IEC IECEE CB SCHEME

Ref. Certif. No.

JPTUV-083389

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product Produit	I.T.E. POWER SUPPLY(POWER OVER ETHERNET INJECTOR)
Name and address of the applicant Nom et adresse du demandeur	SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. E. of 5F, Zone A, 1st Ind. Area Fenghuanggang, Sou. BaoTian 1 Rd., Xixiang St., Bao An District, Shenzhen, Guangdong 518102, P. R. China
Name and address of the manufacturer Nom et adresse du fabricant	SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD. E. of 5F, Zone A, 1st Ind. Area Fenghuanggang, Sou. BaoTian 1 Rd., Xixiang St., Bao An District, Shenzhen, Guangdong 518102, P. R. China
Name and address of the factory Nom et adresse de l'usine	See additional page(s)
Ratings and principal characteristics Valeurs nominales et charactéristiques principales	Input : AC 100-240V; 50/60Hz; 0.75A Max; Class I Output: refer to the test report
Trademark (if any) Marque de fabrique (si elle existe)	
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	N/A
Model / Type Ref. Ref. de type	G0720-xxx-yyy, G0720-240-zzz, 740-64214-001 (xxx, yyy and zzz = refer to the test report)
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2ème page)	For model differences, refer to the test report.
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1:2005+A1+A2 See Test Report for National Differences
As shown in the Test Report Ref. No. which forms part of this Certificate Comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat	50101703 001

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

TÜVRheinland®

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Global Technology Assessment Center
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Date: 29.09.2017

Signature: Dipl.-Ing. Univ. S. O. Steinke

1. Shenzhen Gospell Smarthome
   Electronic Co., Ltd.
   East of 01st -04th Floor, Block A, No. 1
   Industrial Park, Fenghuang Gang,South of
   No. 1 Baotian Road, Xixiang Street, Bao'an District, Shenzhen City,Guangdong Province 518126, P. R. China

2. SHENZHEN GOSPELL DIGITAL
   TECHNOLOGY CO., LTD.
   E of 5F, Zone A, 1st Ind. Area
   Fenghuanggang, Sou. BaoTian 1 Rd.
   Xixiang St., Bao An District, Shenzhen, Guangdong 518102, P. R. China

3. 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

Additional information (if necessary)
Information complémentaire (si nécessaire)

Report Ref. No.: 50101703 001

Date: 29.09.2017

Signature:

Dipl.-Ing. Univ. S. O. Steinke

Test Report issued under the responsibility of:

TÜVRheinland®

TEST REPORT

IEC 60950-1
Information technology equipment – Safety – Part 1: General requirements

Report Number ..... :	50101703 001
Date of issue ..... :	Sep. 28, 2017
Total number of pages ..... :	60
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 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1F
Test Report Form(s) Originator .... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2014-02

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

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

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

Test item description ..... :	I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)
Trade Mark ..... :	Manufacturer name shown on the rating label
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	G0720-xxx-yyy, G0720-240-zzz, 740-64214-001 (for variables xxx, yyy and zzz, refer to page 7 for details)
Ratings ..... :	Input: 100-240Vac, 50/60Hz, 0.75A Max Output: See page 7 for details.

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**	TÜV Rheinland (Shenzhen) Co., Ltd.	
Testing location/ address ..... :		East of F/1, F/2~F/4, Building 1, Cybio Technology Building No. 6 Langshan No.2 Road, North Hi-tech Industry Park 518057 Shenzhen Nanshan District CHINA	
☐	**Associated CB Testing Laboratory:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :		Taylor Li	Taylor Li
Approved by (name + signature) ..... :		Sommy Chen	Sommy Chen
☐	**Testing procedure: TMP/CTF Stage 1:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :			
Approved by (name + signature) ..... :			
☐	**Testing procedure: WMT/CTF Stage 2:**	N/A	
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:**	N/A	
Testing location/ address ..... :		N/A	
Tested by (name + signature) ..... :			
Witnessed 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 (53 pages)
- Attachment 2: Photo documentation (7 pages)

Summary of testing:

Tests performed (name of test and test clause):

All applicable tests as described in Test Case were performed.

Clause(s)	Test(s)
1.6.2	Input Current Test
1.7.11	Durability of Marking Test
2.1.1.1	Access to energized parts
2.1.1.5	Energy Hazard in Operator Access Area
2.1.1.7	Discharge of capacitor
2.2.2	SELV limits for Normal Conditions
2.2.3	SELV limits for Abnormal Conditions
2.4.2	Limit Current Circuits
2.5	Limited Power Sources
2.6.3.4	Ground continue test
2.9.2	Humidity Conditioning
2.10.2	Working Voltage over Insulation
2.10.3 & 2.10.4	Clearance and creepage distance measurements
4.2.2	Steady force test 10 N
4.2.4	Steady force test 250N
4.2.5	Impact Test
4.2.7	Stress relief test
4.5	Maximum Temperature Test
5.1.6	Touch Current and PE current
5.2	Electric Strength Test
5.3	Fault Condition Test

1. If not otherwise specified, tests were performed on models G0720-240-100, G0720-360-075, G0720-560-053.

2. All test data above are taken from original CB reports 17042456 001 to 003.

Remark:

Maximum ambient temperature of all models is 40°C.

The EUTs passed the test.

Testing location:

All tests as described in Test Case and Measurement Sections were performed at the laboratory described on page 2.

Summary of compliance with National Differences:

EU Group Differences, EU Special National Conditions, AT, AU, BE, CA#, CH, CN*, CZ, DE, DK, FI, FR, GB, GR, HU, IL, IT, JP, KR#, NL, NO, PL, SE, SG, SI, SK, US

Explanation of used codes: AT=Austria, AU=Australia, BE=Belgium, CA=Canada, CH=Switzerland, CN=China, CZ=Czech Republic, DE=Germany, DK=Denmark, FI=Finland, FR=France, GB=United Kingdom, GR=Greece, HU=Hungary, IL=Israel, IT=Italy, JP=Japan, KR=Korea, NL=The Netherlands, NO=Norway, PL=Poland, SE=Sweden, SG=Singapore, SI=Slovenia, SK=Slovakia, US=United States of America.

For National Differences see attachment 1 of this test report.

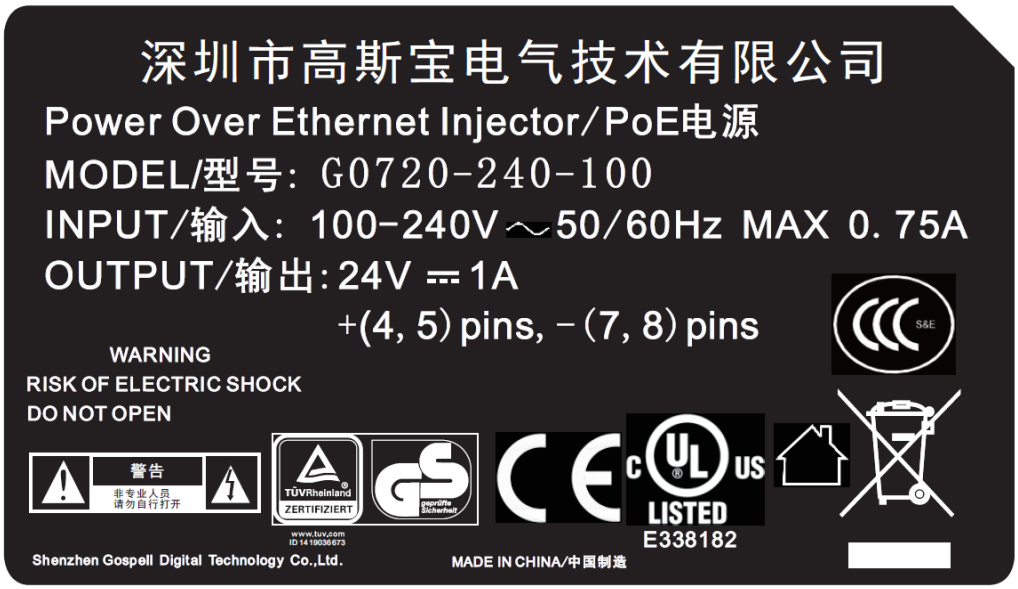
* National differences to IEC 60950-1:2005 evaluated.

National differences to IEC 60950-1:2005+A1 evaluated.

Also Japanese national deviation evaluated according to IEC 60950-1:2001.

☒ The product fulfils the requirements of EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013

Copy of marking plate:



Notes: Since similar label used, only label for models above listed to represent other similar ones.

Test item particulars.....:	
Equipment mobility.....:	[x] movable [] hand-held [x] transportable [] stationary [] for building-in [] direct plug-in
Connection to the mains.....:	[x] pluggable equipment [x] type A [] type B [] permanent connection [x] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition.....:	[x] continuous [] rated operating / resting time:
Access location .....:	[x] operator accessible [] restricted access location
Over voltage category (OVC) .....:	[] OVC I [x] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	±10% (requested by client)
Tested for IT power systems .....:	[x] Yes (only for Norway) [] No
IT testing, phase-phase voltage (V) .....:	230 V (only for Norway)
Class of equipment .....:	[x] Class I [] Class II [] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	16A
Pollution degree (PD) .....:	[] PD 1 [x] PD 2 [] PD 3
IP protection class .....:	IPX0
Altitude during operation (m) .....:	Up to 5000 m
Altitude of test laboratory (m) .....:	below 2000 m
Mass of equipment (kg) .....:	Approx. 0.36 kg
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item .....:	Sep. 26, 2017
Date(s) of performance of tests.....:	Sep. 26, 2017, to Sep. 28, 2017

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 6.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) ..... :	**1. Shenzhen Gospell Smarthome Electronic Co., Ltd.** East of 01st-04th Floor, Block A No. 1 Industrial park, Fenghuang Gang, South of No. 1 Baotian Road, Xixiang Street, Bao'an District, Shenzhen City, Guangdong Province 518126, P.R. China **2. SHENZHEN GOSPELL DIGITAL TECHNOLOGY CO., LTD.** E. of 5F, Zone A, 1st Ind. Area, Fenghuanggang, Sou. BaoTian 1Rd., Xixiang, St., Bao An District, Shenzhen, Guangdong 518102, P.R. China **3. 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

General product information:

1. The equipment models G0720-xxx-yyy, G0720-240-zzz and 740-64214-001 are series of POE adapter for the use with information technology equipment. Model 740-64214-001 and G0720-480-050 are identical to each other except for different model designation.
2. Bottom enclosure is fixed to top enclosure by ultra-sonic welding.
3. The manufacturer specified maximum ambient temperature as 40°C.
4. There are two types enclosure in this report, the difference between them which one enclosure have additional ear-lug nearby input enclosure and output enclosure.
5. All models are identical to each other except for type designation, output rating, and specific value of components (Z1, R6, R7, R8, R11) used (See table C).
6. The unit was evaluated to be operated up to 5,000 m above sea level with multiplication factors (1.48, linear interpolation used) of table A.2 of IEC 60664-1:2007 was applied to determinate the minimum required clearance.

Table A: (Definition of variables):

Variable:	Range of variable:	Content:
xxx	360-560	3 digits, dividing by 10 of output voltage in volt. eg: 360=36Vdc, 560=56Vdc
yyy	001-075	3 digits, multiply 10 times of output current in mA. eg:, 001=10mA, 075=750mA
zzz	001-100	3 digits, multiply 10 times of output current in mA. eg:, 001=10mA, 100=1000mA

Table B: Output ratings

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	
Notes: For G0720-xxx-yyy, the minimum rising step of output voltage is 0.1V, the minimum rising step of output current is 0.01A. For G0720-240-zzz, the minimum rising step of output current is 0.01A. The output voltage multiplied by output current are only tested up to max output power.				

Table C: Model differences

Output voltage	Difference				
	Z1	R7	R6	R8	R11
48.1V~56V	22V~30V	2.7Ω~100Ω	150K~300K	200K~1M	9.1K~12K
36V~48V	22V	2.7Ω~100Ω	91K~220K	200K~1M	9.1K~12K
24V,1A	0Ω 1206				

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		**P**
1.5	**Components**		**P**
1.5.1	General		**P**
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	**P**
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	**P**
1.5.3	Thermal controls	No thermal controls.	**N/A**
1.5.4	Transformers	Transformers used are suitable for their intended application and comply with the relevant requirements of the standard and particularly Annex C.	**P**
1.5.5	Interconnecting cables	Such cable not used.	**N/A**
1.5.6	Capacitors bridging insulation	Between lines: X2 type capacitor (C1) according to IEC 60384-14. Between primary and SELV: Y1 type capacitor (C13) according to IEC 60384-14.	**P**
1.5.7	Resistors bridging insulation	See below	**P**
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only discharging resistors R20, R21, R22, R23 used.	**P**
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No such resistor used.	**N/A**
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		**N/A**
1.5.8	Components in equipment for IT power systems		**N/A**
1.5.9	Surge suppressors	See below	**P**
1.5.9.1	General	Approve surge suppressor (MOV1) used between Line and Neutral, for details see appended table 1.5.1.	**P**
1.5.9.2	Protection of VDRs	Protected by a current fuse F1 before the VDR.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.3	Bridging of functional insulation by a VDR	See 1.5.9.1.	**P**
1.5.9.4	Bridging of basic insulation by a VDR		**N/A**
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	No such construction.	**N/A**
1.6	**Power interface**		**P**
1.6.1	AC power distribution systems	IT power system for Norway only, TN, TT power system for others.	**P**
1.6.2	Input current	Highest load according to 1.2.2.1 for this equipment is the operation with the maximum specified by the manual instruction. (see appended table 1.6.2)	**P**
1.6.3	Voltage limit of hand-held equipment	This appliance is not hand-held equipment.	**N/A**
1.6.4	Neutral conductor	The neutral conductor insulated from the body throughout the equipment as if it were a line conductor.	**P**
1.7	**Marking and instructions**		**P**
1.7.1	Power rating and identification markings	See below	**P**
1.7.1.1	Power rating marking		**P**
	Multiple mains supply connections.....:	Single power source	**P**
	Rated voltage(s) or voltage range(s) (V) .....:	100-240V~	**P**
	Symbol for nature of supply, for d.c. only .....:	AC source	**N/A**
	Rated frequency or rated frequency range (Hz) ...:	50/60Hz	**P**
	Rated current (mA or A) .....:	0.75A Max.	**P**
1.7.1.2	Identification markings		**P**
	Manufacturer's name or trade-mark or identification mark .....:	See copy of marking plate	**P**
	Model identification or type reference .....:	See page 2	**P**
	Symbol for Class II equipment only .....:	Class I equipment	**N/A**
	Other markings and symbols .....:	Additional symbol or marking does not give rise to misunderstanding.	**P**
1.7.1.3	Use of graphical symbols		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2	Safety instructions and marking	English and Japanese version user manual provided. (Version in other language will be provided when submitted for national approval)	**P**
1.7.2.1	General		**P**
1.7.2.2	Disconnect devices	Appliance inlet serves as disconnect device.	**P**
1.7.2.3	Overcurrent protective device	Not type B pluggable equipment or permanently connected equipment.	**N/A**
1.7.2.4	IT power distribution systems	Only for Norway.	**P**
1.7.2.5	Operator access with a tool	No operator accessible area that needs to be accessed by the use of a tool.	**N/A**
1.7.2.6	Ozone	Not such equipment.	**N/A**
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	**N/A**
1.7.4	Supply voltage adjustment ..... :	Single input voltage range without adjustment.	**N/A**
	Methods and means of adjustment; reference to installation instructions ..... :		**N/A**
1.7.5	Power outlets on the equipment ..... :	No power outlets provided.	**N/A**
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	Current fuse used, marking provided on PCB: F1 T3.15A, 250Vac	**P**
1.7.7	Wiring terminals		**P**
1.7.7.1	Protective earthing and bonding terminals ..... :	Appliance inlet used.	**P**
1.7.7.2	Terminals for a.c. mains supply conductors	The equipment with appliance inlet, which is intended to use the detachable type power supply cord.	**N/A**
1.7.7.3	Terminals for d.c. mains supply conductors	No d.c. mains supply.	**N/A**
1.7.8	Controls and indicators	No controls and indicators	**N/A**
1.7.8.1	Identification, location and marking ..... :		**N/A**
1.7.8.2	Colours ..... :		**N/A**
1.7.8.3	Symbols according to IEC 60417 ..... :		**N/A**
1.7.8.4	Markings using figures ..... :		**N/A**
1.7.9	Isolation of multiple power sources ..... :	Single power source	**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.10	Thermostats and other regulating devices ..... :	Such devices not used.	**N/A**
1.7.11	Durability	The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec. With the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge.	**P**
1.7.12	Removable parts	No removable part.	**N/A**
1.7.	Replaceable batteries ..... :	No battery provided.	**N/A**
	Language(s) ..... :		—
1.7.14	Equipment for restricted access locations ..... :	Not intended for use in restricted access locations.	**N/A**

2	**PROTECTION FROM HAZARDS**		**P**
2.1	Protection from electric shock and energy hazards		**P**
2.1.1	Protection in operator access areas	No access with test finger and test pin to any parts with only basic insulation to ELV or hazardous voltage.	**P**
2.1.1.1	Access to energized parts	See above.	**P**
	Test by inspection .....:		**P**
	Test with test finger (Figure 2A) .....:		**P**
	Test with test pin (Figure 2B) .....:		**P**
	Test with test probe (Figure 2C) .....:	No TNV.	**N/A**
2.1.1.2	Battery compartments	No battery compartment.	**N/A**
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	**N/A**
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)	(see appended table 2.10.5)	—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.1.1.5	Energy hazards .....:	The energy does not exceed 240VA between any two points in accessible connector of secondary circuit. (See appended table 2.1.1.5 c) 1)	**P**
2.1.1.6	Manual controls	No manual controls.	**N/A**
2.1.1.7	Discharge of capacitors in equipment	C1 = 0.22µF, R20=R21=R2=R23=3.3MΩ	**P**
	Measured voltage (V); time-constant (s).....:	Plug pin measured: 396Vpeak, 37%Vpeak=146.5V, time-constant: 0.496s (Tested with MOV1 disconnected).	—
2.1.1.8	Energy hazards – d.c. mains supply	Connected to a.c. mains.	**N/A**
	a) Capacitor connected to the d.c. mains supply ..:		**N/A**
	b) Internal battery connected to the d.c. mains supply .....:		**N/A**
2.1.1.9	Audio amplifiers .....:	Not such equipment.	**N/A**
2.1.2	Protection in service access areas	No operator accessible area that needs to be accessed by the use of a tool.	**N/A**
2.1.3	Protection in restricted access locations	Not intended for use in restricted access locations.	**N/A**

