Ref. Certif. No.

DK-54140-UL

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	55 Inch, Dual Side Liquid Crystal Display Set
Name and address of the applicant Nom et adresse du demandeur	AU Optronics Corporation No. 1, Li-Hsin RD. 2 Hsinchu Science Park, Hsinchu 300 Taiwan
Name and address of the manufacturer Nom et adresse du fabricant	AU Optronics Corporation No. 1, Li-Hsin RD. 2 Hsinchu Science Park, Hsinchu 300 Taiwan
Name and address of the factory Nom et adresse de l'usine Note: *When more than one factory, please report on page 2* Note: *Lorsque il y plus d'une usine, veuillez utiliser la 2ème page*	AU Optronics (Longke) Corporation No. 228, Longke St, Longtan Township Taoyuan County 32542 Taiwan ☒ Additional Information on page 2
Ratings and principal characteristics Valeurs nominales et caractéristiques principales	Input: 100-240V~, 50-60Hz, 2.7A
Trademark (if any) Marque de fabrique (si elle existe)	neovo
Type of Manufacturer's Testing Laboratories used Type de programme du laboratoire d'essais constructeur	
Model / Type Ref. Ref. De type	DF-55*, DS-55* See Page 2
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire,, peuvent être indiqués sur la 2ème page	Additionally evaluated to EN 60950-1:2006/ A11:2009/ A1:2010/ A12:2011/ A2:2013; National Differences specified in the CB Test Report. ☐ Additional Information on page 2
A sample of the product was tested and found to be in conformity with Un échantillon de ce produit a été essayé et a été considéré conforme à la	IEC 60950-1(ed.2), IEC 60950-1(ed.2);am1, IEC 60950-1(ed.2);am2
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	C0352k01-CB-1-B6 issued on 2016-05-04

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

☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2016-05-06

Signature:

Jan-Erik Storgaard

Ref. Certif. No.

DK-54140-UL

Model Details:
DF-55*,DS-55* (* = blank, A-Z or 0-9 for marketing purpose)

Factories:
TOPFLY CORPORATION
No. 9, Nei-Shi Road, Nei-Tsuoh Village, Lu Chu Hsiang, Tao-yuan Hsien,
Taiwan

AU OPTRONICS (SUZHOU) CORP
No 398, Suhong Zhong Road, Suzhou Industrial Park, Suzhou Jiangsu,
CHINA

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

- ☐ UL (US), 333 Pfingsten Rd IL 60062, Northbrook, USA
- ☒ UL (Demko), Borupvang 5A DK-2750 Ballerup, DENMARK
- ☐ UL (JP), Marunouchi Trust Tower Main Building 6F, 1-8-3 Marunouchi, Chiyoda-ku, Tokyo 100-0005, JAPAN
- ☐ UL (CA), 7 Underwriters Road, Toronto, M1R 3B4 Ontario, CANADA

For full legal entity names see www.ul.com/ncbnames

Date: 2016-05-06

Signature:

Jan-Erik Storgaard

Test Report issued under the responsibility of:

TEST REPORT

IEC 60950-1

Information technology equipment – Safety – Part 1: General requirements

Report Number. .....:	**C0352k01-CB-1-B6**
Date of issue .....:	2016-05-04
Total number of pages	62
Applicant's name.....:	AU Optronics Corporation
Address .....:	No. 1, Li-Hsin RD. 2 Hsinchu Science Park, Hsinchu 300 Taiwan
Test specification:	
Standard .....:	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
Test procedure .....:	CB Scheme
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60950_1F
Test Report Form(s) Originator.....:	SGS Fimko Ltd
Master TRF .....:	Dated 2014-02

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

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

General disclaimer:

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

Test item description ..... :	55 Inch, Dual Side Liquid Crystal Display Set
Trade Mark ..... :	AG neovo
Manufacturer ..... :	AU Optronics Corporation No. 1, Li-Hsin RD. 2 Hsinchu Science Park, Hsinchu 300 Taiwan
Model/Type reference ..... :	DF-55*, DS-55* (* = blank, A-Z or 0-9 for marketing purpose)
Ratings ..... :	Input: 100-240V~, 50-60Hz, 2.7A

Testing procedure and testing location:			
☒	**CB Testing Laboratory:**		
Testing location/ address.....:		Creative Safety & Consultant Co. 13F, No. 190, Sec. 2, Chung Hsing Road, Hsin Tien Dist., New Taipei City, Chinese Taipei	
☐	**Associated CB Testing Laboratory:**		
Testing location/ address.....:			
Tested by (name + signature).....:		Ken Wu	
Approved by (name + signature).....:		Jennifer Liu	
☐	**Testing procedure: TMP/CTF Stage 1:**		
Testing location/ address.....:			
Tested by (name + signature).....:			
Approved by (name + signature).....:			
☐	**Testing procedure: WMT/CTF Stage 2:**		
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name + signature).....:			
Approved by (name + signature).....:			
☐	**Testing procedure:** **SMT/CTF Stage 3 or 4:**		
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name + signature).....:			
Approved by (name + signature).....:			
Supervised by (name + signature).....:			

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

- National Differences (65 pages)
- Photo Documentation (10 pages)
- Attached Table (2 pages)
- Declaration Letter (1 page)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
• Input Test (1.6.2) • Energy Hazard Measurements (2.1.1.5) • Capacitance Discharge Test (2.1.1.7) • SELV Reliability and Hazardous Voltage (Circuit) Measurement Test (2.2.2) • Limited current circuit test (2.4.2) • Limited power source test (2.5) • Protective bonding test (2.6.3.4) • Humidity Test (2.9.1) • Working Voltage Measurement Test (2.10.2) • Transformer and wire insulation electric strength test (2.10.5) • Stability Tests (4.1) • Steady force test (4.2.4) • Impact test (4.2.5) • Loading test (4.2.10) • Heating Test (4.5) • Ball Pressure Test (4.5.5) • Touch Current Test (5.1) • Electric Strength Test (5.2) • Component Failure Test (5.3) • Abnormal operation test (5.3) • Transformer Abnormal Operation Test (5.3) • Overload of operator accessible connector test (5.3)	Creative Safety & Consultant Co. 13F, No. 190, Sec. 2, Chung Hsing Road, Hsin Tien Dist., New Taipei City, Chinese Taipei

Summary of compliance with National Differences:

List of countries addressed

Summary of compliance with National Differences to IEC 60950-1:2005 (2nd Edition) + A1:2009 + A2:2013:

EU Group Differences, EU Special National Conditions, US, CA, *DE, *DK, *FI, *GB, *IL, *KR, *SE, *SI, **AU, ***JP.

Explanation of used codes: CA = Canada, DE = Germany, DK = Denmark, FI = Finland, GB = United Kingdom, IL = Israel, KR = Republic of Korea, SE = Sweden, SI = Slovenia, US = United States of America, AU = Australia. JP = Japan.

* National differences to IEC 60950-1:2005 + A1:2009 evaluated.

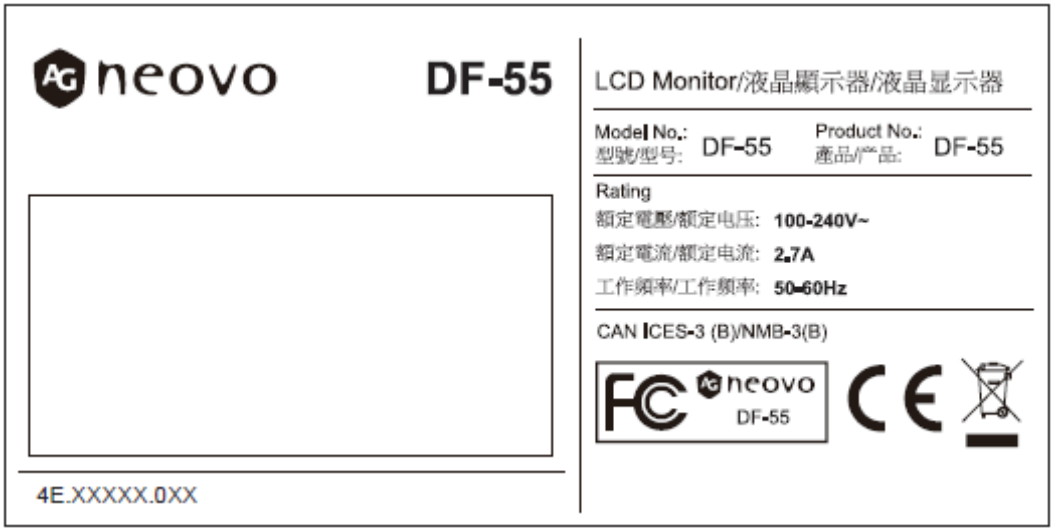
** National differences to IEC 60950-1:2005 evaluated.

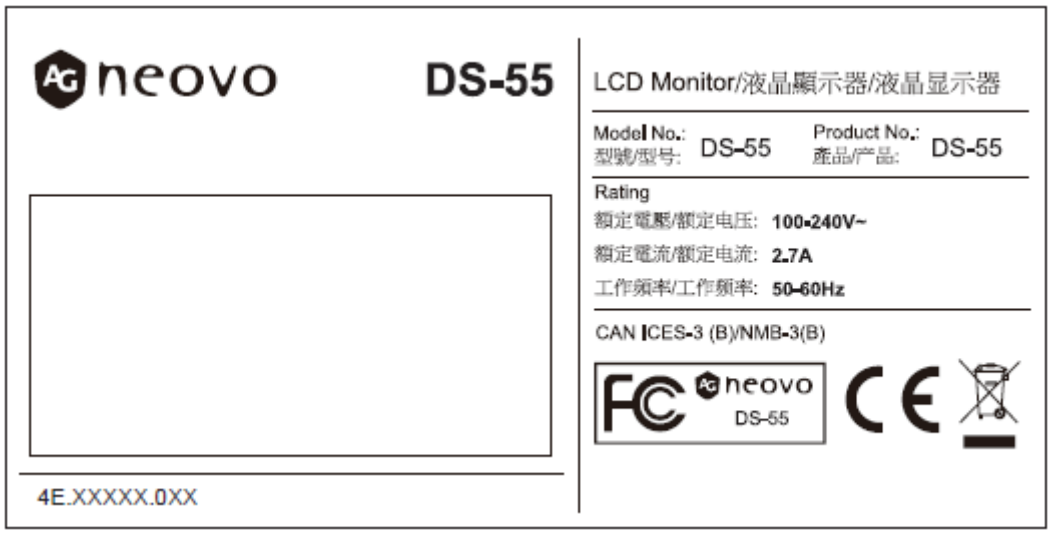
*** Japan Differences for J60950-1(H22):2010 and J3000 (25).

☒ 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 [X] stationary [] for building-in [] direct plug-in
Connection to the mains.....:	[X] pluggable equipment [X] type A [] type B [] permanent connection [X] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition.....:	[X] continuous [] rated operating / resting time:
Access location .....:	[X] operator accessible [] restricted access location
Over voltage category (OVC) .....:	[] OVC I [X] OVC II [] OVC III [] OVC IV [] other:
Mains supply tolerance (%) or absolute mains supply values .....:	±10%
Tested for IT power systems .....:	[X] Yes [] No
IT testing, phase-phase voltage (V) .....:	230V for Norway
Class of equipment .....:	[X] Class I [] Class II [] Class III [] Not classified
Considered current rating of protective device as part of the building installation (A) .....:	16 (13A for UK, 20A for North America)
Pollution degree (PD) .....:	[] PD 1 [X] PD 2 [] PD 3
IP protection class .....:	IPX0
Altitude during operation (m) .....:	Up to 2000m
Altitude of test laboratory (m) .....:	Less than 2000m
Mass of equipment (kg) .....:	103kg max. (Monitor with SPS box and wheel combine) 45kg (Monitor) 7kg (SPS box)

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 .....:	2016-02-16
Date (s) of performance of tests.....:	2016-03-30
General remarks:	

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

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

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

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

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

Name and address of factory (ies) ..... :	1. AU Optronics (Longke) Corporation No. 228, Longke St, Longtan Township Taoyuan County 32542 Taiwan 2. TOPFLY CORPORATION No. 9, Nei-Shi Road, Nei-Tsuoh Village, Lu Chu Hsiang, Tao-yuan Hsien, Taiwan 3. AU OPTRONICS (SUZHOU) CORP No 398, Suhong Zhong Road, Suzhou Industrial Park, Suzhou Jiangsu, CHINA.

General product information:

- The equipment models DF-55* and DS-55* (* = blank, A-Z or 0-9 for marketing purpose) are 55 Inch, Dual Side Liquid Crystal Display Set for general office use.
- Two subject models are identical, except for no base provided for model DS-55*.
- The equipment is incorporated with following critical parts:
  1) Non-approval switching power supply (SPS) with metal box.
  2) Approval LCD panel (LED backlight).
  3) SELV boards.
  4) Metal chassis/enclosure and fixed by screws.
- The suitable and approved power supply cord will be provided, evaluated and used when national approval/market.
- Load conditions:
  Display is operated under full brightness and contrast of the LED backlight circuit. (1.6.2)
- The unit provides base with wheels (movable) or wall mounted or separation SPS box and monitor (building-in) functions. However, it's considered to movable equipment. For wall mounted or separation SPS box and monitor function, the ventilation openings should be kept and the orientation is considered to horizontal position. And these information is described in manual as well.
- The wheel provided is transportable function only.
  Unit shall be use screws to secure the product on the ground for location
- The equipment is full voltage-range design.
- Unless otherwise specified, the tests were performed on unit with wheels.

Engineering Considerations:

- The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40 °C.

Additional Information:

- Additional investigation in accordance with EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 on the CB certificate.

Technical Considerations:

- The product was investigated to the following additional standards: EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 (which includes all European national differences, including those specified in this test report).

Abbreviations used in the report:

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

Indicate used abbreviations (if any)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	**GENERAL**		P
1.5	**Components**		P
1.5.1	General	See below.	P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components	Components certified to IEC standards and/or their harmonized standards, are used within their ratings and are checked for correct application.	P
1.5.3	Thermal controls		N/A
1.5.4	Transformers	Transformer complied with the relevant requirements.	P
1.5.5	Interconnecting cables	Interconnection cables complied with the relevant requirements.	P
1.5.6	Capacitors bridging insulation	Capacitors used in accordance with their rating and complied with subclasses of IEC 60384-14 with at least 21 days damp heat test. The accessible circuit complied with the requirement of Limited Current Circuit in 2.4 after electric strength testing of the insulation with the bridging capacitors in place.	P
1.5.7	Resistors bridging insulation	See below.	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Resistors are located after fuse and keep functional insulation only.	P
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	Phase to earth designed in according to phase-to-phase working voltage. The Y1 or Y2 type capacitors used between phase-to-earth are rated accordingly.	P
1.5.9	Surge suppressors	See below.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.1	General	The surge suppressor complies with Annex Q. See appended table 1.5.1 for details.	P
1.5.9.2	Protection of VDRs	A varistor procided and located after fuse.	P
1.5.9.3	Bridging of functional insulation by a VDR	The varistor across mains for functional insulation.	P
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
1.6	**Power interface**		P
1.6.1	AC power distribution systems	Considered.	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N/A
1.6.4	Neutral conductor	Neutral is insulated from earth and body throughout the equipment and components rated accordingly.	P
1.7	**Marking and instructions**		P
1.7.1	Power rating and identification markings	See below	P
1.7.1.1	Power rating marking	The power rating marking is provided and is readily visible in operator access area. See below	P
	Multiple mains supply connections.....:	Only one supply connection provided.	N/A
	Rated voltage(s) or voltage range(s) (V) .....:	See copy of marking plate.	P
	Symbol for nature of supply, for d.c. only.....:		N/A
	Rated frequency or rated frequency range (Hz) ....:	See copy of marking plate.	P
	Rated current (mA or A) .....:	See copy of marking plate.	P
1.7.1.2	Identification markings	See below	P
	Manufacturer's name or trade-mark or identification mark .....:	See copy of marking plate.	P
	Model identification or type reference .....:	See copy of marking plate.	P
	Symbol for Class II equipment only .....:	Class I equipment.	N/A
	Other markings and symbols .....:	Other markings and symbols do not give rise to misunderstanding.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	See below	P
1.7.2.1	General	Instruction provided with relevant statements.	P
1.7.2.2	Disconnect devices	The appliance inlet is considered as disconnect device.	P
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment .....:		N/A
	Methods and means of adjustment; reference to installation instructions .....:		N/A
1.7.5	Power outlets on the equipment .....:		N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	Marking adjacent to it states: F01: T6.3A/250V	P
1.7.7	Wiring terminals	See below	P
1.7.7.1	Protective earthing and bonding terminals ....:	The symbol (IEC60147-5019) is used and marked near earthing terminal.	P
1.7.7.2	Terminals for a.c. mains supply conductors	The equipment with appliance inlet which is intended to use the detachable type power supply cord.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	No safety relevant.	N/A
1.7.8.1	Identification, location and marking ....:		N/A
1.7.8.2	Colours ....:		N/A
1.7.8.3	Symbols according to IEC 60417.....:		N/A
1.7.8.4	Markings using figures .....:		N/A
1.7.9	Isolation of multiple power sources .....:		N/A
1.7.10	Thermostats and other regulating devices .....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.11	Durability	Marking is durable and legible. The marking plate has no curling and is not able to be removed easily.	P
1.7.12	Removable parts	No removed parts provided.	N/A
1.7.13	Replaceable batteries .....:		N/A
	Language(s) .....:		—
1.7.14	Equipment for restricted access locations.....:		N/A

