

CE Safety Compliance Report  
For  
Summit Data Communications  
*Models*  
SDC-MCF10AG / SDC-MSD10AG  
In accordance with  
EN 60950-1:2001 + A11:2004  
Safety of information technology equipment,

CLIENT: Summit Data Communications  
526 South Main St  
Akron, OH  
USA

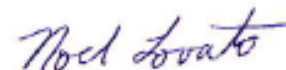
REPORT DATE: April 29, 2009

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***Manufacturer's General Information:***

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Manufacturer's Representative: Ron Seide

***Report Objective:***

The Summit Data Communications models SDC-MCF10AG / SDC-MSD10AG have been evaluated in accordance with the following standard: EN 60950-1:2001 + A11:2004 Safety of information technology equipment, including electrical business equipment".

The Summit Data Communications models SDC-MCF10AG / SDC-MSD10AG have been found to be compliant with the above standard for safety construction of the product and for the required safety performance testing. The clauses referenced in this report are applicable to the subject product. Comments pertaining to the clauses are for clarification or support of compliance to the clause. If clauses are not referenced, they are either non-applicable or narrative in nature.

**Product Function:**

The Summit Data Communications models SDC-MCF10AG / SDC-MSD10AG are Wi-Fi transmitters that designed to transmit data signals. The EUT would typically be connected to a portable data device.

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*EU Declaration of Conformity:*

The above Standard has been identified as the harmonized standard that needs to be met before declaring conformity with the Low Voltage (73/23/EEC) Directive. This Report per this Standard can serve as part of the documentation to be placed in the product Technical File as required by the Directive. The existence of a Technical File is required to support the EU Declaration of Conformity for this product. In addition to the Technical File, the Directive requires a "Declaration of Conformity" to the applicable standards (and/or Directives) and the affixing of the CE Marking to the product or its packaging.

*Manufacturer's Documentation:*

The manufacturer must keep the following documents on file and readily available if requested by the competent authorities.

1. Declaration of Conformity.
2. Copy of this Report.
3. Material such as design specifications, schematics, drawings, BOM's, operators' guides, and other supporting documentation in the Technical File. This file must be kept for 10 years after the last unit is produced and marketed in order to meet European Union requirements in effect at the publishing date of this report.

*Generic Construction Criteria:*

**Interconnecting Cables:** All interconnecting cables and cable assemblies used for external interconnection between parts of equipment or between components of a system are UL, CSA, Harmonized (HAR) marked VW-1 or FT-1, or equivalent rated for the temperature, voltage, and current in which it is exposed.

**Printed Circuit Boards:** All printed circuit boards, including flexible circuit boards, have a minimum flame rating of 94V-1 and a temperature rating of at least 105 °C.

**Tubing/Sleeving:** All tubing/sleeving used for compliance with the standards is UL, CSA, HAR or equivalent, rated for the temperature, voltage and current in which it is exposed.

**Plastics:** All internal plastics (excluding small electrical components, i.e., capacitors, chips & etc.) have a minimum flammability rating of V-2.

**Dimensions:** All dimensions are approximate unless otherwise specified.

**Miscellaneous Components:** Components not specifically described in the product description portion of this report are not deemed critical to safety. However, they should comply with the *Generic Construction Criteria*.

**Plastics:** All internal plastics (excluding small electrical components, i.e., capacitors, chips & etc.) have a minimum flammability rating of 94-HB

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**Product Description****General Product Information:**

Product Type: Wi-Fi Transmitter  
 Models: SDC-MCF10AG / SDC-MSD10AG  
 Electrical Ratings: 1.9Vdc .5A Max.  
 Insulation Class: Class III  
 Connection to Supply: SELV secondary connection

**Components:**

Components that bear approval by a certification agency are denoted with the following abbreviations:

(VDE) - Verband Deutscher Electrotechniker  
 (TÜV Rh.) -Technische Überwachungs-Verein - Rheinland  
 (TÜV PS)-Technische Überwachungs-Verein - Product Service  
 (CSA) - Canadian Standards Association  
 (UL) - Underwriters Laboratories  
 (HAR) - Harmonized, approved component to a European Harmonized standard

\*\* Indicates the component has a Certificate or License to an EN or IEC standard.

@@ Indicates compliance to a standard with equivalent requirements of EN 60950-1

The term "or equiv." is used in the report to denote components for which an equivalent manufacturer or part number may be used without affecting compliance with the applicable safety standards. Components *not* specified with an "or equiv." should be evaluated for continued compliance with the standards.

**Enclosure Description and List of Critical Components**

	Component	Manufacturer, Type, Rating	Tested By
1.	Enclosure	Various, V-1	UL
2.	Printed wiring board	Various Min V-1, 105°C	UL

Key - P – Pass  
 F – Fail  
 N – Not applicable  
 G – General

IEC 60950-1 / EN 60950-1 + A11:2004

Clause	Requirement – Test	Result – Remark	Verdict
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1	GENERAL		
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1.5	Components		
1.5.1	General	All applicable components, equipments have adequate agency approvals.	P
	Comply with IEC 60950 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	General requirements	N
1.5.3	Thermal controls	No such controls	N
1.5.4	Transformers	No mains transformers	N
1.5.5	Interconnecting cables	No interconnecting cables	N
1.5.6	Capacitors in primary circuits .....	No primary circuit	N
1.5.7	Double insulation or reinforced insulation bridged by components	No such components	N
1.5.7.1	General	No capacitors of this type	N
1.5.7.2	Bridging capacitors	No components of this type.	N
1.5.7.3	Bridging resistors	No components of this type.	N
1.5.7.4	Accessible parts	No accessible parts	N
1.5.8	Components in equipment for IT power systems	Not for IT power systems	N

1.6	Power interface		
1.6.1	AC power distribution systems	Not an AC power distribution system	N
1.6.2	Input current	SELV consideration	P

