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<b>TEST REPORT</b> <b>EN 60950-1</b> <b>Information technology equipment – Safety –</b> <b>Part 1: General requirements</b>	
<b>Report Number</b> .....	32997
<b>Date of issue</b> .....	November 1, 2011
<b>Total number of pages</b> .....	62 pages
<b>CB Testing Laboratory</b> .....	MET Laboratories, Inc.
<b>Address</b> .....	914 West Patapsco Ave, Baltimore, MD 21230, USA
<b>Applicant's name</b> .....	Ubiquiti Networks
<b>Address</b> .....	91 E. Tasman San Jose, CA 95134, U.S.A
<b>Manufacturer's name</b> .....	Ubiquiti Networks
<b>Address</b> .....	91 E. Tasman San Jose, CA 95134, U.S.A
<b>Test specification:</b>	CE
<b>Standard</b> .....	<u>EN60950-1: 2006 + A1:2010</u>
<b>Test procedure</b> .....	CB Scheme
<b>Non-standard test method</b> .....	N/A
<b>Test Report Form No</b> .....	IEC60950_1B
<b>Test Report Form(s) Originator</b> .....	SGS Fimko Ltd
<b>Master TRF</b> .....	Dated 2010-04
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<b>Test item description</b> .....	Wireless Router
<b>Trade Mark</b> .....	
<b>Manufacturer</b> .....	Ubiquiti Networks, Inc.
<b>Model/Type reference</b> .....	AirRouter HP
<b>Ratings</b> .....	5VDC, 2A by a Listed LPS power supply

<b>Testing procedure and testing location:</b>		
<input type="checkbox"/>	<b>CB Testing Laboratory:</b>	MET Laboratories, Inc.
Testing location/ address .....		914 West Patapsco Ave, Baltimore MD 21230, USA
	Tested by (name + signature) .....	
	Approved by (name + signature) .....	
<input checked="" type="checkbox"/>	<b>Associated CB Laboratory:</b>	MET Laboratories, Inc.
Testing location/ address .....		33439 Western Ave. Union City, CA 94587
	Tested by (name + signature) .....	Shaima Adin 
	Approved by (name + signature) .....	Nader Tabesh 

**List of Attachments (including a total number of pages in each attachment):****Enclosure 1:** Other Country National And Group Differences, pg 40**Enclosure 2:** Photographs (Figures), pg 61**Summary of testing:****Tests performed (name of test and test clause):**

1.7.13	Marking Durability Test
1.6.2	Input Current Test
4.5.1	Temperature Test
5.2	Dielectric Test
5.3	Abnormal Operations Test

**Testing location:****33439 Western Ave.  
Union City, CA 94587****Summary of compliance with National Differences****List of countries addressed:** AT, BE, CH, CN, CZ, DE, DK, FI, GB, KR, JP, NL, NO, SE, SG, SL, & US.

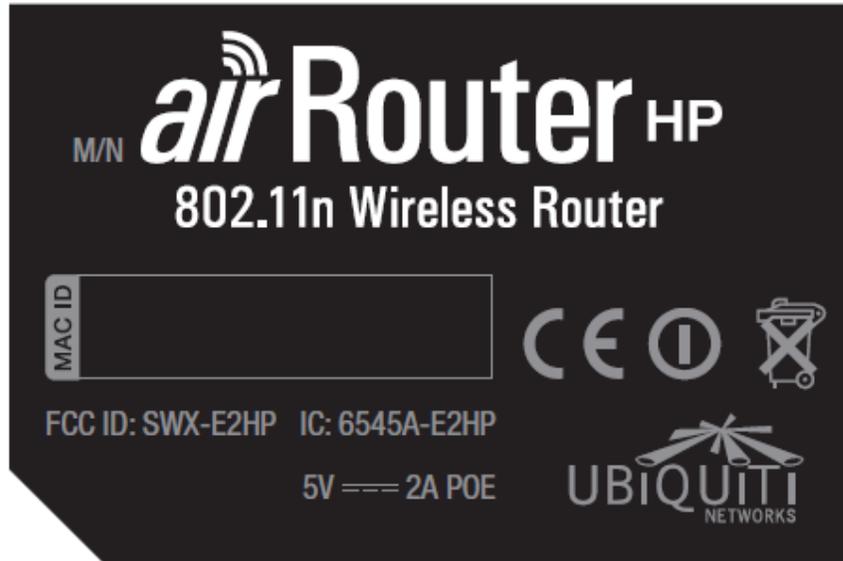
Group Differences are applicable for CENELEC member countries: Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom and CENELEC affiliate member countries: Turkey.

- Product is powered by external Listed AC/DC power supply through POE connection.
- Product is intended to be operated indoor. The product is not evaluated for outdoor
- Product is intended to operate in Pollution Degree II environment.
- Product is Operator accessible

**Copy of marking plate**

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

(Additional requirements for markings. See 1.7 NOTE)



<b>Test item particulars</b> .....:	
Equipment mobility.....:	Bench-top Equipment
Connection to the mains.....:	Power to the equipment is provided through POE Connection through External LPS Listed AC/DC power supply Connected to mains
Operating condition.....:	Continuous
Access location.....:	Operator Accessible
Over voltage category (OVC).....:	DC: Other
Mains supply tolerance (%) or absolute mains supply values.....:	+20%, -15%
Tested for IT power systems.....:	No
IT testing, phase-phase voltage (V).....:	N/A
Class of equipment.....:	Class III
Considered current rating of protective device as part of the building installation (A).....:	Part of the external Listed AC/DC power supply adaptor.
Pollution degree (PD).....:	PD II
IP protection class.....:	IPX0
Altitude during operation (m).....:	14
Altitude of test laboratory (m).....:	14
Mass of equipment (kg).....:	1Kg
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object.....:	N/A (or N)
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
<b>Testing</b> .....:	
Date of receipt of test item.....:	October 3, 2011
Date of performance of tests.....:	October 25, 2011
<b>General remarks:</b>	
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.	

<p><b>Manufacturer's Declaration per sub-clause 6.2.5 of IEC60950-1:</b></p> <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 type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable</p>
<p>When differences exist; they shall be identified in the General product information section.</p>
<p><b>Name and address of factory (ies)..... :</b> Ubiquiti Networks 91 E. Tasman San Jose, CA 95134, U.S.A</p>
<p><b>General product information:</b></p> <ul style="list-style-type: none"><li>• Introducing AirRouter, Ubiquiti's first indoor commercial WiFi Router featuring powerful AirOS features. Capable of connecting over 100 meters away at 150 Mbps speeds</li></ul>

