

COVER PAGE FOR TEST REPORT

Product Category:	Information Technology Equipment Including Electrical Business Equipment
Product Category CCN:	NWGQ, NWGQ7
Test Procedure:	Listing
Product:	Industrial Computer
Model/Type Reference:	IPC-623XXX-XXXXX, SYS-4U623XX-XXXXX, where X may be any alphanumeric character or blank.
Rating(s):	(1) I/P : 115/230Vac, 50/60 Hz, 10/5A (2) I/P : 100-240Vac, 50/60 Hz, 8-4A (only for Power Supply RHI-6460P, manufactured by Zippy Technology Corp.)
Standards:	UL 60950-1:2003, First Edition CSA C22.2 No. 60950-1-03 1st Ed. April 1, 2003
Applicant Name and Address:	ADVANTECH CO LTD 1 ALLEY 20 LANE 26 RUEIGUANG RD NEIHU DISTRICT TAIPEI 114 TAIWAN

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

1. Specific Inspection Criteria
2. Specific Technical Criteria
3. Clause Verdicts
4. Critical Components
5. Test Results
6. National Differences
7. Enclosures

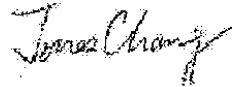
This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of Underwriters Laboratories Inc. ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

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Test Report By:**Chris Kao****Engineer**

UL International Services Limited, Taiwan Branch

Reviewed By:**Jones Chang****Associate Project Engineer**

UL International Services Limited, Taiwan Branch

SPECIFIC INSPECTION CRITERIA

BA1.0	Special Instructions to UL Representative
BA1.1	N/A

BB1.0	Supporting Documentation
BB1.1	The following documents located at the beginning of this Procedure supplement the requirements of this Test Report: A. Authorization - The Authorization page may include additional Factory Identification Code markings. B. Generic Inspection Instructions - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report. ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report. iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

BC1.0	Markings and instructions	
BC1.1	The following markings and instructions are provided as indicated.	
BC1.2	All clause references are from UL 60950-1:2003, First Edition.	
Standard Clause	Clause Title	Marking or Instruction Details
1.5:5	Inter-connecting cables - External detachable	Listee's Name and Part number (Marking or Instruction)
1.7.1	Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
	Power rating - Model	Model Number
	Power rating - Ratings	Ratings (voltage, frequency/dc, current)
1.7.4	Supply Voltage Adjustment	See Installation Instructions Before Connecting to the Supply.
1.7.8.3	Symbols - On/Off switch	All other controls to be marked with  symbol for "ON" (60417-2-IEC-5007)

		and  symbol for "OFF" (60417-2-IEC-5008)
1.7.15	Replaceable batteries	"CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."
Other	High power wattage	"CAUTION - Due to high power wattage on this system, users are not allowed to remove the top cover. If users need to install/remove any device into/from the system, please contact your technical support people."
	1.7.16	The marking for electric shock hazard (ISO 3864, No. 5036) is readily visible on outside enclosure or chassis of power supply inside the equipment after assembly.

BD1.0	Production-Line Testing Requirements						
BD1.1	Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.						
					Test Potential		
	Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
	N/A						
BD1.2	Earthing Continuity Test Exemptions - This test is not required for the following models:						
BD1.3	Electric Strength Test Exemptions - This test is not required for the following models:						
BD1.4	Electric Strength Test Component Exemptions - The following solid-state components may disconnected from the remainder of the circuitry during the performance of this test:						

BE1.0	Sample and Test Specifics for Follow-Up Tests at UL					
BE1.1	Model	Component	Material	Test	Sample(s)	Test Specifics
	N/A					

SPECIFIC TECHNICAL CRITERIA

UL 60950-1, First Edition	
Information technology equipment - Safety-	
Part 1: General Requirements	
Report Reference No.....	E180881-A17-UL-2
Compiled by	Chris Kao
Reviewed by	Jones Chang
Date of issue	2006-02-21
Standards	UL 60950-1:2003, First Edition CSA C22.2 No. 60950-1-03 1st Ed. April 1, 2003
Test procedure	Listing
Non-standard test method	N/A
Test item description	Industrial Computer
Trademark	ADVANTECH
	ADVANTECH
Model and/or type reference	IPC-623XXX-XXXXX, SYS-4U623XX-XXXXX, where X may be any alphanumeric character or blank.
Rating(s)	(1) I/P : 115/230Vac, 50/60 Hz, 10/5A (2) I/P : 100-240Vac, 50/60 Hz, 8-4A (only for Power Supply RHI-6460P, manufactured by Zippy Technology Corp.)

Particulars: test item vs. test requirements

Equipment mobility	stationary
Operating condition	continuous
Mains supply tolerance (%)	+10%, -10%
Tested for IT power systems	No
IT testing, phase-phase voltage (V)	N/A
Class of equipment	Class I (earthed).
Mass of equipment (kg)	23.0Kg; 21.7kg for project 05CA13739; 27.2 Kg for project 05CA19551; 25.56kg for project 05CA49091
Protection against ingress of water	IP 20

Possible test case verdicts:

- test case does not apply to the test object : N / A
- test object does meet the requirement : Pass
- test object does not meet the requirement : Fail (acceptable only if a corresponding, less stringent national requirement is "Pass")

General remarks:

- "(see Enclosure #)" refers to additional information appended to the Test Report
- "(see appended table)" refers to a table appended to the Test Report
- Throughout the Test Report a point is used as the decimal separator

GENERAL PRODUCT INFORMATION:	
CA1.0	Report Summary
CA1.1	N/A
CB1.0	Product Description
CB1.1	Power Supply, motherboard and optional provided HDD with CPU housed in metal enclosures. (For alternate redundant power supply) Supply by redundant power supply that all power share the maximum normal load, motherboard and optional provided HDD with CPU housed in metal enclosure.
CC1.0	Model Differences
CC1.1	Add Model SYS-4U623XX-XXXXXX is identical to Model IPC-623XXX-XXXXXX except for model designation.
CD1.0	Additional Information
CD1.1	Alternate Power Supply * 1, Type RHI-6460P, manufactured by Zippy Technology Corp. Alternate System DC Fan * 1, Type AD1212HB-A73GL, manufactured by Adda Corp.
CE1.0	Technical Considerations
CE1.2	The product was submitted and tested for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 50
CE1.3	The means of connection to the mains supply is: Pluggable A or B
CE1.4	The product is intended for use on the following power systems: TN
CE1.5	The equipment disconnect device is considered to be: Appliance inlet
CE1.9	The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): PS/2 port.
CE1.15	The power supply in this equipment was: Investigated to an earlier edition/amendment of IEC 60950/UL60950. As part of the investigation of this product, the power supply and its test report were reviewed and found to comply with IEC 60950-1/UL 60950-1.

