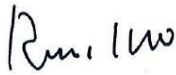




Test Report issued under the responsibility of:



TEST REPORT IEC 62368-1 Audio/video, information and communication technology equipment Part 1: Safety requirements	
Report Number	50351182 001
Date of issue	March 31, 2020
Total number of pages	83
Applicant's name	SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.
Address	E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R.China
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	POWER OVER ETHERNET INJECTOR	
Trade Mark	Gospower	
Manufacturer	Same as applicant	
Model/Type reference	G0720-xxx-yyy, G0720-240-zzz, 740-64214-001 (For definition of variables "xxx", "yyy" and "zzz", see table A on page 7 for details)	
Ratings	Input : 100-240V ~, 50/60Hz, 0.75A MAX Output : See table B on page 7 for details.	
Testing procedure and testing location:		
☒ CB Testing Laboratory:	Dongguan Nore Testing Center Co., Ltd.	
Testing location/ address	Building D, Gaosheng Science & Technology Park, Zhouxi Longxi Road, Nancheng District, Dongguan, Guangdong, China	
☐ Associated CB Testing Laboratory:	N/A	
Testing location/ address	N/A	
Tested by (name + signature)	Qi Yin (Project Handler)	
Approved by (name + signature)	Ryan Luo (Reviewer)	
Testing procedure: TMP/CTF Stage 1		
Testing location/ address	N/A	
Tested by (name + signature)		
Approved by (name + signature)		
Testing procedure: WMT/CTF Stage 2		
Testing location/ address	N/A	
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Testing procedure: SMT/CTF Stage 3 or 4		
Testing location/ address	N/A	
Tested by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

List of Attachments (including a total number of pages in each attachment): Attachment 1: National differences (31 pages) Attachment 2: Photo Documentation (12 pages)																																																	
Summary of testing:																																																	
Tests performed (name of test and test clause): All applicable tests as described in Test Case and Measurement Sections were performed. Load conditions used during testing see appended table B.2.5 for details. Following tests performed during evaluation:	Testing location: Unless otherwise indicated, all tests were performed at the location stated in "Testing procedure and testing location".																																																
<table border="1"> <tr><td>5.2</td><td>Electrical energy source classifications</td></tr> <tr><td>5.3.2</td><td>Accessibility to electrical energy sources and safeguards (Accessibility test)</td></tr> <tr><td>5.4.1.4, 6.3.2, 9.0, B.2.6</td><td>Maximum operating temperatures for materials, components and systems</td></tr> <tr><td>5.4.1.8</td><td>Determination of working voltage</td></tr> <tr><td>5.4.2.2, 5.4.2.4 & 5.4.3</td><td>Minimum Clearances/Creepage distance</td></tr> <tr><td>5.4.8</td><td>Humidity conditioning</td></tr> <tr><td>5.4.9</td><td>Electric strength test</td></tr> <tr><td>5.5.2.2</td><td>Stored discharge on capacitors</td></tr> <tr><td>5.6.6.2</td><td>Resistance of the protective bonding system (Ground continuity test)</td></tr> <tr><td>6.2.3.1</td><td>Determination of Potential Ignition Sources (Arcing PIS)</td></tr> <tr><td>6.2.3.2</td><td>Determination of Potential Ignition Sources (Resistive PIS)</td></tr> <tr><td>5.7.2.2, 5.7.4</td><td>Earthed accessible conductive part test</td></tr> <tr><td>6.2.2</td><td>Electrical power sources (PS) measurements for classification</td></tr> <tr><td>B.2.5</td><td>Input tests</td></tr> <tr><td>B.3</td><td>Simulated Abnormal operating condition tests</td></tr> <tr><td>B.4</td><td>Simulated single fault conditions</td></tr> <tr><td>F.3.9</td><td>Durability, legibility and permanence of markings</td></tr> <tr><td>G.5.3.2</td><td>Transformer insulation</td></tr> <tr><td>G.5.3.3</td><td>Transformer overload</td></tr> <tr><td>T.2</td><td>Steady force test, 10 N</td></tr> <tr><td>T.5</td><td>Steady force test, 250 N</td></tr> <tr><td>T.6</td><td>Impact test</td></tr> <tr><td>T.7</td><td>Drop test</td></tr> <tr><td>T.8</td><td>Stress relief test</td></tr> </table>	5.2	Electrical energy source classifications	5.3.2	Accessibility to electrical energy sources and safeguards (Accessibility test)	5.4.1.4, 6.3.2, 9.0, B.2.6	Maximum operating temperatures for materials, components and systems	5.4.1.8	Determination of working voltage	5.4.2.2, 5.4.2.4 & 5.4.3	Minimum Clearances/Creepage distance	5.4.8	Humidity conditioning	5.4.9	Electric strength test	5.5.2.2	Stored discharge on capacitors	5.6.6.2	Resistance of the protective bonding system (Ground continuity test)	6.2.3.1	Determination of Potential Ignition Sources (Arcing PIS)	6.2.3.2	Determination of Potential Ignition Sources (Resistive PIS)	5.7.2.2, 5.7.4	Earthed accessible conductive part test	6.2.2	Electrical power sources (PS) measurements for classification	B.2.5	Input tests	B.3	Simulated Abnormal operating condition tests	B.4	Simulated single fault conditions	F.3.9	Durability, legibility and permanence of markings	G.5.3.2	Transformer insulation	G.5.3.3	Transformer overload	T.2	Steady force test, 10 N	T.5	Steady force test, 250 N	T.6	Impact test	T.7	Drop test	T.8	Stress relief test	
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Note : 1. If not otherwise specified, tests were performed on models G0720-240-100, G0720-360-075, G0720-560-053. 2. The EUTs passed the test.																																																	

Summary of compliance with National Differences:

EU Group Differences, EU Special National Conditions, AU, CA, DK, FI, IT, SE, US.

Explanation of used codes: AU=Australia, CA=Canada, DK=Denmark, FI=Finland, IT=Italy, SE=Sweden, US= United State of America.

For National Differences see attachment 1 of this test report.

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

Copy of marking plate(s): (Representative)

SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO.,LTD.

POWER OVER ETHERNET INJECTOR/POE电源

MODEL/型号: G0720-480-050

INPUT/输入: 100-240V ~ 50/60Hz 0.75A MAX

OUTPUT/输出: 48.0V = 0.5A 24.0W

+ (1, 2) (4, 5) pins, - (3, 6) (7, 8) pins

P/N: G0720-480-050

I. T. E. POWER SUPPLY

WARNING: RISK OF ELECTRIC SHOCK DO NOT OPEN

ATTENTION: RISQUE D'ELECTROCUTION NE PAS OUVRIR

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and

(2)This device must accept any interference received, including interference that may cause undesired operation.

MADE IN CHINA/中国制造

制造商: 高斯宝电气技术有限公司

Gospower



YYWWXXXXX

Remark:

The above labels are a draft of an artwork for marking plate pending approval by National Certification Bodies and it shall not be affixed to products prior to such an approval.

TEST ITEM PARTICULARS:	
Classification of use by	☒ Ordinary person ☐ Instructed person ☐ Skilled person ☒ Children likely to be present
Supply Connection.....	☒ AC Mains ☐ DC Mains ☐ External Circuit - not Mains connected - ☐ ES1 ☐ ES2 ☐ ES3
Supply % Tolerance	☒ +10%/-10% ☐ +20%/-15% ☐ + ____ %/ - ____ % ☐ None
Supply Connection – Type	☒ pluggable equipment type A - ☐ non-detachable supply cord ☒ appliance coupler ☐ direct plug-in ☐ mating connector ☐ pluggable equipment type B - ☐ non-detachable supply cord ☐ appliance coupler ☐ permanent connection ☐ mating connector ☐ other:
Considered current rating of protective device as part of building or equipment installation	US, CA:20 A; UK:13 A; Others:16 A Installation location: ☒ building; ☐ equipment
Equipment mobility	☒ movable ☐ hand-held ☐ transportable ☐ stationary ☐ for building-in ☐ direct plug-in ☐ rack-mounting ☐ wall-mounted
Over voltage category (OVC)	☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV ☐ other: _____
Class of equipment	☒ Class I ☐ Class II ☐ Class III
Access location	☐ restricted access location ☒ N/A
Pollution degree (PD)	☐ PD 1 ☒ PD 2 ☐ PD 3
Manufacturer's specified maximum operating ambient	40°C
IP protection class	☒ IPX0 ☐ IP____
Power Systems	☒ TN ☐ TT ☒ IT - <u>230</u> V _{L-L}
Altitude during operation (m)	☐ 2000 m or less ☒ <u>5000</u> m
Altitude of test laboratory (m)	☒ 2000 m or less ☐ _____ m
Mass of equipment (kg)	☒ Approx. 0.139kg

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	March 12, 2020
Date (s) of performance of tests	March 12, 2020 to March 21, 2020
GENERAL REMARKS:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60664-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	1) SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. E. of 5F, Zone A, 1st Ind., Area, Fenghuanggang, Sou BaoTian 1Rd., Xixiang, Str., Bao An District, Shenzhen, Guangdong 518102, P.R. China 2) SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. West of the 1F to 4F, Block A, Sou. Baotian 1Rd (Xinghong Science and Technology Park), XiXiang Street, Bao An District, Shenzhen, Guangdong 518102, P.R. China. 3) GOSPOWER ELECTRIC TECHNOLOGY CO., LTD. Block 1, XingYe Road No.5, SongShan Lake Park, DongGuan City, Guangdong Province 523000, P.R.China.
GENERAL PRODUCT INFORMATION:	
- The equipment is Class I "POWER OVER ETHERNET INJECTOR" intended to be used for information technology equipment as a POE power supply and can connect to communication network limited to the same building. - The bottom enclosure is secured to the top enclosure by ultrasonic welding method. - The plastic enclosure of the EUT has two different versions. One of the version with hook, and other one without. Both versions have the same PCB Layout, circuit schematics and construction. All tests were performed on the version without hook. - The maximum ambient temperature permitted by the manufacturer's specification is 40°C. - The maximum operating altitude of 5000m. Therefore the requirements of IEC 60664-1 for clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.48.	

Model Differences –

1. All models are identical to each other except for type designation, output rating, and rating of some components. See appended tables 4.1.2 and below model different list for details.
2. Model 740-64214-001 and G0720-480-050 are identical to each other except for different model designation.

Table A: Definition of variables

Variable	Range of variable	Content
xxx	360-560	'xxx' are 3 digit number, denotes 10 times of output voltage value in V. For example, 360 represents the output voltage is 36V, 560 represents the output voltage is 56V.
yyy	001-075	'yyy' are 3 digit number, denotes 100 times of output current value in A. For example, 001 represents the output current is 0.01A, 075 represents the output current is 0.75A.
zzz	001-100	'zzz' are 3 digit number, denotes 100 times of output current value in A. For example, 001 represents the output current is 0.01A, 100 represents the output current is 1.0A.

Table B: Model list

Model No.	Output voltage (Vdc)	Output current (A)	Max. output power (W)	Transformer
G0720-xxx-yyy	36-56	0.01-0.75	30	LT00783V01
G0720-240-zzz	24	0.01-1.0	24	
740-64214-001	48	0.5	24	

Note:

1. The rated output voltage is rising from 36.0V and in steps of 0.1V between specified voltage range.
2. The rated output current is rising from 0.01A and in steps of 0.01A, but not more than the indicated max o/p current.
3. Actual output current depends on range of output voltage. The max. output current multiplied by output voltage cannot exceed the max. output power.

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

N/A

ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE:

(Note 1: Identify the following six (6) energy source forms based on the origin of the energy.)

(Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g. PS3, ES3.

Electrically-caused injury (Clause 5):

(Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification)

Example: +5 V dc input

ES1

Source of electrical energy	Corresponding classification (ES)
All circuits except for LAN and output circuit (connector)	ES3
Stored charge on X-capacitor	ES3
LAN and output circuit (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 circuits except for output circuit (connector)	PS3
Output circuit (connector)	PS2

Injury caused by hazardous substances (Clause 7)

(Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.)

Example: Liquid in filled component

Glycol

Source of hazardous substances	Corresponding chemical
N/A	None

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)
Edges and corners of enclosure	MS1
Mass of the unit	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)
External surface	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)
LED Indicator	RS1

ENERGY SOURCE DIAGRAM

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

☐ ES ☐ PS ☐ MS ☐ TS ☐ RS

(refer to ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE for DETAIL)

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	Supplement ary	Reinforced (Enclosure)
Ordinary person	ES3: All circuits except for LAN and output circuit (connector)	Equipment safeguard	Equipment safeguard	Enclosure, See 5.4.2, 5.4.3, 5.5.3 and 5.5.4
Ordinary person	ES3: Stored charge on X-capacitor	N/A	N/A	See clause 5.5.2.2
Ordinary person	ES1: LAN and output circuit (connector)	N/A	N/A	N/A
6.1	Electrically-caused fire			
Material part (e.g. mouse enclosure)	Energy Source	Safeguards		
		Basic	Supplement ary	Reinforced
Combustible materials within equipment	PS3: All circuits except for output circuit (connector)	See clause 6.3	See clause 6.4.5, 6.4.6	N/A
	PS2: Output circuit (connector)	See clause 6.3	See clause 6.4.5	N/A
7.1	Injury caused by hazardous substances			
Body Part (e.g., skilled)	Energy Source (hazardous material)	Safeguards		
		Basic	Supplement ary	Reinforced
N/A (no such sources)	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	Supplement ary	Reinforced (Enclosure)
Ordinary person	MS1: Edges and corners	N/A	N/A	N/A
Ordinary person	MS1: Mass of the unit	N/A	N/A	N/A
9.1	Thermal Burn –			
Body Part (e.g., Ordinary)	Energy Source (TS2)	Safeguards		
		Basic	Supplement ary	Reinforced
Ordinary person	TS1: External surface	N/A	N/A	N/A
10.1	Radiation			
Body Part (e.g., Ordinary)	Energy Source (Output from audio port)	Safeguards		
		Basic	Supplement ary	Reinforced
Ordinary person	RS1:LED Indicator	N/A	N/A	N/A
Supplementary Information:				

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

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		P
4.1.1	Acceptance of materials, components and subassemblies	(See appended table 4.1.2)	P
4.1.2	Use of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G	P
4.1.3	Equipment design and construction	Evaluation of safeguards regarding access to ES3 and to limiting the outputs to fulfill ES1. Protection in regard to risk of spread of fire, mechanical-caused injury and thermal burn should be evaluated in the end system.	P
4.1.15	Markings and instructions	(See Annex F)	P
4.4.4	Safeguard robustness	See below.	P
4.4.4.2	Steady force tests	(See Annex T.2, T.5)	P
4.4.4.3	Drop test.....	(See Annex T.7)	P
4.4.4.4	Impact tests.....	(See Annex T.6)	P
4.4.4.5	Internal accessible safeguard enclosure and barrier tests	The external enclosure cannot be opened without damaging the product	N/A
4.4.4.6	Glass Impact tests.....	No such glass used.	N/A
4.4.4.7	Thermoplastic material tests	(See Annex T.8)	P
4.4.4.8	Air comprising a safeguard	(See Annex T)	P
4.4.4.9	Accessibility and safeguard effectiveness	After tests of 4.4.4.2, 4.4.4.3, 4.4.4.4, 4.4.4.7, no safeguard damaged.	P
4.5	Explosion	No explosion occurs during normal/abnormal operation and single fault conditions	P
4.6	Fixing of conductors		P
4.6.1	Fix conductors not to defeat a safeguard	Considered	P
4.6.2	10 N force test applied to	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
4.7	Equipment for direct insertion into mains socket - outlets	The EUT is not for direct insertion into mains socket-outlets	N/A
4.7.2	Mains plug part complies with the relevant standard	See above	N/A
4.7.3	Torque (Nm).....	See above	N/A
4.8	Products containing coin/button cell batteries	No coin/button cell batteries used.	N/A
4.8.2	Instructional safeguard		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.8.3	Battery Compartment Construction		N/A
	Means to reduce the possibility of children removing the battery		—
4.8.4	Battery Compartment Mechanical Tests.....		N/A
4.8.5	Battery Accessibility		N/A
4.9	Likelihood of fire or shock due to entry of conductive object	(See Annex P)	P