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>1</b>	<b>GENERAL</b>		<b>P</b>
<b>1.5</b>	<b>Components</b>		<b>P</b>
1.5.1	General		<b>P</b>
	Comply with IEC 60950-1 or relevant component standard	(see appended tables 1.5.1)	<b>P</b>
1.5.2	Evaluation and testing of components		<b>P</b>
1.5.3	Thermal controls	No thermal controls	<b>N/A</b>
1.5.4	Transformers		<b>N/A</b>
1.5.5	Interconnecting cables		<b>N/A</b>
1.5.6	Capacitors bridging insulation	No capacitor bridging	<b>N/A</b>
1.5.7	Resistors bridging insulation	No resistor bridging	<b>N/A</b>
1.5.7.1	Resistors bridging functional, basic or supplementary insulation	No resistor bridging	<b>N/A</b>
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	No resistor bridging	<b>N/A</b>
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	No resistor bridging	<b>N/A</b>
1.5.8	Components in equipment for IT power systems		<b>N/A</b>
1.5.9	Surge suppressors	Part of the external Listed AC/DC power supply	<b>N/A</b>
1.5.9.1	General		<b>N/A</b>
1.5.9.2	Protection of VDRs		<b>N/A</b>
1.5.9.3	Bridging of functional insulation by a VDR		<b>N/A</b>
1.5.9.4	Bridging of basic insulation by a VDR		<b>N/A</b>
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		<b>N/A</b>
<b>1.6</b>	<b>Power interface</b>		<b>P</b>
1.6.1	AC power distribution systems		<b>N/A</b>
1.6.2	Input current	(see appended table 1.6.2) Test performed	<b>P</b>
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment	<b>N/A</b>
1.6.4	Neutral conductor		<b>N/A</b>
<b>1.7</b>	<b>Marking and instructions</b>		<b>P</b>
1.7.1	Power rating and identification markings		<b>P</b>

EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.1.1	Power rating marking		P
	Multiple mains supply connections.....:		N/A
	Rated voltage(s) or voltage range(s) (V) .....	5VDC	P
	Symbol for nature of supply, for d.c. only.....:	Provided on the label	P
	Rated frequency or rated frequency range (Hz) ...:	DC equipment	N/A
	Rated current (mA or A) .....	2A	P
1.7.1.2	Identification markings	Provided on the equipment	P
	Manufacturer's name or trade-mark or identification mark .....	Provided on the equipment	P
	Model identification or type reference .....	Provided on the equipment	P
	Symbol for Class II equipment only .....	Not class II equipment	N/A
	Other markings and symbols .....		N/A
1.7.2	Safety instructions and marking	Provided in the user manual	P
1.7.2.1	General		P
1.7.2.2	Disconnect devices	Not directly connected to mains. POE powered equipment	N/A
1.7.2.3	Overcurrent protective device	Part of the external Listed AC/DC power supply adaptor	N/A
1.7.2.4	IT power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.2.7.6	Ozone	No 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 .....	None	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....	No replaceable fuses	N/A
1.7.7	Wiring terminals	None	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

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Clause	Requirement + Test	Result - Remark	Verdict
1.7.8.4	Markings using figures .....		N/A
1.7.9	Isolation of multiple power sources .....		N/A
1.7.10	Thermostats and other regulating devices .....	None	N/A
1.7.11	Durability	Test performed. Marking legible after test	P
1.7.12	Removable parts	No marking on removable parts	N/A
1.7.13	Replaceable batteries .....	No replaceable batteries	N/A
	Language(s) .....		—
1.7.14	Equipment for restricted access locations .....		N/A

<b>2</b>	<b>PROTECTION FROM HAZARDS</b>		<b>P</b>
2.1	Protection from electric shock and energy hazards		<b>P</b>
2.1.1	Protection in operator access areas	No energy hazards	N/A
2.1.1.1	Access to energized parts	None	N/A
	Test by inspection .....		<b>P</b>
	Test with test finger (Figure 2A) .....		N/A
	Test with test pin (Figure 2B) .....		N/A
	Test with test probe (Figure 2C) .....		N/A
2.1.1.2	Battery compartments	None	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 .....		N/A
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 .....		N/A
2.1.2	Protection in service access areas	Statement provided to disconnect all power before servicing	<b>P</b>
2.1.3	Protection in restricted access locations		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>2.2</b>	<b>SELV circuits</b>		P
2.2.1	General requirements	Covered by external Listed AC/DC power supply adaptor	P
2.2.2	Voltages under normal conditions (V) .....	SELV	P
2.2.3	Voltages under fault conditions (V) .....	SELV	P
2.2.4	Connection of SELV circuits to other circuits .....	SELV	P
<b>2.3</b>	<b>TNV circuits</b>		N/A
2.3.1	Limits	No TNV circuitry	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
<b>2.4</b>	<b>Limited current circuits</b>		N/A
2.4.1	General requirements		N/A
2.4.2	Limit values		N/A
	Frequency (Hz) .....		—
	Measured current (mA) .....		—
	Measured voltage (V).....		—
	Measured circuit capacitance (nF or $\mu$ F) .....		—
2.4.3	Connection of limited current circuits to other circuits		N/A
<b>2.5</b>	<b>Limited power sources</b>		P
	a) Inherently limited output	Part of the LPS external listed AC/DC power supply	P
	b) Impedance limited output		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	c) Regulating network limited output under normal operating and single fault condition		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :		—
	Current rating of overcurrent protective device (A) .:		—
	Use of integrated circuit (IC) current limiters		
<b>2.6</b>	<b>Provisions for earthing and bonding</b>		<b>P</b>
2.6.1	Protective earthing	No provision for earthing and bonding	N/A
2.6.2	Functional earthing	Considered	P
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 <sup>2</sup> ), AWG..... :		—
2.6.3.3	Size of protective bonding conductors		N/A
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG..... :		—
	Protective current rating (A), cross-sectional area (mm <sup>2</sup> ), AWG..... :		
2.6.3.4	Resistance of earthing conductors and their terminations; resistance ( $\Omega$ ), voltage drop (V), test current (A), duration (min)..... :		N/A
2.6.3.5	Colour of insulation..... :		N/A
2.6.4	Terminals		N/A
2.6.4.1	General		N/A
2.6.4.2	Protective earthing and bonding terminals		N/A
	Rated current (A), type, nominal thread diameter (mm)..... :		—
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

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Clause	Requirement + Test	Result - Remark	Verdict
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
<b>2.7</b>	<b>Overcurrent and earth fault protection in primary circuits</b>		N/A
2.7.1	Basic requirements	No primary circuit	N/A
	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		N/A
2.7.4	Number and location of protective devices .....		N/A
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel .....		N/A
<b>2.8</b>	<b>Safety interlocks</b>		N/A
2.8.1	General principles	None	N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) .....		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A
<b>2.9</b>	<b>Electrical insulation</b>		P
2.9.1	Properties of insulating materials		P
2.9.2	Humidity conditioning		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Relative humidity (%), temperature (°C) .....		—
2.9.3	Grade of insulation	Functional insulation	P
2.9.4	Separation from hazardous voltages		N/A
	Method(s) used .....		—

<b>2.10</b>	<b>Clearances, creepage distances and distances through insulation</b>		P
2.10.1	General		N/A
2.10.1.1	Frequency .....	DC equipment	N/A
2.10.1.2	Pollution degrees .....	Pollution Degree II	N/A
2.10.1.3	Reduced values for functional insulation		P
2.10.1.4	Intervening unconnected conductive parts		N/A
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		N/A
2.10.2.1	General		N/A
2.10.2.2	RMS working voltage		N/A
2.10.2.3	Peak working voltage		N/A
2.10.3	Clearances		N/A
2.10.3.1	General		N/A
2.10.3.2	Mains transient voltages		N/A
	a) AC mains supply .....		N/A
	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	Not primary circuit	N/A
2.10.3.4	Clearances in secondary circuits		N/A
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply .....		N/A
2.10.3.7	Transients from d.c. mains supply .....		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	For a d.c. mains supply .....		N/A
	b) Transients from a telecommunication network :		N/A
2.10.4	Creepage distances		N/A
2.10.4.1	General		N/A
2.10.4.2	Material group and comparative tracking index		N/A
	CTI tests .....	Material group IIIb is assumed to be used	—
2.10.4.3	Minimum creepage distances		N/A
<b>2.10.5</b>	<b>Solid insulation</b>	None	N/A
2.10.5.1	General		N/A
2.10.5.2	Distances through insulation		N/A
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		N/A
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs).....		—
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material – standard test procedure		N/A
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N/A
	Electric strength test		—
2.10.5.11	Insulation in wound components		N/A
2.10.5.12	Wire in wound components		N/A
	Working voltage .....		N/A
	a) Basic insulation not under stress .....		N/A
	b) Basic, supplementary, reinforced insulation .....		N/A
	c) Compliance with Annex U .....		N/A
	Two wires in contact inside wound component; angle between 45° and 90° .....		N/A
2.10.5.13	Wire with solvent-based enamel in wound components		N/A
	Electric strength test		—
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Working voltage .....		N/A
	- Basic insulation not under stress .....		N/A
	- Supplementary, reinforced insulation .....		N/A
<b>2.10.6</b>	<b>Construction of printed boards</b>		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
<b>2.10.7</b>	<b>Component external terminations</b>		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts		N/A

