




Test Report issued under the responsibility of:



TEST REPORT IEC 62368-1 Audio/video, information and communication technology equipment Part 1: Safety requirements	
Report Number	50352376 001
Date of issue	2020-04-02
Total number of pages	77
Applicant's name	GlobTek, Inc.
Address	186 Veterans Dr. Northvale, NJ 07647, USA
Test specification:	
Standard	IEC 62368-1:2014 (Second Edition)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC62368_1B
Test Report Form(s) Originator	UL(US)
Master TRF	2014-03
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Test Item description	ICT/ITE POWER SUPPLY
Trade Mark	 GlobTek® ,Inc.
Manufacturer	Same as Applicant
Model/Type reference	GT-86060-WWVV*W2Z (WW, VV, W2Z and * are variables, details see model list on page 7)
Ratings	Input: See model list on page 7 Output: See model list on page 7

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	TÜV Rheinland Shanghai Co., Ltd.
Testing location/ address.....:		No.177, 178, Lane 777, West Guangzhong Road, Jing'an District, Shanghai, China
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address..... :		
Tested by (name + signature).....:		Johnson Ma / Technical Expert
Approved by (name + signature)		Sunny Sun / Reviewer
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	
Testing location/ address..... :		
Tested by (name + signature).....:		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2	
Testing location/ address..... :		
Tested by (name + signature).....:		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	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): <ul style="list-style-type: none"> - Attachment 1: National differences (34 pages) - Attachment 2: Plug test report (17 pages) - Attachment 3: Photo documentation (18 pages) 	
Summary of testing:	
Tests performed (name of test and test clause): This CB test report is based on the previous CB test report No. 50310933 001 with certificate No. JPTUV-104099 with following changes: <ol style="list-style-type: none"> 1. Applicant and Manufacturer 2. Model/Type reference No further testing was deemed necessary for this test report.	TÜV Rheinland Shanghai Co., Ltd. No.177, 178, Lane 777, West Guangzhong Road, Jing'an District, Shanghai, China
Summary of compliance with National Differences: List of countries addressed: (According to IEC 62368-1:2014 (Second Edition)) EU Group Differences, EU Special National Conditions AU, DE, DK, FI, GB, IE, JP, NO, NZ, SE, US Explanation of used codes: AU=Australia, DE=Germany, DK=Denmark, FI=Finland, GB= United Kingdom, IE=Ireland, JP=Japan, NO=Norway, NZ=New Zealand, SE=Sweden, US=United States of America. <input checked="" type="checkbox"/> The product fulfils the requirements of EN 62368-1:2014+A11:2017.	

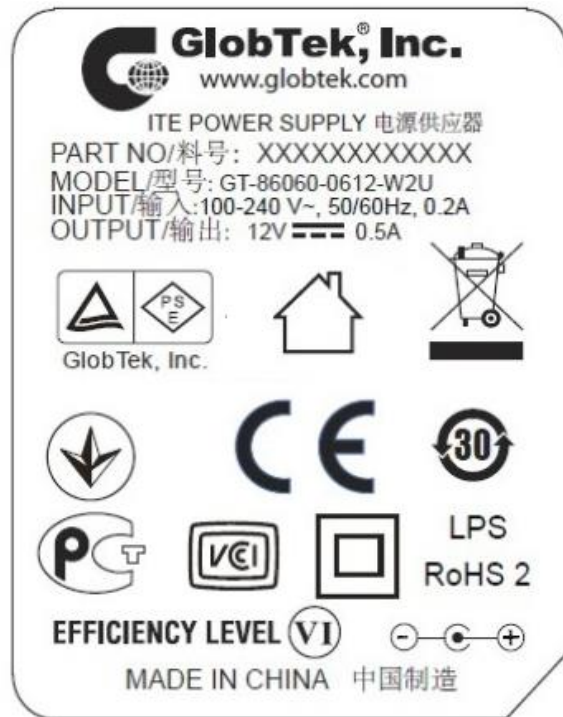
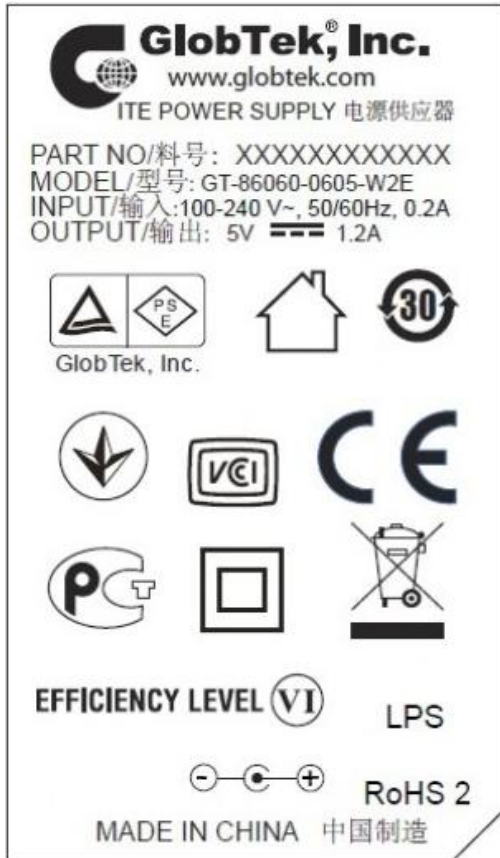
Copy of marking plate:

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 >

EU plug

UK plug



Note:

1. There are representative labels, the others are identical to them except the model number and output ratings
2. The CE marking and WEEE symbol should be added on label for European models.
3. The CE marking and WEEE symbol (if any) should be at least 5.0mm and 7.0mm respectively in height.
4. When this product import to European Marketing, the following information are on its packaging or in a document accompanying appliance:

TEST ITEM PARTICULARS:	
Classification of use by	<input checked="" type="checkbox"/> Ordinary person <input type="checkbox"/> Instructed person <input type="checkbox"/> Skilled person <input checked="" type="checkbox"/> Children likely to be present
Supply Connection.....	<input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3
Supply % Tolerance	<input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> +____%/ -____% <input type="checkbox"/> None
Supply Connection – Type.....	<input checked="" type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input type="checkbox"/> other: _____
Considered current rating of protective device as part of building or equipment installation.....	_16_A (20A for CSA and US, 13A for UK); Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment
Equipment mobility	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input checked="" type="checkbox"/> direct plug-in <input type="checkbox"/> <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____
Class of equipment	<input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III
Access location	<input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
Manufacturer's specified maximum operating ambient:	_50_°C
IP protection class	<input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP____
Power Systems	<input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - _230_ V _{L-L}
Altitude during operation (m)	<input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> _Up to 3000 or Up to 5000_ m
Altitude of test laboratory (m)	<input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> _____ m
Mass of equipment (kg)	<input checked="" type="checkbox"/> _0.07 kg Max.
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..... :	2019-12-06 for report no. 50310933 001 2020-03-06 for this report
Date (s) of performance of tests	2019-12-09 to 2019-12-20 for report no. 50310933 001 2020-03-16 for this report
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.....:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 USA 2. GlobTek (Suzhou) Co., Ltd Building 4, No. 76, Jinling East Road, Suzhou Industrial Park, 215021 Jiangsu, P.R. China
GENERAL PRODUCT INFORMATION:	
Product Description: <ol style="list-style-type: none"> The equipment models are Direct plug-in Switching Adapter (fixed plug models or replaceable plug) used for DC supply of Audio and Video and Information Technology Equipment, the output cord is non-detachable. The power adapter's top enclosure is secured to bottom enclosure by ultrasonic welding. The power pin parts of European plug and Korean plug are fixed into the enclosure of plug portion by a screw. The pin parts of Australian plug and British plug were moulded into the enclosure of plug portion. It is impossible to remain in the mains socket-outlet after removal of the adapter, details see photo document. Specified maximum ambient temperature is 50°C. The test items are pre-production samples without serial numbers. For the plug evaluation, UK plug according to BS 1363-1: 2016+A1:2018, European plug according to EN 50075:1990, Japanese plug according to JSC8303:2007, the other plugs should be evaluated during national approval. The equipment was evaluated for a maximum operating altitude of 3000 m for PCB type A. Therefore the clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.14. The equipment was evaluated for a maximum operating altitude of 5000 m for PCB type B. Therefore the clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.48. There are two connection methods for PCB and plug pins: one is using primary lead wire. Another without primary lead wire, the PCB contact the plug pin directly. Details see photo document. All of the PCB have 2 kinds of inductance LF1, type for common mode model: 30C040120-xxx; type for difference mode model: 30I300000-xxx. 	

10. There are two current fuses (F1 & F2) and one varistors (MOV1) within equipment. The configuration for them are below:

Configuration	F1	F2	MOV1
Combination 1	10ohm	10ohm	Optional
Combination 2	T6.3A	15ohm	Optional
Combination 3	10ohm	Jumper	Optional
Combination 4	15ohm	Jumper	Optional

Model difference:

1. T1, LF1, F2, BD1, D3, U1, C1, C2: The parameters of these components depend on output current and output voltage.
2. There two types of PCB layout, The GT-86060 REV:1 is identical to model GT-86060 REV:2, only except for the PCB trace under CY1.

Altitude	PCB type A	PCB type B
3000m	GT-86060 REV:1	--
5000m	--	GT-86060 REV:2

Model list: GT-86060-WWVV*W2Z

Model name	Input	Output voltage (Vdc)	Max. Output current (A)	Max. Output power (W)
GT-86060-WWVV*W2Z	100-240V~, 50/60Hz, 0.2A	5.0-5.2	1.2	6.0
		7.5-9.0	0.66	5.0
		12.0	0.5	6.0

Notes:

Variable:	Range of variable:	Content:
WW	Max.06	Means the standard output wattage, WW is 2 digit number with a maximum value of "06"
VV	can be from "05" to "05.2", "07.5" to "09", "12" or from "5.0" to "5.2", from "7.5" to "9.0", "12.0"	the standard rated output voltage designation, with interval of 0.1V
Z	can be E, U, blank, C, I, A, K, AR, BR, SA or AF	designates type of plug and can be E for European plug, U for British plug, blank for North American / Japan plug/Taiwan plug, C for Chinese plug, I for India plug, A for Australia plug, K for Korea plug, AR for Argentina plug, BR for Brazilian plug, SA or AF for South African plug
*	- or H	Marketing purpose, no safety impact

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)
Primary circuits supplied by a.c. mains supply	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 primary circuits inside the equipment enclosure	PS3
All secondary circuits inside the equipment enclosure	PS1
Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol	
Source of hazardous substances	Corresponding chemical
N/A	N/A
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)
Mass of the unit	MS1
Edges and corners	MS1
Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1	
Source of thermal energy	Corresponding classification (TS)
Enclosure (plastics)	TS1
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

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: The circuit connected to AC mains	N/A	N/A	Enclosure, transformer Y1 capacitor
Ordinary	ES1: Secondary output connector	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source (PS2: 100Watt circuit)	Safeguards		
		Basic	Supplementary	Reinforced
All combustible materials within equipment fire enclosure	PS3: all primary circuits inside the equipment enclosure	Equipment safeguard (e.g., no ignition occurs)	Equipment safeguard (e.g., control of fire spread)	N/A
All combustible materials within equipment fire enclosure	PS1: all secondary circuits inside the equipment enclosure	Equipment safeguard (e.g., no ignition occurs)	N/A	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplementary	Reinforced
N/A	N/A	N/A	N/A	N/A
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)
Ordinary	MS1: Mass of the unit	N/A	N/A	N/A
Ordinary	MS1: Edges and corners	N/A	N/A	N/A
9.1	Thermal Burn			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplementary	Reinforced
Ordinary	TS1: Plastic enclosure	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplementary	Reinforced

Ordinary		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				

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Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies		P
4.1.2	Use of components		P
4.1.3	Equipment design and construction		P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness		P
4.4.4.2	Steady force tests.....	(See Annex T.2, T.5)	P
4.4.4.3	Drop tests	(See Annex T.7)	P
4.4.4.4	Impact tests.....	(See Annex T.6)	N/A
4.4.4.5	Internal accessible safeguard enclosure and barrier tests	(See Annex T.3)	N/A
4.4.4.6	Glass Impact tests.....		N/A
4.4.4.7	Thermoplastic material tests.....	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard.....	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness		P
4.5	Explosion		N/A
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard		P
4.6.2	10 N force test applied to	10 N force test was applied to internal components.	P
4.7	Equipment for direct insertion into mains socket - outlets		P
4.7.2	Mains plug part complies with the relevant standard.....	For EU, UK, JP plug, other plugs should be evaluated during national approval.	P
4.7.3	Torque (Nm).....	Max. 0.09 Nm	P
4.8	Products containing coin/button cell batteries		N/A
4.8.2	Instructional safeguard		N/A
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests.....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object.....	(See Annex P)	P

5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications	(See appended table 5.2)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current :	See appended table 5.2)	P
5.2.2.3	Capacitance limits..... :		N/A
5.2.2.4	Single pulse limits..... :		N/A
5.2.2.5	Limits for repetitive pulses :	(See appended table 5.2)	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	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		P
5.4.1.3	Humidity conditioning..... :	(See sub-clause 5.4.8)	P
5.4.1.4	Maximum operating temperature for insulating materials :	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree :	PD2	—
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		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 :	(See appended table 5.4.2.3)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	a) a.c. mains transient voltage	2500 Vpk.	—
	b) d.c. mains transient voltage	No connections to d.c. mains.	—
	c) external circuit transient voltage	No connections to external circuit with transient voltage.	—
	d) transient voltage determined by measurement	Option was not used.	—
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	Up to 3000m, Multiplication factors: 1.14, Up to 5000m, Multiplication factors: 1.48	P
5.4.3	Creepage distances	(See appended table 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group		—
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	No insulation compound forming solid insulation other than optical isolator.	P
5.4.4.4	Solid insulation in semiconductor devices	No insulation compound forming solid insulation other than optical isolator, see table 4.1.2 for detail.	P
5.4.4.5	Cemented joints		N/A
5.4.4.6	Thin sheet material	Two layers of insulation tape provided on core as reinforce insulation	P
5.4.4.6.1	General requirements		P
5.4.4.6.2	Separable thin sheet material	Tape used in T1	P
	Number of layers (pcs)	2	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	(See appended Table 5.4.9)	N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components		P
5.4.4.9	Solid insulation at frequencies >30 kHz	(See appended Table 5.4.4.9)	P
5.4.5	Antenna terminal insulation		P
5.4.5.1	General		P
5.4.5.2	Voltage surge test		P
	Insulation resistance (MΩ)	1000	—
5.4.6	Insulation of internal wire as part of supplementary safeguard		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.7	Tests for semiconductor components and for cemented joints		N/A
5.4.8	Humidity conditioning	All source of enclosure material and transformer listed table 4.1.2 were considered.	P
	Relative humidity (%)..... :	93%.	—
	Temperature (°C) :	40°C.	—
	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		P
5.4.9.2	Test procedure for routine tests		N/A
5.4.10	Protection against transient voltages between external circuit	No connection to external circuits with transient voltage.	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test..... :		N/A
5.4.11	Insulation between external circuits and earthed circuitry..... :	No connection to external circuits with transient voltage.	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		
5.5.1	General		P
5.5.2	Capacitors and RC units		P
5.5.2.1	General requirement		N/A
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector..... :		N/A
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers		N/A
5.5.5	Relays		N/A
5.5.6	Resistors		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		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)	(See appended table 5.6.6.2)	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
5.7.2.1	Measurement of touch current	(See appended table 5.2)	P
5.7.2.2	Measurement of prospective touch voltage		P
5.7.3	Equipment set-up, supply connections and earth connections		P
	System of interconnected equipment (separate connections/single connection)		—
	Multiple connections to mains (one connection at a time/simultaneous connections).....		—
5.7.4	Earthed conductive accessible parts		N/A
5.7.5	Protective conductor current		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Supply Voltage (V).....:		—
	Measured current (mA).....:		—
	Instructional Safeguard.....:	(See F.4 and F.5)	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	PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits.	P
6.2.2.1	General	See the following details.	P
6.2.2.2	Power measurement for worst-case load fault.. :	(See appended table 6.2.2)	P
6.2.2.3	Power measurement for worst-case power source fault	(See appended table 6.2.2)	P
6.2.2.4	PS1	All secondary circuit inside enclosure and USB connector	P
6.2.2.5	PS2		N/A
6.2.2.6	PS3	All primary circuit inside enclosure is claimed as PS3	P
6.2.3	Classification of potential ignition sources		P
6.2.3.1	Arcing PIS	All circuit inside enclosure is claimed as Arcing PIS	P
6.2.3.2	Resistive PIS	All circuit inside enclosure is claimed as 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	(See appended table 5.4.1.5, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure		P
6.4	Safeguards against fire under single fault conditions		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.1	Safeguard Method		P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits		N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits		N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions..... :	(See appended table 6.4.3)	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	Compliance detailed as follows: – <u>Printed board</u> : rated min. V-1 – <u>Wire insulation (tubing)</u> : complying with Clause 6 (See Table 4.1.2 for wiring used). – <u>All other components</u> : at least V-2 except for mounted on min. V-1 material or small parts of combustible material. <u>Isolating transformer</u> : complying with G.5.3. Transformer output circuit is claimed as PS1.	P
6.4.5.2	Supplementary safeguards :	(See appended tables 4.1.2 and Annex G)	P
6.4.6	Control of fire spread in PS3 circuit		P
6.4.7	Separation of combustible materials from a PIS		N/A
6.4.7.1	General..... :	(See tables 6.2.3.1 and 6.2.3.2)	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	Insulation sheet used	P
6.4.8.2.2	Requirements for a fire enclosure		P
6.4.8.3	Constructional requirements for a fire enclosure and a fire barrier		P
6.4.8.3.1	Fire enclosure and fire barrier openings		P
6.4.8.3.2	Fire barrier dimensions	V-0	P
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions(mm) :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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)	No doors or covers.	N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating.....	Fire enclosure is made of V-0 material.	N/A
6.5	Internal and external wiring		N/A
6.5.1	Requirements		N/A
6.5.2	Cross-sectional area (mm ²)		—
6.5.3	Requirements for interconnection to building wiring.....		N/A
6.6	Safeguards against fire due to connection to additional equipment		N/A
	External port limited to PS2 or complies with Clause Q.1	Output complies with Clause Q.1.	N/A

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

8	MECHANICALLY-CAUSED INJURY		P
8.1	General		P
8.2	Mechanical energy source classifications		P
8.3	Safeguards against mechanical energy sources		P
8.4	Safeguards against parts with sharp edges and corners	Mass of equipment:0.07Kg<7Kg, Edges and corners are classed as MS1.	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts		N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
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 <i>N</i> :		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas :	(See Annex T)	N/A
	Button/Ball diameter (mm) :		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	Enclosure is classed as TS1.	P
9.3	Safeguard against thermal energy sources	Enclosure is used as safeguard.	P
9.4	Requirements for safeguards		P
9.4.1	Equipment safeguard		P
9.4.2	Instructional safeguard :	Instructional safeguard is not required.	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

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Clause	Requirement + Test	Result - Remark	Verdict
10.4.1.a)	RS3 for Ordinary and instructed persons		N/A
10.4.1.b)	RS3 accessible to a skilled person		N/A
	Personal safeguard (PPE) instructional safeguard		—
10.4.1.c)	Equipment visible, IR, UV does not exceed RS1 :		N/A
10.4.1.d)	Normal, abnormal, single-fault conditions		N/A
10.4.1.e)	Enclosure material employed as safeguard is opaque		N/A
10.4.1.f)	UV attenuation		N/A
10.4.1.g)	Materials resistant to degradation UV		N/A
10.4.1.h)	Enclosure containment of optical radiation.....		N/A
10.4.1.i)	Exempt Group under normal operating conditions.....		N/A
10.4.2	Instructional safeguard		N/A
10.5	Protection against x-radiation		N/A
10.5.1	X- radiation energy source that exists equipment:		N/A
	Normal, abnormal, single fault conditions		N/A
	Equipment safeguards		N/A
	Instructional safeguard for skilled person.....		N/A
10.5.3	Most unfavourable supply voltage to give maximum radiation		—
	Abnormal and single-fault condition.....		N/A
	Maximum radiation (pA/kg)		N/A
10.6	Protection against acoustic energy sources		N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A).....		N/A
	Output voltage, unweighted r.m.s.		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards		N/A
	Equipment safeguard prevent ordinary person to RS2		—
	Means to actively inform user of increase sound pressure.....		—
	Equipment safeguard prevent ordinary person to RS2		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	input		
	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 the following details.	P
B.2.1	General requirements	(See Test Item Particulars and appended test tables)	P
	Audio Amplifiers and equipment with audio amplifiers	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage $\pm 10\%$	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 appended table B.3)	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&B.4)	P
B.3.6	Reverse battery polarity	No battery within the EUT	N/A
B.3.7	Abnormal operating conditions as specified in Clause E.2.	Not such equipment.	N/A
B.3.8	Safeguards functional during and after abnormal operating conditions	All safeguards remained effective.	P
B.4	Simulated single fault conditions		P
B.4.2	Temperature controlling device open or short-circuited	(See appended table B.4)	P
B.4.3	Motor tests	No motors.	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 appended table B.4)	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		N/A


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Clause	Requirement + Test	Result - Remark	Verdict
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 .. :	No batteries.	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		P
D.2	Antenna interface test generator		N/A
D.3	Electronic pulse generator		N/A

E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions		N/A
	Audio signal voltage (V)		—
	Rated load impedance (Ω)		—
E.2	Audio amplifier abnormal operating conditions		N/A

F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements		P
	Instructions – Language	Instructions in English are reviewed.	—
F.2	Letter symbols and graphical symbols		P
F.2.1	Letter symbols according to IEC60027-1		P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific		P
F.3	Equipment markings		P

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.1	Equipment marking locations		P
F.3.2	Equipment identification markings		P
F.3.2.1	Manufacturer identification	See copy of marking plate	—
F.3.2.2	Model identification	See model list	—
F.3.3	Equipment rating markings		P
F.3.3.1	Equipment with direct connection to mains		P
F.3.3.2	Equipment without direct connection to mains		N/A
F.3.3.3	Nature of supply voltage	~	—
F.3.3.4	Rated voltage.....	100-240V~	—
F.3.3.4	Rated frequency.....	50/60Hz	—
F.3.3.6	Rated current or rated power.....	0.2 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	No such devices on the equipment.	N/A
F.3.5.2	Switch position identification marking	No such switch on the equipment.	N/A
F.3.5.3	Replacement fuse identification and rating markings	The fuse or fusible resistor is located within the equipment and not replaceable by an ordinary person or an instructed person. Fusible resistor or fuse used, marking provided on PCB adjacent to them: F1: T6.3A/250Vac or 10ohm/2W or 15ohm/2W; F2: 10ohm/2W or 15ohm/2W	P
F.3.5.4	Replacement battery identification marking	No batteries.	N/A
F.3.5.5	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification		P
F.3.6.1	Class I Equipment		N/A
F.3.6.1.1	Protective earthing conductor terminal		N/A
F.3.6.1.2	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		N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. With the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge.	P
F.4	Instructions		N/A
	a) Equipment for use in locations where children not likely to be present - marking		N/A
	b) Instructions given for installation or initial use		N/A
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1		N/A
	f) Protective earthing employed as safeguard		N/A
	g) Protective earthing conductor current exceeding ES 2 limits		N/A
	h) Symbols used on equipment		N/A
	i) Permanently connected equipment not provided with all-pole mains switch		N/A
	j) 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
G.1.1	General requirements		N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays		N/A
G.2.1	General requirements		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		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	Fusible resistor test with appliance	P
G.3.5.2	Single faults conditions	(See appended Table B.4)	P
G.4	Connectors		N/A
G.4.1	Spacings		N/A
G.4.2	Mains connector configuration		N/A
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely		N/A
G.5	Wound Components		P
G.5.1	Wire insulation in wound components.....	Approved TIW used for secondary winding of T1.	P
G.5.1.2 a)	Two wires in contact inside wound component, angle between 45° and 90°	No contact.	P
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).....		—