2	**PROTECTION FROM HAZARDS**		P
2.1	**Protection from electric shock and energy hazards**		P
2.1.1	Protection in operator access areas	Unless otherwise indicated in 2.1.1.1, all parts are safe to access by operator.	P
2.1.1.1	Access to energized parts	No access with test finger and test pin to any parts with hazardous voltage and energy hazards.	P
	Test by inspection .....:	Complied.	P
	Test with test finger (Figure 2A) .....:	Complied.	P
	Test with test pin (Figure 2B) .....:	No contact.	P
	Test with test probe (Figure 2C) .....:	No connection to TNV.	N/A
2.1.1.2	Battery compartments	No battery compartments provided.	N/A
2.1.1.3	Access to ELV wiring	No ELV circuit.	N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards .....:	No energy hazards in user accessible area. See appended table 5.3	P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment	Voltage decay measurement was conducted with an oscilloscope having an input impedance of 100 MΩ.	P
	Measured voltage (V); time-constant (s) .....:	Test voltage 264Vac, 60Hz. Line to Neutral: Vo = 384Vpeak, 37% Vo = 142V, after 1 sec the voltage decayed to 8V; time constant: 0.06 sec	—
2.1.1.8	Energy hazards – d.c. mains supply		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
2.1.3	Protection in restricted access locations		N/A
2.2	**SELV circuits**		P
2.2.1	General requirements	See below	P
2.2.2	Voltages under normal conditions (V) ..... :	(see appended table 2.2)	P
2.2.3	Voltages under fault conditions (V) ..... :	(see appended table 2.2)	P
2.2.4	Connection of SELV circuits to other circuits .....:	Complied with 1.5.6, 2.2.2, 2.2.3 and 2.4.3.	P
2.3	**TNV circuits** *No TNV circuit within the equipment.*		N/A
2.3.1	Limits		N/A
	Type of TNV circuits ..... :		—
2.3.2	Separation from other circuits and from accessible parts		N/A
2.3.2.1	General requirements		N/A
2.3.2.2	Protection by basic insulation		N/A
2.3.2.3	Protection by earthing		N/A
2.3.2.4	Protection by other constructions ..... :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed..... :		—
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed..... :		—
2.3.5	Test for operating voltages generated externally		N/A
2.4	**Limited current circuits**		P
2.4.1	General requirements	The limits of 2.4.2 were not exceeded under normal operating conditions.	P
2.4.2	Limit values	Test voltage 264Vac, 60Hz. 0.7 mA (with 2kΩ non-inductive resistor)	P
	Frequency (Hz).....:	60	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Measured current (mA).....:	CY01 secondary pin to earth: 0.61mA.	—
	Measured voltage (V) .....:	CY01 secondary pin to earth: 1.22V.	—
	Measured circuit capacitance (nF or µF).....:	CY01= 3300pF	—
2.4.3	Connection of limited current circuits to other circuits	The limits of 2.4.2 were not exceeded under normal operating conditions.	P
2.5	**Limited power sources**		P
	a) Inherently limited output	Complied with table 2B.	P
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition	Complied with table 2B.	P
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	see appended table 2.5	—
	Current rating of overcurrent protective device (A) .:		—
2.6	**Provisions for earthing and bonding**		P
2.6.1	Protective earthing	Reliable connection of the protective earth terminal (appliance inlet) via a green-yellow insulated wire to protective bonding terminal on the metal enclosure. The fixing is secured by star-washer and screw.	P
2.6.2	Functional earthing	Separated from primary by double or reinforced insulation or connected to basic insulated from primary protective bonding.	P
	Use of symbol for functional earthing .....:		N/A
2.6.3	Protective earthing and protective bonding conductors	See below.	P
2.6.3.1	General	See below.	P
2.6.3.2	Size of protective earthing conductors	No power cord provided.	N/A
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.3	Size of protective bonding conductors	In compliance with 2.6.3.4.	P
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
	Protective current rating (A), cross-sectional area (mm^2), AWG ..... :		
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) ..... :	The earth pin of appliance inlet to the farthest earthed parts of metal enclosure; 5 mΩ; voltage drop 0.2V, 40 A, 2 min. The earth pin of appliance inlet to the farthest earthed parts of metal enclosure; 5 mΩ; 32 A, 2 min.	P
2.6.3.5	Colour of insulation..... :	The color combination green-and-yellow is used.	P
2.6.4	Terminals	See below.	P
2.6.4.1	General	Refer to 2.6.4.2 and 2.6.4.3.	P
2.6.4.2	Protective earthing and bonding terminals	Appliance inlet considered as protective earthing terminal. The protective bonding terminal complies with sub-clause 2.6.3.4.	P
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	The protective bonding conductor is connected to the approved appliance inlet.	P
2.6.5	Integrity of protective earthing	See below.	P
2.6.5.1	Interconnection of equipment	This unit has its own earthing connection. Any other units connected via the output shall be provided SELV only.	P
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switch or overcurrent protective device provided in earthing conductors and protective bonding conductors.	P
2.6.5.3	Disconnection of protective earth	It is not possible to disconnect earth without disconnecting mains as an appliance inlet used.	P
2.6.5.4	Parts that can be removed by an operator	See above.	N/A
2.6.5.5	Parts removed during servicing	See above.	N/A
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with Annex J.	P

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Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.7	Screws for protective bonding	Only ISO thread screw used in metal chassis for protective bonding. No self-tapping or spaced thread screws.	P
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		P
2.7.1	Basic requirements	The equipment relies on a 16A (20A for American countries) rated fuse or circuit breaker of the wall outlet protection of the building installation in regard to L to N short-circuits. Over current protection is provided by the building-in fuse.	P
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7	Considered.	P
2.7.3	Short-circuit backup protection	Pluggable equipment type A, the building installation is considered as providing short circuit protection.	P
2.7.4	Number and location of protective devices ..... :	Over current protection by one built-in fuse. Protection devices in the building installation will provide sufficient protection against earth faults.	P
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel ..... :		N/A
2.8	**Safety interlocks**		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
2.9	**Electrical insulation**		P
2.9.1	Properties of insulating materials	Natural rubber, asbestos or hygroscopic materials are not used.	P
2.9.2	Humidity conditioning	Tested for 120 hrs.	P
	Relative humidity (%), temperature (°C) ..... :	95%, 40°C.	—
2.9.3	Grade of insulation	Basic, supplementary, double insulation, reinforced or functional insulation.	P
2.9.4	Separation from hazardous voltages	See below.	P
	Method(s) used ..... :	Method 1.	—
2.10	**Clearances, creepage distances and distances through insulation**		P
2.10.1	General	See below.	P
2.10.1.1	Frequency .....:	Considered.	P
2.10.1.2	Pollution degrees .....:	2	P
2.10.1.3	Reduced values for functional insulation	See 5.3.4.	P
2.10.1.4	Intervening unconnected conductive parts	Complied.	P
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage	See below.	P
2.10.2.1	General	Considered.	P
2.10.2.2	RMS working voltage	See appended table 2.10.2.	P
2.10.2.3	Peak working voltage	See appended table 2.10.2.	P
2.10.3	Clearances	See below	P
2.10.3.1	General	Annex F is considered.	P
2.10.3.2	Mains transient voltages	See below	P
	a) AC mains supply .....:	2500 Vpk considered.	P
	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)	P
2.10.3.4	Clearances in secondary circuits	Compliance with 5.3.4.	N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply .....:	1500 Vpeak assumed.	P
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	Normal transient voltage considered (overvoltage category II for primary circuits).	P
	a) Transients from a mains supply		N/A
	For an a.c. mains supply .....:		N/A
	For a d.c. mains supply .....:		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances	See below.	P
2.10.4.1	General	Considered.	P
2.10.4.2	Material group and comparative tracking index	Material group IIIb assumed.	P
	CTI tests .....:	See above	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation	Complied with sub-clauses 2.10.5.2 to 2.10.5.14 and 5.2.	P
2.10.5.1	General	See below.	P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation	Certified sources of optocoupler used.	N/A
2.10.5.4	Semiconductor devices	Certified sources of optocoupler used.	N/A
2.10.5.5.	Cemented joints	Certified sources of optocoupler used.	N/A
2.10.5.6	Thin sheet material – General	See below.	P
2.10.5.7	Separable thin sheet material	Insulation tape used.	P
	Number of layers (pcs) .....:	See appended table Annex C.2	—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure	Separable insulation tape used.	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test	(see appended table 5.2)	—
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A
	Working voltage .....:		N/A
	a) Basic insulation not under stress .....:		N/A
	b) Basic, supplementary, reinforced insulation .....:		N/A
	c) Compliance with Annex U .....:		N/A
	Two wires in contact inside wound component; angle between 45° and 90° .....:		N/A
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		N/A
	Working voltage .....:		N/A
	- Basic insulation not under stress .....:		N/A
	- Supplementary, reinforced insulation .....:		N/A
2.10.6	Construction of printed boards	See below	P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards		N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs).....:		N/A
2.10.7	Component external terminations	(see appended table 2.10.3 and 2.10.4)	P
2.10.8	Tests on coated printed boards and coated components		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	Certified sources of photo coupler used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.10	Test for Pollution Degree 1 environment and insulating compound	Certified sources of photo coupler used.	N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A
3	**WIRING, CONNECTIONS AND SUPPLY**		P
3.1	**General**		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring which is PVC insulated, rated VW-1, min. 80 °C have gauge suitable for current intended to be carried. Internal wiring for primary power distribution protected by built-in fuse of SPS.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges and heatsinks which could damage the insulation and cause hazard.	P
3.1.3	Securing of internal wiring	Internal wires are secured by solder with glue or hook construction. So that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation materials see sub-clause 3.1.1	P
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure	Electrical and earthing connections screwed two or more complete threads into metal.	P
3.1.7	Insulating materials in electrical connections	All connections are metal to metal.	P
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	All conductors are secured reliably by use of solder-pins and other mechanical means (mechanical cramping terminal).	P
	10 N pull test	The clearances and creepages are not reduced below required in 2.10.	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.1.10	Sleeving on wiring	No sleeving used as supplementary insulation.	N/A
3.2	**Connection to a mains supply**		P
3.2.1	Means of connection	See below.	P
3.2.1.1	Connection to an a.c. mains supply	The appliance inlet used for connection of a detachable power supply cord.	P
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections		N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) ..... :		—
3.2.4	Appliance inlets	The appliance inlet complies with IEC 60320-1. The power cord can be inserted without difficulties and does not support the unit.	P
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type ..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage	There are no parts under the equipment likely to damage the power supply cords. The enclosure without sharp edges.	P
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm)..... :		—
3.2.9	Supply wiring space		N/A
3.3	**Wiring terminals for connection of external conductors**		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm^2)..... :		—
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type, nominal thread diameter (mm) ..... :		—
3.3.6	Wiring terminal design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	**Disconnection from the mains supply**		P
3.4.1	General requirement	See below	P
3.4.2	Disconnect devices	The appliance inlet is considered to be the disconnect devices.	P
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized	When the equipment is disconnected from mains, no remaining parts at hazardous voltage in the equipment.	P
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A
3.5	**Interconnection of equipment**		P
3.5.1	General requirements	See below.	P
3.5.2	Types of interconnection circuits ..... :	SELV and LCC.	P
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection circuits.	N/A
3.5.4	Data ports for additional equipment	See appended table 2.5.	P
4	**PHYSICAL REQUIREMENTS**		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.1	**Stability**		P
	Angle of 10°	The equipment does not overbalance when tilted to 10 degrees	P
	Test force (N) .....:	The wheel provided is transportable function only. Unit shall be use screws to secure the product on the ground for location	N/A
4.2	**Mechanical strength**		P
4.2.1	General	See below. After the following tests, the equipment complies with the requirements of subclauses 2.1.1, 2.6.1, 2.10.	P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	10N applied to components.	P
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	Applied to outer enclosure.	P
4.2.5	Impact test	No hazard as result from steel ball impact test	P
	Fall test	See above.	P
	Swing test		N/A
4.2.6	Drop test; height (mm) .....:		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified .....:		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N) .....:	The monitor only (45kg) was subjected to the load test. An additional force of 1323 N (3 times the mass of the unit and the mass is 135 kg) was applied to the unit and sustained for 1 min. The unit withstood the load test without damages or breaks. The SPS box (7kg) was subjected to the load test. An additional force of 206 N (3 times the mass of the unit and the mass is 21 kg) was applied to the unit and sustained for 1 min. The unit withstood the load test without damages or breaks.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.3	**Design and construction**		P
4.3.1	Edges and corners	All edges or corners accessible to operator are rounded and smoothed.	P
4.3.2	Handles and manual controls; force (N)..... :		N/A
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress.	P
4.3.5	Connection by plugs and sockets	Mismatch of connectors were prevented by incompatible form or location.	P
4.3.6	Direct plug-in equipment		N/A
	Torque .....:		—
	Compliance with the relevant mains plug standard .....:		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	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		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids .....:		N/A
	Quantity of liquid (l) .....:		N/A
	Flash point (°C) .....:		N/A
4.3.13	Radiation		P
4.3.13.1	General		P
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) .....:		—
	Measured high-voltage (kV) .....:		—
	Measured focus voltage (kV) .....:		—
	CRT markings .....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification .....:		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	See below	P
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class .....:		—
4.3.13.5.2	Light emitting diodes (LEDs)	The following parts are considered complied without tests: - Indicating lights. - LCD panel with LED backlight, the luminance is far less than 10000 cd/m2. With reference to subclause 4.1 of IEC 62471:2006 no further test is necessary.	—
4.3.13.6	Other types .....:	No other types used.	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**		P
4.5.1	General	No exceeding temperature.	P
4.5.2	Temperature tests	(See appended table 4.5)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Normal load condition per Annex L ..... :	(See Annex L)	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat ..... :	(see appended table 4.5.5)	P
4.6	**Openings in enclosures**		P
4.6.1	Top and side openings	See below	P
	Dimensions (mm) ..... :	(See Attached Table 4.6.1, 4.6.2)	—
4.6.2	Bottoms of fire enclosures	See below	P
	Construction of the bottomm, dimensions (mm) .. :	(See Attached Table 4.6.1, 4.6.2)	—
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) ..... :		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) ..... :		—
4.7	**Resistance to fire**		P
4.7.1	Reducing the risk of ignition and spread of flame	See below	P
	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	See below	P
4.7.2.1	Parts requiring a fire enclosure	Having employed the following parts: ■ Components in primary circuits. ■ Components in secondary circuits (not supplied by LPS). ■ Insulating wiring. The fire enclosure is required.	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.2.2	Parts not requiring a fire enclosure	Having employed the following components: ■ PVC insulated wires. ■ Connector in secondary circuits supplied by LPS. It's not requiring a fire enclosure for the circuits are supplied by SPS for HDMI board and IR board (protected by SPS circuit design 12Vdc and 5Vdc output).	P
4.7.3	Materials		P
4.7.3.1	General	See appended table 1.5.1 for PCB material.	P
4.7.3.2	Materials for fire enclosures	(see appended table 1.5.1)	P
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are flammability class V-2, HF-2 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filter provided.	N/A
4.7.3.6	Materials used in high-voltage components	No such components used.	N/A
5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		**P**
5.1	**Touch current and protective conductor current**		P
5.1.1	General	(see appended Table 5.1)	P
5.1.2	Configuration of equipment under test (EUT)	See below.	P
5.1.2.1	Single connection to an a.c. mains supply	The EUT has only one mains connection.	P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Test circuit in Figure 5A used.	P
5.1.4	Application of measuring instrument	Measuring instruments as in annex D.1 used.	P
5.1.5	Test procedure	Applied.	P
5.1.6	Test measurements	See below.	P
	Supply voltage (V) .....:	+10% of the rated voltage.	—
	Measured touch current (mA) .....:	See appended table 5.1.	—
	Max. allowed touch current (mA) .....:	See appended table 5.1.	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Measured protective conductor current (mA) .....:		—
	Max. allowed protective conductor current (mA)...:		—
5.1.7	Equipment with touch current exceeding 3,5 mA	The touch current not exceeded 3.5 mA.	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 within the equipment.	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

5.2	**Electric strength**		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure	Table 5B used.	P

5.3	**Abnormal operating and fault conditions**		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors		N/A
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation.....:	Functional insulation complied with the requirement a) or c).	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE .....:		N/A
5.3.7	Simulation of faults	Complied.	P
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	(see appended table 5.3)	P

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.9.1	During the tests	No fire occurred beyond the equipment, no molten metal emitted and no deformation of enclosure.	P
5.3.9.2	After the tests	Electric strength test made.	P
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	**Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment**		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V) .....:		—
	Current in the test circuit (mA) .....:		—
6.1.2.2	Exclusions .....:		N/A
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		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**		N/A
7.1	**General**		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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

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

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Clause	Requirement + Test	Result - Remark	Verdict
C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		P
	Position .....:	Refer to appended table 1.5.1.	—
	Manufacturer .....:	See above.	—
	Type .....:	See above.	—
	Rated values .....:	See above.	—
	Method of protection..... :	Over current protection by circuit design.	—
C.1	**Overload test**	(see appended table 5.3)	P
C.2	**Insulation**	(see appended tables 5.2 and C2)	P
	Protection from displacement of windings..... :	(see appended tables C2)	P
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		P
D.1	**Measuring instrument**	Used.	P
D.2	**Alternative measuring instrument**		N/A
E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		N/A
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		P
G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N/A
G.1	**Clearances**		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	**Determination of mains transient voltage (V)**		N/A
G.2.1	AC mains supply .....:		N/A
G.2.2	Earthed d.c. mains supplies .....:		N/A
G.2.3	Unearthed d.c. mains supplies .....:		N/A
G.2.4	Battery operation .....:		N/A
G.3	**Determination of telecommunication network transient voltage (V) ..... :**		N/A
G.4	**Determination of required withstand voltage (V)**		N/A
G.4.1	Mains transients and internal repetitive peaks .....:		N/A
G.4.2	Transients from telecommunication networks .....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	**Measurement of transient voltages (V)**		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	**Determination of minimum clearances ..... :**		N/A
H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N/A
J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		P
	Metal(s) used .....:	Metals which the combination electrochemical potential is less than 0.6V.	—
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 SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
L.7	Other business equipment	The equipment is operated according to the most unfavorable way of operation given in the operating instructions.	P
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	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	**ANNEX P, NORMATIVE REFERENCES**		—
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		P
	- Preferred climatic categories .....:	Complied.	P
	- Maximum continuous voltage .....:	Complied.	P
	- Combination pulse current .....:	Complied.	P
	Body of the VDR Test according to IEC60695-11-5.....:		N/A
	Body of the VDR. Flammability class of material (min V-1).....:	Complied.	P

