



Test Report issued under the responsibility of:



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

Report Number: 160901564SHA-001

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Applicant's name.....: GlobTek, Inc.

Address: 186 Veterans Dr. 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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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®
Manufacturer	Same as applicant.
Model/Type reference	GT-41134-***, GT-41134-***-W2*, GT-41134-***-W2*-USB (See general product information on page 7-8)
Ratings	Input: 100 - 240 Vac, 50 - 60 Hz, 0.3 A, Class II Output: 3.3 - 24 Vdc, 1.8 A max

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)/ Jane Fei (Engineer) <i>Longer Shi / Jane Fei</i>
Approved by (name + signature)		Valiant Sun (Mandated Reviewer) <i>Valiant Sun</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)		

<p>List of Attachments (including a total number of pages in each attachment):</p> <p>Page 69 – 89: European group differences Page 90 – 94: National differences for Canada Page 94 – 100: National differences for China Page 101 – 102: National differences for Israel Page 103: National differences for Korea Page 103 – 107: National differences for USA Page 108 – 116: National differences for Australia and New Zealand Page 117 – 133: Attachment report: Equipment’s combined with two-pole plug (Class II) Page 134 – 148: Photograph</p>	
<p>Summary of testing:</p>	
<p>Tests performed (name of test and test clause):</p> <p>1.6.2 Input current test 1.7.13 Marking durability test 2.1.1.1 b Finger test 2.1.1.1 c Pin test 2.1.1.5 Energy hazards test 2.2.2 Voltages under normal conditions test 2.2.3 Voltages under fault conditions test 2.5 Limited power source test 2.9.2 Humidity conditioning test 2.10.2 Determination of working voltage test 2.10.3, 2.10.4 Clearances and creepage distances measurement 2.10.5 Distance through insulation measurements 4.2.2 Mechanical strength - steady force test, 10 N 4.2.4 Mechanical strength - steady force test, 250 N 4.2.6 Mechanical strength - drop test 4.2.7 Mechanical strength - stress relief test 4.3.6 Stain on socket-outlet test 4.5.1 Temperature test 4.5.5 Ball pressure test 5.1 Touch current test 5.2 Electric strength test 5.3 Abnormal operating and fault conditions test</p> <p>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.</p>	<p>Testing location:</p> <p>Intertek Testing Services Shanghai Building No. 86, 1198 Qinzhou Road (North) 200233 Shanghai CHINA</p>

Summary of compliance with National Differences:

List of countries addressed:

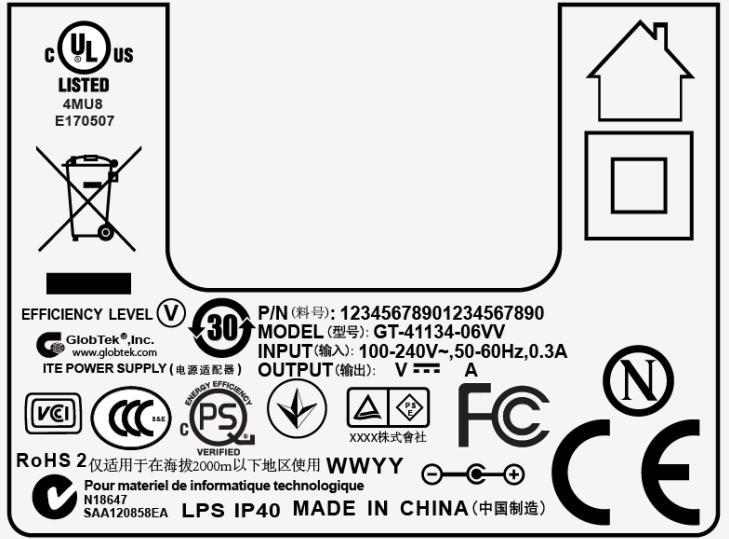
The test report covers group- and national differences for the CENELEC countries.

The requirements of Australia/New Zealand, Canada, China, Israel, Korea and U.S.A. have been checked.

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.



For other models, labels are the same as above, except for model name and rating.

Test item particulars:	
Equipment mobility:	<input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input type="checkbox"/> for building-in <input checked="" 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 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	+6 %, + 10 % and – 10 % (the test voltage + 10 % is required by the manufacturer)
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 or 20A
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. 4000
Altitude of test laboratory (m)	Max. 50
Mass of equipment (kg)	Approx. 0.055 kg

Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing:	
Date of receipt of test item	2016-09-09
Date (s) of performance of tests	2016-09-09 to 2016-09-29

General remarks:	
<p>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 <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. Determination of the test result includes consideration of measurement uncertainty from the test equipment and methods. This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60950-1:	
<p>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</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable</p>
When differences exist; they shall be identified in the General product information section.	
<p>Name and address of factory (ies)</p>	<p>1. GlobTek, Inc. 186 Veterans Dr. Northvale, NJ 07647 USA 2. GlobTek (Suzhou) Co., Ltd Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, Jiangsu 215021, China</p>
General product information:	
<p>The equipment is a switching power adaptor for ITE and indoor use only. The integral plug forming as part of the equipment is considered as the disconnect device, and the equipment is considered as direct plug-in 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.</p>	
Model similarity	
<p>GT-41134-***, GT-41134-***-W2*-USB and GT-41134-***-W2*: The 1st * denote the rated output wattage designation, which can be "01" to "06". The 2nd* denote the standard rated output voltage designation, which can be "03", "04", "06", "12", "15", "18" or "24"; The 3rd* is the optional deviation, added or subtracted from standard output voltage, which can be "-0.1"</p>	

to “-9.9” with interval of 0.1, or blank to indicate no voltage different.
 The 2nd* and 3rd* together denote the output voltage, with a maximum value of 24V.
 The 4th* of GT-41134-***-W2*-USB and GT-41134-***-W2* series denotes type of plug and can be E for European plug, U for United Kingdom plug, blank for US plug, C for Chinese plug, A for Australia plug.

GT-41134-***-W2*-USB denotes USB output
 GT-41134-*** and GT-41134-***-W2* denotes output cable output.

For GT-41134-***, there are several different exchangeable plug types as Germany(DE), United Kingdom(GB), Argentina(AR), United States of America(US), Australia(AU), China(CN) and Korea(KR) types are provided for direct plug-in type power supply unit.

The AU type plug has been checked according to AS/NZS 3112: 2004 + A1: 2006;
 The DE type plug has been checked according to EN 50075;
 The UK type plug has been checked according to BS 1363-1:1995+ Amd.1 + Amd.2 + Amd.3;
 The US type plug has been checked according to UL 1310;
 The CN type plug has been checked dimension according to GB 1002-2008;
 The AR type plug has been checked dimension according to IRAM 2063;
 The KR type plug has been checked dimension according to KSC8305;
 The plug of AR, KR and CN type only checked the dimensions of plug in this report. However, the local plug for each country that would be marketed shall be evaluated before the national approval.

GT-41134-***, GT-41134-***-W2*-USB and GT-41134-***-W2* share the same circuit diagram.

GT-41134-***-W2*-USB and GT-41134-***-W2* are similar except for type of DC outputs(GT-41134-***-W2*-USB with USB output, GT-41134-***-W2* with cable output)

GT-41134-*** and GT-41134-***-W2* are similar except for the position of PCB board inside product and connection of plug(GT-41134-*** with exchangeable plug, and GT-41134-***-W2* with unchangeable plug).

The model designations and ratings are detailed as follows:

Model	voltage	current
GT-41134-*** :		
GT-41134-0603	3.3V	1.8A
GT-41134-0604	4V	1.5A
GT-41134-0606-1.0	5V	1.2A
GT-41134-0606	6V	1A
GT-41134-0612-3.0	9V	0.67A
GT-41134-0612	12V	0.5A
GT-41134-0615	15V	0.4A
GT-41134-0618	18V	0.33A
GT-41134-0624	24V	0.25A
GT-41134-0503	3.3V	1.5A
GT-41134-0504	4V	1.25A
GT-41134-0506-1.0	5V	1A
GT-41134-0506	6V	0.83A
GT-41134-0512-3.0	9V	0.55A
GT-41134-0512	12V	0.42A
GT-41134-0515	15V	0.33A
GT-41134-0518	18V	0.28A
GT-41134-0524	24V	0.21A
GT-41134-***-W2* :		
GT-41134-0603-W2*	3.3V	1.8A
GT-41134-0604-W2*	4V	1.5A

GT-41134-0606-1.0-W2*	5V	1.2A
GT-41134-0606-W2*	6V	1A
GT-41134-0612-3.0-W2*	9V	0.67A
GT-41134-0612-W2*	12V	0.5A
GT-41134-0615-W2*	15V	0.4A
GT-41134-0618-W2*	18V	0.33A
GT-41134-0624-W2*	24V	0.25A
GT-41134-0503-W2*	3.3V	1.5A
GT-41134-0504-W2*	4V	1.25A
GT-41134-0506-1.0-W2*	5V	1A
GT-41134-0506-W2*	6V	0.83A
GT-41134-0512-3.0-W2*	9V	0.55A
GT-41134-0512-W2*	12V	0.42A
GT-41134-0515-W2*	15V	0.33A
GT-41134-0518-W2*	18V	0.28A
GT-41134-0524-W2*	24V	0.21A
GT-41134-***-W2*-USB :		
GT-41134-0603-W2*-USB	3.3V	1.8A
GT-41134-0604-W2*-USB	4V	1.5A
GT-41134-0606-1.0-W2*-USB	5V	1.2A
GT-41134-0606-W2*-USB	6V	1A
GT-41134-0612-3.0-W2*-USB	9V	0.67A
GT-41134-0612-W2*-USB	12V	0.5A
GT-41134-0615-W2*-USB	15V	0.4A
GT-41134-0618-W2*-USB	18V	0.33A
GT-41134-0624-W2*-USB	24V	0.25A
GT-41134-0503-W2*-USB	3.3V	1.5A
GT-41134-0504-W2*-USB	4V	1.25A
GT-41134-0506-1.0-W2*-USB	5V	1A
GT-41134-0506-W2*-USB	6V	0.83A
GT-41134-0512-3.0-W2*-USB	9V	0.55A
GT-41134-0512-W2*-USB	12V	0.42A
GT-41134-0515-W2*-USB	15V	0.33A
GT-41134-0518-W2*-USB	18V	0.28A
GT-41134-0524-W2*-USB	24V	0.21A



All tests are performed on models GT-41134-0603, GT-41134-0612-3.0, GT-41134-0624 and compliance for subclause 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
1.5	Components		P
1.5.1	General	Components which were found to affect safety aspects comply with the requirements of this standard or within the safety aspects of the relevant IEC component standards.	P
	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls		N/A
1.5.4	Transformers	(see also Annex C)	P
1.5.5	Interconnecting cables	The output is evaluated at the relevant parts of this report.	P
1.5.6	Capacitors bridging insulation		N/A
1.5.7	Resistors bridging insulation	See below.	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	Only bridging functional is considered.	P
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N/A
1.5.8	Components in equipment for IT power systems		N/A
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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)	N/A
1.6.3	Voltage limit of hand-held equipment	The EUT is not hand-held equipment	N/A
1.6.4	Neutral conductor		N/A
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
	Rated voltage(s) or voltage range(s) (V)	100 – 240Vac	P
	Symbol for nature of supply, for d.c. only	The EUT is supplied by AC mains	P
	Rated frequency or rated frequency range (Hz) ... :	50 – 60 Hz	P
	Rated current (mA or A)	0.3 A	P
1.7.1.2	Identification markings	See below	P
	Manufacturer's name or trade-mark or identification mark		P
	Model identification or type reference	GT-41134-*** GT-41134-***-W2* GT-41134-***-W2*-USB	P
	Symbol for Class II equipment only		P
	Other markings and symbols	Symbols are used according to IEC 60417-1	P
1.7.1.3	Use of graphical symbols		N/A
1.7.2	Safety instructions and marking	The English “ I.T.E. POWER SUPPLY” will be provided with the unit	P
1.7.2.1	General		P
1.7.2.2	Disconnect devices		N/A
1.7.2.3	Overcurrent protective device		N/A
1.7.2.4	IT power distribution systems		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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 "F1" and "T1A/250V" are marked adjacent to the main fuse or The fusible resistor (F1) is provided.	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
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	After rubbing test by water and petroleum spirit, the marking still legible; it is not easily possible to remove the marking plate and show no curling.	P
1.7.12	Removable parts	Marking plate is not placed on removable parts.	P
1.7.13	Replaceable batteries		N/A
	Language(s)		—
1.7.14	Equipment for restricted access locations		N/A

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

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	See comment below.	P
	Test by inspection	The concerned hazardous parts are not accessible.	P
	Test with test finger (Figure 2A)	The concerned hazardous parts are not accessible.	P
	Test with test pin (Figure 2B)	Hazardous live parts are not accessible.	P
	Test with test probe (Figure 2C)		N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		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		P
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		N/A
	Measured voltage (V); time-constant (s)		—
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	See cl. 2.1.1.1 See separate test report IEC/EN 60065.	N/A
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations		N/A

2.2	SELV circuits		P
2.2.1	General requirements	(see appended table 2.2)	P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.2	Voltages under normal conditions (V)	All accessible voltages are less 42.4 Vpeak or 60 Vdc and are classified as SELV circuits.	P
2.2.3	Voltages under fault conditions (V)	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71 Vpeak and 120 Vdc were not exceeded within 0.2 s and limits 42.4 Vpeak and 60 Vdc were not exceeded for longer than 0.2 s.	P
2.2.4	Connection of SELV circuits to other circuits	SELV circuits are only connected to other SELV circuits	P

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

2.4	Limited current circuits		N/A
2.4.1	General requirements		N/A
2.4.2	Limit values		N/A
	Frequency (Hz)		—
	Measured current (mA)		—

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Measured voltage (V)		—
	Measured circuit capacitance (nF or μF)		—
2.4.3	Connection of limited current circuits to other circuits		N/A

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		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)	(see appended table 2.5)	—
	Current rating of overcurrent protective device (A) ..		—

2.6	Provisions for earthing and bonding		N/A
2.6.1	Protective earthing		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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm)..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
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 or fusible resistor (F1) is series 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		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

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Clause	Requirement + Test	Result - Remark	Verdict
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm)		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	No natural rubber, hygroscopic materials or asbestos are used as insulation.	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	Considered.	P
2.9.4	Separation from hazardous voltages	SELV circuits separated from primary by double/reinforced 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	The frequency does not exceed 30 k Hz.	P
2.10.1.2	Pollution degrees	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		P
2.10.2.3	Peak working voltage		P

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.3	Clearances		P
2.10.3.1	General		P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply		P
	b) Earthed d.c. mains supplies		N/A
	c) Unearthed d.c. mains supplies		N/A
	d) Battery operation		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits	See sub-clause 5.3.4	P
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply	2500 V peak.	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		
	For a d.c. mains supply		
	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		N/A
2.10.5.5.	Cemented joints		N/A
2.10.5.6	Thin sheet material – General		P
2.10.5.7	Separable thin sheet material		P
	Number of layers (pcs)		—

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Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test	(see appended table 2.10.5)	—
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	(see appended table 2.10.2)	P
	a) Basic insulation not under stress		N/A
	b) Basic, supplementary, reinforced insulation		N/A
	c) Compliance with Annex U	3 layers	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	(see appended table 1.5.1)	P
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

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	(see appended table 1.5.1)	P
3.1.2	Protection against mechanical damage	Smooth wireways.	P
3.1.3	Securing of internal wiring	All internal wirings are suitable fixed.	P
3.1.4	Insulation of conductors		N/A
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	Considered.	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	Integral plug forming as part of the equipment.	P
3.2.1.1	Connection to an a.c. mains supply	A mains plug that is part of direct plug-in equipment.	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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Type		—
	Rated current (A), cross-sectional area (mm ²), AWG		—
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N)		—
	Longitudinal displacement (mm)		—
3.2.7	Protection against mechanical damage		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	Integral plug of forming as part of the equipment is considered as the disconnect device.	P
3.4.3	Permanently connected equipment		N/A

