#### TÜV Rheinland (China) Ltd. Member of TÜV Rheinland Group



TPV Electronics (Fujian) Co., Ltd.

Mr. Xinliang Wu

RD-SE

Rongqiao Economic and

Technological Development Zone Fuqing City, Fujian Province

P.R. China

Date : 24.06.2016 Our ref. : Wangwend ZJ Your ref.: 1140026685

Ref : CB Certificate Japan

Type of Equipment : LCD Monitor
Model Designation : See Certificate
Certificate No. : JPTUV-073250
Report No. : 17056990 001

Dear Mr. Xinliang Wu,

Thank you very much for your interest in our services.

Please find enclosed your certification documents.

We appreciate your support and would like to offer our assistance in the approval of your future products through our extensive range of technical services.

Please feel free to contact us whatever your requirements may be.

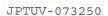
With kind regards,

Certification Body

Dipl $/ ext{-Ing.}$  (FH $\setminus$  C. Padel

Enclosure







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** 

Name and address of the applicant Nom et adresse du demandeur

Name and address of the manufacturer Nom et adresse du fabricant

Name and address of the factory Nom et adresse de l'usine

Ratings and principal characteristics Valeurs nominales et charactéristiques principales

Trademark (if any) Marque de fabrique (si elle existe)

Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur

Model / Type Ref. Ref. de type

Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiqués sur la 2<sup>ème</sup> page)

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

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

LCD Monitor

TPV Electronics (Fujian) Co., Ltd. Ronggiao Economic and Technological Development Zone, Fuging City, Fujian Province, P.R.

TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China

See additional page(s)

AC 100-240V; 50/60Hz; 1.5A; Class I

AOC

N/A

\*2477\*\*\*\*\*\*, 238LM000\*\*, \*2777\*\*\*\*\*\*, 270LM000\*\* = A-Z, a-z, 0-9, +, -, /, \ or blank)

For model differences, refer to the test report.

IEC 60950-1:2005+A1+A2 National differences see test report

17056990 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



24.06.2016

TUV Rheinland Japan Ltd. Global Technology Assessment Center 4-25-2 Kita-Yamata, Tsuzuki-ku Yokohama 224-0021 Japan Phone + 81 45 914-3888

+ 81 45 914-3354 Mail: info@jpn.tuv.com Web: www.tuv.com

Signature:

Dipl. (FH) C. Padel

CB

Date:



JPTUV-073250

PAGE 2 OF 3

- TPV Display Technology (Wuhan)
   Co., Ltd.
   Unique No. 11, Zhuankou Development
   District of Economic Technological
   Development Zone, Wuhan City 430056, P.R. China
- TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road Fuqing City, Fujian Province P.R. China
- 3. Envision Industry of Electronic Products Ltd, Rodovia Anhanguera S/N-KM 49 Tijuco Preto-Jundiaí-SP-13.205-700, Brazil
- L&T Display Technology (Fujian) Ltd. Optoelectronic Park, Rongqiao Economic and Technological Development Zone Fuqing, Fujian 350301, P.R. China
- TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone Fuqing City, Fujian Province P.R. China
- Trend Smart CE Mexico S de RL de CV Avenida Sor Juana Ines de la Cruz de 19602 Nueva Tijuana, 22435 Tijuana Baja California MEXICO
- 7. TPV Display Technology (Beihai)
  Co., Ltd.
  China Electronic Beihai Industry
  Park, Northeast of the Crossing
  Between Taiwan Road and Jilin Road, Beihai City, Guangxi, P.R. China
- TPV Technology (Qingdao)
   Co., Ltd.
   No.99 Huoju Road, High-tech
   Industrial Development Zone
   Qingdao City, Shandong Province, P.R. China
- TPV Display Technology (China) Co., Ltd.
   No. 106 Jinghai 3 Rd., BDA Beijing City 100176 P.R. China

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

Report Ref. No.: 17056990 001

Date: 24.06.2016

Signature:

Dipl./Ing. (FH) C. Padel



JPTUV-073250

PAGE 3 OF 3

- Hefei Huntkey Display Technology Co., Ltd.
   South Jinxiu Road, East Qingtan Road Economic And Technological Development Zone, Hefei, Anhui 230601, P.R. China
- TPV Electronics (Fujian) Co., Ltd.
   Optoelectronic Park,
   Rongqiao Economic and
   Technological Development Zone,
   Fuqing City, Fujian Province 350301, P.R. China
- Envision Indústria de Produtos Eletrônicos Ltda.
   Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brazil

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

Report Ref. No.: 17056990 001

Date: 24.06.2016

Signature:

Dipl -Ing. (FH) C. Padel







#### **TEST REPORT**

#### IEC 60950-1

# Information technology equipment – Safety – Part 1: General requirements

 Report Number.
 17056990 001

 Date of issue
 Jun. 20, 2016

Total number of pages...... 84

Applicant's name ....... TPV Electronics (Fujian) Co., Ltd.

Fuqing City, Fujian Province, 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

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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 ...... LCD Monitor

Trade Mark ...... AOC

Manufacturer ....: Same as applicant

8 for definition of "\*")

**Ratings** .....: I/P: 100-240Vac, 50/60Hz, 1.5A

res	ting 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:	
Test	ting location/ address:	101 1.11
Test	ed by (name + signature):	Wendy Wang / Lendt Wand
App	roved by (name + signature):	Wendy Wang  Aegean Li  Wendy Wang
	Testing procedure: TMP/CTF Stage 1:	
Test	ing location/ address:	
Test	ed by (name + signature):	
Appr	roved by (name + signature):	
	Testing procedure: WMT/CTF Stage 2:	
Testi	ng location/ address:	
Teste	ed by (name + signature):	
Witne	essed by (name + signature):	
Appr	oved by (name + signature):	
	Testing procedure: SMT/CTF Stage 3 or 4:	
Testi	ng location/ address:	
Teste	d by (name + signature):	
Vitne	essed by (name + signature):	
Appro	oved by (name + signature):	
upe	vised by (name + signature):	

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

- Photo documentation
- National Differences
- Appendix ZZ

Total number of pages in each attachment is indicated in individual attachment.

#### Summary of testing:

# **Tests performed (name of test and test clause):** Following tests performed during evaluation

#### test clause name of test number Input Current Test 1.6.2 **Durability of Marking Test** 1.7.11 Access to energized parts 2.1.1.1 Energy hazard in Operator Access Area 2.1.1.5 Discharge of Capacitors 2.1.1.7 SELV limits for Normal Conditions 2.2.2 2.2.3 SELV limits for Abnormal Conditions Limited current circuit 2.4 Limited power source 2.5 Resistance of Earthing Circuit 2.6.3.4 **Humidity Conditioning** 2.9.2 Working Voltage over Insulation 2.10.2 Clearance and creepage distance 2.10.3 & 2.10.4 measurements Stability test 4.1 Steady force test, 10 N 4.2.2 Steady force test, 30 N 4.2.3 Steady Force Test, 250N 4.2.4 4.2.5 Impact Test Stress Relief Test 4.2.7 4.2.10 Wall mounting test Maximum Temperature Test 4.5.2 Openings in enclosures 4.6 Touch current and protective conductor current 5.1.6 Electric Strength Test 5.2 Fault Condition Test 5.3 EUT Passed all the tests.

#### **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**

List of countries addressed:

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

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

\* National differences to IEC 60950-1:2005 (Second Edition) + Am 1:2009 evaluated.

Special national conditional for J60950-1 (H27) and J3000 (H25):

Per client's request, supplement the special national conditional for J60950 (H27) and J3000 (H25) to present test report, described as bellowing items:

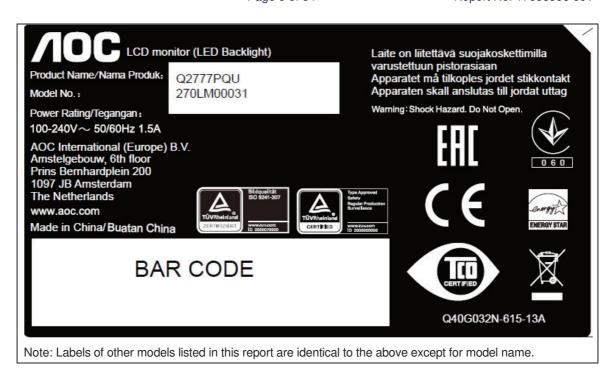
- 1) the equipment is considered as Class 0I or Class I equipment.
- 2) considered futher Japanese technical requirements J60950-1 (H27). Unit also complies with touch current requirements for Class 0I equipment: < 1.0mA.

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

#### Copy of marking plate

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





Test item particulars:	
Equipment mobility	[x] movable [] hand-held [] transportable
Equipment modific	[x] stationary(when with mounting function)
:	[] 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)	
	[] other:
Mains supply tolerance (%) or absolute mains supply values	±10%
Tested for IT power systems	[] Yes [x] No
IT testing, phase-phase voltage (V)	N/A
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)	
Pollution degree (PD)	[] PD 1 [x] PD 2 [] PD 3
IP protection class	IP20
Altitude during operation (m)	≤5000
Altitude of test laboratory (m)	<2000
Mass of equipment (kg)	23.8 inch model without base: 5.62kg,
:	27 inch model without base: 7.2kg, Base type A: 2.01kg, Base type B: 1.60kg
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	May 17, 2016
Date(s) of performance of tests	May 17, 2016 to Jun. 9, 2016

General remarks:				
"(See Enclosure #)" refers to additional information (See appended table)" refers to a table appended table)				
Throughout this report a 🗌 comma / 🔀 poi	int is	used as the decimal separator.		
Manufacturer's Declaration per sub-clause 4	.2.5 o	f 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				
When differences exist; they shall be identifi	ed in	the General product information section.		
Name and address of factory (ies)	2	TPV Display Technology (Wuhan) Co., Ltd. Unique No. 11, Zhuankou Development District of Economic Technological Development Zone, Wuhan City 430056, P.R. China TPV Electronics (Fujian) Co., Ltd. Shangzheng, Yuan Hong Road, Fuqing City, Fujian Province, P.R. China		
	3	Envision Industry of Electronic Products Ltd. Rodovia Anhanguera S/N-KM 49 Tijuco Preto-Jundiaí-SP-13.205-700, Brazil		
	5	L&T Display Technology (Fujian) Ltd.  Optoelectronic Park, Rongqiao Economic and Technological, Development Zone, Fuqing, Fujian 350301, P.R. China TPV Electronics (Fujian) Co., Ltd. Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China		
	6	Trend Smart CE Mexico S de RL de CV Avenida Sor Juana Ines de la Cruz de 19602 Nueva		
	7	Tijuana, 22435 Tijuans Baja California, MEXICO TPV Display Technology (Beihai) Co., Ltd. China Electronic Beihai Industry Park, Northeast of the Crossing Between Taiwan Road and Jilin Road, Beihai		
	8	City, Guangxi, P.R. China TPV Technology (Qingdao) Co., Ltd. No.99 Huoju Road, High-tech Industrial Development		
	9	Zone, Qingdao City, Shandong Province, P.R. China TPV Display Technology (China) Co., Ltd. No.106 Jinghai 3 Rd., BDA, Beijing City 100176, P.R.		
	10	China. Hefei Huntkey Display Technology Co., Ltd. South Jinxiu Road, East Qingtan Road, Economic And Technological Development Zone, Hefei, Anhui 230601,		
	11	P.R. China TPV Electronics (Fujian) Co., Ltd. Optoelectronic Park, Rongqiao Economic and		
	12	Technological Development Zone, Fuqing City, Fujian Province, P.R. China Envision Indústria de Produtos Eletrônicos Ltda. Av. Torquato Tapajós, 2236, Flores - CEP 69058-830 - Manaus/AM Brasil		

#### General product information:

The products covered in this report are LCD Monitors, which are supplied from AC mains via detachable power cordsets and classified as Class I product.

The products mainly contain following parts:

- 1) LCD panel with LED backlight;
- 2) Building-in power board 715G7775 used only for 23.8 inch models; Building-in power board 715G7760 used only for 27 inch models;
- 3) Building-in main board 715G7909 used (with DVI, HDMI, DP, VGA, Audio out, Audio in ports); Alternative building-in main board 715G7271 used only for 27 inch models (with DVI, VGA, HDMI, DP, Audio out, Audio in ports);
- 4) USB board 715G6453 used only for 27 inch models and used as optional (with USB 2.0, USB 3.0, USB fast charging ports);
- 5) The internal metal chassis is considered as fire enclosure and mechanical enclosure, and the external plastic enclosure is regarded as electrical enclosure and mechanical enclosure, made of min. HB material;
- 7) Base stand type A and alternative base stand type B used; Unit with base stand type A can be used in horizontal position or in vertical position; Unit with base stand type B can only be used in horizontal position;
- 8) Two speakers used as optional.

For indoor used only.

Working altitude: Max. 5000m. Ambient temperature: Max. 40 ℃.

See following table for model differences:

Model	Panel	Power board	Main board	USB board	Plastic enclosure	Metallic enclosure	Base
*2477******, 238LM000**	23.8 inch	715G7775	715G7909	N/A	Type A	Type A	
			715G7909	715G6453		Type B	Type A,
*2777*******,	27	715G7760	71307909	N/A	Type A'	Type B'	Type B
270LM000**	M000** inch 715G7760 715G7271	715G6453	Type A	Type C			
			715G7271	N/A		Type C'	

- Plastic enclosure type A is identical to type A' except for size due to using different size panel.
- Metallic enclosure type C is identical to type B except for one rectangle opening on rear side of the metallic enclosure slightly changed position due to using different main board.
- Metallic enclosure type B' is identical to type B except for USB board side appearance due to USB board used as optional.
- Metallic enclosure type C' is identical to type C except for USB board side appearance due to USB board used as optional.
- Base stand type A is height adjustable and with rotation function, clockwise 90° from front view; Base stand type B with no height adjustable and rotation function.

Also see photos for the details.

#### Definition of variable(s):

Variable:	Range of variable:	Content:
*	can be A-Z, a-z, 0-9, "+", "-", "/", "\" or blank	Represents different enclosure color and sales regions for marketing purpose only, no technical difference.

Abbreviations used in the report:				
<ul><li>normal conditions</li><li>functional insulation</li><li>double insulation</li><li>between parts of opposite</li></ul>	N.C. OP DI	<ul><li>single fault conditions</li><li>basic insulation</li><li>supplementary insulation</li></ul>	S.F.C BI SI	
polarity	ВОР	- reinforced insulation	RI	
Indicate used abbreviation	s (if any)			

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		Р
1.5	Components		Р
1.5.1	General		Р
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	Р
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.	Р
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.	Р
1.5.5	Interconnecting cables	Interconnecting cable does not carry voltage higher than SELV and no higher energy level than 240VA.	Р
1.5.6	Capacitors bridging insulation	Between lines: X1 or X2 capacitor according to IEC 60384-14 was used. Between primary and earth: Y1 or Y2 capacitors according to IEC 60384-14 were used. Between primary and secondary: Y1 capacitor according to IEC 60384-14 was used. (see appended table 1.5.1)	Р
1.5.7	Resistors bridging insulation		Р
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only discharge resistors bridging insulation between L&N.	Р
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		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	No surge suppressors.	N/A
1.5.9.1	General		N/A

	IEC 60950-1				
Clause	Requirement + Test	Result - Remark	Verdict		
1.5.9.2	Protection of VDRs		N/A		
1.5.9.3	Bridging of functional insulation by a VDR		N/A		
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		N/A		

1.6	Power interface		Р
1.6.1	AC power distribution systems	TN power system	Р
1.6.2	Input current	(see appended table 1.6.2)	Р
1.6.3	Voltage limit of hand-held equipment	This appliance is not handheld equipment.	N/A
1.6.4	Neutral conductor	The neutral conductor insulated from earth and from the body throughout the equipment as if it were a line conductor	Р

1.7	Marking and instructions		Р
1.7.1	Power rating and identification markings	See below.	Р
1.7.1.1	Power rating marking		Р
	Multiple mains supply connections:	Single power source	N/A
	Rated voltage(s) or voltage range(s) (V)	See copy of marking plate	Р
	Symbol for nature of supply, for d.c. only	AC source	Р
	Rated frequency or rated frequency range (Hz):	See copy of marking plate	Р
	Rated current (mA or A)	See copy of marking plate	Р
1.7.1.2	Identification markings		Р
	Manufacturer's name or trade-mark or identification mark	See copy of marking plate	Р
	Model identification or type reference	See copy of marking plate	Р
	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.	Р
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	English safety instruction provided.	Р
1.7.2.1	General		Р
1.7.2.2	Disconnect devices	AC inlet serves as disconnect device.	Р

	1 ago 12 01 0 1	Hoport No. 17 oc	
	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
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	TN power system.	N/A
1.7.2.5	Operator access with a tool	No such access required.	N/A
1.7.2.6	Ozone	Ozone not used or generated.	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

	IEC 60950-1					
Clause	Requirement + Test	Result - Remark	Verdict			
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	On power board 715G7775:  The fuse marking is marked near fuse on PCB as following: F9901(on primary): T4AL/250V	Р			
		CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE. F801/F902(on secondary for LPS): T2AL/250V F901(on secondary for LPS): T4AL/250V Not located in operator access areas. On power board 715G7760:				
		The fuse marking is marked near fuse on PCB as following: F9901(on primary): T5AL/250V				
		CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATING OF FUSE.				
		F9902/F9903(on secondary for LPS): T5AL/250V Not located in operator access areas.				
1.7.7	Wiring terminals	See below.	Р			
1.7.7.1	Protective earthing and bonding terminals	Appliance inlets approved according to IEC 60320-1 are used.	Р			
1.7.7.2	Terminals for a.c. mains supply conductors	The equipment is provided with appliance inlet, which is for connection of a detachable type power supply cord.	N/A			
1.7.7.3	Terminals for d.c. mains supply conductors	No such conductors.	N/A			
1.7.8	Controls and indicators	See below	Р			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.1	Identification, location and marking:	The marking and indication of the power switch is located that indication of function is clearly.	Р
1.7.8.2	Colours:	Colours used for LED indicate the operation status. LED indicator on secondary not effecting safety.	Р
1.7.8.3	Symbols according to IEC 60417		N/A
1.7.8.4	Markings using figures	No figures used.	N/A
1.7.9	Isolation of multiple power sources:	Only one supply voltage range provided.	N/A
1.7.10	Thermostats and other regulating devices:	No such components.	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.	Р
		After this test there was no damage to the label. The marking on the label did not fade. There was no curling or lifting of the label edge.	
1.7.12	Removable parts	None.	N/A
1.7.13	Replaceable batteries	No batteries.	N/A
	Language(s):		_
1.7.14	Equipment for restricted access locations:	Equipment not intended for installation in restricted access locations.	N/A

2	PROTECTION FROM HAZARDS		Р
2.1	Protection from electric shock and energy hazards		Р
2.1.1	Protection in operator access areas  Only SELV signal interface accessible by operator.		Р
2.1.1.1	Access to energized parts	See below	Р
	Test by inspection:	Protection established by plastic enclosure.	Р
	Test with test finger (Figure 2A)	Protection established by plastic enclosure.	Р
	Test with test pin (Figure 2B)	No access to any energized parts.	Р
	Test with test probe (Figure 2C)		N/A

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
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 tables 2.10.2 and 2.10.5)	
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N/A
2.1.1.5	Energy hazards:	The energy does not exceed 240VA between any two points in accessible connector of secondary circuit.	Р
	<u> </u>	(see appended table 2.1.1.5.)	
2.1.1.6	Manual controls	No manual controls.	N/A
2.1.1.7	Discharge of capacitors in equipment	No risks of electric shock. See below.	Р
	Measured voltage (V); time-constant (s)	(See appended table 2.1.1.7)	_
2.1.1.8	Energy hazards – d.c. mains supply	a.c. mains supply	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		N/A
2.1.2	Protection in service access areas	No service access area.	N/A
2.1.3	Protection in restricted access locations	Equipment not intended for installation in restricted access locations.	N/A
2.2	SELV circuits		Р
2.2.1	General requirements	The secondary circuits were tested as SELV. See subclauses 2.2.2 to 2.2.4.	Р
2.2.2	Voltages under normal conditions (V):	42.4V peak or 60Vd.c. is not exceeded in SELV circuit under normal operation.	Р
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 sec. and limits 42.4V peak and 60V d.c. were not exceeded for longer than 0.2 sec., see appended tables 2.2.3 and 5.3.	Р

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2.2.4	Connection of SELV circuits to other circuits:	See sub-clauses 2.2.2 and 2.2.3.	Р		
		No direct connection between SELV and any primary circuits.			
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		
0 0 0 0	B		N.1./A		

	parts	,
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	2.4 Limited current circuits		Р
2.4.1	General requirements	Primary and secondary circuits bridged by Y1 type capacitor. The pin connected with secondary circuits was disconnected and the measuring instrument of Figure D.1 in Annex D was connected between secondary pin and earth during the test.	Р
2.4.2	Limit values	See appended table 2.4.2	Р
	Frequency (Hz)		_
	Measured current (mA)		_
	Measured voltage (V)		_
	Measured circuit capacitance (nF or μF)		_
2.4.3	Connection of limited current circuits to other circuits	Only intended to be connected with SELV circuits.	Р

2.5	Limited power sources	Р
2.0	Ellinted power sources	

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		N/A
	Use of integrated circuit (IC) current limiters		_
	d) Overcurrent protective device limited output	(see appended table 2.5)	Р
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	(see appended table 2.5)	_
	Current rating of overcurrent protective device (A).:	Complied, for ratings refer to appended table 1.5.1	_

2.6	Provisions for earthing and bonding		Р
2.6.1	Protective earthing	Class I appliance inlet terminal provided as protective earthing terminal, and accessible metal plate is connected to earthed metal fire enclosure. The test of 2.6.3.4 complied.	Р
2.6.2	Functional earthing	Functional earthing in the secondary circuit is accessible at the video signal connectors and separated from the primary by reinforced insulation.	Р
	Use of symbol for functional earthing:		N/A
2.6.3	Protective earthing and protective bonding conductors		Р
2.6.3.1	General	Appliance inlet used.	Р
2.6.3.2	Size of protective earthing conductors	Appliance inlet used.	N/A
	Rated current (A), cross-sectional area (mm²), AWG:		_
2.6.3.3	Size of protective bonding conductors	Evaluation by test. See subclause 2.6.3.4.	Р
	Rated current (A), cross-sectional area (mm²), AWG	See above.	_
	Protective current rating (A), cross-sectional area (mm²), AWG	See above.	
2.6.3.4	Resistance of earthing conductors and their terminations; resistance $(\Omega)$ , voltage drop $(V)$ , test current $(A)$ , duration $(min)$	(see appended table 2.6.3.4)	Р

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.5	Colour of insulation	Protective bonding conductor as in 2.6.3 and assembled by printed wiring on power board	N/A
2.6.4	Terminals	See below	Р
2.6.4.1	General		Р
2.6.4.2	Protective earthing and bonding terminals	Earthing terminal in appliance inlet provided as protective earthing terminal.	Р
	Rated current (A), type, nominal thread diameter (mm)	The earthing terminal in approved AC inlet serves as main PE terminal.	_
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Separated PE and protective bonding conductor used.	Р
2.6.5	Integrity of protective earthing	See below	Р
2.6.5.1	Interconnection of equipment	Not depending on interconnection for protective earthing.	Р
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switch or overcurrent protective device in protective earthing or bonding conductor	Р
2.6.5.3	Disconnection of protective earth	Appliance inlet used for disconnection of protective earth.	Р
2.6.5.4	Parts that can be removed by an operator	AC inlet with PE terminal used.	Р
2.6.5.5	Parts removed during servicing	It is not necessary to disconnect protective earth except for the removing of the earthed parts itself.	Р
2.6.5.6	Corrosion resistance	All safety earthing connections comply with Annex J.	Р
2.6.5.7	Screws for protective bonding	No self-tapping screws are used. For the earth connection to the metal chassis a spring washer and a screw are used	N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV circuit.	N/A

2.7	Overcurrent and earth fault protection in primary circuits	Р
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Clause	Requirement + Test	Result - Remark	Verdict
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. A build-in fuse provided as overcurrent protection device (see 5.3)	Р
	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.	Р
2.7.3	Short-circuit backup protection	Building installation is considered as providing short-circuit backup protection.	Р
2.7.4	Number and location of protective devices:	Overcurrent protection by one built-in fuse	Р
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel:	No service work necessary.	N/A
2.8	Cafatu intanlaska		NI/A
2.8.1	Safety interlocks		N/A N/A
2.8.2	General principles  Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
2.0.1	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		Р
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic material not used.	Р
2.9.2	Humidity conditioning	Performed at 40 °C, 95% R.H. for 120 h by client's request.	Р
	Relative humidity (%), temperature (°C):	See above.	_

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Clause	Requirement + Test	Result - Remark	Verdict
2.9.3	Grade of insulation	See above.	Р
2.9.4	Separation from hazardous voltages	The adequate levels of safety insulation provided and maintained to comply with the requirements of this standard	Р
	Method(s) used:	SELV separated from primary by reinforced or double insulation.	_

