TEST REPORT

IEC 60950-1 and/or EN 60950-1

Information technology equipment – Safety –

Part 1: General requirements

Report reference No.	:	<10001 340 001>
Tested by (printed name and signature)	:	Darren Lai .....
Approved by (printed name and signature)	:	Edward Lin .....
Date of issue	:	May 29, 2006
Testing Laboratory Name	:	Cerpass Technology Corp.
Address	:	9F, No. 200, Gangcian Rd., Neihu District Taipei City, Taiwan
Testing location	:	Same as above
Applicant's Name	:	AAEON Technology Inc.
Address	:	5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei Hsien, Taiwan
Test specification		
Standard	:	IEC 60950-1:2001 EN 60950-1:2001+A11:2004
Test procedure	:	Service of CE Marking in LVD
Non-standard test method	:	N.A.
Test item description	:	ETX CPU Module
Manufacturer	:	Same as applicant
Trademark	:	AAEON
Model and/or type reference	:	ETX-625
Serial number	:	Pre-production samples w/o serial numbers
Rating(s)	:	--

Particulars: test item vs. test requirements

Equipment mobility	Building-in
Operating condition	Continuous
Mains supply tolerance (%)	N/A
Tested for IT power systems	N/A
IT testing, phase-phase voltage (V)	N.A.
Class of equipment	III
Mass of equipment (kg)	0.28
Protection against ingress of water	IPX0

Test case verdicts

Test case does not apply to the test object	N/A
Test item does meet the requirement	P(ass)
Test item does not meet the requirement	F(ail)

Testing

Date of receipt of test item	May 26, 2006
Date(s) of performance of test	May 26, 2006 - May 29, 2006

General remarks

This report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item(s) tested.

"(see remark #)" refers to a remark appended to the report.

"(see Annex #)" refers to an annex appended to the report.

Throughout this report a point is used as the decimal separator.

Factory:

Same as Client.

Comments:

The equipment, model ETX-625, is a building-in type ETX CPU module board which is intended to be use in PCs only. Any further evaluation might be checked in the end-use condition.

The CPU is CELERON 400/650 MHz.

Other remarks:

The manufacturer declared that the max. operating temp. is +60°C.

Copy of marking plate(s):

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1	GENERAL		**P**
1.5	Components		**P**
1.5.1	General	See below.	**P**
	Comply with IEC 60950 or relevant component standard	Components which were found to affect safety aspects comply with the requirements of this standard or with the safety aspects of the relevant IEC/EN component standards (see appended table 1.5.1).	**P**
1.5.2	Evaluation and testing of components	Components that are certified to IEC and /or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	**P**
1.5.3	Thermal controls	No thermal control.	**N**
1.5.4	Transformers	No transformer	**N**
1.5.5	Interconnecting cables	No interconnecting cables provided.	**N**
1.5.6	Capacitors in primary circuits ..... :	Class III equipment.	**N**
1.5.7	Double insulation or reinforced insulation bridged by components	Class III equipment.	**N**
1.5.7.1	General	Class III equipment.	**N**
1.5.7.2	Bridging capacitors		**N**
1.5.7.3	Bridging resistors		**N**
1.5.7.4	Accessible parts		**N**
1.5.8	Components in equipment for IT power systems	Class III equipment	**N**

1.6	Power interface		**N**
1.6.1	AC power distribution systems	Class III equipment.	**N**
1.6.2	Input current	Not directly connect to mains.	**N**
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	**N**
1.6.4	Neutral conductor	Class III equipment.	**N**

1.7	Marking and instructions	**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.1	Power rating		**N**
	Rated voltage(s) or voltage range(s) (V) ..... :	Not directly connect to mains.	**N**
	Symbol for nature of supply, for d.c. only ..... :	Ditto	**N**
	Rated frequency or rated frequency range (Hz) :	Ditto	**N**
	Rated current (mA or A) ..... :	Ditto	**N**
	Manufacturer's name or trademark or identification mark ..... :	AAEON	**P**
	Type/model or type reference ..... :	ETX-625	**P**
	Symbol for Class II equipment only ..... :	Class III equipment.	**N**
	Other symbols ..... :	Additional symbols or markings do not give rise to misunderstanding.	**P**
	Certification marks ..... :	No such mark.	**N**
1.7.2	Safety instructions	The user's manual contains information for operation, installation, servicing, transport, storage and technical data.	**P**
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	**N**
1.7.4	Supply voltage adjustment ..... :	No such device.	**N**
	Methods and means of adjustment; reference to installation instructions ..... :		**N**
1.7.5	Power outlets on the equipment ..... :	No outlets.	**N**
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	No fuses provided.	**N**
1.7.7	Wiring terminals	No such terminals provided.	**N**
1.7.7.1	Protective earthing and bonding terminals ..... :	See below.	**N**
1.7.7.2	Terminal for a.c. mains supply conductors	Class III equipment.	**N**
1.7.7.3	Terminals for d.c. mains supply conductors		**N**
1.7.8	Controls and indicators	No such device provided.	**N**
1.7.8.1	Identification, location and marking ..... :		**N**
1.7.8.2	Colours ..... :		**N**
1.7.8.3	Symbols according to IEC 60417 ..... :		**N**
1.7.8.4	Markings using figures ..... :		**N**
1.7.9	Isolation of multiple power sources ..... :		**N**
1.7.10	IT power distribution systems	Class III equipment.	**N**
1.7.11	Thermostats and other regulating devices	No thermostats provided.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
1.7.12	Language(s) ..... :	User's manual and marking rating are in English. Versions in other languages will be provided when national certificate approval.	—
1.7.13	Durability	The labels were subjected to the permanence of marking test. The labels were rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit. After this test there was no damage to the labels. The marking on the labels did not fade. There was no curling or lifting of the label's edges.	**P**
1.7.14	Removable parts	No removable parts provided.	**N**
1.7.15	Replaceable batteries	No battery provided	**N**
	Language(s) .....:		—
1.7.16	Operator access with a tool..... :	Not necessary to be access with tool.	**N**
1.7.17	Equipment for restricted access locations..... :	Equipment not intended for use in restricted access location.	**N**