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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	The integral plug of equipment is provided.	P
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

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

4	PHYSICAL REQUIREMENTS		P
4.1	Stability		N/A
	Angle of 10°		N/A
	Test force (N)		N/A

4.2	Mechanical strength		P
4.2.1	General		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.	N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.6	Drop test; height (mm)	The EUT is still complying with relevant requirements of this standard.	P
4.2.7	Stress relief test	103°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	The outer surface of the EUT is smoothed.	P
4.3.2	Handles and manual controls; force (N)		N/A
4.3.3	Adjustable controls		N/A
4.3.4	Securing of parts	The enclosures are fixed together by ultrasonic welding.	P
4.3.5	Connection by plugs and sockets		N/A
4.3.6	Direct plug-in equipment		P
	Torque	Max. 0.068 Nm.	—
	Compliance with the relevant mains plug standard	See attachment.	P
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

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		—
	Measured high-voltage (kV)		—
	Measured focus voltage (kV)		—
	CRT markings		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs		N/A
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class		—
4.3.13.5.2	Light emitting diodes (LEDs)		N/A
4.3.13.6	Other types		N/A
4.4	Protection against hazardous moving parts		N/A
4.4.1	General	No moving parts.	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

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Clause	Requirement + Test	Result - Remark	Verdict
4.5.2	Temperature tests	(see appended table 4.5.2)	P
	Normal load condition per Annex L :	L7	—
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)	N/A
4.6	Openings in enclosures		P
4.6.1	Top and side openings		N/A
	Dimensions (mm) :	No opening at all.	—
4.6.2	Bottoms of fire enclosures		P
	Construction of the bottom, dimensions (mm) .. :	No opening at all.	—
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		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		P
4.7.3.2	Materials for fire enclosures		P
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A
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 surge.	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 5.1.6)	—
	Measured touch current (mA)	(see appended table 5.1.6)	—
	Max. allowed touch current (mA)	(see appended table 5.1.6)	—
	Measured protective conductor current (mA)		—
	Max. allowed protective conductor current (mA) ..		—
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

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Clause	Requirement + Test	Result - Remark	Verdict

	b) EUT whose telecommunication ports have no reference to protective earth		N/A
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5.2	Electric strength		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure		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 and Annex C)	P
5.3.4	Functional insulation :	Methods a), b) or c)	P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE :		N/A
5.3.7	Simulation of faults	(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 propagated beyond the equipment, no molten metal was emitted and the enclosures no deformed.	P
5.3.9.1	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	Not connect to telecommunication networks.	N/A
	Supply voltage (V) :		—
	Current in the test circuit (mA) :		—
6.1.2.2	Exclusions :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.2	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A
6.3	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A)		—
	Current limiting method		—
7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	General	Not connect to cable distribution systems.	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

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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
A.3.1	Mounting of samples		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
	Position	T1 (see the illustration on table C.2 for physical construction)	—
	Manufacturer		—
	Type	See appended table 1.5.1	—
	Rated values	Class B	—
	Method of protection	With external over current protection.	—
C.1	Overload test	(see appended table 5.3)	P
C.2	Insulation	(see appended table 5.3)	P
	Protection from displacement of windings	The end-turn of each winding is fixed by insulating tape.	P
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument		P
D.2	Alternative measuring instrument		N/A
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		P
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply		N/A
G.2.2	Earthed d.c. mains supplies		N/A
G.2.3	Unearthed d.c. mains supplies		N/A
G.2.4	Battery operation		N/A
G.3	Determination of telecommunication network transient voltage (V)		N/A
G.4	Determination of required withstand voltage (V)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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
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	(see appended table 5.3)	N/A
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		P

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Clause	Requirement + Test	Result - Remark	Verdict

M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringling signal		N/A
M.3.1.1	Frequency (Hz)		—
M.3.1.2	Voltage (V)		—
M.3.1.3	Cadence; time (s), voltage (V)		—
M.3.1.4	Single fault current (mA)		—
M.3.2	Tripping device and monitoring voltage		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V)		N/A

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

P	ANNEX P, NORMATIVE REFERENCES		—
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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

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

R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A

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

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

U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		P
		Approved TIW used.	—

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

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

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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)		P
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N/A
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—
CC	ANNEX CC, Evaluation of integrated circuit (IC) current limiters		N/A
CC.1	General		N/A
CC.2	Test program 1.....		N/A
CC.3	Test program 2.....		N/A
CC.4	Test program 3.....		N/A
CC.5	Compliance.....		N/A
DD	ANNEX DD, Requirements for the mounting means of rack-mounted equipment		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N.....		N/A
DD.3	Mechanical strength test, 250N, including end stops.....		N/A
DD.4	Compliance.....		N/A
EE	ANNEX EE, Household and home/office document/media shredders		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols.....		N/A
	Information of user instructions, maintenance and/or servicing instructions.....		N/A
EE.3	Inadvertent reactivation test.....		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Use of markings or symbols.....:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A)		N/A
	Test with wedge probe (Figure EE1 and EE2)		N/A

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark 2)	Type/m odel	Technical data	Standard	Mark(s) of Conformity ¹⁾	
Fuse (F1)	Conquer	PTU	T1.0 A, 250 V, Size: 4.0 X 10.0mm	IEC/EN 60127-1: 2011	VDE 40001462 & tested with appliance	
Alt.	Interchan geable	Intercha ngeable	T1.0 A, 250 V, Size: 4.0 X 10.0mm	EN 60127-1: 2011, EN 60127-3: 2003	S, VDE or other EU certification marks	
Fusible resistor (F1)	Great Electronic s Co Ltd	RXF- 1W Series	10 ohm, 1 W	IEC 60950-1	Tested with appliance	
Enclosure	Sabic	915R	Min. V-1, min. 1.5 mm thick, 120 °C	IEC 60950-1, UL 94 Rev: 2016	UL E45329 & tested with appliance	
Alt.	Sabic	SE1X	Min. V-1, min. 1.5 mm thick, 120 °C	IEC 60950-1, UL 94 Rev: 2016	UL E45329 & tested with appliance	
Blade holder	Sabic	915R	Min. V-1, min. 1.5 mm thick, 120°C	IEC 60950-1, UL 94 Rev: 2016	UL E45329 & tested with appliance	
Alt.	Sabic	SE1X	Min. V-1, min. 1.5 mm thick, 120°C	IEC 60950-1, UL 94 Rev: 2016	UL E45329 & tested with appliance	
PCB	Walex	T2B	Min. V-0, 130 °C	IEC 60950-1, UL 94 Rev: 2016	UL E154355 & tested with appliance	
Alt.	Interchan geable	Intercha ngeable	Min. V-1, 130 °C	IEC 60950-1, UL 94 Rev: 2016	UL recognized	
Transformer:						

IEC 60950-1						
Clause	Requirement + Test		Result - Remark		Verdict	
	Transformer (T1) (for model GT-41134-0606-1.0 GT-41134-0606 GT-41134-0506-1.0 GT-41134-0506 GT-41134-0606-1.0-W2* GT-41134-0606-W2* GT-41134-0506-1.0-W2* GT-41134-0506-W2* GT-41134-0606-1.0-W2*-USB GT-41134-0606-W2*-USB GT-41134-0506-1.0-W2*-USB GT-41134-0506-W2*-USB)	Glob Tek, Inc	XF0071 4	Class B	IEC 60950-1	Tested with appliance
	Transformer (T1) (for model GT-41134-0603 GT-41134-0604 GT-41134-0503 GT-41134-0504 GT-41134-0603-W2* GT-41134-0604-W2* GT-41134-0503-W2* GT-41134-0504-W2* GT-41134-0603-W2*-USB GT-41134-0604-W2*-USB GT-41134-0503-W2*-USB GT-41134-0504-W2*-USB)	Glob Tek, Inc	XF0071 6	Class B	IEC 60950-1	Tested with appliance

IEC 60950-1					
Clause	Requirement + Test	Result - Remark	Verdict		
Transformer (T1) (for model GT-41134-0612-3.0 GT-41134-0612 GT-41134-0512-3.0 GT-41134-0512 GT-41134-0612-3.0-W2* GT-41134-0612-W2* GT-41134-0512-3.0-W2* GT-41134-0512-W2* GT-41134-0612-3.0-W2*-USB GT-41134-0612-W2*-USB GT-41134-0512-3.0-W2*-USB GT-41134-0512-W2*-USB)	Glob Tek, Inc	XF0071 7	Class B	IEC 60950-1	Tested with appliance
Transformer (T1) (for model GT-41134-0615 GT-41134-0618 GT-41134-0515 GT-41134-0518 GT-41134-0615-W2* GT-41134-0618-W2* GT-41134-0515-W2* GT-41134-0518-W2* GT-41134-0615-W2*-USB GT-41134-0618-W2*-USB GT-41134-0515-W2*-USB GT-41134-0518-W2*-USB)	Glob Tek, Inc	XF0071 8	Class B	IEC 60950-1	Tested with appliance
Transformer (T1) (for model GT-41134-0624 GT-41134-0524, GT-41134-0624-W2* GT-41134-0524-W2* GT-41134-0624-W2*-USB GT-41134-0524-W2*-USB)	Glob Tek, Inc	XF0071 9	Class B	IEC 60950-1	Tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
-Primary magnet wires	Pacific Electric	UEWN/U, UEWS/U	Min. 130 °C	IEC 60950-1 UL 1446 Rev: 2016	UL E201757 & tested with appliance
-Alt.	JUNG SHING WIRE CO LTD	UEW-4, UEY-2	Min. 130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E174837 & tested with appliance
-Alt.	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E335065 & tested with appliance
-Alt.	CHANGZ HOU DAYANG WIRE & CABLE CO LTD	2UEW/130	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E158909 & tested with appliance
-Alt.	WUXI JUFENG	UEW	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E206882 & tested with appliance
-Alt.	JIANGSU DARTON G M & E CO LTD	UEW	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E237377 & tested with appliance
-Alt.	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E194410 & tested with appliance
-Alt.	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E222214 & tested with appliance
-Alt.	Great Leoflon	TRW(B)	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E211989 & tested with appliance

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
-Alt.	Ningbo Jintian	2UEW/130	130°C	IEC 60950-1 UL 1446 Rev: 2016	UL E211989 & tested with appliance
-Secondary TIW	Great Leoflon	TRW(B)	130°C, reinforced insulation	IEC 60950-1, UL 2353 Rev: 2016	UL E211989 & tested with appliance
-Alt.	COSMOLINK CO. Ltd.	TIW-M(B)	130°C, reinforced insulation	IEC 60950-1, UL 2353 Rev: 2016	UL E213764 & tested with appliance
-Alt.	Furukawa Electric Co Ltd	TEX-E	130°C, reinforced insulation	IEC 60950-1, UL 2353 Rev: 2016	UL E206440 & tested with appliance
-Alt.	TOTOKU ELECTRIC CO LTD	TIW-2X	130°C, reinforced insulation	IEC 60950-1, UL 2353 Rev: 2016	UL E166483 & tested with appliance
-Alt.	E&B TECHNOLOGY CO LTD	E&B-XXXB, E&B-XXXB-1	130°C, reinforced insulation	IEC 60950-1, UL 2353 Rev: 2016	UL E315265 & tested with appliance
-Bobbin of T1	Chang Chun	T375J, T373J, T375HF	V-0, 150°C, min thickness: 0,6mm	IEC 60950-1, UL 94 Rev: 2016	UL E59481 & tested with appliance
-Alt.	Sumitomo Bakelite	PM-9820	V-0, 150°C, min thickness: 0,6mm	IEC 60950-1, UL 94 Rev: 2016	UL E41429 & tested with appliance
-Alt.	HITACHI CHEMICAL CO LTD	CP-J-8800	V-0, 150°C, min thickness: 0,6mm	IEC 60950-1, UL 94 Rev: 2016	UL E42956 & tested with appliance
-Insulation tape	3M	1350F(#), 1350T-1, 44	Min. 130°C	IEC 60950-1, UL 94 Rev: 2016	UL E17385 & tested with appliance
-Alt.	Bondtec Pacific	370S	Min. 130 °C	IEC 60950-1, UL 94 Rev: 2016	UL E175868 & tested with appliance
-Alt.	YAHUA	PZ, CT, WF	Min. 130 °C	IEC 60950-1, UL 94 Rev: 2016	UL E165111 & tested with appliance

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

-Alt.	JINGJIAN G JINGYI	JY25-A	Min. 130 °C	IEC 60950-1, UL 94 Rev: 2016	UL E246950 & tested with appliance
-Alt.	CHANG SHU LIANG YI TAPE INDUSTR Y CO LTD	LY-XX	Min.130°C	IEC 60950-1, UL 94 Rev: 2016	UL E246820 & tested with appliance

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. The fusible resistor (F1) has been tested with 10 times breaking in abnormal test was verified. See the detail on appended table 5.3.
4. Transformers from _____ and Glob Tek, Inc share the same construction and materials.

1.6.2	TABLE: electrical data (in normal conditions)						P
U (V)	I(A)	Irated(A)	P(W)	Fuse#	I fuse(mA)	Condition/status	
Model: GT-41134-0603							
90 V (50 Hz)	0.167	—	9.20	F1	0.167	Maximum rated output load	
90 V (60 Hz)	0.169	—	9.20	F1	0.169	Maximum rated output load	
100 V (50 Hz)	0.162	0.3	9.10	F1	0.162	Maximum rated output load	
100 V (60 Hz)	0.155	0.3	9.10	F1	0.155	Maximum rated output load	
240 V (50 Hz)	0.086	0.3	8.96	F1	0.086	Maximum rated output load	
240 V (60 Hz)	0.088	0.3	8.96	F1	0.088	Maximum rated output load	
264 V (50 Hz)	0.082	—	9.01	F1	0.082	Maximum rated output load	
264 V (60 Hz)	0.084	—	9.02	F1	0.084	Maximum rated output load	
Model: GT-41134-0604							
90 V (50 Hz)	0.165	—	9.06	F1	0.165	Maximum rated output load	
90 V (60 Hz)	0.167	—	9.05	F1	0.167	Maximum rated output load	
100 V (50 Hz)	0.150	0.3	8.97	F1	0.150	Maximum rated output load	
100 V (60 Hz)	0.153	0.3	8.97	F1	0.153	Maximum rated output load	
240 V (50 Hz)	0.086	0.3	8.84	F1	0.086	Maximum rated output load	
240 V (60 Hz)	0.088	0.3	8.86	F1	0.088	Maximum rated output load	
264 V (50 Hz)	0.082	—	8.91	F1	0.082	Maximum rated output load	

