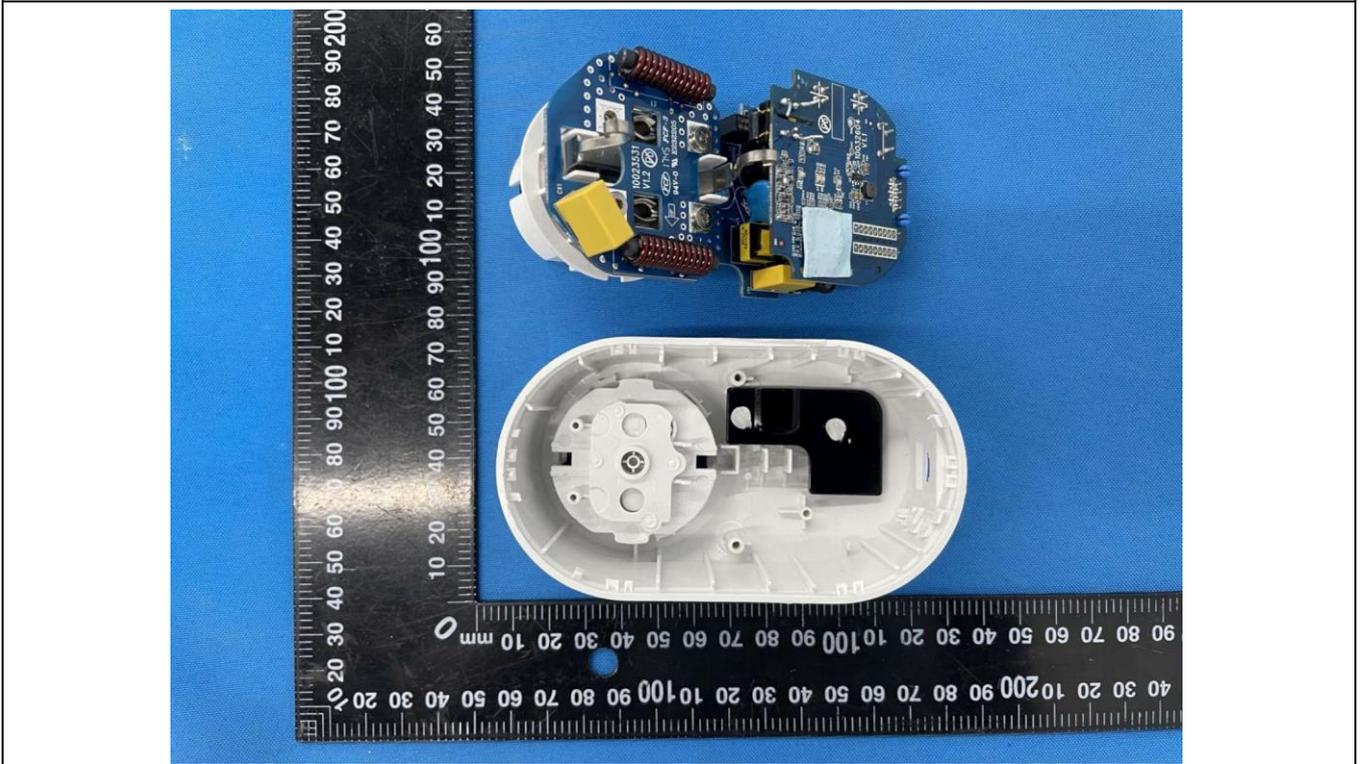


External view-4 (UK plug)