2	PROTECTION FROM HAZARDS *Class III equipment and only SELV circuits within this equipment. No energy hazard could be generated in this equipment. Besides, this is building-in type and no operator access area within it.*		**P**
2.1	Protection from electric shock and energy hazards		**P**
2.1.1	Protection in operator access areas		**N**
2.1.1.1	Access to energized parts		**N**
	Test by inspection ..... :		**N**
	Test with test finger ..... :		**N**
	Test with test pin ..... :		**N**
	Test with test probe ..... :		**N**
2.1.1.2	Battery compartments ..... :		**N**
2.1.1.3	Access to ELV wiring		**N**
	Working voltage (Vpeak or Vrms); minimum distance (mm) through insulation		—
2.1.1.4	Access to hazardous voltage circuit wiring		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.1.1.5	Energy hazards ..... :		**N**
2.1.1.6	Manual controls		**N**
2.1.1.7	Discharge of capacitors in equipment		**N**
	Time-constant (s); measured voltage (V)..... :		**—**
2.1.2	Protection in service access areas		**N**
2.1.3	Protection in restricted access locations		**N**

2.2	SELV circuits		
2.2.1	General requirements	See below.	**P**
2.2.2	Voltages under normal conditions (V) ..... :	Between any SELV circuits 42.4V peak or 60VDC are not exceeded.	**P**
2.2.3	Voltages under fault conditions (V) ..... :	Single fault did not cause excessive voltage in accessible SELV circuits. Limits of 71V peak and 120V DC were not exceed and SELV limits not for longer than 0.2 seconds.	**P**
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Class III equipment, which is separated from hazardous voltage by double/reinforce insulation through power supply unit of PCs.	**N**
2.2.3.2	Separation by earthed screen (method 2)	Ditto.	**N**
2.2.3.3	Protection by earthing of the SELV circuit (method 3)	Ditto.	**N**
2.2.4	Connection of SELV circuits to other circuits .....:	See 2.2.2 and 2.2.3. No direct connection between SELV and any primary circuits.	**P**

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

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.3.4	Connection of TNV circuits to other circuits		**N**
	Insulation employed..... :		—
2.3.5	Test for operating voltages generated externally		**N**

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

2.5	Limited power sources		**N**
	Inherently limited output		**N**
	Impedance limited output		**N**
	Overcurrent protective device limited output		**N**
	Regulating network limited output under normal operating and single fault condition		**N**
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		**N**
	Output voltage (V), output current (A), apparent power (VA)..... :		—
	Current rating of overcurrent protective device (A)		—

2.6	Provisions for earthing and bonding *Class III equipment*		**N**
2.6.1	Protective earthing		**N**
2.6.2	Functional earthing		**N**
2.6.3	Protective earthing and protective bonding conductors		**N**
2.6.3.1	General		**N**
2.6.3.2	Size of protective earthing conductors		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
2.6.3.3	Size of protective bonding conductors		**N**
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
2.6.3.4	Resistance (Ω) of earthing conductors and their terminations, test current (A) ..... :		**N**
2.6.3.5	Colour of insulation..... :		**N**
2.6.4	Terminals		**N**
2.6.4.1	General		**N**
2.6.4.2	Protective earthing and bonding terminals		**N**
	Rated current (A), type and nominal thread diameter (mm) ..... :		—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		**N**
2.6.5	Integrity of protective earthing		**N**
2.6.5.1	Interconnection of equipment		**N**
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		**N**
2.6.5.3	Disconnection of protective earth		**N**
2.6.5.4	Parts that can be removed by an operator		**N**
2.6.5.5	Parts removed during servicing		**N**
2.6.5.6	Corrosion resistance		**N**
2.6.5.7	Screws for protective bonding		**N**
2.6.5.8	Reliance on telecommunication network or cable distribution system		**N**

2.7	Overcurrent and earth fault protection in primary circuits *Class III equipment*		**N**
2.7.1	Basic requirements		**N**
	Instructions when protection relies on building installation		**N**
2.7.2	Faults not covered in 5.3		**N**
2.7.3	Short-circuit backup protection		**N**
2.7.4	Number and location of protective devices ..... :		**N**
2.7.5	Protection by several devices		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.7.6	Warning to service personnel..... :		**N**