5	ELECTRICALLY-CAUSED INJURY		P
5.2.1	Electrical energy source classifications	(See appended table 5.2)	P
5.2.2	ES1, ES2 and ES3 limits		P
5.2.2.2	Steady-state voltage and current	(See appended table 5.2)	P
5.2.2.3	Capacitance limits	(See sub-clause 5.5.2.2)	P
5.2.2.4	Single pulse limits	No such single pulses generated in the EUT or applied to it.	N/A
5.2.2.5	Limits for repetitive pulses	No such repetitive pulses within the EUT	N/A
5.2.2.6	Ringling signals	No such ringing signals within the EUT	N/A
5.2.2.7	Audio signals	No such audio signals	N/A
5.3	Protection against electrical energy sources	See only 4.3 and 5.3 to 5.6 which applies to protection between the accessible parts and hazardous parts of other circuits.	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	Only ES1 circuit can be accessed for this product.	P
5.3.2.2	Contact requirements	No opening of enclosure, no access with test probe to any ES3 circuit or parts.	P
	a) Test with test probe from Annex V		P
	b) Electric strength test potential (V).....		N/A
	c) Air gap (mm)		N/A
5.3.2.4	Terminals for connecting stripped wire	No stripped wire used.	N/A
5.4	Insulation materials and requirements		P
5.4.1.2	Properties of insulating material	The choice and application have been taken into account as specified in this Clause 5 and Annex T. Natural rubber, hygroscopic materials or asbestos are not used as insulation.	P
5.4.1.3	Humidity conditioning	No hygroscopic material used.	N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.1.4	Maximum operating temperature for insulating materials	(See appended table 5.4.1.4)	P
5.4.1.5	Pollution degree.....	2	—
5.4.1.5.2	Test for pollution degree 1 environment and for an insulating compound	Pollution degree 2 is applied. No insulating compound applied for except as in 5.4.4.	N/A
5.4.1.5.3	Thermal cycling	See above	N/A
5.4.1.6	Insulation in transformers with varying dimensions	No such transformer within the EUT	N/A
5.4.1.7	Insulation in circuits generating starting pulses	No such starting pulses within the EUT	N/A
5.4.1.8	Determination of working voltage	(See appendix 1 appended table 5.4.1.8)	P
5.4.1.9	Insulating surfaces	Considered for accessible surface of enclosure.	P
5.4.1.10	Thermoplastic parts on which conductive metallic parts are directly mounted	The bobbin materials of T1 and L1 is phenolic. No other parts need to be tested.	N/A
5.4.1.10.2	Vicat softening temperature		N/A
5.4.1.10.3	Ball pressure		N/A
5.4.2	Clearances		P
5.4.2.2	Determining clearance using peak working voltage	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.2.3	Determining clearance using required withstand voltage	(See appended table 5.4.2.3)	P
	a) a.c. mains transient voltage	2500Vpeak	—
	b) d.c. mains transient voltage	No such transient	—
	c) external circuit transient voltage	No such transient	—
	d) transient voltage determined by measurement :		—
5.4.2.4	Determining the adequacy of a clearance using an electric strength test		N/A
5.4.2.5	Multiplication factors for clearances and test voltages.....	Up to 5000m	P
5.4.3	Creepage distances.....	(See appended table 5.4.2.2, 5.4.2.4 and 5.4.3)	P
5.4.3.1	General		P
5.4.3.3	Material Group	IIIa&IIIb	—
5.4.4	Solid insulation	See below	P
5.4.4.2	Minimum distance through insulation	(See appended table 5.4.4.2)	P
5.4.4.3	Insulation compound forming solid insulation	See only 5.4.4.4 regarding to optocoupler.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.4.4	Solid insulation in semiconductor devices	Approved optocoupler used. Requirements of G.12 met, see table 4.1.2 for listed component used.	P
5.4.4.5	Cemented joints	No such construction within the EUT.	N/A
5.4.4.6	Thin sheet material	See below	P
5.4.4.6.1	General requirements	At least 2 layers of insulation tape are used for reinforced insulation and are not expected to be subject to handling or abrasion during ordinary or instructed person servicing.	P
5.4.4.6.2	Separable thin sheet material	T1 used two layers are provided as reinforced insulation any one layer passed the electric strength test for reinforced insulation.	P
	Number of layers (pcs)	See above	P
5.4.4.6.3	Non-separable thin sheet material	No such thin sheet material within the EUT	N/A
5.4.4.6.4	Standard test procedure for non-separable thin sheet material	See above	N/A
5.4.4.6.5	Mandrel test		N/A
5.4.4.7	Solid insulation in wound components	See G.5.3 and G.6.1	P
5.4.4.9	Solid insulation at frequencies >30 kHz.....		P
5.4.5	Antenna terminal insulation		N/A
5.4.5.1	General		N/A
5.4.5.2	Voltage surge test		N/A
	Insulation resistance (MΩ)		N/A
5.4.6	Insulation of internal wire as part of supplementary safeguard	No such insulation of internal wire used alone as supplementary safeguard.	N/A
5.4.7	Tests for semiconductor components and for cemented joints	No tests necessary –see only 5.4.4.4.	N/A
5.4.8	Humidity conditioning	Requested by manufacturer, test was performed on product with each source of transformer listed in table 4.1.2.	P
	Relative humidity (%)	95%	—
	Temperature (°C)	40°C	—
	Duration (h)	120h	—
5.4.9	Electric strength test	(See appended table 5.4.9)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.4.9.1	Test procedure for a solid insulation type test	Compliance was checked immediately following temperature test in 5.4.1.4 on the complete unit and on a sample of the transformer raised to the relevant temperature as measured during that test. (See appended table 5.4.9)	P
5.4.9.2	Test procedure for routine tests	No routine tests considered. To be considered during the relevant national approval.	N/A
5.4.10	Protection against transient voltages between external circuit	POE Power Supply intended to be used for information technology equipment as a PoE power supply for connection to Ethernet networks limited to the same building.	N/A
5.4.10.1	Parts and circuits separated from external circuits		N/A
5.4.10.2	Test methods		N/A
5.4.10.2.1	General		N/A
5.4.10.2.2	Impulse test..... :		N/A
5.4.10.2.3	Steady-state test..... :		N/A
5.4.11	Insulation between external circuits and earthed circuitry..... :		N/A
5.4.11.1	Exceptions to separation between external circuits and earth		N/A
5.4.11.2	Requirements		N/A
	Rated operating voltage U_{op} (V)..... :		—
	Nominal voltage U_{peak} (V)..... :		—
	Max increase due to variation U_{sp} :		—
	Max increase due to ageing U_{sa} :		—
	$U_{op} = U_{peak} + U_{sp} + U_{sa}$:		—
5.5	Components as safeguards		
5.5.1	General	See the following details.	P
5.5.2	Capacitors and RC units	Approved X capacitor (C1) and Y capacitor (C13) provided.	P
5.5.2.1	General requirement		P
5.5.2.2	Safeguards against capacitor discharge after disconnection of a connector..... :	(See appended table 5.5.2.2)	P
5.5.3	Transformers	(See Annex G.5.3)	P
5.5.4	Optocouplers	(See Annex G.12)	P
5.5.5	Relays	No such relay used as safeguard.	N/A
5.5.6	Resistors	No such resistor used as safeguard.	N/A
5.5.7	SPD's	No such component as safeguard.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5.5.7.1	Use of an SPD connected to reliable earthing	No such construction.	N/A
5.5.7.2	Use of an SPD between mains and protective earth		N/A
5.5.8	Insulation between the mains and external circuit consisting of a coaxial cable	No such external circuits.	N/A
5.6	Protective conductor		P
5.6.2	Requirement for protective conductors		P
5.6.2.1	General requirements		P
5.6.2.2	Colour of insulation	Yellow/Green wire from appliance inlet to secondary PCB.	P
5.6.3	Requirement for protective earthing conductors	No power cord provided	N/A
	Protective earthing conductor size (mm ²)		—
5.6.4	Requirement for protective bonding conductors		P
5.6.4.1	Protective bonding conductors	The yellow/green wire soldered from earth pin of appliance inlet soldered to secondary PCB as protective bonding conductor.	P
	Protective bonding conductor size (mm ²).	Min.18 AWG (0.8 mm ²)	—
	Protective current rating (A)	Rated : 0.75A	—
5.6.4.3	Current limiting and overcurrent protective devices		P
5.6.5	Terminals for protective conductors	The earth pin of the approved appliance inlet is considered as protective earthing terminal. The yellow/green wire soldered from earth terminal of appliance inlet soldered to secondary PCB as protective bonding conductor.	N/A
5.6.5.1	Requirement		N/A
	Conductor size (mm ²), nominal thread diameter (mm).....		N/A
5.6.5.2	Corrosion		N/A
5.6.6	Resistance of the protective system		P
5.6.6.1	Requirements		P
5.6.6.2	Test Method Resistance (Ω)	(See appended table 5.6.6.2)	P
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	Figure 4 of IEC 60990 was used in determining of the limit of ES1.	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

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Clause	Requirement + Test	Result - Remark	Verdict
5.7.3	Equipment set-up, supply connections and earth connections	Clause 4, 5.3 and 5.4 of IEC 60990:1999 applied.	P
	System of interconnected equipment (separate connections/single connection)..... :	Single equipment.	—
	Multiple connections to mains (one connection at a time/simultaneous connections) :	Single connection.	—
5.7.4	Earthed conductive accessible parts :	(See appended table 5.7.2.2, 5.7.4)	P
5.7.5	Protective conductor current		P
	Supply Voltage (V) :	264Vac	—
	Measured current (mA) :	0.250mA _{pk}	—
	Instructional Safeguard :	Not exceeding ES1 limit.	N/A
5.7.6	Prospective touch voltage and touch current due to external circuits	No such external circuits.	N/A
5.7.6.1	Touch current from coaxial cables	No such parts	N/A
5.7.6.2	Prospective touch voltage and touch current from external circuits		N/A
5.7.7	Summation of touch currents from external circuits	No such 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 :		N/A
6.2.2.5	PS2 :	(See appended table 6.2.2)	P
6.2.2.6	PS3 :	(See appended table 6.2.2)	P
6.2.3	Classification of potential ignition sources	See the following details.	P
6.2.3.1	Arcing PIS :	(See appended table 6.2.3.1)	P
6.2.3.2	Resistive PIS :	(See appended table 6.2.3.2)	P
6.3	Safeguards against fire under normal operating and abnormal operating conditions		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.3.1 (a)	No ignition and attainable temperature value less than 90 °C defined by ISO 871 or less than 300 °C for unknown materials	No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6)	P
6.3.1 (b)	Combustible materials outside fire enclosure		N/A
6.4	Safeguards against fire under single fault conditions		P
6.4.1	Safeguard Method	Method by control of fire spread applied. Fire enclosure is required for the end system.	P
6.4.2	Reduction of the likelihood of ignition under single fault conditions in PS1 circuits	See above.	N/A
6.4.3	Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits	See above.	N/A
6.4.3.1	General		N/A
6.4.3.2	Supplementary Safeguards		N/A
	Special conditions if conductors on printed boards are opened or peeled		N/A
6.4.3.3	Single Fault Conditions		N/A
	Special conditions for temperature limited by fuse	No such consideration.	N/A
6.4.4	Control of fire spread in PS1 circuits	PS2 and PS3 circuits inside.	N/A
6.4.5	Control of fire spread in PS2 circuits		P
6.4.5.2	Supplementary safeguards	Compliance detailed as follows: - <u>Printed board</u>: rated min. V-1 - <u>Internal wire</u>: complying with 6.5. - <u>All other components</u>: at least V-2 except for components mounted on min. V-1 material or small parts of combustible material. <u>Isolating transformer</u> : complying with G.5.3.	P
6.4.6	Control of fire spread in PS3 circuit	Compliance detailed as follows: - Parts as in 6.4.5 above - Inlet : complying to IEC standard - Fire enclosure : rated V-0 used.	P
6.4.7	Separation of combustible materials from a PIS	Fire enclosure provided for all internal parts.	N/A
6.4.7.1	General		N/A
6.4.7.2	Separation by distance		N/A
6.4.7.3	Separation by a fire barrier		N/A
6.4.8	Fire enclosures and fire barriers		P
6.4.8.1	Fire enclosure and fire barrier material properties		P
6.4.8.2.1	Requirements for a fire barrier	No fire barrier used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.4.8.2.2	Requirements for a fire enclosure	Fire enclosure : rated V-0 used. Metal surround of RJ45 connector provides part of 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		N/A
6.4.8.3.3	Top Openings in Fire Enclosure: dimensions (mm)	No openings	P
	Needle Flame test		N/A
6.4.8.3.4	Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm)	No openings	P
	Flammability tests for the bottom of a fire enclosure		N/A
6.4.8.3.5	Integrity of the fire enclosure, condition met: a), b) or c).....		N/A
6.4.8.4	Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating	Fire enclosure is made of V-0 material, other part (see 6.4.8.1) is metal.	P
6.5	Internal and external wiring		N/A
6.5.1	Requirements	Internal wire comply with UL 758, which has the equivalent requirement with IEC/TS 60695-11-21.	N/A
6.5.2	Cross-sectional area (mm ²)	(See appended table 4.1.2)	—
6.5.3	Requirements for interconnection to building wiring		N/A
6.6	Safeguards against fire due to connection to additional equipment		P
	External port limited to PS2 or complies with Clause Q.1	Output limited to PS2.	P

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

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Clause	Requirement + Test	Result - Remark	Verdict
8	MECHANICALLY-CAUSED INJURY		P
8.1	General	No moving parts in the equipment; see below regarding edges and corners.	P
8.2	Mechanical energy source classifications	MS1 applied for mass of equipment and edges and corners.	P
8.3	Safeguards against mechanical energy sources		N/A
8.4	Safeguards against parts with sharp edges and corners	Edges and corners of the enclosure are rounded.	P
8.4.1	Safeguards		N/A
8.5	Safeguards against moving parts	No moving parts.	N/A
8.5.1	MS2 or MS3 part required to be accessible for the function of the equipment		N/A
8.5.2	Instructional Safeguard		—
8.5.4	Special categories of equipment comprising moving parts		N/A
8.5.4.1	Large data storage equipment		N/A
8.5.4.2	Equipment having electromechanical device for destruction of media		N/A
8.5.4.2.1	Safeguards and Safety Interlocks		N/A
8.5.4.2.2	Instructional safeguards against moving parts		N/A
	Instructional Safeguard		—
8.5.4.2.3	Disconnection from the supply		N/A
8.5.4.2.4	Probe type and force (N)		N/A
8.5.5	High Pressure Lamps		N/A
8.5.5.1	Energy Source Classification		N/A
8.5.5.2	High Pressure Lamp Explosion Test		N/A
8.6	Stability	MS1 for Mass of equipment, no stability requirements.	N/A
8.6.1	Product classification		N/A
	Instructional Safeguard		—
8.6.2	Static stability		N/A
8.6.2.2	Static stability test		N/A
	Applied Force		—
8.6.2.3	Downward Force Test		N/A
8.6.3	Relocation stability test		N/A
	Unit configuration during 10° tilt		—
8.6.4	Glass slide test		N/A
8.6.5	Horizontal force test (Applied Force)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Position of feet or movable parts		—
8.7	Equipment mounted to wall or ceiling		N/A
8.7.1	Mounting Means (Length of screws (mm) and mounting surface)		N/A
8.7.2	Direction and applied force		N/A
8.8	Handles strength		N/A
8.8.1	Classification		N/A
8.8.2	Applied Force		N/A
8.9	Wheels or casters attachment requirements		N/A
8.9.1	Classification		N/A
8.9.2	Applied force		—
8.10	Carts, stands and similar carriers		N/A
8.10.1	General		N/A
8.10.2	Marking and instructions		N/A
	Instructional Safeguard		—
8.10.3	Cart, stand or carrier loading test and compliance		N/A
	Applied force		—
8.10.4	Cart, stand or carrier impact test		N/A
8.10.5	Mechanical stability		N/A
	Applied horizontal force (N).....		—
8.10.6	Thermoplastic temperature stability (°C)		N/A
8.11	Mounting means for rack mounted equipment		N/A
8.11.1	General		N/A
8.11.2	Product Classification		N/A
8.11.3	Mechanical strength test, variable <i>N</i>		N/A
8.11.4	Mechanical strength test 250N, including end stops		N/A
8.12	Telescoping or rod antennas.....		N/A
	Button/Ball diameter (mm)		—

9	THERMAL BURN INJURY		P
9.2	Thermal energy source classifications	All accessible surfaces are classified as TS1, see appended table 5.4.1.4, 6.3.2, 9.0, B.2.6.	P
9.3	Safeguard against thermal energy sources	No safeguard required for TS1.	N/A
9.4	Requirements for safeguards		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
9.4.1	Equipment safeguard	Enclosure provided to limit the transfer of thermal energy of internal parts under normal operating conditions and abnormal operating conditions.	P
9.4.2	Instructional safeguard	Instructional safeguard is not required	N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
	Abnormal and single-fault condition		N/A
	Maximum radiation (pA/kg)		N/A
10.6	Protection against acoustic energy sources	Not such equipment.	N/A
10.6.1	General		N/A
10.6.2	Classification		N/A
	Acoustic output, dB(A)		N/A
	Output voltage, unweighted r.m.s.		N/A
10.6.4	Protection of persons		N/A
	Instructional safeguards		N/A
	Equipment safeguard prevent ordinary person to RS2		—
	Means to actively inform user of increase sound pressure		—
	Equipment safeguard prevent ordinary person to RS2		—
10.6.5	Requirements for listening devices (headphones, earphones, etc.)		N/A
10.6.5.1	Corded passive listening devices with analog input		N/A
	Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output		—
10.6.5.2	Corded listening devices with digital input		N/A
	Maximum dB(A)		—
10.6.5.3	Cordless listening device		N/A
	Maximum dB(A)		—

B	NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS		P
B.2	Normal Operating Conditions	See the following details.	P
B.2.1	General requirements	(See summary of testing and appended table)	P
	Audio Amplifiers and equipment with audio amplifiers	Not such equipment.	N/A
B.2.3	Supply voltage and tolerances	Rated voltage tolerance $\pm 10\%$ applied.	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, B.4)	P
B.3.2	Covering of ventilation openings		N/A
B.3.3	D.C. mains polarity test	The EUT is not connected to a D.C. mains	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
B.3.4	Setting of voltage selector.....:	No voltage selector used within the EUT	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.....:	No such device used.	N/A
B.4.3	Motor tests	No such device used.	N/A
B.4.3.1	Motor blocked or rotor locked increasing the internal ambient temperature		N/A
B.4.4	Short circuit of functional insulation	See the following details.	P
B.4.4.1	Short circuit of clearances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.2	Short circuit of creepage distances for functional insulation	(See appended tables B.3, B.4)	P
B.4.4.3	Short circuit of functional insulation on coated printed boards	No coated printed boards within the EUT	N/A
B.4.5	Short circuit and interruption of electrodes in tubes and semiconductors	(See appended tables B.3, B.4 for faults on electronic components)	P
B.4.6	Short circuit or disconnect of passive components	(See appended tables B.3, B.4)	P
B.4.7	Continuous operation of components	The EUT is continuous operating type and no such components intended for short time operation or intermittent operation	N/A
B.4.8	Class 1 and Class 2 energy sources within limits during and after single fault conditions	No change to circuits classified in 5.3.	P
B.4.9	Battery charging under single fault conditions.....:	No battery involved in the EUT	N/A

C	UV RADIATION		N/A
C.1	Protection of materials in equipment from UV radiation	No such UV generated from the equipment.	N/A
C.1.2	Requirements	See above.	N/A
C.1.3	Test method	See above.	N/A
C.2	UV light conditioning test	See above.	N/A
C.2.1	Test apparatus	See above.	N/A
C.2.2	Mounting of test samples	See above.	N/A
C.2.3	Carbon-arc light-exposure apparatus	See above.	N/A
C.2.4	Xenon-arc light exposure apparatus	See above.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

D	TEST GENERATORS		P
D.1	Impulse test generators		N/A
D.2	Antenna interface test generator		P
D.3	Electronic pulse generator		N/A
E	TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS		N/A
E.1	Audio amplifier normal operating conditions	Not such equipment.	N/A
	Audio signal voltage (V)..... :	See above.	—
	Rated load impedance (Ω) :	See above.	—
E.2	Audio amplifier abnormal operating conditions	See above.	N/A