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 appended table 1.5.1)	Pass
1.5.2	Evaluation and testing of components		Pass
1.5.3	Thermal controls	No thermal control.	N/A
1.5.4	Transformers		N/A
1.5.5	Interconnecting cables	Interconnecting cables comply with the relevant requirements of IEC 60950.	Pass
1.5.6	Capacitors in primary circuits	Investigated as an element of power supply certification.	N/A
1.5.7	Double insulation or reinforced insulation bridged by components	Investigated as an element of power supply certification.	N/A
1.5.7.1	General		N/A
1.5.7.2	Bridging capacitors		N/A
1.5.7.3	Bridging resistors		N/A
1.5.7.4	Accessible parts		N/A
1.5.8	Components in equipment for IT power systems		N/A

1.6	Power interface		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classify 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 appended table 1.6.2)	Pass
1.6.3	Voltage limit of hand-held equipment	This appliance is not a hand-held equipment.	N/A
1.6.4	Neutral conductor		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	Marking and instructions		Pass
1.7.1	Power rating	Rating marking readily visible to operator see below for details.	Pass
	Rated voltage(s) or voltage range(s) (V)	150/230 Vac	Pass
	Symbol for nature of supply, for d.c. only	AC source	Pass
	Rated frequency or rated frequency range (Hz)	50/60Hz	Pass
	Rated current (mA or A)	10/5 A	Pass
	Manufacturer's name or trademark or identification mark	Advantech Co., Ltd. / ADVANTECH	Pass
	Type/model or type reference.....	IPC-623XXX-XXXXX, SYS-4U623XX-XXXXX, where X may be any alphanumeric character or blank.	Pass
	Symbol for Class II equipment only	Class I equipment.	N/A
	Other symbols.....	Additional symbols may be provided when submitted for National Approval.	N/A
	Certification marks	UL, cUL	Pass
1.7.2	Safety instructions	Operating/safety instructions made available to the user.	Pass
1.7.3	Short duty cycles	Equipment is designed for continuous operation.	N/A
1.7.4	Supply voltage adjustment	Voltage selector selects between 115 V and 230 V and is a simple control near the inlet.	Pass
1.7.5	Power outlets on the equipment	No outlet.	N/A
1.7.6	Fuse identification	Investigated as an element of power supply certification.	N/A
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals	Investigated during separate certification of power supply.	Pass
1.7.7.2	Terminal for a.c. mains supply conductors	Appliance inlet used.	N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators	See below.	Pass
1.7.8.1	Identification, location and marking.....	The marking and indication of	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		the power switch is located that indication of function is clear.	
1.7.8.2	Colours	A green LED is illuminated when the unit is operation.	Pass
1.7.8.3	Symbols according to IEC 60417	Marking for see-saw switch with line I for "ON" and circle O for "OFF". (60417-1-IEC-5007 and 60417-1-IEC-5008)	Pass
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.....		N/A
1.7.10	IT power distribution systems	Investigated during separate certification of power supply.	N/A
1.7.11	Thermostats and other 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	The marking(s) withstood the required test.	Pass
1.7.14	Removable parts	No removable part.	N/A
1.7.15	Replaceable batteries	The equipment is provided with a replaceable lithium battery. The statement is marking close to the battery or in the serving instructions.	Pass
	Language.....	Reviewed only English markings/instructions. May be provided in other languages upon request from the manufacturer.	-
1.7.16	Operator access with a tool.....	A marking for an electric shock hazard (ISO 3864, No. 5036) is marked on such hazardous compartments	Pass
1.7.17	Equipment for restricted access locations.....	No restricted access location.	N/A

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	As the installation guide specifies directions for the operator how to add additional memory cards or add-on cards inside the enclosure, the inside of this INDUSTRIAL COMPUTER is considered as operator accessible area. Even the INDUSTRIAL COMPUTER enclosure is disassembled, the hazardous part is covered by earthed metal chassis. The construction of this metal enclosure prevents the access, using test finger, test pin or test probe to any parts having only basic insulation to ELV or hazardous voltage.	Pass
2.1.1.1	Access to energized parts	See below	Pass
	Test by inspection	Operator cannot contact with any parts with only basic insulation to ELV or hazardous voltage.	Pass
	Test with test finger	No access with test finger to any parts with only basic insulation to ELV or hazardous voltage.	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 circuits.	N/A
2.1.1.2	Battery compartments	No TNV circuits.	N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (V); minimum distance (mm) through insulation.....		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards		N/A
2.1.1.6	Manual controls	The equipment does not	N/A

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

		contain any knobs, handles, levers, or the like.	
2.1.1.7	Discharge of capacitors in equipment	No risk of electric shock.	Pass
	Time-constant (s); measured voltage (V).....:	Time constant less than 1 second. ($0.37V_o = 126 \text{ Vpk}$ $T \text{ of } 0.37V_o = 80 \text{ ms}$)	
2.1.2	Protection in service access areas	No maintenance work in operation mode necessary.	N/A
2.1.3	Protection in restricted access locations	It is not intended to be used in restricted locations.	N/A

2.2	SELV circuits		Pass
2.2.1	General requirements	42.4V peak or 60VDC are not exceeded in SELV circuit under normal operation or single fault condition.	Pass
2.2.2	Voltages under normal conditions (V).....:	Between any SELV circuits 42.4V peak or 60VDC are not exceeded.	Pass
2.2.3	Voltages under fault conditions (V).....:	Critical fault condition in SELV reliability is investigation in separate power supply evaluation.	Pass
2.2.3.1	Separation by double insulation or reinforced insulation (method 1)	Investigated during separate certification of power supply.	N/A
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.....:	See 2.2.2 and 2.2.3.No direct connection between SELV and any primary circuits.	N/A

