CE TEST REPORT

(LVD)

Application No. CE2007CQC0904-002148

Report No. CE-002-07CQC0025L

Name of product: Cutting plotter

Model: SB-60

Trade Mark: --

Applicant: Great Computer (Kunshan) Co., Ltd.

CHINA QUALITY CERTIFICATION CENTER

Test Report issued under the responsibility of:

TEST REPORT

IEC 60950-1: 2005 (2nd Edition) and/or EN 60950-1:2006
Information technology equipment – Safety –
Part 1: General requirements

Report Reference No. ..... :	CE-002-07CQC0025L
Date of issue ..... :	Dec.12,2007
Total number of pages	48 pages
CB/CCA Testing Laboratory..... :	TIRT of CTIEP/IECEE-CB-LABORATORY
Address ..... :	Yi 7 Jiuxianqiaobei Road , Chaoyang District , Beijing , P. R. China
Applicant's name..... :	Great Computer (Kunshan) Co.,Ltd.
Address ..... :	No.1, Chen Feng Road, Yushan, Kunshan, Jiangsu.China
Manufacturer's name ..... :	Great Computer (Kunshan) Co.,Ltd.
Address ..... :	No.1, Chen Feng Road, Yushan, Kunshan, Jiangsu.China
Factory's name ..... :	Great Computer (Kunshan) Co.,Ltd.
Address ..... :	No.1, Chen Feng Road, Yushan, Kunshan, Jiangsu.China
Test specification:	
Standard..... :	☐ IEC 60950-1:2005 (2nd Edition) and/or ☒ EN 60950-1:2006
Test procedure ..... :	CB / CCA
Non-standard test method..... :	N/A
Test Report Form No. ..... :	IECEN60950_1C
Test Report Form(s) Originator..... :	SGS Fimko Ltd
Master TRF ..... :	Dated 2007-01

If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.
This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

If this Test Report Form is used by non-CCA members, the CIG logo and the reference to the CCA Procedure shall be removed.
This report is not valid as a CCA Test Report unless signed by an approved CCA Testing Laboratory and appended to a CCA Test Certificate issued by an NCB in accordance with CCA

Test item description .....:	**Cutting Plotter**
Trade Mark ..... :	/
Manufacturer ..... :	Great Computer (Kunshan) Co.,Ltd.
Model/Type reference ..... :	SB-60
Ratings ..... :	100-240VAC 50/60Hz MAX.1.2A

Testing procedure and testing location:	
☒ **CB/CCA Testing Laboratory**:	TIRT of CTIEP/IECEE-CB-LABORATORY
Testing location/ address.....:	Yi 7 Jiuxianqiaobei Road , Chaoyang District , Beijing , P. R. China
☐ **Associated CB Laboratory:**	
Testing location/ address.....:	
Tested by (name + signature).....:	Yan Shi
Approved by (+ signature) .....:	Gao Lingsong
☐ Testing procedure: TMP	
Tested by (name + signature).....:	
Approved by (+ signature) .....:	
Testing location/ address.....:	
☐ Testing procedure: WMT	
Tested by (name + signature).....:	
Witnessed by (+ signature).....:	
Approved by (+ signature) .....:	
Testing location/ address.....:	
☐ Testing procedure: SMT	
Tested by (name + signature).....:	
Approved by (+ signature) .....:	
Supervised by (+ signature).....:	
Testing location/ address.....:	
☐ Testing procedure: RMT	
Tested by (name + signature).....:	
Approved by (+ signature) .....:	
Supervised by (+ signature).....:	
Testing location/ address.....:	

Summary of testing:

Tests performed (name of test and test clause):

The sample tested complied with all the requirements of EN 60950-1:2006.

Testing location:

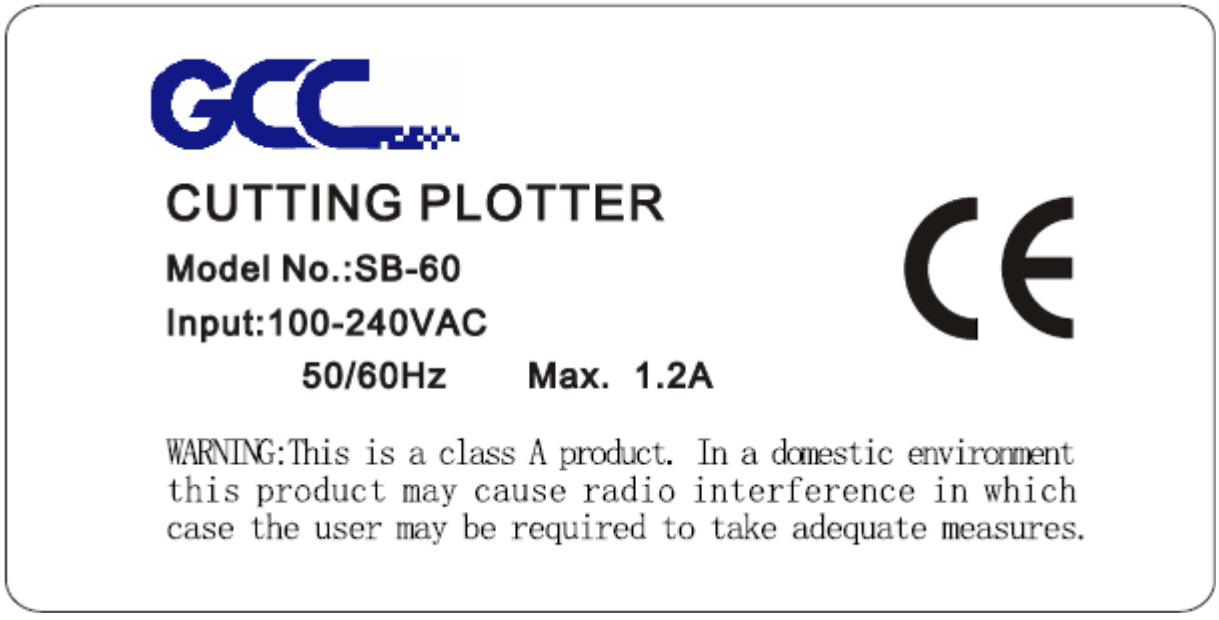
CBTL

Yi 7 Jiuxianqiaobei Road , Chaoyang District , Beijing , P. R. China

Summary of compliance with National Differences:

No

Copy of marking plate



Test item particulars ..... :	
Equipment mobility ..... :	[×] movable [] hand-held [] transportable [] stationary [] for building-in [] direct plug-in
Connection to the mains ..... :	[] pluggable equipment [] permanent connection [×] detachable power supply cord [] non-detachable power supply cord [] not directly connected to the mains
Operating condition ..... :	[×] continuous [] rated operating / resting time:
Over voltage category (OVC) ..... :	[] OVC I [×] OVC II [] OVC III [] OVC IV
Mains supply tolerance (%) ..... :	+6%, -10%
Tested for IT power systems ..... :	[] Yes [×] No
IT testing, phase-phase voltage (V) ..... :	N/A
Class of equipment ..... :	[×] Class I [] Class II [] Class III [] Not classified
Pollution degree (PD) ..... :	[] PD 1 [×] PD 2 [] PD 3
IP protection class ..... :	IPX0
Altitude during operation (m) ..... :	Below 2000m
Mass of equipment (kg) ..... :	10.5 kg
Possible test case verdicts:	
- test case does not apply to the test object ..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)
Testing ..... :	
Date of receipt of test item ..... :	Oct.19,2007
Date(s) of performance of tests ..... :	Oct.20,2007- Dec.12,2007

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.
"(See appended table)" refers to a table appended to the report.

Note: This TRF includes EN Group Differences together with National Differences and Special National Conditions, if any. All Differences are located in the Appendix to the main body of this TRF.