F	EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS		P
F.1	General requirements	See the following details.	P
	Instructions – Language :	English version provided. (Version in other language will be provided when submitted for national approval)	—
F.2	Letter symbols and graphical symbols	See the following details.	P
F.2.1	Letter symbols according to IEC60027-1	Letter symbols for quantities and units are complied with IEC 60027-1.	P
F.2.2	Graphic symbols IEC, ISO or manufacturer specific	Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010.	P
F.3	Equipment markings		P
F.3.1	Equipment marking locations	Equipment marking is located on the enclosure surface and is easily visible.	P
F.3.2	Equipment identification markings	See the following details.	P
F.3.2.1	Manufacturer identification :	See copy of marking plate.	—
F.3.2.2	Model identification :	See copy of marking plate.	—
F.3.3	Equipment rating markings	See the following details.	P
F.3.3.1	Equipment with direct connection to mains	The equipment is connected to AC mains supply.	P
F.3.3.2	Equipment without direct connection to mains	See above.	N/A
F.3.3.3	Nature of supply voltage :	See copy of marking plate.	—
F.3.3.4	Rated voltage..... :	See copy of marking plate.	—
F.3.3.4	Rated frequency..... :	See copy of marking plate.	—
F.3.3.6	Rated current or rated power..... :	See copy of marking plate.	—
F.3.3.7	Equipment with multiple supply connections	Only one supply connection.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
F.3.4	Voltage setting device	Auto range and no voltage selector provide within the equipment.	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 is located within the equipment and not replaceable by an ordinary person or an instructed person. The fuse marked with F1 T3.15AL, 250V~.	P
F.3.5.4	Replacement battery identification marking.....:	No such battery on the equipment.	N/A
F.3.5.5	Terminal marking location		N/A
F.3.6	Equipment markings related to equipment classification	See below.	P
F.3.6.1	Class I Equipment		P
F.3.6.1.1	Protective earthing conductor terminal	Protective earthing symbol marked on the appliance inlet.	P
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)	Class I equipment	N/A
F.3.6.2.1	Class II equipment with or without functional earth	Class I equipment	N/A
F.3.6.2.2	Class II equipment with functional earth terminal marking	Class I equipment	N/A
F.3.7	Equipment IP rating marking	IPX0.	—
F.3.8	External power supply output marking	See copy of marking plate.	P
F.3.9	Durability, legibility and permanence of marking	Marking is considered to be legible and easily discernible. See also the following details.	P
F.3.10	Test for permanence of markings	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. With the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible.	P
F.4	Instructions		P
	a) Equipment for use in locations where children not likely to be present - marking		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Instructions given for installation or initial use		P
	c) Equipment intended to be fastened in place		N/A
	d) Equipment intended for use only in restricted access area		N/A
	e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1	No such terminals provided.	N/A
	f) Protective earthing employed as safeguard		P
	g) Protective earthing conductor current exceeding ES2 limits		N/A
	h) Symbols used on equipment	No such symbols	N/A
	i) Permanently connected equipment not provided with all-pole mains switch	Not permanently connected equipment.	N/A
	j) Replaceable components or modules providing safeguard function	No such markings.	N/A
F.5	Instructional safeguards	No instructional safeguard is considered as necessary.	N/A
	Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction	No instructional safeguard required in the equipment.	N/A

G	COMPONENTS		P
G.1	Switches		N/A
G.1.1	General requirements	No switch used.	N/A
G.1.2	Ratings, endurance, spacing, maximum load		N/A
G.2	Relays		N/A
G.2.1	General requirements	No relay used.	N/A
G.2.2	Overload test		N/A
G.2.3	Relay controlling connectors supply power		N/A
G.2.4	Mains relay, modified as stated in G.2		N/A
G.3	Protection Devices		P
G.3.1	Thermal cut-offs	No thermal cut-off provided within the equipment.	N/A
G.3.1.1a) &b)	Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b)	See above.	N/A
G.3.1.1c)	Thermal cut-outs tested as part of the equipment as indicated in c)	See above.	N/A
G.3.1.2	Thermal cut-off connections maintained and secure	See above.	N/A
G.3.2	Thermal links		N/A
G.3.2.1a)	Thermal links separately tested with IEC 60691	No thermal link provided within the equipment.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.3.2.1b)	Thermal links tested as part of the equipment	See above.	N/A
	Aging hours (H).....:	See above.	—
	Single Fault Condition.....:	See above.	—
	Test Voltage (V) and Insulation Resistance (Ω) ..:	See above.	—
G.3.3	PTC Thermistors	No PTC thermistor provided within the equipment.	N/A
G.3.4	Overcurrent protection devices	Current fuse complying with IEC 60127 as overcurrent protection device. (see appended table 4.1.2)	P
G.3.5	Safeguards components not mentioned in G.3.1 to G.3.5		N/A
G.3.5.1	Non-resettable devices suitably rated and marking provided		N/A
G.3.5.2	Single faults conditions		N/A
G.4	Connectors		P
G.4.1	Spacings	No such connector with insulated surfaces accessible within the EUT	N/A
G.4.2	Mains connector configuration	IEC 60320-1 approved appliance inlet used	P
G.4.3	Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely	Output connector (RJ45) so designed that insert into a mains socket is unlikely to occur.	P
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°	Physical separation is provided by tubing on both secondary leads and primary leads.	P
G.5.1.2 b)	Construction subject to routine testing	See 5.4.9.2.	N/A
G.5.2	Endurance test on wound components	Not applied for.	N/A
G.5.2.1	General test requirements		N/A
G.5.2.2	Heat run test		N/A
	Time (s).....:		—
	Temperature (°C).....:		—
G.5.2.3	Wound Components supplied by mains		N/A
G.5.3	Transformers		P
G.5.3.1	Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1)	The transformers meet the requirements given in G.5.3.2 and G.5.3.3.	P
	Position	T1	—
	Method of protection	Over current protection by circuit design.	—

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Clause	Requirement + Test	Result - Remark	Verdict
G.5.3.2	Insulation	Primary windings and secondary windings are separated by Reinforced insulation. (See appendix 2 appended table G.5.3)	P
	Protection from displacement of windings	By bobbin and insulating tape	—
G.5.3.3	Overload test.....	(See appended tables B.3, B.4)	P
G.5.3.3.1	Test conditions	Tested in the complete equipment.	P
G.5.3.3.2	Winding Temperatures testing in the unit	(See appended tables B.3, B.4)	P
G.5.3.3.3	Winding Temperatures - Alternative test method	Alternative test method was not considered.	N/A
G.5.4	Motors		N/A
G.5.4.1	General requirements	No motors used.	N/A
	Position		—
G.5.4.2	Test conditions		N/A
G.5.4.3	Running overload test		N/A
G.5.4.4	Locked-rotor overload test		N/A
	Test duration (days)		—
G.5.4.5	Running overload test for d.c. motors in secondary circuits		N/A
G.5.4.5.2	Tested in the unit		N/A
	Electric strength test (V).....		—
G.5.4.5.3	Tested on the Bench - Alternative test method; test time (h)		N/A
	Electric strength test (V).....		—
G.5.4.6	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
G.5.4.6.2	Tested in the unit		N/A
	Maximum Temperature		N/A
	Electric strength test (V)		N/A
G.5.4.6.3	Tested on the bench - Alternative test method; test time (h)		N/A
	Electric strength test (V).....		N/A
G.5.4.7	Motors with capacitors		N/A
G.5.4.8	Three-phase motors		N/A
G.5.4.9	Series motors		N/A
	Operating voltage		—
G.6	Wire Insulation		P

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Clause	Requirement + Test	Result - Remark	Verdict
G.6.1	General	Triple insulated winding in T1 secondary windings used as reinforced safeguard in the isolating transformer that has separately complied with Annex J. See Appended table 4.1.2. No other wires other than Basic insulated wires not under stress used in the EUT.	P
G.6.2	Solvent-based enamel wiring insulation	Insulation does not rely on solvent-based enamel.	N/A
G.7	Mains supply cords		N/A
G.7.1	General requirements	No power supply cord provided.	N/A
	Type		—
	Rated current (A)		—
	Cross-sectional area (mm ²), (AWG)		—
G.7.2	Compliance and test method		N/A
G.7.3	Cord anchorages and strain relief for non-detachable power supply cords		N/A
G.7.3.2	Cord strain relief		N/A
G.7.3.2.1	Requirements		N/A
	Strain relief test force (N)		—
G.7.3.2.2	Strain relief mechanism failure		N/A
G.7.3.2.3	Cord sheath or jacket position, distance (mm) ...		—
G.7.3.2.4	Strain relief comprised of polymeric material		N/A
G.7.4	Cord Entry		N/A
G.7.5	Non-detachable cord bend protection		N/A
G.7.5.1	Requirements		N/A
G.7.5.2	Mass (g)		—
	Diameter (m)		—
	Temperature (°C)		—
G.7.6	Supply wiring space		N/A
G.7.6.2	Stranded wire		N/A
G.7.6.2.1	Test with 8 mm strand		N/A
G.8	Varistors		P
G.8.1	General requirements	Approved varistor(MOV1) used in primary (mains) and G.8.3 does not apply.	P
G.8.2	Safeguard against shock	Approved varistor MOV1 used, see table 4.1.2 for details.	P
G.8.3	Safeguard against fire		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.8.3.2	Varistor overload test		N/A
G.8.3.3	Temporary overvoltage		N/A
G.9	Integrated Circuit (IC) Current Limiters		N/A
G.9.1 a)	Manufacturer defines limit at max. 5A.	No IC current limiter provided within the equipment.	N/A
G.9.1 b)	Limiters do not have manual operator or reset		N/A
G.9.1 c)	Supply source does not exceed 250 VA		—
G.9.1 d)	IC limiter output current (max. 5A)		—
G.9.1 e)	Manufacturers' defined drift		—
G.9.2	Test Program 1		N/A
G.9.3	Test Program 2		N/A
G.9.4	Test Program 3		N/A
G.10	Resistors		N/A
G.10.1	General requirements	No such resistor used.	N/A
G.10.2	Resistor test		N/A
G.10.3	Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable		N/A
G.10.3.1	General requirements		N/A
G.10.3.2	Voltage surge test		N/A
G.10.3.3	Impulse test		N/A
G.11	Capacitor and RC units		P
G.11.1	General requirements	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14. (see appended table 4.1.2)	P
G.11.2	Conditioning of capacitors and RC units		P
G.11.3	Rules for selecting capacitors		P
G.12	Optocouplers		P
	Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results)	The optocouplers used in the equipment and complied with IEC 60747-5-5. (see appended table 4.1.2)	P
	Type test voltage Vini, a	Considered	—
	Routine test voltage, Vini,b	Considered	—
G.13	Printed boards		P
G.13.1	General requirements	See the following details.	P

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Clause	Requirement + Test	Result - Remark	Verdict
G.13.2	Uncoated printed boards	The insulation between conductors on the outer surfaces of an uncoated printed board or over the outer surface of coated printed boards complied with the minimum clearance and creepage requirements of 5.4.2 and 5.4.3.	P
G.13.3	Coated printed boards	No coated printed board applied for within the equipment.	N/A
G.13.4	Insulation between conductors on the same inner surface	See above.	N/A
	Compliance with cemented joint requirements (Specify construction) :		—
G.13.5	Insulation between conductors on different surfaces		N/A
	Distance through insulation..... :		N/A
	Number of insulation layers (pcs) :		—
G.13.6	Tests on coated printed boards		N/A
G.13.6.1	Sample preparation and preliminary inspection		N/A
G.13.6.2a)	Thermal conditioning		N/A
G.13.6.2b)	Electric strength test		N/A
G.13.6.2c)	Abrasion resistance test		N/A
G.14	Coating on components terminals		N/A
G.14.1	Requirements :	No coating on component terminals considered to affect creepage or clearances.	N/A
G.15	Liquid filled components		N/A
G.15.1	General requirements	No such device provided within the equipment.	N/A
G.15.2	Requirements		N/A
G.15.3	Compliance and test methods		N/A
G.15.3.1	Hydrostatic pressure test		N/A
G.15.3.2	Creep resistance test		N/A
G.15.3.3	Tubing and fittings compatibility test		N/A
G.15.3.4	Vibration test		N/A
G.15.3.5	Thermal cycling test		N/A
G.15.3.6	Force test		N/A
G.15.4	Compliance		N/A
G.16	IC including capacitor discharge function (ICX)		N/A
a)	Humidity treatment in accordance with sc5.4.8 – 120 hours	No such discharge IC used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
b)	Impulse test using circuit 2 with $U_c =$ to transient voltage	see above	N/A
C1)	Application of ac voltage at 110% of rated voltage for 2.5 minutes	see above	N/A
C2)	Test voltage	see above	—
D1)	10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer	see above	N/A
D2)	Capacitance	see above	—
D3)	Resistance	see above	—

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

J	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION		P
	General requirements	Triple insulated winding wiring used as reinforced safeguard in the isolating transformer that has been evaluated to Annex J as follows: Requirements of Annex U of IEC 60950-1/A2 are identical to Annex J of this standard (for wires providing Reinforced insulation). See Table 4.1.2.	P

K	SAFETY INTERLOCKS		N/A
K.1	General requirements	No safety interlock provided within the equipment.	N/A
K.2	Components of safety interlock safeguard mechanism		N/A

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	Appliance inlet (coupler) used as disconnect device.	P
L.2	Permanently connected equipment		N/A
L.3	Parts that remain energized		N/A
L.4	Single phase equipment		P
L.5	Three-phase equipment		N/A
L.6	Switches as disconnect devices		N/A
L.7	Plugs as disconnect devices		N/A
L.8	Multiple power sources	Only one a.c. mains connection.	N/A

M	EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS		N/A
M.1	General requirements	No battery used.	N/A
M.2	Safety of batteries and their cells		N/A
M.2.1	Requirements		N/A
M.2.2	Compliance and test method (identify method) ..		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

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
M.3.3	Compliance :		N/A
M.4	Additional safeguards for equipment containing secondary lithium battery		N/A
M.4.1	General		N/A
M.4.2	Charging safeguards		N/A
M.4.2.1	Charging operating limits		N/A
M.4.2.2a)	Charging voltage, current and temperature.....:		—
M.4.2.2 b)	Single faults in charging circuitry:		—
M.4.3	Fire Enclosure		N/A
M.4.4	Endurance of equipment containing a secondary lithium battery		N/A
M.4.4.2	Preparation		N/A
M.4.4.3	Drop and charge/discharge function tests		N/A
	Drop		N/A
	Charge		N/A
	Discharge		N/A
M.4.4.4	Charge-discharge cycle test		N/A
M.4.4.5	Result of charge-discharge cycle test		N/A
M.5	Risk of burn due to short circuit during carrying		N/A
M.5.1	Requirement		N/A
M.5.2	Compliance and Test Method (Test of P.2.3)		N/A
M.6	Prevention of short circuits and protection from other effects of electric current		N/A
M.6.1	Short circuits		N/A
M.6.1.1	General requirements		N/A
M.6.1.2	Test method to simulate an internal fault		N/A
M.6.1.3	Compliance (Specify M.6.1.2 or alternative method):		N/A
M.6.2	Leakage current (mA):		N/A
M.7	Risk of explosion from lead acid and NiCd batteries		N/A
M.7.1	Ventilation preventing explosive gas concentration		N/A
M.7.2	Compliance and test method		N/A
M.8	Protection against internal ignition from external spark sources of lead acid batteries		N/A
M.8.1	General requirements		N/A
M.8.2	Test method		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 :		—

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

P	SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS		P
P.1	General requirements	No openings of enclosure.	P
P.2.2	Safeguards against entry of foreign object	Enclosure without openings inherently complies.	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)..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Tr (°C)		—
	Ta (°C)		—
P.4.2 b)	Abrasion testing		N/A
P.4.2 c)	Mechanical strength testing		N/A

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

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

S	TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
S.1	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W	Approved fire enclosure with V-0 material used.	N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (°C)		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	- Material not consumed completely		N/A
	- Material extinguishes within 30s		N/A
	- No burning of layer or wrapping tissue		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
S.2	Flammability test for fire enclosure and fire barrier integrity		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (°C)		—
	Test flame according to IEC 60695-11-5 with conditions as set out		N/A
	Test specimen does not show any additional hole		N/A
S.3	Flammability test for the bottom of a fire enclosure		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Cheesecloth did not ignite		N/A
S.4	Flammability classification of materials		N/A
S.5	Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W		N/A
	Samples, material		—
	Wall thickness (mm)		—
	Conditioning (test condition), (°C).....		—
	Test flame according to IEC 60695-11-20 with conditions as set out		N/A
	After every test specimen was not consumed completely		N/A
	After fifth flame application, flame extinguished within 1 min		N/A

T	MECHANICAL STRENGTH TESTS		P
T.1	General requirements		P
T.2	Steady force test, 10 N	(See appended table T.2, T.3, T.4, T.5)	P
T.3	Steady force test, 30 N		N/A
T.4	Steady force test, 100 N		N/A
T.5	Steady force test, 250 N	(See appended table T.2, T.3, T.4, T.5)	P
T.6	Enclosure impact test	(See appended table T.6)	P
	Fall test		P
	Swing test		P
T.7	Drop test	(See appended table T.7)	P

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Clause	Requirement + Test	Result - Remark	Verdict
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	No such part.	N/A
	Torque value (Nm)		—

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

V	DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES)		P
V.1	Accessible parts of equipment	No access with test probes to any hazardous parts	P
V.2	Accessible part criterion	See above.	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	
Plastic Enclosure	SABIC INNOVATIVE PLASTICS US L L C	945 (GG)	PC, V-0, 120°C, min. thickness 1.5mm	UL 94	UL E121562	
(Alternative)	SABIC JAPAN L L C	CH6410(GG)	PC, V-0, 100°C, min. thickness 1.5mm	UL 94	UL E207780	
Appliance Inlet (CON3)	Dongguan HUACONN Electronics Co., Ltd	HC-66	2.5A, 250Vac	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40032581 UL E340249	
(Alternative)	Zhe Jiang Bei Er Jia Electronic Co., Ltd.	ST-A04-001	2.5A, 250Vac	IEC/EN 60320-1 IEC/EN 60320-3 UL 60320-1	VDE 40016045 UL E225980	
(Alternative)	Zhejiang LECI Electronics Co., Ltd	DB-6	2.5A, 250Vac	IEC/EN 60320-1 UL 60320-1	VDE 40032465 UL E302229	
(Alternative)	Yueqing Yanhui Electronic Co., Ltd.	DB-14-S-1	2.5A, 250Vac	IEC/EN 60320-1 UL 60320-1	VDE 40035402 UL E334847	
Earthing wire	Interchangeable	1015	Min. 18 AWG, 300V, 105°C, green/yellow wire	UL 758	UL	
PCB	Interchangeable	Interchangeable	Min. 130°C, V-1 or better	UL 94 UL 796	UL	
Fuse (F1)	Conquer Electronics Co., Ltd.	MST	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40017118 UL E82636	
(Alternative)	Honghu Bluelight Electronic Co., Ltd.	6ET	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40034107 UL E324232	
(Alternative)	XC Electronics (Shen Zhen) Corp. Ltd.	5TE	T3.15AL, 250Vac	IEC/EN 60127-1 IEC/EN 60127-3 UL 248-1 UL 248-14	VDE 40029550 UL E249609	