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Clause	Requirement + Test	Result - Remark	Verdict

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	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A

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

U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		N/A
			—

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

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

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

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Clause	Requirement + Test	Result - Remark	Verdict
X.2	Overload test procedure		N/A
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus ..... :		N/A
Y.2	Mounting of test samples ..... :		N/A
Y.3	Carbon-arc light-exposure apparatus ..... :		N/A
Y.4	Xenon-arc light exposure apparatus ..... :		N/A
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		P
AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		N/A
BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**		—
CC	**ANNEX CC, Evaluation of integrated circuit (IC) current limiters**		N/A
CC.1	General		N/A
CC.2	Test program 1……:		N/A
CC.3	Test program 2……:		N/A
CC.4	Test program 3.....:		N/A
CC.5	Compliance.....:		N/A
DD	**ANNEX DD, Requirements for the mounting means of rack-mounted equipment**		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N……..:		N/A
DD.3	Mechanical strength test, 250N, including end stops……:		N/A
DD.4	Compliance……..:		N/A
EE	**ANNEX EE, Household and home/office document/media shredders**		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols……:		N/A
	Information of user instructions, maintenance and/or servicing instructions……:		N/A
EE.3	Inadvertent reactivation test……:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
LCD Module	AUO	P550HVN04ZZ (Z = any alphanumeric character or blank)	55" Dual Side TFT-LCD, LED backlight, with LED drive board rating DC12V, 1.1A max. (for control board), DC 24V, 7.5A max. (for LED driver board)	IEC 60950:2005+A1	CB (issued by TUV Rh)
Metal Enclosure	Interchangeable	Interchangeable	Minimum 1.5 mm thickness.	--	--
Metal box	Interchangeable	Interchangeable	Minimum 1.5 mm thickness.	--	--
Base (for model DF-55*)(optional)	Interchangeable	Interchangeable	Metal.	--	--
Base with wheel (for model DF-55*)(optional)	Interchangeable	Interchangeable	Metal.	--	--
Remote controll (Optional)	Interchangeable	Interchangeable	Type CR2025 batteries used.	--	--
Insulation sheet (Between Power supply board and enclosure)	Interchangeable	Interchangeable	V-2 min.	UL 94	UL
Mylar sheet (Between metal enclosure and IR board)	Interchangeable	Interchangeable	V-1 min.	UL 94	UL
AC Inlet with overload protection (fuse: 10A, 250V)	PRONIC	PST-101F	10A, 250Vac.	IEC 60320-1	CB (Issued by CQC)
AC Inlet (alternate)	PRONIC	PST-101	10A, 250Vac.	IEC/EN 60320-1	VDE
AC switch	PRONIC	R13	6A, 250V	EN 61058-1, UL 1054	VDE, UL
AC connector (Housing)	JOWLE	A3963WV2 Series	7 A, 250V ac.	UL 1977, IEC/EN 61984	UL, TUV
PCBs	Interchangeable	Interchangeable	V-1 min., 105°C	--	--

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Clause	Requirement + Test	Result - Remark	Verdict

Power supply board	WEIHAI POWER ELECTRONICS CO., LTD WEIHAI POWER ELECTRONICS CO., LTD	HTM350PH-F7	O/P: +5Vsb/1A, +5V/4A, +12V/3A, +24V/12A	--	--
-Primary connector (CON01)	JOWLE	A3963WV2 Series	7 A, 250V ac	UL 1977, IEC/EN 61984	UL, TUV
-Primary connector (CON01) (Alternate)	WELI SHENG TERMINAL	M3-I39606S	7A, 250 Vac	UL 1977	UL
-Fuse (F01)	Conquer Electronics Co. Ltd.	UDA-A	250Vac, T6.3A	IEC/EN 60127-1, IEC/EN 60127-2, UL 248	VDE, UL
-Fuse (F01) (Alternate)	Walter	TSC	250Vac, T6.3A	IEC/EN 60127-1, IEC/EN 60127-2, UL 248	VDE, UL
-Varistor (V01) (Optional)	Thinking Electronic Industrial Co. Ltd	TVR10471-D, TVR10471-K, TVR10471-V	Rated 300 Vac, 385Vdc. 6KV/3KA, pulse test passed, coating min. V-1.	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, ANSI/UL 1449	VDE, UL
-Varistor (V01) (Optional) (Alternate)	Walsin	SR471K14D, VZ14D471K	Rated 300 Vac, 385Vdc. 6KV/3KA, pulse test passed, coating min. V-1.	IEC 61051-1, IEC 61051-2, IEC 61051-2-2, ANSI/UL 1449	VDE, UL
-X Capacitors (CX01, CX02) (Optional)	Ultra Tech Xiphi,Enterprise Co.,Ltd	HQX	Rated maximum 0.47 uF, minimum 250 V ac, 100°C. X2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-X Capacitors (CX01, CX02) (Optional) (Alternate)	CARLI	MPX	Rated maximum 0.47 uF, minimum 250 V ac, 100°C. X2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-X Capacitors (CX01, CX02) (Optional) (Alternate)	ISKRA	KNB 1560	Rated maximum 0.47 uF, minimum 250 V ac, 100°C. X2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL

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Clause	Requirement + Test	Result - Remark	Verdict

-Bleeder Resistors (R10, R11)	Interchangeable	SMD type.	Rated 560K ohm, minimum 1/8 W. After fuse.	--	--
-Y-capacitors (CY03, CY04) (Optional)	TDK-EPC	CS, CD	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 or Y2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Y-capacitors (CY03, CY04) (Optional) (Alternate)	WALSIN	AC, AH	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 or Y2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Y-capacitors (CY03, CY04) (Optional) (Alternate)	SUCCESS	SE, SB, SF	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 or Y2 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Bridge capacitor (CY01) (Optional)	TDK-EPC	CD	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Bridge capacitor (CY01) (Optional) (Alternate)	WALSIN	AH	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Bridge capacitor (CY01) (Optional) (Alternate)	SUCCESS	SE, SB	Rated maximum 3300 pF, 125°C, minimum 250 Vac. Y1 type.	IEC/EN 60384-14:2005, UL 60384-14	VDE, UL
-Bridge Diode (BD01)	Interchangeable	Interchangeable	Minimum 8 A, minimum 800 V.	--	--
-Electrolytic Capacitor (C04, C05)	Interchangeable	Interchangeable	100uF, minimum 450 V, 105°C minimum.	--	--
-Transistor (Q01, Q02, Q03, Q04)	Interchangeable	Interchangeable	11A minimum, 500V minimum	--	--
-Transistor (Q19)	Interchangeable	Interchangeable	4A minimum, 600V minimum	--	--
-Choke (LF01) (Optional)	MAO HSIN	MH-A5420	130°C.	--	--
-Choke (LF02) (Optional)	MAO HSIN	MH-A3782	130°C.	--	--
-Choke (LF03) (Optional)	MAO HSIN	MH-A4697	130°C.	--	--

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-Choke (T01)	MAO HSIN	MH-8946	130°C.	--	--
-Photo Coupler (U01, U02, U03)	Everlight Electronics Co. Ltd	EL817	Dti = 0.5mm, Int. cr = 6.0 mm, Ext cr = 7.7 mm, 3000Vac, 100°C	DIN EN 60747-5-2:2003, IEC/EN 60950-1, UL1577	VDE, UL
-Photo Coupler (U01, U02, U03) (Alternate)	Lite-On Electronics Inc	LTV-817	Dti = 0.8mm, Int. cr = 5.2 mm, Ext cr = 7.8 mm, 3000Vac, 100°C	DIN EN 60747-5-2:2003, IEC/EN 60950-1, UL1577	VDE, UL
-Transformer (T02)	MAO HSIN	MH-8945	Class B	--	--
-Transformer (T03)	MAO HSIN	MH-8684	Class B	--	--
-Current sense resistor (R01, R02)	Interchangeable	Interchangeable	Min. 0.22 ohm, 2 W.	--	--
-Current sense resistor (R04)	Interchangeable	Interchangeable	Min. 0.75 ohm, 1 W.	--	--
-PCB	Interchangeable	Interchangeable	V-1 or better, 105°C.	--	--

Supplementary information:

[1] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

1.5.1	TABLE: Opto Electronic Devices	P

Manufacturer ..... :	See above.
Type ..... :	See above.
Separately tested ..... :	By VDE, UL
Bridging insulation..... :	Reinforced
External creepage distance ..... :	See above.
Internal creepage distance..... :	See above.
Distance through insulation..... :	See above.
Tested under the following conditions..... :	RI
Input ..... :	See above.
Output..... :	See above.

supplementary information

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Clause	Requirement + Test	Result - Remark	Verdict

1.6.2	**TABLE: Electrical data (in normal conditions)**						P
U (V)/Hz	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
90/50	2.40	--	211	F01	2.40	Maximum normal load 1.	
90/60	2.41	--	211	F01	2.41	Maximum normal load 1.	
100/50	2.12	2.7	209	F01	2.12	Maximum normal load 1.	
100/60	2.13	2.7	210	F01	2.13	Maximum normal load 1.	
240/50	0.88	2.7	202	F01	0.88	Maximum normal load 1.	
240/60	0.89	2.7	202	F01	0.89	Maximum normal load 1.	
254/50	0.83	--	202	F01	0.83	Maximum normal load 1.	
254/60	0.84	--	202	F01	0.84	Maximum normal load 1.	
264/50	0.81	--	201	F01	0.81	Maximum normal load 1.	
264/60	0.82	--	201	F01	0.82	Maximum normal load 1.	
Supplementary information: 1. Test condition: see General product information (load conditions).							

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

Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)
supplementary information:				
See appended table 5.3				

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

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

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Clause	Requirement + Test	Result - Remark	Verdict

2.2	TABLE: evaluation of voltage limiting components in SELV circuits	P

Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components
	V peak	V d.c.	
T02 Pin 14 - GND	41.2	--	--
T02 Pin 12 - GND	34.4	--	--
T02 Pin 7 - GND	17.2	--	--
T02 Pin 8 - GND	17.2	--	--
T02 Pin 13 - GND	34.2	--	--
T03 Pin 10, 11 - GND	48.8	--	--
After C14	43.1	--	D9
After D9, R05	--	6.2	--

Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)
D9 short	0 Vdc
--	--
supplementary information:	
1. Test condition: 240Vac, 60Hz	

2.5	TABLE: Limited power sources	P

Circuit output tested: See below

Note: Measured Uoc (V) with all load circuits disconnected: See below

Components	Test condition (single fault)	Uoc (V)	I_{sc} (A)		VA	
			Meas.	Limit	Meas.	Limit
USB port, Pin 1-4						
Normal	--	0	0	8	0	100
HDMI port (J103, J104) Pin 1, 3, 4, 6, 7, 9, 10, 12						
Normal	--	3.3	0.01	8	0.01	100
HDMI port (J103, J104) Pin 2, 5, 8, 13, 14, 18, 19						
Normal	--	0	0	8	0	100
HDMI port (J103, J104) Pin 15, 16						
Normal	--	4.46	0.01	8	0.01	100
HDMI port (J103, J104) Pin 11						
Normal	--	2.95	0.01	8	0.01	100
SPS output 5Vdc						

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Clause	Requirement + Test	Result - Remark	Verdict

Normal	--	5.2	6.3	8	35	100
R04 short	--	0	0	8	0	100
SPS output 12Vdc						
Normal	--	12.3	7.85	8	90.6	100
R01 short	--	0	0	8	0	100
R02 short	--	0	0	8	0	100
U101 (Pin 1-2) short	--	0	0	8	0	100
U101 (Pin 3-4) short	--	0	0	8	0	100
U102 (Pin 1-2) short	--	0	0	8	0	100
U102 (Pin 3-4) short	--	0	0	8	0	100
U103 (Pin 1-2) short	--	0	0	8	0	100
U103 (Pin 3-4) short	--	0	0	8	0	100
supplementary information:						
Sc=Short circuit, Oc=Open circuit 1. Test voltage 264Vac, 60Hz						

2.10.2	**Table: working voltage measurement**	P

Location	RMS voltage (V)	Peak voltage (V)	Comments
T02 Pin 1 - 7	211	408	--
T02 Pin 1 - 8	217	428	--
T02 Pin 1 - 9, 10, 11	214	416	--
T02 Pin 1 - 12	210	424	--
T02 Pin 1 - 13	221	448	--
T02 Pin 1 - 14	223	448	--
T02 Pin 3 - 7	267	428	--
T02 Pin 3 - 8	248	432	--
T02 Pin 3 - 9, 10, 11	258	424	--
T02 Pin 3 - 12	**276**	**448**	Max. Vpk & Vrms
T02 Pin 3 - 13	240	436	--
T02 Pin 3 - 14	236	444	--

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Clause	Requirement + Test	Result - Remark	Verdict

CY01 primary to secondary pin	214	416	--
T03 Pin 1 – 8 ,9	180	476	--
T03 Pin 1 – 10, 11	176	428	--
T03 Pin 3 – 8 ,9	310	416	--
T03 Pin 3 – 10, 11	311	460	--
T03 Pin 4 – 8 ,9	**347**	**544**	Max. Vpk & Vrms
T03 Pin 4 – 10, 11	341	528	--
T03 Pin 6 – 8 ,9	174	368	--
T03 Pin 6 – 10, 11	176	368	--
U01 Pin 3 – 1	185	380	--
U01 Pin 3 – 2	181	376	--
U01 Pin 4 – 1	183	376	--
U01 Pin 4 – 2	180	376	--
U02 Pin 3 – 1	166	348	--
U02 Pin 3 – 2	165	348	--
U02 Pin 4 – 1	165	352	--
U02 Pin 4 – 2	165	348	--
U03 Pin 3 – 1	179	368	--
U03 Pin 3 – 2	177	368	--
U03 Pin 4 – 1	176	368	--
U03 Pin 4 – 2	175	364	--
Trace of R38 – trace of R132	174	364	--
Trace of D27 – T03 pin7	173	360	--
supplementary information:			
1. Test condition: 240Vac, 60Hz			

2.10.3 and 2.10.4	**TABLE: Clearance and creepage distance measurements**					P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:						
L / N before F01	420	250	1.5	3.9	2.5	3.9
Under F01	420	250	1.5	4.8	2.5	4.8

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Basic/supplementary:						
Primary traces to earthed traces on SPS	420	250	2.0	See below	2.5	See below
Under CY04				6.7		6.7
Under CY03				6.7		6.7
HS01 to top metal chassis				8.0		8.0
Reinforced:						
Primary traces to Secondary traces on SPS	420	250	4.0	See below	5.0	See below
Under CY01				7.3		7.3
Under U01				6.4		6.4
Under U02 and U03				6.4		6.4
Under T03	544	347	4.8	7.2	7.0	7.2
Under T02	448	276	4.6	12	5.6	12
T02 core to C12	448	276	4.6	4.7	5.6	13
T02 core to IC06	448	276	4.6	4.7	5.6	11
Supplementary information: 1. Functional insulation shorted, see sub-clause 5.3.4 c). 2. The insulation sheet provided between SPS and enclosure for keep basic insulation.						

2.10.5	**TABLE: Distance through insulation measurements**				P
Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test volt-age (V)	Required DTI (mm)	DTI (mm)
Insulation sheet (basic insulation)	420	250	1834Vac	--	0.3
Photo coupler (reinforced insulation)	420	250	3000Vac	0.4	1.
Supplementary information: 1. For details refer to appended table 1.5.1.					

