



Test Report issued under the responsibility of:

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TEST REPORT

IEC 60950-1

Information technology equipment – Safety – Part 1: General requirements

Report Number.: 170601843SHA-001

Date of issue: 2017-07-21

Total number of pages.....: 139

Applicant's name.....: GLOBTEK INC

Address: 186 VETERANS DRIVE NORTHVALE NJ 07647 USA

Test specification:

Standard: IEC 60950-1:2005 (Second Edition) + A1:2009 + A2:2013

Test procedure.....: CB Scheme

Non-standard test method.....: N/A

Test Report Form No.....: IEC60950_1F

Test Report Form(s) Originator.....: SGS Fimko Ltd

Master TRF: Dated 2014-02

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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.

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Test item description: ITE POWER SUPPLY

Trade Mark:  **GlobTek®, Inc.** (GlobTek)

Manufacturer.....: Same as applicant

Model/Type reference: GT-41083-****-*.T2 (For the exact meaning of “*”, please see general product information on page 9.)

Ratings: Input: 100 – 240 Vac, 50 – 60 Hz, 1.0 A
Output: 12 – 48 Vdc, Max. 3.3 A
Class II

Testing procedure and testing location:		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	Intertek Testing Services Shanghai
Testing location/ address		Building No. 86, 1198 Qinzhou Road (North) 200233 Shanghai CHINA
<input type="checkbox"/>	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name + signature)		Longer Shi (Engineer) <i>Longer Shi</i>
Approved by (name + signature)		Jacky Shu (Mandated Reviewer) <i>Jacky Shu</i>
<input type="checkbox"/>	Testing procedure: TMP/CTF Stage 1:	
Testing location/ address		
Tested by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: WMT/CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
<input type="checkbox"/>	Testing procedure: SMT/CTF Stage 3 or 4:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name + signature)		
Approved by (name + signature)		
Supervised by (name + signature)		

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

Page 67 – 86:	European group differences
Page 87 – 91:	National differences for Canada
Page 92 – 97:	National differences for China
Page 98:	National differences for Korea
Page 99 – 121:	National differences for Japan
Page 122 – 126:	National differences for USA
Page 127 – 135:	National differences for Australia and New Zealand
Page 136 – 149:	Photograph

Summary of testing:

All tests are performed and the most disadvantageous results are recorded. We conclude that the appliances comply with this standard.

Tests performed (name of test and test clause):

See test report

The sample tested complies with the requirements of IEC 60950-1:2005 (Second Edition) + A1:2009 + A2:2013 and EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013.

Testing location:

Intertek Testing Services Shanghai
Building No. 86, 1198 Qinzhou Road (North)
200233 Shanghai CHINA

Summary of compliance with National Differences:

List of countries addressed:

The test report covers group- and national differences for the CENELEC countries.

The national differences for USA and Canada has been checked according to IEC 60950-1 2nd ed +Am1+Am2.

The national differences for Japan and Korea have been checked according to IEC 60950-1 2nd ed +Am1.

The national differences for Australia/New Zealand and China have been checked according to IEC 60950-1 2nd ed.

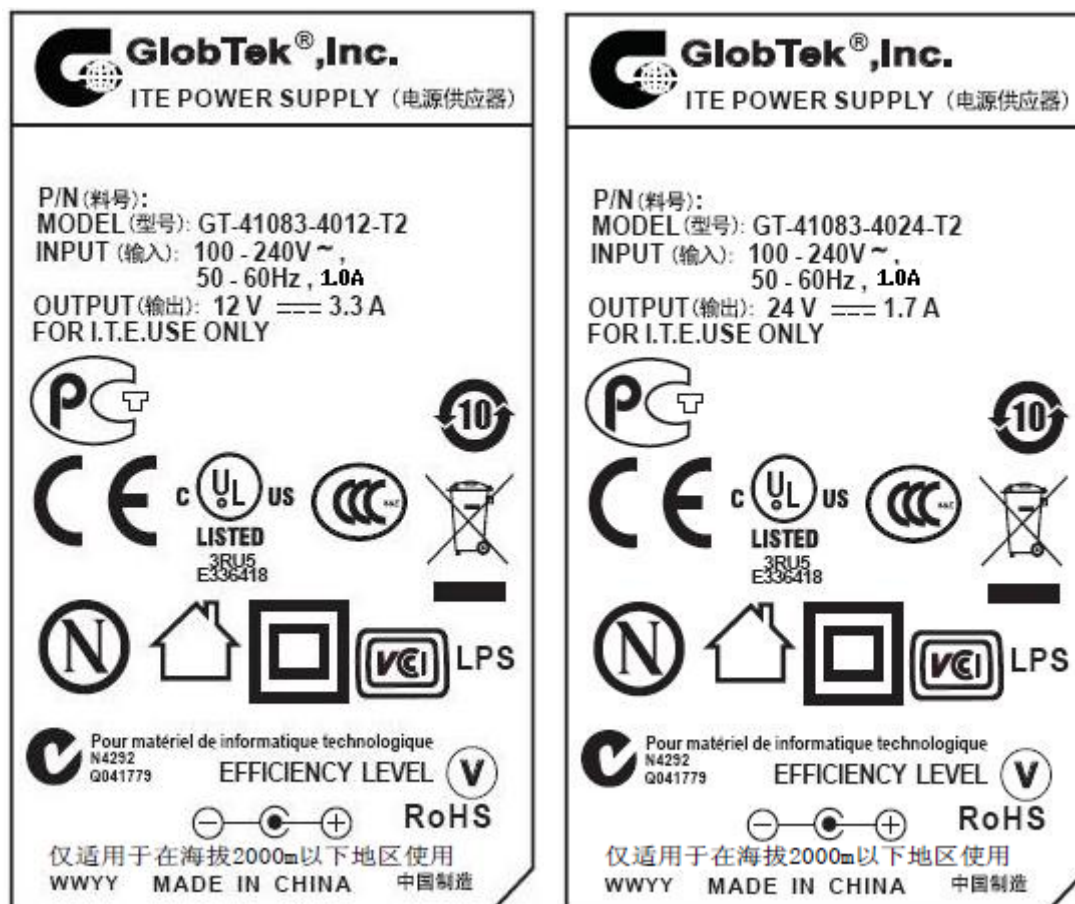
☒ The product fulfils the requirements of IEC 60950-1:2005 (Second Edition) + A1:2009 + A2:2013 and EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013.

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.

(Additional requirements for markings. See 1.7 NOTE)






Representative







Copy of marking plate continued


GlobTek® ,Inc.
ITE POWER SUPPLY (电源供应器)


P/N (料号):
MODEL (型号): GT-41083-4024-4.0-T2
INPUT (输入): 100 - 240V ~,
50 - 60Hz, 1.0A
OUTPUT (输出): 20 V === 2.0 A
FOR I.T.E. USE ONLY

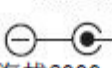
    

LISTED
3RU5
E336418

    LPS

 Pour matériel de informatique technologique
N4292
Q041779






EFFICIENCY LEVEL 

 RoHS





仅适用于在海拔2000m以下地区使用
WWYY MADE IN CHINA 中国制造


GlobTek® ,Inc.
ITE POWER SUPPLY (电源供应器)


P/N (料号):
MODEL (型号): GT-41083-4024-5.0-T2
INPUT (输入): 100 - 240V ~,
50 - 60Hz, 1.0A
OUTPUT (输出): 19 V === 2.1 A
FOR I.T.E. USE ONLY

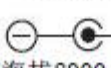
    

LISTED
3RU5
E336418

    LPS

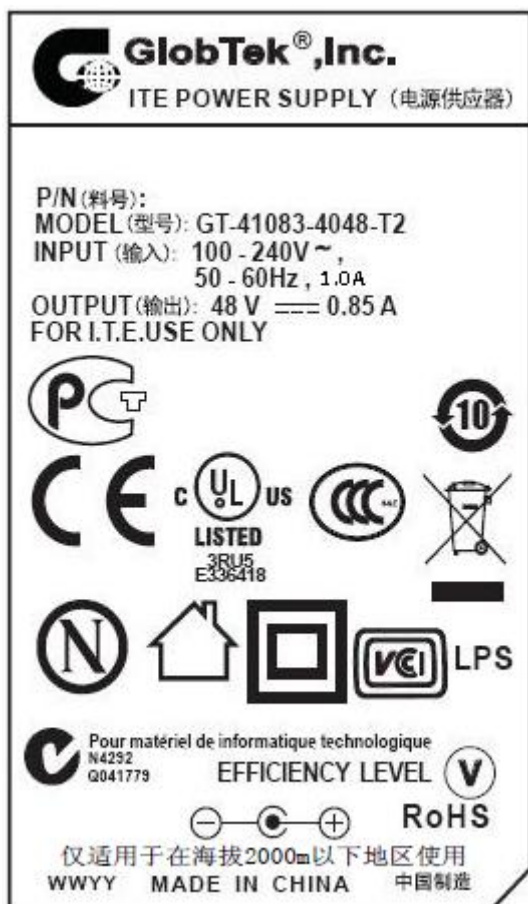
 Pour matériel de informatique technologique
N4292
Q041779

EFFICIENCY LEVEL 

 RoHS

仅适用于在海拔2000m以下地区使用
WWYY MADE IN CHINA 中国制造

Copy of marking plate continued



Note:

Other model's marking plates are same except model name and output parameters.

The above markings are the minimum requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.

Words " 仅适用于在海拔2000m以下地区使用 " will only on markings for China.

Test item particulars.....:	
Equipment mobility.....:	<input checked="" type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in
Connection to the mains.....:	<input checked="" type="checkbox"/> pluggable equipment <input checked="" type="checkbox"/> type A <input type="checkbox"/> type B <input type="checkbox"/> permanent connection <input checked="" type="checkbox"/> detachable power supply cord <input type="checkbox"/> non-detachable power supply cord <input type="checkbox"/> not directly connected to the mains
Operating condition.....:	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> rated operating / resting time:
Access location	<input checked="" type="checkbox"/> operator accessible <input type="checkbox"/> restricted access location
Over voltage category (OVC)	<input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other:
Mains supply tolerance (%) or absolute mains supply values	±10%
Tested for IT power systems	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
IT testing, phase-phase voltage (V)	230V
Class of equipment	<input type="checkbox"/> Class I <input checked="" type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified
Considered current rating of protective device as part of the building installation (A)	16A
Pollution degree (PD)	<input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3
IP protection class	IPX0
Altitude during operation (m)	Max. 2950
Altitude of test laboratory (m)	Max. 50
Mass of equipment (kg)	<1kg

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	2017-06-19
Date (s) of performance of tests	2017-06-19 to 2017-07-10

General remarks:

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 testing laboratory."

(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.

Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods.

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Manufacturer's Declaration per sub-clause 4.2.5 of IECCE 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. GLOBTEK INC
186 VETERANS DRIVE NORTHVALE NJ
07647 USA
2. GlobTek (Suzhou) Co., Ltd.
Building 4, No. 76, JinLing East Road., Suzhou
Industrial Park, Suzhou, JiangSu, 215021, China

General product information:

The equipment is a switching power adaptor for ITE and indoor use only. The appliance coupler is considered as the disconnect device and the equipment is considered as movable and Class II equipment. The equipment was submitted and evaluated for maximum manufacturer's recommended ambient of 40°C. The equipment intended to be used in tropical conditions. The enclosures fixed together by ultrasonic welding.

Explanation of model designation GT-41083-****-*. *-T2:

The first together with the second "**" denote the watt, which can be 01-41, with interval of 1.

The third together with the fourth "*" denote the standard rated output voltage designation, which can be "12", "24", "48".

"-*. *" denote the optional deviation, subtracted from standard output voltage, which can be "-0.1" to "-23.9" with interval of 0.1, or blank to indicate no voltage different.

The 3rd to 6th asterisks together denote the output voltage with a range of 12-48 volts.

The model designations and ratings are detailed as follows:

MODEL	Output Voltage	Max. Output Current	Max. Output Watt
GT-41083-**12-T2	12Vdc	3.3A	40W
GT-41083-**24-*. *-T2	12.1-24Vdc	3.3A	40W
GT-41083-**48-*. *-T2	24.1-48Vdc	1.7A	41W

All tests are performed on model GT-41083-4012-T2, GT-41083-4024-5.0-T2, GT-41083-4024-T2 and GT-41083-4048-T2 and compliance for sub-clause 2.5 Limit Power Source.

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
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1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	P
1.5.2	Evaluation and testing of components		P
1.5.3	Thermal controls		N/A
1.5.4	Transformers		P
1.5.5	Interconnecting cables		N/A
1.5.6	Capacitors bridging insulation		P
1.5.7	Resistors bridging insulation		N/A
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N/A
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		P
1.5.9	Surge suppressors		N/A
1.5.9.1	General		N/A
1.5.9.2	Protection of VDRs		N/A
1.5.9.3	Bridging of functional insulation by a VDR		N/A
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A

1.6	Power interface		P
1.6.1	AC power distribution systems	TN, TT or IT (only for Norway)	P
1.6.2	Input current	(see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment		N/A
1.6.4	Neutral conductor		P

1.7	Marking and instructions		P
1.7.1	Power rating and identification markings		P
1.7.1.1	Power rating marking		P
	Multiple mains supply connections.....:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated voltage(s) or voltage range(s) (V)	See marking plate.	P
	Symbol for nature of supply, for d.c. only		N/A
	Rated frequency or rated frequency range (Hz) ...	See marking plate.	P
	Rated current (mA or A)	See marking plate.	P
1.7.1.2	Identification markings		P
	Manufacturer's name or trade-mark or identification mark	See marking pages.	P
	Model identification or type reference	See marking pages.	P
	Symbol for Class II equipment only	See marking pages.	P
	Other markings and symbols	Additional symbols or marking do not give rise to misunderstanding.	P
1.7.1.3	Use of graphical symbols		P
1.7.2	Safety instructions and marking	Adequate instructions provided.	P
1.7.2.1	General		P
1.7.2.2	Disconnect devices	Approved appliance coupler provided	P
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems		P
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)	The "FS1" and "T2.5 A 250 V" are marked adjacent to the mains fuse	P
1.7.7	Wiring terminals		N/A
1.7.7.1	Protective earthing and bonding terminals.....		N/A
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking		N/A
1.7.8.2	Colours		N/A
1.7.8.3	Symbols according to IEC 60417.....		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
1.7.11	Durability		P
1.7.12	Removable parts	No markings on removable parts exist.	P
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		P
2.1.1.1	Access to energized parts		P
	Test by inspection	All accessible circuits are SELV circuits.	P
	Test with test finger (Figure 2A)	The test finger was unable to contact bare hazardous parts, basic insulation, or ELV circuits.	P
	Test with test pin (Figure 2B)	The test pin was unable to contact bare hazardous parts.	P
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments	No battery compartments.	N/A
2.1.1.3	Access to ELV wiring	No ELV circuits.	N/A
	Working voltage (V _{peak} or V _{rms}); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards	(see appended tables 2.1.1.5)	P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		P
	Measured voltage (V); time-constant (s).....	Vo=372V, 37% of Vo=137V, T=0.864s	—
2.1.1.8	Energy hazards – d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply ..		N/A
	b) Internal battery connected to the d.c. mains supply :		N/A
2.1.1.9	Audio amplifiers		N/A
2.1.2	Protection in service access areas		N/A

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

2.1.3	Protection in restricted access locations		N/A
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2.2	SELV circuits		P
2.2.1	General requirements		P
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	P
2.2.3	Voltages under fault conditions (V)	Under fault conditions voltage never exceed 71 Vp and 120 Vdc and do not exceed 42.4 Vp or 60 Vdc for more than 0.2 sec.	P
2.2.4	Connection of SELV circuits to other circuits	SELV circuits intend to be connected to SELV circuits only.	P

2.3	TNV circuits		N/A
2.3.1	Limits	No TNV circuits	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		P
2.4.2	Limit values		P
	Frequency (Hz)	(see appended table 2.4.2)	—
	Measured current (mA)	(see appended table 2.4.2)	—
	Measured voltage (V).....	(see appended table 2.4.2)	—
	Measured circuit capacitance (nF or µF)	(see appended table 2.4.2)	—

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

2.4.3	Connection of limited current circuits to other circuits		N/A
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2.5	Limited power sources		P
	a) Inherently limited output		P
	b) Impedance limited output		N/A
	c) Regulating network or IC current limiter, limits output under normal operating and single fault condition		P
	Use of integrated circuit (IC) current limiters		N/A
	d) Overcurrent protective device limited output	(see appended table 2.5)	—
	Max. output voltage (V), max. output current (A), max. apparent power (VA)		—
	Current rating of overcurrent protective device (A) ..		—

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing	Class II equipment	N/A
2.6.2	Functional earthing		N/A
	Use of symbol for functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		N/A
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm ²), AWG.....		—
2.6.3.3	Size of protective bonding conductors		N/A
	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).....		N/A
2.6.3.5	Colour of insulation		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm).....		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		N/A
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth		N/A
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding		N/A
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	Integral part of equipment	P
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not simulated in 5.3.7		N/A
2.7.3	Short-circuit backup protection	Building installation is considered as the short-circuit backup protection	P
2.7.4	Number and location of protective devices :	One current fuse (FS1) is located in the Line pole of primary circuit	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	No such device.	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

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.7.1	Separation distances for contact gaps and their related circuits (mm)		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A

2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	No natural rubber, asbestos or hygroscopic material used.	P
2.9.2	Humidity conditioning	120 hours (considered the tropical conditions)	P
	Relative humidity (%), temperature (°C)	93 %, 40°C	—
2.9.3	Grade of insulation		P
2.9.4	Separation from hazardous voltages	SELV circuits separated from primary by double / reinforce insulation	P
	Method(s) used	Method 1.	—

2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General		P
2.10.1.1	Frequency	≤30kHz	P
2.10.1.2	Pollution degrees	Pollution degree 2	P
2.10.1.3	Reduced values for functional insulation	Refer sub-clause 5.3.4	P
2.10.1.4	Intervening unconnected conductive parts		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		P
2.10.2.1	General		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		P
2.10.3.1	General		P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply	Overvoltage Category II	P
	b) Earthed d.c. mains supplies		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply	2500Vp	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		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances		P
2.10.4.1	General		P
2.10.4.2	Material group and comparative tracking index		P
	CTI tests	Material group IIIb is assumed to be used	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation		P
2.10.5.1	General		P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation		N/A
2.10.5.4	Semiconductor devices	Approved opto-couplers (U1) (see also appended table 1.5.1)	P
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material – General	Insulation tapes provided reinforced insulation on the core of transformer	P
2.10.5.7	Separable thin sheet material	(see appended table 2.10.5)	P
	Number of layers (pcs)	(see appended table 2.10.5)	—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		P
	Electric strength test	(see appended table 2.10.5)	—
2.10.5.11	Insulation in wound components	(see Annex U)	P
2.10.5.12	Wire in wound components	Approved triple insulation wire for T1 secondary winding	P
	Working voltage		N/A
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	c) Compliance with Annex U	Meet the requirements.	P
	Two wires in contact inside wound component; angle between 45° and 90°	Physical separation in the form of insulating sleeving provided to relieve mechanical stress at the crossover point	P
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		N/A
2.10.6.1	Uncoated printed boards		N/A
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		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints	Approved optocouplers (U1) (see appended table 1.5.1)	P
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		N/A
3.1.2	Protection against mechanical damage	(see appended table 1.5.1)	P
3.1.3	Securing of internal wiring	Smooth wire ways	P
3.1.4	Insulation of conductors	All internal wirings are suitable fixed	P
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections	No contact pressure-through insulation exists.	N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	All conductors are reliable secured.	P
	10 N pull test		P
3.1.10	Sleeving on wiring		N/A
3.2	Connection to a mains supply		P
3.2.1	Means of connection	Approved appliance inlet is provided	P
3.2.1.1	Connection to an a.c. mains supply	An appliance inlet 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	Approved appliance inlet is provided (see appended table 1.5.1)	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords	See the Note in appended table 1.5.1	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		N/A
3.2.8	Cord guards		N/A
	Diameter or minor dimension D (mm); test mass (g)		—
	Radius of curvature of cord (mm)		—
3.2.9	Supply wiring space		N/A