2.8	Safety interlocks *No safety interlocks.*		**N**
2.8.1	General principles		**N**
2.8.2	Protection requirements		**N**
2.8.3	Inadvertent reactivation		**N**
2.8.4	Fail-safe operation		**N**
2.8.5	Moving parts		**N**
2.8.6	Overriding		**N**
2.8.7	Switches and relays		**N**
2.8.7.1	Contact gaps (mm) ..... :		**N**
2.8.7.2	Overload test		**N**
2.8.7.3	Endurance test		**N**
2.8.7.4	Electric strength test		**N**
2.8.8	Mechanical actuators		**N**

2.9	Electrical insulation *Class III equipment and only SELV circuit within this equipment.*		**N**
2.9.1	Properties of insulating materials		**N**
2.9.2	Humidity conditioning		**N**
	Humidity (%) ..... :		—
	Temperature (°C) ..... :		—
2.9.3	Grade of insulation		**N**

2.10	Clearances, creepage distances and distances through insulation *Class III equipment and only SELV circuit within this equipment.*		**N**
2.10.1	General		**N**
2.10.2	Determination of working voltage		**N**
2.10.3	Clearances		**N**
2.10.3.1	General		**N**
2.10.3.2	Clearances in primary circuits		**N**
2.10.3.3	Clearances in secondary circuits		**N**
2.10.3.4	Measurement of transient voltage levels		**N**
2.10.4	Creepage distances		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	CTI tests ..... :		—
2.10.5	Solid insulation		**N**
2.10.5.1	Minimum distance through insulation		**N**
2.10.5.2	Thin sheet material		**N**
	Number of layers (pcs) ..... :		**—**
	Electric strength test		**—**
2.10.5.3	Printed boards		**N**
	Distance through insulation		**N**
	Electric strength test for thin sheet insulating material		—
	Number of layers (pcs) ..... :		**N**
2.10.5.4	Wound components		**N**
	Number of layers (pcs) ..... :		**N**
	Two wires in contact inside wound component; angle between 45° and 90° ..... :		**N**
2.10.6	Coated printed boards		**N**
2.10.6.1	General		**N**
2.10.6.2	Sample preparation and preliminary inspection		**N**
2.10.6.3	Thermal cycling		**N**
2.10.6.4	Thermal ageing (°C) ..... :		**N**
2.10.6.5	Electric strength test		—
2.10.6.6	Abrasion resistance test		**N**
	Electric strength test		—
2.10.7	Enclosed and sealed parts ..... :		**N**
	Temperature $T_1=T_2 + T_{ma} – T_{amb}$ +10K (°C) ..... :		**N**
2.10.8	Spacings filled by insulating compound ..... :		**N**
	Electric strength test		—
2.10.9	Component external terminations		**N**
2.10.10	Insulation with varying dimensions		**N**

3	WIRING, CONNECTIONS AND SUPPLY		**P**
3.1	General		**P**
3.1.1	Current rating and overcurrent protection	No internal wire	**N**
3.1.2	Protection against mechanical damage		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.1.3	Securing of internal wiring		**N**
3.1.4	Insulation of conductors		**N**
3.1.5	Beads and ceramic insulators	Not used.	**N**
3.1.6	Screws for electrical contact pressure	No such screws provided.	**N**
3.1.7	Insulating materials in electrical connections	All connections are metal to metal.	**N**
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used.	**N**
3.1.9	Termination of conductors		**N**
	10 N pull test		**N**
3.1.10	Sleeving on wiring	No sleeving on wiring used as supplementary insulation.	**N**

3.2	Connection to an a.c. mains supply or a d.c. mains supply *Class III equipment*		**N**
3.2.1	Means of connection ..... :		**N**
3.2.1.1	Connection to an a.c. mains supply		**N**
3.2.1.2	Connection to a d.c. mains supply		**N**
3.2.2	Multiple supply connections		**N**
3.2.3	Permanently connected equipment		**N**
	Number of conductors, diameter (mm) of cable and conduits ..... :		—
3.2.4	Appliance inlets		**N**
3.2.5	Power supply cords		**N**
3.2.5.1	AC power supply cords		**N**
	Type..... :		—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :		—
3.2.5.2	DC power supply cords		**N**
3.2.6	Cord anchorages and strain relief		**N**
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage		**N**
3.2.8	Cord guards		**N**
	D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm)..... :		—

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
3.2.9	Supply wiring space		**N**

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

3.4	Disconnection from the mains supply *Class III equipment*		**N**
3.4.1	General requirement		**N**
3.4.2	Disconnect devices		**N**
3.4.3	Permanently connected equipment		**N**
3.4.4	Parts which remain energized		**N**
3.4.5	Switches in flexible cords		**N**
3.4.6	Single-phase equipment and d.c. equipment		**N**
3.4.7	Three-phase equipment		**N**
3.4.8	Switches as disconnect devices		**N**
3.4.9	Plugs as disconnect devices		**N**
3.4.10	Interconnected equipment		**N**
3.4.11	Multiple power sources		**N**

3.5	Interconnection of equipment		**P**
3.5.1	General requirements	See below.	**P**
3.5.2	Types of interconnection circuits.....:	Interconnection circuits of SELV through sec connector.	**P**

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Clause	Requirement – Test	Result – Remark	Verdict
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection.	**N**

