Issue Date: 2007-10-19 Page 1 of 1 Report Reference # E170507-A15-IT-2

## **COVER PAGE FOR TEST REPORT**

Test Item Description: Switching Adapter

Model/Type Reference: GT-81081-60x-y-a Series

Rating(s): Input: 100-240 Vac, 50/60 Hz, 1.5 A Standards: IEC 60950-1:2001, First Edition

Applicant Name and GLOBTEK INC

Address: 186 VETERANS DR

NORTHVALE NJ 07647

Factory Location(s): GLOBTEK INC

186 VETERANS DR NORTHVALE NJ 07647

This Report includes the following parts, in addition to this cover page:

1. Specific Technical Criteria

2. Clause Verdicts

3. Critical Components

4. Test Results

5. National Differences

6. Enclosures

All applicable tests according to the above standard(s) have been carried out.

Test results are valid only for the tested equipment.

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# **TEST REPORT** IEC 60950-1, First Edition Information technology equipment-Safety

Part 1:General Requirements		
Report Reference No:	E170507-A15-IT-2	
Date of issue:	2007-10-19	
Total number of pages:	47	
Applicant's name:	OL OPTEK NO	
Address:	GLOBTEK INC 186 VETERANS DR NORTHVALE NJ 07647	
Test specification:		
Standard:	IEC 60950-1:2001, First Edition	
Test procedure:	Informative	
Non-standard test method:	N/A	
Test Report Form No:	IEC60950_1B	
Test Report Form originator:	SGS Fimko Ltd	
Master TRF:	dated 2003-03	
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and

<u>-</u>	ssued by an NCB in accordance with IECEE 02.
Test item description:	
	Switching Adapter
Trade Mark:	
	GlobTek
Model/Type reference:	
	GT-81081-60x-y-a Series
Manufacturer:	
	GLOBTEK INC
	186 VETERANS DR
	NORTHVALE NJ 07647

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Rating .....:
Input: 100-240 Vac, 50/60 Hz, 1.5 A

TRF No.: IEC60950\_\_1B

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Testing location / address:		
	Underwriters Laboratories Inc 11747, USA	. 1285 Walt Whitman Road, NY,
Tested by (name + signature):	Norman Lowe	Nome Line
Approved by (+ signature):	David Keen	Fand Her

#### **Summary of Testing:**

No tests were conducted

### **Summary of Compliance with National Differences:**

AR, AT, AU, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FI, FR, GB, GR, HU, IE, IL, IN, IT, JP, KE, KR, MY, NL, NO, NZ, PL, PT, SE, SG, SI, SK, US

Copy of Marking Plate - Refer to Enclosure titled Marking Plate for copy.

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Test item particulars :	
Equipment mobility	
	movable
Operating condition	continuous
Mains supply tolerance (%)	Continuous
ivialits supply toleratice (70)	+10%, -10%
Tested for IT power systems:	
	No
IT testing, phase-phase voltage (V):	N/A
Class of aguinment	IV/A
Class of equipment	Class I (earthed) for Models with suffix T3 or T3A,
	Class II (double insulated) for Models with suffix T2.
Mass of equipment (kg):	
	0.3
Protection against ingress of water	IP X0
Possible test case verdicts:	II AO
- test case does not apply to the test object:	N / A
- test object does meet the requirement	P(Pass)
- test object does not meet the requirement:	F(Fail)
Testing:	r (r un)
· ·	
Date(s) of receipt of test item	2007-09-11
Date(s) of Performance of tests	
• •	2007-09-25
General remarks:	

#### General remarks:

The test results presented in this report relate only to the object tested.

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

"(see Enclosure #)" refers to additional information appended to the report.

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

Refer to the Cover Page For Test Report for a list of all Factory Locations.

#### **GENERAL PRODUCT INFORMATION:**

#### **Report Summary**

All applicable tests according to the referenced standard(s) have been carried out.

<sup>&</sup>quot;(see appended table)" refers to a table appended to the report.

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#### **Product Description**

This product is a cord-connected type power unit intended to be used for information technology equipment in TN power systems and are for indoor use only. It consists of an isolated transformer with electronic ciruitry housed in a thermoplastic enclosure. It is also provided with appliance inlet and a length of cord terminated with a molded-on non-standard polarized output connector for output connection.

#### **Model Differences**

All models are identical except for type designation, output rating, transformer secondary winding. Models with suffix T3 or T3A are identical except for appliance inlet type. Models with suffix T2 are Class II type, models with suffix T3 or T3A are Class I type.

GT-81081-60x-y-a Series where:

'x' can be 12, 14, 15, 18, 19, 20, 22, or 24.

'y' can be a two digit number in steps of 0.1 (ex. 0.7).

'x-y' represents output voltage, for example, when x = 18, y=2.5, x-y=18-2.5=15.5, the output voltage is 15.5V.

'a' can be T3, T3A, or T2:

T3 for IEC 60320/C14 inlet ,T3A for IEC 60320/C6 inlet ,T2 for IEC 60320 /C8 inlet.

'-' after GT may or may not be replaced by 'A'.

Model number may or may not be followed by -CC indicating Dual Operational IC circuit.

#### **Additional Information**

Output: 12.0 - 24.0 Vdc, 5.0 A max., 60 W max.

GT-81081-60x-y-a Series where:

'x' can be 12, 14, 15, 18, 19, 20, 22, or 24.

'y' can be a two digit number in steps of 0.1 (ex. 0.7).

'x-y' represents output voltage, for example, when x = 18, y=2.5, x-y=18-2.5=15.5, the output voltage is 15.5V.

"a' can be T3, T3A, or T2:

T3 for IEC 60320/C14 inlet ,T3A for IEC 60320/C6 inlet ,T2 for IEC 60320 /C8 inlet.

'-' after GT may or may not be replaced by 'A'.

Model number may or may not be followed by -CC indicating Dual Operational IC circuit.

Correction 1: Added statement to Technical consideration for the complimentary Recognition to UL6500 and CAN/CSA E60065-00.

#### **Technical Considerations**

The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C

The means of connection to the mains supply is: Detachable power cord, Pluggable A

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The product is intended for use on the following power systems: TN

The equipment disconnect device is considered to be: Appliance inlet

The following accessible locations (with circuit/schematic designation) are within a limited current circuit: Vout (+ to -)

The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Vout (+ to -) for all models except GT-81081-6012-a.

These models have been additionally evaluated to UL6500 second edition and CAN/CSA E60065-00.

TRF No.: IEC60950\_\_1B

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

1	GENERAL		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950 or relevant component standard	(See Critical Component List)	Pass
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this Standard.  Components not certified are used in accordance with their ratings and they comply IEC 60950-1 and the relevant component Standard.  Components, for which no relevant IEC Standard exist, have been tested under the condition occurring in the equipment, using applicable	Pass
1.5.3	Thermal controls	parts of IEC 60950-1.	N/A
1.5.4	Transformers	Transformers comply with relevant requirements including Annex C.	Pass
1.5.5	Interconnecting cables	VW-1 or FT-1, max. 3.05 m length.	Pass
1.5.6	Capacitors in primary circuits:	Primary-to-secondary capacitors are subclass Y1. Line-to-line capacitors are subclass X1 or X2. Primary-to-earth capacitors are subclass Y1 or Y2 (Models with suffix T3 or T3A only).	Pass
1.5.7	Double insulation or reinforced insulation bridged by components		Pass
1.5.7.1	General		Pass
1.5.7.2	Bridging capacitors		Pass
1.5.7.3	Bridging resistors		N/A

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		IEC 60950-1	
Clause	Requirement + Test	Result - Remark	Verdict
	T		
1.5.7.4	Accessible parts		Pass

1.5.7.4	Accessible parts		Pass
1.5.8	Components in equipment for IT power systems	Not for use on IT power systems.	N/A

1.6	Power interface		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classified as TN.	Pass
1.6.2	Input current	The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD. See Test Record for details.	Pass
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment .	N/A
1.6.4	Neutral conductor	Neutral conductor is insulated from secondary circuitry as if it were a line conductor.	Pass