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

3.4	Disconnection from the mains supply		P
3.4.1	General requirement		P
3.4.2	Disconnect devices	The appliance coupler is considered as the disconnect devices	P
3.4.3	Permanently connected equipment		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Number of poles - single-phase and d.c. equipment		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		P
3.4.11	Multiple power sources	One power source only.	N/A

3.5	Interconnection of equipment		P
3.5.1	General requirements		P
3.5.2	Types of interconnection circuits	SELV circuit.	P
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		P

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°	The mass of EUT is less than 7 kg	N/A
	Test force (N)	The mass of EUT is less than 25 kg and it is not floor-standing unit	N/A

4.2	Mechanical strength		P
4.2.1	General		P
	Rack-mounted equipment.		N/A
4.2.2	Steady force test, 10 N	The EUT is still complying with relevant requirements of this standard after 10 N force is applied to the components	P
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	The EUT is still complying with relevant requirements of this standard	P
4.2.5	Impact test		N/A
	Fall test		N/A
	Swing test		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.6	Drop test; height (mm)	750mm	P
4.2.7	Stress relief test	99°C, all the enclosure materials listed in the table 1.5.1 are tested	P
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)		N/A

4.3	Design and construction		P
4.3.1	Edges and corners	No hazardous sharp edges or corners.	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		N/A
4.3.5	Connection by plugs and sockets		N/A
4.3.6	Direct plug-in equipment		N/A
	Torque		—
	Compliance with the relevant mains plug standard	Compliance with the relevant mains plug standard	
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		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs		N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)		—
4.3.13.6	Other types		N/A
4.4	Protection against hazardous moving parts		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades		N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a).....:		N/A
	Is considered to cause pain, not injury. b)		N/A
	Considered to cause injury. c)		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning		N/A
4.5	Thermal requirements		P
4.5.1	General		P
4.5.2	Temperature tests		P
	Normal load condition per Annex L	(See annex L)	—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
	Dimensions (mm) :	No openings.	—
4.6.2	Bottoms of fire enclosures		P
	Construction of the bottom, dimensions (mm) .. :	No openings.	—
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	Comply with Method 1.	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		P
4.7.2.1	Parts requiring a fire enclosure		P
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		P
4.7.3.1	General	(see appended table 4.7)	P
4.7.3.2	Materials for fire enclosures		P
4.7.3.3	Materials for components and other parts outside fire enclosures		P
4.7.3.4	Materials for components and other parts inside fire enclosures		P
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
5.1	Touch current and protective conductor current		P
5.1.1	General		P
5.1.2	Configuration of equipment under test (EUT)	Equipment designed for connection to only one power source.	P
5.1.2.1	Single connection to an a.c. mains supply		P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit		P
5.1.4	Application of measuring instrument		P
5.1.5	Test procedure		P
5.1.6	Test measurements		P
	Supply voltage (V)	(see appended table 5.1)	—
	Measured touch current (mA)	(see appended table 5.1)	—
	Max. allowed touch current (mA)	(see appended table 5.1)	—
	Measured protective conductor current (mA)	(see appended table 5.1)	—
	Max. allowed protective conductor current (mA) ..	(see appended table 5.1)	—
5.1.7	Equipment with touch current exceeding 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		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

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Clause	Requirement + Test	Result - Remark	Verdict

5.2	Electric strength		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure	No insulation breakdown detected during the test.	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 table 5.3 & Annex C)	P
5.3.4	Functional insulation :	Methods a), b),c)	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE :		N/A
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No fire, molten metal or deformation during the tests. (See appended table 5.3)	P
5.3.9.1	During the tests	No fire, emission of molten metal or deformation was noted during the tests.	P
5.3.9.2	After the tests	After test, the EUT still complies with relevant requirements of this standard	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
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

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
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		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).....		—
	Sample 3 burning time (s).....		—
A.3	Hot flaming oil test (see 4.6.2)		N/A

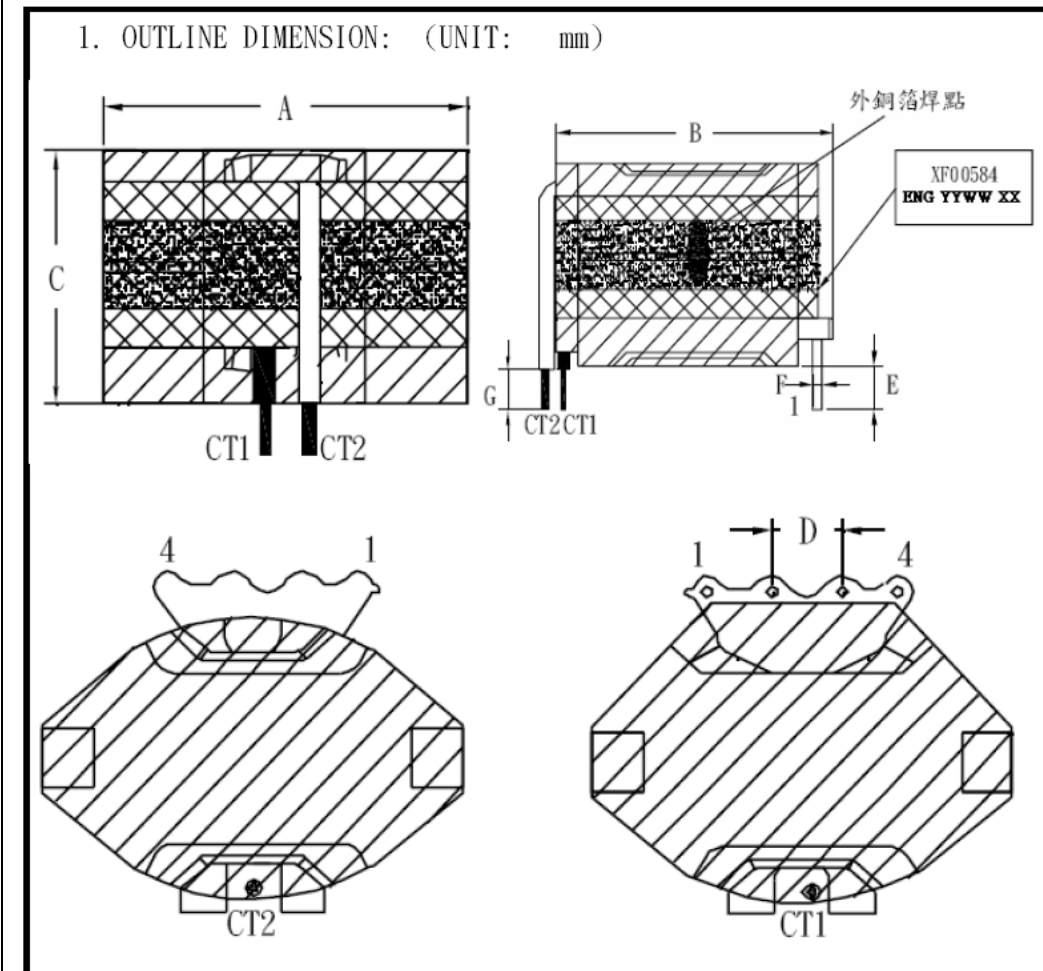
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A

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)		—

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
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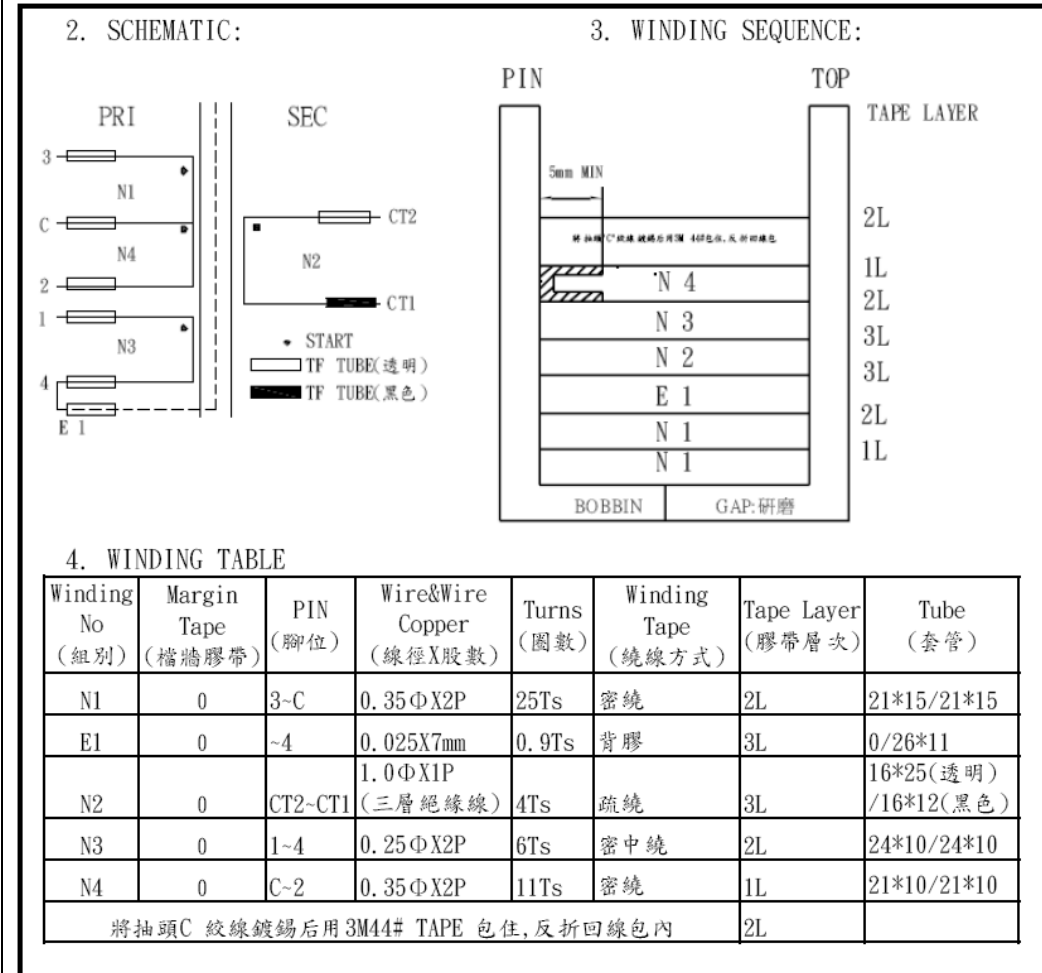
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Position	(see appended table 1.5.1)	—
	Manufacturer	(see appended table 1.5.1)	—
	Type	(see appended table 1.5.1)	—
	Rated values	(see appended table 1.5.1)	—
	Method of protection	With external overcurrent protection	—
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	(see appended tables 5.2)	P
	Protection from displacement of windings	The end-turn of each winding is fixed by insulating tape	P

Physical construction of power transformer T1 (XF00584)



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

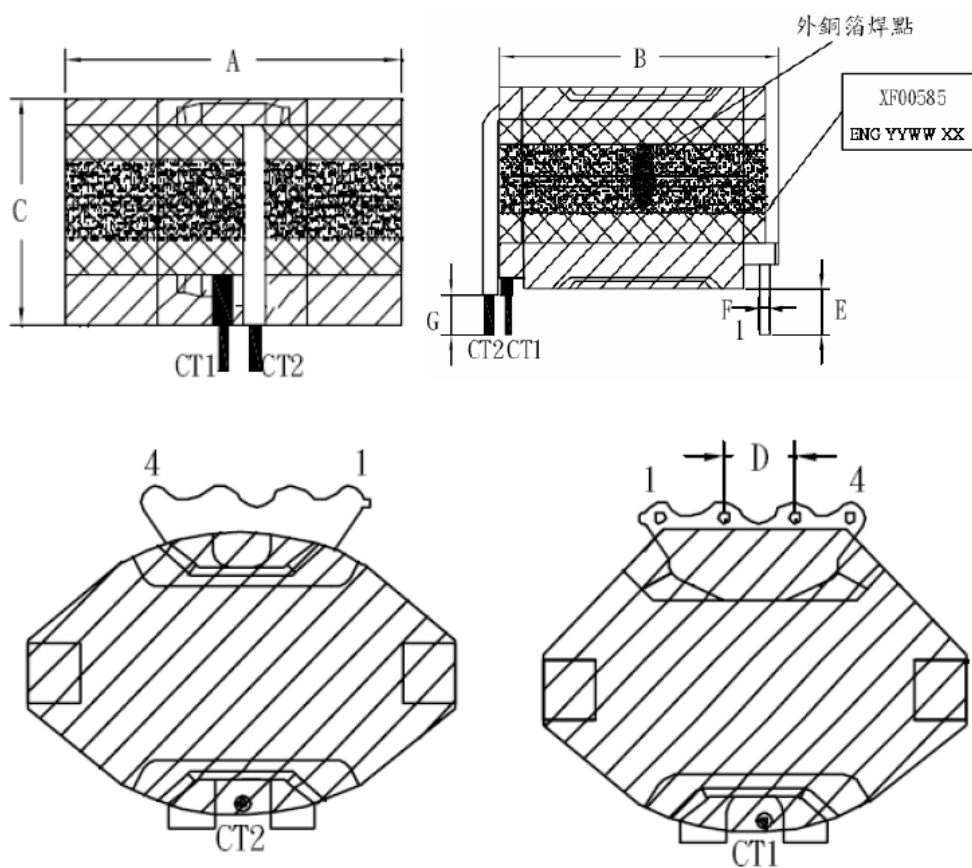
Physical construction of power transformer T1 (XF00584) (cont.)



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

Physical construction of power transformer T1 (XF00585)

1. OUTLINE DIMENSION: (UNIT: mm)



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

Physical construction of power transformer T1 (XF00585) (Cont.)

2. SCHEMATIC:

Diagram illustrating the schematic of the transformer, showing the Primary (PRI) and Secondary (SEC) windings and their connections.

Primary (PRI) Winding: Includes terminals 3, C, 2, 1, 4 and windings N1, N4, N3, E1.

Secondary (SEC) Winding: Includes terminals CT2, N2, CT1 and windings N2, CT1.

Legend:

- START (indicated by a dot)
- TF TUBE(透明) (Transparent Tape)
- TF TUBE(黑色) (Black Tape)

3. WINDING SEQUENCE:

Diagram illustrating the winding sequence, showing the layers from PIN to TOP.

Layers (from PIN to TOP): N 4, N 3, N 2, E 1, N 1, N 1, BOBBIN, GAP:研磨.

Tape Layer Sequence (from PIN to TOP): 2L, 1L, 2L, 3L, 3L, 2L, 1L.

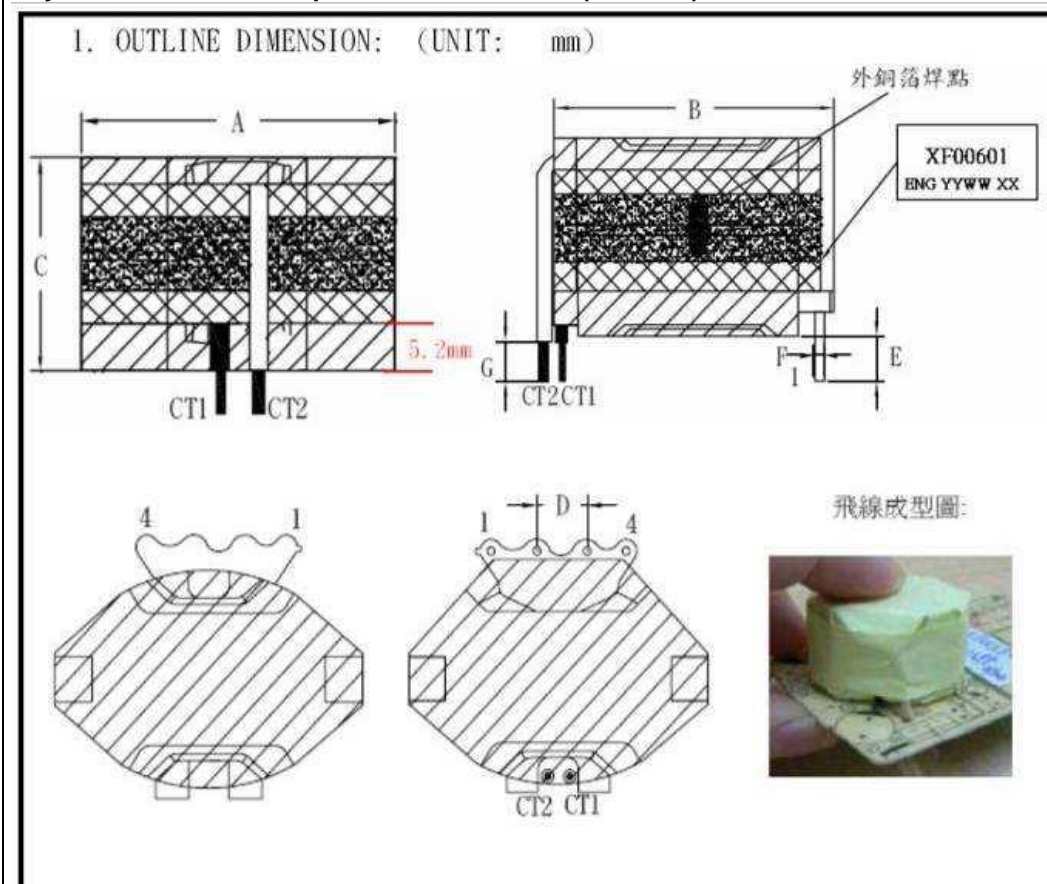
Note: 將抽頭C絞線鍍錫后用3M44# TAPE 包住,反折回線包內

4. WINDING TABLE

Winding No (組別)	Margin Tape (檔牆膠帶)	PIN (腳位)	Wire&Wire Copper (線徑X股數)	Turns (圈數)	Winding Tape (繞線方式)	Tape Layer (膠帶層次)	Tube (套管)
N1	0	3~C	0.35ΦX2P	25Ts	密繞	2L	21*15/21*15
E1	0	~4	0.025X7mm	0.9Ts	背膠	3L	0/26*11
N2	0	CT2~CT1	1.0ΦX1P (三層絕緣線)	6Ts	疏繞	3L	17*30(透明) /17*10(黑色)
N3	0	1~4	0.25ΦX2P	5Ts	密中繞	2L	24*10/24*10
N4	0	C~2	0.35ΦX2P	11Ts	密繞	1L	21*10/21*10
將抽頭C 絞線鍍錫后用3M44# TAPE 包住,反折回線包內						2L	

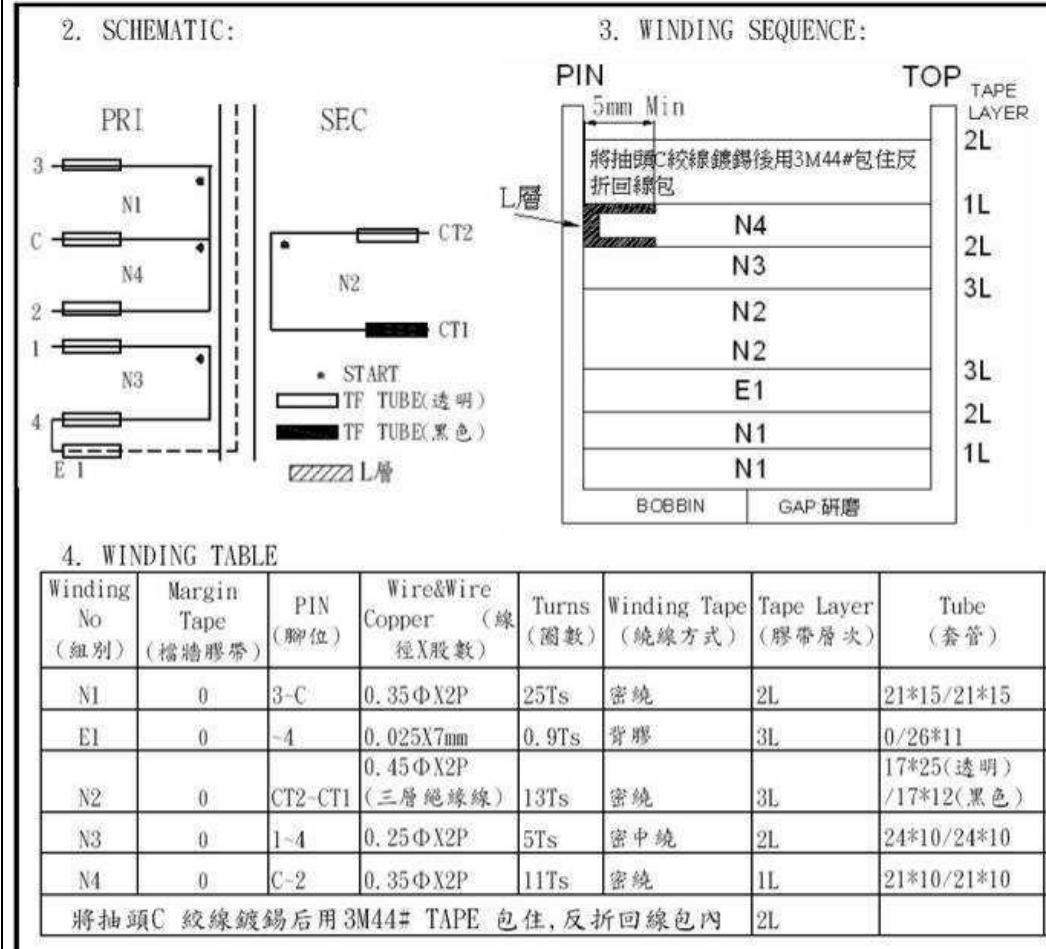
IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

Physical construction of power transformer T1 (XF00601)



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

Physical construction of power transformer T1 (XF00601) (cont.)