<b>3</b>	<b>WIRING, CONNECTIONS AND SUPPLY</b>		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	2A current rating and overcurrent protection device part of the external Listed AC/DC power supply	P
3.1.2	Protection against mechanical damage	POE wire not subject to mechanical damage	N/A
3.1.3	Securing of internal wiring	No internal wiring	N/A
3.1.4	Insulation of conductors	(see appended table 5.2)	P
3.1.5	Beads and ceramic insulators	None	N/A
3.1.6	Screws for electrical contact pressure		N/A

<b>EN 60950-1</b>			
Clause	Requirement + Test	Result - Remark	Verdict
3.1.7	Insulating materials in electrical connections		P
3.1.8	Self-tapping and spaced thread screws	None	N/A
3.1.9	Termination of conductors		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring	None	N/A
<b>3.2</b>	<b>Connection to a mains supply</b>		N/A
3.2.1	Means of connection	No connection to mains. External Listed AC/DC power supply is connected to mains, providing power through POE to equipment	N/A
3.2.1.1	Connection to an a.c. mains supply	No connection to mains. External Listed AC/DC power supply is connected to mains, providing power through POE to equipment	N/A
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	No appliance inlet	N/A
3.2.5	Power supply cords	Part of the listed AC/DC power supply	N/A
3.2.5.1	AC power supply cords		N/A
	Type .....		—
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), 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

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Clause	Requirement + Test	Result - Remark	Verdict
<b>3.3</b>	<b>Wiring terminals for connection of external conductors</b>		N/A
3.3.1	Wiring terminals	None	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 <sup>2</sup> )..... :		—
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
<b>3.4</b>	<b>Disconnection from the mains supply</b>		P
3.4.1	General requirement	Part of the external Listed AC/DC power supply	P
3.4.2	Disconnect devices	Part of the external Listed AC/DC power supply	P
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized	None	N/A
3.4.5	Switches in flexible cords	None	N/A
3.4.6	Number of poles - single-phase and d.c. equipment		N/A
3.4.7	Number of poles - three-phase equipment		N/A
3.4.8	Switches as disconnect devices	None	N/A
3.4.9	Plugs as disconnect devices	Part of the external Listed AC/DC power supply	P
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A
<b>3.5</b>	<b>Interconnection of equipment</b>		P
3.5.1	General requirements		P
3.5.2	Types of interconnection circuits .....	SELV to SELV	P
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment	LPS	P
<b>4</b>	<b>PHYSICAL REQUIREMENTS</b>		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.1	Stability		N/A
	Angle of 10°	Not floor-standing equipment.	N/A
	Test force (N) .....		N/A
<b>4.2</b>	<b>Mechanical strength</b>		N/A
4.2.1	General		N/A
	Rack-mounted equipment.	Not rack mounted equipment	N/A
4.2.2	Steady force test, 10 N		N/A
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	Equipment does not have danger of electric shock or energy. Equipment is powered with 5V, 2A maximum power.	N/A
4.2.5	Impact test	Equipment does not have danger of electric shock or energy. Equipment is powered with 5V, 2A maximum power.	N/A
	Fall test	Equipment does not have danger of electric shock or energy. Equipment is powered with 5V, 2A maximum power.	N/A
	Swing test		N/A
4.2.6	Drop test; height (mm) .....		N/A
4.2.7	Stress relief test		N/A
4.2.8	Cathode ray tubes	No CRTs	N/A
	Picture tube separately certified .....		N/A
4.2.9	High pressure lamps	None	N/A
4.2.10	Wall or ceiling mounted equipment; force (N) .....	Not such equipment	N/A
4.2.11	Rotating solid media	None	N/A
	Test to cover on the door.....		N/A
<b>4.3</b>	<b>Design and construction</b>		P
4.3.1	Edges and corners	Soft edges and round corners	P
4.3.2	Handles and manual controls; force (N) .....	None	N/A
4.3.3	Adjustable controls	None	N/A
4.3.4	Securing of parts	Well secured	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.5	Connection by plugs and sockets	No such connections	N/A
4.3.6	Direct plug-in equipment		N/A
	Torque .....		—
	Compliance with the relevant mains plug standard .....		N/A
4.3.7	Heating elements in earthed equipment	None	N/A
4.3.8	Batteries	None	N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease	No oil and grease	N/A
4.3.10	Dust, powders, liquids and gases	None	N/A
4.3.11	Containers for liquids or gases	No such containers	N/A
4.3.12	Flammable liquids .....	No flammable liquids	N/A
	Quantity of liquid (l) .....		N/A
	Flash point (°C) .....		N/A
4.3.13	Radiation	No radiation	N/A
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	No UV	N/A
	Part, property, retention after test, flammability classification .....		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....	No UV	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)	No LED lasers	
4.3.13.6	Other types .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>4.4</b>	<b>Protection against hazardous moving parts</b>		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
<b>4.5</b>	<b>Thermal requirements</b>		P
4.5.1	General		P
4.5.2	Temperature tests	Test Conducted. Refer to test data.  Annex L.7 applies. Operated in the most unfavorable way of operation given in the operation instructions until steady conditions established.	P
	Normal load condition per Annex L .....		—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat .....		N/A
4.6	Openings in enclosures		N/A
4.6.1	Top and side openings	No opening in enclosure	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Dimensions (mm) .....		—
4.6.2	Bottoms of fire enclosures		N/A
	Construction of the bottom, dimensions (mm) .....		—
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) .....		—
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metalized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) .....		—
<b>4.7</b>	<b>Resistance to fire</b>		N/A
4.7.1	Reducing the risk of ignition and spread of flame	No possibility of fire ignition	N/A
	Method 1, selection and application of components wiring and materials		N/A
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		N/A
4.7.2.1	Parts requiring a fire enclosure		N/A
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		N/A
4.7.3.1	General		N/A
4.7.3.2	Materials for fire enclosures		N/A
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		N/A
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A
<b>5</b>	<b>ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS</b>		<b>P</b>
5.1	<b>Touch current and protective conductor current</b>		N/A
5.1.1	General	DC equipment.	N/A
5.1.2	Configuration of equipment under test (EUT)		N/A
5.1.2.1	Single connection to an a.c. mains supply		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
5.1.4	Application of measuring instrument		N/A
5.1.5	Test procedure		N/A
5.1.6	Test measurements		N/A
	Supply voltage (V) .....		—
	Measured touch current (mA) .....		—
	Max. allowed touch current (mA) .....		—
	Measured protective conductor current (mA) .....		—
	Max. allowed protective conductor current (mA) ...		—
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General .....		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks		N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system		N/A
	Supply voltage (V) .....		—
	Measured touch current (mA) .....		—
	Max. allowed touch current (mA) .....		—
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports .....		N/A
	b) EUT whose telecommunication ports have no reference to protective earth		N/A
<b>5.2</b>	<b>Electric strength</b>		<b>P</b>
5.2.1	General	Test performed	P
5.2.2	Test procedure		P
<b>5.3</b>	<b>Abnormal operating and fault conditions</b>		<b>P</b>