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	Transformers		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)	The transformer meets the requirements given in G.5.3.2 and G.5.3.3.	P
	Position	T1	—
	Method of protection	See G.5.3.2 and G.5.3.3.	—
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation	P
	Protection from displacement of windings	Approved triple-insulated winding wire used in T1 for secondary winding.	—
G.5.3.3	Overload test	(See appended table B.3)	P
G.5.3.3.1	Test conditions	Transformer is tested in the complete unit.	P
G.5.3.3.2	Winding Temperatures testing in the unit		P
G.5.3.3.3	Winding Temperatures - Alternative test method		P
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
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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		
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		P
G.8.1	General requirements		P
G.8.2	Safeguard against shock		N/A
G.8.3	Safeguard against fire		N/A
G.8.3.2	Varistor overload test		N/A
G.8.3.3	Temporary overvoltage		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.		N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA		—
G.9.1 d)	IC limiter output current (max. 5A).....		—
G.9.1 e)	Manufacturers' defined drift		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements		N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	Capacitor and RC units		N/A
G.11.1	General requirements		N/A
G.11.2	Conditioning of capacitors and RC units		N/A
G.11.3	Rules for selecting capacitors		N/A
G.12	Optocouplers		N/A
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)		N/A
	Type test voltage V _{ini}		—
	Routine test voltage, V _{ini,b}		—
G.13	Printed boards		P
G.13.1	General requirements	Approved Printed board used	P
G.13.2	Uncoated printed boards		P
G.13.3	Coated printed boards		N/A
G.13.4	Insulation between conductors on the same inner surface		N/A
	Compliance with cemented joint requirements (Specify construction)		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation.....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Number of insulation layers (pcs)..... :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements :		N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements		N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours		N/A
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage :		N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes		N/A
C2)	Test voltage :		—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer		N/A
D2)	Capacitance :		—
D3)	Resistance :		—
H	CRITERIA FOR TELEPHONE RINGING SIGNALS		N/A
H.1	General		N/A
H.2	Method A		N/A
H.3	Method B		N/A
H.3.1	Ringling signal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	(See separate test report)	P

K	SAFETY INTERLOCKS		N/A
K.1	General requirements		N/A
K.2	Components of safety interlock safeguard mechanism		N/A
K.3	Inadvertent change of operating mode		N/A
K.4	Interlock safeguard override		N/A
K.5	Fail-safe		N/A
	Compliance		N/A
K.6	Mechanically operated safety interlocks		N/A
K.6.1	Endurance requirement		N/A
K.6.2	Compliance and Test method		N/A
K.7	Interlock circuit isolation		N/A
K.7.1	Separation distance for contact gaps & interlock circuit elements (type and circuit location)		N/A
K.7.2	Overload test, Current (A):.....		N/A
K.7.3	Endurance test		N/A
K.7.4	Electric strength test		N/A

L	DISCONNECT DEVICES		P
L.1	General requirements	The plug is regarded as disconnected device and it is incorporated with adaptor during normal use.	P
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized	No accessible parts on the supply side of the disconnect device.	P

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Clause	Requirement + Test	Result - Remark	Verdict
L.4	Single phase equipment	Disconnect device disconnects all poles simultaneously.	P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		P
L.8	Multiple power sources		N/A

M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements		N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	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

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Clause	Requirement + Test	Result - Remark	Verdict
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method)		N/A
M.6.2	Leakage current (mA)		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A
M.8.2.1	General requirements		N/A
M.8.2.2	Estimation of hypothetical volume V_z (m 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	Pollution degree considered	—

O	MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES		P
	Figures O.1 to O.20 of this Annex applied.....		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements		P
P.2.2	Safeguards against entry of foreign object		N/A
	Location and Dimensions (mm) :		—
P.2.3	Safeguard against the consequences of entry of foreign object		N/A
P.2.3.1	Safeguards against the entry of a foreign object		N/A
	Openings in transportable equipment		N/A
	Transportable equipment with metalized plastic parts..... :		N/A
P.2.3.2	Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) :		N/A
P.3	Safeguards against spillage of internal liquids		N/A
P.3.1	General requirements		N/A
P.3.2	Determination of spillage consequences		N/A
P.3.3	Spillage safeguards		N/A
P.3.4	Safeguards effectiveness		N/A
P.4	Metallized coatings and adhesive securing parts		N/A
P.4.2 a)	Conditioning testing		N/A
	Tc (°C) :		—
	Tr (°C)..... :		—
	Ta (°C)..... :		—
P.4.2 b)	Abrasion testing :	(See G.13.6.2)	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		P
Q.1.1 a)	Inherently limited output		N/A
Q.1.1 b)	Impedance limited output		P
	- 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		P
Q.2	Test for external circuits – paired conductor cable		N/A
	Maximum output current (A) :		—

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

	Current limiting method.....:		—
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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
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).....:		—

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Conditioning (test condition), (°C).....:		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N	(See appended table T.2)	P
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 EFFECTS 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	(See Annex T)	N/A

V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		P
V.1	Accessible parts of equipment		P
V.2	Accessible part criterion		P

IEC 62368-1			
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⁾	
Enclosure	SABIC Japan L L C	945 (GG)	PC, V-0, 120°C. min. thickness 1.5mm	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	Covestro Deutschland AG	FR6005 + (z)	PC, V-0, 105°C, minimum 1.5 mm thickness.	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	SABIC Japan L L C	925U(GG)	PC, V-0, 115°C. min. thickness: 1.5mm	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	LG Chemical	LUPOY EF-1006F(m)	PC, V-0, 120°C. min. thickness: 1.5mm	IEC/EN 62368-1 UL 94	Tested with appliance UL	
European plug	GlobTek	GT-EU	0.2A, 250VAC	EN 50075: 1990	Tested with appliance	
Pin sleeve / Plug holder	SABIC Japan L L C	945 (GG)	PC, V-0, 120°C	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	Covestro Deutschland AG	FR6005 + (z)	PC, V-0, 105°C,	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	SABIC Japan L L C	925U(GG)	PC, V-0, 115°C.	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	LG Chemical	LUPOY EF-1006F(m)	PC, V-0, 120°C.	IEC/EN 62368-1 UL 94	Tested with appliance UL	
British plug	GlobTek	GT-UK	0.2A, 250VAC	BS 1363-1: 2016+A1:2018	Tested with appliance	
Pin sleeve of British plug	SABIC Japan L L C	945 (GG)	PC, V-0, 120°C	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	Covestro Deutschland AG	FR6005 + (z)	PC, V-0, 105°C,	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	SABIC Japan L L C	925U(GG)	PC, V-0, 115°C.	IEC/EN 62368-1 UL 94	Tested with appliance UL	
(Alternative)	LG Chemical	LUPOY EF-1006F(m)	PC, V-0, 120°C.	IEC/EN 62368-1 UL 94	Tested with appliance UL	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Japanese plug	GlobTek	GT-JP	0.2A, 250VAC	JIS C 8303:2007	Tested with appliance
Mylar sheet	Sumit Omo Bakelite Co Ltd	AV-Lite DP 901	PC, V-0, min. thickness: 0.4mm, min. 125°C	UL 94	UL
(Alternative)	Sabic Innovative Plastics Us L L C	FR700	PC, V-0, min. thickness: 0.4mm, min. 125°C	UL 94	UL
(Alternative)	Dupont Hongji Films Foshan Co Ltd	EM, MO31	PET, VTM-2, min. thickness: 0.4mm, min. 125°C	UL 94	UL
(Alternative)	Jiangsu Yuxing	CY28	PET, VTM-2, min. thickness: 0.4mm, min. 125°C	UL 94	UL
PCB	CHIAN YOU CO LTD	02V0-1	V-0, 130°C	UL796	UL
(Alternative)	Shenzhen Wuzhu TechCo Ltd	WZ-4	V-0, 130°C	UL796	UL
(Alternative)	Huizhou Shunjia Electronics Co Ltd	SJ-B	V-0, 130°C	UL796	UL
(Alternative)	Interchangeable	Interchangeable	V-1 or better, min. 130°C	UL796	UL
Primary lead wire	Shenzhen Dong Ju Wire & Cable Co Ltd	1007	Min. 80°C, min. 24AWG, VW-1, min. 300V	UL 758 IEC/EN 62368-1	UL Test with appliance
(Alternative)	Interchangeable	Interchangeable	Min. 80°C, min. 24AWG, VW-1, min. 300V	UL 758 IEC/EN 62368-1	UL Test with appliance
Output wire	Dongguan Licheng Electronics Co Ltd	2468	Min. 80°C, min. 24AWG, VW-1	UL 758 IEC/EN 62368-1	UL Test with appliance
(Alternative)	Interchangeable	Interchangeable	Min. 80°C, min. 24AWG, VW-1	UL 758 IEC/EN 62368-1	UL Test with appliance
Fuse or fuse resistor (F1)	Littelfuse Wickmann Werke	392	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Conquer Electronics Co Ltd	MST	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Cooper Bussmann LLC	SS-5	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Bel Fuse Inc	RST	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Chi Lick Schurter Limited	SPT	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Conquer Electronics Co Ltd	PTU	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
(Alternative)	Smart Electronics Inc.	SPT	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Littelfuse Inc	877	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Walter Electronic Co. Ltd	2010	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Nippon Seisen Cable Ltd	SLT series	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Walter Electronic Co Ltd	ICP	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	XC Electronics	5TE series	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	XC Electronics	4T series	T6.3A, 250Vac, Subminiature type	IEC/EN 60127-1, IEC/EN 60127-3	VDE
(Alternative)	Chang Sheng	FRT	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	TZAI YUAN	KNF	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Hua Sheng Electronics	FKN	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Shenzhen Great	RXF series	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Chang Sheng	FRT	15ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	TZAI YUAN	KNF	15ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Hua Sheng Electronics	FKN	15ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Shenzhen Great	RXF series	15ohm, 2W	IEC/EN 62368-1	Test with appliance
Fuse (F2) (between 10ohm, 15ohm and jumper) (Alternative)	Chang Sheng	FRT	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	TZAI YUAN	KNF	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Hua Sheng Electronics	FKN	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Shenzhen Great	RXF series	10ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Chang Sheng	FRT	15ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	TZAI YUAN	KNF	15ohm, 2W	IEC/EN 62368-1	Test with appliance

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
(Alternative)	Hua Sheng Electronics	FKN	15ohm, 2W	IEC/EN 62368-1	Test with appliance
(Alternative)	Shenzhen Great	RXF series	15ohm, 2W	IEC/EN 62368-1	Test with appliance
Varistor (MOV1) (optional)	Shandong Amotech Electronic CoLtd	INR10D471, INR14D471	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE UL
(Alternative)	Centra Science Corp	CNR10D431-561K, CNR14D431-561K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE UL
(Alternative)	Uppermost Electronic Industries CoLtd	V10K300, V10K320, V10K350, V10K385, V14K300, V14K320, V14K350, V14K385	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Jya-Nay CoLtd	10D431-471K, 14D431-471K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Joyin Co Ltd	10N431-471K, 14N431-471K.	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Panasonic Corporation	10K431-471U, 14K431-471U	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Thinking Electronic Industrial Co Ltd	TVR10431-471, TVR14431-471	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Guangdong Fenghua Advanced Technology Holding CoLtd. Xianhua New Sensitive Components Branch	FNR-10K431-471, FNR-14K431-471	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Brightking (Shenzhen) Co Ltd	10D431-471K, 14D431-471K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Guangxi New Future Information Industry Co Ltd	10D431-471K, 14D431-471K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	Walsin Technology Corp	VZ10D471K, VZ14D471K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Success Electronics Co Ltd	SVR14D561K, SVR14D681K, SVR10621K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	HONGZHI ENTERPRISES LTD	HEL07D471K, HEL10D471K	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
(Alternative)	Cerglass MFG Inc.	10D471K, 14D471K,	Min. 300Vac, min.385Vdc, fulfilled6kV/3kA pulse test.min. V-1, min.85°C	IEC/EN 61051-1, IEC/EN 61051-2, IEC/EN 62368-1 Annex G.8	VDE
Choke(LF1) (common mode) (Optional)		30C040120-xxx ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Pin 1-2: $\Phi 0.12 \times 120$ Ts Pin 4-3: $\Phi 0.12 \times 120$ Ts Min.40mH, 130°C	IEC/EN 62368-1	Tested with appliance
- Magnet wire	Interchangeable	Interchangeable	Min. 130°C	UL1446	UL
Choke(LF1) (difference mode) (Optional)	Changsheng	30I300000-xxx ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Min. 3mH, 130°C	IEC/EN 62368-1	Tested with appliance
(Alternative)	Jiangmeng	30I300000-xxx ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Min. 3mH, 130°C	IEC/EN 62368-1	Tested with appliance
(Alternative)	Jiejia	30I300000-xxx ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Min. 3mH, 130°C	IEC/EN 62368-1	Tested with appliance

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	DeLi	30I300000-xxx ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Min. 3mH, 130°C	IEC/EN 62368-1	Tested with appliance
Bridge rectifier (BD1)	Interchangeable	Interchangeable	Min. 0.5A, min. 400V	IEC/EN 62368-1	Tested with appliance
Electrolytic capacitor (C1,C2)	Interchangeable	Interchangeable	3.3-22.0µF, min.400V,105°C, only for 100-240Vac and220-240Vac	IEC/EN 62368-1	Tested with appliance
Electrolytic capacitor (C1,C2)	Interchangeable	Interchangeable	3.3-22.0µF, min. 200V, 105°C, only for rated 100-120Vac model	IEC/EN 62368-1	Tested with appliance
Y capacitor (CY1) (Optional)	Success Electronics Co., Ltd.	SE	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Tdk-Epc Corp	CD	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Murata Mfg CoLtd	KX	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Jya-Nay CoLtd	JN	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Welson Industrial CoLtd	WD	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Samwha Capacitor Samwha Capacitor	SD	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Nanjing Yuyue Electronics Co., Ltd.	CT7	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Yinan Don's Electronic Component Co	CT81	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Jyh Hsu (Jec)Electronics Ltd	JD, JY	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Easy-gather	DCF	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	South ChinaElectronicCo.,Ltd.	CY	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
(Alternative)	Shaanxi Huaxing Electronic Development Co. Ltd.	CT7Y1	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	WINDAY Electronic	CD series	Max. 2200pF, min. 250Vac, 125°C, Y1 type.	IEC/EN 60384-14	VDE
Transformer (T1)		1) 90E6PFG05-xxx(for 5.0V-5.2V), 2) 90E6PFG12-xxx(for 12V), 3) 90E6PFG09-xxx (for 7.5V-9.0V) ("xxx" to denote the part number, can be any alphanumeric character for marketing purposes only.)	Pri. Winding: (pin 2-1) Φ 0.19mm x 1p x126Ts, (pin 4-3) 1) Φ 0.15mm x 1p x24Ts2) Φ 0.15mm x 1p x15Ts3) Φ 0.15mm x 1p x20Ts Sec. Winding: (pin 5-6) 1) Φ 0.55mm x 1p x10Ts2) 3) Φ 0.35mm x 1p x15Ts Class B	Applicable parts in IEC/EN 62368-1 and according to IEC 60085	Tested with appliance
Component used in T1					
-Bobbin	Hitachi Chemical Co., Ltd.	CP-J-8800	Phenolic, V-0, 150°C, min. thickness 0.71mm	UL94 IEC/EN 62368-1	Test with appliance UL
(Alternative)	Chang Chun Plastics Co Ltd	T375J, T373J, T375HF, T200HF	Phenolic, V-0, 150°C, min. thickness 0.71mm	UL94 IEC/EN 62368-1	Test with appliance UL
(Alternative)	Sumitomo Bakelite Co., Ltd.	PM-9820, PM-9630	Phenolic, V-0, 150°C, min. 0.51 mm thickness	UL94 IEC/EN 62368-1	Test with appliance UL
- Magnet wire	TAI-I Electric Wire & Cable	UEW	Min. 130°C	UL1446	UL
(Alternative)	Pacific Electric Wire & Cable Co Ltd	DD-NYU	Min. 130°C	UL1446	UL
(Alternative)	Heshan Jiangci Wire & Cable Co Ltd	XUEW-ULx	Min. 130°C	UL1446	UL
(Alternative)	Shen Zhen City Chengwei Industry Co Ltd	2UEW	Min. 130°C	UL1446	UL
(Alternative)	Interchangeable	Interchangeable	Min. 130°C	UL1446	UL
-Triple insulate wire	Furukawa Electric Co Ltd	TEX-E	Class B	IEC/EN 62368-1	VDE
(Alternative)	Cosmolink Co Ltd	TIW-M	Class B	IEC/EN 62368-1	VDE
(Alternative)	Young Chang Silicone Co Ltd	STW-B	Class B	IEC/EN 62368-1	VDE
(Alternative)	Great Leoflon Industrial Co Ltd	TRW(B) Serie(s)	Class B	IEC/EN 62368-1	VDE

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	E&B Technology Co., Ltd.	E&B-B-X.XX	Class B	IEC/EN 62368-1	VDE
(Alternative)	Dah Jin Technology Co Ltd	TLW-B	Class B	IEC/EN 62368-1	VDE
(Alternative)	Yusheng Electric Co.,Ltd.	TIW-B, TWE-3	Class B	IEC/EN 62368-1	VDE
(Alternative)	Dongguan Koshen Insulator Co.,Ltd.	TIW-B	Class B	IEC/EN 62368-1	VDE
- Insulation tape	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	CT* (b)(g), PZ* (b)	130°C	IEC/EN 62368-1 UL 510	Test with appliance UL
(Alternative)	SYMBIO INC	35660 (a), 35661 (c), 35660Y(e)	130°C	IEC/EN 62368-1 UL 510	Test with appliance UL
(Alternative)	3M Company Electrical Markets Div (Emd)	1350F-1(b), 1350F-2(c)	130°C	IEC/EN 62368-1 UL 510	Test with appliance UL
(Alternative)	JING JIANG JINYI	JY25-A	130°C	IEC/EN 62368-1 UL 510	Test with appliance UL
Supplementary information:					
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

IEC 62368-1			
Clause	Requirement + Test		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)
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.
	--	--	1
	--	--	2
	--	--	3
4.8.4.5	TABLE: Impact		—
	Impacts per surface	Surface tested	Impact energy (Nm)
	--	--	--
	--	--	--
	--	--	--
4.8.4.6	TABLE: Crush test		—
	Test position	Surface tested	Crushing Force (N)
	--	--	--
	--	--	--
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	
For Model: GT-86060-0612-W2E for PCB layout REV:2							
1	264 Vac	Output + to -	Normal	11.95V	--	DC	ES1
			Single fault: R10 SC	0V	--	--	
			Single fault – U1 pin1-5 SC	0V	--	--	
			Single fault – U1 pin 2-5 SC	0V	--	--	
			Single fault – U1 pin 1-8 SC	0V	--	--	
			Single fault – U1 pin 4-8 SC	11.86V	--	DC	
			Abnormal: over load T1 pin 5-6	11.90V	--	DC	
2	264 Vac	Output +/- to earth	Normal	--	0.340mApk	60 Hz	ES1
			Single fault: R10 SC	--	0.370mApk	60 Hz	
			Single fault – U1 pin 1-5 SC	--	0.370mApk	60 Hz	
			Single fault – U1 pin 2-5 SC	--	0.370mApk	60 Hz	
			Single fault – U1 pin1-8 SC	--	0.340mApk	60 Hz	
			Single fault – U1 pin 4-8 SC	--	0.340mApk	60 Hz	
			Abnormal: over load T1 pin 5-6	--	0.340mApk	60 Hz	

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

3	264 Vac	Enclosure to earth	Normal	--	0.014mA _{pk}	60 Hz	ES1
			Single fault: R10 SC	--	0.020mA _{pk}	60 Hz	
			Single fault – U1 pin1-5 SC	--	0.020mA _{pk}	60 Hz	
			Single fault – U1 pin2-5 SC	--	0.020mA _{pk}	60 Hz	
			Single fault – U1 pin 1-8 SC	--	0.014mA _{pk}	60 Hz	
			Single fault – U1 pin 4-8 SC	--	0.014mA _{pk}	60 Hz	
			Abnormal: over load T1 pin 5-6	--	0.014mA _{pk}	60 Hz	

5.2.2.3 - Capacitance Limits

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

5.2.2.4 - Single Pulses

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

5.2.2.5 - Repetitive Pulses

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

Test Conditions:

