Test Report issued under the responsibility of:

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

Report Number ..... **:**	200300279TWN-001
Date of issue ..... :	April 27, 2020
Total number of pages ..... :	137 pages
Applicant's name ..... :	GlobTek, Inc.
Address ..... :	186 Veterans Dr Northvale, NJ 07647, U.S.A.
Test specification:	
Standard..... :	IEC 62368-1:2014 (Second Edition)
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC 62368_1B
Test Report Form(s) Originator..... :	UL (US)
Master TRF ..... :	2014-03

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.

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Test Item description ..... :	ICT/ITE POWER SUPPLY
Trade Mark ..... :	GlobTek, Inc.
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	GT-46120-***-W2******* (see general product information on page 8)
Ratings ..... :	I/P: 100-240 V~, 50-60 Hz, 0.6 A, Class II O/P: 5-48 VDC, max. 2.4 A, max. 12 W (see general product information on page 8)

Testing procedure and testing location:			
☒	Intertek Testing Services Taiwan Ltd.	Intertek Testing Services Taiwan Ltd.	
Testing location/ address .....:		5F, No. 423, Ruiguang Rd., Neihu District, Taipei 114, Taiwan	
☐	Associated CB Testing Laboratory:		
Testing location/ address .....:			
Tested by (name, function, signature).....		Viper Lai, Project handler	
Approved by (name, function, signature)...		Dan Chen, Reviewer	
☐	Testing procedure: TMP/CTF Stage 1		
Testing location/ address .....:			
Tested by (name + signature) .....:			
Approved by (name + signature).....:			
☐	Testing procedure: WMT/CTF Stage 2		
Testing location/ address .....:			
Tested by (name + signature) .....:			
Witnessed by (name + signature).....:			
Approved by (name + signature).....:			
☐	Testing procedure: SMT/CTF Stage 3 or 4		
Testing location/ address .....:			
Tested by (name + signature) .....:			
Approved by (name + signature).....:			
Supervised by (name + signature) .....:			

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

Appendix 1 (2 pages) – Measurement section
Appendix 2 (39 pages) – National differences
Appendix 3 (1 page) – US plug test report
Appendix 4 (2 pages) – PCB layout
Appendix 5 (9 pages) – Photos

Summary of testing:

Maximum normal load was defined as below:

The equipment output as specified load and operated continuously.

Tests performed (name of test and test clause):		**Testing location:**
4.6.2	10 N steady force test	Intertek Testing Services Taiwan Ltd.
4.7.3	Direct plug-in moment test	
5.2	Classification of electrical energy sources	
5.4.1.4, 6.3.2, 9.0, B.2.6	Temperature measurements	
5.4.1.8	Working voltage measurements	
5.4.1.10.3	Ball pressure test	
5.4.2, 5.4.3	Clearances and creepage distances measurement	
5.4.4	Solid insulation measurement	
5.4.5.2	Voltage surge test	
5.4.8	Humidity conditioning test	
5.4.9	Electric strength test	
5.7	Measurement of prospective touch voltage, touch current and protective conductor current	
6.2.2	Electrical power sources (PS) measurements for classification	
B.2.5	Input test	
B.3	Abnormal operating condition tests	
B.4	Fault condition test	
F.3.10	Marking durability test	
G.5.3	Transformer overload tests	
Q.1	Circuits intended for interconnection with building wiring (LPS)	
T.2	Mechanical strength - Steady force test, 10 N	
T.4	Mechanical strength - Steady force test, 100 N	
T.7	Mechanical strength - Drop test	
T.8	Mechanical strength – Stress relief test	
V.1	Determination of accessible parts test	

Summary of compliance with National Differences:

List of countries addressed

Group differences, special national deviations of all CENELEC countries, AU, DK, JP, NZ, IT and US.

Explanation of CENELEC countries: Austria (AT), Belgium (BE), Bulgaria (BG), Croatia (HR), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hungary (HU), Iceland (IS), Ireland (IE), Italy (IT), Latvia (LV), Lithuania (LT), Luxembourg (LU), Malta (MT), Netherlands (NL), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Spain (ES), Slovakia (SK), Slovenia (SI), Sweden (SE), Switzerland (CH) and United Kingdom (GB).

Explanation of used codes for National Differences: Australia (AU), Denmark (DK), Japan (JP), New Zealand (NZ), Italy (IT) and United States of America (US).

All country differences listed in the CB Bulletin are covered by the Common Modifications, Special National Conditions, National Deviations, and National Requirements noted above except for the following countries which are documented in Country Differences. Attachments attached to this report: refer to appendix 2 for details.

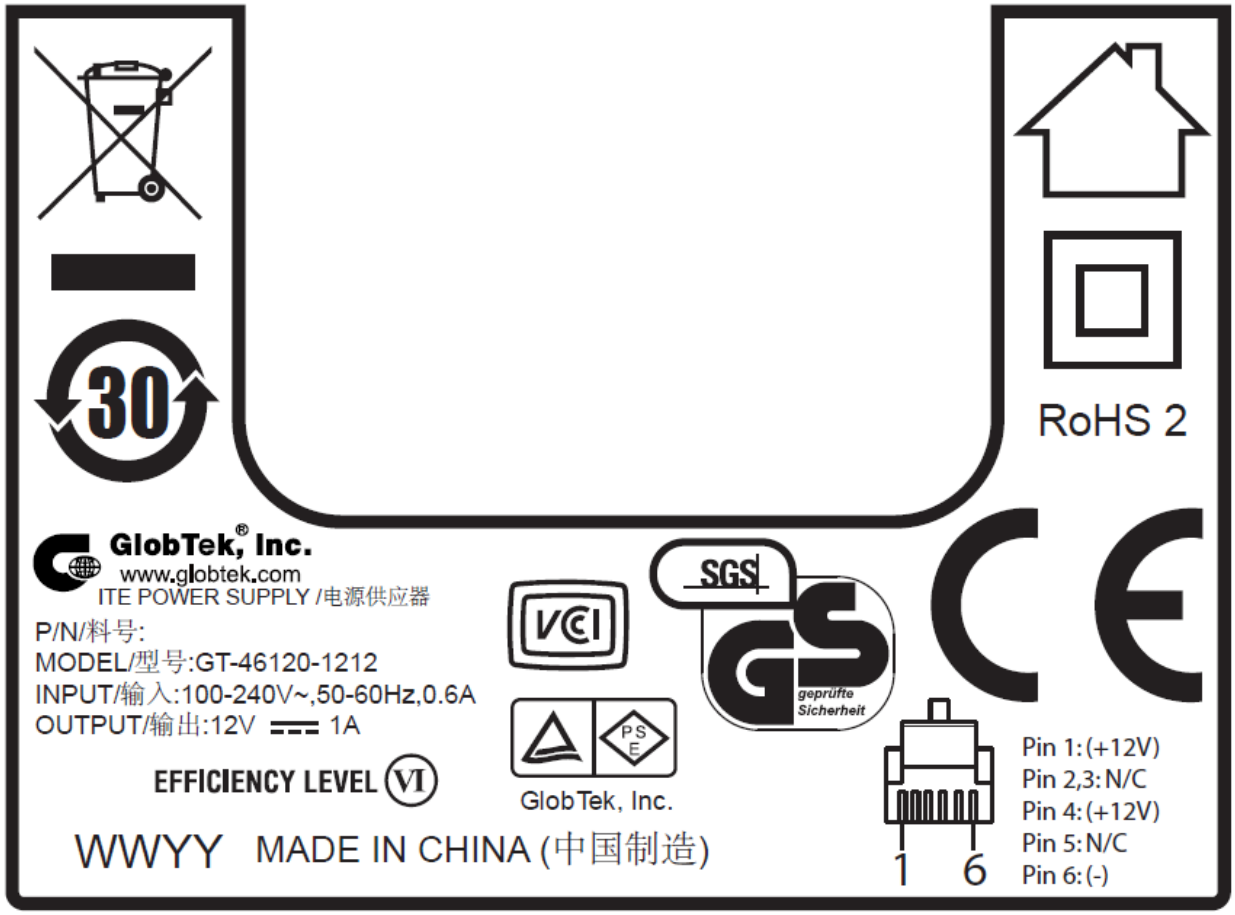
Compliance with the National requirements of “(countries)” as given in CB Bulletin of IECEE website dated March 2020 is confirmed.

☒ **The product fulfils the requirements of EN 62368-1:2014+A11:2017.**

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.

(Representative)



Note:

1. The above markings are the minimum requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.
2. When the equipment is vended to EUROPE, manufacturers and importers shall indicate on the electrical equipment their name, registered trade name or registered trade mark and the postal address at which they can be contacted or, where that is not possible, on its packaging or in a document accompanying the electrical equipment.

TEST ITEM PARTICULARS:	
Classification of use by ..... :	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection ..... :	☒ AC Mains ☐ DC Mains ☐ External Circuit – not Mains connected ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance ..... :	☒ +10 % / -10 % ☐ +20 % / -15 % ☐ +_____% / -_____% ☐ None
Supply Connection – Type ..... :	☒ pluggable equipment type A - ☐ non-detachable supply cord ☐ appliance coupler ☒ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other:_____
Considered current rating of protective device as part of building or equipment installation ..... :	16 A (20 A for USA; 13 A for UK) Installation location: ☒ building; ☐ equipment
Equipment mobility ..... :	☐ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☒ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC) ..... :	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment ..... :	☐ Class I ☒ Class II ☐ Class III
Access location ..... :	☐ restricted access location ☒ N/A
Pollution degree (PD) ..... :	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maxium operating ambient :	40 °C
IP protection class ..... :	☒ IPX0 ☐ IP___
Power Systems ..... :	☒ TN ☐ TT ☐ IT - _____ V_{L-L}
Altitude during operation (m) ..... :	☐ 2000 m or less ☒ 5000 m
Altitude of test laboratory (m) ..... :	☒ 2000 m or less ☐ ____ m
Mass of equipment (kg) ..... :	☒ 0.093 kg

POSSIBLE TEST CASE VERDICTS:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
TESTING:	
Date of receipt of test item..... :	April 6, 2020
Date (s) of performance of tests..... :	April 6, 2020

GENERAL REMARKS:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

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When determining the test conclusion, the Measurement Uncertainty of test has been considered.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☒ **Yes** ☐ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) ..... :

1) GlobTek, Inc.
186 Veterans Dr Northvale, NJ 07647, U.S.A.

2) GlobTek (Suzhou) Co., Ltd.
Building 4, No. 76 JinLing East Road, Suzhou Industrial Park, Suzhou, JiangSu, 215021, China

GENERAL PRODUCT INFORMATION:

Product Description –

The product is a Class II direct plug-in ICT/ITE POWER SUPPLY intended to be used for audio/video, information and communication technology equipment (ITAV), all electronic components are mounted on PWB and housed in a plastics enclosure which is secured by ultrasonic welding. Output with non-detachable wire.

The plug portions (incorporated pins) are integral with the enclosure that effectively prevent any disintegration or conductive parts remaining in the socket. The detachable plug is fixed into enclosure by snap in method that effectively prevents any disintegration or conductive parts remaining in the socket.

There are 2 constructions of PCB, type A: 101845, type B: 101855. They are same as each other except for choke (L1), function trace slightly changed in primary part and no impact clearances and creepage distances, see appendix photos for details.

Technical of consideration

The equipment was submitted and evaluated for maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 ºC.

This equipment is intended to operate in an area which has an elevation of maximum 16,405 ft (5,000 m). Clearance distances were calculated according to IEC 60664-1, Table A.2, Factor 1.48.

Unless special specified, all tests were performed on the representative models GT-46120-1005, GT-46120-1212, GT-46120-1224 and GT-46120-1248 to represent other models.

For evaluation of US plug, refer to attached plug test reports. The equipment was investigated to the following additional standards:

UL 1310 Class 2 Power Units under UL 62368-1 Sub-Clause 4.7 national difference requirements:

1) Direct Plug-In Equipment-Moment Test
2) Direct Plug-In Blade Securement Test
3) Direct Plug-In Security of Input Contacts
4) Direct Plug-In Rod Pressure Test
5) Direct Plug-In Resistance to Crushing
6) Direct Plug-In - Input Blade Endurance
7) Weight and moment determination have been conducted

Tested with each source of plastic material and enclosure type. There are no mechanical assembly damaged. The blade dimension was evaluated to be complied with NEMA configurations in accordance with Wiring Devices - Dimensional Specifications, ANSI/NEMA WD6.

The other types of plug shall be evaluated when submitted for national approval.

Model Differences –

Explanation of model GT-46120-***-W2*******:

The 1st "*" is the standard output wattage, with a maximum value of "12".

The 2nd "*" is the standard rated output voltage designation, with a maximum value of "48", which can be 05, 06, 09, 12, 15, 24, 36, 48.

The 3rd "*" denote the output voltage differentiator, subtracted from standard output voltage, which can be "-0.01" to "-11.99" with interval of 0.01, the actual output voltage range is 5-48 VDC, blank is to indicate the no voltage different.

The 4th "*" denote type of plug and can be E for European plug, U for British plug, blank for North American / Japan/Taiwan plug, C for Chinese plug, A for Australia plug.

-W2* can be optional, when it is blank, denote to be with replaceable plug

The last six "*" can be 0-9 or A-Z, "(", ")", "[", "]", "-" or blank for marketing purposes.

The model list as shown as below:

Model name	Output voltage	Max.output current	Max.Power W	Transformer
GT-46120-***-W2******* series The 1st "*" is the standard output wattage, with a maximum value of "12". The 2nd "*" is the standard rated output voltage designation, with a maximum value of "48", which can be 05, 06, 09, 12, 15, 24, 36, 48. The 3rd "*" denote the output voltage differentiator, subtracted from standard output voltage, which can be "-0.01" to "-11.99" with interval of 0.01, the actual output voltage range is 5-48 VDC, blank is to indicate the no voltage different. The 4th "*" denote type of plug and can be E for European plug, U for British plug, blank for North American / Japan /Taiwan plug, C for Chinese plug, A for Australia plug. -W2* can be optional,when it is blank,denote to be with replaceable plug The last six * can be 0-9 or A-Z, "(", ")", "[", "]", "-" or blank for marketing purposes.				
GT-46120-*05-W2*******	5VDC	2.0A	10W	XF00950
GT-46120-*06*-W2*******	5.01-6VDC	2.0A	12W	
GT-46120-*09*-W2*******	6.01-9VDC	1.99A	12W	XF00950 XF00924
GT-46120-*12*-W2*******	9.01-12VDC	1.33A	12W	
GT-46120-*15*-W2*******	12.01-15VDC	0.99A	12W	
GT-46120-*24*-W2*******	15.01-24VDC	0.79A	12W	XF00924 XF00939
GT-46120-*36*-W2*******	24.01-36VDC	0.49A	12W	XF00939
GT-46120-*48*-W2*******	36.01-48VDC	0.33A	12W	XF00940

Additional information

This report is copy report, based on CBTR, No.: 18SBCS07005 11, issued on 2018-09-10 and CBTC, No.: DK-76469-UL, dated 2018-09-13, issued by UL (Demko).

This report including the following changes/modifies than previous one:

- Add two alternate factories.
- Revised model name from 6A-121WXYY, 6A-121WPxx to GT-46120-***-W2*******.
- Updated Table 4.1.2 List of critical components.

Based on the previously conducted testing and the review of product construction, technical documentation including photos, schematics, wiring diagrams and similar, no tests performed necessary by engineering judgement.