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

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument		P
D.2	Alternative measuring instrument		N/A

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply		N/A
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks		N/A
G.4.2	Transients from telecommunication networks		N/A
G.4.3	Combination of transients		N/A
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
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N/A
	Metal(s) used		—

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		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
L.7	Other business equipment		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

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Clause	Requirement + Test	Result - Remark	Verdict
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)		N/A
	- Preferred climatic categories		N/A
	- Maximum continuous voltage		N/A
	- Combination pulse current		N/A
	Body of the VDR Test according to IEC60695-11-5.....		N/A
	Body of the VDR. Flammability class of material (min V-1).....		N/A
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N/A
S.1	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)		P
			—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
V.1	Introduction		P
V.2	TN power distribution systems		P
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		P
X.1	Determination of maximum input current		P
X.2	Overload test procedure		P
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)		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict

DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N.....:		N/A
DD.3	Mechanical strength test, 250N, including end stops.....:		N/A
DD.4	Compliance.....:		N/A

EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols.....:		N/A
	Information of user instructions, maintenance and/or servicing instructions.....:		N/A
EE.3	Inadvertent reactivation test.....:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols.....:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A):		N/A
	Test with wedge probe (Figure EE1 and EE2):		N/A

IEC 60950-1			
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⁾	
Appliance inlet	TECX-UNIONS Technology Corporation	SO-222	2.5 A, 250 Vac	IEC/EN 60320-1	VDE 40043268	
Alt.	Zhejiang LECI Electronics Co., Ltd	DB-8	2.5 A, 250 Vac	IEC/EN 60320-1	VDE 40032028	
Alt.	Sun Fair Electric Wire & Cable (HK) Co Ltd	S-01	2.5 A, 250 Vac	IEC/EN 60320-1	VDE 40034449	
Alt.	Inalways Corp	0721 series	2.5 A, 250 Vac	IEC/EN 60320-1	ENEC/FI 2010087	
Alt.	Rong Feng Industrial Co., Ltd.	RF-180	2.5 A, 250 Vac	IEC/EN 60320-1	VDE 40030168	
Alt.	Interchangeable	Interchangeable	Min. 2.5 A, 250Vac	IEC/EN 60320-1: 2016	S, VDE or other EU certification marks	
Fuse (FS1)	Conquer Electronics Co., Ltd.	MST series	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1, IEC/EN 60127-3	VDE 40017118	
Alt.	Littelfuse, Inc.	392	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 126983	
Alt.	Ever Island & Walter Electronic	2010 Serie(s)	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40018781	
Alt.	Bel Fuse Ltd.	RST-Serie(s)	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40011144	
Alt.	Cooper Bussmann LLC	SS-5	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015513	
Alt.	Walter Electronic Co. Ltd.	ICP-Series	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40012824	
Alt.	Zhongshan Lanbao Electrical Appliances Co., Ltd.	RTI-10 Serie(s)	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40017009	
Alt.	Sunny East Enterprise Co. Ltd.	CFD-Serie(s)	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40030246	

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	Shenzhen Lanson Electronics Co. Ltd.	SMT T2,5A250V	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40012592
Alt.	Hollyland Company Limited	5ET	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1 IEC/EN 60127-3	VDE 40015669
Alt.	Interchangeable	Interchangeable	T2.5 A, 250 Vac, LBC	IEC/EN 60127-1: 2015 IEC/EN 60127-3: 2015	S, VDE or other EU certification marks
Line filter (LF1)		NF00025	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	GlobTek	NF00025	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	BOAM	NF00025	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	HEJIA	NF00025	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	Haopuwei	NF00025	130°C	IEC/EN 60950-1	Tested with appliance
X-Capacitor (CX1)	Cheng Tung Industrial Co., Ltd.	CTX	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	UL ENEC ENEC-01396-M1
Alt.	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40015608
Alt.	Tenta Electric Industrial Co. Ltd.	MEX	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 119119
Alt.	Okaya Electric Industries Co. LTD	RE series	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40028657
Alt.	VISHAY Capacitors Belgium NV	F1772 series	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40005079
Alt.	Dain Electronics Co., Ltd.	MEX, MPX, NPX	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40018798
Alt.	Sinhua Electronics (Huzhou) Co., Ltd	MPX	Max. 0.22 µF, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40014686

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	Foshan Shunde Chuang Ge Electronic Industrial Co., Ltd.	MKP-X2	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40008922
Alt.	Hongzhi Enterprises Ltd.	MPX	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40023936
Alt.	Jiangsu Xinghua Huayu Electronics Co., Ltd.	MPX - Series	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40022417
Alt.	Carli Electronics Co., Ltd.	MPX	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40008520
Alt.	Shunde Da Hua Electric Co., Ltd.	HD-MKP series	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14	VDE 40027182
Alt.	Interchangeable	Interchangeable	Max. 0.22 μ F, Min. 250 V, 100°C, X1 or X2	IEC/EN 60384-14: 2016	S, VDE or other EU certification marks
Line filter (LF2)		AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	GlobTek	AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	BOAM	AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	HEJIA	AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	Haopuwei	AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Alt.	YIDA	AM149B-LF	130°C	IEC/EN 60950-1	Tested with appliance
Bridge Capacitor (CY1)	Success Electronics Co., Ltd.	SB	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40020001
Alt.	Success Electronics Co., Ltd.	SE	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40020002
Alt.	TDK-EPC Corporation	CD	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40029780

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	Murata Mfg. Co., Ltd.	KX	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40002831
Alt.	Walsin Technology Corp.	AH	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40001804
Alt.	JYA-NAY Co., Ltd.	JN	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	TUV Rheinland R 50232059
Alt.	Haohua Electronic Co.,	CT7	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40003902
Alt.	Hongzhi Enterprises Ltd.	Y	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40038760
Alt.	Jyh Chung Electronic Co., Ltd.	JD	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 137027
Alt.	Welson Industrial Co., Ltd.	WD series	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14	VDE 40016157
Alt.	Interchangeable	Interchangeable	Max. 2200 pF, Min. 250 V, 125°C, Y1	IEC/EN 60384-14: 2016	S, VDE or other EU certification marks
Photo coupler (U1)	Sharp Corporation Electronic Components and Devices Division	PC817, PC123, PC1231	Ext.cl Min.6.4mm, Min cr 6.4mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 40008087
Alt.	Fairchild Semiconductor Pte Ltd	H11A817B, FOD817B	Ext.cl Min.7.0mm, Min cr 7.0mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 40026857
Alt.	Bright Led Electronics Corp.	BPC-817, BPC-817M, BPC-817S	Ext.cl Min.7.0mm, Min cr 7.0mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 40007240

IEC 60950-1					
Clause	Requirement + Test		Result - Remark		Verdict
Alt.	Lite-On Technology Corporation	LTV-817	Ext.cl Min.7.0mm, Min cr 7.0mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 40015248
Alt.	Everlight Electronics Co., Ltd.	EL817	Ext.cl Min.7.6mm, Min cr 7.6mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 132249
Alt.	COSMO Electronics Corporation	K1010, KP1010	Ext.cl Min.6.5mm, Min cr 6.5mm Int.cr=thermal cycling DTI: Min.0.4mm	IEC/EN 60747-5-5	VDE 101347
Transformer					
Transformer	GlobTek, Boam, Haopuwei	XF00584(12-18.9V)	Class B	IEC/EN 60950-1	Tested with appliance
Transformer	GlobTek, Boam, Haopuwei	XF00585(19-28V)	Class B	IEC/EN 60950-1	Tested with appliance
Transformer	GlobTek, Boam, Haopuwei	XF00601(28.1-48V)	Class B	IEC/EN 60950-1	Tested with appliance
-Primary magnet wires	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U, UEWS/U	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E201757 & tested with appliance
-Alt.	JUNG SHING WIRE CO.,LTD.	UEW-4, UEY-2	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E174837 & tested with appliance
-Alt.	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E335065 & tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
-Alt.	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E158909 & tested with appliance
-Alt.	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E206882 & tested with appliance
-Alt.	JIANGSU DARTONG M & E CO LTD	UEW	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E237377 & tested with appliance
-Alt.	SHANDONG SAINT ELECTRIC CO LTD	2UEW/130	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E194410 & tested with appliance
-Alt.	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	Min. 130°C	IEC/EN 60950-1, UL 1446	UL E222214 & tested with appliance
-Secondary triple insulation wire	GREAT LEOFLON INDUSTRIAL CO.,LTD.	TRW (B)	Min. 130°C	IEC/EN 60950-1 UL2353	UL E211989 & tested with appliance
-Alt.	COSMOLINK CO LTD	TIW-M	Min.130°C	IEC/EN 60950-1 UL2353	UL E213764 & tested with appliance
-Alt.	FURUKAWA ELECTRIC CO LTD	TEX-E	Min.130°C	IEC/EN 60950-1 UL2353	UL E206440 & tested with appliance
-Alt.	TOTOKU ELECTRIC CO LTD	TIW-E	Min.130°C	IEC/EN 60950-1 UL2353	UL E166483 & tested with appliance
-Alt.	E&B TECHNOLOGY CO LTD	E&B-XXXB E&B-XXXB-1	Min.130°C	IEC/EN 60950-1 UL2353	UL E315265 & tested with appliance
-Bobbin	CHANG CHUN PLASTICS CO LTD	T375J T375HF	V-0, 150°C, thickness 0.45 mm min.	IEC/EN 60950-1, UL 94	UL E59481 & tested with appliance
Alt.	CHANG CHUN PLASTICS CO LTD	T373J	V-0, 150°C, thickness 1.0 mm min.	IEC/EN 60950-1, UL 94	UL E59481 & tested with appliance
Alt.	SUMITOMO BAKELITE CO LTD	PM-9820 PM-9830	V-0, 150°C, thickness 0.69 mm min.	IEC/EN 60950-1, UL 94	UL E41429 & tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	HITACHI CHEMICAL CO LTD	CP-J-8800	V-0, 150°C, thickness 0.46 mm min.	IEC/EN 60950-1, UL 94	UL E42956 & tested with appliance
-Insulating tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F (#), 1350T-1, 44	Min. 130°C	IEC/EN 60950-1, UL 510	UL E17385 & tested with appliance
Alt.	BONDTEC PACIFIC CO LTD	370S	Min. 130°C	IEC/EN 60950-1, UL 510	UL E175868 & tested with appliance
Alt.	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ, CT, WF	Min. 130°C	IEC/EN 60950-1, UL 510	UL E165111 & tested with appliance
Alt.	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min. 130°C	IEC/EN 60950-1, UL 510	UL E246950 & tested with appliance
Alt.	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min. 130°C	IEC/EN 60950-1, UL 510	UL E246820 & tested with appliance
Alt.	SYMBIO INC	35660	Min. 130°C	IEC/EN 60950-1, UL 510	UL E50292 & tested with appliance
Plastic Material List:					
Enclosure	SABIC INNOVATIVE PLASTICS B V	SE1X, SE1 , SE100	Min. V-1, min. 2.0 mm thickness, 95°C	IEC/EN 60950-1, UL 94	UL E45329 & tested with appliance
Alt.	TEIJIN LIMITED RESIN AND PLASTIC	LN-1250P LN-1250G	Min. V-0 min. 1.5 mm thickness, 125°C	IEC/EN 60950-1, UL 94	UL E50075 & tested with appliance
PCB	WALEX ELECTRONIC (WUXI) CO LTD	T2A, T2B, T4	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E154355 & tested with appliance
Alt.	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1, 2V0,FR4	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E243157 & tested with appliance
Alt.	CHEERFUL ELECTRONIC (HK) LTD	03, 03A	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E199724 & tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
Alt.	DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E251754 & tested with appliance
Alt.	SUZHOU CITY YILIHUA ELECTRONICS CO LTD	YLH-1	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E251781 & tested with appliance
Alt.	DAFENG AREX ELECTRONICS TECHNOLOGY CO LTD	02V0, 04V0	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E186016 & tested with appliance
Alt.	BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A DGV0-3A	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E177671 & tested with appliance
Alt.	KUOTIANG ENT LTD	C-2 C-2A	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E227299 & tested with appliance
Alt.	SHENZHEN TONGCHUANG XIN ELECTRONICS CO LTD	TCX	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E250336 & tested with appliance
Alt.	PACIFIC WIN INDUSTRIAL LTD	PW-02 PW-03	Min. V-0, 130°C, Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E228070 & tested with appliance
Alt.	Interchangeable	Interchangeable	Min. V-0, 130°C Min. thickness 1.0mm	UL 796: 2016	UL approval
Supplementary information: Note: 1. An asterisk indicates a mark which assures the agreed level of surveillance. 2. All the plastic material mentioned are checked and found to be acceptable for using in this product. Checking date: Same as this report issued data, see also page 1. 3. A power supply cord set, complying with national requirements, shall be provided when marketing in the specified countries.					

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

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status	
Tested on model: GT-41083-4012-T2							
90 V (50 Hz)	0.865	--	45.1	FS1	0.865	Maximum rated output load	
90 V (60 Hz)	0.886	--	45.1	FS1	0.886		
100 V (50 Hz)	0.797	1.0	45.3	FS1	0.797		
100 V (60 Hz)	0.820	1.0	45.3	FS1	0.820		
240 V (50 Hz)	0.458	1.0	45.3	FS1	0.458		
240 V (60 Hz)	0.455	1.0	45.3	FS1	0.455		
264 V (50 Hz)	0.429	--	45.3	FS1	0.429		
264 V (60 Hz)	0.426	--	45.3	FS1	0.426		
Tested on model: GT-41083-4024-5.0-T2							
90 V (50 Hz)	0.864	--	44.4	FS1	0.864	Maximum rated output load	
90 V (60 Hz)	0.888	--	44.4	FS1	0.888		
100 V (50 Hz)	0.799	1.0	43.8	FS1	0.799		
100 V (60 Hz)	0.825	1.0	44.0	FS1	0.825		
240 V (50 Hz)	0.451	1.0	44.1	FS1	0.451		
240 V (60 Hz)	0.446	1.0	44.1	FS1	0.446		
264 V (50 Hz)	0.420	--	44.5	FS1	0.420		
264 V (60 Hz)	0.416	--	44.5	FS1	0.416		
Tested on model: GT-41083-4024-T2							
90 V (50 Hz)	0.870	--	45.1	FS1	0.870	Maximum rated output load	
90 V (60 Hz)	0.892	--	45.1	FS1	0.892		
100 V (50 Hz)	0.800	1.0	44.8	FS1	0.800		
100 V (60 Hz)	0.824	1.0	44.9	FS1	0.824		
240 V (50 Hz)	0.463	1.0	45.2	FS1	0.463		
240 V (60 Hz)	0.460	1.0	45.2	FS1	0.460		
264 V (50 Hz)	0.434	--	45.7	FS1	0.434		
264 V (60 Hz)	0.431	--	45.7	FS1	0.431		
Tested on model: GT-41083-4048-T2							
90 V (50 Hz)	0.805	--	45.4	FS1	0.805	Maximum rated output load	
90 V (60 Hz)	0.769	--	45.3	FS1	0.769		
100 V (50 Hz)	0.727	1.0	45.1	FS1	0.727		
100 V (60 Hz)	0.698	1.0	45.1	FS1	0.698		
240 V (50 Hz)	0.343	1.0	45.0	FS1	0.343		

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Clause	Requirement + Test				Result - Remark	Verdict
240 V (60 Hz)	0.328	1.0	45.0	FS1	0.328	
254 V (50 Hz)	0.327	--	45.0	FS1	0.327	
254 V (60 Hz)	0.313	--	44.9	FS1	0.313	
264 V (50 Hz)	0.315	--	44.9	FS1	0.315	
264 V (60 Hz)	0.302	--	44.9	FS1	0.302	
Supplementary information: N/A						

2.1.1.5 c) 1)	TABLE: max. V, A, VA test				P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Tested on model: GT-41083-4012-T2					
12Vdc	3.3	12.14Vdc	4.42	53.7	
Tested on model: GT-41083-4024-5.0-T2					
18Vdc	2.2	18.89Vdc	2.77	52.3	
Tested on mode: GT-41083-4024-T2					
24Vdc	1.7	23.83Vdc	2.44	58.1	
Tested on model: GT-41083-4048-T2					
48Vdc	0.83	47.62Vdc	1.18	56.2	
supplementary information: N/A					

2.4.2	TABLE: Limited current circuit test					P
Location inverter	Voltage (Vp)	Current (mA)	Frequency (Hz)	Limit (mA)	Remark	
CY1 secondary pin to earth	0.71	0.355	60	0.7	No load condition.	
CY1 secondary pin to earth	4.04	2.020	20.1k	14.07	Normal load condition.	
Supplementary information: Test voltage: 264 Vac / 60 Hz Rating of bridging components: CY1 measured Max. 2200 pF						

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

2.5	TABLE: limited power sources	P	
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Circuit output tested:				
Measured Uoc (V) with all load circuits disconnected:				
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
For model GT-41083-4012-T2 Uoc=12.14Vdc				
Normal condition	4.42	8.0	52.1	100
Single fault:R11 short circuited	0	8.0	0	100
For model GT-41083-4024-5.0-T2 Uoc=18.99Vdc				
Normal condition	2.77	8.0	51.3	100
Single fault: R11 short circuited	0	8.0	0	100
For model GT-41083-4024-T2 Uoc=23.83Vdc				
Normal condition	2.44	8.0	57.3	100
Single fault: R11 short circuited	0	8.0	0	100
For model GT-41083-4048-T2 Uoc=47.62Vdc				
Normal condition	1.18	8.0	55.89	100
Single fault: R11 short circuited	0	8.0	0	100
supplementary information:				
Sc=Short circuit, Oc=Open circuit				
The other single fault conditions are relate to the below:				
- Measured result shut down under the single fault condition of R11 opened.				
- Measured result unit damage under the single fault condition of R1 shorted.				
- Measured result shut down under the single fault condition of U1 pin 1 to pin 2 shorted.				
- Measured result shut down under the single fault condition of U1 pin 3 to pin 4 shorted.				
- Measured result shut down under the single fault condition of U1 pin 1 opened.				
- Measured result shut down under the single fault condition of U1 pin 4 opened.				