Normal –

Abnormal -

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

IEC 62368-1							
Clause	Requirement + Test		Result - Remark			Verdict	
5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements					P	
		Supply voltage (V):	See below		See below		—
		Ambient T _{min} (°C):	--	--	--	--	—
		Ambient T _{max} (°C):	--	--	--	--	—
		Tma (°C):	See below	See below	See below	See below	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)	
Model: GT-86060-0605-W2E (common mode)		90V/60Hz		264V60Hz		--	
		Horizontal	Vertical	Horizontal	Vertical		
Plug holder		--	56.8	--	--	Ref.	
Input wire		--	72.9	--	--	80	
Varistor MOV1 body		--	74.7	--	--	85	
PCB near BD1		--	86.1	--	--	130	
E-capacitor C1 body		--	83.6	--	--	105	
Line chock LF1 winding		--	84.5	--	--	130	
E-capacitor C2 body		--	88.7	--	--	105	
Transformer T1winding		--	96.4	--	--	110	
Transformer T1 core		--	94.6	--	--	110	
Y-capacitor CY1 body		--	71.2	--	--	125	
PCB near D3		--	108.4	--	--	130	
E-capacitor C7 body		--	83.7	--	--	105	
Output wire		--	66.7	--	--	80	
Enclosure inside near T1		--	80.8	--	--	100	
Enclosure outside near T1		--	70.9	--	--	Ref.	
Ambient		--	50.1	--	--	--	
Tma=25°C							
Enclosure outside near T1		--	45.8	--	--	77	
Ambient		--	25.6	--	--	--	
Model: GT-86060-0605-W2E (difference mode)							
Plug holder		55.7	56.6	54.0	54.3	Ref.	
Input wire		71.5	73.2	61.2	61.7	80	
Varistor MOV1 body		72.9	75.3	61.8	62.6	85	
PCB near BD1		83.9	89.5	66.2	67.4	130	
E-capacitor C1 body		80.6	85.5	65.4	66.9	105	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Line chock LF1 winding	94.6	99.0	78.6	81.0	130
E-capacitor C2 body	84.5	91.8	72.2	74.8	105
Transformer T1winding	93.9	97.4	88.5	90.8	110
Transformer T1 core	91.7	95.2	87.8	90.1	110
Y-capacitor CY1 body	70.1	72.1	67.5	67.5	125
PCB near D3	105.3	108.1	103.5	105.5	130
E-capacitor C7 body	79.8	83.0	78.6	81.3	105
Output wire	65.6	66.1	64.3	64.4	80
Enclosure inside near T1	76.8	80.9	73.6	76.5	100
Enclosure outside near T1	65.6	70.2	63.3	67.4	Ref.
Ambient	50.6	50.4	50.3	50.4	--
Tma=25°C					
Enclosure outside near T1	48.8	47.6	52.9	50.3	77
Ambient	25.2	25.3	25.4	25.5	--
Model: GT-86060-0612-W2E (common mode)					
Plug holder	--	58.5	--	--	Ref.
Input wire	--	66.8	--	--	80
Varistor MOV1 body	--	70.5	--	--	85
PCB near BD1	--	82.1	--	--	130
E-capacitor C1 body	--	77.0	--	--	105
Line chock LF1 winding	--	78.3	--	--	130
E-capacitor C2 body	--	77.9	--	--	105
Transformer T1winding	--	84.7	--	--	110
Transformer T1 core	--	82.3	--	--	110
Y-capacitor CY1 body	--	70.0	--	--	125
PCB near D3	--	89.0	--	--	130
E-capacitor C7 body	--	71.1	--	--	100
Output wire	--	61.7	--	--	80
Enclosure inside near T1	--	69.8	--	--	105
Enclosure outside near T1	--	63.5	--	--	Ref.
Ambient	--	50.3	--	--	--
Tma=25°C					
Enclosure outside near T1	--	40.5	--	--	77
Ambient	--	25.5	--	--	--
Model: GT-86060-0612-W2E (difference mode)					

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Plug holder	58.0	59.7	55.6	56.0	Ref.		
Input wire	66.7	68.2	59.0	59.0	80		
Varistor MOV1 body	70.6	72.5	61.5	61.3	85		
PCB near BD1	82.0	84.7	64.4	64.1	130		
E-capacitor C1 body	76.5	80.4	64.4	64.5	105		
Line chock LF1 winding	90.8	91.8	77.6	77.9	130		
E-capacitor C2 body	77.0	81.3	69.5	70.1	105		
Transformer T1winding	85.6	86.2	83.7	84.0	110		
Transformer T1 core	82.9	83.4	81.2	81.5	110		
Y-capacitor CY1 body	69.6	70.8	68.4	68.6	125		
PCB near D3	88.4	89.8	88.2	88.8	130		
E-capacitor C7 body	70.0	71.0	69.6	70.8	105		
Output wire	61.2	61.7	60.8	61.2	80		
Enclosure inside near T1	69.8	70.1	68.5	68.6	100		
Enclosure outside near T1	63.1	63.2	62.3	62.7	Ref.		
Ambient	50.6	50.4	50.3	50.4	--		
Tma=25°C							
Enclosure outside near T1	41.9	42.4	46.3	45.3	77		
Ambient	25.2	25.3	25.4	25.5	--		
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 maximum ambient temperature specified by manufacturer is 50°C.							

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

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

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/ Pin sleeving/ Enclosure	SABIC Japan L L C; Type: 945(GG)	125	1.0
Plug holder/ Pin sleeving/ Enclosure	Covestro Deutschland AG.; Type: FR6005 + (z)	125	0.9
Plug holder/ Pin sleeving/ Enclosure	SABIC Japan L L C Type: 925U(GG)	125	1.0
Plug holder/ Pin sleeving/ Enclosure	LG Chemical; Type: LUPOY EF-1006F(m)	125	0.8
Supplementary information: The bobbin material of transformer (T1) is phenolic, no test is needed.			

5.4.2.2, 5.4.2.4 and 5.4.3 TABLE: Minimum Clearances/Creepage distance							P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz) ¹	Required cl (mm)	cl (mm) ²	Required ³ cr (mm)	cr (mm)
Applied 3000m altitude for PCB layout GT-86060 REV:1							
L, N trace before fuse/ fusible resistor F1 (Basic insulation)	420	250	0.06	1.5*1.14=1.8	2.7	2.5	2.7
Two pins of fuse/fusible resistor F1 (Basic insulation)	420	250	0.06	1.5*1.14=1.8	2.6	2.5	2.6
Two pins of fusible resistor F2 (Basic insulation)	420	250	0.06	1.5*1.14=1.8	4.4	2.5	4.4
Primary circuit to accessible enclosure (EU for metal shrapnel connector) (Reinforced insulation)	420	250	0.06	3.0*1.14=3.5	6.5	5.0	6.5
Primary circuit to accessible enclosure (KR, EU for input wire connector) (Reinforced insulation)	420	250	0.06	3.0*1.14=3.5	7.0	5.0	7.0
Primary circuit to accessible enclosure (UK) (Reinforced insulation)	420	250	0.06	3.0*1.14=3.5	6.5	5.0	6.5
Primary circuit to accessible enclosure (AU) (Reinforced insulation)	420	250	0.06	3.0*1.14=3.5	6.5	5.0	6.5
Primary circuit to secondary circuit (PCB under T1) (Reinforced insulation)	524	252	61.34	3.0*1.14=3.5	7.6	5.2	7.6
Transformer Primary winding of T1 to secondary winding/pin (Reinforced insulation)	524	252	61.34	3.0*1.14=3.5	6.8	5.2	6.8

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Transformer Core of T1 to secondary winding/pin (Reinforced insulation)	524	252	61.34	3.0*1.14=3.5	6.9	5.2	6.9
Transformer Core of T1 to secondary component(C7) (Reinforced insulation)	524	252	61.34	3.0*1.14=3.5	7.0	5.2	7.0
Primary circuit to secondary circuit (PCB under CY1) (Reinforced insulation)	420	250	0.06	3.0*1.14=3.5	5.5	5.0	5.5
Applied 5000m altitude for PCB layout GT-86060 REV:2							
L, N trace before fuse/ fusible resistor F1 (Basic insulation)	420	250	0.06	1.5*1.48=2.3	2.7	2.5	2.7
Two pins of fuse/fusible resistor F1(Basic insulation)	420	250	0.06	1.5*1.48=2.3	2.6	2.5	2.6
Two pins of fusible resistor F2(Basic insulation)	420	250	0.06	1.5*1.48=2.3	4.4	2.5	4.4
Primary circuit to accessible enclosure (EU formetal shrapnel connector) (Reinforced insulation)	420	250	0.06	3.0*1.48=4.5	6.5	5.0	6.5
Primary circuit to accessible enclosure (KR,EUfor input wire connector) (Reinforced insulation)	420	250	0.06	3.0*1.48=4.5	7.0	5.0	7.0
Primary circuit to accessible enclosure (UK) (Reinforced insulation)	420	250	0.06	3.0*1.48=4.5	6.5	5.0	6.5
Primary circuit to accessible enclosure (AU) (Reinforced insulation)	420	250	0.06	3.0*1.48=4.5	6.5	5.0	6.5
Primary circuit to secondary circuit (PCB under T1) (Reinforced insulation)	524	252	61.34	3.0*1.48=4.5	7.6	5.2	7.6
Transformer Primary winding of T1 to secondary winding/pin (Reinforced insulation)	524	252	61.34	3.0*1.48=4.5	6.8	5.2	6.8
Transformer Core of T1 to secondary winding/pin (Reinforced insulation)	524	252	61.34	3.0*1.48=4.5	5.6	5.2	5.6
Transformer Core of T1 to secondary component(C7) (Reinforced insulation)	524	252	61.34	3.0*1.48=4.5	7.0	5.2	7.0
Primary circuit to secondary circuit (PCB under CY1) (Reinforced insulation)	420	250	0.06	3.0*1.48=4.5	6.2	5.0	6.2
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.							

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Clause	Requirement + Test	Result - Remark	Verdict

Note 3: Material group: IIIa/IIIb.

Note 4: The core of T1 considered as primary part, the insulation between secondary to core is reinforced insulation.

Note 5: The equipment with PCB type A was evaluated for a maximum operating altitude of 3000 m. Therefore the clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.14; The equipment with PCB type B was evaluated for a maximum operating altitude of 5000 m. Therefore the clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.48;

Note 6: Unless otherwise specified, the worst conditions of Cl. & Cr. In above mentioned locations have been considered and listed.

Note 7: There is one mylar sheet between transformer and secondary components used as reinforced insulation (min. thickness: 0.4mm)

Note 8: Concentric windings on EE 16/16 size bobbin. At least 2 layers of insulation tape between primary (enamelled copper wire) and secondary windings (triple insulation wire), 2 layers on outer winding. There are no contact point of primary winding and secondary winding. At least 2 layers insulation tape wrapped on transformer core.

5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage			P
	Overvoltage Category (OV):			II
	Pollution Degree:			2
Clearance distanced between:		Required withstand voltage	Required cl (mm)	Measured cl (mm)
See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.		2500Vp	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.	--
Supplementary information: N/A				

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)	

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Clause	Requirement + Test			Result - Remark	Verdict
Plastic enclosure	420	0.06	1)	0.4	1)
Insulation sheet	420	0.06	1)	0.4	1)
Bobbin	524	61.34	1)	0.4	1)
Supplementary information: 1) See 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
Mains input L to N (fusible resistor or fuse disconnection) (Basic insulation)		DC	2500	No
Mains input (L/N) to enclosure with metal foil (Reinforced insulation)		DC	4000	No
Mains input (L/N) to secondary terminals (Reinforced insulation)		DC	4000	No
T1 primary to secondary (Reinforced insulation)		DC	4000	No
T1 core to secondary (Reinforced insulation)		DC	4000	No
One layer Insulation tape (Reinforced insulation)		DC	4000	No
Mylar sheet (Reinforced insulation)		DC	4000	No
Supplementary information: 1. transformer core was considered as primary part. 2. All source of transformer, insulation sheet and insulation tape listed in table 4.1.2. were considered.				

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: Notes: A. Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S –Single fault condition					

5.6.6.2	TABLE: Resistance of protective conductors and terminations	N/A
---------	---	-----

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Clause	Requirement + Test		Result - Remark	Verdict
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:			
Notes: [1] Supply voltage is the anticipated maximum Touch Voltage [2] Earthed neutral conductor [Voltage differences less than 1% or more] [3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3 [4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable. [5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.			

6.2.2	Table: Electrical power sources (PS) measurements for classification				P
Source	Description	Measurement	Max Power after 3 s	Max Power after 5 s ^{*)}	PS Classification
Model: GT-86060-0605-W2E					
Output	Normal condition	Power (W)	6.4	--	PS1
		VA (V).....	4.96	--	
		IA (A)	1.29	--	
Output	U1 Pin 1-5	Power (W)	0	--	PS1

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
	Shorted	VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 2-5 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 1-8 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 4-8 Shorted	Power (W)	7.3	--	PS1
		VA (V).....:	4.85	--	
		IA (A)	1.32	--	
Output	R10 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
		VA (V).....:	0	--	
		IA (A)	0	--	
Model: GT-86060-0612-W2E					
Output	Normal condition	Power (W)	8.8	--	PS1
		VA (V).....:	11.58	--	
		IA (A)	0.76	--	
Output	U1 Pin 1-5 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 2-5 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 1-8 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
Output	U1 Pin 4-8 Shorted	Power (W)	9.60	--	PS1
		VA (V).....:	11.85	--	
		IA (A)	0.81	--	
Output	R10 Shorted	Power (W)	0	--	PS1
		VA (V).....:	0	--	
		IA (A)	0	--	
		VA (V).....:	0	--	

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

	IA (A)	0	--
--	--------------	---	----

Supplementary Information:

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

6.2.3.1	Table: Determination of Potential Ignition Sources (Arcing PIS)				P
Location	Open circuit voltage After 3 s (V _p)	Measured r.m.s current (I _{rms})	Calculated value (V _p x I _{rms})	Arcing PIS? Yes / No	
All primary circuits/components	--	--	--	Yes (declaration)	
--	--	--	--	--	
--	--	--	--	--	
--	--	--	--	--	

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)				P
Circuit Location (x-y)	Operating Condition (Normal / Describe Single Fault)	Measured wattage or VA During first 30 s (W / VA)	Measured wattage or VA After 30 s (W / VA)	Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment)	Resistive PIS? Yes/No
All internal circuits/components	--	--	--	--	Yes (declaration)
--	--	--	--	--	--
--	--	--	--	--	--
--	--	--	--	--	--

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.....		—	

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

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

B.2.5		TABLE: Input test						P
U (V)	I (A)	I rated (A)	P (W)	P rated (W)	Fusible or fuse No	I f usable or fuse(A)	Condition/status	
Model: GT-86060-0605-W2E (LF1 with common mode chock)								
90	0.15	--	8.46	--	F1, F2	0.15	Rated load at 50 Hz	
90	0.15	--	8.36	--	F1, F2	0.15	Rated load at 60 Hz	
100	0.13	0.2	8.30	--	F1, F2	0.13	Rated load at 50 Hz	
100	0.13	0.2	8.24	--	F1, F2	0.13	Rated load at 60 Hz	
240	0.07	0.2	8.17	--	F1, F2	0.07	Rated load at 50 Hz	
240	0.07	0.2	8.14	--	F1, F2	0.07	Rated load at 60 Hz	
264	0.06	--	8.30	--	F1, F2	0.06	Rated load at 50 Hz	
264	0.06	--	8.21	--	F1, F2	0.06	Rated load at 60 Hz	
Model: GT-86060-0605-W2E (LF1 with difference mode chock)								
90	0.15	--	8.56	--	F1, F2	0.15	Rated load at 50 Hz	
90	0.15	--	8.54	--	F1, F2	0.15	Rated load at 60 Hz	
100	0.13	0.2	8.40	--	F1, F2	0.13	Rated load at 50 Hz	
100	0.13	0.2	8.41	--	F1, F2	0.13	Rated load at 60 Hz	
240	0.07	0.2	8.25	--	F1, F2	0.07	Rated load at 50 Hz	
240	0.07	0.2	8.32	--	F1, F2	0.07	Rated load at 60 Hz	
264	0.06	--	8.34	--	F1, F2	0.06	Rated load at 50 Hz	
264	0.06	--	8.42	--	F1, F2	0.06	Rated load at 60 Hz	
Model: GT-86060-0612-W2E (LF1 with common mode chock)								
90	0.14	--	7.73	--	F1, F2	0.14	Rated load at 50 Hz	
90	0.14	--	7.67	--	F1, F2	0.14	Rated load at 60 Hz	
100	0.12	0.2	7.62	--	F1, F2	0.12	Rated load at 50 Hz	
100	0.12	0.2	7.57	--	F1, F2	0.12	Rated load at 60 Hz	
240	0.07	0.2	7.65	--	F1, F2	0.07	Rated load at 50 Hz	
240	0.06	0.2	7.59	--	F1, F2	0.06	Rated load at 60 Hz	
264	0.06	--	7.72	--	F1, F2	0.06	Rated load at 50 Hz	
264	0.06	--	7.71	--	F1, F2	0.06	Rated load at 60 Hz	
Model: GT-86060-0612-W2E (LF1 with difference mode chock)								
90	0.14	--	7.81	--	F1, F2	0.14	Rated load at 50 Hz	
90	0.14	--	7.77	--	F1, F2	0.14	Rated load at 60 Hz	

IEC 62368-1							
Clause	Requirement + Test				Result - Remark		Verdict
100	0.12	0.2	7.68	--	F1, F2	0.12	Rated load at 50 Hz
100	0.12	0.2	7.67	--	F1, F2	0.12	Rated load at 60 Hz
240	0.07	0.2	7.68	--	F1, F2	0.07	Rated load at 50 Hz
240	0.06	0.2	7.65	--	F1, F2	0.06	Rated load at 60 Hz
264	0.06	--	7.83	--	F1, F2	0.06	Rated load at 50 Hz
264	0.06	--	7.75	--	F1, F2	0.06	Rated load at 60 Hz
Model: GT-86060-0609-W2E (LF1 with common mode chock)							
90	0.12	--	7.12	--	F1, F2	0.12	Rated load at 50 Hz
90	0.12	--	7.11	--	F1, F2	0.12	Rated load at 60 Hz
100	0.11	0.2	7.02	--	F1, F2	0.11	Rated load at 50 Hz
100	0.11	0.2	7.01	--	F1, F2	0.11	Rated load at 60 Hz
240	0.05	0.2	6.79	--	F1, F2	0.05	Rated load at 50 Hz
240	0.05	0.2	6.79	--	F1, F2	0.05	Rated load at 60 Hz
264	0.05	--	6.82	--	F1, F2	0.05	Rated load at 50 Hz
264	0.05	--	6.82	--	F1, F2	0.05	Rated load at 60 Hz
Model: GT-86060-0609-W2E (LF1 with difference mode chock)							
90	0.12	--	7.24	--	F1, F2	0.12	Rated load at 50 Hz
90	0.12	--	7.24	--	F1, F2	0.12	Rated load at 60 Hz
100	0.11	0.2	7.11	--	F1, F2	0.11	Rated load at 50 Hz
100	0.11	0.2	7.13	--	F1, F2	0.11	Rated load at 60 Hz
240	0.05	0.2	6.87	--	F1, F2	0.05	Rated load at 50 Hz
240	0.05	0.2	6.87	--	F1, F2	0.05	Rated load at 60 Hz
264	0.05	--	6.90	--	F1, F2	0.05	Rated load at 50 Hz
264	0.05	--	6.90	--	F1, F2	0.05	Rated load at 60 Hz

B.3		TABLE: Abnormal operating condition tests						P
Ambient temperature (°C)					50			—
Power source for EUT: Manufacturer, model/type, output rating .:					See below			—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse or Fusible resistor no.	Fuse or Fusible resistor current, (A)	T-couple	Temp. (°C)	Observation
Model: GT-86060-0605-W2E								

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Clause	Requirement + Test					Result - Remark		Verdict
U1 pin 4-8	SC	264	1h45min	F1, F2	0.07	Type J	T1 winding: 92.2°C T1 core: 91.2°C Ambient: 50.3°C	In power rise to 8.45W, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Output	OL	264	3h41min	F1, F2	0.06→ 0.070→ 0.006	Type J	T1 winding: 91.1°C T1 core: 90.3°C Ambient: 50.0°C	Output overload at 1.22A, and shutdown at 1.23A, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Output	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Model: GT-86060-0605-W2E at 25°C								
U1 pin 4-8	SC	264	1h59min	F1, F2	0.07	Type J	Enclosure outside near T1: 49.8°C Ambient: 25.2°C	In power rise to 8.45W, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Output	OL	264	9h56min	F1, F2	0.06→ 0.070→ 0.006	Type J	Enclosure outside near T1: 54.1°C Ambient: 25.7°C	Output overload at 1.22A, and shutdown at 1.23A, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Model: GT-86060-0612-W2E								
U1 pin 4-8	SC	264	1h45min	F1, F2	0.07	Type J	T1 winding: 87.7°C T1 core: 85.1°C Ambient: 50.3°C	In power rise to 8.25W, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}

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Clause	Requirement + Test					Result - Remark		Verdict
Output	OL	264	6h22min	F1, F2	0.06→ 0.080→ 0.006	Type J	T1 winding: 94.9°C T1 core: 92.0°C Ambient: 50.0°C	Output overload at 0.71A, and shutdown at 0.72A, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Output	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Model: GT-86060-0612-W2E at 25°C								
U1 pin 4-8	SC	264	2h38min	F1, F2	0.07	Type J	Enclosure outside near T1: 49.0°C Ambient: 25.5°C	In power rise to 8.25W, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Output	OL	264	7h31min	F1, F2	0.06→ 0.080→ 0.006	Type J	Enclosure outside near T1: 51.0°C Ambient: 25.7°C	Output overload at 0.71A, and shutdown at 0.72A, recoverable, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Supplementary information: OL: Overload, SC: short circuit The output overload is identical to transformer overload.								

B.4		TABLE: Fault condition tests							P
Ambient temperature (°C)					25				—
Power source for EUT: Manufacturer, model/type, output rating ..					--				—
Component No.	Fault Condition	Supply voltage, (V)	Test time (ms)	fusible resistor or no.	fusable resistor current, (A)	T-couple	Temp. (°C)	Observation	
Model: GT-86060-0612-W2E (Tested with Fuse F1 (10ohm) and F2 (10ohm) combination 1)									

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Clause	Requirement + Test				Result - Remark			Verdict
MOV1	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
BD1 pin 1-3	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
C2	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 1-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}

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Clause	Requirement + Test				Result - Remark			Verdict
U1 pin 2-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 1-8	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
R10	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
T1 pin 1- 2	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
T1 pin 3 -4	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
T1 pin 5-6	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}

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Clause	Requirement + Test				Result - Remark			Verdict
D3	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
C7	SC	264	30min	F1, F2	0.01	--	--	Unit shutdown immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.340mA _{pk}
Model: GT-86060-0612-W2E (Tested with Fuse F1(6.3A) and F2(15ohm) combination 2)								
MOV1	SC	264	1s	F1, F2	--	--	--	Current Fuse (F1) opened immediately, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
BD1 pin 1-3	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
C2	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
U1 pin 1-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 2-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
R10	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F2) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
Model: GT-86060-0612-W2E (Tested with Fuse F1(10ohm) and Fuse F2 Jumper combination 3)								
MOV1	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
BD1 pin 1-3	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
C2	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 1-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 2-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
R10	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
Model: GT-86060-0612-W2E (Tested with Fuse F1(15ohm) and Fuse F2 Jumper combination 4)								
MOV1	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
BD1 pin 1-3	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
C2	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}

IEC 62368-1								
Clause	Requirement + Test				Result - Remark			Verdict
U1 pin 1-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
U1 pin 2-5	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
R10	SC	264	1s	F1, F2	--	--	--	Resistor fuse (F1) damaged immediately, U1 damaged, repeat 10 times with same results, no hazard. Output "+" to "-": 0Vdc, touch current: 0.370mA _{pk}
Supplementary information: SC: short circuit, OC: open circuit. All source of fuse or fusible resistor list on table 4.1.2 were considered.								