Additional application considerations – (Considerations used to test a component or sub-assembly) –

- normal conditions	**N.C.**	- single fault conditions	**S.F.C**
- functional insulation	**FI**	- basic insulation	**BI**
- double insulation	**DI**	- supplementary insulation	**SI**
- between parts of opposite polarity	**BOP**	- reinforced insulation	**RI**

Indicate used abbreviations (if any)

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 circuits except for output circuits	ES3
Secondary output connector	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 internal circuits	PS3
Secondary output connector	PS2
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	
Source of kinetic/mechanical energy	**Corresponding classification (MS)**
Equipment mass < 7 kg	MS1
Sharp edge and corner	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)**
Ordinary person (accessible enclosure)	TS1
Inner components	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)**
N/A	N/A

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

■ 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	Supplementary	Reinforced (Enclosure)
Ordinary	ES3: All circuits except for output circuits	N/A	N/A	Enclosure
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100 Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
Enclosure	PS3: > 100 Watt circuit	See Sub-Clause 6.3	Made of flammability class V-0 material	N/A
PCB	PS3: > 100 Watt circuit	See Sub-Clause 6.3	Min. V-1 flammability class material	N/A
Other components and materials	PS3: > 100 Watt circuit	See Sub-Clause 6.3	See Sub-Clause 6.4.5 and 6.4.6	N/A
Output connector	PS2: < 100 Watt circuit	N/A	N/A	Complied with Annex Q
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
8.1	Mechanically-caused injury			
Body Part (e.g. Ordinary)	Energy Source (MS3: High Pressure Lamp)	Safeguards		
		Basic	Supplementary	Reinforced (Enclosure)
N/A	N/A	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	TS3: Inner components	N/A	N/A	Enclosure
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary person	RS1: Indicating lights	N/A	N/A	N/A
Supplementary Information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” Single Fault				

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

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.	P
4.1.3	Equipment design and construction	Considered.	P
4.1.15	Markings and instructions.....:	(See Annex F)	P
4.4.4	Safeguard robustness	See below.	P
4.4.4.2	Steady force tests.....:	(See Annex T.5)	P
4.4.4.3	Drop tests .....:	(See Annex T.7)	P
4.4.4.4	Impact tests .....:		N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests.....:		N/A
4.4.4.6	Glass Impact tests.....:	No glass material	N/A
4.4.4.7	Thermoplastic material tests.....:	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard.....:		P
4.4.4.9	Accessibility and safeguard effectiveness	During and after the tests, all safeguards of the equipment remained effective and complied with the relevant requirements of this standard	P
4.5	Explosion	No explosion occurs during normal and abnormal operating conditions	P
4.6	Fixing of conductors	See below	P
4.6.1	Fix conductors not to defeat a safeguard		P
4.6.2	10 N force test applied to .....:	Checked by inspection and 10 N applied to all components other than the parts serving as an enclosure	P
4.7	Equipment for direct insertion into mains socket – outlets		P
4.7.2	Mains plug part complies with the relevant standard.....:	The USA/CAN plug has been evaluated according to ANSI/NEMA WD6. The other plug shall be evaluated when submitted for national approval	P
4.7.3	Torque (Nm) .....:	0.034	P
4.8	Products containing coin/button cell batteries	No batteries	N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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.....:	No openings	N/A
5	**ELECTRICALLY-CAUSED INJURY**		P
5.2.1	Electrical energy source classifications.....:	See **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current.....:	(See appended Table 5.2.2.2)	P
5.2.2.3	Capacitance limits.....:		N/A
5.2.2.4	Single pulse limits .....:		N/A
5.2.2.5	Limits for repetitive pulses .....:		N/A
5.2.2.6	Ringing signals .....:		N/A
5.2.2.7	Audio signals .....:		N/A
5.3	Protection against electrical energy sources		P
5.3.1	General Requirements for accessible parts to ordinary, instructed and skilled persons		P
5.3.2.1	Accessibility to electrical energy sources and safeguards		P
5.3.2.2	Contact requirements	No openings provided. Figure V.1 and V.2 test probe can't contact any bare internal conductive part	P
	a) Test with test probe from Annex V.....:		N/A
	b) Electric strength test potential (V) .....:		N/A
	c) Air gap (mm) .....:		N/A
5.3.2.4	Terminals for connecting stripped wire		N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	No hygroscopic materials 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, 6.3.2, 9.0, B.2.6	P
5.4.1.5	Pollution degree .....:	2	—

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound		N/A
5.4.1.5.3	Thermal cycling		N/A
5.4.1.6	Insulation in transformers with varying dimensions		N/A
5.4.1.7	Insulation in circuits generating starting pulses		N/A
5.4.1.8	Determination of working voltage	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		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		P
5.4.2.2	Determining clearance using peak working voltage	(See appended Table 5.4.2.2)	P
5.4.2.3	Determining clearance using required withstand voltage ..... …:		P
	a) a.c. mains transient voltage ..... …:	2500 Vpk.	—
	b) d.c. mains transient voltage ..... .:	N/A	—
	c) external circuit transient voltage ....:	N/A	—
	d) transient voltage determined by measurement ..... :	N/A	—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages ..... :		N/A
5.4.3	Creepage distances ..... :	(See appended Table 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group ..... :	IIIb assumed	—
5.4.4	Solid insulation		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		P
5.4.4.6.1	General requirements	Tape used in T1	P
5.4.4.6.2	Separable thin sheet material		P
	Number of layers (pcs) ..... :	Min. 2 layers.	P
5.4.4.6.3	Non-separable thin sheet material		N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material ..... :		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components	Certified triple insulation wire used	P
5.4.4.9	Solid insulation at frequencies > 30 kHz .....:	(See appended Table 5.4.4.2, 5.4.4.5 c) 5.4.4.9)	P
5.4.5	Antenna terminal insulation		P
5.4.5.1	General		P
5.4.5.2	Voltage surge test		P
	Insulation resistance (MΩ).....:	500	—
5.4.6	Insulation of internal wire as part of supplementary safeguard.....:		N/A
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning	See below.	P
	Relative humidity (%).....:	95 %	—
	Temperature (°C) .....:	40 ºC	—
	Duration (h) .....:	120 h	—
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	Compliance was checked immediately following temperature test in Sub-Clause 5.4.1.4.	P
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit		N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test .....:		N/A
5.4.10.2.3	Steady-state test.....:		N/A
5.4.11	Insulation between external circuits and earthed circuitry .....:		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V).....:		—
	Nominal voltage U_{peak} (V).....:		—
	Max increase due to variation U_{sp} .....:		—
	Max increase due to ageing ΔU_{sa} .....:		—
	$U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$ .....:		—
5.5	Components as safeguards		

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.1	General		P
5.5.2	Capacitors and RC units		P
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector.....:		N/A
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors		N/A
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.....:		N/A
5.6	Protective conductor		N/A
5.6.2	Requirement for protective conductors	The equipment is classified as Class II	N/A
5.6.2.1	General requirements		N/A
5.6.2.2	Colour of insulation		N/A
5.6.3	Requirement for protective earthing conductors		N/A
	Protective earthing conductor size (mm^2) .....:		—
5.6.4	Requirement for protective bonding conductors		N/A
5.6.4.1	Protective bonding conductors		N/A
	Protective bonding conductor size (mm^2). .....:		—
	Protective current rating (A) .....:		—
5.6.4.3	Current limiting and overcurrent protective devices		N/A
5.6.5	Terminals for protective conductors		N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm^2), nominal thread diameter (mm). .....:		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		N/A
5.6.6.1	Requirements		N/A
5.6.6.2	Test Method Resistance (Ω).....:		N/A
5.6.7	Reliable earthing		N/A
5.7	Prospective touch voltage, touch current and protective conductor current		P
5.7.2	Measuring devices and networks		P

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.2.1	Measurement of touch current .....:	(See appended Table 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		N/A
5.7.3	Equipment set-up, supply connections and earth connections		P
	System of interconnected equipment (separate connections/single connection) .....:	Single connection	—
	Multiple connections to mains (one connection at a time/simultaneous connections) .....:	N/A	—
5.7.4	Earthed conductive accessible parts.....:		N/A
5.7.5	Protective conductor current		N/A
	Supply Voltage (V).....:		—
	Measured current (mA).....:		—
	Instructional Safeguard.....:		N/A
5.7.6	Prospective touch voltage and touch current due to external circuits		N/A
5.7.6.1	Touch current from coaxial cables		N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits		N/A
	a) Equipment with earthed external circuits Measured current (mA).....:		N/A
	b) Equipment whose external circuits are not referenced to earth. Measured current (mA).....:		N/A

6	**ELECTRICALLY- CAUSED FIRE**		P
6.2	Classification of power sources (PS) and potential ignition sources (PIS)		P
6.2.2	Power source circuit classifications	See **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**	P
6.2.2.1	General	All internal circuits are considered as PS3 except for the secondary of output connector complied with Annex Q.1	P
6.2.2.2	Power measurement for worst-case load fault ... :	See Sub-Clause 6.2.2	P
6.2.2.3	Power measurement for worst-case power source fault..... :	See Sub-Clause 6.2.2	P
6.2.2.4	PS1 ..... :		N/A
6.2.2.5	PS2 ..... :	See Sub-Clause 6.2.2	P
6.2.2.6	PS3 ..... :	See Sub-Clause 6.2.2	P
6.2.3	Classification of potential ignition sources	See below.	P

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Clause	Requirement + Test	Result - Remark	Verdict
6.2.3.1	Arcing PIS ..... :	All internal circuits except for output ports considered within Arcing PIS	P
6.2.3.2	Resistive PIS ..... :	The available power of all internal circuits exceeding 15 W and considered within Resistive PIS	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 such temperature attained within the plastic fire enclosure (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		P
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method **Control fire spread** used, see Sub-Clause 6.4.5 and 6.4.6	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled	No such special condition.	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		N/A
6.4.5	Control of fire spread in PS2 circuits	See below	P
6.4.5.2	Supplementary safeguards ..... …:	Components other than PCB and wires are: - mounted on PCB rated V-1 or better; or - made of V-2/VTM-2 or better (See appended Table 4.1.2 and Annex G)	P
6.4.6	Control of fire spread in PS3 circuit	Provided a fire enclosure which is made of flammability class V-0 material	P
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General..... :		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		P
6.4.8.1	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.2.2	Requirements for a fire enclosure	The enclosure was evaluated as a fire enclosure	P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings	No openings	P
6.4.8.3.2	Fire barrier dimensions		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm) .....:		N/A
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) .....:		N/A
	Flammability tests for the bottom of a fire enclosure .....:		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c) .....:		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....:	Made of flammability class V-0 material	P
6.5	Internal and external wiring		P
6.5.1	Requirements	Internal wiring rated VW-1 which is considered to meet IEC/TS 60695-11-21	P
6.5.2	Cross-sectional area (mm^2) .....:	See above	—
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 appended Annex Q.1	P
7	**INJURY CAUSED BY HAZARDOUS SUBSTANCES**		N/A
7.2	Reduction of exposure to hazardous substances	No hazardous substances	N/A
7.3	Ozone exposure	No ozone produced	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 batteries	N/A
8	**MECHANICALLY-CAUSED INJURY**		P
8.1	General	See below	P

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Clause	Requirement + Test	Result - Remark	Verdict
8.2	Mechanical energy source classifications	See **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**	P
8.3	Safeguards against mechanical energy sources	Considered	P
8.4	Safeguards against parts with sharp edges and corners	The edges and corners are sufficiently well rounded and smoothed so as not cause pain or injury	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 .....:	No 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.....:	No pressure lamps	N/A
8.6	Stability		N/A
8.6.1	Product classification		N/A
	Instructional Safeguard.....:		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force.....:		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt.....:		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force).....:		N/A
	Position of feet or movable parts.....:		—
8.7	Equipment mounted to wall or ceiling	No such functions	N/A

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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	No wheels	N/A
8.9.1	Classification		N/A
8.9.2	Applied force .....:		—
8.10	Carts, stands and similar carriers	No such devices	N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard.....:		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force .....:		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N) .....:		—
8.10.6	Thermoplastic temperature stability (°C).....:		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable *N* .....:		N/A
8.11.4	Mechanical strength test 250 N, including end stops		N/A
8.12	Telescoping or rod antennas.....	No such devices	N/A
	Button/Ball diameter (mm).....:		—

9	**THERMAL BURN INJURY**		P
9.2	Thermal energy source classifications	See **ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE**	P
9.3	Safeguard against thermal energy sources	The touch temperatures are meet the limits in Table 38. See appended Table 5.4.1.4, 6.3.2, 9.0, B.2.6	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard	The enclosure is considered as equipment safeguard	P

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Clause	Requirement + Test	Result - Remark	Verdict
9.4.2	Instructional safeguard .....:		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
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	See below.	P
B.2.1	General requirements ..... :	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers ..... :		N/A
B.2.3	Supply voltage and tolerances	Rated voltage ± 10 %	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 below	P
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test		N/A
B.3.4	Setting of voltage selector ..... :		N/A
B.3.5	Maximum load at output terminals ..... :	(See appended Table B.3)	P
B.3.6	Reverse battery polarity		N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.8	Safeguards functional during and after abnormal operating conditions		N/A
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited ..... :	No such devices	N/A
B.4.3	Motor tests		N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature ..... :		N/A
B.4.4	Short circuit of functional insulation	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 such coated printed boards	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended Table B.4)	P
B.4.6	Short circuit or disconnect of passive components	(See appended Table B.4)	P
B.4.7	Continuous operation of components		N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions		P
B.4.9	Battery charging under single fault conditions ... :		N/A
C	**UV RADIATION**		N/A
C.1	Protection of materials in equipment from UV radiation		N/A
C.1.2	Requirements		N/A
C.1.3	Test method		N/A
C.2	UV light conditioning test		N/A
C.2.1	Test apparatus		N/A
C.2.2	Mounting of test samples		N/A
C.2.3	Carbon-arc light-exposure apparatus		N/A
C.2.4	Xenon-arc light exposure apparatus		N/A
D	**TEST GENERATORS**		P
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		P
D.3	Electronic pulse generator		N/A
E	**TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS**		N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V) .....:		—
	Rated load impedance (Ω) .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
E.2	Audio amplifier abnormal operating conditions		N/A
F	**EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS**		P
F.1	General requirements		P
	Instructions – Language .....:	English	—
F.2	Letter symbols and graphical symbols	See below	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols are used according to IEC 60027-1	P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphic symbols are used according to IEC 60417-1 or ISO 3864-2 or ISO 7000	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Marking is on outer enclosure which is not removable parts	P
F.3.2	Equipment identification markings	See below	P
F.3.2.1	Manufacturer identification .....:	GlobTek, Inc.	—
F.3.2.2	Model identification .....:	See cover page	—
F.3.3	Equipment rating markings	See below	P
F.3.3.1	Equipment with direct connection to mains	Connected to AC mains	P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage.....:	~	—
F.3.3.4	Rated voltage .....:	100-240 V~	—
F.3.3.4	Rated frequency .....:	50-60 Hz	—
F.3.3.6	Rated current or rated power .....:	0.6 A	—
F.3.3.7	Equipment with multiple supply connections		N/A
F.3.4	Voltage setting device		N/A
F.3.5	Terminals and operating devices	See below	P
F.3.5.1	Mains appliance outlet and socket-outlet markings ..... :		N/A
F.3.5.2	Switch position identification marking..... :		N/A
F.3.5.3	Replacement fuse identification and rating markings..... :	The fuse is located in the equipment and not replaceable by ordinary person or an instructed person. The fuse marked with: RF1 2 Ω, 1 W	P
F.3.5.4	Replacement battery identification marking ..... :		N/A
F.3.5.5	Terminal marking location	No such device.	N/A
F.3.6	Equipment markings related to equipment classification	See below.	P

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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		N/A
F.3.6.2	Class II equipment (IEC60417-5172)		P
F.3.6.2.1	Class II equipment with or without functional earth		P
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		P
F.3.9	Durability, legibility and permanence of marking	The marking is durable and legible	P
F.3.10	Test for permanence of markings	After rubbing test by water and petroleum spirit, the marking is still legible; it is not easily removed and show no sign of curling	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present – marking		N/A
	b) Instructions given for installation or initial use	Relevant safety caution texts and installation instruction are available to the user in user's manual.	P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES2 limits		N/A
	h) Symbols used on equipment		N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
	j) Replaceable components or modules providing safeguard function		N/A
F.5	Instructional safeguards		N/A
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction		N/A
G	**COMPONENTS**		P
G.1	**Switches**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.1.1	General requirements	No such devices	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	**Relays**		N/A
G.2.1	General requirements	No such devices	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**		P
G.3.1	Thermal cut-offs	No such devices	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		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		N/A
G.3.4	Overcurrent protection devices		N/A
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		P
G.3.5.1	Non-resettable devices suitably rated and marking provided	RF1: 2 Ω, 1 W	P
G.3.5.2	Single faults conditions.....:	(See appended Table B.4)	P
G.4	**Connectors**		P
G.4.1	Spacings		P
G.4.2	Mains connector configuration .....:	Direct plug-in	N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		P
G.5	**Wound Components**		P
G.5.1	Wire insulation in wound components.....	Certified triple wire used for secondary winding of T1. (See Annex J)	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	The insulation tape or tubing is provided for winding of transformer to protect against mechanical stress	P