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Clause	Requirement + Test	Result - Remark	Verdict
5.3.1	Protection against overload and abnormal operation		N/A
5.3.2	Motors		N/A
5.3.3	Transformers		N/A
5.3.4	Functional insulation .....		P
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE .....		N/A
5.3.7	Simulation of faults		N/A
5.3.8	Unattended equipment		N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions		N/A
5.3.9.1	During the tests		N/A
5.3.9.2	After the tests		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>6</b>	<b>CONNECTION TO TELECOMMUNICATION NETWORKS</b>		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V) .....		—
	Current in the test circuit (mA) .....		—
6.1.2.2	Exclusions .....		N/A
<b>6.2</b>	<b>Protection of equipment users from overvoltages on telecommunication networks</b>		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
<b>6.3</b>	<b>Protection of the telecommunication wiring system from overheating</b>		N/A
	Max. output current (A) .....		—
	Current limiting method .....		—
<b>7</b>	<b>CONNECTION TO CABLE DISTRIBUTION SYSTEMS</b>		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
<b>A</b>	<b>ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE</b>		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)	No risk of ignition of fire. The equipment does not require fire enclosure. The equipment has maximum power of 10W	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

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Clause	Requirement + Test	Result - Remark	Verdict
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A
A.3.3	Compliance criterion		N/A
<b>B</b>	<b>ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS</b>		N/A
B.1	General requirements	No such motor.	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) .....		—
<b>C</b>	<b>ANNEX C, TRANSFORMERS</b>		N/A
	Position .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Manufacturer .....		—
	Type .....		—
	Rated values .....		—
	Method of protection .....		—
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings .....		N/A
<b>D</b>	<b>ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS</b>		N/A
D.1	Measuring instrument	DC equipment	N/A
D.2	Alternative measuring instrument		N/A
<b>E</b>	<b>ANNEX E, TEMPERATURE RISE OF A WINDING</b>		N/A
<b>F</b>	<b>ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES</b>		N/A
<b>G</b>	<b>ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES</b>		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply .....		N/A
G.2.2	Earthed d.c. mains supplies .....		N/A
G.2.3	Unearthed d.c. mains supplies .....		N/A
G.2.4	Battery operation .....		N/A
G.3	Determination of telecommunication network transient voltage (V) .....		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks .....		N/A
G.4.2	Transients from telecommunication networks .....		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances .....		N/A
<b>H</b>	<b>ANNEX H, IONIZING RADIATION</b>		N/A
<b>J</b>	<b>ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS</b>		N/A
	Metal(s) used .....	No metal enclosure	—
<b>K</b>	<b>ANNEX K, THERMAL CONTROLS</b>		N/A
K.1	Making and breaking capacity	No thermal controls	N/A
K.2	Thermostat reliability; operating voltage (V) .....		N/A
K.3	Thermostat endurance test; operating voltage (V) .....		N/A
K.4	Temperature limiter endurance; operating voltage (V) .....		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A
<b>L</b>	<b>ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT</b>		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	Wireless Router	P
<b>M</b>	<b>ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS</b>		N/A
M.1	Introduction	No TNV Circuitry	N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringling signal		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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
<b>N</b>	<b>ANNEX N, IMPULSE TEST GENERATORS</b>		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
<b>P</b>	<b>ANNEX P, NORMATIVE REFERENCES</b>		—
<b>Q</b>	<b>ANNEX Q, Voltage dependent resistors (VDRs)</b>		N/A
	a) Preferred climatic categories .....		N/A
	b) Maximum continuous voltage .....		N/A
	c) Pulse current .....		N/A
<b>R</b>	<b>ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES</b>		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
<b>S</b>	<b>ANNEX S, PROCEDURE FOR IMPULSE TESTING</b>		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
<b>T</b>	<b>ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER</b>		N/A
			—

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Clause	Requirement + Test	Result - Remark	Verdict
<b>U</b>	<b>ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION</b>		N/A
			—
<b>V</b>	<b>ANNEX V, AC POWER DISTRIBUTION SYSTEMS</b>		N/A
V.1	Introduction		N/A
V.2	TN power distribution systems		N/A
<b>W</b>	<b>ANNEX W, SUMMATION OF TOUCH CURRENTS</b>		N/A
W.1	Touch current from electronic circuits	DC equipment	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
<b>X</b>	<b>ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS</b>		N/A
X.1	Determination of maximum input current		N/A
X.2	Overload test procedure		N/A
<b>Y</b>	<b>ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST</b>		N/A
Y.1	Test apparatus .....	No UV	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
<b>Z</b>	<b>ANNEX Z, OVERVOLTAGE CATEGORIES</b>		N/A
<b>AA</b>	<b>ANNEX AA, MANDREL TEST</b>		N/A
<b>BB</b>	<b>ANNEX BB, CHANGES IN THE SECOND EDITION</b>		—
<b>CC</b>	<b>ANNEX CC, Evaluation of integrated circuit (IC) current limiters</b>		N/A
CC.1	General		N/A

<b>EN 60950-1</b>			
Clause	Requirement + Test	Result - Remark	Verdict
CC.2	Test program 1.....:		N/A
CC.3	Test program 2.....:		N/A
<b>DD</b>	<b>ANNEX DD, Requirements for the mounting means of rack-mounted equipment</b>		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
<b>EE</b>	<b>ANNEX EE, Household and home/office document/media shredders</b>		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols.....:		N/A
	Information of user instructions, maintenance and/or servicing instructions.....:		N/A
EE.3	Inadvertent reactivation test.....:		N/A
EE.4	Disconnection of power to hazardous moving parts:		N/A
	Use of markings or symbols.....:		N/A
EE.5	Protection against hazardous moving parts		N/A
	Test with test finger (Figure 2A) .....		N/A
	Test with wedge probe (Figure EE1 and EE2) .....		N/A

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

1.5.1	TABLE: List of critical components					P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity)	
Enclosure	Various	Various	Polymeric material. Enclosure is not a fire or electrical enclosure. No risk of electric shock or fire. Product operates on 10W maximum.	-	-	
External Listed AC/DC power supply	Ubiquiti Networks	AirGrid PEO Adaptor GFP121U-050200B-1	I/P: AC 100-240V, 50-60Hz, 0.36 O/P: DC 5V, 2A	UL/CSA 60950-1	E241618	
Supplementary information:						

1.5.1	TABLE: Opto Electronic Devices					N/A
Manufacturer .....						
Type.....						
Separately tested .....						
Bridging insulation.....						
External creepage distance.....						
Internal creepage distance.....						
Distance through insulation.....						
Tested under the following conditions.....						
Input.....						
Output.....						
supplementary information						