2.2	**SELV circuits**		**P**
2.2.1	General requirements	The secondary circuits were tested as SELV. See 2.2.2 to 2.2.4.	**P**
2.2.2	Voltages under normal conditions (V) .....:	42.4V peak or 60V d.c. are not exceeded in SELV circuit under normal operation.	**P**
2.2.3	Voltages under fault conditions (V) .....:	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71V peak and 120V d.c. were not exceeded within 0.2 seconds and limits 42.4V peak and 60V d.c. were not exceeded for longer than 0.2 seconds.	**P**
2.2.4	Connection of SELV circuits to other circuits .....:	See sub-clauses 2.2.2 and 2.2.3. and 2.4.2	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.3	**TNV circuits**		**N/A**
2.3.1	Limits		**N/A**
	Type of TNV circuits .....:		—
2.3.2	Separation from other circuits and from accessible parts		**N/A**
2.3.2.1	General requirements		**N/A**
2.3.2.2	Protection by basic insulation		**N/A**
2.3.2.3	Protection by earthing		**N/A**
2.3.2.4	Protection by other constructions .....:		**N/A**
2.3.3	Separation from hazardous voltages		**N/A**
	Insulation employed.....:		—
2.3.4	Connection of TNV circuits to other circuits		**N/A**
	Insulation employed.....:		—
2.3.5	Test for operating voltages generated externally		**N/A**

2.4	**Limited current circuits** *Bridging Y1 capacitor (C13) according to clause 1.5.7 connected between primary and SELV*		**P**
2.4.1	General requirements	The peak drop voltage was measured with an oscilloscope at a 2kΩ non-inductive resistor.	**P**
2.4.2	Limit values	0.7mA	**P**
	Frequency (Hz) ..... :	60	—
	Measured current (mA)..... :	0.428mA	—
	Measured voltage (V) ..... :	<450Vpeak	—
	Measured circuit capacitance (nF or µF) ..... :	C13=2200pF	—
2.4.3	Connection of limited current circuits to other circuits	Output circuit as limited current circuit connected to primary via one Y1 capacitors (C13)	**P**

2.5	**Limited power sources**		**P**
	a) Inherently limited output		**N/A**
	b) Impedance limited output		**N/A**
	c) Regulating network limited output under normal operating and single fault condition	(see appended table 2.5)	**P**

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Clause	Requirement + Test	Result - Remark	Verdict
	Use of integrated circuit (IC) current limiters	(See Annex CC)	**N/A**
	d) Overcurrent protective device limited output	(see appended table 2.5)	**N/A**
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :		—
	Current rating of overcurrent protective device (A) .:		—
2.6	**Provisions for earthing and bonding**		**P**
2.6.1	Protective earthing	AC inlet used.	**P**
2.6.2	Functional earthing	Green/yellow wire is connected from inlet to secondary earth trace and fixed reliably by soldering and glue.	**P**
2.6.3	Protective earthing and protective bonding conductors	See below.	**P**
2.6.3.1	General		**P**
2.6.3.2	Size of protective earthing conductors	The power supply cord is not provided with this unit. Evaluation of the clause should be made with final system assembly.	**N/A**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
2.6.3.3	Size of protective bonding conductors	See sub-clause 2.6.3.4, rated current below 16A.	**P**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
	Protective current rating (A), cross-sectional area (mm^2), AWG..... :		—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min)..... :	(see appended table 2.6.3.4)	**P**
2.6.3.5	Colour of insulation ..... :	Green/yellow wire used.	**P**
2.6.4	Terminals	Appliance inlet used, no terminals.	**N/A**
2.6.4.1	General		**N/A**
2.6.4.2	Protective earthing and bonding terminals	Appliance inlet used.	**N/A**
	Rated current (A), type, nominal thread diameter (mm)..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5	Integrity of protective earthing	See below.	**P**
2.6.5.1	Interconnection of equipment	This unit has its own earthing connection. Any other units connected via the output shall be provided with SELV only.	**P**
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No component in protective earthing or bonding conductor.	**N/A**
2.6.5.3	Disconnection of protective earth	It is not possible to disconnect earth without disconnecting mains as an appliance inlet is used.	**P**
2.6.5.4	Parts that can be removed by an operator	Appliance inlet is earth connected before and disconnected after hazardous voltage. No other operator removable parts.	**P**
2.6.5.5	Parts removed during servicing	It is not possible to disconnect earthing except for removing the earthed part itself.	**P**
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with Annex J.	**P**
2.6.5.7	Screws for protective bonding	No self-tapping screws are used.	**N/A**
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV circuits	**N/A**
2.7	**Overcurrent and earth fault protection in primary circuits**		**P**
2.7.1	Basic requirements	The equipment relies on fuse or circuit breaker of the wall outlet protection of the building installation in regard to L to N short-circuits condition. A build-in fuse provided as overcurrent protection device (see 5.3)	**P**
	Instructions when protection relies on building installation	Pluggable equipment type A.	**N/A**
2.7.2	Faults not simulated in 5.3.7	The protection devices are well dimensioned and mounted.	**P**

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Clause	Requirement + Test	Result - Remark	Verdict
2.7.3	Short-circuit backup protection	Building installation is considered as providing short-circuit backup protection.	**P**
2.7.4	Number and location of protective devices ..... :	Over current protection by one built-in current fuse.	**P**
2.7.5	Protection by several devices	Only one current fuse provided.	**N/A**
2.7.6	Warning to service personnel ..... :	No service work necessary.	**N/A**
2.8	**Safety interlocks**		**N/A**
2.8.1	General principles	No safety interlock used	**N/A**
2.8.2	Protection requirements		**N/A**
2.8.3	Inadvertent reactivation		**N/A**
2.8.4	Fail-safe operation		**N/A**
	Protection against extreme hazard		**N/A**
2.8.5	Moving parts		**N/A**
2.8.6	Overriding		**N/A**
2.8.7	Switches, relays and their related circuits		**N/A**
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) ..... :		**N/A**
2.8.7.2	Overload test		**N/A**
2.8.7.3	Endurance test		**N/A**
2.8.7.4	Electric strength test		**N/A**
2.8.8	Mechanical actuators		**N/A**
2.9	**Electrical insulation**		**P**
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic material not used.	**P**
2.9.2	Humidity conditioning	Performed at 40°C, 95% R.H. for 120h (requested by manufacturer).	**P**
	Relative humidity (%), temperature (°C) ..... :	See above.	—
2.9.3	Grade of insulation	See above.	**P**
2.9.4	Separation from hazardous voltages	The adequate levels of safety insulation provided and maintained to comply with the requirements of this standard.	**P**

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Clause	Requirement + Test	Result - Remark	Verdict
	Method(s) used ..... :	SELV separated from primary by reinforced or double insulation.	—
2.10	**Clearances, creepage distances and distances through insulation**		**P**
2.10.1	General	See 2.10.3, 2.10.4 and 2.10.5.	**P**
2.10.1.1	Frequency ..... :	Frequency generated internally exceeds 30kHz	**P**
2.10.1.2	Pollution degrees ..... :	2	**P**
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	**N/A**
2.10.1.4	Intervening unconnected conductive parts	No such part.	**N/A**
2.10.1.5	Insulation with varying dimensions	No such transformer used.	**N/A**
2.10.1.6	Special separation requirements	No TNV	**N/A**
2.10.1.7	Insulation in circuits generating starting pulses	No such circuit.	**N/A**
2.10.2	Determination of working voltage		**P**
2.10.2.1	General	The rms and the peak voltage were measured with unit connected to a 240V TN power system. Pollution Degree 2 and Overvoltage Category II considered.	**P**
2.10.2.2	RMS working voltage	(See appended table 2.10.2)	**P**
2.10.2.3	Peak working voltage	(See appended table 2.10.2)	**P**
2.10.3	Clearances	See below and advantage of annex G is not considered.	**P**
2.10.3.1	General	Considered.	**P**
2.10.3.2	Mains transient voltages		**P**
	a) AC mains supply ..... :	240V a.c. and Overvoltage Category II	**P**
	b) Earthed d.c. mains supplies ..... :		**N/A**
	c) Unearthed d.c. mains supplies ..... :		**N/A**
	d) Battery operation ..... :		**N/A**
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.3.4	Clearances in secondary circuits	Sub-clause 5.3.4 considered.	**P**
2.10.3.5	Clearances in circuits having starting pulses		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.6	Transients from a.c. mains supply ..... :	Normal transient voltage considered (overvoltage category II for primary circuit).	**N/A**
2.10.3.7	Transients from d.c. mains supply ..... :		**N/A**
2.10.3.8	Transients from telecommunication networks and cable distribution systems ..... :		**N/A**
2.10.3.9	Measurement of transient voltage levels		**N/A**
	a) Transients from a mains supply		**N/A**
	For an a.c. mains supply ..... :		**N/A**
	For a d.c. mains supply ..... :		**N/A**
	b) Transients from a telecommunication network :		**N/A**
2.10.4	Creepage distances	See below	**P**
2.10.4.1	General	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.4.2	Material group and comparative tracking index		**P**
	CTI tests..... :	Material group IIIb is assumed to be used.	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.5	Solid insulation		**P**
2.10.5.1	General	See below.	**P**
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	**P**
2.10.5.3	Insulating compound as solid insulation	Only inside approved optocoupler.	**N/A**
2.10.5.4	Semiconductor devices	Approved optocoupler with dti≥0.4mm used.	**P**
2.10.5.5.	Cemented joints	No such construction.	**N/A**
2.10.5.6	Thin sheet material – General		**P**
2.10.5.7	Separable thin sheet material	Used in transformer	**P**
	Number of layers (pcs) ..... :	2 layers for reinforced insulation.	—
2.10.5.8	Non-separable thin sheet material		**N/A**
2.10.5.9	Thin sheet material – standard test procedure		**N/A**
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure	(see appended table 5.2)	**P**
	Electric strength test		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.11	Insulation in wound components	Approved triple insulated wire used as secondary winding of T1	**P**
2.10.5.12	Wire in wound components		**P**
	Working voltage ..... :		**P**
	a) Basic insulation not under stress ..... :		**N/A**
	b) Basic, supplementary, reinforced insulation ..... :	See sub-clause 2.10.5.11.	**P**
	c) Compliance with Annex U ..... :		**P**
	Two wires in contact inside wound component; angle between 45° and 90° ..... :	Physical separation provided by insulation tape and tube.	**P**
2.10.5.13	Wire with solvent-based enamel in wound components	No such construction.	**N/A**
	Electric strength test		—
	Routine test		**N/A**
2.10.5.14	Additional insulation in wound components	No such construction.	**N/A**
	Working voltage ..... :		**N/A**
	- Basic insulation not under stress ..... :		**N/A**
	- Supplementary, reinforced insulation ..... :		**N/A**
2.10.6	Construction of printed boards	See below.	**P**
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.6.2	Coated printed boards	No coated printed boards.	**N/A**
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	No multi-layer PCBs provided.	**N/A**
2.10.6.4	Insulation between conductors on different layers of a printed board	No multi-layer PCBs provided.	**N/A**
	Distance through insulation		**N/A**
	Number of insulation layers (pcs) ..... :	Single layer PCB	**N/A**
2.10.7	Component external terminations	(see appended table 2.10.3 and 2.10.4)	**P**
2.10.8	Tests on coated printed boards and coated components	No such boards and components	**N/A**
2.10.8.1	Sample preparation and preliminary inspection		**N/A**
2.10.8.2	Thermal conditioning		**N/A**
2.10.8.3	Electric strength test		**N/A**
2.10.8.4	Abrasion resistance test		**N/A**
2.10.9	Thermal cycling		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.10	Test for Pollution Degree 1 environment and insulating compound		**N/A**
2.10.11	Tests for semiconductor devices and cemented joints	Approved optocoupler used. No other parts to be tested.	**P**
2.10.12	Enclosed and sealed parts	No hermetically sealed component.	**N/A**
3	**WIRING, CONNECTIONS AND SUPPLY**		**P**
3.1	General		**P**
3.1.1	Current rating and overcurrent protection		**P**
3.1.2	Protection against mechanical damage		**N/A**
3.1.3	Securing of internal wiring	Earthed wire fixed to AC inlet by hooking and soldering which connected secondary earthing trace.	**P**
3.1.4	Insulation of conductors		**N/A**
3.1.5	Beads and ceramic insulators		**N/A**
3.1.6	Screws for electrical contact pressure		**N/A**
3.1.7	Insulating materials in electrical connections		**N/A**
3.1.8	Self-tapping and spaced thread screws		**N/A**
3.1.9	Termination of conductors		**P**
	10 N pull test		**P**
3.1.10	Sleeving on wiring		**N/A**
3.2	**Connection to a mains supply**		**P**
3.2.1	Means of connection	See below.	**P**
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet provided.	**P**
3.2.1.2	Connection to a d.c. mains supply	Only a.c. mains supply.	**N/A**
3.2.2	Multiple supply connections	Only for one mains connection.	**N/A**
3.2.3	Permanently connected equipment	Unit is not a permanently connected equipment.	**N/A**
	Number of conductors, diameter of cable and conduits (mm) ..... :		—
3.2.4	Appliance inlets	Approved appliance inlet used	**P**
3.2.5	Power supply cords	Not provided.	**N/A**
3.2.5.1	AC power supply cords		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
	Type ..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
3.2.5.2	DC power supply cords	AC Source.	**N/A**
3.2.6	Cord anchorages and strain relief		**N/A**
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage		**N/A**
3.2.8	Cord guards		**N/A**
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm)..... :		—
3.2.9	Supply wiring space	Not permanent connection or non-detachable power cord type.	**N/A**

3.3	**Wiring terminals for connection of external conductors**		**N/A**
3.3.1	Wiring terminals		**N/A**
3.3.2	Connection of non-detachable power supply cords		**N/A**
3.3.3	Screw terminals		**N/A**
3.3.4	Conductor sizes to be connected		**N/A**
	Rated current (A), cord/cable type, cross-sectional area (mm^2)..... :		—
3.3.5	Wiring terminal sizes		**N/A**
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
3.3.6	Wiring terminal design		**N/A**
3.3.7	Grouping of wiring terminals		**N/A**
3.3.8	Stranded wire		**N/A**

3.4	**Disconnection from the mains supply**		**P**
3.4.1	General requirement	See below.	**P**
3.4.2	Disconnect devices	Approved appliance inlet used.	**P**
3.4.3	Permanently connected equipment	Not permanently connected equipment.	**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
3.4.4	Parts which remain energized	When appliance coupler is disconnected no remaining parts with hazardous voltage in the equipment.	**N/A**
3.4.5	Switches in flexible cords	None	**N/A**
3.4.6	Number of poles - single-phase and d.c. equipment	Appliance inlet disconnects both poles simultaneously.	**P**
3.4.7	Number of poles - three-phase equipment	Single phase equipment.	**N/A**
3.4.8	Switches as disconnect devices		**N/A**
3.4.9	Plugs as disconnect devices		**N/A**
3.4.10	Interconnected equipment	Not interconnected equipment.	**N/A**
3.4.11	Multiple power sources	Only one supply connection provided.	**N/A**
3.5	**Interconnection of equipment**		**P**
3.5.1	General requirements	This power supply is not considered for connection to TNV.	**P**
3.5.2	Types of interconnection circuits ..... :	Interconnection circuits of SELV through the connector. No ELV interconnection circuits.	**P**
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection	**N/A**
3.5.4	Data ports for additional equipment	No such ports	**N/A**
4	**PHYSICAL REQUIREMENTS**		**P**
4.1	Stability		**N/A**
	Angle of 10°		**N/A**
	Test force (N) ..... :		**N/A**
4.2	**Mechanical strength**		**P**
4.2.1	General	See below, after tests, unit complies with the requirements of sub-clauses 2.1.1 and 2.10.	**P**
	Rack-mounted equipment.		**N/A**
4.2.2	Steady force test, 10 N	10 N applied to all internal components.	**P**
4.2.3	Steady force test, 30 N	No internal enclosure.	**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.4	Steady force test, 250 N	250 N applied to outer enclosure. No energy or other hazards.	**P**
4.2.5	Impact test	Applied on top and side enclosure	**P**
	Fall test	1.3m, 3times, after the test compliance was checked by 4.2.1	**P**
	Swing test		**N/A**
4.2.6	Drop test; height (mm) .....:		**N/A**
4.2.7	Stress relief test	After the test at temperature of 104°C, no shrinkage, distortion or loosening of any enclosure part was noticeable on the equipment.	**P**
4.2.8	Cathode ray tubes	No CRT in the unit.	**N/A**
	Picture tube separately certified .....:		**N/A**
4.2.9	High pressure lamps	No high pressure lamp provided.	**N/A**
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	Not wall or ceiling mounted equipment.	**N/A**
4.3	**Design and construction**		**P**
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded.	**P**
4.3.2	Handles and manual controls; force (N) .....:	No handles or controls provided.	**N/A**
4.3.3	Adjustable controls	No such controls provided.	**N/A**
4.3.4	Securing of parts	Mechanical fixings in such a way designed that they will withstand mechanical stress occurring in normal use.	**P**
4.3.5	Connection by plugs and sockets	Mismatch of connectors either not possible or does not result in any hazard.	**P**
4.3.6	Direct plug-in equipment	Not direct plug-in equipment	**N/A**
	Torque .....:		—
	Compliance with the relevant mains plug standard .....:		**N/A**
4.3.7	Heating elements in earthed equipment	No heating elements provided.	**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.8	Batteries	No batteries provided.	**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**
4.3.9	Oil and grease	No oil and grease	**N/A**
4.3.10	Dust, powders, liquids and gases	Equipment in intended use not considered to be exposed to these.	**N/A**
4.3.11	Containers for liquids or gases	No container for liquid or gas.	**N/A**
4.3.12	Flammable liquids ..... :	No such flammable liquid.	**N/A**
	Quantity of liquid (l) ..... :		**N/A**
	Flash point (°C) ..... :		**N/A**
4.3.13	Radiation	See only cl. 4.3.13.5	**P**
4.3.13.1	General		**P**
4.3.13.2	Ionizing radiation		**N/A**
	Measured radiation (pA/kg) ..... :		—
	Measured high-voltage (kV) ..... :		—
	Measured focus voltage (kV) ..... :		—
	CRT markings ..... :		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		**N/A**
	Part, property, retention after test, flammability classification ..... :		**N/A**
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :		**N/A**
4.3.13.5	Lasers (including laser diodes) and LEDs	See below	**P**
4.3.13.5.1	Lasers (including laser diodes)		**N/A**
	Laser class ..... :		—
4.3.13.5.2	Light emitting diodes (LEDs)	The power emitted from the LED is far below LED class 1 limit.	—
4.3.13.6	Other types ..... :		**N/A**