2.10	Clearances, creepage distances and distances through insulation		Р
2.10.1	General	See sub-clauses 2.10.3, 2.10.4 and 2.10.5.	Р
2.10.1.1	Frequency	Considered	Р
2.10.1.2	Pollution degrees:	2	Р
2.10.1.3	Reduced values for functional insulation	Considered	Р
2.10.1.4	Intervening unconnected conductive parts	Considered	Р
2.10.1.5	Insulation with varying dimensions	Insulation kept homogenous	N/A
2.10.1.6	Special separation requirements	Not applied.	N/A
2.10.1.7	Insulation in circuits generating starting pulses	No such circuits.	N/A
2.10.2	Determination of working voltage		Р
2.10.2.1	General	The rms and the peak voltage were measured with unit connected to a 240V TN power system. The input neutral and secondary ground were connected during measurement.	Р
		Pollution Degree 2 and Overvoltage Category II considered.	
2.10.2.2	RMS working voltage	See table 2.10.2	Р
2.10.2.3	Peak working voltage	See table 2.10.2	Р
2.10.3	Clearances	See below and advantage of annex G is not considered.	Р
2.10.3.1	General	Considered.	Р
2.10.3.2	Mains transient voltages		Р
	a) AC mains supply:	240V a.c. and Overvoltage Category II	Р
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies:		N/A
	d) Battery operation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	Р
2.10.3.4	Clearances in secondary circuits	Sub-clause 5.3.4 considered.	Р
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply	Normal transient voltage considered (overvoltage category II for primary circuit).	Р
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		Р
2.10.4.1	General		Р
2.10.4.2	Material group and comparative tracking index		Р
	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)	Р
2.10.5	Solid insulation		Р
2.10.5.1	General		Р
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	Р
2.10.5.3	Insulating compound as solid insulation	Only inside approved optocoupler.	N/A
2.10.5.4	Semiconductor devices	Approved optocoupler complies to IEC 60747-5-2 and having dti ≥0.4mm.	
2.10.5.5.	Cemented joints	Not applied.	N/A
2.10.5.6	Thin sheet material – General		Р
2.10.5.7	Separable thin sheet material	Used in transformer	Р
	Number of layers (pcs):	(see appended table C.2)	_
2.10.5.8	Non-separable thin sheet material	Not applied.	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		Р
	Electric strength test	(see appended table 5.2)	_

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.11	Insulation in wound components		Р
2.10.5.11	Insulation in wound components  Wire in wound components		P
2.10.3.12	· · · · · · · · · · · · · · · · · · ·	>71Vpeak.	P
	a) Basic insulation not under stress	>/ Typeak.	N/A
	b) Basic, supplementary, reinforced insulation:		P N/A
	c) Compliance with Annex U:	Approved triple insulated wire used.	P
	Two wires in contact inside wound component; angle between 45° and 90°	Physical separation provided by teflon tube and insulation tape to relieve mechanical stress at the crossover point.	Р
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		_
	Routine test		N/A
2.10.5.14	Additional insulation in wound components	Not applied.	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		Р
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	Р
2.10.6.2	Coated printed boards	Not applied.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	Not multi-layer printed board.	N/A
2.10.6.4	Insulation between conductors on different layers of a printed board	See above.	N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs)		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated 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
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Certified photo coupler provided.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict	
2.10.11	Tests for semiconductor devices and cemented joints	Photo couplers are approved components. No other components applied for.	N/A	
2.10.12	Enclosed and sealed parts	No hermetically sealed component.	N/A	

3	WIRING, CONNECTIONS AND SUPPLY		Р
3.1	General		Р
3.1.1	Current rating and overcurrent protection	The cross-sectional area and the temperature of the internal wires are adequate.	Р
		See appended table 4.5.1 and appended table 1.5.1.	
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges which could damage the insulation and cause hazard.	Р
3.1.3	Securing of internal wiring	Output wires with only basic insulation are routed so that they are not close to any live bare components. Wires are secured by soldering method and additionally fixed by glue or by connectors.	Р
3.1.4	Insulation of conductors	The insulation of the individual conductors suitable for the application and the working voltage. For the insulation material see 3.1.1.	Р
3.1.5	Beads and ceramic insulators	Not used.	N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		Р
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used.	N/A
3.1.9	Termination of conductors	All terminations of conductors are reliable secured by use of solder-pins and other mechanical fixing means.	Р
	10 N pull test		Р
3.1.10	Sleeving on wiring	No sleeving used on wiring for supplementary insulation.	N/A

3.2	Connection to a mains supply		Р
3.2.1	Means of connection	See below.	Р

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet used.	Р
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 permanently connected equipment.	N/A
	Number of conductors, diameter of cable and conduits (mm):		_
3.2.4	Appliance inlets	Approved appliance inlet used.	Р
3.2.5	Power supply cords	See below.	N/A
3.2.5.1	AC power supply cords	Not provided.	N/A
	Type:		_
	Rated current (A), cross-sectional area (mm²), AWG:		_
3.2.5.2	DC power supply cords	Not provided.	N/A
3.2.6	Cord anchorages and strain relief	Appliance inlet used	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	No 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	AC inlet used.	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 (mm²):		_
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

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Clause	Requirement + Test	Result - Remark	Verdict
3.3.8	Stranded wire		N/A
3.4	Discouncestion from the mains countly		Р
	Disconnection from the mains supply	Discourset device previded	-
3.4.1	General requirement	Disconnect device provided	Р
3.4.2	Disconnect devices	Appliance coupler used as disconnect device.	Р
3.4.3	Permanently connected equipment	Not permanently connected equipment	N/A
3.4.4	Parts which remain energized	When AC coupler is disconnected from inlet, there are no parts remaining with hazardous voltage or energy in the equipment.	Р
3.4.5	Switches in flexible cords	No switch in flexible cords	N/A
3.4.6	Number of poles - single-phase and d.c. equipment disconnects both poles simultaneously.		Р
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	Plug not used.	N/A
3.4.10	Interconnected equipment	Only interconnected with other unit through SELV interface.	Р
3.4.11	Multiple power sources	Single power source	N/A
3.5	Interconnection of equipment	1	Р
3.5.1	General requirements	This power supply is not considered for connection to TNV.	Р
3.5.2	Types of interconnection circuits:	Interconnection circuits of SELV through the connector. No ELV interconnection circuits.	Р
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection	N/A
3.5.4	Data ports for additional equipment	All data ports are supplied by limited power source.	Р
4	PHYSICAL REQUIREMENTS		Р
<del>4</del> .1	Stability		P
7.1	Angle of 10°	No overturn. (Test by client's request)	Р
	Test force (N):	Equipment is not a floor standing unit.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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4.2	Mechanical strength		Р
4.2.1	General	See below. After tests, unit comply with 2.1.1, 2.6.1, 2.10 and 4.4.1.	Р
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	Applied on internal components	Р
		No components located such that distances according to 2.10 can be reduced.	
4.2.3	Steady force test, 30 N	Internal metal enclosure used. After tests, unit complies with 2.1.1, 2.6.1, 2.10	Р
4.2.4	Steady force test, 250 N	Test performed on plastic enclosure, no hazardous.	Р
4.2.5	Impact test	500g steel ball falls freely from 1.3m on top, back and bottom of plastic enclosure, no access to hazardous parts.	Р
	Fall test		Р
	Swing test		Р
4.2.6	Drop test; height (mm):		N/A
4.2.7	Stress relief test	70°C, 7 hours, no deformation on all sources of plastic enclosure.	Р
4.2.8	Cathode ray tubes	No CRT	N/A
	Picture tube separately certified:		
4.2.9	High pressure lamps	No high pressure lamps provided.	N/A
4.2.10	Wall or ceiling mounted equipment; force (N):	An additional force 165.2N applied for 23.8 inch model, 211.7N applied for 27 inch model downwards through the centre of gravity of the equipment for 1 min after the removal of base (by client's request).  After the test, the equipment was not damaged.  (165.2N = 3 x 5.62 x 9.8N; 211.7N = 3 x 7.20 x 9.8N)	Р

4.3	Design and construction		Р
4.3.1	Edges and corners	Edges and corners of the	Р
		enclosure are rounded.	

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Clause	Requirement + Test	Result - Remark	Verdict
	T.,	1	
4.3.2	Handles and manual controls; force (N):	No safety relevant handles or manual controls.	N/A
4.3.3	Adjustable controls	No such controls.	N/A
4.3.4	Securing of parts	connections can be expected to withstand usual mechanical stress. No loosening of clearance or creepage impairing distances likely to occur.	Р
4.3.5	Connection by plugs and sockets		N/A
4.3.6	Direct plug-in equipment	Not such equipment.	N/A
	Torque:		_
	Compliance with the relevant mains plug standard		N/A
4.3.7	Heating elements in earthed equipment	None.	N/A
4.3.8	Batteries	No batteries.	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	None	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	None	N/A
4.3.12	Flammable liquids:	None	N/A
	Quantity of liquid (I):		N/A
	Flash point (°C):		N/A
4.3.13	Radiation		N/A
4.3.13.1	General	See below	N/A
4.3.13.2	lonizing radiation	No 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	No ultraviolet radiation	N/A
	Part, property, retention after test, flammability classification:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation:	No ultraviolet radiation	N/A

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4.3.13.5	Lasers (including laser diodes) and LEDs		Р
4.3.13.5.1	Lasers (including laser diodes)	Indicating LED on secondary is inherently Class1 according to IEC 60825-1.	Р
	Laser class:	Class 1	_
4.3.13.5.2	Light emitting diodes (LEDs)		_
4.3.13.6	Other types:		N/A
4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas:		N/A
	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		Р
4.5.1	General		Р
4.5.2	Temperature tests		Р
	Normal load condition per Annex L:		_
4.5.3	Temperature limits for materials	(see appended table 4.5)	Р
4.5.4	Touch temperature limits	(see appended table 4.5)	Р
4.5.5	Resistance to abnormal heat:	Phenolic bobbin materials are accepted without further tests.	Р
4.6	Openings in enclosures		Р
4.6.1	Top and side openings	See below	P
	. op and olde openinge	222 20.011	

(see appended table 4.6.1 and 4.6.2)

Dimensions (mm) .....:

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Clause	Requirement + Test	Result - Remark	Verdict
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4.6.2	Bottoms of fire enclosures	See below	Р
	Construction of the bottomm, dimensions (mm):	(see appended table 4.6.1 and 4.6.2)	_
4.6.3	Doors or covers in fire enclosures	No doors or covers.	N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	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	The adhesive was used to cover the opening of internal metal chassis.	Р
	Conditioning temperature (°C), time (weeks):	The tests were performed as following. For sources see appended table 1.5.1.  1. 100 ℃±2 ℃ for one week  2. Remove from oven and leave at 25 ℃ for 1h.  3. Place in freezer at -40 ℃ for 4h.  4. Remove from freezer and allow come to 25 ℃ for 8h.  5. Place in a compartment at 95% relative humidity for 72h.  6. Remove and leave at 25 ℃ for 1h.  7. Place in oven at 100 ℃ for 4h.  8. Remove and allow sample to reach 25 ℃ over 8h.	

4.7	Resistance to fire		Р
4.7.1	Reducing the risk of ignition and spread of flame	No excessive temperatures. No easily burning materials employed. Fire enclosure provided. Safety relevant components used within their specified temperature limits.	Р
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	Р
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Р

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
4.7.2.1	Parts requiring a fire enclosure	With having the following parts: - Components in primary; - Components in secondary not supplied by LPS;	Р
		- Components in secondary supplied by LPS but not mounted on class V-1 or better material; - Insulated wiring.	
		Internal metal enclosure used as fire enclosure.	
4.7.2.2	Parts not requiring a fire enclosure	For components in secondary circuits supplied by LPS and mounted on PCB of class V-1 or better material.	Р
4.7.3	Materials		Р
4.7.3.1	General	PCB rated V-1 or better	Р
4.7.3.2	Materials for fire enclosures	Metal material used.	Р
4.7.3.3	Materials for components and other parts outside fire enclosures	HB plastic enclosure used, which is outside the fire enclosure.	Р
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	Р
4.7.3.5	Materials for air filter assemblies	No air filter.	N/A
4.7.3.6	Materials used in high-voltage components	No such high voltage components in this meaning	N/A

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Р
5.1	1 Touch current and protective conductor current		Р
5.1.1	General	(see appended Table 5.1)	Р
5.1.2	Configuration of equipment under test (EUT)	See below.	Р
5.1.2.1	Single connection to an a.c. mains supply	EUT has only one mains connection.	Р
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	Using figure 5A.	Р
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	Р
5.1.5	Test procedure		Р
5.1.6	Test measurements	(see appended table 5.1.6)	Р

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
	Supply voltage (V):		
	Measured touch current (mA)		_
			_
	Max. allowed touch current (mA)		_
	Measured protective conductor current (mA):		_
	Max. allowed protective conductor current (mA):		<u> </u>
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 circuits.	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)		_
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
			Г
5.2	Electric strength		Р
5.2.1	General	(see appended table 5.2)	Р
5.2.2	Test procedure	(see appended table 5.2)	Р
5.3	Abnormal operating and fault conditions		Р
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	Р
5.3.2	Motors	Motors not used	N/A
5.3.3	Transformers	(see appended Annex C and table 5.3)	Р
5.3.4	Functional insulation:	By short-circuited, results see appended table 5.3.	Р
5.3.5	Electromechanical components	No electromechanical	N/A

component.

(see appended table 5.3)

N/A P

Simulation of faults

Audio amplifiers in ITE .....:

5.3.6

5.3.7

	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
5.3.8	Unattended equipment	No such equipment.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions		Р
5.3.9.1	During the tests	No fire or molten metal occurred and no deformation of enclosure during the tests.	Р
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.	Р
			•
6	CONNECTION TO TELECOMMUNICATION NETW	ORKS	N/A
6.1	Protection of telecommunication network service equipment connected to the network, from hazar		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from e	earth	N/A
6.1.2.1	Requirements	(see appended table 5.2)	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 networks	s on telecommunication	N/A
601	Congretion requirements		NI/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		N/A
6.2.2.2	Steady-state test		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	
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

	9				
	IEC 60950-1				
Clause	Requirement + Test	Result - Remark	Verdict		
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		

Α	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		
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)		
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):	_	

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	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
	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
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

В	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)	
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):	_

	IEC 60950-1				
01-		Dec la Deceda	1 1/1 - P - 1		
Clause	Requirement + Test	Result - Remark	Verdict		
С	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)				
	Position:	See appended table 1.5.1.	_		
	Manufacturer:	See appended table 1.5.1.	_		
	Type:	See appended table 1.5.1.	_		
	Rated values	See appended table 1.5.1.	_		
	Method of protection:	By protection circuit.	_		
C.1	Overload test	(see appended table 5.3)	Р		
C.2	Insulation	(see appended table 5.2)	Р		
	Protection from displacement of windings:	(see appended table C.2)	Р		
			1		
D	ANNEX D, MEASURING INSTRUMENTS FOR TOU (see 5.1.4)	CH-CURRENT TESTS	Р		
D.1	Measuring instrument		Р		
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 AN (see 2.10 and Annex G)	D CREEPAGE DISTANCES	Р		
G					
	ANNEX G, ALTERNATIVE METHOD FOR DETERM CLEARANCES	IINING MINIMUM	N/A		
G.1		IINING MINIMUM	N/A N/A		
<b>G.1</b> G.1.1	CLEARANCES	IINING MINIMUM			
	CLEARANCES Clearances	IINING MINIMUM	N/A		
G.1.1	CLEARANCES Clearances General Summary of the procedure for determining	IINING MINIMUM	N/A N/A		
G.1.1 G.1.2	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances	IINING MINIMUM	N/A N/A N/A		
G.1.1 G.1.2 G.2	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)	IINING MINIMUM	N/A N/A N/A		
G.1.1 G.1.2 G.2 G.2.1	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A N/A N/A N/A N/A		
G.1.1 G.1.2 G.2 G.2.1 G.2.2	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A N/A N/A N/A N/A N/A N/A		
G.1.1 G.1.2 G.2 G.2.1 G.2.2 G.2.3	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A N/A N/A N/A N/A N/A N/A N/A		
G.1.1 G.1.2 G.2 G.2.1 G.2.2 G.2.3 G.2.4	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A N/A N/A N/A N/A N/A N/A N/A N/A		
G.1.1 G.1.2 G.2 G.2.1 G.2.2 G.2.3 G.2.4 G.3	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A		
G.1.1 G.1.2 G.2 G.2.1 G.2.2 G.2.3 G.2.4 G.3	CLEARANCES  Clearances  General  Summary of the procedure for determining minimum clearances  Determination of mains transient voltage (V)  AC mains supply	IINING MINIMUM	N/A		

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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
G.5			N/A
	a) Transients from a mains supply  For an a.c. mains supply		N/A
	,		
	For a d.c. mains supply		N/A
0.6	b) Transients from a telecommunication network		N/A N/A
G.6	Determination of minimum clearances:		IN/A
Н	ANNEX H, IONIZING RADIATION (see 4.3.13)		N/A
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTE	ENTIALS (see 2.6.5.6)	Р
	Metal(s) used	The internal metal enclosure is made of mild steel, screw spring washer are made of Ni on steel, the combined electrochemical potential is below 0.6V according to Table J.1.	1
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and	5.3.8)	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		N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOBUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)	DME TYPES OF ELECTRICAL	Р
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
			N/A
L.3	Erasers		1 1/7
L.3 L.4	Erasers Pencil sharpeners		N/A
L.4	Pencil sharpeners		N/A

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Clause	Requirement + Test Result - Remark	Verdict
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)	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 1	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
Р	ANNEX P, NORMATIVE REFERENCES	_
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)	N/A
	- Preferred climatic categories:	N/A
	- Maximum continuous voltage:	N/A
	- Combination pulse current:	N/A
	Body of the VDR Test according to IEC60695-11-5:	N/A
	Body of the VDR. Flammability class of material ( min V-1):	N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES	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
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)	N/A

S.1 S.2 S.3	Test equipment Test procedure Examples of waveforms during impulse testing  ANNEX T, GUIDANCE ON PROTECTION AGAINST INGE (see 1.1.2)  See s  ANNEX U, INSULATED WINDING WIRES FOR USE WITHINSULATION (see 2.10.5.4)	separate test report	N/A N/A N/A N/A P/A
S.1 S.2 S.3	Test equipment Test procedure Examples of waveforms during impulse testing  ANNEX T, GUIDANCE ON PROTECTION AGAINST INGE (see 1.1.2)  See s  ANNEX U, INSULATED WINDING WIRES FOR USE WITHINSULATION (see 2.10.5.4)  Appro	RESS OF WATER separate test report HOUT INTERLEAVED	N/A N/A N/A
S.2 S.3	Test procedure  Examples of waveforms during impulse testing  ANNEX T, GUIDANCE ON PROTECTION AGAINST INGE (see 1.1.2)  See s  ANNEX U, INSULATED WINDING WIRES FOR USE WITH INSULATION (see 2.10.5.4)  Approx	separate test report	N/A N/A N/A
S.3	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGF (see 1.1.2)  See s  ANNEX U, INSULATED WINDING WIRES FOR USE WITHINSULATION (see 2.10.5.4)  Approx	separate test report	N/A N/A
Т	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGF (see 1.1.2)  See s  ANNEX U, INSULATED WINDING WIRES FOR USE WITHINSULATION (see 2.10.5.4)  Approx	separate test report	N/A
	ANNEX U, INSULATED WINDING WIRES FOR USE WITH INSULATION (see 2.10.5.4)  Approx	separate test report	_
	ANNEX U, INSULATED WINDING WIRES FOR USE WITH INSULATION (see 2.10.5.4)  Approx	separate test report	_
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITH INSULATION (see 2.10.5.4)  Approx	HOUT INTERLEAVED	— Р
U	INSULATION (see 2.10.5.4)  Appro		Р
	usea	oved triple insulated wire	_
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1	.6.1)	Р
V.1	Introduction		Р
V.2	TN power distribution systems		Р
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
Х	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORI	MER TESTS (see clause	N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
Υ	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
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2	and Clause G.2)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
ВВ	ANNEX BB, CHANGES IN THE SECOND EDITIO	N	_
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 me equipment	ans of rack-mounted	N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N	:	N/A
DD.3	Mechanical strength test, 250 N, including end stops	:	N/A
DD.4	Compliance	:	N/A
EE	ANNEX EE, Household and home/office docume	ent/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

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	IEC 0030-1				
Clause	Requirement + Test		Result - Remark	Verdict	

1.5.1 TA	ABLE: List of critication	al components			Р
Object/part No.	. Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity <sup>1</sup> )
LCD Panel for 27 inch models	TPV	TPM270WF*- ****** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 26W and backlight input voltage is 35.2V in specification.	IEC 60950-1	Tested in equipment
Alternative	TPV	TPM270WF*- ****.* (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 21.95W and backlight input voltage is 35.2V in specification.	IEC 60950-1	Tested in equipment
Alternative	BOE	HR270WU*-*** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 22.8W and backlight input voltage is 44.8V in specification.	IEC 60950-1	Tested in equipment
Alternative	CHIMEI INNOLUX	M270HGE-*** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 23.83W and backlight input voltage is 34.1V in specification.	IEC 60950-1	Tested in equipment
Alternative	IVO	M270MWN* ** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 26.07W and backlight input voltage is 41.6V in specification.	IEC 60950-1	Tested in equipment
Alternative	AUO	M270HW** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 32.5W and backlight input voltage is	IEC 60950-1	Tested in equipment

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

			59.4V in specification.		
Alternative	AUO	M270DAN**** (*can be 0-9, A- Z, "." or blank)	27 inch panel with LED backlight The declared power consumption is 34.8W and backlight input voltage is 46.5V in specification.	IEC 60950-1	Tested in equipment
Alternative	AUO	M270HVN**.* (*can be 0-9, A- Z, "." or blank)	27 inch panel with LED backlight The declared power consumption is 26.88W and backlight input voltage is 49.5V in specification.	IEC 60950-1	Tested in equipment
Alternative	SAMSUNG	LTM270DL** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 30.84W and backlight input voltage is 52.8V in specification.	IEC 60950-1	Tested in equipment
Alternative	LG Display	LM270W** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 26.46W and backlight input voltage is 51.2V in specification.	IEC 60950-1	Tested in equipment
Alternative	L&T	LM270W** (*can be 0-9, A-Z or blank)	27 inch panel with LED backlight The declared power consumption is 23.7W and backlight input voltage is 47.1V in specification.	IEC 60950-1	Tested in equipment
LCD panel for 23.8 inch models	L&T	LM238W** (*can be 0-9, A-Z or blank)	23.8 inch panel with LED backlight The declared power consumption is 21.85W and backlight input voltage is 57.06V in	IEC 60950-1	Tested in equipment

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

			specification.		
Alternative	LG	LM238W** (*can be 0-9, A-Z or blank)	23.8 inch panel with LED backlight The declared power consumption is 17.3W and backlight input voltage is 52.0V in specification.	IEC 60950-1	Tested in equipment
Alternative	BOE	MV238FHM-N** (*can be 0-9, A-Z or blank)	23.8 inch panel with LED backlight The declared power consumption is 20.6W and backlight input voltage is 54.4V in specification.	IEC 60950-1	Tested in equipment
Alternative	TPV	TPM238WF* (*can be 0-9, A-Z or blank)	23.8 inch panel with LED backlight The declared power consumption is 21.7W and backlight input voltage is 52.5V in specification.	IEC 60950-1	Tested in equipment
Alternative	AUO	M238DTN**.* (*can be 0-9, A-Z or blank)	23.8 inch panel with LED backlight The declared power consumption is 21.4W and backlight input voltage is 49.5V in specification.	IEC 60950-1	Tested in equipment
Plastic Enclosure	Cheil	SD-0150, VH-0810(+), VE-0812, NH-1000T(+), GC-0700(+), GC-1017(+), GC-0750(+), VE-1890(+), TP-1100(+), BF-0675(+), BF-0670F, NH-1017T, NH-1017(+), BF-0677(+), HS-7000RA, LX-0591(+), LX-0597(+), HG-0760(+), HR-1360,	HB or better, 60°C, thickness 2.0mm min.	UL 94	UL (E115797)

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

Alternative	Grand	D-150, D-1000A	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E88637)
Alternative	Chi Mei	PA-757(+), PH-88	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E196075)
Alternative	BASF	GP-35, GP-22, 495F	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E41871)
Alternative	Bayer	FR2000, FR3005	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E41613)
Alternative	LG	HF-350, HF-380, AF-312T1, AF-342T, GN-5001TF, GN-5001RFD, GN-5008A-F, SE750(#), XG-568, XG-569C, GP-1000L, SE-750, GN-5001RF, GN-5001RFT, GN-5008HF, SE885, XG568(#)	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E67171)
Alternative	Teijin	TN-7500, TN-7500F(#) MN-3600H MN-3600HA	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E98529, E244324)
Alternative	STYRON	STYRON A- TECH 1400	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E73656)
Alternative	King Fa	5197, HIPS-5197, HF-606, HF-626, FRABS-518, GAR-011C, JH960 6(M), FRHIPS-960, RS-900, RS-300, RS-400, GAR-011(L65), GAR-011(HG6), CK-100, RD-900,	HB or better, 60 °C, thickness 2.0mm min.	UL 94	UL (E171666)