2.10.2	Table: working voltage measurement	P		
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Location	RMS voltage (V)	Peak voltage (V)	Comments
Tested on model GT-41083-4012-T2			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
T1 pin1 to CT1	198	408	
T1 pin1 to CT2	197	372	
T1 pin2 to CT1	196	356	
T1 pin2 to CT2	197	392	
T1 pin3 to CT1	245	540	Max.
T1 pin3 to CT2	243	524	
T1 pin4 to CT1	202	360	
T1 pin4 to CT2	202	372	
U1 pin1 to pin3	203	368	
U1 pin1 to pin4	201	368	
U1 pin2 to pin3	202	368	
U1 pin2 to pin4	201	364	
CY1 pin1 to pin2	202	360	
Tested on model GT-41083-4024-5.0-T2			
T1 pin1 to CT1	200	100	
T1 pin1 to CT2	197	368	
T1 pin2 to CT1	186	356	
T1 pin2 to CT2	194	408	
T1 pin3 to CT1	257	524	Max.
T1 pin3 to CT2	231	504	
T1 pin4 to CT1	185	356	
T1 pin4 to CT2	188	380	
U1 pin1 to pin3	206	380	
U1 pin1 to pin4	205	372	
U1 pin2 to pin3	204	376	
U1 pin2 to pin4	203	372	
CY1 pin1 to pin2	185	356	
Tested on model GT-41083-4024-T2			

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
T1 pin1 to CT1	198	404	
T1 pin1 to CT2	197	360	
T1 pin2 to CT1	198	360	
T1 pin2 to CT2	192	408	
T1 pin3 to CT1	256	544	Max.
T1 pin3 to CT2	243	520	
T1 pin4 to CT1	190	360	
T1 pin4 to CT2	203	384	
U1 pin1 to pin3	205	384	
U1 pin1 to pin4	210	380	
U1 pin2 to pin3	206	384	
U1 pin2 to pin4	209	380	
CY1 pin1 to pin2	190	360	
Tested on model GT-41083-4048-T2			
T1 pin1 to CT1	219	404	
T1 pin1 to CT2	213	416	
T1 pin2 to CT1	208	356	
T1 pin2 to CT2	217	460	
T1 pin3 to CT1	279	544	Max.
T1 pin3 to CT2	237	504	
T1 pin4 to CT1	210	352	
T1 pin4 to CT2	225	416	
U1 pin1 to pin3	222	376	
U1 pin1 to pin4	225	376	
U1 pin2 to pin3	220	374	
U1 pin2 to pin4	219	372	
CY1 pin1 to pin2	209	356	
supplementary information:			
Note: Bold texts indicate the highest Vrms and Vpeak.			

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

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)	
On PCB solder side:							
Two ends of the current fuse (FS1) (FI)	340	240	1.8*	2.5	2.5	2.5	
Line and Neutral before and after current fuse (FS1) (FI)	340	240	1.8*	2.5	2.5	2.5	
Primary and secondary (two sides of U1) (RI)	384	240	4.6*	6.3	5.0	7.0	
Primary and secondary (two sides of CY1) (RI)	340	240	4.6*	7.6	5.0	7.6	
Primary and secondary (two sides between C2 and RS17) (RI)	340	240	4.6*	6.6	5.0	6.6	
On PCB component side:							
Primary to user accessible parts (RI)	340	240	4.6*	5.0	5.0	5.0	
Primary and secondary (two sides between HS1 and C4) (RI)	340	240	4.6*	5.0	5.0	5.0	
Primary and secondary (two sides between FS1 and HS2) (RI)	340	240	4.6*	5.0	5.0	5.0	
Transformer (T1):							
Primary traces to secondary traces on PCB solder side (RI)	544	279	5.1*	6.7	5.6	6.7	
Primary winding to secondary component (C4) (RI)	544	279	5.1*	5.2	5.6	>5.6	
Secondary winding to core2) (RI)	544	279	5.1*	5.0	5.6	>5.6	
Primary winding to secondary winding (RI)	544	279	5.1*	5.4	5.6	>5.6	

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

- 1) FI: Functional insulation; BI: Basic insulation; SI: Supplementary insulation; RI: Reinforced insulation.
- 2) The core of transformer (T1) is considered as primary winding, the TIW is used in secondary winding of transformer (T1).
- 3) A force of 10 N is applied to the internal components and 30 N is applied to the enclosure when measuring the distances.

* The equipment is operated up to 3000m above sea level as declared by manufacturer.

Clearances have been evaluated according to IEC 60664-1: table A.2 with a multiplication factor of 1.14 throughout this report.

2.10.5	TABLE: Distance through insulation measurements				P
Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (Vac)	Required DTI (mm)	DTI (mm)
RI: Optocoupler (U1)	384	240	3000	0.4	Min. 0.4
RI: Enclosure	340	240	3000	0.4	Min. 2.0
thin sheet material at/of:	U peak (V)	U rms (V)	Test voltage (Vac)	Required layer (s)	layer (s)
RI: Insulating tape around the outer side of transformer T1	544	279	3000 / 2 layer	2	3

Supplementary information:

1. FI: Functional insulation; BI: Basic insulation; SI: Supplementary insulation; RI: Reinforced insulation.
2. The core of transformer (T1) is considered as primary winding.

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

4.5	TABLE: Thermal requirements						P
	Supply voltage (V):	90Vac	264Vac	—	—	—	—
	Ambient Tmin (°C):	40.0	40.0	—	—	—	—
	Ambient Tmax (°C):	40.0	40.0	—	—	—	—
Maximum measured temperature T of part/at::		T (°C)					Allowed Tmax (°C)
Test with model GT-41083-4012-T2 (label on bottom)							
T1 coil		82.6	83.8	—	—	—	110*
T1 core		78.5	80.0	—	—	—	--
CY1 body		77.6	75.0	—	—	—	125
PCB near U1		77.3	76.1	—	—	—	130
PCB under BD1		85.3	74.8	—	—	—	130
LF2 coil		81.6	69.5	—	—	—	130
CX1 body		75.7	66.8	—	—	—	100
LF1 coil		75.5	69.1	—	—	—	130
C1 body		79.4	72.3	—	—	—	105
PCB under Q1		83.5	76.6	—	—	—	130
PCB under D3		78.6	78.2	—	—	—	130
C3 body		71.1	71.1	—	—	—	105
Enclosure inside		64.9	66.3	—	—	—	95
Enclosure outside		53.6	53.7	—	—	—	95
AC inlet		61.8	56.6	—	—	—	70
Test with model GT-41083-4012-T2 (label on top)							
T1 coil		83.2	85.0	—	—	—	110*
T1 core		79.8	81.8	—	—	—	--
CY1 body		76.0	74.3	—	—	—	125
PCB near U1		77.4	76.9	—	—	—	130
PCB under BD1		82.8	73.5	—	—	—	130
LF2 coil		81.6	70.2	—	—	—	130
CX1 body		76.8	68.4	—	—	—	100
LF1 coil		75.5	69.9	—	—	—	130
C1 body		80.3	73.9	—	—	—	105
PCB under Q1		80.6	75.0	—	—	—	130

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
PCB under D3	79.4	79.7	—	—	—	130
C3 body	72.3	73.0	—	—	—	105
Enclosure inside	71.3	73.4	—	—	—	95
Enclosure outside	59.8	60.4	—	—	—	95
AC inlet	60.9	56.6	—	—	—	70
Test with model GT-41083-4024-5.0-T2 (label on bottom)						
T1 coil	82.0	84.2	—	—	—	110*
T1 core	79.5	81.6	—	—	—	--
CY1 body	78.1	73.9	—	—	—	125
PCB near U1	78.3	77.8	—	—	—	130
PCB under BD1	87.6	74.9	—	—	—	130
LF2 coil	85.5	69.2	—	—	—	130
CX1 body	77.0	66.2	—	—	—	100
LF1 coil	75.1	67.8	—	—	—	130
C1 body	81.1	72.2	—	—	—	105
PCB under Q1	85.0	76.9	—	—	—	130
PCB under D3	79.3	80.1	—	—	—	130
C3 body	70.2	72.2	—	—	—	105
Enclosure inside	68.3	69.9	—	—	—	95
Enclosure outside	52.2	49.5	—	—	—	95
AC inlet	61.7	55.7	—	—	—	70
Test with model GT-41083-4024-5.0-T2 (label on top)						
T1 coil	80.6	83.4	—	—	—	110*
T1 core	78.1	80.9	—	—	—	--
CY1 body	76.9	73.4	—	—	—	125
PCB near U1	75.3	75.6	—	—	—	130
PCB under BD1	86.1	74.3	—	—	—	130
LF2 coil	84.6	69.3	—	—	—	130
CX1 body	78.3	67.8	—	—	—	100
LF1 coil	74.1	67.8	—	—	—	130
C1 body	81.3	72.8	—	—	—	105
PCB under Q1	83.8	76.3	—	—	—	130
PCB under D3	76.2	77.7	—	—	—	130
C3 body	68.2	70.8	—	—	—	105

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Enclosure inside	71.1	73.5	—	—	—	95
Enclosure outside	58.4	55.3	—	—	—	95
AC inlet	60.7	55.6	—	—	—	70
Test with model GT-41083-4024-T2 (label on bottom)						
T1 coil	91.5	94.1	—	—	—	110*
T1 core	87.3	89.1	—	—	—	--
CY1 body	89.2	87.3	—	—	—	125
PCB near U1	85.3	85.7	—	—	—	130
PCB under BD1	98.7	85.7	—	—	—	130
LF2 coil	96.5	79.2	—	—	—	130
CX1 body	88.7	77.2	—	—	—	100
LF1 coil	83.0	75.9	—	—	—	130
C1 body	88.5	80.4	—	—	—	105
PCB under Q1	94.5	91.3	—	—	—	130
PCB under D3	83.4	85.1	—	—	—	130
C3 body	79.7	83.0	—	—	—	105
Enclosure inside	79.9	82.2	—	—	—	95
Enclosure outside	68.2	69.1	—	—	—	95
AC inlet	66.3	59.5	—	—	—	70
Test with model GT-41083-4024-T2 (label on top)						
T1 coil	92.7	95.8	—	—	—	110*
T1 core	89.8	92.0	—	—	—	--
CY1 body	89.7	88.3	—	—	—	125
PCB near U1	85.3	86.4	—	—	—	130
PCB under BD1	98.6	86.0	—	—	—	130
LF2 coil	97.2	80.6	—	—	—	130
CX1 body	89.9	79.0	—	—	—	100
LF1 coil	83.6	77.1	—	—	—	130
C1 body	90.8	82.9	—	—	—	105
PCB under Q1	94.7	91.2	—	—	—	130
PCB under D3	83.7	86.2	—	—	—	130
C3 body	80.0	83.9	—	—	—	105
Enclosure inside	86.2	88.8	—	—	—	95
Enclosure outside	76.5	77.8	—	—	—	95

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
AC inlet	67.8	61.9	—	—	—	70
Test with model GT-41083-4048-T2 (label on bottom)						
T1 coil	83.0	86.8	—	—	—	110*
T1 core	77.5	81.6	—	—	—	--
CY1 body	86.2	83.7	—	—	—	125
PCB near U1	77.0	77.7	—	—	—	100
PCB under BD1	100.2	82.1	—	—	—	130
LF2 coil	95.0	73.4	—	—	—	130
CX1 body	76.8	67.8	—	—	—	100
LF1 coil	82.4	73.3	—	—	—	130
C1 body	84.8	77.4	—	—	—	105
PCB under Q1	93.1	87.3	—	—	—	130
PCB under D3	74.4	76.4	—	—	—	130
C2 body	80.9	81.0	—	—	—	105
C3 body	70.5	73.9	—	—	—	105
C4 body	71.5	73.1	—	—	—	105
R1 body	93.1	84.3	—	—	—	130
AC inlet	56.3	51.5	—	—	—	70
Enclosure inside above T1	78.3	81.3	—	—	—	95
Enclosure outside above T1	67.7	71.0	—	—	—	95
Test with model GT-41083-4048-T2 (label on top)						
T1 coil	86.8	87.7	—	—	—	110*
T1 core	81.6	82.1	—	—	—	--
CY1 body	88.8	83.6	—	—	—	125
PCB near U1	80.1	78.2	—	—	—	100
PCB under BD1	101.3	82.5	—	—	—	130
LF2 coil	96.2	74.7	—	—	—	130
CX1 body	79.1	69.7	—	—	—	100
LF1 coil	84.3	74.1	—	—	—	130
C1 body	87.3	78.4	—	—	—	105
PCB under Q1	95.4	87.2	—	—	—	130
PCB under D3	78.0	76.9	—	—	—	130
C2 body	84.0	81.5	—	—	—	105
C3 body	74.5	74.8	—	—	—	105

IEC 60950-1							
Clause	Requirement + Test				Result - Remark		Verdict
C4 body	75.0	73.0	—	—	—	—	105
R1 body	95.2	84.3	—	—	—	—	130
AC inlet	55.2	52.1	—	—	—	—	70
Enclosure inside above T1	84.3	84.4	—	—	—	—	95
Enclosure outside above T1	76.4	76.2	—	—	—	—	95
Supplementary information: N/A							
Temperature T of winding:	t1 (°C)	R1 (Ω)	t2 (°C)	R2 (Ω)	T (°C)	Allowed Tmax (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information: The equipment was submitted and evaluated for maximum manufacturer's recommended ambient (Tmra) of 40°C. *: the temperature of a winding is determined by thermocouples, these values are reduced by 10°C							

4.5.5	TABLE: Ball pressure test of thermoplastic parts			P
	Allowed impression diameter (mm) : ≤ 2 mm			—
Part		Test temperature (°C)	Impression diameter (mm)	
PCB, T2A		125	1.2	
Bobbin of T1 for material types PM-9820		125	0.8	
Bobbin of T1 for material type T375J		125	0.8	
Supplementary information: N/A				

4.7	TABLE: Resistance to fire					P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
Enclosure	SABIC INNOVATIVE PLASTICS B V	SE1X, SE1 , SE100	min. 2.0 mm thickness	Min. V-1	UL E45329 & tested with appliance	
Alt.	TEIJIN LIMITED RESIN AND PLASTIC	LN-1250P LN-1250G	min. 1.5 mm thickness	Min. V-0	UL E50075	
Bobbin of T1	CHANG CHUN PLASTICS CO LTD	T375J T375HF	thickness 0.45 mm min.	Min. V-0	UL E59481 & tested with appliance	
Alt.	CHANG CHUN PLASTICS CO LTD	T373J	thickness 1.0 mm min.	Min. V-0	UL E59481	

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Clause	Requirement + Test		Result - Remark		Verdict
Alt.	SUMITOMO BAKELITE CO LTD	PM-9820 PM-9830	thickness 0.69 mm min.	Min. V-0	UL E41429
Alt.	HITACHI CHEMICAL CO LTD	CP-J-8800	thickness 0.46 mm min.	Min. V-0	UL E42956
PCB	WALEX ELECTRONIC (WUXI) CO LTD	T2A, T2B, T4	Min. thickness 1.0mm	IEC/EN 60950-1, UL 796	UL E154355 & tested with appliance
Alt.	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1, 2V0,FR4	Min. thickness 1.0mm	Min. V-0	UL E243157
Alt.	CHEERFUL ELECTRONIC (HK) LTD	03, 03A	Min. thickness 1.0mm	Min. V-0	UL E199724
Alt.	DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	Min. thickness 1.0mm	Min. V-0	UL E251754
Alt.	SUZHOU CITY YILIHUA ELECTRONICS CO LTD	YLH-1	Min. thickness 1.0mm	Min. V-0	UL E251781
Alt.	SHANGHAI AREX PRECISION ELECTRONIC CO LTD	02V0, 04V0	Min. thickness 1.0mm	Min. V-0	UL E186016
Alt.	BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A DGV0-3A	Min. thickness 1.0mm	Min. V-0	UL E177671
Alt.	KUOTIANG ENT LTD	C-2 C-2A	Min. thickness 1.0mm	Min. V-0	UL E227299
Alt.	SHENZHEN TONGCHUANGXIN ELECTRONICS CO LTD	TCX	Min. thickness 1.0mm	Min. V-0	UL E250336
Alt.	PACIFIC WIN INDUSTRIAL LTD	PW-02 PW-03	Min. thickness 1.0mm	Min. V-0	UL E 228070
Alt.	Interchangeable	Interchangeable	Min. thickness 1.0mm	Min. V-0	UL approval
Supplementary information: N/A					

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Clause	Requirement + Test	Result - Remark	Verdict

5.1	TABLE: touch current measurement			P
Measured between:		Measured (mA)	Limit (mA)	Comments/conditions
L/N and secondary		0.15	0.25	Terminal A to output connecter
L/N and unearthed enclosure covered with metal foil		0.005	0.25	Terminal A to enclosure with foil
supplementary information:				
Note: 1. Test voltage: 264 Vac, 60 Hz 2. Y-capacitor(s) used in the equipment: CY1 = 2200pF				

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
RI: L/N and secondary circuits		DC	4242	No
RI: L/N and plastic enclosure covered with metal foil		AC	3000	No
RI: Transformer: primary and secondary		AC	3000	No
RI: Transformer: secondary and core		AC	3000	No
FI: Line and Neutral after current fuse (FS1) opened		AC	1500	No
Supplementary information: 1. FI: Functional insulation; BI: Basic insulation; SI: Supplementary insulation; RI: Reinforced insulation. 2. Test voltage a.c. / d.c. 3. The core of transformer (T1) is considered as primary winding. 4. All types of transformer from all manufacturers listed in table 1.5.1 are tested.				

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

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C)				See below.	—
	Power source for EUT: Manufacturer, model/type, output rating				See appended table 1.5.1	—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Tested on model: GT-41083-4012-T2						
BD1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
C1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
U1 pin 1 to pin 2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 3 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 1	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 4	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
US1 pin 3 to pin 8	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin S	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin D	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
Q1 pin D to pin S	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. R1 damaged.
R1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
T1 pin 1 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin CT1 to pin CT2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin 2 to pin 3	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Output	S	264	30min	FS1	0.08	Unit shutdown. No hazards.

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Clause	Requirement + Test				Result - Remark	Verdict
Output	O/L	264	Steady	FS1	0.51	Total testing duration: 9 hours, load to 4.4A then unit shut down. Temp: T1 coil = 100.6°C, U1 = 94.1°C, Ambient = 27.9°C
Tested on model: GT-41083-4024-5.0-T2						
BD1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
C1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
U1 pin 1 to pin 2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 3 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 1	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 4	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
US1 pin 3 to pin 8	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin S	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin D	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
Q1 pin D to pin S	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. R1 damaged.
R1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
T1 pin 1 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin CT1 to pin CT2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin 2 to pin 3	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Output	S	264	30min	FS1	0.08	Unit shutdown. No hazards.