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

2.3	TNV circuits		N/A
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

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.5	Limited power sources		Pass
	Inherently limited output		N/A
	Impedance limited output		N/A
	Overcurrent protective device limited output	The PS/2 output comply with table 2B under normal operation condition and the Polyswitch used in PS/2 connector.	Pass
	Regulating network limited output under normal operating and single fault condition		N/A
	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):.....:	5.04V, 2.1A, 10.5 VA (For alternate power supply, Zippy Technology Corp, HP2-6500P) Uoc = 5.08 V Isc = 1.95 A VA = 8.17 (For alternate power supply, Zippy Technology Corp, HP2-6400P) Uoc = 5.08 Isc = 1.95 VA = 8.17	-
	Current rating of overcurrent protective device (A):	See table 1.5.1.	-

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	Secondary functional earthing is connected to protectively earthed conductive part that separated from primary by basic insulation.	Pass
2.6.3	Protective earthing and protective bonding conductors	See below.	Pass
2.6.3.1	General		Pass
2.6.3.2	Size of protective earthing conductors		Pass
	Rated current (A), cross-sectional area (mm ²), AWG.....:	10 A, min. 1.0 mm square/16 AWG required.	-
2.6.3.3	Size of protective bonding conductors	Evaluated as part of the power supply.	N/A
	Rated current (A), cross-sectional area (mm ²), AWG.....:		-
2.6.3.4	Resistance (Ohm) of earthing conductors and their terminations, test current (A)	Test current = 40 A. 0.053 ohm. (For alternate power supply, Zippy Technology Corp, HP2-6500P) Test current = 40 A, Voltage drop = 1.83 V (For alternate power supply, Zippy Technology Corp, HP2-6400P) Test current = 40 A Voltage drop = 1.87 V (Alternate Redundant Power Supply: Zippy, MPN3-6570F) Test current = 40 A Voltage drop = 2.13 V (Alternate Redundant Power Supply: Zippy, MPN4-6810F) Test current = 40 A Voltage drop = 2.13 V (Alternate Power Supply: ZippovTechnology Corp., RHI-	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		6460P) Test current = 40 A Voltage drop = 2.21 V Resistance = 0.055 ohm	
2.6.3.5	Colour of insulation	Evaluated as part of the power supply.	N/A
2.6.4	Terminals	See 2.6.1	Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals	Appliance inlet used and the unit meet the test requirement of 2.6.3.3.	Pass
	Rated current (A), type and nominal thread diameter (mm)		
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	See below.	Pass
2.6.5.1	Interconnection of equipment	No interconnection of hazardous voltages.	N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	No switches or fuses in earthing conductors.	Pass
2.6.5.3	Disconnection of protective earth	Appliance inlet provided.	Pass
2.6.5.4	Parts that can be removed by an operator	It is not possible to disconnect earth without disconnecting mains and protective earth makes earlier and breaks later than the supply connectors. No other operator removable parts with safety critical earth connection.	Pass
2.6.5.5	Parts removed during servicing	Connections to protective earthing cannot be removed unless hazardous voltage is removed from the part simultaneously.	Pass
2.6.5.6	Corrosion resistance		N/A
2.6.5.7	Screws for protective bonding	In approved power supply.	Pass
2.6.5.8	Reliance on telecommunication network or cable distribution system	No TNV	N/A

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

2.7	Overcurrent and earth fault protection in primary circuits		Pass
2.7.1	Basic requirements	Approved power supply used.	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	The equipment is pluggable type A.	N/A
2.7.4	Number and location of protective devices:	Investigated as an element of power supply certification.	N/A
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.9	Electrical insulation		Pass
2.9.1	Properties of insulating materials	Critical insulation investigation is investigated as an element of power supply certification. (Alternate power supply, Zippy Technology Corp, HG2-6400P and HG2-6500P) Electric strength test was conducted after the humidity treatment. (Alternate Redundant Power Supply: Zippy, MPN3-6570F and MPN4-6810F) Electric strength test was conducted after the humidity treatment. (Alternate Power Supply: ZippyTechnology Corp., RHI-6460P) Electric strength test was conducted after the humidity treatment.	Pass
2.9.2	Humidity conditioning	(Alternate power supply, Zippy Technology Corp, HG2-6400P and HG2-6500P) 40 degree C, 95% R.H. for 120 hrs. (Alternate Redundant Power Supply: Zippy, MPN3-6570F and MPN4-6810F) 40 degree C, 95% R.H. for 120 hrs. (Alternate Power Supply: ZippyTechnology Corp., RHI-6460P) 40 degree C, 95% R.H. for 120 hrs.	Pass
	Humidity (%)		-
	Temperature (°C)		-
2.9.3	Grade of insulation		N/A

Issue Date: 2006-02-21

Page 17 of 66

Report Reference #

E180881-A17-UL-2

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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10	Clearances, creepage distances and distances through insulation		Pass
2.10.1	General		Pass
2.10.2	Determination of working voltage		N/A
2.10.3	Clearances	All critical clearance in primary circuits are considered in separate power supply evaluation.	Pass
2.10.3.1	General		Pass
2.10.3.2	Clearances in primary circuit		N/A
2.10.3.3	Clearances in secondary circuits	(see appended table)	Pass
2.10.3.4	Measurement of transient voltage levels		Pass
2.10.4	Creepage distances	(see appended table)	Pass
	CTI tests	Material group IIIb; $100 \leq CTI < 175$.	-
2.10.5	Solid insulation	Investigated during separate certification of power supply.	N/A
2.10.5.1	Minimum distance through insulation		N/A
2.10.5.2	Thin sheet material	Investigated during separate certification of power supply.	N/A
	Number of layers (pcs)		-
	Electric strength test.....		-
2.10.5.3	Printed boards		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	Investigated during separate certification of power supply.	N/A
	Number of layers (pcs)		N/A
	Two wires in contact inside wound component; angle between 45° and 90°		N/A
2.10.6	Coated printed boards		N/A
2.10.6.1	General		N/A
2.10.6.2	Sample preparation and preliminary inspection		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
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		N/A
	Electric strength test.....:		-
2.10.9	Component external terminations		N/A
2.10.10	Insulation with varying dimensions		N/A