PHOTOS

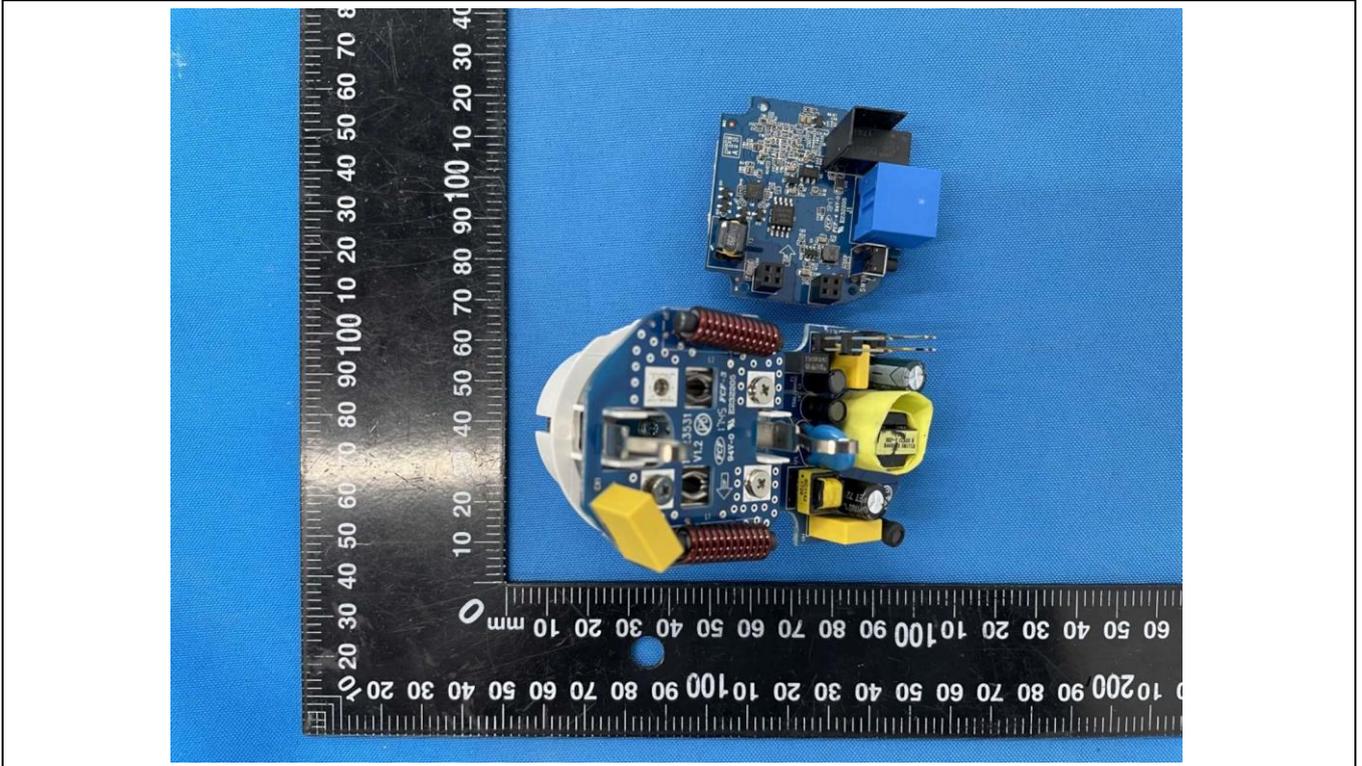


Internal view -1

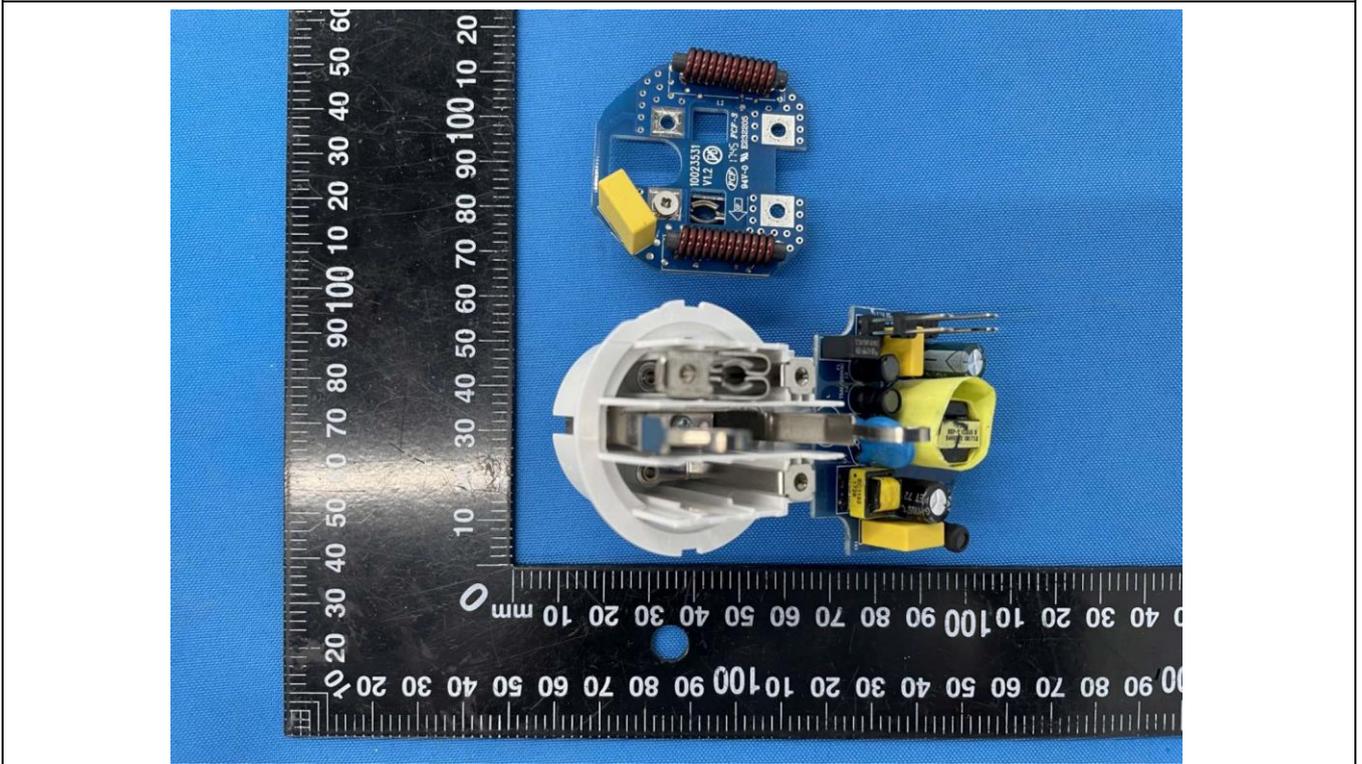