4.4	**Protection against hazardous moving parts**	No moving parts	**N/A**
4.4.1	General		**N/A**
4.4.2	Protection in operator access areas ..... :		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
	Household and home/office document/media shredders		**N/A**
4.4.3	Protection in restricted access locations .....:		**N/A**
4.4.4	Protection in service access areas		**N/A**
4.4.5	Protection against moving fan blades		**N/A**
4.4.5.1	General		**N/A**
	Not considered to cause pain or injury. a)…….:		**N/A**
	Is considered to cause pain, not injury. b) …….:		**N/A**
	Considered to cause injury. c) …….:		**N/A**
4.4.5.2	Protection for users		**N/A**
	Use of symbol or warning ……:		**N/A**
4.4.5.3	Protection for service persons		**N/A**
	Use of symbol or warning ……:		**N/A**
4.5	**Thermal requirements**		**P**
4.5.1	General	Equipment loaded with rated output current.	**P**
4.5.2	Temperature tests	(see appended table 4.5)	**P**
	Normal load condition per Annex L .....:	(see appended table 4.5)	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	**P**
4.5.4	Touch temperature limits	(see appended table 4.5)	**P**
4.5.5	Resistance to abnormal heat .....:	Phenolic bobbin material used in T1 and L1, which is acceptable without test.	**P**
4.6	**Openings in enclosures**		**P**
4.6.1	Top and side openings	No openings	**P**
	Dimensions (mm) .....:		—
4.6.2	Bottoms of fire enclosures	No openings	**P**
	Construction of the bottomm, dimensions (mm) ..:		—
4.6.3	Doors or covers in fire enclosures		**N/A**
4.6.4	Openings in transportable equipment		**N/A**
4.6.4.1	Constructional design measures		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
	Dimensions (mm) .....:		—
4.6.4.2	Evaluation measures for larger openings		**N/A**
4.6.4.3	Use of metallized parts		**N/A**
4.6.5	Adhesives for constructional purposes		**N/A**
	Conditioning temperature (°C), time (weeks).....:		—
4.7	**Resistance to fire**		**P**
4.7.1	Reducing the risk of ignition and spread of flame	No excessive temperatures. No easily burning materials employed. Fire enclosure provided.	**P**
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	**P**
	Method 2, application of all of simulated fault condition tests		**N/A**
4.7.2	Conditions for a fire enclosure	No excessive temperatures. No easily burning materials employed. Fire enclosure provided.	**P**
4.7.2.1	Parts requiring a fire enclosure	With having the following parts: ▪ Components in primary ▪ Insulated wiring The fire enclosure is required.	**P**
4.7.2.2	Parts not requiring a fire enclosure		**N/A**
4.7.3	Materials		**P**
4.7.3.1	General	See below	**P**
4.7.3.2	Materials for fire enclosures	V-0 fire enclosure provided.	**P**
4.7.3.3	Materials for components and other parts outside fire enclosures		**N/A**
4.7.3.4	Materials for components and other parts inside fire enclosures	PCB rated V-1 or better. See appended table 1.5.1 for details. Internal components except small parts are V-2 or better.	**P**
4.7.3.5	Materials for air filter assemblies	No air filters provided.	**N/A**
4.7.3.6	Materials used in high-voltage components	No high voltage components provided.	**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict

5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		**P**
5.1	**Touch current and protective conductor current**		**P**
5.1.1	General	See sub-clauses 5.1.2 to 5.1.6.	**P**
5.1.2	Configuration of equipment under test (EUT)	EUT has only one mains connection.	**P**
5.1.2.1	Single connection to an a.c. mains supply		**P**
5.1.2.2	Redundant multiple connections to an a.c. mains supply		**N/A**
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		**N/A**
5.1.3	Test circuit	Equipment of figure 5A used.	**P**
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	**P**
5.1.5	Test procedure	The touch current was measured from mains to DC output connector and to a 100 mm × 200 mm metal foil wrapped on accessible non-conductive parts (plastic enclosure).	**P**
5.1.6	Test measurements	(see appended table 5.1.6)	**P**
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—
	Measured protective conductor current (mA) ..... :		—
	Max. allowed protective conductor current (mA)... :		—
5.1.7	Equipment with touch current exceeding 3,5 mA	Touch current does not exceed 3.5mA.	**N/A**
5.1.7.1	General ..... :		**N/A**
5.1.7.2	Simultaneous multiple connections to the supply		**N/A**
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No TNV.	**N/A**
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		**N/A**
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
5.1.8.2	Summation of touch currents from telecommunication networks		**N/A**
	a) EUT with earthed telecommunication ports .....:		**N/A**
	b) EUT whose telecommunication ports have no reference to protective earth		**N/A**
5.2	**Electric strength**		**P**
5.2.1	General	(see appended table 5.2)	**P**
5.2.2	Test procedure	(see appended table 5.2)	**P**
5.3	**Abnormal operating and fault conditions**		**P**
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	**P**
5.3.2	Motors	No motors.	**N/A**
5.3.3	Transformers	(see appended Annex C and table 5.3)	**P**
5.3.4	Functional insulation .....:	By short-circuited, results see appended table 5.3.	**P**
5.3.5	Electromechanical components	No electromechanical component.	**N/A**
5.3.6	Audio amplifiers in ITE .....:	Audio amplifiers not used.	**N/A**
5.3.7	Simulation of faults	(see appended table 5.3.)	**P**
5.3.8	Unattended equipment	No such equipment.	**N/A**
5.3.9	Compliance criteria for abnormal operating and fault conditions		**P**
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	**P**
5.3.9.2	After the tests	No reduction of clearance and creepage distance. Electric strength test is made on basic, supplementary and reinforced insulation after test.	**P**
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		**N/A**
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		**N/A**
6.1.1	Protection from hazardous voltages		**N/A**
6.1.2	Separation of the telecommunication network from earth		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1	Requirements		**N/A**
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:		**N/A**
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		**N/A**
6.2.1	Separation requirements		**N/A**
6.2.2	Electric strength test procedure		**N/A**
6.2.2.1	Impulse test	(see appended table 5.2)	**N/A**
6.2.2.2	Steady-state test	(see appended table 5.2)	**N/A**
6.2.2.3	Compliance criteria		**N/A**
6.3	**Protection of the telecommunication wiring system from overheating**		**N/A**
	Max. output current (A) .....:		—
	Current limiting method .....:		—
7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		**N/A**
7.1	General		**N/A**
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		**N/A**
7.3	Protection of equipment users from overvoltages on the cable distribution system		**N/A**
7.4	Insulation between primary circuits and cable distribution systems		**N/A**
7.4.1	General		**N/A**
7.4.2	Voltage surge test		**N/A**
7.4.3	Impulse test		**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE** *UL Recognized material used*		**P**
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		**N/A**
A.1.1	Samples ..... :		—
	Wall thickness (mm)..... :		—
A.1.2	Conditioning of samples; temperature (°C) ..... :		**N/A**
A.1.3	Mounting of samples ..... :		**N/A**
A.1.4	Test flame (see IEC 60695-11-3)		**N/A**
	Flame A, B, C or D ..... :		—
A.1.5	Test procedure		**N/A**
A.1.6	Compliance criteria		**N/A**
	Sample 1 burning time (s)..... :		—
	Sample 2 burning time (s)..... :		—
	Sample 3 burning time (s)..... :		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		**N/A**
A.2.1	Samples, material ..... :		—
	Wall thickness (mm)..... :		—
A.2.2	Conditioning of samples; temperature (°C) ..... :		**N/A**
A.2.3	Mounting of samples ..... :		**N/A**
A.2.4	Test flame (see IEC 60695-11-4)		**N/A**
	Flame A, B or C ..... :		—
A.2.5	Test procedure		**N/A**
A.2.6	Compliance criteria		**N/A**
	Sample 1 burning time (s)..... :		—
	Sample 2 burning time (s)..... :		—
	Sample 3 burning time (s)..... :		—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		**N/A**
	Sample 1 burning time (s)..... :		—
	Sample 2 burning time (s)..... :		—
	Sample 3 burning time (s)..... :		—
A.3	Hot flaming oil test (see 4.6.2)		**N/A**
A.3.1	Mounting of samples		**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.3.2	Test procedure		**N/A**
A.3.3	Compliance criterion		**N/A**
B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		**N/A**
B.1	General requirements		**N/A**
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
B.2	Test conditions		**N/A**
B.3	Maximum temperatures		**N/A**
B.4	Running overload test		**N/A**
B.5	Locked-rotor overload test		**N/A**
	Test duration (days) .....:		—
	Electric strength test: test voltage (V) .....:		—
B.6	Running overload test for d.c. motors in secondary circuits		**N/A**
B.6.1	General		**N/A**
B.6.2	Test procedure		**N/A**
B.6.3	Alternative test procedure		**N/A**
B.6.4	Electric strength test; test voltage (V) .....:		**N/A**
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		**N/A**
B.7.1	General		**N/A**
B.7.2	Test procedure		**N/A**
B.7.3	Alternative test procedure		**N/A**
B.7.4	Electric strength test; test voltage (V) .....:		**N/A**
B.8	Test for motors with capacitors		**N/A**
B.9	Test for three-phase motors		**N/A**
B.10	Test for series motors		**N/A**
	Operating voltage (V) .....:		—
C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		**P**
	Position .....:	T1	—
	Manufacturer .....:	See table 1.5.1	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Type .....:	See table 1.5.1	—
	Rated values .....:	See table 1.5.1	—
	Method of protection .....:	By protection circuit	—
C.1	Overload test	(see appended table 5.3)	**P**
C.2	Insulation	(see appended tables 5.2 and C2)	**P**
	Protection from displacement of windings .....:	By bobbin, insulation tape and tube.	**P**
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		**P**
D.1	Measuring instrument		**P**
D.2	Alternative measuring instrument		**N/A**
E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		**N/A**
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		**P**
G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		**N/A**
G.1	**Clearances**		**N/A**
G.1.1	General		**N/A**
G.1.2	Summary of the procedure for determining minimum clearances		**N/A**
G.2	**Determination of mains transient voltage (V)**		**N/A**
G.2.1	AC mains supply .....:		**N/A**
G.2.2	Earthed d.c. mains supplies .....:		**N/A**
G.2.3	Unearthed d.c. mains supplies .....:		**N/A**
G.2.4	Battery operation .....:		**N/A**
G.3	**Determination of telecommunication network transient voltage (V) .....:**		**N/A**
G.4	**Determination of required withstand voltage (V)**		**N/A**
G.4.1	Mains transients and internal repetitive peaks .....:		**N/A**
G.4.2	Transients from telecommunication networks .....:		**N/A**
G.4.3	Combination of transients		**N/A**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
G.4.4	Transients from cable distribution systems		**N/A**
G.5	**Measurement of transient voltages (V)**		**N/A**
	a) Transients from a mains supply		**N/A**
	For an a.c. mains supply		**N/A**
	For a d.c. mains supply		**N/A**
	b) Transients from a telecommunication network		**N/A**
G.6	**Determination of minimum clearances .....:**		**N/A**
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		**N/A**
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		**N/A**
	Metal(s) used .....:		—
K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)** *No thermal controls.*		**N/A**
K.1	Making and breaking capacity		**N/A**
K.2	Thermostat reliability; operating voltage (V) .....:		**N/A**
K.3	Thermostat endurance test; operating voltage (V) .....:		**N/A**
K.4	Temperature limiter endurance; operating voltage (V) .....:		**N/A**
K.5	Thermal cut-out reliability		**N/A**
K.6	Stability of operation	(see appended table 5.3)	**N/A**
L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		**P**
L.1	Typewriters		**N/A**
L.2	Adding machines and cash registers		**N/A**
L.3	Erasers		**N/A**
L.4	Pencil sharpeners		**N/A**
L.5	Duplicators and copy machines		**N/A**
L.6	Motor-operated files		**N/A**
L.7	Other business equipment	See 1.6.2.	**P**

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)** *No telephone ringing signals generated.*		**N/A**
M.1	Introduction		**N/A**
M.2	Method A		**N/A**
M.3	Method B		**N/A**
M.3.1	Ringing signal		**N/A**
M.3.1.1	Frequency (Hz) ..... :		—
M.3.1.2	Voltage (V) ..... :		—
M.3.1.3	Cadence; time (s), voltage (V) ..... :		—
M.3.1.4	Single fault current (mA) ..... :		—
M.3.2	Tripping device and monitoring voltage ..... :		**N/A**
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		**N/A**
M.3.2.2	Tripping device		**N/A**
M.3.2.3	Monitoring voltage (V) ..... :		**N/A**

N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		**N/A**
N.1	ITU-T impulse test generators		**N/A**
N.2	IEC 60065 impulse test generator		**N/A**

P	**ANNEX P, NORMATIVE REFERENCES**		—

Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		**P**
	- Preferred climatic categories ..... :	See table 1.5.1	**P**
	- Maximum continuous voltage ..... :	See table 1.5.1	**P**
	- Combination pulse current ..... :	See table 1.5.1	**P**
	Body of the VDR Test according to IEC60695-11-5.....:		**N/A**
	Body of the VDR. Flammability class of material (min V-1).....:	See table 1.5.1	**P**

R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES** *No quality control programmes used.*		**N/A**
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		**N/A**
R.2	Reduced clearances (see 2.10.3)		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict

S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		**N/A**
S.1	Test equipment		**N/A**
S.2	Test procedure		**N/A**
S.3	Examples of waveforms during impulse testing		**N/A**

T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		**N/A**
		See separate test report	—

U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		**P**
		VDE approved triple insulated wire used.	—

V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		**P**
V.1	Introduction		**P**
V.2	TN power distribution systems		**P**

W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		**N/A**
W.1	Touch current from electronic circuits		**N/A**
W.1.1	Floating circuits		**N/A**
W.1.2	Earthed circuits		**N/A**
W.2	Interconnection of several equipments		**N/A**
W.2.1	Isolation		**N/A**
W.2.2	Common return, isolated from earth		**N/A**
W.2.3	Common return, connected to protective earth		**N/A**

X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		**N/A**
X.1	Determination of maximum input current		**N/A**
X.2	Overload test procedure		**N/A**

Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		**N/A**
Y.1	Test apparatus ..... :		**N/A**
Y.2	Mounting of test samples ..... :		**N/A**
Y.3	Carbon-arc light-exposure apparatus ..... :		**N/A**
Y.4	Xenon-arc light exposure apparatus ..... :		**N/A**

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Clause	Requirement + Test	Result - Remark	Verdict
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		**P**
AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		**N/A**
BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**		—
CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		**N/A**
CC.1	General		**N/A**
CC.2	Test program 1……:		**N/A**
CC.3	Test program 2……:		**N/A**
CC.4	Test program 3.....:		**N/A**
CC.5	Compliance.....:		**N/A**
DD	**ANNEX DD, Requirements for the mounting means of rack-mounted equipment**		**N/A**
DD.1	General		**N/A**
DD.2	Mechanical strength test, variable N……..:		**N/A**
DD.3	Mechanical strength test, 250N, including end stops……:		**N/A**
DD.4	Compliance……:		**N/A**
EE	**ANNEX EE, Household and home/office document/media shredders**		**N/A**
EE.1	General		**N/A**
EE.2	Markings and instructions		**N/A**
	Use of markings or symbols……:		**N/A**
	Information of user instructions, maintenance and/or servicing instructions……:		**N/A**
EE.3	Inadvertent reactivation test……:		**N/A**
EE.4	Disconnection of power to hazardous moving parts:		**N/A**
	Use of markings or symbols……:		**N/A**
EE.5	Protection against hazardous moving parts		**N/A**
	Test with test finger (Figure 2A) ……:		**N/A**
	Test with wedge probe (Figure EE1 and EE2) ……:		**N/A**

1.5.1	TABLE: List of critical components				P
Object/part No.	ManuFacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Plastic enclosure	SABIC INNOVATIVE PLASTICS US L L C	945(GG)	Rated V-0, 120°C, min. thickness 1.5 mm	UL 94	UL E121562
(Alternative)	SABIC JAPAN L L C	CH6410(GG)	Rated V-0, 100°C, min. thickness 1.5 mm	UL 94	UL E207780
Appliance Inlet (CON3)	YUEQING HUACONN ELECTRONICS CO LTD	HC-66	AC 250 V, 2.5A	EN 60320-1	VDE 40032581
(Alternative)	ZHE JIANG BEI ER JIA ELECTRONIC CO LTD.	ST-A04-001	AC 250 V, 2.5A	EN 60320-1	VDE 40016045
(Alternative)	ZHEJIANG LECI ELECTRONICS CO LTD	DB-6	AC 250 V, 2.5A	EN 60320-1	VDE 40032465
(Alternative)	Yueqing Yanhui Electronic Co., Ltd.	DB-14-S-1	AC 250 V, 2.5A	EN 60320-1	VDE 40035402
PCB	Interchangeable	Interchangeable	V-1 or better, 130°C	UL 796	UL
Fuse (F1)	Conquer Electronics Co., Ltd.	MST series	T3.15A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40017118
(Alternative)	Honghu Bluelight Electronic Co., Ltd.	6ET	T3.15A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40034107
(Alternative)	XC Electronics (Shenzhen) Co., Ltd.	5TE	T3.15A, 250Vac	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40029550
Varistor (MOV1) (Optional)	Thinking Electronic Industrial Co., Ltd	TVR10561-D	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40031391 UL E314979

(Alternative)	Brightking (Shenzhen) Co., Ltd.	10D561K	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40027827 UL E327997
(Alternative)	Success Electronics Co Ltd	SVR10D561K	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 123677 UL E330256
(Alternative)	Cerglass MFG Inc Ltd	10D561K	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40028836 UL E317616
(Alternative)	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	10D561K	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40023049 UL E330837
(Alternative)	JOYIN CO LTD	10S561K, 10N561K+	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40004658 UL E325508
(Alternative)	Fenghua Adv. Tech. (Holding) Co., Ltd.	FNR-10K561	Min. 300Vac, 85°C, (tested by UL for 6KV/3KA combination pulse) Coating rated V-0.	IEC 61051-1, IEC 61051-2, UL1449	VDE 40008242 UL E325462
X- Capacitor (C1) (Optional)	TENTA ELECTRIC INDUSTRIAL CO LTD	MEX	Max. 0.22uF, Min. 250Vac, 100°C	IEC/EN 60384-14	VDE 119119
(Alternative)	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	MPX	Max. 0.22uF, Min. 250Vac, 110°C	IEC/EN 60384-14	TUV R 50136379

(Alternative)	SHENZHEN SURONG CAPACITORS CO LTD	MPX	Max. 0.22µF, Min. 250Vac, 100°C	IEC/EN 60384-14	VDE 40008924
(Alternative)	DAIN ELECTRONICS CO LTD	MPX	Max. 0.22µF, Min. 250Vac, 110°C	IEC/EN 60384-14	VDE 40018798
(Alternative)	Shenzhen Yimanfeng Science And Technology Co., Ltd	MPX/MKP	Max. 0.22µF, Min. 250Vac, 110°C	IEC/EN 60384-14	VDE 40028516
(Alternative)	HSUAN TAI ELECTRONIC CO LTD	MCY	Max. 0.22µF, Min. 250Vac, 100°C	IEC/EN 60384-14	VDE 125205
Bleeder resistors (R20, R21, R22, R23)	Interchangeable	Interchangeable	Each 1.0-3.3Mohm, 1/4W.	--	Tested with appliance
Rectifier bridge (D1, D3, D4, D6)	Interchangeable	Interchangeable	Each min. 1A, Min. 1000V	--	Tested with appliance
Electrolytic Capacitor (C2)	Interchangeable	Interchangeable	Rated 22-47µF, 400V, 105°C	--	Tested with appliance
Transistor (Q1)	Interchangeable	Interchangeable	Min. 7A, min. 650V	--	Tested with appliance
Current-limiting resistance (R16, R17)	Interchangeable	Interchangeable	Each rated 1.0-3.0 ohm, 1/4W.	--	Tested with appliance
NTC (RT1)	Interchangeable	Interchangeable	Min. 3A, Max. 5Ω	--	Tested with appliance
Line choke (L1)	Dongguanshi Changshen Electronic Co., Ltd	LL00053V00	130°C	--	Tested with appliance
(Alternative)	Shenzhen WZY Technology Co., Ltd.	LL00053V00	130°C	--	Tested with appliance
Bobbin used in L1	CHUANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C	UL94, UL746C	UL E59481
(Alternative)	SUMITOMO BAKELITE CO LTD	PM-9820	Phenolic, V-0, 150°C, min. thick. 0.51mm	UL94, UL746C	UL E41429