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 wires/conductors possess adequate cross-sectional areas for their intended application and Internal wiring are adequately insulated.	Pass
3.1.2	Protection against mechanical damage	The wires are well routed away from sharp edges, etc. and are adequately fixed to prevent excessive strain on wire and terminals.	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.	Pass
3.1.4	Insulation of conductors		N/A
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		N/A
	10 N pull test		N/A
3.1.10	Sleeving on wiring		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
3.2	Connection to an a.c. mains supply or a d.c. mains supply		Pass
3.2.1	Means of connection	Appliance inlet used.	Pass
3.2.1.1	Connection to an a.c. mains supply	The unit is provided with an appliance inlet.	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	The appliance inlet complies with IEC 60320. The power cord can be inserted without difficulties and does not support the unit.	Pass
3.2.5	Power supply cords	Power supply cord suitable for application and subject to country's national code and regulations to be provided by the manufacturer	Pass
3.2.5.1	AC power supply cords	See below.	Pass
	Type		-
	Rated current (A), cross-sectional area (mm ²), AWG.....	10 A maximum, min. 1.0 mm square/16 AWG required.	-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief	Strain relief test conducted.	Pass
	Mass of equipment (kg), pull (N).....	23 kg, 100N	-
	Longitudinal displacement (mm)	Max. 0.8mm	-
3.2.7	Protection against mechanical damage	No parts under this unit likely to damage the power supply cord.No sharp edges.	N/A
3.2.8	Cord guards	The equipment does not use a non-detachable power supply cord.	N/A
	D (mm); test mass (g)		-
	Radius of curvature of cord (mm)		-
3.2.9	Supply wiring space		N/A

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 (mm ²)		-
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	The appliance inlet is considered to be the disconnect device.	Pass
3.4.2	Disconnect devices	Ref. to 3.4.1	Pass
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized		N/A
3.4.5	Switches in flexible cords		N/A
3.4.6	Single-phase equipment and d.c. equipment	Disconnect device disconnects both poles simultaneously.	Pass
3.4.7	Three-phase equipment		N/A
3.4.8	Switches as disconnect devices		N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment		N/A
3.4.11	Multiple power sources		N/A

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

3.5	Interconnection of equipment		Pass
3.5.1	General requirements		Pass
3.5.2	Types of interconnection circuits	The power supply is considered for connection to SELV only.	Pass
3.5.3	ELV circuits as interconnection circuits	No ELV interconnection circuits.	N/A

4	PHYSICAL REQUIREMENTS		Pass
4.1	Stability		Pass
	Angle of 10°	This unit is of a stable mechanical construction and does not overbalance when tilted to an angle of 10 degrees from its normal upright position.	Pass
	Test: force (N)	Equipment is not a floor standing unit.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.2	Mechanical strength		Pass
4.2.1	General	See below.	Pass
4.2.2	Steady force test, 10 N	10N were applied to components.No energy or other hazards.	Pass
4.2.3	Steady force test, 30 N	No hazards as result of the 30N test.	Pass
4.2.4	Steady force test, 250 N	250N applied to all outer enclosure. No energy or other hazards.	Pass
4.2.5	Impact test	No hazard as result from impact test.	Pass
	Fall test	No hazardous result after steel sphere ball impact test.	Pass
	Swing test		N/A
4.2.6	Drop test		N/A
4.2.7	Stress relief test	Metal enclosure used.	N/A
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)	Force applied: 78 Kg, which was three times the weight of the equipment. The mounting means did withstand the force applied without breaking or damaging.	Pass

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 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	Investigated during separate certification of power supply.	N/A
4.3.4	Securing of parts	Electrical and mechanical connections can be expected to withstand usual mechanical stress. For the protection, solder pins, cable ties and heat shrunk tubing are used.	Pass
4.3.5	Connection of plugs and sockets	No interchangeable plugs/sockets.	N/A
4.3.6	Direct plug-in equipment	Not Direct plug-in equipment.	N/A
	Dimensions (mm) of mains plug for direct plug-in ..	The equipment is not direct plug-in type.	N/A
	Torque and pull test of mains plug for direct plug-in; torque (Nm); pull (N)	The equipment is not direct plug-in type.	N/A
4.3.7	Heating elements in earthed equipment	No heating element.	N/A
4.3.8	Batteries	A replaceable lithium battery provided with diode, D9, in series to prevent the reverse charging current.	Pass
4.3.9	Oil and grease		N/A
4.3.10	Dust, powders, liquids and gases		N/A
4.3.11	Containers for liquids or gases		N/A
4.3.12	Flammable liquids		N/A
	Quantity of liquid (l)		N/A
	Flash point (°C)		N/A
4.3.13	Radiation; type of radiation		N/A
4.3.13.1	General		N/A
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg)		-
	Measured high-voltage (kV)		-

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		Pass
4.4.1	General	Equipment does not have any hazardous moving parts.	N/A
4.4.2	Protection in operator access areas		Pass
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	(see appended table 4.5.1)	Pass
	Normal load condition per Annex L.....	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established.	Pass
4.5.2	Resistance to abnormal heat	Investigated as an element of power supply certification.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.6	Openings in enclosures		Pass
4.6.1	Top and side openings	Foreign objects entering the enclosure will not contact bare parts at hazardous voltage or energy (No hazardous parts within 5° projection).	Pass
	Dimensions (mm).....:	Front: Four rows of 22 openings, each opening measures 40 mm by 2 mm. Rear: 40 openings, each opening measures 20 mm by 2 mm. Left side: Two rows of 25 openings, each opening measures 40 mm by 2 mm. Right side: 17 openings, each opening measures 30 mm by 2 mm.	
4.6.2	Bottoms of fire enclosures	No bottom opening provided.	N/A
	Construction of the bottom		
4.6.3	Doors or covers in fire enclosures	Only decorative front Door provided with key-lock, steel, overall 405 by 155, 2.0 mm thick.	N/A
4.6.4	Openings in transportable equipment	Not transportable equipment.	N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks)		

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
4.7	Resistance to fire		Pass
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	See 4.7.1.	Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure	With having the following components: - components with windings - wiring - semiconductor devices, transistors, diodes, integrated circuits - resistors, capacitors, inductors. The fire enclosure is required.	Pass
4.7.2.1	Parts requiring a fire enclosure	Fire enclosure covers all hazardous parts.	Pass
4.7.2.2	Parts not requiring a fire enclosure	See 4.7.2	N/A
4.7.3	Materials		Pass
4.7.3.1	General	See below.	Pass
4.7.3.2	Materials for fire enclosures	The fire enclosure is metal.	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better. Internal wiring is UL Recognized, rated VW-1 or FT-1. See Table 1.5.1 for material information.	Pass
4.7.3.5	Materials for air filter assemblies		N/A
4.7.3.6	Materials used in high-voltage components		N/A