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

		GAR-001(+), HP-126(+),			
		CK-55(M)(##)			
Alternative	Haier	HRABS-RS, HRABS-HG, CR-3002	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E230779)
Alternative	HINGLONG	HL-ABS-PCR85, HL-ABS-PCR65	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E345434)
Alternative	SABIC INNOVATIVE	C6600(GG)(X)(V S)	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E121562)
Alternative	PONTEX	AFE5000N, AFE5100N, 9004BK	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E205938)
Alternative	UNIC	UR-3006+(RXX)	HB or better, 60 ℃, thickness 2.0mm min.	UL 94	UL (E135175)
Metal enclosure	Interchangeable	Interchangeable	Metallic, thickness 0.4mm min.		
Metal enclosure under power board at horizontal position	Interchangeable	Interchangeable	Metal, thickness 0.81mm min.		
Metal enclosure under power board at vertical position	Interchangeable	Interchangeable	Metal, thickness 0.4mm min.		
Base stand (optional)	Interchangeable	Interchangeable	HB or better	UL 94	UL
PCB	Interchangeable	Interchangeable	V-1 or better, min. 105 ℃	UL 94	UL
Mylar sheet between power board and panel plate	Interchangeable	Interchangeable	Min. 0.4mm thickness, V-0, 105℃	UL 94	UL
Mylar sheet (used to cover the opening of metal enclosure)	Interchangeable	Interchangeable	Min. 0.4mm thickness, V-1 or better, 105℃, adhered to metal enclosure by below adhesive or glue	UL 94	UL
Speaker (2 sets) (optional)	Interchangeable	Interchangeable	Max. 16Ω, max. 5W		
Plastic (used to	Interchangeable	Interchangeable	V-1 or better, min.	UL 94	UL

			IEC 60	950-1				
Clause	Req	uirement + Test			Result - F	Remark		Verdict
cover openi of metal enclosure ty B&C)	_			105℃				
Power supp	ply b	oard: 715G7760		1				
AC-Inlet (CN901)		Inalways Corporation Co., Ltd.	0707-1, 0711-2, 0714	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		Zhang Jia Gang Hua Jie Electronics Co., Ltd.	SA-4S, SB-4S	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		Rong Feng Industrial Co., Ltd.	SS-120, SS-7B	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		DELIKANG/ Douling	CDJ-3, CDJ-3-1	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		Solteam Electronics Co., Ltd.	ST-01, ST-03	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		TECX	TU-301 series	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Alternative		Yueqing Hongchang	DB-14, DB-8, DB-6, DB-14-4, DB-14-05	15A, 250V,	, 70℃	IEC/ EN 60320- 1, UL 498	VDE	, UL
Power switc (SW901)	ch	Rong Feng Industrial Co., Ltd.	RF-1003	VDE: 10(4) 250Vac UL: 10A, 2	,	IEC/EN 61058- 1, UL 1054	VDE	, UL
Alternative		Solteam Electronics Co Ltd	MR-21 series	ENEC: 6A, UL:10A, 125/250Va		IEC/EN 61058- 1, UL 1054	ENE	EC, UL
Alternative		Solteam Electronics Co Ltd	MR-21S	ENEC: 6A, UL: 10A,125/2		IEC/EN 61058- 1, UL 1054	ENE	EC, UL
Alternative		Solteam Electronics Co Ltd	OR-L, OR-P	ENEC: 6A, UL: 10A/12 6A/250Vac	25Vac,	IEC/EN 61058- 1, UL 1054	ENE	EC, UL
Alternative		Solteam Electronics Co Ltd	MR-22	ENEC: 12( 250Vac UL: 12A,125/2	,	IEC/EN 61058- 1, UL 1054	ENE	EC, UL
Alternative		Chily	3024 series	VDE:16(4). 250Vac	Α,	IEC/EN 61058- 1,	VDE	, UL

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

			UL: 15A,125/250Vac	UL 1054	
Fuse (F9901 in primary; F9902, F9903 in secondary for L.P.S)	Conquer	MET, MST, PTU	T5AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Littelfuse	215 series, 677 series, 392, 382	T5AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Wickmann	392, 382	T5AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	SAVE FUSETECH INC	SR-5, SS-5	T5AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Ever Island Electric Co. Itd and Walter electric	2000, 2010	T5AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Y- Capacitor (C9901, C9902, C9904, C9909, C9910, C9912) Y1 or Y2 type (optional)	Walsin	AC, AH	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Wansheng	СТ7	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	TDK	CS, CD	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Murata	KH, KX	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Matsushita	NS-A, NS-B	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	JYA-NAY	JY, JN	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL

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

Alternative	Hongming	F	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Yinan Don	CT81	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Samwha	SD	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	SUCCESS	SB, SE	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Y- Capacitor (C9911) Y1 type (optional)	Walsin	АН	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Yinan Don's	CT81	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Haohua	СТ7	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Wansheng	СТ7	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	TDK	CD	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Murata	KX	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Matsushita	NS-A	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	JYA-NAY	JN	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Success	SE, SB	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Hongming	F	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
X-Capacitor (X1 or X2 type) (C9905, C9906)	Ultra Tech Xiphi	HQX	Max. 0.47μF, 275Vac, 85 <i>°</i> C	IEC/EN 60384- 14, UL 60384- 14	VDE, UL

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Clause	Requirement + Test	Result - Remark	Verdict

(optional)					
Alternative	Faratronic	MKP62	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Hua Jung Components Co., Ltd.	MKP	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, FI, UL
Alternative	RONG GUANG DA	MKP	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Europtronic	MPX	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Europtronic	MPX2	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Liow Gu	GS-L	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Arcotronics	R.46	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	ENEC(IMQ), UL
Alternative	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	EPCOS	B3292#	Max. 0.47μF, 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE,UL
Photo Coupler (U9102, U9401)	Sharp	PC123	Di=0.7mm, int. cr=thermal cycling <sup>3</sup> ext. cr=8.0mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko, Nemko, Fimko
Alternative	Vishay Semiconductor	TCET1103	Di=0.6mm, int. cr= thermal cycling <sup>3</sup> , ext. cr=8.4mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko, Fimko
Alternative	Everlight Electronics Co., Ltd.	EL817, EL817M	Di=0.5mm, int. cr=6.0mm, ext. cr=7.7mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko, Nemko, Fimko
Alternative	Everlight Electronics Co., Ltd.	EL1013	Di=0.4mm, int. cr=thermal cycling <sup>3.</sup> ext. cr=8.0mm,	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko

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Clause	Requirement + Test	Result - Remark	Verdict

			min.3000Vac, 100℃		
Alternative	Lite-on	LTV-817	Di=0.4mm, int. cr= thermal cycling <sup>3</sup> , ext. cr=8.0mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL
Alternative	Renesas	PS2561-1 PS2561L-1 PS2561L1-1 PS2561L2-1 PS2561DL1-1	Di=0.4mm, int. cr=thermal cycling <sup>3</sup> ext. cr=8.0mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL, Nemko, Fimko
Alternative	TOSHIBA	TLP781F TLP781	Di=0.4mm, int. cr=thermal cycling <sup>3.</sup> ext. cr=8.0mm, min.3000Vac, 100 °C	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko, Fimko
Alternative	TOSHIBA	TLP421F	Di=0.4mm, int. cr=thermal cycling <sup>3.</sup> ext. cr=8.0mm, min.3000Vac, 100 ℃	DIN EN 60747- 5-2, UL1577	VDE, UL, Semko, Fimko
Thermistor (TH901, TH902)	Interchangeable	Interchangeable	Min. 0.2Ω at 25 ℃, min. 2A		
Discharge IC (U9104)	Leadtrend	LD5760	100-250Vac, 47- 63Hz	IEC 60950- 1:2005 (2nd) + Am 1	Nemko CB (Certificate No. NO77082)
Bridging Diode (BD9901, BD9902)	Interchangeable	Interchangeable	Min. 600V, min.2A		
Ripple Capacitor (C9815)	Interchangeable	Interchangeable	45-150μF, max. 450V, 105℃		
Transistor (Q9101)	Interchangeable	Interchangeable	Min.600V, min.6A		
Current sensor resistor (R9111)	Interchangeable	Interchangeable	Min. 0.22Ω, 2W		
Line Choke (L9902) (Optional)	ASET	73G174106X	105℃		
Alternative	LI TAI	73G174106L	105℃		
Alternative	YAO SHENG	73G174-106-YS	105℃		
Alternative	Darfon	73G174-106-DN	105℃		
Alternative	Dadon	73G174-106-H	105℃		
Line Choke (L9901)	LITAI	373G0174314L	105℃		

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Clause	Requirement + Test	Result - Remark	Verdict

	T.	T	Г	Г	T
Alternative	CHANNELON	373G0174314H	105℃		
Alternative	ASET	373G0174314X	105℃		
Line Choke (L9801)	CHEN PING	373G0174315CP	105℃		
Alternative	YUVA	373G0174315N	105℃		
Alternative	ASET	373G0174315X	105℃		
Transformer (T9101)	TPV	380GL32P530H	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, 150℃	UL94	UL
- Insulation tape	SYMBIO INC	No.35660Y*(%)	130℃	UL510	UL
Alternative	JINGJIANG YAHUA	No.CT(c)	130℃	UL510	UL
- Triple Wire	COSMOLINK CO.,LTD	TIW-M	130℃	IEC/EN 60950- 1, UL 2353	VDE, UL
Transformer (T9101) (Alternative)	YUVA	380GL32P530N	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	Sumitomo Bakelite Co., Ltd.	PM-9820	Phenolic, V-0, 150℃	UL94	UL
- Insulation tape	SYMBIO INC	No.35660Y*(%)	130℃	UL510	UL
Alternative	JINGJIANG YAHUA	No.CT(c)	130℃	UL510	UL
- Triple Wire	COSMOLINK CO.,LTD	TIW-M	130℃	IEC/EN 60950- 1, UL 2353	VDE, UL
Power supply b	oard: 715G7775				
AC-Inlet (CN901)	Inalways Corporation Co., Ltd.	0707-1, 0711-2, 0714	10A, 250V, 70℃	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	Zhang Jia Gang Hua Jie Electronics Co., Ltd.	SA-4S SA-4S-1	10A, 250V, 70℃	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	Rong Feng Industrial Co., Ltd.	SS-120, SS-7B	10A, 250V, 70℃	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	DELIKANG/ Douling	CDJ-3 CDJ-3-1	10A, 250V, 70℃	IEC/ EN 60320- 1,	VDE, UL

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

		1		111 400	
				UL498	
Alternative	Solteam Electronics Co., Ltd.	ST-01	10A, 250V, 70℃	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	TECX	TU-301-AP, TU-301-S, TU-301-SP, TU-301-A	10A, 250V, 70°C	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	Yueqing Hongchang	DB-14	10A, 250V, 70℃	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	Yueqing Hongchang	DB-6	15A, 250Vac	IEC/ EN 60320- 1, UL498	VDE, UL
Alternative	TECX	TU-301 series	10A, 250V, 70℃	IEC/ EN 60320- 1,	VDE
Power Switch (SW901) (optional)	Solteam	OR-L	VDE: 6A, 250Vac; UL:10A, 125Vac	IEC/EN 61058- 1, ANSI/UL 1054	VDE, UL
Alternative	Rong Feng	RF-1003	VDE: 10(4)A, 250Vac; UL: 10A, 250Vac	IEC/EN 61058- 1, ANSI/UL 1054	VDE, UL
Alternative	Solteam	MR-22	ENEC: 12(4)A, 250Vac; UL: 12A,125/250Vac	IEC/EN 61058- 1, ANSI/UL 1054	ENEC, UL
Alternative	Solteam	MR-21 series	ENEC: 12(4)A, 250Vac; UL: 12A,125/250Vac	IEC/EN 61058- 1, ANSI/UL 1054	ENEC, UL
Fuse (F9901 for primary; F901 for L.P.S +5V)	Conquer	MET, MST, PTU	T4AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Littelfuse, Inc. Wickmann	392, 382-series	T4AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Cooper Bussmann	SR-5, SS-5	T4AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Ever Island Electric Co. Itd and Walter electric	2000, 2010 serie(s)	T4AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Fuse (F801, F902 for L.P.S +16V)	Conquer	MET, MST, PTU	T2AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127-	VDE, UL

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

	T.			_	
				3, UL 248	
Alternative	Littelfuse, Inc. Wickmann	392, 382-series	T2AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Cooper Bussmann	SR-5, SS-5	T2AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Alternative	Ever Island Electric Co. Itd and Walter electric	2000, 2010 serie(s)	T2AL, 250Vac	IEC/ EN 60127- 1, IEC/ EN 60127- 3, UL 248	VDE, UL
Y- Capacitor (C9901, C9902) (Y1 or Y2 type) (optional)	Walsin	AC, AH	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Yinan Don	CT81	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Haohua	CT7	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Wansheng	CT7	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	TDK	CS, CD	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Samwha	SD	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Murata	KH, KX	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Matsushita	NS-A, NS-B	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	JYA-NAY	JY, JN	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Success	SE, SB	Max. 4700pF, 250Vac, 85°C	IEC/EN 60384- 14, UL 60384-	VDE, UL

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

				14	
Alternative	Hongming	F	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Y- Capacitor (C9904) Y1 type (optional)	Walsin	АН	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Yinan Don's	CT81	Max. 4700pF, 250Vac, 85 ℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Haohua	CT7	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Wansheng	CT7	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	TDK	CD	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Murata	KX	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Matsushita	NS-A	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	JYA-NAY	JN	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Success	SE, SB	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
Alternative	Hongming	F	Max. 4700pF, 250Vac, 85℃	IEC/EN 60384- 14 UL 60384- 14	VDE, UL
X-Capacitor (C9903) (X1 or X2 type) (optional)	Ultra Tech Xiphi	HQX	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Hua Jung	МКР	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	ENEC (Semko), UL
Alternative	Faratronic	MKP62	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL

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

		ı	ı	ı	T
Alternative	Europtronic	MPX	Max. 0.47µF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Europtronic	MPX2	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Liow Gu	GS-L	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	EPCOS	B3292#	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Alternative	Arcotronics	R.46	Max. 0.47μF, min. 275Vac, 85℃	IEC/EN 60384- 14, UL 60384- 14	ENEC(IMQ), UL
Alternative	ZHUHAI SUNG HO ELECTRONICS CO LTD	CMPP	Max. 0.47μF, min. 275Vac, 85 ℃	IEC/EN 60384- 14, UL 60384- 14	VDE, UL
Photo Coupler (U902)	Sharp	PC123	Di=0.7mm, int.cr= thermal cycling <sup>3)</sup> , ext.cr=8.0mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko, Nemko
Alternative	Vishay Semiconductor	TCET1103	Di=0.6mm, int.cr= thermal cycling <sup>3)</sup> , ext.cr=8.4mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko
Alternative	Everlight Electronics Co., Ltd.	EL817	Di=0.5mm, int.cr=6.0mm, ext.cr=7.7mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko, Nemko
Alternative	Everlight Electronics Co., Ltd.	EL1013	Di=0.4mm, int.cr=thermal cycling <sup>3)</sup> , ext.cr=8.0mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko
Alternative	Lite-on	LTV-817	Di=0.4mm, int.cr= thermal cycling <sup>3)</sup> , ext.cr=8.0m, min. 3000Vac, 100 °C	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL
Alternative	Renesas	PS2561-1 PS2561L-1 PS2561L1-1 PS2561L2-1	Di=0.4mm, int.cr=thermal cycling <sup>3)</sup> , ext.cr=8.0mm, min.	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Fimko, Nemko

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Clause	Requirement + Test	Result - Remark	Verdict

		PS2561DL1-1	3000Vac, 100℃		
Alternative	TOSHIBA	TLP421F	Di=0.4mm, int.cr=thermal cycling <sup>3)</sup> , ext.cr=8.0mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko
Alternative	TOSHIBA	TLP781F TLP781	Di=0.4mm, int.cr=thermal cycling <sup>3)</sup> , ext.cr=8.0mm, min. 3000Vac, 100 ℃	DIN/EN 60747- 5-2, IEC/EN 60950-1, UL 1577	VDE, UL, Semko, Fimko
Bridging Diode (BD9902)	interchangeable	interchangeable	Min. 2.0A, min. 600Vac		
Ripple Capacitor (C901)	interchangeable	interchangeable	45-150μF, min. 450 V, min. 105 ℃		
Transistor (Q901)	interchangeable	interchangeable	Min. 600V, min. 6.0A		
Thermistor (TH9901) (Optional)	interchangeable	interchangeable	Min. 0.2Ω at 25℃, min. 2A		
Current sensor resistor (R914)	interchangeable	interchangeable	Min 0.22Ω, 2W		
Bleeder Resistor (R9901, R9902, R9903)	interchangeable	SMD type	Max. 680 kΩ, min. 1/4 W (three in series, located after fuse)		
Line Choke (L9901) (optional)	ASET	73G174-241-X	105℃		Tested in equipment
Alternative	CHENPING	73G174-241-CP	105℃		Tested in equipment
Alternative	YUVA	73G174-241-N	105℃		Tested in equipment
Alternative	Dadon	73G174-241-H	105℃		Tested in equipment
Transformer (T901)	TAICHANG	380GL32P542S	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150 ℃	UL 94	UL
- Triple insulation wire	GREAT LEOFLON	TRW(B)	Max.130 °C	IEC/EN 60950- 1, VDE0805 Teil1, UL 2353	UL, VDE

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

- Teflon tube	GREAT HOLDING	TFL	200℃	UL 224	UL
Transformer (T901) (Alt.)	Channelon	380GL32P542H	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150°C	UL 94	UL
- Triple insulation wire	COSMOLINK	TIW-M	Max.130 °C	IEC/EN 60950- 1, VDE0805 Teil1, UL 2353	UL, VDE
- Teflon tube	GREAT HOLDING	TFL	200℃	UL 224	UL
Transformer (T901) (Alt.)	LI TAI	380GL32P542L	Class B	Applicable part according to IEC60950-1 and IEC 60085	Accepted by TÜV Rheinland
- Bobbin	Sumitomo	PM-9820	V-0, Phenolic, 150℃	UL 94	UL
- Triple insulation wire	COSMOLINK	TIW-M	Max.130 ℃	IEC/EN 60950- 1, VDE0805 Teil1, UL 2353	UL, VDE
- Teflon tube	GREAT HOLDING	TFL	200℃	UL 224	UL

- 1. Provided evidence ensures the agreed level of compliance.
- 2. 'Di' means distance through insulation, 'int.' Means internal distance of creepage and 'ext.' Means external

#### distance of creepage.

- 3. There is no any internal creepage distance. Test according to IEC60950-1:2001, cl. 2.10.8 (same as requirement in IEC60950-1:2005, cl. 2.10.9) has been carried out ten times for the components at  $100^{\circ}$ C /  $25^{\circ}$ C /  $0^{\circ}$ C /  $25^{\circ}$ C. Humidity treatment of 48 hours as well as electric strength tests at  $3000^{\circ}$ V / 1 minute was carried out to the component after thermal cycling test.
- 4. All sources of photo coupler were certified according to DIN EN60747-5-2 which in compliance with the requirements and provisions of IEC 60747-5-5.
- 5. All sources of photo coupler were in compliance with CTL DSH 759 decision.
- 6. All sources of transformer were checked with same construction.

1.6.2	TABLE: Electrical data (in normal conditions)						Р	
U (V/Hz)	U (V/Hz) I (A) Irated (A) P (W) Fuse # Ifuse (A) Condition/status						S	
23.8 inch m	23.8 inch model with power board 715G7775, main board 715G7909, panel LM238W** (L&T)							
VGA mode	)							
90/50	0.64		35.2	F9901	0.64	Maximum normal load.		
90/60	0.64		35.1	F9901	0.64	Maximum normal load.		

IEC 60950-1								
Clause	Requireme	nt + Test			Result	t - Remark	Verdict	
				1				
100/50	0.59	1.5	35.0	F9901	0.59	Maximum normal load.		
100/60	0.59	1.5	35.1	F9901	0.59	Maximum normal load.		
240/50	0.33	1.5	34.1	F9901	0.33	Maximum normal load.		
240/60	0.33	1.5	34.1	F9901	0.33	Maximum normal load.		
264/50	0.31		34.0	F9901	0.31	Maximum normal load.		
264/60	0.31		34.0	F9901	0.31	Maximum normal load.		
DVI mode								
90/50	0.64		35.1	F9901	0.64	Maximum normal load.		
90/60	0.64		35.0	F9901	0.64	Maximum normal load.		
100/50	0.59	1.5	34.9	F9901	0.59	Maximum normal load.		
100/60	0.59	1.5	34.8	F9901	0.59	Maximum normal load.		
240/50	0.33	1.5	34.1	F9901	0.33	Maximum normal load.		
240/60	0.33	1.5	34.1	F9901	0.33	Maximum normal load.		
264/50	0.30		34.0	F9901	0.30	Maximum normal load.		
264/60	0.31		34.0	F9901	0.31	Maximum normal load.		
HDMI mod	е			•				
90/50	0.65		35.8	F9901	0.65	Maximum normal load.		
90/60	0.65		35.8	F9901	0.65	Maximum normal load.		
100/50	0.59	1.5	35.6	F9901	0.59	Maximum normal load.		
100/60	0.59	1.5	35.5	F9901	0.59	Maximum normal load.		
240/50	0.33	1.5	35.0	F9901	0.33	Maximum normal load.		
240/60	0.33	1.5	35.0	F9901	0.33	Maximum normal load.		
264/50	0.31		35.1	F9901	0.31	Maximum normal load.		
264/60	0.31		35.0	F9901	0.31	Maximum normal load.		
DP mode	1			•				
90/50	0.66		36.8	F9901	0.66	Maximum normal load.		
90/60	0.65		36.8	F9901	0.65	Maximum normal load.		
100/50	0.60	1.5	36.6	F9901	0.60	Maximum normal load.		
100/60	0.59	1.5	36.5	F9901	0.59	Maximum normal load.		
240/50	0.34	1.5	35.3	F9901	0.34	Maximum normal load.		
240/60	0.33	1.5	35.3	F9901	0.33	Maximum normal load.		
264/50	0.31		35.3	F9901	0.31	Maximum normal load.		
264/60	0.31		35.2	F9901	0.31	Maximum normal load.		

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Clause	Requirement + Test	Result - Remark	Verdict

	uei witii poi	Wei boald i	1507700,11	iaiii boara 7		panel M270DAN**** (AUO)
VGA mode		ı	ı	T		
90/50	0.67		59.8	F9901	0.67	Maximum normal load.
90/60	0.67		59.9	F9901	0.67	Maximum normal load.
100/50	0.61	1.5	59.7	F9901	0.61	Maximum normal load.
100/60	0.61	1.5	59.8	F9901	0.61	Maximum normal load.
240/50	0.30	1.5	58.2	F9901	0.30	Maximum normal load.
240/60	0.30	1.5	58.3	F9901	0.30	Maximum normal load.
264/50	0.29		58.5	F9901	0.29	Maximum normal load.
264/60	0.29		58.7	F9901	0.29	Maximum normal load.
DVI mode						
90/50	0.65		58.3	F9901	0.65	Maximum normal load.
90/60	0.65		58.3	F9901	0.65	Maximum normal load.
100/50	0.59	1.5	58.1	F9901	0.59	Maximum normal load.
100/60	0.59	1.5	57.9	F9901	0.59	Maximum normal load.
240/50	0.29	1.5	56.8	F9901	0.29	Maximum normal load.
240/60	0.29	1.5	56.7	F9901	0.29	Maximum normal load.
264/50	0.28		56.3	F9901	0.28	Maximum normal load.
264/60	0.28		56.1	F9901	0.28	Maximum normal load.
HDMI mode	)			•		
90/50	0.68		60.2	F9901	0.68	Maximum normal load.
90/60	0.68		60.2	F9901	0.68	Maximum normal load.
100/50	0.61	1.5	60.2	F9901	0.61	Maximum normal load.
100/60	0.61	1.5	60.3	F9901	0.61	Maximum normal load.
240/50	0.30	1.5	58.8	F9901	0.30	Maximum normal load.
240/60	0.31	1.5	59.0	F9901	0.31	Maximum normal load.
264/50	0.29		58.6	F9901	0.29	Maximum normal load.
264/60	0.29		58.5	F9901	0.29	Maximum normal load.
DP mode						•
90/50	0.69		61.2	F9901	0.69	Maximum normal load.
90/60	0.69		61.2	F9901	0.69	Maximum normal load.
100/50	0.62	1.5	60.8	F9901	0.62	Maximum normal load.
100/60	0.62	1.5	60.9	F9901	0.62	Maximum normal load.
240/50	0.31	1.5	59.9	F9901	0.31	Maximum normal load.