Insulation tape used in L1	Interchangeable	Interchangeable	130°C	--	Tested with appliance
Y- Capacitor (C13) (Y1 type) (Optional)	SHANTOU HIGH-NEW TECHNOLOGY DEVELOPMNT ZONE SONGTIAN ENTERPRISE CO LTD	CD-series	Max. 2200pF, Min. 250Vac, 125°C	IEC/EN 60384- 14	VDE 40025754
(Alternative)	GUANGDONG SOUTH HONGMING ELECTRONIC SCIENCE & TECHNOLOGY CO LTD	F	Max. 2200pF, Min. 250Vac, 125°C	IEC/EN 60384- 14	VDE 118357
(Alternative)	JYH CHUNG ELECTRONICS CO LTD	JD	Max. 2200pF, Min. 250Vac, 125°C	IEC/EN 60384- 14	VDE 137027
(Alternative)	XIAMEN WANMING ELECTRONICS CO LTD	HJ	Max. 2200pF, 400Vac, 125°C	IEC/EN 60384- 14	VDE 40000353
(Alternative)	SHAANXI HUAXING ELECTRONIC DEVELOPMEN T CO LTD	CT7Y1	Max. 2200pF, 400Vac, 125°C	IEC/EN 60384- 14	VDE 40015542
(Alternative)	HSUAN TAI ELECTRONICS CO LTD	CY	Max. 2200pF, 400Vac, 125°C	IEC/EN 60384- 14	VDE 40008912
Photo Coupler (OT1)	COSMO ELECTRONICS CORP	K1010 KPC817	Int. dcr=5.3mm, Ext. dcr=8mm, 125°C	IEC/EN60747-5-5, UL1577	VDE 101347
(alternative)	LITE-ON TECHNOLOGY CORP	LTV-817	Int. dcr=5.2mm, Ext. dcr=7.8mm, 110°C	IEC/EN60747-5-5, UL1577	VDE 40015248
(alternative)	EVERLIGHT ELECTRONICS CO LTD	EL817	Int. dcr=6.0 mm, Ext. dcr=7.7mm, 110°C	IEC/EN60747-5-5, UL1577	VDE 132249
(alternative)	FAIRCHILD SEMICONDUC TOR CORP	H11A817(A; B; C; D; X)	Int. dcr≥5.0mm, Ext. dcr≥7.0mm, 110 ºC	IEC/EN60747-5-5, UL1577	VDE 40026857
(alternative)	BRIGHT LED ELECTRONICS CORP	BPC-817 (A,B,C,D,L), BPC-817S	Int. dcr≥ 7.6mm Ext. dcr≥ 8mm 125°C	IEC/EN60747-5-5, UL1577	VDE 40007240

Transformer (T1)	SHENZHEN HENGSIDA INDUSTRY CO LTD	LT00783V01	Class B	Applicable part of IEC/EN 60950-1 and according to IEC/EN 60085	Tested with appliance
(alternative)	SHENZHEN JIAMEIRUI ELECTRONIC CO LTD	LT00783V01	Class B	Applicable part of IEC/EN 60950-1 and according to IEC/EN 60085	Tested with appliance
Bobbin used in T1	CHUANG CHUN PLASTICS CO LTD	T375J	Phenolic, V-0, 150°C, min. thick. 0.75mm	UL94, UL746C	UL E59481
(Alternative)	SUMITOMO BAKELITE CO LTD	PM-9830, PM-9820	Phenolic, V-0, 150°C, min. thick. 0.75mm	UL94, UL746C	UL E41429
Triple wire used in T1	FURUKAWA ELECTRIC CO LTD	TEX-E	130°C	IEC/EN 60950-1, UL 2353	VDE 006735 UL E206440
(Alternative)	TOTOKU ELECTRIC CO LTD	TIW-3X	130°C	IEC/EN 60950-1, UL 2353	VDE 40005152 UL E166483
Insulation tape used in T1	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350-1, 1350T-1, 1350F-1	130°C	UL 510	UL E17385
Teflon tube used in T1	GREAT HOLDING INDUSTRIAL CO LTD	TFL	200°C, VW-1, Min. 150V	UL 224	UL E156256
Vanish used in T1	ELANTAS ZHUHAI CO LTD	468-2(x)	130°C	UL 1446	UL E72979
Green/yellow earthing wire	Interchangeable	Interchangeable	Rated min. 18 AWG, 300V, 105°C, green with yellow scrip	UL 758	UL
Choke (L2)	Interchangeable	Interchangeable	130°C	--	Tested with appliance
C11	Interchangeable	Interchangeable	105°C	--	Tested with appliance
Note: [1]) An asterisk indicates a mark which assures the agreed level of surveillance					

1.5.1	TABLE: Opto Electronic Devices	P
Manufacturer.....:		
Type.....:		
Separately tested.....:		
Bridging insulation .....:		
External creepage distance .....:		
Internal creepage distance .....:		
Distance through insulation .....:		
Tested under the following conditions .....:		
Input.....:		
Output.....:		
supplementary information		
See appended table 1.5.1 above for details.		

1.6.2	TABLE: Electrical data (in normal conditions)						P
Fuse #	Irated (A)	U (V)	f (Hz)	P (W)	I (A)	Ifuse (A)	Condition/status
Model No.: G0720-240-100							
F1	--	90	50	28.36	0.512	0.512	Load with 24.0Vdc, 1.0A
F1	--	90	60	28.30	0.510	0.510	Same as above
F1	0.75	100	50	28.10	0.473	0.473	Same as above
F1	0.75	100	60	28.00	0.471	0.471	Same as above
F1	0.75	240	50	27.50	0.235	0.235	Same as above
F1	0.75	240	60	27.45	0.232	0.232	Same as above
F1	--	264	50	27.80	0.212	0.212	Same as above
F1	--	264	60	27.70	0.210	0.210	Same as above
Model No.: G0720-360-075							
F1	--	90	50	32.75	0.580	0.580	Load with 36.0Vdc, 0.75A
F1	--	90	60	32.65	0.567	0.567	Same as above
F1	0.75	100	50	32.32	0.524	0.524	Same as above
F1	0.75	100	60	32.22	0.515	0.515	Same as above
F1	0.75	240	50	31.31	0.260	0.260	Same as above
F1	0.75	240	60	31.02	0.258	0.258	Same as above

F1	--	264	50	31.25	0.243	0.243	Same as above
F1	--	264	60	31.10	0.242	0.242	Same as above
Model No.: G0720-560-053							
F1	--	90	50	35.64	0.610	0.610	Load with 56.0Vdc, 0.53A
F1	--	90	60	35.12	0.605	0.605	Same as above
F1	0.75	100	50	34.96	0.565	0.565	Same as above
F1	0.75	100	60	34.82	0.560	0.560	Same as above
F1	0.75	240	50	34.18	0.272	0.272	Same as above
F1	0.75	240	60	34.05	0.270	0.270	Same as above
F1	--	264	50	34.25	0.250	0.250	Same as above
F1	--	264	60	34.20	0.246	0.246	Same as above
Note:							

2.1.1.5 c) 1)	**TABLE: max. V, A, VA test**	**P**

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
Model No.: G0720-240-100				
24	1.0	24.17	1.60	38.2
Model No.: G0720-360-075				
36	0.75	36.68	1.33	47.8
Model No.: G0720-560-053				
56	0.53	56.44	0.74	41.5
Note(s): test voltage 240Vac 60Hz.				

2.1.1.5 c) 2)	**TABLE: stored energy**	**N/A**

Capacitance C (µF)	Voltage U (V)	Energy E (J)
supplementary information:		

2.2	**TABLE: evaluation of voltage limiting components in SELV circuits**		**P**
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	

Model No.: G0720-240-100			
T1 Pin A-B	178	--	--
After D8 to T1 Pin B	--	24.5	D8
After C9 to T1 Pin B	30.5	--	C9
Model No.: G0720-360-075			
T1 Pin A-B	182	--	--
After D8 to T1 Pin B	--	36.5	D8
After C9 to T1 Pin B	41.0	--	C9
Model No.: G0720-560-053			
T1 Pin A-B	196	--	--
After D8 to T1 Pin B	--	56.8	D8
After C9 to T1 Pin B	59.5	--	R9

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
Model No.: G0720-240-100	
D8 short circuit	0
C9 short circuit	0
Model No.: G0720-360-075	
D8 short circuit	0
C9 short circuit	0
Model No.: G0720-560-053	
D4 short	0
C10 short	56.2Vdc
Note: EUT supplied with 240V/60Hz.	

2.5	**TABLE: Limited power sources**					**P**
Circuit output tested:						
Note: Measured Uoc (V) with all load circuits disconnected:						
Components	Sample No.	Uoc (Vdc)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
Model: G0720-240-100						
Normal	--	24.17	1.60	8	38.2	100
R16 SC	--	0#	0#	8	0#	100
OT1 pin1-2 SC	--	0*	0*	8	0*	100
OT1 pin3-4 SC	--	0*	0*	8	0*	100

OT1 pin 1 OC	--	0*	0*	8	0*	100
D8 SC	--	0*	0*	8	0*	100
R11	--	0*	0*	8	0*	100
R6	--	0*	0*	8	0*	100
Model: 0720-360-075						
Normal	--	36.68	1.33	8	47.8	100
R16 SC	--	0#	0#	8	0#	100
OT1 pin1-2 SC	--	0*	0*	8	0*	100
OT1 pin3-4 SC	--	0*	0*	8	0*	100
OT1 pin 1 OC	--	0*	0*	8	0*	100
D8 SC	--	0*	0*	8	0*	100
R11	--	0*	0*	8	0*	100
R6	--	0*	0*	8	0*	100
Model: G0720-560-053						
Normal	--	56.44	0.74	8	41.5	100
R16 SC	--	0#	0#	8	0#	100
OT1 pin1-2 SC	--	0*	0*	8	0*	100
OT1 pin3-4 SC	--	0*	0*	8	0*	100
OT1 pin 1 OC	--	0*	0*	8	0*	100
D8 SC	--	0*	0*	8	0*	100
R11	--	0*	0*	8	0*	100
R6	--	0*	0*	8	0*	100

supplementary information: Input: 264V60Hz

SC=short-circuited, OC=open-circuited.

Means fuse opened.

* Means unit shut down.

2.6.3.4	TABLE: ground continue test	P
Location	Resistance measured (mΩ)	Comments
Inlet earthing pin to secondary earthing	5	--
Note: Test with following current: ☒ 32A, 2min **Pass:** < 0.1 Ohm		

2.10.2	Table: working voltage measurement		P
Location	RMS voltage (V)	Peak voltage (V)	Comments
Model No.: G0720-240-100			
T1 pin 2-A	217	356	
T1 pin 4-A	220	372	
T1 pin 5-A	235	464	
T1 pin 7-A	229	496	
T1 pin 2-B	215	424	
T1 pin 4-B	214	348	
T1 pin 5-B	257	428	
T1 pin 7-B	219	356	
OT1 pin 1-3	230	376	
OT1 pin 1-4	230	368	
OT1 pin 2-3	232	376	
OT1 pin 2-4	230	372	
C13 primary to secondary	212	348	
Model No.: G0720-360-075			
T1 pin 2-A	217	380	
T1 pin 4-A	222	392	
T1 pin 5-A	219	500	
T1 pin 7-A	226	504	
T1 pin 2-B	215	400	
T1 pin 4-B	214	356	
T1 pin 5-B	264	348	
T1 pin 7-B	219	360	

OT1 pin 1-3	223	360	
OT1 pin 1-4	221	364	
OT1 pin 2-3	224	364	
OT1 pin 2-4	224	364	
C13 primary to secondary	213	348	
Model No.: G0720-560-053			
T1 pin 2-A	219	400	
T1 pin 4-A	226	420	
T1 pin 5-A	264	504	
T1 pin 7-A	232	**504**	**Maximum Vpeak**
T1 pin 2-B	214	400	
T1 pin 4-B	213	356	
T1 pin 5-B	**279**	500	**Maximum Vrms**
T1 pin 7-B	219	360	
OT1 pin 1-3	231	380	
OT1 pin 1-4	234	372	
OT1 pin 2-3	234	380	
OT1 pin 2-4	232	376	
C13 primary to secondary	212	348	
Note(s): Supply with 240V/60Hz			

2.10.3 and 2.10.4	**TABLE: clearance and creepage distance measurements**					**P**
Clearance cl and creepage distance dcr at/of:	U p (V)	U r.m.s. (V)	Required cl (mm) [1)]	cl (mm)	Required dcr (mm)	dcr (mm)
On primary						
Different polarity before fuse link (F)*	420	250	2.3	3.0	2.5	3.0
Different pole of fuse link (F)	420	250	2.3	3.0	2.5	3.0
Primary components to accessible part						
Unit: primary components (C1) to accessible part (outside enclosure) (R)*	420	250	6.0	7.9	6.0	7.9
Unit: primary components (RT1) to accessible part (outside enclosure) (R)	420	250	6.0	6.1	6.0	7.0
Primary components to earthing						

PCB: primary to PE trace (B)*	420	250	3.0	4.0	3.0	4.0
Primary components to secondary components						
PCB: primary to secondary traces under transformer (R)	504	279	6.6	8.4	6.6	8.4
PCB: primary to secondary traces under OT1(R)	420	250	6.0	7.5	6.0	7.5
PCB: primary to secondary traces under C13 (R)	420	250	6.0	8.0	6.0	8.0
Core of transformer to top of secondary component C11(with 10N) (R)	504	279	6.6	7.9	6.6	7.9
Core of transformer to secondary component L2(R)	504	279	6.6	10.0	6.6	10.0

Notes:

* B=Basic insulation, F=Functional insulation, R=reinforced insulation.

For the equipment intended to be used in a level above to 5000m, multiplication factor (1.48) for clearance described in IEC 60664-1 table A.2 considered.

1) Functional insulation shorted, see sub-clause 5.3.4;
2) Reinforced insulation provided between primary and secondary winding;
3) Transformer core is considered as primary circuit;
4) 2 layers insulation tape wrapped around the transformer;
5) Bottom and side of core was folded back by 2 layers insulation tape nearby secondary circuit;
6) Glued components: RT1, pin leads of secondary TIW.

2.10.5	**TABLE: Distance through insulation measurements**				**P**
Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Enclosure material (reinforced insulation)	420	250	AC 3000	0.4	1.5
Photo-coupler (reinforced insulation)	420	250	AC 3000	0.4	>0.4*
Note(s): *See appended table 1.5.1.					

4.3.8	**TABLE: Batteries**				**N/A**
The tests of 4.3.8 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-	Charging	Discharging	Reversed charging

	Meas. Current	ManuF. Specs.	intentional charging	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:		

4.3.8	**TABLE: Batteries**	**N/A**
Battery category .....:	(Lithium, NiMh, NiCad, Lithium Ion …)	
Manufacturer.....:		
Type / model.....:		
Voltage.....:		
Capacity.....:	mAh	
Tested and Certified by (incl. Ref. No.) .....:		
Circuit protection diagram:		

MARKINGS AND INSTRUCTIONS (1.7.13)	
Location of replaceable battery	
Language(s) ……..:	
Close to the battery ……..:	
In the servicing instructions ……:	
In the operating instructions ……..:	

4.5	TABLE: Thermal requirements					P
	Supply voltage (V)	90V/50Hz	90V/ 50Hz	264V/ 50Hz	264V/ 50Hz	—
	Ambient T_{min} (°C)	--	--	--	--	—
	Ambient T_{max} (°C)	--	--	--	--	—
Maximum measured temperature T of part/at::		T (°C)				Allowed T_{max} (°C)
Location		Label up	Label down	Label up	Label down	--
Model No.: G0720-240-100						
1, AC inlet		60.7	61.7	52.9	53.2	70
2, MOV1		70.8	68.2	57.5	55.9	85
3, C1		69.9	67.1	56.8	55.0	100
4, C2		86.9	90.8	69.7	71.4	105
5, L1 winding		99.3	102.1	69.6	69.5	130
6, PCB near Q1		105.3	111.8	94.1	96.7	130
7, C13		81.6	83.0	75.9	75.9	125
8, OT1		90.2	93.8	84.5	86.2	110
9, T1 winding		103.6	108.3	98.2	100.3	110
10, T1 core		100.5	104.5	95.7	97.3	--
11, L2 winding		111.5	115.6	104.5	105.9	130
12, PCB near U2		72.2	75.2	69.7	71.2	130
13, PCB near U3		108.2	109.7	105.1	105.2	130
14, C11		97.6	102.1	93.4	95.7	105
15, MOV4		83.6	82.7	83.3	81.0	85
16, Earth wire		64.0	68.4	56.9	59.2	80
17, C7		64.2	66.0	61.9	62.7	105
18, Enclosure inside near T1		78.3	74.7	71.7	68.2	100
19, Enclosure outside near T1		69.6	62.0	63.9	58.1	95
20, Ambient		40.6	40.5	40.6	40.6	--
Model No.: G0720-360-075						

1, AC inlet	59.4	59.6	61.2	62.4	70
2, MOV1	78.4	80.9	65.1	66.2	85
3, C1	77.0	80.1	63.8	65.0	100
4, C2	97.1	103.6	81.7	85.1	105
5, L1 winding	119.6	127.0	85.0	87.7	130
6, PCB near Q1	98.0	98.5	109.6	112.9	130
7, C13	88.2	86.1	85.6	82.8	125
8, OT1	94.0	96.7	91.9	92.9	110
9, T1 winding	98.7	107.8	104.7	108.0	110
10, T1 core	94.6	103.7	100.6	103.9	--
11, L2 winding	99.6	108.7	113.2	116.5	130
12, PCB near U2	73.8	74.1	72.1	71.7	130
13, PCB near U3	96.9	97.4	94.9	94.0	130
14, C11	98.2	98.7	94.0	95.0	105
15, MOV4	83.4	83.5	83.2	81.6	85
16, Earth wire	71.9	78.7	70.4	75.3	80
17, C7	64.0	64.2	62.5	62.0	105
18, Enclosure inside near T1	83.4	81.3	81.3	78.7	100
19, Enclosure outside near T1	71.4	66.2	67.9	64.1	95
20, Ambient	40.5	40.7	40.6	40.7	--
Model No.: G0720-560-053					
1, AC inlet	68.6	68.9	57.4	57.2	70
2, MOV1	82.2	78.5	62.1	59.4	85
3, C1	80.1	77.2	60.1	57.5	100
4, C2	96.7	98.6	75.0	74.9	105
5, L1 winding	116.9	117.3	74.9	72.7	130
6, PCB near Q1	122.0	121.2	111.5	111.1	130
7, C13	84.6	80.0	78.1	75.6	125
8, OT1	91.6	88.3	85.1	83.5	110
9, T1 winding	107.7	106.3	105.5	104.6	110
10, T1 core	103.9	102.0	101.4	100.0	--
11, L2 winding	101.9	98.0	100.8	98.2	130
12, PCB near U2	68.0	65.3	65.6	63.5	130
13, PCB near U3	81.4	76.7	79.1	74.9	130
14, C11	92.9	90.9	93.0	92.4	105
15, MOV4	82.6	77.0	82.5	78.0	85
16, Earth wire	75.8	79.3	66.2	68.3	80

17, C7	59.5	57.4	57.4	55.7	105
18, Enclosure inside near T1	81.8	76.3	77.1	72.9	100
19, Enclosure outside near T1	70.0	63.9	65.1	61.0	95
20, Ambient	40.6	40.6	40.6	40.5	--

Supplementary information:

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class

Supplementary information:

1. The temperatures were measured under worst normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 and at voltages as described above.
2. The maximum ambient temperature permitted by the manufacturer's specification is 40°C.