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

1.7	Marking and instructions		
1.7.1	Power rating	Rating marking readily visible to operator.	Pass
	Rated voltage(s) or voltage range(s) (V):	100-240 V ac	Pass
	Symbol for nature of supply, for d.c. only:	AC source	N/A
	Rated frequency or rated frequency range (Hz):	50/60 Hz	Pass
	Rated current (mA or A)	1.5 A	Pass
	Manufacturer's name or trademark or identification mark	Globtech Inc.	Pass
	Type/model or type reference:	See Model Differences	Pass
	Symbol for Class II equipment only:	60417-1-IEC-5172 symbol marked (Models with suffix T2 only).	Pass
	Other symbols:	Additional marking may be provided when submitted for national approval.	Pass
	Certification marks	UL, c-UL.	Pass
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	Pass
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment:		N/A
1.7.5	Power outlets on the equipment:	No standard power outlets are provided.	N/A
1.7.6	Fuse identification:	F1: T3.15 A, 250 Vac marked on PWB near primary input fuse.	Pass
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals:	The earth terminal is marked with the standard earth symbol (60417-2-IEC-5017) near the terminal (Models with suffix T3 or T3A only).	Pass
1.7.7.2	Terminal for a.c. mains supply conductors	Not Permanently connected equipment	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking:	No indicator, control affecting	N/A

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

		safety provided.	
1.7.8.2	Colours:		N/A
1.7.8.3	Symbols according to IEC 60417	There are no switches in the equipment.	N/A
1.7.8.4	Markings using figures:	Figures are not used for indicating different positions of controls.	N/A
1.7.9	Isolation of multiple power sources:	There is only one connection to hazardous voltages.	N/A
1.7.10	IT power distribution systems	Not intended to use IT Power System	N/A
1.7.11	Thermostats and other regulating devices	No thermostats or similar regulating devices.	N/A
1.7.12	Language:	Reviewed only English markings/instructions. May be provided in other languages upon request from the manufacturer.	-
1.7.13	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.14	Removable parts	Marking is not placed on removable parts.	Pass
1.7.15	Replaceable batteries	No batteries provided.	N/A
	Language		-
1.7.16	Operator access with a tool:	No operator access areas require the use of a tool.	N/A
1.7.17	Equipment for restricted access locations:		N/A

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

2	PROTECTION FROM HAZARDS		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts	See below	Pass
	Test by inspection:	Operator can not contact with any parts with hazardous voltage.	Pass
	Test with test finger:	The test finger was unable to contact bare hazardous parts, basic insulation.	Pass
	Test with test pin:	The test pin cannot touch hazardous voltage through and openings or seams of the whole enclosure.	Pass
	Test with test probe:	No TNV present.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V); minimum distance (mm) through insulation:	See 2.10.3 and 2.10.4 Table of clearance and creepage distance measurements.	-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards:	The output of the power supply is not an energy hazard.	Pass
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		Pass
	Time-constant (s); measured voltage (V):	See Test Record for details.	-
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations	The unit is not intended to be used in restricted locations.	N/A

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

2.2	SELV circuits		Pass
2.2.1	General requirements		Pass
2.2.2	Voltages under normal conditions (V):	All accessible voltages are less than 42.4 Vp or 60 V dc and are classified as SELV.	Pass
2.2.3	Voltages under fault conditions (V):	Under fault conditions voltages never exceed 71 Vp and 120 V dc and do not exceed 42.4 Vp or 60 V dc for more than 0.2 sec.	Pass
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	SELV circuit and all interconnected circuits separated from primary by reinforced insulation, and also complies with 1.5.7 and the limits of 2.4.3. The SELV circuit does not exceed the SELV limits under normal and fault conditions.	Pass
2.2.3.2	Separation by earthed screen (method 2)		N/A
2.2.3.3	Protection by earthing of the SELV circuit (method 3)		N/A
2.2.4	Connection of SELV circuits to other circuits:		N/A

2.3	TNV circuits	
2.3.1	Limits	N/A
	Type of TNV circuits:	-
2.3.2	Separation from other circuits and from accessible parts	N/A
	Insulation employed:	-
2.3.3	Separation from hazardous voltages	N/A
	Insulation employed:	-
2.3.4	Connection of TNV circuits to other circuits	N/A
	Insulation employed:	-
2.3.5	Test for operating voltages generated externally	N/A

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

2.4	Limited current circuits		Pass	
2.4.1	General requirements		Pass	
2.4.2	Limit values		Pass	
	Frequency (Hz)	60	-	
	Measured current (mA)	0.2	-	
	Measured voltage (V)	384	-	
	Measured capacitance (mF)	3300 pF	-	
2.4.3	Connection of limited current circuits to other circuits		N/A	

2.5	Limited power sources	·	Pass
	Inherently limited output		N/A
	Impedance limited output		N/A
	Overcurrent protective device limited output		N/A
	Regulating network limited output under normal operating and single fault condition	All models except GT-81081-6012-a.	Pass
	Regulating network limited output under normal operating conditions and overcurrent protective device limited output under single fault condition		N/A
	Output voltage (V), output current (A), apparent power (VA):	See Test Record for details.	-
	Current rating of overcurrent protective device (A):		-

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

2.6	Provisions for earthing and bonding		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing		Pass
2.6.3	Protective earthing and protective bonding conductors		Pass
2.6.3.1	General		N/A
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm2), AWG:		-
2.6.3.3	Size of protective bonding conductors		Pass
	Rated current (A), cross-sectional area (mm2), AWG:	6A, 18 AWG	-
2.6.3.4	Resistance (Ohm) of earthing conductors and their terminations, test current (A):	See Test Record for details.	Pass
2.6.3.5	Colour of insulation:	Green/yellow used only for protection earthing.	Pass
2.6.4	Terminals		Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals		Pass
	Rated current (A), type and nominal thread diameter (mm):	10A, 3mm	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Appliance Inlet used.	Pass
2.6.5	Integrity of protective earthing		Pass
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	Protective earthing and bonding conductors do not contain switches or overcurrent protective devices.	Pass
2.6.5.3	Disconnection of protective earth	Protective earth is not disconnected unless the relevant hazard is removed at the same time.	Pass
2.6.5.4	Parts that can be removed by an operator		Pass
2.6.5.5	Parts removed during servicing		Pass
2.6.5.6	Corrosion resistance		Pass

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IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A

2.7	Overcurrent and earth fault protection in primary	y circuits	Pass
2.7.1	Basic requirements		Pass
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3		N/A
2.7.3	Short-circuit backup protection	Building installation is considered as providing short-circuit backup protection.	Pass
2.7.4	Number and location of protective devices:	One protective device in the "LIVE" phase	Pass
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel		N/A

2.8	Safety interlocks	N/A
2.8.1	General principles	N/A
2.8.2	Protection requirements	N/A
2.8.3	Inadvertent reactivation	N/A
2.8.4	Fail-safe operation	N/A
2.8.5	Moving parts	N/A
2.8.6	Overriding	N/A
2.8.7	Switches and relays	N/A
2.8.7.1	Contact gaps (mm):	N/A
2.8.7.2	Overload test	N/A
2.8.7.3	Endurance test	N/A
2.8.7.4	Electric strength test	N/A
2.8.8	Mechanical actuators	N/A

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

2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Natural rubber, hygroscopic materials and materials containing asbestos are not used as insulating materials. Electric strength test was conducted after the humidity treatment. See below.	Pass
2.9.2	Humidity conditioning	Humidity treatment performed to 120 hrs in condition: 95%, 40°C	Pass
	Humidity (%)	95%	-
	Temperature (°C)	40°C	-
2.9.3	Grade of insulation	Insulation complies with electric strength tests as well as creepage, clearance, and distance through insulation measurements.	Pass

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

2.10	Clearances, creepage distances and distances t	hrough insulation	Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.2	Determination of working voltage	See Test Record for details.	Pass
2.10.3	Clearances	See appended table.	Pass
2.10.3.1	General	Measured distances are adequate.	Pass
2.10.3.2	Clearances in primary circuit	See appended table.	Pass
2.10.3.3	Clearances in secondary circuits		Pass
2.10.3.4	Measurement of transient voltage levels		N/A
2.10.4	Creepage distances	See appended table.	Pass
	CTI tests	See appended table.	-
2.10.5	Solid insulation	Solid or laminated insulating materials having adequate thickness are provided.	Pass
2.10.5.1	Minimum distance through insulation	See Test Record for details.	Pass
2.10.5.2	Thin sheet material	Two layers used, each of which complies with the required electric strength test. Thickness 0.025 mm each.	Pass
	Number of layers (pcs):	Two layers of polyester tape provided as outer wrap on primary and secondary winding of transformer.	-
	Electric strength test:	Electric strength conducted on one layer of tape at 3000 Vac.	-
2.10.5.3	Printed boards	PWB is not used as reinforced or supplementary insulation.	N/A
	Distance through insulation		N/A
	Electric strength test for thin sheet insulating material:		-
	Number of layers (pcs):		N/A
2.10.5.4	Wound components	Isolating transformer employs interleaved insulation complying with 2.10.5.2	Pass
	Number of layers (pcs):	Three wrapped layers.	Pass
	Two wires in contact inside wound component; angle between 45° and 90°	Crossover insulation is provided by one layer of insulating tape.	Pass