Internal view -2

PHOTOS

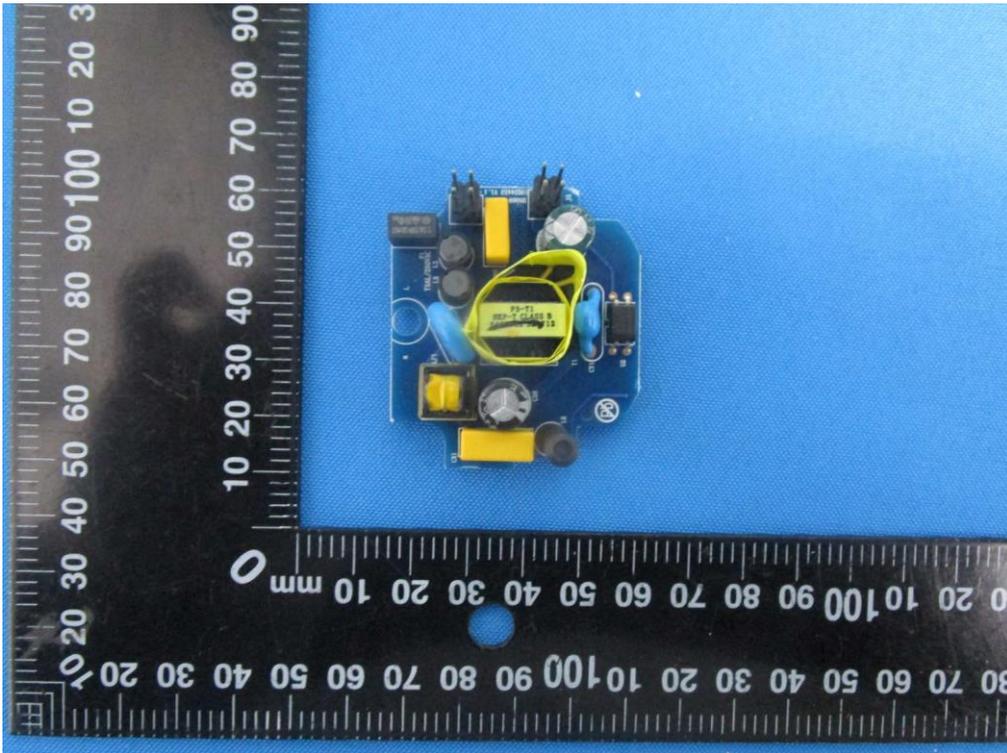


Internal view -3

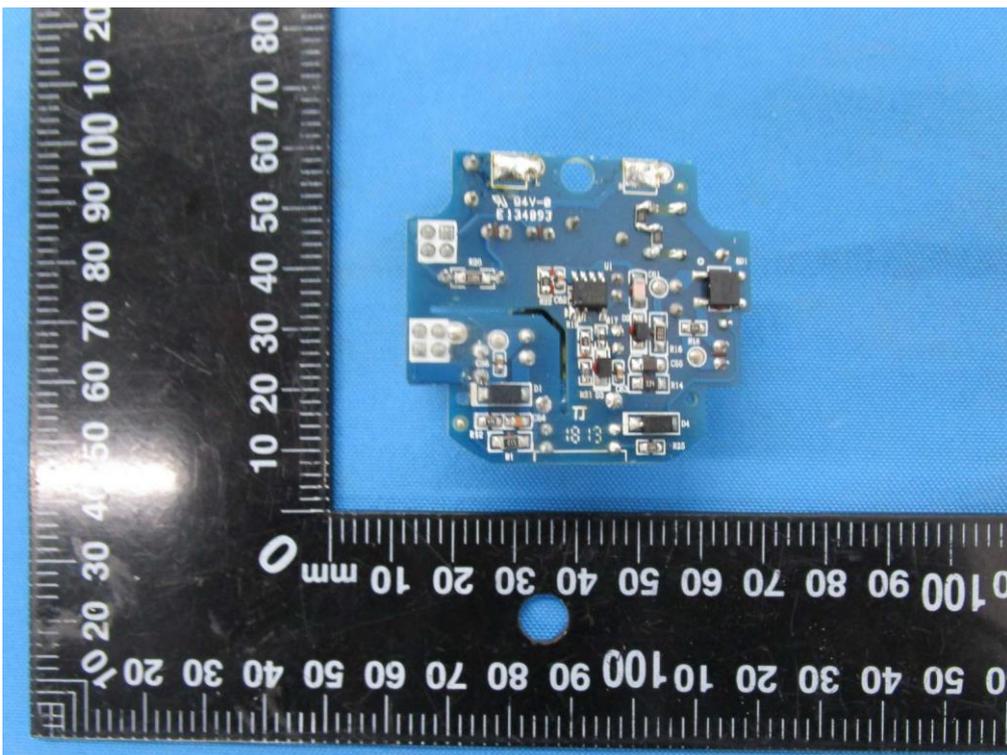