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
1.6.3	Voltage limit of hand-held equipment	Not hand held	N
1.6.4	Neutral conductor	General Statements	N
1.7	Marking and instructions		
1.7.1	Power rating	Not required. No connections to mains	N
	Rated voltage(s) or voltage range(s) (V) .....	3.3V	P
	Symbol for nature of supply, for d.c. only .....	No connection to mains	N
	Rated frequency or rated frequency range (Hz) .....	No ac used.	N
	Rated current (mA or A) .....	.5A	P
	Manufacturer’s name or trademark or identification mark .....	Applied to product	P
	Type/model or type reference.....	Visible on marking	P
	Symbol for Class II equipment only .....	Not class II	N
	Other symbols .....	Grounding and Voltage used	P
	Certification marks .....	CE Mark used	P
1.7.2	Safety instructions	Covered	P
1.7.3	Short duty cycles	Continuous operation intended	N
1.7.4	Supply voltage adjustment .....	No adjustment	N
	Methods and means of adjustment; reference to installation instructions .....		N
1.7.5	Power outlets on the equipment .....	None used	N
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) .....	No fuses used	N
1.7.7	Wiring terminals	Acceptable for application	P
1.7.7.1	Protective earthing and bonding terminals ..	None used	N
1.7.7.2	Terminal for a.c. mains supply conductors	No a.c. mains	N
1.7.7.3	Terminals for d.c. mains supply conductors	No d.c. mains	N
1.7.8	Controls and indicators	No such parts	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.8.1	Identification, location and marking .....	No markings in sample unit, production units to have adequate markings	N
1.7.8.2	Colours .....	No such parts	N
1.7.8.3	Symbols according to IEC 60417.....	No symbols required	N
1.7.8.4	Markings using figures .....	No such markings	N
1.7.9	Isolation of multiple power sources .....	No multiple power source	N
1.7.10	IT power distribution systems	Not for IT systems	N
1.7.11	Thermostats and other regulating devices	No such devices	N
1.7.12	Language(s) .....	To be translated for the country of import	—
1.7.13	Durability	no label affixed on sample	N
1.7.14	Removable parts	No removable parts	N
1.7.15	Replaceable batteries	No batteries	N
	Language(s) .....		—
1.7.16	Operator access with a tool .....	No access intended	N
1.7.17	Equipment for restricted access locations.....	Not for restricted access locations	N

2	PROTECTION FROM HAZARDS		
2.1	Protection from electric shock and energy hazards		
2.1.1	Protection in operator access areas	No access to energized parts	P
2.1.1.1	Access to energized parts	No TNV	N
	Test by inspection .....	No hazards found	N
	Test with test finger .....	See above	N
	Test with test pin .....	See above	N
	Test with test probe .....	See above	N
2.1.1.	Battery compartments .....	No batteries	N
2.1.1.	Access to ELV wiring	No ELV wiring	N
	Working voltage (V <sub>peak</sub> or V <sub>rms</sub> ); minimum distance (mm) through insulation	(see appended table 2.10.5)	—

IEC 60950-1 / EN 60950-1 + A11:2004

Clause	Requirement – Test	Result – Remark	Verdict
2.1.14	Access to hazardous voltage circuit wiring	Class III equipment with no hazardous voltage within equipment	N
2.1.15	Energy hazards .....	No energy hazards	P
2.1.16	Manual controls	No controls	N
2.1.17	Discharge of capacitors in equipment	Equipment not connect to mains supply	N
	Time-constant (s); measured voltage (V)..... :		—
2.1.2	Protection in service access areas	No serviceable parts	N
2.1.3	Protection in restricted access locations	Not for use in restricted access locations	N

2.2	SELV circuits		
2.2.1	General requirements	General requirements	N
2.2.2	Voltages under normal conditions (V)..... :	SELV throughout	P
2.2.3	Voltages under fault conditions (V)..... :	No reinforced insulation within equipment	N
2.2.31	Separation by double insulation or reinforced insulation (method 1)	Class III Equipment	N
2.2.32	Separation by earthed screen (method 2)	Class III Equipment	N
2.2.33	Protection by earthing of the SELV circuit (method 3)	Class III Equipment	N
2.2.4	Connection of SELV circuits to other circuits:	No connections	N

2.3	TNV circuits		
2.3.1	Limits	No TNV circuit present	N
	Type of TNV circuits .....		—
2.3.2	Separation from other circuits and from accessible parts	No TNV circuit present	N
	Insulation employed .....	Operational	—
2.3.3	Separation from hazardous voltages	No TNV circuit present	N
	Insulation employed .....	Operational	—

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
2.3.4	Connection of TNV circuits to other circuits	No TNV	N
	Insulation employed .....		—
2.3.5	Test for operating voltages generated externally	No TNV	N

2.4	Limited current circuits		
2.4.1	General requirements	No limited current circuits	N
2.4.2	Limit values	No limited current circuits present	N
	Frequency (Hz) .....		—
	Measured current (mA) .....		—
	Measured voltage (V) .....		—
	Measured capacitance (µF) .....		—
2.4.3	Connection of limited current circuits to other circuits	No limited current circuits present	N

2.5	Limited power sources		
	Inherently limited output	Does not have an output	N
	Impedance limited output	No output	N
	Overcurrent protective device limited output	See above	N
	Regulating network limited output under normal operating and single fault condition	See above	N
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition	See above	N
	Output voltage (V), output current (A), apparent power (VA) .....	No output voltages	—
	Current rating of overcurrent protective device (A)	No overcurrent protection needed or in place	—