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

2.10.6	Coated printed boards	No coated printed wiring boards.	N/A
2.10.6.1	General		N/A
2.10.6.2	Sample preparation and preliminary inspection		N/A
2.10.6.3	Thermal cycling		N/A
2.10.6.4	Thermal ageing (°C)		N/A
2.10.6.5	Electric strength test		-
2.10.6.6	Abrasion resistance test		N/A
	Electric strength test		-
2.10.7	Enclosed and sealed parts		N/A
	Temperature T1=T2 = Tma - Tamb +10K (°C):		N/A
2.10.8	Spacings filled by insulating compound:	UL approved optical isolators used.	Pass
	Electric strength test:	UL approved optical isolators used.	-
2.10.9	Component external terminations		N/A
2.10.10	Insulation with varying dimensions		N/A

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

3	WIRING, CONNECTIONS AND SUPPLY		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection	All internal wiring used in the distribution of primary power protected against overcurrent and short circuit by suitably rated protective devices.	Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring	The wires are positioned in such a manner that prevents excessive strain, loosening of terminal connections and damage of conductor insulation. Provided with bushing.	Pass
3.1.4	Insulation of conductors	Insulation on internal conductors considered to be of adequate quality and suitable for the application and working voltages involved.	Pass
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure		N/A
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	Conductors suitably terminated, creepage and clearances maintained, second securing for soldered terminations provided.	Pass
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

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

3.2	Connection to an a.c. mains supply or a d.c. mai	ns supply	Pass
3.2.1	Means of connection		Pass
3.2.1.1	Connection to an a.c. mains supply		Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections	Single mains supply	N/A
3.2.3	Permanently connected equipment	The equipment is not permanently connected.	N/A
	Number of conductors, diameter (mm) of cable and conduits:		-
3.2.4	Appliance inlets		Pass
3.2.5	Power supply cords		N/A
3.2.5.1	AC power supply cords		N/A
	Туре:		-
	Rated current (A), cross-sectional area (mm²), AWG:		-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N):		-
	Longitudinal displacement (mm):		-
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	D (mm); test mass (g):		-
	Radius of curvature of cord (mm):		-
3.2.9	Supply wiring space		N/A

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

3.3	Wiring terminals for connection of external conductors	N/A
3.3.1	Wiring terminals	N/A
3.3.2	Connection of non-detachable power supply cords	N/A
3.3.3	Screw terminals	N/A
3.3.4	Conductor sizes to be connected	N/A
	Rated current (A), cord/cable type, cross-sectional area (mm²):	-
3.3.5	Wiring terminal sizes	N/A
	Rated current (A), type and nominal thread diameter (mm):	-
3.3.6	Wiring terminals design	N/A
3.3.7	Grouping of wiring terminals	N/A
3.3.8	Stranded wire	N/A

3.4	Disconnection from the mains supply		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	Appliance inlet.	Pass
3.4.3	Permanently connected equipment	Not permanently connected equipment.	N/A
3.4.4	Parts which remain energized	No parts remain energized when the disconnect device is removed.	N/A
3.4.5	Switches in flexible cords	No isolating switch in the cord set.	N/A
3.4.6	Single-phase equipment and d.c. equipment	Disconnect device disconnects all poles simultaneously.	Pass
3.4.7	Three-phase equipment	The equipment is single-phased.	N/A
3.4.8	Switches as disconnect devices	No such switch is provided.	N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment	No interconnection of hazardous voltages.	N/A
3.4.11	Multiple power sources	One power source only.	N/A

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

3.5	Interconnection of equipment		Pass
3.5.1	General requirements	Output of power supply is a limited power source.	Pass
3.5.2	Types of interconnection circuits:	Interconnection circuits are LIMITED CURRENT CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A

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

4.2	Mechanical strength		Pass
4.2.1	General	See below	Pass
4.2.2	Steady force test, 10 N		Pass
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	See Test Record for details.	Pass
4.2.5	Impact test	See Test Record for details.	Pass
	Fall test		N/A
	Swing test		N/A
4.2.6	Drop test		N/A
4.2.7	Stress relief test	See Test Record for details.	Pass
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified:		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N):		N/A

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

4.3	Design and construction		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N):		N/A
4.3.3	Adjustable controls	No setting for power supply voltage.	N/A
4.3.4	Securing of parts		N/A
4.3.5	Connection of plugs and sockets	The equipment does not have any interchangeable plugs/sockets.	N/A
4.3.6	Direct plug-in equipment		N/A
	Dimensions (mm) of mains plug for direct plug-in.:		N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N):		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		N/A
4.3.9	Oil and grease	The insulation of the internal wiring is not exposed to oil, grease, etc.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not produce or employ powders, liquids, or gases.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquid.	N/A
4.3.12	Flammable liquids:	The equipment does not use any flammable liquids.	N/A
	Quantity of liquid (I):		N/A
	Flash point (°C):		N/A
4.3.13	Radiation; type of radiation	lonising radiation or laser or in which similar hazards are not presents.	N/A
4.3.13.1	General		N/A
4.3.13.2	lonizing radiation		N/A
	Measured radiation (pA/kg):		-
	Measured high-voltage (kV):		-

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

	Measured focus voltage (kV)	-
	CRT markings	-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	N/A
	Part, property, retention after test, flammability classification:	N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation:	N/A
4.3.13.5	Laser (including LEDs)	N/A
	Laser class	-
4.3.13.6	Other types	N/A

4.4	Protection against hazardous moving parts	
4.4.1	General	N/A
4.4.2	Protection in operator access areas	N/A
4.4.3	Protection in restricted access locations	N/A
4.4.4	Protection in service access areas	N/A

4.5	Thermal requirements		Pass
4.5.1	Maximum temperatures	The equipment and its component parts did not attain excessive temperatures during normal operation.	Pass
	Normal load condition per Annex L:	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established. Permitted rises based on manufacturer's specified Tmra of 40°C. See Test Record for details.	Pass
4.5.2	Resistance to abnormal heat	Phenolic material accepted without testing.	N/A

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

4.6	Openings in enclosures		N/A
4.6.1	Top and side openings		N/A
	Dimensions (mm)		-
4.6.2	Bottoms of fire enclosures	No openings.	N/A
	Construction of the bottom		-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks):		-

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

4.7	Resistance to fire		
4.7.1	Reducing the risk of ignition and spread of flame	Method 1: Selection and application of components and materials which minimize the possibility of ignition and spread of flame.	Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	Components in primary and secondary circuits are provided with fire enclosure.	Pass
4.7.2.2	Parts not requiring a fire enclosure	Interconnecting cable is marked "VW-1" or "FT-1"	Pass
4.7.3	Materials		Pass
4.7.3.1	General	See below.	Pass
4.7.3.2	Materials for fire enclosures	Equipment is moveable with mass less than 18 kg. Fire enclosure material is V-1 minimum.	Pass
4.7.3.3	Materials for components and other parts outside fire enclosures	Interconnecting cable is marked "VW-1" or "FT-1".	Pass
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better.	Pass
4.7.3.5	Materials for air filter assemblies	No air filter assemblies.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components	N/A

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

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		
5.1	Touch current and protective conductor current		Pass
5.1.1	General	Touch current levels did not exceed limits of Table 5A. See enclosed test record.	Pass
5.1.2	Equipment under test (EUT)	Single mains connection.	Pass
5.1.3	Test circuit	Test circuit of Figure 5A used.	Pass
5.1.4	Application of measuring instrument	Measuring circuit of Annex D used.	Pass
5.1.5	Test procedure	Touch current was measured from primary to enclosure and primary to output.	Pass
5.1.6	Test measurements	RMS value measured.	Pass
	Test voltage (V):	264 V ac, 60 Hz	-
	Measured touch current (mA)	See Test Record for details.	-
	Max. allowed touch current (mA):	See Test Record for details.	-
	Measured protective conductor current (mA):		-
	Max. allowed protective conductor current (mA):		-
5.1.7	Equipment with touch current exceeding 3.5 mA:		N/A
5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	No TNV circuit.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system	No TNV circuit.	N/A
	Test voltage (V):		-
	Measured touch current (mA)		-
	Max. allowed touch current (mA)		-
5.1.8.2	Summation of touch currents from telecommunication networks:		N/A