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Clause	Requirement + Test			Result - Remark	Verdict	
264 V (60 Hz)	0.085	—	8.91	F1	0.085	Maximum rated output load
Model: GT-41134-0606-1.0						
90 V (50 Hz)	0.152	—	8.66	F1	0.152	Maximum rated output load
90 V (60 Hz)	0.153	—	8.65	F1	0.153	Maximum rated output load
100 V (50 Hz)	0.138	0.3	8.54	F1	0.138	Maximum rated output load
100 V (60 Hz)	0.139	0.3	8.54	F1	0.139	Maximum rated output load
240 V (50 Hz)	0.076	0.3	8.36	F1	0.076	Maximum rated output load
240 V (60 Hz)	0.077	0.3	8.36	F1	0.077	Maximum rated output load
264 V (50 Hz)	0.071	—	8.23	F1	0.071	Maximum rated output load
264 V (60 Hz)	0.072	—	8.21	F1	0.073	Maximum rated output load
Model: GT-41134-0606						
90 V (50 Hz)	0.149	—	7.96	F1	0.149	Maximum rated output load
90 V (60 Hz)	0.151	—	7.96	F1	0.151	Maximum rated output load
100 V (50 Hz)	0.136	0.3	7.96	F1	0.136	Maximum rated output load
100 V (60 Hz)	0.139	0.3	7.96	F1	0.139	Maximum rated output load
240 V (50 Hz)	0.079	0.3	7.94	F1	0.079	Maximum rated output load
240 V (60 Hz)	0.081	0.3	7.94	F1	0.081	Maximum rated output load
264 V (50 Hz)	0.075	—	8.00	F1	0.075	Maximum rated output load
264 V (60 Hz)	0.077	—	8.00	F1	0.077	Maximum rated output load
Model: GT-41134-0612-3.0						
90 V (50 Hz)	0.146	—	8.29	F1	0.146	Maximum rated output load
90 V (60 Hz)	0.147	—	8.29	F1	0.147	Maximum rated output load
100 V (50 Hz)	0.133	0.3	8.13	F1	0.133	Maximum rated output load
100 V (60 Hz)	0.134	0.3	8.15	F1	0.134	Maximum rated output load
240 V (50 Hz)	0.072	0.3	7.99	F1	0.072	Maximum rated output load
240 V (60 Hz)	0.073	0.3	7.99	F1	0.073	Maximum rated output load
264 V (50 Hz)	0.068	—	8.00	F1	0.068	Maximum rated output load
264 V (60 Hz)	0.069	—	7.99	F1	0.069	Maximum rated output load
Model: GT-41134-0612						
90 V (50 Hz)	0.139	—	7.85	F1	0.139	Maximum rated output load
90 V (60 Hz)	0.140	—	7.84	F1	0.140	Maximum rated output load
100 V (50 Hz)	0.126	0.3	7.75	F1	0.126	Maximum rated output load
100 V (60 Hz)	0.128	0.3	7.75	F1	0.128	Maximum rated output load

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Clause	Requirement + Test				Result - Remark	Verdict
240 V (50 Hz)	0.070	0.3	7.61	F1	0.070	Maximum rated output load
240 V (60 Hz)	0.071	0.3	7.61	F1	0.071	Maximum rated output load
264 V (50 Hz)	0.067	—	7.64	F1	0.067	Maximum rated output load
264 V (60 Hz)	0.067	—	7.64	F1	0.067	Maximum rated output load
Model: GT-41134-0615						
90 V (50 Hz)	0.136	—	7.67	F1	0.136	Maximum rated output load
90 V (60 Hz)	0.137	—	7.67	F1	0.137	Maximum rated output load
100 V (50 Hz)	0.124	0.3	7.59	F1	0.124	Maximum rated output load
100 V (60 Hz)	0.126	0.3	7.60	F1	0.126	Maximum rated output load
240 V (50 Hz)	0.070	0.3	7.54	F1	0.070	Maximum rated output load
240 V (60 Hz)	0.071	0.3	7.56	F1	0.071	Maximum rated output load
264 V (50 Hz)	0.066	—	7.62	F1	0.066	Maximum rated output load
Model: GT-41134-0618						
90 V (50 Hz)	0.138	—	7.84	F1	0.139	Maximum rated output load
90 V (60 Hz)	0.139	—	7.84	F1	0.139	Maximum rated output load
100 V (50 Hz)	0.126	0.3	7.74	F1	0.126	Maximum rated output load
100 V (60 Hz)	0.127	0.3	7.74	F1	0.127	Maximum rated output load
240 V (50 Hz)	0.071	0.3	7.62	F1	0.071	Maximum rated output load
240 V (60 Hz)	0.072	0.3	7.60	F1	0.072	Maximum rated output load
264 V (50 Hz)	0.067	—	7.67	F1	0.067	Maximum rated output load
Model: GT-41134-0624						
90 V (50 Hz)	0.137	—	7.68	F1	0.137	Maximum rated output load
90 V (60 Hz)	0.138	—	7.68	F1	0.138	Maximum rated output load
100 V (50 Hz)	0.125	0.3	7.58	F1	0.125	Maximum rated output load
100 V (60 Hz)	0.126	0.3	7.60	F1	0.126	Maximum rated output load
240 V (50 Hz)	0.069	0.3	7.50	F1	0.069	Maximum rated output load
240 V (60 Hz)	0.070	0.3	7.49	F1	0.070	Maximum rated output load
264 V (50 Hz)	0.066	—	7.58	F1	0.066	Maximum rated output load
264 V (60 Hz)	0.067	—	7.61	F1	0.067	Maximum rated output load
Supplementary information: The measured input current at rated voltage shall be ≤ 110 % of rated current.						

IEC 60950-1					
Clause	Requirement + Test			Result - Remark	Verdict
2.1.1.5 c) 1)	TABLE: max. V, A, VA test				P
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Model: GT-41134-0603					
3.3	1.8	3.406	2.535	8.13(3.399V X 2.393A)	
Model: GT-41134-0612-3.0					
9	0.67	9.137	0.852	7.38(9.137V X 0.807A)	
Model: GT-41134-0624					
24	0.25	23.83	0.5	11.28(23.83V X 0.473A)	
supplementary information:--					

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			P
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V peak	V d.c.		
Model: GT-41134-0603				
T1 pin 10 to GND	29.5	--	--	
Model: GT-41134-0612-3.0				
T1 pin 10 to GND	70.6	--	--	
T1 pin 10 after CS7	45.0	--	CS7	
T1 pin 10 after D6	--	15.8	D6	
Model: GT-41134-0624				
T1 pin 10 to GND	135	--	--	
T1 pin 10 after CS7	75.2	--	CS7	
T1 pin 10 after D6	--	30.5	D6	
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)			
Model: GT-41134-0603				
CS7 shorted	9.02 V peak (shorted)			
RS14 shorted	9.02 V peak (shorted)			
D6 shorted	0 Vdc (shorted)			

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Clause	Requirement + Test	Result - Remark	Verdict

Model: GT-41134-0624	
CS7 shorted	24.3 V peak (shorted)
RS14 shorted	24.3 V peak (shorted)
D6 shorted	0 Vdc (shorted)
Supplementary information: Test voltage: 264 Vac, 60 Hz	

2.5	TABLE: limited power sources			P
Model: GT-41134-0603				
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected: 3.4 Vdc				
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	2.53 A	≤8.0 A	8.13 VA	≤100 VA
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected: 3.4 Vdc				
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Single fault condition of RS8 opened	2.69 A	≤8.0 A	5.7 VA	≤100 VA
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected: 9.13 Vdc				
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	0.85 A	≤8.0 A	7.38 VA	≤100 VA
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected: 9.13 Vdc				
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Single fault condition of RS8 opened	0.9 A	≤8.0 A	8.01 VA	≤100 VA

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Clause	Requirement + Test	Result - Remark	Verdict

Model: GT-41134-0624				
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected:		23.83 Vdc		
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Normal condition	0.5 A	≤8.0 A	11.28 VA	≤100 VA
Circuit output tested: V (+) – V (-)				
Measured Uoc (V) with all load circuits disconnected:		23.83 Vdc		
	Isc (A)		VA	
	Meas.	Limit	Meas.	Limit
Single fault condition of RS8 opened	0.49 A	≤8.0 A	8.96 VA	≤100 VA
supplementary information:				
Note:				
For all model, the other single fault conditions are relate to the below:				
Measured result shut down under the single fault condition of RS13 short-circuited.				

2.10.2	Table: working voltage measurement			P
Location	RMS voltage (V)	Peak voltage (V)	Comments	
Model: GT-41134-0603				
T1 pin 1 to pin 8	207	416	--	
T1 pin 1 to pin 10	203	404	--	
T1 pin 2 to pin 8	206	404	--	
T1 pin 2 to pin 10	208	392	--	
T1 pin 3 to pin 8	216	576	--	
T1 pin 3 to pin 10	212	576	--	
T1 pin 4 to pin 8	205	392	--	
T1 pin 4 to pin 10	204	392	--	
T1 pin 5 to pin 8	165	336	--	
T1 pin 5 to pin 10	166	344	--	
Model: GT-41134-0612-3.0				
T1 pin 1 to pin 8	195	416	--	

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Clause	Requirement + Test	Result - Remark	Verdict

T1 pin 1 to pin 10	198	404	--
T1 pin 2 to pin 8	197	414	--
T1 pin 2 to pin 10	199	404	--
T1 pin 3 to pin 8	200	532	--
T1 pin 3 to pin 10	192	516	--
T1 pin 4 to pin 8	197	388	--
T1 pin 4 to pin 10	199	400	--
T1 pin 5 to pin 8	164	344	--
T1 pin 5 to pin 10	165	372	--

Model: GT-41134-0624

T1 pin 1 to pin 8	198	412	--
T1 pin 1 to pin 10	201	416	--
T1 pin 2 to pin 8	175	380	--
T1 pin 2 to pin 10	179	392	--
T1 pin 3 to pin 8	202	484	--
T1 pin 3 to pin 10	192	484	--
T1 pin 4 to pin 8	200	396	--
T1 pin 4 to pin 10	202	420	--
T1 pin 5 to pin 8	168	344	--
T1 pin 5 to pin 10	170	420	--

supplementary information:

1. Test voltage: 240 Vac, 60 V
2. Bold texts indicate the highest V_{rms} and V_{peak}

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:							
Line and Neutral before fuse (F1) (FI)	340	240	2.0	Min.2.6	2.5	Min.2.6	
Two ends of the fuse (F1) (FI)	340	240	2.0	Min.2.6	2.5	Min.2.6	
On PCB component side:							

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Clause	Requirement + Test			Result - Remark		Verdict
Line and Neutral before fuse (F1) (FI)	340	240	2.0	Min.2.6	2.5	Min.2.6
Two ends of the fuse (F1) (FI)	340	240	2.0	Min.2.6	2.5	Min.2.6
On PCB solder side:						
Primary traces to user accessible parts (RI)	340	240	5.2	Min.5.2	5.2	Min.5.2
On PCB component side:						
Primary components to user accessible parts (RI)	340	240	5.2	Min.5.2	5.2	Min,5.2
Transformer (T1):						
Primary traces to secondary traces on PCB solder side (RI)	484	240	5.2	Min.5.2	5.2	Min,5.3
Secondary winding to core 2) 4) (RI)	484	240	5.2	Min.14	5.2	Min,14
Primary winding to secondary winding (RI)	484	240	5.2	Min,12	5.2	Min,12
On back side of exchangeable plug						
Primary terminal to accessible parts (RI)	340	240	5.2	Min.5.5	5.2	Min,5.5
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. 4) The distances are measured along the insulating tape around the core of T1. 3 layers insulating tape are provided between the core of transformer (T1) and secondary winding / components. 5) For required cl, use altitude correction factor 1.29 of altitude 4000m.						

2.10.5	TABLE: Distance through insulation measurements				P
Distance through insulation (DTI) at/of:	U peak (V)	U dc (V)	Test voltage (Vac)	Required DTI (mm)	DTI (mm)
RI: Enclosure	340	240	3000 Vac	0.4	Min. 2.0

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Clause	Requirement + Test	Result - Remark	Verdict

2.10.5	TABLE: Distance through insulation measurements					P
Distance through insulation (DTI) at/of:	U peak (V)	U dc (V)	Test voltage (Vac)	Required DTI (mm)	DTI (mm)	
thin sheet material at/of:	Up (V)	U rms (V)	test voltage (V)	Required layer(s)	layer(s)	
RI: Insulating tape around the outer side of transformer T1	484	240	3000 Vac / 2 layers	3	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.						

4.5	TABLE: Thermal requirements					P
test voltage (V) :	90 V / 50 Hz	264 V / 50 Hz	90 V / 50 Hz	264 V / 50 Hz	--	
tamb1 (°C) :	--	--	--	--	--	
tamb2 (°C) :	--	--	--	--	--	
Maximum measured temperature T of part/at::	T (°C)				Allowed Tmax (°C)	
Model: GT-41134-0603 with transformer from manufacturer						
Test position:	Horizontal		Vertical		--	
T1 coil	108.8	107.6	108.5	108.5	110 (120-10, B)	
T1 core	102.7	101.3	101.9	101.1	110 (120-10, B)	
PWB under D2	80.9	73.2	81.6	71.7	130	
PWB under Q1	91.4	90.8	94.9	90.9	130	
C1 body	87.1	82.0	85.3	79.5	105	
C2 body	92.5	88.0	91.3	86.6	105	
Enclosure inside near T1	79.5	79.9	80.1	81.2	For stress relief test	
Enclosure outside near T1	68.2	69.2	69.3	71.0	95	
Blade holder near line	47.3	49.6	49.8	50.4	105	
Ambient	40.0	40.0	40.0	40.0	--	
Model: GT-41134-0603 with transformer from manufacturer Glob Tek, Inc						

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Clause	Requirement + Test			Result - Remark		Verdict
Test position:	Horizontal		Vertical		--	
T1 coil	96.0	80.9	97.3	80.5	110 (120-10, B)	
T1 core	99.4	83.3	99.5	81.7	110 (120-10, B)	
PWB under D2	67.4	54.7	68.8	54.9	130	
PWB under Q1	92.1	74.8	93.3	74.1	130	
C1 body	80.1	64.4	81.9	64.6	105	
C2 body	78.2	62.5	79.9	62.7	105	
Enclosure inside near T1	74.6	67.2	75.2	65.6	For stress relief test	
Enclosure outside near T1	67.9	61.6	72.0	66.4	95	
Blade holder near line	55.2	51.3	57.0	52.7	105	
Ambient	40.0	40.0	40.0	40.0	--	
Model: GT-41134-0612-3.0 with transformer from manufacturer						
Test position:	Horizontal		Vertical		--	
T1 coil	91.6	88.6	89.9	87.3	110 (120-10, B)	
T1 core	88.6	85.9	86.9	84.7	110 (120-10, B)	
PWB under D2	78.1	67.7	75.4	71.3	130	
PWB under Q1	83.9	79.8	81.2	81.8	130	
C1 body	76.3	68.3	73.0	68.5	105	
C2 body	78.8	72.3	76.3	72.2	105	
Enclosure inside near T1	76.5	73.5	73.6	72.0	For stress relief test	
Enclosure outside near T1	67.0	64.1	63.8	62.2	95	
Blade holder near line	55.2	48.6	54.5	48.3	105	
Ambient	40.0	40.0	40.0	40.0	--	
Model: GT-41134-0624 with transformer from manufacturer						
Test position:	Horizontal		Vertical		--	
T1 coil	84.1	86.6	83.4	84.7	110 (120-10, B)	
T1 core	80.2	82.7	79.8	80.4	110 (120-10, B)	
PWB under D2	74.5	68.1	74.7	64.0	130	
PWB under Q1	80.6	82.3	81.8	80.0	130	
C1 body	75.0	72.7	73.7	68.3	105	
C2 body	74.5	73.7	74.1	70.3	105	

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Clause	Requirement + Test	Result - Remark				Verdict
Enclosure inside near T1		77.9	79.8	78.6	77.2	For stress relief test
Enclosure outside near T1		56.9	58.9	56.5	57.5	95
Blade holder near line		45.7	48.1	48.9	47.5	105
Ambient		40.0	40.0	40.0	40.0	--
NOTE:--						

4.5	TABLE: Thermal requirements					P
	test voltage (V) :	90 V / 50 Hz	264 V / 50 Hz	90 V / 50 Hz	264 V / 50 Hz	---
	tamb1 (C) :	--	--	--	--	---
	tamb2 (C) :	--	--	--	--	---
Maximum measured temperature T of part/at:		T (°C)				Allowed Tmax (°C)
Model: GT-41134-0603-W2E with transformer from manufacturer						
Test position:		Horizontal		Vertical		--
T1 coil		107.3	104.3	106.5	103.6	110 (120-10, B)
T1 core		101.1	98.2	100.5	98.0	110 (120-10, B)
PWB under D2		77.6	73.6	82.6	75.9	130
PWB under Q1		93.7	93.1	96.8	95.1	130
C1 body		79.6	73.5	81.4	75.1	105
C2 body		85.5	79.7	85.7	80.9	105
Enclosure inside near T1		92.8	89.4	92.4	89.4	For stress relief test
Enclosure outside near T1		74.3	69.6	71.3	69.4	95
Blade holder near line		51.9	52.0	52.4	50.2	105
Ambient		40.0	40.0	40.0	40.0	--
Model: GT-41134-0603-W2E with transformer from manufacturer Glob Tek, Inc						
Test position:		Horizontal		Vertical		--
T1 coil		102.9	99.9	100.7	98.5	110 (120-10, B)
T1 core		101.8	100.3	99.2	98.5	110 (120-10, B)
PWB under D2		76.2	68.4	75.1	67.7	130
PWB under Q1		89.4	90.4	88.0	89.3	130
C1 body		87.4	81.4	85.1	80.3	105