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

General product information:

1. Test report includes page 1 to 48. Figures 1 to 8 enclosed.
2. Mains supply tolerance(%):+6%, -10%.

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		P
1.5	Components		P
1.5.1	General		P
	Comply with IEC 60950 or relevant component standard	(see appended table 1.5.1)	P
1.5.2	Evaluation and testing of components	Components, which are certified to IEC and/or national standards, are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3	Thermal controls	No thermal control.	N
1.5.4	Transformers	Transformers used are suitable for their intended application and comply with the relevant requirements of the standard and particularly Annex C.	P
1.5.5	Interconnecting cables	Interconnection cables for signal output to other devices and signal input from accessories are carrying only SELV voltages on an energy level below 240VA. → Except for the insulation material, here are no further requirements to the interconnection cable.	P
1.5.6	Capacitors bridging insulation	Double insulation	P
1.5.7	Resistors bridging insulation	Such capacitors used in approval power supply unit	P
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		N
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N
1.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable		N
1.5.7.4	Accessible parts		P
1.5.8	Components in equipment for IT power systems		N
1.5.9	Surge suppressors		P
1.5.9.1	General		P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5.9.2	Protection of VDRs		P
1.5.9.3	Bridging of functional insulation by a VDR		P
1.5.9.4	Bridging of basic insulation by a VDR		N
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N
1.6	Power interface		P
1.6.1	AC power distribution systems	TN power distribution systems	P
1.6.2	Input current	Highest load according to 1.2.2.1 for this equipment is the operation with the max. specified load. Results see appended table. Deviation<10%(limited) (see appended table 1.6.2)	P
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N
1.6.4	Neutral conductor	The neutral is not identified in the equipment. Reinforced or double insulation for rated voltage between secondary parts and primary phase.	P
1.7	Marking and instructions		P
1.7.1	Power rating		P
	Rated voltage(s) or voltage range(s) (V) ..... :	AC100-240V	P
	Symbol for nature of supply, for d.c. only ..... :		N
	Rated frequency or rated frequency range (Hz) ... :	50/60Hz	P
	Rated current (mA or A) ..... :	Max 1.2A	P
	Manufacturer's name or trade-mark or identification mark ..... :	Great Computer (Kunshan) Co.,Ltd.	P
	Model identification or type reference ..... :	SB-60	P
	Symbol for Class II equipment only ..... :		N
	Other markings and symbols ..... :		N
1.7.2	Safety instructions and marking	See User's manual.	P
1.7.2.1	General		P
1.7.2.2	Disconnect devices	All-pole mains switch and appliance couplers are disconnect devices.	N
1.7.2.3	Overcurrent protective device		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7.2.4	IT power distribution systems		N
1.7.2.5	Operator access with a tool		N
1.2.7.6	Ozone		N
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N
1.7.4	Supply voltage adjustment ..... :	No voltage adjustment.	N
	Methods and means of adjustment; reference to installation instructions ..... :	Ditto.	N
1.7.5	Power outlets on the equipment ..... :	No standard power supply outlet	N
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	Power Supply is approved by CCC, and complies with IEC60950.	P
1.7.7	Wiring terminals		P
1.7.7.1	Protective earthing and bonding terminals ..... :	⏚	P
1.7.7.2	Terminals for a.c. mains supply conductors		N
1.7.7.3	Terminals for d.c. mains supply conductors		N
1.7.8	Controls and indicators	See below.	P
1.7.8.1	Identification, location and marking ..... :	The marking and indication of the power switch or functional switch is located that indication of function clearly.	P
1.7.8.2	Colours ..... :	No safety relevant controls or indicators.	N
1.7.8.3	Symbols according to IEC 60417 ..... :	The switch on front bezel with symbol according to IEC60417, No. 5007"⏽" and No. 5008"○"	P
1.7.8.4	Markings using figures ..... :	No indicators for different positions.	N
1.7.9	Isolation of multiple power sources ..... :		N
1.7.10	Thermostats and other regulating devices ..... :		N
1.7.11	Durability	After this test there was no damage to the label. The marking on the label did not fade. There was neither curling nor lifting of the label edge.	P
1.7.12	Removable parts	No removable parts.	N
1.7.13	Replaceable batteries ..... :		N
	Language(s) ..... :		—
1.7.14	Equipment for restricted access locations ..... :		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2	PROTECTION FROM HAZARDS		P
2.1	Protection from electric shock and energy hazards		P
2.1.1	Protection in operator access areas	See below.	P
2.1.1.1	Access to energized parts	No access with test finger and test pin to any parts with only basic insulation to ELV or hazardous voltage. Any hazardous parts accessible are unlikely.	P
	Test by inspection .....:	Ditto.	P
	Test with test finger (Figure 2A) .....:	Ditto.	P
	Test with test pin (Figure 2B) .....:	Ditto.	P
	Test with test probe (Figure 2C) .....:	No TNV circuits.	N
2.1.1.2	Battery compartments	No battery compartment.	N
2.1.1.3	Access to ELV wiring	No ELV wiring in operator accessible area.	N
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)		—
2.1.1.4	Access to hazardous voltage circuit wiring	No hazardous voltage wiring in operator accessible area.	N
2.1.1.5	Energy hazards .....:	No Energy hazards	P
2.1.1.6	Manual controls	No conductive shafts of operating knobs and handles.	N
2.1.1.7	Discharge of capacitors in equipment	The time constant is less than a second.	P
	Measured voltage (V); time-constant (s) .....:	After 1sec, 0V.	—
2.1.1.8	Energy hazards – d.c. mains supply	No d.c. mains supply	N
	a) Capacitor connected to the d.c. mains supply ..:	Ditto.	N
	b) Internal battery connected to the d.c. mains supply .....:	Ditto.	N
2.1.1.9	Audio amplifiers .....:	No audio amplifiers	N
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N
2.1.3	Protection in restricted access locations	No maintenance work in operation mode necessary.	N
2.2	SELV circuits		P
2.2.1	General requirements	See below.	P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2.2	Voltages under normal conditions (V) .....:	Between any conductor of the SELV circuits 42.4V peak or 60Vd.c. are not exceeded.	P
2.2.3	Voltages under fault conditions (V) .....:	Single fault did not cause excessive voltage in accessible SELV circuits.	P
2.2.4	Connection of SELV circuits to other circuits .....:	No direct connection between SELV and any primary circuits.	P
2.3	TNV circuits		N
2.3.1	Limits	No TNV circuits	N
	Type of TNV circuits .....:		—
2.3.2	Separation from other circuits and from accessible parts		N
2.3.2.1	General requirements		N
2.3.2.2	Protection by basic insulation		N
2.3.2.3	Protection by earthing		N
2.3.2.4	Protection by other constructions .....:		N
2.3.3	Separation from hazardous voltages		N
	Insulation employed.....:		—
2.3.4	Connection of TNV circuits to other circuits		N
	Insulation employed.....:		—
2.3.5	Test for operating voltages generated externally		N
2.4	Limited current circuits		N
2.4.1	General requirements	No limited current circuits	N
2.4.2	Limit values		N
	Frequency (Hz).....:		—
	Measured current (mA) .....:		—
	Measured voltage (V) .....:		—
	Measured circuit capacitance (nF or µF).....:		—
2.4.3	Connection of limited current circuits to other circuits		N
2.5	Limited power sources		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	a) Inherently limited output	Power Supply is approved by CCC, and complies with IEC60950.	N
	b) Impedance limited output		N
	c) Regulating network limited output under normal operating and single fault condition		N
	d) Overcurrent protective device limited output		N
	Max. output voltage (V), max. output current (A), max. apparent power (VA) .....:		—
	Current rating of overcurrent protective device (A)		—
2.6	Provisions for earthing and bonding		P
2.6.1	Protective earthing		P
2.6.2	Functional earthing		P
2.6.3	Protective earthing and protective bonding conductors		P
2.6.3.1	General		P
2.6.3.2	Size of protective earthing conductors		P
	Rated current (A), cross-sectional area (mm^2), AWG .....:	1.0 mm^2	—
2.6.3.3	Size of protective bonding conductors		P
	Rated current (A), cross-sectional area (mm^2), AWG .....:	1.0 mm^2	—
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (Ω), voltage drop (V), test current (A), duration (min) .....:	0.055Ω, 32A, 2min	P
2.6.3.5	Colour of insulation.....:	Green-and-yellow	P
2.6.4	Terminals		P
2.6.4.1	General		P
2.6.4.2	Protective earthing and bonding terminals		P
	Rated current (A), type, nominal thread diameter (mm) .....:	<3A, studs and screws type, 3mm	—
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Protective earthing conductor is in appliance inlet	P
2.6.5	Integrity of protective earthing	See below	P
2.6.5.1	Interconnection of equipment	Not Interconnection of equipment	N
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or overcurrent protective device in protective earting conductors and protective bonding conductors	P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.3	Disconnection of protective earth	Appliance inlet provided	P
2.6.5.4	Parts that can be removed by an operator	Plug or inlet, earthing connected before and disconnected after hazardous voltage. No other operator removable parts.	P
2.6.5.5	Parts removed during servicing	It is not necessary to disconnect earthing except for the removing of the earthed part itself.	P
2.6.5.6	Corrosion resistance	All safety earthing connections in compliance with Annex J.	P
2.6.5.7	Screws for protective bonding		P
2.6.5.8	Reliance on telecommunication network or cable distribution system	No protective earthing rely on TNV.	N
2.7	Overcurrent and earth fault protection in primary circuits		P
2.7.1	Basic requirements	Equipment relies on 16A rated fuse or circuit breaker of the wall outlet installation protection of the building installation in regard to L to N short circuit. Overcurrent protection is provided by the built-in device fuse.	P
	Instructions when protection relies on building installation		N
2.7.2	Faults not simulated in 5.3.7	The protection device is well dimensioned and mounted.	P
2.7.3	Short-circuit backup protection	Pluggable equipment type A. The building installation is considered as providing short-circuit backup protection.	P
2.7.4	Number and location of protective devices ..... :	Over current protection by one built-in fuse.	P
2.7.5	Protection by several devices	Only one fuse provided for mains.	N
2.7.6	Warning to service personnel..... :	No marking were requested.	N
2.8	Safety interlocks		N
2.8.1	General principles	No safety interlocks	N
2.8.2	Protection requirements		N
2.8.3	Inadvertent reactivation		N
2.8.4	Fail-safe operation		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.8.5	Moving parts		N
2.8.6	Overriding		N
2.8.7	Switches and relays		N
2.8.7.1	Contact gaps (mm) .....:		N
2.8.7.2	Overload test		N
2.8.7.3	Endurance test		N
2.8.7.4	Electric strength test	(see appended table 5.2)	N
2.8.8	Mechanical actuators		N
2.9	Electrical insulation		P
2.9.1	Properties of insulating materials	No hygroscopic materials used	P
2.9.2	Humidity conditioning		P
	Relative humidity (%), temperature (℃) ..... :	93% 25℃ 48h	—
2.9.3	Grade of insulation		P
2.9.4	Separation from hazardous voltages		P
	Method(s) used ..... :	Method 1 and Method 3	—
2.10	Clearances, creepage distances and distances through insulation		P
2.10.1	General	Approval power supply unit used.	P
2.10.1.1	Frequency .....:	<30kHz	P
2.10.1.2	Pollution degrees .....:	Pollution 2	P
2.10.1.3	Reduced values for functional insualtion		N
2.10.1.4	Intervening unconnected conductive parts		N
2.10.1.5	Insulation with varying dimensions		N
2.10.1.6	Special separation requirements		N
2.10.1.7	Insulation in circuits generating starting pulses		N
2.10.2	Determination of working voltage		P
2.10.2.1	General		P
2.10.2.2	RMS working voltage		P
2.10.2.3	Peak working voltage		P
2.10.3	Clearances		P
2.10.3.1	General		P
2.10.3.2	Mains transient voltages		P
	a) AC mains supply .....:		P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	b) Earthed d.c. mains supplies .....:		N
	c) Unearthed d.c. mains supplies .....:		N
	d) Battery operation .....:		N
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4)	P
2.10.3.4	Clearances in secondary circuits		N
2.10.3.5	Clearances in circuits having starting pulses		N
2.10.3.6	Transients from a.c. mains supply .....:		N
2.10.3.7	Transients from d.c. mains supply .....:		N
2.10.3.8	Transients from telecommunication networks and cable distribution systems .....:		N
2.10.3.9	Measurement of transient voltage levels		N
	a) Transients from a mains suplply		N
	For an a.c. mains supply .....:		N
	For a d.c. mains supply .....:		N
	b) Transients from a telecommunication network :		N
2.10.4	Creepage distances		P
2.10.4.1	General		
2.10.4.2	Material group and caomparative tracking index		
	CTI tests .....:	Material group IIIb is assumed to be used	—
2.10.4.3	Minimum creepage distances	(see appended table 2.10.3 and 2.10.4)	P
2.10.5	Solid insulation		P
2.10.5.1	General		P
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	P
2.10.5.3	Insulating compound as solid insulation		N
2.10.5.4	Semiconductor devices		P
2.10.5.5.	Cemented joints		N
2.10.5.6	Thin sheet material – General		N
2.10.5.7	Separable thin sheet material		N
	Number of layers (pcs) .....:		—
2.10.5.8	Non-separable thin sheet material		N
2.10.5.9	Thin sheet material – standard test procedure		N
	Electric strength test		—
2.10.5.10	Thin sheet material – alternative test procedure		N
	Electric strength test		—