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.1.2 b)	Construction subject to routine testing		N/A
G.5.2	Endurance test on wound components		N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s) .....:		—
	Temperature (°C).....:		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	**Transformers**		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1).....:	See G.5.3.2 and G.5.3.3	P
	Position.....:	T1	—
	Method of protection .....:	Over current protection by circuit design	—
G.5.3.2	Insulation	Reinforced	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		P
G.5.3.3.2	Winding Temperatures testing in the unit		P
G.5.3.3.3	Winding Temperatures – Alternative test method		N/A
G.5.4	**Motors**		N/A
G.5.4.1	General requirements		N/A
	Position .....:		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days) .....:		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V) .....:		—
G.5.4.5.3	Tested on the Bench – Alternative test method; test time (h) .....:		N/A
	Electric strength test (V) .....:		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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		P
G.6.2	Solvent-based enamel wiring insulation		N/A
G.7	**Mains supply cords**		N/A
G.7.1	General requirements		N/A
	Type..... :		—
	Rated current (A)..... :		—
	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		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	**Varistors**		N/A
G.8.1	General requirements	No such devices	N/A
G.8.2	Safeguard against shock		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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. 5 A.	No such devices	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. 5 A) .....:		—
G.9.1 e)	Manufacturers' defined drift .....:		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	**Resistors**		N/A
G.10.1	General requirements	No such devices	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	Y-Capacitor are used as safeguard and complied with IEC 60384-14 (See appended table 4.1.2)	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		P
G.12	**Optocouplers**		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)..... :		N/A
	Type test voltage Vini .....:		—
	Routine test voltage, Vini,b .....:		—
G.13	**Printed boards**		P
G.13.1	General requirements	See below.	P
G.13.2	Uncoated printed boards	The minimum clearance & creepage distance on the printed board comply with the requirements.	P
G.13.3	Coated printed boards		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction) .....:		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation ..... :		N/A
	Number of insulation layers (pcs) .....:		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	**Coating on components terminals**		N/A
G.14.1	Requirements ..... :	No such devices	N/A
G.15	**Liquid filled components**		N/A
G.15.1	General requirements	No such devices	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 sc 5.4.8 – 120 hours	No such devices	N/A
b)	Impulse test using circuit 2 with Uc = 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 .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
H	**CRITERIA FOR TELEPHONE RINGING SIGNALS**		N/A
H.1	General	No such circuits	N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringing signal		N/A
H.3.1.1	Frequency (Hz) .....:		—
H.3.1.2	Voltage (V) .....:		—
H.3.1.3	Cadence; time (s) and voltage (V) .....:		—
H.3.1.4	Single fault current (mA):.....:		—
H.3.2	Tripping device and monitoring voltage .....:		N/A
H.3.2.1	Conditions for use of a tripping device or a monitoring voltage 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		P
K	**SAFETY INTERLOCKS**		N/A
K.1	General requirements	No such devices	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
L	**DISCONNECT DEVICES**		P
L.1	General requirements		P
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
L.4	Single phase equipment	The disconnect device disconnects both poles simultanrously.	P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources		N/A
M	**EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS**		N/A
M.1	General requirements	No batteries	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) ..:		N/A
M.3	Protection circuits		N/A
M.3.1	Requirements		N/A
M.3.2	Tests		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
M.3.3	Compliance .....:		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature. ....:		—
M.4.2.2 b)	Single faults in charging circuitry.....:		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method) .....:		N/A
M.6.2	Leakage current (mA) .....:		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume *Vz* (m^3/s).....:		—
M.8.2.3	Correction factors.....:		—
M.8.2.4	Calculation of distance *d* (mm) .....:		—
M.9	Preventing electrolyte spillage		N/A
M.9.1	Protection from electrolyte spillage		N/A
M.9.2	Tray for preventing electrolyte spillage		N/A
M.10	Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) .....:		N/A
N	**ELECTROCHEMICAL POTENTIALS**		N/A
	Metal(s) used.....:		—
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**		N/A
P.1	General requirements	No openings	N/A
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) .....:		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts .....:		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) .....:		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C) .....:		—
	Tr (°C).....:		—
	Ta (°C).....:		—
P.4.2 b)	Abrasion testing .....:		N/A
P.4.2 c)	Mechanical strength testing .....:		N/A
Q	**CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING**		P
Q.1	Limited power sources	See below	P
Q.1.1 a)	Inherently limited output		P
Q.1.1 b)	Impedance limited output		N/A
	- Regulating network limited output under normal operating and simulated single fault condition		P
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		N/A
	Maximum output current (A) .....:		—
	Current limiting method .....:		—
R	**LIMITED SHORT CIRCUIT TEST**		N/A
R.1	General requirements		N/A
R.2	Determination of the overcurrent protective device and circuit		N/A
R.3	Test method Supply voltage (V) and short-circuit current (A)). .....:		N/A
S	**TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C).....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (°C).....:		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material.....:		—
	Wall thickness (mm).....:		—
	Conditioning (test condition), (°C).....:		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A
T	**MECHANICAL STRENGTH TESTS**		P
T.1	General requirements	See below	P
T.2	Steady force test, 10 N ..... :	(See appended Table T.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
T.3	Steady force test, 30 N ..... :		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		N/A
	Fall test		N/A
	Swing test		N/A
T.7	Drop test ..... :	(See appended Table T.7)	P
T.8	Stress relief test..... :	(See appended Table T.8)	P
T.9	Impact Test (glass)		N/A
T.9.1	General requirements		N/A
T.9.2	Impact test and compliance		N/A
	Impact energy (J).....:		—
	Height (m) .....:		—
T.10	Glass fragmentation test.....:		N/A
T.11	Test for telescoping or rod antennas		N/A
	Torque value (Nm) ..... :		—
U	**MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFECTS OF IMPLOSION**		N/A
U.1	General requirements		N/A
U.2	Compliance and test method for non-intrinsically protected CRTs		N/A
U.3	Protective Screen.....:		N/A
V	**DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)**		P
V.1	Accessible parts of equipment	The surfaces and openings are evaluated by the test probe of Figure V.1 and V.2	P
V.2	Accessible part criterion	No internal conductive parts can be accessible	P

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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]
Fusing resistor (RF1)	Shenzhen Great Electronics Co Ltd	RXF	2 Ω, 1 W	DIN EN 60065 (VDE 0860): 2015-11 clause 14.2 b) EN 60065:2014 UL 1412	VDE, UL
(alternate)	Anhui Changsheng Electronics Co Ltd	RXF21-1W	2 Ω, 1 W	DIN EN 60065 (VDE 0860): 2015-11 clause 14.2 b) EN 60065:2014 UL 1412	VDE, UL
Bridge diode (BD1)	Interchangeable	Interchangeable	Min. 1 A, min. 800 V	--	--
Storage capacitor (C1, C2)	Interchangeable	Interchangeable	Max. 10 uF, min. 400 V, min. 105 °C.	--	--
IC (U1)	Interchangeable	Interchangeable	Min. 0.5 A, min. 600 V	--	--
Current sense resistor (RS6, RS7)	Interchangeable	Interchangeable	Max. 1.5 Ω, min. 1/4 W	--	--
Inductor (L1, L2) (for Color code inductance (Optional) (for PCB Type A)	Interchangeable	Interchangeable	Min. 130 °C	--	--
Line Chock (L1) (for EE8.3 inductance (Optional) (for PCB Type B)	Interchangeable	Interchangeable	Min. 130 °C	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

Bridge capacitor (CY1) (Optional)	Success Electronics Co Ltd	SE, SB	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	DIN EN 60384-14/A1 (VDE 0565-1-1/A1): 2017-04 EN 60384-14: 2013/A1:2016 IEC 60384-14: 2013 IEC 60384-14: 2013/AMD1:2016 DIN EN 60384-14 (VDE 0565-1-1): 2014-04 EN 60384-14: 2013-08 UL 60384-14	VDE, UL
(alternate)	Walsin Technology Corp.	AH	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	DIN EN 60384-14/A1 (VDE 0565-1-1/A1): 2017-04 EN 60384-14: 2013/A1:2016 IEC 60384-14: 2013 IEC 60384-14: 2013/AMD1:2016 DIN EN 60384-14 (VDE 0565-1-1): 2014-04 EN 60384-14: 2013-08 UL 60384-14	VDE, UL
(alternate)	JUHONG ELE COMPANY	JB	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	IEC/EN 60384-14, UL 60384-14	VDE, UL

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

(alternate)	TDK CORPORATION	CD	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	DIN EN 60384-14/A1 (VDE 0565-1-1/A1): 2017-04 EN 60384-14: 2013/A1:2016 IEC 60384-14: 2013 IEC 60384-14:2013/AMD1:2016 DIN EN 60384-14 (VDE 0565-1-1):2014-04 EN 60384-14: 2013-08 UL 60384-14	VDE, UL
(alternate)	Welson Industrial Co., Ltd.	WD	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	DIN EN 60384-14/A1 (VDE 0565-1-1/A1): 2017-04 EN 60384-14: 2013/A1:2016 IEC 60384-14: 2013 IEC 60384-14: 2013/AMD1:2016 DIN EN 60384-14 (VDE 0565-1-1): 2014-04 EN 60384-14: 2013-08 UL 60384-14	VDE, UL

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

(alternate)	XIANGTAI ELECTRONICS (SHENZHEN) CO LTD	YO-series	Max. 2200 pF, min. 250 V, 125 °C, Y1 type	DIN EN 60384-14/A1 (VDE 0565-1-1/A1): 2017-04 EN 60384-14: 2013/A1:2016 IEC 60384-14: 2013 IEC 60384-14: 2013/AMD1:2016 DIN EN 60384-14 (VDE 0565-1-1): 2014-04 EN 60384-14: 2013-08 UL 60384-14	VDE, UL
Transformer (T1)	GlobTek; or ENG Electric Co Ltd; or WUXI HAOPUWEI ELECTRONICS CO., LTD.; or Shandong Boam Electric Co., Ltd.	XF00950 (for output voltage 5-7.5V)	Class B	--	--
(alternate)	GlobTek; or ENG Electric Co Ltd; or WUXI HAOPUWEI ELECTRONICS CO., LTD.; or Shandong Boam Electric Co., Ltd.	XF00924 (for output voltage 7.6-16V)	Class B	--	--
(alternate)	GlobTek; or ENG Electric Co Ltd; or WUXI HAOPUWEI ELECTRONICS CO., LTD.; or Shandong Boam Electric Co., Ltd.	XF00939 (for output voltage 16.1-25.9V)	Class B	--	--

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

(alternate)	GlobTek; or ENG Electric Co Ltd; or WUXI HAOPUWEI ELECTRONICS CO., LTD.; or Shandong Boam Electric Co., Ltd.	XF00940 (for output voltage 26-48V)	Class B	--	--
- magnet wire	Interchangeable	Interchangeable	130 ºC	UL 1446	UL
- bobbin	CHANG CHUN PLASTICS CO LTD	T375J, T375HF	Phenolic, V-0, 150 °C, min 0.75 mm thickness.	UL 94, UL 746C	UL
(alternate)	Sumitomo Bakelite Co Ltd	PM-9820	Phenolic, V-0, 150 °C, min 0.75 mm thickness.	UL 94, UL 746C	UL
(alternate)	CHANG CHUN PLASTICS CO LTD	4130	Phenolic, V-0, 150 °C, min 0.75 mm thickness.	UL 94, UL 746C	UL
- insulation tape	3M Company Electrical Markets DIV(EMD)	1350T-1 (b), 1350F, 44	130 °C	UL 510	UL
(alternate)	BONDTEC PACIFIC CO LTD	370S (b)	130 °C	UL 510	UL
(alternate)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT, WF* (c)(h)	130 °C	UL 510	UL
(alternate)	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A (b)	130 °C	UL 510	UL
(alternate)	Chang Shu Liang Yi Tape Industry Co Ltd	LY-XX*	130 °C	UL 510	UL

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

- triple insulated wire	GREAT LEOFLON INDUSTRIAL CO LTD	TRW(B)	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
(alternate)	COSMOLINK CO., Ltd.	TIW-M	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
(alternate)	Furukawa Electric Co., Ltd. Electronics & Automotive Systems Company Global Business Development Division	TEX-E	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
(alternate)	TOTOKU ELECTRIC CO LTD	TIW-2	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL

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

(alternate)	E&B TECHNOLOGY CO LTD	E&B-XXXB, E&BXXXB-1	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
(alternate)	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TIW	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
(alternate)	SHENZHEN JIUDING NEW MATERIAL CO LTD	DTIW-B	130 °C	IEC 60950-1: 2005/AMD2:2013 DIN EN 60950-1 (VDE 0805-1): 2014-08 EN 60950-1:2006 +A11+A1+A12+ A2:2013 UL 2353	VDE, UL
- tubing	GREAT HOLDING INDUSTRIAL CO LTD	TFL, TFS, TFT	VW-1, 200 °C	UL 224	UL
Output cord	Interchangeable	Interchangeable	VW-1 or FT-1, min. 24 AWG, min. 80 ºC, min. 30 V	UL 758	UL
Plastic Material List:					
Plastic enclosure and plug holder or pin sleeving	Sabic Japan L L C	945 (GG)	Rated V-0, min. 1.7 mm thickness, 120 ºC	UL 94, UL 746C	UL
(alternate)	Sabic Innovative Plastics Us L LC	915R(GG)	Rated V-0, min. 1.7 mm thickness, 120 ºC	UL 94, UL 746C	UL

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

(alternate)	LG CHEM (GUANGZHOU) ENGINEERING PLASTICS CO LTD	LUPOY EF-1006F(m)	Rated V-0, min. 1.7 mm thickness, 115 ºC	UL 94, UL 746C	UL
(alternate)	COVESTRO DEUTSCHLAND AG [PC RESINS]	FR6005 + (z)	Rated V-0, min. 1.7 mm thickness, 105 ºC	UL 94, UL 746C	UL
(alternate)	SILVER AGE ENGINEERING PLASTICS (DONGGUAN) CO LTD	PC2330	Rated V-0, min. 1.7 mm thickness, 115 ºC	UL 94, UL 746C	UL
PCB	Interchangeable	Interchangeable	V-1 or better, min. 130 ºC	UL 796	UL
Output connector	Interchangeable	Interchangeable	Min. V-2	Applicable parts of IEC 62368-1	Tested in appliance
Glue	Interchangeable	Interchangeable	Min. V-2	UL 94, UL 746C	UL

Supplementary information:

1. Provided evidence ensures the agreed level of compliance. See OD-CB2039.
2. Description line content is optional. Main line description needs to clearly detail the component used for testing.
3. An asterisk indicates a mark which assures the agreed level of surveillance.
4. All the plastic material mentioned are checked and found to be acceptable for using in this product. Checking date: Same as this report issued data, see also page 1.

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

4.8.4, 4.8.5	**TABLE: Lithium coin/button cell batteries mechanical tests**	N/A

(The following mechanical tests are conducted in the sequence noted.)