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Clause	Requirement + Test	Result - Remark			Verdict	
C2 body		83.9	77.8	82.1	76.9	105
Enclosure inside near T1		82.7	80.5	78.7	77.5	For stress relief test
Enclosure outside near T1		70.3	69.7	66.9	66.2	95
Blade holder near line		61.3	58.6	60.7	61.7	105
Ambient		40.0	40.0	40.0	40.0	--
Model: GT-41134-0612-3.0-W2E with transformer from manufacturer						
Test position:		Horizontal		Vertical		--
T1 coil		85.6	85.5	85.5	85.3	110 (120-10, B)
T1 core		82.8	83.0	83.6	83.6	110 (120-10, B)
PWB under D2		75.0	67.0	71.7	63.6	130
PWB under Q1		81.6	80.5	81.9	79.9	130
C1 body		76.7	73.3	74.8	70.7	105
C2 body		78.0	75.7	76.5	73.8	105
Enclosure inside near T1		64.6	65.3	65.8	67.2	For stress relief test
Enclosure outside near T1		58.7	59.5	60.2	61.7	95
Blade holder near line		47.6	47.8	48.0	47.6	105
Ambient		40.0	40.0	40.0	40.0	--
Model: GT-41134-0624-W2E with transformer from manufacturer						
Test position:		Horizontal		Vertical		--
T1 coil		81.3	80.6	78.3	79.4	110 (120-10, B)
T1 core		80.3	79.8	77.4	78.8	110 (120-10, B)
PWB under D2		73.0	65.7	72.6	66.6	130
PWB under Q1		79.8	79.0	78.3	79.1	130
C1 body		71.1	64.6	69.1	64.6	105
C2 body		74.8	70.7	72.4	70.5	105
Enclosure inside near T1		62.3	59.0	57.6	56.9	For stress relief test
Enclosure outside near T1		62.3	59.0	57.6	56.9	95
Blade holder near line		50.5	48.5	49.1	47.4	105
Ambient		40.0	40.0	40.0	40.0	--

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Clause	Requirement + Test	Result - Remark	Verdict

NOTE:--

4.5.5	TABLE: Ball pressure test of thermoplastic parts		P
	Allowed impression diameter (mm):	≤2mm	--
Part	Test temperature	Impression diameter(mm)	
Bobbin of T1 (Chang Chun, T375J)	125	1.3	
Bobbin of T1 (Sumitomo Bakelite, PM-9820)	125	1.3	
PCB (Techni, T2B)	125	1.0	
Blade holder (915R)	125	1.2	
Blade holder (SE1X)	125	1.0	
Supplementary information:--			

4.7	TABLE: Resistance to fire				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence
Enclosure	Sabic Innovative Plastic	R915	Min. 1.5 mm	Min. V-1	UL Recognized
Alt.	Sabic Innovative Plastic	SE1X	Min. 1.5 mm	Min. V-1	UL Recognized
Bobbin of T1	Chang Chun	T375J	Min. 0.7 mm	V-0	UL Recognized
Alt.	Sumitomo Bakelite	PM-9820	Min. 0.7 mm	V-0	UL Recognized
PCB	Techni	T2B	Min. 1.5 mm	Min. V-0	UL Recognized
Alt.	Interchangeable	Interchangeable	Min. 1.5 mm	Min. V-1	UL Recognized
Supplementary information:--					

5.1	TABLE: touch current measurement			P
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions	
L/N and secondary	0.005	0.25	—	
L/N and unearthed enclosure covered with metal foil	0.005	0.25	—	

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Clause	Requirement + Test	Result - Remark	Verdict

supplementary information:
1. Test voltage: 264 Vac, 60 Hz

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	
Voltage surge test:				
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 fuse (F1) 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.				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C) :				40	—
	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
Test with model GT-41134-0603						
Output	O/L	264	Steady state	F1	0.113	Total testing duration: 6 hours. No hazard. Overload to 2.53 A than unit shut down. Temp: T1 coil=127 °C, T1 core=120°C Max. Voltage: 3.4 V
Output	S	264	30 min.	F1	0.1	Observation: Unit shut down. No hazards.

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Clause	Requirement + Test				Result - Remark	Verdict
T1 pin 10 after D6 to GND	O/L	264	Steady state	F1	0.116	Total testing duration: 7.5 hours. No hazard. Overload to 0.6 A (output normal load 1.8 A), than unit shut down. Temp: T1 coil=117 °C, T1 core=104°C Max. Voltage: 3.4 V
T1 10 to GND	S	264	30 min.	F1	0.01	Observation: Unit shut down. No hazards.
Test with model GT-41134-0612-3.0						
Output	O/L	264	Steady state	F1	0.093	Total testing duration: 6 hours. No hazard. Overload to 0.94 A than unit shut down. Temp: T1 coil=84°C, T1 core=78 °C Max. Voltage: 9.13 V
Output	S	264	30 min.	F1	0.1	Observation: Unit shut down. No hazards.
T1 pin 10 after D6 to GND	O/L	264	Steady state	F1	0.095	Total testing duration: 7.5 hours. No hazard. Overload to 0.23 A (output normal load 0.67 A), than unit shut down. Temp: T1 coil=84°C, T1 core=79°C Max. Voltage: 9.13 V
T1 10 to GND	S	264	30 min.	F1	0.01	Observation: Unit shut down. No hazards.
Test with model GT-41134-0624						
Output	O/L	264	Steady state	F1	0.127	Total testing duration: 6 hours. No hazard. Overload to 0.5 A than unit shut down. Temp: T1 coil=94 °C, T1 core=87 °C Max. Voltage: 23.8 V
Output	S	264	30 min.	F1	0.1	Observation: Unit shut down. No hazards.
T1 pin 10 after D6 to GND	O/L	264	Steady state	F1	0.122	Total testing duration: 7.5 hours. No hazard. Overload to 0.2 A (output normal load 0.25 A), than unit shut down. Temp: T1 coil=90 °C, T1 core=81 °C Max. Voltage: 23.8 V
T1 10 to GND	S	264	30 min.	F1	0.01	Observation: Unit shut down. No hazards.
Test with models GT-41134-0603, GT-41134-0612-3.0 and GT-41134-0624						

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Clause	Requirement + Test					Result - Remark	Verdict
C1	S	264	< 1 s	F1	> 2.1	Observation: F1 opened. No hazard.	
C1 6)	S	264	< 1 s	F1	--	Observation: F1 opened. No hazard.	
D2	S	264	< 1 s	F1	> 2.1	Observation: F1 opened. No hazard.	
D2 6)	S	264	< 1 s	F1	--	Observation: F1 opened. No hazard.	
D6	S	264	30 min	F1	0.01	Observation: Unit shut down. No hazards.	
RS6	S	264	< 1 s	F1	--	Observation: F1 opened. No hazard.	
RS6 6)	S	264	< 1 s	F1	> 2.1	Observation: F1 opened. No hazard.	
Q1(G-D)	S	264	30 min	F1	--	Observation: F1 opened. No hazard.	
Q1(G-D) 6)	S	264	30 min	F1	> 2.1	Observation: F1 opened. No hazard.	
Q1(D-S)	S	264	30 min	F1	--	Observation: F1 opened. No hazard.	
Q1(D-S) 6)	S	264	30 min	F1	> 2.1	Observation: F1 opened. No hazard.	

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) Temp: The maximum temperature of transformer (T1) winding.
- 5) Max. Voltage: The maximum accessible voltage of DC output terminal during the fault condition test.
- 6) Test with fusible resistor, test repeat ten times as the same result.

C.2	TABLE: transformers						P
Loc.	Tested insulation	Working voltage peak / V (2.10.2)	Working voltage rms / V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
Primary traces to secondary traces on PCB solder side (RI)	RI	484	240	3000 Vac	4.0	5.0	--
Secondary winding to core (RI)	RI	484	240	3000 Vac	4.0	5.0	--
Primary winding to secondary	RI	484	240	3000 Vac	4.0	5.0	--

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Clause	Requirement + Test	Result - Remark	Verdict

winding (RI)						
Loc.	Tested insulation	Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
Insulating tape around the outer side of transformer (T1)	RI	3000 Vac / 2 layer	3	3	--	
Secondary winding to core	RI	3000 Vac	14	14	--	
Primary winding to secondary winding	RI	3000 Vac	12	12	--	

supplementary information:

1. Transformers from and Glob Tek, Inc share the same construction and materials.
2. The core of transformer (T1) is considered as primary winding.

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Clause	Requirement + Test	Result - Remark	Verdict

C.2	TABLE: transformers								
Physical construction of power transformer T1 XF00714									
1. OUTLINE DIMENSION: (UNIT: mm)									
<p>NOTE:</p> <ol style="list-style-type: none"> 1) XX Indicate the Factory ID; YY Provides production year; WW Provides production week. 2) PIN6, 7, 9 CUT OFF. 3) PIN3, 8, 10 要加TF TUBE. 4) 變壓器四周包12mm膠帶2TS. 5) 繞線N1・N2・N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內。 每個繞組起落不可交叉。 6) 標籤貼於PIN1-5, 並且字體朝PIN. 									
DIM	A	B	C	D	E	F	G		
	MAX	MAX	±0.25	MAX	±0.1	±0.5	±0.5		
SPEC	16	15	3.25	19	0.8	3.2	15.5		
DESCRIPTION	TRANSFORMER		Customer P/N			XF00714	DATE	2010/10/11	

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

C.2 (cont.) TABLE: transformers

**Physical construction of power transformer T1 (cont.)
XF00714**

2. SCHEMATIC:

3. WINDING SEQUENCE:

4. WINDING TABLE

Winding No (組別)	Margin Tape (檔論膠帶)	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	1-4	0.16ΦX4P	11Ts	密繞	1L	
N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	
E1	0	~4	0.025*6mm	1.1Ts	背膠	2L	
N3	0	8-10	0.45ΦX1P (三層絕緣線)	11Ts	密繞	2L	22*12/22*12
N4	0	2-4	0.16ΦX1P	7Ts	置中密繞	2L	0/28*8

NOTE:

- 繞線N1, N2, N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內(每個繞組起落不可交叉).
- N1 為密繞, 佔一層.
- N2 為密繞, 佔三層, 層間不須層隔.
- N3 為密繞, 佔一層, 且用三層絕緣線繞制, 需先脫皮再鍍錫.
- N4 置中密繞佔一層, 請使用TAPE固定以免線包亂動.
- E1 為內銅(背膠), 0.025*6mm, 用引線0.16Φ*1P焊於PIN4腳.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00714	DATE	2010/10/11
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C.2 (cont.)	TABLE: transformers									
Physical construction of power transformer T1 (cont.)										
XF00716										
1. OUTLINE DIMENSION: (UNIT: mm)										
<p>NOTE:</p> <ol style="list-style-type: none"> 1) XX Indicate the Factory ID; YY Provides production year; WW Provides production week. 2) PIN6, 7, 9 CUT OFF. 3) PIN3, 8, 10 要加TF TUBE. 4) 變壓器四周包12mm膠帶2TS. 5) 繞線N1、N2、N3時BOBBIN PIN1-5朝機台內, 繞線N4時BOBBIN PIN6-10朝機台內。 每個繞組起落不可交叉。 6) 標籤貼於PIN1-5, 並且字體朝PIN. 										
DIM	A	B	C	D	E	F	G			
	MAX	MAX	±0.25	MAX	±0.1	±0.5	±0.5			
SPEC	16	15	3.25	19	0.8	3.2	15.5			
DESCRIPTION	TRANSFORMER		Customer P/N		XF00716	DATE	2010/10/11			

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

C.2 (cont.)	TABLE: transformers																																																	
Physical construction of power transformer T1 (cont.) XF00716																																																		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>2. SCHEMATIC:</p> </div> <div style="width: 45%;"> <p>3. WINDING SEQUENCE:</p> </div> </div> <p style="text-align: center;">• START □ TF tube(透明)</p>																																																		
<p>4. WINDING TABLE</p> <table border="1"> <thead> <tr> <th>Winding No (組別)</th> <th>Margin Tape (描漆膠帶)</th> <th>PIN (腳位)</th> <th>Wire&Wire Copper (線徑X股數)</th> <th>Turns (圈數)</th> <th>Winding Tape (繞線方式)</th> <th>Tape Layer (膠帶層次)</th> <th>Tube (套管)</th> </tr> </thead> <tbody> <tr> <td>N1</td> <td>0</td> <td>1-4</td> <td>0.17ΦX4P</td> <td>10Ts</td> <td>密繞</td> <td>1L</td> <td></td> </tr> <tr> <td>N2</td> <td>0</td> <td>3-5</td> <td>0.13ΦX1P</td> <td>156Ts</td> <td>密繞</td> <td>1L</td> <td>30*9</td> </tr> <tr> <td>E1</td> <td>0</td> <td>-4</td> <td>0.025*6mm</td> <td>1.1Ts</td> <td>青膠</td> <td>2L</td> <td></td> </tr> <tr> <td>N3</td> <td>0</td> <td>8-10</td> <td>0.45ΦX2P (三層絕緣線)</td> <td>5Ts</td> <td>密繞</td> <td>2L</td> <td>20*9/20*9</td> </tr> <tr> <td>N4</td> <td>0</td> <td>2-4</td> <td>0.17ΦX1P</td> <td>5Ts</td> <td>置中密繞</td> <td>2L</td> <td></td> </tr> </tbody> </table>			Winding No (組別)	Margin Tape (描漆膠帶)	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	1-4	0.17ΦX4P	10Ts	密繞	1L		N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	30*9	E1	0	-4	0.025*6mm	1.1Ts	青膠	2L		N3	0	8-10	0.45ΦX2P (三層絕緣線)	5Ts	密繞	2L	20*9/20*9	N4	0	2-4	0.17ΦX1P	5Ts	置中密繞	2L	
Winding No (組別)	Margin Tape (描漆膠帶)	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	1-4	0.17ΦX4P	10Ts	密繞	1L																																												
N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	30*9																																											
E1	0	-4	0.025*6mm	1.1Ts	青膠	2L																																												
N3	0	8-10	0.45ΦX2P (三層絕緣線)	5Ts	密繞	2L	20*9/20*9																																											
N4	0	2-4	0.17ΦX1P	5Ts	置中密繞	2L																																												
<p>NOTE:</p> <ol style="list-style-type: none"> 繞線N1, N2, N3時BOBBIN PIN1-5朝機台內, 繞線N4時BOBBIN PIN6-10朝機台內(每個繞組起落不可交叉). N1 為密繞, 佔一層. N2 為密繞, 佔三層, 層間不須層隔. N3 為密繞, 佔一層, 且用三層絕緣線繞制, 需先脫皮再鍍錫, 繞線拉至PIN10時, 請使用TAPE固定, 以免線包亂動. N4 置中密繞佔一層, 繞N4時BOBBIN反插(將BOBBIN PIN6-10朝機台). E1 為內銅(青膠), 0.025*6mm, 用引線0.17Φ*1P焊於PIN4腳. 																																																		
DESCRIPTION	TRANSFORMER	Customer P/N	XF00716	DATE	2010/10/11																																													