2.6	Provisions for earthing and bonding		
2.6.1	Protective earthing	Equipment is Class III	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
2.6.2	Functional earthing	See above	N
2.6.3	Protective earthing and protective bonding conductors	See above	N
2.6.31	General	See above	N
2.6.32	Size of protective earthing conductors	See above	N
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG..... :		—
2.6.33	Size of protective bonding conductors	See above	N
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG..... :	See above	—
2.6.34	Resistance ( $\Omega$ ) of earthing conductors and their terminations, test current (A) .....	See above	N
2.6.35	Colour of insulation .....	See above	N
2.6.4	Terminals	Equipment is Class III	N
2.6.41	General	See above	N
2.6.42	Protective earthing and bonding terminals	None used	N
	Rated current (A), type and nominal thread diameter (mm)..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	None used	N
2.6.5	Integrity of protective earthing	None used	N
2.6.5.1	Interconnection of equipment	Not interconnected equipment	N
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No protective earthing used, device is class III	N
2.6.5.3	Disconnection of protective earth	See above	N
2.6.5.4	Parts that can be removed by an operator	No operator removable parts	N
2.6.5.5	Parts removed during servicing	No servicing in the field	N
2.6.5.6	Corrosion resistance	None needed	N
2.6.5.7	Screws for protective bonding	None used	N
2.6.5.8	Reliance on telecommunication network or cable distribution system	No interconnection with telecomm	N

IEC 60950-1 / EN 60950-1 + A11:2004

Clause	Requirement – Test	Result – Remark	Verdict
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2.7	Overcurrent and earth fault protection in primary circuits		
2.7.1	Basic requirements	Not applicable to device	N
	Instructions when protection relies on building installation	See above	N
2.7.2	Faults not covered in 5.3	See above	N
2.7.3	Short-circuit backup protection	See above	N
2.7.4	Number and location of protective devices ..... :	See above	N
2.7.5	Protection by several devices	See above	N
2.7.6	Warning to service personnel..... :	See above	N

2.8	Safety interlocks		N
2.8.1	General principles	No interlocks	N
2.8.2	Protection requirements	No interlocks	N
2.8.3	Inadvertent reactivation	No interlocks	N
2.8.4	Fail-safe operation	No interlocks	N
2.8.5	Moving parts	No interlocks	N
2.8.6	Overriding	No interlocks	N
2.8.7	Switches and relays	None used	N
2.8.7.1	Contact gaps (mm) ..... :	See above	N
2.8.7.2	Overload test	See above	N
2.8.7.3	Endurance test	See above	N
2.8.7.4	Electric strength test	(see appended table 5.2)	N
2.8.8	Mechanical actuators	None used	N

2.9	Electrical insulation		
2.9.1	Properties of insulating materials	Does not rely on insulating materials	N
2.9.2	Humidity conditioning	See above	N
	Humidity (%) ..... :		—
	Temperature (°C) ..... :		—
2.9.3	Grade of insulation	See above	N

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Clause	Requirement – Test	Result – Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation		
2.10.1	General	Class III device, operational insulation only	N
2.10.2	Determination of working voltage	See above	N
2.10.3	Clearances	See above	N
2.10.3.1	General	See above	N
2.10.3.2	Clearances in primary circuits	No primary circuits	N
2.10.3.3	Clearances in secondary circuits	Meets functional creepage and clearance requirements	N
2.10.3.4	Measurement of transient voltage levels	See above	N
2.10.4	Creepage distances	See above	N
	CTI tests .....		—
2.10.5	Solid insulation	No minimum, functional insulations only.	N
2.10.5.1	Minimum distance through insulation		N
2.10.5.2	Thin sheet material	See above	N
	Number of layers (pcs) .....		—
	Electric strength test		—
2.10.5.3	Printed boards	See above	N
	Distance through insulation	See above	N
	Electric strength test for thin sheet insulating material		—
	Number of layers (pcs) .....	See above	N
2.10.5.4	Wound components	No wound components using basic insulation between windings.	N
	Number of layers (pcs) .....	See above	N
	Two wires in contact inside wound component; angle between 45° and 90° .....	See above	N
2.10.6	Coated printed boards	No coated boards	N

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Clause	Requirement – Test	Result – Remark	Verdict
2.10.6.1	General	See above	N
2.10.6.2	Sample preparation and preliminary inspection	See above	N
2.10.6.3	Thermal cycling	See above	N
2.10.6.4	Thermal ageing (°C).....:	See above	N
2.10.6.5	Electric strength test		—
2.10.6.6	Abrasion resistance test	See above	N
	Electric strength test		—
2.10.7	Enclosed and sealed parts.....:	No enclosure or sealed parts	N
	Temperature $T_1=T_2 + T_{ma} - T_{amb} + 10K$ (°C).....:	See above	N
2.10.8	Spacings filled by insulating compound.....:	No spacing filled by insulation compounds	N
	Electric strength test		—
2.10.9	Component external terminations	No compound external terminations	N
2.10.10	Insulation with varying dimensions	None used	N

3	WIRING, CONNECTIONS AND SUPPLY		
3.1	General		
3.1.1	Current rating and overcurrent protection	None internal or interconnecting wires	N
3.1.2	Protection against mechanical damage	No wireways	N
3.1.3	Securing of internal wiring	No internal wires	N
3.1.4	Insulation of conductors	No internal conductors	N
3.1.5	Beads and ceramic insulators	No such beads or ceramic insulators	N
3.1.6	Screws for electrical contact pressure	Not used	N
3.1.7	Insulating materials in electrical connections	None used	N
3.1.8	Self-tapping and spaced thread screws	No such screws	P
3.1.9	Termination of conductors	No internal or interconnecting wires	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	10 N pull test	See above	N
3.1.10	Sleeving on wiring	None used	N

3.2	Connection to an a.c. mains supply or a d.c. mains supply		
3.2.1	Means of connection .....	No AC or DC mains connection	N
3.2.1.1	Connection to an a.c. mains supply	See above	N
3.2.1.2	Connection to a d.c. mains supply	See above	N
3.2.2	Multiple supply connections	See above	N
3.2.3	Permanently connected equipment	See above	N
	Number of conductors, diameter (mm) of cable and conduits .....		—
3.2.4	Appliance inlets	See above	N
3.2.5	Power supply cords	Class III device, no power supply cord	N
3.2.5.1	AC power supply cords	See above	N
	Type.....		—
	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG.....		—
3.2.5.2	DC power supply cords	No mains supply	N
3.2.6	Cord anchorages and strain relief	See above	N
	Mass of equipment (kg), pull (N) .....		—
	Longitudinal displacement (mm) .....		—
3.2.7	Protection against mechanical damage	See above	N
3.2.8	Cord guards	See above	N
	D (mm); test mass (g) .....		—
	Radius of curvature of cord (mm) .....		—
3.2.9	Supply wiring space	Not mains connected	N