Internal view -4

PHOTOS

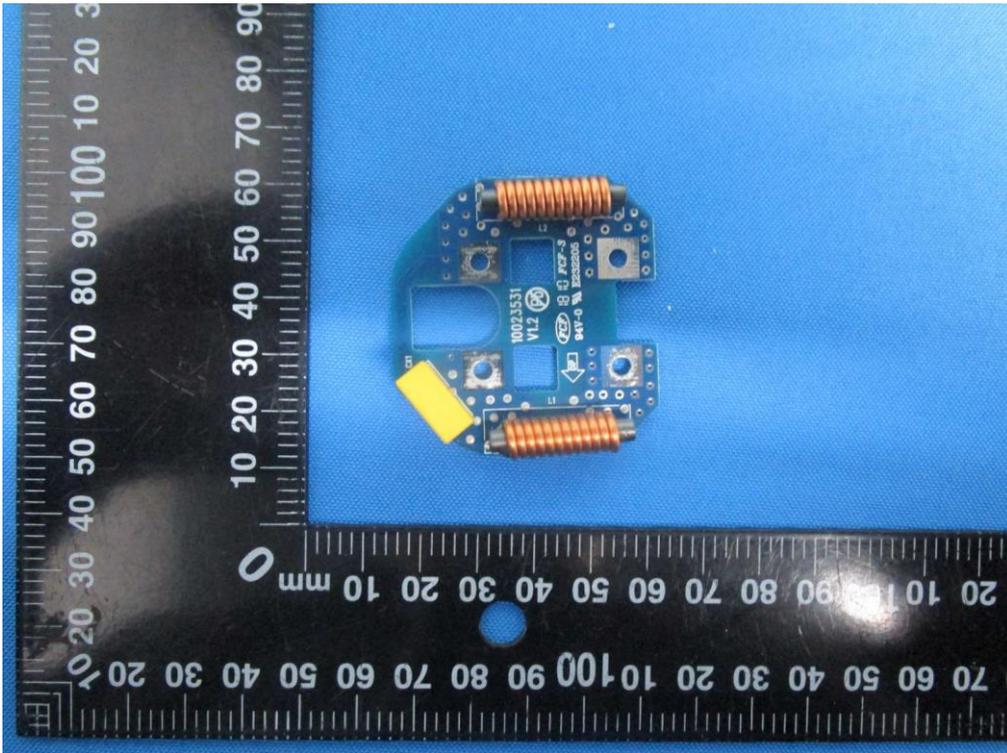


Power board -1