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

C.2 (cont.)	TABLE: transformers									
Physical construction of power transformer T1 (cont.) XF00717										
<p>1. OUTLINE DIMENSION: (UNIT: mm)</p> <p>The drawings show four views of the transformer: a top view with dimensions A and B, a side view with dimensions D and E, a front view with dimensions F and G, and a bottom view with dimensions 6 and 10. The top view also shows pin configurations 1 and 5. The side view shows pin configurations 5 and 6. The front view shows pin configurations 1 and 5. The bottom view shows pin configurations 6 and 10.</p>										
<p>NOTE:</p> <ol style="list-style-type: none"> 1) XX Indicate the Factory ID; YY Provides production year; WW Provides production week. 2) PIN6, 7, 9 CUT OFF. 3) PIN3, 8, 10要加TF TUBE. 4) 變壓器四周包12mm膠帶2TS. 5) 繞線N1 - N2 - N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內。 每個繞組起落不可交叉。 6) 標籤貼於PIN1-5, 並且字體朝PIN. 										
DIM	A	B	C	D	E	F	G			
	MAX	MAX	±0.25	MAX	±0.1	±0.5	±0.5			
SPEC	16	15	3.25	19	0.8	3.2	15.5			
DESCRIPTION	TRANSFORMER		Customer P/N			XF00717	DATE	2010/10/11		

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

C.2 (cont.) TABLE: transformers

**Physical construction of power transformer T1 (cont.)
XF00717**

2. SCHEMATIC:

3. WINDING SEQUENCE:

4. WINDING TABLE

Winding No (組別)	Margin Tape (捲線膠帶)	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	1-4	0.16ΦX1P	11Ts	密繞	1L	
N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	30*9
E1	0	-4	0.025*6mm	1.1Ts	背膠	2L	
N3	0	8-10	0.40ΦX1P (三層絕緣線)	18Ts	密繞	2L	24*9/24*9
N4	0	2-4	0.16ΦX1P	9Ts	置中密繞	2L	

NOTE:

- 繞線N1, N2, N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內(每個繞組起落不可交叉).
- N1 為密繞, 估一層.
- N2 為密繞, 估三層, 層間不須層隔.
- N3 為密繞, 估一層, 且用三層絕緣線繞制, 需先脫皮再鍍錫. 繞線拉至PIN10時, 請使用TAPE固定, 以免線包亂動.
- N4 置中密繞估一層, 請使用TAPE固定以免線包亂動.
- E1 為內銅(背膠), 0.025*6mm, 用引線0.16Φ*1P焊於PIN4腳.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00717	DATE	2010/10/11
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C.2 (cont.)	TABLE: transformers									
Physical construction of power transformer T1 (cont.) XF00718										
1. OUTLINE DIMENSION: (UNIT: mm)										
NOTE:										
1) XX Indicate the Factory ID; YY Provides production year; WW Provides production week.										
2) PIN6, 7, 9 CUT OFF.										
3) PIN3, 8, 10要加TF TUBE.										
4) 變壓器四周包12mm膠帶2TS.										
5) 繞線N1、N2、N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內。 每個繞組起落不可交叉。										
6) 標籤貼於PIN1-5, 並且字體朝PIN.										
DIM	A	B	C	D	E	F	G			
	MAX	MAX	±0.25	MAX	±0.1	±0.5	±0.5			
SPEC	16	15	3.25	19	0.8	3.2	15.5			
DESCRIPTION	TRANSFORMER		Customer P/N		XF00718	DATE	2010/10/11			

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

C.2 (cont.)	TABLE: transformers	
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**Physical construction of power transformer T1 (cont.)
XF00718**

2. SCHEMATIC:

3. WINDING SEQUENCE:

• START
□ TF tube(透明)

4. WINDING TABLE

Winding No (組別)	Margin Tape (槽滿膠帶)	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	1-4	0.16ΦX4P	11Ts	密繞	1L	
N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	30*9
E1	0	-4	0.025*6mm	1.1Ts	背膠	2L	
N3	0	8-10	0.35ΦX1P (三層絕緣線)	26Ts	密繞	2L	24*9/24*9
N4	0	2-4	0.16ΦX1P	13Ts	置中密繞	2L	

NOTE:

- 繞線N1, N2, N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內(每個繞組起落不可交叉).
- N1 為密繞, 佔一層.
- N2 為密繞, 佔三層, 層間不須層隔.
- N3 為密繞, 佔一層, 且用三層絕緣線繞制, 需先脫皮再鍍錫. 繞線拉至PIN10時, 請使用TAPE固定, 以免線包亂動.
- N4 置中密繞佔一層, 請使用TAPE固定以免線包亂動.
- E1 為內銅(背膠), 0.025*6mm, 用引線0.16Φ*1P焊於PIN4腳.

DESCRIPTION	TRANSFORMER	Customer P/N	XF00718	DATE	2010/10/11
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C.2 (cont.)	TABLE: transformers									
Physical construction of power transformer T1 (cont.) XF00719										
<p>1. OUTLINE DIMENSION: (UNIT: mm)</p> <p>The drawings show: 1) Top view with dimensions A (width), B (height), and pins 1, 5, 6, 10. The transformer is labeled 'XF00719 ENG 130-1 YYWW XX'. 2) Side view with dimensions D (width) and E (pin height). 3) Front view with dimensions F (pin spacing) and C (height). 4) Bottom view with dimensions G (width) and pins 1, 5, 6, 10.</p>										
<p>NOTE:</p> <ol style="list-style-type: none"> 1) XX Indicate the Factory ID; YY Provides production year; WW Provides production week. 2) PIN6, 7, 9 CUT OFF. 3) PIN3, 8, 10要加TF TUBE. 4) 變壓器四周包12mm膠帶2TS. 5) 繞線N1 · N2 · N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內。 每個繞組起落不可交叉。 6) 標籤貼於PIN1-5, 並且字體朝PIN. 										
DIM	A	B	C	D	E	F	G			
	MAX	MAX	±0.25	MAX	±0.1	±0.5	±0.5			
SPEC	16	15	3.25	19	0.8	3.2	15.5			
DESCRIPTION	TRANSFORMER		Customer P/N		XF00719	DATE	2010/10/11			

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

C.2 (cont.) TABLE: transformers

**Physical construction of power transformer T1 (cont.)
XF00719**

2. SCHEMATIC:

3. WINDING SEQUENCE:

• START
□ TF tube(透明)

4. WINDING TABLE

Winding No (組別)	Margin Tape (檔軸膠帶)	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	1-4	0.17ΦX4P	10Ts	密繞	1L	
N2	0	3-5	0.13ΦX1P	156Ts	密繞	1L	30*9
E1	0	-4	0.025*6mm	1.1Ts	背膠	2L	
N3	0	8-10	0.25ΦX1P (三層絕緣線)	33Ts	密繞	2L	24*9/24*9
N4	0	2-4	0.17ΦX1P	8Ts	置中密繞	2L	

NOTE:

- 繞線N1, N2, N4時BOBBIN PIN1-5朝機台內, 繞線N3時BOBBIN PIN6-10朝機台內(每個繞組起落不可交叉)。
- N1 為密繞, 佔一層。
- N2 為密繞, 佔三層, 層間不須層隔。
- N3 為密繞, 佔二層, 且用三層絕緣線繞制, 需先脫皮再繞錫, 繞線拉至PIN10時, 請使用TAPE固定, 以免線包亂動。
- N4 置中密繞佔一層, 請使用TAPE固定以免線包亂動。
- E1 為內銅(背膠), 0.025*6mm, 用引線0.16Φ*1P焊於PIN4腳。

DESCRIPTION	TRANSFORMER	Customer P/N	XF00719	DATE	2010/10/11
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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

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

IEC 60950-1, 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 2.10.5.13Note 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

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 (A1:2010)	In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		N/A
1.7.2.1 (A12:2011)	In EN 60950-1:2006/A12:2011 Delete NOTE Z1 and the addition for Portable Sound System. Add the following clause and annex to the existing standard and amendments.		N/A
	Zx Protection against excessive sound pressure from personal music players		N/A

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


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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> <ul style="list-style-type: none"> – equipment provided as a package (personal music player with its listening device), where the acoustic output $L_{Aeq,T}$ is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and – a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1. <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> <ol style="list-style-type: none"> a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and 		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

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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

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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> <div style="text-align: center;">  </div> <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
	<p>Zx.4 Requirements for listening devices (headphones and earphones)</p>		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> <ul style="list-style-type: none"> – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output $L_{Aeq,T}$ of the listening device shall be ≤ 100 dBA. <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	—
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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).		N/A
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.</p> <p>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): "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: "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

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 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
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

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	In the United Kingdom , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
2.10.5.13	In Finland, Norway and Sweden , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.		N/A
3.2.1.1	In Switzerland , supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A SEV 5934-2.1998: Plug Type 23, L+N+PE 250 V, 16 A		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 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
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

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 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
3.2.1.1	<p>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.</p>		N/A
3.2.4	<p>In Switzerland, for requirements see 3.2.1.1 of this annex.</p>		N/A
3.2.5.1	<p>In the United Kingdom, a power supply cord with conductor of 1,25 mm² is allowed for equipment with a rated current over 10 A and up to and including 13 A.</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
3.3.4	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.		P
4.3.6	In Ireland , DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A
5.1.7.1	In Finland, Norway and Sweden TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.		N/A

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

ZB ANNEX (normative) SPECIAL NATIONAL CONDITIONS (EN)			
Clause	Requirement + Test	Result - Remark	Verdict
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: 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

APPENDIX X	National differences for Canada	IEC 60950-1, 2nd edition; Am 1:2009	
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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 national 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
1.7.1	Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. A voltage rating that exceeds an attachment plug cap rating is only permitted if it does not exceed the extreme operating conditions in Table 2 of CAN/CSA C22.2 No. 235, and if it is part of a range that extends into the Table 2 "Normal Operating Conditions." Likewise, a voltage rating shall not be lower than the specified "Normal Operating Conditions," unless it is part of a range that extends into the "Normal Operating Conditions."		N/A
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with CEC Part 1 or NEC shall be marked with the voltage rating and "Class 2" or equivalent. Marking shall be located adjacent to the terminals and shall be visible during wiring.		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	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.	The EUT is not such equipment.	N/A
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



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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.1	Some components and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (Canadian and/or U.S.) component or material standard requirements. These components include: attachment plugs, battery packs (rechargeable type, used with transportable equipment), cathode ray tubes, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), cord sets and power supply cords, direct plug-in equipment, enclosures (outdoor), flexible cords and cables, fuses (branch circuit), fuseholders, ground-fault current interrupters, industrial control equipment, insulating tape, interconnecting cables, lampholders, limit controls, printed wiring, protectors for communications circuits, receptacles, solid state controls, supplementary protectors, switches (including interlock switches), thermal cutoffs, thermostats, (multi-layer) transformer winding wire, transient voltage surge suppressors, tubing, wire connectors, and wire and cables.	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
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

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



APPENDI X	National differences for China	IEC 60950-1, 2 nd edition	—
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.		P

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.4.12.1	<p>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.</p> <p>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.</p> <p>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>		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.		N/A
1.7	Add one paragraph before the last paragraph: The required marking and instruction should be given in normative Chinese unless otherwise specified.	See additional information.	P
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

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


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	<p>Add "(applicable for altitude up to 2000m)" in header of Table 2K、 2L and 2M.</p>		P

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.		P
3.2.1.1	Add a paragraph before the last paragraph: Plugs connected to AC mains supply shall comply with GB 1002 or GB 1003 or GB/T 11918 as applicable.	Shall be evaluated before the national approval.	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.		N/A
Annex BB (informative)	Amended as : The differences between Chinese national standards GB 4943.1-2011 and GB 4943-2001.		N/A

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)	<p>Added annex EE: Illustration relative to safety explanation in normative Chinese, Tibetan, Mongolian, Zhuang Language and Uighu.</p>		N/A
Other amendments	<p>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>		N/A

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>		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
APPENDIX X	National differences for Israel IEC 60950-1, 2nd edition; Am 1:2009		—
1.6	Power interface The clause is applicable with the following addition:		N/A
1.6.1	AC Power distribution systems A note shall be added to the clause as follows: Note: In Israel, this clause is applicable subject to the Electricity Law, 1954, its regulations and revisions.		N/A
1.7	Marking and instructions The clause is applicable with the following additions: - Subclause 1.7.201 shall be added at the beginning of the clause as follows:	To be evaluated when submitted for the national approval.	N/A
1.7.201	Marking in the Hebrew language The marking in the Hebrew language shall be in accordance with the Consumer Protection Order (Marking of goods), 1983. In addition to the marking required by clause 1.7.1, the following details shall be marked in the Hebrew language. The details shall be marked on the apparatus or on its package, or on a label properly attached to the apparatus or on the package, by bonding or sewing, in a manner that the label cannot be easily removed. 0Name of the apparatus and its commercial designation; 1Manufacturer's name and address. If the apparatus is imported, the importer's name and address; 2Manufacturer's registered trademark, if any; 3Name of the model and serial number, if any; 4Country of manufacture.	To be evaluated when submitted for the national approval.	N/A
1.7.2	Safety instructions and marking		N/A
1.7.2.1	General The following shall be added to the clause: All the instructions and warnings related to safety shall also be written in the Hebrew language.		N/A
2	Protection from hazards The clause is applicable with the following additions:		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.9.4	<p>Separation from hazardous voltages The following shall be added at the beginning of the clause: In Israel, according to the Electricity Law, 1954, and the Electricity Regulations (Earthing and means of protection against electricity of voltages up to 1,000V) 1991, seven means of protection against electrocution are permitted, as follows: 0TN-S – Network system earthing; TN-C-S – Network system earthing; 1TT – Network system earthing; 2IT – Network Insulation Terre; 3Isolated transformer; 4Safety extra low voltage (SELV or ELV); 5Residual current circuit breaker (30 ma = IΔ); 6Reinforced insulation; Double insulation (class II) .</p>		N/A
	- Clause 2.201 shall be added at the end of the clause, as follow:		N/A
2.201	<p>Prevention of electromagnetic interference - Prior to carrying out the tests in accordance with the clauses of this Standard, the compliance of the apparatus with the relevant requirements specified in the appropriate part of the Standard series, SI 961, shall be checked. <u>The apparatus shall meet the requirements in the appropriate part of the Standard series. SI 961.</u> - If there are components in the apparatus for the prevention of electromagnetic interference, these components shall not reduce the safety level of the apparatus as required by this Standard.</p>		N/A
3	<p>Wiring, connections and supply The clause is applicable with the following additions:</p>		N/A
3.2	Connection to a mains supply		N/A
3.2.1	Means of connection		N/A
3.2.1.1	<p>Connection to an a.c. mains supply After the note, the following note shall be added: Note: In Israel, the feed plug shall comply with the requirements of Israel Standard SI 32 Part 1.1.</p>		N/A
3.2.1.2	<p>Connection to a d.c. mains supply At the end of the first paragraph, the following note shall be added: Note: At the time of issue of this Standard, there is no Israel Standard for connection accessories to d.c.</p>	To be evaluated when submitted for the national approval.	P
Annex P	Normative references		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
APPENDIX X	National differences for Korea IEC 60950-1, 2nd edition; Am 1:2009		—
1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).		P
8	EMC The apparatus shall comply with the relevant CISPR standards.	To be evaluated when submitted for the national approval.	—
APPENDIX X	National differences for USA IEC 60950-1, 2nd edition; Am 1:2009		—
SPECIAL NATIONAL CONDITIONS			
1.1.1	All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part I, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. 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.		P
1.5.5	For lengths exceeding 3.05 m, external interconnecting flexible cord and cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC. 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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.7	Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1 shall be marked with the voltage rating and "Class 2" or equivalent. The marking shall be located adjacent to the terminals and shall be visible during wiring.		P
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.		P
2.6.3.3	The first column on Table 2D modified to require, "Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		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

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Clause	Requirement + Test	Result - Remark	Verdict
3.3	Wiring terminals and associated spacings for field wiring connections shall comply with CSA C22.2 No. 0.		N/A
3.3.3	Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	OTHER DIFFERENCES		—
1.5.1	<p>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:</p> <p>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.</p>	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
2.6.3.4	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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Clause	Requirement + Test	Result - Remark	Verdict
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
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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Clause	Requirement + Test	Result - Remark	Verdict