3.3	Wiring terminals for connection of external conductors		
3.3.1	Wiring terminals	Not permanently connected	N

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Clause	Requirement – Test	Result – Remark	Verdict
3.3.2	Connection of non-detachable power supply cords	Non detachable power supply cords NOT used	N
3.3.3	Screw terminals	No screw terminals	N
3.3.4	Conductor sizes to be connected	See above	N
	Rated current (A), cord/cable type, cross-sectional area (mm <sup>2</sup> ) .....	See above	—
3.3.5	Wiring terminal sizes	See above	N
	Rated current (A), type and nominal thread diameter (mm) .....		—
3.3.6	Wiring terminals design	See above	N
3.3.7	Grouping of wiring terminals	See above	N
3.3.8	Stranded wire	See above	N

3.4	Disconnection from the mains supply		
3.4.1	General requirement	Not mains connected	N
3.4.2	Disconnect devices	See above	N
3.4.3	Permanently connected equipment	See above	N
3.4.4	Parts which remain energized	See above	N
3.4.5	Switches in flexible cords	See above	N
3.4.6	Single-phase equipment and d.c. equipment	See above	N
3.4.7	Three-phase equipment	See above	N
3.4.8	Switches as disconnect devices	No switches used as the disconnect device.	N
3.4.9	Plugs as disconnect devices	None used	N
3.4.10	Interconnected equipment	See above	N
3.4.11	Multiple power sources	No multiple power sources	N

3.5	Interconnection of equipment		
3.5.1	General requirements	No interconnection of equipment	N
3.5.2	Types of interconnection circuits.....	See above	N
3.5.3	ELV circuits as interconnection circuits	See above	N

## IEC 60950-1 / EN 60950-1 + A11:2004

Clause	Requirement – Test	Result – Remark	Verdict
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4	PHYSICAL REQUIREMENTS		
4.1	Stability		N
	Angle of 10°	Not applicable	N
	Test: force (N) :	See above	N

4.2	Mechanical strength		
4.2.1	General	General requirements	P
4.2.2	Steady force test, 10 N	Considered adequate	P
4.2.3	Steady force test, 30 N	Not applicable	N
4.2.4	Steady force test, 250 N	Not applicable	N
4.2.5	Impact test	Not applicable	N
	Fall test	Not applicable	N
	Swing test	Not applicable	N
4.2.6	Drop test	No energy hazards within equipment	N
4.2.7	Stress relief test	Not applicable	N
4.2.8	Cathode ray tubes	None used	N
	Picture tube separately certified .....		N
4.2.9	High pressure lamps	None used	N
4.2.10	Wall or ceiling mounted equipment; force (N) .....	None used	N

4.3	Design and construction		
4.3.1	Edges and corners	Smooth edges and corners	P
4.3.2	Handles and manual controls; force (N) .....	No handles or manual controls	N
4.3.3	Adjustable controls	No adjustable controls	N
4.3.4	Securing of parts	Secured as required	N
4.3.5	Connection of plugs and sockets	None used	N
4.3.6	Direct plug-in equipment	Not direct plug in equipment	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	Dimensions (mm) of mains plug for direct plug-in .....	See above	N
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N).....	See above	N
4.3.7	Heating elements in earthed equipment	No such elements	N
4.3.8	Batteries	No batteries used	N
4.3.9	Oil and grease	Not intended to be subjected to oil or grease	N
4.3.10	Dust, powders, liquids and gases	Does not produce these	N
4.3.11	Containers for liquids or gases	No such containers	N
4.3.12	Flammable liquids .....	None used	N
	Quantity of liquid (l).....	See above	N
	Flash point (°C) .....	See above	N
4.3.13	Radiation; type of radiation .....	Does not produce radiation	N
4.3.13.1	General	See above	N
4.3.13.2	Ionizing radiation	See above	N
	Measured radiation (pA/kg) :	See above	—
	Measured high-voltage (kV) :	See above	—
	Measured focus voltage (kV) :	See above	—
	CRT markings :	See above	—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	See above	N
	Part, property, retention after test, flammability classification :	See above	N
4.3.13.4	Human exposure to ultraviolet (UV) radiation :	See above	N
4.3.13.5	Laser (including LEDs)	No lasers used	N
	Laser class :	None used	—
4.3.13.6	Other types :	None used	N
4.4	Protection against hazardous moving parts		

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Clause	Requirement – Test	Result – Remark	Verdict
4.4.1	General	No moving parts	N
4.4.2	Protection in operator access areas	See above	N
4.4.3	Protection in restricted access locations	Not evaluated for use in a restricted access location.	N
4.4.4	Protection in service access areas	See above	N

4.5	Thermal requirements		
4.5.1	Maximum temperatures	Within maximum during operation.	P
	Normal load condition per Annex L.....:	See appended table below for details	P
4.5.2	Resistance to abnormal heat	See above	P

4.6	Openings in enclosures		
4.6.1	Top and side openings	Not evaluated as stand alone device.	N
	Dimensions (mm) .....	See above	—
4.6.2	Bottoms of fire enclosures	No fire enclosure needed	N
	Construction of the bottom.....:	See above	—
4.6.3	Doors or covers in fire enclosures	Not a fire enclosure	N
4.6.4	Openings in transportable equipment	Unit designed to fit withing other equipment	N
4.6.5	Adhesives for constructional purposes	No adhesives used	N
	Conditioning temperature (°C)/time (weeks) .....	See above	—