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

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General	See below.	Pass
5.1.2	Equipment under test (EUT)		Pass
5.1.3	Test circuit		Pass
5.1.4	Application of measuring instrument	Using measuring instrument in annex D.	Pass
5.1.5	Test procedure	The touch current was measured from primary to metal enclosure.	Pass
5.1.6	Test measurements	See below.	Pass
	Test voltage (V).....:	253 Vac / 60 Hz	-
	Measured touch current (mA)	Max. 3.2mA (For alternate power supply, Zippy Technology Corp, HP2-6500P) Max 0.6 mA (For alternate power supply, Zippy Technology Corp, HP2-6400P) Max 0.89 mA (Alternate Redundant Power Supply: Zippy, MPN3-6570F) Max 2.45 mA (Alternate Redundant Power Supply: Zippy, MPN4-6810F) Max 3.3 mA (Alternate Power Supply: ZippyTechnology Corp., RHI-6460P) Max 0.52 mA	-
	Max. allowed touch current (mA)	3.5mA.	-
	Measured protective conductor current (mA)		-
	Max. allowed protective conductor current (mA)		-
5.1.7	Equipment with touch current exceeding 3.5 mA ...	Touch current does not exceed 3.5 mA.	Pass

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

5.1.8	Touch currents to and from telecommunication networks and cable distribution systems and from telecommunication networks	No TNV	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network and a cable distribution system	No TNV	N/A
	Test voltage (V).....:	No TNV	-
	Measured touch current (mA).....:	No TNV	-
	Max. allowed touch current (mA).....:	No TNV	-
5.1.8.2	Summation of touch currents from telecommunication networks.....:	No TNV	N/A

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 appended table 5.2)	Pass

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

5.3	Abnormal operating and fault conditions		Pass
5.3.1	Protection against overload and abnormal operation	(See appended table 5.3)	Pass
5.3.2	Motors		N/A
5.3.3	Transformers	The protection of the power supply and transformer are approved with the approval of the power supply.	Pass
5.3.4	Functional insulation	Functional insulation complies with the requirements (a), (b), or (c).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Simulation of faults	Blocked ventilation openings test: Result see appended table. Fan stalled test: Result see appended table. Connector overload test: Result see appended table.	Pass
5.3.7	Unattended equipment		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.	Pass

6	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Test voltage (V).....		-
	Current in the test circuit (mA)		-
6.1.2.2	Exclusions		N/A

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

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

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

7	CONNECTION TO CABLE DISTRIBUTION SYSTEMS		N/A
7.1	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
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

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

A	Annex A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples.....:		-
	Wall thickness (mm).....:		-
A.1.2	Conditioning of samples; temperature (°C)		N/A
A.1.3	Mounting of samples		N/A
A.1.4	Test flame		N/A
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s)		-
	Sample 2 burning time (s)		-
	Sample 3 burning time (s)		-

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)		N/A
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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
B	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.....:		-
	Type		-
	Rated values.....:		-
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days)		-
	Electric strength test: test voltage (V)		-
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.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)		-

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

C	Annex C, TRANSFORMERS (see 1.5.4 and 5.3.3)		N/A
	Position		-
	Manufacturer		-
	Type		-
	Rated values		-
	Method of protection		-
C.1	Overload test		N/A
C.2	Insulation		N/A
	Protection from displacement of windings		N/A

D	Annex D, MEASURING INSTRUMENTS FOR TOUCH-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 (see 2.10)		N/A
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IEC 60950-1			
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 POTENTIALS (see 2.6.5.6)		N/A
	Metal used		-

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

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

L	Annex L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.1)		N/A
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		N/A

M	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

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
P	Annex P, NORMATIVE REFERENCES		Pass
Q	Annex Q, BIBLIOGRAPHY		Pass
R	Annex R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES		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 TESTING (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
T	Annex T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)		N/A
	:		
U	Annex U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)		N/A
	:		

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

TABLE: list of critical components							Pass	
1.5.1	Object/part No.	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID	
	Power Supply	Power Research Technology Co., Ltd. (PRT)	PRM400	I/P: 100-240Vac, 50/60Hz, 8/5A O/P: +5V/50A, -5V/1.0A, +12V/27A, -12V/3.0A, 3.3V/30A, +5Vsb/1.0A	QQGQ2	UL	3-03	
	Power Supply, alternate	Zippy Technology Corp.	HP2-6500P	I/P: 115-240 Vac, 47-63 Hz, 8-4A O/P: +5V/40A, -5V/0.8A, +12V/27A, -12V/1.0A, +3.3V/30A, +5VSB/2.0A	QQGQ2	UL		
	Power supply, alternate	Zippy Technology Corp.	HG2-6400P	I/P: 100-240 Vac, 63-47 Hz, 8-4A O/P: +5V/35A, -5V/0.5A, +12V/30A, -12V/0.8A, +3.3V/28A, +5VSB/2.0A	QQGQ2	UL		
	Power supply, alternate(for 05CA49091)	Zippy Technology Corp.	RHI-6460P	I/P: 100-240 Vac, 47-63 Hz, 8-4A. O/P: +5V/40A, +12V/27A, - 12V/1.0A, +3.3V/30A, -5V/0.8A, +5VSB/2.0A	QQGQ2	UL		
	Redundant Power Supply, Alternate (Provide three power)	Zippy Technology Corp.	MPN3-6570F	I/P: 115/230 Vac, 60/50 Hz, 12-6A O/P: +5V/50A, - 5V/1.0A, +12V/34A, -12V/1.0A, +3.3V/40A, +5Vsb/1.2A, Total output max: 570 W	QQGQ2	UL	3-07	
	Redundant Power Supply, Alternate (Provide four power)	Zippy Technology Corp.	MPN4-6810F	I/P: 115/230 Vac, 60-50 Hz, 15- 7.5 A O/P: +5V/75A, - 5V/1.0A, +12V/34A, -12V/1.0A, +3.3V/40A, +5Vsb/1.2A, Total output max: 810 W	QQGQ2	UL	3-08	
	Hard Drive (Optional)	Various	--	+5/+12Vdc, 1.5/1.8A maximum.	NWGGQ2	UL	3-03	
	Floppy Drive (Optional)	Various	--	+5/+12Vdc, 1.5/1.8A maximum.	NWGGQ2	UL	3-03	

Underwriters Laboratories Inc.