IEC 62368-1										
Clause	Requirement + Test			Result - Remark				Verdict		
Annex M	TABLE: Batteries								N/A	
The tests of Annex M are applicable only when appropriate battery data is not available									--	
Is it possible to install the battery in a reverse polarity position?..... :									--	
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	
Max. current during normal condition	--	--	--	--	--	--	--	--	--	
Max. current during fault condition	--	--	--	--	--	--	--	--	--	
Test results:										
- Chemical leaks									Verdict	
- Explosion of the battery										
- Emission of flame or expulsion of molten metal										
- Electric strength tests of equipment after completion of tests										
Supplementary information:										

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

IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
Battery identification	Charging at T_{lowest} (°C)	Observation	Charging at $T_{highest}$ (°C)	Observation
Supplementary Information:				

Annex Q.1	TABLE: Circuits intended for interconnectionwith building wiring (LPS)					P
Note: Measured UOC (V) with all load circuits disconnected:						
Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Model: GT-86060-0605-W2E						
Output	Normal condition	5.0	1.29	8.0	6.4	100
Output	U1 Pin 1-5 S-C	0	0	8.0	0	100
Output	U1 Pin 2-5 S-C	0	0	8.0	0	100
Output	U1 Pin 1-8 S-C	0	0	8.0	0	100
Output	U1 Pin 4-8 S-C	5.0	1.32	8.0	7.3	100
Output	R10 S-C	0	0	8.0	0	100
Model: GT-86060-0612-W2E						
Output	Normal condition	11.93	0.76	8.0	8.8	100
Output	U1 Pin 1-5 S-C	0	0	8.0	0	100
Output	U1 Pin 2-5 S-C	0	0	8.0	0	100
Output	U1 Pin 1-8 S-C	0	0	8.0	0	100
Output	U1 Pin 4-8 S-C	11.93	0.81	8.0	9.6	100
Output	R10 S-C	0	0	8.0	0	100
Supplementary Information:						
S-C=Short circuit, O-C=Open circuit.						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Enclosure top, closed to transformer (T.4)	a	1.5	100	5	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	

IEC 62368-1					
Clause	Requirement + Test			Result - Remark	Verdict
Enclosure side(T.4)	a	1.5	100	5	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.
Enclosure bottom, closed to transformer(T.4)	a	1.5	100	5	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.
Internal components (T.2)	--	--	10	5	No insulation breakdown. No reduction the clearances and creepage distances
Supplementary information: Test Material: a: See 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	
Enclosure top(T.7)	a	1.5	1000	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Enclosure side(T.7)	a	1.5	1000	Enclosure remained intact. Internal ES3 voltage was not accessible after test. No insulation breakdown.	
Enclosure bottom (T.7)	a	1.5	1000	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	

Supplementary information:

Test Material:

a: See 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 (T.8)	a	1.5	91	7	Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Supplementary information: Test Material: a: See appended Table 4.1.2 for details.						

IEC 62368-1			
Clause	Requirement + Test		Verdict
Appended table	Table: working voltage measurement		P
Location	RMS voltage (V)	Peak voltage (V)	Comments
Model: GT-86060-0605-W2E			
Transformer pin 1-5	217	384	58.48 kHz
Transformer pin 2-5	245	524	Max. V_{peak} and V_{rms} Max. frequency: 61.34 kHz
Transformer pin 3-5	219	416	59.64 kHz
Transformer pin 4-5	218	356	60.24 kHz
Transformer pin 1-6	216	372	59.10 kHz
Transformer pin 2-6	241	516	59.68 kHz
Transformer pin 3-6	218	384	59.45 kHz
Transformer pin 4-6	218	356	60.24 kHz
CY1 primary to secondary	218	356	60
Model: GT-86060-0612-W2E			
Transformer pin 1-5	217	352	58.12 k
Transformer pin 2-5	252	520	Max. V_{peak} and V_{rms} Max. frequency: 61.08 kHz
Transformer pin 3-5	218	392	58.96 k
Transformer pin 4-5	217	352	60.04 k
Transformer pin 1-6	218	388	59.45 k
Transformer pin 2-6	244	512	59.66 k
Transformer pin 3-6	217	352	59.82 k
Transformer pin 4-6	217	354	60.30 k
CY1 primary to secondary	217	352	60
supplementary information:			
Test voltage: 240 V Test frequency: 60 Hz			

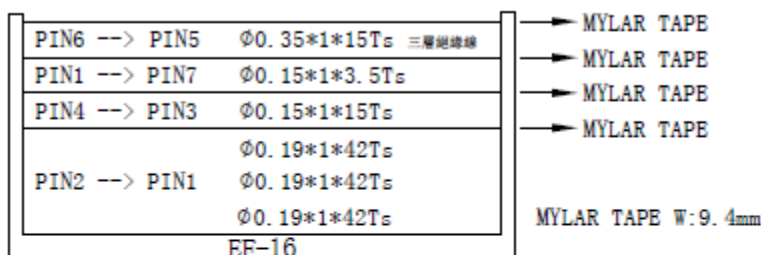
IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Appended table	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V	Working voltage rms / V	Required electric strength	Required clearance / mm	Required creepage distance	Required distance thr. insul.
Primary winding to secondary winding	RI	524	252	4000V	4.5	5.2	0.4
Core to secondary winding	RI	524	252	4000V	4.5	5.2	0.4
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Primary winding to secondary winding	RI			4000V	6.8	6.8	TIW
Core to secondary winding	RI			4000V	6.9	6.9	TIW
supplementary information:							
Transformer description: Concentric windings on Phenolic bobbin, Outer winding is Primary winding, Triple insulated wires used as secondary winding. Between secondary winding and primary winding separated by insulation tape. Magnet wire used as primary winding, Transformer core was considered as primary part. For more details see photo document.							

IEC 62368-1

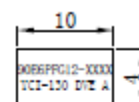
Clause	Requirement + Test	Result - Remark	Verdict
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--	TABLE: transformers	P
----	---------------------	---

1. 绕线顺序图

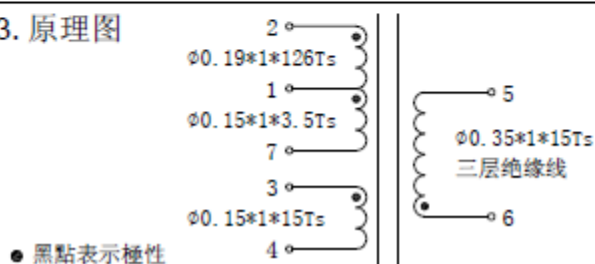


2. LABEL 图



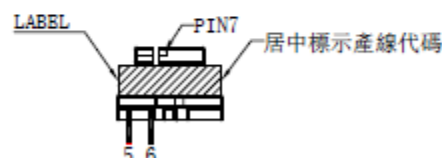
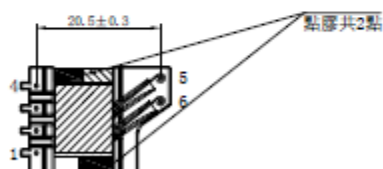
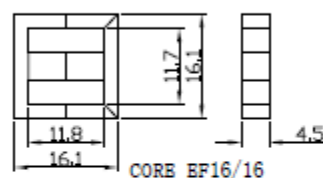
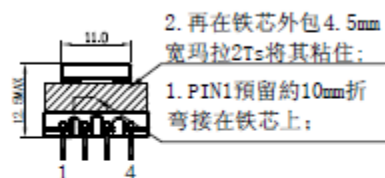
"XXXX" to denote the part number, can be any alphanumeric character for marketing purposes only.
The transformer can not appear the phenomenon of crossing between the primary winding and secondary winding.

3. 原理图



4. 三视图

NOTE: 此產品點膠不含浸;



5. 感值

INDUCTANCE: AT 50KHz 1V
L(PIN2-PIN1): 1.0mH MIN

Note: the transformer specification with model GT-86060-0612-W2E.

More details see Attachment 3-photo documentation.

-- End of report --

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_IEC62368_1B_II
Attachment Originator..... :	Nemko AS
Master Attachment..... :	Date 2017-09-22
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	CENELEC COMMON MODIFICATIONS (EN)					P
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".					P
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.					P
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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.Z1	<p>Add the following new subclause after 4.9:</p> <p>To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>	<p>Considered.</p> <p>Complied with item a) for internal fuse used and for parts as described in b) reliance on the protection in the building installation.</p>	P
5.4.2.3.2.4	<p>Add the following to the end of this subclause:</p> <p>The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.</p>	No external circuits.	N/A
10.2.1	<p>Add the following to ^{c)} and ^{d)} in table 39:</p> <p>For additional requirements, see 10.5.1.</p>	No such radiation from the equipment.	N/A
10.6.1	<p>Add the following paragraph to the end of the subclause:</p> <p>EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p>	No such x-radiation generated from the equipment.	N/A
10.Z1	<p>Add the following new subclause after 10.6.5.</p> <p>10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</p> <p>The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic</p>	No such consideration for the purpose of personal music players.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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		
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
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.		N/A
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
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:	Considered.	P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>In Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord."</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jorden stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>		
4.7.3	<p>United Kingdom</p> <p>To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex</p>	Inlet used.	N/A
5.2.2.2	<p>Denmark</p> <p>After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>	No high touch current.	N/A
5.4.11.1 and Annex G	<p>Finland and Sweden</p> <p>To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be 	No TNV circuits.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>performed using 1,5 kV), and</p> <ul style="list-style-type: none"> • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 		
5.5.2.1	<p>Norway</p> <p>After the 3rd paragraph the following is added:</p> <p>Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p>	Shall be evaluated when national approval	N/A
5.5.6	<p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.</p>	No such resistors.	N/A
5.6.1	<p>Denmark</p> <p>Add to the end of the subclause</p> <p>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.</p> <p><i>Justification:</i></p> <p>In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>	Considered.	P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.	Considered.	P
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.	See above.	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.	No high protective conductor current.	N/A
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)”	Not such system.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkøp utstyr – og er tilkøp et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkøp av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.</p>		
5.7.6.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .</p>	No external circuits.	N/A
B.3.1 and B.4	<p>Ireland and United Kingdom</p> <p>The following is applicable:</p> <p>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>	Should be evaluated during national approval	N/A
G.4.2	<p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p><i>Justification:</i> Heavy Current Regulations, Section 6c</p>		
G.4.2	<p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.</p>	Should be evaluated during national approval	N/A
G.7.1	<p>United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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
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. <i>Justification:</i> 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	No CRT within the equipment.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center">ATTACHMENT TO TEST REPORT IEC 62368-1 DENMARK NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements</p>			
Differences according to..... : DS/EN 62368-1:2014			
Attachment Form No. : DK_ND_IEC62368_1B			
Attachment Originator..... : UL (Demko)			
Master Attachment..... : 2014-10			
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	National Differences	
4.1.15	<p>To the end of the subclause the following is added:</p> <p>Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>“Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”</p>	N/A
5.2.2.2	<p>After the 2nd paragraph add the following:</p> <p>A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p>	N/A
5.6.1	<p>Add to the end of the subclause:</p> <p>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.</p> <p>Justification:</p> <p>In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p>	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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
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 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
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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.	In accordance with the National Electrical Code (NEC) and the Canadian Electrical Code (CEC) part 1 CAN/CSA C22.1, ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing 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.	See above.	N/A
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.	No such 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	An appliance inlet provided that is connected by an approved appliance coupler serves main protective earthing terminal.	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	No TNV circuits within the equipment.	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.	No such parts.	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.	DC output connector is provided. Indicated by User specification.	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.	The equipment is not permanent connection equipment.	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.	See above.	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.	See above.	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 TNV circuits within the equipment.	N/A
Annex H.4	For circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} 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.	No TNV circuits within the equipment.	N/A
Annex M	Battery packs for stationary applications comply with special component requirements.	No such parts.	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.	The equipment not intended to be used within such environments.	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.	Not such equipment.	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.	The equipment is not for children used.	N/A
	Baby monitors additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.	Not a baby monitors.	N/A
Annex DVA (5.6.3)	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A.	Considered.	P
Annex DVA (6.3)	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30.	No flammable liquids within the equipment.	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.	No such application.	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).	No such parts.	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).	No such parts.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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."	Single phase only.	N/A
Annex DVA (F.3.3.5)	Equipment identified for ITE (computer) room installation is marked with the rated current	Not such application.	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	No such parts.	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.	No standard supply outlets, receptacles, medium-base or smaller lampholders provided.	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).	No such parts.	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.	No such parts.	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.	No such parts.	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).	No such parts.	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.	Not such application.	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.	Not applicable for the equipment.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DVB (1)	Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities.	Not such application.	N/A
Annex DVC (1)	Additional requirements apply for equipment intended for mounting under kitchen cabinets.	Not such application.	N/A
Annex DVE (4.1.1)	Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury 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.	UL approved components used. Refer to table 4.1.2 of IEC 62368-1 test report for details.	P
Annex DVH	Equipment for permanent connection to the mains supply is subjected to additional requirements.	The equipment is not permanently connected equipment.	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.	Pluggable equipment type A.	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.	No terminals for permanent wiring.	N/A
Annex DVH (DVH.3.2)	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).	No wire binding screws.	N/A
Annex DVH (DVH.4)	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	The equipment is not permanently connected equipment.	N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.	The equipment not connected to a centralized d.c. power system.	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.	No TNV circuits within the equipment.	N/A
Annex DVJ (10.6.1)	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.	No TNV circuits within the equipment.	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			
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	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, <i>Approval and test specification—Plugs and socket-outlets</i> -AS/NZS 3123, <i>Approval and test specification—Plugs, socket-outlets and couplers for general industrial application</i> -AS/NZS 3191, <i>Electric flexible cords</i> -AS/NZS 60065, <i>Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD)</i> -AS/NZS 60320.1, <i>Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)</i> -AS/NZS 60320.2.2, <i>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)</i>		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>-AS/NZS 60695.2.11, <i>Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products</i></p> <p>-AS/NZS 60695.11.5, <i>Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</i></p> <p>-AS/NZS 60695.11.10, <i>Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</i></p> <p>-AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i></p> <p>-AS/NZS 60950.1:2015, <i>Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i></p> <p>IEC 61032:1997, <i>Protection of persons and equipment by enclosures—Probes for verification</i></p> <p>-AS/NZS 61558.1:2008 (including Amendment 2:2015), <i>Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 2.1, MOD)</i></p> <p>-AS/NZS 61558.2.16, <i>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.</i></p>		
4.1.1	<p>Application of requirements and acceptance of materials, components and subassemblies</p> <p>1 Replace the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'.</p> <p>2 Replace the text 'IEC 60065' with 'AS/NZS 60065'.</p>		P

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	Equipment for direct insertion into mains socket-outlets		N/A
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.		N/A
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.		N/A
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'.		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

IEC62368_1B - ATTACHMENT					
Clause	Requirement + Test			Result - Remark	Verdict
4.8.5	Compliance criteria <i>Delete the first paragraph and replace with the following:</i> <i>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.</i>				N/A
5.4.10.2	Test methods				N/A
5.4.10.2.1	General <i>Delete the first paragraph and replace with the following:</i> 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
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.					

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.10.2.2	After the first paragraph, <i>insert</i> 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, <i>insert</i> 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, <i>insert</i> 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
6.6	After Clause 6.6, <i>add</i> 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 <i>replace</i> 'IEC 60950-1:2005' with 'AS/NZS 60950.1:2015'.		N/A
8.6	Stability of equipment		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
8.6.1 and Table 36	Requirements 1. Table 36, <i>insert</i> Footnote c at the end of the 'Glass slide' heading, and <i>add</i> 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, <i>insert</i> '201' at the end of 'No stability requirements' 3. Table 36, ninth row, <i>insert</i> '201' at the end of 'No stability requirements' 4. Table 36, <i>add</i> 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, <i>delete</i> the words 'MS2 and MS3 television sets' and <i>replace</i> with 'MS2 and MS3 television sets and display devices'		N/A
8.6.1	After Clause 8.6.1 <i>add</i> 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 <i>Replace</i> 'IEC 60320-2-2' with 'AS/NZS 60320.2.2'.		N/A
Annex G Paragraph G.4.2	Mains connectors 1 In the second line <i>insert</i> 'or AS/NZS 3123' after 'IEC 60906-1'. 2 In the second line <i>insert</i> 'or AS/NZS 60320 series' after 'IEC 60320 series' 3 <i>Add</i> 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

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Paragraph G.5.3.1	Transformers, General 1 In the third dashed point <i>replace</i> '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 <i>replace</i> 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'.		N/A
Paragraph G.7.1	Mains supply cords, General In the fourth dashed paragraph, <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A
Table G.5	Sizes of conductors 1 In the second row, first column, <i>delete</i> '6' and <i>replace</i> with '7.5' 2 In the second row, second column, <i>delete</i> '0,75' and <i>replace</i> with '0.75 ^b 3 <i>Delete</i> Note 1. 4 <i>Replace</i> 'NOTE 2' with 'NOTE:'. 5 <i>Delete</i> the text of 'Footnote b' and <i>replace</i> 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 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191). 6 In Footnote c <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' 7 In Footnote d <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1'		N/A
Annex M Paragraph M.3.2	Protection circuits for batteries provided within the equipment, Test method After the first dashed point <i>add</i> 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.		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Special national conditions (if any)		N/A
6.201	<p>External power supplies, docking stations and other similar devices</p> <p>For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage—</p> <ul style="list-style-type: none"> – 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. <p>For equipment with multiple rated output voltages, the requirements apply with the equipment configured for each rated output voltage in turn.</p> <p>NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries.</p> <p><i>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</i></p>		P
6.202	Resistance to fire—Alternative tests	UL recognized material	P
6.202.1	<p>General</p> <p>Parts of non-metallic material shall be resistant to ignition and spread of fire.</p> <p>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:</p> <ul style="list-style-type: none"> 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: 		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>– small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings;</p> <p>– 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.</p> <p>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.</p>		
	<p><i>Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4.</i></p> <p>For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5.</p> <p>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.</p> <p>These tests are not carried out on internal wiring.</p>		N/A
6.202.2	<p>Testing of non-metallic materials</p> <p>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.</p> <p>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.</p>		N/A
6.202.3	<p>Testing of insulating materials</p> <p>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.</p> <p>The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection.</p> <p>NOTE: Contacts in components such as switch contacts are considered to be connections</p>		N/A

IEC62368_1B - ATTACHMENT											
Clause	Requirement + Test	Result - Remark	Verdict								
	<p>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.</p> <p>However, parts shielded by a barrier which meets the needle-flame test need not be tested</p>		N/A								
	<p>The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</p> <table><tr><td>Clause of AS/NZS 60695.11.5</td><td>Change</td></tr><tr><td>9 Test procedure</td><td></td></tr><tr><td>9.2 Application of needle-flame</td><td><p><i>Delete</i> the first and second paragraphs and <i>replace</i> with the following:</p><p>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.</p><p>The duration of application of the test flame shall be 30 s ± 1 s.</p></td></tr><tr><td>9.3 Number of test specimens</td><td><p><i>Replace</i> with the following:</p><p>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.</p></td></tr></table>	Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	<p><i>Delete</i> the first and second paragraphs and <i>replace</i> with the following:</p> <p>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.</p> <p>The duration of application of the test flame shall be 30 s ± 1 s.</p>	9.3 Number of test specimens	<p><i>Replace</i> with the following:</p> <p>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.</p>		N/A
Clause of AS/NZS 60695.11.5	Change										
9 Test procedure											
9.2 Application of needle-flame	<p><i>Delete</i> the first and second paragraphs and <i>replace</i> with the following:</p> <p>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.</p> <p>The duration of application of the test flame shall be 30 s ± 1 s.</p>										
9.3 Number of test specimens	<p><i>Replace</i> with the following:</p> <p>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.</p>										

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test		Verdict
	<p>11 Evaluation of test results</p> <p><i>Replace with the following:</i> The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p> <p>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.</p>		
6.202.4	<p>Testing in the event of non-extinguishing material</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
6.202.5	<p>Testing of printed boards</p> <p>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.</p> <p>The test is not carried out if—</p> <ul style="list-style-type: none"> – 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. <p><i>Conformance shall be determined using the smallest thickness of the material.</i></p> <p>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.</p>		N/A

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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
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 (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			
Copyright © 2018 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
	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.		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.		P
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 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 JIS C 6575 series or a fuse having equivalent characteristics shall open within 1 s. For Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”. A fuse not complying with JIS C 6575 series shall be tested with the breaking capacity taken into account.	Test with appliance	P
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.		P

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.		P
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.		P
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}		N/A
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.		P
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.	No such component	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.		P
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 $1,71 \times 1.1 \times U_0$ for 5 s.		N/A

-END-

BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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British plug portion test:

12	Construction of Plugs		P
12.1	The disposition of the pins shall be shown as figure 4.	The dispositions of the pins were shown as figure 4.	P
12.2	Pin and sleeve dimensions, body outline were checked according to figure 4 of BS1363: Part 1.	14.93 mm was measured from the engagement surface. (It shall not less than 6.35 mm)	P
		The dimensions were found within the specified limits as shown in figure 4. (please refer to attached appendix 1 for details)	P
	The plug portion shall enter the gauge fully with a force less than 10N was applied to the centre of the sample at right angle	Sample could enter into the gauge fully with a force less than 10 N.	P
12.3	No parts of a line or neutral pin shall be less than 9.5mm from the periphery of the plug measured along the engagement surface.	Complied.	P
12.9	Plug pins were constructed of brass or nickel plated brass	Brass.	P
12.9.1	Exposed surface of plug pins were smooth and free from burrs or sharp edges and other irregularities, which could cause damage or excessive wear to sockets or shutters.	Complied.	P
12.9.4	The adaptor plug pins were tested as specified in the standard.	After test at 1100 N, the pin portions could fit the relevant gauge.	P
12.9.5	Plugs with nickel plated brass shall not cause excessive wear to socket contacts or shutters of socket-outlets.	See below	P
	Each plug is inserted into and withdrawn from the socket-outlet at a rate of six insertions and six withdrawals per minute, the speed of travel of the plug being approximately 150 mm/s. The periods during which the plug is inserted and withdrawn shall be approximately equal. The plug pins are renewed or a new plug is used after each 5 000 insertions and withdrawals.	The socket-outlet show no sign of damage that would impair further use. The plugs show no damage and conform to the dimensional requirements of 12.2. The shutters of the socket-outlet operate satisfactorily and the socket contacts shall be safely shielded.	P
12.9.6	Each pin of the adapter was subjected to a torque of 1Nm for 60s as specified in the standard.	After the test, the pin portion could fit the relevant gauge.	P
12.11	The adaptors were tested as specified in standard. After being placed in an oven at 70°C for 1 hour, each pin of the samples was subjected for 60s to a pull of 100N in the oven.	After the test, no plug pin was detached and the plug pins could fit the relevant gauge.	P
12.12	The degree of the flexibility of mounting of the plug pins was checked by inspection	Complied.	P

BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
12.13	Suitable means shall be provided for withdrawing the plug without subjecting the flexible cord to stress.	Complied.	P
12.16	Line and neutral plug pin shall be fitted with insulating sleeves. The dimensions of the pin and sleeve shall fall within the specific limit.	Both line and neutral pins were fitted with insulating sleeve.	P
12.17.1	Plug pin sleeve shall be compliance with 12.17.2 to 12.17.4	Complied.	P
12.17.2	Electric strength test applied between the metal part of the plug pin and the sleeve. (1250V±30V for 60s)		P
12.17.3	Abrasion test for plug pin sleeve The plug pin sleeves were subjected to 20000 movements of abrasion as specified in the standard.	After the test, the sleeves showed no damage that impaired further use and could satisfy the electric strength test in 12.17.2	P
12.17.4	Resistance to deformation The plug pins with sleeves were placed in a heating cabinet at 200°C and tested according to the standard for 120min. The test shall be carried out at 125°C based on the UK deviation to clause 4.3.6 for Direct plug-in equipment in IEC 60950-1: 2005	After the test carried out at 200 °C for 120 min, only slightly impression observed, the impressions were less than 50 % of the thickness measured before the test.	P
22.2	Parts of insulating material shall be sufficiently resistant to heat and still shaving its location and function.	Complied. See 22.2.1	P
22.2.1	Compliance checked as follows: a) Parts of ceramic material are used; b) external parts of plugs tested according to 22.1.3; c) all other parts of insulating material including ISOD subjected to the ball pressure at a temperature of 75°C ± 5°C	See appended table 22.2.1	P
23	Resistance to abnormal heat, fire and tracking		P
23.1	Plugs shall be proof against abnormal heat, fire and tracking		P
23.1.1	Compliance shall be checked by the test described in 23.2		P
23.2	Glow-wire test The test is performed according to BS EN 60695-2-11:2014 and at the test temperature given in Table 10 a) Parts necessary to retain live parts in position including ISOD were tested at 750°C. b) Parts not necessary to retain live in position were tested at 650°C.	See appended table 23.2	P
Additional Requirements (Clause 12.2, 12.9.4.3, 12.9.5, 12.9.6, 22.2 and 23) for the ISOD According to the standard BS 1363-1			
12.2	Solid insulated shutter opening device should comply all the dimensions specified in Figure 4 with exception of the width of the ISOD should be 4.05 mm	The measured dimensions were found to be within the specified limits.	P

BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
	maximum and 3.90 mm minimum. and its height which should be 8.05 mm maximum and 7.75 mm minimum	(see attached appendix 1 for details)	
12.9.4	Solid insulated shutter opening device were tested as specified in the standard.	After subjected to a force of 400N, the pin portion still could fit the relevant gauge.	P
12.9.5	Plugs with ISOD shall not cause excessive wear to socket contacts or shutters of socket-outlets.	See below	P
	Each plug is inserted into and withdrawn from the socket-outlet at a rate of six insertions and six withdrawals per minute, the speed of travel of the plug being approximately 150 mm/s. The periods during which the plug is inserted and withdrawn shall be approximately equal. The plug pins are renewed or a new plug is used after each 5 000 insertions and withdrawals.	<p>The socket-outlet show no sign of damage that would impair further use.</p> <p>The plugs show no damage and conform to the dimensional requirements of 12.2.</p> <p>The shutters of the socket-outlet operate satisfactorily and the socket contacts shall be safely shielded.</p>	P
12.9.6	ISOD of the adapter was subjected to a torque of 1Nm for 60s as specified in the standard.	After the test, the pin portion could fit the relevant gauge.	P

Additional consideration for the special snap-in construction.