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
Output	O/L	264	Steady	FS1	0.538	Total testing duration: 9 hours, load to 2.75A then unit shut down. Temp: T1 coil = 102.2°C, U1 = 93.9°C, Ambient = 27.9°C
Tested on model: GT-41083-4024-T2						
BD1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
C1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards.
U1 pin 1 to pin 2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 3 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 1	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
U1 pin 4	O	264	30min	FS1	0.08	Unit shutdown. No hazards.
US1 pin 3 to pin 8	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin S	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Q1 pin G to pin D	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
Q1 pin D to pin S	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. R1 damaged.
R1	S	264	<1sec	FS1	>5.3 to 0	Fuse (FS1) opened. No hazards. Q1 damaged.
T1 pin 1 to pin 4	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin CT1 to pin CT2	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
T1 pin 2 to pin 3	S	264	30min	FS1	0.08	Unit shutdown. No hazards.
Output	S	264	30min	FS1	0.08	Unit shutdown. No hazards.

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
Output	O/L	264	Steady	FS1	0.521	Total testing duration: 9 hours, load to 2.2A then unit shut down. Temp: T1 coil = 102.4°C, U1 = 90.7°C, Ambient = 27.7°C
Tested on model: GT-41083-4048-T2						
Output	S	264	10min	FS1	0.03	Unit shutdown. No hazards.
Output	O/L	264	Steady	FS1	0.02	Total testing duration: 8.2 hours, Normal operation at output overload to max. 1.15A. No hazards. Temp: T1 coil = 89.4°C, T1 core = 85.9°C, U1 = 80.1°C,
T1 Pin CT1-CT2 (after D3)	S	264	10min	FS1	0.04	Unit shutdown. No hazards.
T1 Pin CT1-CT2 (after D3)	O/L	264	Steady	FS1	0.03	Total testing duration: 8.7 hours, Normal operation at output overload to max. 1.29A. No hazards. Temp: T1 coil = 92.4°C, T1 core = 90.3°C, U1 = 90.6°C,
Supplementary information: 1) S: Short-circuited; O: Open-circuited; O/L: Overloaded; B: Blocked; L: Locked. 2) Observation: The observations during and after fault condition tests. 3) Damaged: Which component (components) damaged during the fault condition test. 4) Max. Voltage: The maximum accessible voltage of DC output terminal during the fault condition test.						

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

<p align="center">ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment – Safety – Part 1: General requirements</p>			
Differences according to: EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013			
Attachment Form No: EU_GD_IEC60950_1F			
Attachment Originator: SGS Fimko Ltd			
Master Attachment: Date 2014-02			
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EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013 – CENELEC COMMON MODIFICATIONS

IEC 60950-1, 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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
General (A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list: 1.5.7.1 Note 6.1.2.1 Note 2 6.2.2.1 Note 2 EE.3 Note		N/A
General (A2:2013)	Delete all the "country" notes in the reference document (IEC 60950-1:2005/A2:2013) according to the following list: 2.7.1 Note * 2.10.3.1 Note 2 6.2.2. Note * Note of secretary: Text of Common Modification remains unchanged.		N/A
1.1.1 (A1:2010)	Replace the text of NOTE 3 by the following. NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television sets EN 60065 applies.		N/A
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for "one package equipment", and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.		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

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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

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


IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.1 General</p> <p>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.</p> <p>A personal music player is a portable equipment for personal use, that:</p> <ul style="list-style-type: none"> 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. <p>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.</p> <p>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.</p> <p>The requirements in this sub-clause are valid for music or video mode only.</p> <p>The requirements do not apply:</p> <ul style="list-style-type: none"> while the personal music player is connected to an external amplifier; or while the headphones or earphones are not used. <p>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.</p> <p>The requirements do not apply to:</p> <ul style="list-style-type: none"> hearing aid equipment and professional equipment; <p>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.</p>		N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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.</p> <p>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.</p> <p>For equipment which is clearly designed or intended for use by young children, the limits of EN 71-1 apply.</p>		N/A
	<p>Zx.2 Equipment requirements</p> <p>No safety provision is required for equipment that complies with the following:</p> <p>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</p> <p>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.</p> <p>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.</p> <p>All other equipment shall:</p> <p>a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and</p> <p>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</p>		N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.</p> <p>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.</p> <p>d) have a warning as specified in Zx.3; and</p> <p>e) not exceed the following:</p> <p>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</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.3 Warning</p> <p>The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:</p> <ul style="list-style-type: none"> the symbol of Figure 1 with a minimum height of 5 mm; and the following wording, or similar: <p>“To prevent possible hearing damage, do not listen at high volume levels for long periods.”</p>  <p>Figure 1 – Warning label (IEC 60417-6044)</p> <p>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.</p>		N/A
	Zx.4 Requirements for listening devices (headphones and earphones)		N/A
	<p>Zx.4.1 Wired listening devices with analogue input</p> <p>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.</p> <p>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).</p> <p>NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.</p>		N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Zx.4.2 Wired listening devices with digital input</p> <p>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.</p> <p>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.).</p> <p>NOTE An example of a wired listening device with digital input is a USB headphone.</p>		N/A
	<p>Zx.4.3 Wireless listening devices</p> <p>In wireless mode:</p> <p>with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and</p> <p>respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and</p> <p>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.</p> <p>NOTE An example of a wireless listening device is a Bluetooth headphone.</p>		N/A
	<p>Zx.5 Measurement methods</p> <p>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.</p> <p>NOTE Test method for wireless equipment provided without listening device should be defined.</p>		N/A

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	<p>Replace the subclause as follows:</p> <p>Basic requirements</p> <p>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):</p> <p>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;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p>		N/A
	<p>c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p>		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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5.1	<p>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”.</p> <p>In Table 3B, replace the first four lines by the following:</p> <p>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 </p> <p>In the conditions applicable to Table 3B delete the words “in some countries” in condition ^{a)}.</p> <p>In NOTE 1, applicable to Table 3B, delete the second sentence.</p>		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
3.3.4	<p>In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:</p> <p>Over 10 up to and including 16 1,5 to 2,5 1,5 to 4 </p> <p>Delete the fifth line: conductor sizes for 13 to 16 A</p>		N/A
4.3.13.6 (A1:2010)	<p>Replace the existing NOTE by the following:</p> <p>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 (artificial optical radiation).</p>		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	<p>Replace the last paragraph of this annex by:</p> <p>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.</p> <p>Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.</p>		N/A
Bibliography	Additional EN standards.		—

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

IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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
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

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	<p>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:</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p>		N/A
1.7.2.1 (A11:2009)	<p>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.</p> <p>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.</p> <p>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:</p> <p>"Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a connection to protective earthing – and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)."</p>		

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>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.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplede utstyr – og er tilkoplede 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.”</p> <p>Translation to Swedish:</p> <p>”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.”</p>		N/A
1.7.2.1 (A2:2013)	<p>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.</p> <p>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.”</p>		N/A
1.7.5 1.7.5 (A11:2009)	<p>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.</p> <p>For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>		N/A

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.5 (A2:2013)	<p>In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the DS 60884-2-D1:2011.</p> <p>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.</p> <p>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.</p> <p>Justification the Heavy Current Regulations, 6c</p>		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.		N/A
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

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	<p>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:</p> <p>SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A</p> <p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <p>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:</p> <p>SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A</p>		N/A
3.2.1.1	<p>In Denmark, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</p> <p>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.</p> <p>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.</p>		N/A

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1 (A2:2013)	<p>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.</p> <p>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.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Justification the Heavy Current Regulations, 6c</p>		N/A
3.2.1.1	<p>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.</p> <p>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.</p> <p>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.</p> <p>If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.</p>		N/A
3.2.1.1	<p>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.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p>		N/A

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In Ireland , apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		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 mm ² 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
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

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
5.1.7.1	<p>In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment:</p> <ul style="list-style-type: none"> • STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> 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
6.1.2.1 (A1:2010)	<p>In Finland, Norway and Sweden, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>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</p> <ul style="list-style-type: none"> - 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

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).</p> <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. 		N/A
6.1.2.2	In Finland, Norway and Sweden , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		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

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

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

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

<p align="center">National Differences Canada (CA) IEC 60950-1, 2nd ed. + A1+A2</p> <p align="center">(CAN/CSA-C22.2 No 60950-1-07, Amendment 1) Last modification 2012-02-14</p>			
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	SPECIAL NATIONAL CONDITIONS		—
	The following is a summary of the key national differences based on national regulatory requirements, such as the Canadian Electrical Code (CEC) Part I and the Canadian Building Code, which are referenced in legislation and which form the basis for the rules and practices followed in electrical and building installations.		—
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.	Unit was evaluated according to IEC 60950-1. The requirements have to be checked during national approval.	P
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 are required to have special construction features and identification markings.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	<p>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.</p> <p>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."</p>		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
2.7.1	<p>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.</p> <p>Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection.</p>		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
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.	The EUT is not such equipment.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords are required to be no longer than 4.5 m in length. Flexible power supply cords are required to be compatible with Tables 11 and 12 of the CEC and Article 400 of the NEC.		N/A
3.2.9	Permanently connected equipment is required to have a suitable wiring compartment and wire bending space.	The EUT is not such equipment.	N/A
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.	No wiring terminal	N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for Canadian/US wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified (1.7.7).		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).	No such device	N/A
3.4.8	Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position.	No such device	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
4.3.12	The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30.	No such material within the EUT	N/A
4.3.13.5	Equipment with lasers is required to meet the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations 21 CFR 1040, as applicable.		N/A
4.7	For computer room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A



IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		N/A
Annex H	Equipment that produces ionizing radiation is required to comply with the Canadian Radiation Emitting Devices Act, REDR C1370 and/or Code of Federal Regulations, 21 CFR 1020, as applicable.		N/A
	OTHER DIFFERENCES The following key national differences are based on requirements other than national regulatory requirements		—
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	Critical components are IEC/EN/UL certified. See list of critical components. There may be additional requirements for components in Canada.	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.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		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
2.6.3.3	The current rating of the circuit shall be taken as 20 A not 16 A		N/A
2.6.3.4	Protective bonding conductors of non-standard protective bonding constructions (e.g., printed circuit traces) may be subjected to the additional limited short circuit test conditions specified.		N/A
4.2.8.1	Enclosures around CRTs with a face diameter of 160 mm or more are required to reduce the risk of injury due to the implosion of the CRT.	No such device within the EUT	N/A
4.3.2	Equipment with handles is required to comply with special loading tests.		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
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

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



<p align="center">National Differences China (CN) IEC 60950-1, 2nd ed.</p> <p align="right">(GB 4943.1:2011) Last modification 2013-09-26</p>			
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1.1.2	Revise the third dashed paragraph as: —equipment intended to be used in vehicles, on board ships or aircraft, at altitudes greater than 5000m;		P
1.4.5	At the end of the third dashed paragraph ,added following paragraph: If the equipment is intended for direct connection to an AC mains supply, the tolerances on RATED VOLTAGE shall be taken as +10%,-10% unless a wider tolerance is declared by the manufacturer. Delete the contents which behind the first dash.		N/A
1.4.12.1	Tma in clause 1.4.12.1 amended as: Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 35 °C, whichever is greater. Add note 1: For equipment not to be operated at tropical climatic conditions, Tma: is the maximum ambient temperature permitted by the manufacturer's specification, or 25 °C, whichever is greater. Add note 2: For equipment is to be operated at 2000m-5000m above sea leave, its temperature test conditions and temperature limits are under consideration.		P
1.5. 2	Add a note behind the first break off section in Clause 1.5.2: A component used shall comply with related requirements corresponding altitude of 5000m.		P
1.7	Add one paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	Considered when national approve.	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	<p>Based on the AC mains supply of China, the RATED VOLTAGE should be 220V (single phase) or 380V (three-phases) for single rated voltage, for RATED VOLTAGE RANGE, it should cover 220V or 380V (three-phases), for multiple RATED VOLTAGES, one of them should be 220V or 380V (three-phases) and set on 220V or 380V (three-phases) when manufactured.</p> <p>And the RATED FREQUENCY or RATED FREQUENCY RANGE should be 50Hz or include 50Hz.</p>		P
1.7.2.1	<p>Add requirements of warning for equipment intended to be used at altitudes not exceeding 2000m or at non-tropical climate regions: For equipment intended to be used at altitude not exceeding 2000m, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used at altitude not exceeding 2000m."</p>  <p>For equipment intended to be used in not-tropical climate regions, a warning label containing the following or a similar appropriate wording, or a symbol as in annex DD shall fixed to the equipment at readily visible place. "Only used in not-tropical climate regions."</p>  <p>If only the symbol used, the explanation of the symbol shall be contained in the instruction manual. The above statements shall be given in a language acceptable to the regions where the apparatus is intended to be used.</p>		P
2.7.1	<p>Amended the first paragraph as: Protection in PRIMARY CIRCUITS against overcurrent short-circuits and earth faults shall be provided as an integral part of the equipment except special provisions. And the protective device shall meet the requirement of Clause 5.3.</p> <p>Delete note of Clause 2.7.1.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.2	<p>First section of Clause 2.9.2 amended as two sections:</p> <p>Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 120 h in a cabinet or room containing air with ambient temperature $40\pm 2^{\circ}\text{C}$ and a relative humidity of $(93\pm 3)\%$. During this conditioning the component or subassembly is not energized.</p> <p>For equipment not to be operated at tropical climatic conditions, Where required by 2.9.1, 2.10.8.3, 2.10.10 or 2.10.11, humidity conditioning is conducted for 48 h in a cabinet or room containing air with a relative humidity of $(93\pm 3)\%$. The temperature of the air, at all places where samples can be located, is maintained within 2°C of any convenient value between 20°C and 30°C such that condensation does not occur.</p> <p>Due to pretreatment of equipment operated at high altitude area is humidity conditioning withstand hot shock, specific requirements are to be considered.</p> <p>Add note: For equipment to be operated at 2000 m - 5000m above sea level, assessment and requirement of humidity conditioning for Insulation material properties are considered.</p>		P
2.10.3.1	<p>Amend the third paragraph of Clause 2.10.3.1 to be:</p> <p>These requirements apply for equipment to be operated up to 2000 m above sea level. For equipment to be operated at more than 2000 m above sea level and up to 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of IEC 60664-1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.</p>		P
2.10.3.3& 2.10.3.4	Add "(applicable for altitude up to 2000m)" in header of Table 2K, 2L and 2M.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.4	Add a new section above Table 2K and in Clause 2.10.3.4: Minimum CLEARANCES determined by above rules apply for equipment to be operated up to 2000m above sea level. For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1 (IEC 60664-1) . For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of GB/T16935.1.	See table 2.10.3 and 2.10.4	P
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.		N/A
4.2.8	Clause 4.2.8 cathode ray tubes quoted Clause 18 of GB8898-2011. Delete note of Clause 4.2.8.		N/A
Annex E	Last section of Annex E amended as: For comparison of winding temperatures determined by the resistance method of this annex with the temperature limits of Table 4B, 35 °C shall be added to the calculated temperature rise. And add note: for equipment not to be operated at tropical climatic conditions, 25 °C shall be added to the calculated temperature rise to compare with the temperature of Table 4B.		N/A
Annex G.6	Change the second section of Clause G.6 to be: For equipment to be operated at 2000 m - 5000m above sea level, the minimum CLEARANCE shall be multiplied by the factor 1.48 corresponding altitude of 5000m given in Table A.2 of GB/T16935.1. For equipment to be operated at more than 5000 m above sea level, the minimum CLEARANCE shall be multiplied by the factor given in Table A.2 of IEC 60664-1. Linear interpolation is permitted between the nearest two points in Table A.2. The calculated minimum CLEARANCE using this multiplication factor shall be rounded up to the next higher 0,1 mm increment.		P
Annex BB (informative)	Amended as : The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Annex DD (normative)	<p>Added annex DD: Instructions for the new safety warning labels.</p> <p>DD.1 Altitude warning label</p>  <p>Meaning of the label: Evaluation for apparatus only based on altitude not exceeding 2000m, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used at altitude above 2000m.</p> <p>DD.2 Climate warning label</p>  <p>Meaning of the label: Evaluation for apparatus only based on temperate climate condition, therefore it's the only operating condition applied for the equipment. There may be some potential safety hazard if the equipment is used in tropical climate region.</p>		P
Annex EE (informative)	Added annex EE: Illustration relative to safety explanation in normative Chinese, Tibetan, Mongolian, Zhuang Language and Uighu.		N/A
Other amendments	In accordance with the relevant CTL decisions and the amendments of IEC 60950-1, the specific requirements or mistakes in IEC standard are corrected or editorially modified in this part, Including clause 1.7, 2.1.1.7, 2.9.2, Table 2H, Figure 2H, F.8, F.9, M.3 and Annex U.		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Quoting standards and reference documents	<p>The principles of quoting and referring to other standards in Annex P and reference documents of IEC 60950-1 are as follows:</p> <p>If the date of the reference document is given, only that edition applies, excluding any subsequent corrigenda and amendments. However, parties to agreements based on this part are encouraged to investigate the possibility of applying the most recent editions of the reference documents. For undated references, the latest edition of the referenced document applies, including any corrigenda and amendments.</p> <p>For the usage of international standards in Chinese national standards and industry standards is various, in the aim of achieving easy operation and based on the requirements of GB/T 1.1 and GB/T 20000.2, when quoting an entire international standard in the normative quoting files and reference documents of Annex P of this part, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted; - If the date of the national standard or industry standard is not given, the latest edition of the standard applies; - The national standard or industry standard number, corresponding international standard number and the consistency level code should be identified in parentheses behind the listed national standard or industry standard. <p>When quoting several chapters or clauses of the international standard, the principles of quotation are as follows:</p> <ul style="list-style-type: none"> - If there is no national standard or industry standard corresponding to the international standard, then the international standard is quoted; - If there is national standard or industry standard corresponding to the international standard, then either the national or industry standard is quoted. <p>Meanwhile, in order to retain the relevant information on international standards, informative annex CC is increased, which gives the table about the comparison of the normative quoting files and reference documents in IEC 60950-1: 2005 and GB 4943.1-2011.</p>		P

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

	<p>National Differences Korea (KR) IEC 60950-1, 2nd ed.; Am1: 2009</p> <p>(K 60950-1) Last modification 2012-05-31</p>		
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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.	To be evaluated when submitted for the national approval.	—