4.7	Resistance to fire		
4.7.1	Reducing the risk of ignition and spread of flame	V-0 plastic used in component and PWB	P
	Method 1, selection and application of components wiring and materials		
	Method 2, application of all of simulated fault condition tests		
4.7.2	Conditions for a fire enclosure	Does not require a fire enclosure.	N
4.7.2.1	Parts requiring a fire enclosure	See above	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
4.7.2.2	Parts not requiring a fire enclosure	See above	P
4.7.3	Materials		
4.7.3.1	General	General requirements	P
4.7.3.2	Materials for fire enclosures	No fire enclosure needed	N
4.7.3.3	Materials for components and other parts outside fire enclosures	No fire enclosure used	N
4.7.3.4	Materials for components and other parts inside fire enclosures	safety relevant components are used within their specified temperature limits, other plastic parts are adequately rated.	N
4.7.3.5	Materials for air filter assemblies	None used	N
4.7.3.6	Materials used in high-voltage components	No high voltage components	P

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		
5.1	Touch current and protective conductor current		
5.1.1	General	No mains connection	N
5.1.2	Equipment under test (EUT)	See above	N
5.1.3	Test circuit	See above	N
5.1.4	Application of measuring instrument	See above	N
5.1.5	Test procedure	See above	N
5.1.6	Test measurements	See above	N
	Test voltage (V) .....	See above	—
	Measured touch current (mA) .....	See above	—
	Max. allowed touch current (mA) .....	See above	—
	Measured protective conductor current (mA) .....	See above	—
	Max. allowed protective conductor current (mA) .....	See above	—
5.1.7	Equipment with touch current exceeding 3.5 mA .....	See above	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	See Above	N
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system	No telecom connections	N
	Test voltage (V) .....	See above	—
	Measured touch current (mA) .....	See above	—
	Max. allowed touch current (mA) .....	See above	—
5.1.8.2	Summation of touch currents from telecommunication networks..... :	See above	N

5.2	Electric strength		
5.2.1	General	Not applicable	N
5.2.2	Test procedure	See above	N

5.3	Abnormal operating and fault conditions		
5.3.1	Protection against overload and abnormal operation		N
5.3.2	Motors		N
5.3.3	Transformers		N
5.3.4	Functional insulation .....	Meets the spacings and creepage and clearance requirements	P
5.3.5	Electromechanical components	No such components	N
5.3.6	Simulation of faults	General test conditions	P
5.3.7	Unattended equipment	No such thermal controls	N
5.3.8	Compliance criteria for abnormal operating and fault conditions	Adequate	P

6	CONNECTION TO TELECOMMUNICATION NETWORKS		
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
6.1.1	Protection from hazardous voltages		N
6.1.2	Separation of the telecommunication network from earth		N
6.1.2.1	Requirements	(see appended table 5.2)	N
	Test voltage (V) .....		—
	Current in the test circuit (mA) .....		—
6.1.2.2	Exclusions.....	No telecomm connections	N

6.2	Protection of equipment users from overvoltages on telecommunication networks		N
6.2.1	Separation requirements	Not applicable, no Telecomm	N
6.2.2	Electric strength test procedure	See above	N
6.2.2.1	Impulse test		N
6.2.2.2	Steady-state test	(see appended table 5.2)	N
6.2.2.3	Compliance criteria	See above	N

6.3	Protection of the telecommunication wiring system from overheating		N
	Max. output current (A).....	See above	—
	Current limiting method .....	See above	—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	Not intended for cable distribution systems	N
7.2	Protection of equipment users from overvoltages on the cable distribution system	See above	N
7.3	Insulation between primary circuits and cable distribution systems	See above	N
7.3.1	General	General requirements	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
7.3.2	Voltage surge test	(see appended table 5.2)	N
7.3.3	Impulse test	(see appended table 5.2)	N

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples .....	Not applicable	—
	Wall thickness (mm) .....	Not applicable	—
A.1.2	Conditioning of samples; temperature (°C) .....	See above	N
A.1.3	Mounting of samples .....	See above	N
A.1.4	Test flame (see IEC 60695-11-3)	See above	N
	Flame A, B, C or D .....	See above	—
A.1.5	Test procedure	See above	N
A.1.6	Compliance criteria	See above	N
	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.2.1	Samples, material .....	Not required	—
	Wall thickness (mm) .....	See above	—
A.2.2	Conditioning of samples	Not required	N
A.2.3	Mounting of samples .....	See above	N
A.2.4	Test flame (see IEC 60695-11-4)	Not required	N
	Flame A, B or C .....		—
A.2.5	Test procedure	See above	N
A.2.6	Compliance criteria	See above	N
	Sample 1 burning time (s) .....		—
	Sample 2 burning time (s) .....		—

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	Sample 3 burning time (s) .....		—
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4 and 8	Not applicable	N
	Sample 1 burning time (s) .....	See above	—
	Sample 2 burning time (s) .....	See above	—
	Sample 3 burning time (s) .....	See above	—
A.3	Hot flaming oil test (see 4.6.2)	See above	N
A.3.1	Mounting of samples	See above	N
A.3.2	Test procedure	See above	N
A.3.3	Compliance criterion	See above	N

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		
B.1	General requirements	No motors	N
	Position .....	See above	—
	Manufacturer .....	See above	—
	Type .....	See above	—
	Rated values .....	See above	—
B.2	Test conditions	See above	N
B.3	Maximum temperatures	No motors used	N
B.4	Running overload test	See above	N
B.5	Locked-rotor overload test	No motors	N
	Test duration (days) .....	See above	—
	Electric strength test: test voltage (V) .....	See above	—
B.6	Running overload test for d.c. motors in secondary circuits	See above	N
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N
B.7.1	Test procedure	No test applicable	N
B.7.2	Alternative test procedure; test time (h) :		N
B.7.3	Electric strength test	Not applicable	N
B.8	Test for motors with capacitors	No motors used	N
B.9	Test for three-phase motors	See above	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
B.10	Test for series motors	See above	N
	Operating voltage (V) .....		—