20.1.3	Plugs are tested in the tumbling barrel. a) rewirable plugs marked BS 1363: 1000 falls b) non-rewirable plugs marked BS 1363: 2500 falls c) plugs marked BS 1363/A: 5000 falls d) plugs marked BS 1363/EV: 5000 falls		N/A
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BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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22.2.1	TABLE: Ball-pressure test						
Specimen				Ball-pressure test			
Part	Material	Material-thickness [mm]	Colour	[C°]	Measured [mm]	Required [mm]	Result
Plastic material of enclosure	SABIC Japan L L C ; Type: 945 (GG)	1.5	black	75	0.70	2.0	Pass
Plastic material of enclosure	Covestro Deutschland AG ; Type: FR6005 + (z)	1.5	black	75	0.74	2.0	Pass
Plastic material of enclosure	SABIC Japan L L C ; Type: 925U(GG)	1.5	black	75	0.75	2.0	Pass
Plastic material of enclosure	LG Chemical; Type: LUPOY EF-1006F(m)	1.5	black	75	0.72	2.0	Pass
ISODs pin material/ sleeving material	SABIC Japan L L C ; Type: 945 (GG)	1.5	black	75	0.70	2.0	Pass
ISODs pin material/ sleeving material	Covestro Deutschland AG ; Type: FR6005 + (z)	1.5	black	75	0.74	2.0	Pass
ISODs pin material/ sleeving material	SABIC Japan L L C ; Type: 925U(GG)	1.5	black	75	0.75	2.0	Pass
ISODs pin material/ sleeving material	LG Chemical; Type: LUPOY EF-1006F(m)	1.5	black	75	0.72	2.0	Pass
Supplementary information:							

23.2	TABLE: Glow-wire-test [60 s]								
Specimen				Flame					
Part	Material	Material-thickness [mm]	Colour	[°C]	Start [s]	End [s]	Height [mm]	Ignition of tissue paper	Result
L/N pin sleeving material	All source of material listed in report were considered.	1.5	black	750	0	0	0	No	Pass
ISODs pin material	All source of material listed in report were considered.	1.5	black	750	0	0	0	No	Pass

BS 1363-1: 2016+A1:2018 (Partial)

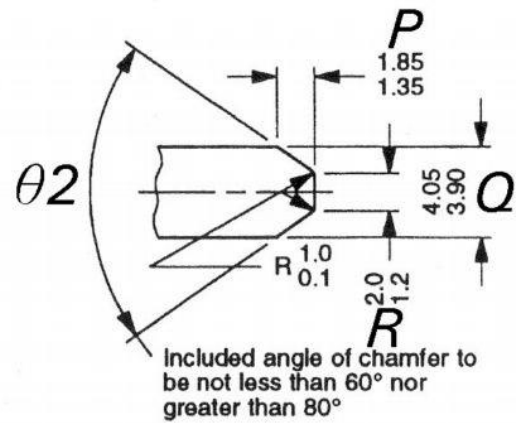
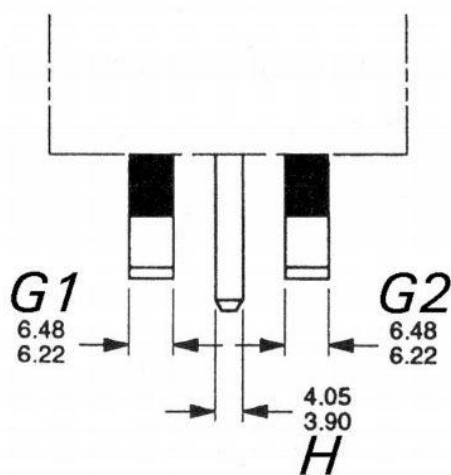
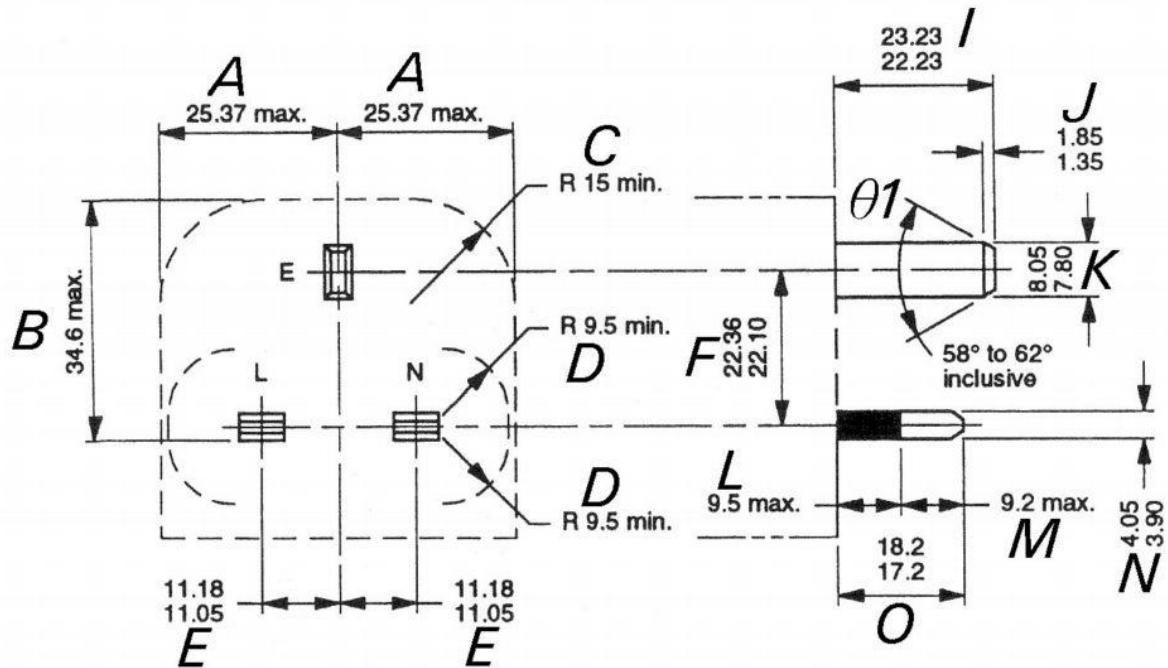
Clause	Requirement – Test	Result - Remark	Verdict
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Enclosure	All source of material listed in report were considered.	1.5	black	750	0	0	0	No	Pass
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Supplementary information:

Clause	Requirement – Test	Result - Remark	Verdict
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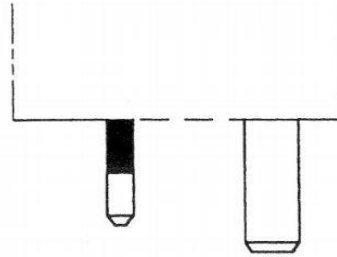
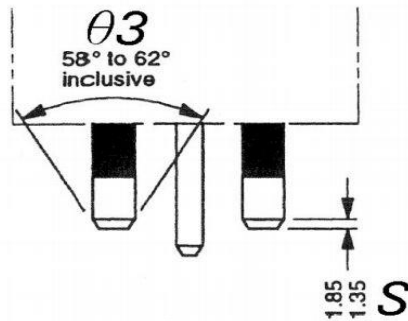
UK plug portion for switching power adapter



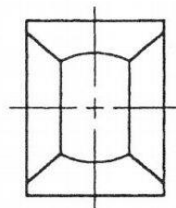
Pin end chamfer detail

All dimensions are in millimetres.

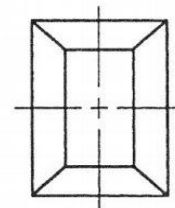
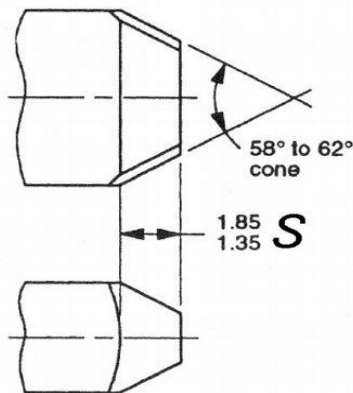
Clause	Requirement – Test	Result - Remark	Verdict
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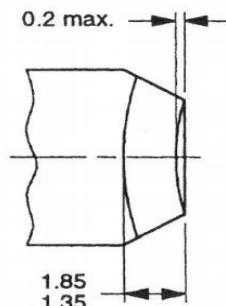
Permitted additional chamfers on L and N pins
(if additional chamfer is used it has to be on both pins)



Alternative method
of forming 58° to 62°
included chamfer
on pin ends



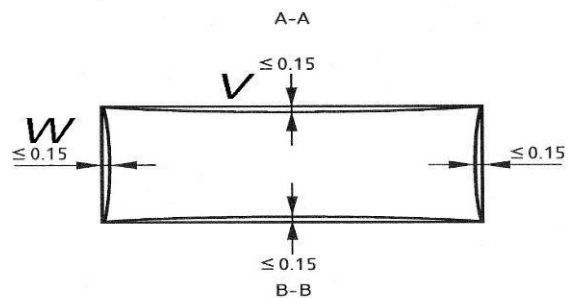
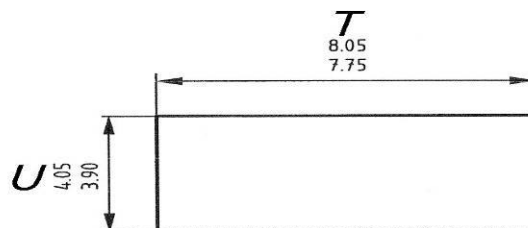
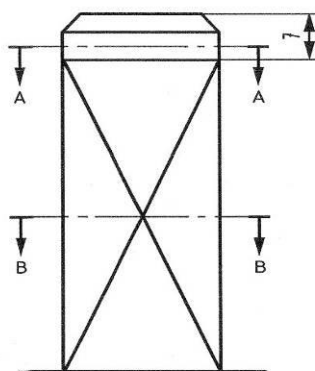
Alternative method
of forming main
chamfer on pin
ends



All dimensions are in millimetres.

NOTE 1. External edges of pins are to be free from burrs or sharp edges and may have a radius not exceeding 1 mm.

NOTE 2. The surfaces of pins are to be flat within the specified tolerances.



Solid insulated shutter opening device (ISOD)

NOTE Section A-A to be measured away from chamfer as shown.

BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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Appendix 1 (Refer to 12.2)

13A Plug Portion Dimensions

<u>Linear Dimensions (mm)</u>	<u>Measurement</u>	<u>Limit</u>	<u>Verdict</u>
A	24.52	25.37 max.	P
B	33.92	34.6 max.	P
C	¹⁾	15 min.	P
D	9.65	9.5 min.	P
E (from L to E)	11.10	11.05 - 11.18	P
(from N to E)	11.13		P
F	22.15	22.10 - 22.36	P
G1	6.32	6.22 – 6.48	P
G2	6.30	6.22 – 6.48	P
H	4.01	3.90 – 4.05	P
I	22.41	22.23 – 23.23	P
J	1.40	1.35 – 1.85	P
K	7.98	7.80 – 8.05	P
L (line)	9.45	9.5 max.	P
(neutral)	9.45		P
M (line)	8.09	9.2 max.	P
(neutral)	8.09		P
N (line) (sleeve)	4.01	3.90 – 4.05	P
(neutral) (sleeve)	4.01		P
O (line)	17.54	17.20 – 18.20	P
(neutral)	17.54		P
P (line)	1.60	1.35 – 1.85	P
(neutral)	1.61		P
(earth)	1.41		P
Q (line) (metal)	4.01	3.90 – 4.05	P

BS 1363-1: 2016+A1:2018 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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<u>Linear Dimensions (mm)</u>	<u>Measurement</u>	<u>Limit</u>	<u>Verdict</u>
(neutral) (metal)	4.01		P
(earth) (metal)	--		P
R (line)	1.25	1.2 – 2.0	P
(neutral)	1.26		P
(earth)	1.23		P
S (line/ neutral)	1.60/1.62	1.35 – 1.85	P
θ1	59.4°	58° – 62°	P
θ2 (line/ neutral)	61.8°/62.2°	60° – 80°	P
(earth)	61.6°		P
θ3	59.4°	58° – 62°	P
¹⁾ The outline of the plug is different from shown in figure, but it can insert the gauge fully with a force less than 10 N. So the dimension C is not applicable for the case.			

For solid insulated shutter opening device

<u>Linear Dimensions (mm)</u>	<u>Measurement</u>	<u>Limit</u>	<u>Verdict</u>
T	8.00	7.75 – 8.05	P
U	4.01	3.90 – 4.05	P
V (E → L)	0.11	0.15 max.	P
(E → N)	0.12	0.15 max.	P
W (E → Top)	0.13	0.15 max.	P
(E → L&N)	0.12	0.15 max.	P

EN 50075 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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European plug portion test:

6	Marking		P
	Appliances shall be marked as follows:	Incorporated with adaptor.	P
	Rated current in amperes (A)		P
	Rated Voltage in volts (V)		P
	Symbol for nature of supply (~)		P
	Name, trade mark or identification mark of manufacturer or responsible vendor		P
	Type reference		P

7	Dimensions			P
	Plug shall comply with Standard Sheet 1			P
	Between two pins (pin base)	18.0 – 19.2 mm	18.44 mm	P
	Between two pins (pin top)	17.0 – 18.0 mm	17.87 mm	P
	Diameter of pin (metallic part)	4 ^{± 0.06} mm	3.97 mm	P
	Diameter of pin (pin base)	max. 4.0 mm	3.90 mm	P
	Diameter of pin (middle part)	max. 3.8 mm	3.67 mm	P
	Pin length	19 ^{± 0.5} mm	19.26 mm	P
	Length of pin except metal part	10 ^{+ 1.0} mm	10.33 mm	P
	Shape of pin top		Round shape mm	P
	Length of plug base	35.3 ^{±0.7} mm	35.01 mm	P
	Width of plug base	13.7 ^{±0.7} mm	13.85 mm	P
	Diagonal dimension of plug base within a distance of 18mm	<26.1 ^{±0.5} mm <26.1 ^{±0.5} mm	25.89 mm 25.97 mm	P
	Angle	45°	45 °	P
	Radius	R 5 -0, +1 mm	5.2 mm	P

8	Protection against electric shock		P
8.1	Live parts of the plug not accessible (standard test finger)	Incorporated with adaptor.	P
8.2	No connection between one plug-pin and socket outlet		P
8.3	External parts of insulating material		P

9	Construction		P
9.1	Plugs are not replaceable	Incorporated with adaptor.	P

EN 50075 (Partial)			
Clause	Requirement – Test	Result - Remark	Verdict

9.2	Switches, fuse, lampholder not incorporated		P
9.3	Solid pins	See clause 13	P
	Adequate mechanical strength	All source of material listed in report were considered.	P
9.4	Pins locked against rotation	All source of material listed in report were considered. See clause 13.1 & 13.4	P
	Adequate fixed into the body		P
9.5	Kind of connection		P
9.6	Easily to be withdrawn from socket-outlet	Incorporated with adaptor	P

10	Resistance to humidity		P
	-Humidity treatment for 48 hours	Tested with adaptor.	P

11	Insulation resistance and electric strength		P
11.1	Insulation resistance (500V, min 5MΩ)	200MΩ	P
11.2	Electric strength (2000V)	(see appended table)	P

13	Mechanical strength		P
13.1	Pressed with 150N for 5 min		P
13.2	Tumbling barrel acc Tumbling barrel test: number of falls :	Weight: 48 g 1000 times falls was Reference to GS. Three samples tested. All source of material listed in report were considered.	P
	No damages after the test		P
	Requirements of clause 7 and 8.2 still fulfilled		N/A
13.3	Rubbing test of plug-pins: 10000 cycles, 4N		P
	No damage of the pins		P
13.4	Pull test at 70°C with 40N		P
	Pins not more than 1 mm displaced	Displacement: 0.2 mm All source of material listed in report were considered.	P

14	Resistance to heat and to aging		P
14.1	Sufficient resistant to heat	Incorporated with adaptor.	P

EN 50075 (Partial)			
Clause	Requirement – Test	Result - Remark	Verdict
14.1.1	After 1 h in heating cabinet at 100°C no damage shown	Tested with adaptor. All source of material listed in report were considered.	P
14.1.2	After 1 h in heating cabinet at 80°C and a force of 20N through the jaws no damage shown	All source of material listed in report were considered.	P
14.2	Aging test	All source of material listed in report were considered.	P
	-at 70°C for 168h		P
	-at room temperature for 96h		P
	No traces of cloth at a force of 5N		P
	No damage leads to non-compliance		P

15	Current-carrying parts and connections resistance to heat and to aging		P
15.1	Connections withstand the mechanical stresses occurring in normal use	All source of material listed in report were considered.	P
15.2	Contact pressure not through isolating material		P
15.3	Current carrying parts of copper		P
	No electroplated coating when part is subjected to mechanical wear		P
	Other metals having a mechanical strength, an electrical conductivity and a resistance to corrosion		N/A

16	Creepage distances, clearances and distances through insulation		P
	Live parts of different polarity: 3mm	14.2mm	P
	Through insulation between live parts and accessible surfaces: 1.5mm	5.6mm	P

17	Resistance of insulation material to abnormal heat and fire		P
	Insulating material not unduly affected by abnormal heat and by fire	(see appended table) All source of material listed in report were considered.	P

EN 50075 (Partial)			
Clause	Requirement – Test	Result - Remark	Verdict

11.1	TABLE: Insulation resistance measurements		P
Measured between:		Result	
Pins connected together and the body ($\geq 5M\Omega$)		200M Ω	P
Each pins in turn and the other, the latter being connected to the body ($\geq 5M\Omega$)		200M Ω	P
Note: All source of material listed in report were considered.			

11.2	TABLE: electric strength measurements		P
Test voltage applied between:		Test voltage (V)	Break down
Pins connected together and the body		2000VAC	No
Each pins in turn and the other, the latter being connected to the body		2000VAC	No
Note: All source of material listed in report were considered.			

17.3	TABLE: Resistance of insulating material to abnormal heat and to fire		P
Parts that retain current-carrying parts in position: 750°C			P
Other parts: 650°C			P
Note: All source of material listed in report were considered.			