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

<p align="center">National Differences Japan (JP) IEC 60950-1:2005+A1:2009.</p> <p align="right">J60950-1(H27) (=JIS C 6950-1:2014)</p>		
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1.2.4.1	<p>Replace the existing NOTE as NOTE 1, and add NOTE 2 as following:</p> <p>NOTE 2: Even if the equipment is designed as CLASS I EQUIPMENT, if a 2-pin plug adaptor with a protective earthing lead wire (adaptor which converts a plug for CLASS I EQUIPMENT to a 2-pin plug with no earthing contact) or a cord set having a 2-pin plug with a protective earthing lead wire is packed as accessory together with the equipment or if use of those is recommended to the users, the equipment is considered as CLASS 0I EQUIPMENT.</p>		P
1.2.4.3A	<p>Add 1.2.4.3A as following:</p> <p>1.2.4.3A CLASS 0I EQUIPMENT</p> <p>Equipment having a mains plug without earthing contact, which protection against electric shock is achieved by:</p> <ul style="list-style-type: none"> - using BASIC INSULATION; and - for the measures to connect conductive part(s) regarded as part at HAZARDIOUS VOLTAGE in the event of fault of BASIC INSULATION to PROTECTIVE EARTHING CONDUCTOR, equipping any one of the following: <ul style="list-style-type: none"> a) mains plug with a protective earthing lead wire, this includes the following cases: <ul style="list-style-type: none"> - where a 2-pin plug adaptor with a protective earthing lead wire is packed as accessory together with the equipment; or - where use of it is recommended. b) independent protective earthing terminal (see 2.6.5.8A) if the equipment uses a power supply cord of two conductors (exclude earthing conductor) <p>NOTE - CLASS 0I EQUIPMENT may have a part constructed with DOUBLE INSULATION or REINFORCED INSULATION.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.3.2	<p>Add the following NOTES after first paragraph:</p> <p>NOTE 1 TRANSPORTABLE or similar equipment that are relocated frequently for intended usage it is recommended not to design as CLASS I or CLASS 0I EQUIPMENT unless it is intended to be installed by a SERVICE PERSON or installation personnel.</p> <p>NOTE 2 Considering wiring circumstance in Japan, equipment intended to be installed where the provision for earthing connection is unlikely should not be designed as CLASS I or CLASS 0I EQUIPMENT unless it is intended to be installed by a SERVICE PERSON or installation personnel.</p>		N/A
1.5.1	<p>Replace the first paragraph with the following:</p> <p>Where safety is involved, components shall comply either with the requirements of this standard, with the safety aspects of the relevant JIS component standards, or IEC component standards in case there is no applicable JIS component standard available. However, a component that falls within the scope of METI Ministerial ordinance No. 85 is properly used in accordance with its marked ratings, requirements of 1.5.4, 2.8.7 and 3.2.5 apply, and in addition, for connector of power cord set which is capable of insertion to one of appliance inlets specified in either IEC 60320-1 or JIS C 8283-1, the connector shall comply with the dimensions of the appropriate connector specified in IEC 60320-1 or JIS C 8283-1.</p> <p>Replace NOTE 1 with the following:</p> <p>NOTE 1 A JIS or an IEC component standard is considered relevant only if the component in question clearly falls within its scope.</p>		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.2	<p>Replace first sentence in the first dashed paragraph with the following:</p> <ul style="list-style-type: none"> - a component that has been demonstrated to comply with a JIS component standard harmonized with the relevant IEC component standard, or where such JIS component standard is not available, a component that has been demonstrated to comply with the relevant IEC component standard shall be checked for correct application and use in accordance with its rating. <p>Replace existing NOTE to NOTE 1 without modification of the sentence in the second dashed paragraph.</p> <p>Replace “where no relevant IEC component standard exists” to “where neither the relevant IEC component standard nor JIS standard corresponding to the relevant IEC component standard exists” in the third dashed paragraph.</p> <p>Add NOTE 2 as follows: NOTE 2 If an appliance inlet with a rated current of 10A, which is of STANDARD SHEET C14 specified in JIS C 8283-1, is used for equipment with a rated voltage of 125V or less; and with a rated current of exceeding 10A, refer to 1.7.5A.</p>		P
1.5.9.1	<p>General</p> <p>Replace the following at first dash of NOTE 2:</p> <p>JIS C5381-21 [Part 21 of Low pressure surge protection device : Performance requirement and test method of surge protection device (SPD) which connected with communication channel and signal]</p>		N/A
1.5.9.4	<p>Add the following at last paragraph:</p> <p>It is permitted to use a gas discharge tube (GDT) in series with a VDR that bridges BASIC INSULATION in accordance with the conditions in this subclause if the GDT complies with the requirements for FUNCTIONAL INSULATION.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1	Replace the existing dashed items for manufacturer's name etc. and for model identification etc. with the following respectively: - manufacturer's (or responsible business operator's) name or trade-mark or identification mark; - manufacturer's (or responsible business operator's) model identification or type reference; In the last paragraph, replace "ISO 7000 or IEC 60417" with "JIS S 0101, ISO 7000 or IEC 60417".		P
1.7.2.1	Add the following: Instructions and the marking(s) on equipment, which related to safety, shall be made in Japanese.	Considered when national approve.	N/A
1.7.5	Replace IEC 60083 with JIS C 8303 in the second paragraph.		N/A
1.7.5A	Add the following new clause after 1.7.5 1.7.5.A Power supply cord set If an appliance inlet with a rated current of 10 A, which is of STANDARD SHEET C14 specified in JIS C 8283-1, is used for equipment with a rated voltage of 125 V or less and with a rated current of exceeding 10 A, the operating instructions shall provide the following or equivalent instruction: “この機器に同こん（梱）した指定の電源コードセットだけを使用する。” For equipment with an appliance inlet, if a power supply cord set is not provided by packing together with the equipment, the operating instructions shall provide information on the applicable power supply cord set. NOTE For the combination of CLASS 0I EQUIPMENT equipped with an appliance inlet with earthing contact and a power supply cord set of two conductors (exclude earthing conductor), to pack the power supply cord set together with the equipment and to provide a sentence calling attention of the following purport in the operating instructions are recommended, because such power supply cord set is a special kind of cord set: - this is usable only for this equipment; and - to use this for other equipment is not allowed.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.14A	<p>Add the following new clause after 1.7.14</p> <p>1.7.14A Marking for protective earthing connection for CLASS 0I EQUIPMENT</p> <p>CLASS 0I EQUIPMENT shall be provided with the following or equivalent instruction:</p> <ul style="list-style-type: none"> - on the mains-plug or the easily visible section of equipment, the following instruction: 必ず接地接続を行って下さい。 - in the easily visible section of equipment or in the operating instructions, the following instruction: 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。 また、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。 		N/A
1.7.14B	<p>Add the following new clause after 1.7.14</p> <p>1.7.14B Protective earth wire used for CLASS 0I EQUIPMENT</p> <p>For CLASS 0I EQUIPMENT equipped with a separate protective earthing terminal as main protective earthing terminal, if a protective earth wire is not provided by packing together with the equipment, the operating instructions shall provide information on the applicable protective earth wire. (See 2.6.3.2.)</p>		N/A
2.1.1.1	<p>In b) of the fifth paragraph, replace “IEC 60083, IEC 60309, IEC 60320, IEC 60906-1 or IEC 60906-2” with “JIS C 8303, (the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials, METI Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards”.</p>		N/A
2.6.3.2	<p>Add the following:</p> <p>If the conductor of protective earthing lead wire or the protective earth wire of CLASS 0I EQUIPMENT is of single-core, it shall be one of the following:</p> <ul style="list-style-type: none"> - annealed copper wire of 1,6 mm in diameter, or metallic wire having the same or more strength and diameter and being not easily corrosive; or - single-core cord or single-core cable (sheathed flexible cable), which have a cross-sectional area of at least 1,25 mm². 		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.5	Add the following: However, this requirement does not apply to the inside conductor of power supply cord (or power supply cord set), which has been molded together with a plug and a connector and has been sheathed.		N/A
2.6.4.2	Add the following: For CLASS 0I EQUIPMENT equipped with a separate protective earthing terminal, the protective earthing terminal may be used as the main protective earthing terminal.		N/A
2.6.5.4	Replace 1st sentence with the following. "Protective earthing conductors" with "Protective earthing conductors of CLASS I EQUIPMENT".		N/A
2.6.5.6	Replace "protective earthing terminals" with "protective earthing and protective bonding terminals".		N/A
2.6.5.8A	Add the following new clause. after 2.6.5.8A 2.6.5.8A Earthing of CLASS 0I EQUIPMENT Plugs with a lead wire for earthing shall not be used for equipment having a rated voltage exceeding 150V. For plugs with a lead wire for earthing, the lead wire shall not be earthed by a clip. CLASS 0I EQUIPMENT shall be provided with an earthing terminal or lead wire for earthing in the external location where easily visible.		N/A
2.9.3 Table 2H	Deleted the following mark of Figure 2H: B13 e) and S2 d)		N/A
2.9.3 Figure 2H	Addition of marking for table 2H: B8, B9, B12, B13, S1		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.3.1	<p>In the third paragraph, replace IEC 60664-1 with JIS C 60664-1.</p> <p>Replace the 8th paragraph with the following: The above minimum CLEARANCES for connectors do not apply to:</p> <ul style="list-style-type: none"> - connectors that comply with JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards or JIS C 8303; and - connectors that comply with the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), and comply with the dimensions specified in the JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2; see also 1.5.2. 		P
2.10.3.2	<p>In the bottom column of Table 2J, add the following: In Japan, the MAINS TRANSIENT VOLTAGE value against the nominal AC MAINS SUPPLY voltage of 100 V is decided by applying the columns for the AC MAINS SUPPLY voltage of 150 V.</p>		P
2.10.3.3	<p>In Table 2L, add the following into the column specifying the additional CLEARANCES and at the end: For intermediate voltage values between the PEAK WORKING VOLTAGE values given in this table, linear interpolation is permitted between the nearest two points, the calculated additional minimum CLEARANCE being rounded up to the next higher 0,1 mm increment.</p>		P
2.10.4.3	<p>Replace the 6th paragraph with the following: The above minimum CLEPAGE DISTANCES for connectors do not apply to:</p> <ul style="list-style-type: none"> - connectors that comply with JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards or JIS C 8303; and - connectors that comply with the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), and comply with the dimensions specified in the JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2; see also 1.5.2. 		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.9	Replace clause which as test method of T' from 1.4.5 to 1.4.12.		P
3.2.1.1	Add the following: When equipment with an appliance inlet connects to AC mains supply, see clause 1.7.5A for the relevant mark of power supply cord set.		N/A
3.2.3	Add the following after Table 3A: Table 3A applies when cables complying JIS C 3662 or JIS C 3663 are used. In case of other cables, cable entries shall be so designed that a conduit suitable for the cable used can be fitted.		N/A
3.2.4	Add the following: The equipment shall have a structure of which the soldered sections of the terminals of appliance inlet are not subjected to mechanical stress during the insertion or removal of the connector, except the case fixing the appliance inlet itself mechanically but not only by soldering.		N/A
3.2.5.1	At the end of the first dashed item, replace “; and” with “, or be a sheathed cord complying with Appendix 1 specified in the Interpretation for the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013) ; and”.		N/A
	In the second dashed item, replace “insulated:” with “insulated, be a cord of the following or be a sheathed cord complying with Appendix 1 specified in the Interpretation for the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013), :”		N/A
	In the third dashed item, add the following: However, the coating of the protective earth conductor inside covered with sheath (cord set) power cord integrally formed with the connector and the plug need not be a combination of green and yellow. In addition, the power cord of CLASS OI EQUIPMENT having a protective earth conductor separately, it is not necessary to provide a protective earth conductor.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>Replace the existing fourth dashed item with the following:</p> <ul style="list-style-type: none"> - if those complying with JIS C 3662-5 or JIS C 3663-4, have conductors with cross-sectional areas not less than those specified in Table 3B, and if others, comply with the relevant wiring rules. <p>In Table 3B, replace "IEC 60320" with "the JIS C8283 series of standards or the IEC 60320 series of standards".</p>		N/A
3.3.4	<p>Add the following note to Table 3D:</p> <p>For cables other than those complying with JIS C 3662 or JIS C 3663, terminals shall be suitable for the size of the intended cables.</p>		N/A
3.3.7	<p>Add the following after the first sentence:</p> <p>This requirement is not applicable to the external earthing terminal of CLASS 0I EQUIPMENT.</p>		N/A
4.3.4	<p>Add the following after the first sentence:</p> <p>This requirement also applies to those connections in CLASS 0I EQUIPMENT, where CLEARANCE or CREEPAGE DISTANCES of BASIC INSULATION would be reduced to less than the values specified in 2.10.</p>		N/A
4.3.5	<p>In the paragraph, replace "IEC 60083 or IEC 60320" with "the JIS C 8283 series of standards, JIS C 8303 or JIS C 8358".</p>		N/A
4.5.3	<p>In the item b in Table 4B, add the following:</p> <p>NOTE If no data of material is available, Appendix 4, 1(1),^p,3 specified in the Interpretation for "the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials MEIT Ordinance No. 85, Clause 1 (METI Ordinance No. 34 of 2013)" is applicable.</p> <p>In the item c in Table 4B, replace IEC 60085 with JIS C 4003.</p>		N/A
5.1.3	<p>Add a note after the first paragraph as follows:</p> <p>NOTE In Japan, three-phase power distribution systems of delta connection are typical, therefore, in such case, test is conducted using the test circuit from IEC 60990, figure 13.</p>		N/A
5.1.6	<p>Replace Table 5A as follows</p>		P

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Clause	Requirement + Test		Result - Remark	Verdict	
	Type of equipment		Terminal A of measuring instrument connected to:	Maximum TOUCH CURRENT mA r.m.s.^a	Maximum PROTECTIVE CONDUCTOR CURRENT
	All equipment		Accessible parts and circuits not connected to protective earth ^b	0,25	–
	HAND-HELD	Class I equipment main protective earthing terminal		0,75	–
		Class 0I equipment main protective earthing terminal		0,5	–
	MOVABLE (other than HAND-HELD, but including TRANSPORTABLE EQUIPMENT)	Class I equipment main protective earthing terminal		3,5	–
		Class 0I equipment main protective earthing terminal		1,0	–
	STATIONARY, PLUGGABLE TYPE A	Class I equipment main protective earthing terminal		3,5	–
		Class 0I equipment main protective earthing terminal		1,0	–
	All other STATIONARY EQUIPMENT – not subject to the conditions of 5.1.7 – subject to the conditions of 5.1.7	Class I equipment main protective earthing terminal		3,5 –	– 5 % of input current
		Class 0I equipment main protective earthing terminal		1,0 –	– –
	^a If peak values of TOUCH CURRENT are measured, the maximum values are obtained by multiplying the r.m.s. values in the table by 1,414.				
	^b Some unearthed accessible parts are covered in 1.5.6 and 1.5.7 and the requirements of 2.4 apply. These may be different from those in 5.1.6.				
	6	Add following in the end of NOTE 1: For suitable additional measures, see Annex JB.			P
6.1.2.1	Add the following: NOTE 3 For example, the highest nominal voltage is 230 V in Europe and 120 V in North America.			P	
Annex G.6	Replace the existing 8 th paragraph with the following: The above minimum CLEARANCES for connectors do not apply to: <ul style="list-style-type: none">- connectors that comply with JIS C 8285, the IEC 60309 series of standards, the JIS C 8283 series of standards, the IEC 60320 series of standards or JIS C 8303; and- connectors that with the Ministerial Ordinance establishing Technical Requirements for Electrical Appliances and Materials (MEIT Ordinance No. 34 of 2013) and comply with the dimensions specified in the JIS C 8283 series of standards, JIS C 8303 or IEC 60309-2; see also 1.5.2.			N/A	


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Clause	Requirement + Test	Result - Remark	Verdict
Annex M	In M.1, replace the existing paragraph with the following: One of the two methods specified in this annex shall be applied. NOTE Method A specified in the annex is typical of analogue telephone network in Europe and Method B of those in North America.		N/A
Annex P	Replace the existing Annex P with the following:		P
	<p style="text-align: center;">Annex P (normative)</p> <p style="text-align: center;">Normative references</p> <p>The following reference documents are indispensable for the application of this standard. If the date of the reference document is given, only that edition applies, and any newer edition and subsequent amendments do not apply. If the date of the reference document is not given, the latest edition including the amendments applies.</p> <p>Further information on the reference documents, including how to obtain copies, can be found on the following internet sites:</p> <p style="text-align: center;"> http://www.jisc.go.jp/ http://www.iec.ch http://www.iso.org http://www.itu.int </p> <p>JIS B 0205-2, ISO general purpose metric screw threads - Part2: General plan NOTE Corresponding IS: ISO 261, ISO general purpose metric screw threads – General plan (IDT)</p> <p>JIS B 0205-3, ISO general purpose metric screw threads - Part3 : Selected sizes for screws, bolts and nuts NOTE Corresponding IS: ISO 262, ISO general purpose metric screw threads - Selected sizes for screws, bolts and nuts (IDT)</p> <p>JIS C 0448, Coding of indicating devices and actuators by colours and supplementary means NOTE Corresponding IS: IEC 60073, Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicator devices and actuators (IDT)</p> <p>JIS C 2134, Method for the determination of the proof and the comparative tracking indices of solid insulating materials NOTE Corresponding IS: IEC 60112, Method for the determination of the proof and the comparative tracking indices of insulating materials (IDT)</p> <p>JIS C 3215 (all parts), Specifications for particular types of winding wires NOTE Corresponding IS: IEC 60317 (all parts), Specifications for particular types of winding wires (IDT)</p> <p>JIS C 3661-1:1998, Electrical test methods for electric cables - Part 1: Electrical tests for cables, cords and wires for voltages up to and including 450/750V NOTE Corresponding IS: IEC 60885-1:1987, Electrical test methods for electric cables. Part 1: Electrical tests for cables, cords and wires for voltages up to and including 450/750 V (IDT)</p> <p>JIS C 3662 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V - Part 1 : General requirements NOTE Corresponding IS: IEC 60227 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V (MOD)</p> <p>JIS C 3663 (all parts), Rubber insulated cables - Rated voltages up to and including 450/750 V NOTE Corresponding IS: IEC 60245 (all parts), Rubber insulated cables - Rated voltages up to and including 450/750 V (MOD)</p> <p>JIS C 4003, Electrical insulation-Thermal evaluation and designation NOTE Corresponding IS: IEC 60085:2004, Electrical insulation - Thermal classification (MOD)</p> <p>JIS C 4526-1:2005, Switches for appliances - Part 1: General requirements NOTE Corresponding IS: IEC 61058-1:2000, Switches for appliances - Part 1: General requirements (MOD)</p> <p>JIS C 5101-14:2009, Fixed capacitors for use in electronic equipment - Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains NOTE Corresponding IS: IEC 60384-14:2005, Fixed capacitors for use in electronic equipment - Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (IDT)</p> <p>JIS C 6065:2007 and Amendment 1:2009, Audio, video and similar electronic apparatus - Safety requirements</p>		

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>NOTE Corresponding IS: IEC 60065:2001, Audio, video and similar electronic apparatus - Safety requirements and Amendment 1:2005 (MOD)</p> <p>JIS C 6802, Safety of laser products</p> <p>NOTE Corresponding IS: IEC 60825-1, Safety of laser products-Part 1: Equipment classification and requirements (IDT)</p> <p>JIS C 6803, Safety of laser products-Safety of optical fiber communication systems</p> <p>NOTE Corresponding IS: IEC 60825-2, Safety of laser products-Part 2: Safety of optical fiber communication systems (OFCS) (IDT)</p> <p>JIS C 6804, Safety of laser products-Safety of free space optical communication systems used for transmission of information</p> <p>NOTE Corresponding IS: IEC 60825-12, Safety of laser products - Part 12: Safety of free space optical communication systems used for transmission of information (IDT)</p> <p>JIS C 8201-1:2007, Low-voltage switchgear and controlgear-Part 1: General rules</p> <p>NOTE Corresponding IS: IEC 60947-1:2004, Low-voltage switchgear and controlgear - Part 1: General rules (MOD)</p> <p>JIS C 8283 (all parts), Appliance couplers for household and similar general purposes</p> <p>NOTE Corresponding IS: IEC 60320 (all parts), Appliances couplers for household and similar general purposes (MOD)</p> <p>JIS C 8285, Plugs, socket-outlets and couplers for industrial purposes</p> <p>NOTE Corresponding IS: IEC 60309-1, Plugs, socket-outlets and couplers for industrial purposes - Part 1: General requirements (MOD)</p> <p>JIS C 8303, Plugs and receptacles for domestic and similar general use</p> <p>JIS C 8358:1994, Appliance couplers for domestic and similar use</p> <p>JIS C 9730-1:2010, Automatic electrical controls for household and similar use - Part 1:General requirements</p> <p>NOTE Corresponding IS: IEC 60730-1:1999, Automatic electrical controls for household and similar use - Part 1: General requirements and Amendment 1:2003 (MOD)</p> <p>JIS C 60068-2-78, Environmental testing - Test Cab:Damp heat,steady state</p> <p>NOTE Corresponding IS: IEC 60068-2-78, Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state (IDT)</p> <p>JIS C 60364-1:2006, Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions</p> <p>NOTE Corresponding IS: IEC 60364-1:2001, Electrical installations of buildings - Part 1: Fundamental principles, assessment of general characteristics, definitions (IDT)</p> <p>JIS C 60664-1:2009, Insulation coordination for equipment within low-voltage systems - Part 1:Principles,requirements and tests</p> <p>NOTE Corresponding IS: IEC 60664-1:1992, Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests, Amendment 1:2000 and Amendment 2:2002 (IDT)</p> <p>JIS C 60695-2-11, Fire hazard testing - Glow-wire flammability test method for end-products</p> <p>NOTE Corresponding IS: IEC 60695-2-11, Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products (IDT)</p> <p>JIS C 60695-2-20, Fire hazard testing - Part 2 : Glowing /Hot wire based test methods - Section 20 : Hot-wire coil ignitability test on materials</p> <p>NOTE Corresponding IS: IEC/TS 60695-2-20, Fire hazard testing - Part 2-20: Glowing/hot wire based test methods - Hot-wire coil ignitability - Apparatus test method and guidance (IDT)</p> <p>JIS C 60695-10-2, Fire hazard testing-Part 10-2: Abnormal heat-Ball pressure test</p> <p>NOTE Corresponding IS: IEC 60695-10-2, Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test (IDT)</p> <p>JIS C 60695-11-5:2007, Fire hazard testing-Part 11-5:Test flames-Needle-flame test method - Apparatus, confirmatory test arrangement and guidance</p> <p>NOTE Corresponding IS: IEC 60695-11-5:2004, Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance (IDT)</p> <p>JIS C 60695-11-10, Fire hazard testing-Part 11-10:Test flames - 50 W horizontal and vertical flame test methods</p> <p>NOTE Corresponding IS: IEC 60695-11-10, Fire hazard testing - Part 11-10: Test flames - 50 W horizontal and vertical flame test methods (IDT)</p> <p>JIS C 60695-11-20, Fire hazard testing-Part 11-20: Test flames - 500 W flame test methods</p> <p>NOTE Corresponding IS: IEC 60695-11-20, Fire hazard testing - Part 11-20: Test flames - 500 W flame test methods (IDT)</p> <p>JIS C 7550:2011, Safety for lighting of lamp and lamp system on biology</p> <p>JIS C 60695-10-3:2005, Fire resistance test – Electrical . Electronic – Part 10-3 : Thermal caused abnormal – Deformation test of molded stress after released</p> <p>NOTE Corresponding IS: IEC 60695-10-3:2002, Fire hazard testing – Part 10-3 : Abnormal heat – Mould stress</p>		