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Clause	Requirement + Test	Result - Remark	Verdict

4.3.8	TABLE: Batteries									N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available										
Is it possible to install the battery in a reverse polarity position?										
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	
Max. current during normal condition	--									
Max. current during fault condition	--									
Test results:										Verdict
- Chemical leaks										
- Explosion of the battery										
- Emission of flame or expulsion of molten metal										
- Electric strength tests of equipment after completion of tests										
Supplementary information:										

4.3.8	TABLE: Batteries	
Battery category ..... :		
Manufacturer ..... :		
Type / model..... :		
Voltage ..... :		
Capacity..... :		
Tested and Certified by (incl. Ref. No.)..... :		
Circuit protection diagram:		

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

4.5	TABLE: Thermal requirements					P
	Supply voltage (V) ..... :	90Vac	264Vac	90Vac	264Vac	—
	Ambient T_{min} (°C) ..... :	--	--	--	--	—
	Ambient T_{max} (°C) ..... :	--	--	--	--	—
Maximum measured temperature T of part/at.....:		T (°C)				Allowed T_{max} (°C)
Test condition		Monitor horizontal, SPS box horizontal	Monitor horizontal, SPS box horizontal	Monitor vertical, SPS box horizontal	Monitor vertical, SPS box horizontal	--
AC inlet near Line (SPS box)		51.5	47.4	52.7	48.0	70
CON01 near Line (SPS box)		58.3	52.1	59.3	52.5	--
V01 near CX01 (SPS box)		61.4	54.2	62.5	54.5	85
LF01 coil (SPS box)		69.8	56.7	70.8	57.1	130
CX2 body (SPS box)		65.4	56.6	66.5	57.0	100
LF02 coil (SPS box)		75.5	59.1	76.6	59.7	130
CY04 body (SPS box)		59.7	53.4	60.9	53.9	125
PCB near BD01 (SPS box)		73.7	62.0	74.9	62.6	105
LF03 coil (SPS box)		84.2	68.4	85.4	69.0	130
C05 body near C04 (SPS box)		89.7	73.4	90.9	74.0	105
PCB near Q01 (SPS box)		91.3	71.8	92.4	72.3	105
T01 coil (SPS box)		97.7	77.6	99.0	78.1	130
T02 coil (SPS box)		105	101	106	101	110
T02 core (SPS box)		95.1	90.9	96.2	91.5	110
CY01 body (SPS box)		63.6	60.8	64.8	61.1	125
U01 body (SPS box)		68.2	65.0	69.3	65.4	100
T03 coil (SPS box)		78.3	72.8	79.8	73.4	110
T03 core (SPS box)		77.0	71.7	78.4	72.4	110

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Clause	Requirement + Test	Result - Remark	Verdict

U03 body near U02 (SPS box)	73.8	68.6	75.0	69.0	100
PCB near D07, D06A (SPS box)	91.1	88.7	92.4	89.3	105
C23 body (SPS box)	73.0	71.6	74.1	71.9	85
L03 coil (SPS box)	70.0	68.7	71.1	69.1	105
Metal enclosure outside near T02 (SPS box)	54.2	52.6	55.2	53.5	70
US1 body touch PCB (main board)	73.5	74.1	75.1	75.2	105
L141 body (main board)	64.3	64.9	67.1	67.2	105
Panel	46.8	47.3	47.0	47.2	95
Metal enclosure outside near main board	46.8	47.3	47.5	47.8	70
Ambient temperature during test (Tamb)	23.7	23.3	21.7	22.2	--
Max. ambient temperature (Tma)	40	40	40	40	--
Test condition	Monitor vertical, SPS box vertical	Monitor vertical, SPS box vertical	--	--	--
AC inlet near Line (SPS box)	56.0	51.1	--	--	70
CON01 near Line (SPS box)	56.7	51.4	--	--	--
V01 near CX01 (SPS box)	60.6	53.8	--	--	85
LF01 coil (SPS box)	68.9	56.4	--	--	130
CX2 body (SPS box)	66.1	57.1	--	--	100
LF02 coil (SPS box)	75.7	59.5	--	--	130
CY04 body (SPS box)	66.9	56.6	--	--	125
PCB near BD01 (SPS box)	76.0	62.4	--	--	105
LF03 coil (SPS box)	78.9	64.8	--	--	130
C05 body near C04 (SPS box)	81.7	68.0	--	--	105
PCB near Q01 (SPS box)	81.4	65.6	--	--	105
T01 coil (SPS box)	88.5	71.3	--	--	130
T02 coil (SPS box)	100	95.9	--	--	110
T02 core (SPS box)	91.3	87.0	--	--	110
CY01 body (SPS box)	69.0	61.9	--	--	125
U01 body (SPS box)	71.0	66.5	--	--	100
T03 coil (SPS box)	70.1	65.8	--	--	110
T03 core (SPS box)	69.4	65.1	--	--	110
U03 body near U02 (SPS box)	68.2	63.4	--	--	100
PCB near D07, D06A (SPS box)	88.4	84.9	--	--	105
C23 body (SPS box)	73.2	69.9	--	--	85

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Clause	Requirement + Test	Result - Remark	Verdict

L03 coil (SPS box)	71.4	67.9	--	--	105
Metal enclosure outside near T02 (SPS box)	52.2	49.8	--	--	70
US1 body touch PCB (main board)	73.8	73.4	--	--	105
L141 body (main board)	65.8	65.5	--	--	105
Panel	45.3	44.6	--	--	95
Metal enclosure outside near main board	46.1	45.8	--	--	70
Ambient temperature during test (Tamb)	24.7	25.0	--	--	--
Max. ambient temperature (Tma)	40	40	--	--	--
Test condition	Monitor with SPS box and wheel combine	Monitor with SPS box and wheel combine	--	--	--
AC inlet near Line (SPS box)	42.4	41.0	--	--	70
CON01 near Line (SPS box)	46.2	43.2	--	--	--
V01 near CX01 (SPS box)	49.9	45.4	--	--	85
LF01 coil (SPS box)	55.0	46.4	--	--	130
CX2 body (SPS box)	51.0	46.7	--	--	100
LF02 coil (SPS box)	59.5	47.8	--	--	130
CY04 body (SPS box)	47.9	44.4	--	--	125
PWB near BD01 (SPS box)	62.0	52.1	--	--	105
LF03 coil (SPS box)	71.6	55.8	--	--	130
C05 body near C04 (SPS box)	74.5	61.2	--	--	105
PCB near Q01 (SPS box)	76.6	60.2	--	--	105
T01 coil (SPS box)	83.5	65.8	--	--	130
T02 coil (SPS box)	94.1	89.8	--	--	110
T02 core (SPS box)	86.7	81.9	--	--	110
CY01 body (SPS box)	63.0	57.2	--	--	125
U01 body (SPS box)	65.2	60.5	--	--	100
T03 coil (SPS box)	66.3	61.2	--	--	110
T03 core (SPS box)	67.4	62.3	--	--	110
U03 body near U02 (SPS box)	64.7	58.7	--	--	100
PCB near D07, D06A (SPS box)	85.2	81.7	--	--	105
C23 body (SPS box)	72.8	69.8	--	--	85
L03 coil (SPS box)	72.5	69.8	--	--	105
Panel	47.4	47.3	--	--	95

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Clause	Requirement + Test	Result - Remark	Verdict

US1 body touch PCB (main board)	64.9	63.6	--	--	105
L141 body (main board)	74.0	72.4	--	--	105
Metal enclosure outside near main board	43.7	42.7	--	--	70
Ambient temperature during test (Tamb)	24.5	24.2	--	--	--
Max. ambient temperature (Tma)	40	40	--	--	--

Supplementary information:

1. The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.2 at voltages as described in above.
2. Unit specified with maximum of 40°C ambient temperature and all temperatures were calculated for a maximum ambient temperature of 40°C.
   - Class B Tmax = 120 °C - 10 °C = 110 °C
3. Thermocouple method used for measuring the temperatures.

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

Supplementary information:

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

Part	Test temperature (°C)	Impression diameter (mm)
Primary Connector (CON01), JOWLE, type A3963WV2 Series	125	0.7
Primary Connector (CON01), WELI SHENG TERMINAL, type M3-I39606S	125	0.8

Supplementary information:

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
PCB	--	--	--	V-1 or better	1.

Supplementary information:

1. See appended table 1.5.1 for the source details.

5.1	TABLE: touch current measurement			P
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions	

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Clause	Requirement + Test	Result - Remark	Verdict

(L → terminal A)	0.8	3.5	To metal enclosure (earthed), Switch “e” opened condition.
(N → terminal A)	0.8	3.5	To metal enclosure (earthed), Switch “e” opened condition.
(L → terminal A)	0.8	3.5	To SELV connectors (earthed), Switch “e” opened condition.
(N → terminal A)	0.8	3.5	To SELV connectors (earthed), Switch “e” opened condition.
(L → terminal A)	0.05	0.25	To SELV connectors, Switch “e” close condition.
(N → terminal A)	0.05	0.25	To SELV connectors, Switch “e” close condition.
supplementary information:			
1. Test voltage: 264V, 60Hz 2. Overall capacity: See appended table 1.5.1			

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests		P
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
For unit			
Primary to secondary	DC	4242	No
Primary to Earth	DC	2594	No
For transformer: T02			
Primary to secondary	AC	3000	No
Primary to Core	AC	1674	No
Secondary to Core	AC	1674	No
Primary/secondary winding to bobbin	AC	1674	No
One layer of tape insulation (for all sources)	AC	3000	No
Transformer: T03			
Primary to secondary	AC	3000	No
Primary to Core	AC	1834	No
Secondary to Core	AC	1834	No
Primary/secondary winding to bobbin	AC	1834	No
One layer of tape insulation (for all sources)	AC	3000	No
Supplementary information:			

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Clause	Requirement + Test	Result - Remark	Verdict

5.3	TABLE: Fault condition tests		P
	Ambient temperature (°C) .....:	25°C, if not otherwise specified.	—
	Power source for EUT: Manufacturer, model/type, output rating .....:	--	—

Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
For monitor with SPS box and wheel combine						
Ventilation openings	Blocked	240	3hrs	F01	0.89	Normal operation. The maximum temperature of T02 coil: 80.2°C T03 coil: 52.5°C Ambient: 23.8°C, No hazards.
For monitor vertical, SPS box horizontal						
Ventilation openings	Blocked	240	3hrs 3mins	F01	0.89	Normal operation. The maximum temperature of T02 coil: 84.2°C T03 coil: 56.5°C Ambient: 23.8°C, No hazards.
For SPS						
DB01 (+ - -)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, no other component damaged. No hazardous.
Q01 (D - G)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02). No hazardous.
Q01 (D - S)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02). No hazardous.
Q01 (G - S)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Q02 (D - G)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02). No hazardous.
Q02 (D - S)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02). No hazardous.
Q02 (G - S)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.

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C05	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (BD01). No hazardous.
Q03 (D - G)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02, Q03, Q04). No hazardous.
Q03 (D - S)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02, Q03, Q04). No hazardous.
Q03 (G - S)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Q04 (D - G)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02, Q03, Q04). No hazardous.
Q04 (D - S)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q01, Q02, Q03, Q04). No hazardous.
Q04 (G - S)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Q19 (D - G)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q019). No hazardous.
Q19 (D - S)	S-C	240	1 sec	F01	--	Unit shut down within 1sec, fuse F01 opened, component damaged (Q19). No hazardous.
Q19 (G - S)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U01 (1 - 2)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U01 (3 - 4)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U01 (1)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U01 (4)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U02 (1 - 2)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.

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U02 (3 - 4)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U02 (1)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U02 (4)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U03 (1 - 2)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U03 (3 - 4)	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U03 (1)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
U03 (4)	O-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 Pin 14 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 Pin 13 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 Pin 8 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 Pin 7 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 Pin 12 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T02 (Pin 14 – GND)	O-L (After D05)	240	3 hours	F01	1.6	Temperature is stabled at overload condition 0.1A, the unit shut down when increase to 0.3A, Max. temperature of T02 coil: 87.3°C T03 coil: 56.5°C Ambient: 23.0°C, No hazards.

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T02 (Pin 8 – GND)	O-L (After D08)	240	9 hours	F01	1.87	Temperature is stabled at overload condition 4.0A, the unit shut down when increase to 4.8A, Max. temperature of T02 coil: 111°C T03 coil: 59.3°C Ambient: 23.0°C, No hazards.
T02 (Pin 13 – GND)	O-L (After D06)	240	9 hours	F01	1.91	Temperature is stabled at overload condition 2.8A, the unit shut down when increase to 2.9A, Max. temperature of T02 coil: 150°C T03 coil: 71.7°C Ambient: 27.3°C, No hazards.
T03 Pin 10 - 9	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T03 Pin 1 - 6	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
T03 (Pin 10 – GND)	O-L (After D09)	240	7 hours	F01	1.61	Temperature is stabled at overload condition 1.1A, the unit shut down when increase to 1.2A, Max. temperature of T02 coil: 103°C T03 coil: 75.1°C Ambient: 22.0°C, No hazards.
Output 5Vsb	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Output 5Vdc	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Output 12Vdc	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
Output 24Vdc	S-C	240	30 min	F01	0.03	Unit shut down within 1sec. No component damaged, no hazardous.
For Unit connector						
HDMI (J103, J104) pin 1, 3, 4, 6, 7, 9, 10, 12	O-L	240	1hr	F01	0.89	Open circuit measures 3.3V, Can,t load, No hazards.

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HDMI (J103, J104) pin 2, 5, 8, 13, 14, 17, 18, 19	O-L	240	1sec	F01	0.89	Open circuit measures 0 V
HDMI (J103, J104) pin 15, 16	O-L	240	1hr	F01	0.89	Open circuit measures 4.46V, Can,t load, No hazards.
HDMI (J103, J104) pin 11	O-L	240	1hr	F01	0.89	Open circuit measures 2.95V, Can,t load, No hazards.
USB port pin 1-4	O-L	240	1sec	F01	0.89	Open circuit measures 0 V

Supplementary information:
1. Used abbreviations: s-c=short circuit, o-c=open circuit, o-l=overload.
2. The electric strength test performed after fault condition test and see appended table 5.2 for detailed test conditions.
3. Fuse open items were repeated on all fuse sources.

C.2	TABLE: transformers	P

Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T02	Primary / input winding and secondary / output winding (internal)	448	276	3000	4.6	5.6	Min. 2 layers, 0.4 mm
T02	Primary / input winding and core (internal)	448	276	1674	2.3	2.8	See above
T02	Secondary / output winding and core (internal)	448	276	1674	2.3	2.8	See above
T02	Primary / input part and secondary / output part (external)	448	276	3000	4.6	5.6	See above
T02	Primary / input part and core (external)	448	276	1674	2.3	2.8	See above
T02	Secondary / output part and core (external)	448	276	1674	2.3	2.8	See above

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

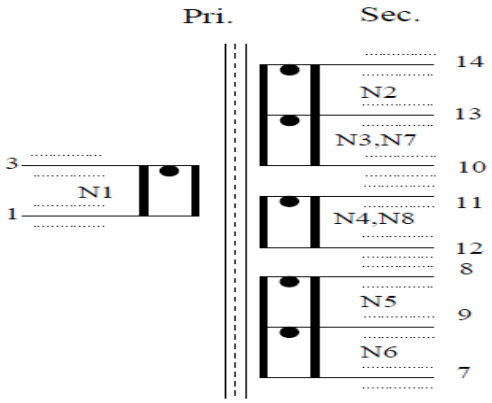
T02	Primary / input winding and secondary / output part (external)	448	276	3000	4.6	5.6	See above
T02	Secondary / output winding and primary / input part (external)	448	276	3000	4.6	5.6	See above

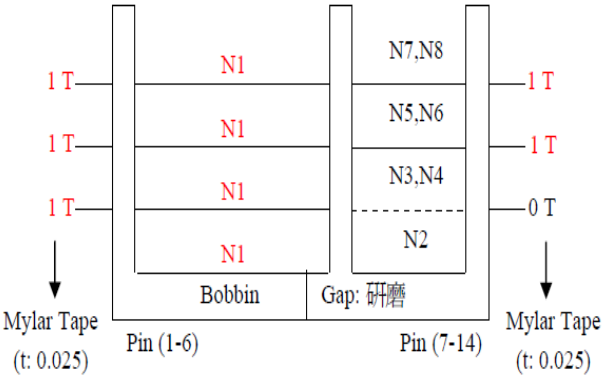
Loc.	Tested insulation	Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T02	Primary / input winding and secondary / output winding (internal)	3000	7.0	7.0	Min. 2 layers, 0.4 mm
T02	Primary / input winding and core (internal)	1674	4.0	4.0	See above
T02	Secondary / output winding and core (internal)	1674	4.0	4.0	See above
T02	Primary / input part and secondary / output part (external)	3000	40	40	See above
T02	Primary / input part and core (external)	1674	5.0	5.0	See above
T02	Secondary / output part and core (external)	1674	5.0	5.0	See above
T02	Primary / input winding and secondary / output part (external)	3000	22	22	See above
T02	Secondary / output winding and primary / input part (external)	3000	22	22	See above
supplementary information:					

C.2	TABLE: transformers	P

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

Transformer T02:
Concentric winding on EPC-39/24 core.
The core is considered as floating.
2 layers insulation tape around outer winding.
Winding ends additionally fixed with tape.
Bobbin material:
- E I DUPONT DE NEMOURS & CO INC, type FR530, PET, V-0, 155°C, thickness 0.4mm min.
- Sumitomo Bakelite Co., Ltd., type PM-9820, Phenolic, V-0, 150°C, thickness 0.4mm min.
Insulation tape:
- JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD, type CT.
- SYMBIO INC, type 35660.
- 3M COMPANY ELECTRICAL MARKETS DIV (EMD), Type 1350F-1
The detailed information see below:





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

C.2	TABLE: transformers	P

Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
T03	Primary / input winding and secondary / output winding (internal)	544	347	3000	4.8	7.0	Min. 2 layers, 0.4 mm
T03	Primary / input winding and core (internal)	544	347	1834	2.4	3.5	See above
T03	Secondary / output winding and core (internal)	544	347	1834	2.4	3.5	See above
T03	Primary / input part and secondary / output part (external)	544	347	3000	4.8	7.0	See above
T03	Primary / input part and core (external)	544	347	1834	2.4	3.5	See above
T03	Secondary / output part and core (external)	544	347	1834	2.4	3.5	See above
T03	Primary / input winding and secondary / output part (external)	544	347	3000	4.8	7.0	See above
T03	Secondary / output winding and primary / input part (external)	544	347	3000	4.8	7.0	See above

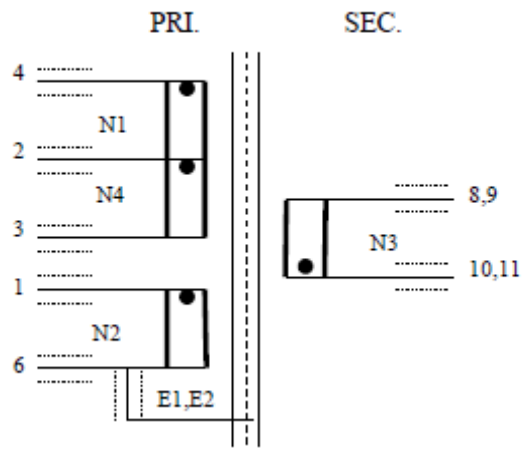
Loc.	Tested insulation	Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers
T03	Primary / input winding and secondary / output winding (internal)	3000	8.0	8.0	Min. 2 layers, 0.4 mm
T03	Primary / input winding and core (internal)	1834	4.0	4.0	See above
T03	Secondary / output winding and core (internal)	1834	4.0	4.0	See above
T03	Primary / input part and secondary / output part (external)	3000	25	25	See above
T03	Primary / input part and core (external)	1834	4.0	4.0	See above

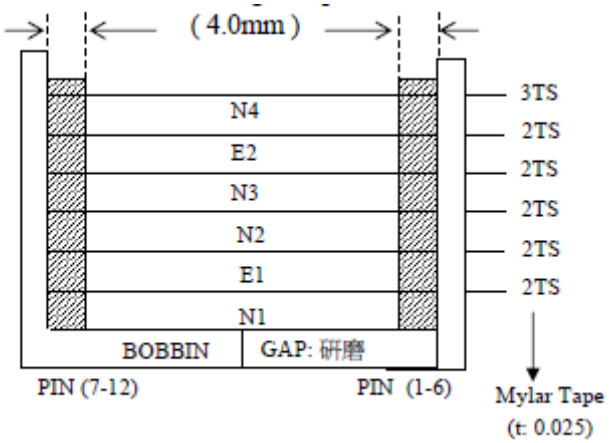
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

T03	Secondary / output part and core (external)	1834	4.0	4.0	See above
T03	Primary / input winding and secondary / output part (external)	3000	7.3	7.3	See above
T03	Secondary / output winding and primary / input part (external)	3000	7.3	7.3	See above
supplementary information:					

C.2	TABLE: transformers	P

Transformer T03:
Concentric winding on ER-28/28 core.
The core is considered as floating.
2 layers insulation tape around outer winding.
Winding ends additionally fixed with tape.
Bobbin material:
- CHANG CHUN PLASTICS CO LTD., type T375J, Phenolic, V-0, 150°C, thickness 0.4mm min.
Insulation tape:
- JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD, type CT.
- SYMBIO INC, type 35660.
- 3M COMPANY ELECTRICAL MARKETS DIV (EMD), Type 1350F-1.
Margin tape:
- SYMBIO INC, type 35661.
- 3M COMPANY ELECTRICAL MARKETS DIV (EMD), Type 44.
The detailed information see below:





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

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

Information: No listing of test equipment used necessary for chosen test procedure.