APPENDIX X	National differences for Australia and New Zealand IEC 60950-1, 2 nd edition		
	ANNEX ZZ (normative) Variations to IEC 60950-1, ED.2.0 (2005) for application in Australia and New Zealand		P
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 IECCEB CB Scheme and will be published in the IECCEB 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

IEC 60950-1																				
Clause	Requirement + Test	Result - Remark	Verdict																	
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 border="1" data-bbox="395 667 986 1281"> <thead> <tr> <th rowspan="2">RATED CURRENT of equipment A</th> <th colspan="2">Minimum conductor sizes</th> </tr> <tr> <th>Nominal cross-sectional area mm²</th> <th>AWG or kcmil [cross-sectional area in mm²] see Note 2</th> </tr> </thead> <tbody> <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> </tbody> </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																		
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]																		
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 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																	

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.3.6	<p><i>Delete</i> the third paragraph and replace with the following:</p> <p>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.</p>		N/A
4.3.13.5	<p><i>Add</i> the following to the end of the first paragraph:</p> <p>‘, or AS/NZS 2211.1’.</p>		N/A
4.7	<p><i>Add</i> the following new paragraph to the end of the clause:</p> <p>‘For alternate tests refer to Clause 4.7.201.’</p>		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7.201	<p><i>Insert</i> a new Clause 4.7.201 after Clause 4.7.3.6 as follows:</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>		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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.</p> <p>The test shall be also carried out on other parts of insulating material which are within a distance of 3 mm of the connection.</p> <p>NOTE Contacts in components such as switch contacts are considered to be connections.</p> <p>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.</p> <p>The needle-flame test shall be made in accordance with AS/NZS 60695.11.5 with the following modifications:</p>		N/A

IEC 60950-1														
Clause	Requirement + Test	Result - Remark	Verdict											
Cont.	<table border="1"> <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>			N/A
	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>												
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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>													
<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.</p> <p>4.7.201.4 Testing in the event of non-extinguishing material</p> <p>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.</p>														

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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. 		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	<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>		N/A
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_c, 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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
Annex P	<p><i>Add</i> 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>		P
Index	<p><i>Insert</i> the following between 'asbestos, not be used as insulation' and 'attitude see orientation':</p> <p>AS/NZS 2211.1 4.3.13.5 AS/NZS 3112 4.3.6 AS/NZS 3191 3.2.5.1 (Table 3B) AS/NZS 60064 4.1.201 AS/NZS 60695.2.11 4.7.201.2, 4.7.201.3 AS/NZS 60695.11.10 4.7.201.1, 4.7.201.5 AS/NZS 60695.11.5 4.7.201.3</p> <p><i>Insert</i> 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>		P

Equipment's combined with two-pole plug (Class II)
Supplementary tests on plug portion according to EN 50075

7	DIMENSIONS		—
	Checking dimensions by measuring and by gauges according to Standard Sheet 1.	Complied	Pass

8	PROTECTION AGAINST ELECTRIC SHOCK		—
8.1	Finger test: Shown as figure 3. Ambient temperature: 35 ± 2 °C. Force: 75^{+3}_0 N. 60^{+5}_0 s.	After subjected for 60 s with a force of 75 N, no impair occurred, and no live parts accessible	Pass
8.2	Single pin insertion test: Checked by gauge of figure 4 (1 kg). Ambient temperature: 35 ± 2 °C. 60^{+5}_0 s.	The gauge did not come into contact with the engagement face of the plug	Pass
8.3	External parts of insulating material	Complied	Pass

9	CONSTRUCTION		—
9.3	Pins of plug solid	Complied (see clause 13)	Pass
9.4	Pins of plug locked against rotation	Complied (see clauses 13.1 and 13.4)	Pass
9.5	Effective permanent connections:		—
	-soldered, welded, crimped	Soldered connection provided	Pass
	-screwed and snap-on connections not used	Complied	Pass
	-presoldered flexible conductor for crimping not permitted		Pass

10	RESISTANCE TO HUMIDITY		—
	Humidity conditioning		Pass
	Humidity (%)	95	—
	Temperature(°C)	30	—
	Test time(h)	48	—

11	INSULATION RESISTANCE AND ELECTRIC STRENGTH		—
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11.1	Insulation resistance test: d.c. 500 V, applied for 60^{+5}_0 s. The insulation resistance shall be more than 5 M Ω .	Insulation resistance: >50 M Ω	Pass
11.2	Electric strength test: a.c. 2000 V, 50 Hz, applied for 1 min.	After the test, no flashover or breakdown occurred	Pass

13	MECHANICAL STRENGTH		—
13.1	Compression test: 150 N, 5 min. (shown as figure 7)	No deformation or any undue change of dimensions	Pass
13.2	Torque test on pins: 0.4 Nm, 1 min	No pin turn occurred	Pass
13.3	Abrasion test: 20 000 movements (fixed as figure 9)	No damage	Pass
13.4	Pull test with steel plate on pin: Heated for 70 °C \pm 2 °C, 60^{+5}_0 min; pull force 40^{+1}_0 N, 60^{+5}_0 s. Displacement of the pin can not be more than 1 mm	Displaced distance: 0.34 mm	Pass

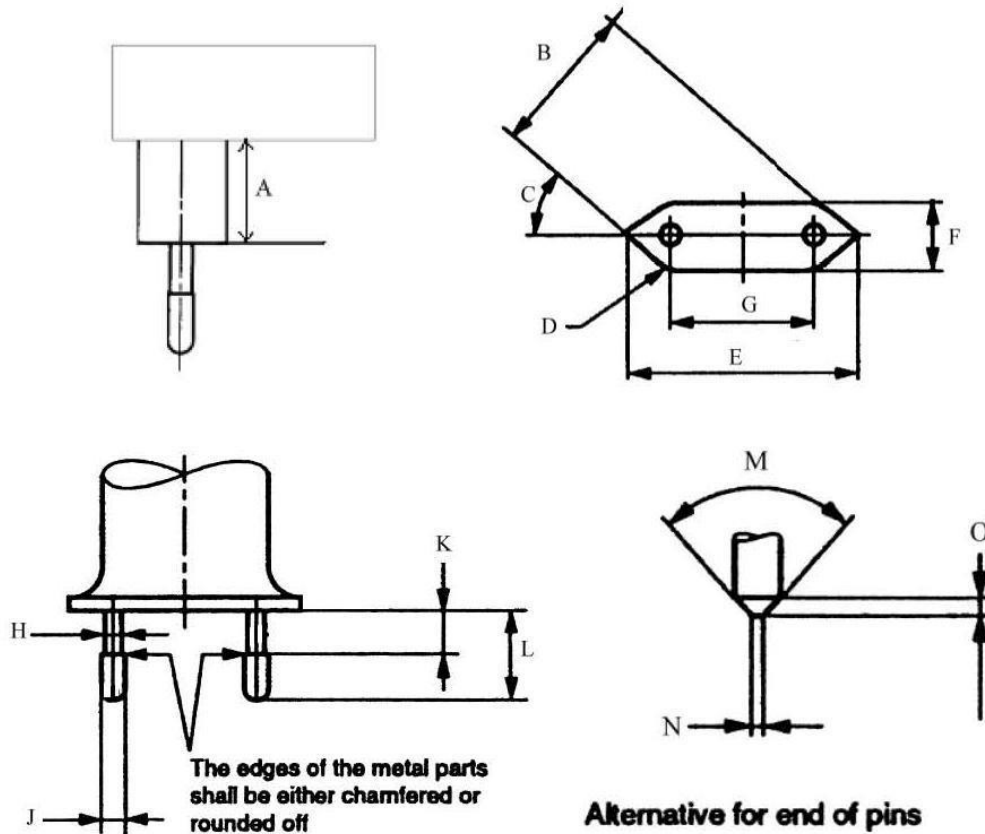
14	RESISTANCE TO HEAT AND TO AGEING		—
14.1.1	Heating test: 100 °C \pm 2 °C, 1 hour	No damage	Pass
14.1.2	Compression test: 80 °C \pm 2 °C, force 20^{+1}_0 N, 60^{+5}_0 min	No damage	Pass
14.2	Aging test: 70 °C \pm 2 °C, 168 hours; And then removed to room temperature for 96 hours	No cracks visible	Pass
	Forefinger wrap in a dry piece of rough cloth and press the plug with a force of 5 N	No traces	Pass

15	CURRENT-CARRYING PARTS AND CONNECTIONS		—
15.1	Connections withstand the mechanical stresses occurring in normal use	Complied	Pass
15.2	Contact pressure not transmitted through insulating material		Pass
15.3	Material of current-carrying parts	> 58% copper	Pass

17	RESISTANCE OF INSULATING MATERIAL TO ABNORMAL HEAT AND TO FIRE		—
	Glow-wire test: 750 °C for parts necessary to retain current-carrying parts in position; 650 °C for other parts	Flames and glowing extinguished within 30 s	Pass

Two-pin plugs for class II appliances (Up to 2.5 A rating)

According to EN50075



Symbol	Requirement (mm)	Measured (mm)	Symbol	Requirement (mm)	Measured (mm)
A	> 18.0	18.2	H	≤ 3.8	3.1
B	25.6 - 26.6	26.2	I	—	—
C	45 °	45°	J	3.94 – 4.06	3.98
D	R 5.0 – 6.0	R 5.5	K	10.0 – 11.0	10.1
E	34.6 – 36.0	35.5	L	18.5 – 19.5	18.5
F	13.0 – 14.4	14.1	M	≤ 90 °	N/A
G	Engagement 18.0 – 19.2	18.6	N	0.7 – 1.7	N/A
			O	≤ 2.0	N/A
G	End 17.0 – 18.0	17.7			

Equipment's combined with Australia plug

Supplementary tests on plug portion according to AS/NZS 3112

J1	Scope		Info
J2	Requirements for the plug portion		P
J2.1	Definition		
J2.1.1	Plug portion		Info
J2.2	Requirements		
J2.2.1	Plug pins of plug portions		P
	Material for pins: (a) copper; (b) copper alloy min. 58 % copper for parts made from cold rolled sheet or copper min. 50 % for other parts; (c) or stainless steel min. 13 % chromium and max. 0.09 % carbon	> 58 % copper	P
	Assembly of pins		P
	Form of pin		P
	Insulation of plug pins (Figure 2.4 for insulated pin type)		P
J2.2.2	Ratings and dimensions for low voltage plug portions		
	Distance between a live pin of any plug to the edge of moulding of plug shall be not less than 9 mm.	Measured min. 10.5 mm	P
	Protrusion max. 0.5 mm from the front face of plug.	Measured max. 0.1 mm	P
	Dimensions checked according to Figures 2.1 (c) and 2.1 (e).		P
	Dimensions checked by gauge in Figure A1, Appendix A.		P
J2.2.3	Internal connections for plug portions		N/A
J2.2.4	Arrangement of earthing connections for plug portions		N/A
J2.2.5	Configuration of plug portions		P
J2.2.6	Tests		
J2.2.6.1	General		Info

J2.2.6.2	High voltage test Clause 2.13.2 items (a) and (c), test voltage see table 2.3; Clause 2.13.2 items (b) and (d), test voltage is 3500 Vac, 1 min.; Clause 2.13.2 item (e), test voltage is 1250 Vac, 1 min.		P
J2.2.6.3	Mechanical strength of pin tests		
J2.2.6.3.1	Tumbling barrel test Three samples tests: EUT mass \leq 250 g, 500 times drops; EUT mass $>$ 250 g, 250 times drops.	500 times drops	P
J2.2.6.3.2	Pin bending test Three sample plugs tested for 20 movement cycles.		P
J2.2.6.4	Temperature rise test The temperature rise of the pins shall not exceed 45 K.		P
J2.2.6.5	Securement of pins of the plug portion		P
	Movement of pins: Preconditioned for 40 ± 1 °C, 1 h; Test force applied 18 ± 1 N-push.		P
	Fixing of pins: Heated for 50 ± 2 °C, 1 h; Test force applied 60 ± 0.6 N-push/pull, 10 min.		P
J2.2.6.6	Tests on the insulation material of insulated pin plug portions		
	General		P
	Pressure test at high temperature: 160 ± 5 °C for 2 h, 2.5 N.		P

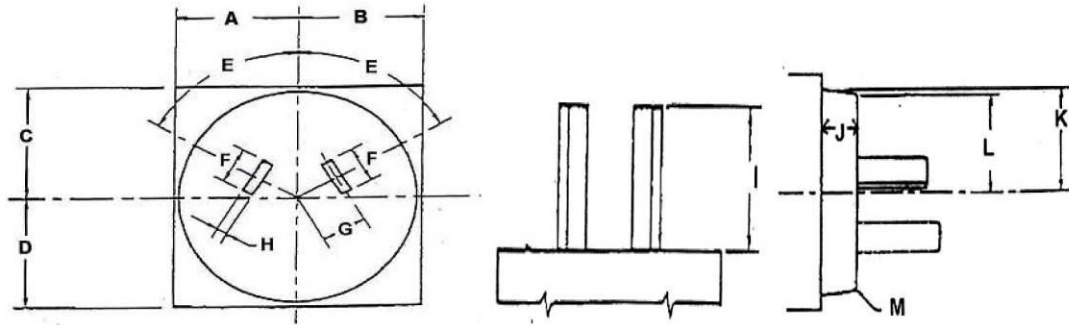
	Static damp heat test: Db (12 + 12 h cycle), 95 % R.H., lower temperature 25 ± 3 °C and upper temperature 40 °C. After the test, It shall be complied with clause 2.13.2 (e) insulation resistance test, clause 2.13.3 high voltage test, and clause 2.13.13.6 abrasion test		P
	Lower temperature test: – 15 ± 2 °C for 24 h. After the test, It shall be complied with clause 2.13.2 (e) insulation resistance test, clause 2.13.3 high voltage test, and clause 2.13.13.6 abrasion test		P
	Impact test at low temperature: – 15 ± 2 °C for 24 h, falling weight mass 100 ± 1 g, falling height 100 mm, four impacts.		P
	Abrasion test: 4 N, 10 000 times in each direction (20 000 movements) at a rate of 30 movements per minute.		P
J2.2.6.7	Torque to socket-outlet test Plug shall not impose undue strain on fixed socket-outlets, limit ≤ 0.25 Nm	Measured max. 0.068 Nm	P

P - Pass; **N/A** - Not applicable; **Info** - Information only

Dimensions Checking for Two-pin plugs (Up to 10 A rating, 250 V max.)

According to AS/NZS 3112: 2004

Figure 2.1 (c)



Alternative method of forming main chamfer on pin ends (h) \ (i) and (j)

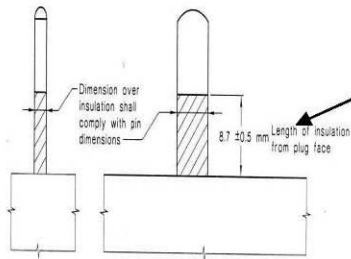
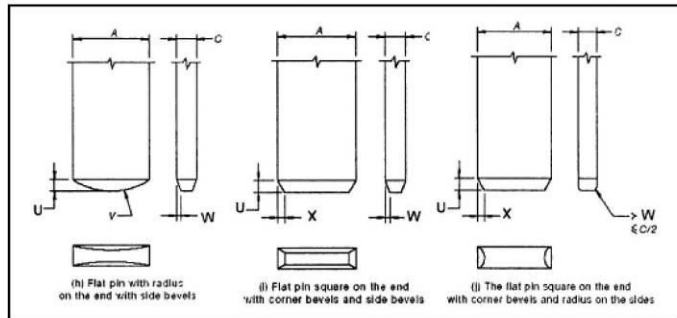


FIGURE 2.4 DIMENSIONS OF INSULATION ON INSULATED LIVE PINS



Symbol	Requirement (mm)	Measured (mm)	Symbol	Requirement (mm)	Measured (mm)
A	< 21.9 or > 27.0	31.3	J	> 8.6	8.9
B	< 21.9 or > 27.0	31.3	K	< R 21.0	R 20.6
C	< 21.9 or > 27.0	20.2	L *)	R 19.0 – 21.0	N/A
D	< 21.9 or > 27.0	20.2	M	< R 1.0	< R 1.0
E	60°	60°	T	8.2 – 9.2	8.8
F	6.2 – 6.5	6.3	U	0.8 – 1	0.8
G	7.92	7.92	V *)	6 / 11	6
H	1.58 – 1.78	1.64	W	0.3 – 0.4	0.4
I	16.66 – 17.46	17.00	X	> 0.60	N/A

*) O is not required for insulated pin type plug.