				EO COOFO 4		Tiepoti No. 1700				
OI.	In. :			EC 60950-1	<u> </u>		M. B.			
Clause	Requiremen	t + Test			Resul	t - Remark	Verdict			
240/60	0.31	1.5	59.8	F9901	0.31	Maximum normal load.				
264/50	0.30		59.7	F9901	0.30	Maximum normal load.				
264/60	0.31		59.9	F9901	0.31	Maximum normal load.				
27 inch mo	odel with pow	er board 7	715G7760, m	nain board 7	15G7271, p	anel M270DAN**** (AUO)				
VGA mode										
90/50	0.74		65.4	F9901	0.74	Maximum normal load.				
90/60	0.73		65.3	F9901	0.73	Maximum normal load.				
100/50	0.66	1.5	65.1	F9901	0.66	Maximum normal load.				
100/60	0.66	1.5	65.0	F9901	0.66	Maximum normal load.				
240/50	0.33	1.5	63.6	F9901	0.33	Maximum normal load.				
240/60	0.32	1.5	63.5	F9901	0.32	Maximum normal load.				
264/50	0.30		63.3	F9901	0.30	Maximum normal load.				
264/60	0.30		63.2	F9901	0.30	Maximum normal load.				
DVI mode										
90/50	0.73		65.2	F9901	0.73	Maximum normal load.				
90/60	0.73		65.2	F9901	0.73	Maximum normal load.				
100/50	0.66	1.5	65.2	F9901	0.66	Maximum normal load.				
100/60	0.66	1.5	65.3	F9901	0.66	Maximum normal load.				
240/50	0.33	1.5	63.8	F9901	0.33	Maximum normal load.				
240/60	0.33	1.5	63.6	F9901	0.33	Maximum normal load.				
264/50	0.31		63.6	F9901	0.31	Maximum normal load.				
264/60	0.31		63.5	F9901	0.31	Maximum normal load.				
HDMI mod	e									
90/50	0.65		62.3	F9901	0.65	Maximum normal load.				
90/60	0.65		62.3	F9901	0.65	Maximum normal load.				
100/50	0.59	1.5	61.7	F9901	0.59	Maximum normal load.				
100/60	0.59	1.5	61.7	F9901	0.59	Maximum normal load.				
240/50	0.30	1.5	59.3	F9901	0.30	Maximum normal load.				
240/60	0.30	1.5	59.1	F9901	0.30	Maximum normal load.				
264/50	0.28		59.9	F9901	0.28	Maximum normal load.				
264/60	0.28		59.1	F9901	0.28	Maximum normal load.				
DP mode						<b>.</b>				
90/50	0.74		66.2	F9901	0.74	Maximum normal load.				
90/60	0.73		65.9	F9901	0.73	Maximum normal load.				

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Clause	Requirement + Test	Result - Remark	Verdict

100/50	0.66	1.5	65.8	F9901	0.66	Maximum normal load.
100/60	0.66	1.5	65.7	F9901	0.66	Maximum normal load.
240/50	0.33	1.5	63.9	F9901	0.33	Maximum normal load.
240/60	0.32	1.5	63.8	F9901	0.32	Maximum normal load.
264/50	0.30		63.8	F9901	0.30	Maximum normal load.
264/60	0.30		63.9	F9901	0.30	Maximum normal load.

- Maximum normal load: maximum brightness, maximum contrast, full white screen. The speakers were loaded with 1KHz noise and adjusted to max. volume during the test.
- Above mentioned panels chosen for the test, due to the highest power consumption specified in panel spec among all the panels of each size.

2.1.1.5	TABLE:	ABLE: max. V, A, VA test							
Voltage (ı (V)	rated)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)		(max.) (VA)			
For power board : 715G7775									
+16V ou	utput		16.3	5.2		47			
+5V output			5.3	10		44			
For power b	For power board: 715G7760								
+19V ou	ıtput		19.1	4.7	8	32.0			
Note(s): Tes	Note(s): Test voltage is 264Vac, 60Hz								

2.1.1.7	TABLE:	discharge tes	t		!		
Condition		τ calculated (s)	τ measured (s)	$t u \rightarrow 0V$ (s)	Comments		
For power b	oard : 71	5G7775					
System on (with fuse in, L-N)		0.96	0.77	$U_{OC} = 381 \text{ Vpk}, 37\% \text{ of } U_{OC} = 141 \text{ Vpk},$		1 Vpk,	
Supplement	ary inform	ation:					
					(R9901=R9902=R9903=680kΩ was recorded.	2);	
For power b	For power board: 715G7760						
System on (with fuse in, L-N)			0.25		Vo=373Vpk, 37% of Vo=138Vpk.		

- 1. Overall capacity: (C9905=C9906=0.47 $\mu$ F), discharged rely on approved ICX (IC9104); 2. Supplied with 264V/60Hz and 90V/60Hz. And worse test result was recorded.

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Clause	Requirement + Test	Result - Remark	Verdict		

2.2.2	TABLE: Hazardous voltage mea	asurement			Р	
Componer	nt (measured between)		oltage (V) operation)	Voltage Limiti Components	ng	
		V peak	V d.c.			
For power	board : 715G7775	·				
T901 Pin 6	,7 – Pin 8,9	21.3				
T901 Pin 1	0 – Pin 8,9	61.0				
After R915		59.7		R915		
After C912		31.0		C912		
After C913	/D908		16.3	C913/D908		
After L801			30.7			
Converter	circuit to Earth		41.6			
Fault test p	performed on voltage limiting ts	Volta	ge measured ( (V peak o	V) in SELV circuit r V d.c.)	ts	
R915 (s-c)			16.2V (for +1	16V output)		
C912 (s-c)			16.3V (for +16V output)			
C913 (s-c)			16.3V (for +1	16V output)		
D908 (s-c)			0V (for +16	V output)		
Supplemen	ntary information: Input Voltage is 2	40Vac, 60Hz				

2.2.2	TABLE: Hazardous voltage mea	asurement			Р		
Component (measured between)			oltage (V) operation)	Voltage Limitin Components	ng		
		V peak	V peak V d.c.				
For powe	er board: 715G7760						
T9101 pin	1 6,7,8 – pin 10,11,12	91.0					
After R91	03	74.0		R9103			
After C91	41	37.0		C9141			
After C91	42/D9106		19.1	C9142/D9106			
After L801	1		25.7				
After D80	6		43.8				
Fault test componer	performed on voltage limiting nts	Volta	Voltage measured (V) in SELV circuits (V peak or V d.c.)				
C9141(s-c	C)		19.2V (for +19V output)				
R9103 (s-	c)		19.2V (for +19V output)				
C9142(s-c	c)		0V (for +19	V output)			

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Clause	Requirement + Test		Result - Remark	Verdict

D9106 (s-c)	0V (for +19V output)
Supplementary information: Input Voltage is 240	Vac. 60Hz

2.4.2	TABLE: limited current circuit measurement								
Location		U2 Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments			
For power	For power board : 715G7775								
bridging Y1 (C9904)	capacitor		0.52		0.7				
For power	For power board: 715G7760								
bridging Y1 (C9911)	capacitor		0.55		0.7				

## Note(s):

- 1. Input Voltage is 240Vac, 60Hz.
- 2. Measuring instrument of figure D.1 used.

2.5	TABLE: Limited power sources					
Circuit outp	ut tested: +16V out	out (power boar	d : 715G7775)			
Note: Meas	ured Uoc (V) with a	Il load circuits dis	sconnected:			
		Uoc (V)	I <sub>sc</sub>	(A)	V	A
			Meas.	Limit	Meas.	Limit
Normal condition		16.3	5.2	61.3 (20)	47	250
Circuit outp	ut tested: +5V outp	ut (power board	: 715G7775)			
Note: Meas	ured Uoc (V) with a	Il load circuits dis	sconnected:			
		Uoc (V)	I <sub>sc</sub>	(A)	V	A
			Meas.	Limit	Meas.	Limit
Normal con	dition	5.3	10	188.7 (40)	44	250

- 1. Input Voltage is 240Vac, 60Hz. Sc=Short circuit, Oc=Open circuit.
- 2. +16V and +5V outputs with fuses F801, F901 that will break the circuit within 120 s with a current equal to 210%. Current limit of table 2C reduced to breaking capacity of the fuse (20A or 40A).

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Clause	Requirement + Test	Result - Remark	Verdict		

2.5	TABLE: Limited power sources							
Circuit output tested: +19V output (power board: 715G7760)								
Note: Measured Uoc (V) with all load circuits disconnected:								
		Uoc (V)	I <sub>sc</sub>	(A)	VA			
Meas. Limit Meas. Limit								
Normal cond	dition	19.1	4.7	52.4 (50)	82.0	250		

- 1. Input Voltage is 240Vac, 60Hz. Sc=Short circuit, Oc=Open circuit.
- 2. +19V and 19V outputs with fuses F9902, F9903 that will break the circuit within 120 s with a current equal to 210%. Current limit of table 2C reduced to breaking capacity of the fuse (50A).

2.6.3.4	TABLE: ground cont	inue test		Р
Location		Resistance measured (mΩ)	Comments	
23.8 inch m	odel with power boar	d 715G7775		
PE terminal metal enclos	of AC inlet to internal sure	5.0	Test with 32A, 2 minutes	
PE terminal metal enclos	of AC inlet to internal sure	5.0	Test with 40A, 2 minutes	
PE terminal trace	of AC inlet to C9901	6.5	Test with 32A, 2 minutes	
PE terminal trace	of AC inlet to C9901	6.3	Test with 40A, 2 minutes	
PE terminal trace	of AC inlet to C9902	6.3	Test with 32A, 2 minutes	
PE terminal trace	of AC inlet to C9902	6.1	Test with 40A, 2 minutes	
27 inch mo	del with power board	715G7760		
PE terminal metal enclos	of AC inlet to internal sure	5.0	Test with 32A, 2 minutes	
PE terminal metal enclos	of AC inlet to internal sure	5.0	Test with 40A, 2 minutes	
	of AC inlet to 09/C9910 trace	6.1	Test with 32A, 2 minutes	
	of AC inlet to 09/C9910 trace	6.3	Test with 40A, 2 minutes	
PE terminal C9901/C990	of AC inlet to 02 trace	6.3	Test with 32A, 2 minutes	
PE terminal C9901/C990	of AC inlet to 02 trace	6.6	Test with 40A, 2 minutes	

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Clause	Requirement + Test		Result - Re	emark	Verdict
PE terminal of AC inlet to C9912 trace		6.4	Test with 32A, 2 minutes		
PE terminal of AC inlet to C9912 trace		6.6	Test with 40A, 2 minutes		
Suppleme	entary information:				

2.10.2 Table: working	g voltage measurement			Р
Location	RMS voltage (V)	Peak voltage (V)	Comments	
23.8 inch model with powe	er board 715G7775			
T901: Pin1 to pin 6,7	179	378		
T901: Pin1 to pin 8,9	177	388		
T901: Pin1 to pin 10	177	350		
T901: Pin2 to pin 6,7	179	353		
T901: Pin2 to pin 8,9	178	345		
T901: Pin2 to pin 10	177	375		
T901: Pin4 to pin 6,7	234	366		
T901: Pin4 to pin 8,9	230	342		
T901: Pin4 to pin 10	248	410		
T901: Pin5 to pin 6,7	247	488		
T901: Pin5 to pin 8,9	260	500	Max Vrms and Max Vpea	
T901: Pin5 to pin 10	258	490		
U902 Pin1-3	184	353		
U902 Pin1-4	182	348		
U902 Pin2-3	182	348		
U902 Pin2-4	181	350		
C9904 Pin 1-2	212	341		
27 inch model with power	board 715G7760			
T9101: Pin1 to pin 6	196	400		
T9101: Pin2 to pin 6	195	381		
T9101: Pin3 to pin 6	309	522		
T9101: Pin5 to pin 6	289	481		
T9101: Pin1 to pin 10	193	375		
T9101: Pin2 to pin 10	195	438		
T9101: Pin3 to pin 10	321	540	Max Vrms and Ma	ax Vpeak

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Clause	Requirement + Test	Result - Remark	Verdict		

T9101: Pin5 to pin 10	289	412				
U9102 Pin1-3	205	384				
U9102 Pin1-4	204	381				
U9102 Pin2-3	205	384				
U9102 Pin2-4	205	384				
U9401 Pin1-3	184	362				
U9401 Pin1-4	185	359				
U9401 Pin2-3	185	359				
U9401 Pin2-4	185	359				
C9911	193	375				
Supplementary information: Input Voltage is 240Vac, 60Hz						

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						Р
Clearance cla	and creepage at/of:	U p (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
23.8 inch mo	del with power bo	oard 715G77	75				
Functional:							
Under fuse (F	<sup>1</sup> 9901) <sup>1.</sup>	420	250	2.3	2.7	2.5	4.0
Before fuse (b	oetween L-N)	420	250	2.3	4.1	2.5	6.6
Basic / suppl	lementary:						
Line-GND 1.		420	250	3.0	3.0 7)	3.0	4.2
Neutral-GND	1.	420	250	3.0	3.0 7)	3.0	4.2
Under C9902	1.	420	250	3.0	7.9	3.0	7.9
Under C9901		420	250	3.0	7.3	3.0	7.3
Primary comp metal enclosu	oonent C823 to ire	420	250	3.0	5.1	3.0	5.1
Primary comp transformer) to	oonent (main o metal enclosure	500	260	3.3	11.3	3.3	11.3
Primary comp plate	onent to panel	500	260	3.3	9.3	3.3	9.3
Reinforced:	Reinforced:						
Under T9101		500	260	6.6	18.0	6.6	18.0
Under C9904		420	250	6.0	7.6	6.0	7.6

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Clause	Requirement + Test	Result - Remark	Verdict

U9401 primary pin to U9401	420	250	6.0	8.3	6.0	8.3
secondary pin (trace side)						

- 1. There is one slot measured 1mm width.
- 2. Core of main transformer T901 consider as primary.
- 3. One mylar sheet is fixed between primary components L9901, HS902 and metal enclosure to fulfill the requirement for basic insulation.
- 4. Glued component: C901.
- 5. Considered altitude correction factor 1.48 for clearances for an altitude of 5000m.
- 6. For clearance and creepage that did not describe above are far larger than limit above.
- 7. Same test result after repeat two more measurements on same position.

2.10.3 and 2.10.4 TABLE: clearance and creepage distance measurements					Р	
Clearance cl and creepage distance dcr at/of:	U p (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)
27 inch model with power boa	ard 715G776	60				
Functional:						
Under fuse (F9101) 1.	420	250	2.3	2.9	2.5	4.0
Before fuse (between L-N)	420	250	2.3	3.8	2.5	3.8
Basic / supplementary:						
Line-GND 1.	420	250	3.0	3.1	3.0	4.6
Neutral-GND 1.	420	250	3.0	3.1	3.0	4.5
Under C9901 1.	420	250	3.0	7.6	3.0	7.8
Under C9904	420	250	3.0	3.8	3.0	3.8
Under C9902 1.	420	250	3.0	7.6	3.0	8.0
Under C9909 <sup>1.</sup>	420	250	3.0	3.6	3.0	4.3
Under C9910 1.	420	250	3.0	3.6	3.0	4.3
Under C9912 1.	420	250	3.0	7.5	3.0	8.0
Primary component L9801 to metal enclosure	420	250	3.0	6.2	3.0	6.2
Primary component C9815 to metal enclosure	420	250	3.0	6.5	3.0	6.5
Primary component (main transformer) to metal enclosure	540	321	3.3	11.3	3.3	11.3
Reinforced:		•	•			
Under T9101	540	321	6.6	18.0	6.6	18.0

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Clause	Requirement + Test	Result - Remark	Verdict

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Under C9911 1.	420	250	6.0	7.8	6.0	8.3
U9401 primary pin to U9401 secondary pin (trace side)	420	250	6.0	7.8	6.0	7.8
U9102 primary pin to U9102 secondary pin (trace side)	420	250	6.0	7.8	6.0	7.8
U9102 secondary pin to core of T9101	420	250	6.0	7.0	3.2	7.0

- 1. There is one slot measured 1mm width.
- 2. Core of main transformer T9101 consider as primary.
- 3. One mylar sheet is fixed between primary trace and panel to fulfill the requirement for basic insulation.
- 4. One mylar sheet is fixed between primary components L9902, HS9101 and metal enclosure to fulfill the requirement for basic insulation.
- 5. Glued component: C9815.
- 6. Considered altitude correction factor 1.48 for clearances for an altitude of 5000m.
- 7. For clearance and creepage that did not describe above are far larger than limit above.

2.10.5 TABLE: distance through insulation measurements						
Distance through insulation di at/of:  U r.m.s.  (V)  Test voltage (V)  (mm)					di (mm)	
Photo coupler (reinforced insulation)		250	3000	0.4	1.	
Mylar sheet between power board and metal plate of panel (basic insulation)		250	1500		min. 0.4	
Note(s): 1. For approved component source see appended table 1.5.1.						

4.5	TABLE: maximum temperatures	Р		
	test voltage (V):	: a) 90V/50Hz, b) 264V/60Hz		_
	t1 (°C)			_
	t2 (°C)			_
Maximum temperature T of part/at:		Τ (℃)		allowed T <sub>max</sub> (°C)
Test voltage		a)	b)	
23.8 inc	h model with power board 715G7775			
Horizor	ntal position			

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Clause Requirement + Test	Result - Remark		Verdict
AC Inlet body CN901(on power board)	37.7	36.3	55.3
C9901 body (on power board)	36.3	34.5	70.3
C9903 (on power board)	38.4	36.3	70.3
C901 (on power board)	37.3	36.5	90.3
L9901 coil (on power board)	51.5	49.5	90.3
PCB near BD9902(on power board)	44.1	42.6	90.3
C9904 body (on power board)	40.3	38.7	70.3
T901 coil (on power board)	56.4	55.7	95.3
T901 core(on power board)	55.3	54.5	95.3
U902 body (on power board)	45.7	43.5	85.3
PCB near Q901 (on power board)	47.3	46.7	90.3
PCB near Main IC (main board)	45.9	43.3	90.3
PCB near L801 (on power board)	51.3	49.7	90.3
Plastic enclosure inside near T901	35.1	33.9	Ref.
Plastic enclosure outside	31.9	29.8	80.3
Panel surface	37.6	35.7	85.3
Metal enclosure	33.8	31.6	55.3
Ambient	25.7	25.3	
Vertical position			
AC Inlet body CN901(on power board)	37.9	36.8	55.1
C9901 body (on power board)	37.1	36.3	70.1
C9903 (on power board)	38.7	36.9	70.1
C901 (on power board)	37.8	36.7	90.1
L9901 coil (on power board)	50.9	48.7	90.1
PCB near BD9902(on power board)	45.3	43.2	90.1
C9904 body (on power board)	40.3	38.7	70.1
T901 coil (on power board)	55.8	54.3	95.1
T901 core(on power board)	55.7	53.6	95.1
U902 body (on power board)	45.7	43.5	85.1
PCB near Q901 (on power board)	46.9	45.3	90.1
PCB near Main IC (main board)	44.5	43.6	90.1
PCB near L801 (on power board)	50.5	48.3	90.1
Plastic enclosure inside near T901	35.0	33.6	Ref.

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Clause Requirement + Test	Result - Re	mark	Verdict
Plastic enclosure outside	30.7	29.3	80.1
Panel surface	37.1	35.3	85.1
Metal enclosure	33.5	31.1	55.1
Ambient	25.5	25.1	
27 inch model with power board 715G7760	-	1	<u>'</u>
Horizontal position			
AC Inlet body CN901(on power board)	38.8	37.3	55.5
Switch body (on power board)	37.9	37.1	55.5
PCB near TH9901(on power board)	51.4	50.7	90.5
C9815 (on power board)	65.8	57.3	90.5
C9905 (on power board)	44.4	41.9	70.5
L9901 coil (on power board)	53.7	50.5	90.5
L9902 coil (on power board)	53.1	49.1	90.5
L801 coil (on power board)	56.9	53.4	90.5
PCB near BD9901(on power board)	47.2	46.2	90.5
C9901 body (on power board)	46.3	44.5	70.5
C9911 body (on power board)	48.4	45.3	70.5
T9101 coil (on power board)	71.3	69.3	95.5
T9101 core(on power board)	68.1	66.8	95.5
U9102 body (on power board)	61.4	59.3	85.5
U9401 body (on power board)	58.5	56.1	85.5
PCB near Q901 (on power board)	56.3	55.7	90.5
PCB near Main IC (main board)	49.5	47.0	90.5
PCB near L801 (on power board)	57.3	56.1	90.5
Plastic enclosure inside near T9101	39.7	38.2	Ref.
Plastic enclosure outside	35.8	33.1	80.5
Panel surface	39.3	38.7	80.5
Metal enclosure	40.8	37.1	55.5
Ambient	25.5	25.9	
Vertical position	·		

		IEC 6095	0-1			
Clause	Requirement + Test		Res	sult - Remar	k	Verdict
AC Inlet bo	ody CN901(on power board)		36.	9	36.5	56
Switch boo	dy(on power board)		37.	0	36.7	56
PWB near	TH9901(on power board)		49.	4	48.3	91
C9815 (on	power board)		52.	3	47.6	91
C9905 (on	power board)		45.	0	42.1	71
L9901 coil	(on power board)		52.	8	51.1	91
L9902 coil	(on power board)		53.	3	49.5	91
L801 coil(d	on power board)		57.	3	54.7	91
PCB near	BD9901(on power board)		47.	5	46.7	91
C9901 boo	ly (on power board)		46.	46.6		71
C9911 body (on power board)			48.	48.1		71
T9101 coil (on power board)		70.	8	68.8	96	
T9101 core	T9101 core(on power board)		67.	67.3 6		96
U9102 boo	U9102 body (on power board)		61.	61.3		86
U9401 body (on power board)		57.	9	55.5	86	
PCB near Q901 (on power board)		56.	8	55.3	91	
PCB near Main IC (main board)		48.	3	46.6	91	
PCB near	L801 (on power board)		58.	58.2		91
Plastic end	closure inside near T9101		39.	39.7		Ref.
Plastic end	closure outside		31.	31.7 29.5		81
Panel surface			40.	1	39.3	81
Metal enclosure		41.	8	39.1	56	
Ambient		26.	1	26.0		
Temperatu	re T of winding:	R <sub>1</sub> (Ω)	$R_2$ $(\Omega)$	T (℃)	allowed T <sub>max</sub> (℃)	insulation class

### Supplementary information:

- 1. The temperatures were measured under the worse case normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 at voltages as described above.
- 2. With a specified ambient temperature of 40  $^{\circ}$ C. Temperature limits are calculated as follows:

Winding components providing safety isolation:

- Class B → Tmax = 120 - 10 - 40 + Tamb

Components with maximum absolute temperature of others:

- Tmax = Tmax of component - 40 + Tamb

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Clause	Requirement + Test	Result - Remark	Verdict

4.5.5	TABLE: Ball pressure test of thermoplastic parts			N/A
	Allowed impression diameter (mm):	≤ 2 mm		_
Part		Test temperature (°C)		ession er (mm)
Suppler	nentary information:			

4.6.1, 4.6.2 Table: enclosure	openings		Р
Location	Size (mm)	Comments	
External Plastic enclosure			
Top side	1.8x15.0	Numerous rectangle openings. N part within vertical projection of 5 opening.	
Bottom side	1.8x15.0	Numerous rectangle openings.	
Other sides		No opening	
Internal metal chassis type A 1	) at landscape orientation; 2) at p	portrait orientation	
1>Top 2>Left	1) Numerous circular openings: Φ1.9	1)-2) No hazards present within 5 area.	° projection
	2) One ellipse opening: 12.2x18.1		
Rear	<ol> <li>One rectangular opening: 36.7x48.3</li> <li>One rectangular opening: 40.1x35.3</li> <li>One rectangular opening: 20.6x70.3</li> <li>One rectangular opening: 34.5x40.7</li> </ol>	1)-2) Blocked by external plastic 3)-4) Blocked by adhesive V-1 m tested according to clause 4.6.5.	ylar sheet,
1> Left (power board side) 2> Bottom	One rectangular opening: 21.7x40.7	Blocked by adhesive V-1 mylar staccording to clause 4.6.5. No haz	
1> Right (main board side) 2> Top	<ol> <li>One rectangular opening:</li> <li>23.4x48.3</li> <li>One rectangular opening:</li> <li>12.7x17.8</li> </ol>	1)-2) No hazards present within 5 area.	° projection
1> Bottom 2> Right	Numerous circular openings: Φ1.88, minimum spacing of holes centre to centre 3.5mm, Min. thickness: 0.81mm	Metal enclosure is considered to a requirement of fire enclosure ope hazards.	