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

(two provided)	Various	--	+5/+12Vdc, 1.5/1.8A maximum.	NWQG2	UL	3-03
CD-ROM Drive (Optional)	Various	--				
RTC Battery	Rayovac Corp.	BR2335, BR2032, BF2325	3.0Vdc, 300mAh	BBCV2	UL	3-05
RTC Battery	Mitsubishi Chemical Corp.	CR2032	3.0Vdc, 300mAh	BBCV2	UL	
RTC Battery	Sanyo Energy (U.S.A) Corp.	CR2032	3.0Vdc, 300mAh	BBCV2	UL	
Protective device (Polyswitch) for PS/2 port	Raychem Corp.	SMD-150-2018	5Vdc, 1.1A	XGPU2	UL	
Protective device (Pigtail Fuse) for PS/2 port	Littelfuse Inc.	251	125V, 3A	JDYX2	UL	
System Fan	Delta Electronics Inc.	EFB1212HH-F00	+12Vdc, 0.5A, 93.58 CFM	GPWV2	UL	3-03
System Fan	Delta Electronics Inc.	EFB1212VH-F00	+12Vdc, 0.5A, 114.07 CFM	GPWV2	UL	
System Fan	Delta Electronics Inc.	EFB1212SH-F00	+12Vdc, 0.5A, 114.07 CFM	GPWV2	UL	
System Fan	Adda Corp.	AD0812HB-A70GL	+12Vdc, 0.25A, 40.1CFM	GPWV2	UL	
System Fan	Delta electronics inc	AFB0812SH-F00	+12Vdc, 0.34A, 46.62CFM	GPWV2	UL	
System Fan, alternate (for 05CA49091)	Adda Corp.	AD1212HB-A73GL	12Vdc, 0.37A, 85.2CFM	GPWV2	UL	
CPU Fan	Nidec Corp.	F06G-12B1S1	+12Vdc, 0.07A	GPWV2	UL	3-05
CPU Fan	Dynaeon Industrial Co., Ltd.	DF1206BH	+12Vdc, 0.30A	GPWV2	UL	
Enclosure	Various	--	Plated steel, overall 660 by 426 by 177 mm, minimum 1 mm thick	--	--	3-01
PWB	Various	--	Rated V-1 or better, 105°C	ZPMV2	UL	3-03
Handles (Two provided)	Various	--	Steel, each overall 102 by 33 by 10 mm, spaced 465 mm apart.	--	--	
Connectors and	--	--	Min. 250 V	ECBT2, RTRT2	UL	

IEC 60950-1				
Clause	Requirement + Test	Result - Remark		Verdict
Receptacles (primary)				
Insulating Tubing/Sleeving	--	--	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; 105°C, 300 V	UZFT2, YDPU2, YDRY2, YDTU2
Interconnecting Cable (primary)	--	--	Min. 105°C, 300 V, max 3.05 m long, jacketed, VW-1 or FT-1	AVLV2
Label	--	--	40°C if max. surface temperature not specified.	PGDQ2 or PGJ12
Power supply cord (Optional)	--	--	Type SVT or SPT-2, min 125 V, 10 A, with NEMA 5-15P or 250 V, 10 A, with NEMA 6-15P. Other end (connected to unit) (with cord-connected body, grounding type, suitable for cord size, rating not less than that of attachment plug)	ZJCZ and RTRT and AXUT
Wiring, internal primary	--	--	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; min 300 V, 80°C.	AVLV2
Part of non-detachable Power supply cord	--	--	Type SVT or SPT-2, connected to unit. Other end min 125 V, 10 A, with NEMA 5-15R or 250 V, 10 A, with NEMA 6-15R, grounding type, suitable for cord size 18AWG.	ZJCZ and RTRT and AXUT

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

1.6.2	TABLE: electrical data (in normal conditions)					Pass
fuse #	I rated (A)	U (V)	P (W)	I (mA)	I fuse (mA)	condition/status
-	-	90v/50Hz	142	1580	-	Maximum normal load
-	-	90v/60Hz	142	1580	-	Maximum normal load
-	10	115v/50Hz	141	1410	-	Maximum normal load
-	10	115v/60Hz	141	1410	-	Maximum normal load
-	5	240v/50Hz	134	600	-	Maximum normal load
-	5	240/60Hz	133	610	-	Maximum normal load
-	-	253v/50Hz	132	590	-	Maximum normal load
-	-	253v/60Hz	133	590	-	Maximum normal load
--	--	--	--	--	--	For alternate power supply, Zippy Technology Corp, HP2-6500P
--	--	103V/50 Hz	164.3	1612	1612	Maximum Normal Load
--	--	103V/60 Hz	164.3	1619	1619	Maximum Normal Load
--	10.0	115V/50 Hz	163.3	1441	1441	Maximum Normal Load
--	10.0	115V/60 Hz	163.4	1444	1444	Maximum Normal Load
--	--	122V/50 Hz	163.0	1371	1371	Maximum Normal Load
--	--	122V/60 Hz	163.4	1364	1364	Maximum Normal Load
--	--	207V/50 Hz	159.0	810	810	Maximum Normal Load
--	--	207V /60 Hz	158.6	820	820	Maximum Normal Load
--	5.0	230V/50 Hz	158.5	738	738	Maximum Normal Load
--	5.0	230V/60 Hz	158.2	751	751	Maximum Normal Load
--	--	253V/50 Hz	158.1	690	690	Maximum Normal Load
--	--	253V/60 Hz	158.6	705	705	Maximum Normal Load
--	--	--	--	--	--	Alternate power supply, Zippy Technology Corp, HG2-6400P
--	--	103V/50 Hz	192.6	1890	1890	Maximum Normal Load
--	--	103V/60 Hz	193.0	1885	1885	Maximum Normal Load
--	10.0	115V/50 Hz	192.2	1686	1686	Maximum Normal Load
--	10.0	115V/60 Hz	191.8	1687	1687	Maximum Normal Load
--	--	122V/50 Hz	191.6	1587	1587	Maximum Normal Load
--	--	122V/60 Hz	191.1	1587	1587	Maximum Normal Load
--	--	207V/50 Hz	187.5	924	924	Maximum Normal Load
--	--	207V/60 Hz	187.6	926	926	Maximum Normal Load
--	5.0	230V/50 Hz	186.4	833	833	Maximum Normal Load
--	5.0	230V/60 Hz	186.3	836	836	Maximum Normal Load
--	--	253V/50 Hz	185.9	760	760	Maximum Normal Load
--	--	253V/60Hz	185.9	767	767	Maximum Normal Load
--	--	--	--	--	--	Alternate Redundant Power Supply: Zippy, MPN3-6570F
--	--	103V/50 Hz	400	3925	3925	Maximum Normal Load
--	--	103V/60 Hz	398	3919	3919	Maximum Normal Load
--	10.0	115V/50 Hz	395	3487	3487	Maximum Normal Load
--	10.0	115V/60 Hz	396	3485	3485	Maximum Normal Load
--	--	122V/50 Hz	395	3280	3280	Maximum Normal Load