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

5.2	Electric strength		Pass
5.2.1	General	Based on the electric strength test the use of the insulating materials within the equipment is satisfactory.	Pass
5.2.2	Test procedure	No insulation breakdown detected during the test. See Test Record for details.	Pass

5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation	Unit is protected by regulating circuitry and primary input fuse. See Test Record for details.	Pass
5.3.2	Motors		N/A
5.3.3	Transformers	Transformers are protected by primary fuse and by regulating network.	Pass
5.3.4	Functional insulation:	Functional insulation complies with the requirements (a) or (c).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Simulation of faults	See Test Record for details.	Pass
5.3.7	Unattended equipment	The equipment is not intended for unattended use.	N/A
5.3.8	Compliance criteria for abnormal operating and fault conditions	No fire, emission of molten metal or deformation was noted during the tests. Electric Strength tests performed after abnormal and fault tests.	Pass

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

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	
6.1.1	Protection from hazardous voltages	N/A
6.1.2	Separation of the telecommunication network from earth	
6.1.2.1	1.2.1 Requirements	
	Test voltage (V):	-
	Current in the test circuit (mA):	-
6.1.2.2	Exclusions:	N/A

6.2	Protection of equipment users from overvoltages on telecommunication networks	
6.2.1	Separation requirements	N/A
6.2.2	Electric strength test procedure	N/A
6.2.2.1	Impulse test	N/A
6.2.2.2	Steady-state test	N/A
6.2.2.3	Compliance criteria	N/A

6.3	Protection of the telecommunication wiring system from overheating	
	Max. output current (A):	-
	Current limiting method:	-

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

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	
7.2	Protection of equipment users from overvoltages on the cable distribution system	N/A
7.3	Insulation between primary circuits and cable distribution systems	N/A
7.3.1	General	N/A
7.3.2	Voltage surge test	N/A
7.3.3	Impulse test	N/A

Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE	
Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)	
Samples:	-
Wall thickness (mm):	-
Conditioning of samples; temperature (°C):	N/A
Mounting of samples:	N/A
Test flame	N/A
Test procedure	N/A
Compliance criteria	N/A
Sample 1 burning time (s)	-
Sample 2 burning time (s):	-
Sample 3 burning time (s):	-
	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)  Samples

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

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)	
A.2.1	Samples, material:	-
	Wall thickness (mm):	-
A.2.2	Conditioning of samples	N/A
A.2.3	Mounting of samples	N/A
A.2.4	Test flame	N/A
A.2.5	Test procedure	N/A
A.2.6	Compliance criteria	N/A
	Sample 1 burning time (s):	-
	Sample 2 burning time (s):	-
	Sample 3 burning time (s):	-
A.2.7	Alternative test acc. to IEC 60695-2-2, cl. 4, 8	N/A
	Sample 1 burning time (s):	-
	Sample 2 burning time (s):	-
	Sample 3 burning time (s):	-

A.3	Hot flaming oil test (see 4.6.2)	N/A
A.3.1	Mounting of samples	N/A
A.3.2	Test procedure	N/A
A.3.3	Compliance criterion	N/A

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

В	Annex B, MOTOR TESTS UNDER ABNORMAL CONDITIONS(see 4.7.2.2 and 5.3.2)	N/A
B.1	General requirements	N/A
	Position:	-
	Manufacturer	-
	Туре	-
	Rated values	-
B.2	Test conditions	N/A
B.3	Maximum temperatures	N/A
B.4	Running overload test	N/A
B.5	Locked-rotor overload test	N/A
	Test duration (days)	-
	Electric strength test: test voltage (V)	-
B.6	Running overload test for d.c. motors in secondary circuits	N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits	N/A
B.7.1	Test procedure	N/A
B.7.2	Alternative test procedure; test time (h)	N/A
B.7.3	Electric strength test	N/A
B.8	Test for motors with capacitors	N/A
B.9	Test for three-phase motors	N/A
B.10	Test for series motors	N/A
	Operating voltage (V):	-

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

С	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		Pass
	Position:	T1	-
	Manufacturer:	Dee Van Enterprise Co., Ltd.	-
	Type:	90E266012-00F, 90E266016- 00F, 90E266020-00F.	-
	Rated values:	T1 employs Class B (130C), Type HIS-8A.	-
	Method of protection	Regulating Network	-
C.1	Overload test	See Test Record for details.	Pass
C.2	Insulation	Insulation complies with Clauses 2.10 and 5.2.2.	Pass
	Protection from displacement of windings:	Triple insulated wire used.	Pass

D	Annex D, MEASURING INSTRUMENTS FOR TOU	CH-CURRENT TESTS	Pass
D.1	Measuring instrument		Pass
D.2	Alternative measuring instrument		N/A

E Annex E, TEMPERATURE RISE OF A WINDING	N/A
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F	Annex F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES	Pass
	(see 2.10)	

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Clause	Requirement + Test		Result - Remark	Verdict

G	Annex G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES	N/A
G.1	Summary of the procedure for determining minimum clearances	N/A
G.2	Determination of mains transient voltage (V)	N/A
G.2.1	AC mains supply	N/A
G.2.2	DC mains supply	N/A
G.3	Determination of telecommunication network transient voltage (V) ::	N/A
G.4	Determination of required withstand voltage (V):	N/A
G.5	Measurement of transient levels (V):	N/A
G.6	Determination of minimum clearances:	N/A

H ANNEX H, IONIZING RADIATION (see 4.3.13)	N/A
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J	Annex J, TABLE OF ELECTROCHEMICAL POTEI	NTIALS (see 2.6.5.6)	Pass	l
	Metal used:	Copper	-	

K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)	N/A
K.1	Making and breaking capacity	N/A
K.2	Thermostat reliability; operating voltage (V):	N/A
K.3	Thermostat endurance test; operating voltage (V):	N/A
K.4	Temperature limiter endurance; operating voltage (V):	N/A
K.5	Thermal cut-out reliability	N/A
K.6	Stability of operation	N/A

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L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)	Pass
L.1	Typewriters	N/A
L.2	Adding machines and cash registers	N/A
L.3	Erasers	N/A
L.4	Pencil sharpeners	N/A
L.5	Duplicators and copy machines	N/A
L.6	Motor-operated files	N/A
L.7	Other business equipment	Pass

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

N	Annex N, IMPULSE TEST GENERATORS (see 2.10.3.4, 6.2.2.1, 7.3.2 and clause G.5)		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A

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	IEC 60950-1		
Clause	Requirement + Test	Result - Remark	Verdict
Р	Annex P, NORMATIVE REFERENCES		N/A
Q	Annex Q, BIBLIOGRAPHY		N/A
R	Annex R, EXAMPLES OF REQUIREMENTS FO PROGRAMMES	OR QUALITY CONTROL	N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	Annex S, PROCEDURE FOR IMPULSE TESTI	NG (see 6.2.2.3)	N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
Т	Annex T, GUIDANCE ON PROTECTION AGAI 1.1.2)	NST INGRESS OF WATER (see	N/A
		:	-
		·	
U	Annex U, INSULATED WINDING WIRES FOR INSULATION (see 2.10.5.4)	USE WITHOUT INTERLEAVED	Pass

Triple insulated wire used.