4	PHYSICAL REQUIREMENTS		**P**
4.1	Stability *This equipment is building-in type, and these sub-clauses might be concerned in the end-use conditions.*		**N**
	Angle of 10°	Building-in type equipment.	**N**
	Test: force (N).....:		**N**

4.2	Mechanical strength *Class III equipment and only SELV circuit within this equipment. Besides, this equipment is building-in type, and these sub-clauses might be concerned in the end-use conditions.*		**N**
4.2.1	General		**N**
4.2.2	Steady force test, 10 N		**N**
4.2.3	Steady force test, 30 N		**N**
4.2.4	Steady force test, 250 N		**N**
4.2.5	Impact test		**N**
	Fall test		**N**
	Swing test		**N**
4.2.6	Drop test		**N**
4.2.7	Stress relief test		**N**
4.2.8	Cathode ray tubes		**N**
	Picture tube separately certified ..... :		**N**
4.2.9	High pressure lamps		**N**
4.2.10	Wall or ceiling mounted equipment; force (N) ... :		**N**

4.3	Design and construction *Class III equipment and only SELV circuit within this equipment. Besides, this equipment is building-in type, and these sub-clauses might be concerned in the end-use conditions.*		**N**
4.3.1	Edges and corners		**N**
4.3.2	Handles and manual controls; force (N)..... :		**N**
4.3.3	Adjustable controls		**N**
4.3.4	Securing of parts		**N**
4.3.5	Connection of plugs and sockets		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.3.6	Direct plug-in equipment		**N**
	Dimensions (mm) of mains plug for direct plug-in ..... :		**N**
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)..... :		**N**
4.3.7	Heating elements in earthed equipment	No such elements.	**N**
4.3.8	Batteries	No such elements.	**N**
4.3.9	Oil and grease	Insulation in intended use not considered to be exposed to oil and grease.	**N**
4.3.10	Dust, powders, liquids and gases	EUT in intended use does not produce dust or use powders, liquids or gases.	**N**
4.3.11	Containers for liquids or gases	No such containers provided.	**N**
4.3.12	Flammable liquids..... :	No flammable liquids used.	**N**
	Quantity of liquid (l)..... :		**N**
	Flash point (°C)..... :		**N**
4.3.13	Radiation; type of radiation ..... :		**N**
4.3.13.1	General		**N**
4.3.13.2	Ionizing radiation		**N**
	Measured radiation (pA/kg) .....:		—
	Measured high-voltage (kV) .....:		—
	Measured focus voltage (kV) .....:		—
	CRT markings .....:		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		**N**
	Part, property, retention after test, flammability classification .....:		**N**
4.3.13.4	Human exposure to ultraviolet (UV) radiation .....:		**N**
4.3.13.5	Laser (including LEDs)		**N**
	Laser class .....:		—
4.3.13.6	Other types .....:		**N**

4.4	Protection against hazardous moving parts		**N**
4.4.1	General	No hazard moving parts are employed.	**N**
4.4.2	Protection in operator access areas		**N**
4.4.3	Protection in restricted access locations		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.4.4	Protection in service access areas		**N**

4.5	Thermal requirements		**P**
4.5.1	Maximum temperatures	Refer to appended table 4.5.1	**P**
	Normal load condition per Annex L ..... :	Max. normal load	**P**
4.5.2	Resistance to abnormal heat		**N**

4.6	Openings in enclosures *This equipment is building-in type, and these sub-clauses might be concerned in the end-use conditions.*		**N**
4.6.1	Top and side openings		**N**
	Dimensions (mm) ..... :		—
4.6.2	Bottoms of fire enclosures		**N**
	Construction of the bottom ..... :		—
4.6.3	Doors or covers in fire enclosures		**N**
4.6.4	Openings in transportable equipment		**N**
4.6.5	Adhesives for constructional purposes		**N**
	Conditioning temperature (°C)/time (weeks)..... :		—

4.7	Resistance to fire		**P**
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.	**P**
	Method 1, selection and application of components wiring and materials	Method 1 used.	**P**
	Method 2, application of all of simulated fault condition tests		**N**
4.7.2	Conditions for a fire enclosure	Building-in type and it might be checked in the end-use conditions.	**N**
4.7.2.1	Parts requiring a fire enclosure		**N**
4.7.2.2	Parts not requiring a fire enclosure		**N**
4.7.3	Materials		**P**
4.7.3.1	General		**P**
4.7.3.2	Materials for fire enclosures	See sub-clause 4.7.2	**N**
4.7.3.3	Materials for components and other parts outside fire enclosures	None.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are reted V-2 or better or are mounted on PCB rated V-1 or better. See appended table 1.5.1 for details.	**P**
4.7.3.5	Materials for air filter assemblies		**N**
4.7.3.6	Materials used in high-voltage components		**N**

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS *Class III equipment and only SELV circuit within this equipment.*		**N**
5.1	Touch current and protective conductor current		**N**
5.1.1	General		**N**
5.1.2	Equipment under test (EUT)		**N**
5.1.3	Test circuit		**N**
5.1.4	Application of measuring instrument		**N**
5.1.5	Test procedure		**N**
5.1.6	Test measurements		**N**
	Test 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**
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks		**N**
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system		**N**
	Test voltage (V) .....:		—
	Measured touch current (mA) .....:		—
	Max. allowed touch current (mA) .....:		—
5.1.8.2	Summation of touch currents from telecommunication networks.....:		**N**