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.5.11	Insulation in wound components		P
2.10.5.12	Wire in wound components		P
	Working voltage .....:	<250V	P
	a) Basic insulation not under stress .....:		N
	b) Basic, supplemetary, reinforced insulation .....:	(see appended table 2.10.5)	P
	c) Compliance with Annex U .....:		N
	Two wires in contact inside wound component; angle between 45° and 90° .....:		N
2.10.5.13	Wire with solvent-based enamel in wound components		N
	Electric strength test		—
	Routine test		N
2.10.5.14	Additional insulation in wound components		N
	Working voltage .....:		N
	- Basic insulation not under stress .....:		N
	- Supplemetary, reinforced insulation .....:		N
2.10.6	Construction of printed boards		P
2.10.6.1	Uncoated printed boards	(see appended table 2.10.3 and 2.10.4)	P
2.10.6.2	Coated printed boards		N
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N
2.10.6.4	Insulation between conductors on different layers of a printed board		N
	Distance through insulation		N
	Number of insulation layers (pcs).....:		N
2.10.7	Component external terminations		N
2.10.8	Tests on coated printed boards and coated components		N
2.10.8.1	Sample preparation and preliminary inspection		N
2.10.8.2	Thermal conditioning		N
2.10.8.3	Electric strength test		N
2.10.8.4	Abrasion resistance test		N
2.10.9	Thermal cycling		N
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N
2.10.11	Tests for semiconductor devices and cemented joints		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.12	Enclosed and sealed parts		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3	WIRING, CONNECTIONS AND SUPPLY		P
3.1	General		P
3.1.1	Current rating and overcurrent protection	All internal wires are UL recognized wiring which is PVC insulated, rated VW-1, minimum 80℃. Internal wiring gauge is suitable for current intended to be carried. No internal wire for primary power distribution.	P
3.1.2	Protection against mechanical damage	Wires do not touch sharp edges, which could damage the insulation.	P
3.1.3	Securing of internal wiring	Internal wires are secured by solder pins so that a loosening of the terminal connection is unlikely.	P
3.1.4	Insulation of conductors	The insulation of the individual conductors is suitable for the application and the working voltage. For the insulation material see 3.1.1.	P
3.1.5	Beads and ceramic insulators	Not used.	N
3.1.6	Screws for electrical contact pressure		P
3.1.7	Insulating materials in electrical connections	All connections are metal to metal.	N
3.1.8	Self-tapping and spaced thread screws	No self-tapping screws are used.	N
3.1.9	Termination of conductors	All conductors are reliably secured by use of solder-pins or glue or other mechanical fixing means.	P
	10 N pull test	Complied.	P
3.1.10	Sleeving on wiring		P
3.2	Connection to a mains supply		P
3.2.1	Means of connection	See below.	P
3.2.1.1	Connection to an a.c. mains supply	Appliance inlet used	P
3.2.1.2	Connection to a d.c. mains supply	No d.c. mains supply.	N
3.2.2	Multiple supply connections	Only one supply connection.	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.3	Permanently connected equipment	The unit is not permanently connected equipment.	N
	Number of conductors, diameter of cable and conduits (mm) ..... :	Ditto.	—
3.2.4	Appliance inlets	The appliance inlet complies with IEC/EN 60320-1. The power cord can be inserted without difficulties and does not support the unit.	P
3.2.5	Power supply cords		P
3.2.5.1	AC power supply cords		P
	Type ..... :	PVC	—
	Rated current (A), cross-sectional area (mm^2), AWG ..... :	10A, 3G1.0 mm^2	—
3.2.5.2	DC power supply cords	No d.c. power supply.	N
3.2.6	Cord anchorages and strain relief	Appliance inlet used.	N
	Mass of equipment (kg), pull (N) ..... :		—
	Longitudinal displacement (mm) ..... :		—
3.2.7	Protection against mechanical damage	No parts under this unit likely to damage the power supply cord. No sharp edge.	P
3.2.8	Cord guards	Appliance inlet used.	N
	Diameter or minor dimension D (mm); test mass (g) ..... :		—
	Radius of curvature of cord (mm) ..... :		—
3.2.9	Supply wiring space	Appliance inlet used.	N

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

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.3.8	Stranded wire		N
3.4	Disconnection from the mains supply		P
3.4.1	General requirement	Disconnect device provided.	P
3.4.2	Disconnect devices	All-pole mains switch and appliance couplers	P
3.4.3	Permanently connected equipment		N
3.4.4	Parts which remain energized		N
3.4.5	Switches in flexible cords	No switch in flexible cords	P
3.4.6	Number of poles - single-phase and d.c. equipment	The disconnect device disconnects both poles simultaneously.	P
3.4.7	Number of poles - three-phase equipment	Single-phase equipment.	N
3.4.8	Switches as disconnect devices	ON : ”｜”, OFF: ”○”	P
3.4.9	Plugs as disconnect devices	Appliance inlet provided.	N
3.4.10	Interconnected equipment	Interconnection to other devices by secondary output cables only.	N
3.4.11	Multiple power sources	Only one supply connection provided.	N
3.5	Interconnection of equipment		P
3.5.1	General requirements	This equipment is not considered for connection to TNV.	P
3.5.2	Types of interconnection circuits ..... :	Interconnection circuits of SELV and Limited Current Circuit through sec o/p cable.	P
3.5.3	ELV circuits as interconnection circuits		N
3.5.4	Data ports for additional equipment		N
4	PHYSICAL REQUIREMENTS		P
4.1	Stability		P
	Angle of 10°		P
	Test force (N) ..... :		N
4.2	Mechanical strength		P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.1	General	See below. After tests, unit complies with 2.1.1, 2.6.1 and 2.10.	P
4.2.2	Steady force test, 10 N	10N applied to components other than parts serving as an enclosure.	P
4.2.3	Steady force test, 30 N	30N applied to covers	P
4.2.4	Steady force test, 250 N	250N applied to metal enclosure. No energy or other hazards.	P
4.2.5	Impact test		P
	Fall test		P
	Swing test		P
4.2.6	Drop test; height (mm) ..... :		N
4.2.7	Stress relief test	70℃ 7h	P
4.2.8	Cathode ray tubes	No cathode ray tube.	N
	Picture tube separately certified ..... :	(see separate test report or attached certificate)	N
4.2.9	High pressure lamps	No high-pressure lamps provided.	N
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	Not wall or ceiling mounted equipment.	N
4.3	Design and construction		P
4.3.1	Edges and corners	Edges and corners of the enclosure are rounded and smooth	P
4.3.2	Handles and manual controls; force (N) .....:	No handles and manual controls	N
4.3.3	Adjustable controls	No control device.	N
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to with standard usual mechanical stress. For the protection, solder pins, cable ties and heatshrunk tubing are used.	P
4.3.5	Connection by plugs and sockets	No mismatch of connectors, plugs or sockets possible.	P
4.3.6	Direct plug-in equipment		N
	Torque ..... :		—