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Clause	Requirement + Test		Result - Remark	Verdict	

1.5.1 <b>TA</b>	BLE: list of critical	components				Pass
object/part No.	manufacturer/ trademark	type/model	technical data	standard		(s) of ormity <sup>1</sup> )
Enclosure	GE Plastics BV	SE1	V-1, 105°C, minimum 2.3 mm thick. Measured overall 120 by 56 by 33 mm. Two halves construction, secured together by ultrasonic welding.	UL94, UL746C, UL50	UL, -	
Appliance Inlet (Models with T3 suffix only)	Various	Various	Grounding type, 250 V ac, minimum 10 A	UL498, IEC60309-1, IEC60309-2, IEC60320-1, IEC60320-2-2, EN60309, EN60320	UL, -	
Appliance Inlet (Alternate) (Models with T2 suffix only)	Various	Various	Non-grounding type, 250 V ac, minimum 2.5 A	UL498, IEC60309-1, IEC60309-2, IEC60320-1, IEC60320-2-2, EN60309, EN60320	UL, -	-
Appliance Inlet (Alternate) (Models with T3A suffix only)	Various	Various	Grounding type, 250 V ac, minimum 2.5 A	UL498, IEC60309-1, IEC60309-2, IEC60320-1, IEC60320-2-2, EN60309, EN60320	UL, -	
Output Cord Strain Relief	Various	Various	PVC bushing integrally molded on output cord.	UL746C	UL, -	-
Output Cord	Various	Various	Maximum 3.05 m, marked VW-1 or FT-1, terminates with a polarized connector outside enclosure.	UL758	UL, -	-
Output Cord - alternate	Various	Various	Style No. 1185, AWM, No. 22	UL758	UL. c	:UL,

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

	1	T	T	1	1
Output Cord -	Various	Various	AWG min., VW- 1, 80 degrees C, 300 V; one end is soldered to PWB; other end molded with connector barrel type SPT-1, AWM,	UL758	UL, cUL,
alternate			No. 18 AWG min., VW-1, 105 degrees C, 300 V; one end is soldered to PWB; other end molded with connector barrel type		OL, COL,
Internal Wire	Various	Various	Rated minimum 80°C, 300V. PVC, TFE, PTFE, FEP, surface marked VW-1.	UL758	,
Bonding Conductor (Models with T3 or T3A suffix only)	Various	Various	Green or green/yellow wire, minimum No. 18 AWG	UL758	UL,
Insulating Tubing/Sleeving	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; rated 105°C, 300 V.	UL224	UL,
Printed Wiring Board	Various	Various	Rated minimum V-0, 130°C.	UL796, IEC60603-2	UL,
Fuse (F1)	Various	Various	250 Vac, T3.15 A.	UL248, UL198, IEC60127	UL,
Fuse (F1) (Alternate)	Schurter AG	MST	250 Vac, T3.15 A.	UL248, UL198, IEC60127	UL,
Fuse (F1) (Alternate)	Bel Fuse Inc.	MRT	250 Vac, T3.15 A.	UL248, UL198, IEC60127	UL,
Fuse (F1) (Alternate)	Save Fusetech Inc.	SR-5	250 Vac, T3.15 A.	UL248, UL198, IEC60127	UL,
Thermistor (TR1)	Various	Various	NTC/PTC, rated minimum 4 A, 5	UL1434, IEC60730,	UL,

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Clause	Requirement + Test		Result - Remark	Verdict	

			ohms, at 25°C.	EN60730-1	
Varistor (VR1)	Various	Various	Rated 275 Vac,	UL1449,	UL,
X-Capacitor (CX1, CX2) (Optional)	Various	Various	350 Vdc.  CX1 rated maximum 0.47 μF, minimum 250 Vac, CX2 rated maximum 0.15 μF, minimum 250 Vac, class X1 or X2.	UL1283, UL1414, EC60065, IEC60384-14, EN132400, EN60065	UL, CENELEC
Bleeder Resistor (R1A, R1B, R1C)	Various	Various	Each rated 470 kohms, 1/4 W		,
Bridge Diode (BD1)	Various	Various	Rated minimum 2 A, minimum 600 V.		,
Y-Capacitors (CY1, CY2) (Optional) (Models with T3A or T3 suffix only)	Various	Various	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, EC60065, IEC60384-14, EN132400, EN60065	UL, CENELEC
Electrolytic Capacitor (C1)	Various	Various	Integral pressure relief, rated 120 uF, minimum 400 V, minimum 105°C.		,
Transistor (Q1)	Various	Various	Rated minimum 6 A, minimum 600 V.		,
Bridging Capacitors (CY3, CY4) (Optional)	Various	Various	Rated maximum 3300 pF, minimum 250 Vac, class Y1.	UL1283, UL1414, EC60065, IEC60384-14, EN132400, EN60065	UL,
Inductor (LF3) (Optional)	Various	30R200010-00F	Open-type construction. Rated minimum 130°C.		,
Core (LF3)	Various	Various	Ferrite, measured overall 12 m OD by 6 mm ID by 4.5 mm.		,
Coil (LF3)	Various	Various	Rated minimum 130°C.	UL1446, IEC60317	UL,

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

Inductor (LF1) (Optional)	Various	30R022058-00F	Open-type construction.		,
			130°C.		
Core (LF1)	Various	Various	Ferrite, measured overall 18 m OD by 10		,
Coil (LF1)	Various	Various	mm ID by 6 mm. Rated minimum 130°C.	UL1446, IEC60317	UL,
Insulating Tubing/Sleeving (LF1)	Various	Various	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; rated 130°C, 300 V. Provided on LF1 body.	UL224	,
Optical Isolators (U4)	Lite-On Technology Corp.	LTV 817, LTV 816.	Minimum 3000 V ac isolation. Double protection.	UL1577, IEC60747-5, IEC60950-1, EN60950-1, VDE 884	UL, VDE, FIMKO
Optical Isolators (U4) (Alternate)	Fairchild Semiconductor Corp.	H11A817x	Minimum 3000 V ac isolation. Double protection.	UL1577, IEC60747-5, IEC60950-1, EN60950-1, VDE 884	UL, VDE, FIMKO
Optical Isolators (U4) (Alternate)	Sharp Corp., Electronic Components Group	PC817, PC123	Minimum 3000 V ac isolation. Double protection.	UL1577, IEC60747-5, IEC60950-1, EN60950-1, VDE 884	UL, VDE, FIMKO
Optical Isolators (U4) (Alternate)	Everlight Electronics Co., Ltd.	EL817	Minimum 3000 V ac isolation. Double protection.	UL1577, IEC60747-5, IEC60950-1, EN60950-1, VDE 884	UL, VDE, FIMKO
Transformer (T1)	Globtek	90E266012-00F, 90E266016-00F, 90E266020-00F.	Open-type construction. Class 130 (B) insulation system, Type HIS-8A	UL1446, IEC60085	UL,
Core (T1)	Various	Various	Ferrite, measured overall 27 by 23 by 20 mm.		,

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

Coil (T1)	Various	Various	Rated minimum 130°C.	UL1446, IEC60317	UL,
Triple Insulated Winding Wire (T1)	Furukawa Electric Co., Ltd.	TEX-E	Rated minimum 105°C.	UL2353, IEC60950-1	UL,
Bobbin (T1)	Hitachi Chemical Co., Ltd.	CP-J-8800	V-0, 150°C, minimum 0.71 mm thick.	UL746C	UL,
Insulating Tape (T1)	Symbio Inc.	MY130	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Insulating Tape (T1) (Alternate)	Sumitomo 3M Ltd.	10, 27	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Insulating Tape (T1) (Alternate)	3M Co.	1, 44, 56, 1194, 1205, 1318, 1318-1, 1350F-2, Super 10	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Insulating Tape (T1) (Alternate)	Nitto Denko Corp.	31, 31CT, 31CT- 1, 35, 35B, 160UL, 354, 188UL, 320A, 343B, 350A, 354E, 3161-F,	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Insulating Tape (T1) (Alternate)	Nichiban Co., Ltd.	553H, 553H-UL, 573H, 573H-UL, 620UL-T, 945UL-30, 945UL-50	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Insulating Tape (T1) (Alternate)	Teraoka Seisakusho Co., Ltd.	530F 0.15, 530F 0.2, 530F 0.4, 630F #25, 630F #50	Polyester tape, 0.05 mm thick, rated 130°C.	UL510	UL,
Varnish (T1)	Hitachi Chemical Co., Ltd.	WA-238A, WF- 285, WP-2952F- 2G	Minimum 130°C.	UL1446	UL,
Varnish (T1) (Alternate)	Meiden Chemical Co., Ltd.	#754XL, #880	Minimum 130°C.	UL1446	UL,
Tubing (T1)	Zeus Industrial Products Inc.	TFE-TW-300	Minimum 130°C.	UL224	UL,
Mylar Sheet	Various	Various	Minimum V-2, minimum 0.4 mm thick. See enclosure for detailed dimensions.	UL94, UL746C	UL,
EMI Shield			Copper,		,