*) V is 6 mm for all pins of 10 A plugs and live pins of 15 A plugs; or 11 mm for earth pins of 15 A plug and all pins of 20 A plugs.

Equipment's combined with UK plug

Supplementary tests on plug portion according to BS 1363-1

9	Accessibility of live parts		
9.1	Not be accessible to live parts of plug.		P
9.1.1	Test with test probe 12 of BS EN 61032: 1998.	Live parts are not accessible	P
9.2	Protect the user against accidental contact with live parts during insertion or withdrawal of plug.		P
9.2.1	Comply with the dimensional and gauging requirements of BS 1363: Part 1.	Complied	P
9.3	Resilient covers of plugs have no risk due to a result of undue pressure.	-	N/A
9.3.1	Pressure test (figure 2, 240 ± 10 N, $2000 \text{ V} \pm 60 \text{ V}$, $50 \text{ Hz} / 60 \text{ s}$.)	-	N/A
	Test probe 11 (straight test finger) of EN 61032 applied with a force of 30 ± 2 N.	-	N/A

12	Construction of plugs		
12.1	The disposition of the pins shall be shown as figure 4a).	Shown as figure 4a)	P
12.2	Pin and sleeve dimensions, body outline were checked according to figure 4a) of BS 1363: Part 1.	The outline of the plug passed to meet the specific dimensions at a distance of 8.00 mm from the engagement surface. (limit: > 6.35 mm)	P
		The measured dimensions of item were found within the specified limits as shown in figure 4. (Refer to attached Dimensions for details)	P
	Plug fitted with an ISOD should comply with all the dimensions specified in figure 4a) with the exception of the ISOD width which should be 4.05 mm max. and 3.90 mm min. and its height which should be 8.05 mm max. and 7.75 mm min.	ISOD width is 4.05 mm and its height is 8.04 mm	P
12.2.1	The plug portion shall enter the gauge fully when a force of 10 N or less is applied to the centre of the plug at right angle.	Sample was entered into the gauge fully with a force less than 10 N	P
12.3	No parts of a line or neutral pin shall be less than 9.5 mm from the periphery of the plug measured along the engagement surface.	Complied	P

12.9	Plug pins were constructed of brass.	57.5~60.3 % Copper	P
	Plug pins was comply with 12.9.1.		P
	For non-solid plug shall comply with 12.9.2.	-	N/A
12.9.1	Exposed surfaces of plug pins were smooth and free from burrs or sharp edges and other irregularities, which could cause damage or excessive wear to corresponding socket contacts or shutters.	Complied	P
12.9.4	Plug pins and ISOD shall have adequate strength.		P
12.9.4.1	For solid pins and ISOD: 1100_{-10}^0 N at a rate not exceeding 10 mm/min.	After the test, the plug cannot fit the relevant gauge	P
12.9.4.3	For ISOD: $400 +10 / 0$ N to the movable arvil such that the pin is strained at a rate 10 ± 2 mm/min.	After the test, the plug cannot fit the relevant gauge	P
12.9.6	Plug pins shall have adequate mechanical strength to ensure that they cannot be distorted by twisting.		P
12.9.6.1	Apply a torque $1 \text{ Nm} \pm 10 \%$ for 60_{-0}^5 s. After each pin has been separately twisted, the plug was fit the gauge in figure 5. Repeated with opposite direction.	After the test, the plug still fit the relevant gauge	P
12.11	Plug shall be so designed that when fully assembled the pins are adequately retained in position such that there is no likelihood of them becoming detached form the plug during normal use.		P
12.11.1	Each pin is subjected for 60_{-0}^5 s to a pull of 100_{-2}^0 N without jerks in the direction of the major axis. The plug is mounted using the steel plate shown in figure 7. The apparatus is placed within an oven and the pull is applied at least 1 h after the plug body has attained the test temperature of $70 \text{ }^\circ\text{C} \pm 5 \text{ }^\circ\text{C}$ while maintained at this temperature. After the test, the plug pin shall fit into the gauge and comply with 12.2.1.	After the test, the plug pins still fit the relevant gauge	P

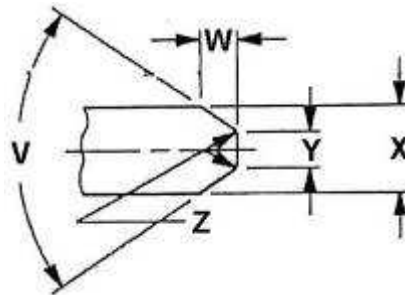
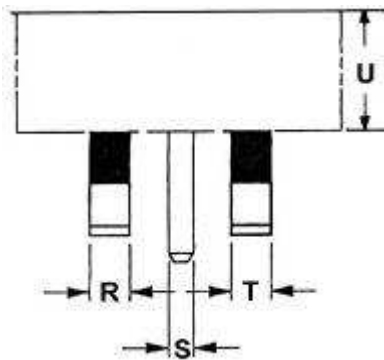
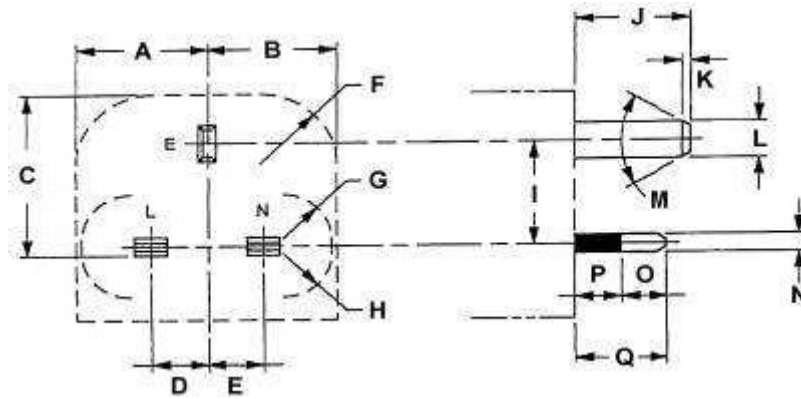
12.12	The degree of flexibility of mounting of the plug pins or the angular movement of the pins in the base shall be not greater than 3°30'.		P
12.12.1	Plug pin deflection test: Shown as figure 8, applying a force of $4.4_{-0.2}^0$ N, $25_{-0.5}^0$ mm from the engagement face of the plug.	During each test, the deflection of the pins do not exceed 3°30'. After the test, the plug still fit the relevant gauge	P
12.16	Line and neutral plug pins fitted with insulating sleeves. The dimensions of the pin and sleeve shall fall within the specific limit of 4a).	Complied	P
12.17	Plug pin sleeves shall have adequate electric strength, resistance to abrasion and resistance to deformation due to overheating of pins.		P
12.17.1	Plug pin sleeve shall be complied with 12.17.2 to 12.17.4.	Complied	P
12.17.2	Electric strength test: 1250 ± 30 Vac, 50 Hz, $60_{-0}^{\pm 5}$ s.	No breakdown and flashover occur	P
12.17.3	Abrasion test: 20 000 movements (fixed as figure 9)	No damage and satisfy the electric strength test in 12.17.2	P
12.17.4	Impression test: $2.5_{-0.1}^0$ N force, 200_{-5}^0 °C, 120_{-5}^0 min. (The test shall be carried out at 125 °C based on clause 4.3.6 direct plug-in equipment in IEC/EN 60950-1.)	The thickness of insulation was reduced by less than 50% Actual testing temperature: 125 °C	P

22	Resistance to heat		
22.2	Parts of insulating material shall be sufficiently resistant to heat.		P
22.2.1	Ball pressure test $75 \text{ °C} \pm 5 \text{ °C}$, $60_{-0}^{\pm 1}$ min.	Not exceed 2 mm	P

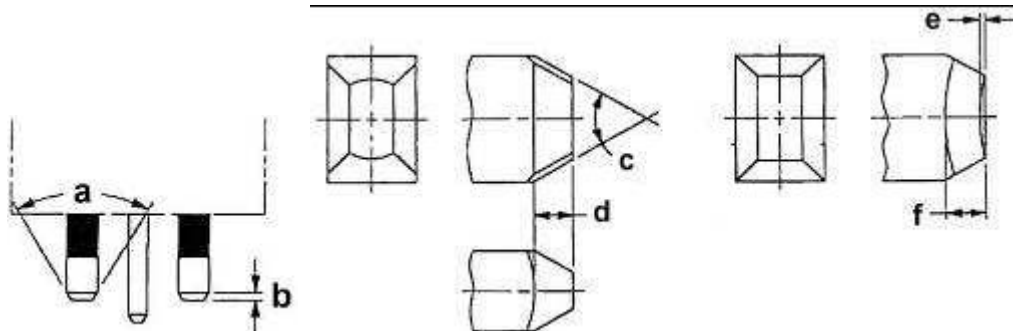
23	Resistance to abnormal heat, fire and tracking		
23.2	Glow-wire test: $750 \text{ °C} \pm 10 \text{ °C}$ for parts necessary to retain live parts in position (including ISOD); $650 \text{ °C} \pm 10 \text{ °C}$ for other parts.	Flames and glowing extinguished within 30s	P

Dimensions Checking for UK plugs (Up to 13 A rating, 250 V max.)

According to figure 4a) of BS 1363-1



Pin end chamfer detail



Permitted additional chamfers on L and N pins
(if additional chamfer is used it has to be on both pins)

Alternative method
of forming 58° to 62°
included chamfer
on pin ends

Alternative method
of forming main
chamfer on pin
ends

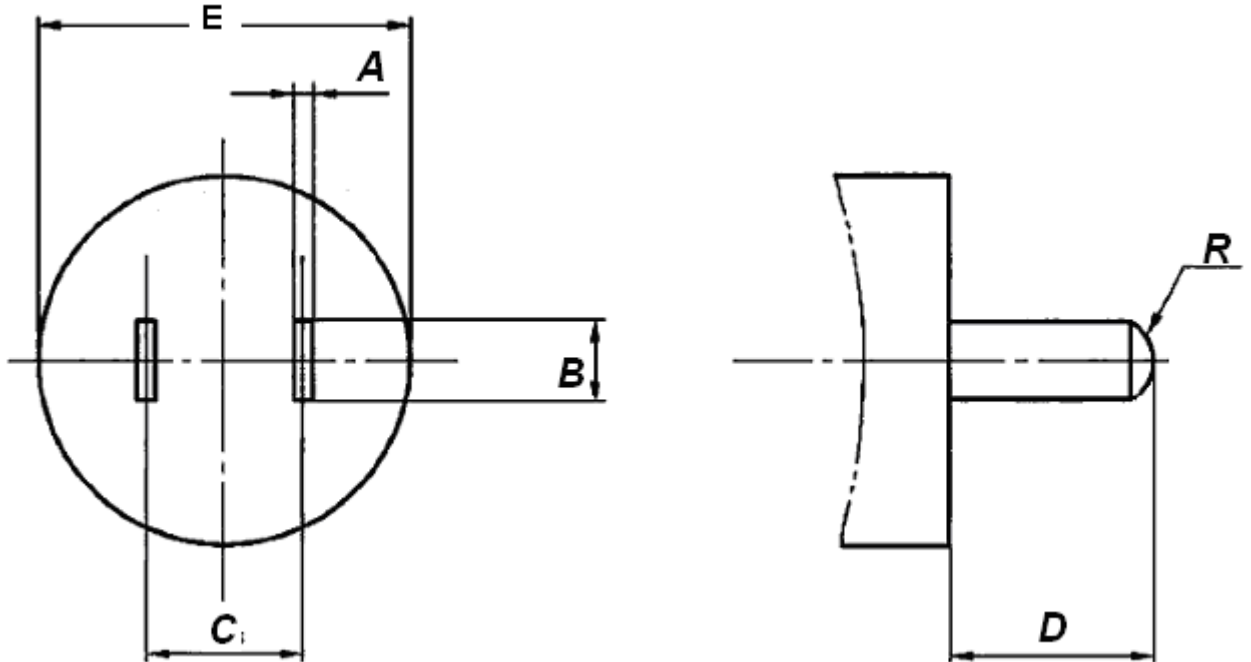
Symbol	Requirement (mm)	Measured (mm)		Symbol	Requirement (mm)	Measured (mm)
A	25.37 max.	24.15		Q	17.2 – 18.2	17.5
B	25.37 max.	24.15		R	6.22 – 6.48	6.31
C	34.6 max.	30.7		S	3.90 – 4.05	4.02
D	11.05 – 11.18	11.08		T	6.22 – 6.48	6.31
E	11.05 – 11.18	11.08		U	6.35 min.	6.35
F	R 15 min.	>R 15		V	60– 80	75
G	R 9.5 min.	R 9.6		W	1.35 – 1.85	1.70
H	R 9.5 min.	R 9.6		X	3.90 – 4.05	4.02
I	22.10 – 22.36	22.12		Y	1.2 – 2.0	1.9
J	22.23 – 23.23	22.24		Z	R 0.1 – 1.0	R 0.5
K	1.35 – 1.85	1.77		A	58 – 62	60
L	7.80 – 8.05	8.04		B	1.35 – 1.85	1.63
M	58 – 62	60		C	58 – 62	60
N	3.90 – 4.05	3.94		D	1.35 – 1.85	1.55
O	9.2 max.	8.8		E	0.2 max.	N/A
P	9.5 max.	8.7		f	1.35 – 1.85	N/A

Equipment's combined with two-pole plug (Class II)

Supplementary tests on plug portion are according to ANSI/UL 1310

Clause	Requirement - Test	Result-Remark	Comply
1	Dimensions		—
1.1	Checked according to figure C1.1 of ANSI/UL 1681		Pass
1.2	Checked according to figure 5.1, sub-clauses 5.11, 5.12 and 5.13 of ANSI/UL 1310-1996		Pass
2	Direct Plug-In Blade Secureness Test		—
2.1	Pull test (89 N / 20 lb, 2 min.); clause 41 of ANSI/UL 1310-1996	Blades are not loosened	Pass
3	Direct Plug-In Security of Input Contacts Test		—
3.1	Push test of each blade (133 N / 30 lb, 1 min.); clause 42 of ANSI/UL 1310-1996	Blades are not loosened	Pass
3.2	Push test of all blades (178 N / 40 lb, 1 min.); clause 42 of ANSI/UL 1310-1996	Blades are not loosened	Pass
4	Rod Pressure on Direct Plug-in Units		—
4.1	Outer surface of the unit rod pressure test (89N / 20lb, 1 min); sub-clause 44.4 of ANSI/UL 1310-1996		Pass
	Live part shall not become user accessible		Pass
	Hazardous part shall not become user accessible		Pass
	Voltage between dead metal and earth ground shall not exceed 42.4 V _{peak}	12.3 V _p	Pass
	Leakage between dead metal and earth ground shall not exceed 7.07 mA _{peak}:	2.2 mA _{peak}	Pass
5	Resistance to Crushing on Direct Plug-in Units		—
5.1	Enclosure crushing test (334 N / 75 lb, 1 min.); sub-clause 44.5 of ANSI/UL 1310-1996	There is no shattering, cracking or other damage to the enclosure that will expose internal wiring or live parts	Pass