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Varistor (MOV1) (Optional)	Thinking Electronic Industrial Co., Ltd.	TVR10561	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40031391 UL E314979
(Alternative)	Brightking (Shenzhen) Co., Ltd.	10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40027827 UL E327997
(Alternative)	Success Electronics Co., Ltd.	SVR10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 123677 UL E330256
(Alternative)	Cerglass MFG Inc	10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40028836 UL E317616
(Alternative)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	10D561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40023049 UL E330837
(Alternative)	Joyin Co., Ltd.	10S561K	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40004658 UL E325508

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
(Alternative)	Fenghua Adv. Tech. (Holding) Co., Ltd. Xianhua New Sen. Comp. & Sensor Br. Co. (for VDE) GUANGDONG FENGHUA ADVANCED TECHNOLOGY HOLDING CO LTD. XIANHUA NEW SENSITIVE COMPONENTS BRANCH (for UL)	FNR-10K561	Min. 350Vac, min. 85°C (Test for 6KV/3KA combination pulse), coating V-0	IEC 61051-1 IEC 61051-2 UL 1449	VDE 40008242 UL E325462
X-Capacitors (C1) (Optional)	Tenta Electric Industrial Co. Ltd.	MEX	Max. 0.22μF, 275Vac, 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 119119 UL E222911
(Alternative)	Shantou High-new Technology Development Zone Songtian	MPX	Max. 0.22μF, min. 275Vac, 110°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034679 UL E208107
(Alternative)	Shenzhen Su Rong Capacitors Co., Ltd.	MPX/MKP	Max. 0.22μF, min. 280Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40008924 UL E314875
(Alternative)	Dain Electronics Co., Ltd.	MPX	Max. 0.22μF, 275Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40018798 UL E147776
(Alternative)	Shenzhen Yimanfeng Science And Technology Co., Ltd.	MPX/MKP	Max. 0.22μF, min. 275Vac, min. 100°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40028516 UL E315567
(Alternative)	Hsuan Tai Electronic Co. Ltd.	MCY	Max. 0.22μF, 275Vac, 110°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 125205 UL E199069
(Alternative)	Guangdong JURCC electronics Co., LTD.	MPX/MKP	Max. 0.22μF, min. 275Vac, min. 110°C, X2 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034920 UL E343072

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Y-Capacitor (C13) (Optional)	Shantou High-New Technology Dev. Zone Songtian Enterprise Co., Ltd.	CD	Max. 3300pF, Min. 250Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40025754 UL E208107
(Alternative)	Guangdong South Hongming Electronic Science and Technology Co., Ltd.	F	Max. 3300pF, Min. 250Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40036393 UL E154899
(Alternative)	Jyh Chung Electronic Co., Ltd.	JD	Max. 3300pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 137027 UL E187963
(Alternative)	XIAMEN WANMING ELECTRONICS CO LTD	HJ	Max. 3300pF, Min. 250Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40034438 UL E221839
(Alternative)	Shaanxi Huaxing Electronic Development Co. Ltd.	CT7Y1	Max. 3300pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40015542 UL E217400
(Alternative)	Hsuan Tai Electronic Co. Ltd.	CY	Max. 3300pF, 400Vac, 125°C, Y1 type	IEC 60384-14 EN 60384-14 UL 60384-14	VDE 40008912 UL E199069
(Alternative)	Shenzhen Teruixiang Electronic Co, Ltd.	TY	Max. 3300pF, 400Vac, 125°C, Y1 type	IEC 60384-14 UL 60384-14	VDE 40031733 UL E315719
Optocoupler (OT1)	COSMO Electronics Corporation	K1010, KPC817	Ext.cl ≥6.5mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 101347 UL E169586
(Alternative)	Lite-On Technology Corporation	LTV-817	Ext.cl ≥7.0mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 40015248 UL E113898
(Alternative)	Everlight Electronics Co., Ltd.	EL817	Ext.cl ≥7.6mm, 110°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 132249 UL E214129
(Alternative)	Fairchild Semiconductor Pte Ltd	H11A817(A; B; C; D; X)	Ext.cl ≥7.0mm, 115°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 40026857 UL E90700
(Alternative)	Bright Led Electronics Corp.	BPC-817 (A,B,C,D,L), BPC-817S	Ext.cl ≥7.6mm, 110°C	IEC 60747-5-5 EN 60747-5-5 UL 1577	VDE 40007240 UL E236324

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Thermistor (RT1)	Interchangeable	Interchangeable	Min. 3A, 5ohm , at 25°C	--	--
Bleeder resistor (R20, R21, R22, R23)	Interchangeable	Interchangeable	Each of max. 3.3M ohm, 1/4W	--	Tested with appliance
Current-limiting resistor (R16, R17)	Interchangeable	Interchangeable	Each of 1.0-3.0 ohm, 1/4W	--	Tested with appliance
Bridge Diode (D1, D2, D3, D6)	Interchangeable	Interchangeable	Each of min.1000V, min. 1A	--	Tested with appliance
Transistor (Q1)	Interchangeable	Interchangeable	Min. 7A, Min. 650V	--	Tested with appliance
Electrolytic capacitor (C2)	Interchangeable	Interchangeable	22-47uF, 105°C, Min.400V	--	Tested with appliance
Inductor (L1)	DONGGUANSHI CHANGSHEN Electronic Co., LTD.	LL00053V00	130°C	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of L1	CHANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C, Min. thickness: 0.45mm	UL 94	UL E59481
--Magnet wire of L1	Interchangeable	Interchangeable	Min.130°C	UL 1446	UL
--Insulation tape of L1	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ-280	130°C	UL 510A	UL E165111
--Varnishes of L1	HANG CHEUNG COATINGS (HUIYANG) LTD	8562A	155°C	UL 1446	UL E200154
Inductor (L1) (Alternative)	SHENZHEN HENGSIDA INDUSTRY CO., LTD	LL00053V00	130°C	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of L1	CHANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C, Min.thickness: 0.45mm	UL 94	UL E59481

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
--Magnet wire of L1	Interchangeable	Interchangeable	Min.130°C	UL 1446	UL
--Insulation tape of L1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 (b)	130°C	UL 510A	UL E17385
--Varnishes of L1	HANG CHEUNG COATINGS (HUIYANG) LTD	8562C	155°C	UL 1446	UL E200154
Inductor (L1) (Alternative)	SHENZHEN WANZHIYU TECHNOLOGY CO LTD	LL00053V00	130°C	IEC 62368-1	Tested with appliance
--Bobbin of L1	CHANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C, Min. thickness: 0.45mm	UL 94	UL E59481
--Magnet wire of L1	Interchangeable	Interchangeable	Min.130°C	UL 1446	UL
--Insulation tape of L1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 (b)	130°C	UL 510A	UL E17385
--Varnishes of L1	HANG CHEUNG COATINGS (HUIYANG) LTD	8562*	155°C	UL 1446	UL E200154
Inductor (L1) (Alternative)	HUIZHOU YONG JIN ELECTRIC CO., LTD	LL00053V00	130°C	IEC 62368-1	Tested with appliance
--Bobbin of L1	CHANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C, Min.thickness: 0.45mm	UL 94	UL E59481
--Magnet wire of L1	Interchangeable	Interchangeable	Min.130°C	UL 1446	UL
--Insulation tape of L1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 (b)	130°C	UL 510A	UL E17385
--Varnishes of L1	HANG CHEUNG COATINGS (HUIYANG) LTD	8562C	155°C	UL 1446	UL E200154

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
Transformer (T1)	ShenZhen JiaMeiRui ELECTRONICS CO., LTD	LT00783V01	Class B	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of T1	SUMITOMO BAKELITE CO LTD	PM-9820, PM-9830	Phenolic, V-0, 150°C, Min. thickness: 0.70mm	UL 94	UL E41429
--Magnet wire of T1	Interchangeable	Interchangeable	Polyurethane, Min.130°C	UL 1446	UL
--Triple insulated wire of T1	Furukawa Electric Co., Ltd.	TEX-E	130°C	IEC 62368-1 EN 62368-1 UL 2353	VDE 006735 UL E206440
--(Alternative)	Totoku Electric Co. Ltd.	TIW-3	130°C	IEC 60950-1 EN 60950-1 UL 2353	VDE E166483 UL E166483
--Tubing of T1	GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C, VW-1	UL 224	UL E156256
--Insulation tape of T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1 (b)	130°C	UL 510A	UL E17385
--(Alternative)	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	44T-A (a)	130°C	UL 510A	UL E17385
--Varnishes of T1	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	468-2 (d)	130°C	UL 1446	UL E75225
Transformer (T1) (Alternative)	SHENZHEN HENGSIDA INDUSTRY CO., LTD	LT00783V01	Class B	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of T1	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic, V-0, 150°C, Min.thickness: 0.70mm	UL 94	UL E41429
--Magnet wire of T1	Interchangeable	Interchangeable	Polyurethane, Min.130°C	UL 1446	UL

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
--Triple insulated wire of T1	Furukawa Electric Co., Ltd.	TEX-E	130°C	IEC 62368-1 EN 62368-1 UL 2353	VDE 006735 UL E206440
--Tubing of T1	GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C, VW-1	UL 224	UL E156256
--Insulation tape of T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350T-1 (b)	130°C	UL 510A	UL E17385
--Varnishes of T1	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	468-2 (d)	130°C	UL 1446	UL E75225
Transformer (T1) (Alternative)	CHENZHOUE YUHUI ELECTRONIC TECHNOLOGY CO LTD	LT00783V01	Class B	IEC/EN/UL 62368-1	Tested with appliance
--Bobbin of T1	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic, V-0, 150°C, Min. thickness: 0.70mm	UL 94	UL E41429
--Magnet wire of T1	Interchangeable	Interchangeable	Polyurethane, Min.130°C	UL 1446	UL
--Triple insulated wire of T1	Furukawa Electric Co., Ltd.	TEX-E	130°C	IEC 62368-1 EN 62368-1 UL 2353	VDE 006735 UL E206440
--Tubing of T1	GREAT HOLDING INDUSTRIAL CO LTD	TFS	600V, 200°C, VW-1	UL 224	UL E156256
--Insulation tape of T1	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ*(b)	130°C	UL 510A	UL E165111
--Varnishes of T1	ELANTAS ELECTRICAL INSULATION ELANTAS PDG INC	468-2 (d)	130°C	UL 1446	UL E75225
Supplementary information:					
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

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

4.8.4, 4.8.5	TABLE: Lithium coin/button cell batteries mechanical tests	N/A	
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(The following mechanical tests are conducted in the sequence noted.)

4.8.4.2	TABLE: Stress Relief test	—	
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Part	Material	Oven Temperature (°C)	Comments
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4.8.4.3	TABLE: Battery replacement test	—	
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Battery part no. :		—	
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Battery Installation/withdrawal	Battery Installation/Removal Cycle	Comments	
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	1	--
	2	--
	3	--
	4	--
	5	--
	6	--
	8	--
	9	--
	10	--

4.8.4.4	Table: Drop test	—	
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Impact Area	Drop Distance	Drop No.	Observations
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4.8.4.5	TABLE: Impact	—	
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Impacts per surface	Surface tested	Impact energy (Nm)	Comments
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4.8.4.6	TABLE: Crush test	—	
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Test position	Surface tested	Crushing Force (N)	Duration force applied (s)
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Supplementary information:			
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4.8.5	TABLE: Lithium coin/button cell batteries mechanical test result	N/A	
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Test position	Surface tested	Force (N)	Duration force applied (s)
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IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
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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 ¹⁾	Parameters			ES Class
				U (Vrms or Vpk)	I (Apk or Arms)	Hz	
1	264Va.c. 60Hz	Primary circuits supplied by a.c. mains supply	Normal :	264Vrms	--	60	ES3
			Abnormal :	--	--	--	
			Single fault :	--	--	--	
Model No.: G0720-240-100							
1	264Va.c. 60Hz	Output ”+” to “-”	Normal :	24.32Vdc	--	DC	ES1
			Abnormal : Overload	Max. 24.32Vdc	--	DC	
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
2	264Va.c. 60Hz	Output ”+”/“-” to earth	Normal :	--	0.384mApk	60	ES1
			Abnormal : Overload	--	0.384mApk	60	
			Signal fault : R17 short	--	0.406mApk	60	
			Signal fault : C9 short	--	0.384mApk	60	
			Signal fault : D8 short	--	0.384mApk	60	
			Signal fault : OT1 Pin1-2 short	--	0.384mApk	60	
			Signal fault : OT1 Pin3-4 short	--	0.384mApk	60	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark		Verdict	
			Signal fault : OT1 Pin1 open	--	0.384mApk	60	
			Signal fault : OT1 Pin3 open	--	0.384mApk	60	
3	264Va.c. 60Hz	LAN Pin 1, 2 / Pin 4, 5 to Pin 3, 6/ Pin 7, 8	Normal :	0	--	--	ES1
			Abnormal : Overload	0	--	--	
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
			Signal fault : U1 Pin1-24 short	0	--	--	
			4	264Va.c. 60Hz	LAN port to earth	Normal :	
Abnormal : Overload	--	0.384mApk				60	
Signal fault : R17 short	--	0.406mApk				60	
Signal fault : C9 short	--	0.384mApk				60	
Signal fault : D8 short	--	0.384mApk				60	
Signal fault : OT1 Pin1-2 short	--	0.384mApk				60	
Signal fault : OT1 Pin3-4 short	--	0.384mApk				60	
Signal fault : OT1 Pin1 open	--	0.384mApk				60	
Signal fault : OT1 Pin3 open	--	0.384mApk				60	
Model No.: G0720-360-075							
1	264Va.c. 60Hz	Output "+" to "-"	Normal :	36.23Vdc		DC	ES1
			Abnormal : Overload	Max. 36.23Vdc	--	DC	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
2	264Va.c. 60Hz	Output "+" / "-" to earth	Normal :	--	0.384mA _{pk}	60	ES1
			Abnormal : Overload	--	0.384mA _{pk}	60	
			Signal fault : R17 short	--	0.406mA _{pk}	60	
			Signal fault : C9 short	--	0.384mA _{pk}	60	
			Signal fault : D8 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.384mA _{pk}	60	
4	264Va.c. 60Hz	LAN Pin 1, 2 / Pin 4, 5 to Pin 3, 6 / Pin 7, 8	Normal :	0	--	--	ES1
			Abnormal : Overload	0	--	--	
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	

IEC 62368-1							
Clause		Requirement + Test		Result - Remark		Verdict	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
			Signal fault : U1 Pin1-24 short	0	--	--	
4	264Va.c. 60Hz	LAN port to earth	Normal :	--	0.384mA _{pk}	60	ES1
			Abnormal : Overload	--	0.384mA _{pk}	60	
			Signal fault : R17 short	--	0.406mA _{pk}	60	
			Signal fault : C9 short	--	0.384mA _{pk}	60	
			Signal fault : D8 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin1-2 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin3-4 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.384mA _{pk}	60	
Model No.: G0720-560-053							
1	264Va.c. 60Hz	Output "+" to "-"	Normal :	56.12Vdc		DC	ES1
			Abnormal : Overload	Max. 56.12Vdc	--	DC	
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
2	264Va.c. 60Hz	Output "+" / "-" to earth	Normal :	--	0.384mA _{pk}	60	ES1
			Abnormal : Overload	--	0.384mA _{pk}	60	

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
			Signal fault : R17 short	--	0.406mApk	60	
			Signal fault : C9 short	--	0.384mApk	60	
			Signal fault : D8 short	--	0.384mApk	60	
			Signal fault : OT1 Pin1-2 short	--	0.384mApk	60	
			Signal fault : OT1 Pin3-4 short	--	0.384mApk	60	
			Signal fault : OT1 Pin1 open	--	0.384mApk	60	
			Signal fault : OT1 Pin3 open	--	0.384mApk	60	
3	264Va.c. 60Hz	LAN Pin 1, 2 / Pin 4, 5 to Pin 3, 6/ Pin 7, 8	Normal :	0	--	--	ES1
			Abnormal : Overload	0	--	--	
			Signal fault : R17 short	0	--	--	
			Signal fault : C9 short	0	--	--	
			Signal fault : D8 short	0	--	--	
			Signal fault : OT1 Pin1-2 short	0	--	--	
			Signal fault : OT1 Pin3-4 short	0	--	--	
			Signal fault : OT1 Pin1 open	0	--	--	
			Signal fault : OT1 Pin3 open	0	--	--	
			Signal fault : U1 Pin1-24 short	0	--	--	
4	264Va.c. 60Hz	LAN port to earth	Normal :	--	0.384mApk	60	ES1
			Abnormal : Overload	--	0.384mApk	60	
			Signal fault : R17 short	--	0.406mApk	60	
			Signal fault : C9 short	--	0.384mApk	60	
			Signal fault : D8 short	--	0.384mApk	60	
			Signal fault : OT1 Pin1-2 short	--	0.384mApk	60	

IEC 62368-1							
Clause		Requirement + Test			Result - Remark		Verdict
			Signal fault : OT1 Pin3-4 short	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin1 open	--	0.384mA _{pk}	60	
			Signal fault : OT1 Pin3 open	--	0.384mA _{pk}	60	
Note:							

5.2.2.3 - Capacitance Limits							
No.	Supply Voltage	Location (e.g. circuit designation)	Test conditions	Parameters		ES Class	
				Capacitance, nF	Upk (V)		
1	264Va.c. 60Hz	Between L & N (X capacitor C1)	Normal	242	380	ES3	
			Abnormal	--	--	--	
			Single fault	--	--	--	
Overall capacity: C1=0.22uF±10%							
Limit: ES1=60V; ES2=120V.							
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 – Full load and no load.							
Abnormal – Overload output							
Supplementary information: SC=Short Circuit, OC=Open Circuit							

5.4.1.4, 6.3.2, 9.0, B.2.6	TABLE: Temperature measurements						P
	Supply voltage (V) :	90V / 60Hz	264V / 50Hz	90V / 60Hz	264V / 50Hz		—
	Ambient Tmin (°C) :	--	--	--	--		—