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

Hest Sink (HS1)  Hest Sink (HS2)			minimum 0.2 mm thick. See enclosure for detailed dimensions.  Aluminum, minimum 2 mm thick. See enclosure for detailed dimensions.  Aluminum, minimum 2 mm thick. See		,
			enclosure for detailed dimensions.		
Adhesive Glue	Various	Various	Minimum V-2, 115°C.	UL94, UL746C	UL,
Label	Various	Various	60 °C.	UL969	UL,
Internal Wire	Various	Various	Rated minimum 80°C, 300V. PVC, TFE, PTFE, FEP, surface marked VW-1.	UL758	,
1) an asterisk indi	cates a mark which	assures the agree	d level of surveillar	nce	

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

1.6.2	.6.2 TABLE: electrical data (in normal conditions)					Pass	
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status	
Model GT- 81081- 6012							
F1		90 V/ 50 Hz	69.8	1315	1315	Maximum Normal Load	1
F1		90 V/ 60 Hz		1347	1347	ditto	
F1	1.5	100 V/ 50Hz	68.9	1213	1213	ditto	
F1	1.5	100 V/ 60 Hz	69	1239	1239	ditto	
F1	1.5	240 V/ 50 Hz	67	672	672	ditto	
F1	1.5	240 V/ 60 Hz	67	660	660	ditto	
F1		254 V/ 50 Hz	67	646	646	ditto	
F1		254 V/ 60 Hz	67	633	633	ditto	
F1		264 V/ 50 Hz	67	627	627	ditto	
F1		264V/ 60 Hz	67	615	615	ditto	
Model GT- 81081- 6020							
F1		90 V/ 50 Hz	69.2	1264	1264	Maximum Normal Load	k
F1		90 V/ 60 Hz	69	1302	1302	ditto	
F1	1.5	100 V/ 50Hz	68.3	1171	1171	ditto	
F1	1.5	100 V/ 60 Hz	68.2	1196	1196	ditto	
F1	1.5	240 V/ 50 Hz	67	651	651	ditto	
F1	1.5	240 V/ 60 Hz	67	640	640	ditto	
F1		254 V/ 50 Hz	67	623	623	ditto	
F1		254 V/ 60 Hz	67	614	614	ditto	
F1		264 V/ 50 Hz	67	602	602	ditto	
F1		264V/ 60 Hz	67	596	596	ditto	

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

supplementary information:
See Test Record

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements						
clearance cl a distance dcr a		Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
	to Neutral, Before race (Models with	420	250	1.5	2.5	2.5	2.5
	rth, Before Fuse, Models with T3 or	420	250	2.0	3.2	2.5	3.2
Primary to Sec to U4 (Sec)	condary, 10N, D2	420	250	4.0	13.8	5.0	13.8
Primary to Sec CY3, CY4, PV	condary, Under VB Trace	420	250	4.0	11.7	5.0	11.7
Primary to Sec U4, PWB Trac	condary, Under ce	420	250	4.0	7.9	5.0	8.0
Primary to Sec T1, PWB Trac	condary, Under ce	456	256	4.2	13.7	5.2	13.7
Primary to Sec	condary, T1	456	256	4.2	13.7	5.2	13.7
Secondary to	Core, T1	456	256	4.2	11	5.2	11
supplementary	y information:						
See Test Rec	ord						

2.10.5 TABLE: distance through insulation measurements						
distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)		
Mylar Sheet	420	3000	0.4	0.4		
Optical Isolator	420	3000	0.4	0.4		
supplementary information:						
Optical Isolator is UL approved - See Test Record						

4.5	.5 TABLE: temperature rise measurements					Pass	
	test voltage (V)	90V (norm al)	90V (Upside down)	90V (on side)	264V (normal)		_

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

t1 (°C)						_
t2 (°C)						_
maximum temperature T of part/at:		T (°C)				allowed Tmax (°C)
Model GT-81081-6012						
Inlet pin	54.7	51.3	55.2	50.3		70
LF1 coil	115.3	110.3	114.5	90.0		130
LF3 coil	97.4	92.9	96.6	83.0		130
PCB under BD1	99.9	95.5	100.4	84.8		130
C1 body	98.9	93.9	98.5	85.7		105
H.S1 near Q1	109.8	103.7	108.1	95.9		130
T1 Primary coil	103.7	98.4	103.4	96.4		110
T1 Secondary coil	105.3	100.0	104.9	98.4		110
T1 core	98.8	93.5	98.1	92.8		110
U4 body	97.1	91.8	95.8	90.7		100
H.S2 near Q5	98.0	93.0	96.9	92.6		130
L3 coil	90.5	85.5	90.4	85.5		105
Inside Enclosure	80.1	74.7	83.8	74.9		100
Ambient air	40.0	40.0	40.0	40.0		
Model GT-81081-6020	90VA C	90VAC	90VAC	264VAC		
Inlet pin	57.8	57.7	56.7	52.6		70
LF1 coil	110.7	108.8	107.5	84.8		130
LF3 coil	91.8	90.7	89.1	77.7		130
PCB under BD1	91.7	91.3	89.3	79.3		130
C1 body	94.6	93.7	91.8	82.7		105
H.S1 near Q1	94.8	93.3	92.5	87.6		130
T1 Primary coil	94.8	94.8	92.4	90.6		110
T1 Secondary coil	95.3	95.0	92.9	91.9		110
T1 core	91.1	91.3	88.9	88.6		110
U4 body	91.5	90.6	88.7	87.3		100
H.S2 near Q5	91.3	91.0	89.1	87.1		130
L3 coil	82.8	82.4	80.3	80.5		105
Inside Enclosure	76.2	79.1	74.4	73.1		100
Surface Enclosure	67.2	73.4	65.5	64.2		95
Ambient air	40.0	40.0	40.0	40.0		
temperature T of winding:	10.0	R <sub>1</sub> (Ω)	$R_2(\Omega)$	T (°C)	allowed Tmax (°C)	insulation class
aunnlamentary informations						

supplementary information:

Maximum normal load.

Temperatures adjusted to reflect ambient of 40°C. See Test Record

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

4.5.2	5.2 TABLE: ball pressure test of thermoplastics			N/A		
	allowed impression diameter (mm):			_		
part		test temperature (°C)		ion diameter mm)		
supplementary information:						

4.7	1.7 TABLE: resistance to fire							
part		manufacturer of material	type of material	thickness(mm)	flammability class			
supple	supplementary information:							
See C	ritical Com	ponents List.						

5.2	TABLE: electric strength tests, impulse tests a	and voltage surge tests		Pass
test voltage applied between:		test voltage (V) a.c./d.c.		akdown es / No
One layers of	of insulation to Polyester thickness=0.05mm	3000 V AC	No	
Primary wind	Primary winding to SELV winding		No	
SELV windir	ng to core	3000 V AC	No	
Primary to S	SELV	4242 V DC	No	
Primary to E	nclosure with Foil	4242 V DC	No	
Primary to Earth (Models with T3 or T3A suffix)		2400 V DC	No	
supplementa	ary information:			

5.3	TABLE: fault condition tests					Pass	
	ambient temperature (°C) : See Below						
	model/type of power supply : See Models and Ratings						
	manufacturer of power supply: Se				See Models and	d Ratings	_
	rated markings of power supply:				See models and	d Ratings	_
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result	
Model GT-							

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

81081-						
6024						
BD1	Short	240	1sec	F1	0.64 -> 0	IP(F1), CD(BD1), NT, NB, NC.
C1	Short	240	1sec	F1	0.64 -> 0	IP(F1), CD(Q1) , NT, NB, NC.
T1 pin F- pin S	Short	240	1sec	F1	0.64 -> 0	IP(F1), CD(Q1) , NT, NB, NC.
T1 pin 4- pin 6	Short	240	10min	F1	0.64 -> 0.05	Unit shut down, NT, NB, NC.
Q1 G-S	Short	240	10min	F1	0.64 -> 0.05	Unit shut down, NT, NB, NC.
Q1 G-D	Short	240	1sec	F1	0.64 -> 0	IP(F1), CD(Q1) , NT, NB, NC.
Q1 D-S	Short	240	1sec	F1	0.64 -> 0	IP(F1), CD(Q1) , NT, NB, NC.
U4 primary	Short	240	10min	F1	0.64 -> 0.05	Unit shut down, NT, NB, NC.
U4 secondary	Short	240	10min	F1	0.64 -> 0.05 -> 0.28	Unit cycle protection, NT, NB, NC.
+24V	Overload	240	4.5h	F1	0.64 -> 0.72	CT at 3.5A output increased to 4A unit shut down, NT, NB, NC. T1: 95 degree C Ambient: 26 degree C
+24V	Overload	240	4.5h	F1	0.64 -> 0.65	CT at 3A output increased to 4A unit shut down, NT, NB, NC. T1: 88 degree C Ambient: 23 degree C
Model GT- 81081- 6012						
T1 pin F- pin S	Short	240	1sec	F1	0.66 -> 0	IP(F1), CD(BD1), NT, NB, NC.
+12V After D5	Overload	240	4h	F1	0.66 -> 0.70	CT at 6.5A output increased to 7.5A unit shut down, NT, NB, NC. T1: 110 degree C Ambient: 25 degree C
+12V	Overload	240	4h	F1	0.66 -> 0.65	CT at 6A output increased to 7A unit shut down, NT, NB, NC. T1: 104 degree C Ambient: 29 degree C
supplementa	ary information:					
See Test Re	ecord					