4.8.4.2	**TABLE: Stress Relief test**	—

Part	**Material**	**Oven Temperature (°C)**	**Comments**

4.8.4.3	**TABLE: Battery replacement test**	—
Battery part no. .....:		—

Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments
	1	
	2	
	3	
	4	
	5	
	6	
	8	
	9	
	10	

4.8.4.4	**TABLE: Drop test**	—

Impact Area	Drop Distance	Drop No.	Observations
		1	
		2	
		3	

4.8.4.5	**TABLE: Impact**	—

Impacts per surface	**Surface tested**	**Impact energy (Nm)**	**Comments**

4.8.4.6	**TABLE: Crush test**	—

Test position	**Surface tested**	**Crushing Force (N)**	**Duration force applied (s)**

Supplementary information:

IEC 62368-1			
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 (Apk or Arms)	Hz	
Tested for model GT-46120-1206-0.05-W2E							
1	264 Vac	Sec. output to Earth	Normal	--	0.368 mApk	60	ES1
			Abnormal – (output overload)	--	0.368 mApk	60	
			Single fault – U1 Pin 5-4 SC	--	0.398 mApk	60	
			Single fault – U1 Pin 5-8 SC	--	0.402 mApk	60	
			Single fault – U1 Pin 3-2 SC	--	0.368 mApk	60	
			Single fault – U1 Pin 3-8 SC	--	0.368 mApk	60	
			Single fault – RS9 SC	--	0.368 mApk	60	
			Single fault – RS10 SC	--	0.368 mApk	60	
			Single fault – RS6 SC	--	0.398 mApk	60	
			Single fault – D2 SC	--	0.368 mApk	60	
2	264 Vac	Sec. output + to -	Normal	6.08 Vdc	--	--	ES1
			Abnormal – (output overload)	6.08 Vdc	--	--	
			Single fault – U1 Pin 5-4 SC	0	--	--	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Single fault – U1 Pin 5-8 SC	0	--	--	
			Single fault – U1 Pin 3-2 SC	0	--	--	
			Single fault – U1 Pin 3-8 SC	0	--	--	
			Single fault – RS9 SC	0	--	--	
			Single fault – RS10 SC	0	--	--	
			Single fault – RS6 SC	0	--	--	
			Single fault – D2 SC	0	--	--	
Tested for model GT-46120-1212-W2E							
1	264 Vac	Sec. output to Earth	Normal	--	0.368 mApk	60	ES1
			Abnormal – (output overload)	--	0.368 mApk	60	
			Single fault – U1 Pin 5-4 SC	--	0.396 mApk	60	
			Single fault – U1 Pin 5-8 SC	--	0.398 mApk	60	
			Single fault – U1 Pin 3-2 SC	--	0.368 mApk	60	
			Single fault – U1 Pin 3-8 SC	--	0.368 mApk	60	
			Single fault – RS9 SC	--	0.368 mApk	60	
			Single fault – RS10 SC	--	0.368 mApk	60	
			Single fault – RS6 SC	--	0.396 mApk	60	
			Single fault – D2 SC	--	0.368 mApk	60	
2	264 Vac	Sec. output + to -	Normal	12.09 Vdc	--	--	ES1
			Abnormal – (output overload)	12.09 Vdc	--	--	
			Single fault – U1 Pin 5-4 SC	0	--	--	

IEC 62368-1							
Clause	Requirement + Test		Result - Remark				Verdict
			Single fault – U1 Pin 5-8 SC	0	--	--	
			Single fault – U1 Pin 3-2 SC	0	--	--	
			Single fault – U1 Pin 3-8 SC	0	--	--	
			Single fault – RS9 SC	0	--	--	
			Single fault – RS10 SC	0	--	--	
			Single fault – RS6 SC	0	--	--	
			Single fault – D2 SC	0	--	--	
Tested for model GT-46120-1224-W2E							
1	264 Vac	Sec. output to Earth	Normal	--	0.368 mApk	60	ES1
			Abnormal – (output overload)	--	0.368 mApk	60	
			Single fault – U1 Pin 5-4 SC	--	0.398 mApk	60	
			Single fault – U1 Pin 5-8 SC	--	0.402 mApk	60	
			Single fault – U1 Pin 3-2 SC	--	0.368 mApk	60	
			Single fault – U1 Pin 3-8 SC	--	0.368 mApk	60	
			Single fault – RS9 SC	--	0.368 mApk	60	
			Single fault – RS10 SC	--	0.368 mApk	60	
			Single fault – RS6 SC	--	0.402 mApk	60	
			Single fault – D2 SC	--	0.368 mApk	60	
2	264 Vac	Sec. output + to -	Normal	24.11 Vdc	--	--	ES1
			Abnormal – (output overload)	24.11 Vdc	--	--	
			Single fault – U1 Pin 5-4 SC	0	--	--	

IEC 62368-1							
Clause	Requirement + Test		Result - Remark				Verdict
			Single fault – U1 Pin 5-8 SC	0	--	--	
			Single fault – U1 Pin 3-2 SC	0	--	--	
			Single fault – U1 Pin 3-8 SC	0	--	--	
			Single fault – RS9 SC	0	--	--	
			Single fault – RS10 SC	0	--	--	
			Single fault – RS6 SC	0	--	--	
			Single fault – D2 SC	0	--	--	
Tested for model GT-46120-1248-W2E							
1	264 Vac	Sec. output to Earth	Normal	--	0.368 mApk	60	ES1
			Abnormal – (output overload)	--	0.368 mApk	60	
			Single fault – U1 Pin 5-4 SC	--	0.396 mApk	60	
			Single fault – U1 Pin 5-8 SC	--	0.398 mApk	60	
			Single fault – U1 Pin 3-2 SC	--	0.368 mApk	60	
			Single fault – U1 Pin 3-8 SC	--	0.368 mApk	60	
			Single fault – RS9 SC	--	0.368 mApk	60	
			Single fault – RS10 SC	--	0.368 mApk	60	
			Single fault – RS6 SC	--	0.402 mApk	60	
			Single fault – D2 SC	--	0.368 mApk	60	
2	264 Vac	Sec. output + to -	Normal	48.11 Vdc	--	--	ES1
			Abnormal – (output overload)	48.11 Vdc	--	--	
			Single fault – U1 Pin 5-4 SC	0	--	--	

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

			Single fault – U1 Pin 5-8 SC	0	--	--	
			Single fault – U1 Pin 3-2 SC	0	--	--	
			Single fault – U1 Pin 3-8 SC	0	--	--	
			Single fault – RS9 SC	0	--	--	
			Single fault – RS10 SC	0	--	--	
			Single fault – RS6 SC	0	--	--	
			Single fault – D2 SC	0	--	--	

5.2.2.3 – Capacitance Limits

No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class
				Capacitance, nF	Upk (V)	
--	--	--	--	--	--	--

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 – Max. normal load
Abnormal – No load
Supplementary information: SC=Short Circuit, OC=Short Circuit

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

5.4.1.4, 6.3.2, 9.0, B.2.6	**TABLE: Temperature measurements**					P
	Supply voltage (V)	90 V/60 Hz	90 V/60 Hz	264 V/50 Hz	264 V/50 Hz	—
	Ambient T_{min} (°C)	--	--	--	--	—
	Ambient T_{max} (°C)	--	--	--	--	—
	Tma (°C)	--	--	--	--	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T_{max} (°C)
Tested for model GT-46120-1206-0.05-W2E (with PCB type A)						
Below values for T (°C) are re-calculated to 40 °C from actual ambient respectively:						
Test condition		**Vertical**	**Horizontal**	**Vertical**	**Horizontal**	**--**
Plug holder		90.1	86.6	78.4	74.1	105
L1 coil		111.4	107.0	83.9	79.3	130
C2 body		101.7	99.8	92.0	89.0	105
L2 coil		99.9	97.3	90.3	86.7	130
PCB near BD1		102.3	98.0	80.1	75.7	130
PCB near U1		111.1	112.0	100.9	99.0	130
T1 coil		103.1	106.2	101.8	102.1	110
T1 coil		102.0	105.0	100.2	100.5	110
CY1 body		81.2	78.3	76.1	72.9	125
PCB near D2		108.2	112.3	108.3	111.2	130
C4 body		89.2	91.5	88.7	89.6	105
Output wire		67.6	68.7	67.1	66.9	80
Plastic enclosure inside near T1 (top)		81.3	81.7	79.1	78.2	105
Plastic enclosure inside near T1 (bottom)		75.6	76.1	69.9	69.0	105
Actual ambient		24.2	24.5	24.5	24.7	--
Below values for T (°C) are re-calculated to 25 °C from actual ambient respectively:						
Plastic enclosure outside near T1 (top)		59.1	62.3	58.8	60.1	77
Plastic enclosure outside near T1 (bottom)		53.2	57.1	52.5	54.5	77
Tested for model GT-46120-1212-W2E (with PCB type A)						
Below values for T (°C) are re-calculated to 40 °C from actual ambient respectively:						
Test condition		**Vertical**	**Horizontal**	**Vertical**	**Horizontal**	**--**
Plug holder		89.2	86.0	73.7	71.7	105
L1 coil		110.1	106.6	80.9	77.9	130
C2 body		99.6	98.6	84.4	83.3	105
L2 coil		97.9	95.5	84.5	82.3	130

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

PCB near BD1	101.9	97.8	75.5	72.4	130
PCB near U1	111.6	112.2	93.5	93.2	130
T1 coil	101.6	105.1	97.6	100.3	110
T1 coil	99.8	102.5	96.4	98.6	110
CY1 body	79.7	76.8	71.5	69.7	125
PCB near D2	89.5	94.5	86.7	91.7	130
C4 body	76.9	79.6	73.4	76.5	105
Output wire	61.4	62.2	58.5	59.9	80
Plastic enclosure inside near T1 (top)	79.1	80.8	74.1	76.5	105
Plastic enclosure inside near T1 (bottom)	79.1	74.4	65.1	69.2	105
Actual ambient	24.5	24.6	24.4	24.5	--
Below values for T (°C) are re-calculated to 25 °C from actual ambient respectively:					
Plastic enclosure outside near T1 (top)	50.7	53.5	46.9	50.6	77
Plastic enclosure outside near T1 (bottom)	46.2	52.2	42.2	48.2	77
Tested for model GT-46120-1224-W2E (with PCB type A)					
Below values for T (°C) are re-calculated to 40 °C from actual ambient respectively:					
Test condition	**Vertical**	**Horizontal**	**Vertical**	**Horizontal**	**--**
Plug holder	83.3	81.8	69.4	68.1	105
L1 coil	107.8	107.9	76.6	76.4	130
C2 body	94.2	94.6	79.4	79.5	105
L2 coil	91.2	92.3	79.0	79.8	130
PCB near BD1	93.9	94.4	70.4	70.4	130
PCB near U1	103.1	101.0	87.4	85.6	130
T1 coil	94.8	94.0	88.0	87.5	110
T1 coil	93.2	92.3	86.2	85.3	110
CY1 body	74.4	76.8	67.4	69.0	125
PCB near D2	90.2	90.0	89.2	89.3	130
C4 body	72.9	73.5	70.5	71.3	105
Output wire	60.7	61.8	58.8	59.7	80
Plastic enclosure inside near T1 (top)	76.9	76.0	72.3	71.6	105
Plastic enclosure inside near T1 (bottom)	65.5	63.0	62.4	60.4	105
Actual ambient	24.5	24.6	24.5	24.6	--
Below values for T (°C) are re-calculated to 25 °C from actual ambient respectively:					
Plastic enclosure outside near T1 (top)	49.1	47.6	45.7	44.6	77
Plastic enclosure outside near T1 (bottom)	45.7	42.6	43.3	40.6	77
Tested for model GT-46120-1248-W2E (with PCB type A)					

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

Below values for T (°C) are re-calculated to 40 °C from actual ambient respectively:					
Test condition	**Vertical**	**Horizontal**	**Vertical**	**Horizontal**	**--**
Plug holder	80.3	79.5	70.8	70.2	105
L1 coil	99.4	97.5	73.6	72.7	130
C2 body	88.1	87.6	77.4	76.9	105
L2 coil	84.9	83.9	75.5	74.9	130
PCB near BD1	87.8	85.7	69.1	67.9	130
PCB near U1	95.9	96.1	85.0	84.5	130
T1 coil	91.6	93.5	87.7	89.3	110
T1 coil	89.6	91.7	86.4	88.3	110
CY1 body	69.2	68.9	65.2	65.2	125
PCB near D2	79.6	82.5	85.2	88.4	130
C4 body	65.0	66.8	66.0	68.3	105
Output wire	55.9	56.9	55.6	57.2	80
Plastic enclosure inside near T1 (top)	71.4	73.7	69.1	70.8	105
Plastic enclosure inside near T1 (bottom)	60.7	63.3	60.0	63.1	105
Actual ambient	24.6	24.7	24.5	24.2	--
Below values for T (°C) are re-calculated to 25 °C from actual ambient respectively:					
Plastic enclosure outside near T1 (top)	47.4	49.5	45.5	47.5	77
Plastic enclosure outside near T1 (bottom)	41.1	43.6	40.1	43.4	77
Tested for model GT-46120-1206-0.05-W2E (with PCB type B)					
Below values for T (°C) are re-calculated to 40 °C from actual ambient respectively:					
Test condition	**Vertical**	**Horizontal**	**Vertical**	**Horizontal**	**--**
Plug holder	90.7	86.6	79.4	75.1	105
L1 coil	103.1	98.7	82.1	78.5	130
C2 body	102.2	99.3	88.6	85.3	105
PCB near BD1	98.9	93.9	76.2	71.8	130
PCB near U1	115.9	115.8	104.9	102.8	130
T1 coil	103.7	105.8	101.7	101.7	110
T1 coil	102.2	103.0	99.9	100.6	110
CY1 body	89.0	88.4	85.5	84.6	125
PCB near D2	110.6	114.6	113.2	116.8	130
C4 body	93.5	94.9	93.4	95.1	105
Output wire	71.2	70.4	70.4	70.0	80
Plastic enclosure inside near T1 (top)	87.5	86.6	85.6	84.7	105
Plastic enclosure inside near T1 (bottom)	76.4	74.8	74.7	73.8	105

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

Actual ambient	24.6	24.5	24.7	24.6	--
Below values for T (°C) are re-calculated to 25 °C from actual ambient respectively:					
Plastic enclosure outside near T1 (top)	58.6	61.0	59.1	59.5	77
Plastic enclosure outside near T1 (bottom)	50.8	53.3	52.4	52.4	77

Supplementary information:

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:

Note 1: Tma should be considered as directed by appliable requirement

Note 2: Tma is not included in assessment of Touch Temperatures (Clause 9)

Note 3: The equipment was submitted and evaluated for maximum manufacturer's recommended ambient (Tma) of 40 °C.

5.4.1.10.2	TABLE: Vicat softening temperature of thermoplastics		N/A
Penetration (mm):			—
Object/ Part No./Material	Manufacturer/trademark	T softening (°C)	

supplementary information:

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics		P
Allowed impression diameter (mm).....:	≤ 2 mm		—

Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)
Plug holder / Type: 945 (GG)	SABIC JAPAN L L C	125	1.1
Plug holder / Type: 915R(GG)	Sabic Innovative Plastics US L LC	125	1.3
Plug holder / Type: LUPOY EF-1006F(m)	LG CHEM (GUANGZHOU) ENGINEERING PLASTICS CO LTD	125	1.1
Plug holder / Type: FR6005 + (z)	COVESTRO DEUTSCHLAND AG [PC RESINS]	125	1.3
Plug holder / Type: PC2330	SILVER AGE ENGINEERING PLASTICS (DONGGUAN) CO LTD	125	1.2

Supplementary information:

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

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	Frequency (kHz)[1)]	Required cl (mm)	cl (mm)[2)]	Required [3)] cr (mm)	cr (mm)
Basic/supplementary:							
L and N before fuse resistor (RF1) (for PCB type A, B)	420	250	0.06	2.3 (1.5*1.48)	4.5	2.5	4.5
Traces on load side of L to U1 (for PCB type A, B)	420	250	0.06	2.3 (1.5*1.48)	3.6	2.5	3.6
Reinforced Insulation							
C1 to accessible enclosure (for PCB type A, B)	420	250	0.06	4.5 (3.0*1.48)	5.2	5.0	5.2
Metal pin of detachable plug to the accessible surface of detachable plug	420	250	0.06	4.5 (3.0*1.48)	5.6	5.0	5.6
Trace under CY1 (for PCB type A, B)	420	250	0.06	4.5 (3.0*1.48)	8.1	5.0	8.1
Trace under T1 (for PCB type A, B)	560	257	57.5	4.5 (3.0*1.48)	8.0	5.2	8.0
T1 primary winding to D2 (sec.) (for PCB type A, B)	560	257	57.5	4.5 (3.0*1.48)	7.0	5.2	7.0
T1 primary windings to secondary pin	560	257	57.5	4.5 (3.0*1.48)	9.8	5.2	9.8
T1 core to secondary pin	560	257	57.5	4.5 (3.0*1.48)	9.4	5.2	9.4

Supplementary information:

Note 1: Only for frequency above 30 kHz

Note 2: See Table 5.4.2.4 if this is based on electric strength test

Note 3: Provide Material Group: IIIb

Note 4: A force of 10 N is applied to the internal components when measuring the distances

Note 5: The core of T1 considered as primary part, the insulation between secondary to core is reinforced insulation. Triple insulated wire used in secondary windings

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
	Overvoltage Category (OV): OVC II			
	Pollution Degree: 2			
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)

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Basic [1)]	2500	1.5	[1)]
Reinforced [1)]	2500	3.0	[1)]
Supplementary information: [1)] Refer to 5.4.2.2, 5.4.2.4 and 5.4.3, Required withstand voltage is 2500 Vpk			

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)
Enclosure (Reinforced Insulation)		560	57.5	[1)]	0.4	[1)]
Supplementary information: [1)] All materials refer to appended Table 4.1.2 for details.						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Functional:				
--		--	--	--
Basic/supplementary:				
L to N (with fuse opened)		DC	2500	No
Reinforced:				
Primary to secondary (output)		DC	4000	No
Primary and plastic enclosure with foil		DC	4000	No
T1: Primary to secondary		DC	4000	No
T1: Core to secondary		DC	4000	No
One layer of insulation tape (T1)		DC	4000	No
From Enclosure inside to Enclosure outside		DC	4000	No
Routine Tests:				
--		--	--	--
Supplementary information: 1) All materials of enclosure, transformer and insulation tape listed in Table 4.1.2 were tested and evaluated. 2) Applied d.c. voltage in one polarity for 60 s and then repeated it in reverse polarity.				