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
--	--	122V/60 Hz	394	3293	3293	Maximum Normal Load
--	--	127V/50 Hz	393	3146	3146	Maximum Normal Load
--	--	127V/60 Hz	394	3159	3159	Maximum Normal Load
--	--	207V/50 Hz	384	1962	1962	Maximum Normal Load
--	--	207V/60 Hz	386	1999	1999	Maximum Normal Load
--	5.0	230V/50 Hz	383	1805	1805	Maximum Normal Load
--	5.0	230V/60 Hz	385	1850	1850	Maximum Normal Load
--	--	253V/50 Hz	383	1690	1690	Maximum Normal Load
--	--	253V/60Hz	383	1750	1750	Maximum Normal Load
--	--	--	--	--	--	Alternate Redundant Power Supply: Zippy, MPN4-6810F
--	--	103V/50 Hz	412	4060	4060	Maximum Normal Load
--	--	103V/60 Hz	412	4065	4065	Maximum Normal Load
--	10.0	115V/50 Hz	409	3618	3618	Maximum Normal Load
--	10.0	115V/60 Hz	410	3631	3631	Maximum Normal Load
--	--	122V/50 Hz	408	3412	3412	Maximum Normal Load
--	--	122V/60 Hz	408	3433	3433	Maximum Normal Load
--	--	127V/50 Hz	407	3277	3277	Maximum Normal Load
--	--	127V/60 Hz	407	3290	3290	Maximum Normal Load
--	--	207V/50 Hz	396	2075	2075	Maximum Normal Load
--	--	207V/60 Hz	398	2130	2130	Maximum Normal Load
--	5.0	230V/50 Hz	396	1933	1933	Maximum Normal Load
--	5.0	230V/60 Hz	396	2010	2010	Maximum Normal Load
--	--	253V/50 Hz	396	1832	2832	Maximum Normal Load
--	--	253V/60Hz	396	1925	1925	Maximum Normal Load
--	--	--	--	--	--	Alternate Power Supply: Zippy Technology Corp., RHI-6460P
--	--	90V/50Hz	158	1790	--	Maximum normal load
--	--	90V/60Hz	158	1800	--	Maximum normal load
--	8	100V/50Hz	155	1610	--	Maximum normal load
--	8	100V/60Hz	155	1620	--	Maximum normal load
--	4	240V/50Hz	150	720	--	Maximum normal load
--	4	240V/60Hz	150	730	--	Maximum normal load
--	--	254V/50Hz	150	710	--	Maximum normal load
--	--	254V/60Hz	150	740	--	Maximum normal load
--	--	264V/50Hz	150	690	--	Maximum normal load
--	--	264V/60Hz	150	720	--	Maximum normal load
supplementary information:						
The unit continuously crossed reading and writing data between HDD and working continuously.						

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

2.10.3 and 2.10.4	TABLE: clearance and creepage distance measurements					Pass
clearance cl and creepage distance dcr at/of:	Up (V)	U r.m.s. (V)	required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
--	--	--	--	--	--	--
supplementary information:						
All critical clearance and creepage distances in primary circuit are considered in separate power supply evaluation. Only functional insulation is required.						

2.10.5	TABLE: distance through insulation measurements				N/A
distance through insulation di at/of:	Up (V)	test voltage (V)	required di (mm)	di (mm)	
supplementary information:					

4.5	TABLE: temperature rise measurements						Pass
	test voltage (V).....	See below	---	---	---	---	—
	t1 (°C)	---	---	---	---	---	—
	t2 (°C)	---	---	---	---	---	—
maximum temperature T of part/at:		T (°C)					allowed Tmax (°C)
Ambient	24.9	50	25.4	50	--	--	
PWB near Q8	43.5	68.6	42	66.6	--	105	
RTC Battery body	38	63.1	37.2	61.8	--	--	
U19 body	40.2	65.3	39.3	63.9	--	--	
CPU body	39.2	64.3	38.4	63	--	--	
L16 coil	46.1	71.2	45.2	69.8	--	105	
L6 coil	33.8	58.9	33.2	57.8	--	105	
C51 body	37.5	62.6	36.6	61.2	--	85	
PWB Q25 body	36.8	61.9	35.9	60.5	--	105	
HDD body	29.5	54.6	29	53.6	--	--	
CDROM body	31.7	56.8	30.6	55.2	--	--	
FDD body	33	58.1	31.7	56.3	--	--	
Power 1	--	--	--	--	--	--	
L1 coil	34.7	59.8	33.1	57.7	--	105	
L1 coil for 540060-A board	31.6	56.7	29.3	53.9	--	105	