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

1.6.2	TABLE: Electrical data (in normal conditions)						P
U (V)	I (A)	I <sub>rated</sub> (A)	P (W)	Fuse #	I <sub>fuse</sub> (A)	Condition/status	
4.0	0.55	2	2.2	-	-	Maximum Load/Normal Operation	
5.0	0.43	2	2.2	-	-	Maximum Load/Normal Operation	
5.18	0.42	2	2.2	-	-	Test with power supply adapter	
6.0	0.36	2	2.2	-	-	Maximum Load/Normal Operation	
Supplementary information:							

2.1.1.5 c) 1)	TABLE: max. V, A, VA test					N/A
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)		
supplementary information:						

2.1.1.5 c) 2)	TABLE: stored energy			N/A
Capacitance C (μF)	Voltage U (V)	Energy E (J)		
supplementary information:				

2.2	TABLE: evaluation of voltage limiting components in SELV circuits			N/A
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V peak	V d.c.		
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)			
supplementary information:				

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

<b>2.5</b>	<b>TABLE: limited power sources</b>		P
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Circuit output tested:				
Measured Uoc (V) with all load circuits disconnected:				
	I <sub>sc</sub> (A)		VA	
	Meas.	Limit	Meas.	Limit
supplementary information: covered by use of External Listed LPS AC/DC power supply				
Sc=Short circuit, Oc=Open circuit				

<b>2.10.2</b>	<b>Table: working voltage measurement</b>		N/A
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Location	RMS voltage (V)	Peak voltage (V)	Comments
supplementary information:			

<b>2.10.3 and 2.10.4</b>	<b>TABLE: Clearance and creepage distance measurements</b>		N/A
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Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:						
Supplementary information: Covered by use of external Listed LPS AC/DC power supply						

<b>2.10.5</b>	<b>TABLE: Distance through insulation measurements</b>		N/A
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Distance through insulation (DTI) at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
Supplementary information:					

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

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

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

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

MARKINGS AND INSTRUCTIONS (1.7.12, 1.7.15)	
Location of replaceable battery	
Language(s) .....	
Close to the battery .....	
In the servicing instructions .....	
In the operating instructions .....	

4.5	TABLE: Thermal requirements							P
	Supply voltage (V) .....	4.0	VDC					—
	Ambient T <sub>min</sub> (°C) .....	25.8						—
	Ambient T <sub>max</sub> (°C) .....	50						—
	Maximum measured temperature T of part/at::	T (°C)					Allowed T <sub>max</sub> (°C)	
Supplementary information:								
	Temperature T of winding:	t <sub>1</sub> (°C)	R <sub>1</sub> (Ω)	t <sub>2</sub> (°C)	R <sub>2</sub> (Ω)	T (°C)	Allowed T <sub>max</sub> (°C)	Insulation class
	Ambient	25.8				50	50	-
	EUT: Enclosure TOP	27.3				51.5	95	-
	POE Input Connector	30.5				54.7	95	-
	Ethernet Output Connector	32.6				56.8	95	-
	Transformer	37.6				37.6	100	-
	Internal Ambient	41.8				41.8	70	-
Supplementary information:								

4.5.5	TABLE: Ball pressure test of thermoplastic parts			N/A
	Allowed impression diameter (mm) .....	≤ 2 mm		—
	Part	Test temperature (°C)	Impression diameter (mm)	
Supplementary information:				

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

4.7	TABLE: Resistance to fire					N/A
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence	
Supplementary information:						

5.1	TABLE: touch current measurement			N/A
Measured between:	Measured (mA)	Limit (mA)	Comments/conditions	
supplementary information:				

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	
Functional:				
Input-SELV	DC	700	No	
Supplementary information:				

5.3	TABLE: Fault condition tests					N/A
	Ambient temperature (°C) .....					—
	Power source for EUT: Manufacturer, model/type, output rating .....					—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
1	Functional Insulation	700	60sec	-	-	No Breakdown
Supplementary information:						

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

C.2	TABLE: transformers							N/A
Loc.	Tested insulation	Working voltage peak / V	Working voltage rms / V	Required electric strength	Required clearance / mm	Required creepage distance / mm	Required distance thr. insul.	
		(2.10.2)	(2.10.2)	(5.2)	(2.10.3)	(2.10.4)	(2.10.5)	
Loc.	Tested insulation			Test voltage/ V	Measured clearance / mm	Measured creepage dist./ mm	Measured distance thr. insul. / mm; number of layers	
supplementary information:								

C.2	TABLE: transformers							N/A
Transformer								

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

**List of test equipment used:**

Company Name                      Ubiquiti  
    Networks, Inc  
 Project  
 #    32997  
 Model # of Unit                      AirRouterHP  
 Project Engineer                      Shaima Adin  
 Date    October 4,  
    2011

Asset Number:	Equipment Type:	Manufacturer Name:	Model Number:	Calibration Date:	Calibration Due Date:
3U1002	AC/DC Current Probe	Tektronix	A622	02/15/11	02/15/12
3U1020	Digital Multimeter	Tektronix	TX3	02/28/11	02/28/12
3U1023	Digital Multimeter	Fluke	87	01/29/11	01/29/12
3U1043	Petroleum Spirit	Fisher Scientific	H292	NCR	NCR
3U1047	DC Power Supply	Xantrex	XDC 80-75	FVBU	FVBU
3U1050	Hipot Tester	Biddle	230425	03/25/11	03/25/12
3U1094	Ambient pressure / humidity / temperature monitor	Omega	OM-CP- PRHTEMP2000	03/08/11	03/08/12
3U1097	Data Logger	Agilent/HP	34970A	03/29/11	03/29/12
3U1100	20 Channel Multiplexer	Agilent/HP	34901A	05/19/11	05/19/12
3U1101	Stopwatch	Control Company	14-649-9	04/19/11	04/19/13

\*NCR = No Calibration Required.

\*FVBU = Functional Verification Before Use. Instrument is used with calibrated instruments.

**Enclosure 1: Other Country National And Group Differences**

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict

<b>ATTACHMENT TO TEST REPORT IEC 60950-1</b> <b>EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES</b> Information technology equipment – Safety –	
PART 1: GENERAL REQUIREMENTS	
<b>Differences according to</b> .....	EN 60950-1:2006/A11:2009/A1:2010
<b>Attachment Form No.</b> .....	EU_GD_IEC60950_1B
<b>Attachment Originator</b> .....	SGS Fimko Ltd
<b>Master Attachment</b> .....	Date (2010-04)
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<b>EN 60950-1:2006/A11:2009/A1:2010 – CENELEC COMMON MODIFICATIONS</b>
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IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)			
Clause	Requirement + Test	Result - Remark	Verdict
Contents	Add the following annexes:  Annex ZA (normative)                      Normative references to international publications with their corresponding European publications  Annex ZB (normative)                      Special national conditions		P
General	Delete all the “country” notes in the reference document (IEC 60950-1:2005) according to the following list:  1.4.8 Note 2                      1.5.1 Note 2 & 3                      1.5.7.1 Note 1.5.8 Note 2                      1.5.9.4 Note                      1.7.2.1 Note 4, 5 & 6 2.2.3 Note                      2.2.4 Note                      2.3.2 Note 2.3.2.1 Note 2                      2.3.4 Note 2                      2.6.3.3 Note 2 & 3 2.7.1 Note                      2.10.3.2 Note 2                      2.10.5.13 Note 3 3.2.1.1 Note                      3.2.4 Note 3                      2.5.1 Note 2 4.3.6 Note 1 & 2                      4.7 Note 4                      4.7.2.2 Note 4.7.3.1 Note 2                      5.1.7.1 Note 3 & 4                      5.3.7 Note 1 6 Note 2 & 5                      6.1.2.1 Note 2                      6.1.2.2 Note 6.2.2 Note                      6.2.2.1 Note 2                      6.2.2.2 Note 7.1 Note 3                      7.2 Note                      7.3 Note 1 & 2 G.2.1 Note 2                      Annex H Note 2		P
General (A1:2010)	Delete all the “country” notes in the reference document (IEC 60950-1:2005/A1:2010) according to the following list:  1.5.7.1 Note                      6.1.2.1 Note 2 6.2.2.1 Note 2                      EE.3 Note		N/A