5.2	Electric strength *Class III equipment and only SELV circuit within this equipment.*	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
5.2.1	General		**N**
5.2.2	Test procedure		**N**
5.3	Abnormal operating and fault condition *This equipment is building-in type and only employs SELV circuits which would not generate any fire or other hazards concerned in this standard.*		**N**
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..... :	Evaluated in end product	**N**
5.3.5	Electromechanical components		**N**
5.3.6	Simulation of faults	Evaluated in end product	**N**
5.3.7	Unattended equipment		**N**
5.3.8	Compliance criteria for abnormal operating and fault conditions	Evaluated in end product	**N**
6	CONNECTION TO TELECOMMUNICATION NETWORKS *Class III equipment and only SELV circuit within this equipment.*		**N**
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		**N**
6.1.1	Protection from hazardous voltages		**N**
6.1.2	Separation of the telecommunication network from earth		**N**
6.1.2.1	Requirements		**N**
	Test voltage (V) ..... :		—
	Current in the test circuit (mA) ..... :		—
6.1.2.2	Exclusions ..... :		**N**
6.2	Protection of equipment users from overvoltages on telecommunication networks		**N**
6.2.1	Separation requirements		**N**
6.2.2	Electric strength test procedure		**N**
6.2.2.1	Impulse test		**N**
6.2.2.2	Steady-state test		**N**
6.2.2.3	Compliance criteria		**N**
6.3	Protection of the telecommunication wiring system from overheating		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	Max. output current (A)..... :		—
	Current limiting method ..... :		—

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS *Class III equipment and only SELV circuit within this equipment.*		**N**
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		**N**
7.2	Protection of equipment users from overvoltages on the cable distribution system		**N**
7.3	Insulation between primary circuits and cable distribution systems		**N**
7.3.1	General		**N**
7.3.2	Voltage surge test		**N**
7.3.3	Impulse test		**N**

A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		**N**
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..... :		—
	Wall thickness (mm) ..... :		—
A.1.2	Conditioning of samples; temperature (°C)..... :		**N**
A.1.3	Mounting of samples ..... :		**N**
A.1.4	Test flame (see IEC 60695-11-3)		**N**
	Flame A, B, C or D ..... :		—
A.1.5	Test procedure		**N**
A.1.6	Compliance criteria		**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..... :		—
	Wall thickness (mm) ..... :		—
A.2.2	Conditioning of samples		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
A.2.3	Mounting of samples ..... :		**N**
A.2.4	Test flame (see IEC 60695-11-4)		**N**
	Flame A, B or C ..... :		—
A.2.5	Test procedure		**N**
A.2.6	Compliance criteria		**N**
	Sample 1 burning time (s) ..... :		—
	Sample 2 burning time (s) ..... :		—
	Sample 3 burning time (s) ..... :		—
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4 and 8		**N**
	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.3.1	Mounting of samples		**N**
A.3.2	Test procedure		**N**
A.3.3	Compliance criterion		**N**

B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		**N**
B.1	General requirements		**N**
	Position .....:		—
	Manufacturer .....:		—
	Type .....:		—
	Rated values .....:		—
B.2	Test conditions		**N**
B.3	Maximum temperatures		**N**
B.4	Running overload test		**N**
B.5	Locked-rotor overload test		**N**
	Test duration (days) .....:		—
	Electric strength test: test voltage (V) .....:		—
B.6	Running overload test for d.c. motors in secondary circuits		**N**
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		**N**
B.7.1	Test procedure		**N**
B.7.2	Alternative test procedure; test time (h) .....:		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
B.7.3	Electric strength test		**N**
B.8	Test for motors with capacitors		**N**
B.9	Test for three-phase motors		**N**
B.10	Test for series motors		**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		**N**
C.2	Insulation		**N**
	Protection from displacement of windings..... :		**N**

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

E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		**N**

F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		**N**

G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		**N**
G.1	Summary of the procedure for determining minimum clearances		**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**
G.4	Determination of required withstand voltage (V) :		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
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**
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		**N**
K.2	Thermostat reliability; operating voltage (V)..... :		**N**
K.3	Thermostat endurance test; operating voltage (V) ..... :		**N**
K.4	Temperature limiter endurance; operating voltage (V) ..... :		**N**
K.5	Thermal cut-out reliability		**N**
K.6	Stability of operation		**N**
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		**P**
L.1	Typewriters		**N**
L.2	Adding machines and cash registers		**N**
L.3	Erasers		**N**
L.4	Pencil sharpeners		**N**
L.5	Duplicators and copy machines		**N**
L.6	Motor-operated files		**N**
L.7	Other business equipment		**P**
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		**N**
M.1	Introduction		**N**
M.2	Method A		**N**
M.3	Method B		**N**
M.3.1	Ringing signal		**N**
M.3.1.1	Frequency (Hz) ..... :		—
M.3.1.2	Voltage (V) ..... :		—
M.3.1.3	Cadence; time (s), voltage (V) ..... :		—