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Clause	Requirement + Test		Result - Remark	Verdict

Internal metal chassis type B a	and C 1> at landscape orientation	; 2> at portrait orientation
1> Top 2> Left	1) Numerous circular openings: Φ3.2	1)-4) No hazards present within 5° projection area.
	2) One ellipse opening: 26.1x14.0	
	3) Two rectangular openings: 19.5x9.2	
	4) One rectangular opening: 79.3x18.0	
Rear	1) One ellipse opening: 23.9x55.3	1) Blocked by adhesive V-1 mylar sheet, tested according to clause 4.6.5. No hazard.
	2) One rectangular opening: 36.4x34.8	2)-4) Blocked by external plastic enclosure.
	3) One rectangular opening:78.7x21.4	
	4) One rectangular opening: 111.2x29.2	
1> Left (USB board side) 2> Bottom	1) Two rectangular openings: 4.4x7.8	1)-4) Blocked by plastic rated min. V-1. For internal metal chassis type B' and type
27 Bottom	2) Two rectangular openings: 18.8x8.7	C', no opening.
	3) One circular opening: Φ2.2	
	4) Two circular openings: Φ3.5	
1> Right (main board side)	One rectangular opening: 110.9x8.0	1) No hazards present within 5° projection area.
2> Top	110.3x0.0	al ca.
1> Bottom	1) Numerous circular openings	Metal enclosure is considered to satisfy the requirement of fire enclosure opening. No
2> Right	(under power board when the unit at landscape orientation): $\Phi$ 1.9, minimum spacing of holes centre to centre 3.3mm, Min. thickness: 0.81mm	hazards. 2) No hazards.
	2) Numerous circular openings(under main board when the unit at landscape orientation):: Ф3.2	

4.7	Table: resis	able: resistance to fire				Р
Part		Manufacturer of material	Type of material	Thickness (mm)	Fla	ammability class
PCB						V-1

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Clause	Requirement + Test	Result - Remark	Verdict

Plastic enclosure *				НВ
Mylar sheet used for block metal chassis opening	1			V-1
Plastic used for block metal chassis opening				V-1
Metal enclosure		Metal	Min. 0.81mm	

Supplementary information: See table 1.5.1.

<sup>\*</sup> Not fire enclosure.

5.1 TABLE: touch curre	ent measuremen	t		Р
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions	
23.8 inch model with power boar	rd 715G7775			
L – earthed metal part	0.47	3.5	Switch "e" open	
N – earthed metal part	0.45	3.5	Switch "e" open	
L – signal connector*	0.08	0.25	Switch "e" close	
N – signal connector*	0.08	0.25	Switch "e" close	
L – plastic enclosure with metal foil	0.005	0.25	Switch "e" close	
N – plastic enclosure with metal foil	0.005	0.25	Switch "e" close	
27 inch model with power board	d 715G7760		·	
L – earthed metal part	0.54	3.5	Switch "e" open	
N – earthed metal part	0.52	3.5	Switch "e" open	
L – signal connector*	0.07	0.25	Switch "e" close	
N – signal connector*	0.07	0.25	Switch "e" close	
L – plastic enclosure with metal foil	0.005	0.25	Switch "e" close	
N – plastic enclosure with metal foil	0.005	0.25	Switch "e" close	
Supplementary information: Su	pplied with 264V/	60Hz.		

<sup>\*</sup> Test performed with functional earthing disconnected.

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	TABLE: Electric strength tests, impulse tes	ts and voltage surg	e tests	Р
Test voltag	e applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
23.8 inch r	nodel with power board 715G7775		•	
Basic/sup	plementary:			
Unit primar	ry to earthed metal part	AC	1740	No
Mylar shee	t between power board and metal enclosure	AC	1740	No
Reinforce	d:	•		
L/N to acce	essible plastic enclosure with metal foil	AC	3000	No
Unit primar	ry to secondary (output)	AC	3000	No
T901 <sup>1)</sup> : prii	mary to secondary	AC	3000	No
T901 <sup>1)</sup> : sed	condary to core	AC	3000	No
T901 <sup>1)</sup> : ead	ch layer of insulation tape	AC	3000	No
27 inch mo	odel with power board 715G7760			
Basic/sup	plementary:			
Unit primar	ry to earthed metal part	AC	1740	No
Mylar shee	t between power board and panel plate	AC	1740	No
Mylar shee	t between power board and metal enclosure	AC	1740	No
Reinforce	d:			
L/N to acce	essible plastic enclosure with metal foil	AC	3000	No
Unit primar	ry to secondary (output)	AC	3000	No
T9101 <sup>1)</sup> : pı	rimary to secondary	AC	3000	No
T9101 <sup>1)</sup> : se	econdary to core	AC	3000	No
T9101 <sup>1)</sup> : ea	ach layer of insulation tape	AC	3000	No

# Supplementary information:

- Where transformer was tested, all source of transformers listed in table 1.5.1 were tested;
   Test after humidity conditioning test.

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	T	ABLE: Fau	It condition tests	<u> </u>					Р
	Aı	mbient tem	perature (°C)			Se	ee below		_
			e for EUT: ManuF output rating						_
Componen No.	it	Fault	Supply voltage (V)	Test time	Fuse	#	Fuse current (A)	Obser	vation
23.8 inch m	od	el with pov	ver board 715G7	775					
Ventilation openings		Blocked	264	2hrs	F990	)1	0.31	Unit operate Max. measu T901 coil: 59 T901 core: 5 U902: 49.7° Ambient: 25 no damaged hazards.	red temp.: 9.3°C 58.1°C C .3°C
Speak		s-c	264	2hrs	F990	)1	0.31	Unit operate Max. measu T901 coil: 55 T901 core: 5 U902 body: Ambient: 25 no damaged hazards.	red temp.: 5.3℃, 54.8℃, 43.4℃, .6℃,
BD9902 (AC - +)		S-C	264	<1s	F990	)1	0	Fuse F9901 immediately hazards.	
C901		S-C	264	<1s	F990	)1	0	Fuse F9901 immediately hazards.	
U901 pin5-4	1	S-C	264	5min.	F990	)1	0.03	U901 damag hazards.	ge, no
U901 pin5-1	I	S-C	264	5min.	F990	)1	0.06	U901 damaq hazards.	ge, no
U901 pin6-1	I	S-C	264	5min.	F990	1	0.04	Unit shut do hazards.	wn, no
U902 pin1		0-C	264	5min.	F990	1	0.03	Unit shut do hazards.	wn, no
U902 pin1-2	2	S-C	264	5min.	F990	)1	0.04	Unit shut do hazards.	wn, no
U902 pin3-4	1	S-C	264	5min.	F990	)1	0.06	Unit shut do hazards.	wn, no
Q901 D-S		S-C	264	5min.	F990	)1	0.03	Q901, R914 no hazards.	damage,
Q901 G-D		S-C	264	5min.	F990	)1	0.02	Q901, R909 No hazards.	

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Clause	Requirement + Test	Result - Remark	Verdict

Q901 G-S	S-C	264	5min.	F9901	0.04	Unit shut down, no hazards.
R914	S-C	264	2hrs	F9901	0.30	Unit operated normally, no damaged, no hazards.
T901 pin1-2	S-C	264	5min.	F9901	0.06	Unit shutdown, no damaged, no hazards.
T901 pin4-5	S-C	264	5 min.	F9901	0.06	Unit shutdown, no damaged, no hazards.
T901 pin6,7 - 8,9	S-C	264	5 min.	F9901	0.06	Unit shutdown, no damaged, no hazards.
T901 pin8,9 - 10	S-C	264	5 min.	F9901	0.06	Unit shutdown, no damaged, no hazards.
D801	S-C	264	5 min.	F9901	0.04	Unit shut down, no damaged, no hazards.
D910	S-C	264	5 min.	F9901	0.04	Unit shut down, no damaged, no hazards.
+16V output	S-C	264	5 min.	F9901	0.04	Unit shut down, no hazards.
+16V output	o-l	264	5hrs 20min.	F9901	0.42	Max. measured temp in T901 coil: 103.1 ℃, T901 core: 98.7 ℃, U902 body: 72.8 ℃, Ambient: 25.8 ℃, before shutdown winding is loaded to 3.0A, no damage, no hazards.
+5V output	o-l	264	4hrs 30min.	F9901	0.40	Max. measured temp in T901 coil: 97.6 ℃, T901core: 92.8 ℃, U902 body: 70.3 °C, Ambient: 25.7 °C, before shutdown winding is loaded to 7.5A, no damage, no hazards.
+5V output	s-c	264	5 min.	F9901	0.04	Unit shut down, no hazards.
27 inch mode	l with pow	er board 715G77	760	<u> </u>		
Ventilation openings	Blocked	264	2hrs	F9901	0.33	Unit operated normally, Max. measured temp.: T9101 coil: 75.2 °C, T9101 core: 71.2 °C, U9102: 65.1 °C, U9401: 61.2 °C, Ambient: 25.7 °C, no damaged, no hazards.

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Clause	Requirement + Test	Result - Remark	Verdict

Speak	S-C	264	10min.	F9901	0.30	Unit work normal except speakers. No damage, no hazards.
BD9901 (AC - +)	S-C	264	<1sec	F9901	0	Fuse F9901 open immediately, no hazards.
C9815	S-C	264	<1sec	F9901	0	Fuse F9901 open immediately, no hazards.
U9104 pin 5- 4	S-C	264	10min.	F9901	0.03	U901 damage, no hazards.
U9104 pin 5- 6	S-C	264	10min.	F9901	0.06	Unit shut down, no hazards.
U9104 pin 5- 1	S-C	264	10min.	F9901	0.04	U901 damage, no hazards.
U9102 pin 1	0-C	264	10min.	F9901	0.03	Unit shut down, no hazards.
U9102 pin1-2	S-C	264	10min.	F9901	0.04	Unit shut down, no hazards.
U9102 pin 3- 4	S-C	264	10min.	F9901	0.06	Unit shut down, no hazards.
U9401 pin 1	O-C	264	10min.	F9901	0.02	Unit shut down, no hazards.
U9401 pin 1- 2	S-C	264	10min.	F9901	0.03	Unit shut down, no hazards.
U9401 pin3-4	s-c	264	10min.	F9901	0.04	Unit shut down, no hazards.
Q9101 D-S	S-C	264	10min.	F9901	0.03	Q9101, R9111, R9142 damage, no hazard.
Q9101 G-D	S-C	264	10min.	F9901	0.02	Q9101, R9106 damage, no hazards.
Q9101 G-S	S-C	264	10min.	F9901	0.04	Unit shut down, no hazards.
Q9801 D-S	S-C	264	10min.	F9901	0.03	Q9101, R9808 damage, no hazards.
Q9801 G-D	S-C	264	10min.	F9901	0.02	Q9101, R9806, R9810 damage, no hazards.
Q9801 G-S	S-C	264	10min.	F9901	0.04	Unit shut down, no hazard.
Q802 D-S	S-C	264	10min.	F9901	0.03	Unit shut down, no hazard.
Q802 G-D	S-C	264	10min.	F9901	0.02	Unit shut down. No hazard.

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

Q802 G-S	S-C	264	10min.	F9901	0.04	Unit shut down, no hazard.
U9801 pin 4- 8	S-C	264	10min.	F9901	0.04	Unit shut down, no hazards.
U9801 pin 7- 8	S-C	264	10min.	F9901	0.02	U901 damage, no hazards.
T9101 pin1-2	S-C	264	10min.	F9901	0.06	Unit shutdown, no damage, no hazards.
T9101 pin3-5	S-C	264	10min.	F9901	0.06	Unit shutdown, no damage, no hazards.
T9101 pin7- 10	S-C	264	10min.	F9901	0.06	Unit shutdown, no damage, no hazards.
D806	S-C	264	10min.	F9901	0.04	Unit shut down, no damage, no hazards.
D9105	S-C	264	10min.	F9901	0.04	Unit shut down, no damage, no hazards.
+19V output	S-C	264	10min.	F9901	0.04	Unit shut down, no hazards.
+19V output	o-l	264	5hrs	F9901	0.43	Max. measured temp in T9101 coil: 96.1 °C, T9101 core: 90.1 °C, U9102 body: 77.8 °C, U9401 body: 75.2 °C, Ambient= 25.8 °C, before shutdown max. loaded to 4.0A, no damage, no hazards.
USB 2.0	o-l	264	3.5hrs	F9901	0.35	Max. measured temp in T9101 coil: 72.4 °C, T9101core: 69.4 °C U9102 body: 66.7 °C, U9401 body: 65.1 °C, Ambient: 25.6 °C, USB 2.0 port can be max. loaded to 1.5A.no damage, no hazards.
USB 3.0	o-l	264	4hrs	F9901	0.36	Max. measured temp in T9101 coil: 74.5 °C, T9101core: 71.4 °C U9102 body: 67.8 °C, U9401 body: 65.2 °C, Ambient: 25.5 °C, USB 3.0 port can be max. loaded to 2.9A, no damage, no hazards.

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Clause	Requirement + Test	Result - Remark	Verdict

USB fast charge	0-1	264	4hrs	F9901	0.36	Max. measured temp in T9101 coil: 75.6 °C, T9101core: 72.8 °C U9102: 68.3 °C, U9401 body=65.9 °C, Ambient= 25.8 °C, USB fast charge port can be max. loaded to 3.1A, no damage, no hazards.
USB 2.0	s-c	264	10min.	F9901	0.32	Work normal, no hazards, no damage.
USB 3.0	S-C	264	10min.	F9901	0.32	Work normal, no hazards, no damage.
USB fast charge	S-C	264	10min.	F9901	0.32	Work normal, no hazards, no damage.

### Supplementary information:

- 1. The unit passed 3000V hi-pot test between primary and accessible output connector after single fault test above.
- 2. In fault column, where s-c=short-circuited, o-c=open-circuited, o-l = overload.
- 3. For fuse opened conditions were tested with each source of fuse.
- 4. For component damaged conditions have been repeated twice (three tests total) with same result.
- 5. Temp. limit of transformer according to table C.1 is 150 °C 10 (40 °C 20.4 °C) = 120.4 °C (worst case) for Class A.

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11.1mm (between secondary solder pin and core.)

Triple insulation wire

provided for sec. windings.

Verdict

Result - Remark

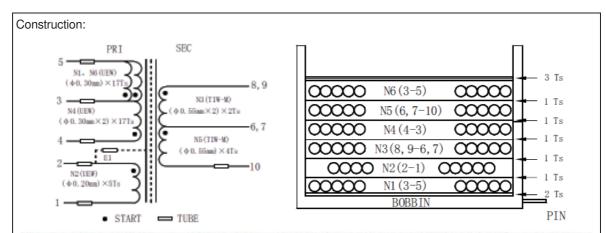
	T		
C.2	Safety isolation transformer		Р
	Construction details:		
Transformer	part name: <b>T901 (used on power board 7150</b>	37775)	
Manufacture	er: See appended table 1.5.1		
Туре:	See appended table 1.5.1		
Constructior materials dif	ns of all sources of T901 are identical each other ference.	r, except for model designation	n, manufacturer and
Recurring pe	eak voltage	500V	
Required cle (from table 2	earance for reinforced insulation 2H and 2J)	6.6mm	
Effective vol	tage rms	260V	
Required cre (from table 2	eepage distance for reinforced insulation PL)	6.6mm	
Measured m	nin. creepage distance		
Location		inside (mm)	outside (mm)
prim-sec		Triple insulation wire provided for sec. windings.	42.5mm (between primary and secondary solder pins.)
prim-core			
sec-core		Triple insulation wire provided for sec. windings.	11.1mm (between secondary solder pin and core.)
Measured m	nin. clearances		
Location		inside (mm)	outside (mm)
prim-sec		Triple insulation wire provided for sec. windings.	42.5mm (between primary and secondary solder pins.)
prim-core			

sec-core

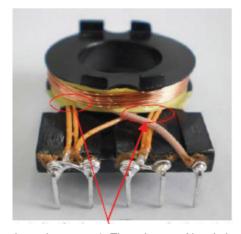
Clause

Requirement + Test

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



No.	COIL	TERMINAL	WIRE GAUGE	WIRE TYPE	TUNS	WINDING METHOD	TAPE 2Ts
1	N1	3-5	ф 0.30 mm	UEW	17	CLOSED	1Ts
2	N2	2-1	Φ 0.20 mm	UEW	5	CLOSED	1Ts
3	N3	8,9-6,7	Φ 0.55 mm×2	TIW-M	2	CLOSED	1Ts
4	N4	4-3	Φ 0.30 mm×2	UEW	17	CLOSED	1Ts
5	N5	6,710	Φ 0.55 mm	TIW-M	4	CLOSED	1Ts
6	N6	35	ф 0.30 mm	UEW	17	CLOSED	3Ts



Concentric windings on bobbin (horizontal type core). Three layers of insulation tape around the outer winding and the outer winding is primary. Triple insulated wire used for secondary windings. The core is considered as primary part.

Pin numbers			
Prim.	Pin 1-2; Pin 3-4-5		
Sec.	Pin 8,9-6,7-10		
Bobbin			
Material	See table 1.5.1.		
Thickness	Min. 0.45mm		

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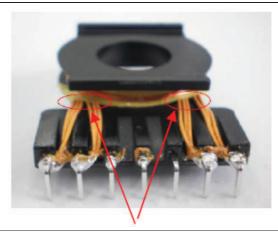
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	IEC 60950-1						
Clause Requirement + Test Result - Remark Ve					Verdict		
Electric str	ength test						
With 3000	With 3000 V a.c. after humidity treatment						
Result	Result Pass						

C.2	Safety isolation transformer		Р
	Construction details:		
Transformer	part name: T9101 (used on power board 715	5G7760)	
Manufacture	er: See appended table 1.5.1		
Type:	See appended table 1.5.1		
			T
Recurring po	eak voltage	540V	
Required cle (from table 2	earance for reinforced insulation 2H and 2J)	6.6mm	
Effective vol	tage rms	321V	
Required cro (from table 2	eepage distance for reinforced insulation 2L)	6.6mm	
Measured m	nin. creepage distance		
Location		inside (mm)	outside (mm)
Primary to s	econdary	Triple insulated wire used for secondary winding	54.7mm (between primary and secondary solder pins.) 8.0mm (between secondary pin to primary winding)
Primary to c	ore		
Secondary t	o core	Triple insulated wire used for secondary winding	11.8mm (between secondary solder pin and core.)
Measured m	nin. clearances		_
Location		inside (mm)	outside (mm)

	IEC 60950-	-1	
Clause	Requirement + Test	Result - Remark	Verdict
Primary to s	econdary	Triple insulated wire used for secondary winding	54.7mm (between primary and secondary solder pins.) 8.0mm (between secondary pin to primary winding)
Primary to c	ore		
Secondary t	o core	Triple insulated wire used for secondary winding	11.8mm (between secondary solder pin and core.)
Construction 12	FRONT VIEW  SIDE V  CORE T/  25um*24	APE:  AnnW 2Ts MIN  EPOXY  G DIRECTION	
4 <del>-</del> ( 3 <del>-</del> 2 <del>-</del>	N2 (UEW) Φ 0. 30mm) × 13Ts N6 (TIW-M) (Φ 0. 50mm×2P) × 5Ts N6 (TIW-M) (Φ 0. 50mm×2P) × 5Ts N4 (TIW-M) (Φ 0. 50mm×2P) × 5Ts Myl. (Φ 0. 50mm×2P) × 5Ts Myl. 12 1.) F	X     X       X <th>2 Ts 2 Ts PIN</th>	2 Ts 2 Ts PIN

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



Concentric windings on phenolic bobbin. Triple insulated wire used for secondary windings, therefore core is considered as primary. All primary winding leads are covered by tube.

Pin numbers	
Pri.	pin 1-2, pin 3-4-5
Sec.	pin 6-10, pin 7-11, pin 8-12
Bobbin	
	See details in table 1.5.1.
Thickness	min. 0.45mm
Electric strength test	
With 3000 V a.c. after humidity treatment	
Result	Pass

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

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

	IEC 60950-1, GRO	OUP DIFFER	RENCES (CEN	ELEC comn	non 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	Add the following	annexes:				Р
	Annex ZA (normative)  Normative references to international publications with their corresponding European publications					
(A2:2013)	Annex ZB (normat Annex ZD (informat				ns e designations for	
General	Delete all the "country" notes in the reference document (IEC 60950-1:2005) according to the following list:			Р		
	2.3.2.1 Note 2 2.7.1 Note 3.2.1.1 Note 4.3.6 Note 1 & 2 4.7.3.1 Note 2	2.2.4 2.3.4 2.10.3.2 3.2.4 4.7 5.1.7.1 6.1.2.1 6.2.2.1	Note Note 2 Note 2 Note 3. Note 4 Note 3 & 4 Note 2	1.7.2.1 2.3.2 2.6.3.3 2.10.5.13 2.5.1 4.7.2.2 5.3.7 6.1.2.2	Note 3 Note 2 Note Note 1	
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					Р

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test		Result - Remark	Verdict

	IEC 60950-1, GROUP DIFFERENCES (CENELEC c	ommon modifications EN)	
Clause	Requirement + Test	Result - Remark	Verdict
General (A2:2013)	Delete all the "country" notes in the reference documed 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.	2	P
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 equipment. See IEC Guide 112, Guide on the safety of multimedia 60065 applies.		Р
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.	Added.	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.	Р
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.		N/A

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test		Result - Remark	Verdict

Clause	Requirement + Test	Result - Remark	Verdict
	Zx Protection against excessive sound pressplayers	sure from personal music	N/A
	Zx.1 General	Not personal music player	N/A
	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.		

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

Clause	Requirement + Test	Result - Remark	Verdict
	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.		
	Zx.2 Equipment requirements	Not such equipment.	N/A
	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 LAeq, 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 LAeq.Tis 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		
	<ul> <li>b) have a standard acoustic output level not exceeding those mentioned above, and</li> </ul>		
	automatically return to an output level not exceeding those mentioned above when the power is switched off; and		

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

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:		
	<ol> <li>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</li> </ol>		
	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 LAeq,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 LAEQ.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.		

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test		Result - Remark	Verdict

	IEC 60950-1, GROUP DIFFERENCES (CENELEC	common modifications EN)	
Clause	Requirement + Test	Result - Remark	Verdict
	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 (headph	ones and earphones)	N/A
	Zx.4.1 Wired listening devices with analogue input  With 94 dBA sound pressure output LAeq,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

Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.2 Wired listening devices with digital input	Not such equipment	N/A
	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 LAeq, 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.		
	Zx.4.3 Wireless listening devices	Not such equipment	N/A
	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 $\leq 100$ dBA.		
	NOTE An example of a wireless listening device is a Bluetooth headphone.		
	Zx.5 Measurement methods	Not such equipment	N/A
	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.		