IEC 62368-1						
Clause	Requirement + Test	Result - Remark				Verdict
	Ambient Tmax (°C) :	--	--	--	--	—
	Tma (°C) :	40.0	40.0	40.0	40.0	—
Maximum measured temperature T of part/at:		T (°C)				Allowed T _{max} (°C)
		Label up		Label down		
Model No.: G0720-240-100						
AC inlet (CON3)		61.8	57.7	63.3	58.0	70
Varistor (MOV1)		76.2	63.5	76.1	62.9	85
X-cap (C1)		72.3	60.6	71.3	59.5	100
L1 winding		104.6	73.9	101.9	72.0	130
L1 bobbin		100.1	70.9	97.2	70.5	130
E-cap(C2)		93.4	77.3	92.2	75.0	105
PCB near RT1		93.0	81.9	92.8	82.0	130
PCB near Q1		100.4	95.3	99.9	96.2	130
PCB near U1		104.2	96.7	103.2	93.8	130
Y-cap(C13)		84.8	83.2	84.9	84.8	125
Optocoupler (OT1)		90.1	88.4	89.8	90.3	110
PCB near D3		86.9	69.6	85.6	67.5	130
T1 winding		101.8	99.8	104.5	101.4	110
T1 core		98.2	96.8	101.2	97.8	110
L2 winding		100.2	96.5	99.7	92.5	130
PCB under U2		76.4	74.8	76.1	78.3	130
PCB near U3		104.9	98.1	105.2	94.7	130
E-cap(C11)		85.7	82.0	88.5	85.3	105
Plastic enclosure near T1, inside		84.6	81.4	83.5	81.0	100
Ambient		40.0	40.0	40.0	40.0	--
Below points are tested based on ambient at 25°C						
AC Intel surface		43.7	39.3	44.3	39.1	77
Output terminal surface		41.3	41.5	41.4	41.6	60
Plastic enclosure near T1, outside		58.6	56.4	57.8	57.6	77
Ambient		25.0	25.0	25.0	25.0	--
Model No.: G0720-360-075						
AC inlet (CON3)		62.5	57.4	64.2	59.5	70
Varistor (MOV1)		77.2	63.7	77.4	63.1	85
X-cap (C1)		76.6	61.5	74.9	60.1	100
L1 winding		113.6	76.1	109.5	74.8	130
L1 bobbin		110.4	71.3	103.5	70.8	130
E-cap(C2)		97.7	79.0	94.2	77.5	105

IEC 62368-1					
Clause	Requirement + Test		Result - Remark		Verdict
PCB near RT1	93.3	86.7	91.1	83.9	130
PCB near Q1	104.4	100.6	102.7	96.4	130
PCB near U1	100.9	98.0	98.4	93.9	130
Y-cap(C13)	85.8	85.9	87.3	89.4	125
Optocoupler (OT1)	96.2	86.2	93.2	89.3	110
PCB near D3	89.2	87.5	95.2	87.8	130
T1 winding	102.7	100.6	104.3	101.6	110
T1 core	99.6	97.7	100.5	98.3	110
L2 winding	107.6	99.5	107.0	98.0	130
PCB under U2	73.7	70.9	74.9	70.4	130
PCB near U3	92.8	88.4	93.4	89.6	130
E-cap(C11)	99.5	94.1	96.8	90.6	105
Plastic enclosure near T1, inside	83.4	79.5	83.1	78.1	100
Ambient	40.0	40.0	40.0	40.0	--
Below points are tested based on ambient at 25°C					
AC Intel surface	43.3	38.7	43.5	39.9	77
Output terminal surface	43.8	42.6	43.7	43.6	60
Plastic enclosure near T1, outside	57.3	54.7	55.6	56.5	77
Ambient	25.0	25.0	25.0	25.0	--
Model No.: G0720-560-053					
AC inlet (CON3)	63.2	58.2	65.4	61.0	70
Varistor (MOV1)	77.8	62.2	75.7	63.9	85
X-cap (C1)	82.3	64.8	84.3	61.0	100
L1 winding	115.1	87.2	118.4	89.7	130
L1 bobbin	111.0	82.5	113.3	84.0	130
E-cap(C2)	98.3	80.1	93.4	80.0	105
PCB near RT1	95.5	75.4	95.9	88.5	130
PCB near Q1	109.5	103.5	110.5	101.1	130
PCB near U1	101.0	96.3	99.8	96.8	130
Y-cap(C13)	87.4	84.4	85.9	85.8	125
Optocoupler (OT1)	97.8	90.2	94.7	90.5	110
PCB near D3	92.8	88.7	96.6	91.5	130
T1 winding	102.6	103.0	105.5	104.8	110
T1 core	98.0	97.6	100.0	100.7	110
L2 winding	97.1	99.6	90.5	98.8	130
PCB under U2	68.0	66.1	68.8	65.0	130
PCB near U3	83.5	76.3	82.6	76.7	130

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

E-cap(C11)	96.8	98.9	98.9	96.2	105
Plastic enclosure near T1, inside	81.3	80.3	81.3	79.3	100
Ambient	40.0	40.0	40.0	40.0	--

Below points are tested based on ambient at 25°C

AC Intel surface	44.8	37.6	45.6	43.0	77
Output terminal surface	41.2	39.5	44.7	40.0	60
Plastic enclosure near T1, outside	56.0	57.4	55.8	54.6	77
Ambient	25.0	25.0	25.0	25.0	--

Supplementary information:

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) of 40°C.

Note 2: The temperatures were measured under the worse case normal mode defined in clause B.2.1.

Note 3: Temperature limits are calculated as follows:

Winding components providing safety isolation: Class B → T_{max} = 120 - 10 = 110 °C

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

Supplementary information:

Note 1: T_{ma} should be considered as directed by applicable requirement

Note 2: T_{ma} is not included in assessment of Touch Temperatures (Clause 9)

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

5.4.1.10.3	TABLE: Ball pressure test of thermoplastics			N/A
Allowed impression diameter (mm)		≤ 2 mm		—
Object/Part No./Material	Manufacturer/trademark	Test temperature (°C)	Impression diameter (mm)	
--	--	--	--	
Supplementary information:				

5.4.2.2, 5.4.2.4 and 5.4.3	TABLE: Minimum Clearances/Creepage distance						P
Clearance (cl) and creepage distance (cr) at/of/between:	Up (V)	U r.m.s. (V)	Frequency (kHz)	Required cl (mm) ¹	cl (mm) ²	Required ³ cr (mm)	cr (mm)

IEC 62368-1							
Clause	Requirement + Test			Result - Remark			Verdict
Line and Neutral before fuse F1 on PCB trace(B)	420	250	0.06	1.9*	3.0	2.5	3.0
Different polarity of fuse F1 on PCB trace (B)	420	250	0.06	1.9*	3.0	2.5	3.0
Primary trace to PE trace (B)	420	250	0.06	1.9*	4.0	2.5	4.0
Primary traces to secondary traces under Y- Capacitor C13 (R)	420	250	0.06	3.8*	7.7	5.0	7.7
Primary traces to secondary traces under optocoupler OT1 (R)	420	250	0.06	3.8*	7.4	5.0	7.4
Primary traces to secondary traces under transformer T1 (R)	580	278	66.0k	3.8*	8.4	5.6	8.4
Transformer T1 : primary winding to secondary pins (R)	580	278	66.0k	3.8*	10.0	5.6	10.0
Transformer T1 : core to secondary pins (R)	580	278	66.0k	3.8*	10.0	5.6	10.0
Transformer T1 : core to secondary C11 (10N applied) (R)	580	278	66.0k	3.8*	7.5	5.6	7.5
X- Capacitor C1 (10N applied) to outside of enclosure (R)	420	250	0.06	3.8*	6.4	5.0	>6.4
Thermistor RT1 (10N applied) to outside of enclosure (R)	420	250	0.06	3.8*	5.3	5.0	5.3
Supplementary information: 1) Triple insulated wire used as secondary winding of T1. Core of T1 is considered as primary. 2 layer insulation tape wrapped around external of T1, 2 layers of insulation tape wrapped on bottom and side of core nearby secondary circuit. 2) Protective bonding conductors soldered into earth pin of AC inlet by hooking-in, all internal wires solder to PCB are additionally fixed with glue. 3) The transformers construction refers to appended table G.5.3. 4) Unless otherwise specified, the worst case conditions of Cl. & Cr. in above mentioned locations have been considered and listed. 5) *The maximum operating altitude of 5000m. Therefore the requirements of IEC 60664-1 for clearances were considered and the required clearance was multiplied with an altitude correction factor of 1.48. 6) F=Functional insulation, B= Basic insulation, R=Reinforced insulation. Note 1: Only for frequency above 30 kHz Note 2: See table 5.4.2.4 if this is based on electric strength test Note 3: Provide Material Group IIIa/IIIb.							

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.	2500Vpeak	1.5*1.48=2.3 for BI/SI	See table 5.4.2.2, 5.4.2.4 and 5.4.3 above.	

IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict
5.4.2.3	TABLE: Minimum Clearances distances using required withstand voltage		P
	Overvoltage Category (OV):		II
	Pollution Degree:		2
Clearance distanced between:		Required withstand voltage	Required cl (mm)
			Measured cl (mm)
		3.0*1.48=4.5 for RI	
Supplementary information:			

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:				
Using procedure 2 to determine the clearance.				

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 (Hz)	Material	Required DTI (mm)	DTI (mm)
Plastic Enclosure (R)		420	0.06	1)	0.4	1)
Optocoupler (R)		420	0.06	1)	0.4	1)
Bobbin of T1 (R)		580	66.0k	1)	0.4	1)
Supplementary information: See also sub-clause 5.4.4.9.						
1) See appended table 4.1.2 for details.						
B= Basic insulation; R= Reinforced insulation						

5.4.9	TABLE: Electric strength tests			P
Test voltage applied between:		Voltage shape (AC, DC)	Test voltage (Vpeak)	Breakdown Yes / No
Basic/supplementary:				
L and N (with fuse disconnect)		DC	2500	No
L/N and PE		DC	2500	No
Reinforced:				
L/N and Output connector		DC	4000	No
L/N and plastic enclosure with metal foil		DC	4000	No
Transformer T1 : primary pin and secondary pin		DC	4000	No
Transformer T1 : core and secondary pins		DC	4000	No
1 layer of insulation tape of all transformers		DC	4000	No

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

Supplementary information:

1. Core of transformer T1 was considered as primary part. Test after humidity treatment, heating test, and for unit primary to secondary, primary to earth electric strength after each fault condition test. Tests were performed on product with each source listed in table 4.1.2.
2. The DC voltage source was performed on all testing once in forward and once in reverse.

5.5.2.2	TABLE: Stored discharge on capacitors					P
Supply Voltage (V), Hz	Test Location	Operating Condition (N, S)	Switch position On or off	Measured Voltage (after 2 seconds)	ES Classification	
264Vac, 60Hz	Phase to Neutral	N	--	20	ES1	
264Vac, 60Hz	Phase to Neutral	S (R20 open circuit)	--	54	ES1	

Supplementary information:

The end system will be pluggable equipment type A. Limit of ES1 applied for mains terminal as accessible part for ordinary persons.

X-capacitors installed for testing are: C1=0.22uF±10% .

☒ bleeding resistor rating: R20=R21=R22=R23=3.3M ohm.

☐ ICX:

Notes:

A. Test Location:

Phase to Neutral; 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				P
Accessible part	Test current (A)	Duration (min)	Voltage drop (V)	Resistance (Ω)	
Inlet earthing pin to secondary earthing	32A	2min	0.26	0.008ohm	
Inlet earthing pin to secondary earthing	40A	2min	0.59	0.014ohm	
Supplementary Information: --					

5.7.2.2, 5.7.4	TABLE: Earthed accessible conductive part		P
Supply voltage	264Vac	—	
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)
Earthing part	1 (e open, normal and reverse		0.254/0.269

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

	polarity p)	
--	2* (netural open (switch n), earth intact and normal polarity, again in reverse polarity (switch p)	--
--	3 (for IT system, each phase conductor faulted to earth, one at a time (switch g)	--
--	4 (for three-phase, each phase conductor open, one at a time switches l)	--
--	5 (IT power system or three phase delta system)	--
--	6 (three-phase for use on centre-earthed dalta supply system)	--
--	8 (incidental electrically connected to other parts)	--

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.

a) Not considered IT power system.

b) Not three phase equipment.

c) Not IT power system or three phase delta system.

d) Not three-phase for use on centre-earthed dalta supply system.

e) Not such parts.

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	
Power supply	Normal operation	Power (W) :	>100	>100	PS3	
		V _A (V) :	240	240		
		I _A (A) :	--	--		
Model: G0720-240-100						
Output “+” to “-”	Normal operation	Power (W) :	34.28	34.28	PS2	
		V _A (V) :	22.55	22.55		
		I _A (A) :	1.52	1.52		
	R17 shorted	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
	OT1 pin 1-2	Power (W) :	0	--	PS1	

IEC 62368-1						
Clause	Requirement + Test			Result - Remark	Verdict	
	Shorted	V _A (V) :	0	--		
		I _A (A) :	0	--		
	OT1 pin 3-4 Shorted	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
	OT1 pin 1 opened	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
	OT1 pin 3 opened	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
	D8 shorted	Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
	Model: 0720-360-075					
	Output “+” to “-”	Normal operation	Power (W) :	38.82	38.82	PS2
			V _A (V) :	33.47	33.47	
			I _A (A) :	1.16	1.16	
R17 shorted		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
OT1 pin 1-2 Shorted		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
OT1 pin 3-4 Shorted		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
OT1 pin 1 opened		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
OT1 pin 3 opened		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
D8 shorted		Power (W) :	0	--	PS1	
		V _A (V) :	0	--		
		I _A (A) :	0	--		
Model: G0720-560-053						

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

Output "+" to "-"	Normal operation	Power (W) :	39.24	39.24	PS2
		V _A (V) :	54.5	54.5	
		I _A (A) :	0.72	0.72	
	R17 shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 1-2 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3-4 Shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 1 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	OT1 pin 3 opened	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	
	D8 shorted	Power (W) :	0	--	PS1
		V _A (V) :	0	--	
		I _A (A) :	0	--	

Supplementary Information:

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

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 × I _{rms})	Arcing PIS? Yes / No
All internal 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.					
All conductors and devices are considered as PIS.					

6.2.3.2	Table: Determination of Potential Ignition Sources (Resistive PIS)				P
---------	--	--	--	--	---

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

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:

All power dissipating components in primary and secondary circuit are considered as resistive PIS due to the available power as declared by manufacturer.

A combination of voltmeter, VA and ammeter IA may be used instead of a wattmeter.

If a separate voltmeter and ammeter are used, the product of (VA x IA) is used to determine Resistive PIS classification.

A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault.

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

B.2.5	TABLE: Input test						P
U (V/Hz)	I (A)	I rated (A)	P (W)	P rated (W)	Fuse No	I fuse (A)	Condition/status
Model: G0720-240-100							
90Vac/50	0.509	--	28.8	--	F1	0.509	Max. normal load 24.0Vdc, 1.0A
90Vac/60	0.513	--	28.8	--	F1	0.513	
100Vac/50	0.467	0.75	28.5	--	F1	0.467	
100Vac/60	0.473	0.75	28.5	--	F1	0.473	
240Vac/50	0.230	0.75	27.9	--	F1	0.230	
240Vac/60	0.223	0.75	27.8	--	F1	0.223	

IEC 62368-1							
Clause		Requirement + Test			Result - Remark		Verdict
264Vac/50	0.213	--	27.9	--	F1	0.213	
264Vac/60	0.211	--	27.8	--	F1	0.211	
Model No.: G0720-360-075							
90Vac/50	0.561	--	31.6	--	F1	0.561	Max. normal load 36.0Vdc, 0.75A
90Vac/60	0.578	--	32.1	--	F1	0.578	
100Vac/50	0.513	0.75	31.3	--	F1	0.513	
100Vac/60	0.527	0.75	31.6	--	F1	0.527	
240Vac/50	0.245	0.75	30.1	--	F1	0.245	
240Vac/60	0.238	0.75	30.1	--	F1	0.238	
264Vac/50	0.231	--	30.2	--	F1	0.231	
264Vac/60	0.227	--	30.4	--	F1	0.227	
Model No.: G0720-560-053							
90Vac/50	0.604	--	34.1	--	F1	0.604	Max. normal load 56.0Vdc, 0.53A
90Vac/60	0.605	--	34.3	--	F1	0.605	
100Vac/50	0.543	0.75	33.9	--	F1	0.543	
100Vac/60	0.549	0.75	34.2	--	F1	0.549	
240Vac/50	0.262	0.75	32.7	--	F1	0.262	
240Vac/60	0.264	0.75	32.6	--	F1	0.264	
264Vac/50	0.246	--	32.8	--	F1	0.246	
264Vac/60	0.243	--	32.7	--	F1	0.243	
Supplementary information: The maximum measured current under rated voltage did not exceed 110% of the rated current.							