JIS C 8303: 2007 (Partial)			
Clause	Requirement – Test	Result - Remark	Verdict

Japanese plug portion test for JP plug portion			
APPENDIX II	JIS C 8303: 2007 – PLUGS AND RECEPTACLES FOR DOMESTIC AND SIMILAR GERERAL USE (TYPE INSPECTION)		P
EXPLANATION FOR ABBREVIATIONS P=Pass, F=Fail, N/A=Not applicable. Placed in the column to the right.			
5	Performance		P
5.1	Retaining force	For socket only and movable blade plug only	N/A
5.2	Temperature Rise	For socket only and movable blade plug only	N/A
5.3	Contact resistance	Not required for plug and socket without earth pole	N/A
5.4	Make and Break	For socket only and movable blade plug only	N/A
5.5	Insulation resistance	5M Ohm required after make and break test.	P
5.6	Dielectric withstand voltage	1250V, 10mA, 1 min. required	P
5.7	Resistance to heat	No resin moldings or rubber moldings	P
5.8	Strength of screw terminal and lead-wire joint		P
5.9	Strength of blade fixing part	Tested according to 7.10(3)	P
5.10	Rotating property of movable plug type		N/A
5.11	Strength of enclosure	Tested according to 7.11	P
5.12	Strength of Cord anchorage		P
5.13	Strength of Cord outlet		P
5.14	Performance of screwless terminals		N/A
5.15	Endurance to ammonia gas	Applied for socket-outlets only	N/A
5.16	Tensile load		N/A
5.17	Waterproof		N/A
5.18	Flame retardance	No supply wire connected	N/A
5.19	Moisture resistance		N/A

6	Construction, dimensions and material		P
6.1	Construction in general		P
6.2	Terminals	AC plug pins were moulded into enclosure directly	N/A
6.3	Insulation	Enclosure material: min. V-1, see table 20.	P
6.4	Materials of conductive metal parts		P

JIS C 8303: 2007 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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6.5	Material of non-conductive metal parts	No such part.	N/A
6.6	Shapes and dimensions of blades and blade receiving holes	See measured dimension	P
6.7	Dimensions of mounting parts of recessed socket-outlets		N/A
6.8	Dimensions of cable entry		N/A
6.9	Insulation distance		P
6.10	Symbol of poles	No earth pole or a pole of earth side.	N/A
6.11	Locking type, slip-check connectors		N/A
6.12	Waterproof connectors		N/A

7	Testing methods		P
7.1	Construction test	Considered.	P
7.2	Retaining force test		N/A
7.3	Temperature rise test		N/A
7.4	Contact resistance test		N/A
7.5	Make and break test		N/A
7.7	Insulation resistance test	Considered according to JIS C 8306:2007. see cl. 4.5	P
7.7	Dielectric withstand voltage test	Considered according to JIS C 8306:2007, see cl. 4.6	P
7.8	Heat resistance test	For all source of enclosure and plug material were considered.	P
7.9	Strength test of screw terminal and lead-wire joint	For all source of enclosure and plug material were considered.	P
7.10	Strength of blade fixing part	For mold on plug pins on thermoplastic material, (b) and (c) considered.	P
	(b): pull test from blade holes, 100N downward for 2 mins	For all source of enclosure and plug material were considered.	P
	(c): Molded-on connectors		P
	(2) Specimen keep in temperature 20±2°C for 1 hr. in figure 2. blade move right and left 15° for 30 times, 10 times per minute.	For all source of enclosure and plug material were considered.	P
	(3) Blade fixed as figure 3 move right and left 30° for 5 times.	For all source of enclosure and plug material were considered.	P
7.11	Enclosure Strength tests		P

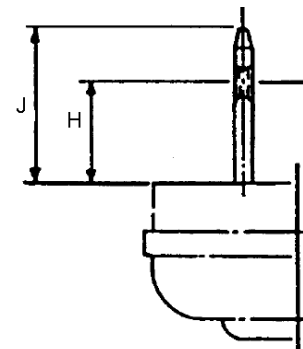
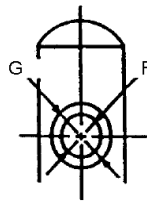
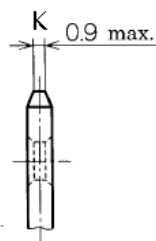
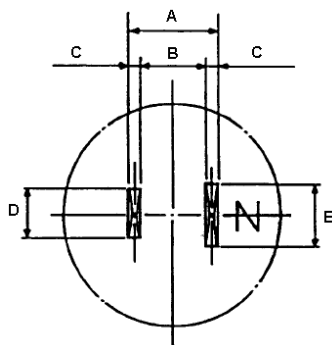
JIS C 8303: 2007 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
	(a) Enclosure compressing test	600N applied on the wider side of specimen between 5mm thick, hardness Ho 60 rubber sheet on top of 15mm or more thick hardwood board for 1 minute. For all source of enclosure and plug material were considered.	P
	(b) Pendulum free fall test	Considered according to JIS C8306:1996. For all source of enclosure and plug material were considered.	P
	(c) Single body free fall test	Considered according to JIS C8306:1996. For all source of enclosure and plug material were considered.	P
7.12	Strength test of Cord anchorage		N/A
7.13	Strength test of Cord outlet		N/A
7.14	Tensile strength test of screwless terminals		N/A
7.15	Bending test for screwless terminal		N/A
7.17	Cyclic heating test for screwless terminal		N/A
7.17	Withstand overcurrent test for screwless terminal		N/A
7.18	Ammonia gas durability test		N/A
7.19	Rotating test of movable plug-blade type		N/A
7.20	Tensile load test		N/A
7.21	Waterproof test		N/A
7.22	Flame retardance test		N/A
8	Inspection		P
8.1	Type inspection	Testing method clause 7 considered. See clause 5, 6 and 10 requirement.	P
10	Marking	Plug portion is an integral part on appliance enclosure, refer to appliance ratings.	P

JIS C 8303: 2007 (Partial)

Clause	Requirement – Test	Result - Remark	Verdict
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Measured dimensions of the plug portion (per JIS C 8303 or IEC 60 083)				P
Location	Measured dimensions (mm)			Limit of dimensions (mm)
	Sample 1	Sample 2	Sample 3	
A	14.25	14.25	14.23	Under 14,6
B	11.22	11.21	11.22	Over 10,8
C	1.45	1.44	1.43	$1,5 \pm 0,10$
D	6.33	6.34	6.34	$6,3 \pm 0,3$
E	6.31	6.31	6.32	$8 \pm 0,2$ 1)
F	3.14	3.13	3.14	$\Phi 3 + 0,3 / - 0,2$
G	3.58	3.59	3.59	Over $\Phi 3,5$
H	11.97	11.98	11.99	$11,7 \pm 0,4$
J	16.93	16.93	16.92	$17 \pm 1,3$
K	0.87	0.88	0.88	Under 0.9



Notes:

- 1) In case of those without having distinction of polarity, the width of blade shall be $6,3\text{mm} \pm 0,3 \text{ mm}$.

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 1 model: GT-86060-WWVV-W2A



Photo 2 model: GT-86060-WWVV-W2A

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 3 model: GT-86060-WWVV-W2A



Photo 4 model: GT-86060-WWVV-W2K

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 5 model: GT-86060-WWVV-W2K

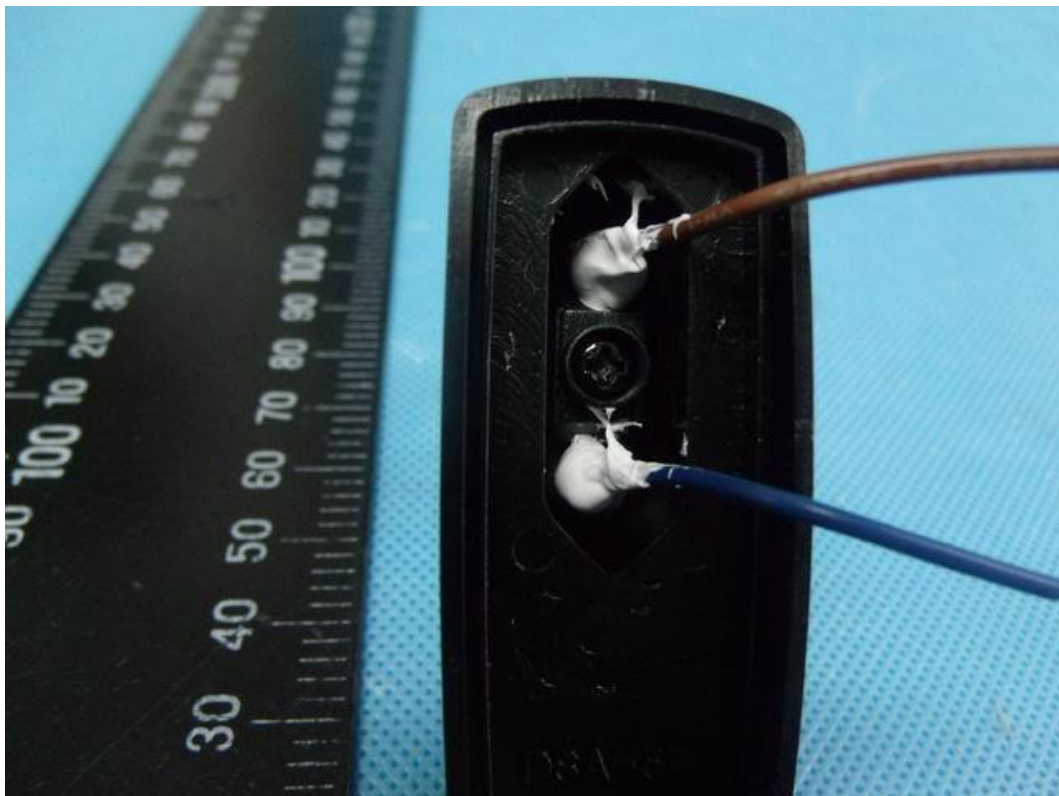


Photo 6 model: GT-86060-WWVV-W2K

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 7 model: GT-86060-WWVV-W2U



Photo 8 model: GT-86060-WWVV-W2U

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 9 model: GT-86060-WWVV-W2E



Photo 10 model: GT-86060-WWVV-W2E

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)



Photo 11 GT-86060-WWVV-W2E

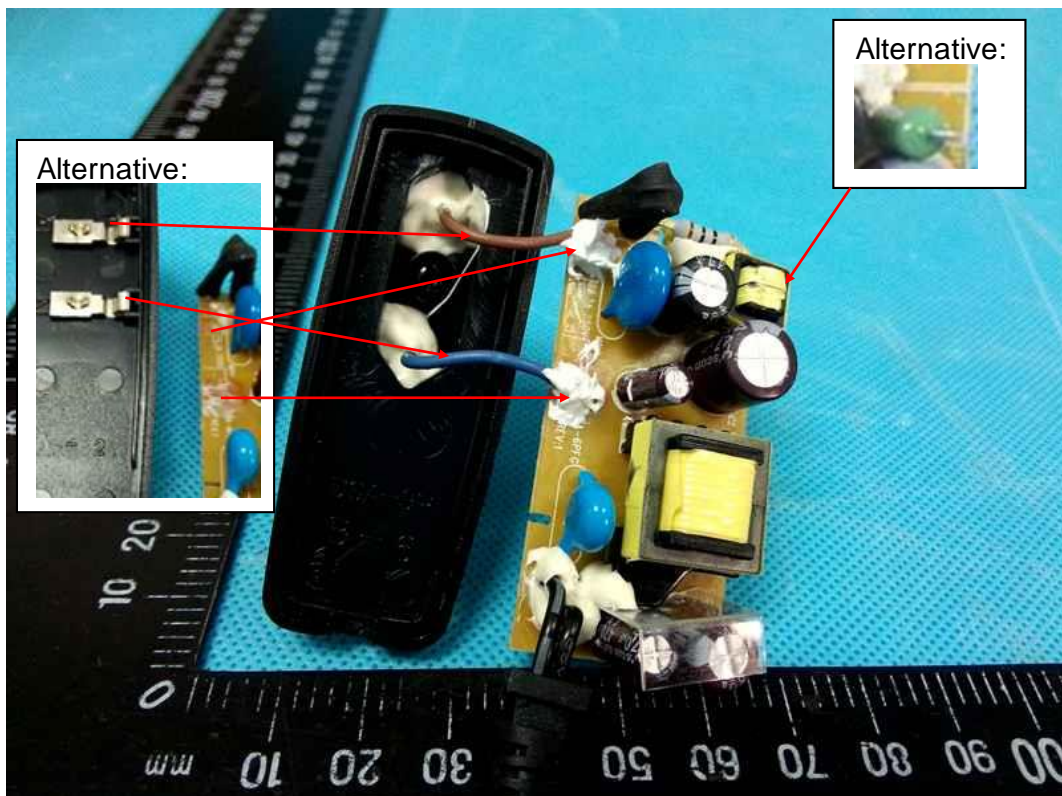


Photo 12 GT-86060-WWVV-W2E

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

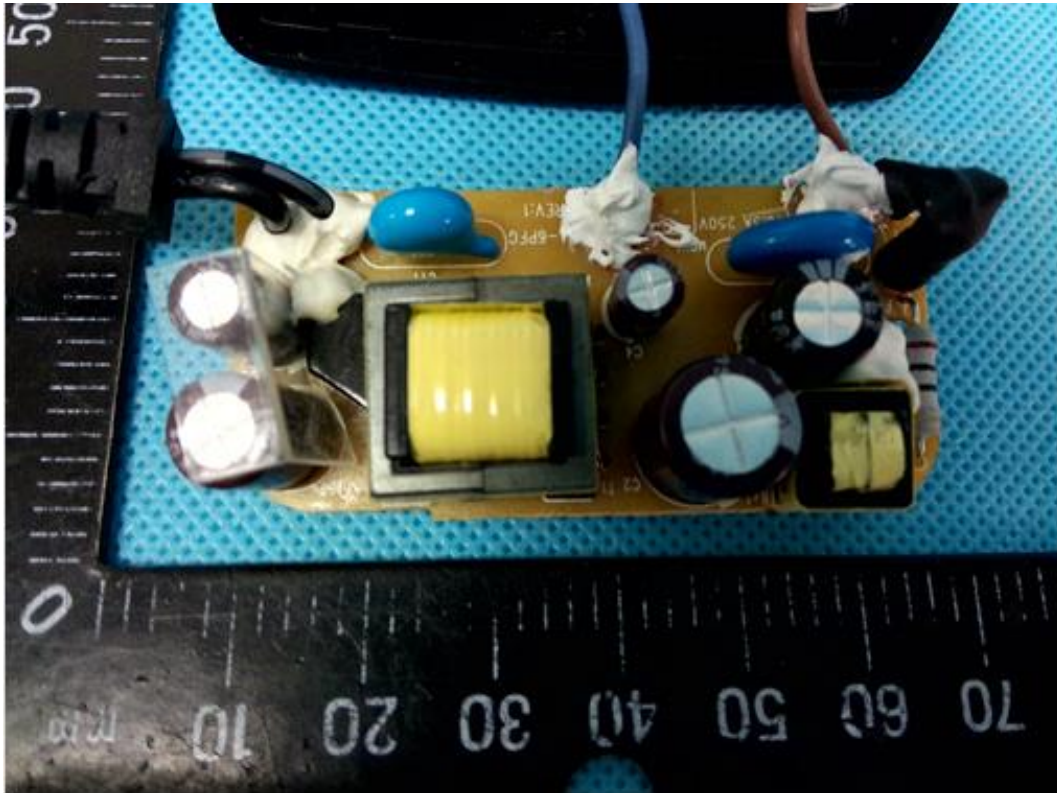


Photo 13 GT-86060-WWVV-W2E

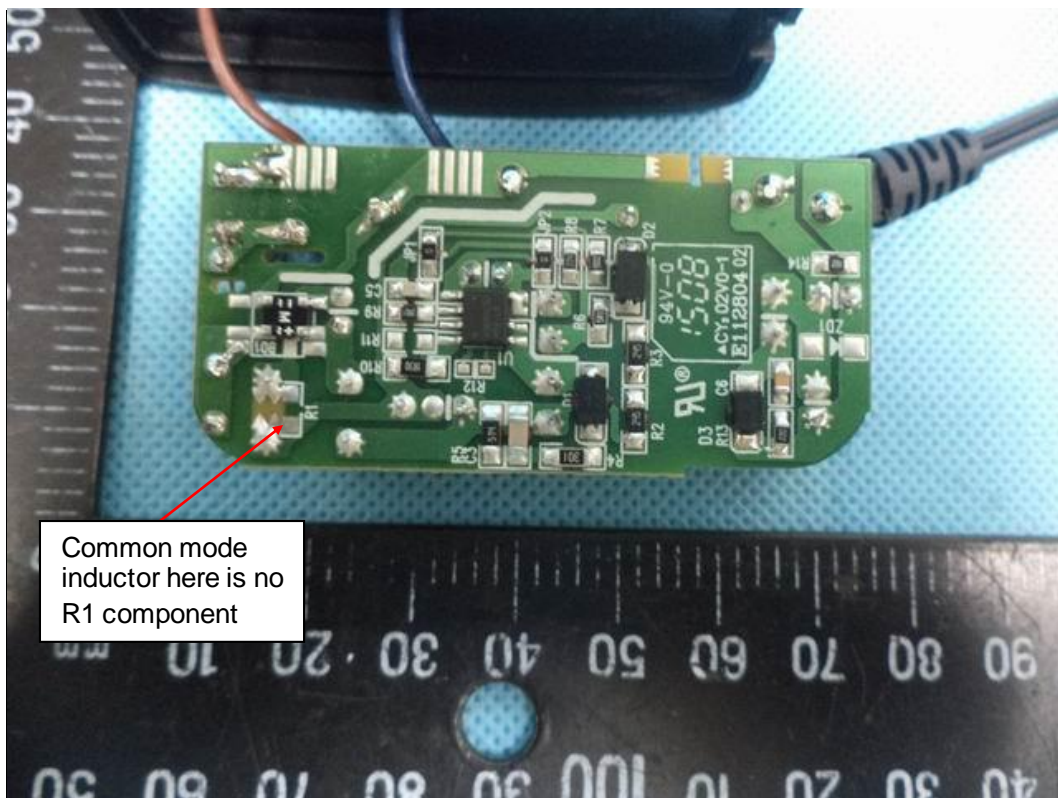


Photo 14 GT-86060-WWVV-W2E

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

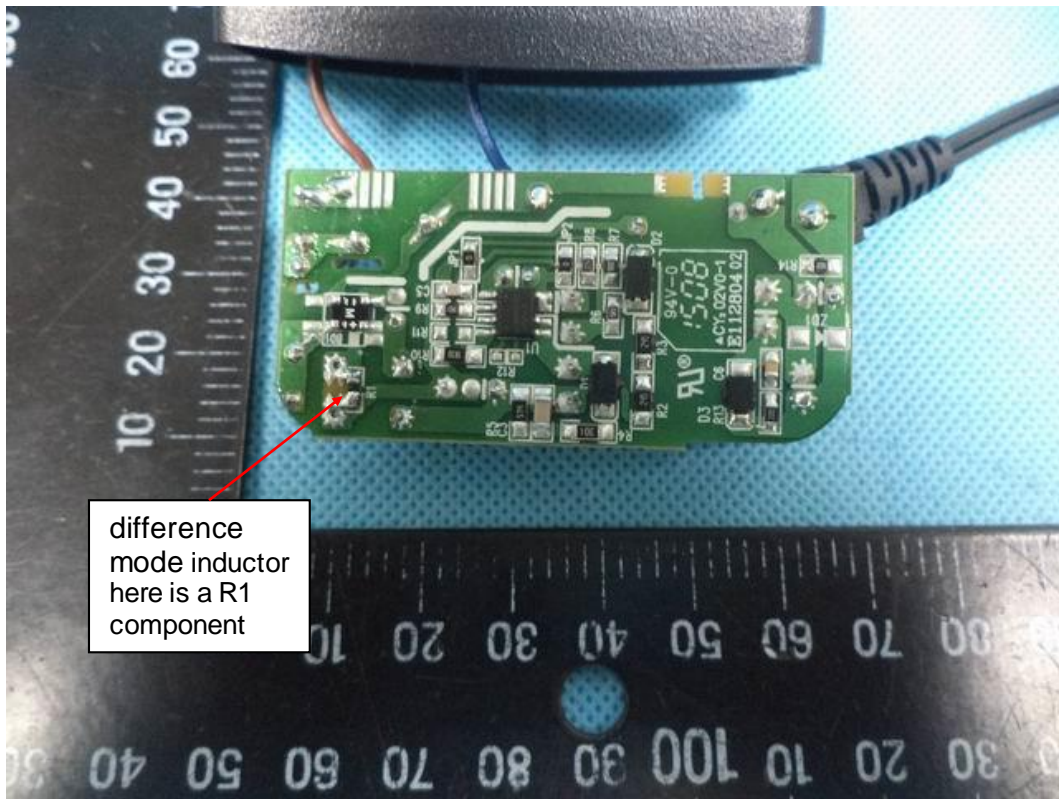


Photo 15 GT-86060-WWVV-W2E

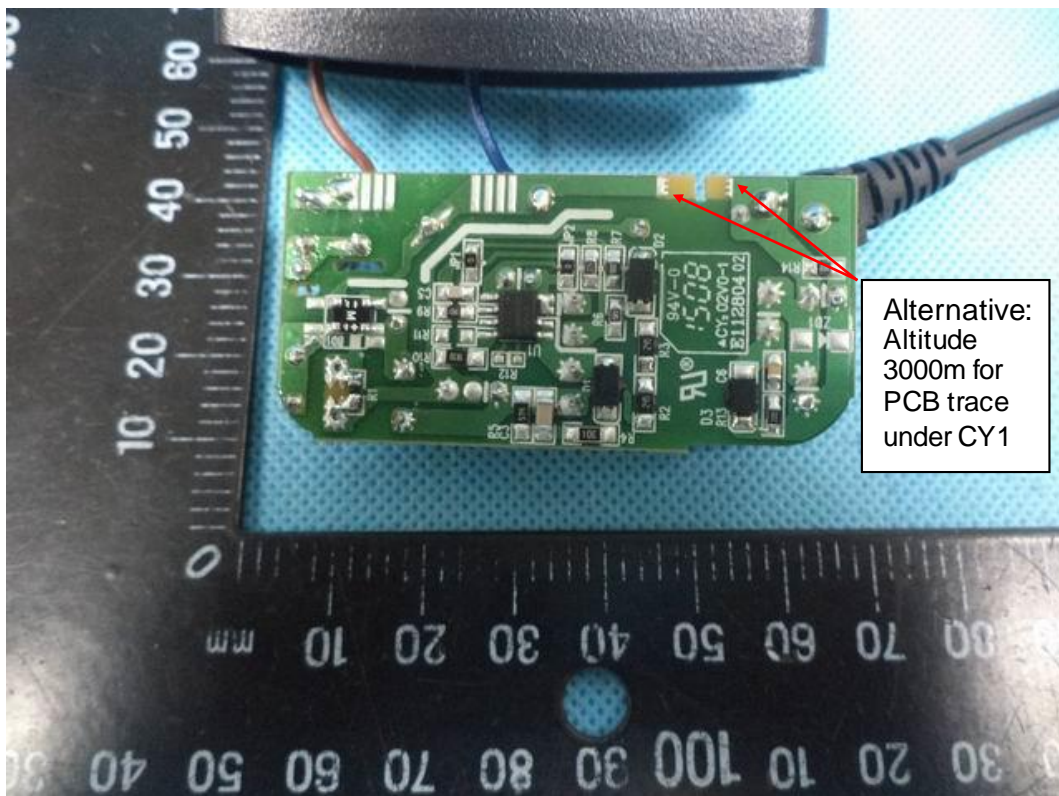


Photo 16 GT-86060-WWVV-W2E (PCB layout REV:103 for Altitude 3000m)