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

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

Information technology equipment – Safety –

Part 1: General requirements

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

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	Clauses, subclauses, notes, tables and figures which are additional to those in IEC60950-1 and it´s amendmets are prefixed “Z”		P
Contents (A2:2013)	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZD (informative) IEC and CENELEC code designations for flexible cords		P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list: 1.4.8 Note 2; 1.5.1 Note 2 & 3; 1.5.7.1 Note 1.5.8 Note 2; 1.5.9.4 Note; 1.7.2.1 Note 4, 5 & 6 2.2.3 Note; 2.2.4 Note; 2.3.2 Note 2.3.2.1 Note 2; 2.3.4 Note 2; 2.6.3.3 Note 2 & 3 2.7.1 Note; 2.10.3.2 Note 2; 2.10.5.13 Note 3 3.2.1.1 Note; 3.2.4 Note 3.; 2.5.1 Note 2 4.3.6 Note 1 & 2; 4.7 Note 4; 4.7.2.2 Note 4.7.3.1 Note 2; 5.1.7.1 Note 3 & 4; 5.3.7 Note 1 6 Note 2 & 5; 6.1.2.1 Note 2; 6.1.2.2 Note 6.2.2 Note; 6.2.2.1 Note 2; 6.2.2.2 Note 7.1 Note 3; 7.2 Note; 7.3 Note 1 & 2 G.2.1 Note 2; Annex H Note 2		P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note; 6.1.2.1 Note 2 6.2.2.1 Note 2; EE.3 Note		P
General (A2:2013)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note *; 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

1.1.1 **(A1:2010)**	**Replace the text of NOTE 3 by the following.** **NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.**		**P**
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.		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		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 *		P
1.7.2.1 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		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
	Zx Protection against excessive sound pressure from personal music players		N/A

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

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

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

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

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Zx.4.2 Wired listening devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.		N/A
	Zx.4.3 Wireless listening devices In wireless mode: with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.		N/A
	Zx.5 Measurement methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;		P
	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		N/A
2.7.2	This subclause has been declared 'void'.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 | 0,75 [a)] | Over 6 up to and including 10| (0,75) [b)] 1,0 | Over 10 up to and including 16| (1,0) [c)] 1,5 | In the conditions applicable to Table 3B delete the words "in some countries" in condition [a)]. In NOTE 1, applicable to Table 3B, delete the second sentence.		N/A
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

IEC60950_1F - ATTACHMENT			
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
Bibliography	Additional EN standards.		—

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

ZB ANNEX (normative) *SPECIAL NATIONAL CONDITIONS (EN)*			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N/A
1.2.13.14 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1 (A11:2009)	In **Finland, Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		P
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N/A
1.7.2.1	In **Finland**, **Norway** and **Sweden**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In **Finland**: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In **Norway**: “Apparatet må tilkoples jordet stikkontakt” In **Sweden**: “Apparaten skall anslutas till jordat uttag”		N/A
1.7.2.1 (A11:2009)	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).”		

IEC60950_1F - ATTACHMENT			
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 kabel-TV nätet.”		
1.7.2.1 (A2:2013)	In **Denmark**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in **Denmark** shall be as follows: In **Denmark**: “Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.”		N/A
1.7.5 1.7.5 (A11:2009)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a. For **CLASS II EQUIPMENT** the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011. For class I equipment the following Standard Sheets are applicable: DK 1-3a, DK 1-1c, DK 1-1d, DK 1-5a or DK 1-7a, with the exception for STATIONARY EQUIPMENT where the socket-outlets shall be in accordance with Standard Sheet DK 1-1b, DK 1-1c, DK 1-1d or DK 1-5a. Socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance with DS 60884-2-D1 standard sheet DKA 1-4a. Other current rating socket outlets shall be in compliance with by DS 60884-2-D1 Standard Sheet DKA 1-3a or DKA 1-3b. Justification the Heavy Current Regulations, 6c		N/A
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.3.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.6.3.3	In the **United Kingdom**, the current rating of the circuit shall be taken as 13 A, not 16 A.	Considered. However, test was performed with 16A for representative.	P
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
2.10.5.13	In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	In **Switzerland**, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A		N/A

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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 socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998:Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A		
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.		N/A
3.2.1.1 (A2:2013)	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2. Justification the Heavy Current Regulations, 6c		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.		N/A
3.2.1.1	In the **United Kingdom**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		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.		N/A
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.		N/A
3.2.5.1	In the **United Kingdom**, a power supply cord with conductor of 1,25 mm2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		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.		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.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	In **Finland**, **Norway** and **Sweden**, add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirements for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.		N/A
	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

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Clause	Requirement + Test	Result - Remark	Verdict
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.		N/A
7.2	In **Finland**, **Norway** and **Sweden**, for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3 (A11:2009)	In **Norway** and **Sweden**, for requirements see 1.2.13.14 and 1.7.2.1 of this annex.		N/A

Annex ZD
(informative)

IEC and CENELEC code designations for flexible cords

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

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1: 2009 and A2:2013 U.S.A. NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements	
Differences according to.....:	UL 60950-1-07(Second Edition) + A1: 2011 + A2: 2014
Attachment Form No. .....:	US_ND_IEC60950_1F
Attachment Originator.....:	UL
Master Attachment.....:	Date 2014-07

	Special national conditions		
1.1.1	All equipment is 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) and the Canadian Electrical Code (CEC) part 1 CAN/CSA C22.1, ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	P
	Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75	Same as above	P
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A	Considered.	P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the /NEC		N/A
	For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the NEC are required to have special construction features and identification markings		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		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	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
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		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		N/A
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.		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		N/A
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords are no longer than 4.5 m in length		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		N/A
3.3	Wiring terminals and associated spacings for field wiring connections comply with CSA C22.2 No. 0		N/A
3.3.3	Wire binding screws are not attached with conductors larger than 10 AWG (5.3 mm2)		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are suitable for Canadian/US wire gauge sizes, are		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,		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		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		N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with NFPA 30		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).		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m^3 (27 cu ft) have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9m^2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) have a flame spread rating of 50 or less		N/A
	For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less		N/A
	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043		N/A
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)		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	Components are approved by UL, see appended table 1.5.1 of IEC 60950-1 test report.	P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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		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_{peak} 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		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		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		N/A
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		N/A
4.3.2	Equipment with handles complies with special loading tests		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		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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
Annex EE	Articulated accessibility probe (Fig EE.3) is used for assessing accessibility to document/media shredders instead of the Figure 2A test finger		N/A
Annex M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions		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		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1 with A1:2009 and A2:2013 CANADA NATIONAL DIFFERENCES

Information technology equipment – Safety – Part 1: General requirements

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

Attachment Form No.....: CA_ND_IEC60950_1F

Attachment Originator.....: CSA

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

1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, unless marked or otherwise identified, installation is allowed per the Standard for the Protection of Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	In accordance with the National Electrical Code (NEC) and the Canadian Electrical Code (CEC) part 1 CAN/CSA C22.1, ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75.	P
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A:		N/A
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the CEC/NEC. For lengths 3.05 m or less, external interconnecting flexible cord and cable assemblies that are not types specified in the CEC/NEC are required to have special construction features and identification markings.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC shall be marked with the voltage rating and “Class 2” or equivalent. Marking shall be located adjacent to the terminals and shall be visible during wiring.		N/A
2.5	Where a fuse is used to provide Class 2, Limited Power Source, or TNV current limiting, it shall not be operator-accessible unless it is not interchangeable.		N/A
2.6	Equipment with isolated ground (earthing) receptacles are required to comply with NEC 250.146(D) and CEC 10-112 and 10-906(8).		N/A
2.7.1	Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable. Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.		N/A
3.2	Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains shall be in accordance with the NEC/CEC.		N/A
3.2.1	Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment.		N/A
3.2.1.2	Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.		N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm2).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for US/Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		N/A
3.3.5	First column of Table 3E revised to require “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.4.2	Motor control devices are required for cord-connected equipment with a motor if the equipment is rated more than 12 A, or if the motor has a nominal voltage rating greater than 120 V, or is rated more than 1/3 hp (locked rotor current over 43 A).		N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.		N/A
3.4.11	For computer room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the computer room remote power-off circuit.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30		N/A
4.3.13.5	Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370).		N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m3 (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m2 (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
	Non-metallic enclosures of equipment for use in spaces used for environmental air (plenums) are required to comply with UL 2043.		N/A
Annex H	Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370)..		N/A
OTHER DIFFERENCES The following key national differences are based on requirements other than national regulatory requirements.			

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	Components are approved by UL, see appended table 1.5.1 of IEC 60950-1 test report for details.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as either a SELV Circuit, TNV-2 Circuit or Hazardous Voltage Circuit depending on the maximum operating voltage of the supply. This maximum operating voltage shall include consideration of the battery charging “float voltage” associated with the intended supply system, regardless of the marked power rating of the equipment.	No DC Mains.	N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vpeak or 60 Vd.c., the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		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.		N/A
2.6.2	Equipment with functional earthing is required to be marked with the functional earthing symbol (IEC 60417-6092).		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.		N/A
4.3.2	Equipment with handles is required to comply with special loading tests.		N/A
4.3.8	Battery packs for both portable and stationary applications are required to comply with special component requirements.		N/A
5.1.8.3	Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests.		N/A
5.3.7	Internal (e.g., card cage) SELV circuit connectors and printed wiring board connectors that are accessible to the operator and that deliver power are to be overloaded. During abnormal operating testing, if a circuit is interrupted by the opening of a component, the test shall be repeated twice (three tests total) using new components as necessary.		N/A
6.4	Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses in accordance with 6.4 and Annex NAC.		N/A
Annex EE	UL articulated accessibility probe (Fig EE.3) required for assessing accessibility to document/media shredders instead of the Figure 2A test finger.		N/A
M.2	Continuous ringing signals up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions.		N/A
Annex NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		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)

	National Differences		P
General	See also Group Differences (EN 60950-1:2006/A11/A1)		P
1.5.7.1	In **Finland** 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
1.5.9.4	In **Finland**, 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	In **Finland**,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"		N/A
2.3.2	In **Finland**, there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N/A
2.10.5.13	In **Finland**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A

IEC60950_1F - ATTACHMENT			
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.	The equipment is not such equipment.	N/A
6.1.2.1 (A1:2010)	In **Finland,** 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 - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2. A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14:2005 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.		N/A
7.2	In **Finland,** 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.	The equipment is not connected to the distribution systems.	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

Annex ZC, 1.7.2.1	According to GPSG, section 2, clause 4: 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.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950 - 1, ed2, amd1
ISRAEL NATIONAL DIFFERENCES
(INFORMATION TECHNOLOGY EQUIPMENT – SAFETY: GENERAL REQUIREMENTS)

Differences according to.....:	National standard SI 60950 - 1, ed2, amd1.
Attachment Form No. .....:	IL_ND_IEC60950_1C
Attachment Originator.....:	Standards Institution of Israel
Master Attachment.....:	Date 2015-12

	National Differences		
1.6	**Power interface** The clause is applicable with the following addition:		P
1.6.1	**AC Power distribution systems**	See below.	P
	-At the end of the clause, the following note shall be added: **Note**: In Israel, the clause is subject to the Electricity Law, 1954, its Regulations and updates.		P
1.7	**Marking and instructions** The clause is applicable with the following additions:		N/A
1.7.1	**Power rating**		N/A
	-Subclause 1.7.201 shall be added after the clause, as follows:		N/A
1.7.201	**Marking in the Hebrew language**		N/A
	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 items shall be marked in the Hebrew language: 1. Name of the apparatus and its commercial designation; 2. Manufacturer's name and his address; if the equipment is imported, the importer's name and his address; 3. Manufacturer's registered trademark, if any; 4. Name of the model and serial number, if any; 5. Country of manufacture. The items shall be marked on the apparatus or on its packaging, or on a label well attached to the apparatus or its packaging, by bonding or sewing, such that the label cannot be easily removed.		

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2	**Safety instructions and marking**		N/A
1.7.2.1	**General** - The following shall be added at the end of the clause: All the instruction and all the warnings related to safety shall also be written in the Hebrew language.		N/A
- At the end of clause 1, clause 1.201 shall be added as follows:			
1.201	**Power consumption in standby mode** The equipment shall comply with the requirements of the Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011, with a permitted deviation of up to 10 %.		N/A
2	**Protection from hazards** The clause is applicable with the following additions:		N/A
2.9.4	**Separation from hazardous voltages** The following shall be added at the beginning of the clause: According to the Electricity Law, 1954, and the Electricity Regulations (Earthing and protection means from electricity at voltages up to 1,000 V), 1991, in Israel, seven means of protection from electricity are permitted, as follows: 1) Network system earthing - (TN-C-S, TN-S); 2) Network system earthing - (TT); 3) Network Insulation Terre - (IT); 4) Isolated transformer; 5) Safety extra low voltage; 6) Residual current circuit breaker; 7) Reinforced insulation; Double insulation		N/A
- Clause 2.201 shall be added at the end of clause 2, as follows:			
2.201	**Prevention of electromagnetic interference** The device shall meet the requirements of the relevant part of the Israeli Standard series, SI 961. If the device contains components for prevention of electromagnetic interference, the devices shall not lower the safety level of the device, as required by this Standard.		N/A
3	**Wiring, connections and supply** The clause is applicable with the following additions:		N/A
3.2	**Connection to a mains supply**		N/A
3.2.1	**Means of connection**		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	**Connection to an a.c. mains supply** After the Note, the following note shall be added: **Note:** In Israel, the supply plug shall comply with the requirements in Israeli Standard, SI 32 Part 1.1.		N/A
3.2.1.2	**Connection to a d.c. mains supply** After the first paragraph, the following note shall be added: **Note:** As of the date of publication of this Standard, there is no Israeli Standard for connection accessories to d.c.		N/A
	Special national conditions (if any)		
	ANNEX P **Normative references**		P
	The annex is applicable with the following modifications and additions: In place of some of the International Standards cited in the Standard and noted in this annex, the following Israeli Standards shall apply:		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

The referenced International Standard	The substituted Israeli Standard	Comments
IEC 60317 (all parts) [b]	SI 1067 Part 1 – Enamelled[c] round copper wires with high mechanical properties	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 317-1: 1980-02.
	SI 1067 Part 2 – Self-fluxing enamelled[c] round copper wires	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 307-4: 1980-02.
	SI 1067 Part 3 – Enamelled[c] round copper wires with a temperature index of 180 °C	The Israeli Standard is identical to the International Electrotechnical Commission Standard, IEC 317-8: 1980-02.
IEC 60320 (all parts)[b]	SI 60320 Part 1 – Appliance couplers for household and similar general purposes: General requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-1: Second edition: 2001-06.
	SI 60320 Part 2.1 – Appliance couplers for household and similar general purposes: Sewing machine couplers	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-1: Second edition: 2000-07.
	SI 60320 Part 2.2 – Appliance couplers for household and similar general purposes: Interconnection couplers for household and similar equipment	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-2: Second edition: 1998-08.
	SI 60320 Part 2.3 – Appliance couplers for household and similar general purposes: appliance coupler with a degree of protection higher than IPXO	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60320-2-3: First edition: 1998-09.
IEC 60364-1: 2001	Electricity Law, 1954, with its Regulations and updates	–
IEC 60730-1: 1999 Amendment 1 (2003)	SI 60730 Part 1 – Automatic electrical controls for household and similar use: General requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60730-1: Edition 3.2: 2007-03.

The referenced International	The substituted Israeli Standard	Comments

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Standard		
IEC 60825-1	SI 60825 Part 1 – Safety of products: Equipment classification and requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60825-1: Second edition: 2007-03.
IEC 60947-1: 2004	SI 60947 Part 1 – Low-voltage switchgear and controlgear: General rules	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 60947-1: Edition 5.0: 2007-06.
IEC 61058-1: 2000	SI 61058 Part 1 – Switches for appliances: General requirements	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Electrotechnical Commission Standard, IEC 61058-1: Edition 3.1: 2001.
ISO 3864 (all parts)[(b)]	SI 3864 Part 1[(a)] – Graphic symbols -	The Israeli Standard, excluding national modifications and additions noted, is identical to the International Organization for Standardization Standard, ISO 3864-1: First edition: 2002-05-15.