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Compliance with the relevant mains plug standard ..... :		N
4.3.7	Heating elements in earthed equipment	No heating elements	N
4.3.8	Batteries	No batteries provided.	N
	- Overcharging of a rechargeable battery		N
	- Unintentional charging of a non-rechargeable battery		N
	- Reverse charging of a rechargeable battery		N
	- Excessive discharging rate for any battery		N
4.3.9	Oil and grease	Insulation in intended use not considered to be exposed to oil or grease.	N
4.3.10	Dust, powders, liquids and gases	None used or generated.	N
4.3.11	Containers for liquids or gases	No container for liquid or gas.	N
4.3.12	Flammable liquids ..... :	No flammable liquids	N
	Quantity of liquid (l) ..... :	Ditto	N
	Flash point (°C) ..... :	Ditto	N
4.3.13	Radiation	No radiation	N
4.3.13.1	General	No laser	N
4.3.13.2	Ionizing radiation	No ionizing radiation.	N
	Measured radiation (pA/kg) ..... :		—
	Measured high-voltage (kV) ..... :		—
	Measured focus voltage (kV) ..... :		—
	CRT markings ..... :		—
4.3.13.3	Effect of ultraviolet (UV) radiation on materials	No UV radiation.	N
	Part, property, retention after test, flammability classification ..... :	Ditto.	N
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :	No UV radiation.	N
4.3.13.5	Laser (including LEDs)	(See separate test report of IEC/EN 60825-1/ IEC/EN 60825-2)	N
	Laser class ..... :	Ditto.	—
4.3.13.6	Other types ..... :	See clause 4.3.13	N
4.4	Protection against hazardous moving parts		N
4.4.1	General	No moving parts.	N
4.4.2	Protection in operator access areas ..... :	No moving parts.	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.4.3	Protection in restricted access locations ..... :	The equipment is not intended to be used in restricted locations.	N
4.4.4	Protection in service access areas	No moving parts.	N
4.5	Thermal requirements		P
4.5.1	General	See appended table 4.5	P
4.5.2	Temperature tests		P
	Normal load condition per Annex L ..... :	Maximum normal load which specified by manufacturer.	—
4.5.3	Temperature limits for materials	(see appended table 4.5)	P
4.5.4	Touch temperature limits	(see appended table 4.5)	P
4.5.5	Resistance to abnormal heat ..... :	(see appended table 4.5.5)	N
4.6	Openings in enclosures		P
4.6.1	Top and side openings		P
	Dimensions (mm) ..... :	No opening within 5° projection from bare parts at hazardous voltage or energy hazard	—
4.6.2	Bottoms of fire enclosures	There is no opening at Bottoms enclosure.	N
	Construction of the bottomm, dimensions (mm) .. :		—
4.6.3	Doors or covers in fire enclosures		N
4.6.4	Openings in transportable equipment	Not transportable equipment.	N
4.6.4.1	Constructional design measures		N
	Dimensions (mm) ..... :		—
4.6.4.2	Evaluation measures for larger openings		N
4.6.4.3	Use of metallized parts		N
4.6.5	Adhesives for constructional purposes		N
	Conditioning temperature (°C), time (weeks) ..... :		—
4.7	Resistance to fire		P
4.7.1	Reducing the risk of ignition and spread of flame	Use of materials with the required flammability classes.(Method 1 used)	P
	Method 1, selection and application of components wiring and materials	Use of materials with the required flammability classes. (see appended table 4.7)	P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Method 2, application of all of simulated fault condition tests	(see appended table 5.3)	N
4.7.2	Conditions for a fire enclosure		P
4.7.2.1	Parts requiring a fire enclosure	With having the following components: - components in primary - components in secondary (not supplied by LPS) - components having unenclosed arcing parts at hazardous voltages or energy level - insulated wiring The fire enclosure is required	P
4.7.2.2	Parts not requiring a fire enclosure	See 4.7.2.1	N
4.7.3	Materials		P
4.7.3.1	General	Integrated circuits and small electrical parts mounted on a printed wiring board min. rated V-1 or better.	P
4.7.3.2	Materials for fire enclosures	See Annex A2	P
4.7.3.3	Materials for components and other parts outside fire enclosures	No components or parts outside fire enclosures.	N
4.7.3.4	Materials for components and other parts inside fire enclosures	Internal components except small parts are rated V-2, HF-2 or better.	P
4.7.3.5	Materials for air filter assemblies	No air filters provided.	N
4.7.3.6	Materials used in high-voltage components	No high voltage components provided.	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		**P**
5.1	Touch current and protective conductor current		P
5.1.1	General		P
5.1.2	Configuration of equipment under test (EUT)	EUT has only one mains connection.	P
5.1.2.1	Single connection to an a.c. mains supply		P
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N
5.1.3	Test circuit	Figure 5A	P
5.1.4	Application of measuring instrument	Tests are conducted using one of the measuring instruments in annex D, or any other circuit giving the same results.	P
5.1.5	Test procedure	The touch current was measured from supply to conductive parts (DC output connector) and to 10cm by 20cm metal foil wrapped on accessible non- conductive parts (plastic enclosure).	P
5.1.6	Test measurements		P
	Supply voltage (V) ..... :	264	—
	Measured touch current (mA) ..... :	0.180	—
	Max. allowed touch current (mA) ..... :	0.25	—
	Measured protective conductor current (mA) ..... :	0.555	—
	Max. allowed protective conductor current (mA) .. :	3.5	—
5.1.7	Equipment with touch current exceeding 3,5 mA	Neither stationary permanently connected equipment nor stationary pluggable equipment type B.	N
5.1.7.1	General ..... :		N
5.1.7.2	Simultaneous multiple connections to the supply		N
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No TNV.	N
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	Not connected to telecommunication	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Supply voltage (V) ..... :		—
	Measured touch current (mA) ..... :		—
	Max. allowed touch current (mA) ..... :		—
5.1.8.2	Summation of touch currents from telecommunication networks	No TNV.	N
	a) EUT with earthed telecommunication ports ..... :		N
	b) EUT whose telecommunication ports have no reference to protective earth		N
5.2	Electric strength		P
5.2.1	General	(see appended table 5.2)	P
5.2.2	Test procedure	(see appended table 5.2)	P
5.3	Abnormal operating and fault conditions		P
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	(see appended Annex B)	N
5.3.3	Transformers	(see appended Annex C)	P
5.3.4	Functional insulation ..... :	(see appended table 5.2)	P
5.3.5	Electromechanical components		N
5.3.6	Audio amplifiers in ITE ..... :	See separate test report IEC/EN 60065	N
5.3.7	Simulation of faults	(see appended table 5.3)	P
5.3.8	Unattended equipment		N
5.3.9	Compliance criteria for abnormal operating and fault conditions	(see appended table 5.3)	P
5.3.9.1	During the tests	(see appended table 5.3)	P
5.3.9.2	After the tests	(see appended table 5.3)	P

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6	CONNECTION TO TELECOMMUNICATION NETWORKS		N
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N
6.1.1	Protection from hazardous voltages		N
6.1.2	Separation of the telecommunication network from earth		N
6.1.2.1	Requirements	(see appended table 5.2)	N
	Supply voltage (V) ..... :		—
	Current in the test circuit (mA) ..... :		—
6.1.2.2	Exclusions ..... :		N
6.2	Protection of equipment users from overvoltages on telecommunication networks		N
6.2.1	Separation requirements		N
6.2.2	Electric strength test procedure		N
6.2.2.1	Impulse test	(see appended table 5.2)	N
6.2.2.2	Steady-state test	(see appended table 5.2)	N
6.2.2.3	Compliance criteria		N
6.3	Protection of the telecommunication wiring system from overheating		N
	Max. output current (A) ..... :		—
	Current limiting method ..... :		—