B.3	TABLE: Abnormal operating condition tests							P
Ambient temperature (°C)					25°C, if not specified			—
Power source for EUT: Manufacturer, model/type, output rating :					--			—
Component No.	Abnormal Condition	Supply voltage (V)	Test time	Fuse no.	Fuse current (A)	T-couple	Temp. (°C)	Observation
Model: G0720-240-100								

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
Output "+" to "-"	O-L	264	7hr 52min	F1	0.213→ 0.223→ 0.240→ 0.261→ 0.014	Type J	T1 winding : 130.4°C; T1 core : 124.9°C; Ambient : 40.0°C; AC Intel surface : 50.9°C; Output terminal surface : 46.7°C; Plastic enclosure near T1, outside : 68.3°C; Ambient : 25.0°C	Max. overload current is 1.35A, unit shutdown when load to 1.36A, no damage, no hazards.
T1 output	O-L	264	8hr 41min	F1	0.213→ 0.226→ 0.250→ 0.271→ 0.014	Type J	T1 winding : 132.5°C; T1 core : 126.4°C; Ambient : 40.0°C; AC Intel surface : 50.7°C; Output terminal surface : 42.9°C; Plastic enclosure near T1, outside : 69.7°C; Ambient : 25.0°C	Max. overload current is 0.37A, unit shutdown when load to 0.38A, no damage, no hazards.
Model No.: G0720-360-075								
Output "+" to "-"	O-L	264	6hr 27min	F1	0.231→ 0.253→ 0.270→ 0.284→ 0.014	Type J	T1 winding : 129.4°C; T1 core : 121.4°C; Ambient : 40.0°C; AC Intel surface : 44.3°C; Output terminal surface : 47.9°C; Plastic enclosure near T1, outside : 64.4°C; Ambient : 25.0°C	Max. overload current is 1.05A, unit shutdown when load to 1.06A, no damage, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
T1 output	O-L	264	8hr 38min	F1	0.231→ 0.264→ 0.284→ 0.297→ 0.014	Type J	T1 winding : 135.0°C; T1 core : 125.0°C; Ambient : 40.0°C; AC Intel surface : 43.9°C; Output terminal surface : 48.7°C; Plastic enclosure near T1, outside : 70.9°C; Ambient : 25.0°C	Max. overload current is 0.33A, unit shutdown when load to 0.34A, no damage, no hazards.
Model No.: G0720-560-053								
Output "+" to "-"	O-L	264	6hr 34min	F1	0.246→ 0.289→ 0.335→ 0.014	Type J	T1 winding : 137.9°C; T1 core : 119.5°C; Ambient : 40.0°C; AC Intel surface : 49.7°C; Output terminal surface : 47.0°C; Plastic enclosure near T1, outside : 67.5°C; Ambient : 25.0°C	Max. overload current is 0.65A, unit shutdown after working for 14min when load to 0.70A, no damage, no hazards.
T1 output	O-L	264	6hr 25min	F1	0.243→ 0.294→ 0.349→ 0.014	Type J	T1 winding : 143.5°C; T1 core : 130.6°C; Ambient : 40.0°C; AC Intel surface : 51.2°C; Output terminal surface : 48.1°C; Plastic enclosure near T1, outside : 71.1°C; Ambient : 25.0°C	Max. overload current is 0.20A, unit shutdown when load to 0.21A, no damage, no hazards.
Supplementary information: 1) O-L: Overloaded 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions. 3) The overloaded condition is applied according to annex G.5.3.3. 4) Winding temperature Limit for T1: 175-10=165°C								

B.4	TABLE: Fault condition tests	P
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IEC 62368-1								
Clause		Requirement + Test				Result - Remark		Verdict
Ambient temperature (°C)						25°C, if not specified		—
Power source for EUT: Manufacturer, model/type, output rating ...:						--		—
Component No.	Abnormal Condition	Supply voltage, (V)	Test time (ms)	Fuse no.	Fuse current, (A)	T-couple	Temp. (°C)	Observation
Model: G0720-240-100								
D1	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
C2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin G-S	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Q1 Pin G-D	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin S-D	S-C	264	1s	F1	0	--	--	F1 opened immediately, R16, R17 damaged. After testing, no hazards.
R17	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
D2	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-5	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-6	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
OT1 Pin1-2	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3-4	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1	O-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3	O-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin2-4	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin5-7	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 PinA-B	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
D8	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C9	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C11	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
Output	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Model No.: G0720-360-075								
D1	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
C2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin G-S	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Q1 Pin G-D	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin S-D	S-C	264	1s	F1	0	--	--	F1 opened immediately, R16, R17 damaged. After testing, no hazards.
R17	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
D2	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-5	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-6	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1-2	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
OT1 Pin3-4	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1	O-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3	O-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin2-4	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin5-7	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 PinA-B	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
D8	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C9	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C11	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Output	S-C	264	10min	F1	0.015	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Model No.: G0720-560-053								

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
D1	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
C2	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin G-S	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Q1 Pin G-D	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
Q1 Pin S-D	S-C	264	1s	F1	0	--	--	F1 opened immediately, R16, R17 damaged. After testing, no hazards.
R17	S-C	264	1s	F1	0	--	--	F1 opened immediately. After testing, no hazards.
D2	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-5	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
U1 Pin 2-6	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin1-2	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3-4	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

IEC 62368-1								
Clause	Requirement + Test					Result - Remark		Verdict
OT1 Pin1	O-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
OT1 Pin3	O-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin2-4	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 Pin5-7	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
T1 PinA-B	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
D8	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C9	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
C11	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.
Output	S-C	264	10min	F1	0.014	--	--	Unit shut down immediately. After testing, no damaged, no hazards.

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

Supplementary information:

1) S-C: Short-circuited; O-C: Open-circuited.

2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.

3) The same as result test conducted on all fuse sources when fuse opened, all fuse sources see table 4.1.2 for details.

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

Annex M.4	Table: Additional safeguards for equipment containing secondary lithium batteries					N/A
Battery/Cell No.	Test conditions	Measurements			Observation	
		U	I (A)	Temp (C)		
--	Normal	--	--	--	--	
--	Abnormal	--	--	--	--	
--	Single fault –SC/OC	--	--	--	--	
Supplementary information:						

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

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

Output Circuit	Components	U _{oc} (V)	I _{sc} (A)		S (VA)	
			Meas.	Limit	Meas.	Limit
Model: G0720-240-100						
Output “+” to “-”	Normal condition	24.32	1.52	8	34.28	100
Output “+” to “-”	R17 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1-2 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 3-4 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1 opened	0	0	8	0	100
Output “+” to “-”	OT1 pin 3 opened	0	0	8	0	100
Output “+” to “-”	D8 shorted	0	0	8	0	100
Model: 0720-360-075						
Output “+” to “-”	Normal condition	36.23	1.16	4.16	38.82	100
Output “+” to “-”	R17 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1-2 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 3-4 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1 opened	0	0	8	0	100
Output “+” to “-”	OT1 pin 3 opened	0	0	8	0	100
Output “+” to “-”	D8 shorted	0	0	8	0	100
Model: G0720-560-053						
Output “+” to “-”	Normal condition	56.12	0.72	2.67	39.24	100
Output “+” to “-”	R17 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1-2 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 3-4 shorted	0	0	8	0	100
Output “+” to “-”	OT1 pin 1 opened	0	0	8	0	100

IEC 62368-1						
Clause	Requirement + Test			Result - Remark		Verdict
Output “+” to “-”	OT1 pin 3 opened	0	0	8	0	100
Output “+” to “-”	D8 shorted	0	0	8	0	100
Supplementary information: --						

T.2, T.3, T.4, T.5	TABLE: Steady force test					P
Part/Location	Material	Thickness (mm)	Force (N)	Test Duration (sec)	Observation	
Internal component (T.2)	--	--	10	5	No insulation breakdown. No reduction the clearances and creepage distances	
Enclosure top, closed to transformer (T.5)	Plastics	2.4	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Enclosure side (T.5)	Plastics	2.4	250	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.5)	Plastics	2.4	250	5	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Supplementary information:						
Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.						

T.6, T.9	TABLE: Impact tests				P
Part/Location	Material	Thickness (mm)	Vertical distance (mm)	Observation	
Enclosure top, closed to transformer (T.6)	Plastics	2.4	1300	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	
Enclosure side (T.6)	Plastics	2.4	1300	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.
Enclosure bottom, closed to transformer (T.6)	Plastics	2.4	1300	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.
Supplementary information: Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.				

T.7	TABLE: Drop tests				P
Part/Location	Material	Thickness (mm)	Drop Height (mm)	Observation	
Whole EUT	Plastic	2.4	750	After the test, enclosure remained intact, no cracking/opening developed in the enclosure joint. Internal TS3 were not accessible after test.	
Supplementary information:					
Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.					

T.8	TABLE: Stress relief test					P
Part/Location	Material	Thickness (mm)	Oven Temperature (°C)	Duration (h)	Observation	
Whole equipment	Plastics	2.4	105	7	Enclosure remained intact, no crack/ opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown.	
Supplementary information: Each source of enclosure in table 4.1.2 was applied and passed the relevant tests.						

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

Appendix 1:

5.4.1.8	Table: working voltage measurement				P
Location		Peak voltage (V)	RMS voltage (V)	Frequency(Hz)	Comments
Model No.: G0720-240-100					
OT1 Pin 1 to 3		384	199	60	--
OT1 Pin 2 to 3		384	199	60	--
OT1 Pin 1 to 4		384	199	60	--
OT1 Pin 2 to 4		384	199	60	--
C13 primary to secondary		360	192	60	--
T1 Pin 2-A		408	183	66.0k	--
T1 Pin 4-A		424	191	66.0k	--
T1 Pin 5-A		554	255	66.0k	Max. Vpeak of T1
T1 Pin 7-A		512	247	66.0k	--
T1 Pin 2-B		408	180	66.0k	--
T1 Pin 4-B		352	177	66.0k	--
T1 Pin 5-B		504	269	66.0k	Max. Vrms of T1
T1 Pin 7-B		368	237	66.0k	--
Model No.: G0720-360-075					
OT1 Pin 1 to 3		384	198	60	--
OT1 Pin 2 to 3		384	198	60	--
OT1 Pin 1 to 4		384	198	60	--
OT1 Pin 2 to 4		384	198	60	--
C13 primary to secondary		352	178	60	--
T1 Pin 2-A		392	185	63.1k	--
T1 Pin 4-A		408	191	63.1k	--
T1 Pin 5-A		568	248	63.1k	Max. Vpeak of T1
T1 Pin 7-A		528	241	63.1k	--
T1 Pin 2-B		408	182	63.1k	--
T1 Pin 4-B		360	179	63.1k	--
T1 Pin 5-B		512	272	63.1k	Max. Vrms of T1
T1 Pin 7-B		368	235	63.1k	--
Model No.: G0720-560-053					
OT1 Pin 1 to 3		420	202	60	--
OT1 Pin 2 to 3		420	202	60	--
OT1 Pin 1 to 4		420	202	60	--
OT1 Pin 2 to 4		420	202	60	--
C13 primary to secondary		360	168	60	--

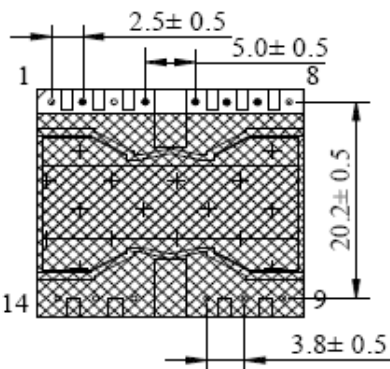
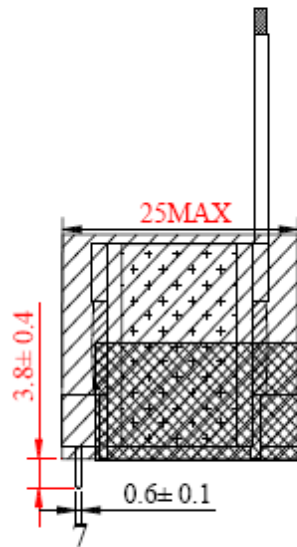
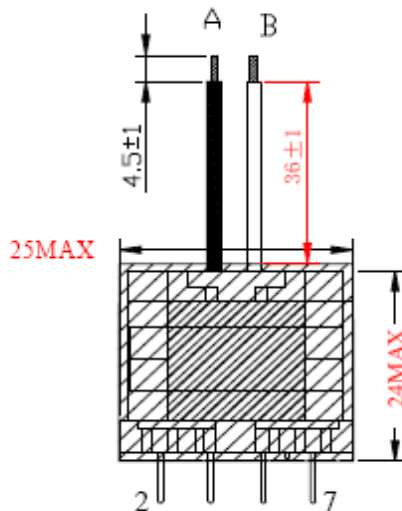
IEC 62368-1				
Clause	Requirement + Test		Result - Remark	Verdict
T1 Pin 2-A	380	172	64.1k	--
T1 Pin 4-A	400	180	64.1k	--
T1 Pin 5-A	580	246	64.1k	Max. V _{peak} of T1
T1 Pin 7-A	520	241	64.1k	--
T1 Pin 2-B	480	175	64.1k	--
T1 Pin 4-B	380	169	64.1k	--
T1 Pin 5-B	520	278	64.1k	Max. V _{rms} of T1
T1 Pin 7-B	400	235	64.1k	--
Supplementary information: Supply voltage : 240Vac/60Hz				

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

Appendix 2:

G.5.3	TABLE: transformer (T1)							P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)	
Primary winding to secondary pin	Reinforced insulation	580	278	4000Vdc	4.5*	5.6	2 layers or 0.4mm	
Core to secondary pin	Reinforced insulation	580	278	4000Vdc	4.5*	5.6	2 layers or 0.4mm	
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	Reinforced insulation			4000Vdc	10.0	10.0	TIW	
Core to secondary pins	Reinforced insulation			4000Vdc	10.0	10.0	TIW	
supplementary information:								
*The equipment is intended to be operated under altitude up to 5000m, so the clearance is multiplied by the altitude correction factor (1.48, linear interpolation used), specified in table A.2 of IEC 60664-1 Concentric windings on bobbin. Triple insulated wires used as secondary winding. Two layers insulation tape wrapped bottom and side of transformer. Primary winding leads exit directly through integral flanges in bobbin and secured soldered to the pins moulded into the bobbin, secondary winding leads exit from the top surface of the bobbin and inserted into the holes in the PCB before soldering and additional fixed by glue. Insulating tube used on each primary and secondary winding for mechanical protection. More details see below:								

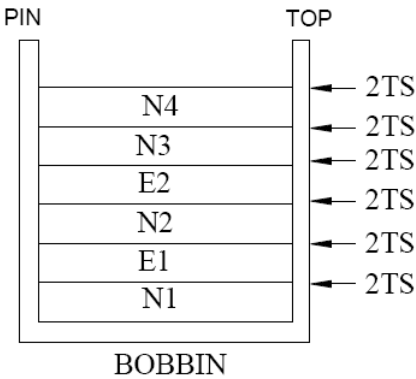
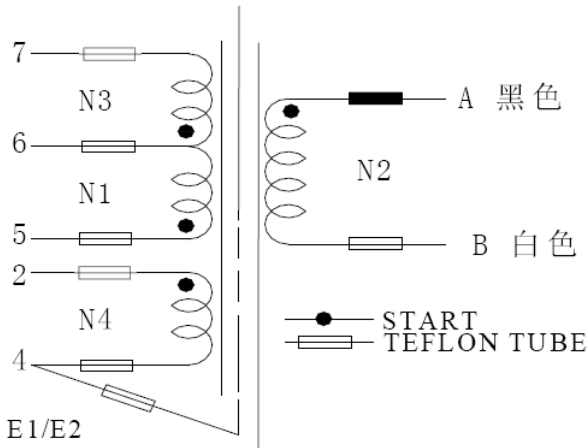
IEC 62368-1			
Clause	Requirement + Test	Result - Remark	Verdict

G.5.3	TABLE: transformer(T1)	P
1. CONFIGURATION & DIMENSIONS: (UNIT:mm)		
 NOTE:8 个脚边为 PIN1-8, 严格控制外观尺寸。 - PIN1.3.8.9.10.11.12.13.14 CUT OFF.PIN6 CUT OFF2/3。 - CORE FIXED BY MYLAR TAPE 2TS*10mm. - 磁芯中柱磨气隙, 且气隙装于顶部。 - 产品真空浸油并烘干。 - A, B 为飞线, A 从 PIN12 顶出, 套黑色套管, ; B. 从 PIN11 顶出, 套白色套管, 长度如图所示: - 产品固定磁芯后沿线包方向包胶带 14mm*2TS, 再沿磁芯和线包分别加自粘 0.05*6mm 和自粘 0.05*8mm “十字” 外屏蔽 1.1TS, 十字架交接处也须焊接在一起, 引线加套管接至 PIN4.再沿磁芯方向外包 10mm*2TS 胶带, 沿线包方向包 15mm 胶带 2TS; - 产品需先用 35*45mm 胶带两层将底部到侧面包住, 并折向次级, 再平底部支点横向包外围胶带 3TS*25mm (需高出磁芯 2mm 以上)。 - 产品顶部贴标签, 字朝 PIN1-8 方向, 标签如图示: YY 代表年份, WW 代表周期; LT00783V01 P.D.George/Ripley B-19 HSD E240087 YYWW		

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

2. SEQUENCE:

3. WINDING SCHEMATIC:



4.WINDING SPEC:PIN 朝右，其中绕 N4 时候 PIN 朝左

WINDING	WIRE/COPPER FOIL	S — F	TURNS	TAPE	REMARK
N1	MW75 ϕ 0.35 $\times$ 1P	5 — 6	30TS	2TS	密 绕
E1	COPPER 0.025*8mm	4 —	0.9TS	2TS	居 中
N2	TEX-E ϕ 0.45 $\times$ 1P	A — B	23TS	2TS	密 绕
E2	COPPER 0.025*8mm	4 —	0.9TS	2TS	居 中
N3	MW75 ϕ 0.35 $\times$ 1P	6 — 7	25TS	2TS	密 绕
N4	MW75 ϕ 0.25 $\times$ 1P	4 — 2	11TS	2TS	居中密绕

注：1.绕 N4 时反向。2.按原理图示加套管。

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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					--																																				
	Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z".					--																																				
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: <table border="1"><tr><td>0.2.1</td><td>Note</td><td>1</td><td>Note 3</td><td>4.1.15</td><td>Note</td></tr><tr><td>4.7.3</td><td>Note 1 and 2</td><td>5.2.2.2</td><td>Note</td><td>5.4.2.3.2.2 Table 13</td><td>Note c</td></tr><tr><td>5.4.2.3.2.4</td><td>Note 1 and 3</td><td>5.4.2.5</td><td>Note 2</td><td>5.4.5.1</td><td>Note</td></tr><tr><td>5.5.2.1</td><td>Note</td><td>5.5.6</td><td>Note</td><td>5.6.4.2.1</td><td>Note 2 and 3</td></tr><tr><td>5.7.5</td><td>Note</td><td>5.7.6.1</td><td>Note 1 and 2</td><td>10.2.1 Table 39</td><td>Note 2, 3 and 4</td></tr><tr><td>10.5.3</td><td>Note 2</td><td>10.6.2.1</td><td>Note 3</td><td>F.3.3.6</td><td>Note 3</td></tr></table>					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	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																																				

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
1	Add the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.		P
4.Z1	Add the following new subclause after 4.9: To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains , protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for pluggable equipment type B or permanently connected equipment , to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Considered. Complied with item a) for internal fuse (F1) used and for parts as described in b) reliance on the protection in the building installation.	P
5.4.2.3.2.4	Add the following to the end of this subclause: The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.		P
10.2.1	Add the following to ^{c)} and ^{d)} in table 39: For additional requirements, see 10.5.1.	No radiation.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
10.5.1	Add the following after the first paragraph: <i>For RS 1 compliance is checked by measurement under the following conditions: In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</i> NOTE Z1 Soldered joints and paint lockings are examples of adequate locking. <i>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</i> <i>Moreover, the measurement shall be made under fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</i> <i>For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.</i> NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.	Added.	N/A
10.6.1	Add the following paragraph to the end of the subclause: EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.	Added.	N/A
10.Z1	Add the following new subclause after 10.6.5. 10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
G.7.1	Add the following note: NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.	Added.	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

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
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: In Denmark: “Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.” In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: “Apparatet må tilkoples jordet stikkontakt” In Sweden: “Apparaten skall anslutas till jordat uttag”	Not such equipment	N/A
4.7.3	United Kingdom To the end of the subclause the following is added: The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex	Not a direct plug-in equipment.	N/A
5.2.2.2	Denmark After the 2nd paragraph add the following: A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	No high touch current measured.	N/A
5.4.11.1 and Annex G	Finland and Sweden To the end of the subclause the following is added: For separation of the telecommunication network from earth the following is applicable: If this insulation is solid, including insulation forming part of a component, it shall at least		N/A