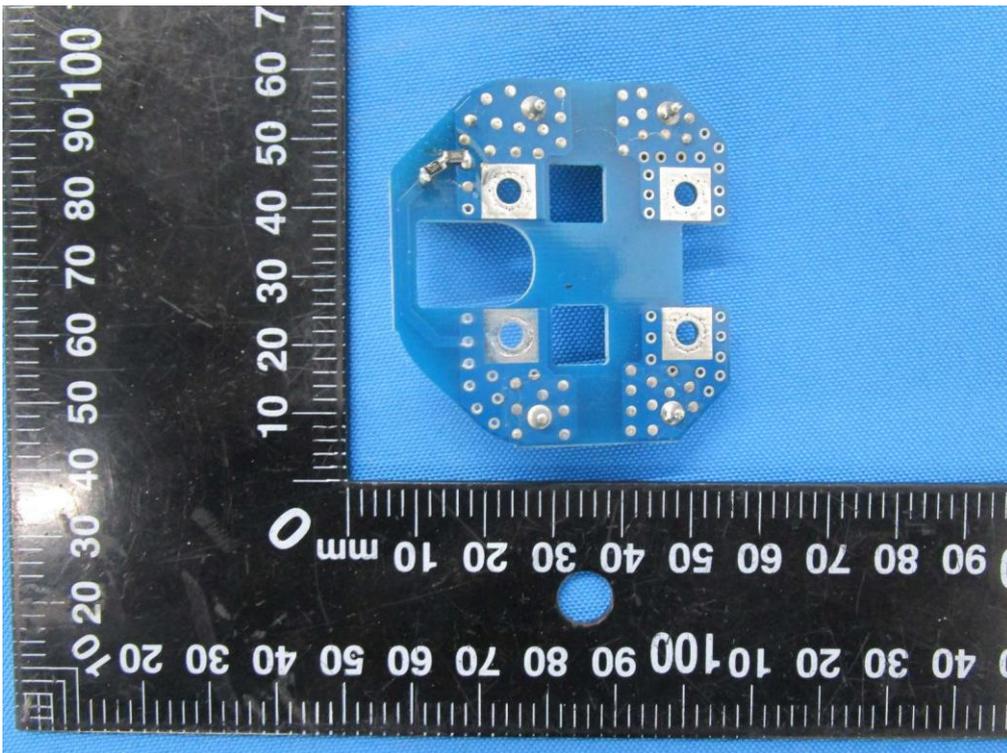


Power board -2

PHOTOS

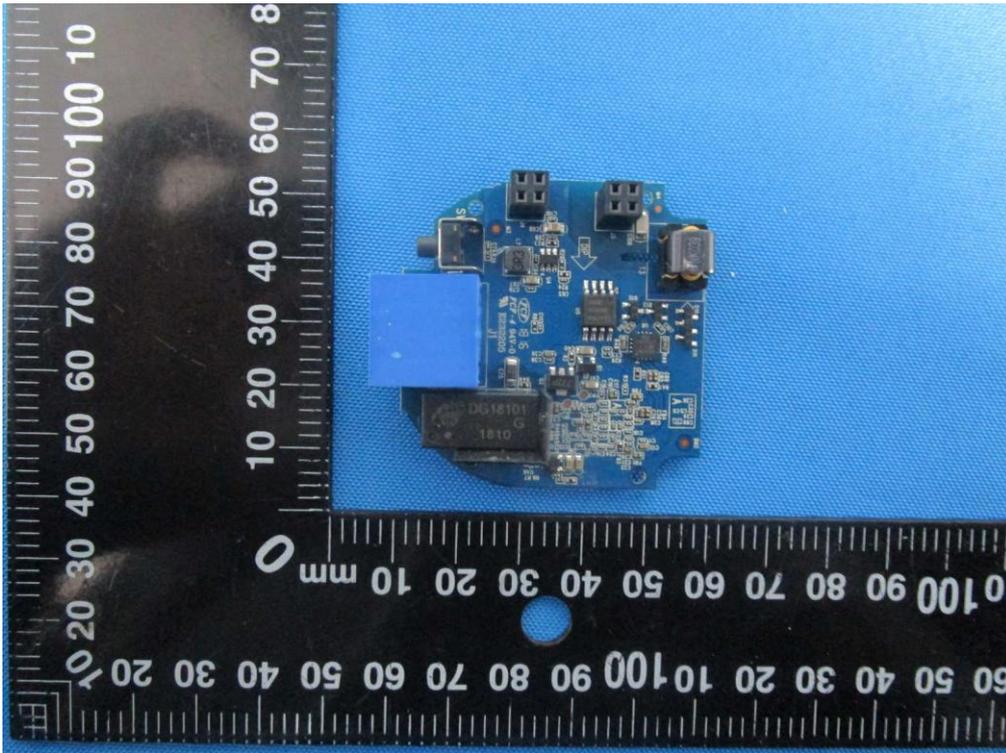


Power board -3