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
1.3.Z1	<p>Add the following subclause:</p> <p>1.3.Z1 Exposure to excessive sound pressure</p> <p>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.</p> <p>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.</p>	Not intended to make sound	N/A
1.5.1	<p>Add the following NOTE:</p> <p>NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC</p>		N/A
1.7.2.1 (A1:2010)	<p>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.</p>	Not portable sound system	N/A
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>	No primary circuit	N/A

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	<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>	Not such equipment. Power is provided through POE.	N/A
2.7.2	This subclause has been declared 'void'.		N/A
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N/A
3.2.5.1	<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<sup>a)</sup>    Over 6 up to and including 10   (0,75)<sup>b)</sup> 1,0   Over 10  up to and including 16   (1,0)<sup>c)</sup> 1,5  </p> <p>In the conditions applicable to Table 3B delete the words "in some countries" in condition<sup>a)</sup>.</p> <p>In NOTE 1, applicable to Table 3B, delete the second sentence.</p>		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:</p> <p>1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and</p> <p>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

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>IEC 60950-1, GROUP DIFFERENCES (CENELEC common modifications EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	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 <math>\mu</math>Sv/h (0,1 mR/h) (see NOTE). Account is taken of the background level.</p> <p>Replace the notes as follows:</p> <p>NOTE These values appear in Directive 96/29/Euratom.</p> <p>Delete NOTE 2.</p>		N/A
Bibliography	Additional EN standards.		—

<b>ZA</b>	<b>NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS</b>	—
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<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In <b>Denmark</b> , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	Not Class I equipment	N/A
1.2.13.14	In <b>Norway</b> and <b>Sweden</b> , for requirements see 1.7.2.1 and 7.3 of this annex.		N/A
1.5.7.1	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	Not Class I equipment	N/A
1.5.8	In <b>Norway</b> , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Not for IT power system	N/A
1.5.9.4	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	No TNV-Circuitry	N/A

**Enclosure 1: Other Country National And Group Differences**

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.1	<p>In <b>Finland, Norway and Sweden</b>, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Finland: "Laitte 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> <p>In <b>Norway and Sweden</b>, 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>	Not Class I equipment	N/A

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	<p>NOTE In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Utstyr som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkøpet utstyr – og er tilkøpet et kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkøpling av utstyret til kabel-TV nettet installeres en galvanisk isolator mellom utstyret og kabel- TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet.”</p>		N/A
1.7.5	<p>In <b>Denmark</b>, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.</p> <p>For <b>CLASS II EQUIPMENT</b> the socket outlet shall be in accordance with Standard Sheet DKA 1-4a.</p>	No socket outlets	N/A
2.2.4	In <b>Norway</b> , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV or CDS systems	N/A
2.3.2	In <b>Finland, Norway and Sweden</b> there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	No TNV or CDS systems	N/A
2.3.4	In <b>Norway</b> , for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	No TNV or CDS systems	N/A
2.6.3.3	In the <b>United Kingdom</b> , the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	In the <b>United Kingdom</b> , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	No primary circuits within equipment	N/A

**Enclosure 1: Other Country National And Group Differences**

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.13	In <b>Finland, Norway and Sweden</b> , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	No TNV or CDS systems	N/A
3.2.1.1	<p>In <b>Switzerland</b>, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets:</p> <p>SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A</p> <p>SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A</p> <p>SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A</p> <p>In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998:</p> <p>SEV 5932-2.1998: Plug Type 25 , 3L+N+PE 230/400 V, 16 A</p> <p>SEV 5933-2.1998: Plug Type 21, L+N, 250 V, 16A</p> <p>SEV 5934-2.1998: Plug Type 23, L+N+PE .250 V, 16 A</p>		N/A
3.2.1.1	<p>In <b>Denmark</b>, supply cords of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1.</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>	Supply cord part of the listed external AC/DC power supply	N/A

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	<p>In <b>Spain</b>, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994.</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>	Supply cord part of the listed external AC/DC power supply	N/A
3.2.1.1	<p>In the <b>United Kingdom</b>, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.</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>	Supply cord part of the listed external AC/DC power supply	N/A
3.2.1.1	<p>In <b>Ireland</b>, 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>	Supply cord part of the listed external AC/DC power supply	N/A
3.2.4	<p>In <b>Switzerland</b>, for requirements see 3.2.1.1 of this annex.</p>		N/A
3.2.5.1	<p>In the <b>United Kingdom</b>, a power supply cord with conductor of 1,25 mm<sup>2</sup> is allowed for equipment with a rated current over 10 A and up to and including 13 A.</p>	Supply cord part of the listed external AC/DC power supply	N/A

## Enclosure 1: Other Country National And Group Differences

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.4	In the <b>United Kingdom</b> , the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: <ul style="list-style-type: none"> <li>• 1,25 mm<sup>2</sup> to 1,5 mm<sup>2</sup> nominal cross-sectional area.</li> </ul>		N/A
4.3.6	In the <b>United Kingdom</b> , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.	Supply cord part of the listed external AC/DC power supply	N/A
4.3.6	In <b>Ireland</b> , 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.	No such equipment	N/A
5.1.7.1	In <b>Finland, Norway and Sweden</b> TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: <ul style="list-style-type: none"> <li>• STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> <li>is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and</li> <li>has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and</li> <li>is provided with instructions for the installation of that conductor by a SERVICE PERSON;</li> </ul> </li> <li>• STATIONARY PLUGGABLE EQUIPMENT TYPE B;</li> <li>• STATIONARY PERMANENTLY CONNECTED EQUIPMENT.</li> </ul>	DC equipment	N/A

**Enclosure 1: Other Country National And Group Differences**

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1 (A1:2010)	<p>In <b>Finland, Norway and Sweden</b>, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> <li>- two layers of thin sheet material, each of which shall pass the electric strength test below, or</li> <li>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.</li> </ul> <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"> <li>- 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</li> <li>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.</li> </ul>	No TNV circuitry	N/A

**Enclosure 1: Other Country National And Group Differences**

IEC60950_1B - ATTACHMENT EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ZB ANNEX (normative)</b>			
<b>SPECIAL NATIONAL CONDITIONS (EN)</b>			
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"> <li>- 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;</li> <li>- the additional testing shall be performed on all the test specimens as described in EN 60384-14;</li> <li>- 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.</li> </ul>		N/A
6.1.2.2	In <b>Finland, Norway and Sweden</b> , the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.	No TNV circuitry	N/A
7.2	In <b>Finland, Norway and Sweden</b> , for requirements see 6.1.2.1 and 6.1.2.2 of this annex.  The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	No TNV circuitry no CDS circuitry	N/A
7.3	In <b>Norway and Sweden</b> , for requirements see 1.2.13.14 and 1.7.2.1 of this annex.	No CDS circuitry	N/A
7.3	In <b>Norway</b> , for installation conditions see EN 60728-11:2005.	No such circuitry	N/A