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

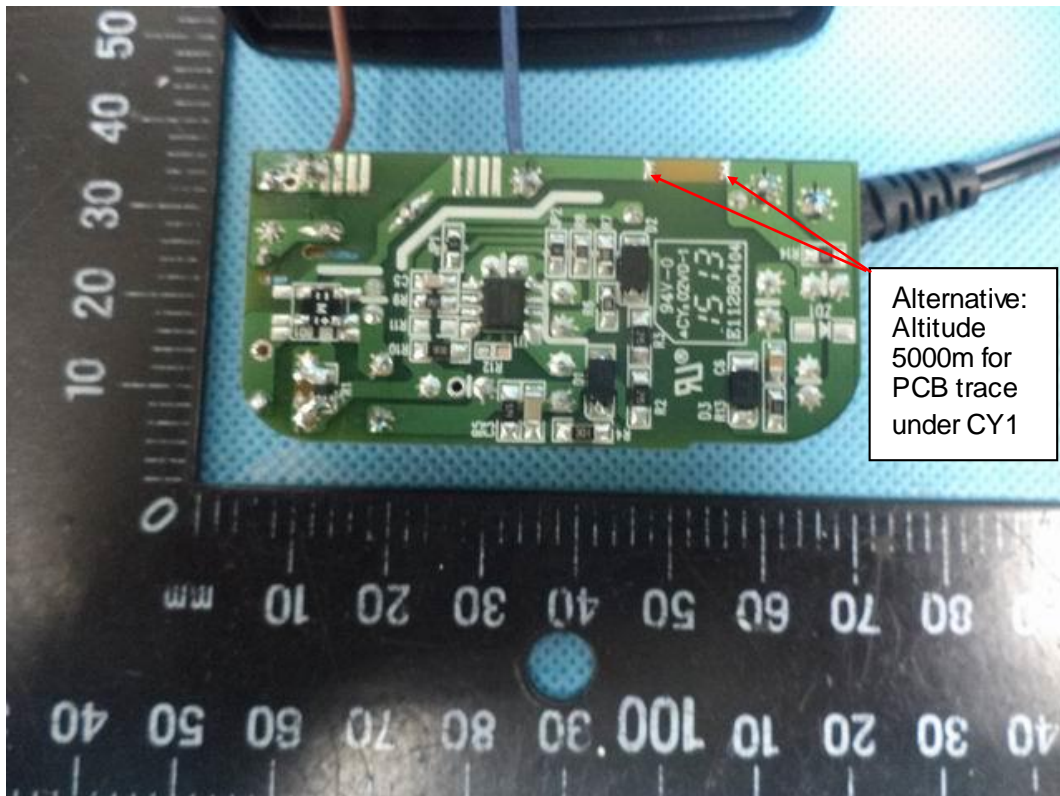


Photo 17 GT-86060-WWVV-W2E (PCB layout REV:105 for Altitude 5000m)