Notes:
(a) The Standard is being revised.
(b) In the International Standard series, there are parts not yet adopted as Israeli Standards. This table notes the relevant Israeli Standards, and in the Comments column, the corresponding parts of the International Standard series.
(c) Not relevant to the translation.

- The following shall be added to the annex:	
	Israeli Standards SI 961 (all parts) – Electromagnetic compatibility Israeli Laws, Regulations and documents Electricity Law, 1954, with its Regulations and updates Consumer Protection Order (Marking of goods), 1983, Kovetz HaTakanot 4465 dated 1983-02-24 Energy Sources Regulations (Maximum electrical power in standby mode for domestic and office electrical appliances), 2011

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)		N/A
8	EMC The apparatus shall comply with the relevant CISPR standards.	The requirements of CISPR have to be considered during the national approval.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
AUSTRALIA and NEW ZEALAND NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....: AS/NZS 60950.1:2011

1.2	Insert the following between 'person, service' and 'range, rated frequency': POTENTIAL IGNITION SOURCE 1.2.12		P
1.2.12.201	Insert a new Clause 1.2.12.201 after Clause 1.2.12.15 as follows: **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 201 An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE. NOTE 202 This definition is from AS/NZS 60065:2003.		P
1.5.1	1. Add the following to the end of the first paragraph: 'or the relevant Australian/New Zealand Standard.' 2. In NOTE 1, add the following after the word 'standard': 'or an Australian/New Zealand Standard'	Added.	P
1.5.2	Add the following to the end of the first and third dash items: 'or the relevant Australian/New Zealand Standard'	Added.	P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	Modify Table 3B as follows: 1. Delete the first four rows and replace with the following: <table><tr><td rowspan="2">RATED CURRENT of equipment A</td><td colspan="2">Minimum conductor sizes</td></tr><tr><td>Nominal cross-sectional area mm²</td><td>AWG or kcmil [cross-sectional area in mm²] see Note 2</td></tr><tr><td>Over 0.2 up to and including 3</td><td>0,5 [a]</td><td>18 [0,8]</td></tr><tr><td>Over 3 up to and including 7.5</td><td>0,75</td><td>16 [1,3]</td></tr><tr><td>Over 7.5 up to and including 10</td><td>(0,75) [b] 1,00</td><td>16 [1,3]</td></tr><tr><td>Over 10 up to and including 16</td><td>(1,0) [c] 1,5</td><td>14 [2]</td></tr></table> 2. Delete NOTE 1. 3. Delete Footnote [a] and replace with the following: [a] This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0,5 mm² three-core supply flexible cords are not permitted; see AS/NZS 3191).	Modified.	N/A
4.1.201	Insert a new Clause 4.1.201 after Clause 4.1 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.		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.	N/A
4.3.16.5	Add the following to the end of the first paragraph: 'or AS/NZS 2211.1'	Added	N/A
4.7	Add the following new paragraph to the end of the clause: 'For alternate tests refer to Clause 4.7.201.'	Added	N/A
4.7.201	Insert a new Clause 4.7.201 after Clause 4.7.3.6 as follows: **4.7.201 Resistance to fire – Alternative tests**		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.1	**4.7.201.1 General** Parts of non-metallic material shall be resistant to ignition and spread of fire. This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following: (a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 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 mm^3, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating the fire from one part to another. 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 non-metallic material which have been removed from the apparatus. When the glow-wire test is carried out, the parts shall be placed in the same orientation as they would be in normal use. These tests are not carried out on internal wiring.		N/A
4.7.201.2	**4.7.201.2 Testing of non-metallic materials** Parts of non-metallic material shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 550 °C. Parts for which the glow-wire test cannot be carried out, such as those made of soft or foamy material, shall meet the requirements specified in ISO 9772 for category FH-3 material. The glow-wire test shall be not carried out on parts of material classified at least FH-3 according to ISO 9772 provided that the sample tested was not thicker than the relevant part.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201.3	**4.7.201.3 Testing of insulating materials** Parts of insulating material supporting POTENTIAL IGNITION SOURCES shall be subject to the glow-wire test of AS/NZS 60695.2.11 which shall be carried out at 750 °C. The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection. NOTE Contacts in components such as switch contacts are considered to be connections. For parts which withstand the glow-wire test but produce a flame, other parts above the connection within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm shall be subjected to the needle-flame test. However, parts shielded by a barrier which meets the needle-flame test shall not be tested. The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:		N/A

Clause of AS/NZS 60695.11.5	Change
9 Test procedure	
9.2 Application of needleflame	Replace the first paragraph with: The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner Replace the second paragraph with: The duration of application of the test flame shall be 30 s ±1 s.
9.3 Number of test specimens	Replace with: The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.
11 Evaluation of test results	Replace with: The duration of burning (t_b) shall not exceed 30 s. However, for

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	printed circuit boards, it shall not exceed 15 s. The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the 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.		N/A
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		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. Compliance shall be determined using the smallest thickness of the material. 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.		N/A
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.* 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.		N/A
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.		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
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.		N/A
Annex P	Normative references (List of relevant Australia/New Zealand Standards that have been inserted in place of some of the International Standards)		P

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60950-1
JAPAN NATIONAL DIFFERENCES

Information technology equipment – Safety –

Part 1: General requirements

Differences according to.....:	J60950-1(H22)
Attachment Form No.....:	JP_ND_IEC60950_1A
Attachment Originator .....:	
Master Attachment.....:	2010-11

National Differences - Japan			
1.1.A	Add this sub-clause See Annex P for normative references	Added.	P
1.2	Add the following terms. Equipment, Class 0I 1.2.4.3A	Added.	N/A
1.2.4.1	Add the following NOTE 2: NOTE 2 – Even in the case of CLASS 0I equipment, two-pins plug with a protective earthing lead wire (an adapter for converting a Class 0I equipment plug into a two-pin plug without earthing wire) and cord sets having a two-pin type plug with a lead wire for earthing are also regarded as Class 0I equipment if they are included in packaging as accessories or if users are recommended to use them.	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.3A	Add this sub-clause: CLASS 0I EQUIPMENT: Equipment where protection against electric shock is achieved by: using BASIC INSULATION, and providing a means of connecting to the protective earthing conductor in the building wiring those conductive parts that are otherwise capable of assuming HAZARDOUS VOLTAGES if the BASIC INSULATION fails, and using a supply cord without earthing conductor and a plug without earthing wire although the equipment has externally an earth terminal or a lead wire for earthing. Equipment provided with a cord set having a two-pin type plug with a lead wire for earthing is also regarded as Class 0I. NOTE – Class 0I equipment may have a part constructed with Double Insulation or Reinforced Insulation as well as an operating part as SELV circuit.	Added.	N/A
1.3.2	Add the following NOTE 1 and 2: Note1: transportable equipments or similar equipments that are frequently transported for use should not be considered Class I or Class 0I equipments. However, this shall not apply to equipments that are intended for installation by service personnel or installation personnel. Note 2: in consideration of the state of electrical power distribution in Japan, it is best to avoid the use of Class I or Class 0I devices if it is evident that it will be difficult to connect earthing during installation of the equipment. However, this shall not apply to devices that are intended for installation by service personnel or installation personnel.	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	When safety issues apply, in the absence of matters required by these specifications or JIS stipulated required matters concerning safety of related components, or in the absence of JIS concerning the component, the component must comply with one of the related IEC safety requirements. However, if a component compliant with ministerial ordinance (1962 Trade and Commerce Ministerial Ordinance No. 85) providing technical standards for electrical products is being used in accordance with the rating indicated for that component, apply articles 1.5.4, 2.8.7 and 3.2.5; electrical power cord sets that fit with inlets for equipments regulated by the IEC 60320-1 Standards Sheet must match the dimensions indicated on the applicable IEC 60320-1 Connector Standards Sheet. Note 1: regarding the JIS or IEC standards related to a component as related shall be limited to cases where the component in question is clearly within the scope of application of those standards.		P
1.5.2	In the case of components that are certified as being in compliance with JIS harmonized with the related IEC, it must be confirmed that the component is being used correctly in accordance with the stipulated standards. In the absence of JIS harmonized with the related IEC, Note 1: When using an IEC 60320-1 C.14 device coupler with rated voltage less than 125 V and rated current in excess of 10A, refer to 1.7.5A. If JIS harmonized with the IEC related to the component does not exist concurrently with the IEC standards, or if the component is using circuitry that does not comply with its rating, the component must be tested in accordance with the conditions and within equipment. The number of samples required for testing shall normally be the same as the number required under similar standards.		P
1.5.6	Replace “IEC 60384-14:1993” to “JIS C 5101-14:1998 or IEC 60384-14:1993” of this Sub-Clause	Replaced.	N/A
1.5.7.2	Replace “IEC 60384-14:1993” to “JIS C 5101-14:1998 or IEC 60384-14:1993” of this Sub-Clause	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.8	Replace “IEC 60384-14:1993” to “JIS C 5101-14:1998 or IEC 60384-14:1993” of this Sub-Clause	Replaced.	N/A
1.7.1	Add local importer in this sub-clause manufacturer’s name or **local importer** or trade-mark or identification mark;	Added.	P
1.7.5	Replace “IEC 60083” to “IEC/TR 60083:1997 or JIS C 8303:2007” of this Sub-Clause	Replaced.	N/A
1.7.5.A	Add this sub-clause 1.7.5A Device Coupler When using an IEC 60320-1 C.14 device coupler (rated current 10A) with rated voltage less than 125 V and rated current in excess of 10A, be sure to write “Only use power supply cord sets that are provided with this device” or a similar statement in the user’s manual.	Added.	N/A
1.7.17A	Add this sub-clause: *Marking for CLASS 0I EQUIPMENT* For CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the mains plug or the main body: “Provide an earthing connection” *Example in Japanese:* 必ず接地接続を行って下さい Moreover, for CLASS 0I EQUIPMENT, the following instruction shall be indicated on the visible place of the main body or written in the operating instructions: “Provide an earthing connection before the mains plug is connected to the mains. And, when disconnecting the earthing connection, be sure to disconnect after pulling out the mains plug from the mains.” *Example in Japanese:* 接地接続は必ず、電源プラグを電源につなぐ前に行って下さい。又、接地接続を外す場合は、必ず電源プラグを電源から切り離してから行って下さい。	Added.	N/A
2.1.1.1	In the Item b) of this Sub-Clause, replace “IEC 60083” to “~~IEC 60083 or~~ JIS C 8303:2007”.	Replaced.	N/A
2.6.3.2	Add the following in front of 1st paragraph of this Sub-Clause. This also applies to the conductor of lead wire for protective earthing of CLASS 0I EQUIPMENT.	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.4	Add the following in this Sub-Clause. (See 2.6.3.3)	Added.	N/A
2.6.4.2	Add the following after 1st paragraph of this Sub-Clause. However, this shall not apply when the Class 0I equipment is equipped with a separate main protective earthing terminal.	Added.	N/A
2.6.5.4	Replace the first sentence of this Sub-Clause by: Protective earthing connections of CLASS I EQUIPMENT shall make earlier and break later than the supply connections in each of the following:	Replaced.	N/A
2.6.5.8A	Add this sub-clause: *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 where easily visible.	Added.	N/A
2.10.1	Replace “IEC 60664-1” to “JIS C 0664:2003” in NOTE of this Sub-Clause	Replaced.	N/A
2.10.3.1	Replace “IEC 60664-1” to “JIS C 0664:2003” in NOTE 1 and NOTE 2	Replaced.	N/A
2.10.3.2	Replace “IEC 60664-1” to “JIS C 0664:2003” in the first sentence of this Sub-Clause	Replaced.	N/A
3.2.3	Add the following after Table 3A of this Sub-Clause. **Table 3A shall apply when a JIS C 3662 or JIS C 3663 compliant cable is used. Other cables that are used must be designed to allow suitable conduits to be run in,**	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	Add the following of this Sub-Clause. Or must be sheathed in accordance with Section 1, Annex 1 of the ministerial ordinance (1962 Trade and Commerce Ministerial Ordinance No. 85) providing technical standards for electrical products. - Or must be sheathed in accordance with Section 1, Annex 1 of the ministerial ordinance (1962 Trade and Commerce Ministerial Ordinance No. 85) providing technical standards for electrical products. - Electric cables that comply with JIS C 3662 or JIS C 3663 have a conductor with a cross-sectional area value greater than the values provided for in Table 3B. Other electrical cables comply with relevant wiring regulations. Delete 1) in Table 3B.	Added.	N/A
3.3.4	Add the following in Table 3D Note: when using JIS C 3662 or JIS C 3663-compliant electrical wiring, the terminal must enable connection of electric wiring commensurate with the regulated sizes	Added.	N/A
3.3.7	Add the following after 1st paragraph of this Sub-Clause. 。 However, this shall not apply to the external grounding terminals of Class 0I equipment.	Added.	N/A
4.3.4	Add the following of this Sub-Clause. 。 Class 0I equipment where the values for creepage distance and clearance distance of the basic insulation drop further to a level lower than that stipulated in 2.10 must be properly fixed to withstand the mechanical stress generated in the course of normal use.	Added.	N/A
4.3.5	Replace “IEC 60083” to “JIS C 8303:2007” in the first sentence of this Sub-Clause	Replaced.	N/A
4.3.13.3	Add the following in Table 4A Note: JIS K 7161:1994, JIS K 7162:1994, IS K 7127:1999 are available as JIS compatible with part of ISO527.	Added.	N/A
4..3.13.5	Replace “IEC 60825-1” to “JIS C 6802:2005 or JIS C of this Sub-Clause	Replaced.	N/A
	Replace “IEC 60825-2:2000” to “JIS C 6803:2006 or IEC 60825-2:2000” of this Sub-Clause	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.5.1	Add the following to Suffix 3) of Table 4B (part one and part two). Note: When data concerning materials is unavailable, Annex 4, 1 (1) 3 of "Regarding Interpretation of Ministerial Ordinance Providing Technical Standards for Electrical Products" (June 19, 2008 Bureau of Commerce No. 3) may be applied to Item 1.	Added.	N/A

Attachment
The insulating materials shall not be exposed to the temperature exceeding the values when the appliance is operated at rated voltage and normal operating condition.
These values may be increased by;
8 degrees for Duty 2 appliance, and
16 degrees for Duty 3 appliance.
In order to classify the appliances, following assumptions are to be used.
Duty 1 appliances: considered to be connected to supply mains throughout the years such as refrigerators
Duty 2 appliances: considered to be connected to be in between Duty 1 and Duty 3 such as room heaters
Duty 3 appliances: considered to be connected to supply mains when it is operated for rather short time such as portable coffee mill.

Permissible temperature limits of insulating materials

Natural materials	
Material	Permissible temperature limit (ºC)
Bituminous compound for filter	75, (105) 1)
Paper, cotton, silk, other natural fiber and wood	90, (105) 2)
Oil denatured natural resin	105
Silica powder	500
Mica (Hard)	500, (600) 3)
(Soft)	650, (850) 3)

Notes: 1) Value applies to thermal insulating materials.
2) Value applies to materials impregnated with varnish.
3) Value in parenthesis is applied when mechanical external force is absent.

Mica splittings and untreated mica papers

Lining	Adhesive							Permissible Temperature Limit (ºC)
	a	b	c	d	e	f	g	
None	X	X	X	X				130
					X			155
						X		180; 450, (700) [1)];
						X		600, (800) [2)]
							X	600, (700) [1)]; 700, (850) [2)]
Paper	X	X	X	X				130
Polyethylene terephtalate film				X				130
Glass fabric				X				130
					X			155
						X		180
Polyester nonwoven fabric, Polyester woven, and Polyethylene naphthalate film				X				130
					X			155
Polyamide-imide film, Aramide film, and Polymide film						X		155
							X	180

a: with asphalt base
b: with natural resin or denatured natural resin base
c: with ceramic base
d: with oil-denatured synthetic resin, alkyd orthophatalate resin or cross-linked polyester base.
e: with silicon–denatured synthetic resin, isophatalate alkyd resin, telephatalate alkyd resin or epoxy resin.
f: with silicon resin.
g: inorganic
Notes: 1) value applies to hard mica-made heating substrate.
2) value applies to soft mica-made heating substrate.
Remarks: value in parenthesis is applied when mechanical external force is absent.

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Organic materials (Thermosetting Resins)

Material	Permissible temperature limit (ºC)
laminated melamine resin mixed with glass fiber	75, (100) [1]
moulded lemaine resin mixed with: cellulose inorganics	 120 140
laminated phenol resin with: cotton fiber base paper base polyamide cloth base inorganics	 115, (85) [2] 120, (70) [3] 75 140
moulded phenol resin with: inorganics others	 150, (160) [1] 140, (150) [1]
moulded melamine phenol resin with the gravity of less than 1.55	130
moulded urea resin mixed with cellulose	90
unsaturated polyester-casting	120
laminated unsaturated polyester mixed with inorganics	140
moulded unsaturated polyester mixed with: other than organics inorganic powder glass fiber	 120 140 155
epoxy resin-casting	120
laminated epoxy resin mixed with: inorganic other than inorganics	 130, (140) [1] 110, (90) [3]
moulded epoxy resin mixed with inorganics	130
laminated diallyl phthalate resin mixed with inorganics	140
moulded diallyl phthalate resin mixed with: other than inorganics inorganic powder glass fiber	 130 150 155
xylene resin-casting	140
polyamide-imide film	180
laminated silicone resin mixed with inorganics	180, (220) [1]
moulded silicon resins mixed with inorganics	180, (240) [4]
polymide film	210
laminated polymide	190
polybutadiene-casting	120
moulded polybutadiene mixed with inorganics	130
laminated dipheny oxide mixed with inorganics	180

Notes: 1) Values apply to thermal insulating materials.
2) Values apply to materials with a thickness less than 0.8 mm.
3) Values apply to materials with a thickness less than 0.8 mm when treated to retard flame.
4) Values apply to materials used for thermal insulation and to seal outlets of sheathed heating wires.