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Only the version on the IECEE Website is the current document version

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	consist of either • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.		
5.5.2.1	Norway After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
5.5.6	Finland, Norway and Sweden To the end of the subclause the following is added: Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.		N/A
5.6.1	Denmark Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. <i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.		N/A
5.6.4.2.1	Ireland and United Kingdom After the indent for pluggable equipment type A , the following is added: – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.	Add.	N/A
5.6.5.1	To the second paragraph the following is added: The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm ² to 1,5 mm ² in cross-sectional area.		N/A
5.7.5	Denmark To the end of the subclause the following is added: The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.	No high protective conductor current.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
5.7.6.1	Norway and Sweden To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: “Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)” NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Norwegian (the Swedish text will also be accepted in Norway): “Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”	Not such system.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
	Translation to Swedish: "Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet."		
5.7.6.2	Denmark To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA	No external circuits.	N/A
B.3.1 and B.4	Ireland and United Kingdom The following is applicable: To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the direct plug-in equipment, until the requirements of Annexes B.3.1 and B.4 are met		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
G.4.2	Denmark To the end of the subclause the following is added: Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c. Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a <i>Justification:</i> Heavy Current Regulations, Section 6c	No power supply cord provided.	N/A
G.4.2	United Kingdom To the end of the subclause the following is added: The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	Not a direct plug-in equipment.	N/A

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Report No.: 50351182 001

IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
G.7.1	United Kingdom To the first paragraph the following is added: Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations. NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
G.7.1	Ireland To the first paragraph the following is added: Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard		N/A
G.7.2	Ireland and United Kingdom To the first paragraph the following is added: A power supply cord with a conductor of 1,25 mm² is allowed for equipment which is rated over 10 A and up to and including 13 A.		N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		P
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	Not such equipment.	N/A



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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.		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.		N/A
4.8	Lithium coin / button cell batteries have modified special construction and performance requirements.		N/A

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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	No power cord provided	N/A
5.7.7	Equipment intended to receive telecommunication ringing signals complies with a special touch current measurement tests.	Not such 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.		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.	See copy of marking plate.	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.	No power cord provided	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.	No power cord provided	N/A
Annex G (G.7.5)	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms.		N/A
Annex H.2	Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No such circuits 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 such circuits within the equipment.	N/A

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IEC62368_1B - ATTACHMENT			
Clause	Requirement + Test	Result – Remark	Verdict
Annex M	Battery packs for stationary applications comply with special component requirements.	No battery.	N/A
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.	Not such equipment or application.	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 metal 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

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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 fuse provided.	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 motor used.	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

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Clause	Requirement + Test	Result – Remark	Verdict
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
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.		P
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

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Clause	Requirement + Test	Result – Remark	Verdict
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
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.	Not such 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.	Not such equipment.	N/A



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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> -AS/NZS 60695.2.11, <i>Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—</i>		P

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Clause	Requirement + Test	Result – Remark	Verdict
	<i>Glow-wire flammability test method for end-products</i> -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> -AS/NZS 60695.11.10, <i>Fire hazard testing, Part 11.10: Test flames—50 W horizontal and vertical flame test methods</i> -AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i> -AS/NZS 60950.1:2015, <i>Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i> IEC 61032:1997, <i>Protection of persons and equipment by enclosures—Probes for verification</i> -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> -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>		
4.1.1	Application of requirements and acceptance of materials, components and subassemblies 1 <i>Replace</i> the text 'IEC 60950-1' with 'AS/NZS 60950.1:2015'. 2 <i>Replace</i> the text 'IEC 60065' with 'AS/NZS 60065'.		P
4.7	Equipment for direct insertion into mains socket-outlets		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
4.7.2	Requirements <i>Delete</i> the text of the second paragraph and <i>replace</i> 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 <i>Delete</i> the first paragraph and Note 1 and Note 2 and <i>replace</i> with the following: <i>Compliance is checked by inspection and, if necessary, by the tests in AS/NZS 3112.</i>		N/A
4.8	<i>Delete</i> existing clause title and <i>replace</i> with the following: 4.8 Products containing coin/button cell batteries		N/A
4.8.1	General 1 Second dashed point, <i>delete</i> the text and <i>replace</i> with the following: – include coin/button cell batteries with a diameter of 32 mm or less. 2 After the second dashed point, <i>insert</i> the following Note: NOTE 1: Batteries are specified in IEC 60086-2. 3 After the third dashed point, <i>renumber</i> the existing Note as 'NOTE 2'. 4 Fifth dashed point, <i>delete</i> the word 'lithium'.		N/A
4.8.2	Instructional Safeguard First line, <i>delete</i> the word 'lithium'.		N/A
4.8.3	Construction First line, after the word 'Equipment' <i>insert</i> the words 'containing one or more coin/button batteries and'		N/A
4.8.5	Compliance criteria <i>Delete</i> the first paragraph and <i>replace</i> with the following: <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

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Clause	Requirement + Test		Result – Remark		Verdict
5.4.10.2.1	General <i>Delete</i> the first paragraph and <i>replace</i> with the following: In Australia only, the separation is checked by the test of both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test of either Clause 5.4.10.2.2 or Clause 5.4.10.2.3.				N/A
Table 29	Replace the table with the following:				N/A
Parts		Impulse test		Steady state test	
		New Zealand	Australia	New Zealand	Australia
Parts indicated in Clause 5.4.10.1 a) ^a		2.5 kV 10/700 μs	7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. 10/700 μs	1.5 kV	3 kV
Parts indicated in Clause 5.4.10.1 b) and c) ^b		1.5 kV 10/700 μs ^c		1.0 kV	1.5 kV
^a Surge suppressors shall not be removed. ^b Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment. ^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT.					
5.4.10.2.2	After the first paragraph, <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

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Clause	Requirement + Test	Result – Remark	Verdict
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
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

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Clause	Requirement + Test	Result – Remark	Verdict
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
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'.		P
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

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Clause	Requirement + Test	Result – Remark	Verdict
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
	Special national conditions (if any)		P

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Clause	Requirement + Test	Result – Remark	Verdict
6.201	External power supplies, docking stations and other similar devices For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage— – at all ES1 outlets or connectors shall not increase by more than 10% of its rated output voltage under normal operating condition; and – of a USB outlet or connector shall not increase by more than 3 V or 10% of its rated output voltage under normal operating conditions, whichever is higher. For equipment with multiple rated output voltages, the requirements apply with the equipment configured for each rated output voltage in turn. NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries. <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>	Should be evaluated in national approval	N/A
6.202	Resistance to fire—Alternative tests		N/A
6.202.1	General Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the equipment, or the following: a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length. b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as		N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	capacitors with a volume not exceeding 1 750 mm ³ , integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE: In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.		
	<i>Compliance shall be checked by the tests of Clauses 6.202.2, 6.202.3 and 6.202.4.</i> For the base material of printed boards, compliance shall be checked by the test of Clause 6.202.5. The tests shall be carried out on parts of non-metallic material which have been removed from the equipment. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A
6.202.2	Testing of non-metallic materials Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550°C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the relevant part is not thinner than the sample tested.		N/A
6.202.3	Testing of insulating materials Parts of insulating material supporting Potential Ignition Sources shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750°C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE: Contacts in components such as switch contacts are considered to be connections		N/A

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Clause	Requirement + Test	Result – Remark	Verdict								
	For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test need not be tested		N/A								
	The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications: <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>Delete the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.</td></tr><tr><td>9.3 Number of test specimens</td><td>Replace with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand</td></tr></table>	Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	Delete the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.	9.3 Number of test specimens	Replace with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand		N/A
Clause of AS/NZS 60695.11.5	Change										
9 Test procedure											
9.2 Application of needle-flame	Delete the first and second paragraphs and <i>replace</i> with the following: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner. The duration of application of the test flame shall be 30 s 1 s.										
9.3 Number of test specimens	Replace with the following: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand										

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Clause	Requirement + Test		Result – Remark	Verdict
		the test.		
	11 Evaluation of test results	<i>Replace</i> with the following: The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.		
	The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the relevant part is not thinner than the sample tested.			
6.202.4	Testing in the event of non-extinguishing material If parts, other than enclosures, do not withstand the glow wire tests of Clause 6.202.3, by failure to extinguish within 30 s after the removal of the glowwire tip, the needle-flame test detailed in Clause 6.202.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of Clause 6.202.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested. NOTE 1: If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 2: If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 6.202 without the need for consequential testing. NOTE 3: Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.			N/A
6.202.5	Testing of printed boards The base material of printed boards shall be subjected to the needle-flame test of Clause 6.202.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge.			N/A

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Clause	Requirement + Test	Result – Remark	Verdict
	consisting of broken perforations, unless the edge is less than 3 mm from a potential ignition source. The test is not carried out if— – the printed board does not carry any potential ignition source; – the base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or – the base material of printed boards, on which the available equipment power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. <i>Conformance shall be determined using the smallest thickness of the material.</i> NOTE: Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximize the apparent power for more than 2 min when the circuit supplied is disconnected.		
6.202.6	For open circuit voltages greater than 4 kV Potential ignition sources with open circuit voltages exceeding 4 kV (peak) a.c. or d.c. under normal operating conditions shall be contained in a FIRE ENCLOSURE which shall comply with flammability category V-1 or better according to AS/NZS 60695.11.10.		N/A

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

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 1. Overall view



Figure 2. Overall view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 3. Overall view

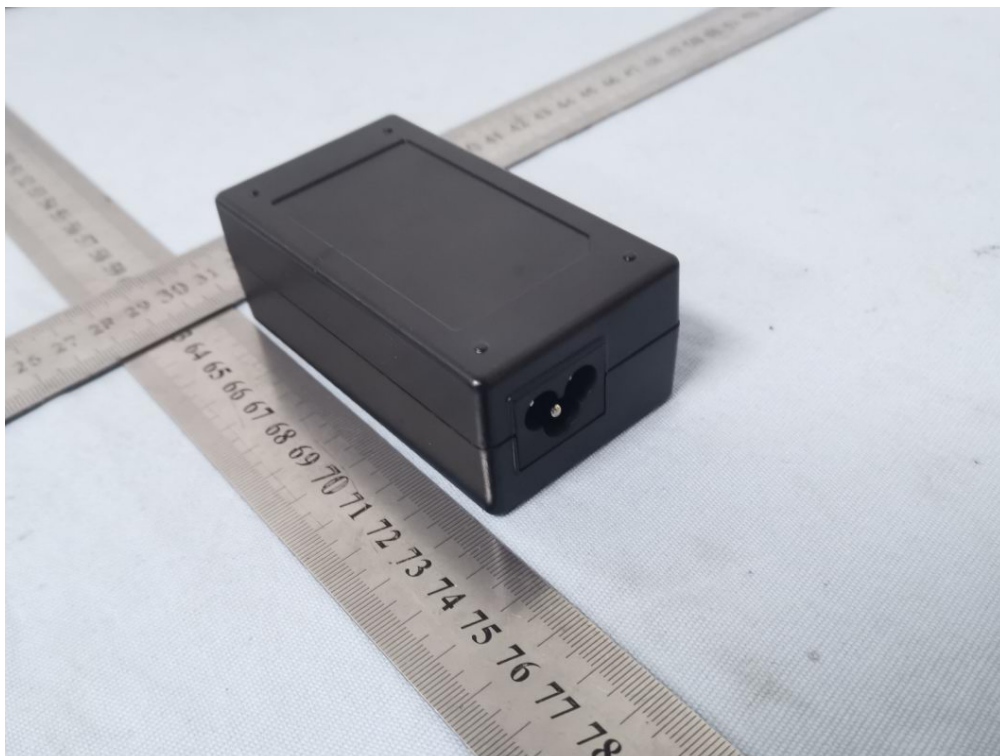


Figure 4. Overall view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 5. Overall view (black enclosure with ear-lug)



Figure 6. Overall view (black enclosure with ear-lug)

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 7. Overall view (black enclosure with ear-lug)

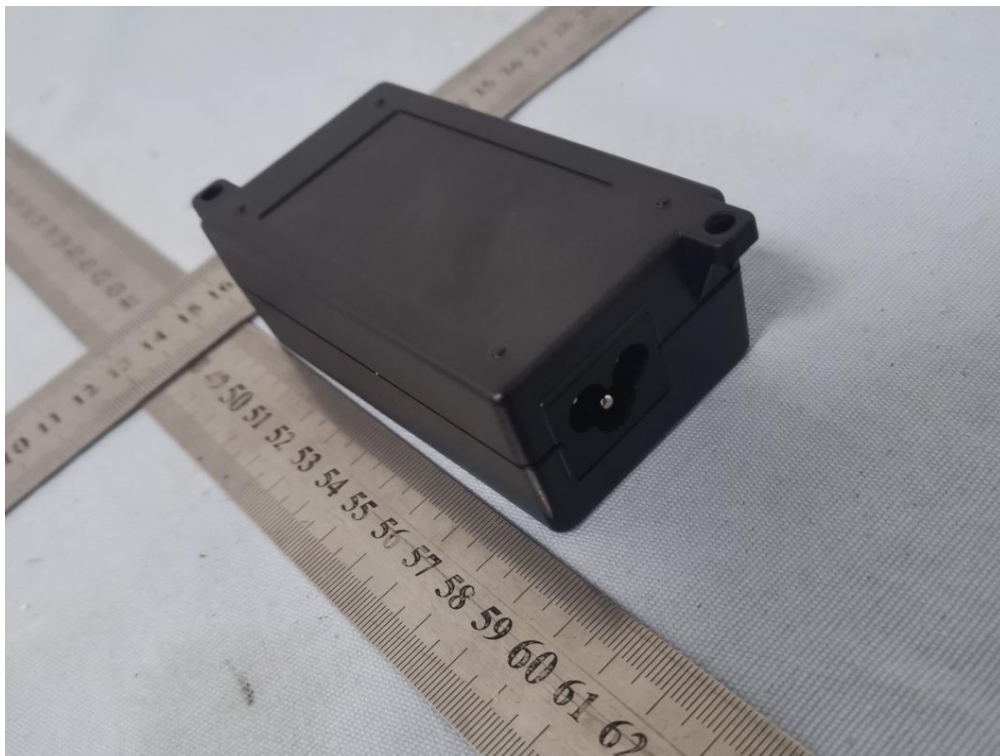


Figure 8. Overall view (black enclosure with ear-lug)

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 9. Overall view (gray enclosure with ear-lug)

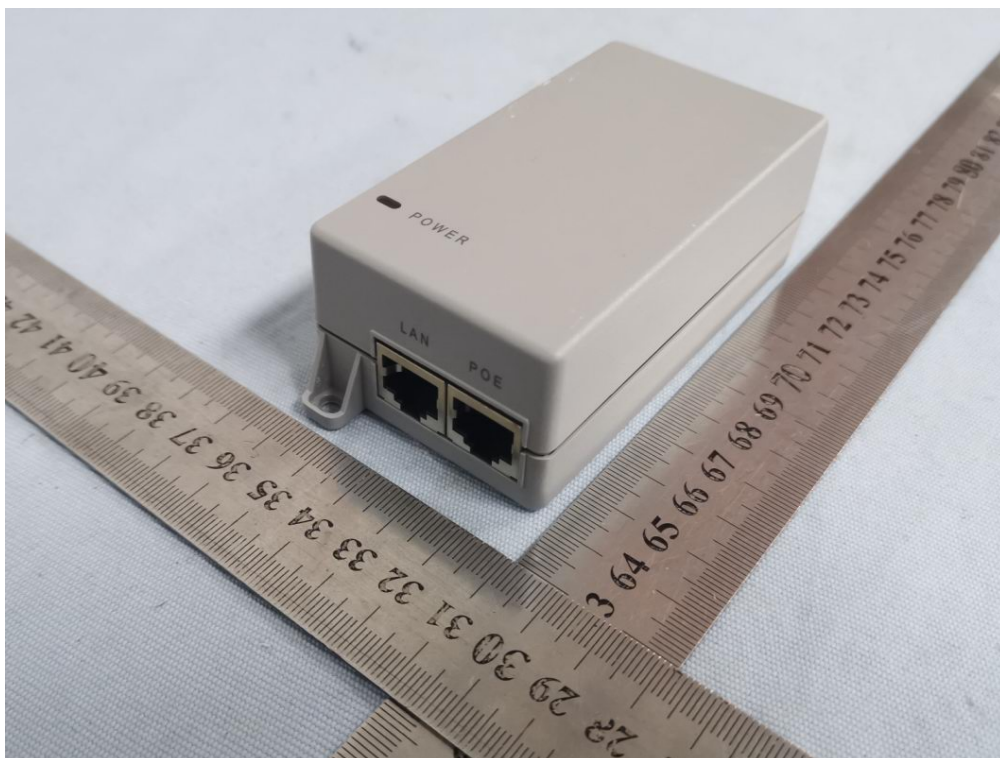


Figure 10. Overall view (gray enclosure with ear-lug)

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 11. Overall view (gray enclosure with ear-lug)

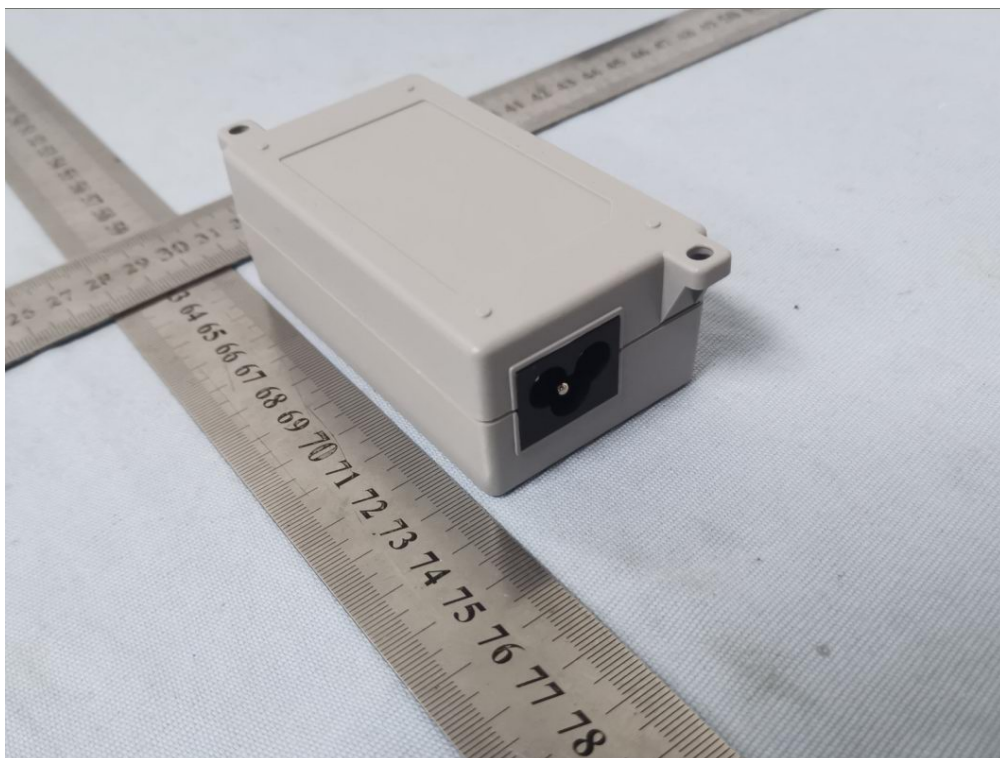


Figure 12. Overall view (gray enclosure with ear-lug)