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test		Result - Remark	Verdict

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
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;		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.	No such equipment	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.	Unit is not a permanently connected equipment.	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	No power supply cord provided.	N/A
	second sentence.		
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

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IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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		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).		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.		N/A
Bibliograph y	Additional EN standards.		_

Ī	ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH	_
		THEIR CORRESPONDING EUROPEAN PUBLICATIONS	

	ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)				
1.2.4.1	In <b>Denmark</b> , 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 <b>Norway</b> and <b>Sweden</b> , for requirements see 1.7.2.1 and 7.3 of this annex.		N/A		
1.5.7.1 (A11:2009)	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , 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.	No such resistors.	N/A		

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict	
1.5.8	In <b>Norway</b> , 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 <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A	
1.7.2.1 (A11:2009)	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"  In Norway and Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system.  It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer.  The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: "Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing — and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."		P	

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
	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 som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av utstyret til kabel-TV nettet installeres 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 vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och		
1.7.2.1 (A2:2013)	kabel-TV nätet."  In <b>Denmark</b> , 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 <b>Denmark</b> shall be as follows: In <b>Denmark</b> : "Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord."		P
1.7.5 (A11:2009)	In <b>Denmark</b> , 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 <b>CLASS II EQUIPMENT</b> the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.	No socket-outlet provided.	N/A

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In <b>Denmark</b> , 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.	No socket-outlet provided.	N/A
	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		
2.2.4	In <b>Norway</b> , 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 <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> 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 <b>Norway</b> , 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 <b>United Kingdom</b> , the current rating of the circuit shall be taken as 13 A, not 16 A.		Р
2.7.1	In the <b>United Kingdom</b> , 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 <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	In <b>Switzerland</b> , 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	No supply cords provided.	N/A

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
	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 socketoutlet 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		
3.2.1.1	In <b>Denmark</b> , supply cords of single-phase equipment having a rated current not exceeding 13 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.	No supply cords provided.	N/A
3.2.1.1 (A2:2013)	In <b>Denmark</b> , 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	No supply cords provided.	N/A

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In <b>Spain</b> , 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.	No supply cords provided.	N/A
	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.		
3.2.1.1	In the <b>United Kingdom</b> , 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.	No supply cords provided.	N/A
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.	No supply cords provided.	N/A
3.2.4	In <b>Switzerland</b> , for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the <b>United Kingdom</b> , 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.	No supply cords provided.	N/A
3.3.4	In the <b>United Kingdom</b> , 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 mm² to 1,5 mm² nominal cross-sectional area.	No supply cords provided.	N/A

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict		
4.3.6	In the <b>United Kingdom</b> , 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		
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.	Measured touch current not exceeding 3,5 mA r.m.s.	N/A		
6.1.2.1 (A1:2010)	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , 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	No connection to telecommunication networks.	N/A		

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict	
	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.			
	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 connection to telecommunication networks.	N/A	
7.2	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , 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 <b>Norway</b> and <b>Sweden</b> , 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		
	IEU	GENELEG		
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		

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict	

## ATTACHMENT TO TEST REPORT IEC 60950-1 CANADA NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to ...... CAN/CSA C22.2 No. 60950-1-07 + A1:2011 + A2: 2014

	Special national conditions		
1.1.1	All equipment is designed as to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and if applicable, the National Electrical Safety Code, IEEE C2	In accordance with the National Electrical Code (NEC), ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	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		Р
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	Considered.	Р
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	No external cable provided.	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		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	Single-phase equipment.	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
	Likewise, a voltage rating is not to be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions"		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with NEC or CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent	No wiring terminals.	N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable	Not operator-accessible.	Р
2.6	Equipment with isolated ground (earthing) receptacles is in compliance 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 provided 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, provided with special transformer overcurrent protection		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC		N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment		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 comply with special earthing, wiring, marking and installation instruction requirements	No power supply cord provided.	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	No connection to a centralized d.c. power system.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length	Pluggable equipment type A.	N/A
	Minimum cord length is 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 compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC		N/A
3.2.9	Permanently connected equipment has a suitable wiring compartment and wire bending space	Pluggable equipment type A.	N/A

	IEC60950_1F - ATTACHMI		
Clause	Requirement + Test	Result - Remark	Verdict
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0	No wiring terminals.	N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm²)	No wire binding screws.	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	Plugable equipment type A.	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	Revise first column of Table 3E to "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 provided 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 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 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 complies with NFPA 30	No liquids.	N/A
4.3.13.5.1	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No lasers.	N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m³ (27 cu ft) 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 0.9m <sup>2</sup> (10 sq ft) or a single dimension greater than 1.8 m (6 ft) 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

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.1	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 complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370)	Equipment is not such a device.	N/A
	Other National Differences		
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material tandard requirements.	Complied. See table 1.5.1	P
	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 cut-offs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables		
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, TNV-2 Circuit or 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 includes 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 V <sub>peak</sub> 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

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
2.6.2	Equipment with functional earthing 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		P
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT	No CRTs.	N/A
4.3.2	Equipment with handles complies with special loading tests	No handles.	N/A
4.3.8	Battery packs for both portable and stationary applications comply with special component requirements		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests	No TNV.	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 overloaded		N/A
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test is 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 protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC	No TNV.	N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger	No document (paper) shredder.	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.	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 comply with special acoustic pressure requirements	No TNV.	N/A

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

# ATTACHMENT TO TEST REPORT IEC 60950-1 FINLAND NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

**Differences according to**..... EN 60950-1:2006/A11:2009/A1:2010

Attachment Form No...... FI\_ND\_IEC60950\_1C

Attachment Originator .....: SGS Fimko Ltd

Master Attachment ....: Date (2010-04)

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	National Differences		
General	See also Group Differences (EN 60950-1:2006/A11/A1)		Р
1.5.7.1	In <b>Finland</b> 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
1.5.9.4	In <b>Finland</b> , 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 <b>Finland</b> ,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 in Finland shall be as follows: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"		P
2.3.2	In <b>Finland</b> , there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV.	N/A
2.10.5.13	In <b>Finland</b> , 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 - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	In Finland, 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 <b>Finland</b> , 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 requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition  - passes the tests and inspection criteria of 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.		N/A

	IEC60950_1F - ATTACHM	ENT	
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 60384-14:2005 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 60384-14:2005;		
	- the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14:2005, in the sequence of tests as described in EN 60384-14:2005.		
6.1.2.2	In Finland, 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 <b>Finland,</b> 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

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

## ATTACHMENT TO TEST REPORT IEC 60950-1 GERMANY NATIONAL DIFFERENCES

 $Information\ technology\ equipment-Safety-$ 

Part 1: General requirements

Differences according to ...... VDE 0805-1:2011-01

	According to GPSG, section 2, clause 4:	N/A
1.7.2.1	If certain rules on the use, supplementation or maintenance of an item of technical work	
	equipment or ready-to-use commodity must be	
	observed in order to guarantee safety and health,	
	instructions for use in German must be supplied when it is brought into circulation.	

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict	

# ATTACHMENT TO TEST REPORT IEC 60950-1 ISRAEL NATIONAL DIFFERENCES

 $Information\ technology\ equipment-Safety-$ 

Part 1: General requirements

Differences according to ...... SI 60950 Part 1

1.1.1	Replace the the text of Note 3 as follows:	Replaced.	Р
	The requirements of Israel Standard SI 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment.		
1.6	The clause is applicable with the following addition:		N/A
1.6.1	Add following note: In Israel, this clause is applicable subject to the Electricity Law, 1954, its regulations and revisions.	Added	N/A
1.7	The clause is applicable with the following additions: Subclause 1.7.201 shall be added at the beginning of the clause as follows:	Added	N/A
1.7.201	Marking in the Hebrew language The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language. The details shall be marked on the apparatus or on its package, or on a label properly attached to the apparatus or on the package, by bonding or sewing, in a manner that the label cannot be easily removed.  1. Name of the apparatus and it commercial designation; 2. Manufacturer's name and address. If the apparatus is imported, the importer's name and address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture.		N/A
1.7.2.1	The following shall be added to the clause: All the instructions and warnings related to safety shall also be written in the Hebrew language.	Added	N/A
2	The clause is applicable with the following additions:		Р

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
2.9.4	The following shall be added at the beginning of the clause: In Israel, according to the Electricity Law, 1954, and the Electricity Regulations (Earthing and means of protection against electricity of voltages up to 1,000V) 1991, seven means of protection against electrocution are permitted, as follows:  1) TN-S - Network system earthing; TN-C-S - Network system earthing; 2) TT - Network system earthing; 3) IT - Network Insulation Terre; 4) Isolated transformer;	Added.	P
	<ul> <li>5) Safety extra low voltage (SELV or ELV);</li> <li>6) Residual current circuit breaker (30 mA = IΔ);</li> <li>7) Reinforced insulation; Double insulation (class II)</li> </ul>		
2.201	Prevention of electromagnetic interference - Prior to carrying out the tests in accordance with the clauses of this Standard, the compliance of the apparatus with the relevant requirements specified in the appropriate part of the Standard series, SI 961, shall be checked.		N/A
	The apparatus shall meet the requirements in the appropriate part of the Standard series, SI 961.  If there are components in the apparatus for the prevention of electromagnetic interference, these components shall not reduce the safety level of the apparatus as required by this Standard.		
3	The clause is applicable with the following additions:		
3.2.1.1	Connection to an a.c. mains supply After the note, the following note shall be added: Note: In Israel, the feed plug shall comply with the requirements of Israel Standard SI 32 Part 1.1.	No feed plug provided.	N/A
3.2.1.2	Connection to a d.c. mains supply At the end of the first paragraph, the following note shall be added: Note: At the time of issue of this Standard, there is no Israel Standard for connection accessories to d.c.	No connected to d.c. mains supply	N/A
Annex P	Normative references (List of relevant Israel Standards that have been inserted in place of some of the International Standards)	Inserted	P

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict	

## ATTACHMENT TO TEST REPORT IEC 60950-1 KOREA NATIONAL DIFFERENCES

 $Information\ technology\ equipment-Safety-$ 

Part 1: General requirements

Differences according to ...... K 60950-1

1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305)	No power supply cord provided.	N/A
8	EMC		N/A
	The apparatus shall comply with the relevant CISPR standards.		

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

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	Special national conditions		
1.1.1	All equipment is designed as to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and if applicable, the National Electrical Safety Code, IEEE C2	In accordance with the National Electrical Code (NEC), ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	Р
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75		Р
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	Considered.	Р
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	No external cable provided.	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		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	Single-phase equipment.	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

	IEC60950_1F - ATTACHMI		
Clause	Requirement + Test	Result - Remark	Verdict
	- if it is part of a range that extends into the Table 2 "Normal Operating Conditions"		N/A
	Likewise, a voltage rating is not to be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions"		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with NEC or CEC Part 1 or NEC are marked with the voltage rating and "Class 2" or equivalent	No wiring terminals.	N/A
	- Marking is located adjacent to the terminals		N/A
	- Marking is visible during wiring		N/A
2.5	Fuse providing Class 2, Limited Power Source, or TNV current limiting is not operator-accessible unless it is not interchangeable	Not operator-accessible.	Р
2.6	Equipment with isolated ground (earthing) receptacles is in compliance 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 provided 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, provided with special transformer overcurrent protection		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains is in accordance with the NEC/CEC		N/A
3.2.1	Attachment plugs of power supply cords are rated not less than 125 percent of the rated current of the equipment		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 comply with special earthing, wiring, marking and installation instruction requirements	No power supply cord provided.	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	No connection to a centralized d.c. power system.	N/A
3.2.5	Power supply cords are no longer than 4.5 m in length	Pluggable equipment type A.	N/A

	IEC60950_1F - ATTACHMI	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
	Minimum cord length is 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 compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC		N/A
3.2.9	Permanently connected equipment has 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 comply with CSA C22.2 No. 0	No wiring terminals.	N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm²)	No wire binding screws.	N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are	Plugable equipment type A.	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	Revise first column of Table 3E to "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 provided 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 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 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 complies with NFPA 30	No liquids.	N/A
4.3.13.5.1	Equipment with lasers meets the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).	No lasers.	N/A

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m³ (27 cu ft) 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 0.9m <sup>2</sup> (10 sq ft) or a single dimension greater than 1.8 m (6 ft) 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
4.7.3.1	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 complies with U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370)	Equipment is not such a device.	N/A
	Other National Differences		
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury 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 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 cut-offs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables	Complied. See table 1.5.1	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply	No connection to the DC Mains Supply.	N/A

	IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test	Result - Remark	Verdict
	This maximum operating voltage includes 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 V <sub>peak</sub> 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 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		Р
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more reduce the risk of injury due to the implosion of the CRT	No CRTs.	N/A
4.3.2	Equipment with handles complies with special loading tests	No handles.	N/A
4.3.8	Battery packs for both portable and stationary applications comply with special component requirements		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals comply with a special touch current measurement tests	No TNV.	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 overloaded		N/A
	During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test is 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 protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC	No TNV.	N/A
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger	No document (paper) shredder.	N/A

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict	
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.	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 comply with special acoustic pressure requirements	No TNV.	N/A	

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

(Deviations Special Nati	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	Replace the existing NOTE as NOTE 1, and add NOTE 2 as following:  NOTE 2: Even if the equipment is designed as CLASS I EQUIPMENT, if a 2-pin plug adaptor with a protective earthing lead wire (adaptor which converts a plug for CLASS I EQUIPMENT to a 2-pin plug with no earing contact) or a cord set having a 2-pin plug with a protective earthing lead wire is packed as accessory together with the equipment or if use of those is recommended to the users, the equipment is considered as CLASS 0I EQUIPMENT.	Added.	P		
1.2.4.3A	Add 1.2.4.3A as following:  1.2.4.3A  CLASS 0I EQUIPMENT  Equipment having a mains plug without earthing contact, which protection against electric shock is achieved by:  - using BASIC INSULATION; and - for the measures to connect conductive part(s) regarded as part at HAZARDIUS VOLTAGE in the event of fault of BASIC INSULATION to PROTECTIVE EARTHING CONDUCTOR, equipping any one of the following:  a) mains plug with a protective earthing lead wire, this includeds the following cases: - where a 2-pin plug adaptor with a protective earthing lead wire is packed as accessory together with the equipment; or - where use of it is recommended.  b) independent protective earthing terminal (see 2.6.5.8A) if the equipment uses a power supply cord of two conductors (exclude earthing conductor)  NOTE - CLASS 0I EQUIPMENT may have a part constructed with DOUBLE INSUILATION or REINFORCED INSULATION.	Added.	P		

	IEC60950_1F - ATTACHN	IENT	
Clause	Requirement + Test	Result - Remark	Verdict
1.3.2	Add the following NOTEs after first paragraph: NOTE 1 TRANSPORTABLE or similar equipment that are relocated frequently for intended usage it is recommended not to design as CLASS I or CLASS 0I EQUIPMENT unless it is intended to be installed by a SERVICE PERSON or installation personnel.	Added.	N/A
	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 a SERVICE PERSON or installation personnel.		
1.5.1	Replace the first paragraph with the following: Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standards, or IEC component standards in case there is no applicable JIS component standard 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, for connector of power cord set which is capable of insertion to one of appliance inlets specified in either IEC 60320-1 or JIS C 8283-1, the connector shall comply with the dimensions of the appropriate connector specified in IEC 60320-1 or JIS C 8283-1.	Replaced.	P
	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.		

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.  Replace existing NOTE to NOTE 1 without modification of the sentence in the second dashed paragraph.	Replaced.	P
	Replace "where no relevant IEC component standard exists" to "where neither the relevant IEC component standard nor JIS standard corresponding to the relevant IEC component standard exists" in the third dashed paragraph.  Add NOTE 2 as follows:  NOTE 2 If an appliance inlet with a rated current of 10A, which is of STANDARD SHEET C14 specified in JIS C 8283-1, is used for equipment with a rated voltage of 125V or less; and with a rated current of exceeding 10A, refer to 1.7.5A.		
1.5.9.1	General Replace the following at first dash of NOTE 2:  JIS C5381-21 [ Part 21 of Low pressure surge protection device : Performance requirement and test method of surge protection device (SPD) which connected with communication channel and signal]	No gas discharge tube (GDT).	N/A
1.5.9.4	Add the following at last paragraph: It is permitted to use a gas discharge tube (GDT) in series with a VDR that bridges BASIC INSULATION in accordance with the conditions in this subclause if the GDT complies with the requirements for FUNCTIONAL INSULATION.	No gas discharge tube (GDT).	N/A
1.7.1	Replace the existing dashed items for manufacturer's name etc. and for model identification etc. with the following respectively:  - manufacturer's (or responsible business operator's) name or trade-mark or identification mark;  - manufacturer's (or responsible business operator's) model identification or type reference;  In the last paragraph, replace "ISO 7000 or IEC 60417" with "JIS S 0101, ISO 7000 or IEC 60417".	Replaced.	P

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict	
1.7.2.1	Add the following: Instructions and the marking(s) on equipment, which related to safety, shall be made in Japanese.		N/A	
1.7.5	Replace IEC 60083 with JIS C 8303 in the second paragraph.	Replaced.	N/A	
1.7.5A	Add the following new clause after 1.7.5  1.7.5.A Power supply cord set  If an appliance inlet with a rated current of 10 A, which is of STANDARD SHEET C14 specified in JIS C 8283-1, is used for equipment with a rated voltage of 125 V or less and with a rated current of exceeding 10 A, the operating instructions shall provide the following or equivalent instruction:  **COMMENT** (**A) LEMENT** = *** **TEMENT**.**  For equipment with an appliance inlet, if a power supply cord set is not provided by packing together with the equipment, the operating instructions shall provide information on the applicable power supply cord set.  NOTE For the combination of CLASS 0I EQUIPMENT equipped with an appliance inlet with earthing contact and a power supply cord set of two conductors (exclude earthing conductor), to pack the power supply cord set together with the equipment and to provide a sentence calling attention of the following purport in the operating instructions are recommended, because such power supply cord set is a special kind of cord set:  - this is usable only for this equipment; and - to use this for other equipment is not allowed.	Added.	N/A	
1.7.14A	Add the following new clause after 1.7.14 1.7.14A Marking for protective earthing connection for CLASS 0I EQUIPMENT CLASS 0I EQUIPMENT shall be provided with the following or equivalent instruction:  - on the mains-plug or the easily visible section of equipment, the following instruction:  - in the easily visible section of equipment or in the operating instructions, the following instruction:	Added.	P	

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.14B	Add the following new clause after 1.7.14 1.7.14B Protective earth wire used for CLASS 0I EQUIPMENT For CLASS 0I EQUIPMENT equipped with a separate protective earthing terminal as main protective earthing terminal, if a protective earth wire is not provided by packing together with the equipment, the operating instructions shall provide information on the applicable protective earth wire. (See 2.6.3.2.)	Added.	P
2.1.1.1	In b) of the fifth paragraph, replace "IEC 60083, IEC 60309, IEC 60320, IEC 60906-1 or IEC 60906-2" with "JIS C 8303, (the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials, MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards".	Replaced.	P
2.6.3.2	Add the following:  If the conductor of protective earthing lead wire or the protective earth wire of CLASS 0I EQUIPMENT is of single-core, it shall be one of the following:  - annealed copper wire of 1,6 mm in diameter, or metallic wire having the same or more strength and diameter and being not easily corrosive; or  - single-core cord or single-core cabtyre cable (sheathed flexible cable), which have a cross-sectional area of at least 1,25 mm².	Added.	P
2.6.3.5	Add the following: However, this requirement does not apply to the inside conductor of power supply cord (or power supply cord set), which has been molded together with a plug and a connector and has been sheathed.	Added.	N/A
2.6.4.2	Add the following: For CLASS 0I EQUIPMENT equipped with a separate protective earthing terminal, the protective earthing terminal may be used as the main protective earthing terminal.	Added.	P
2.6.5.4	Replace 1st sentence with the following.  "Protective earthing conductors" with "Protective earthing conductors of CLASS I EQUIPMENT".	Replaced.	Р
2.6.5.6	Replace "protective earthing terminals" with "protective earthing and protective bonding terminals".	Replaced.	Р

	IEC60950_1F - ATTACHM	ENT	
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.	P
2.9.3 Table 2H	Deleted the following mark of Figure 2H: B13 e) and S2 d)	Deleted	N/A
2.9.3 Figure 2H	Addition of marking for table 2H: B8, B9, B12, B13, S1	Added	N/A
2.10.3.1	In the third paragraph, replace IEC 60664-1 with JIS C 60664-1.  Replace the 8th paragraph with the following: The above minimum CLEARANCES for connectors do not apply to: - connectors that comply with JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards or JIS C 8303; and - connectors that comply with the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), and comply with the dimensions specified in the JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2; see also 1.5.2.	Replaced.	P
2.10.3.2	In the bottom column of Table 2J, add the following: In Japan, the MAINS TRANSIENT VOLTAGE value against the nominal AC MAINS SUPPLY voltage of 100 V is decided by applying the columns for the AC MAINS SUPPLY voltage of 150 V.	Added.	P
2.10.3.3	In Table 2L, add the following into the column specifying the additional CLEARANCES and at the end:  For intermediate voltage values between the PEAK WORKING VOLTAGE values given in this table, linear interpolation is permitted between the nearest two points, the calculated additional minimum CLEARANCE being rounded up to the next higher 0,1 mm increment.	Added.	P

	IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict	
2.10.4.3	Replace the 6th paragraph with the following: The above minimum CLEEPAGE DISTANCES for connectors do not apply to: - connectors that comply with JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards or JIS C 8303; and	Replaced.	Р	
	- connectors that comply with the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), and comply with the dimensions specified in the JIS C 8283 series of standards, JIS C8303 or IEC 60309-2; see also 1.5.2.			
2.10.9	Replace clause which as test method of $T^{1}$ from 1.4.5 to 1.4.12.	Replaced.	N/A	
3.2.1.1	Add the following:  When equipment with an appliance inlet connects to AC mains supply, see clause 1.7.5A for the relevant mark of power supply cord set.	Added.	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.	Added.	N/A	
3.2.4	Add the following: The equipment shall have a structure of which the soldered sections of the terminals of appliance inlet are not subjected to mechanical stress during the insertion or removal of the connector, except the case fixing the appliance inlet itself mechanically but not only by soldering.	Body of appliance inlet secured to metal chassis by screws and lock washer, and wire soldered to inlet pins.	P	
3.2.5.1	At the end of the first dashed item, replace "; and" with ", or be a sheathed cord complying with Appendix 1 specified in the Interpretation for the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013); and".	Added.	N/A	
	In the second dashed item, replace "insulated:" with "insulated, be a cord of the following or be a sheathed cord complying with Appendix 1 specified in the Interpretation for the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), :"	Replaced.	N/A	

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Clause	Requirement + Test	Result - Remark	Verdict
	In the third dashed item, add the following: However, the coating of the protective earth conductor inside covered with sheath (cord set) power cord integrally formed with the connector and the plug need not be a combination of green and yellow. In addition, the power cord of CLASS OI EQUIPMENT having a protective earth conductor separately, it is not necessary to provide a protective earth conductor.	Added.	N/A
	Replace the existing fourth dashed item with the following:  - if those complying with JIS C 3662-5 or JIS C 3663-4, have conductors with cross-sectional areas not less than those specified in Table 3B, and if others, comply with the relevant wiring rules.  In Table 3B, replace "IEC 60320" with "the JIS C8283 series of standards or the IEC 60320 series	Replaced.	N/A
3.3.4	of standards".  Add the following note to Table 3D: 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.	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 of BASIC INSULATION would be reduced to less than the values specified in 2.10.	Added.	Р
4.3.5	In the paragraph, replace "IEC 60083 or IEC 60320" with "the JIS C 8283 series of standards, JIS C 8303 or JIS C 8358".	Replaced.	N/A
4.5.3	In the item b in Table 4B, add the following:  NOTE If no data of material is available, Appendix 4, 1(1), p, 3 specified in the Interpretation for "the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013)" is applicable.	Replaced.	P
	In the item c in Table 4B, replace IEC 60085 with JIS C 4003.		
5.1.3	Add a note after the first paragraph as follows: NOTE In Japan, three-phase power distribution systems of delta connection are typical, therefore, in such case, test is conducted using the test circuit from IEC 60990, figure 13.	Added.	P
5.1.6	Replace Table 5A as follows	Replaced.	Р

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Clause	Requirement + Test		Result - Remark	Verdict

	Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. <sup>a</sup>	Maximum PROTECTIVE CONDUCTOR CURRENT
	All equipment	Accessible parts and circuits not connected to protective earth <sup>b</sup>	0,25	-
	HAND-HELD	Class I equipment main protective earthing terminal	0,75	-
		Class 0I equipment main protective earthing terminal	0,5	-
	MOVABLE (other than HAND-HELD, but	Class I equipment main protective earthing terminal	3,5	-
	including TRANSPORTABLE EQUIPMENT)	Class 0I equipment main protective earthing terminal	1,0	-
	STATIONARY, PLUGGABLE TYPE A	Class I equipment main protective earthing terminal	3,5	-
		Class 0I equipment main protective earthing terminal	1,0	-
	All other STATIONARY EQUIPMENT  - not subject to the conditions of 5.1.7	Class I equipment main protective earthing terminal	3,5 _	- 5 % of input current
	- subject to the conditions of 5.1.7	Class 0I equipment main protective earthing terminal	1,0	
	table by 1,414.	CURRENT are measured, the maximum valuate parts are covered in 1.5.6 and 1.5.7 and the covered in 1.5.8 and 1.5.7 and the covered in 1.5.8 and 1.5		
			ne requirements of 2.4 apply	r. These may be different
6	Add following in the	end of NOTE 1:	No TNV.	N/A
6	Add following in the		T	
6.1.2.1	Add following in the For suitable addition Add the following: NOTE 3 For examp	end of NOTE 1:	T	
	Add following in the For suitable addition Add the following: NOTE 3 For examp is 230 V in Europe a Replace the existing following: The above minimum connectors do not as	end of NOTE 1: al measures, see Annex JB.  le, the highest nominal voltage nd 120 V in North America.  8 <sup>th</sup> paragraph with the  CLEARANCES for oply to:	No TNV.	N/A
3.1.2.1	Add following in the For suitable addition Add the following: NOTE 3 For examp is 230 V in Europe a Replace the existing following: The above minimum connectors do not approximately connectors that of IEC 60309 series series of standar standards or JIS	end of NOTE 1: al measures, see Annex JB.  le, the highest nominal voltage nd 120 V in North America.  8 <sup>th</sup> paragraph with the  CLEARANCES for oply to: comply with JIS C 8285, the of standards, the JIS C 8283 ds, the IEC 60320 series of	No TNV.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Annex M	In M.1, replace the existing paragraph with the following:	No telephone ringing signals.	N/A
	One of the two methods specified in this annex shall be applied.		
	NOTE Method A specified in the annex is typical of analogue telephone network in Europe and Method B of those in North America.		
Annex P	Replace the existing Annex P with the following:	Replaced.	Р
	Annex P (normative Normative refer		
	The following reference documents are indispensable for the application document is given, only that edition applies, and any newer edition date of the reference document is not given, the latest edition in Further information on the reference documents, including how to internet sites:	plication of this standard. If the date of the on and subsequent amendments do not a cluding the amendments applies.	apply. If the
	http://www.jisc.	go.jp/	
	http://www.iec.ch		
	http://www.iso http://www.itu		
	JIS B 0205-2, ISO general purpose metric screw threads - Partz NOTE Corresponding IS: ISO 261, ISO general purpose metric JIS B 0205-3, ISO general purpose metric screw threads - Partz NOTE Corresponding IS: ISO 262, ISO general purpose metric nuts (IDT)  JIS C 0448, Coding of indicating devices and actuators by colour NOTE Corresponding IS: IEC 60073, Basic and safety principle identification - Coding principles for indicator devices and actuat JIS C 2134, Method for the determination of the proof and the commaterials NOTE Corresponding IS: IEC 60112, Method for the determination of insulating materials (IDT)  JIS C 3215 (all parts), Specifications for particular types of windin NOTE Corresponding IS: IEC 60317 (all parts), Specifications for JIS C 3661-1:1998, Electrical test methods for electric cables - Footbages up to and including 450/750V NOTE Corresponding IS: IEC 60885-1:1987, Electrical test meticables, cords and wires for voltages up to and including 450/750 JIS C 3662 (all parts), Polyvinyl chloride insulated cables of rate General requirements  NOTE Corresponding IS: IEC 60227 (all parts), Polyvinyl chloride including 450/750 V (MOD)  JIS C 3663 (all parts), Rubber insulated cables - Rated voltages NOTE Corresponding IS: IEC 60245 (all parts), Rubber insulated 450/750 V (MOD)	screw threads—General plan (IDT)  3: Selected sizes for screws, bolts and nucles screw threads - Selected sizes for screw  rs and supplementary means s for man-machine interface, marking and ors (IDT)  comparative tracking indices of solid insulation of the proof and the comparative tracking wires or particular types of winding wires (IDT)  Part 1: Electrical tests for cables, cords are thods for electric cables. Part 1: Electrical OV (IDT) d voltages up to and including 450/750V  de insulated cables of rated voltages up to up to and including 450/750 V and cables - Rated voltages up to and including decapitation of the proof and the comparative tracking wires  tracking wires or particular types of winding wires (IDT)  d voltages up to and including 450/750 V and cables - Rated voltages up to and including d cables - Rated voltages up to and including	vs, bolts and d titing king indices and wires for tests for - Part 1:
	JIS C 4003, Electrical insulation-Thermal evaluation and designation NOTE Corresponding IS: IEC 60085:2004, Electrical insulation - Thermal classification (MOD)  JIS C 4526-1:2005, Switches for appliances - Part 1: General requirements NOTE Corresponding IS: IEC 61058-1:2000, Switches for appliances - Part 1: General requirements (MOD)		
	JIS C 5101-14:2009, Fixed capacitors for use in electronic equip capacitors for electromagnetic interference suppression and con NOTE Corresponding IS: IEC 60384-14:2005, Fixed capacitors specification: Fixed capacitors for electromagnetic interference significant control of the control of	ment - Part 14: Sectional specification: Fi nection to the supply mains for use in electronic equipment - Part 14:	xed Sectional
	JIS C 6065:2007 and Amendment 1:2009, Audio, video and simi NOTE Corresponding IS: IEC 60065:2001, Audio, video and sim Amendment 1:2005 (MOD)		
	JIS C 6802, Safety of laser products  NOTE Corresponding IS: IEC 60825-1, Safety of laser products- (IDT)	Part 1: Equipment classification and requ	uirements
	JIS C 6803, Safety of laser products-Safety of optical fiber comm NOTE Corresponding IS: IEC 60825-2, Safety of laser products- (OFCS) (IDT)	•	tion systems