Organic materials (Thermoplastic Resins)

Material	Permissible temperature limit (ºC)
methacrylic resin, cellulose resin, cellulose acetate butylate resin, ulcanise, polyethylene	50
foamed polyethylene compound for insulated conductors, polyvinyl chloride	60
polyethylene compound for insulated conductors, heat-resistant polyvinyl chloride, cross-linked polyvinyl chloride compound for insulated conductors	75
cross-linked polyethylene, chlorinated polyethylene compound for insulated conductors	90
acrylonitrile acrylic rubber styrene resin, acrylontirile chlorinate polyethylene styrene resin	55
acrylonitrile styrene resin, acrylonitrile butadiene resin, acrylonitrile butadiene chlorinated polyethylene resin : general : reinforced with glass fiber	 55 80
polypropylene : general : reinforced with glass fiber	105, (85) [3] 110
denatured polyphenyle oxide : general : reinforced with glass fiber	75 100
Polystyrene	50, (70) [1]
polyacetal : general	100

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

: reinforced with glass fiber	120
polyamide : general : reinforced with glass fiber	90 120
polycarbonate : general : reinforced with glass fiber	110 120
polyethylene terephtalate : general : reinforced with glass fiber	120 130
polybutylene terephtalate : general : reinforced with glass fiber	120 135
heat resistant polyethylene terephthalate film	135
fluorinated polyvinylidene compound for insulated conductors, polychlorotrifluoroethylene (ethylene-trifluoride resin), ethylene-tetrafleorethylene copomylene for insulated conductors	150
tetrafluoroethylene hexafluoropropylene resin	200
polytetrafluoroethylene(ethylene-tetrafluoride), perflouroalkoxy compound for insulated conductors	250
aramide(aromatic polyamide paper)	220
Polysulfone	140, (150) [2)]
polyethylene naphthalate	155
polyallylate : general : reinforced with glass fiber	120 130

Notes : 1) Values apply to capacitor dielectrics.
2) Values apply to thermal insulating material
3) Values apply to materials with a thickness of less than 0.8 mm
4) Inorganic materials

Inorganic materials

Material	Permission temperature limit (ºC)
glass fiber (only alkaline free)	300
lead glass	380
borosilicate glass	490
quartz glass	800
ceramic	800, (1000) [1)]

Note: 1) Value apply to materials used as electric heating elements

Rubber compounds

Material	Permission temperature limit (ºC)
natural rubber, polyurethane rubber, ebonite	60
nitrile rubber, styrene butadiene rubber, chloroprene rubber	75
butyl rubber	80
ethylene propylene (diene) rubber, chlorosulfonated polyethylene rubber	90
silicone rubber	180, (200) [1)]

Note : 1) Value apply to thermal insulating material and sealing compounds for sheathed heating elements.

Sleeves, Cloth, Tapes and like

Material	Impergnat or coating	Permission temperature limit (ºC)
rayon, cellulose acetate, vinylon	adhesive, oil varnish	105
paper, cotton fabric, silk fabric, polyamide, polyester fabric, polyester nonwoven fabric	oil varnish	105
polyester fabric, polyester nonwoven fabric	alkyd resin varnish	120
glass fabric	(ditto)	130
paper	Iso or terephtalate alkyd resin varnish, epoxy resin varnish, alkyd resin varnish	105
polyester fabric, polyester nonwoven fabric	(ditto)	120
glass fabric, aramide paper	Iso or terephtalate, alkyd resin varnish, epoxy resin varnish silicone resin varnish, silicone rubber	155 180
vulcanised fiber		105
heat resistant fiber		120

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.3	Add the following NOTE Note: Note that domestic three-phase power distribution systems have many delta connections, in which case tests should be performed using IEC 60990:1990 Figure 13 test circuitry.	Added.	N/A
5.1.6 Table 5A	Replace Table 5A of this Sub-Clause by:	Replaced. The equipment is ”Protection Class II”.	N/A

Table 5A – Maximum current

Type of equipment	Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s. [1)]	Maximum PROTECTIVE CONDUCTOR CURRENT
ALL equipment	Accessible parts and circuits not connected to protective earth	0,25	-
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS I EQUIPMENT	0,75	-
MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT		3,5	-
STATIONARY, PLUGGABLE TYPE A		3,5	-
ALL other STATIONARY EQUIPMENT not subject to the conditions of 5.1.7 - subject to the conditions of 5.1.7		3,5 -	- 5 % of input current
HAND-HELD	Equipment main protective earthing terminal (if any) CLASS 0I EQUIPMENT	0,5	-
Others		1,0	-

[1)] If peak values of TOUCH-CURRENT are measured, the maximum values obtained by multiplying the r.m.s. values by 1,414.

6	Add the following after NOTE1 of this Sub-Clause. Refer to the accompanying document, JB, for details concerning appropriate additional measures,	Added.	N/A
	Replace “IEC 60664-1” to “JIS C 0664 in note 4	Replaced.	N/A
7	Replace “IEC 60664-1” to “JIS C 0664:2003 of this NOTE 3	Replaced.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
7.2	Add the following However, when all of the following criteria are satisfied, the separation requirement and test in 6.2.1 a), b) and c) shall not be applied to the cable distribution system. - the applicable circuit is a TNV-1 circuit. - the applicable circuit's common side or grounding side is connected to the coaxial cable shielding, and to all accessible parts and circuits (SELV circuits, accessible metal parts, and limited current circuits also applicable if they exist) - the external conductor of the coaxial cable is intended to be connected to the grounding wire used for building wiring.	Added.	N/A
Annex G 2.1	Replace "IEC 60664-1" to "JIS C 0664:2003"	Replaced.	N/A
Annex G 6	Replace "IEC 60664-1" to "JIS C 0664:2003"	Replaced.	N/A
Annex N	Add Note Note: ITU-T Recommendation K.17:1996 has been abolished and replaced with ITU-T Recommendation K.44:2003, K.45:2003.	Added.	N/A
	Note: The ITU-T Recommendation K.21:1996 test circuit was replaced with K.44:2003 in July 2003.		N/A
Annex P	Add the following terms. JIS C 5101-14:1998 Fixed capacitors for use in electronic equipment -- Part 14: Type-specific standards: Fixed capacitors for electromagnetic interference suppression in electrical power supply Fixed capacitors for use in electronic equipment －Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains	Added.	N/A
	Replace "IEC 60065:1998" to "IEC 60065:2001"	Replaced.	N/A
	Add the following terms. **JIS C 6802**:2005	Added.	N/A
	Add the following terms. **JIS C 6803**:2006 2004.	Added.	N/A
	Add the following terms. JIS C 8303:2007	Added.	N/A
	Add the following terms. JIS S 0101:2000	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	Add the following terms. **ITU-T Recommendation K.44**:2003 , Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents－Basic Recommendation.	Added.	N/A
	Add the following terms. **ITU-T Recommendation K.45**:2003, Resistibility of telecommunication equipment installed in the access and trunk networks to overvoltages and overcurrents.	Added.	N/A
Annex Q	Add the following terms. **ITU-T Recommendation K.66**:2004, Protection of customer premises from overvoltages.	Added.	N/A
Annex T	Replace “IEC 60529:1989” to “JIS C 0920:2003	Replaced.	N/A
Annex W.1	Add following. Equipment, Class 0I	Added.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JA	Add Annex JA (Document shredding machines) Document shredding machines shall also comply with the requirements of this annex except those of STATIONARY EQUIPMENT used by connecting directly to an AC MAINS SUPPLY of three-phase 200V or more.	Added. Not Document shredding machines.	N/A
JA.1	**Markings and instructions** In the easily visible part near the document-slot, by a method capable to make out clearly and not easily disappeared, and by easily understandable wording, shall indicate the symbol of;  and, also the following precautions for use; that use by an infant/child 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 clothes can be drawn into the mechanical section for shredding when touching the document-slot; that hairs can be drawn into the mechanical section for shredding when touching the document-slot; in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas.	Added. Not Document shredding machines.	N/A
JA.2	**Inadvertent reactivation** Any safety interlock which can be operated by means of the test finger, Figure JA.1, is considered to cause reactivation of the hazard. Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1.	Added. Not Document shredding machines.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

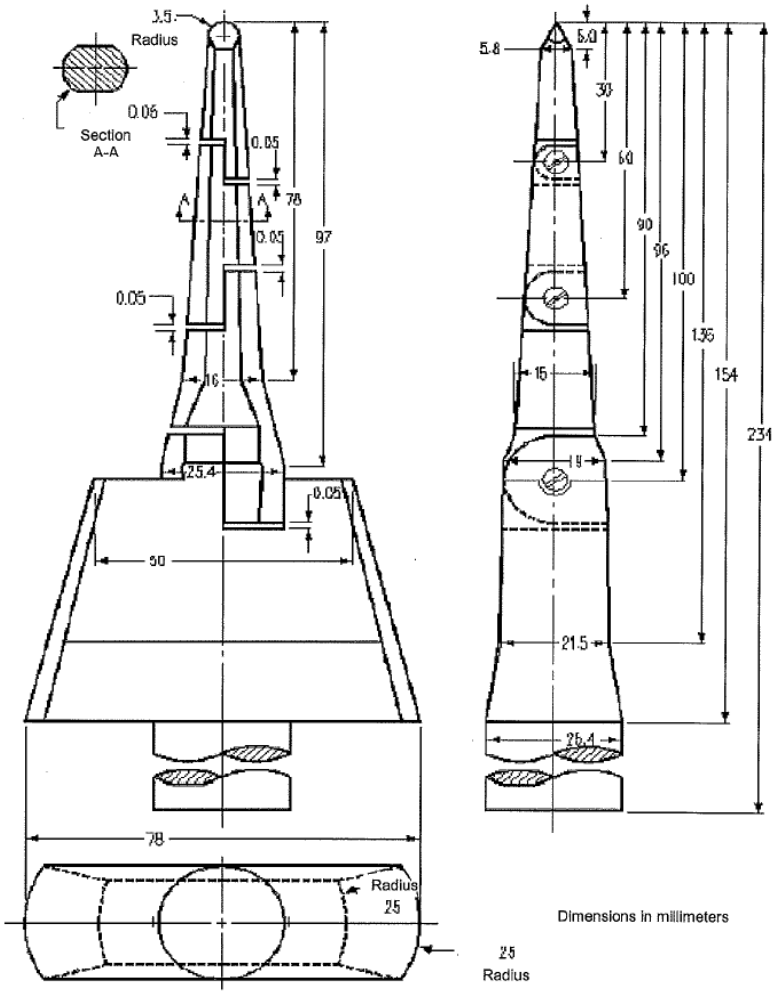
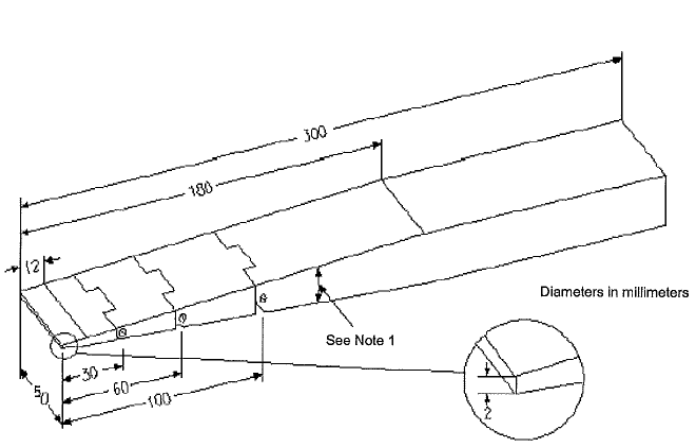
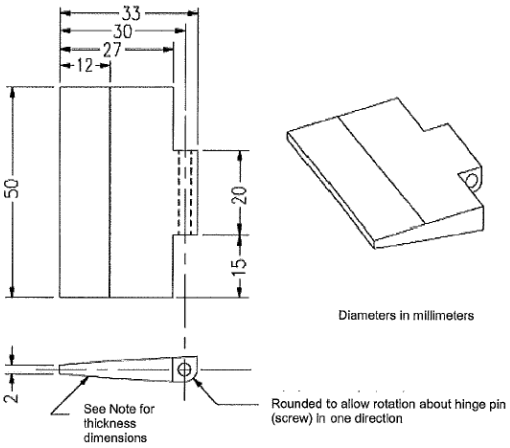


Figure JA.1 Test finger

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
JA.3	**Isolating 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. Compliance is checked by inspection.	Added. Not Document shredding machines.	N/A
JA.4	**Protection in operator access areas** Any warning shall not be used instead of the structure for preventing access to hazardous moving parts. Document shredding machines shall comply with the following requirements. Push the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying additional force. It shall not be possible to touch hazardous moving parts with the test finger. The document shredding machine is installed as intended, and all face of MECHANICAL ENCLOSURES are subjected to this test. Before testing with the test finger, remove the parts detachable without a tool. Push 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 shall not influence the test. Before testing withy the test finger, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.	Added. Not Document shredding machines.	N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict





(Details of the top of wedge)

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

Note 1 - The probe shall be of changing the thickness linearly. However, the slope shall be changed at the respective points shown in the table.

Note 2 –The allowable dimensional tolerance of the probe is +/- 0.127 mm.

Figure JA.2 Wedge-probe

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
Annex JB (reference)	Add Annex JB (Current state and means of handling overvoltage and overcurrent in the installation environment) The objective of this reference is not to propose new technical standards for the device. As a means of reducing the possibility that voltages in excess of 1.5kV peak may be applied to the device, these specifications provide for matters that must be adhered to concerning the device on the premise that it is installed in an environment within which appropriate measures have been taken in accordance with "**ITU-T Recommendation K.11**:1993". However, since environments that are not commensurate with this K.11 are often discovered domestically, this document attempts to describe the preferred environment and demonstrate the means for developing the preferred installation environment, thus contributing to its enhancement.	Added.	N/A
JB.1	JB.1 Preferred installation environment		N/A
JB.2	Current state and means of handling overvoltage and overcurrent in the installation environment		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Japan Differences to IEC Standards J3000 (25)			
Appendix	Appendix 12 J3000 (H25) Special National conditions, National deviation and other information according to MITI Ordinance No. 85.		--
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.	Added. AC inlet comliace with IEC 60320-1. The appliance coupler is securely fixed to enclosure, So that a loosening of the inlet connection is unlikely.	P
2	Requirement for equipment		--
2.1	Heater Appliances When diode is used in parallel at the power sources for adjustment of power consumption, the equipment shall remain safe for operation under open condition of one diode.		N/A
2.1	Heater Appliances When diode is used in parallel at the power sources for adjustment of power consumption, the equipment shall remain safe for operation under open condition of one diode.		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 9335-1(2003) and a specified in applicable indivisual requirements under open condition of one diode of parallel shall comply with the requirements.		N/A
2.2	Electric heater with glowing heating elements		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		N/A

IEC60950_1F - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
3.1	Motor capacitors used in ventilating fan, electric fan, air conditioner, electric washing machine, refrigerator or electric freezer shall be comply with - 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 50mm 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. Shall comply with - Face contact with outlet shall have CTI with more than 400 according to JIS C 2134(2007) or - Supporting material of blades shall comply with glow wire test by temperature of 750ºC according to JIS C 60695-2-11(2004) or JIS C 60695-2-12(2004). - Materials having glow wire frame temperature of 775 ºC are acceptable.		N/A

Notes:

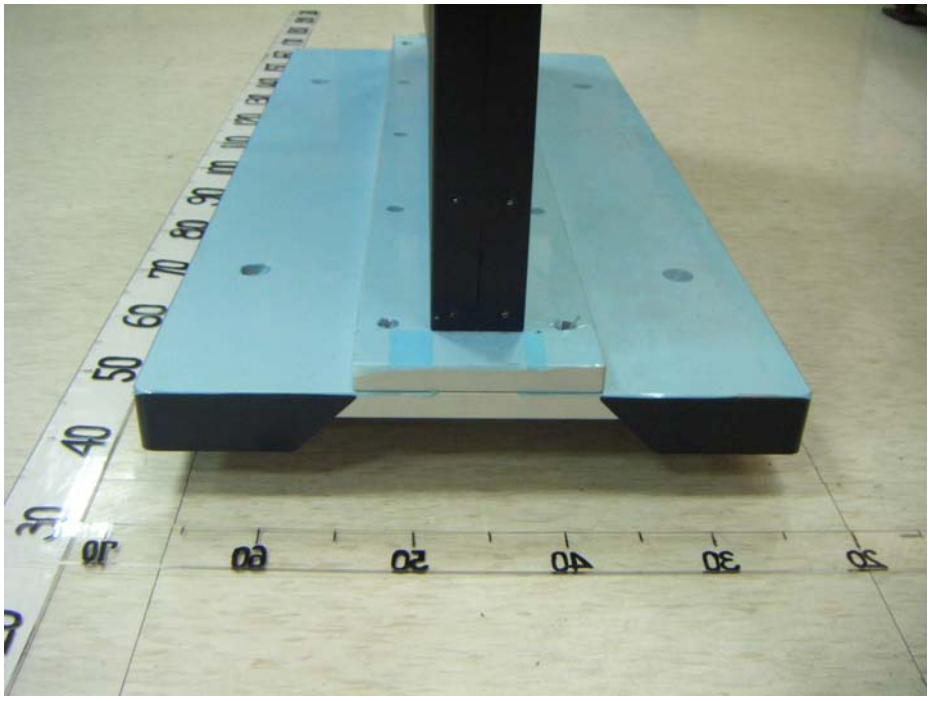
1. Product scope of JIS C 8283-1(2008) is harmonized with IEC60320-1 (2001).
2. General requirement is applied to all Specified and Non-Specified PSE products when J-Standard is used.