C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N
	Position .....		—
	Manufacturer .....		—
	Type .....		—
	Rated values .....		—
	Method of protection .....		—
C.1	Overload test	no transformers	N
C.2	Insulation	see above	N
	Protection from displacement of windings.....	See above	N

D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		N
D.1	Measuring instrument	None used	N
D.2	Alternative measuring instrument	Se above	N

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N
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F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		N
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G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N
G.1	Summary of the procedure for determining minimum clearances	Functional requirements only	N
G.2	Determination of mains transient voltage (V).....		N
G.2.1	AC mains supply		N
G.2.2	DC mains supply		N
G.3	Determination of telecommunication network transient voltage (V).....		N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
G.4	Determination of required withstand voltage (V).....:		N
G.5	Measurement of transient levels (V) .....		N
G.6	Determination of minimum clearances .....		N

H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N
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J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		N
	Metal used :		—

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N
K.1	Making and breaking capacity	None used	N
K.2	Thermostat reliability; operating voltage (V).....:	See above	N
K.3	Thermostat endurance test; operating voltage (V) .....	See above	N
K.4	Temperature limiter endurance; operating voltage (V) .....	See above	N
K.5	Thermal cut-out reliability	See above	N
K.6	Stability of operation	See above	N

L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		N
L.1	Typewriters	Not applicable	N
L.2	Adding machines and cash registers	Not applicable	N
L.3	Erasers	Not applicable	N
L.4	Pencil sharpeners	Not applicable	N
L.5	Duplicators and copy machines	Not applicable	N
L.6	Motor-operated files	Not applicable	N
L.7	Other business equipment	Not applicable	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N
M.1	Introduction	Not telecom equipment	N
M.2	Method A	See above	N
M.3	Method B	See above	N
M.3.1	Ringling signal	See above	N
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 .....	See above	N
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	See above	N
M.3.2.2	Tripping device	See above	N
M.3.2.3	Monitoring voltage (V).....	See above	N
N	ANNEX N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)		N
N.1	ITU-T impulse test generators	Not impulse test generator	N
N.2	IEC 60065 impulse test generator	See above	N
P	ANNEX P, NORMATIVE REFERENCES		N
Q	ANNEX Q, BIBLIOGRAPHY		N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)	Not applicable	N
R.2	Reduced clearances (see 2.10.3)	See above	N
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N
S.1	Test equipment	Not applicable	N
S.2	Test procedure	See above	N
S.3	Examples of waveforms during impulse testing	See above	N
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N
		None used.	—
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N
		See separate test report	—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N
V.1	Introduction	Not for power distribution system	N
V.2	TN power distribution systems		N
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N
W.1	Touch current from electronic circuits	To be evaluated in end system configuration	N
W.1.2	Earthed circuits	See above	N
W.2	Interconnection of several equipments	See above	N



IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
W.2.1	Isolation	See above	N
W.2.2	Common return, isolated from earth	See above	N
W.2.3	Common return, connected to protective earth		N

X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N
X.1	Determination of maximum input current	Not applicable	N
X.2	Overload test procedure		N

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N
Y.1	Test apparatus .....	Not applicable	N
Y.2	Mounting of test samples .....		N
Y.3	Carbon-arc light-exposure apparatus .....		N
Y.4	Xenon-arc light exposure apparatus .....		N

CENELEC COMMON MODIFICATIONS [C], SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A] (EN 60950-1:2001, Annex ZB and Annex ZC)			
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General	<p>C: Delete all the "country" notes in the reference document according to the following list:</p> <p>1.1.5 Note 2    1.5.8 Note 2    1.6.1 Note 1.7.2 Note 4    1.7.12 Note 2    2.6 Note 2.2.3 Note    2.2.4 Note    2.3.2 Note 2, 7, 8 2.3.3 Note 1, 2    2.3.4 Note 2,3    2.7.1 Note 2.10.3.1 Note 4    3.2.1.1 Note    3.2.3 Note 1, 2 3.2.5.1 Note 2    4.3.6 Note 1,2    4.7.2.2 Note 4.7.3.1 Note 2    6.1.2.1 Note    6.1.2.2 Note 6.2.2 Note    6.2.2.1 Note 2    6.2.2.2 Note 7 Note 4    7.1 Note G2.1 Note 1, 2    Annex H Note 2</p>		P
1.2.4.1	S (DK): 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	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
1.5.1	A (SE, Ordinance 1990:944 and CH, Ordinance on environmentally hazardous substances SR 814.013, Annex 3.2, Mercury): Add NOTE – Switches containing mercury such as thermostats, relays and level controllers are not allowed.	Not evaluated for hazardous substances	N
1.5.8	S (NO): Due to the IT power system used (see annex V, Fig. V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	Not for IT power system	N
1.7.2	S (FI, NO, SE): CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet.  The marking text in the applicable countries shall be as follows:	Not class I	N
	FI: "Laite on liitettävä suojamaadoitus-koskettimilla varustettuun pistorasiaan"		P
	NO: "Apparatet må tilkoples jordet stikkontakt"		P
	SE: "Apparaten skall anslutas till jordat uttag"		P
	A (DK, Heavy Current Regulations): Supply cords of class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text:  Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket  eller   If essential for the safety of the equipment, the tag must in addition be provided with a diagram which shows the connection of the other conductors, or be provided with the following text: "For tilslutning af de øvrige ledere, se	Unit is class III	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	medfølgende installationsvejledning."		
1.7.5	S (DK): 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.	Unit is class III	N
1.7.5	A (DK, Heavy Current Regulations): CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.	Unit is class III	N
1.7.12	A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23 <sup>rd</sup> October 1992, Article 3, 3 <sup>rd</sup> paragraph, 2 <sup>nd</sup> sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10 <sup>th</sup> January 1996, article 2, 4 <sup>th</sup> paragraph item 2): Directions for use with rules to prevent certain hazards for (among others) maintenance of the technical labour equipment, also for imported technical labour equipment shall be written in the German language.  NOTE: Of this requirement, rules for use even only by service personnel are not exempted.		N
1.7.1 5	A (CH, Ordinance on environmentally hazardous substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries.	Not evaluated for hazardous substances	N
	A (DE, Regulation on protection against hazards by X-ray, of 8 <sup>th</sup> January 1987, Article 5 [Operation of X-ray emission source], clauses 1 to 4): a) A licence is required by those who operate an X-ray emission source.	No X-ray used	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	<p>b) A licence in accordance with Cl. 1 is not required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if</p> <ol style="list-style-type: none"> <li>1) the local dose rate at a distance of 0,1 m from t</li> <li>2) it is adequately indicated on the X-ray emission                             <ol style="list-style-type: none"> <li>i) X-rays are generated and</li> <li>ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</li> </ol> </li> </ol> <p>c) A licence in accordance with Cl. 1 is also not required by persons who operate an X-ray emission source on which the electron acceleration voltage exceeds 20 kV if</p> <ol style="list-style-type: none"> <li>1) the X-ray emission source has been granted a t</li> <li>2) it is adequately indicated on the X-ray emission                             <ol style="list-style-type: none"> <li>i) X-rays are generated</li> <li>ii) the device stipulated by the manufacturer or importer guarantees that the maximum permissible local dose rate in accordance with the type approval is not exceeded and</li> <li>iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer.</li> </ol> </li> </ol> <p>d) Furthermore, a licence in accordance with Cl. 1 is also not required by persons who operate X-ray emission sources on which the electron acceleration voltage does not exceed 30 kV if</p> <ol style="list-style-type: none"> <li>1) the X-rays are generated only by intrinsically s</li> <li>2) the values stipulated in accordance with Enclo</li> <li>3) it is adequately indicated on the X-ray emissio</li> </ol>		
P.2.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		P
2.3.2	S (NO): Requirements according to this annex, 6.1.2.1 apply.		N
2.3.3 and 2.3.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		P