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>relief distortion test (IDT)</p> <p>JIS K 7110, Plastics - Determination of Izod impact strength NOTE Corresponding IS: ISO 180, Plastics - Determination of Izod impact strength (MOD)</p> <p>JIS K 7111 (all parts), Plastics-Determination of Charpy impact properties - Part 1: Non-instrumented impact test NOTE Corresponding IS: ISO 179 (all parts), Plastics - Determination of Charpy impact properties (MOD)</p> <p>JIS K 7127, Plastics - Determination of tensile properties - Part 3 : Test conditions for films and sheets NOTE Corresponding IS: ISO 527-3, Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets (IDT)</p> <p>JIS K 7160, Plastics - Determination of tensile-impact strength NOTE Corresponding IS: ISO 8256, Plastics - Determination of tensile-impact strength (IDT)</p> <p>JIS K 7161, Plastics - Determination of tensile properties - Part 1 : General principles NOTE Corresponding IS: ISO 527-1, Plastics - Determination of tensile properties - Part 1: General principles (IDT)</p> <p>JIS K 7162, Plastics - Determination of tensile properties - Part 2 : Test conditions for moulding and extrusion plastics NOTE Corresponding IS: ISO 527-2, Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics (IDT)</p> <p>JIS K 7164, Plastics - Determination of tensile properties - Test conditions for isotropic and orthotropic fibre-reinforced plastic composites NOTE Corresponding IS: ISO 527-4, Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastic composites (MOD)</p> <p>JIS K 7165, Plastics-Determination of tensile properties-Part 5: Test conditions for unidirectional fibre-reinforced plastic composites NOTE Corresponding IS: ISO 527-5, Plastics - Determination of tensile properties - Part 5: Test conditions for unidirectional fibre-reinforced plastic composites (MOD)</p> <p>JIS K 7171, Plastics - Determination of flexural properties NOTE Corresponding IS: ISO 178, Plastics - Determination of flexural properties (IDT)</p> <p>JIS K 7241, Cellular plastics-Determination of horizontal burning characteristics of small specimens subjected to a small flame NOTE Corresponding IS: ISO 9772, Cellular plastics - Determination of horizontal burning characteristics of small specimens subjected to a small flame (IDT)</p> <p>JIS K 7341, Plastics-Determination of burning behaviour of thin flexible vertical specimens in contact with a small-flame ignition source NOTE Corresponding IS: ISO 9773, Plastics - Determination of burning behaviour of thin flexible vertical specimens in contact with a small-flame ignition source (IDT)</p> <p>JIS K 7350-1, Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance NOTE Corresponding IS: ISO 4892-1, Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance (IDT)</p> <p>JIS K 7350-2, Plastics - Methods of exposure to laboratory light sources - Part 2 : Xenon-arc lamps NOTE Corresponding IS: ISO 4892-2, Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (MOD)</p> <p>JIS K 7350-4, Plastics - Methods of exposure to laboratory light sources - Part 4: Open-flame carbon-arc lamps NOTE Corresponding IS: ISO 4892-4, Plastics - Methods of exposure to laboratory light sources - Part 4: Open-flame carbon-arc lamps (MOD)</p> <p>JIS S 0101:2000, Graphical warning symbols for consumers</p> <p>TS C 60695-11-3, Fire hazard testing - Part 11-3: Test flames - 500 W flames - Apparatus and confirmational test methods NOTE Corresponding IS: IEC 60695-11-3, Fire hazard testing - Part 11-3: Test flames - 500 W flames - Apparatus and confirmational test methods (IDT)</p> <p>TS C 60695-11-4, Fire hazard testing - Part 11-4: Test flames - 50 W flames - Apparatus and confirmational test methods NOTE Corresponding IS: IEC 60695-11-4, Fire hazard testing - Part 11-4: Test flames - 50 W flames - Apparatus and confirmational test methods (IDT)</p> <p>IEC 60216-4-1, Electrical insulating materials - Thermal endurance properties - Part 4-1: Ageing ovens - Single-chamber ovens</p> <p>IEC 60309 (all parts), Plugs, socket-outlets and couplers for industrial purposes</p> <p>IEC 60317 (all parts), Specifications for particular types of winding wires</p> <p>IEC 60317-43, Specifications for particular types of winding wires - Part 43: Aromatic polyimide tape wrapped round copper wire, class 240</p>		

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Clause	Requirement + Test	Result - Remark	Verdict
	<p>IEC 60320 (all parts), Appliance couplers for household and similar general purposes IEC 60417-DB:2002, Graphical symbols for use on equipment (For DB, see the online database of the IEC.) IEC 60747-5-5, Semiconductor devices - Discrete devices - Part 5-5: Optoelectronic devices – Photocouplers IEC/TR 60825-9, Safety of laser products - Part 9: Compilation of maximum permissible exposure to incoherent optical radiation IEC 60851-3:1996, Winding wires - Test methods - Part 3: Mechanical properties and Amendment 1:1997 IEC 60851-5:1996, Winding wires - Test methods - Part 5: Electrical properties, Amendment 1:1997 and Amendment 2:2004 IEC 60851-6:1996, Methods of test for winding wires - Part 6: Thermal properties IEC 60947-1:2004, Low-voltage switchgear and controlgear - Part 1: General rules IEC 60990:1999, Methods of measurement of touch current and protective conductor current IEC 61051-2, Varistors for use in electronic equipment - Part 2: Sectional specification for surge suppression varistors ISO 180, Plastics - Determination of Izod impact strength ISO 3864-2: Graphical symbols – Safety colours and safety signs – Part 2: principles for product safety labels. ISO 4892-1, Plastics - Methods of exposure to laboratory light sources - Part 1: General guidance ISO 7000-DB:2004, Graphical symbols for use on equipment - Index and synopsis (For DB, see the online database of the IEC.) ISO 8256, Plastics - Determination of tensile-impact strength ITU-T Recommendation K.44, Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents - Basic Recommendation</p>		
Annex U.2.4	Replace the existing NOTE as NOTE1, add NOTE 2 as follows: NOTE 2 by taking into account environmental impact, “(for example, 1.1.1-trichloroethane)” described in the corresponding IEC standard was deleted.		N/A
Annex V.1	Replace “In 3.1.2 of IEC 60364-1” with “312 of JIS C 60364-1”.		N/A
Annex W.1	Replace second and third sentence in the first paragraph with the following: This distinction between earthed and unearthed (floating) circuit is not the same as between CLASS I EQUIPMENT, CLASS 0I EQUIPMENT and CLASS II EQUIPMENT. Floating circuits can exist in CLASS I EQUIPMENT or CLASS 0I EQUIPMENT and earthed circuits in CLASS II EQUIPMENT.		P
Annex AA	Replace figure AA.3 which correct the position of insulating metal sheet.		N/A
Annex BB	(Reference) [Change point which from IEC 60950-1 : 2001 (v1) to IEC 60950-1 : 2005 (v2)] (Deleted text body).		—
Annex CC	Evaluation of integrated circuit (IC) current limiters		N/A
CC.2	Test program 1		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	10 000 cycles of turning enable on and off with an iron-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and less than 1Ω DC resistance value connected in the output circuit;		N/A
	10 000 cycles of turning enable on and off with the input connected to a capacitor rated $425 \mu\text{F} \pm 10 \mu\text{F}$ and shorting the output;		N/A
	10 000 cycles of turning the input pin on and off with an iron-core inductor having (0.35 ± 0.1) mH inductance at 1 kHz and less than 1Ω DC resistance value connected to the input supply and return while keeping enable active and shorting the output;		N/A
CC.3	Test program 2		N/A
	Note: It's advisable to use that in conformity with IEC 60127-2 for quick-fusing type fuse.		N/A
Annex EE	Household and home/office document/media shredders		N/A
	Note: Delete requirements of this Annex which corresponding IS and replace this Annex by Annex JA.		N/A
	Foreword of Annex JA (Requirements for shredder) was replaced by following: It shall conformity with requirements of this Annex for that add to body with Household and home/office document /media shredders.		N/A
Annex JA	Add a new annex JA with the following contents. Annex JA (normative) Requirements for document shredding machines (see 1.7, 2.8.3, 3.4 and 4.4) Introduction This annex specifies the safety requirements for document shredding machines, except those of STATIONARY EQUIPMENT used by connecting directly to 3-phase AC MAINS SUPPLY of a voltage not the than 200V. Document shredding machines shall comply with the requirements of this annex in addition to other requirements specified in this standard, except those of STATIONARY EQUIPMENT used by connecting directly to three-phase AC MAINS SUPPLY of a voltage not less than 200V.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
JA.1	<p>Markings and instructions</p> <p>In the easily visible part near to the slot for documents, by a method of clearly legible and permanent and by using easily understandable terms, document shredding machines shall have markings of the symbol  specified in 6.2.1 (general cautions) of JIS S 0101:2000, Graphical warning symbols for consumers, and also the following precautions for use:</p> <ul style="list-style-type: none"> - that use by an infants/children may cause a hazard of injury etc.; - that a hand can be drawn into the mechanical section for shredding when touching the document-slot; - that clothing can be drawn into the mechanical section for shredding when touching the document-slot; - that hairs can be drawn into the mechanical section for shredding when touching the document-slot; - in case of equipment incorporating a commutator motor, that equipment may catch fire or explode by spraying of flammable gas. 		N/A
JA.2	<p>Inadvertent reactivation</p> <p>Any safety interlock that can be operated by means of the test finger, Figure JA.1, is considered to be likely to cause inadvertent reactivation of the hazard.</p> <p>Compliance is checked by inspection and, where necessary, by a test with the test finger, Figure JA.1</p>		N/A
JA.3	<p>Disconnect switch</p> <p>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.</p> <p>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.</p> <p>Compliance is checked by inspection.</p>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
JA.4	<p>Protection in operator access area</p> <p>Any warning shall not be used instead of the structure for preventing access to hazardous moving parts.</p> <p>Document shredding machines shall comply with the following requirements.</p> <p>Insert the test finger, Figure JA.1, into all openings in MECHANICAL ENCLOSURES without applying appreciable force. It shall not be possible to touch hazardous moving parts with the test finger. This consideration applies to all sides of MECHANICAL ENCLOSURES when the equipment is mounted as intended. Before testing with the test finger, remove the parts detachable without a tool.</p> <p>Insert the wedge-probe, Figure JA.2, into the document-slot. And, against all directions of openings, if straight-cutting type, a force of 45 N shall apply to the probe, and 90 N if cross-cutting type. In this case, the weight of the probe is to be factored into the overall applied force. Before testing with the wedge-probe, remove the parts detachable without a tool. It shall not be possible to touch any hazardous moving parts, including the shredding roller or the mechanical section for shedding, with the probe.</p>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

Dimensions in millimeters

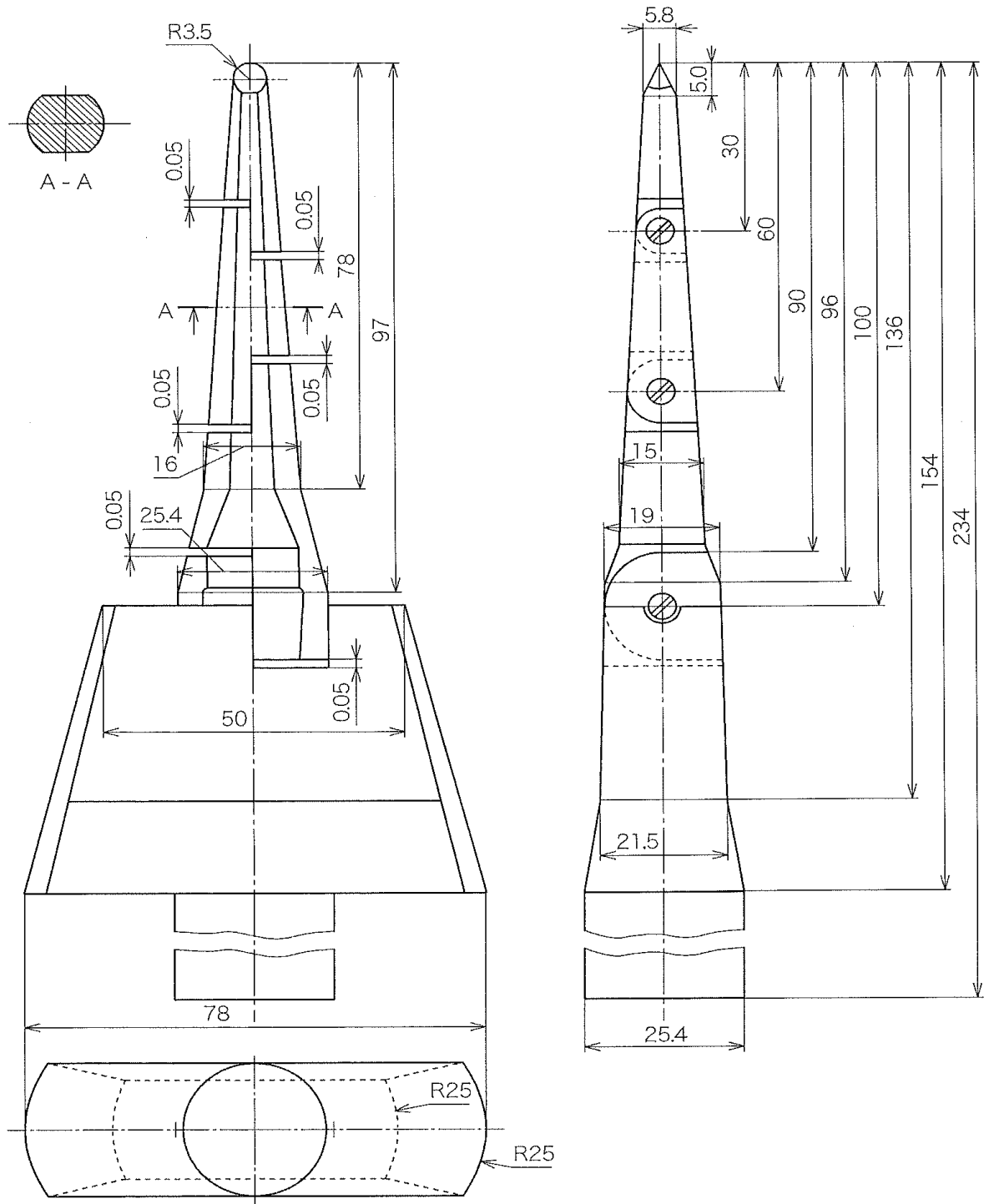
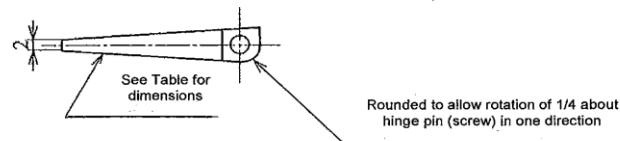
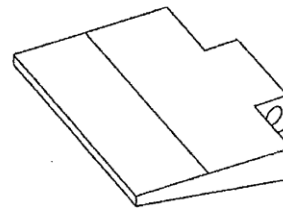
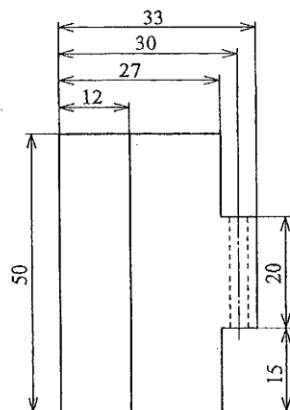
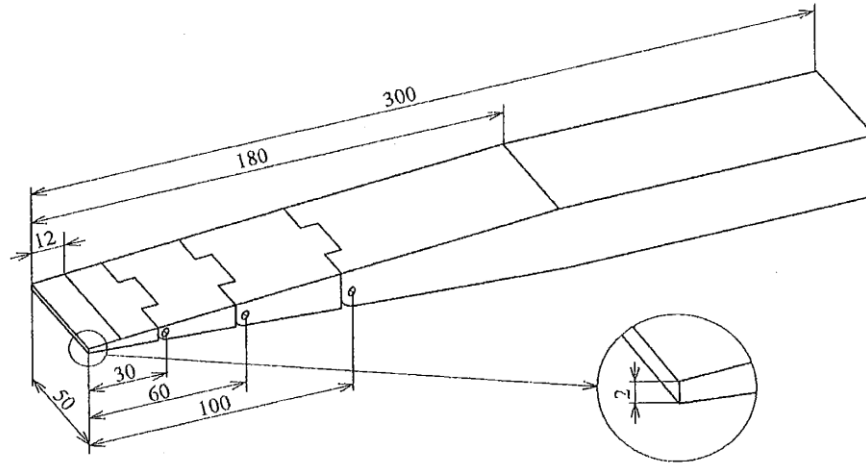


Figure JA.1 Test finger

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



Details of the tip of wedge

Dimensions in millimeters

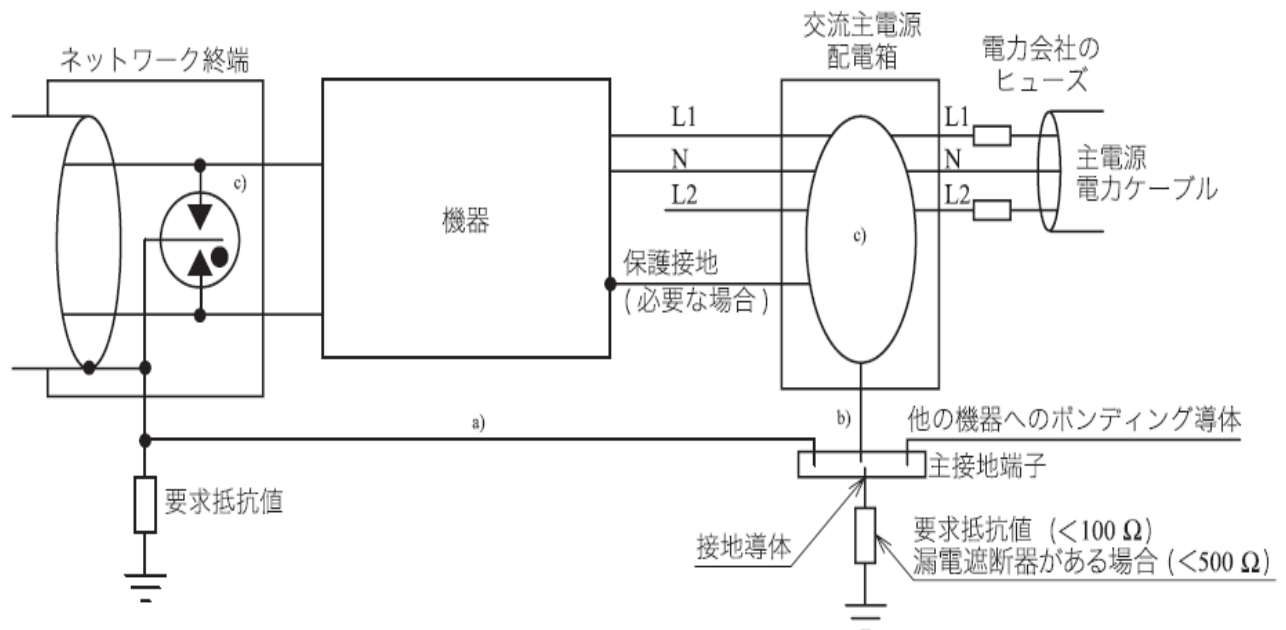
Distance from the tip	Thickness of probe
0	2
12	4
180	24

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

Figure JA.2 Wedge-probe.