4.5.5	TABLE: Ball pressure test of thermoplastic parts		N/A
	Allowed impression diameter (mm) .....:	≤ 2mm	—

Part	Test temperature (°C)	Impression diameter (mm)

Note(s): Transformer bobbin and line choke is phenolic and accepted without test.

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
Outer plastic enclosure	See appended table 1.5.1	See appended table 1.5.1	1.5	V-0	UL

Note(s):

- see appended table 1.5.1.

5.1	TABLE: touch current measurement		P

Measured between:	Measured (mA)	Limit (mA)	Comments/conditions
To output	0.16	0.25	
To enclosure (with metal foil)	0.005	0.25	
To earth terminal	0.16	3.5	

supplementary information:

1. Supplied with 264V/60Hz, C13=2200pF;
2. Tested with Model G0720-360-075.

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests		P
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
L and N of Input (Fuse opened)	AC	1500	No
L/N and PE	AC	1740	No
L/N to Output connector	AC	3000	No
L/N to plastic enclosure with metal foil	AC	3000	No
Transformer Primary pin to secondary pin	AC	3000	No
Transformer Core to secondary pin	AC	3000	No
1 layer of insulation tape to Transformer	AC	3000	No
Supplementary information: Core of transformer T1 is considered as primary circuit.			

5.3	TABLE: Fault condition tests		P
	Ambient temperature (°C).....:	See below	—
	Power source for EUT: ManuFacturer, model/type, output rating .....:	--	—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Model No.: G0720-240-100						
D1	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
C2	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
Q1 Pin D-S	S-C	240	1S	F1	0	F1 opened immediately, R16, R17 damaged, no hazards.
Q1 Pin G-D	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.
Q1 Pin G-S	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
R16	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.
OT1 Pin 1-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 5-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 3-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.

D8	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 2-4	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 5-7	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
T1 Pin A-B	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
C9	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 5-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 6-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
C11	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
Output	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
Output	O-L	240	7hrs 9min	F1	0.215→0.227 →0.245 →0.016	Unit steady state 1.2A, increase to 1.3A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 95.8°C T1 core: 76.2°C Ambient: 29.9°C
Transformer (after D8)	O-L	240	6hrs 48min	F1	0.215→0.234 →0.258 →0.017	Unit steady state 1.25A, increase to 1.34A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 98.1°C T1 core: 78.0°C Ambient: 29.5°C
Model No.: G0720-360-075						
D1	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
C2	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
Q1 Pin D-S	S-C	240	1S	F1	0	F1 opened immediately, R16, R17 damaged, no hazards.
Q1 Pin G-D	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.

Q1Pin G-S	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
R16	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.
OT1 Pin 1-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 5-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 3-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
D8	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 2-4	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 5-7	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
T1 Pin A-B	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
C9	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 5-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 6-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
C11	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
Output	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
Output	O-L	240	7hrs 38min	F1	0.262→0.284 →0.338 →0.014	Unit steady state 1.0A, increase to 1.1A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 116.5°C T1 core: 102.9°C Ambient: 29.2°C
Transformer (after D8)	O-L	240	7hrs 21min	F1	0.262→0.295 →0.355 →0.015	Unit steady state 1.05A, increase to 1.15A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 118.5°C T1 core: 104.9°C Ambient: 29.9°C

Model No.: G0720-560-053						
D1	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
C2	S-C	240	1S	F1	0	F1 opened immediately, no hazards.
Q1 Pin D-S	S-C	240	1S	F1	0	F1 opened immediately, R16, R17 damaged, no hazards.
Q1 Pin G-D	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.
Q1Pin G-S	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
R16	S-C	240	1S	F1	0	F1 opened immediately, Q1, U1 damaged, no hazards.
OT1 Pin 1-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 5-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
OT1 Pin 3-2	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
D8	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 2-4	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
T1 Pin 5-7	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
T1 Pin A-B	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.
C9	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 5-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
U1 pin 6-1	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
C11	S-C	240	10min	F1	0.015	Unit shut down immediately, no hazards.
Output	S-C	240	10min	F1	0.016	Unit shut down immediately, no hazards.

Output	O-L	240	5hrs 6min	F1	0.262→0.313 →0.332 →0.015	Unit steady state 0.65A, increase to 0.70A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 121.1°C T1 core: 113.8°C Ambient: 29.2°C
Transformer (after D8)	O-L	240	6hrs 48min	F1	0.262→0.318 →0.351 →0.016	Unit steady state 0.70A, increase to 0.74A, unit shut down immediately, no hazards. Maximum temperature: T1 winding: 123.4°C T1 core: 115.6°C Ambient: 29.5°C

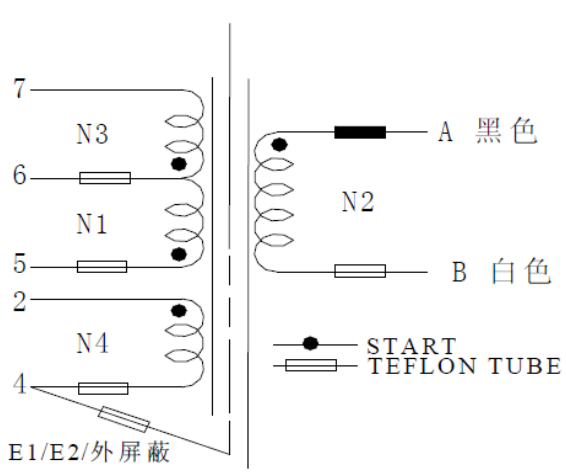
Notes: The unit passed 3000V hi-pot test between primary and accessible output connector after single fault test above.

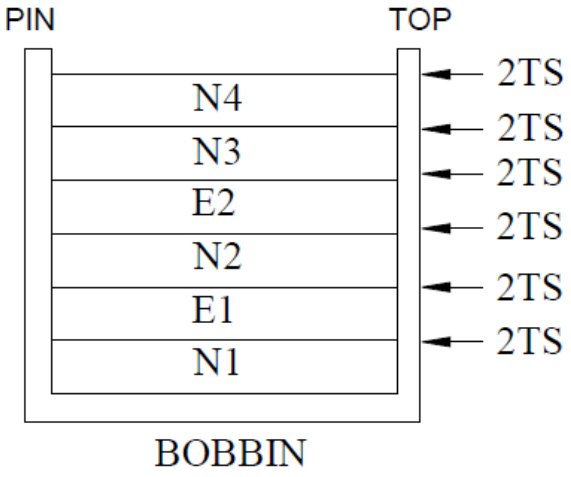
1. In fault column, S-C=short-circuited, O-C=open-circuited, O-L=over-loaded.
2. For transformer winding overload, each winding was individually loaded after the rectifier.
3. If the circuit was interrupted by the fuse, the test was repeated 3 times with each source of fuse.
4. Transformer winding and core: limit temperature is 154.2°C (175-10-(40-29.2)).

C.2	TABLE: transformers (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 to secondary	RI	504	279	AC 3000V	6.6 #	6.6 #	Min. 2 layers
Secondary to core	RI	504	279	AC 3000V	6.6 #	6.6 #	Min. 2 layers
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
Primary to secondary	RI			AC 3000V	10.0	10.0	2 layers of tape and TIW
Secondary to core	RI			AC 3000V	10.0	10.0	2 layers of tape and TIW
supplementary information:							
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. # Calculated clearance based on altitude up to 5000m, factor of 1.48 applied according to IEC 60664-1 table A.2. See also Table 2.10.3 & 2.10.4							

C.2	TABLE: transformer (T1)	P

Construction:





WINDING	WIRE/COPPER FOIL	S —— F	TURNS	TAPE	REMARK
N1	MW75 ϕ0.35×1P	5——6	30TS	2TS	密 绕
E1	COPPER 0.025*8mm	4——	0.9TS	2TS	居 中
N2	TEX-E ϕ0.45×1P	A——B	23TS	2TS	密 绕
E2	COPPER 0.025*8mm	4——	0.9TS	2TS	居 中
N3	MW75 ϕ0.35×1P	6——7	25TS	2TS	密 绕
N4	MW75 ϕ0.25×1P	4——2	11TS	2TS	居中密绕

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....:	EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013
Attachment Form No.....:	EU_GD_IEC60950_1F
Attachment Originator .....:	SGS Fimko Ltd
Master Attachment.....:	Date 2014-02

EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it´s amendmets are prefixed “Z”		--
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2 1.5.1 Note 2 & 3 1.5.7.1 Note 1.5.8 Note 2 1.5.9.4 Note 1.7.2.1 Note 4, 5 & 6 2.2.3 Note 2.2.4 Note 2.3.2 Note 2.3.2.1 Note 2 2.3.4 Note 2 2.6.3.3 Note 2 & 3 2.7.1 Note 2.10.3.2 Note 2 2.10.5.13 Note 3 3.2.1.1 Note 3.2.4 Note 3. 2.5.1 Note 2 4.3.6 Note 1 & 2 4.7 Note 4 4.7.2.2 Note 4.7.3.1Note 2 5.1.7.1 Note 3 & 4 5.3.7 Note 1 6 Note 2 & 5 6.1.2.1 Note 2 6.1.2.2 Note 6.2.2 Note 6.2.2.1 Note 2 6.2.2.2 Note 7.1 Note 3 7.2 Note 7.3 Note 1 & 2 G.2.1 Note 2 Annex H Note 2		P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		N/A
1.1.1 (A1:2010)	**Replace** the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for “one package equipment”, and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	Not such equipment.	N/A
(A12:2011)	In EN 60950-1:2006/A12:2011 Delete the addition of 1.3.Z1 / EN 60950-1:2006 Delete the definition 1.2.3.Z1 / EN 60950-1:2006 /A1:2010	Deleted.	N/A
1.5.1 (Added info*)	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC. New Directive 2011/65/11 *	Added.	P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	Added.	N/A
1.7.2.1 (A12.2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.	Replaced.	N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.1 General This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: -is designed to allow the user to listen to recorded or broadcast sound or video; and -primarily uses headphones or earphones that can be worn in or on or around the ears; and -allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: -while the personal music player is connected to an external amplifier; or -while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: -hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.	Not such equipment.	N/A
	-analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.2 Equipment requirements No safety provision is required for equipment that complies with the following: -equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and -a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level $L_{Aeq,T}$ is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. NOTE 3 The 20 h listening time is the accumulative listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed “programme simulation noise” described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.3 Warning The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: -the symbol of Figure 1 with a minimum height of 5 mm; and -the following wording, or similar: "To prevent possible hearing damage, do not listen at high volume levels for long periods."  **Figure 1 – Warning label (IEC 60417-6044)** Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.	Not such equipment.	N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	Zx.4.1 Wired listening devices with analogue input With 94 dBA sound pressure output $L_{Aeq,T}$, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.2 Wired listening devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.	Not such equipment.	N/A
	Zx.4.3 Wireless listening devices In wireless mode: - with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and -respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and -with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.	Not such equipment.	N/A
	Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.	Not such equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, 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 5.3 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;	Replaced	P
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. 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.		N/A
2.7.2	This subclause has been declared 'void'.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	Deleted.	N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 | 0,75 a) | Over 6 up to and including 10| (0,75) b) 1,0 | Over 10 up to and including 16| (1,0) c) 1,5 | In the conditions applicable to Table 3B delete the words "in some countries" in condition a). In NOTE 1, applicable to Table 3B, delete the second sentence.	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1 (A2:2013)	NOTE Z1 The harmonised code designations corresponding to the IEC cord types are given in Annex ZD		N/A
3.3.4	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16 | 1,5 to 2,5 | 1,5 to 4 | Delete the fifth line: conductor sizes for 13 to 16 A	Deleted.	N/A
4.3.13.6 (A1:2010)	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artifical optical radiation).	Added.	N/A
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	Replaced	N/A
Bibliography	Additional EN standards.		—

ZA	**NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS**	—

ZB ANNEX (normative) **SPECIAL NATIONAL CONDITIONS (EN)**			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.7.1 (A11:2009)	In **Finland, Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	No such construction	N/A
1.7.2.1	In **Finland**, **Norway** and **Sweden**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1 (A11:2009)	NOTE In Norway, due to regulation for installations of cable distribution systems, 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): “Utstyr 11isa11l koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV 11is, kan forårsake brannfare. For å unngå dette 11isa11lle ved tilkopling av utstyret til kabel-TV nettet 11isa11llers en galvanisk isolator mellom utstyret og kabel- TV nettet.” Translation to Swedish: ”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan I 11isa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”		N/A
1.7.2.1 (A2:2013)	In **Denmark**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in **Denmark** shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”		N/A
1.7.5 1.7.5 (A11:2009)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. For **CLASS II EQUIPMENT** the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.	No socket-outlet provided.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c	No socket-outlet provided.	N/A
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.3.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.3.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.6.3.3	In the **United Kingdom**, the current rating of the circuit shall be taken as 13 A, not 16 A.		P
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	Not direct plug-in equipment	N/A
2.10.5.13	In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Switzerland**, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998:Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A	Appliance inlet used, no power supply cord provided.	N/A
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. 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 poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	Appliance inlet used, no power supply cord provided.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. 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. Justification the Heavy Current Regulations, 6c	Appliance inlet used, no power supply cord provided.	N/A
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. 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 UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Appliance inlet used, no power supply cord provided.	N/A
3.2.1.1	In the **United Kingdom**, apparatus 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 and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, 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.	Appliance inlet used, no power supply cord provided.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Ireland**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	Appliance inlet used, no power supply cord provided.	N/A
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.	Appliance inlet used, no power supply cord provided.	N/A
3.2.5.1	In the **United Kingdom**, a power supply cord with conductor of 1,25 mm2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.	Appliance inlet used, no power supply cord provided.	N/A
3.3.4	In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.	Appliance inlet used, no power supply cord provided.	N/A
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and 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 direct plug-in equipment.	N/A
4.3.6	In **Ireland**, DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	Not direct plug-in equipment.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	In **Finland**, **Norway** and **Sweden** TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.	Not exceed 3.5mA	N/A
6.1.2.1 (A1:2010)	In **Finland**, **Norway** and **Sweden**, add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirements 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 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.	No TNV.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). 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 EN 60950-1:2006, 6.2.2.1; - 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.		N/A
6.1.2.2	In **Finland**, **Norway** and **Sweden**, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No TNV	N/A
7.2	In **Finland**, **Norway** and **Sweden**, for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	Not connected to cable distribution system.	N/A
7.3 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.	Not connected to cable distribution system.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

Type of flexible cord	Code designations	
	IEC	CENELEC
PVC insulated cords		
Flat twin tinsel cord	60227 IEC 41	H03VH-Y
Light polyvinyl chloride sheathed flexible cord	60227 IEC 52	H03VV-F H03VVH2-F
Ordinary polyvinyl chloride sheathed flexible cord	60277 IEC 53	H05VV-F H05VVH2-F
Rubber insulated cords		
Braided cord	60245 IEC 51	H03RT-F
Ordinary tough rubber sheathed flexible cord	60245 IEC 53	H05RR-F
Ordinary polychloroprene sheathed flexible cord	60245 IEC 57	H05RN-F
Heavy polychloroprene sheathed flexible cord	60245 IEC 66	H07RN-F
Cords having high flexibility		
Rubber insulated and sheathed cord	60245 IEC 86	H03RR-H
Rubber insulated, crosslinked PVC sheathed cord	60245 IEC 87	H03RV4-H
Crosslinked PVC insulated and sheathed cord	60245 IEC 88	H03V4V4-H

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 (AUSTRALIA/NEW ZEALAND) NATIONAL DIFFERENCES (Information technology equipment-safety)
Differences according to.....: AS/NZS 60950.1:2015
Attachment Form No.....: AU_NZ_ND_IEC60950_1F **Attachment Originator .....**: JAS-ANZ **Master Attachment**.....: 2017-06

	National Differences		
Appendix ZZ	**Variations to IEC 60950-1, Ed 2.2 (2013) for Australia and New Zealand**		
1.2	**DEFINITIONS**		**P**
	After definition 'PERSON, SERVICE', insert the following new definition: POTENTIAL IGNITION SOURCE…….1.2.12.201	Inserted.	P
1.5	**COMPONENTS**		P
1.5.1	1. First paragraph, insert the following text after the words 'IEC component standard: or the relevant Australian/New Zealand Standard 2 In the Note, insert the following text after the word standard: or the relevant Australian/New Zealand Standard 3 Second paragraph, delete the words 'without further evaluation'	Added. Added. Deleted.	P
1.5.2	1 First paragraph, insert the following text after the word 'standard' or an Australian/New Zealand Standard 2 First paragraph, second dash item, second line, insert the following text after the word 'standard' or an Australian/New Zealand Standard 3 First paragraph, second dash item, last line, insert the following text after the word 'standard': or an Australian/New Zealand Standard	Added.	P
1.7	**MARKINGS AND INSTRUCTIONS**		**P**

<table>
<tr><th colspan="4">National Differences</th></tr>
<tr><th>Clause</th><th>Requirement + Test</th><th>Result – Remark</th><th>Verdict</th></tr>
<tr><td>1.7.1.3</td><td>Delete existing text and replace with the following:
Graphical symbols placed on the equipment as a requirement of this standard, shall be in accordance with IEC 60417 or ISO 3864-2 or ISO 7000, if available. In the absence of suitable symbols, the manufacturer may design specific graphical symbols.
Symbols as required by this standard placed on the equipment shall be explained in the user manual</td><td>Replaced.</td><td>P</td></tr>
<tr><td>2.9</td><td>ELECTRICAL INSULATION</td><td></td><td>N/A</td></tr>
<tr><td>2.9.2</td><td>Variation
Second paragraph, delete the word ‘designated’</td><td>Deleted.</td><td>N/A</td></tr>
<tr><td>3.2.5</td><td>POWER SUPPLY CORDS</td><td></td><td>N/A</td></tr>
<tr><td>Table 3B</td><td>Variation
1. Delete the first four rows and replace with the following:
<table>
<tr><td>Over 0.2 up to and including 3</td><td>0.5[a]</td><td>18
[0.8]</td></tr>
<tr><td>Over 3 up to and including 7.5</td><td>0.75</td><td>16
[1.3]</td></tr>
<tr><td>Over 7.5 up to including 10</td><td>(0.75)[b]
1.00</td><td>16
[1.3]</td></tr>
<tr><td>Over 10 up to including 16</td><td>(1.0)[c]
1.5</td><td>14
[2]</td></tr>
</table></td><td>Replaced</td><td>N/A</td></tr>
<tr><td></td><td>2. Delete NOTE 1 and renumber existing NOTE 2 as ‘NOTE’</td><td>Replaced</td><td>N/A</td></tr>
<tr><td></td><td>3. Delete Footnote [a] and replace with the following:
[a] 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 to the plug does not exceed 2 m (0,5 mm2 three-core supply flexible cords are not permitted; see AS/NZS 3191)</td><td>Replaced</td><td>N/A</td></tr>
<tr><td>4.3</td><td>DESIGN AND CONSTRUCTION</td><td></td><td>N/A</td></tr>
<tr><td>4.3.6</td><td>Variation
Delete the third paragraph and replace with the following:</td><td>Deleted and replaced.</td><td>N/A</td></tr>
<tr><td></td><td>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</td><td>Deleted and replaced.</td><td>N/A</td></tr>
<tr><td>4.3.8</td><td>Addition
Eighth paragraph, insert the following new note after the first dash item:</td><td>No Batteries.</td><td>N/A</td></tr>
</table>