## Enclosure 1: Other Country National And Group Differences

<b>ATTACHMENT TO TEST REPORT IEC 60950-1</b> <b>FINLAND NATIONAL DIFFERENCES</b> Information technology equipment – Safety –	
PART 1: GENERAL REQUIREMENTS	
<b>Differences according to</b> .....	EN 60950-1:2006/A11:2009/A1:2010
<b>Attachment Form No.</b> .....	FI_ND_IEC60950_1B
<b>Attachment Originator</b> .....	SGS Fimko Ltd
<b>Master Attachment</b> .....	Date (2010-04)
<b>Copyright © 2010 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.</b>	

	<b>National Differences</b>	P
<b>General</b>	See also Group Differences (EN 60950-1:2006/A11/A1)	P
1.5.7.1	In <b>Finland</b> resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	N/A
1.5.9.4	In <b>Finland</b> , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	N/A
1.7.2.1	In <b>Finland</b> , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.  The marking text in Finland shall be as follows: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"	N/A
2.3.2	In <b>Finland</b> , there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.	N/A
2.10.5.13	In <b>Finland</b> , there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	N/A

## Enclosure 1: Other Country National And Group Differences

5.1.7.1	<p>In <b>Finland</b>, TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment:</p> <ul style="list-style-type: none"> <li>• STATIONARY PLUGGABLE EQUIPMENT TYPE A that <ul style="list-style-type: none"> <li>- is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and</li> <li>- has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and</li> <li>- is provided with instructions for the installation of that conductor by a SERVICE PERSON;</li> </ul> </li> <li>• STATIONARY PLUGGABLE EQUIPMENT TYPE B;</li> <li>• STATIONARY PERMANENTLY CONNECTED EQUIPMENT.</li> </ul>	DC equipment	N/A
6.1.2.1 (A1:2010)	<p>In <b>Finland</b>, add the following text between the first and second paragraph of the compliance clause:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> <li>- two layers of thin sheet material, each of which shall pass the electric strength test below, or</li> <li>- one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.</li> </ul> <p>Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> <li>- 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</li> <li>- is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.</li> </ul>	No TNV circuitry	N/A

## Enclosure 1: Other Country National And Group Differences

	<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"> <li>- the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14:2005 which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1;</li> <li>- the additional testing shall be performed on all the test specimens as described in EN 60384-14:2005;</li> <li>- the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14:2005, in the sequence of tests as described in EN 60384-14:2005.</li> </ul>		N/A
6.1.2.2	<p>In <b>Finland</b>, 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.</p>		N/A
7.2	<p>In <b>Finland</b>, for requirements see 6.1.2.1 and 6.1.2.2 of this annex.</p> <p>The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.</p>	No TNV or CDS	N/A

## Enclosure 1: Other Country National And Group Differences

GERMANY NATIONAL DIFFERENCES			
Clause	Requirement + Test	Result - Remark	Verdict
	In IEC 60950-1:2005/A1 <b>delete</b> all the "country" notes 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
	For special national conditions, see Annex ZB.		N/A
1.1.1	<b>Replace</b> 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, <i>Guide on the safety of multimedia equipment</i> . For television sets EN 60065 applies.		N/A
1.2.3	<b>Add</b> the following definition: <b>1.2.3.Z1</b> <b>PORTABLE SOUND SYSTEM</b> small battery powered audio equipment: -whose prime purpose is to listen to recorded or broadcasted sound; and -that uses headphones or earphones that can be worn in or on or around the ears; and -that allows the user to walk around NOTE Examples are mini-disk or CD players; MP3 audio players or similar equipment.	Not portable sound system	N/A
1.7.2.1	<b>Delete</b> NOTE Z1. <b>Add</b> the following paragraph at the end of the subclause: In addition, for a <b>PORTABLE SOUND SYSTEM</b> , the instructions shall include a warning that excessive sound pressure from earphones and headphones can cause hearing loss.	Not portable sound system	N/A
4.3.13.6	<b>Replace</b> the existing NOTE by the following: NOTE Z1 Attention is drawn to : 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
<b>Bibliography</b>	<b>Add</b> the following note for the standard indicated: IEC 60908 NOTE Harmonized as EN 60908.		N/A

## Enclosure 1: Other Country National And Group Differences

<b>GERMANY NATIONAL DIFFERENCES</b>				
<p><b>Replace</b> the entire Annex ZA by the following:</p> <p><b>Annex ZA</b> (normative)</p> <p><b>Normative references to international publications with their corresponding European publications</b></p> <p>The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.</p> <p>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p>				<b>P</b>
Publication	Year	Title	EN/HD	Year
		Insulating, sheathing and covering materials for low-voltage energy cables	EN 50363	Series
		Electrical test methods for low voltage energy cables	EN 50395	2005
		Non electrical test methods for low voltage energy cables	EN 50396	2005
IEC 60065 (mod)	2001	Audio, video and similar electronic apparatus – Safety requirements	EN 60065	2002
A1	2005		A1	2006
A2	-		+ A11 A2 + A12	2008 -
IEC 60068-2-78	-	Environmental testing Part 2-78: Tests – Test Cab: Damp heat, steady state	EN 60068-2-78	-
IEC 60073	-	Basic and safety principles for manmachine interface, marking and identification – Coding principles for indication devices and actuators	EN 60073	-
IEC 60083	-	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 60085	2004	Electrical insulation – Thermal classification	EN 60085	2004
IEC 60112	-	Method for determining the proof and comparative tracking indices of insulating materials	EN 60112	-
IEC 60227 (mod)	Series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750V	HD 21 1)	Series
IEC 60245 (mod)		Series Rubber insulated cables of rated voltages up to and including 450/750V	HD 22 2)	Series
<p>1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series. Also EN 50363, EN 50395 and EN 50386 are to be taken into account.</p> <p>2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series. Also EN 50363, EN 50395 and EN 50386 are to be taken into account.</p>				
IEC 60309	Series	Plugs, socket-outlets and couplers for industrial purposes	EN 60309	Series
IEC 60317	Series	Specifications for particular types of winding wires	EN 60317	Series
IEC 60317-43	-	Part 43: Aromatic polyimide tape wrapped round copper wire, class 240	EN 60317-43	-
IEC 60320 (mod)	Series	Appliance couplers for household and similar general purposes	EN 60320	Series
IEC 60364-1 (mod)	2001	Electrical installations of buildings Part 1: Fundamental principles, assessment of general characteristics, definitions	HD 384.1 S2	2001
IEC 60384-14 A1	1993 1995	Fixed capacitors for use in electronic equipment	EN 60384-14	2005