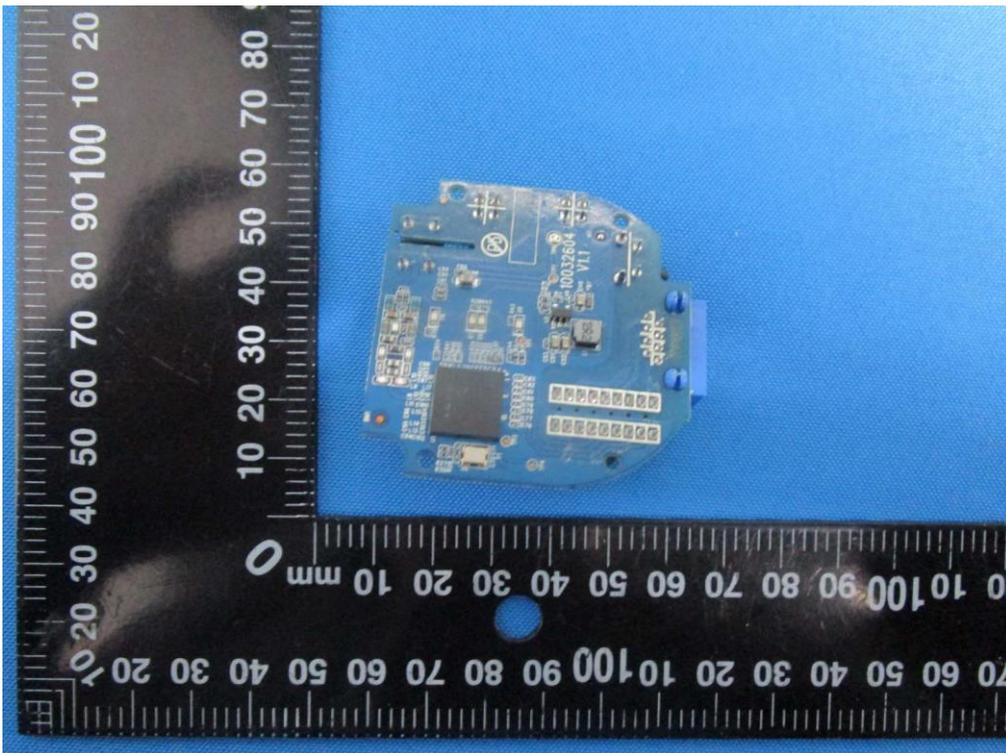


Power board -4

PHOTOS



Main board -1



Main board -2

-End of Test Report-