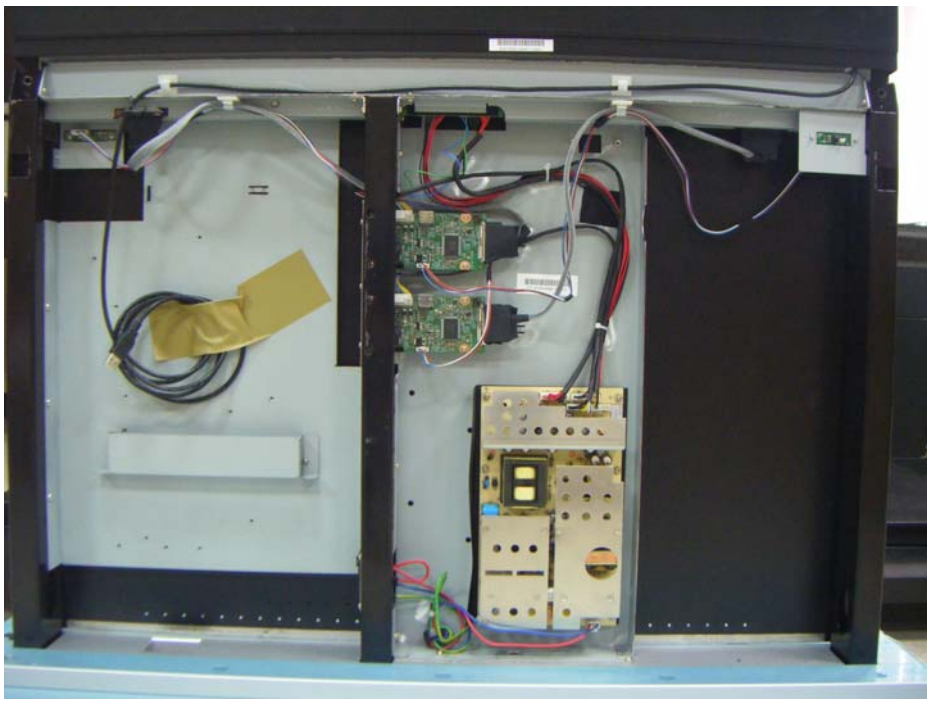
ATTACHMENT Photo Documentation

Monitor with SPS box and wheel combine (for model DF-55*)

ATTACHMENT **Photo Documentation**

ATTACHMENT **Photo Documentation**

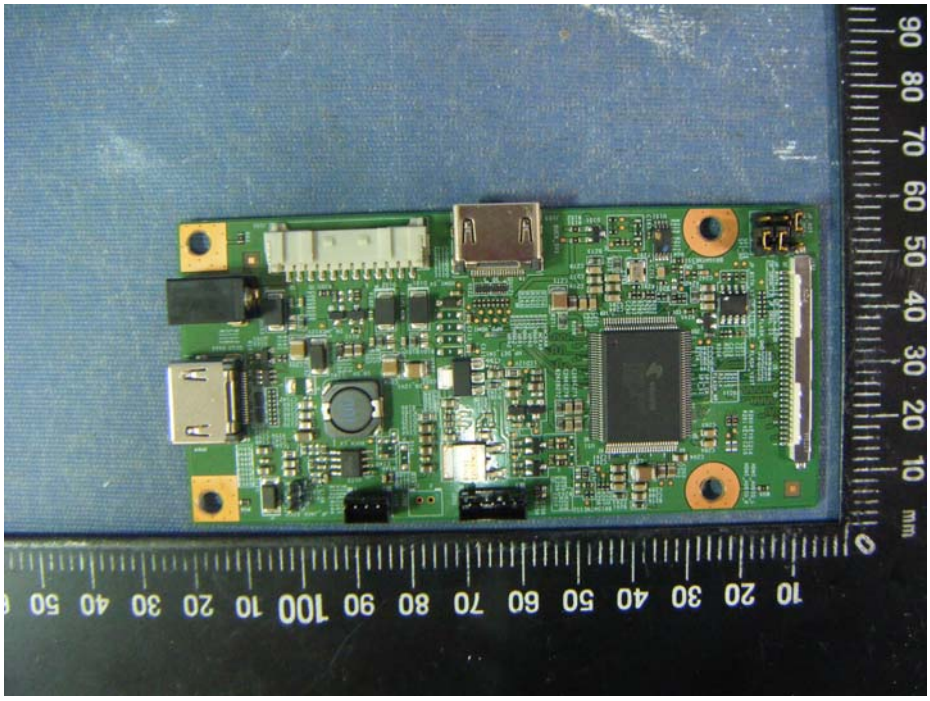


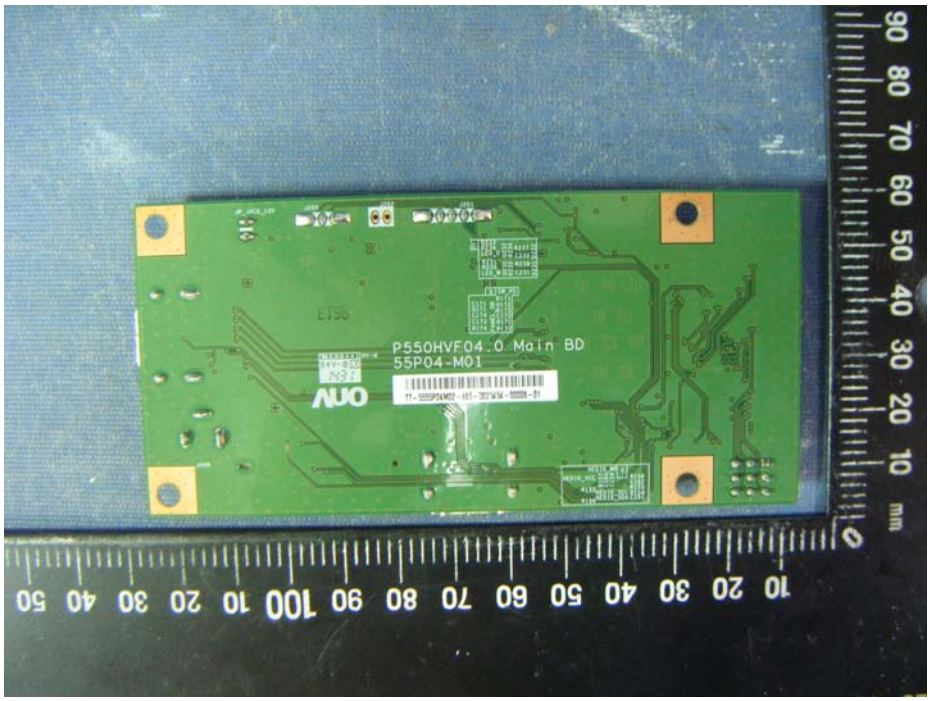


ATTACHMENT Photo Documentation

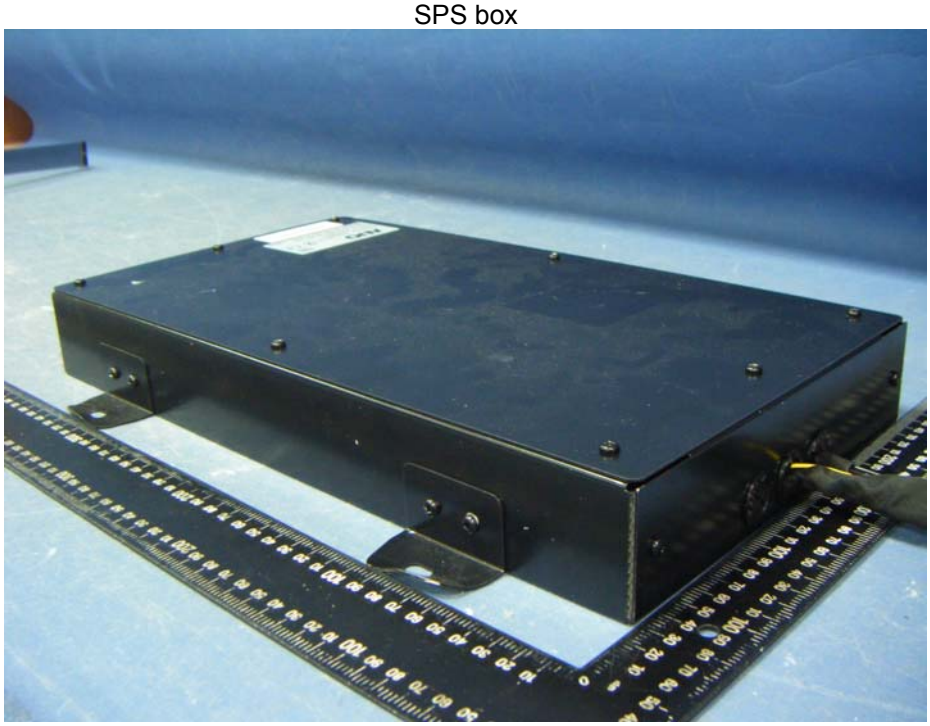
Separation SPS box and monitor (for model DS-55*)

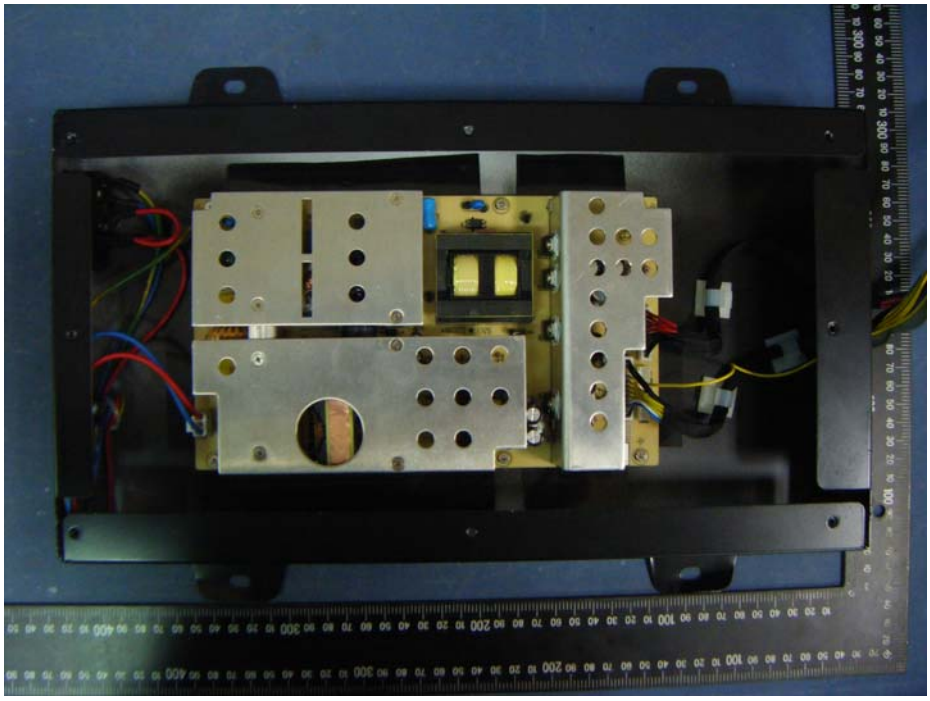
ATTACHMENT Photo Documentation

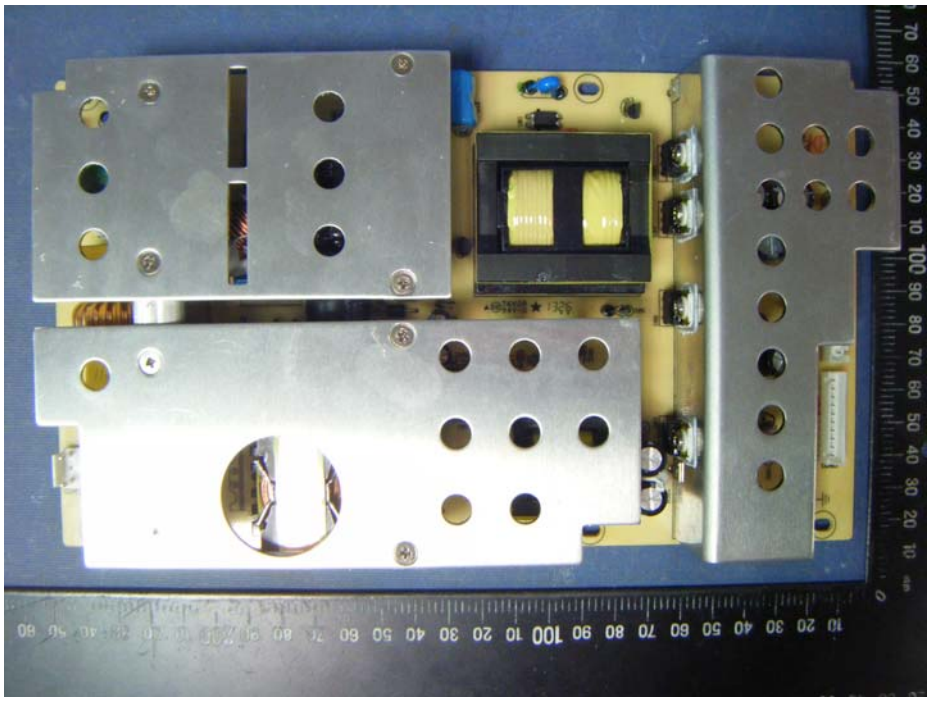




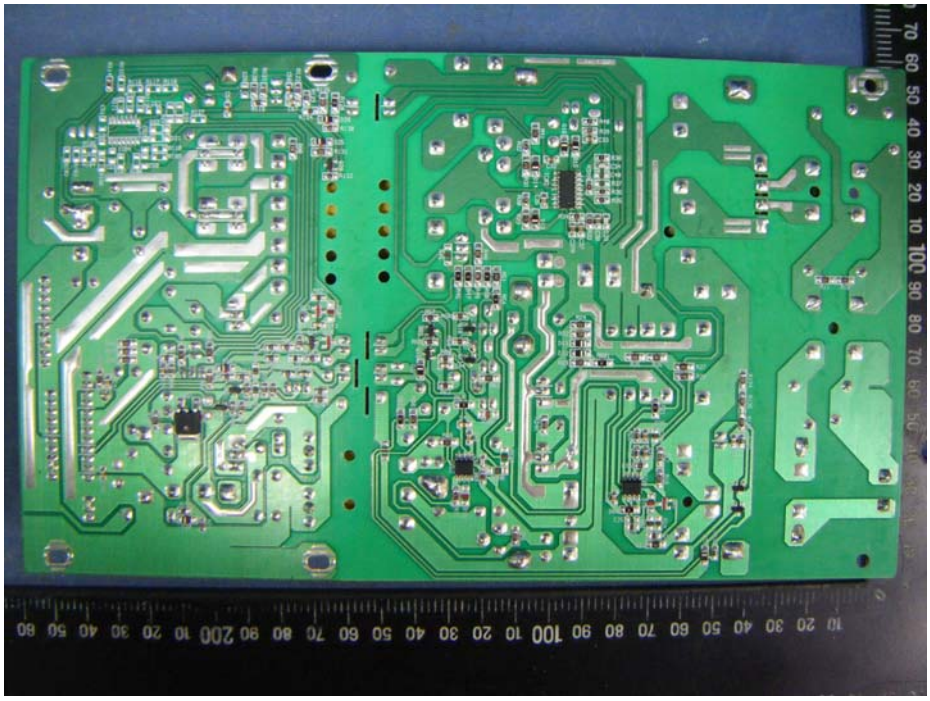
SPS box







ATTACHMENT Photo Documentation



ATTACHMENT ATTACHED TABLE

4.6.1, 4.6.2	Table: Enclosure opening measurements	P

Location	Size (mm)	Comments
Monitor with SPS box and wheel combine		
Front and Rear	1) Ø 2.6 mm max. 2) 14 x 7 mm	1) Numerous circular openings provided. 2) One oval openings provided (for IR board) No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°. SPS output 12Vdc and 5Vdc compliance with LPS. HDMI board and IR board protected by SPS circuit design 12Vdc and 5Vdc output.
Left	32.6 x 49.9 mm max.	Oval openings provided. No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°.
Others	--	No openings.
Monitor (vertical)		
Front and Rear	14 x 7 mm	One oval openings provided (for IR board) IR board openings is cover by mylar sheet.
Others	--	No openings.
Monitor (horizontal)		
Front and Rear	14 x 7 mm	One oval openings provided (for IR board) IR board openings is cover by mylar sheet.
Others	--	No openings.
SPS box (desk top horizontal)		
Right	Ø 4.5 mm max.	Numerous circular openings provided. No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°.
Left	Ø 14 mm max.	Numerous circular openings provided. (for output wire used) No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°.

ATTACHMENT ATTACHED TABLE

Others	--	No openings.
SPS box (wall mount horizontal)		
Right	Ø 4.5 mm max.	Numerous circular openings provided. No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°.
Left	Ø 14 mm max.	Numerous circular openings provided. (for output wire used) No bare conductive parts are with hazardous voltage and energy hazards within 5° projective area. There is no portion of the side of fire enclosure falls within the area traced out by the 5°.
Others	--	No openings.
Supplementary information:		

ATTACHMENT **Declaration Letter**

No. 1, Li-Hsin Road 2 Hsinchu Science Park, Hsinchu 300 Taiwan

Declaration Letter

Multiple Factories – This confirms that samples submitted for certification are representative of the products from each factory. The factories are as noted in this CB Test Report.

簽名: 鄭維元
名字: 鄭維元
職位: Senior Engineer
公司: AU Optronics Corporation