## Enclosure 1: Other Country National And Group Differences

GERMANY NATIONAL DIFFERENCES				
		Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains		
IEC 60417	Data-base	Graphical symbols for use on equipment	-	-
IEC 60664-1 + A1 + A2	1992 2000 2002	Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests	EN 60664-1	2003
IEC 60695-2-11	-	Fire hazard testing Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products	EN 60695-2-11	-
IEC 60695-2-20	-	Part 2-20: Glowing/hot-wire based test methods – Hot-wire coil ignitability – Apparatus, test method and guidance	-	-
IEC 60695-10-2	-	Part 10-2: Guidance and test methods for the minimization of the effects of abnormal heat on electrotechnical products involved in fires – Method for testing products made from non-metallic materials for resistance to heat using the ball pressure test	EN 60695-10-2	-
IEC 60695-10-3		Fire hazard testing Part 10-3: Abnormal heat – Mould stress relief distortion test	EN 60695-10-03	-
		IEC 60695-11-3 - Part 11-3: Test flames – 500 W flames – Apparatus and conformational test methods	-	-
IEC 60695-11-4	-	Part 11-4: Test flames – 50 W flames – Apparatus and conformational test methods	-	-
IEC 60695-11-10 A1	-	Part 11-10: Test flames – 50 W horizontal and vertical flame test methods	EN 60695-11-10	A1
IEC 60695-11-20 A1	-	Part 11-20: Test flames – 500 W flame test methods	EN 60695-11-20 A1	- -
IEC 60730-1 (mod) A1	1999 2003	Automatic electrical controls for household and similar use - Part 1: General requirements	EN 60730-1 A1 + A12 + A13 + A14 + A15 + A16	2000 2004 2003 2004 2005 2007 2007
A2	2007		A2	2008
IEC 60747-5-5	2007	Semiconductor devices – Discrete devices Part 5-5: Optoelectronic devices – Photocouplers	EN 60747-5-5	-
IEC 60825-1	-	Safety of laser products Part 1: Equipment classification, requirements and user's guide	EN 60825-1	
IEC 60825-2	-	Part 2: Safety of optical fiber communication systems	EN 60825-2 A1	- -
IEC/TR 60825-9	-	Part 9: Compilation of maximum permissible exposure to incoherent optical radiation	-	-
IEC 60825-12	-	Part 12: Safety of free space optical communication systems used for transmission of information	EN 60825-12	-
IEC 60851-3	1996	Winding wires – Test methods	EN 60851-3	1996

**Enclosure 1: Other Country National And Group Differences**

GERMANY NATIONAL DIFFERENCES				
A1 IEC 60851-5 A1 A2	1997 1996 1997 2004	Part 3: Mechanical properties Part 5: Electrical properties	A1 EN 60851-5 A1 A2	1997 1996 1997 2004
IEC 60851-6	1996	Part 6: Thermal properties	EN 60851-6	1996
IEC 60885-1	1987	Electrical test methods for electric cables Part 1: Electrical tests for cables, cords and wires for voltages up to and including 450/750 V	-	-
IEC 60906-1	-	IEC System of plugs and socket-outlet for household and similar purposes Part 1: Plugs and socket-outlets 16 A 250 V a.c.	-	-
IEC 60906-2	-	Part 2: Plugs and socket-outlets 15 A 125 V a.c.	-	-
IEC 60947-1	2004	Low voltage switchgear and control gear Part 1: General rules	EN 60947-1	2004
IEC 60990	1999	Methods of measurement of touch current and protective conductor current	EN 60990	1999
IEC 61051-2	1991	Varistors for use in electronic equipment Part 2: Sectional specification for surge suppression varistors	-	-
IEC 61058-1 (mod)	2000	Switches for appliances Part 1: General requirements	EN 61058-1 3)	2002
IEC 62471 (mod)	-	Photobiological safety of lamps and lamp systems	EN 62471	-
ISO 178	-	Plastics - Determination of flexural properties	EN ISO 178	2003
ISO 179	Series	Plastics - Determination of Charpy impact strength	EN ISO 179	Series
ISO 180	-	Plastics - Determination of Izod impact strength	EN ISO 180	-
ISO 261	-	ISO general-purpose metric screw threads - General plan	-	-
ISO 262	-	ISO general-purpose metric screw threads - Selected sizes for screws, bolts and nuts	-	-
ISO 527	Series	Plastics - Determination of tensile properties	EN ISO 527	Series
ISO 3864	Series	Safety colors and safety signs	-	-
ISO 4892-1	-	Plastics - Methods of exposure to laboratory light sources Part 1: General guidance	EN ISO 4892-1	-
ISO 4892-2	-	Part 2: Xenon-arc sources	EN ISO 4892-2	-
ISO 4892-4	-	Part 4: Open-flame carbon-arc lamps	-	-
ISO 7000	Data-base	Graphical symbols for use on equipment - Index and synopsis	-	-
ISO 8256	-	Plastics - Determination of tensile-impact strength	EN ISO 8256	-
ISO 9772	-	Cellular plastics - Determination of horizontal burning characteristics of small specimens subjected to a small flame	-	-
ISO 9773	-	Plastics - Determination of burning behavior of thin flexible vertical specimens in contact with a small-flame ignition source	EN ISO 9773	-
ITU-T Recommendation K.44	-	Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents - Basic Recommendation	-	-

**Enclosure 1: Other Country National And Group Differences**

<b>GERMANY NATIONAL DIFFERENCES</b>
3) EN 61058-1:2002 includes A1:2001 to IEC 61058-1:2000.

<b>GERMANY NATIONAL DIFFERENCES</b>			
Clause	Requirement + Test	Result - Remark	Verdict
<p><b>Annex ZB</b> (normative)</p> <p><b>Special National Conditions</b></p> <p><b>Special national condition:</b> National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions. If it affects harmonization, it forms part of the European Standard or Harmonization Document.</p> <p>For the countries in which the relevant special national apply these provisions are normative, for other countries they are informative.</p> <p><b>Add the following special national condition:</b></p>			
1.5.7.1	In <b>Finland, Norway and Sweden</b> No changes needed - Correction of SNC already Part of A11.		N/A
6.1.2.1	In <b>Finland, Norway and Sweden</b> , add the following text between the first and second paragraph of the compliance clause:  If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below.  Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.  It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b).  It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.	No solid insulation	N/A

**Enclosure 1: Other Country National And Group Differences**

<b>GERMANY NATIONAL DIFFERENCES</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	<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"> <li>- 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;</li> <li>- the additional testing shall be performed on all the test specimens as described in EN 60384-14;</li> <li>- 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.</li> </ul>		

<b>KOREA NATIONAL DIFFERENCES</b>			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.101	Plugs for the connection of the apparatus to the supply mains shall comply with the Korean requirement (KSC 8305).		N/A
8 : EMC	The apparatus shall comply with the relevant CISPR standards		N/A

<b>UNITED KINGDOM NATIONAL DIFFERENCES</b>			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.3.3	In the <b>United Kingdom</b> , the current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	In the <b>United Kingdom</b> , to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
3.2.1.1	<p>In the <b>United Kingdom</b>, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.</p> <p>NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved</p>		N/A

**Enclosure 1: Other Country National And Group Differences**

<b>UNITED KINGDOM NATIONAL DIFFERENCES</b>			
<b>Clause</b>	<b>Requirement + Test</b>	<b>Result - Remark</b>	<b>Verdict</b>
	conversion plug.		
3.2.5.1	In the <b>United Kingdom</b> , a power supply cord with conductor of 1,25 mm <sup>2</sup> is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N/A
3.3.4	In the <b>United Kingdom</b> , the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: <ul style="list-style-type: none"> <li>• 1,25 mm<sup>2</sup> to 1,5 mm<sup>2</sup> nominal cross-sectional area.</li> </ul>		N/A
4.3.6	In the <b>United Kingdom</b> , the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1: 1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N/A



## Enclosure 2: Photos/Illustrations

### FIGURES (Continued)

Figure 2