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

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N
7.1	General		N
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N
7.3	Protection of equipment users from overvoltages on the cable distribution system		N
7.4	Insulation between primary circuits and cable distribution systems		N
7.4.1	General		N
7.4.2	Voltage surge test	(see appended table 5.2)	N
7.4.3	Impulse test	(see appended table 5.2)	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		P
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N
A.1.1	Samples ..... :		—
	Wall thickness (mm)..... :		—
A.1.2	Conditioning of samples; temperature (°C) ..... :		N
A.1.3	Mounting of samples ..... :		N
A.1.4	Test flame (see IEC 60695-11-3)		N
	Flame A, B, C or D ..... :		—
A.1.5	Test procedure		N
A.1.6	Compliance criteria		N
	Sample 1 burning time (s)..... :		—
	Sample 2 burning time (s)..... :		—
	Sample 3 burning time (s)..... :		—
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		P
A.2.1	Samples, material ..... :	Enclosure	—
	Wall thickness (mm)..... :	3.6	—
A.2.2	Conditioning of samples; temperature (℃) ..... :	70°C 7d	P
A.2.3	Mounting of samples ..... :	Horizontal	P
A.2.4	Test flame (see IEC 60695-11-4)		P
	Flame A, B or C ..... :	A	—
A.2.5	Test procedure		P
A.2.6	Compliance criteria		P
	Sample 1 burning time (s)..... :	31	—
	Sample 2 burning time (s)..... :	31	—
	Sample 3 burning time (s)..... :	31	—
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N
	Sample 1 burning time (s)..... :		—
	Sample 2 burning time (s)..... :		—
	Sample 3 burning time (s)..... :		—
A.3	Hot flaming oil test (see 4.6.2)		N
A.3.1	Mounting of samples		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A.3.2	Test procedure		N
A.3.3	Compliance criterion		N
B	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)		N
B.1	General requirements		P
	Position ..... :	DC Motor	—
	Manufacturer ..... :	(see appended table 1.5.1)	—
	Type ..... :	(see appended table 1.5.1)	—
	Rated values ..... :	(see appended table 1.5.1)	—
B.2	Test conditions		P
B.3	Maximum temperatures	(see appended table 5.3)	P
B.4	Running overload test		N
B.5	Locked-rotor overload test		N
	Test duration (days) ..... :		—
	Electric strength test: test voltage (V) ..... :		—
B.6	Running overload test for d.c. motors in secondary circuits		N
B.6.1	General		N
B.6.2	Test procedure		N
B.6.3	Alternative test procedure		N
B.6.4	Electric strength test; test voltage (V) ..... :		N
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		P
B.7.1	General		P
B.7.2	Test procedure	(see appended table 5.3)	P
B.7.3	Alternative test procedure		N
B.7.4	Electric strength test; test voltage (V) ..... :		N
B.8	Test for motors with capacitors		N
B.9	Test for three-phase motors		N
B.10	Test for series motors		N
	Operating voltage (V) ..... :		—
C	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)		P
	Position ..... :	(see appended table 1.5.1)	—
	Manufacturer ..... :	(see appended table 1.5.1)	—

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Type ..... :	(see appended table 1.5.1)	—
	Rated values ..... :	(see appended table 1.5.1)	—
	Method of protection ..... :	By protection circuit.	—
C.1	Overload test		N
C.2	Insulation		N
	Protection from displacement of windings ..... :		N
D	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)		P
D.1	Measuring instrument	Considered	P
D.2	Alternative measuring instrument		N
E	ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)		N
F	ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)		P
G	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N
G.1	Clearances		N
G.1.1	General		N
G.1.2	Summary of the procedure for determining minimum clearances		N
G.2	Determination of mains transient voltage (V)		N
G.2.1	AC mains supply ..... :		N
G.2.2	Earthed d.c. mains supplies ..... :		N
G.2.3	Unearthed d.c. mains supplies ..... :		N
G.2.4	Battery operation ..... :		N
G.3	Determination of telecommunication network transient voltage (V) ..... :		N
G.4	Determination of required withstand voltage (V)		N
G.4.1	Mains transients and internal repetitive peaks .... :		N
G.4.2	Transients from telecommunication networks ..... :		N
G.4.3	Combination of transients		N
G.4.4	Transients from cable distribution systems		N
G.5	Measurement of transient voltages (V)		N
	a) Transients from a mains supply		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	For an a.c. mains supply		N
	For a d.c. mains supply		N
	b) Transients from a telecommunication network		N
G.6	Determination of minimum clearances ..... :		N
H	ANNEX H, IONIZING RADIATION (see 4.3.13)		N
J	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)		P
	Metal(s) used ..... :	Complied	—
K	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)		N
K.1	Making and breaking capacity		N
K.2	Thermostat reliability; operating voltage (V) ..... :		N
K.3	Thermostat endurance test; operating voltage (V) ..... :		N
K.4	Temperature limiter endurance; operating voltage (V) ..... :		N
K.5	Thermal cut-out reliability		N
K.6	Stability of operation		N
L	ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)		P
L.1	Typewriters		N
L.2	Adding machines and cash registers		N
L.3	Erasers		N
L.4	Pencil sharpeners		N
L.5	Duplicators and copy machines		N
L.6	Motor-operated files		N
L.7	Other business equipment	See 1.6.2	P
M	ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)		N
M.1	Introduction		N
M.2	Method A		N
M.3	Method B		N
M.3.1	Ringing signal		N
M.3.1.1	Frequency (Hz) ..... :		—

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N
M.3.2.2	Tripping device		N
M.3.2.3	Monitoring voltage (V) ..... :		N
N	ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)		N
N.1	ITU-T impulse test generators		N
N.2	IEC 60065 impulse test generator		N
P	ANNEX P, NORMATIVE REFERENCES		—
Q	ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)		N
	a) Preferred climatic categories ..... :		N
	b) Maximum continuous voltage ..... :		N
	c) Pulse current ..... :		N
R	ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		N
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N
R.2	Reduced clearances (see 2.10.3)		N
S	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)		N
S.1	Test equipment		N
S.2	Test procedure		N
S.3	Examples of waveforms during impulse testing		N
T	ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N
			—

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
U	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N
			—
V	ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)		N
V.1	Introduction		N
V.2	TN power distribution systems		N
W	ANNEX W, SUMMATION OF TOUCH CURRENTS		N
W.1	Touch current from electronic circuits		N
W.1.1	Floating circuits		N
W.1.2	Earthed circuits		N
W.2	Interconnection of several equipments		N
W.2.1	Isolation		N
W.2.2	Common return, isolated from earth		N
W.2.3	Common return, connected to protective earth		N
X	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)		N
X.1	Determination of maximum input current		N
X.2	Overload test procedure		N
Y	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)		N
Y.1	Test apparatus ..... :		N
Y.2	Mounting of test samples ..... :		N
Y.3	Carbon-arc light-exposure apparatus ..... :		N
Y.4	Xenon-arc light exposure apparatus ..... :		N
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)		N
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N
BB	ANNEX BB, CHANGES IN THE SECOND EDITION		—

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

EN 60950-1:2006 – CENELEC COMMON MODIFICATIONS		
Contents	Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations	N
General	Delete all the “country” notes in the reference document according to the following list: 1.4.8 Note 2; 1.5.1 Note 2 & 3; 1.5.7.1 Note 1.5.8 Note 2; 1.5.9.4 Note; 1.7.2.1 Note 4, 5 & 6 2.2.3 Note; 2.2.4 Note; 2.3.2 Note 2.3.2.1 Note 2; 2.3.4 Note 2; 2.6.3.3 Note 2 & 3 2.7.1 Note; 2.10.3.2 Note 2; 2.10.5.13 Note 3 3.2.1.1 Note; 3.2.4 Note 3.; 2.5.1 Note 2 4.3.6 Note 1 & 2; 4.7 Note 4; 4.7.2.2 Note 4.7.3.1 Note 2; 5.1.7.1 Note 3 & 4; 5.3.7 Note 1 6 Note 2 & 5; 6.1.2.1 Note 2; 6.1.2.2 Note 6.2.2 Note 6.; 2.2.1 Note 2; 6.2.2.2 Note 7.1 Note 3; 7.2 Note; 7.3 Note 1 & 2 G.2.1 Note 2; Annex H Note 2	N
1.3.Z1	Add the following subclause: 1.3.Z1 Exposure to excessive sound pressure The apparatus shall be so designed and constructed as to present no danger when used for its intended purpose, either in normal operating conditions or under fault conditions, particularly providing protection against exposure to excessive sound pressures from headphones or earphones. NOTE Z1 A new method of measurement is described in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 1: General method for “one package equipment”, and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable audio equipment - Maximum sound pressure level measurement methodology and limit considerations - Part 2: Guidelines to associate sets with headphones coming from different manufacturers.	N
1.5.1	Add the following NOTE: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC	N
1.7.2.1	Add the following NOTE: NOTE Z1 In addition, the instructions shall include, as far as applicable, a warning that excessive sound pressure from earphones and headphones can cause hearing loss	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.7.1	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
2.7.2	This subclause has been declared 'void'.		N
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.		N
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2". In Table 3B, replace the first four lines by the following: | Up to and including 6 | | 0,75 [a)] | | Over 6 up to and including 10 | (0,75) [b)] 1,0 | | Over 10 up to and including 16 | (1,0) [c)] 1,5 | In the conditions applicable to Table 3B delete the words "in some countries" in condition [a)]. In NOTE 1, applicable to Table 3B, delete the second sentence.		N
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 4 | Delete the fifth line: conductor sizes for 13 to 16 A.		N
4.3.13.6	Add the following NOTE: NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz. Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
Annex H	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
Biblio-graphy	Additional EN standards.		—
ZA	NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS		—
ZB	SPECIAL NATIONAL CONDITIONS		N
1.2.4.1	In **Denmark**, certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.		N
1.5.7.1	In **Finland**, **Norway** and **Sweden**, resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2.		N
1.5.8	In **Norway**, due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).		N
1.5.9.4	In **Finland**, **Norway** and **Sweden**, the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.		N
1.7.2.1	In **Finland**, **Norway** and **Sweden**, CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text in the applicable countries shall be as follows: In Finland: "Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan" In Norway: “Apparatet må tilkoples jordet stikkontakt” In Sweden: “Apparaten skall anslutas till jordat uttag”		N
1.7.5	In **Denmark**, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For STATIONARY EQUIPMENT the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.		N
2.2.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.		N
2.3.2	In **Finland**, **Norway** and **Sweden** there are additional requirements for the insulation. See 6.1.2.1 and 6.1.2.2 of this annex.		N