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
	NOTE 6.201 In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of SELV may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test.	No Batteries.	N/A
4.3.13.5.1	Variation *Delete* the first paragraph and *replace* with the following: Except as permitted below, equipment shall be classified and labelled according to IEC 60825-1 or AS/NZS 60825.1, IEC 60825-2 or AS/NZS 60825.2 and IEC 60825-12, as applicable	No Lasers.	N/A
	Third paragraph, first sentence, after 'IEC 60825-1', *insert* the following text: or AS/NZS 60825.1	No Lasers.	N/A
	Fourth paragraph, after 'IEC 60825-1', *insert* the following text: or AS/NZS 60825.1	No Lasers.	N/A
4.7	**RESISTANCE TO FIRE**		**P**
4.7	Addition At the end of Clause 4.7, *insert* the following text: For alternate tests refer to Clause 4.7.201	Added.	P
6	**CONNECTION TO TELECOMMUNICATIONS NETWORKS**		N/A
6.2.2	Variation For Australia only, *delete* the first paragraph and Note, and *replace* with the following: In Australia only, compliance with 6.2.2 shall be checked by the tests of both 6.2.2.1 and 6.2.2.2	No TNV.	N/A
6.2.2.1	Variation For Australia only, *delete* the first paragraph including the Notes, and *replace* with the following: In Australia only, the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator Reference 1 of Table N.1. The interval between successive impulses is 60 s and the initial voltage, Uc, is: (i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and (ii) For 6.2.1 b) and 6.2.1 c): 1.5kV	No TNV.	N/A
	NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines	No TNV.	N/A
	NOTE 202 The value of 2.5 kV for 6.2.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages	No TNV.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
6.2.2.2	Variation For Australia only, delete the second paragraph including the Note, and replace with the following: In Australia only, the a.c. test voltage is (i) for 6.2.1 a): 3kV; and (ii) for 6.2.1b) and 6.2.1c): 1.5kV	No TNV.	N/A
	NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.	No TNV.	N/A
	NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.	No TNV.	N/A
7	**CONNECTION TO CABLE DISTRIBUTION NETWORK**		N/A
7.3	Addition *Add* the following before the first paragraph: Equipment providing functions that fall only within the scope of AS/NZS 60065 and that incorporate a PSTN interface, are not required to comply with this Clause where the only ports provided on the equipment, in addition to a coaxial cable connection and a PSTN interface, are audio or video ports and analogue or data ports not intended to be used for telecommunications purposes	No cable distribution systems.	
Annex P	Addition *Add* the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification—Plugs and socket-outlets	Added.	P
	Special national conditions (if any)		**P**
1.2.12	**FLAMMABILITY**		**P**
1.2.12.15	Addition After Clause 1.2.12.15, *insert* the following new clause:	Added	P
1.2.12.201	**POTENTIAL IGNITION SOURCE** Possible fault which can start a fire if the open-circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15 VA	Added	N/A
	Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS	Added	N/A
	NOTE 1 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE	Added	N/A
	NOTE 2 This definition is from AS/NZS 60065:2012, Clause 2.8.11.	Added	N/A
4	**PHYSICAL REQUIREMENTS**		**P**
4.1	Addition After Clause 4.1, *insert* new Clause 4.1.201 as follows:	Added	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
4.1.201	**Display devices used for television purposes** Display devices which may be used for television purposes, with a mass of 7 kg or more, shall comply with the requirements for stability and mechanical hazards, including the additional stability requirements for television receivers, specified in AS/NZS 60065	Inserted	N/A
4.3	**DESIGN AND CONSTRUCTION**		**N/A**
4.3.8	Addition After Clause 4.3.8, *add* the following new clause as follows	No batteries	N/A
4.3.8.201	**Products containing coin/button cell batteries and batteries designated R1** The requirements of AS/NZS 60065:2012 Amendment 1:2015, Clause 14.10.201 apply for this Clause.	No batteries	N/A
4.7	**RESISTANCE TO FIRE**		**N/A**
4.7.3.6	Addition After Clause 4.7.3.6, *add* new clauses as follows:	Added	N/A
4.7.201	**Resistance to fire—Alternative tests**	Added, the alternative method not considered	N/A
4.7.201.1	**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 apparatus, 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.	Added, the alternative method not considered	N/A
	b) The following parts which would contribute negligible fuel to a fire: – small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; – small electrical components, such as capacitors with a volume not exceeding 1,750 mm3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10	See above	N/A
	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	See above	N/A
	Compliance shall be checked by the tests of 4.7.201.2, 4.7.201.3, 4.7.201.4 and 4.7.201.5	See above	N/A
	For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5	See above	

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
	The tests shall be carried out on parts of non-metallic material which have been removed from the apparatus. 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	See above	
4.7.201.2	**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 sample tested was not thicker than the relevant part.	Added, the alternative method not considered	N/A
4.7.201.3	**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. 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 shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:	Added, the alternative method not considered	N/A

<table>
<tr><th colspan="4">National Differences</th></tr>
<tr><td>Clause</td><td>Requirement + Test</td><td>Result – Remark</td><td>Verdict</td></tr>
<tr><td></td><td>
<table>
<tr><th>Clause of AS/NZS 60695.11.5</th><th>Change</th></tr>
<tr><td colspan="2">9 Test procedure</td></tr>
<tr><td>9.2 Application of Needle-flame</td><td>Delete the first and second paragraphs and
replace with the following:
The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of Figure 1. If possible the flame shall be applied at least 10 mm from a corner.
The duration of application of the test flame shall be 30 s ± 1 s</td></tr>
<tr><td>9.3 Number of test specimens</td><td>Delete existing text and replace with the following:
The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.</td></tr>
<tr><td>11 Evaluation of test results</td><td>Delete existing text and replace with the following:
The duration of burning (tb) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15s</td></tr>
</table>
</td><td>See above</td><td>N/A</td></tr>
<tr><td></td><td>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 sample tested was not thicker than the relevant part</td><td>See above</td><td>N/A</td></tr>
</table>

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
4.7.201.4	**Testing in the event of non-extinguishing material** If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3 by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 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 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.	Added, the alternative method not considered	N/A
	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 4.7.201 without the need for consequential testing.	See above	N/A
	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 4.7.201 without the need for consequential testing	See above	N/A
	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.	See above	N/A
4.7.201.5	**Testing of printed boards** The base material of printed boards shall be subjected to the needle-flame test of Clause 4.7.201.3. The flame shall be applied to the edge of the board where the heat sink effect is lowest when the board is positioned as in normal use. The flame shall not be applied to an edge, consisting of broken perforations, unless the edge is less than 3 mm from a POTENTIAL IGNITION SOURCE.	Added, the alternative method not considered	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
	The test is not carried out if the – Printed board does not carry any POTENTIAL IGNITION SOURCE; – 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 – Base material of printed boards, on which the available apparatus 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 . *Compliance shall be determined using the smallest thickness of the material.*	See above	N/A
	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 maximise the apparent power for more than 2 m when the circuit supplied is disconnected.	See above	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
CHINA NATIONAL DIFFERENCES
Information technology equipment Safety – Part 1: General requirements

Differences according to .....: GB 4943.1--2011

Attachment Form No. .....: CN_ND_IEC60950_1A

Attachment Originator.....: CQC

Master Attachment.....: Date 2012-10

	China National Differences		**P**
1.5.2	Add a note behind the first dashed paragraph. Note: A component used shall comply with related requirements corresponding altitude of 5000m.	Up to 5000m.	P
1.7	Add a paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	Should be considered during national approval.	N/A
1.7.1	Amend dashed paragraph at the fifth paragraph : The RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured. And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz.	Single-phase: 100-240V~, 50/60Hz.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.7.2.1	Add requirements of warning for equipment intended to be used at altitude not exceeding 2000m or at non-tropical climate regions: For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used at altitude not exceeding 2000m."  For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used in not-tropical climate regions."  If only the symbol used, the explanation of the symbol shall be contained in the instruction manual. The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.	Shall be evaluated during national approval.	N/A
2.7.1	Amended the first paragraph as: Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3. Delete note of Clause 2.7.1.	The protective devices meet the requirement of Clause 5.3.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
2.9.2	First section of Clause 2.9.2 amended as two sections: Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature 40±2 °C and a relative humidity of (93±3)%. During this conditioning the component or subassembly is not energized. For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of (93±3) %. The temperature of the air, at all places where samples can be located, is maintained within 2 °C of any convenient value between 20 °C and 30 °C such that condensation does not occur. Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered. Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.	See sub-clause 2.9.2 in the report.	P
2.10.3.1	Amend the third paragraph of Clause 2.10.3.1 to be: These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.	Up to 5000m	P
2.10.3.3& 2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K、2L and 2M.	Added.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: Minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1（ IEC 60664-1）. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1.	Added. As for 2.10.3.1.	P
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.	Shall be evaluated during national approval. Power cord with plug for mains connection not provided.	N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.	No CRTs.	N/A
Annex E	Amend last section: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. Add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.		N/A
Annex G.6	Change the second section of Clause G.6 to be: For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.	Up to 5000m	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

Annex DD (normative)	Added annex DD: Instructions for the new safety warning labels. DD.1 Altitude warning label  Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used at altitude above 2000m. DD.2 Climate warning label  Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefor it's the only operating condition applied for the equipment .There may be some potential safety hazard if the equipment is used in tropical climate region.	Shall be evaluated during national approval.	N/A
Annex EE (informative)	Added annex EE: Illustration relative to safety explanation in normative Chinese、Tibetan、Mongolian、Zhuang Language and Uighur.	Shall be evaluated during national approval.	N/A

	Special national conditions		**P**
1.1.2	GB4943.1-2011 applies to equipment used at altitudes not exceeding 5000m above sea level, primarily in regions with moderate or tropical climates. Revise the third dashed paragraph of 1.1.2 as: ——equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m;		N/A
1.4.5	Amend the second paragraph by the following: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10% and -10%.	The tolerances on rating voltage are taken as +10% and -10%.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.4.12.1	Tma: The maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. Add note 1: For equipment not to be operated at tropical climatic conditions, Tma is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: For equipment to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration.	The maximum ambient temperature permitted by the manufacturer's specification as 25 °C.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
	Korean National Differences		P
	Corresponding National Standard: K 60950-1		P
1.5.101	Addition: Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).	AC inlet provided.	N/A
8	Addition: EMC The apparatus shall comply with the relevant CISPR standards.	To be evaluated when submitted for national approval.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
U.S.A. NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to ..... :	UL 60950-1-07(Second Edition) + A1: 2011 + A2: 2014
Attachment Form No. ..... :	US_ND_IEC60950_1F
Attachment Originator..... :	UL
Master Attachment..... :	Date 2014-07

	Special national conditions		
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2.	The equipment was evaluated according to IEC 60950-1	P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.		N/A
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.	Considered	P
1.5.5	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 are required to have special construction features and identification markings.	No such cord or cable used.	N/A
1.7.1	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.	See above.	N/A
	A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and		N/A
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions."		N/A
	A voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1 shall be marked with the voltage rating and “Class 2” or equivalent.	No wiring terminals	N/A
	- Marking shall be located adjacent to the terminals		N/A
	- Marking shall be visible during wiring		N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.	No such fuses.	N/A
2.6	Equipment with isolated ground (earthing) receptacles are required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
2.7.1	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 such components provided.	N/A
	Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		P
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	No power supply cord provided	N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.	No connection to a centralized d.c. power system.	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.	Pluggable equipment type A.	N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length.	No power supply cord provided	N/A
	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement.		N/A
	Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 & 12 of the CEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	Pluggable equipment type A.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.	No such terminals provided.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm^2).	No wire binding screws	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes,	No such terminals provided.	N/A
	- rated 125 per cent of the equipment rating, and		N/A
	- are specially marked when specified (1.7.7).		N/A
3.3.5	First column of Table 3E revised to require “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A,	Equipment is not such a device.	N/A
	- or if the motor has a nominal voltage rating greater than 120 V		N/A
	- or is rated more than 1/3 hp (locked rotor current over 43 A)		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No such devices incorporated.	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.	Not such an application.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No liquids provided.	N/A
4.3.13.5.1	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No laser provided.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	Not such an application.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less.	Not such an application.	N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043.		N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
Annex H	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation.	N/A
	Other National Differences		P
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These components include: attachment plugs, battery backup systems, battery packs, cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables.	Components are approved by UL, see appended table 1.5.1 of IEC 60950-1 test report for details.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, a TNV-2 Circuit or a Hazardous Voltage Circuit depending on the maximum operating voltage of the supply.	No connection to the DC mains supply.	N/A
	This maximum operating voltage shall include consideration of the battery charging “float voltage” associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	No TNV circuits.	N/A
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.	No TNV circuits	N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No CRT.	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	No handle on equipment.	N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.	No TNV circuits	N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are to be overloaded.		P
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary.		P
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	No TNV circuits.	N/A
Annex EE	UL articulated accessibility probe (Fig EE.3) required for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No TNV circuits.	N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.	No TNV circuits.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1:2009 and A2:2013
CANADA NATIONAL DIFFERENCES
Information technology equipment – Safety – Part 1: General requirements

Differences according to ..... : CAN/CSA-C22.2 No. 60950-1-07, Amd 1:2011, Amd 2:2014

Attachment Form No. ..... : CA_ND_IEC60950_1F

Attachment Originator..... : CSA

Master Attachment..... : Date (2015-05)

1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Complied	P
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A:		N/A
1.5.5	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 CEC/NEC.	No such cord or cable used.	N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC/NEC are required to have special construction features and identification markings.	No such cord or cable used.	N/A
1.7.1	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. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."	See main TRF cl 1.7.1	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC shall be marked with the voltage rating and "Class 2" or equivalent. Marking shall be located adjacent to the terminals and shall be visible during wiring.		N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.	No such fuses.	N/A
2.6	Equipment with isolated ground (earthing) receptacles are required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
2.7.1	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. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.	No such components provided.	N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		N/A
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.	No power supply cord provided	N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.	No connection to a centralized d.c. power system.	N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. 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. 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 supply cord provided	N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for US/Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		N/A
3.3.5	First column of Table 3E revised to require “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).	Equipment is not such a device.	N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No such devices incorporated.	N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.	Not such an application.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No liquids provided.	N/A
4.3.13.5.1	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No laser provided.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m3 (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.	Not such an application.	N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.	Not such an application.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043.		N/A
Annex H	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No ionizing radiation.	N/A
OTHER DIFFERENCES The following key national differences are based on requirements other than national regulatory requirements.			
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	Component are approved by UL, also relevant Canadian standard, see appended table 1.5.1 of IEC 60950-1 test report for details.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply. This maximum operating voltage shall include consideration of the battery charging “float voltage” associated with the intended supply system, regardless of the marked power rating of the equipment.	No connection to the DC mains supply.	N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.	No TNV circuits.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
2.3.2.1	In the event of a single fault between TNV and SELV circuits, the limits of 2.2.3 apply to SELV Circuits and accessible conductive parts.	No TNV circuits	N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No CRT.	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.	No handle on equipment.	N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.	No TNV circuits	N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are to be overloaded. During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.	No TNV circuits.	N/A
Annex EE	UL articulated accessibility probe (Fig EE.3) required for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.	No TNV circuits.	N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.	No TNV circuits.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

J 60950-1(H27) TEST REPORT (Deviations from IEC 60950-1:2005+A1:2009) Special National conditions, National deviation and other information according to MITI Ordinance No. 85. Japanese unique deviations in J60950-1(H27) (=JIS C 6950-1:2014)			
1.2.4.1	Add the following new notes. Note: Even if the equipment is designed as Class I, the equipment is regarded as Class 0I equipment when 2-pin adaptor with earthing lead wire or cord set having 2-pin plug with earthing lead wire is provided or recommended.	Not Class 0I	N/A
1.2.4.3A	Add the following new clause. 1.2.4.3A CLASS 0I EQUIPMENT Equipment having attachment plug without earthing blade, where protection against electric shock is achieved by: - using BASIC INSULATION, and - providing externally an earth terminal or a lead wire for earthing in order to connect those conductive parts that might assume a HAZARDOUS VOLTAGES in the event of BASIC INSULATION fault to the PROTECTIVE EARTHING CONDUCTOR in the building wiring. NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation circuit.	Not Class 0I	N/A
1.3.2	Add the following notes after first paragraph: Note 1 Transportable or similar equipment that are relocated frequently for intended usage should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel. Note 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as Class I or Class 0I equipment unless it is intended to be installed by service personnel.	Not Class 0I	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.5.1	Replace the first paragraph with the follows: Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standard, or IEC component standards in case there is no applicable JIS component standard is available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, a cord connector of power supply cord set mating with appliance inlet complying with the standard sheet of IEC 60320-1, shall comply with relevant standard sheet of IEC 60320-1. Replace Note 1 with the following: Note 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.	Considered.	P
1.5.2	Replace first sentence in the first dashed paragraph with the following: - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. Add a note after the first dashed paragraph as follows: Note 1 See 1.7.5A when Type C.14 appliance coupler rated 10 A per IEC 60320-1 is used with an equipment rated not more than 125 V and rated more than 10 A. Replace first sentence in the third dashed paragraph as follows: - where no relevant IEC component standard or JIS component standard harmonized with the relevant IEC component standard exists, or where components are used in circuits not in accordance with their specified rating, the components shall be tested under the conditions occurring in the equipment.	Considered.	P
1.7.1	Replace fifth dashed parapgaph with the following: - manufacturer's or responsible company's name or trade-mark or identification mark;	Added. The responsible company's name is list on the marking plate.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
1.7.5A	Add the following new clause. after 1.7.5 1.7.5A Appliance Coupler If appliance coupler according to IEC60320-1, C.14(rated current: 10A)is used in equipment whose rated voltage is less than 125V and rated current is over 10A, the following instruction or equivalent shall be described in the user instruction. “ Use only designated cord set attached in this equipment”	Added.	N/A
1.7.12	Replace first sentence with the following: Instructions and equipment marking related to safety shall be in Japanese.		N/A
1.7.17A	Add the following new clause. after 1.7.17 1.7.17A Marking for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT, the following instruction shall be marked on the visible place of the mains plug or the main body: “Provide an earthing connection” Moreover, for CLASS 0I EQUIPMENT, the following or equivalent instruction shall be indicated on the visible place of the main body or written in the operating instructions: “Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.”	Not Class 0I	N/A
2.6.3.2	Add the following after 1st paragraph. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.	Added. The equipment is “Protection Class I”	N/A
2.6.4.2	Replace 1st paragraph with the following. Equipment required to have protective earthing shall have a main protective earthing terminal. For equipment with a DETACHABLE POWER SUPPLY CORD, the earthing terminal in the appliance nlet is regarded as the main protective earthing terminal except for CLASS 0I EQUIPMENT providing separate main protective earthing terminal other than appliance inlet.	Added. The equipment is “Protection Class I”	N/A
2.6.5.4	Replace 1st sentence with the following. Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:	Replaced.	P