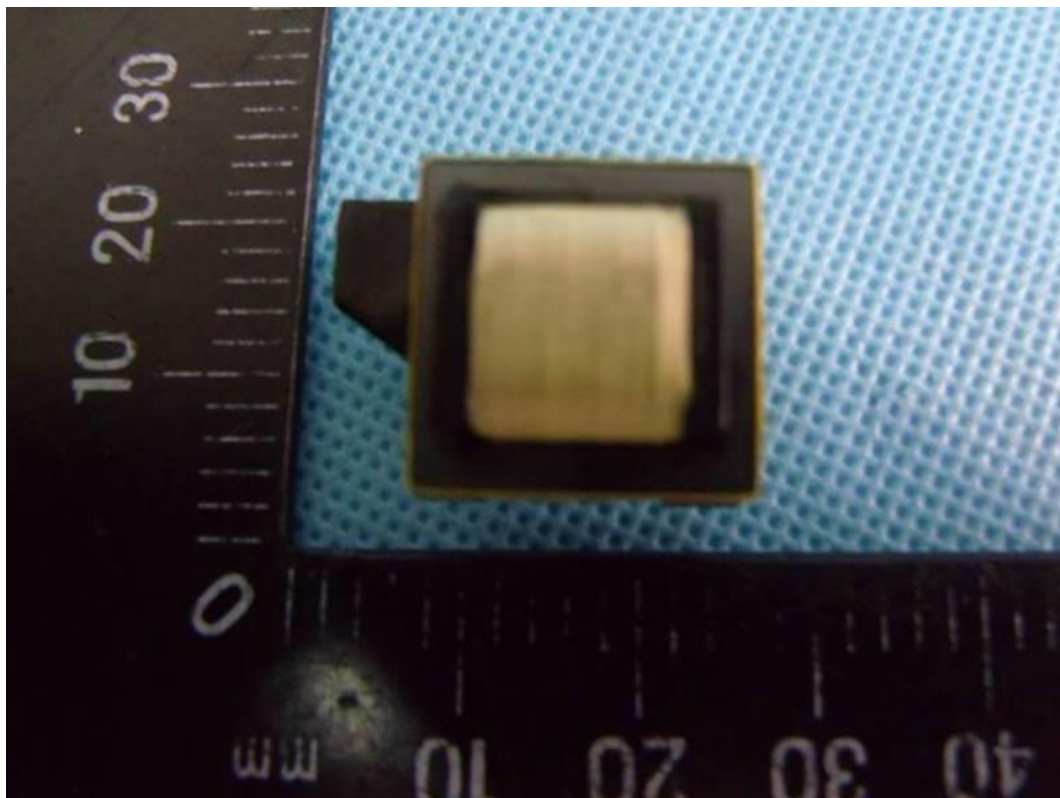


Photo 18 Transformer photo

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

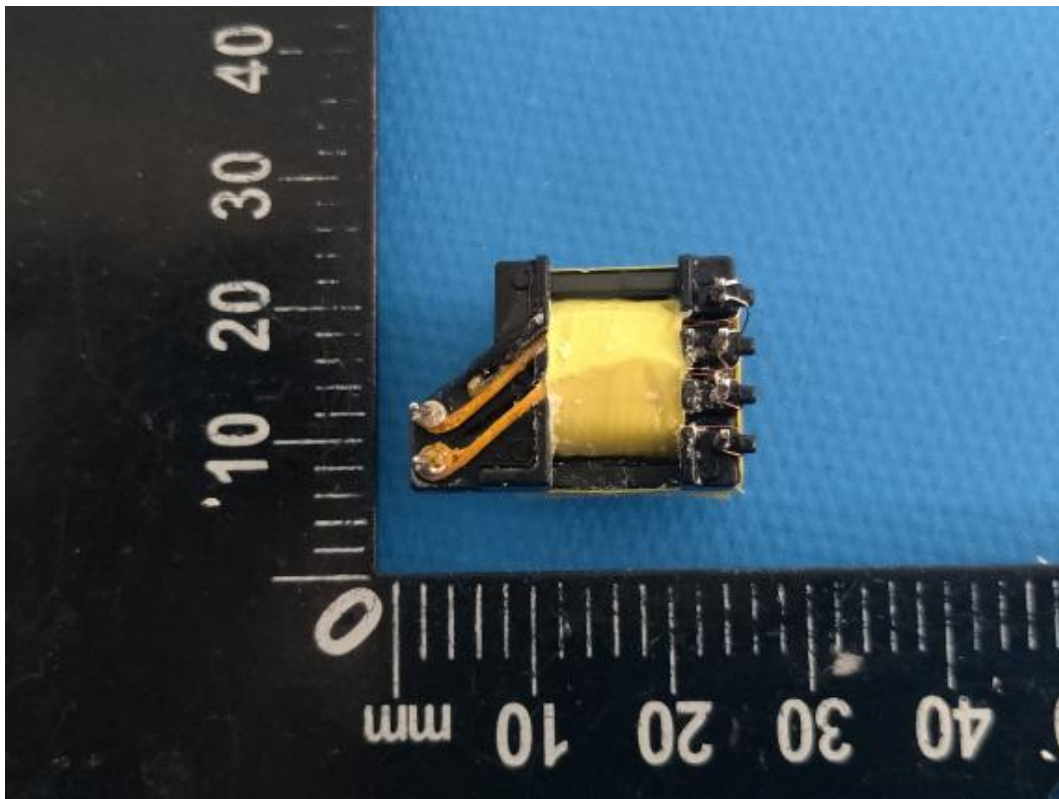


Photo 19

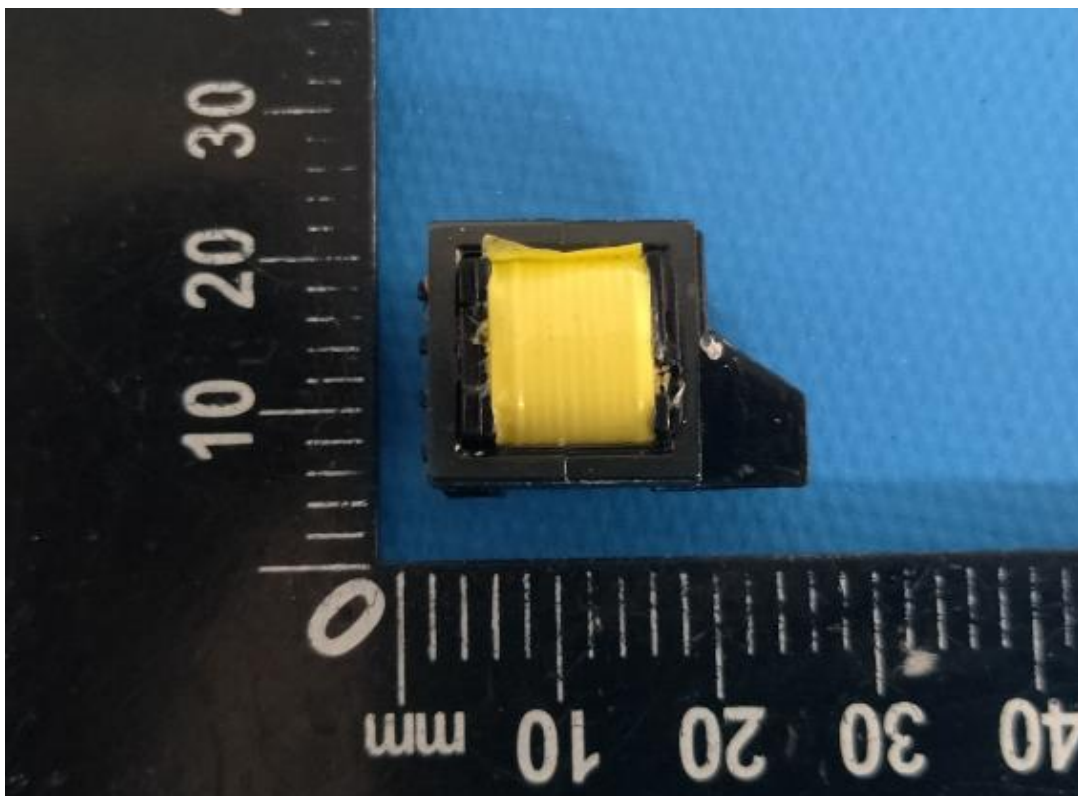


Photo 20

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

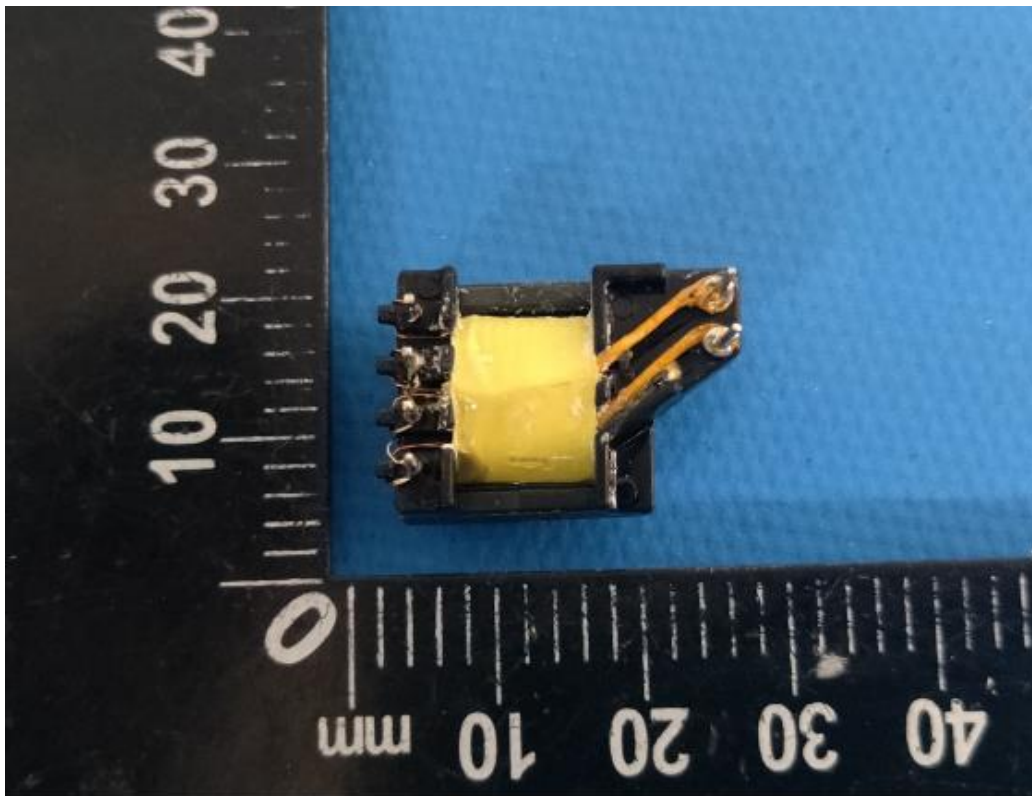


Photo 21

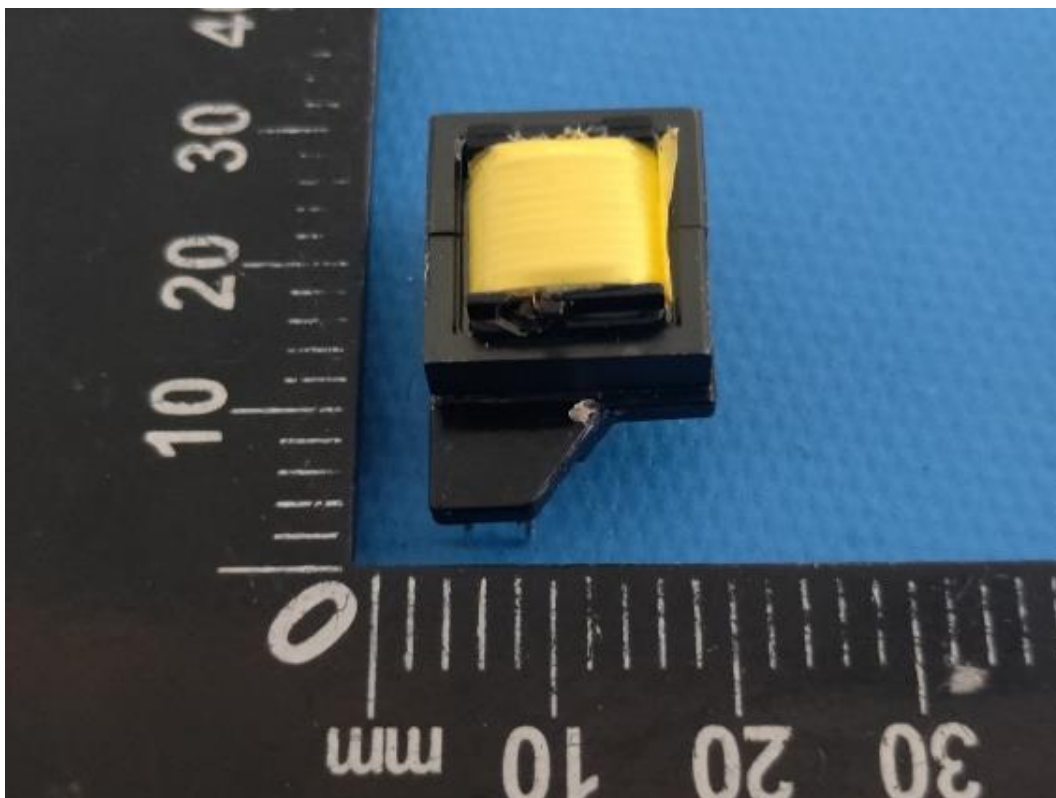


Photo 22

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

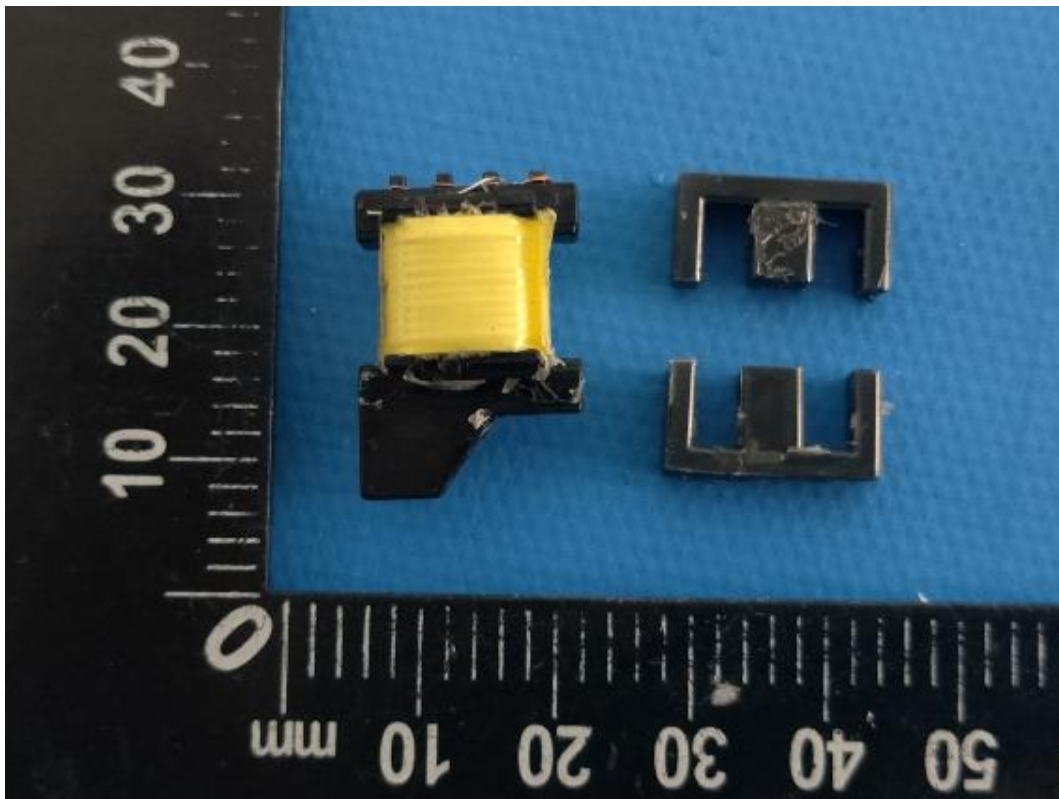


Photo 23

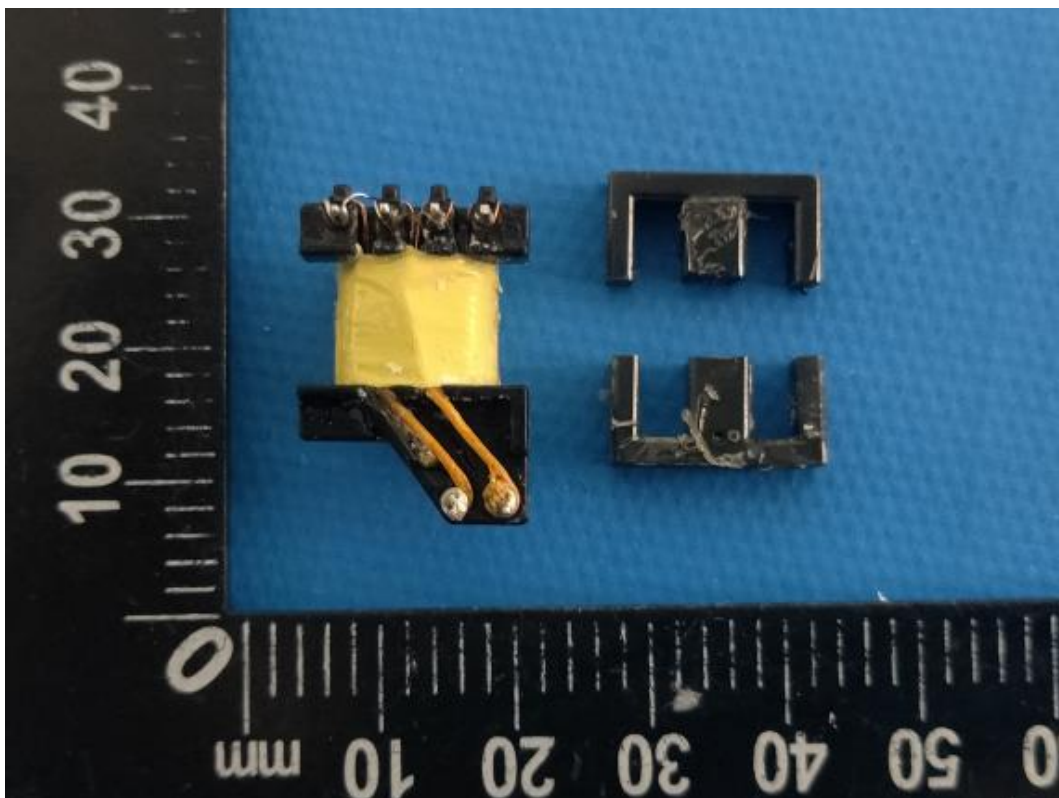


Photo 24

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

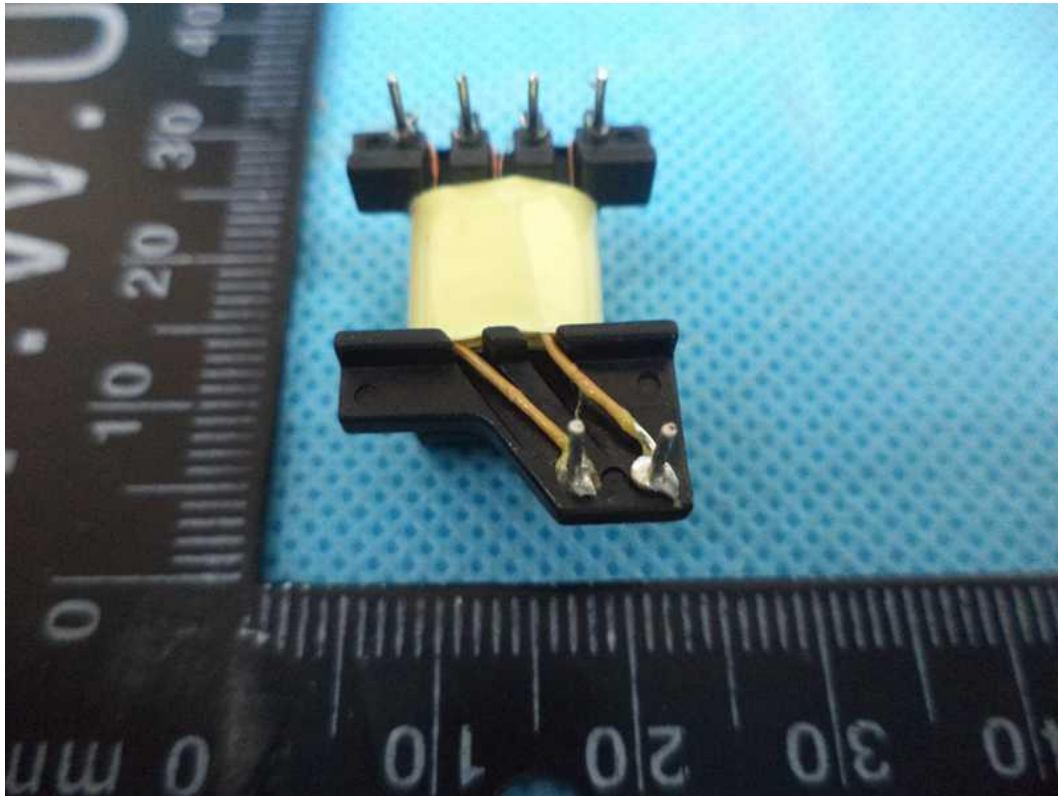


Photo 25

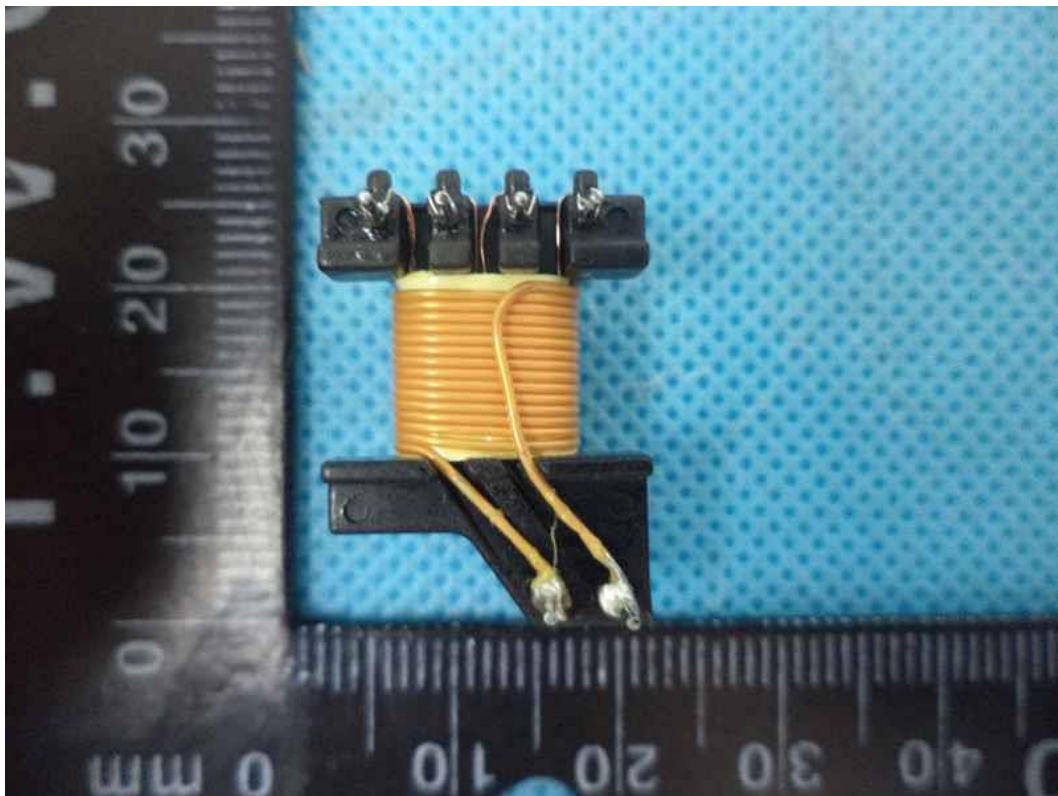


Photo 26

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

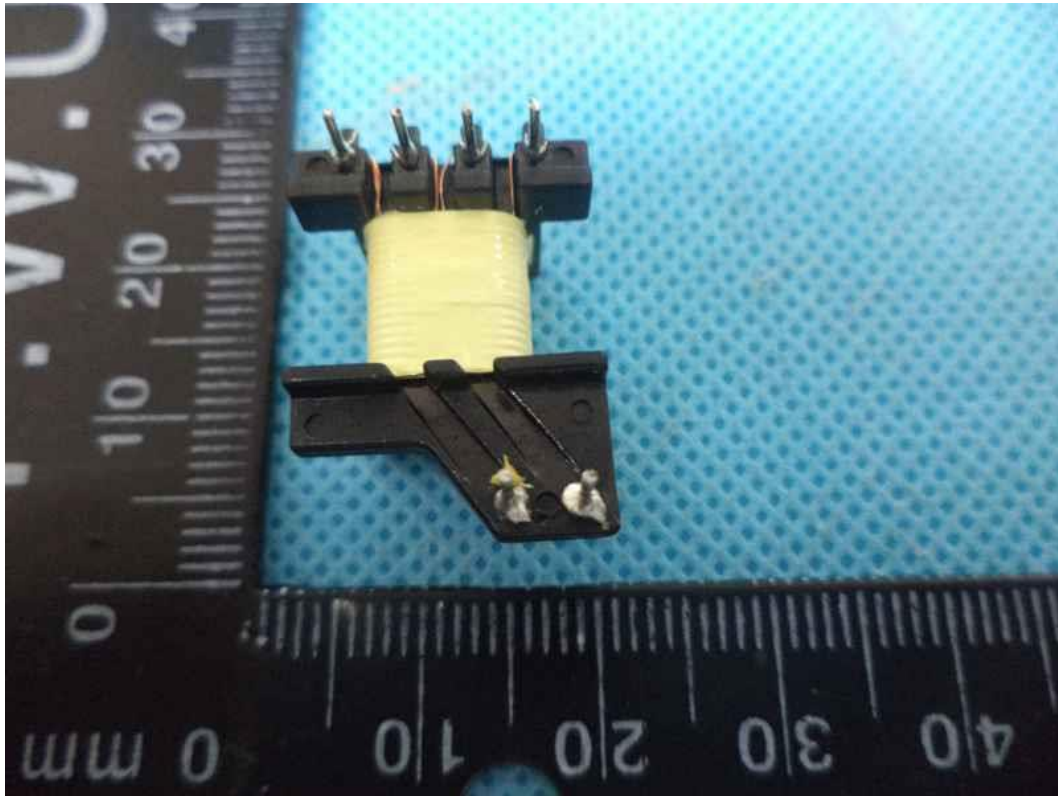


Photo 27



Photo 28

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

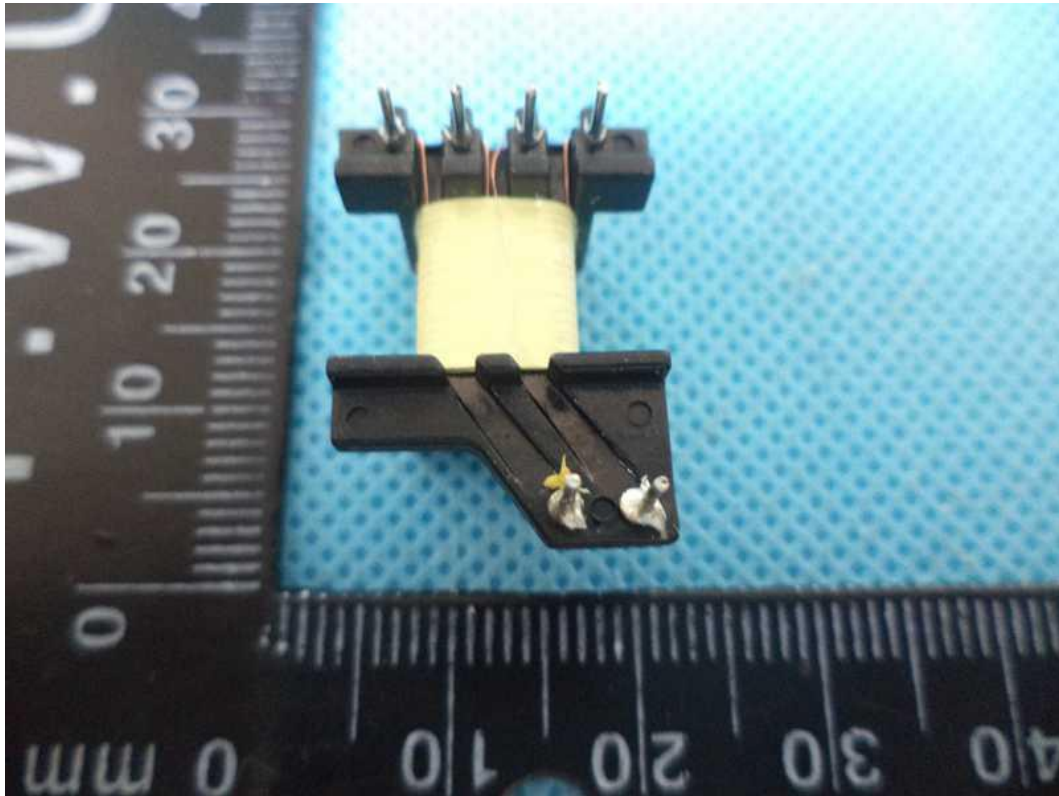


Photo 29



Photo 30

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

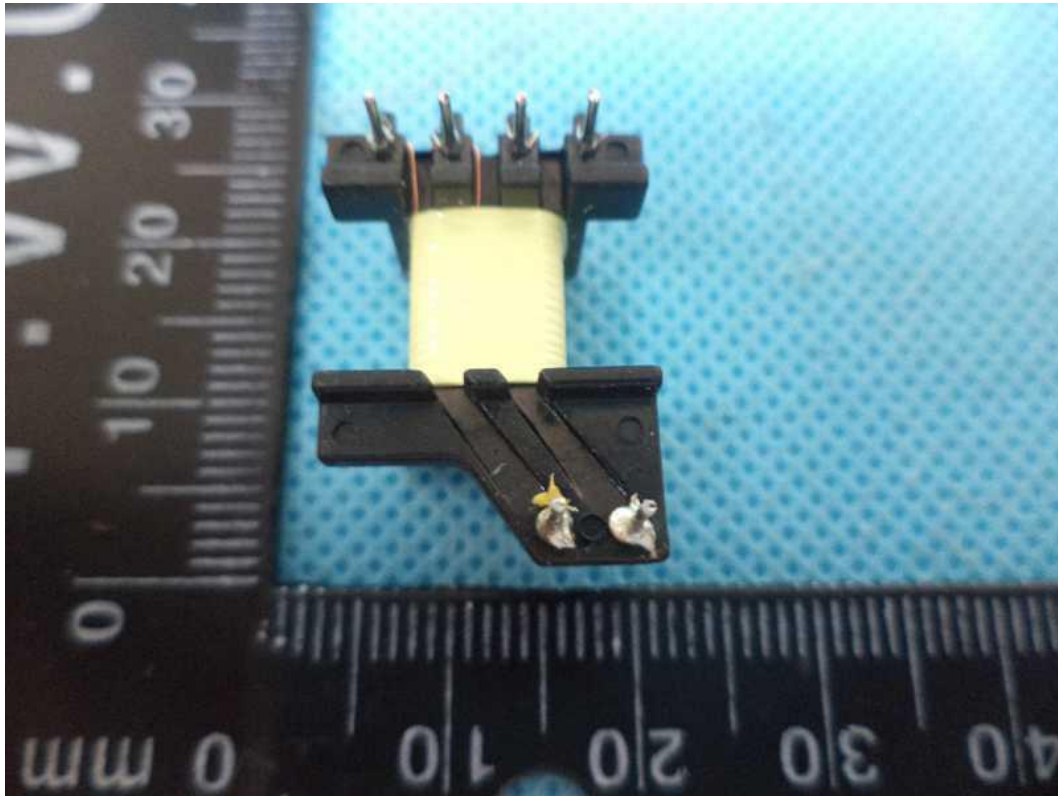


Photo 31

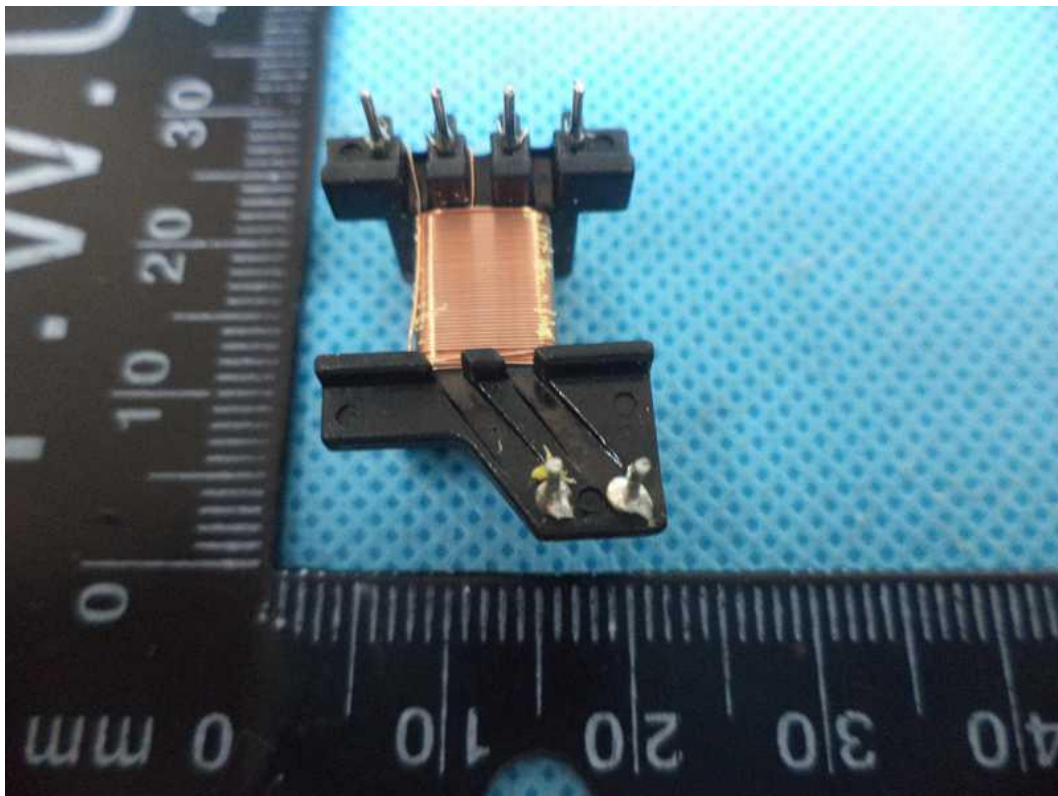


Photo 32

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

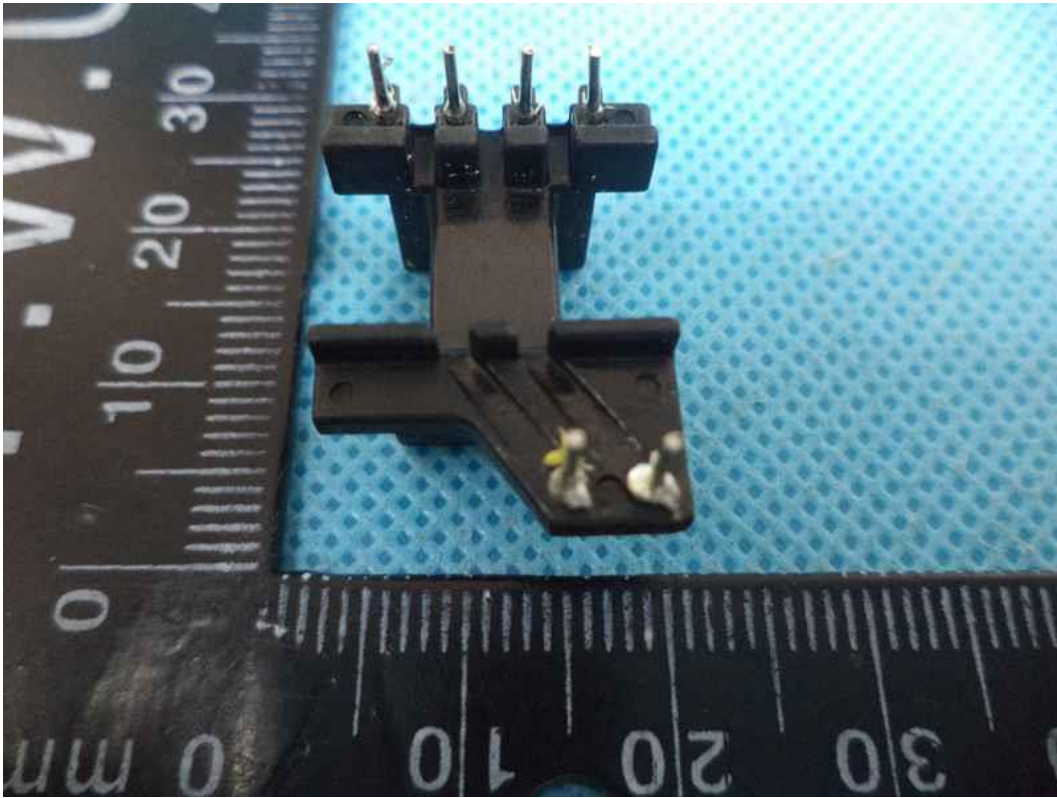


Photo 33



Photo 34 (Japan plug)

Model: GT-86060-WWVV*W2Z (WW, VV, W2Z and *are variables)

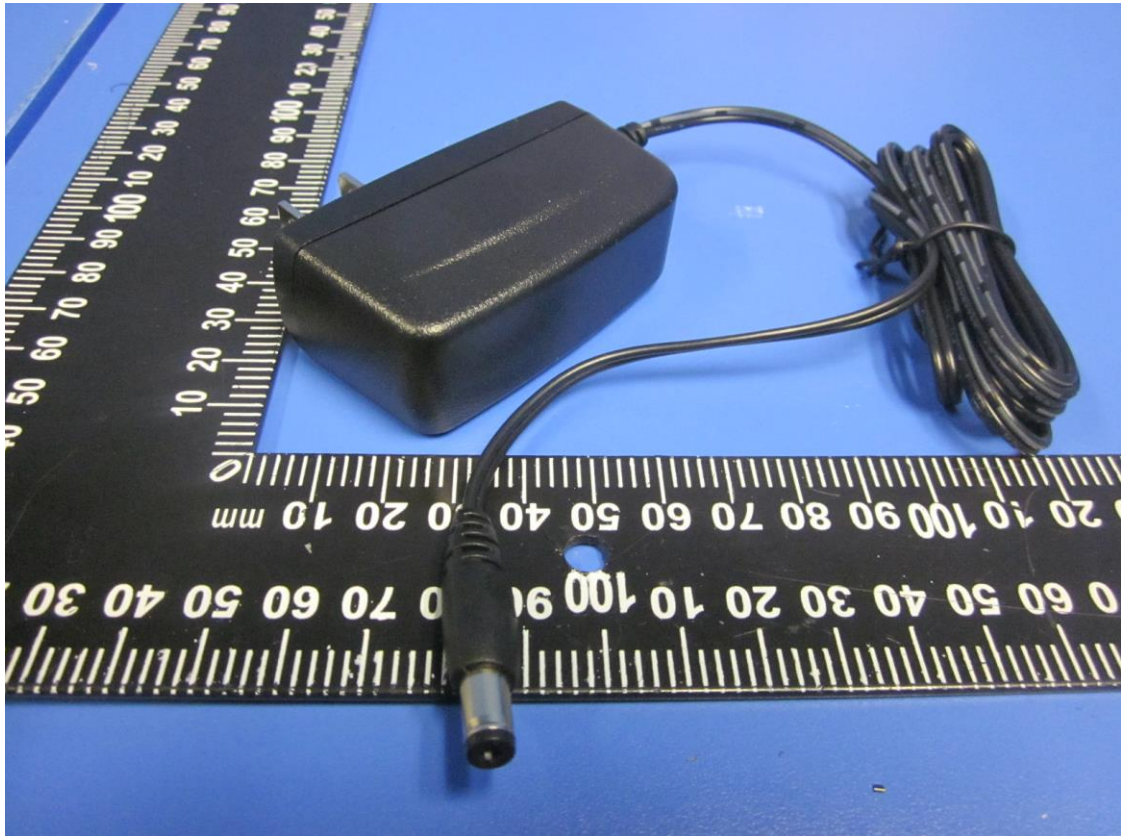


Photo 35 (Japan plug)

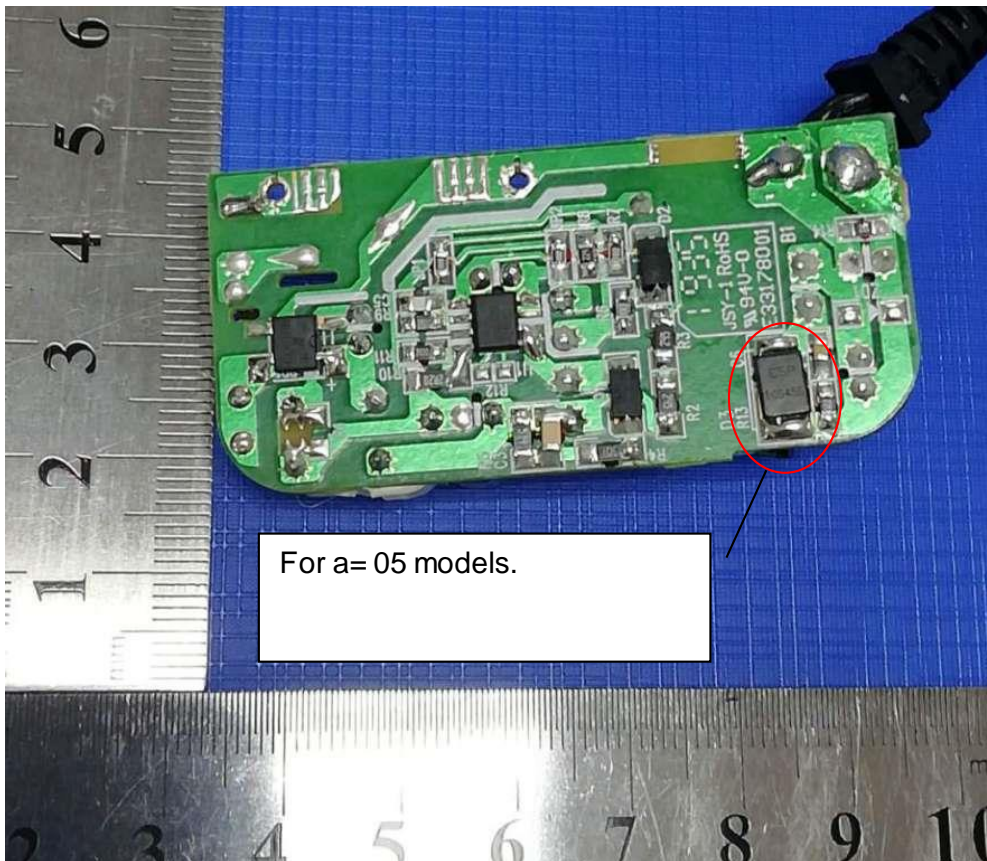


Photo 36