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5.5.2.2	TABLE: Stored discharge on capacitors				N/A
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification

Supplementary information:

X-capacitors installed for testing are:

☐ Bleeding resistor rating:

☐ ICX:

Notes:

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

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 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	Touch current (mA)
	1	
	2*	
	3	
	4	
	5	
	6	
	8	

Supplementary Information:

[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

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Clause	Requirement + Test	Result - Remark	Verdict

[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
Tested for model GT-46120-1206-0.05-W2E					
Output	--	Power (W) :	12.49	--	PS1
		V_A (V) :	5.84	--	
		I_A (A) :	2.14	--	
Output	RS9 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS10 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS6 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-4 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-2 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Tested for model GT-46120-1212-W2E					
Output	--	Power (W) :	--	16.62	PS2
		V_A (V) :	--	11.96	

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		I_A (A) :	--	1.39	
Output	RS9 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS10 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS6 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-4 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-2 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Tested for model GT-46120-1224-W2E					
Output	--	Power (W) :	--	16.73	PS2
		V_A (V) :	--	23.57	
		I_A (A) :	--	0.71	
Output	RS9 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS10 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS6	Power (W) :	0	--	PS1

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Clause	Requirement + Test	Result - Remark	Verdict

	shorted	V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-4 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-2 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Tested for model GT-46120-1248-W2E					
Output	--	Power (W) :	--	20.93	PS2
		V_A (V) :	--	43.62	
		I_A (A) :	--	0.48	
Output	RS9 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS10 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS6 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-4 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	

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Clause	Requirement + Test	Result - Remark	Verdict

Output	U1 Pin 3-2 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Tested for model GT-46120-1005-W2E					
Output	--	Power (W) :	11.32	--	PS1
		V_A (V) :	4.88	--	
		I_A (A) :	2.32	--	
Output	RS9 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS10 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	RS6 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-4 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 5-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-2 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Output	U1 Pin 3-8 shorted	Power (W) :	0	--	PS1
		V_A (V) :	0	--	
		I_A (A) :	0	--	
Supplementary Information:					
(*) Measurement taken only when limits at 3 seconds exceed PS1 limits					

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6.2.3.1	TABLE: Determination of Potential Ignition Sources (Arcing PIS)				N/A
Location	Open circuit voltage After 3 s (Vp)	Measured r.m.s current (Irms)	Calculated value (V_p x I_{rms})	Arcing PIS? Yes / No	
All Internal circuits/components	--	--	--	Yes	
Supplementary information: An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V_p) and normal operating condition rms current (I_{rms}) is greater than 15.					

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

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:			

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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
Tested for model GT-46120-1206-0.05-W2E (with PCB type A)							
90V/50Hz	0.267	--	15.2	--	RF1	0.267	Maximum rated output load: 5.95 V, 2.0 A (max. 12 W)
90V/60Hz	0.271	--	15.4	--	RF1	0.271	
100V/50Hz	0.243	0.6	15.1	--	RF1	0.243	
100V/60Hz	0.247	0.6	15.2	--	RF1	0.247	
240V/50Hz	0.129	0.6	15.0	--	RF1	0.129	
240V/60Hz	0.126	0.6	15.0	--	RF1	0.126	
264V/50Hz	0.121	--	15.0	--	RF1	0.121	
264V/60Hz	0.118	--	15.0	--	RF1	0.118	
Tested for model GT-46120-1206-0.05-W2E (with PCB type B)							
90V/50Hz	0.264	--	15.1	--	RF1	0.264	Maximum rated output load: 5.95 V, 2.0 A (max. 12 W)
90V/60Hz	0.267	--	15.2	--	RF1	0.267	
100V/50Hz	0.241	0.6	14.9	--	RF1	0.241	
100V/60Hz	0.244	0.6	15.0	--	RF1	0.244	
240V/50Hz	0.126	0.6	14.9	--	RF1	0.126	
240V/60Hz	0.123	0.6	14.8	--	RF1	0.123	
264V/50Hz	0.119	--	14.9	--	RF1	0.119	
264V/60Hz	0.116	--	14.9	--	RF1	0.116	
Tested for model GT-46120-1212-W2E (with PCB type A)							
90V/50Hz	0.265	--	15.1	--	RF1	0.265	Maximum rated output load: 12 V, 1.0 A (max. 12 W)
90V/60Hz	0.269	--	15.2	--	RF1	0.269	
100V/50Hz	0.243	0.6	15.0	--	RF1	0.243	
100V/60Hz	0.245	0.6	15.0	--	RF1	0.245	
240V/50Hz	0.126	0.6	14.8	--	RF1	0.126	
240V/60Hz	0.124	0.6	14.7	--	RF1	0.124	
264V/50Hz	0.119	--	14.7	--	RF1	0.119	
264V/60Hz	0.116	--	14.7	--	RF1	0.116	
Tested for model GT-46120-1212-W2E (with PCB type B)							
90V/50Hz	0.263	--	15.0	--	RF1	0.263	Maximum rated output load: 12 V, 1.0 A (max. 12 W)
90V/60Hz	0.266	--	15.1	--	RF1	0.266	
100V/50Hz	0.241	0.6	14.9	--	RF1	0.241	

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Clause	Requirement + Test				Result - Remark		Verdict
100V/60Hz	0.243	0.6	14.9	--	RF1	0.243	
240V/50Hz	0.123	0.6	14.7	--	RF1	0.123	
240V/60Hz	0.122	0.6	14.6	--	RF1	0.122	
264V/50Hz	0.117	--	14.6	--	RF1	0.119	
264V/60Hz	0.115	--	14.6	--	RF1	0.116	
Tested for model GT-46120-1224-W2E (with PCB type A)							
90V/50Hz	0.263	--	14.8	--	RF1	0.263	Maximum rated output load: 24 V, 0.5 A (max. 12 W)
90V/60Hz	0.265	--	14.9	--	RF1	0.265	
100V/50Hz	0.243	0.6	14.6	--	RF1	0.243	
100V/60Hz	0.240	0.6	14.7	--	RF1	0.240	
240V/50Hz	0.123	0.6	14.4	--	RF1	0.123	
240V/60Hz	0.121	0.6	14.3	--	RF1	0.121	
264V/50Hz	0.117	--	14.4	--	RF1	0.117	
264V/60Hz	0.114	--	14.3	--	RF1	0.114	
Tested for model GT-46120-1224-W2E (with PCB type B)							
90V/50Hz	0.261	--	14.6	--	RF1	0.261	Maximum rated output load: 24 V, 0.5 A (max. 12 W)
90V/60Hz	0.263	--	14.7	--	RF1	0.263	
100V/50Hz	0.235	0.6	14.4	--	RF1	0.235	
100V/60Hz	0.238	0.6	14.5	--	RF1	0.238	
240V/50Hz	0.121	0.6	14.2	--	RF1	0.121	
240V/60Hz	0.119	0.6	14.1	--	RF1	0.119	
264V/50Hz	0.115	--	14.2	--	RF1	0.115	
264V/60Hz	0.112	--	14.1	--	RF1	0.112	
Tested for model GT-46120-1248-W2E (with PCB type A)							
90V/50Hz	0.259	--	14.4	--	RF1	0.259	Maximum rated output load: 48 V, 0.25 A (max. 12 W)
90V/60Hz	0.262	--	14.7	--	RF1	0.262	
100V/50Hz	0.237	0.6	14.3	--	RF1	0.237	
100V/60Hz	0.239	0.6	14.3	--	RF1	0.239	
240V/50Hz	0.125	0.6	14.1	--	RF1	0.125	
240V/60Hz	0.123	0.6	14.1	--	RF1	0.123	
264V/50Hz	0.119	--	14.1	--	RF1	0.119	
264V/60Hz	0.116	--	14.1	--	RF1	0.116	
Tested for model GT-46120-1248-W2E (with PCB type B)							
90V/50Hz	0.256	--	14.3	--	RF1	0.256	Maximum rated output load:

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90V/60Hz	0.258	--	14.5	--	RF1	0.258	48 V, 0.25 A (max. 12 W)
100V/50Hz	0.234	0.6	14.2	--	RF1	0.234	
100V/60Hz	0.236	0.6	14.2	--	RF1	0.236	
240V/50Hz	0.122	0.6	14.0	--	RF1	0.122	
240V/60Hz	0.120	0.6	14.0	--	RF1	0.120	
264V/50Hz	0.116	--	14.0	--	RF1	0.116	
264V/60Hz	0.113	--	14.0	--	RF1	0.113	

Supplementary information:

Equipment may be have rated current or rated power or both. Both should be measured

B.3	TABLE: Abnormal operating condition tests								P
Ambient temperature (°C)……..:						25, if not otherwise specified			—
Power source for EUT: Manufacturer, model/type, output rating …..:						See appended Table 4.1.2			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no	Fuse current, (A)	T-couple	Temp. (°C)	Observation	
Tested for model GT-46120-1206-0.05-W2E									
Output	Overload	264	5 h 24 m	RF1	0.121→ 0.125→ 0.005	--	PCB near D2 = 95.2 °C, T1 coil = 88.1 °C, T1 core = 86.5 °C, enclosure outside near T1 = 64.6 °C, ambient = 24.3 °C	Output current over 2.10 A (Constant temperatures were obtained), as 2.11 A output shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 6.08 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.	

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Clause	Requirement + Test				Result - Remark			Verdict
Output	Shorted	264	10 m	RF1	0.121→ 0.005	--	--	Unit shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1212-W2E								
Output	Overload	264	6 h 28 m	RF1	0.119→ 0.157→ 0.005	--	PCB near U1 = 103.5 °C, T1 coil = 108.9 °C, T1 core = 106.6 °C, enclosure outside near T1 = 60.2 °C, ambient = 24.3 °C	Output current over 1.37 A (Constant temperatures were obtained), as 1.38 A output shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 12.09 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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Clause	Requirement + Test				Result - Remark			Verdict
Output	Shorted	264	10 m	RF1	0.119→ 0.005	--	--	Unit shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1224-W2E								
Output	Overload	264	5 h 08 m	RF1	0.117→ 0.156→ 0.005	--	PCB near D2 = 89.0 °C, T1 coil = 88.7 °C, T1 core = 85.5 °C, enclosure outside near T1 = 51.2 °C, ambient = 24.3 °C	Output current over 0.68 A (Constant temperatures were obtained), as 0.69 A output shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 24.11 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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Clause	Requirement + Test				Result - Remark			Verdict
Output	Shorted	264	10 m	RF1	0.117→ 0.005	--	--	Unit shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1248-W2E								
Output	Overload	264	5 h 08 m	RF1	0.119→ 0.143→ 0.005	--	PCB near D2 = 95.2 °C, T1 coil = 98.9 °C, T1 core = 97.7 °C, enclosure outside near T1 = 58.9 °C, ambient = 24.3 °C	Output current over 0.41 A (Constant temperatures were obtained), as 0.42 A output shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 48.11 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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

Output	Shorted	264	10 m	RF1	0.119→ 0.005	--	--	Unit shut down. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

Supplementary information:

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column “Abnormal/Fault.” Specify if test condition by indicating “Abnormal” then the condition for a Clause B.3 test or “Single Fault” then the condition for Clause B.4.

Abbreviations used:

NC: Cheesecloth remain intact

NT: Tissue paper remains intact

NB: No indication of dielectric breakdown

IP: Internal protection operated (list component)

CT: Constant temperatures were obtained

CD: Components damaged (list damaged components)

ASRE: All safeguards remained effectively

B.4	TABLE: single fault condition tests							P
Ambient temperature (°C)……..:					25, if not otherwise specified			—
Power source for EUT: Manufacturer, model/type, output rating …..:					See appended Table 4.1.2			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Tested for model GT-46120-1206-0.05-W2E								

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
BD1	Shorted	264	1 sec	RF1	0.121→0	--	--	#RF1 opened immediately. Touch current (Sec. output to earth): U2/500: 0.402 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
C2	Shorted	264	1 sec	RF1	0.121→0	--	--	#RF1 opened immediately. Touch current (Sec. output to earth): U2/500: 0.396 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
U1 Pin 5-8	Shorted	264	1 sec	RF1	0.121→0	--	--	#RF1 opened immediately. Touch current (Sec. output to earth): U2/500: 0.402 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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

U1 Pin 5-4	Shorted	264	1 sec	RF1	0.121→ 0	--	--	#RF1 opened immediately. Touch current (Sec. output to earth): U2/500: 0.396 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
U1 Pin 3-2	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	U1 damaged, repeat three times and same results. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. All safeguards remained effective.
U1 Pin 3-8	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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

D2	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
RS9	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
RS10	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	U1 damaged, repeat three times and same results. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. All safeguards remained effective.

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

RS6	Shorted	264	1 sec	RF1	0.121→ 0	--	--	#RF1 opened immediately. Touch current (Sec. output to earth): U2/500: 0.402 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
T1 Pin 1-2	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
T1 Pin 3-5	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
T1 Pin 8-9	Shorted	264	10 min	RF1	0.121→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1212-W2E								
T1 Pin 8-9	Shorted	264	10 min	RF1	0.119→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
D2	Shorted	264	10 min	RF1	0.119→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1224-W2E								

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
T1 Pin 8-9	Shorted	264	10 min	RF1	0.117→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
D2	Shorted	264	10 min	RF1	0.117→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.
Tested for model GT-46120-1248-W2E								
T1 Pin 8-9	Shorted	264	10 min	RF1	0.119→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

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

D2	Shorted	264	10 min	RF1	0.119→ 0.005	--	--	Unit shutdown. Touch current (Sec. output to earth): U2/500: 0.368 mApk. Output + to -: 0 Vdc. No dielectric breakdown. No hazardous. No components damaged. All safeguards remained effective.

Supplementary Information:

Abbreviations used:

NC: Cheesecloth remain intact

NT: Tissue paper remains intact

NB: No indication of dielectric breakdown

IP: Internal protection operated (list component) repeat all fuse, result were same

CT: Constant temperatures were obtained

CD: Components damaged (list damaged components)

ASRE: All safeguards remained effectively.

#: Repeat the test for additional nine times (total ten times) for RF1 (listed in Table 4.1.2) operated during component failure test with same result.