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
2.6.5.8A	Add the following new clause. after 2.6.5.8A 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external location where easily visible.	Added. The equipment is “Protection Class I”	N/A
3.2.3	Add the following after Table 3A: Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.	Not permanently connected.	N/A
3.2.5.1	Add the following to the last of first dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance. Add the following to the last of second dashed paragraph. Or mains cords shall be of the sheathed type complying with Appendix 1 of Article 1 of the Ministerial Ordinance on stipulating technical requirements for the Electrical Appliance.. Delete 1) in Table 3B.	Should be evaluated during national approval.	N/A
3.3.4	Add the following note to Table 3D: Note For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.	Added.	N/A
3.3.7	Add the following after the first sentence: This requirement is not applicable to the external earting terminal of Class 0I equipment.	Added. The equipment is “Protection Class I”	N/A
4.3.4	Add the following after the first sentence: This requirement also applies to those connections in Class 0I equipment, where CLEARANCE or CREEPAGE DISTANCES over BASIC INSULATION would be reduced to less than the values specified in 2.10.	Added. The equipment is “Protection Class I”	N/A
5.1.3	Add a note after the first paragraph as follows: Note – Attention should be drawn to that majority of three-phase power system in Japan is of delta connection, and therefore, in that case, test is conducted using the test circuit from IEC 60990, figure 13.	Added. Single phase power distribution system used.	N/A

<table>
<tr><th colspan="4">National Differences</th></tr>
<tr><td>Clause</td><td>Requirement + Test</td><td>Result – Remark</td><td>Verdict</td></tr>
<tr><td>5.1.6</td><td>Replace Table 5A. as follows</td><td>Replaced.</td><td>P</td></tr>
<tr><td></td><td colspan="3">
<table>
<tr><th>Type of equipment</th><th>Terminal A of measuring instrument connected to:</th><th>Maximum TOUCH CURRENT mA r.m.s. 1)</th><th>Maximum PROTECTIVE CONDUCTOR CURRENT</th></tr>
<tr><td>ALL equipment</td><td>ALL equipment Accessible parts and circuits not connected to protective earth</td><td>0,25</td><td>-</td></tr>
<tr><td>HAND-HELD</td><td rowspan="4">Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT</td><td>0,75</td><td>-</td></tr>
<tr><td>MOVABLE (other than HAND_HELD, but including TRANSPORTABLE EQUIPMENT</td><td>3,5</td><td>-</td></tr>
<tr><td>STATIONARY, PLUGGABLE TYPE A</td><td>3,5</td><td>-</td></tr>
<tr><td>ALL other STATIONARY EQUIPMENT
- not subject to the conditions of 5.1.7
- subject to the conditions of 5.1.7</td><td>3.5
-</td><td>-
5 % of input current</td></tr>
<tr><td>HAND-HELD</td><td rowspan="2">Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT</td><td>0,5</td><td>-</td></tr>
<tr><td>Others</td><td>1.0</td><td>-</td></tr>
<tr><td colspan="4">1) If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.</td></tr>
</table>
</td></tr>
<tr><td>7.2</td><td>Add the following after the paragraph:
However, the separation requirements and tests of 6.2.1 a), b) and c) do not apply to a CABLE DISTRIBUTION SYSTEM if all of the following apply:
− the circuit under consideration is a TNV-1 CIRCUIT; and
– the common or earthed side of the circuit is connected to the screen of the coaxial cable and to all accessible parts and circuits (SELV, accessible metal parts and LIMITED CURRENT CIRCUITS, if any); and
– the screen of the coaxial cable is intended to be connected to earth in the building installation</td><td>Added.</td><td>N/A</td></tr>
</table>

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
W.1	Replace second and third sentence in the first paragraph with the following: This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.	Added.	N/A
Annex JA	Add a new annex JA with the following contents. Annex JA (normative) Document shredding machines Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more.	See below.	N/A
JA.1	**Markings and instructions** The symbol  (JIS S 0101:2000, 6.2.4) and the following precautions for use shall be marked on readily visible part adjacent to document feed opening. The marking shall be clearly legible, permanent, and easily discernible; - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas.	Added. Product is DC Power Supply Unit, not Pager Shredder.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict
JA.2	**Inadvertent reactivation** Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1	No safety interlock used.	N/A
JA.3	**Disconnection from the mains supply** Document shredding machines shall incorporate an isolating switch complying with sub-clause 3.4.2 as the device disconnecting the power of hazardous moving parts. For this switch, two-position (single-use) switch or multi-position (multifunction) switch (e.g., slide switch) may be used. If two-position switch, the positions for "ON" and "OFF" shall be indicated in accordance with sub-clause 1.7.8. If multi-position switch, the position for "OFF" shall be indicated in accordance with sub-clause 1.7.8 and other positions shall be indicated with proper terms or symbols. Compliance is checked by inspection.		N/A
JA.4	**Protection against hazardous moving parts** Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended . Before testing with the test finger, remove the parts detachable without a tool. Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.	Added. Product is Power Supply Unit, not Pager Shredder.	N/A

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

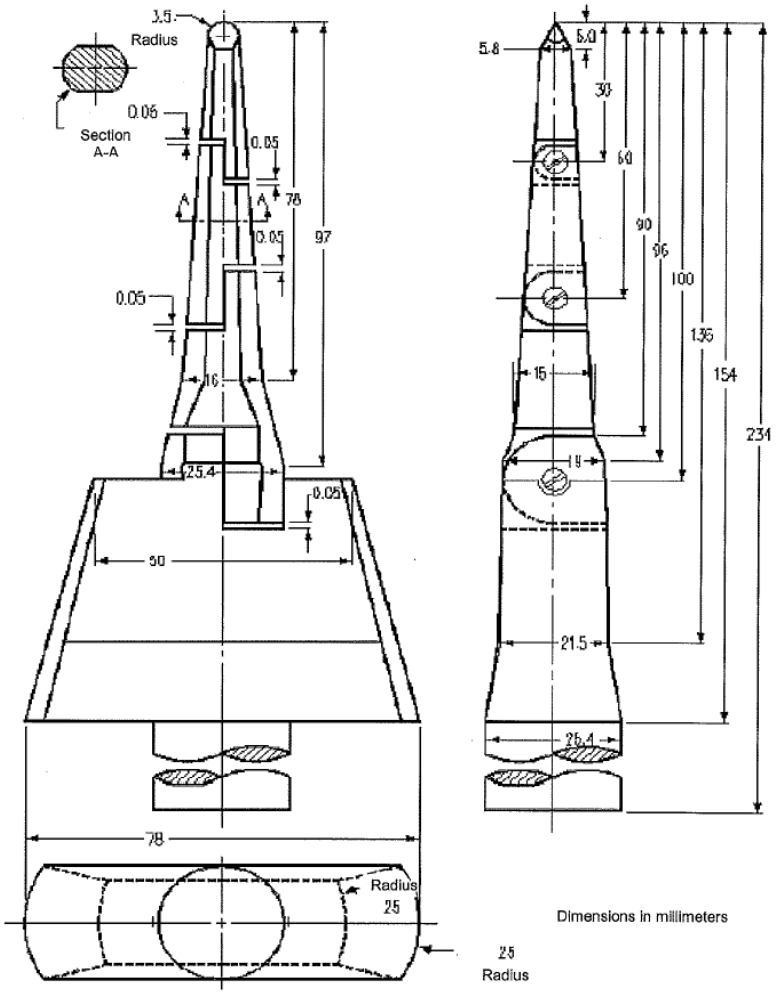
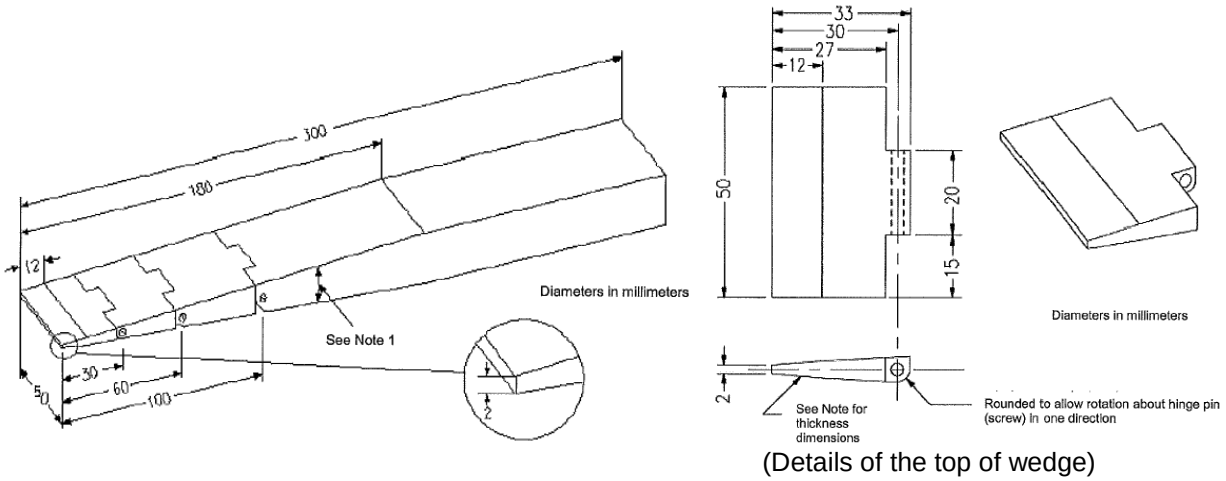


Figure JA.1 Test finger



(Details of the top of wedge)

National Differences			
Clause	Requirement + Test	Result – Remark	Verdict

Distance from the top	Thickness of probe
0	2
12	4
180	24

Note 1
- The thickness of the probe varies linearly, with slope changes at the respective points shown in the table.
Note 2
–The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

Figure 1. Over view of unit

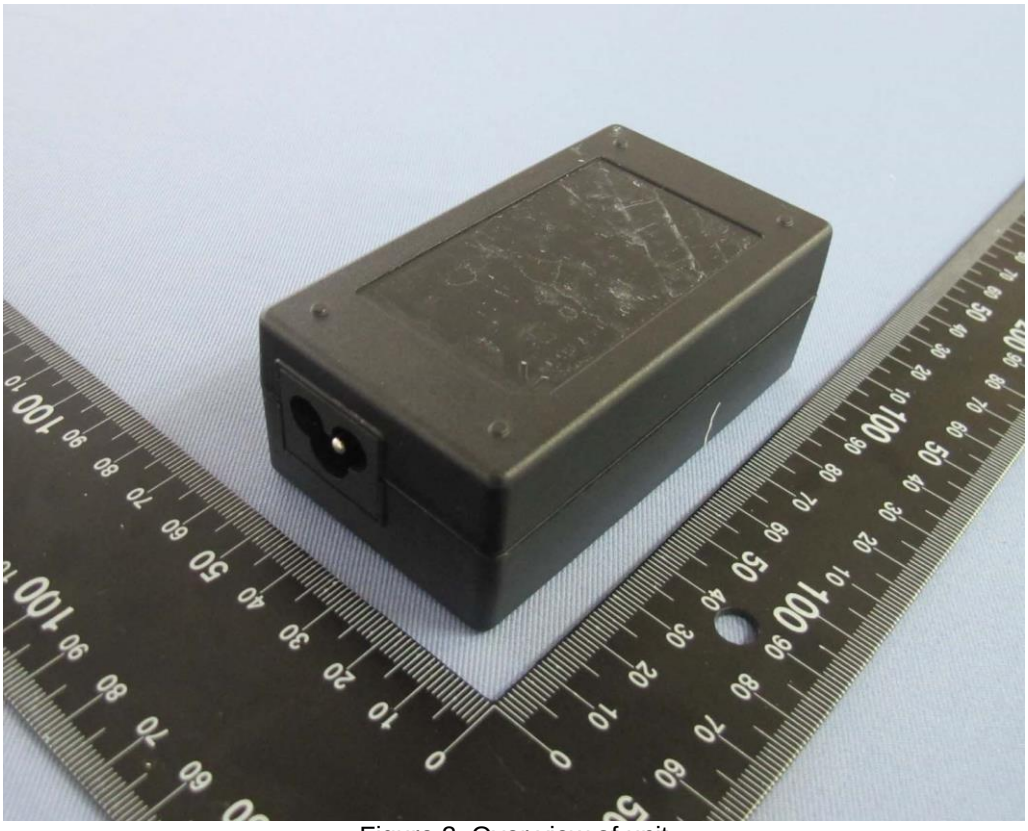


Figure 2. Over view of unit

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

Figure 3. Over view of unit(enclosure with ear-lug)

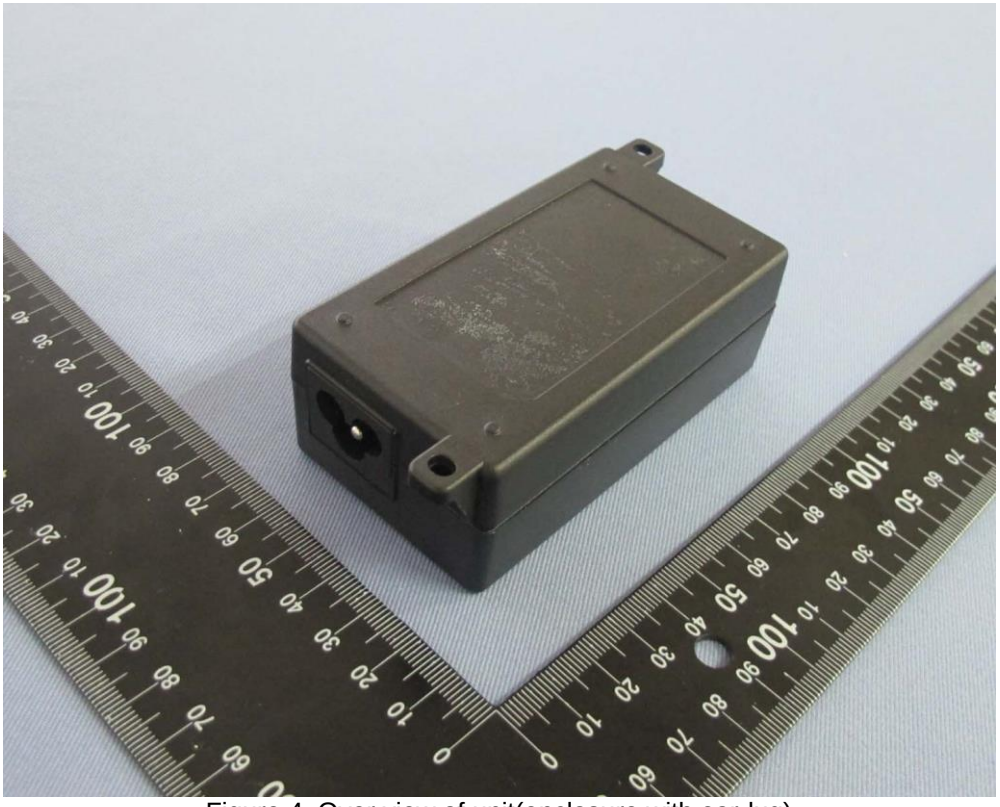


Figure 4. Over view of unit(enclosure with ear-lug)