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
M.3.1.4	Single fault current (mA)..... :		—
M.3.2	Tripping device and monitoring voltage..... :		**N**
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		**N**
M.3.2.2	Tripping device		**N**
M.3.2.3	Monitoring voltage (V) ..... :		**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		**N**
N.2	IEC 60065 impulse test generator		**N**

P	ANNEX P, NORMATIVE REFERENCES	**P**

Q	ANNEX Q, BIBLIOGRAPHY	**N**

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)		**N**
R.2	Reduced clearances (see 2.10.3)		**N**

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

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

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

V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		**N**
V.1	Introduction		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
V.2	TN power distribution systems		**N**
V.3	TT power systems		**N**
V.4	IT power systems		**N**

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

X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSRORMER TESTS (see clause C.1)		**N**
X.1	Determination of maximum input current		**N**
X.2	Overload test procedure		**N**

Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		**N**
Y.1	Test apparatus ..... :		**N**
Y.2	Mounting of test samples ..... :		**N**
Y.3	Carbon-arc light-exposure apparatus ..... :		**N**
Y.4	Xenon-arc light exposure apparatus ..... :		**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
CENELEC COMMON MODIFICATIONS [C], SPECIAL NATIONAL CONDITIONS [S] AND A-DEVIATIONS (NATIONAL DEVIATIONS) [A] (EN 60950-1:2001, Annex ZB and Annex ZC)			**P**
General	C: Delete all the "country" notes in the reference document according to the following list: 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	Deleted.	**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.	Class III equipment	**N**
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.	No such switches.	**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).	Class III equipment	**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:	Class III equipment	**N**
	FI: "Laite on liitettävä suojamaadoitus-koskettimilla varustettuun pistorasiaan"	Ditto.	**N**
	NO: "Apparatet må tilkoples jordet stikkontakt"	Ditto.	**N**
	SE: "Apparaten skall anslutas till jordat uttag"	Ditto.	**N**
	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!	No power supply cord provided.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	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 medfølgende instalationsvejledning."		
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.	No socket-outlets.	**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.	Class III equipment.	**N**
1.7.12	A (DE, Gesetz über technische Arbeitsmittel (Gerätesicherheitsgesetz) [Law on technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchführung des Zweiten Abschnitts des Gerätesicherheits-gesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, 4th 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**
1.7.15	A (CH, Ordinance on environmentally hazardous substances SR 814.013): Annex 4.10 of SR 814.013 applies for batteries.		**N**
	A (DE, Regulation on protection against hazards by X-ray, of 8th 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. b) A licence in accordance with Cl. 1 is not	No X-ray within this equipment.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	required by those who operate an X-ray emission source on which the electron acceleration voltage does not exceed 20 kV if 1) the local dose rate at a distance of 0,1 m from the surface does not exceed 1 µSv/h and 2) it is adequately indicated on the X-ray emission source that i) X-rays are generated and ii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. 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 1) the X-ray emission source has been granted a type approval and 2) it is adequately indicated on the X-ray emission source that i) X-rays are generated 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 iii) the electron acceleration voltage must not exceed the maximum value stipulated by the manufacturer or importer. 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 1) the X-rays are generated only by intrinsically safe CRTs complying with Enclosure III, No. 6, 2) the values stipulated in accordance with Enclosure III, No. 6.2 are limited by technical measures and specified in the device and 3) it is adequately indicated on the X-ray emission source that the X-rays generated are adequately screened by the intrinsically safe CRT.		
2.2.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	No earth connection.	**N**
2.3.2	S (NO): Requirements according to this annex, 6.1.2.1 apply.	No TNV.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
2.3.3 and 2.3.4	S (NO): Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.	No TNV.	**N**
2.6.3.3	S (GB): The current rating of the circuit shall be taken as 13 A, not 16 A.	Class III equipment.	**N**
2.7.1	C: Replace the subclause as follows: *Basic requirements* To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	Class III equipment.	**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.	Not direct plug-in equipment.	**N**
2.7.2	C: Void.	Void.	**N**
2.10.2	C: Replace in the first line "(see also 1.4.7)" by "(see also 1.4.8)".	Class III equipment.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
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		**N**
3.2.1.1	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: SEV 6532-2.1991, Plug type 15, 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991, Plug type 11, L+N 250 V, 10 A SEV 6534-2.1991, Plug type 12, L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 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: 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	No power supply cord provided.	**N**
	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. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If 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.	Ditto.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	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. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Ditto.	**N**
	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 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.	Ditto.	**N**
	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.	Ditto.	**N**
3.2.3	C: Delete Note 1 and in Table 3A, delete the conduit sizes in parentheses.	Class III equipment.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
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-F2". In Table 3B, replace the first four lines by the following: Up to and including 6 0,75[1)] Over 6 up to and including 10 (0,75)[2)] 1,0 Over 10 up to and including 16 (1,0)[3)] 1,5 In the Conditions applicable to Table 3B delete the words "in some countries" in condition [1)]. In Note 1, applicable to Table 3B, delete the second sentence.	Ditto.	**N**
3.2.5.1	S (GB): A power supply cord with conductor of 1,25 mm^2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.	No power supply cord provided.	**N**
3.3.4	C: In table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 | 1,5 to 2,5 | 1,5 to 4" Delete the fifth line: conductor sizes for 13 to 16 A.	Class III equipment.	**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^2 to 1,5 mm^2 nominal cross-sectional area.	No power supply cord provided.	**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.	Not direct plug-in equipment.	**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.	Ditto.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
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.		**N**
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, 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. 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 - 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 - is subject to ROUTINGE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: - 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; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the	No TNV.	**N**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	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.	Ditto.	**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.	Ditto.	**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.	Annex G not applied for.	**N**
Annex 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 μSv/h (0,1 mR/h) (see note). Account is taken of the background level. Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete Note 2.		**N**
Annex P	C: Replace the text of this annex by: See annex ZA.	Replaced.	**P**
Annex Q	C: Replace the title of IEC 61032 by "Protection of persons and equipment by enclosures – Probes for verification". Add the following notes for the standards indicated: IEC 60127 NOTE Harmonized as EN 60127 (Series) (not modified) IEC 60269-2-1 NOTE Harmonized as HD 630.2.1 S4:2000 (modified) IEC 60529 NOTE Harmonized as EN 60529:1991 (not modified) IEC 61032 NOTE Harmonized as EN 61032:1998 (not modified) IEC 61140 NOTE Harmonized as EN 61140:2001 (not modified) ITU-T Recommendation K.31 NOTE in Europe, the suggested document is EN 50083-1.		**P**