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										

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

- Emission of flame or expulsion of molten metal		
- Electric strength tests of equipment after completion of tests		
Supplementary information:		

Annex M.4	**Table: Additional safeguards for equipment containing secondary lithium batteries**	N/A

Battery/Cell No.	Test conditions	Measurements			Observation
		U	I (A)	Temp I	
	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: See below						
Output Circuit	Components	U_{oc} (V)	I_{sc} (A)		S (VA)	
			Meas	Limit	Meas	Limit
Tested for model GT-46120-1206-0.05-W2E						
Output to RTN	Normal	6.08	2.14	≤ 8.0	12.49	≤ 100
Output to RTN	Single fault condition: RS6 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS9 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS10 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-4 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-8 SC	0	0	≤ 8.0	0	≤ 100

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
Output to RTN	Single fault condition: U1 Pin 3-2 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-8 SC	0	0	≤ 8.0	0	≤ 100
Tested for model GT-46120-1212-W2E						
Output to RTN	Normal	12.09	1.39	≤ 8.0	16.62	≤ 100
Output to RTN	Single fault condition: RS6 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS9 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS10 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-4 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-8 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-2 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-8 SC	0	0	≤ 8.0	0	≤ 100
Tested for model GT-46120-1224-W2E						
Output to RTN	Normal	24.11	0.71	≤ 8.0	16.73	≤ 100
Output to RTN	Single fault condition: RS6 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS9 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS10 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-4 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-8 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-2 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-8 SC	0	0	≤ 8.0	0	≤ 100

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

Tested for model GT-46120-1248-W2E						
Output to RTN	Normal	48.11	0.48	≤ 8.0	20.93	≤ 100
Output to RTN	Single fault condition: RS6 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS9 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS10 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-4 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-8 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-2 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-8 SC	0	0	≤ 8.0	0	≤ 100
Tested for model GT-46120-1005-W2E						
Output to RTN	Normal	5.02	2.32	≤ 8.0	11.32	≤ 100
Output to RTN	Single fault condition: RS6 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS9 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: RS10 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-4 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 5-8 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-2 SC	0	0	≤ 8.0	0	≤ 100
Output to RTN	Single fault condition: U1 Pin 3-8 SC	0	0	≤ 8.0	0	≤ 100
Supplementary Information:						
SC=Short circuit, OC=Open circuit						

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

T.2, T.3, T.4, T.5	TABLE: Steady force test				P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation
Internal wirings / components	--	--	10	5	No reduce cl. and cr.
Top enclosure	1)	1.7	100	5	Intact, all safeguards remained effective
Side enclosure	1)	1.7	100	5	Intact, all safeguards remained effective
Bottom enclosure	1)	1.7	100	5	Intact, all safeguards remained effective
Supplementary information:					
1) All materials refer to appended Table 4.1.2 for details.					

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	1)	1.7	1000	Intact, all safeguards remained effective
Side enclosure	1)	1.7	1000	Intact, all safeguards remained effective
Bottom enclosure	1)	1.7	1000	Intact, all safeguards remained effective
Supplementary information:				
1) All materials refer to appended Table 4.1.2 for details.				

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

T.8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Enclosure	1)	1.7	98	7	Intact, all safeguards remained effective	
Supplementary information:						
1) All materials refer to appended Table 4.1.2 for details.						

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to TMP/CTF stage 1 or WMT/CTF stage 2 procedure has been used.

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date
N/A				

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

5.4.1.8	TABLE: Working voltage measurements			P
Location	Peak voltage (V)	RMS voltage (V)	Frequency (kHz)	Comments
Tested for model GT-46120-1206-0.05-W2E				
T1 Pin 1-8	384	215	57.5	
T1 Pin 2-8	516	252		
T1 Pin 3-8	348	217		
T1 Pin 5-8	408	219		
T1 Pin 1-9	368	216		
T1 Pin 2-9	316	247		
T1 Pin 3-9	356	217		
T1 Pin 5-9	384	218		
CY1 Pri.-Sec.	348	217	0.06	
Tested for model GT-46120-1212-W2E				
T1 Pin 1-8	348	213	57.5	
T1 Pin 2-8	544	251		
T1 Pin 3-8	348	216		
T1 Pin 5-8	380	216		
T1 Pin 1-9	384	213		
T1 Pin 2-9	524	241		
T1 Pin 3-9	356	214		
T1 Pin 5-9	348	214		
CY1 Pri.-Sec.	348	216	0.06	
Tested for model GT-46120-1224-W2E				
T1 Pin 1-8	344	213	57.5	
T1 Pin 2-8	520	246		
T1 Pin 3-8	348	216		
T1 Pin 5-8	396	216		
T1 Pin 1-9	432	213		
T1 Pin 2-9	496	231		
T1 Pin 3-9	372	216		
T1 Pin 5-9	356	213		
CY1 Pri.-Sec.	348	216	0.06	

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

Tested for model GT-46120-1248-W2E				
T1 Pin 1-8	348	216	57.5	
T1 Pin 2-8	**560**	**257**		**Max. Vrms & Vpeak**
T1 Pin 3-8	348	215		
T1 Pin 5-8	372	216		
T1 Pin 1-9	472	218		
T1 Pin 2-9	504	232		
T1 Pin 3-9	392	218		
T1 Pin 5-9	384	215		
CY1 Pri.-Sec.	348	215	0.06	
Supplementary information:				
Test voltage: 240 V, 60 Hz				

IEC62368_1B - 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 ..... : EN 62368-1:2014+A11:2017

Attachment Form No. ..... : EU_GD_IEC 62368_1B_II

Attachment Originator..... : Nemko AS

Master Attachment..... : Date 2017-09-22

	CENELEC COMMON MODIFICATIONS (EN)	—
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed “Z”.	P
CONTENTS	**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.	—

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1	**Add** the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		P
4.Z1	**Add** the following new subclause after 4.9: 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): 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; 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; 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. 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
5.4.2.3.2.4	**Add** the following to the end of this subclause: The requirement for interconnection with **external circuit** is in addition given in EN 50491-3:2009.		N/A
10.2.1	Add the following to [c] and [d] in table 39: For additional requirements, see 10.5.1.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
10.5.1	**Add** the following after the first paragraph: *For RS 1 compliance is checked by measurement under the following conditions:* *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 give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.* NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. *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.* *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.* *For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.* NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.		N/A
10.6.1	**Add** the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.		N/A
10.Z1	**Add** the following new subclause after 10.6.5. **10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz** 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). 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		N/A
G.7.1	**Add** the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Bibliography	**Add** the following standards: **Add** the following notes for the standards indicated: 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)**		—
4.1.15	**Denmark, Finland, Norway** and **Sweden** To the end of the subclause the following is added: **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. The marking text in the applicable countries shall be as follows: 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”		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	**United Kingdom** 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
5.2.2.2	**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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.11.1 and Annex G	**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 • 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. 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 • 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. 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 60384-14:2005, may bridge this insulation under the following conditions: • 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.		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.5.2.1	**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).		N/A
5.5.6	**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.		N/A
5.6.1	**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. *Justification:* In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.6.4.2.1	**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.		N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm^2 to 1,5 mm^2 in cross-sectional area.		N/A
5.7.5	**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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.1	**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. Translation to Norwegian (the Swedish text will also be accepted in Norway): “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.” Translation to Swedish: ”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.”.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.7.6.2	**Denmark** To the end of the subclause the following is added: 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 .		N/A
B.3.1 and B.4	**Ireland and United Kingdom** The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of **direct plug-in equipment**, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the **direct plug-in equipment**, until the requirements of Annexes B.3.1 and B.4 are met		P
G.4.2	**Denmark** To the end of the subclause the following is added: 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. 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. 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. 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. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. 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 *Justification:* Heavy Current Regulations, Section 6c		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	**United Kingdom** 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.		N/A
G.7.1	**United Kingdom** 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. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	**Ireland** 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		N/A
G.7.2	**Ireland and United Kingdom** To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm^2 is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ZC	*ANNEX ZC, NATIONAL DEVIATIONS (EN)*		—
10.5.2	**Germany** The following requirement applies: 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. *Justification:* German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. **NOTE** Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT
IEC 62368-1
AUSTRALIA / NEW ZEALAND NATIONAL DIFFERENCES
Audio/video, information and communication technology equipment

Differences according to ..... :	AS/NZS 62368.1:2018
Attachment Form No. ..... :	AU_NZ_ND_IEC62368_1B
Attachment Originator..... :	JAS-ANZ
Master Attachment ..... :	2019-02-04

	National Differences		—
Appendix ZZ	Variations to IEC 62368-1:2014 (ED. 2.0) for Australia and New Zealand		P
ZZ1 Scope	This Appendix lists the normative variations to IEC 62368-1:2014 (ED. 2.0)		P
ZZ2 Variations	The following modifications are required for Australian/New Zealand conditions:		P
2	*Add* the following to the list of normative references: The following normative documents are referenced in Appendix ZZ: -AS/NZS 3112, *Approval and test specification—Plugs and socket-outlets* -AS/NZS 3123, *Approval and test specification—Plugs, socket-outlets and couplers for general industrial application* -AS/NZS 3191, *Electric flexible cords* *-AS/NZS 60065, Audio, video and similar electronic apparatus—Safety requirements* *(IEC 60065:2015 (ED.8.0) MOD)* -AS/NZS 60320.1, *Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)* -AS/NZS 60320.2.2, *Appliance couplers for household and similar general purposes Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2-2, Ed.2.0 (1998) MOD)*	Added.	P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	-AS/NZS 60695.2.11, *Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products* -AS/NZS 60695.11.5, *Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance* -AS/NZS 60695.11.10, *Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods* -AS/NZS 60884.1, *Plugs and socket-outlets for household and similar purposes, Part 1: General requirements* -AS/NZS 60950.1:2015, *Information technology equipment—Safety*, Part 1: *General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)* IEC 61032:1997, *Protection of persons and equipment by enclosures—Probes for verification* -AS/NZS 61558.1:2008 (including Amendment 2:2015), *Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)* -AS/NZS 61558.2.16, *Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.*		
4.1.1	**Application of requirements and acceptance of materials, components and subassemblies** 1. *Replace* the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'. 2. *Replace* the text 'IEC 60065' with 'AS/NZS 60065'.		P
4.7	**Equipment for direct insertion into mains socket-outlets**		P
4.7.2	**Requirements** *Delete* the text of the second paragraph and *replace* with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.	Deleted	P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3	**Compliance Criteria** *Delete* the first paragraph and Note 1 and Note 2 and *replace* with the following: *Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.*		P
4.8	*Delete* existing clause title and *replace* with the following: **4.8 Products containing coin/button cell batteries**		N/A
4.8.1	**General** 1. Second dashed point, *delete* the text and *replace* with the following: – include coin/button cell batteries with a diameter of 32 mm or less. 2. After the second dashed point, *insert* the following Note: NOTE 1: Batteries are specified in IEC 60086-2. 3. After the third dashed point, *renumber* the existing Note as 'NOTE 2'. 4. Fifth dashed point, *delete* the word 'lithium'.	No batteries.	N/A
4.8.2	**Instructional Safeguard** First line, *delete* the word 'lithium'.		N/A
4.8.3	**Construction** First line, after the word 'Equipment' *insert* the words 'containing one or more coin/button batteries and'		N/A
4.8.5	**Compliance criteria** *Delete* the first paragraph and *replace* with the following: *Compliance is checked by applying a force of 30 N +/-1 N for 10 s to the battery compartment door/cover by a rigid test finger according to test probe 11 of IEC 61032:1997 at the most unfavourable place and in the most unfavourable direction. The force shall be applied in one direction at a time.*		N/A
5.4.10.2	**Test methods**		N/A
5.4.10.2.1	**General** *Delete* the first paragraph and *replace* with the following: In Australia only, the separation is checked by the test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3.		N/A
Table 29	*Replace* the table with the following:		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Parts	Impulse test		Steady state test	
	New Zealand	Australia	New Zealand	Australia
Parts indicated in Clause 5.4.10.1 a) [a]	2.5 kV 10/700 µs	7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. 10/700 µs	1.5 kV	3 kV
Parts indicated in Clause 5.4.10.1 b) and c) [b]	1.5 kV 10/700 µs [c]		1.0 kV	1.5 kV

[a] Surge suppressors shall not be removed.
[b] Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment.
[c] During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.

5.4.10.2.2	After the first paragraph, *insert* new Notes 201 and 202 as follows: NOTE 201 For Australia, the 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 202 For Australia, the value of 2.5 kV for Clause 5.4.10.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.		N/A
5.4.10.2.3	After the first paragraph, *insert* new Notes 201 and 202 as follows: NOTE 201 For Australia, where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values for Australia have been determined considering the low frequency induced voltages from the power supply distribution system.		N/A
6	**Electrically-caused fire**		P
6.1	**General** After the first paragraph, *insert* the following new paragraph: Alternatively, the requirements of Clauses 6.2 to 6.5.2 are considered to be fulfilled if the equipment complies with the requirements of Clause 6.202		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.6	After Clause 6.6, *add* the new Clauses 6.201 and 6.202 as follows: **6.201 External power supplies, docking stations and other similar devices** and **6.202 Resistance to fire—Alternative tests** (see special national conditions)		P
8.5.4	**Special categories of equipment comprising moving parts**		N/A
8.5.4.1	**Large data storage equipment** In the first dashed row and the second dashed rows *replace* 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.		N/A
8.6	**Stability of equipment**		N/A
8.6.1 and Table 36	**Requirements** 1. Table 36, *insert* Footnote c at the end of the 'Glass slide' heading, and *add* a new Footnote c after the text of Footnote b in the last row of Table 36 as follows: [c] The glass slide test is not applicable to floor standing equipment, even though the equipment may have controls or a display. 2. Table 36, fifth row, *insert* '[201]' at the end of 'No stability requirements' 3. Table 36, ninth row, *insert* '[201]' at the end of 'No stability requirements' 4. Table 36, *add* the following new footnote: [201] MS2 and MS3 television sets and display devices, designed only for fixing to a wall, ceiling or equipment rack, are not subjected to stability requirements only if the instructional safeguard of Clause 8.6.1.201 is provided. Otherwise, the glass slide requirements of Clause 8.6.4 and horizontal force requirements of Clause 8.6.5 apply. 5. Second paragraph beneath Table 36, *delete* the words 'MS2 and MS3 television sets' and *replace* with 'MS2 and MS3 television sets and display devices'		N/A
8.6.1	After Clause 8.6.1 *add* the following new clauses: **8.6.1.201 Instructional safeguard for fixed-mount television sets** (see special national conditions)		N/A
Annex F **Paragraph F.3.5.1**	**Mains appliance outlet and socket-outlet markings** *Replace* 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex G **Paragraph G.4.2**	**Mains connectors** 1. In the second line *insert* 'or AS/NZS 3123' after 'IEC 60906-1'. 2. In the second line *insert* 'or AS/NZS 60320 series' after 'IEC 60320 series' 3. *Add* the following new paragraph: 10 A or 15 A 250 V flat pin plugs for the connection of equipment to mains-powered socket-outlets for household or similar general use shall comply with AS/NZS 3112 or AS/NZS 60884.1.		N/A
Paragraph G.5.3.1	**Transformers, General** 1. In the third dashed point *replace* 'IEC 61558-1 and the relevant parts of IEC 61558-2' with 'AS/NZS 61558-1 and the relevant parts of AS/NZS 61558.2' 2. In the fourth dashed point *replace* 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'.		P
Paragraph G.7.1	**Mains supply cords, General** In the fourth dashed paragraph, *replace* 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A
Table G.5	**Sizes of conductors** 1. In the second row, first column, *delete* '6' and *replace* with '7.5' 2. In the second row, second column, *delete* '0,75' and *replace* with '0.75[b] 3. *Delete* Note 1. 4. *Replace* 'NOTE 2' with 'NOTE:'. 5. *Delete* the text of 'Footnote b' and *replace* with the following: [b] This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm2 three-core supply flexible cords are not permitted; see AS/NZS 3191). 6. In Footnote c *replace* 'IEC 60320-1' with 'AS/NZS 60320.1' 7. In Footnote d *replace* 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex M **Paragraph M.3.2**	**Protection circuits for batteries provided within the equipment, Test method** After the first dashed point *add* the following Note: NOTE 201: In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.	No batteries.	N/A
	Special national conditions (if any)		
6.201	**External power supplies, docking stations and other similar devices** For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage— – at all ES1 outlets or connectors shall not increase by more than 10 % of its rated output voltage under normal operating condition; and – of a USB outlet or connector shall not increase by more than 3 V or 10 % of its rated output voltage under normal operating conditions, whichever is higher. For equipment with multiple rated output voltages, the requirements apply with the equipment configured for each rated output voltage in turn. NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries. *Compliance shall be checked by measurement, taking into account the abnormal operating conditions of Annex B.3 and the simulated single-fault conditions of Annex B.4*	During and after abnormal operating conditions and during single fault conditions, the output voltage did not increase by more than 10% of its rated output voltage under normal operating condition	P
6.202	**Resistance to fire—Alternative tests**		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.202.1	**General** Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the equipment, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as capacitors with a volume not exceeding 1 750 mm3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE: In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.		N/A
	Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4. For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5. The tests shall be carried out on parts of non-metallic material which have been removed from the equipment. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.202.2	**Testing of non-metallic materials** Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550 °C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the relevant part is not thinner than the sample tested.		N/A
6.202.3	**Testing of insulating materials** Parts of insulating material supporting Potential Ignition Sources shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750 °C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE: Contacts in components such as switch contacts are considered to be connections		N/A
	For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test need not be tested		N/A
	The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications: **Clause of AS/NZS 60695.11.5** — Change **9 Test procedure**		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	9.2 Application of needle-flame *Delete* the first and second paragraphs and *replace* with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.		
	9.3 Number of test specimens *Replace* with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.		
	11 Evaluation of test results *Replace* with the following: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the relevant part is not thinner than the sample tested.		