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 13. Internal view

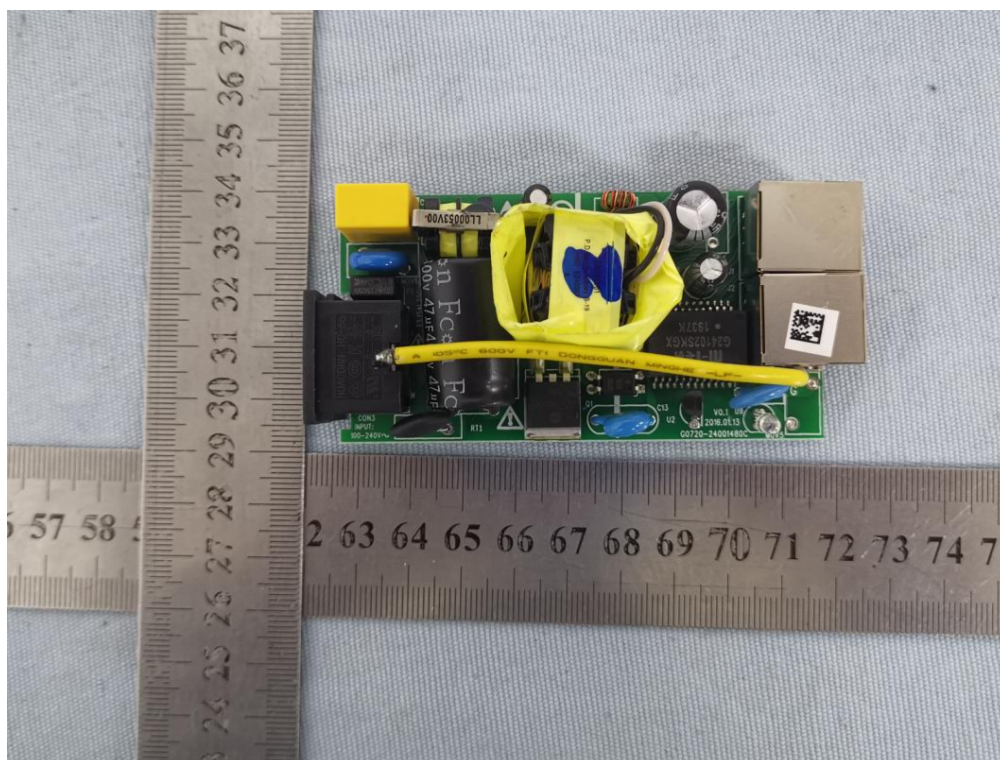


Figure 14. PCB components side view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001

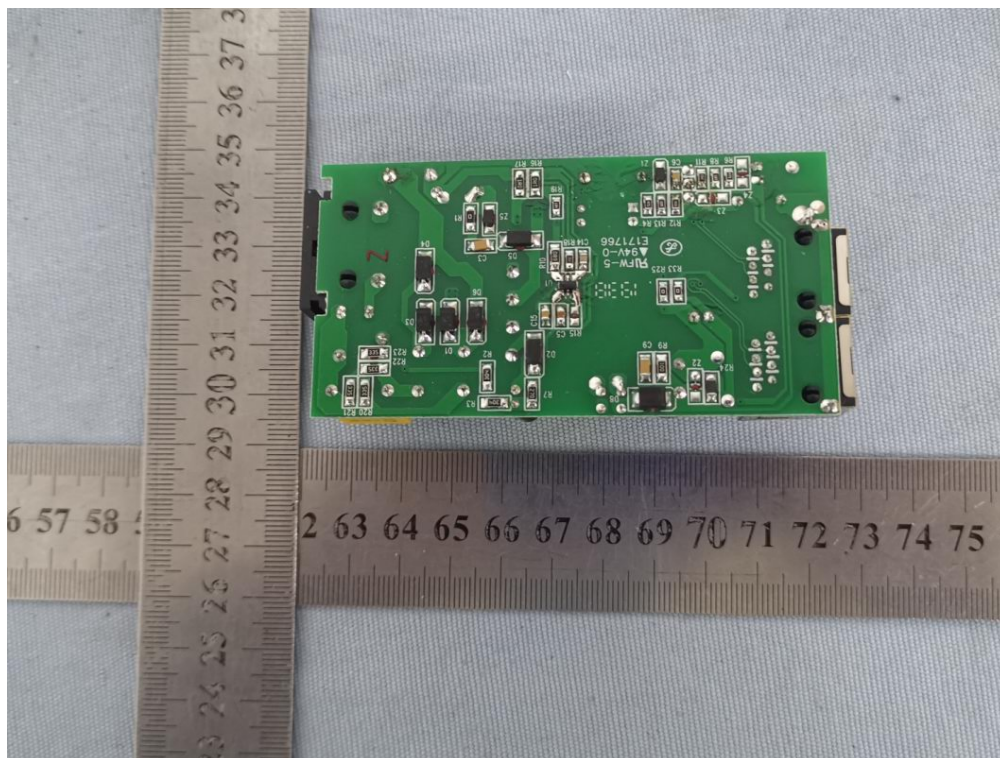


Figure 15. PCB Layout side view

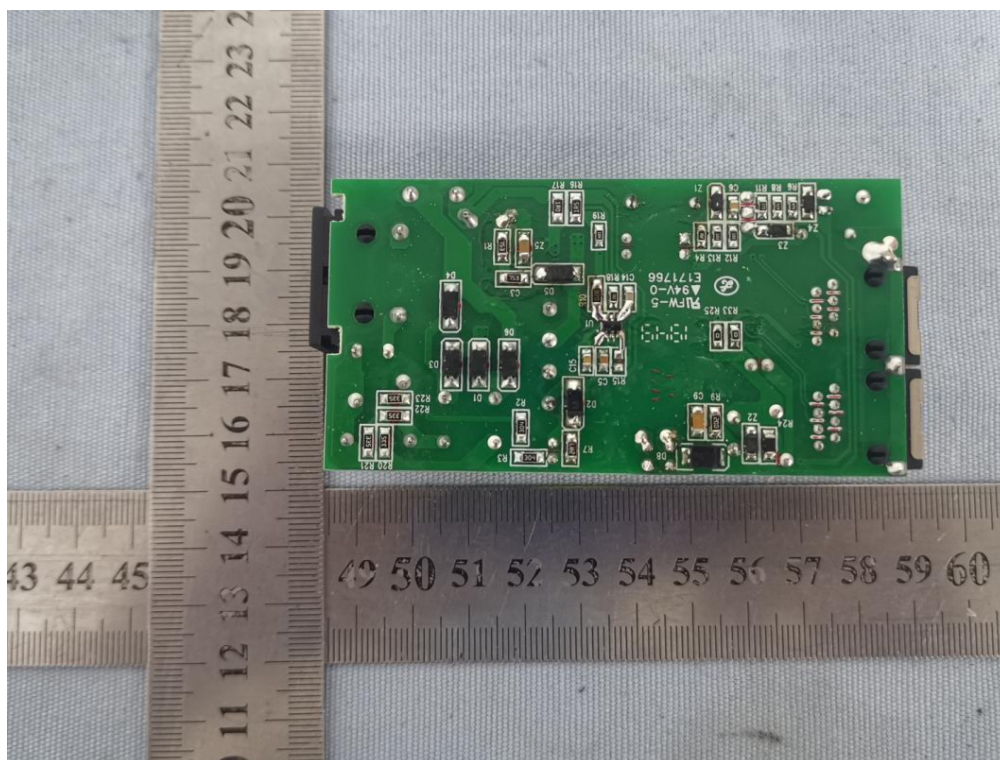


Figure 16. Alternative PCB Layout side view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001

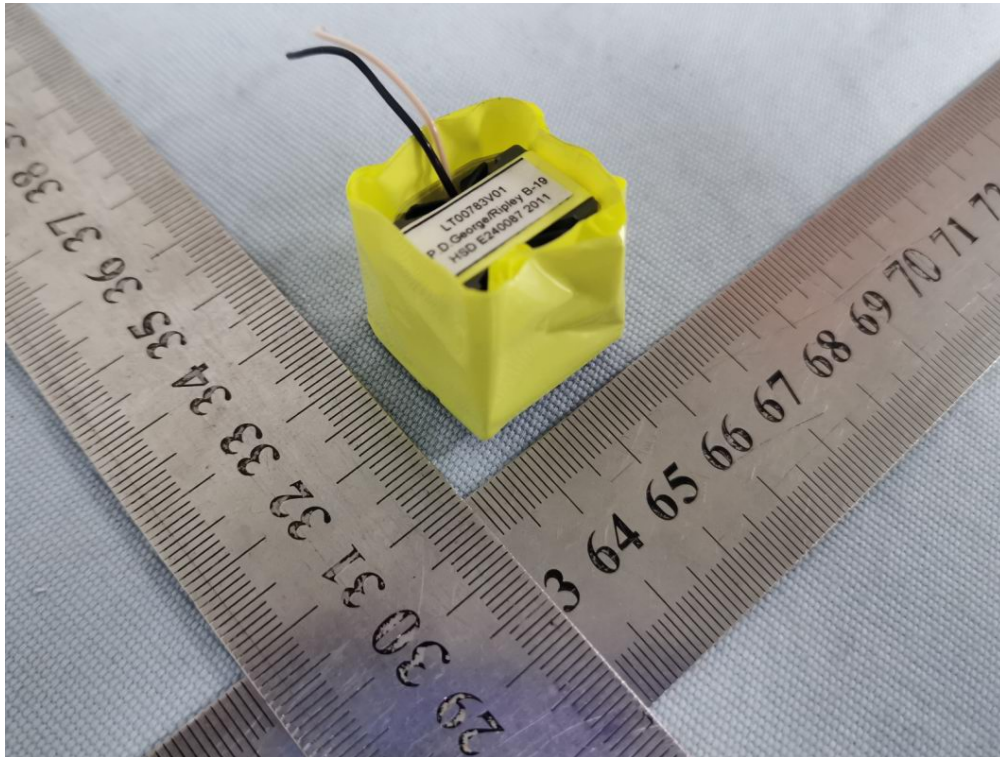


Figure 17. Transformer T1 view

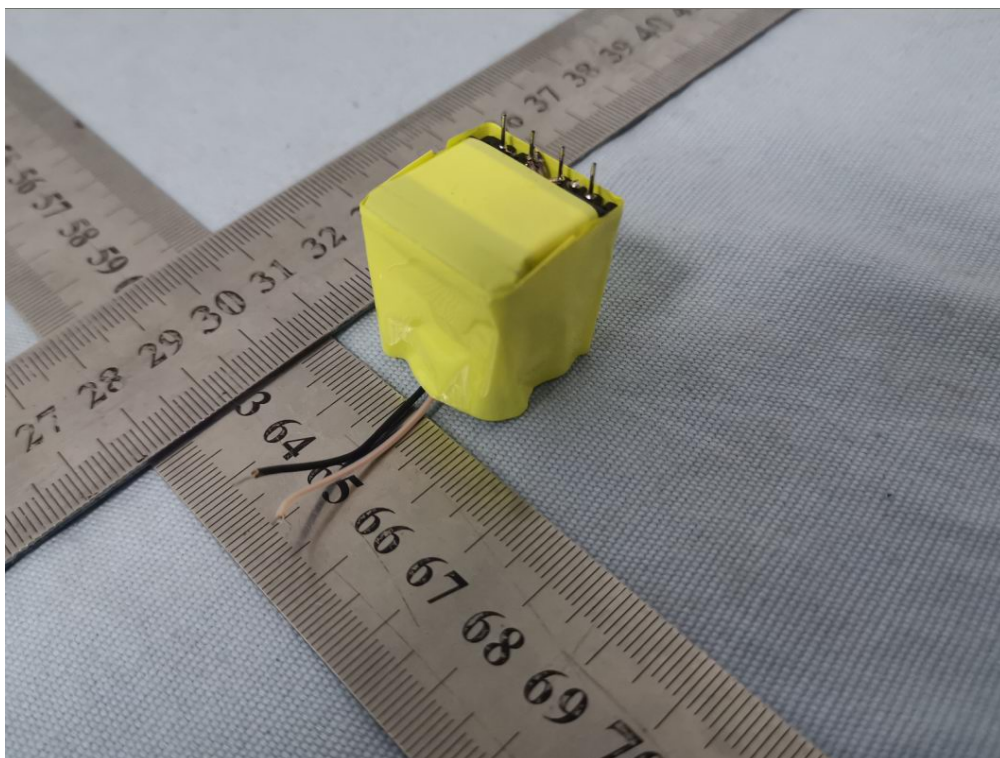


Figure 18. Transformer T1 view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001



Figure 19. Transformer T1 view



Figure 20. Transformer T1 view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001

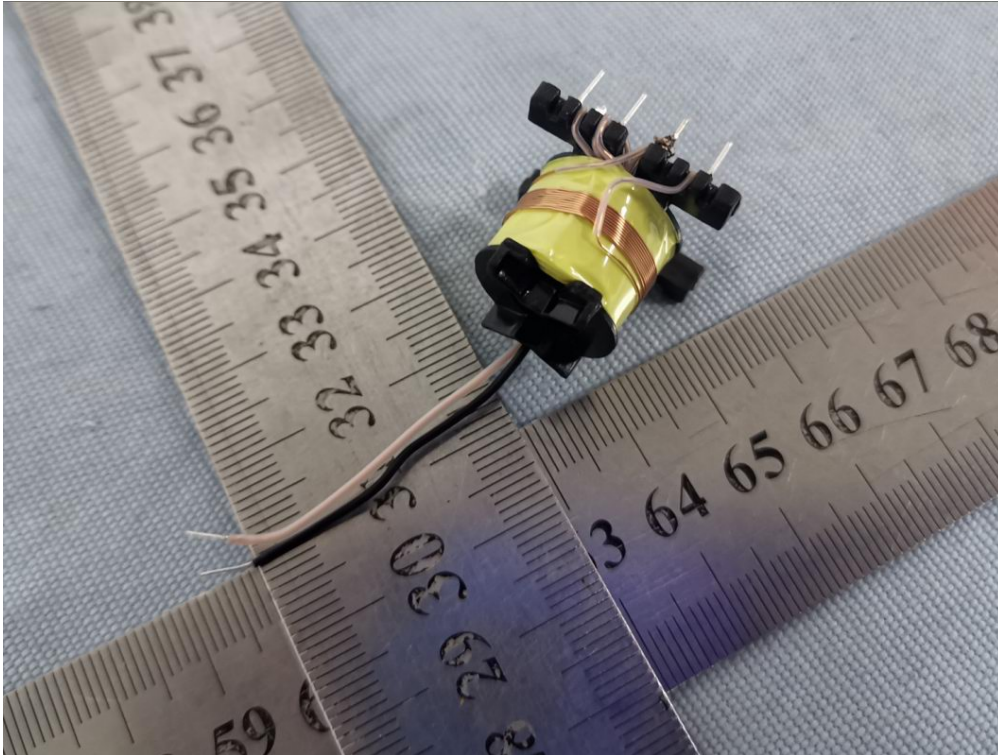


Figure 21. Transformer T1 view



Figure 22. Transformer T1 view

Product: POWER OVER ETHERNET INJECTOR

Type Designation: G0720-xxx-yyy, G0720-240-zzz, 740-64214-001

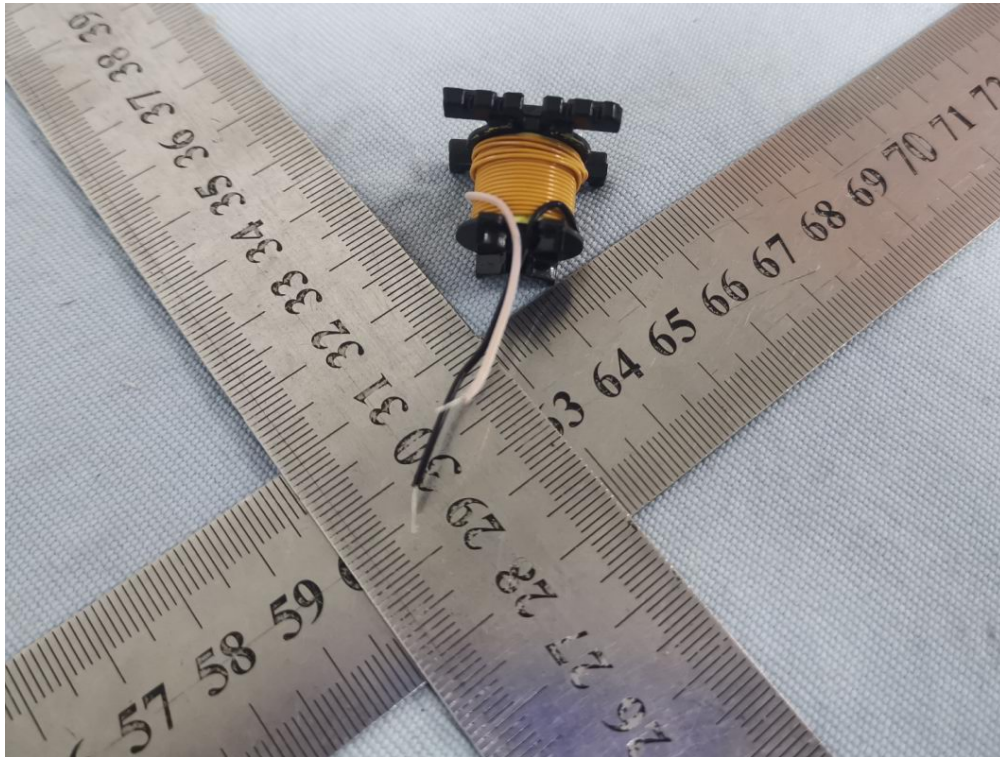


Figure 23. Transformer T1 view