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

2.3.4	In **Norway**, for requirements see 1.7.2.1, 6.1.2.1 and 6.1.2.2 of this annex.	N
2.6.3.3	In the **United Kingdom**, the current rating of the circuit shall be taken as 13 A, not 16 A.	N
2.7.1	In the **United Kingdom**, to protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.	N
2.10.5.13	In **Finland**, **Norway** and **Sweden**, there are additional requirements for the insulation, see 6.1.2.1 and 6.1.2.2 of this annex.	N
3.2.1.1	In **Switzerland**, supply cords of equipment having a RATED CURRENT not exceeding 10 A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February 1998: SEV 5932-2.1998 Plug Type 25 3L+N+PE 230/400 V, 16 A SEV 5933-2.1998 Plug Type 21 L+N 250 V, 16 A SEV 5934-2.1998 Plug Type 23 L+N+PE 250 V, 16 A	N
3.2.1.1	In **Denmark**, supply cords of single-phase equipment having a rated current not exceeding13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	N
3.2.1.1	In **Spain**, supply cords of single-phase equipment having a rated current not exceeding 10 A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2,5 A shall be provided with a plug according to UNE-EN 50075:1993. CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2.1.1	In the **United Kingdom**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a 'standard plug' in accordance with Statutory Instrument 1768:1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE 'Standard plug' is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N
3.2.1.1	In **Ireland**, apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to I.S. 411 by means of that flexible cable or cord and plug, shall be fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28) (13 A Plugs and Conversion Adaptors for Domestic Use) Regulations 1997.		N
3.2.4	In **Switzerland**, for requirements see 3.2.1.1 of this annex.		N
3.2.5.1	In the **United Kingdom**, a power supply cord with conductor of 1,25 mm2 is allowed for equipment with a rated current over 10 A and up to and including 13 A.		N
3.3.4	In the **United Kingdom**, the range of conductor sizes of flexible cords to be accepted by terminals for equipment with a RATED CURRENT of over 10 A up to and including 13 A is: • 1,25 mm^2 to 1,5 mm^2 nominal cross-sectional area.		N
4.3.6	In the **United Kingdom**, the torque test is performed using a socket outlet complying with BS 1363 part 1:1995, including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		N
4.3.6	In **Ireland**, DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N
5.1.7.1	In **Finland**, **Norway** and **Sweden** TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for the following equipment: • STATIONARY PLUGGABLE EQUIPMENT TYPE A that ○ is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and ○ has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and ○ is provided with instructions for the installation of that conductor by a SERVICE PERSON; • STATIONARY PLUGGABLE EQUIPMENT TYPE B; • STATIONARY PERMANENTLY CONNECTED EQUIPMENT.		N

IEC/EN 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
6.1.2.1	In **Finland**, **Norway** and **Sweden**, add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400:1994, may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400, in the sequence of tests as described in EN 132400.		N
6.1.2.2	In **Finland**, **Norway** and **Sweden**, the exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT, PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N
7.2	In **Finland**, **Norway** and **Sweden**, for requirements see 6.1.2.1 and 6.1.2.2 of this annex. The term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N
7.3	In **Norway** and **Sweden**, there are many buildings where the screen of the coaxial cable is normally not connected to the earth in the building installation.		N
7.3	In **Norway**, for installation conditions see EN 60728-11:2005.		N

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

ZC	A-DEVIATIONS (informative)	
1.5.1	**Sweden** (Ordinance 1990:944) Add the following: NOTE In Sweden, switches containing mercury are not permitted.	N
1.5.1	**Switzerland** (Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury.) Add the following: NOTE In Switzerland, switches containing mercury such as thermostats, relays and level controllers are not allowed.	N
1.7.2.1	**Denmark** (Heavy Current Regulations) Supply cords of CLASS I EQUIPMENT, which is delivered without a plug, must be provided with a visible tag with the following text: Vigtigt! Lederen med grøn/gul isolation må kun tilsluttes en klemme mærket  eller  If essential for the safety of the equipment, the tag must in addition be provided with a diagram, which shows the connection of the other conductors, or be provided with the following text: “For tilslutning af de øvrige ledere, se medfølgende installationsvejledning.”	N
1.7.2.1	**Germany** (Gesetz über technische Arbeitsmittel und Verbraucherprodukte (Geräte- und Produktsicherheitsgesetz – GPSG) [Law on technical labour equipment and consumer products], of 6th January 2004, Section 2, Article 4, Clause (4), Item 2). If for the assurance of safety and health certain rules during use, amending or maintenance of a technical labour equipment or readymade consumer product are to be followed, a manual in German language has to be delivered when placing the product on the market. Of this requirement, rules for use even only by SERVICE PERSONS are not exempted.	N
1.7.5	**Denmark** (Heavy Current Regulations) With the exception of CLASS II EQUIPMENT provided with a socket outlet in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-4a, CLASS II EQUIPMENT shall not be fitted with socket-outlets for providing power to other equipment.	N
1.7.13	**Switzerland** (Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15 Batteries) Annex 2.15 of SR 814.81 applies for batteries.	N
5.1.7.1	**Denmark** (Heavy Current Regulations, Chapter 707, clause 707.4) TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s. are permitted only for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B.	N

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

1.5.1	TABLE: List of critical components				P
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity[1])
Power supply	GUANGZHOU MEANWELL ELECTRONICS CO., LTD.	PD-65B	Input: 100-240VAC 50/60Hz 1.5A Output: +5VDC/3.5A, +24VDC/2A	IEC60950	CCC 2004010907114905
Plug	Shenzhen Dongju Wire & Cable Co., Ltd.	DJ-012	16 A 250V	DIN 49441-R2	40011580
Cord	Shenzhen Dongju Wire & Cable Co., Ltd.	H03VV-F	3 x 1.0 mm²	DIN 0281-5	129988
Connector	Shenzhen Dongju Wire & Cable Co., Ltd.	DJ-022	10 A 250V	Sheet 13	40013015
Filter wih Appliance inlet	High & Low Corporation	03SS1-B-Q(B)	115/250VAC 3A 50/60Hz	IEC60939	VDE40008353
Breaker	Trankey Micro-Tech Corporation	ZE-800	250V ~ 50/60Hz	IEC60947	VDE 137453
Switch	ZHEJIANG ZHONGXUN ELECTRONICS CO.,LTD.	KCD1-104	6A/12A 250VAC 1E4	IEC61058-1	CQC03002007180
Motor	FEIHONG	17HD403-3B	3VDC 1.5A	IEC60950-1:2005	--
Sleeving on wiring	WORE HEAT-SHRINKABLE MATERIAL (Shenzhen)		Ø 6	IEC60950-1:2005	--
Enclosure	YUANYI Shanghai, China		Comply with ANNEX A2	IEC60950-1:2005 ANNEX A2	Tested in appliance
Control PCB	SHUNDE JUNDA ELECTRONIC CO LTD		V-1 or Better	UL94	E173873
[1]) An asterisk indicates a mark which assures the agreed level of surveillance					
Supplementary information:					