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.202.4	**Testing in the event of non-extinguishing material** If parts, other than enclosures, do not withstand the glow wire tests of Clause 6.202.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in Clause 6.202.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of Clause 6.202.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1: If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 2: If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 3: Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.		N/A
6.202.5	**Testing of printed boards** The base material of printed boards shall be subjected to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a potential ignition source.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	The test is not carried out if— – the printed board does not carry any potential ignition source; – the base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – the base material of printed boards, on which the available equipment power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. *Conformance shall be determined using the smallest thickness of the material.* NOTE: Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the apparent power for more than 2 min when the circuit supplied is disconnected.		
6.202.6	**For open circuit voltages greater than 4 kV** Potential ignition sources with open circuit voltages exceeding 4 kV (peak) a.c. or d.c. under normal operating conditions shall be contained in a FIRE ENCLOSURE which shall comply with flammability category V-1 or better according to AS/NZS 60695.11.10.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
8.6.1.201	**8.6.1.201 Instructional safeguard for fixed-mount television sets** MS2 and MS3 television sets and display devices designed only for fixed mounting to a wall of ceiling or equipment rack shall, where required in Table 36, footnote 201, have an instructional safeguard in accordance with Clause F.5 which may be on the equipment or included in the installation instructions or equivalent document accompanying the equipment. The elements of the instructional safeguard shall be as follows: – element 1a: not available; – element 2: 'Stability Hazard' or equivalent wording; – element 3: 'The television set may fall, causing serious personal injury or death' or equivalent text; – element 4: the following or equivalent text: To prevent injury, this television set must be securely attached to the floor/wall in accordance with the installation instructions		N/A
8.6.1.202	**Restraining device** MS2 and MS3 television sets and display devices that are not solely fixed-mounted should be provided with a restraining device such as a fixing point to facilitate restraining the equipment from toppling forward. The restraining device shall be capable of withstanding a pull of 100 N in all directions without damage. Where a restraining device is provided, instructions shall be provided in the instructions for installation or instructions for use to ensure correct and safe installation.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 2th Ed. U.S.A NATIONAL DIFFERENCES Audio/video, information and communication technology equipment Part 1: Safety requirements	
Differences according to.....:	CSA/UL 62368-1:2014
Attachment Form No. .....:	US&CA_ND_IEC623681B
Attachment Originator.....:	UL(US)
Master Attachment.....:	Date 2015-06

IEC 62368-1 - US and Canadian National Differences Special National Conditions based on Regulations and Other National Differences			
1.1	All equipment is to be designed to allow installation according to the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75.		P
1.4	Additional requirements apply to some forms of power distribution equipment, including sub-assemblies.	Considered.	P
4.1.17	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC.		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings.		P
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.	No batteries.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	Protective earthing conductors comply with the minimum conductor sizes in Table G.5, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment		N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	No such circuits.	N/A
6.5.1	PS3 wiring outside a fire enclosure complies with single fault testing in B.4, or be current limited per one of the permitted methods.		N/A
Annex F (F.3.3.8)	Output terminals provided for supply of other equipment, except mains supply are marked with a maximum rating or references to which equipment it is permitted to be connected.		P
Annex G (G.7.1)	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
Annex G (G.7.3)	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
Annex G (G.7.5)	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No such circuits.	N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 V d.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		N/A
Annex M	Battery packs for stationary applications comply with special component requirements.	No such components.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVA (1)	Equipment intended for use in spaces used for environmental air are subjected to special flammability requirements for heat and visible smoke release.		N/A
	For ITE room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
	Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. & Canadian Regulations.		N/A
	Baby monitors additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
Annex DVA (5.6.3)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.		P
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.		N/A
Annex DVA (6.4.8)	For ITE room applications, enclosures with combustible material measuring greater than 0.9 m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a min. flammability classification of V-1.		N/A
Annex DVA (10.3.1)	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (10.5.1)	Equipment that produces ionizing radiation complies with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
Annex DVA (F.3.3.3)	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or are lower than the “Normal Operating Condition” in Table 2 of CAN/CSA C22.2 No. 235.”		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current		N/A
Annex DVA (G.1)	Vertically-mounted disconnect switches and circuit breakers have the "on" position indicated by the handle in the up position		N/A
Annex DVA (G.3.4)	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable.		N/A
Annex DVA (G.4.2)	Equipment with isolated ground (earthing) receptacles complies with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
Annex DVA (G.4.3)	Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable.		N/A
Annex DVA (G.5.3)	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A
Annex DVA (G.5.4)	Motor control devices are required for cord-connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
Annex DVA (Annex M)	For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes have a battery disconnect means that may be connected to the ITE room remote power-off circuit.		N/A
Annex DVA (Q)	Wiring terminals intended to supply Class 2 outputs according to the NEC or CEC Part 1 are marked with the voltage rating and “Class 2” or equivalent; marking is located adjacent to the terminals and visible during wiring.		N/A
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.		N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. Components required to comply include: appliance couplers, attachment plugs, battery back-up systems, battery packs, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultra-capacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, data storage equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables.	See appended Table 4.1.2.	P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.		N/A
Annex DVH (DVH.1)	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are in accordance with the NEC/CEC.		N/A
Annex DVH (DVH.3.2)	Terminals for permanent wiring, including protective earthing terminals, are suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and are specially marked when specified.		N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).		N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
Annex DVH (DVH 5.5)	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, complies with special earthing, wiring, marking and installation instruction requirements.		N/A
Annex DVI (6.7)	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1
DENMARK NATIONAL DIFFERENCES

Audio/video, information and communication technology equipment –
Part 1: Safety requirements

Differences according to.....:	DS/EN 62368-1:2014
Attachment Form No.....:	DK_ND_IEC62368_1B
Attachment Originator .....:	UL (Demko)
Master Attachment.....:	2014-10

	National Differences		**N/A**
4.1.15	To the end of the subclause the following is added: 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. The marking text in the applicable countries shall be as follows: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”		N/A
5.2.2.2	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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.1	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. Justification: In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.7.5	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.		N/A
5.7.6.2	To the end of the subclause the following is added: 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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.2	To the end of the subclause the following is added: 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. 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. 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. 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. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. 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 Justification: Heavy Current Regulations, Section 6c		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 62368-1 Japan NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements	
Differences according to.....:	J62368-1 (H30)
Attachment Form No. .....:	JP_ND_IEC62368_1B
Attachment Originator.....:	UL (JP)
Master Attachment.....:	Date 2018-11-22

	National Differences		—
4.1.2	Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this standard or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these.	See appended Table 4.1.2.	P
5.6.1	Mains socket-outlet and appliance outlet shall comply with Clause G.4.2A if they are incorporated as part of the equipment.		N/A
5.6.2.1	Mains connection of class 0I equipment: Instructional safeguard in accordance with Clause F.3.6.1A; Mains plug having a lead wire for protective earthing connection of class 0I equipment; Independent main protective earthing terminal installed by ordinary person.		N/A
5.6.2.2	This requirement does not apply to internal conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.6.3	In case of class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall comply with either of the following: – use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having size and strength that are equivalent to or more than the above copper wire – single core cord or single core cab tire cable with 1.25 mm^2 or more cross-sectional area		N/A
5.7.3	For class 0I equipment that is provided with mains socket-outlet in the configuration as specified in JIS C 8282 series or JIS C 8303, or otherwise being considered to comply with relevant regulations, or that is provided with mains appliance outlet as specified in JIS C 8283-2-2 for the purpose of interconnection, the measurement is conducted on the system of the interconnected equipment having a single connection to the mains.		N/A
5.7.4	In case of class 0I equipment, touch current shall not exceed 1.41 mA peak or for sinusoidal wave, 1.0 mA r.m.s. when measured using the network specified in Figure 4 of IEC 60990.		N/A
6.4.3.3	A fuse complying with JIC C 6575 series or a fuse having equivalent characteristics shall open within 1 s. For Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”. A fuse not complying with JIS C 6575 series shall be tested with the breaking capacity taken into account.		N/A
8.5.4.2.1	Only three-phase stationary equipment rated more than 200 V ac can be considered as being for use in locations where children are not likely to be present, when complying with Clause F.4.		N/A
8.5.4.2.2	For equipment installed where children may be present, an instructional safeguard shall be provided by easily understandable wording in accordance with Clause F.5, except that element 3 is optional.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
8.5.4.2.4	The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then the wedge probe per Figure V.4 shall not contact any moving part.		N/A
8.5.4.2.5	The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part. Instructional safeguard shall not be used instead of equipment safeguard for preventing access to hazardous moving parts.		N/A
9.2.6, Table 38	Handles, Knobs, grips, etc. and external surfaces either held, touched or worn against the body in normal use (> 1 min) [b,c]	Considered.	P
F.3.5.1	Instructional safeguard of class 0I equipment in accordance with Clause F.5 when a mains socket-outlet as specified in JIS C 8282 series, JIS C 8303 or relevant regulation to which class I equipment can be connected is provided in accordance with Clause G.4.2A except for the cases where the socket-outlet is accessible only to skilled persons.		N/A
F.3.5.3	If the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic.		N/A
F.3.6.1A	Marking for class 0I equipment The requirements of Clauses F.3.6.1.1 and F.3.6.1.3 shall be applied to class 0I equipment. For class 0I equipment, a marking of instructions and instructional safeguard shall be provided regarding the earthing connection.		N/A
F.3.6.2.1	Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10), shall not be used for class I equipment or class 0I equipment.		N/A
F.4	Instruction for audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1 and F.3.6.1A. Installation instruction for the protective earthing connection for class 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided within the package for the equipment.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
G.3.2.1	The thermal link when tested as a separate component, shall comply with the requirements of JIS C 6691 or have properties equivalent to or better than that.		N/A
G.3.4	Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the relevant part of JIS C 6575 (corresponding to IEC60127) or shall have equivalent characteristics. If there are no applicable IEC standards, overcurrent protective devices used as a safeguard shall comply with their applicable IEC standards.		N/A
G.4.1	This requirement is not applicable to Clauses G.4.2 and G.4.2A.		N/A
G.4.2	Mains connector shall comply with JIS C 8282 series, JIS C 8283 series, JIS C 8285, JIS C 8303 or IEC 60309 series. Mains plugs and socket-outlets shall comply with JIS C 8282 series, JIS C 8303, IEC 60309 series, or have equivalent or better performance. A power supply cord set provided with appliance connector that can fit appliance inlet complying with JIS C 8283-1 shall comply with JIS C 8286. Construction preventing mechanical stress not to transmit to the soldering part of inlet terminal. Consideration for an equipment rated not more than 125 V provided with Type C14 and C18 appliance coupler complying with JIS C 8283 series.		N/A
G.4.2A	Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively.		N/A
G.7.1	A mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor.		N/A
G.8.3.3	Withstand 1,71 × 1.1 × U_0 for 5 s.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT

IEC 62368-1
ITALY NATIONAL DIFFERENCES
(Audio/video, information and communication technology equipment – Part 1: Safety requirements)

Differences according to ..... : CEI EN 62368-1:2016

Attachment Form No. .....: IT_ND_IEC62368_1B

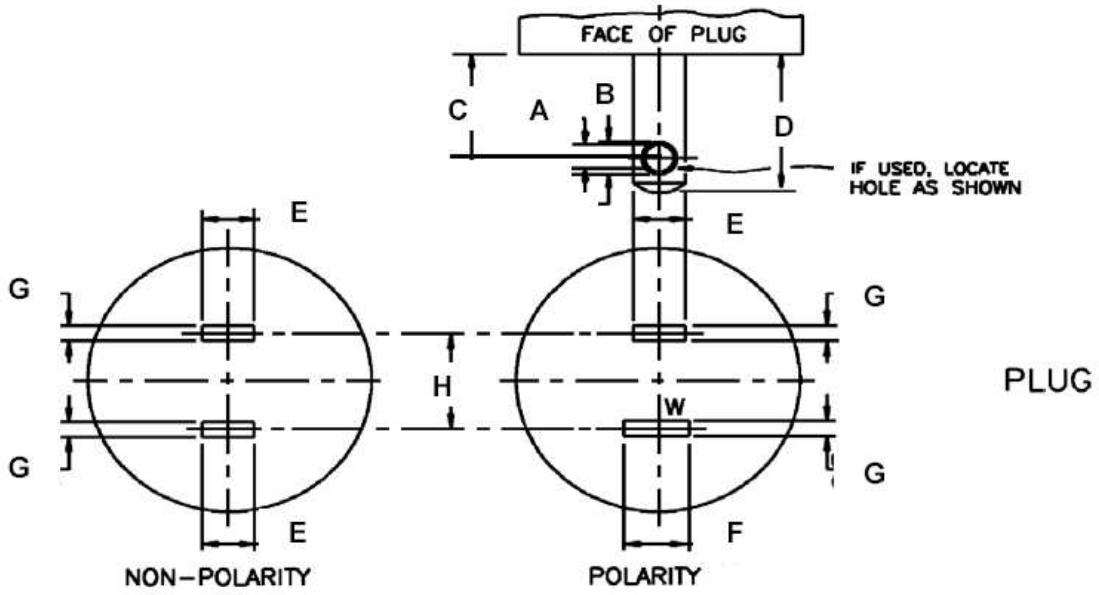
Attachment Originator.....: IMQ S.p.A.

Master Attachment.....: Date 2020-01-31

	National Differences		—
F.1	**Italy** The following requirements shall be fulfilled: • 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: *EN 60555-2 has since been replaced by IEC 60107-1:1997.* • 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: *Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.*		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	• 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 retrofitable teletext *Justification:* Ministerial Decree of 26 March 1992 : National rules for television receivers trade. NOTE/: *Ministerial decree above contains additional, but not safety relevant requirements*		N/A

DIMENSION CHECKING FOR TWO-PIN PLUGS OF NA (15A, 125V)
According to (NEMA WD 6-2002 Figure 1-15)



Decimal dimensions without tolerances shall be subject to a±0.005 inch tolerance.