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
2.6.3.3	S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.	Not evaluated	N
2.7.1	<p>C: Replace the subclause as follows:</p> <p><i>Basic requirements</i></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> <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>	To be evaluated in end system configuration	N
	S (GB): To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT OF DIRECT PLUG-IN EQUIPMENT, protective device shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT.	No primary circuit within equipment	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
2.7.2	C: Void.		
2.10.2	C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".		P
2.10.3.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage and will remain at 230 V in case of a single earth fault	Not for IT power distribution system	N
3.2.1.1	<p>S (CH): 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                      SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A                      SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A</p> <p>In general, EN 60309 applies for plugs for currents exceeding 10A. 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                      SEV 5933-2.1998, Plug type 21, L+N 250 V, 16 A                      SEV 5934-2.1998, Plug type 23, L+N+PE 250 V, 16 A</p>	Not plug-in equipment	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	<p>S (DK): 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 ply-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>	Not mains connected	N
	<p>S (ES): 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>	Not mains connected	P
	<p>S (GB): 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</p>	No cable or cord used	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 – The Plugs and Socket etc. (Safety) Regulations 1994, unless exempted by those regulations.  NOTE – 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		
	S (IE): Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 – National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.	No cable of cord used	N
3.2.3	C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.		N
3.2.5.1	C: 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-F";  In Table 3B, replace the first four lines by the following:  Up to and including 6 0,75 <sup>1)</sup> Over 6 up to and including 10 (0,75) <sup>2)</sup> 1,0 Over 10 up to and including 16 (1,0) <sup>3)</sup> 1,5  In the Conditions applicable to Table 3B delete the words "in some countries" in condition <sup>1)</sup> .  In Note 1, applicable to Table 3B, delete the second sentence.	Not applicable	N
3.2.5.1	S (GB): 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.	No supply cord used	N

IEC 60950-1 / EN 60950-1 + A11:2004																				
Clause	Requirement – Test	Result – Remark	Verdict																	
3.3.4	C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following:	Less than 10 A.	N																	
	"Over 10 up to and including 16		<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1,</td> </tr> <tr> <td style="text-align: center;">,</td> <td style="text-align: center;">5</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">to</td> </tr> <tr> <td style="text-align: center;">t</td> <td style="text-align: center;">4"</td> </tr> <tr> <td style="text-align: center;">o</td> <td></td> </tr> <tr> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td style="text-align: center;">,</td> <td></td> </tr> <tr> <td style="text-align: center;">5</td> <td></td> </tr> </table>	1	1,	,	5	5	to	t	4"	o		2		,		5		N
	1		1,																	
,	5																			
5	to																			
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2																				
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5																				
Delete the fifth line: conductor sizes for 13 to 16 A.		N																		
3.3.4	S (GB): The range of conductor sizes of flexible cords to be accepted by terminals for equipment with A RATED CURRENT of over 10 A up to and including 13 A is: - 1,25 mm <sup>2</sup> to 1,5 mm <sup>2</sup> nominal cross-sectional area.	No mains connections	N																	
4.3.6	S (GB): The torque test is performed using a socket outlet complying with BS 1363 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, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C.		N																	
	S (IE): DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 – National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.	Not direct plug-in	N																	
4.3.13.6	C: Add the following note:  NOTE 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. Standards taking into account this recommendation are currently under development.		P																	
6.1.2.1	S (FI, NO, SE): Add the following text between the first and second paragraph:  If this insulation is solid, including insulation forming part of a component,	Not evaluated for solid insulation	N																	

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	<p>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>If this insulation forms part of a semiconductor component (e.g. an optocoupler), 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 2.10.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.7 shall be performed using 1,5 kV), and</li> <li>- is subject to ROUTING TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV.</li> </ul> <p>It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 132400:1994, 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 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950:2000, 6.2.2.1;</li> <li>- the additional testing shall be performed on all the test specimens as described in EN 132400;</li> </ul>		