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Desirable setting environment for TT electric power system is as figure JB.1. Established SPD as that excessive potential difference does not occur between communication side and the electricity side, and recommend that ground wire of both are connected with a short conductor. Concerning the detail for recommend setting environment, see ITU-T Recommendation K.11:1993, K.21:1996, K.27:1996, K.31:1993 and K.66:2004.		N/A



Note:

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

Figure JB.1 – Sample of desirable setting for TT electric power system of single phase three-wire type + neutral line
(From ITU-T Recommendation K.66:2004)

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

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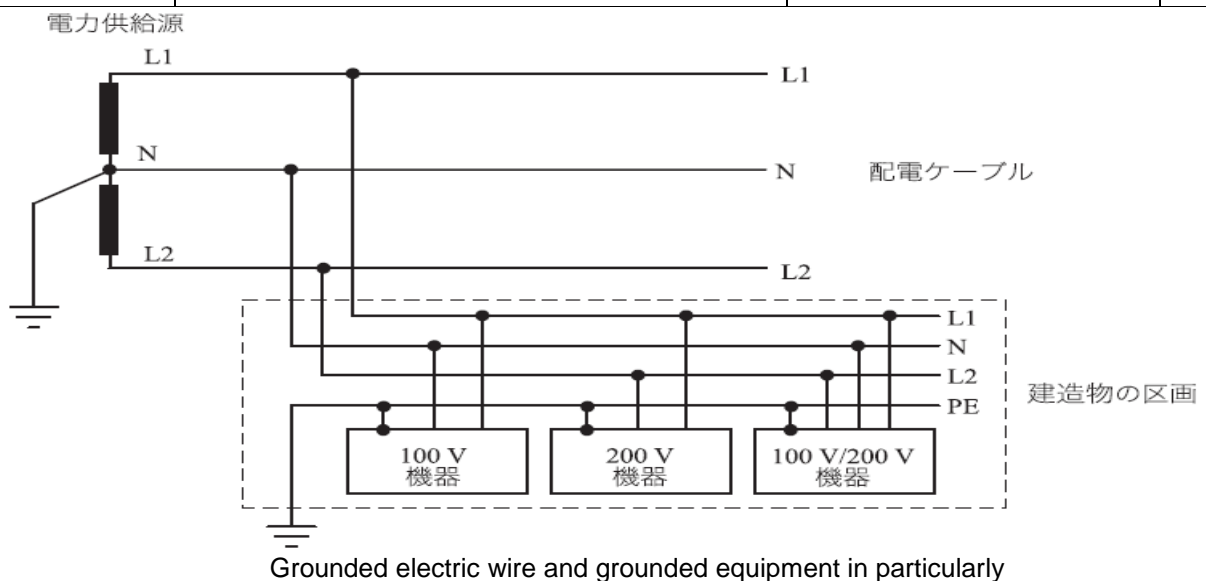


Figure JB.2 – Example of three-wire type TT electric power system

	<p>But as thing are stand, there are a lot of cases that an outlet is not prepared with the grounding terminal which is appropriate in the setting place of the equipment. On the other hand, grounding resistance value of SPD where set at lead-in point of communication line sometime is not enough low, it make that dielectric breakdown was occurred due to the voltage that a thunder surge current evoked for grounding resistance which flow into the communication line and drift to the ground through SPD. The same result is expected that grounding resistance value is not enough low too if set SPD on electric power system. This status is as figure JB.3.</p> <p>As figure JB.1, it can decrease effectively by connecting both with the conductor of the low resistance value when excessive potential difference occurred in internal equipment.</p>		N/A
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

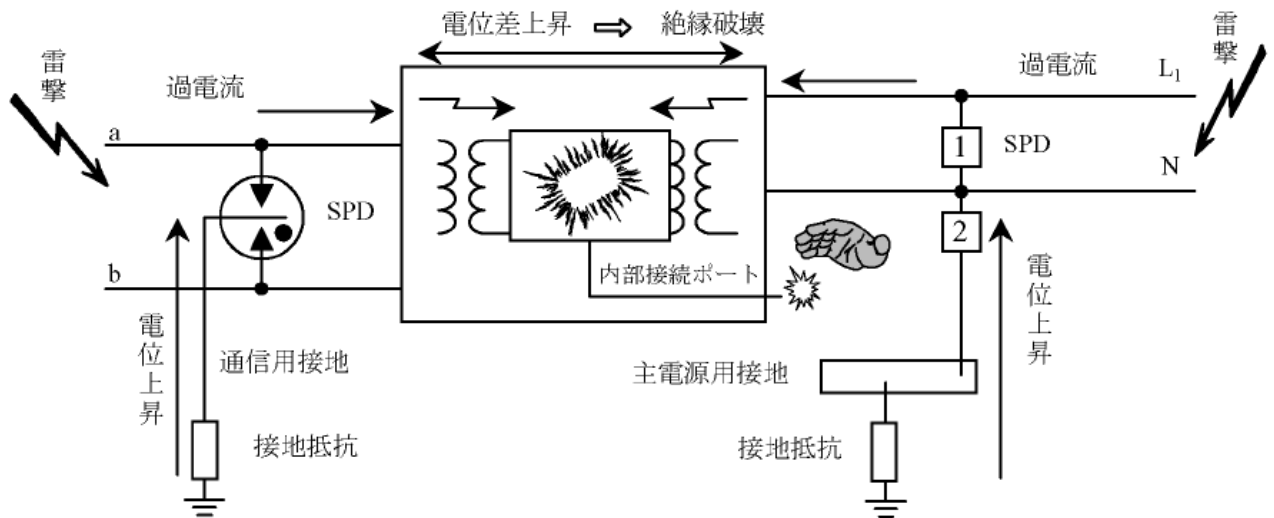


Figure JB.3 - Insufficient grounding and setting environment of bonding
(From ITU-T Recommendation K.66:2004)

	It is desirable that provide the information for set environment which appropriate measures were given based on ITU-T Recommendation K.11:1993 when perform design and sale network connected equipment.		N/A
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

<p align="center">National Differences United States of America (US) IEC 60950-1, 2nd ed. + A1 + A2 (UL 60950-1, Second Edition, A1 + A2) Last modification 2014-01-24</p>			
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	NATIONAL CONDITIONS BASED ON REGULATIONS		—
Sub-Clause	National Condition		—
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.	Unit was evaluated according to IEC 60950-1. The requirements have to be checked during national approval.	P
1.1.2	Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors.		P
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 NEC. 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. 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

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1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1 shall be marked with the voltage rating and "Class 2" or equivalent. The 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
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

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3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²).		N/A
3.3.4	Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, 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
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 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge.		N/A
4.7.3.1	For computer room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For other applications, enclosures with the same dimensions require a flame spread rating of 200 or less.		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		—

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1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These components include: attachment plugs, battery 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, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, surge protective devices, tubing, vehicle battery adapters, wire connectors, and wire and cables.	Critical components are IEC/EN/UL certified. See list of critical components. There may be additional requirements for components in Canada.	P
1.6.1.2	A circuit for connection to the DC Mains Supply is classified as a SELV Circuit, a TNV-2 Circuit or a Hazardous Voltage Circuit depending on the maximum operating voltage of the supply. This maximum operating voltage shall include consideration of the battery charging "float voltage" associated with the intended supply system, regardless of the marked power rating of the equipment.		N/A
2.3.1	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions.		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
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

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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
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 is required to comply with special acoustic pressure requirements.		N/A

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<p align="center">National differences for Australia and New Zealand IEC 60950-1, 2nd ed. AS/NZS 60950.1:2015</p>			
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ZZ1	Introduction This Annex sets out variations and additional requirements to cover issues which have not been addressed by the International Standard. These variations indicate national variations for purposes of the IECEE CB Scheme and will be published in the IECEE CB Bulletin.		-
ZZ2	Variations The following variations apply to the source text:		-
1.2	Between the definitions for 'Person, service' and 'Range, rated frequency' <i>insert</i> the following: POTENTIAL IGNITION SOURCE 1.2.12		N/A
1.2.12.201	<i>Insert</i> 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.		N/A
1.5.1	<i>Add</i> the following to the end of first paragraph: 'or the relevant Australian/New Zealand Standard'. In NOTE 1, <i>add</i> the following after the word "standard": 'or an Australian/New Zealand Standard'.		P

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1.5.2.	<p>Add the following to the end of first and third dash items:</p> <p>‘or the relevant Australian/New Zealand Standard’.</p>		P																	
3.2.5.1	<p>Modify Table 3B as follows:</p> <p>Delete the first four rows and replace with the following:</p> <table><tr><th rowspan="2">RATED CURRENT of equipment A</th><th colspan="2">Minimum conductor sizes</th></tr><tr><th>Nominal cross-sectional area mm ²</th><th>AWG or kcmil [cross-sectional area in mm²] see Note 2</th></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> <p>Delete NOTE 1.</p> <p>Replace footnote ^{a)} with the following:</p> <p>¹⁾ 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).</p>	RATED CURRENT of equipment A	Minimum conductor sizes		Nominal cross-sectional area mm ²	AWG or kcmil [cross-sectional area in mm ²] see Note 2	Over 0.2 up to and including 3	0,5 ^{a)}	18 [0,8]	Over 3 up to and including 7.5	0,75	16 [1,3]	Over 7.5 up to and including 10	(0,75) ^{b)} 1,00	16 [1,3]	Over 10 up to and including 16	(1,0) ^{c)} 1,5	14 [2]		N/A
RATED CURRENT of equipment A	Minimum conductor sizes																			
	Nominal cross-sectional area mm ²	AWG or kcmil [cross-sectional area in mm ²] see Note 2																		
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Over 10 up to and including 16	(1,0) ^{c)} 1,5	14 [2]																		
4.1.201	<p>Insert a new Clause 4.1.201 after Clause 4.1 as follows:</p> <p>4.1.201 Display devices used for television purposes</p> <p>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.</p>		N/A																	

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4.3.6	<i>Delete</i> the third paragraph and replace with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112 shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A
4.3.13.5	<i>Add</i> the following to the end of the first paragraph: ' , or AS/NZS 2211.1'.		P
4.7	<i>Add</i> the following new paragraph to the end of the clause: 'For alternate tests refer to Clause 4.7.201.'		P

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4.7.201	<p><i>Insert a new Clause 4.7.201 after Clause 4.7.3.6 as follows:</i></p> <p>4.7.201 Resistance to fire – Alternative tests</p> <p>4.7.201.1 General</p> <p>Parts of non-metallic material shall be resistant to ignition and spread of fire.</p> <p>This requirement does not apply to decorative trims, knobs and other parts unlikely to be ignited or to propagate flames from inside the apparatus, or the following:</p> <p>(a) Components that are contained in an enclosure having a flammability category of V-0 according to AS/NZS 60695.11.10 and having openings only for the connecting wires filling the openings completely, and for ventilation not exceeding 1 mm in width regardless of length.</p> <p>(b) The following parts which would contribute negligible fuel to a fire:</p> <ul style="list-style-type: none"> - small mechanical parts, the mass of which does not exceed 4 g, such as mounting parts, gears, cams, belts and bearings; - small electrical components, such as capacitors with a volume not exceeding 1,750 mm³, integrated circuits, transistors and optocoupler packages, if these components are mounted on material of flammability category V-1, or better, according to AS/NZS 60695.11.10. <p>NOTE In considering how to minimize propagation of fire and what 'small parts' are, account should be taken of the cumulative effect of small parts adjacent to each other for the possible effect of propagating fire from one part to another.</p> <p>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.</p> <p>For the base material of printed boards, compliance shall be checked by the test of 4.7.201.5.</p> <p>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.</p> <p>These tests are not carried out on internal wiring.</p>	<p>The equipment complies with the requirements of IEC 60950-1. Alternative test methods are not considered.</p>	P

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Cont.	<p>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.</p> <p>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:</p>		P

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Clause	Requirement + Test		Result - Remark	Verdict										
Cont.	<table><tr><td>Clause of AS/NZS 60695.11.5</td><td>Change</td></tr><tr><td colspan="2">9 Test procedure</td></tr><tr><td>9.2 Application of needle-flame</td><td><p>Replace the first paragraph with:</p><p>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner</p><p>Replace the first paragraph with:</p><p>The duration of application of the test flame shall be 30 s ±1 s.</p></td></tr><tr><td>9.3 Number of test specimens</td><td><p>Replace with:</p><p>The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.</p></td></tr><tr><td>11 Evaluation of test results</td><td><p>Replace with:</p><p>The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p></td></tr></table>		Clause of AS/NZS 60695.11.5	Change	9 Test procedure		9.2 Application of needle-flame	<p>Replace the first paragraph with:</p> <p>The specimen shall be arranged so that the flame can be applied to a vertical or horizontal edge as shown in the examples of figure 1. If possible the flame shall be applied at least 10 mm from a corner</p> <p>Replace the first paragraph with:</p> <p>The duration of application of the test flame shall be 30 s ±1 s.</p>	9.3 Number of test specimens	<p>Replace with:</p> <p>The test shall be made on one specimen. If the specimen does not withstand the test, the test may be repeated on two further specimens, both of which shall withstand the test.</p>	11 Evaluation of test results	<p>Replace with:</p> <p>The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p>		P
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	11 Evaluation of test results	<p>Replace with:</p> <p>The duration of burning (t_b) shall not exceed 30 s. However, for printed circuit boards, it shall not exceed 15 s.</p>												
The needle-flame test shall not be carried out on parts of material classified as V-0 or V-1 according to AS/NZS 60695.11.10, provided that the sample tested was not thicker than the relevant part.														
4.7.201.4 Testing in the event of non-extinguishing material														
If parts, other than enclosures, do not withstand the glow wire tests of 4.7.201.3, by failure to extinguish within 30 s after the removal of the glow-wire tip, the needle-flame test detailed in 4.7.201.3 shall be made on all parts of non-metallic material which are within a distance of 50 mm or which are likely to be impinged upon by flame during the tests of 4.7.201.3. Parts shielded by a separate barrier which meets the needle-flame test need not be tested.														

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Cont.	<p>NOTE 1 - If the enclosure does not withstand the glow-wire test the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.</p> <p>NOTE 2 - If other parts do not withstand the glow-wire test due to ignition of the tissue paper and if this indicates that burning or glowing particles can fall onto an external surface underneath the equipment, the equipment is considered to have failed to meet the requirements of Clause 4.7.201 without the need for consequential testing.</p> <p>NOTE 3 - Parts likely to be impinged upon by the flame are considered to be those within the envelope of a vertical cylinder having a radius of 10 mm and a height equal to the height of the flame, positioned above the point of the material supporting, in contact with, or in close proximity to, connections.</p> <p>4.7.201.5 Testing of printed boards</p> <p>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.</p> <p>The test is not carried out if the —</p> <ul style="list-style-type: none"> - Printed board does not carry any POTENTIAL IGNITION SOURCE; - Base material of printed boards, on which the available apparent power at a connection exceeds 15 VA operating at a voltage exceeding 50 V and equal or less than 400 V (peak) a.c. or d.c. under normal operating conditions, is of flammability category V-1 or better according to AS/NZS 60695.11.10, or the printed boards are protected by an enclosure meeting the flammability category V-0 according to AS/NZS 60695.11.10, or made of metal, having openings only for connecting wires which fill the openings completely; or - Base material of printed boards, on which the available apparatus power at a connection exceeds 15 VA operating at a voltage exceeding 400 V (peak) a.c. or d.c. under normal operating conditions, and base material of printed boards supporting spark gaps which provides protection against overvoltages, is of flammability category V-0 according to AS/NZS 60695.11.10 or the printed boards are contained in a metal enclosure, having openings only for connecting wires which fill the openings completely. 		P

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	<p>Compliance shall be determined using the smallest thickness of the material.</p> <p>NOTE – Available apparent power is the maximum apparent power which can be drawn from the supplying circuit through a resistive load whose value is chosen to maximise the apparent power for more than 2 min when the circuit supplied is disconnected.</p>		P
6.2.2	<p>For Australia only, <i>delete</i> the first paragraph and Note, and <i>replace</i> with the following:</p> <p>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.</p>		N/A
6.2.2.1	<p>For Australia only, <i>delete</i> the first paragraph including the Notes, and <i>replace</i> with the following:</p> <p>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, U_0, is:</p> <p>(i) for 6.2.1 a): 7.0 kV for hand-held telephones and for headsets and 2.5 kV for other equipment; and</p> <p>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</p> <p>NOTE 201 – The 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines.</p> <p>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.</p>		N/A
6.2.2.2	<p>For Australia only, <i>delete</i> the second paragraph including the Note, and <i>replace</i> with the following.</p> <p>In Australia only, the a.c. test voltage is:</p> <p>(i) for 6.2.1 a): 3 kV; and</p> <p>(ii) for 6.2.1 b) and 6.2.1 c): 1.5 kV.</p> <p>NOTE 201 – Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.</p> <p>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.</p>		N/A
7.3	<p><i>Add</i> the following before the first paragraph:</p> <p>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.</p>		N/A

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Annex P	<p>Add the following Normative References:</p> <p>AS/NZS 3191, Electric flexible cords</p> <p>AS/NZS 3112, Approval and test specification—Plugs and socket-outlets</p>		N/A
Index	<p>Insert the following between 'asbestos, not be used as insulation' and 'attitude see orientation':</p> <p>AS/NZS 2211.1 4.3.13.5</p> <p>AS/NZS 3112 4.3.6</p> <p>AS/NZS 3191 3.2.5.1 (Table 3B)</p> <p>AS/NZS 60064 4.1.201</p> <p>AS/NZS 60695.2.11 4.7.201.2, 4.7.201.3</p> <p>AS/NZS 60695.11.10 4.7.201.1, 4.7.201.5</p> <p>AS/NZS 60695.11.5 4.7.201.3</p> <p>Insert the following between 'positive temperature coefficient (PTC) device' and 'powder':</p> <p>potential ignition source 1.2.201, 4.7.201.3, 4.7.201.5</p>		N/A