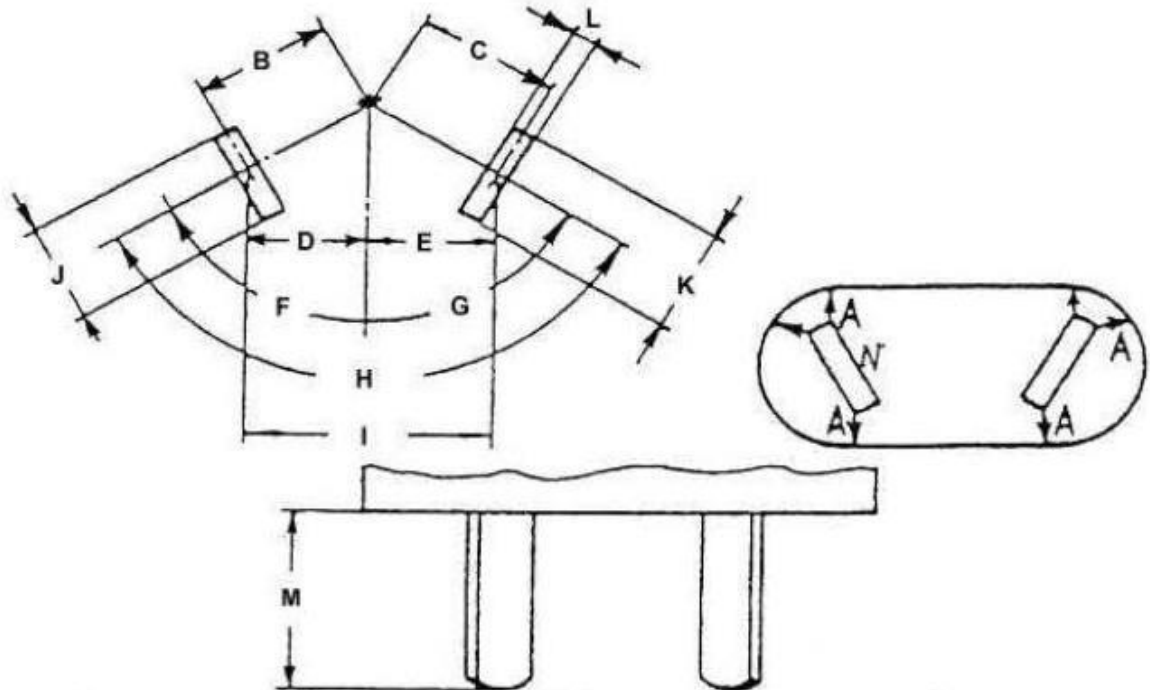
Equipment's combined with China plug.
Dimension Checking for Tow-pin plugs (6 A, 10 A rating)
 According to Fig 1 of GB 1002-2008



Symbol	Requirement (mm)	Measured (mm)
A	1.4 ~ 1.5	1.45
B	6.18 ~ 6.4	6.25
C	12.565 ~ 12.835	12.62
D	15.65 ~ 16.35	15.77
E	29.8 ~ 30.2	N/A
R	5 ~ 7	6

Equipment's combined with IRAM plug

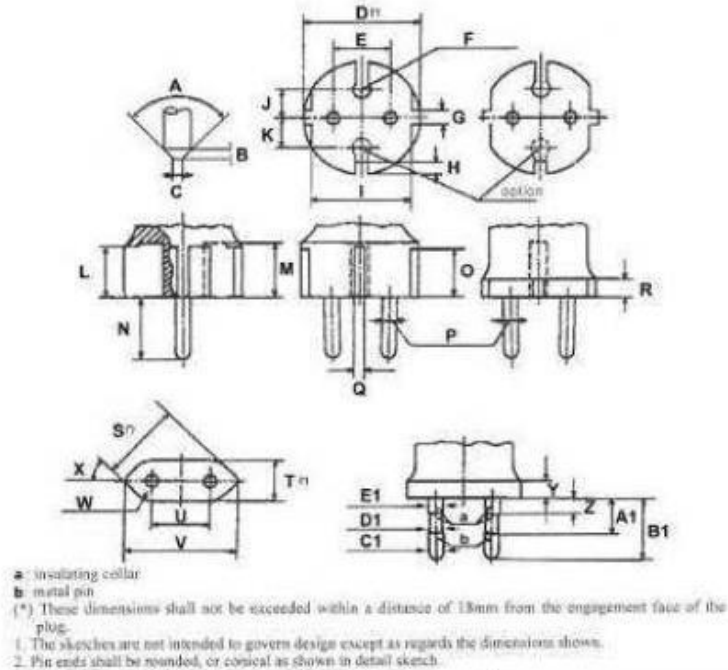
Supplementary tests on plug portion according to IRAM 2063



Symbol	Requirement (mm)	Measured (mm)	Symbol	Requirement (mm)	Measured (mm)
A	8.0 min.	12.09	H	120±5°	120°
B	7.92	7.92	I	13.72	13.72
C	7.92	7.92	J	6.25	6.25
D	6.86	6.86	K	6.25	6.25
E	6.86	6.86	L	1.55±0.07	1.53
F	60°	60°	M	18.2±0.2	18.2
G	60°	60°	N	Marked "N"	Yes

Equipment's combined with two-pole plug (Class II)

Supplementary tests on plug portion are according to KSC 8305



SYMBOL	REQUIREMENT (MM)	MEASURED (MM)	SYMBOL	REQUIREMENT (MM)	MEASURED (MM)
A	MAX. 90°	N/A	Q	3.3 ~ 4.3	N/A
B	MAX. 3	N/A	R	MIN. 6	N/A
C	MAX. ϕ 2.5	N/A	S	25.6 ~ 26.6	26.2
D	ϕ 36.0 ~ ϕ 37.0	N/A	T	13.0 ~ 14.4	13.98
E	18.8 ~ 19.2	N/A	U	18.8 ~ 19.2	18.86
F	R3.0 ~ R3.3	N/A	V	34.6 ~ 36.0	35.44
G	3.5 ~ 4.5	N/A	W	R5 ~ R6	R5
H	MIN. 5	N/A	X	45°	45°
I	31.5 ~ 32.5	N/A	Y	MIN. 4	18.2
J	9.9 ~ 10.1	N/A	Z	4	4
K	9.9 ~ 10.1	N/A	A1	10.0 ~ 11.0	10.55
L	MIN. 16.5	N/A	B1	18.5 ~ 19.5	19.31
M	MIN. 17.5	N/A	C1	ϕ 4.74 ~ ϕ 4.86	4.78
N	18.5 ~ 19.5	N/A	D1	MAX. 4.3	4.28
O	MIN. 15.5	N/A	E1	4.4 ~ 4.8	4.67
P	ϕ 4.794 ~ ϕ 4.806	N/A			

Attachment:

photograph of GT-41134-*-W2* series and GT-41134-***-W2*-USB**

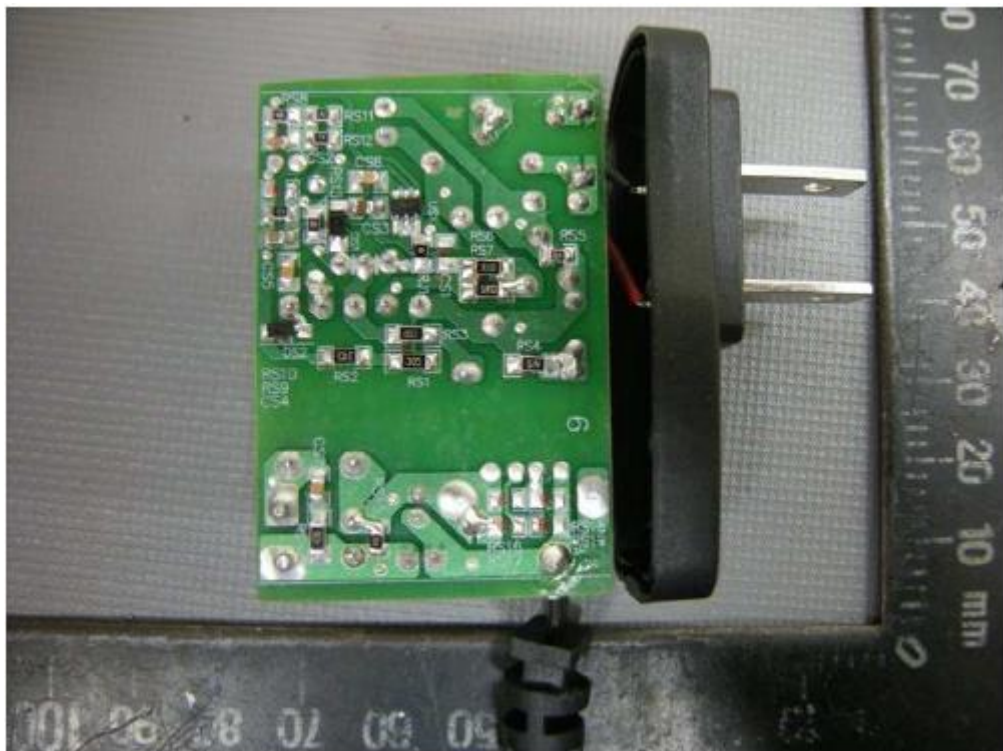
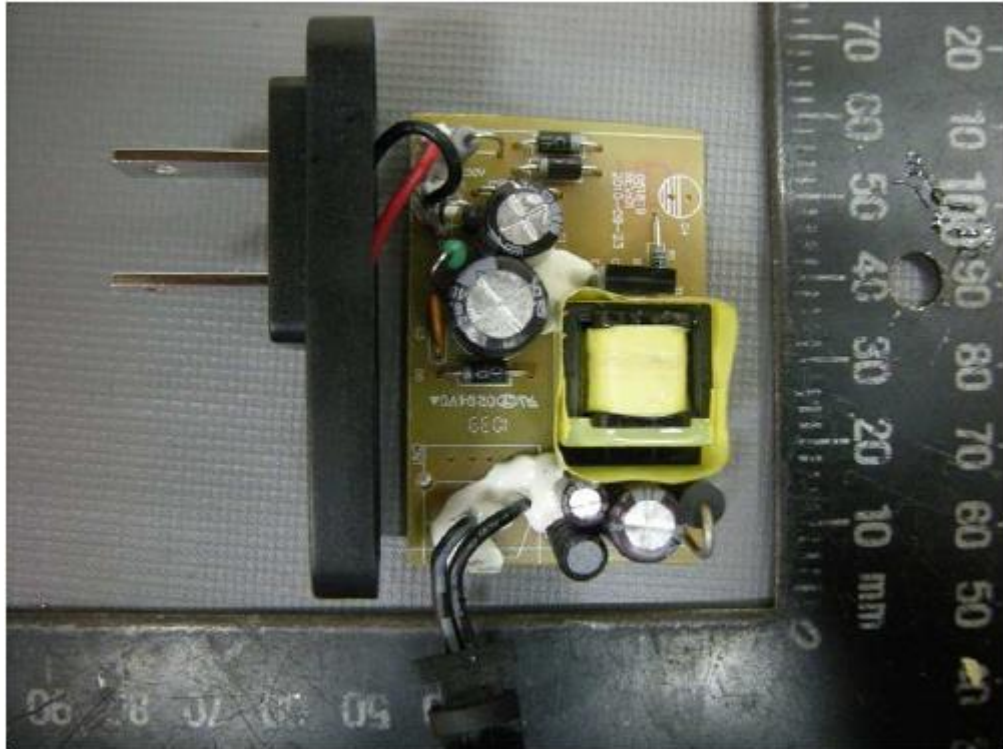




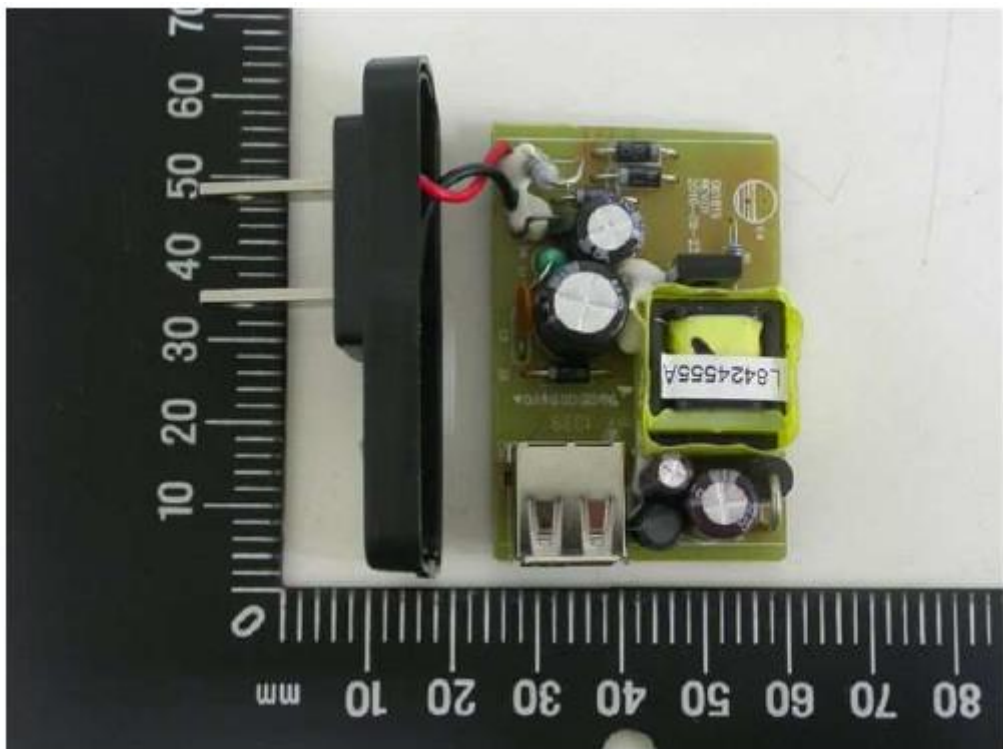
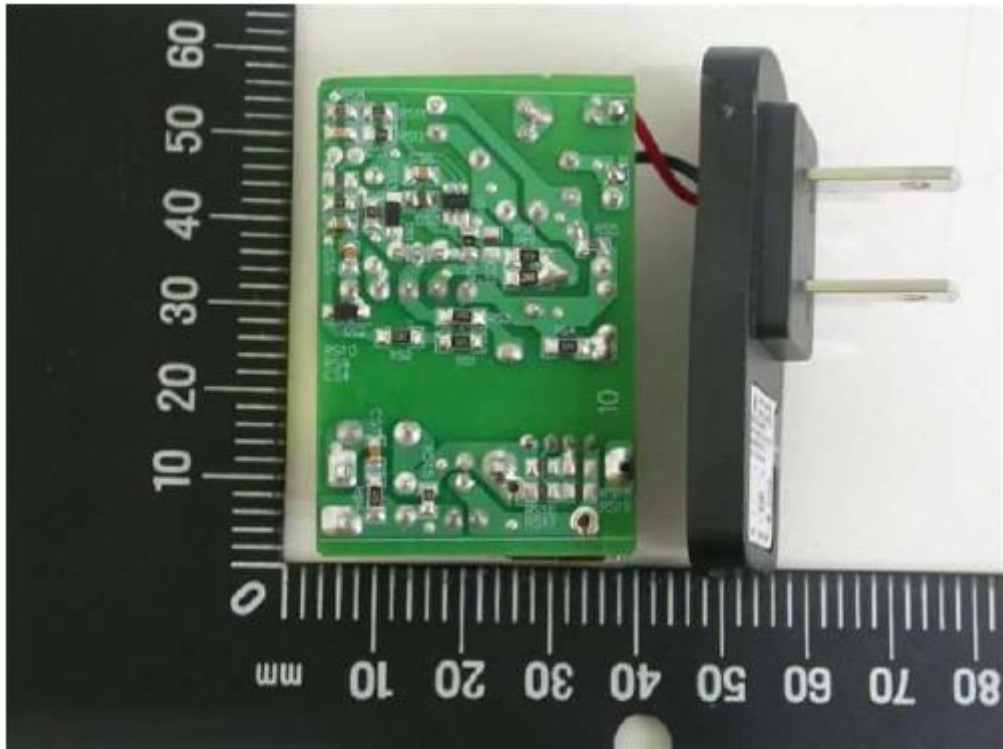














Photograph of GT-41134-* series**