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
Annex ZA	C: NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR RELEVANT EUROPEAN PUBLICATIONS 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). NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.		**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 [1)] Series	IEC 60227 (mod) Series
HD 22 [2)] 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 [3)]
EN 132400:1994 [4)] + A2:1998 + A3:1998 + A4:2001	IEC 60384-14:1993
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
—	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

IEC 60950-1 / EN 60950-1			
Clause	Requirement – Test	Result – Remark	Verdict
	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		

1.5.1	TABLE: list of critical components				**P**
Object/part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark(s) of conformity [1.]
PCB	--	--	V-1 or better, 105°C min.	UL 94	UL
Note(s):					
1. An asterisk indicates a mark that assures the agreed level of surveillance.					

1.6.2	TABLE: electrical data (in normal conditions)					**N**
Fuse #	Irated (A)	U (V/Hz)	P (W)	I (A)	Ifuse (A)	Condition/status
Note(s):						

2.1.1.5	TABLE: max. V, A, VA test				**N**
Voltage (rated) (V)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
Note(s):					

2.1.1.7	TABLE: discharge test				**N**
Condition	τ calculated (s)	τ measured (s)	t u→ 0V (s)	Comments	
Note(s):					

2.2.2	TABLE: Hazardous voltage measurement				**N**
Transformer	Location	max. Voltage		Voltage Limitation Component	
		V peak	V d.c.		
Note(s):					

2.2.3	TABLE: SEL voltage measurement		**N**
Location	Voltage measured (V)	Comments	
Note(s):			

2.4.2	TABLE: limited current circuit measurement					**N**
Location	Voltage (V)	Current (mA)	Freq. (kHz)	Limit (mA)	Comments	
Note(s):						

2.5	TABLE: limited power source measurement		**N**
	Limits	Measured	Verdict
Note(s):			

2.6.3.4	TABLE: ground continue test	**N**
Location	Resistance measured (mΩ)	Comments
Note(s):		

2.10.2	Table: working voltage measurement			**N**
Location	RMS voltage (V)	Peak voltage (V)	Comments	
Note(s):				

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						**N**
Clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required dcr (mm)	dcr (mm)	
Note(s):							

2.10.5	TABLE: distance through insulation measurements				**N**
Distance through insulation di at/of:	U r.m.s. (V)	Test voltage (V)	Required di (mm)	di (mm)	
Note(s):					

4.5.1	TABLE: maximum temperatures		**P**
	test voltage (V) ..... :	Supply from system	—

	t1 (°C) ..... :	--	—
	t2 (°C) ..... :	--	—

Maximum temperature T of part/at:	T (°C)	allowed T_{max} (°C)
U14 body near PCB	101.2	105
U15 body near PCB	103.8	105
U27 body near PCB	83.8	105
U16 body near PCB	81.0	105
Ambient	60.0	--

Temperature T of winding:	R_1 (Ω)	R_2 (Ω)	T (°C)	allowed T_{max} (°C)	insulation class

Note(s):

1. The temperatures were measured under worst normal mode defined in 1.2.2.1 and as described in sub-clause 1.6.2 and at voltages as described above.
2. With a rated maximum ambient temperature of 60 °C.

4.5.2	TABLE: ball pressure test of thermoplastic parts		**N**
	allowed impression diameter (mm) ..... :	≤ 2 mm	—

Part	Test temperature (°C)	Impression diameter (mm)

Note:

4.6.1, 4.6.2	Table: enclosure openings		**N**
Location	Size (mm)	Comments	
Note(s):			

4.7	Table: resistance to fire				**N**
Part	manufacturer of material	type of material	thickness (mm)	flammability class	
Note(s):					