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Clause	Requirement + Test	Result - Remark	Verdict	
	JIS C 6804, Safety of laser products-Safety of free space optic information	•	ission of	
	NOTE Corresponding IS: <b>IEC 60825-12</b> , Safety of laser products - Part 12: Safety of free space optical communication systems used for transmission of information (IDT) <b>JIS C 8201-1</b> :2007, Low-voltage switchgear and controlgear-Part 1: General rules			
	NOTE Corresponding IS: IEC 60947-1:2004, Low-voltage switchgear and controlgear - Part 1: General rules (MOD)			
	JIS C 8283 (all parts), Appliance couplers for household and similar general purposes NOTE Corresponding IS: IEC 60320 (all parts), Appliances couplers for household and similar general purposes (MOD)			
	JIS C 8285, Plugs, socket-outlets and couplers for industrial purposes NOTE Corresponding IS: IEC 60309-1, Plugs, socket-outlets and couplers for industrial purposes - Part 1: General requirements (MOD)			
	JIS C 8303, Plugs and receptacles for domestic and similar ge			
	JIS C 8358:1994, Appliance couplers for domestic and similar JIS C 9730-1:2010, Automatic electrical controls for household		onte	
	NOTE Corresponding IS: <b>IEC 60730-1</b> :1999, Automatic electri General requirements and Amendment 1:2003 (MOD)	cal controls for household and similar use		
	JIS C 60068-2-78, Environmental testing - Test Cab:Damp hea NOTE Corresponding IS: IEC 60068-2-78, Environmental testi state (IDT)		at, steady	
	JIS C 60364-1:2006, Low-voltage electrical installations - Part characteristics, definitions NOTE Corresponding IS: IEC 60364-1:2001, Electrical installa		-	
	assessment of general characteristics, definitions (IDT)  JIS C 60664-1:2009, Insulation coordination for equipment wit	hin low-voltage systems - Part	•	
	1:Principles, requirements and tests NOTE Corresponding IS: <b>IEC 60664-1</b> :1992, Insulation coord 1: Principles, requirements and tests, Amendment 1:2000 and	ination for equipment within low-voltage sys	stems - Part	
	JIS C 60695-2-11, Fire hazard testing - Glow-wire flammability NOTE Corresponding IS: IEC 60695-2-11, Fire hazard testing Glow-wire flammability test method for end-products (IDT)	test method for end-products	nethods -	
	JIS C 60695-2-20, Fire hazard testing - Part 2 : Glowing /Hot w	vire based test methods-Section 20 : Hot-	wire coil	
	ignitability test on materials NOTE Corresponding IS: <b>IEC/TS 60695-2-20</b> , Fire hazard test Hot-wire coil ignitability - Apparatus test method and guidance		t methods -	
	JIS C 60695-10-2, Fire hazard testing-Part 10-2: Abnormal he NOTE Corresponding IS: IEC 60695-10-2, Fire hazard testing	ı - Part 10-2: Abnormal heat - Ball pressure	, ,	
	JIS C 60695-11-5:2007, Fire hazard testing-Part 11-5:Test flar confirmatory test arrangement and guidance NOTE Corresponding IS: IEC 60695-11-5:2004, Fire hazard to method - Apparatus, confirmatory test arrangement and guidance	esting - Part 11-5: Test flames - Needle-fla		
	JIS C 60695-11-10, Fire hazard testing-Part 11-10:Test flames NOTE Corresponding IS: IEC 60695-11-10, Fire hazard testing	s - 50 W horizontal and vertical flame test n		
	JIS C 60695-11-20, Fire hazard testing-Part 11-20: Test flame NOTE Corresponding IS: IEC 60695-11-20, Fire hazard testin (IDT)		test methods	
	JIS C 7550:2011, Safety for lighting of lamp and lamp system JIS C 60695-10-3:2005, Fire resistance test – Electrical . Electrical .	•	nal –	
	Deformation test of molded stress after released NOTE Corresponding IS: IEC 60695-10-3:2002, Fire hazard relief distortion test (IDT)	testing – Part 10-3 : Abnormal heat – Moul	d stress	
	JIS K 7110, Plastics - Determinaion of Izod impact strength NOTE Corresponding IS: ISO 180, Plastics - Determination of	Izod impact strength (MOD)		
	JIS K 7111 (all parts), Plastics-Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination IS: ISO 179 (all parts), Plas	mination of Charpy impact properties (MOD		
	JIS K 7127, Plastics - Determination of tensile properties—Pal NOTE Corresponding IS: ISO 527-3, Plastics - Determination and sheets (IDT)		ns for films	
	JIS K 7160, Plastics — Determination of tensile-impact strength NOTE Corresponding IS: ISO 8256, Plastics - Determination of			
	JIS K 7161, Plastics—Determination of tensile properties—Pa NOTE Corresponding IS: ISO 527-1, Plastics - Determination		ciples (IDT)	
	JIS K 7162, Plastics - Determination of tensile properties - Par NOTE Corresponding IS: ISO 527-2, Plastics - Determination moulding and extrusion plastics (IDT)	t 2 : Test conditions for moulding and extru	ision plastics	
	JIS K 7164, Plastics - Determination of tensile properties - Tes	st conditions for isotropic and orthotropic fib	ore-	

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Clause	Requirement + Test	Result - Remark	Verdict
	reinforced plastic composites NOTE Corresponding IS: <b>ISO 527-4</b> , Plastics - Determination o isotropic and orthotropic fibre-reinforced plastic composites (MC		ns for
	JIS K 7165, Plastics-Determination of tensile properties-Part 5: plastic composites  NOTE Corresponding IS: ISO 527-5, Plastics - Determination o		
	unidirectional fibre-reinforced plastic composites (MOD)  JIS K 7171, Plastics - Determination of flexural properties	to to the properties of the total control to the to	
	NOTE Corresponding IS: ISO 178, Plastics - Determination of fl		
	JIS K 7241, Cellular plastics-Determination of horizontal burning small flame NOTE Corresponding IS: ISO 9772, Cellular plastics - Determin specimens subjected to a small flame (IDT)	,	
	JIS K 7341, Plastics-Determination of burning behaviour of thin flame ignition source	flexible vertical specimens in contact with	a small-
	NOTE Corresponding IS: <b>ISO 9773</b> , Plastics - Determination of in contact with a small-flame ignition source (IDT)	burning behaviour of thin flexible vertical	specimens
	JIS K 7350-1, Plastics - Methods of exposure to laboratory light NOTE Corresponding IS: ISO 4892-1, Plastics - Methods of expedidance (IDT)		: General
	JIS K 7350-2, Plastics - Methods of exposure to laboratory light NOTE Corresponding IS: ISO 4892-2, Plastics - Methods of explamps (MOD)		: Xenon-arc
	JIS K 7350-4, Plastics - Methods of exposure to laboratory light NOTE Corresponding IS: ISO 4892-4, Plastics - Methods of explane carbon-arc lamps (MOD)		
	JIS S 0101:2000, Graphical warning symbols for consumers		
	TS C 60695-11-3, Fire hazard testing - Part 11-3: Test flames - methods		
	NOTE Corresponding IS: <b>IEC 60695-11-3</b> , Fire hazard testing - and confirmational test methods (IDT)		
	TS C 60695-11-4, Fire hazard testing - Part 11-4: Test flames - methods  NOTE Corresponding IS: IEC 60695-11-4, Fire hazard testing -		
	and confirmational test methods (IDT)  IEC 60216-4-1, Electrical insulating materials - Thermal endurar		•
	chamber ovens		Sirigle-
	IEC 60309 (all parts), Plugs, socket-outlets and couplers for indu IEC 60317 (all parts), Specifications for particular types of winding		
	IEC 60317-43, Specifications for particular types of winding wire copper wire, class 240	_	ped round
	IEC 60320 (all parts), Appliance couplers for household and sim IEC 60417-DB:2002, Graphical symbols for use on equipment	ilar general purposes	
	(For DB, see the online database of the IEC.)		
	IEC 60747-5-5, Semiconductor devices - Discrete devices - Parl IEC/TR 60825-9, Safety of laser products - Part 9: Compilation optical radiation		
	IEC 60851-3:1996, Winding wires - Test methods - Part 3: Mech IEC 60851-5:1996, Winding wires - Test methods - Part 5: Elect	• •	
	2:2004 IEC 60851-6:1996, Methods of test for winding wires - Part 6: The control of the control	nermal properties	
	IEC 60947-1:2004, Low-voltage switchgear and controlgear - Pa		
	IEC 60990:1999, Methods of measurement of touch current and IEC 61051-2, Varistors for use in electronic equipment - Part 2:		sion varistors
	ISO 180, Plastics - Determination of Izod impact strength	. 3	
	ISO 3864-2: Graphical symbols – Safety colours and safety sign	s - Part 2: principles for product safety la	bels.
	ISO 4892-1, Plastics - Methods of exposure to laboratory light so		
	ISO 7000-DB:2004, Graphical symbols for use on equipment - I	ndex and synopsis	
	(For DB, see the online database of the IEC.)		
	ISO 8256, Plastics - Determination of tensile-impact strength		
	ITU-T Recommendation K.44, Resistibility tests for telecommu overcurrents - Basic Recommendation	nication equipment exposed to overvoltag	jes and

	IEC60950_1F - ATTACHM		ı
Clause	Requirement + Test	Result - Remark	Verdic
Annex U.2.4	Replace the existing NOTE as NOTE1, add NOTE 2 as follows:  NOTE 2 by taking into account environmental impact, "(for example, 1.1.1-trichloroethance)" described in the corresponding IEC standard was deleted.	Replaced.	P
Annex V.1	Replace "In 3.1.2 of IEC 60364-1" with "312 of JIS C 60364-1".	Replaced.	Р
Annex 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.	Replaced.	N/A
Annex AA	Replace figure AA.3 which correct the position of insulating metal sheet.	Replaced.	N/A
Annex BB	(Reference) [Change point which from IEC 60950-1:2001 (v1) to IEC 60950-1:2005 (v2)] (Deleted text body)		_
Annex CC	Evaluation of integrated circuit (IC) current limiters		N/A
CC.2	Test program 1		N/A
	10 000 cycles of turning enable on and off with an iron-core inductor having (0.35 $\pm$ 0.1) mH inductance at 1 kHz and less than 1 $\Omega$ DC resistance value connected in the output circuit;		N/A
	10 000 cycles of turning enable on and off with the input connected to a capacitor rated 425 $\mu$ F $\pm$ 10 $\mu$ F and shorting the output;		N/A
	10 000 cycles of turning the input pin on and off with an iron-core inductor having (0.35 $\pm$ 0.1) mH inductance at 1 kHz and less than 1 $\Omega$ DC resistance value connected to the input supply and return while keeping enable active and shorting the output;		N/A
CC.3	Test program 2		N/A
	Note: It's advisable to use that in conformity with IEC 60127-2 for quick-fusing type fuse.		N/A
Annex EE	Household and home/office document/media shredders		N/A
	Note: Delete requirements of this Annex which corresponding IS and replace this Annex by Annex JA.		N/A
	Foreword of Annex JA (Requirements for shredder) was replaced by following: It shall conformity with requirements of this Annex for that add to body with Household and home/office document /media shredders.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	Add a new annex JA with the following contents.  Annex JA	Not document shredding machine.	N/A
	(normative)		
	Requirements for document shredding machines (see 1.7, 2.8.3, 3.4 and 4.4)		
	Introduction		
	This annex specifies the safety requirements for document shredding machines, except those of STATIONARY EQUIPMENT used by connecting directly to 3-phase AC MAINS SUPPLY of a voltage not the than 200V.		
	Document shredding machines shall comply with the requirements of this annex in addition to other requirements specified in this standard, except those of STATIONARY EQUIPMENT used by connecting directly to three-phase AC MAINS SUPPLY of a voltage not less than 200V.		
JA.1	Markings and instructions		N/A
	In the easily visible part near to the slot for documents, by a method of clearly legible and permanent and by using easily understandable terms, document shredding machines shall have markings of the symbol specified in 6.2.1 (general cautions) of JIS S 0101:2000, Graphical warning symbols for consumers, and also the following precautions for use:  - 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.		
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		N/A

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict	
JA.3	Disconnect switch  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.		N/A	
JA.4	Compliance is checked by inspection.  Protection in operator access area  Any warning shall not be used instead of the structure for preventing access to hazardous		N/A	
	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.			

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

Dimensions in millimeters

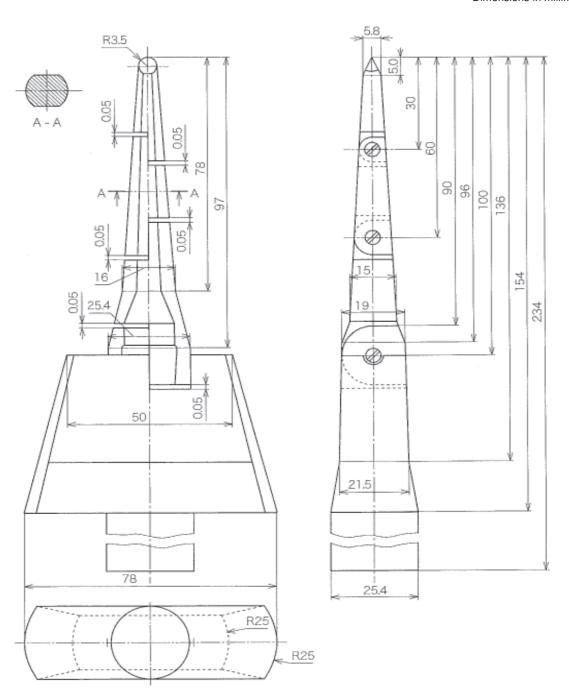
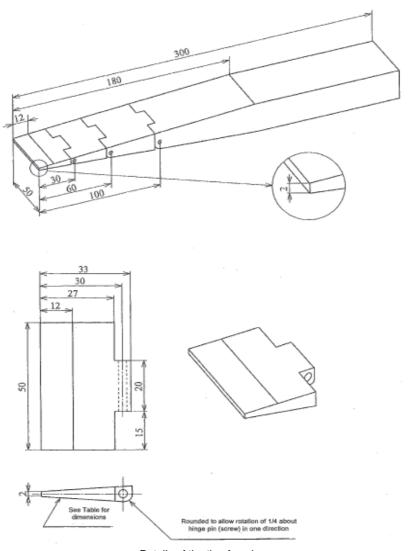


Figure JA.1 Test finger

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict



Details of the tip of wedge

Dimensions in millimeters

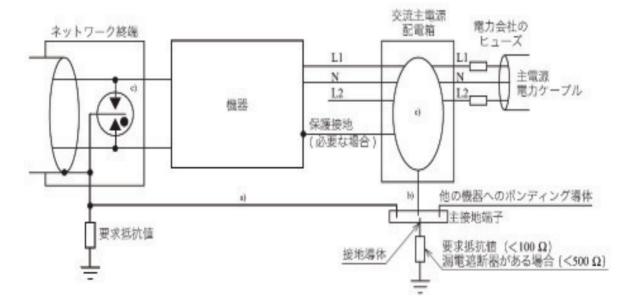
Distance from the tip	Thickness of probe
0	2
12	4
180	24

The thickness of the probe varies linearly, except changing the slope at the respective points shown in the table. The allowable dimensional tolerance of the probe shall be  $\pm$ 0,127 mm.

Figure JA.2 Wedge-probe.

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict	
Annex JB	Add Annex JB as follows:	Added.	N/A	
	Annex JB (informative)  Current conditions Installation environment on overvoltages and overcurrents, and the measures (see NOTE 1 in Clause 6)  Introduction  This standard is based on "ITU-T  Recommendation K.11:1993" to stipulate requirement for equipment on a premise to install in the environment where appropriate measures were taken for so that overvoltage more than peak 1.5kV does not hang to the apparatus. But in Japan due to environment is difficult to integrate with "ITU-T Recommendation K.11:1993", in here explain for desirable environment and show actions to be taken how to make a desirable setting environment.			
JB.1	A desirable setting environment  When lead electric wires in building for any kind service of metal wire, for overvoltage restraint and overcurrent restraint, it is desirable that be close to each other including grounding conductor. It is important to make it close each other especially the lead in point of power line, communication line and grounding conductor. In that case, attention is necessary for electromagnetic induction where occurred between a communication line and the power line which are not covered. It is desirable that set up main grounding terminal which close to lead in point of power line and communication line in building as much as possible. Due to minimize the surge current in building for all shielding conductor of cable which lead in building, it shall connected directly with main grounding terminal in lead in point via surge protection device (SPD) e.g. arrester and so on. It shall be considered corrosion measures in joint if necessary.  It is desirable that SPD which set on communication line is close to lead in point toward the building as much as possible. Furthermore set the SPD near the main power line, and it may make the distance from SPD to a grounding conductor as short as possible. It is effective if use a short grounding conductor with low impedance for that decrease surge voltage between electric power system protection conductor and the communication line.		N/A	

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict		
	Desirable setting environment for TT electric power system is as figure JB.1. Established SPD as that excessive potential difference does not occur between communication side and the electricity side, and recommend that ground wire of both are connected with a short conductor. Concerning the detail for recommend setting environment, see ITU-T Recommendation K.11:1993, K.21:1996, K.27:1996, K.31:1993 and K.66:2004.		N/A		



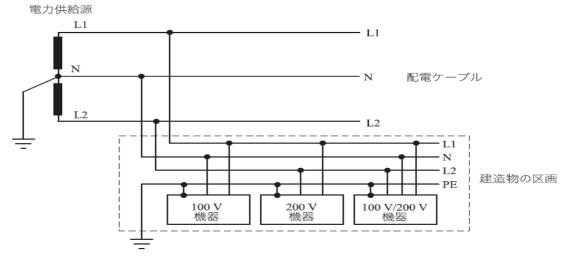
#### Note:

- a) All bonding line to a main grounding terminal makes it as short as possible (Less than 1.5m in the place that danger of direct lightning is high).
- b) The connected line which from SPD to main grounding terminal is as short as possible (less 1.5m).
- c) Setting for SPD (omitted the detail). All SPD connected line is short as possible (less 0.5m).

Figure JB.1 – Sample of desirable setting for TT electric power system of single phase three-wire type + neutral line

(From ITU-T Recommendation K.66:2004)

	IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict		
JB.2	Situation and countermeasure of setting environment for overvoltage and overcurrent		N/A		
	In Japan, TT type often adopted for electric power system. Typical example is as figure JB.2. For this TT type, on condition that it shall be an electric power system which does not wired with grounding conductor except neutral line, and it shall be connected with grounding terminal which have an electrically independent different from this grounding terminal of neutral line by user for equipment which need to connect with ground.				



Grounded electric wire and grounded equipment in particularly

Figure JB.2 – Example of three-wire type TT electric power system

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test	Result - Remark	Verdict	
	But as thing are stand, there are a lot of cases that an outlet is not prepared with the grounding terminal which is appropriate in the setting place of the equipment. On the other hand, grounding resistance value of SPD where set at lead-in point of communication line sometime is not enough low, it make that dielectric breakdown was occurred due to the voltage that a thunder surge current evoked for grounding resistance which flow into the communication line and drift to the ground through SPD. The same result is expected that grounding resistance value is not enough low too if set SPD on electric power system. This status is as figure JB.3.  As figure JB.1, it can decrease effectively by connecting both with the conductor of the low resistance value when excessive potential difference occurred in internal equipment.		N/A	

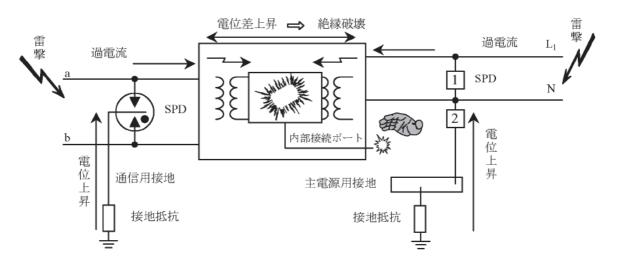


Figure JB.3 - Insufficient grounding and setting environment of bonding (From ITU-T Recommendation K.66:2004)

It is desirable that provide the information for set	N/A
environment which appropriate measures were given based on	
ITU-T RecommendationK.11:1993 when	
perform design and sale network connected equipment.	

		IEC60950_1F - ATTACHM	ENT	
Clause	Requirement + Test		Result - Remark	Verdict

			1
Appendix	Appendix 12, J3000(H25)  Special National conditions, National deviation and of MITI Ordinance No. 85.	ther information according to	_
1	General requirement When equipment provides with appliance inlet complying with JIS C 8283-1(2008), soldered parts of appliance inlet is not applied by force during insert or removal of connector. This is not applied when inlet body is fixed itself and not fixed by solder.	Inlet is fixed by adequate mechanical construction, not rely on soldering only.	Р
2	Requirement for equipment		_
2.1	Heater Appliances When diode is used in parallel for adjustment of power, the equipment shall remain safe for operation under open condition of one diode.	Not electric stove.	N/A
	The current rating of one diode shall be more than main current. The diodes connected in parallel are same type.		N/A
	The heating test specified by clause 11 of JIS C 9335-2-30(2006) under open condition of one diode shall comply with the requirements.		N/A
2.2	Electric heater with glowing heating elements	Not electric stove.	N/A
	Surface treatment by paint or adhesive on protective frame or protective mesh shall not be used.		N/A
	Caution marking like below shall be on - easily visible place of the equipment or - Instruction manual 「注意 当該機器から、使用初期段階で揮発性有機化合物及びカルボニル化合物が最も放散するおそれがあるため、その際には十分換気を行うこと。」		N/A
3	Components used in equipment	No such equipment /components.	N/A

IEC60950_1F - ATTACHMENT				
Clause	Requirement + Test		Result - Remark	Verdict

0.4	11 11 11 11 11	20/2
3.1	Motor capacitors used in ventilating fan, electric fan, air conditioner, electric washing machine, refrigerator or electric freezer shall be comply with	N/A
	- capacitors with protective elements or protective mechanism complying with JIS C 4908(2007)	
	- P2 capacitor complying with IEC 60252-1(2001)	
	Capacitor complying with below is acceptable	
	Enclosed by metal or ceramic	N/A
	No non-metallic materials within 50 mm from capacitor surface	N/A
	Non-metallic material within 50 mm from capacitor surface comply with needle frame test of JIS C 9335-1(2003), Annex E	N/A
	Non-metallic material within 50 mm from capacitor surface comply with V-1 test of JIS C 60965-11-10(2006).	N/A
3.2	Plug directly inserted to outlet used refrigerator or electric freezer.	N/A
	Shall comply with	
	- Face contact with outlet shall have CTI with more than 400 according to JIS C 2134(2007) or	
	<ul> <li>Supporting material of blades shall comply with glow wire test by temperature of 750°C according to JIS C 60695-2-11(2004) or JIS C 60695-2-12(2004).</li> <li>Materials having glow wire frame temperature of 775 °C are acceptable.</li> </ul>	

National Differences			
Clause	Requirement - Test	Result - Remark	Verdict

# APPENDIX ZZ VARIATIONS TO IEC 60950-1, ED. 2.2 (2013) FOR AUSTRALIA AND NEW ZEALAND

Differences according to .....: AS/NZS 60950.1:2015

## **ZZ1 INTRODUCTION**

This Appendix sets out variations and additional requirements to cover issues which have not been addressed by the International Standard. These variations indicate national variations for purposes of the IECEE CB System and will be published in the IECEE CB Bulletin.