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## **Enclosure**

## **National Differences**

Argentina\* Australia / New Zealand Austria\*\* Belgium\*\* China\* Czech Republic\*\* Denmark **Finland** France\*\* Germany Greece\*\* Group Hungary\* India\* Ireland\* Israel\* Italy\* Japan\* Kenya\* Korea Malaysia\* Netherlands\*\* **Norway** Poland\* Portugal\* Singapore\* Slovakia\*\* Slovenia\* Spain\* Sweden Switzerland\*\* **USA / Canada United Kingdom** 

- \* No National Differences Declared
- \*\* Only Group Differences

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	IEC 60950-1		
SubClause	Difference + Test	Result - Remark	Verdict

A	Australia / New Zealand - Differences to IEC 60950-	1:2001, First Edition	
1.2.12.11	POTENTIAL IGNITION SOURCE Possible fault which can starts a fire if the open- circuit voltage measured across an interruption or faulty contact exceeds a value of 50 V (peak) a.c. or d.c. and the product of the peak value of this voltage and the measured r.m.s. current under normal operating conditions exceeds 15VA. Such a faulty contact or interruption in an electrical connection includes those which may occur in conductive patterns on printed boards. Note 201: An electronic protection circuit may be used to prevent such a fault from becoming a POTENTIAL IGNITION SOURCE.		Pass
1.5.1	Add to the first paragraph: "or the relevant Australian / New Zealand Standard".		Pass
1.5.2	Add to the first and third dashed items after the words "IEC Component Standard": "or the relevant Australian / New Zealand Standard".		Pass
1.6.1	Add: AC power distribution systems classified as TT or IT are not allowed		N/A
1.7.12	Add to the first paragraph: All safety instructions and safety markings shall be in English.		Pass
3.2.5	Substitute for Table 3B: Sizes of Conductors  Rated Nominal Current of cross-sectional Equipment area (A) (mm²)  0.2 <= 3 0.5* 3 <= 7.5 0.75 7.5 <= 10 (0.75) 1.00 10 <= 16 (1,0) 1.5 16 <= 25 2.5 25 <= 32 4 32 <= 40 6 40 <= 63 10 63 <= 80 16 80 <= 100 25 100 <= 125 35 125 <= 160 50 160 <= 190 70 190 <= 230 95 230 <= 260 120		N/A

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	IEC 60950-1					
SubClause	Difference + Test	Result - Remark	Verdict			
	260 <= 300 150 300 <= 340 185 340 <= 400 240 400 <= 460 300					
	* This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord or cord guard, enters the appliance, and the entry to the plug, does not exceed 2 m (0.5 mm² three-core supply flexible cords are not permitted; see Note 2 to Table 2.17 of AS/NZS 3191).					
4.3.6	Replace the third paragraph: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet complying with AS/NZS 3112, shall comply with the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets.		N/A			
4.3.13	For the purpose of this standard compliance with AS/NZS 2211.1 is deemed to be compliance with IEC60825.1		N/A			
4.7	Add after the clause: For alternative resistance to fire tests, refer to Annex YY.		N/A			
6.2.1	Replace item c) with: An SELV circuit, a TNV-2 circuit or a Limited Current Circuit provided for connection of other equipment. The requirement for separation applies whether or not this circuit is accessible.		N/A			
6.2.2	Replace the first paragraph by: In Australia (not in New Zealand), compliance with 6.2.2 is checked by the tests of both 6.2.2.1 and 6.2.2.2.		N/A			
6.2.2.1	Replace 6.2.2.1 with: In Australia (not in New Zealand), the electrical separation is subjected to 10 impulses of alternating polarity, using the impulse test generator of Annex N for 10/700µs impulses. The interval between successive impulses is 60 s and the initial voltage, Uc is:		N/A			
	- for 6.2.1a): 7.0 kV for hand-held telephones and for headsets; 2.5 kV for other equipment;					
	for 6.2.1b) and 6.2.1c): 1.5 kV.					

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	IEC 60950-1					
SubClause	Difference + Test	Result - Remark	Verdict			
	NOTE 1 - The 7 kV impulse is to simulate lightning surges on typical rural and semi-rural network lines.  NOTE 2 - The value of 2.5 kV for 6.2.1a) was chosen to ensure adequacy of the insulation concerned and does not necessarily simulate likely overvoltages.					
6.2.2.2	Replace the first and second paragraphs of 6.2.2.2 with: In Australia (not New Zealand), the electrical separation is subjected to an electric strength test according to 5.2.2.		N/A			
	The a.c. test voltage is:  - for 6.2.1a) 3 kV - for 6.2.1b) and 6.2.1c) 1.5 kV					
	NOTE 1 - Where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used.  NOTE 2 - The 3 kV and 1.5 kV values have been determined considering the low frequency induced voltages from the power supply distribution system.					

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	IEC 60950-1		
SubClause	Difference + Test	Result - Remark	Verdict

	Denmark - Differences to IEC 60950-1:2001,	First Edition	
1.2.4.1	Certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.		N/A
1.7.2	Supply cords of Class I equipment, which is delivered without a plug, must be provided with a visible tag with the following text:		N/A
	"Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket (IEC 417, No. 5019) eller (IEC 417, No. 5017)."		
	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 installationsvejledning".		
1.7.5	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 socket0outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.		N/A
1.7.5	Class II equipment shall not be fitted with socket- outlets for providing power to other equipment.		Pass
3.2.1.1	Supply cord 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.		N/A
	Class I equipment provided with socket-outlets with earth contact 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 poly-phase equipment and single-phase equipment having a rated current exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current		

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IEC 60950-1				
SubClause	Difference + Test	Result - Remark	Verdict	
	Regulations, Section 107-2-D1 or EN 60309-2.			

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	IEC 60950-1		
SubClause	Difference + Test	Result - Remark	Verdict

	Finland - Differences to IEC 60950-1:2001, First Edition	
1.7.2	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 shall be:  "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan"	N/A
6.1.2.1	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 IEC 60950-1, 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 routing 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 IEC 60384-14:1993, subclass Y2.  A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions:  - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is	N/A

	IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict	
	60950-1, subclause 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14.			
6.1.2.2	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.		N/A	
7.1	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.		N/A	

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	IEC 60950-1		
SubClause	Difference + Test	Result - Remark	Verdict

	Germany - Differences to IEC 60950-1:2001,	First Edition	
1.7.12	(Gesetz uber technische Arbeitsmittel (Garatesicherheitsgesetz) [Law of technical labour equipment {Equipment safety law}], of 23rd October 1992, Article 3, 3rd paragraph, 2nd sentence, together with the "Allgemeine Verwaltungsvorschrift zur Durchfuhrung des Zweiten Abschritts des Geratesicherheitsgesetzes" [General administrative regulation on the execution of the Second Section of the Equipment safety law], of 10th January 1996, article 2, the 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/A
H	(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 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 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		N/A

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	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.			