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

1.6.2	TABLE: Electrical data (in normal conditions)					P
U (V)	I (A)	Irated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
90V/ 50Hz	0.293/0.199	MAX.1.2	16.8/11.3	--	0.293/0.199	Normal operating/Standby
90V/ 60Hz	0.295/0.200	MAX.1.2	16.9/11.4	--	0.295/0.200	Normal operating/Standby
100V/ 50Hz	0.273/0.181	MAX.1.2	17.3/11.2	--	0.273/0.181	Normal operating/Standby
100V/ 60Hz	0.275/0.183	MAX.1.2	17.3/11.2	--	0.275/0.183	Normal operating/Standby
220V/ 50Hz	0.171/0.150	MAX.1.2	16.5/13.7	--	0.171/0.150	Normal operating/Standby
220V/ 60Hz	0.173/0.152	MAX.1.2	16.6/13.8	--	0.173/0.152	Normal operating/Standby
240V/ 50Hz	0.170/0.151	MAX.1.2	16.6/14.2	--	0.170/0.151	Normal operating/Standby
240V/ 60Hz	0.172/0.153	MAX.1.2	16.6/14.2	--	0.172/0.153	Normal operating/Standby
254V/ 50Hz	0.171/0.154	MAX.1.2	16.4/14.6	--	0.171/0.154	Normal operating/Standby
254V/ 60Hz	0.172/0.155	MAX.1.2	16.5/14.6	--	0.172/0.155	Normal operating/Standby
264V/ 50Hz	0.172/0.151	MAX.1.2	16.3/14.7	--	0.172/0.151	Normal operating/Standby
264V/ 60Hz	0.173/0.153	MAX.1.2	16.4/14.8	--	0.173/0.153	Normal operating/Standby
Supplementary information:						

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

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements					P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Between L and N (CN1)	373	264	1.5	3.3	2.8	3.3
Between primary conductor and secondary conductor on PCB near T1	417	241	4.0	6.7	6.4	6.7
Between primary conductor and secondary conductor on PCB near U2	118	105	4.0	6.2	4.0	6.2
Supplementary information:						

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

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

4.3.8	TABLE: Batteries		N
The tests of 4.3.8 are applicable only when appropriate battery data is not available			N
Is it possible to install the battery in a reverse polarity position?			N

	Non-rechargeable batteries			Rechargeable batteries					
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging	
	Meas. current	Manuf. Specs.		Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition									
Max. current during fault condition									

Test results:		Verdict
- Chemical leaks		
- Explosion of the battery		
- Emission of flame or expulsion of molten metal		
- Electric strength tests of equipment after completion of tests		
Supplementary information:		

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

4.5	TABLE: Thermal requirements						N
	Supply voltage (V)	254V	90V				—
	Ambient T_{min} (°C)	17.2	17.5				—
	Ambient T_{max} (°C)	17.7	17.7				—
Maximum measured temperature T of part/at:		T (°C)					Allowed T_{max} (°C)
Appliance inlet		30.3	33.6				60
Switch		29.2	31.8				50
Motor		36.5	38.8				/
Control bard PCB		35.6	37.1				85
Metal enclosure (rear)		33.4	35.7				40
Metal enclosure (top)		28.3	28.4				60
Power supply PCB		51.4	54.3				85
T1 coil		49.1	51.4				85
T1 wire		56.7	60.5				85
Supplementary information:							

Temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	Allowed T_{max} (°C)	Insulation class
Supplementary information:							

4.5.5	TABLE: Ball pressure test of thermoplastic parts		N
	Allowed impression diameter (mm) .....:		—

Part	Test temperature (°C)	Impression diameter (mm)
Supplementary information:		

4.7	TABLE: Resistance to fire (See appended table 1.5.1)				P
Part	Manufacturer of material	Type of material	Thickness (mm)	Flammability class	Evidence

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

Supplementary information:

5.2	TABLE: Electric strength tests, impulse tests and voltage surge tests			P
Test voltage applied between:		Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Primary circuits to protective earth		AC	1500	No
Primary circuits to secondary terminals		AC	3000	No
L to N		AC	1500	No
Supplementary information:				

5.3	TABLE: Fault condition tests					P
	Ambient temperature (°C) .....:		18.5			—
	Power source for EUT: Manufacturer, model/type, output rating .....:		--			—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation
Motor	S/C	254	4h	--	--	T1 winding of power supply maximal temperature was 53.2 ℃. motor maximal temperature was 48.6℃.
Supplementary information: 1) S/C = Short Circuit 2) NH = No Hazard Occurred ;NFR = No Further Results existed						

List of test equipment used:
(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date
1.6.2	Input current	Isolation booster	AC2-300V MAX.4KVA 1~999.9Hz	2007.3.10
		Digital Power Analyzer Digital Electric-parameter	500V 4/40A	2007.1.16 2007.6.14
2.1.1.1/（4.2.3/4.3.2）	Protection in operator access areas	Test finger Test pin Push-pull Meter	fig.2A fig.2B 0-10kg、0-20kg	2007.10.5
2.6.3.4	Resistance of earthing conductors and their terminations	Earthing bond tester	0-50A; 0.1Ω;12V	2007.1.7
2.9.2	Humidity conditioning	Constant temperature and Humidity Chamber	Temperature:-40℃～+100℃ Humidity:30%～98% Accuracy: ±1℃ /±5%RH	2007.4.16
2.10.3/ 2.10. 4	creepage distance /clearance distance	Cursor Callipers	Range：130mm, Accuracy: 0.02mm	2007.3.30
4.2.5	Impact test	Steel ball	Ø50mm 500g±25	2007.1.7
4.5	Thermal requirements	Multipoint temperature tester	24chunnel 300℃	2007.7.27
4.5.5	Resistance to abnormal heat	Ball pressure test device with heat chamber	R=2.5mm 0～300°C	2007.3.13
4.7	Resistance to fire	Bunsen burner Methane	Diameter : 9.5±0.5mm Length :100mm 37MJ/m^3	2007.2.20
5.1	Touch current and protective conductor current	Touch current test device	Figure D.1	2007.1.18
		Digital memory oscilloscope	Frequency range :10Hz-100MHz Voltage accuracy: ±2.5%	2007.10.25
5.2	Electric strength	Dielectric Strength Test Instrument	Measuring voltage :0-5KV±3% Output current :0-100mA	2007.1.14
5.3	Abnormal operating and fault conditions	Digital Electric-parameter	500V 4/40A	2007.6.14
		Stop-watch	Accuracy：0.01s	2007.8.9