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

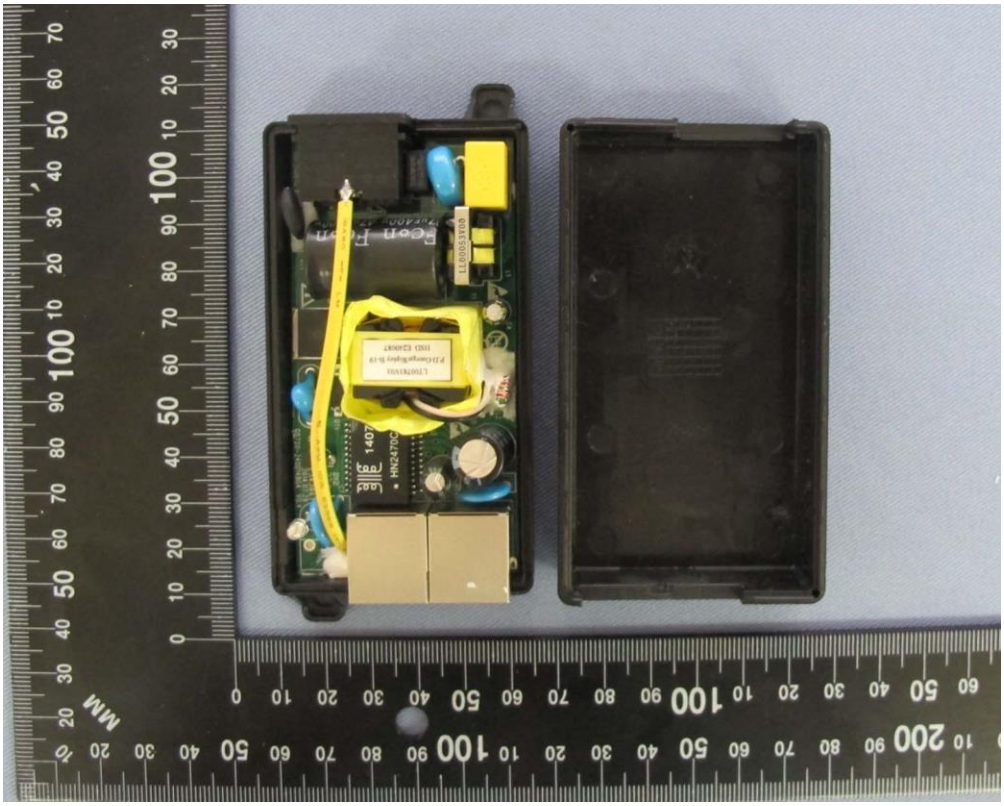


Figure 5. Internal view

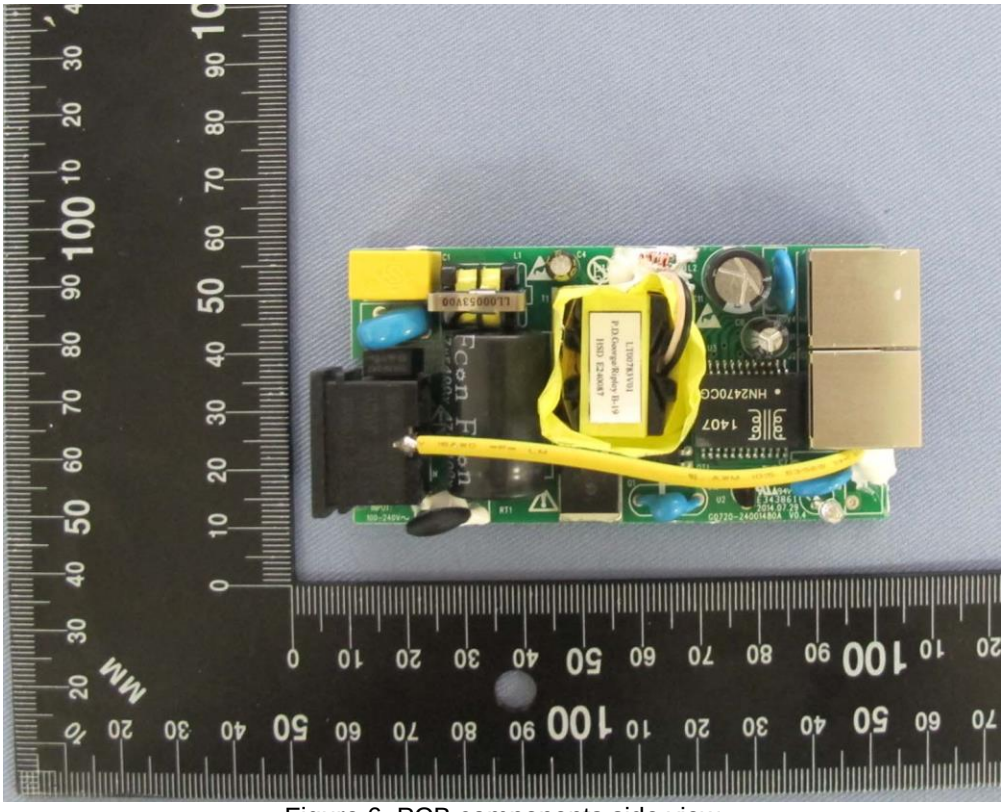


Figure 6. PCB components side view

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

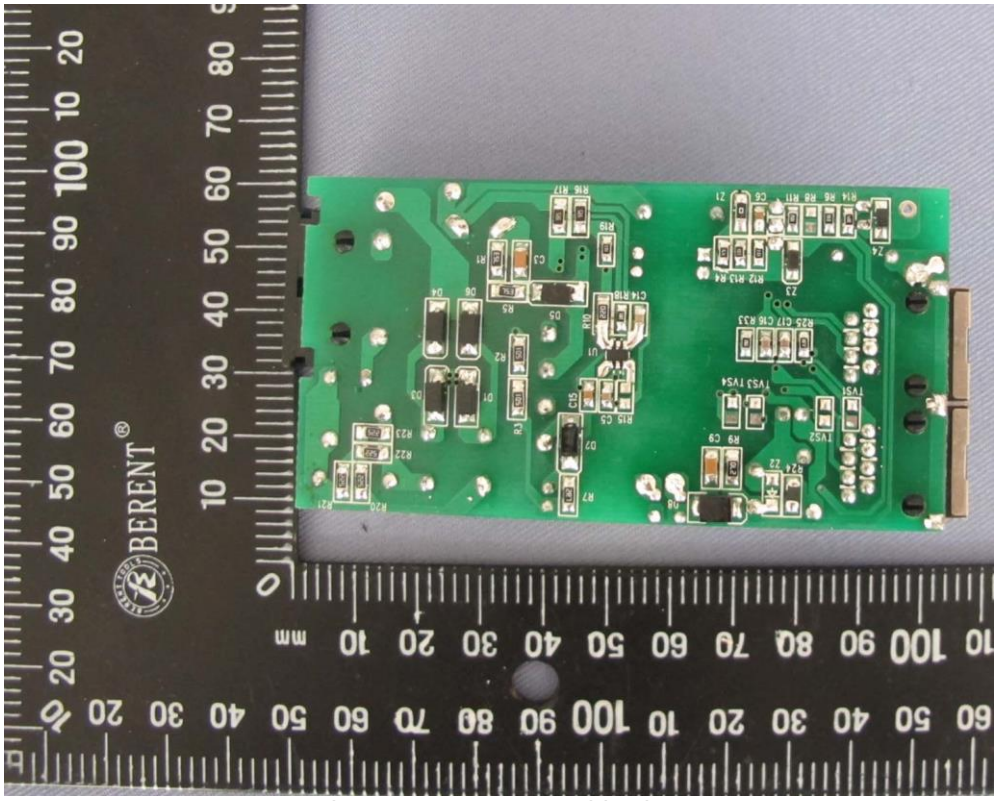


Figure 7. PCB Layout side view

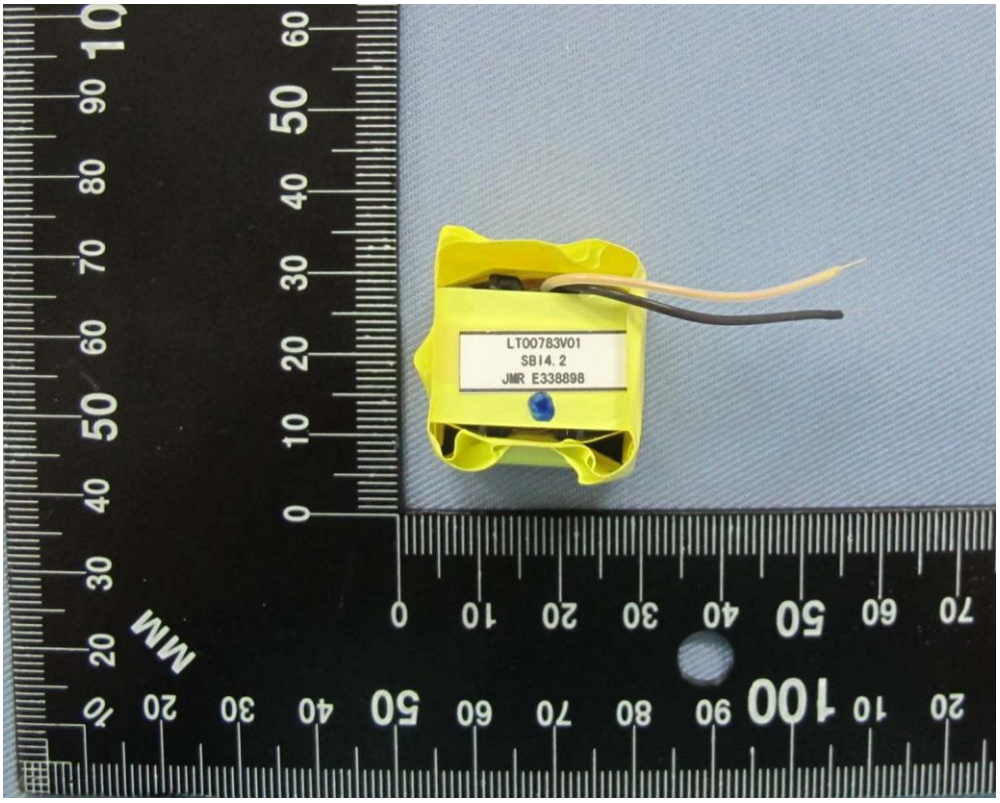


Figure 8. Top view of transformer

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

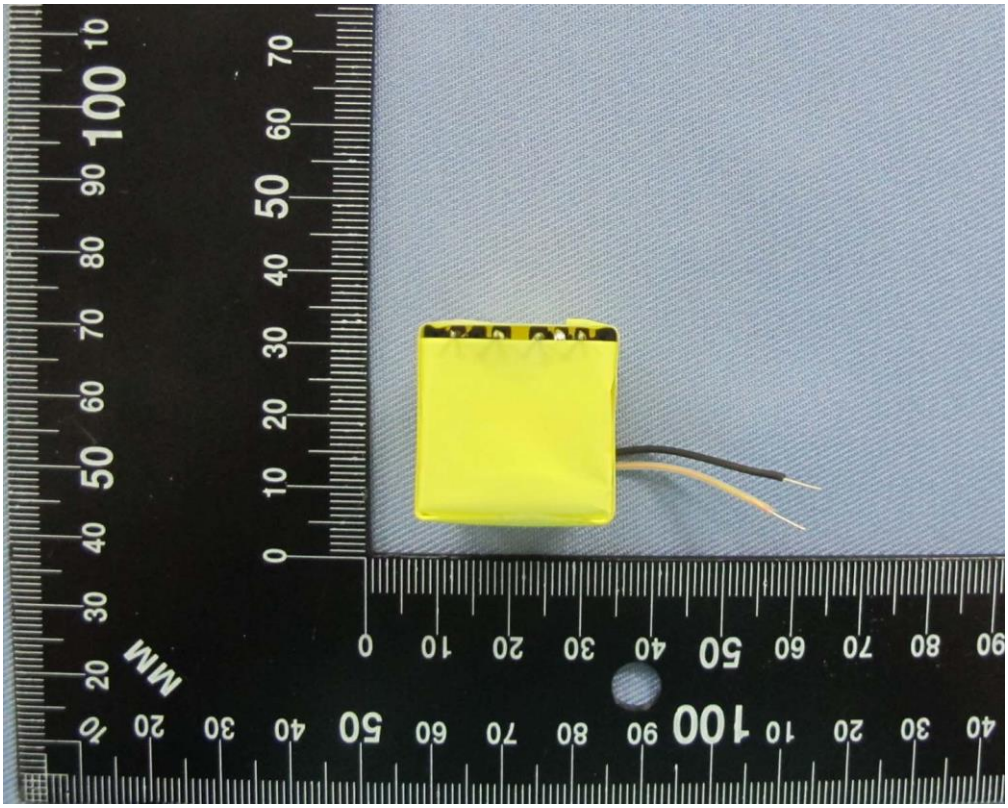


Figure 9. Bottom view of transformer

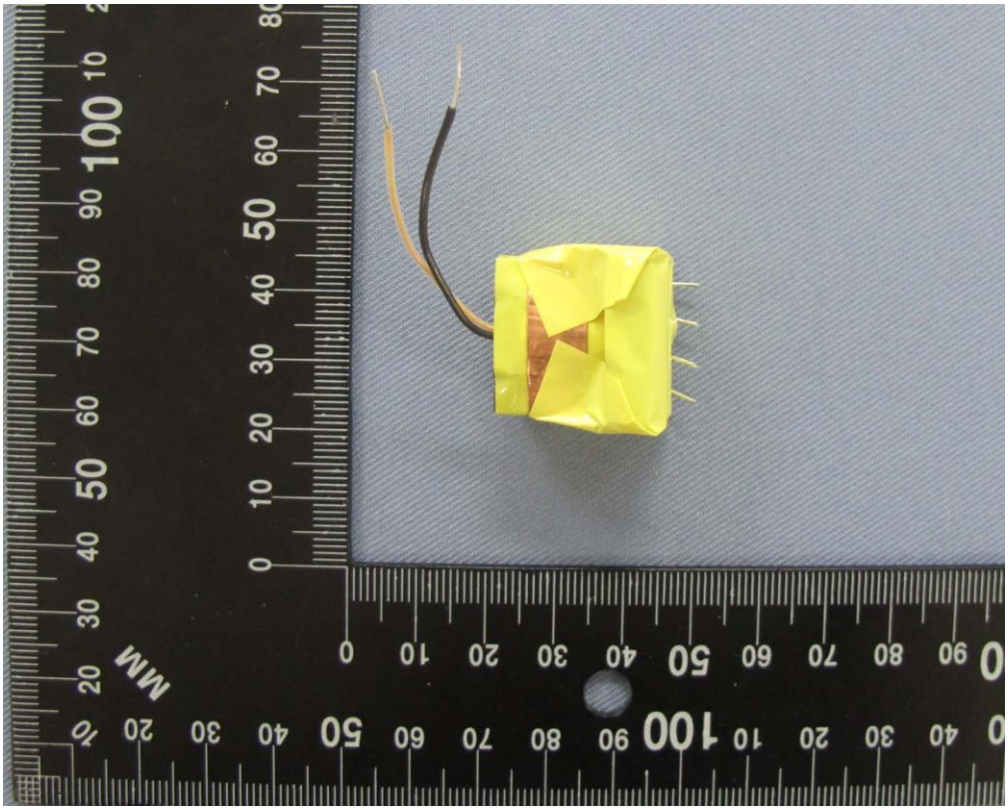


Figure 10. Insulation tape wrapped bottom and side of core

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

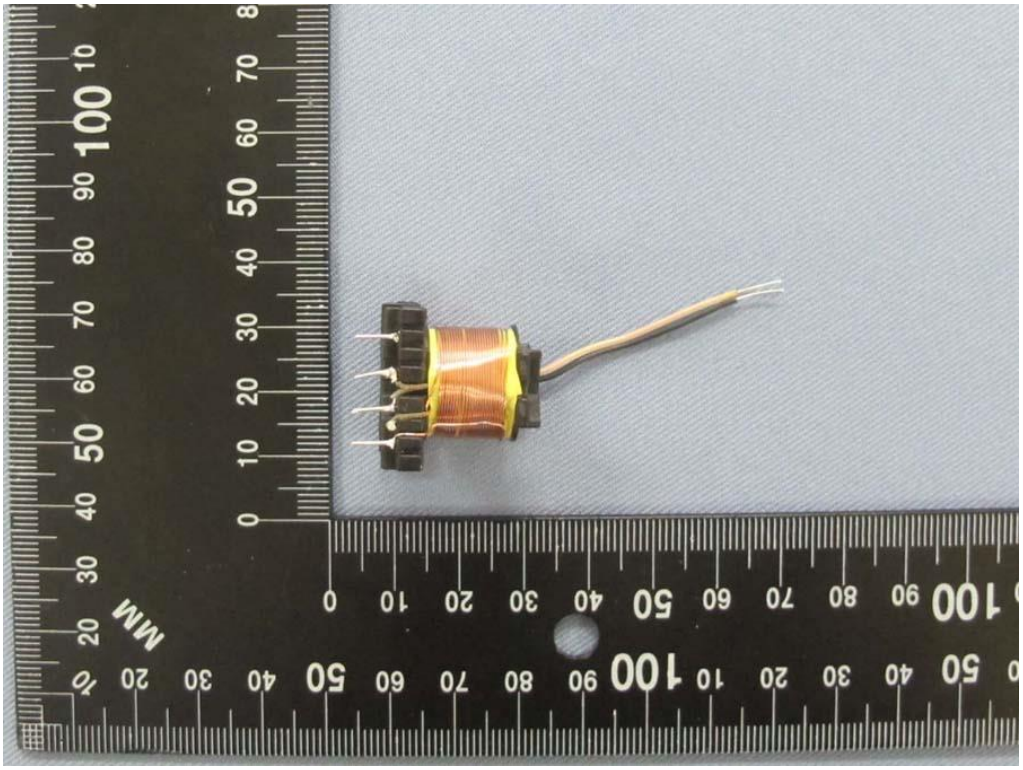


Figure 11. Internal view of transformer

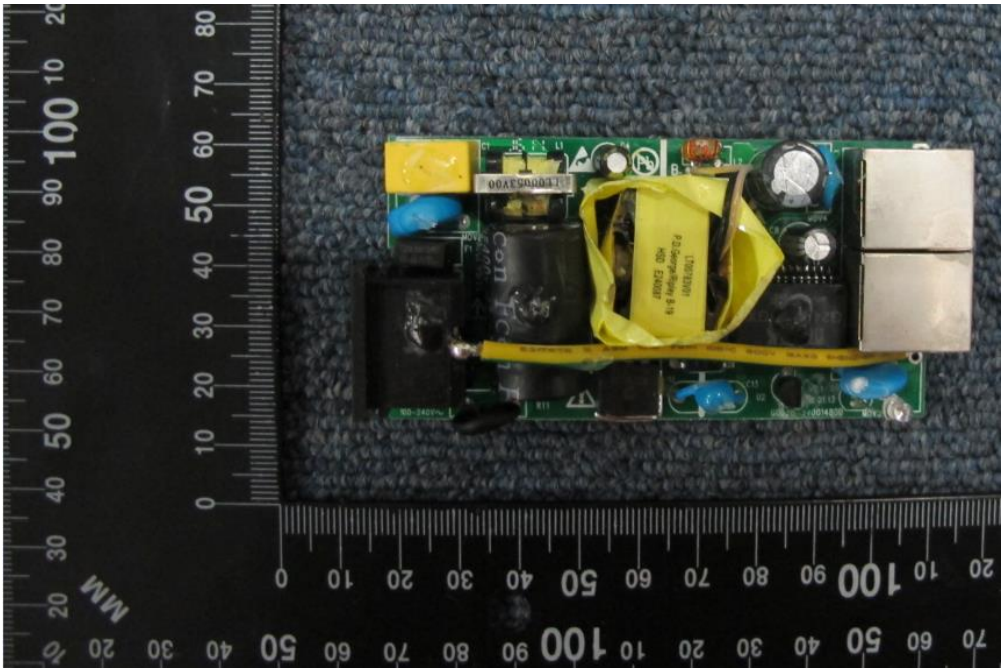


Figure 12. PCB components side view (Alternative PCB)

Product: I.T.E. POWER SUPPLY (POWER OVER ETHERNET INJECTOR)

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

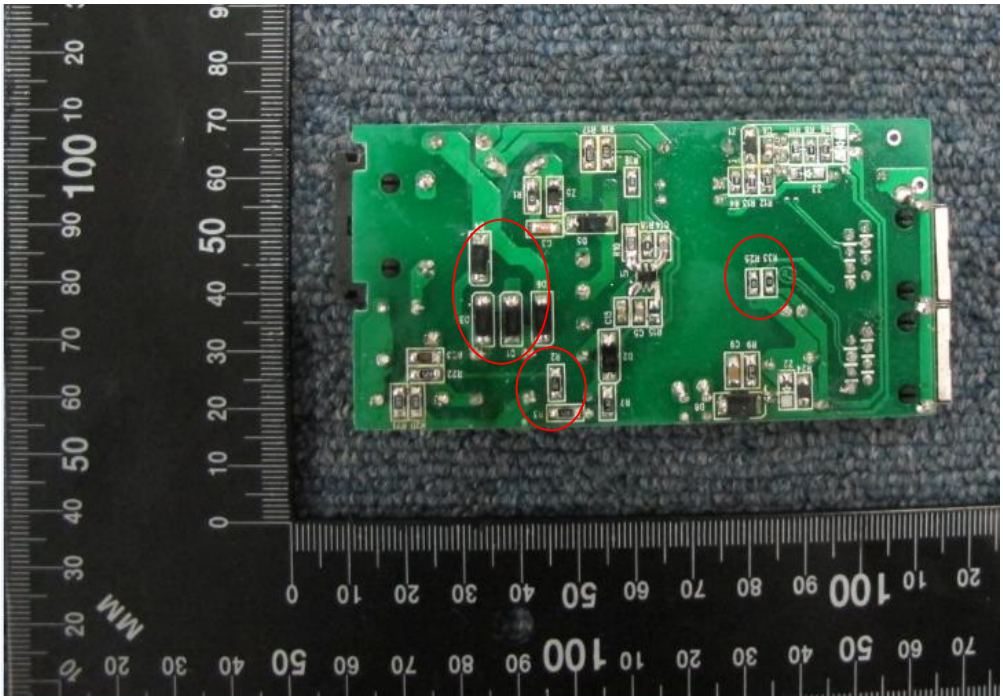


Figure 13. PCB Layout side view (Alternative PCB)