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Group - Differences to IEC 60950-1:2001, F	First Edition	
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.		N/A
Void		N/A
Replace the first line "(see also 1.4.7)" by "(see also 1.4.8)".		Pass
Delete NOTE 1, and in table 3A delete the conduit sizes in parentheses.		N/A
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  Over 6 up to and including 10  Over 10 up to and including 16  In the Conditions applicable to table 3B, delete the		N/A
	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.  Void  Replace the first line "(see also 1.4.7)" by "(see also 1.4.8)".  Delete NOTE 1, and in table 3A delete the conduit sizes in parentheses.  Replace: "60245 IEC 53" by "H05 RR-F" "60227 IEC 55" by "H05 VV-F or H03 VVH2-F" "60227 IEC 55" by "H05 VV-F or H05 VVH2-F"  In table 3B, replace the first four lines by the following: Up to and including 6  Over 6 up to and including 10  Over 10 up to and including 10  Over 10 up to and including 16	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.  Void  Replace the first line "(see also 1.4.7)" by "(see also 1.4.8)".  Delete NOTE 1, and in table 3A delete the conduit sizes in parentheses.  Replace: "60245 IEC 53" by "H05 RR-F" "60227 IEC 52" by "H05 VV-F or H03 VVH2-F"  In table 3B, replace the first four lines by the following: Up to and including 6  Over 6 up to and including 10  Over 10 up to and including 16  Over 10 up to and including 16  Over 10 up to and including 16

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	words "in some countries" in condition <sup>1</sup> . In Note 1, delete the second sentence.	
3.3.4	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 by 4"  Delete the fifth line: conductor sizes for 13 to 16A.	N/A
4.3.13.6	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/A
General	Delete all the "country" notes in the reference document according to the following list:  1.5.1 Note 2 1.5.8 Note 2  1.6.1 Note 1.7.2 Note 4  1.7.12 Note 2 2.1 Note  2.2.3 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 H Note 2	N/A
Н	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/A
Р	Replace the text of this annex by: See annex ZA	N/A
Q	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	N/A

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Result - Remark	Verdict		
	Result - Remark		

	Korea - Differences to IEC 60950-1:2001, F	irst Edition	
1.5.101	Addition: Plugs for the connection of the apparatus to the supply mains comply with the Korean requirement (KSC 8305).		N/A
7	Addition: EMC - The apparatus shall complies with the relevant CISPR standards.		N/A

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	Norway - Differences to IEC 60950-1:2001,	First Edition	
1.5.8	Due to the IT power system used (see annex V, figure V.7), capacitors are required to be rated for the applicable phase-to-phase voltage (230 V).		N/A
1.7.2	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 shall be:  "Apparatet må tilkoples jordet stikkontakt"		N/A
2.2.4	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.3.2	Requirements according to this annex, 6.1.2.1 apply.		N/A
2.3.3	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.3.4	Requirements according to this annex, 1.7.2 and 6.1.2.1 apply.		N/A
2.10.3.1	Due to the IT power distribution system used (see annex V, figure 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/A
6.1.2.1	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		N/A

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	,	,	
6122	the compliance clause below and in addition: - passes the tests and inspection criteria of IEC 60950-1, 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 routing 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 IEC 60384-14:1993, subclass Y2. A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1, subclause 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14.		NI/A
6.1.2.2	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.		N/A
7.1	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.		N/A
G.2.1	Due to the IT power distribution system used (see annex V, figure 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/A

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	Sweden - Differences to IEC 60950-1:2001, Fire	t Edition
1.5.1	(Ordinance (1990:944)) Add NOTE: Switches containing mercury such as thermostats, relays and level controllers are not allowed.	Pass
1.7.2	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 shall be:  "Apparaten skall anslutas till jordat uttag"	N/A
6.1.2.1	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 IEC 60950-1, 2.10.8 with an electric strength test of 2.10.7 shall be performed using 1.5 kV), and  - is subject to routing 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 IEC 60384-14:1993, subclass Y2.  A capacitor classified Y3 according to IEC 60384-14:1993, may bridge this insulation under the following conditions:  - the insulation requirements are satisfied by	N/A

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	having a capacitor classified Y3 as defined by IEC 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1, subclause 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in IEC 60384-14; - the impulse test of 2,5 kV is to be performed before the endurance test in IEC 60384-14, in the sequence of tests as described in IEC 60384-14.		
6.1.2.2	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.		N/A
7.1	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.		N/A

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	USA / Canada - Differences to IEC 60950-1:200	01, First Edition	
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For Pluggable Equipment Type A, the protection in the installation is assumed to be 20 A.		Pass
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.	Interconnecting cables comply with the relevant requirements of this standard.	Pass
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special		N/A

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	circuit classification requirements (e.g., TNV-2)	
1.6.1.2	Earthing of d.c. powered equipment provided.	N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.	N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase conductor.	N/A
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.	N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.	N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.	N/A
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.	N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.	N/A
2.1.1	Screw shell of Edison-base lampholder tied to the neutral conductor.	N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.	N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.	N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.	N/A
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.	N/A
2.3.2	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.	N/A

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2.3.2	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.	Models with suffix T3 or T2 only.	Pass
2.6.3.3	For Pluggable Equipment Type A, if neither a) or b) are applicable, the current rating of the circuit is taken as 20 A.		Pass
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to special conditions based on the current rating of the circuit.		Pass
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.4	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.4 and Annex U.		Pass
3.1.1	Permissible combinations of internal wiring/external		N/A

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	cable sizes for overcurrent and short circuit protection.	
3.1.1	All interconnecting cables protected against overcurrent and short circuit.	N/A
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.	Pass
3.2.1	Permitted use for flexible cords and plugs.	N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.	N/A
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.	N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).	N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing	N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply connection and earthing electrode connection.	N/A
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.	N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.	N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.	N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC,	N/A

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	Part 1.	
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm²) and not less than 152 mm in length for connection of field installed wiring.	N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.	N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.	N/A
3.2.5	Length of power supply cord limited to between 1.5 and 4.5 m unless shorter length used when intended for a special installation.	N/A
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.	N/A
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.	N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.	N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.	N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.	N/A
3.3	Field wiring terminals provided for interconnection of units for other then LPS or Class 2 circuits also comply with 3.3.	N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other than those specified in 3.3 if wiring is reliably separated.	N/A
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.	N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm²) or smaller conductor if provided with upturned lugs, cupped	N/A

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	washer or equivalent retention.	
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.	N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.	N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.	N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.	N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.	N/A
3.4.2	Separate motor control device(s) required for cord- connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.	N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".	N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.	N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.	N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.	N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.	N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.	N/A
4.3.12	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).	N/A
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.	N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.	N/A

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4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m³ of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m² or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.6	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.	See Test Record for details.	Pass
5.3.6	Tests interrupted by opening of a component repeated two additional times.		Pass
5.3.8.1	Test interrupted by opening of wire or trace subject to certain conditions.	No opening of wire or trace	N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.	_	N/A
6.2.1	Special requirements for enameled wiring used as electrical separation provided between parts		N/A

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	connected to telecommunication network and telecommunication circuitry intentionally isolated from network.	
6.2.1	Digital line termination equipment (e.g., NCTE) subject to separation requirements.	N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.	N/A
6.3	Overcurrent protection incorporated into equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.	N/A
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).	N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.	N/A
6.5	Acoustic pressure from an ear piece less than 136 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets, and 121 dBA for insert earphones, for long duration disturbances.	N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.	N/A
Н	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.	N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.	N/A
M.4	Special requirements for message waiting and similar telecommunications signals.	N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.	N/A
NAC	Equipment intended for use with a specific primary or secondary protector marked with suitable instructions.	N/A

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NAF	Household/Home Office Document Shredders	N/A
NAF.1.7	Markings and instructions alert the user to key safety considerations related to use of shredders, including not intended to be used by children, avoid touching document feed opening, avoid clothes and hair entanglement, and avoid aerosol products.	N/A
NAF.2.8.3	Safety interlock cannot be inadvertently activated by the articulated accessibility probe (figure NAF.1).	N/A
NAF.3.4	Provided with an isolating switch complying with 3.4.2, including 3 mm contact gap, with appropriate markings associated with the switch.	N/A
NAF.4.4	Hazardous moving parts are not accessible to the user, as determined using the articulated accessibility probe (figure NAF.1) and the accessibility probe/wedge (figures NAF.2/NAF.3).	N/A

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2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.	N/A	
2.7.1	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.	N/A	
3.2.1.1	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 1786: 1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations.  NOTE: "Standard plug" is defined in SI 1786: 1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.	N/A	
3.2.5.1	A power supply cord with conductor of 1.25 mm² is allowed for equipment with a rated current over 10A and up to and including 13A.	N/A	
3.3.4	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 mm² to 1.5 mm² nominal cross-sectional area.	N/A	
4.3.6	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/A	