#### 772 VARIATIONS

ZZ2 VARIATIONS			
The followin	g variations apply to the source text.		
1.2	After definition 'PERSON, SERVICE', insert the following new definition:  POTENTIAL IGNITION SOURCE 1.2.12.201	Added.	Р
1.2.12.201	After Clause 1.2.12.15, insert the following new clause:	Added.	Р
	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.  Such a faulty contact or interruption in an electrical connection includes those which may occur in CONDUCTIVE PATTERNS on PRINTED BOARDS.  NOTE 1 An electronic protection circuit may be used to		
	prevent such a fault from becoming a POTENTIAL IGNITION SOURCE.		
	NOTE 2 This definition is from AS/NZS 60065:2012, Clause 2.8.11.		
1.5.1	First paragraph, insert the following text after the words 'IEC component standard': 'or the relevant Australian/New Zealand Standard.'	Added.	Р
	In the NOTE, insert the following text after the word 'standard':     'or an Australian/New Zealand Standard'	Added.	
	3. Second paragraph, delete the words 'without further evaluation'.	Deleted.	

National Differences					
Clause	Requirement - Test			Result - Remark	Verdict
	'				
1.5.2	First paragraph, inser the word 'standard': 'or an Australian/New     First paragraph, seco line, insert the following 'standard':	Zealand Stand dash item	andard.' n, second the word	Added.	Р
	'or an Australian/New 3. First paragraph, seco Insert the following te 'standard': 'or an Australian/New	nd dash item xt after the w	n, last line, vord		
1.7.1.3	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		Replaced.	P	
2.9.2	manual.  Second paragraph, delete	the word 'd	esignated'.	Deleted.	N/A
3.2.5.1			23.9.14.04.	Modified.	N/A
Table 3B	Modify Table 3B as follows:  1. Delete the first four rows and replace with the following:			Modified.	IW/A
	Over 0.2 up to and including 3 Over 3 up to and including 7.5 Over 7.5 up to and including 10 Over 10 up to and including 16 2. Delete NOTE 1 and rer as 'NOTE'. 3. Delete Footnote a and of following: a This nominal cross-sect allowed for Class II appliate power supply cord, meass where the cord, or cord grappliance, and the entry the exceed 2 m (0,5 mm² three cords are not permitted; s	replace with fonal area is inces if the le ured between uard, enters to the plug do be-core supp	AWG or kcmil [cross-sectional area in mm²] see Note 2 18 [0,8] 16 [1,3] 14 [2] ing NOTE 2 the only ength of the n the point the pes not ly flexible		

	National Differenc	es	
Clause	Requirement - Test	Result - Remark	Verdict
4.1.201	After Clause 4.1, insert new Clause 4.1.201 as follows:  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
4.3.6	Delete the third paragraph and replace with the following:  Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flatpin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.	Deleted and replaced. Not direct plug-in type.	Р
4.3.8	Eighth paragraph, insert the following new note after the first dash item:  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
4.3.8.201	After Clause 4.3.8, add the following new clause as follows: 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 such batteries.	N/A
4.3.13.5.1	<ol> <li>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.     </li> <li>Third paragraph, first sentence, after 'IEC 60825-1', insert the following text: or AS/NZS 60825.1</li> <li>Fourth paragraph, after 'IEC 60825-1', insert the following text: or AS/NZS 60825.1</li> </ol>	No Lasers.	N/A
4.7	At the end of Clause 4.7, insert the following text: 'For alternate tests refer to Clause 4.7.201.'	Added. The alternative method is not considered.	N/A

National Differences			
Clause	Requirement - Test	Result - Remark	Verdict
4.7.201	After Clause 4.7.3.6, add new Clauses as follows: 4.7.201 Resistance to fire – Alternative tests	Added. The alternative method is not considered.	N/A
4.7.201.1	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 1mm in width regardless of length.  (b) The following parts which would contribute negligible fuel to a fire:  - small mechanical parts, the mass of which does not exceed 4g, such as mounting parts, gears, cams, belts and bearings;  - small electrical components, such as capacitors with a volume not exceeding 1,750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10.  NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another.  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.  For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5.  The tests shall be carried out on parts of nonmetallic 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.	Added. The alternative method is not considered.	N/A

		National Difference	es	
Clause	Requirement - Test		Result - Remark	Verdict
4.7.201.2	Parts of non-metallithe glow-wire test of shall be carried out. Parts for which the carried out, such as material, shall meet ISO 9772 for categorie test shall be not material classified as	glow-wire test cannot be those made of soft or foamy the requirements specified in bory FH-3 material. The glow-bit carried out on parts of at least FH-3 according to ISO the sample tested was not	Added. The alternative method is not considered.	N/A
4.7.201.3	4.7.201.3 Testing of Parts of insulating reportential IGNIT subject to the glow-60695.2.11 which is the test shall be also insulating material of 3 mm of the connect NOTE Contacts in compact considered to be connected to be connected to be connected to the connection within the cylinder having a digit of 50 mm shall be stest. However, parts meets the needle-flame to accordance with AS following modification.  Clause of AS/NZS 60695.11.5  9 Test procedure  9.2 Application of needle-flame  9.3 Number of test specimens	of insulating materials material supporting ION SOURCES shall be wire test of AS/NZS hall be carried out at 750 °C. so carried out on other parts of which are within a distance of ction. conents such as switch contacts are ctions. Instand the glow-wire test but her parts above the ne envelope of a vertical ameter of 20 mm and a height subjected to the needle-flame as shielded by a barrier which ame test shall not be tested. Lest shall be made in SINZS 60695.11.5 with the	Added. The alternative method is not considered.	N/A

	National Difference	es	
Clause	Requirement - Test	Result - Remark	Verdict
	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.		
4.7.201.4	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 glowwire 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.  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.  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.  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.	Added. The alternative method is not considered.	N/A

National Differences			
Clause	Requirement - Test	Result - Remark	Verdict
Clause 4.7.201.5	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.  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	T	N/A
	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.  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 min when the circuit supplied is disconnected.		
6.2.2	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

National Differences				
Clause	Requirement - Test	Result - Remark	Verdict	
6.2.2.1	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): 1.5 kV.	No TNV.	N/A	
	NOTE 201 The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.  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.			
6.2.2.2	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): 3 kV; and (ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV. NOTE 201 Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 202 The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.	No TNV.	N/A	
7.3	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.	N/A	
Annex P	Add the following Normative References: AS/NZS 3191, Electric flexible cords AS/NZS 3112, Approval and test specification— Plugs and socket-outlets	Added.	Р	

	1 490 0 01	•	Sport 140: 17 000000 001		
National Differences					
Clause	Requirement - Test	Result - Remark	Verdict		
Index	1. Insert the following between 'asbestos, no be used as insulation' and 'attitude see orientation':  AS/NZS 3112	4.3.6 e 3B) 201 01.3 01.5 01.3 3.5.1 3.5.1	N/A		

# **Photo Documentation**



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Product: LCD Monitor



Figure 1. Front view of 23.8 inch model with base type A

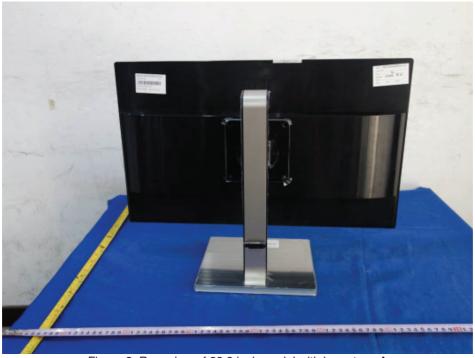


Figure 2. Rear view of 23.8 inch model with base type A

# **Photo Documentation**



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Product: LCD Monitor

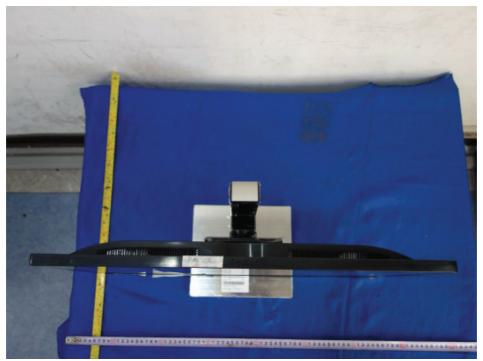


Figure 3. Top view of 23.8 inch model with base type A



Figure 4. Side view of 23.8 inch model with base type A

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Figure 5. Side view of 23.8 inch model with base type A



Figure 6. Front view of 23.8 inch model with base type B

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Figure 7. Top view of 23.8 inch model with base type B



Figure 8. Rear view of 23.8 inch model with base type B

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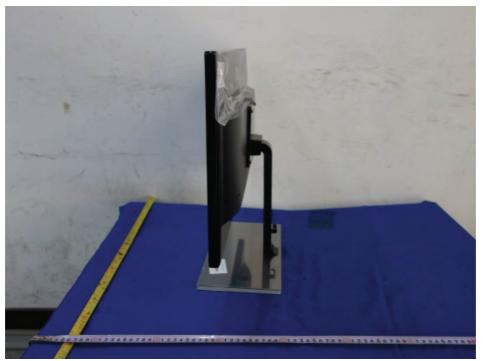


Figure 9. Side view of 23.8 inch model with base type B

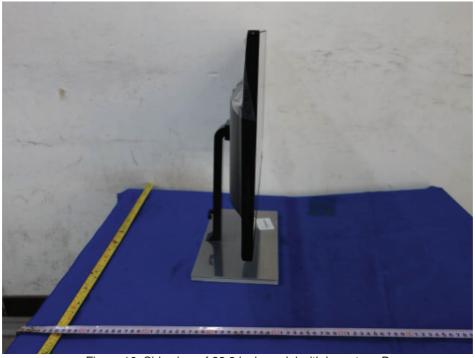


Figure 10. Side view of 23.8 inch model with base type B

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Figure 11. Internal view of 23.8 inch model

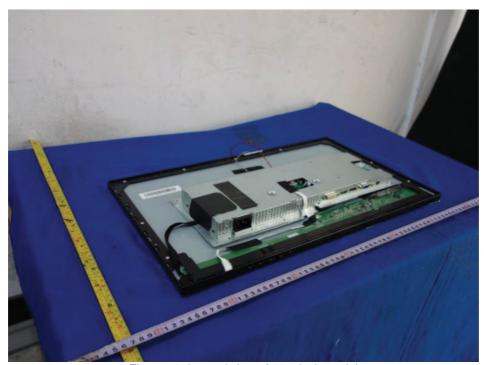


Figure 12. Internal view of 23.8 inch model

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Figure 13. Internal view of 23.8 inch model

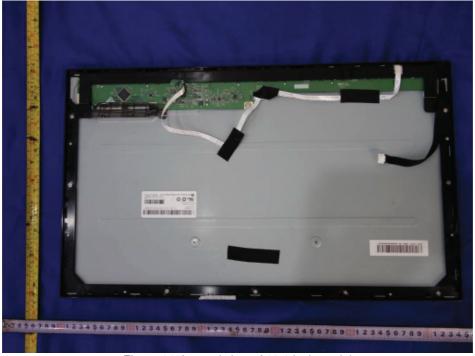


Figure 14. Internal view of 23.8 inch model

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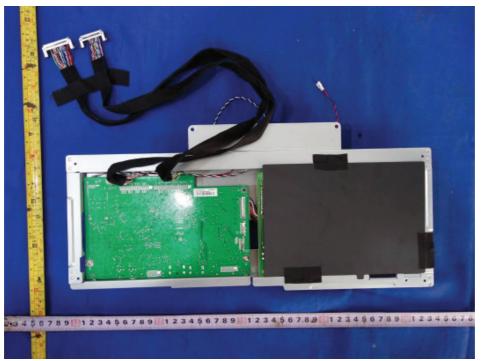


Figure 15. Internal view of metal chassis type A

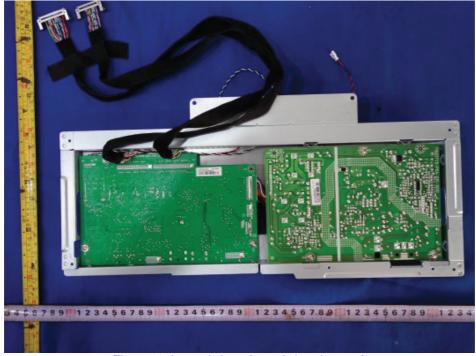


Figure 16. Internal view of metal chassis type A

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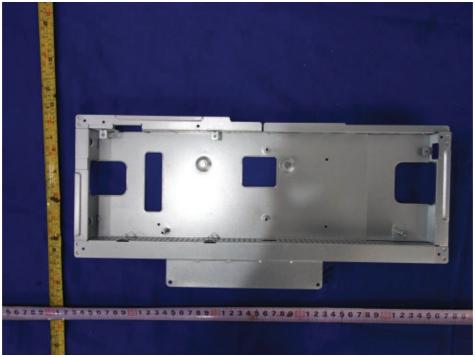


Figure 17. Internal view of metal chassis type A



Figure 18. Front view of 27 inch model with base type A

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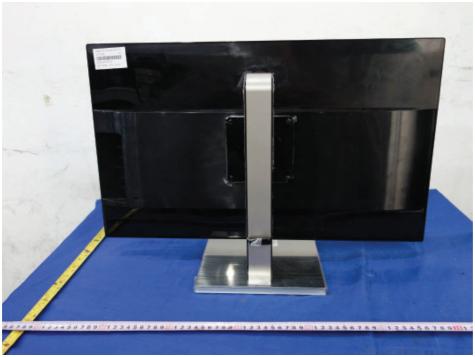


Figure 19. Rear view of 27 inch model with base type A

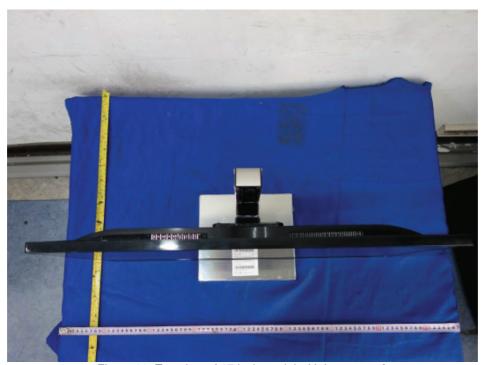


Figure 20. Top view of 27 inch model with base type A

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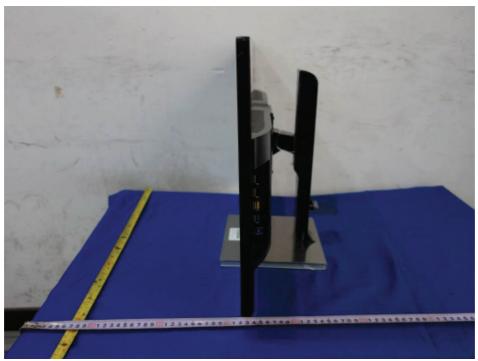


Figure 21. Side view of 27 inch model with base type A



Figure 22. Side view of 27 inch model with base type A

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Type Designation:

\*2477\*\*\*\*\*\*, 238LM000\*\*, \*2777\*\*\*\*\*\*, 270LM000\*\*



Figure 23. Front view of 27 inch model with base type B



Figure 24. Rear view of 27 inch model with base type B

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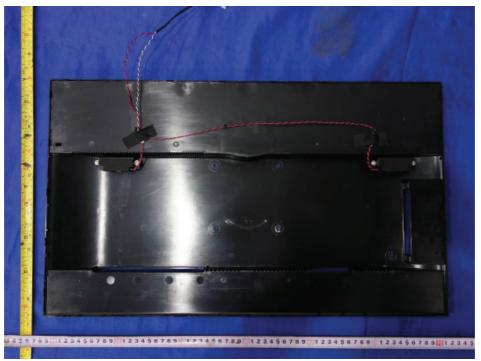


Figure 25. Internal view of plastic enclosure for 27 inch model

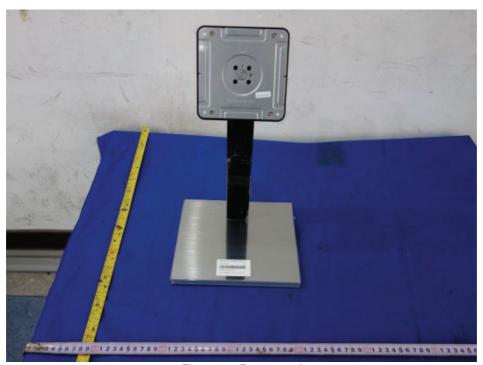


Figure 26. Base type A

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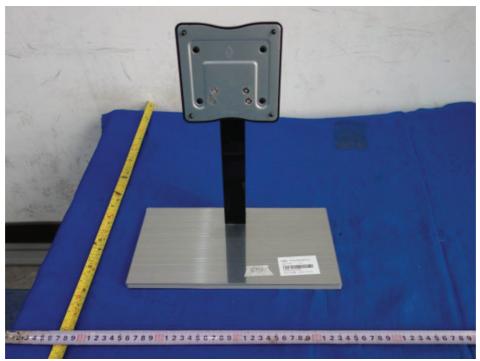


Figure 27. Base type B



Figure 28. Internal view of 27 inch model with metal chassis type B

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Figure 29. Internal view of 27 inch model with metal chassis type C



Figure 30. Internal view of 27 inch model with metal chassis type B

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Figure 31. Internal view of 27 inch model with metal chassis type B



Figure 32. Internal view of 27 inch model with metal chassis type B'

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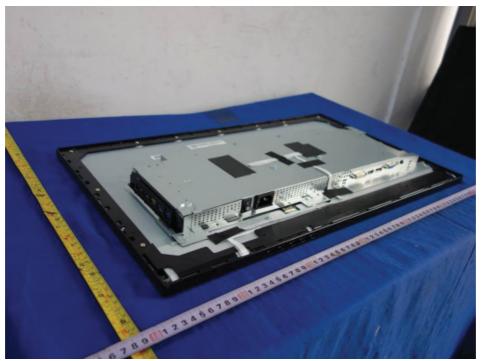


Figure 33. Internal view of 27 inch model with metal chassis type C

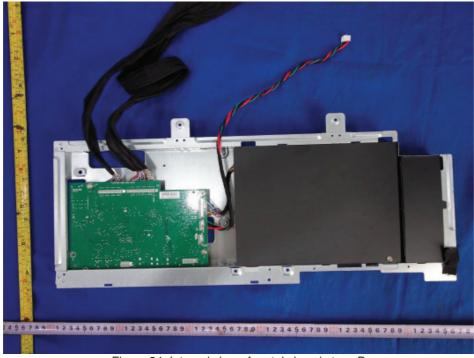


Figure 34. Internal view of metal chassis type B

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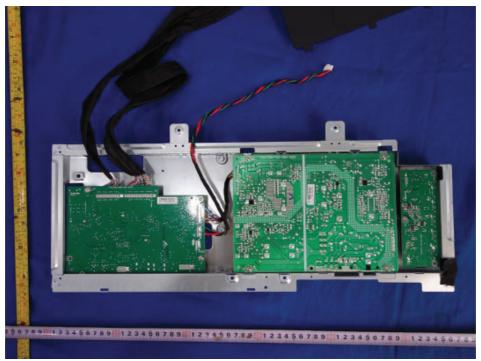


Figure 35. Internal view of metal chassis type B

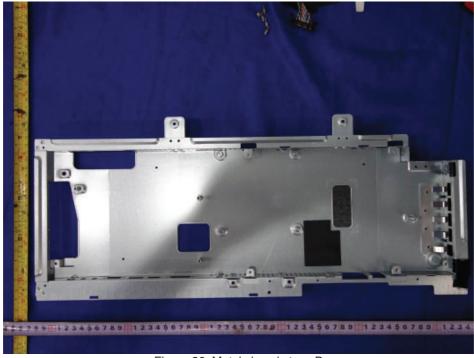


Figure 36. Metal chassis type B

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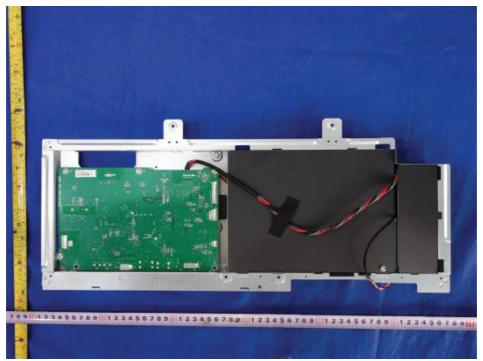


Figure 37. Internal view of metal chassis type C

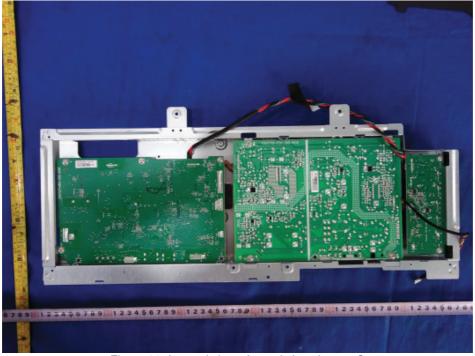


Figure 38. Internal view of metal chassis type C

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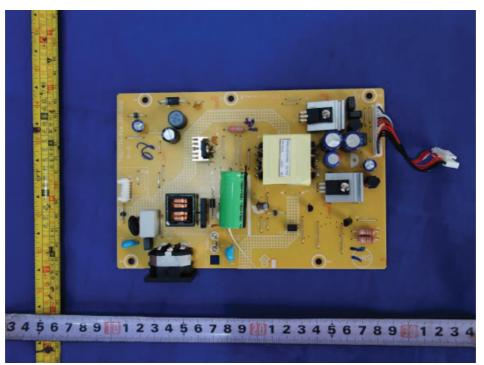


Figure 39. Power board 715G7775

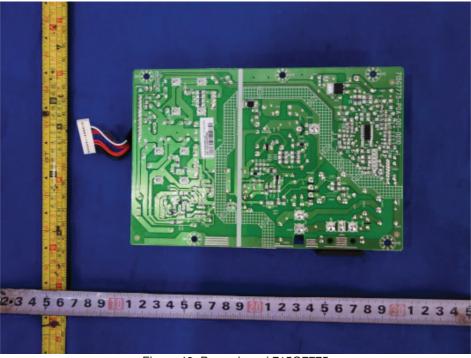


Figure 40. Power board 715G7775

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Figure 41. Power board 715G7760



Figure 42. Power board 715G7760

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Figure 43. Main board 715G7909



Figure 44. Main board 715G7909

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Figure 45. Main board 715G7271

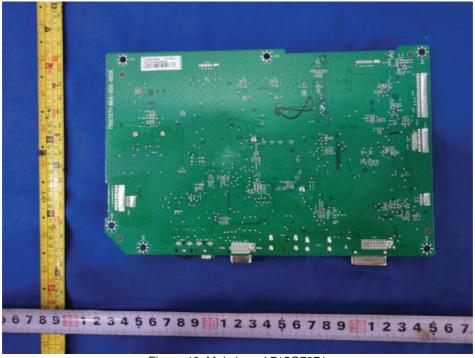


Figure 46. Main board 715G7271

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Figure 47. USB board 715G6453

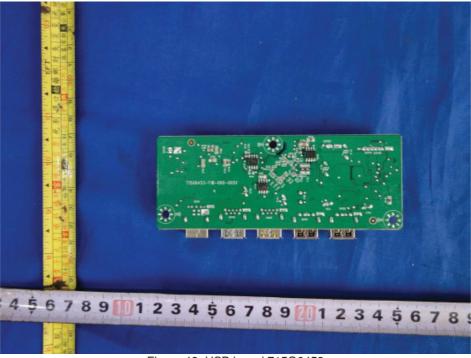


Figure 48. USB board 715G6453