5.1.6	TABLE: touch current measurement				**N**
Condition	L→ terminal A (mA)	N → terminal A (mA)	Limit (mA)	Comments	

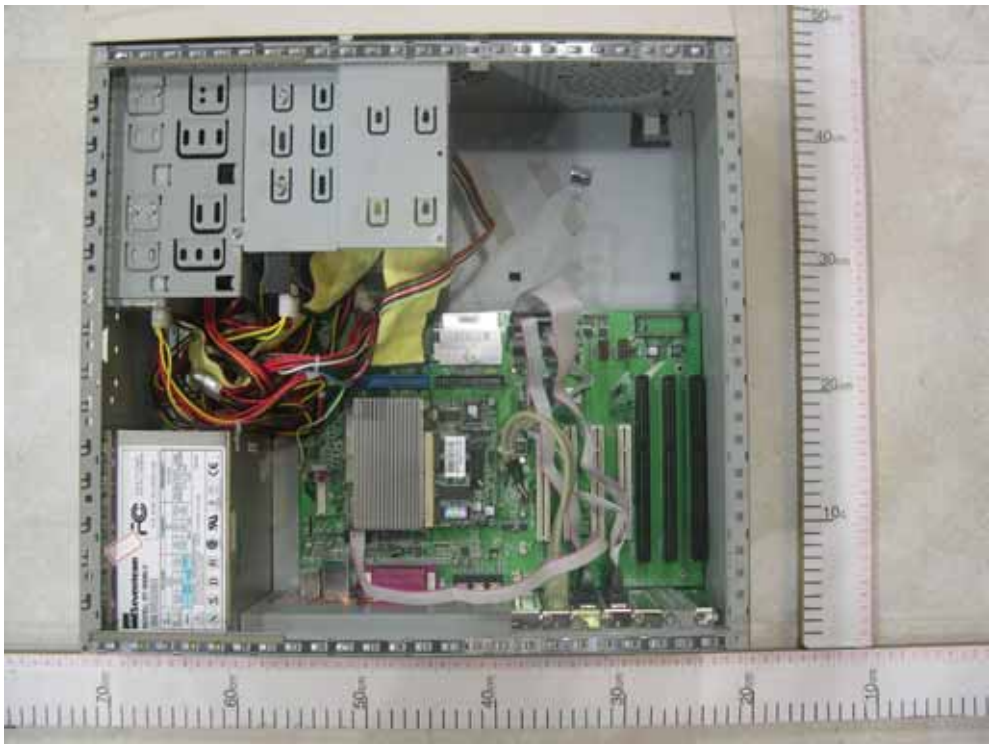
Note(s):				

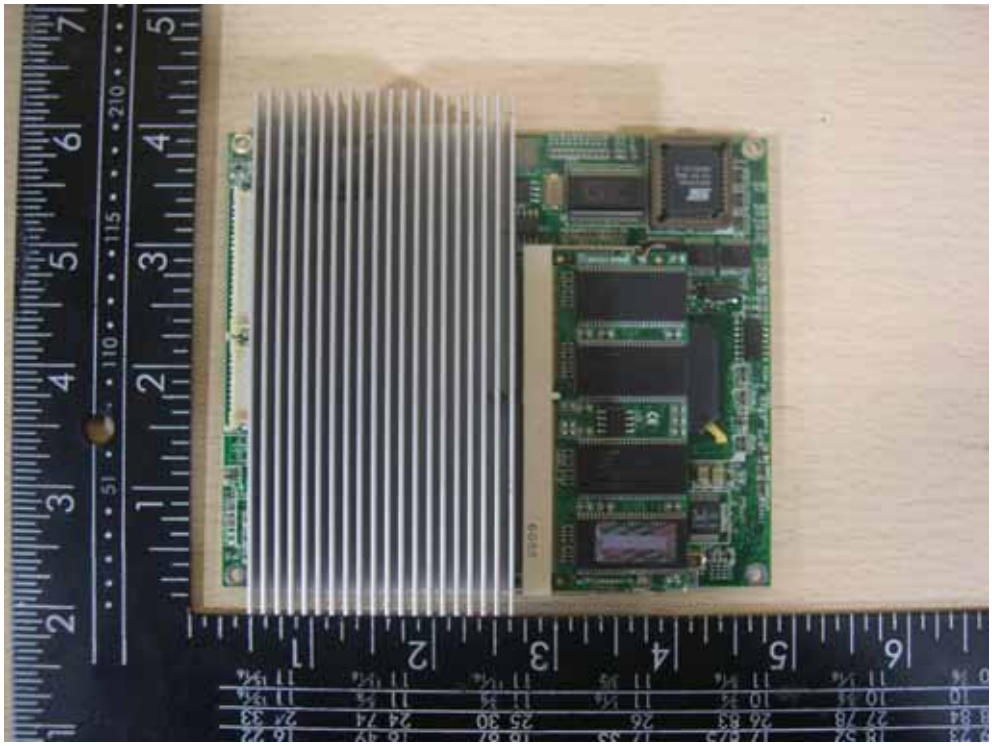
5.2	TABLE: electric strength tests and impulse tests		**N**
Test voltage applied between:		Test voltage (V)	Breakdown
Note(s):			

5.3	TABLE: fault condition tests		**N**
	ambient temperature (°C) .....:		—
	model/type of power supply .....:		—
	manufacturer of power supply .....:		—
	rated markings of power supply .....:		—

No.	Component no.	Fault	Test voltage (V)	Test time	Fuse no.	Fuse current (A)	Result
Note(s):							

Photos





Photos