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
	- the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.		
6.1.2.2	S (FI, NO, SE): The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and 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.	Not permanently connected or Type B pluggable	N
7.1	S (FI, NO, SE): Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.	Not for telecomm	N
G.2.1	S (NO): Due to the IT power distribution system used (see annex V, Fig. V.7), the A.C. MAINS SUPPLY voltage is considered to be equal to the line-to-line voltage, and will remain at 230 V in case of a single earth fault.	Not A.C. device	N
Anne x H	C: Replace the last paragraph of this annex by:  At any point 10 cm from the surface of the operator access area, the dose rate shall not exceed 1 $\mu$ Sv/h (0,1 mR/h) (see note). Account is taken of the background level.  Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete Note 2.	Not applicable	N
Anne x P	C: Replace the text of this annex by: See annex ZA.		P

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
Anne x Q	<p>C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification".</p> <p>Add the following notes for the standards indicated:</p> <p>IEC 60127NOTE Harmonized as EN 60127 (Series) (not modified)                      IEC 60269-2-1NOTE Harmonized as HD 630.2.1 S4:2000 (modified)                      IEC 60529NOTE Harmonized as EN 60529:1991 (not modified)                      IEC 61032NOTE Harmonized as EN 61032:1998 (not modified)                      IEC 61140NOTE Harmonized as EN 61140:2001 (not modified)                      ITU-T Recommendation K.31</p>	<p>NOTE in Europe, the suggested document is EN 50083-1.</p>	N

IEC 60950-1 / EN 60950-1 + A11:2004			
Clause	Requirement – Test	Result – Remark	Verdict
Anne x ZA	<p>C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS</p> <p>This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).</p> <p>NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.</p> <p>— IEC 60050-151 — IEC 60050-195 EN 60065:1998 + corr. June 1999 IEC 60065 (mod):1998 EN 60073:1996 IEC 60073:1996 HD 566 S1:1990 IEC 60085:1984 HD 214 S2:1980 IEC 60112:1979 HD 611.4.1.S1:1992 IEC 60216-4-1:1990 HD 21 <sup>1)</sup> Series IEC 60227 (mod) Series HD 22 <sup>2)</sup> Series IEC 60245 (mod) Series EN 60309 Series IEC 60309 Series EN 60317-43:1997 IEC 60317-43:1997 EN 60320 Series IEC 60320 (mod) Series HD 384.3 S2:1995 IEC 60364-3 (mod):1993 HD 384.4.41 S2:1996 IEC 60364-4-41 (mod):1992 <sup>3)</sup></p> <p>EN 132400:1994 <sup>4)</sup> IEC 60384-14:1993 + A2:1998 + A3:1998 + A4:2001 EN 60417-1 IEC 60417-1 HD 625.1 S1:1996 + corr. Nov. 1996 IEC 60664-1 (mod):1992 EN 60695-2-2:1994 IEC 60695-2-2:1991 EN 60695-2-11:2001 IEC 60695-2-11:2000 — IEC 60695-2-20:1995 — IEC 60695-10-2:1995 — IEC 60695-11-3:2000 — IEC 60695-11-4:2000 EN 60695-11-10:1999 IEC 60695-11-10:1999 EN 60695-11-20:1999 IEC 60695-11-20:1999 EN 60730-1:2000 IEC 60730-1:1999 (mod) EN 60825-1:1994 + corr. Febr. 1995 + A11:1996 + corr. July 1997 IEC 60825-1:1993 EN 60825-2:2000 IEC 60825-2:2000</p>		P

IEC 60950-1 / EN 60950-1 + A11:2004

Clause	Requirement – Test	Result – Remark	Verdict
	—	IEC 60825-9:1999	
	EN 60851-3:1996	IEC 60851-3:1996	
	EN 60851-5:1996	IEC 60825-5:1996	
	EN 60851-6:1996	IEC 60851-6:1996	
	—	IEC 60885-1:1987	
	EN 60990:1999	IEC 60990:1999	
	—	IEC 61058-1:2000	
	EN 61965:2001	IEC 61965:2000	
	EN ISO 178:1996	ISO 178:1993	
	EN ISO 179 Series	ISO 179 Series	
	EN ISO 180:2000	ISO 180:1993	
	—	ISO 261:1998	
	—	ISO 262:1998	
	EN ISO 527 Series	ISO 527 Series	
	—	ISO 386:1984	
	EN ISO 4892 Series	ISO 4892 Series	
	—	ISO 7000:1989	
	EN ISO 8256:1996	ISO 8256:1990	
	—	ISO 9772:1994	
	EN ISO 9773:1998	ISO 9773:1998	
	—	ITU-T:1988	
	—	Recommendation K.17	
	—	ITU-T:2000	
	—	Recommendation K.21	
	1) The HD 21 series is related to, but not directly equivalent with the IEC 60227 series 2) The HD 22 series is related to, but not directly equivalent with the IEC 60245 series 3) IEC 60364-4-41:1992 is superseded by IEC 60364-4-41:2001 4) EN 132400, Sectional Specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains (Assessment level D), and its amendments are related to, but not directly equivalent to IEC 60384-14		

Key - P – Pass  
F – Fail  
N – Not applicable  
G – General

<b>Test equipment list</b>					
Item	Type	Equipment No.	Calibration date		Comments
			Last <sup>1</sup>	Due	
Agilent	Temp Reader	02110	04/01/09	04/01/10	
Agilent	Mux Card	02165	04/01/09	04/01/10	

<sup>1</sup>) or interval between calibrations.

### Tests

TABLE: temperature tests			P
Test conditions	Normal Full Load		
Frequency (Hz)	:	N/A	—
Duration (h, min)	:	2 hours	—
Voltage (V)	:	1.9VDC	—
Ambient temperature Ta (°C)	:	21.3	—
Measurements: 1 - part; 2 - measured temperature (Tm (°C)); 3 – comments			
1	2	3	
Transmitter	47.1	Pass	
PWB	46.5	Pass	
U1	57.7	Pass	
Note:			

## Photographs

### Front



## Rear