For unit with integral plug

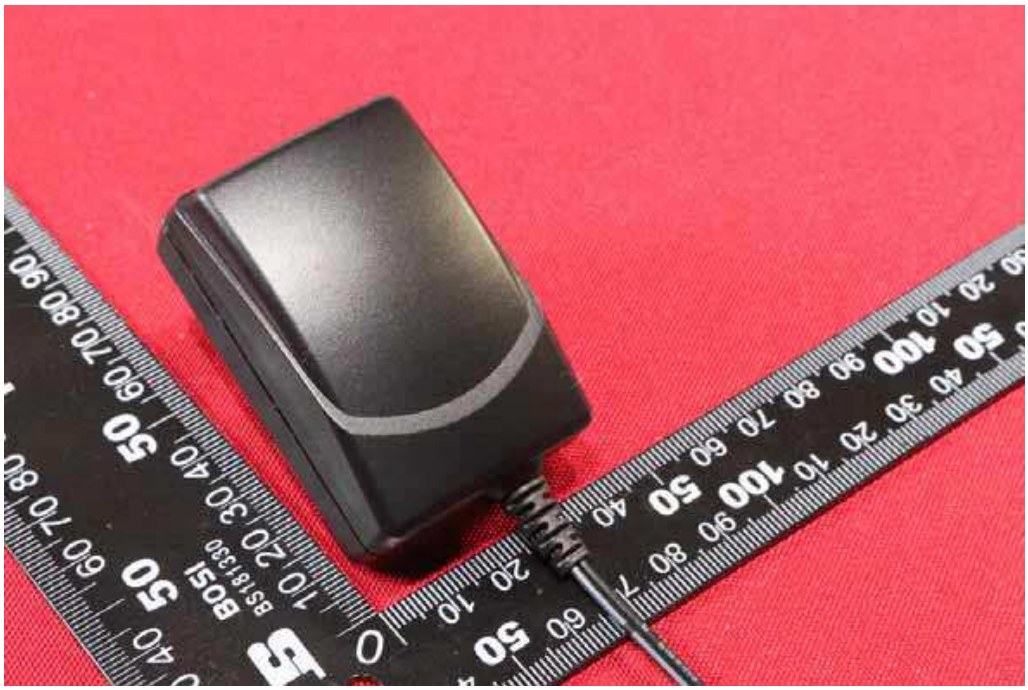
Symbol	Requirement (inch)	Measured (inch)		Symbol	Requirement (inch)	Measured (inch)
A	0.120 - 0.130	0.122		E	0.240 - 0.260	0.245
B	0.151- 0.161	0.152		F	0.307 - 0.322	--
C	0.449 - 0.479	0.456		G	0.055 - 0.065	0.056
D	0.625 - 0.718	0.678		H	0.495 - 0.505	0.500
Perimeter faces to the plug blades shall not be less than 7.9 mm (intended for use with children's toys) or 5.1 mm from any point of either blade						5.7mm

For unit with detachable plug

Symbol	Requirement (inch)	Measured (inch)		Symbol	Requirement (inch)	Measured (inch)
A	0.120 - 0.130	0.121		E	0.240 - 0.260	0.246
B	0.151- 0.161	0.153		F	0.307 - 0.322	--
C	0.449 - 0.479	0.456		G	0.055 - 0.065	0.057
D	0.625 - 0.718	0.675		H	0.495 - 0.505	0.501
Perimeter faces to the plug blades shall not be less than 7.9 mm (intended for use with children's toys) or 5.1 mm from any point of either blade						9.0mm

Overall view of EUT

Overall view of EUT



Overall view of detachable plug

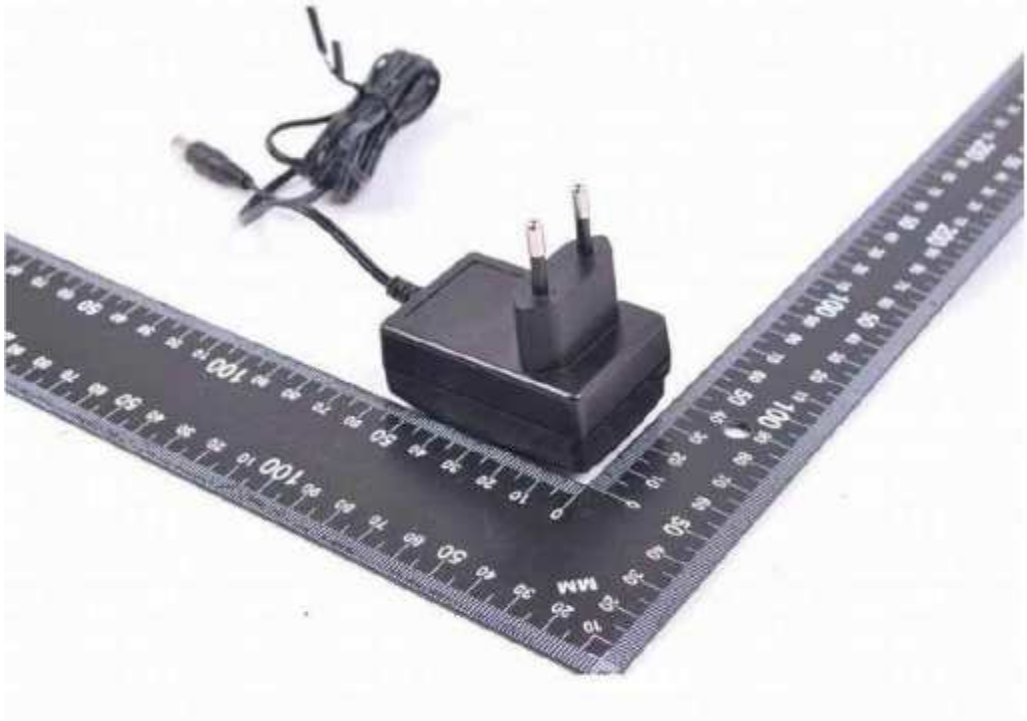
Overall view of detachable plug

Overall view with integral US plug

Overall view with integral AU plug

Overall view with integral UK plug

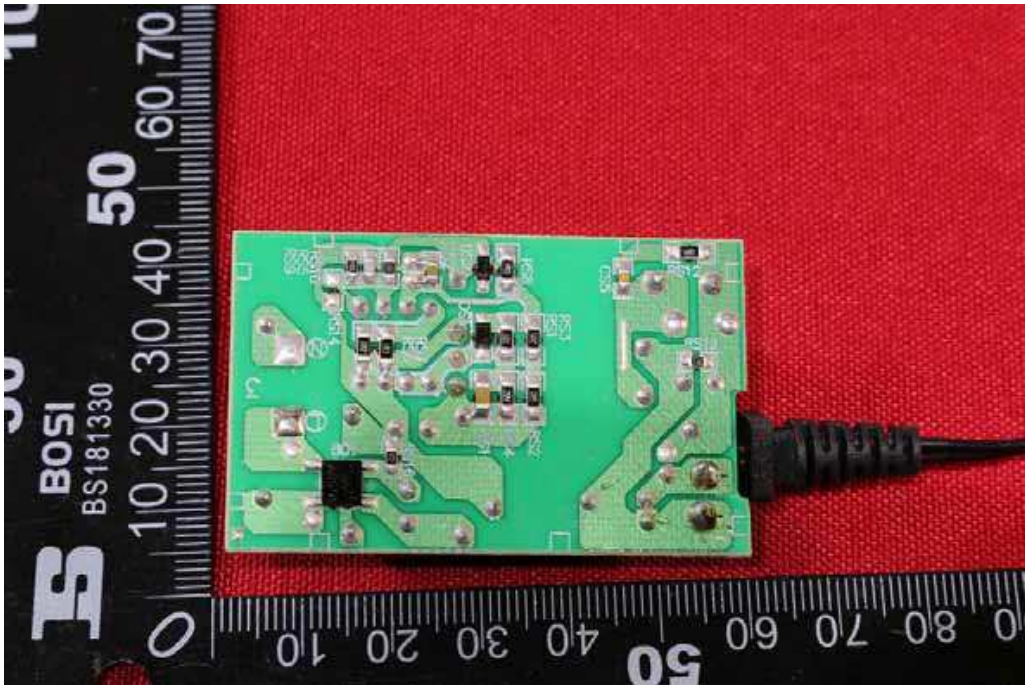
Overall view with integral EU plug



Internal view of EUT

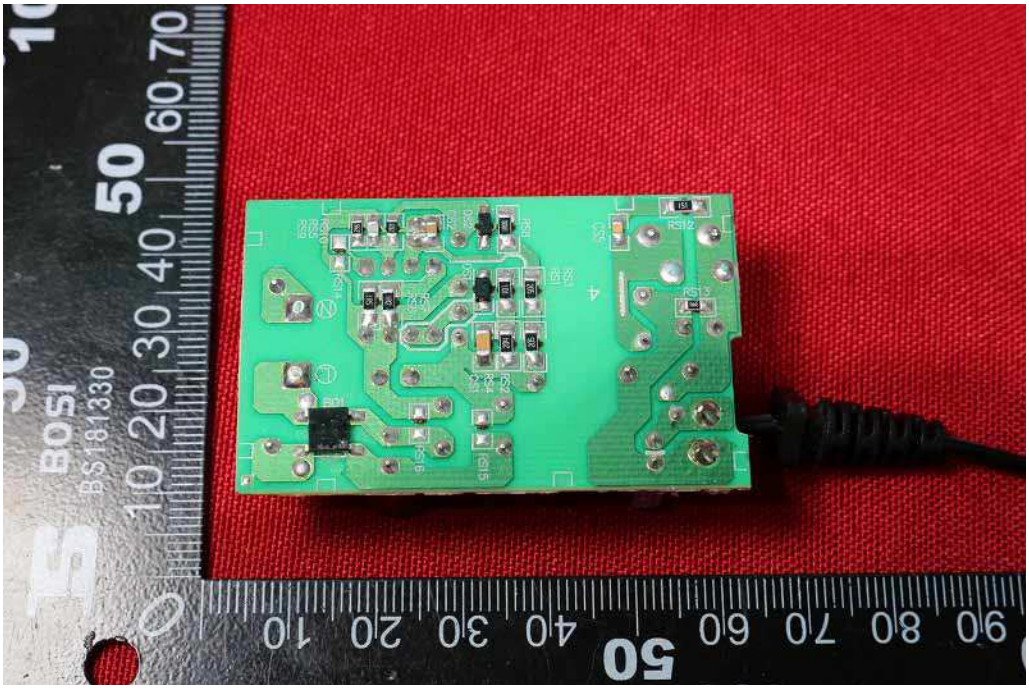
Top view of PCB, type A: 101845

Bottom view of PCB, type A: 101845

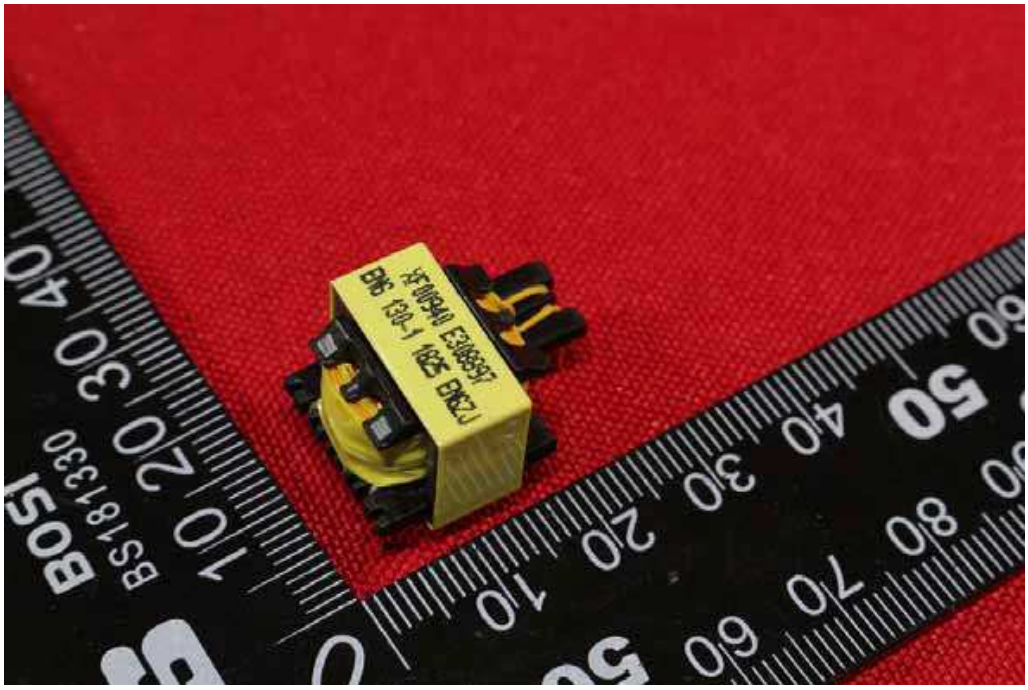


Top view of PCB, type B: 101855

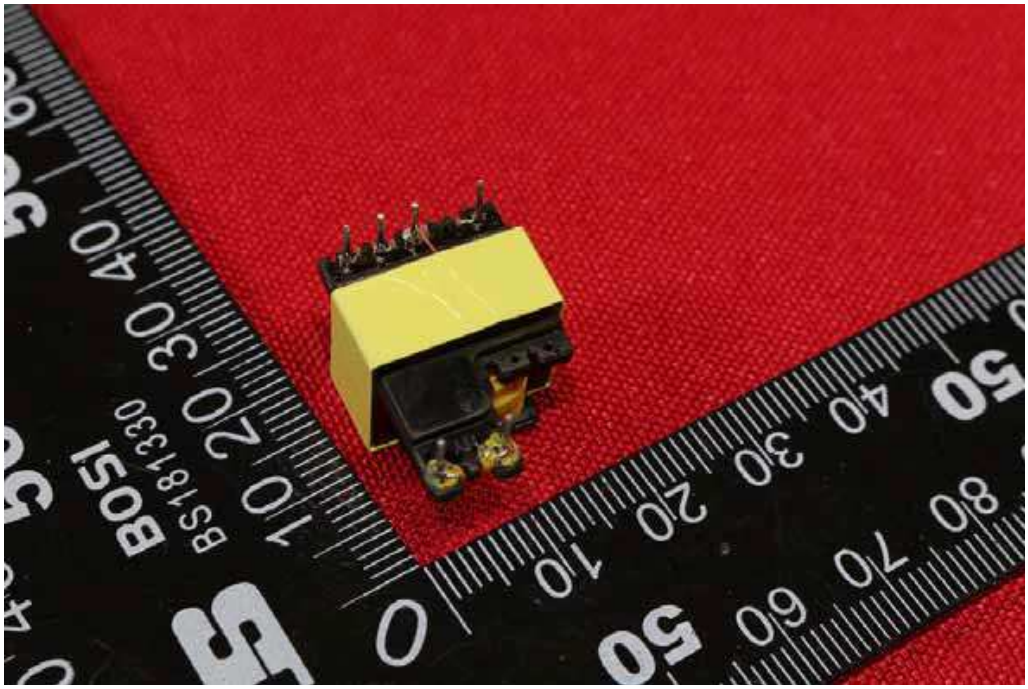
Bottom view of PCB, type B: 101855



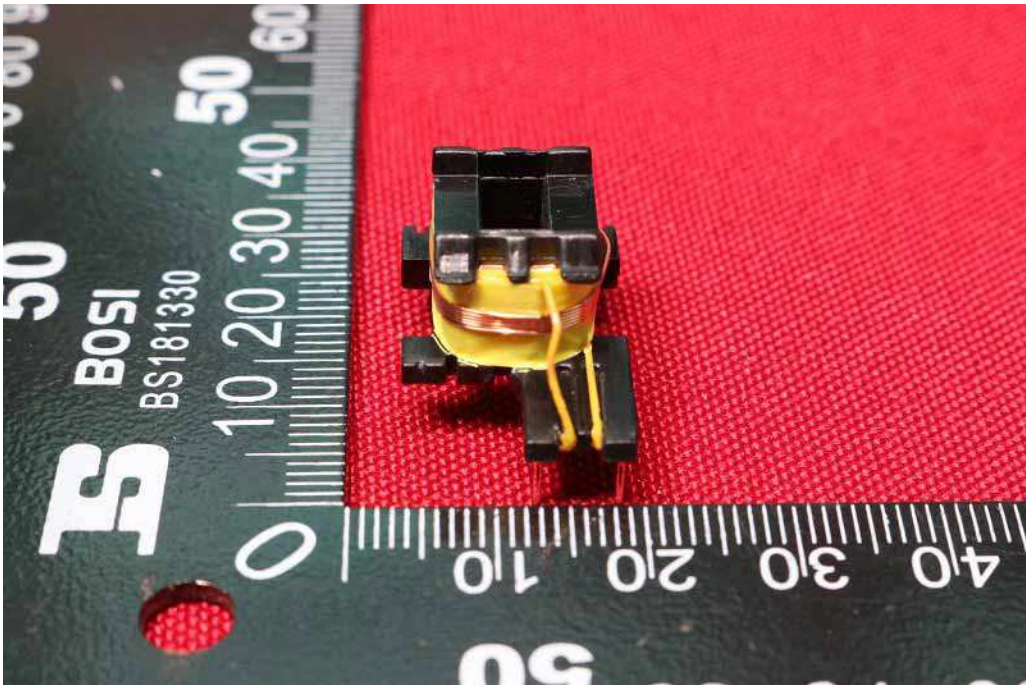
Overall view of transformer



Overall view of transformer



Internal view of transformer



Internal view of transformer