Figure 1

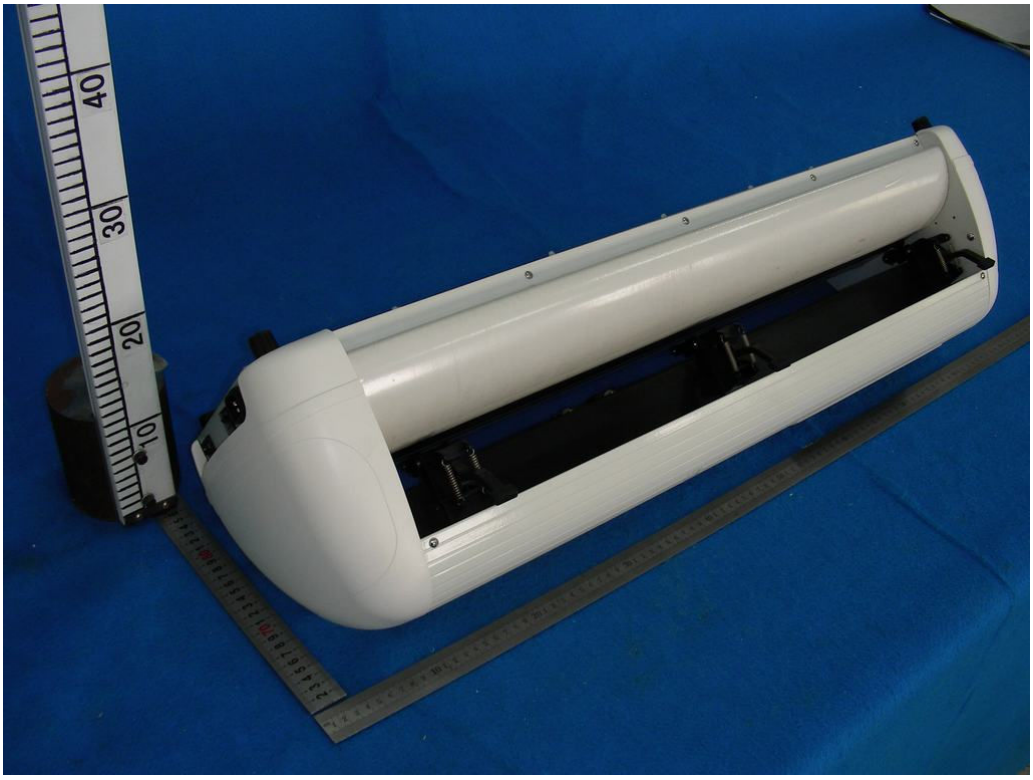


Figure 2

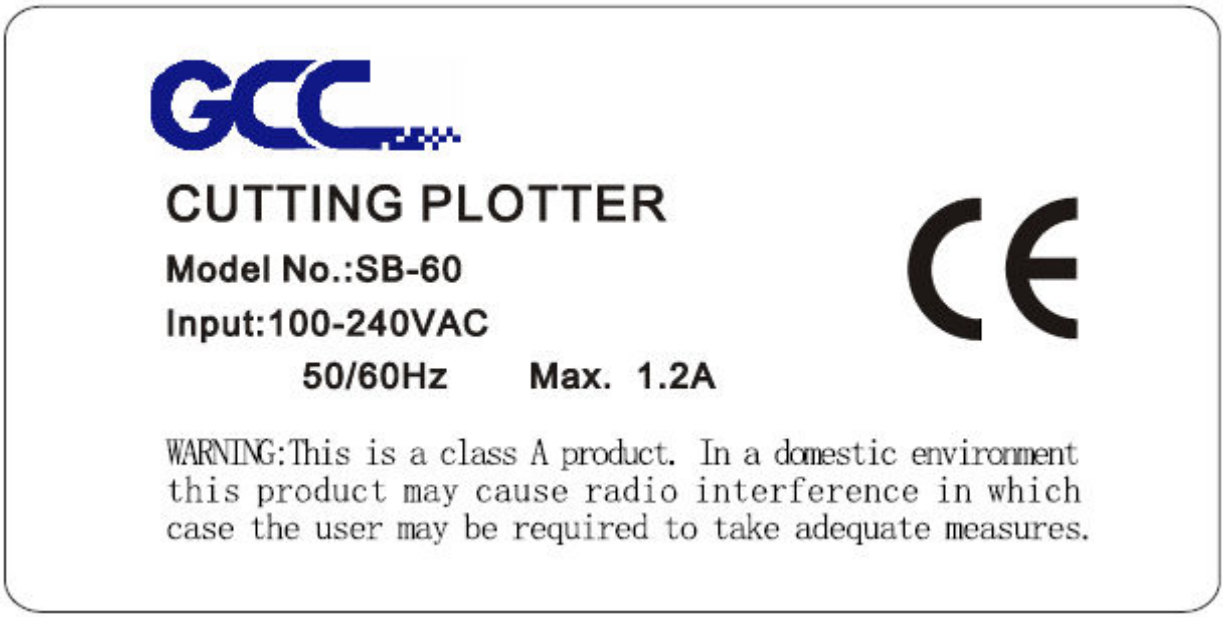


Figure 3

Figure 4

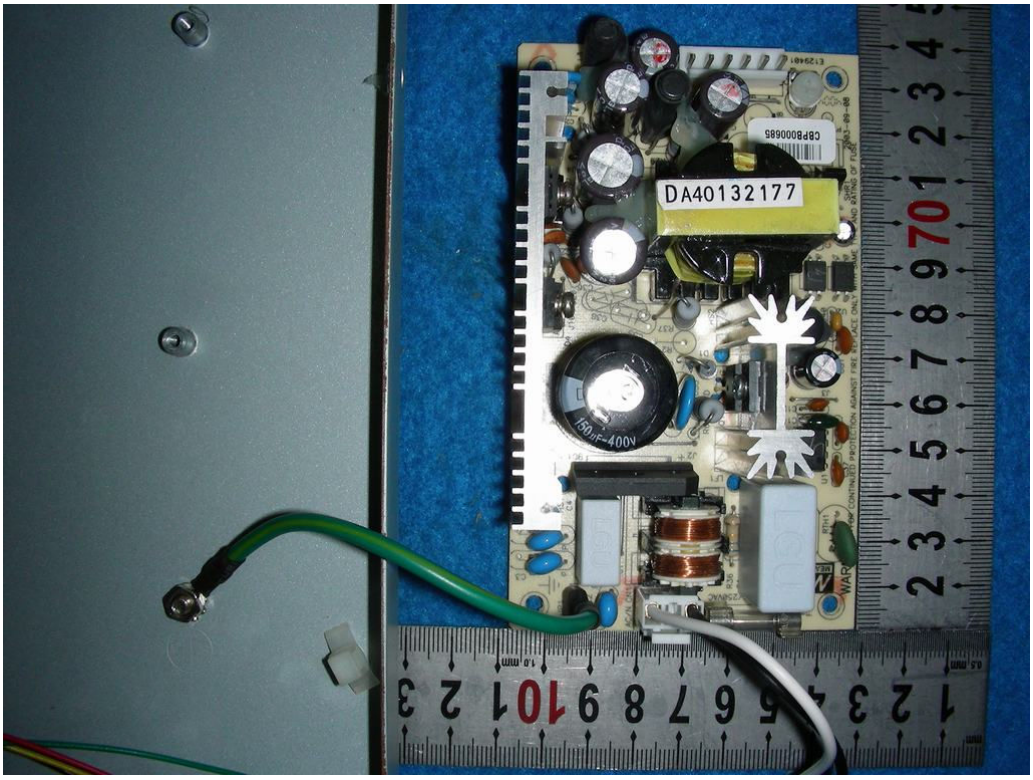


Figure 5

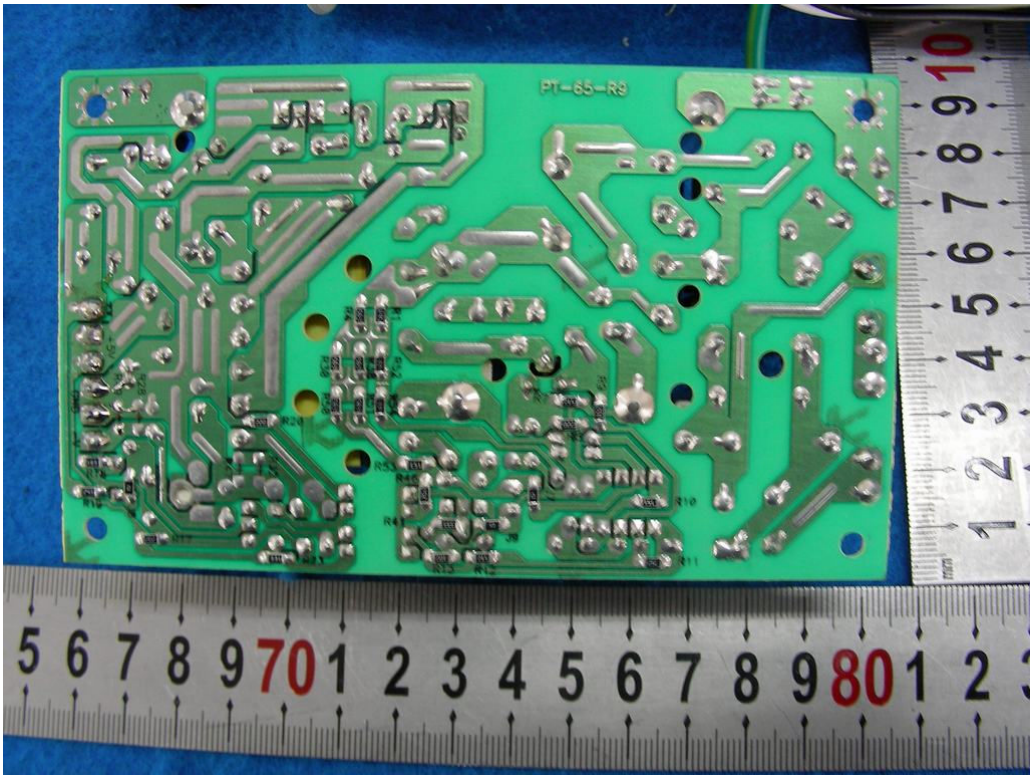


Figure 6

Figure 7

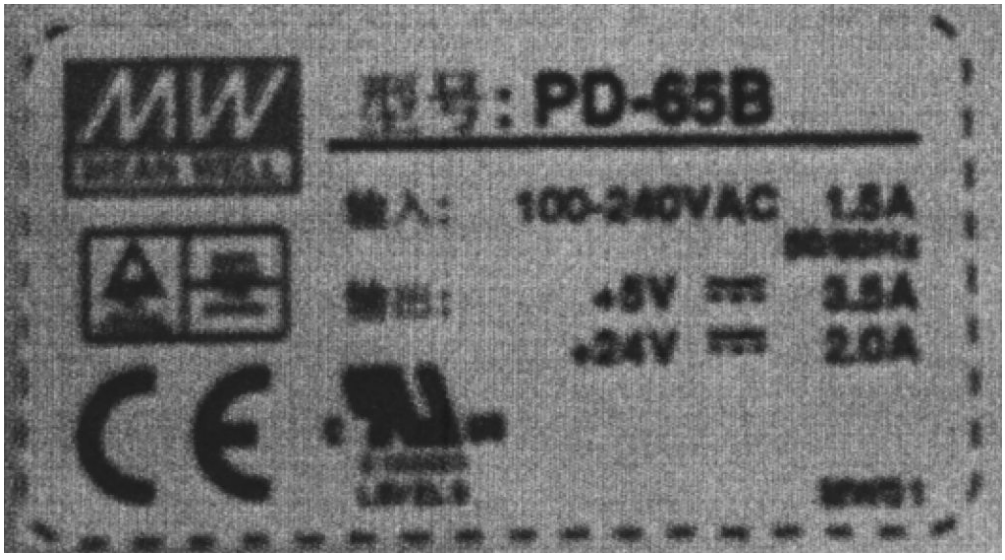


Figure 8