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
PWB near the BD1 on 540060-A board	35.6	60.7	31.6	56.2	--	105
T1 coil	33	58.1	31.8	56.4	--	90
T1 core	38.4	63.5	37.1	61.7	--	90
T2 coil	37.1	62.2	36	60.6	--	90
T2 core	36.2	61.3	35.1	59.7	--	90
C1 body	30.5	55.6	29.2	53.8	--	85
Power 2	--	--	--	--	--	--
L1 coil	36.1	61.2	34.6	59.2	--	105
L1 coil for 540060-A board	37.4	62.5	32.6	57.2	--	105
PWB near the BD1 on 540060-A board	37.5	62.6	33.1	57.7	--	105
T1 coil	36.7	61.8	35.5	60.1	--	90
T1 core	37.9	63	36.6	61.2	--	90
T2 coil	39.3	64.4	38.1	62.7	--	90
T2 core	38.2	63.3	36.9	61.5	--	90
C1 body	31.9	57	30.5	55.1	--	85
Enclosure inside near the power	28.6	53.7	27.7	52.3	--	--
Enclosure outside near the power	28.3	53.4	27.4	52	--	75
--	230v ventil ation openi ngs block ed	230v stall system fan	230v stall power fan	230v Remove d one power supply kid	--	--
Ambient	26/50	25.5/ 50	26.3/50	26.2/50	--	--
PWB near Q8	56.9/8 0.9	45.9/70. 4	42.2/65. 9	41/64.8	--	--
RTC Battery body	52.1/7 6.1	36.1/60. 6	36.4/60. 1	35.9/59. 7	--	--
U19 body	54.4/7 8.4	45/69.5	39.3/63	38.4/62. 2	--	--
CPU body	54.9/7 8.9	52.8/77. 3	38/61.7	37.5/61. 3	--	--
L16 coil	60.7/8 4.7	50.3/74. 8	45.6/69. 3	44.6/68. 4	--	--
L6 coil	51.4/7 5.4	32.9/57. 4	33/56.7	32.4/56. 2	--	--
C51 body	51.9/7 5.9	38.8/63. 3	37.2/60. 9	33.8/57. 6	--	--
PWB Q25 body	51.4/7 5.4	36.7/61. 2	36.6/60. 3	35.3/59. 1	--	--
HDD body	44.5/6 8.5	28/52.5	28.6/52. 3	28.1/51. 9	--	--
CDROM body	43.6/6 7.6	28.8/53. 3	29.1/52. 8	28.6/52. 4	--	--
FDD body	44.2/6 8.2	30.5/55	29.6/53. 3	28.8/52. 6	--	--

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
Power 1	--	--	--	--	--	--
L1 coil	47.1/7 1.1	31.9/56. 4	30.4/54. 1	34.2/58	--	--
L1 coil for 540060-A board	42.8/6 6.8	28.2/52. 7	39.3/63	29.9/53. 7	--	--
PWB near the BD1 on 540060-A board	44.7/6 8.7	30.2/54. 7	33.7/57. 4	31.6/55. 4	--	--
T1 coil	45.7/6 9.7	30.6/55. 1	43.9/67. 6	32.4/56. 2	--	150
T1 core	51/75	35.9/60. 4	47.8/71. 5	37.9/61. 7	--	150
T2 coil	50.3/7 4.3	35/59.5	44.2/67. 9	38.6/62. 4	--	150
T2 core	49.3/7 3.3	34.1/58. 6	45.4/69. 1	35.2/59	--	150
C1 body	42.1/6 6.1	28/52.5	38.9/62. 6	29.2/53	--	--
Power 2	--	--	?--	?--	--	--
L1 coil	48.9/7 2.9	33.5/58	28.8/52. 5	29.1/52. 9	--	--
L1 coil for 540060-A board	47.6/7 1.6	31.9/56. 4	38.8/62. 5	28.5/52. 3	--	--
PWB near the BD1 on 540060-A board	47.4/7 1.4	31.9/56. 4	31.8/55. 5	28.6/52. 4	--	--
T1 coil	49.7/7 3.7	34.3/58. 8	43.1/66. 8	29/52.8	--	150
T1 core	50.6/7 4.6	35.5/60	46.2/69. 9	29.2/53	--	150
T2 coil	52.1/7 6.1	36.8/61. 3	42.2/65. 9	29.3/53. 1	--	150
T2 core	51.1/7 5.1	35.8/60. 3	43.9/67. 6	29.4/53. 2	--	150
C1 body	44.8/6 8.8	29.3/53. 8	37.6/61. 3	28.8/52. 6	--	--
Enclosure inside near the power	37.6/6 1.6	26.4/50. 9	33.9/57. 6	28/51.8	--	--
Enclosure outside near the power	34.1/5 8.1	26.4/50. 9	27.8/51. 5	26.8/50. 6	--	--
--	--	--	--	--	--	For alternate power supply, Zippy Technology Corp, HP2-6500P
--	Maxi	Maximu	--	--	--	--

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
		mum Normal Load at 103 V, 60 Hz, Durati on 1.33 hrs.	m Normal Load at 103 V, 60 Hz, Duration 1.33 hrs.			
Ambient		25.1	50	--	--	--
Power Supply AC inlet body		26.6	51.5	--	--	--
Power Supply C42 body		26.9	51.8	--	--	85
Power Supply T1 coil		33.2	58.1	--	--	90
Power Supply T1 core		33.4	58.3	--	--	90
Power Supply choke body		35.3	60.2	--	--	105
Power Supply PWB under D8		34.7	59.6	--	--	105
Mainboard RTC battery		34.2	59.1	--	--	--
Mainboard PWB under CPU		41.4	66.3	--	--	105
Mainboard L8 coil		29.1	54	--	--	105
Mainboard CM4 body		43.3	68.2	--	--	85
Mainboard U6 body		37.8	62.7	--	--	--
HDD body near motor		26.1	51	--	--	--
CD-ROM body near motor		27.8	52.7	--	--	--
Enclosure outside near Top		25.6	50.5	--	--	70
--		Maxi mum Norm al Load at 253 V, 60 Hz, Durati on 1.5 hrs.	Maximu m Normal Load at 253 V, 60 Hz, Duration 1.5 hrs.	--	--	--
Ambient		23.7	50	--	--	--
Power Supply AC inlet body		26.1	52.4	--	--	--
Power Supply C42 body		26.4	52.7	--	--	85
Power Supply T1 coil		32.8	59.1	--	--	90
Power Supply T1 core		33.1	59.4	--	--	90
Power Supply choke body		36	62.3	--	--	105
Power Supply PWB under D8		34.7	61	--	--	105
Mainboard RTC battery		33.9	60.2	--	--	--
Mainboard PWB under CPU		41.4	67.7	--	--	105
Mainboard L8 coil		29	55.3	--	--	105

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Mainboard CM4 body	43.1	69.4	--	--	--	85
Mainboard U6 body	37.1	63.4	--	--	--	--
HDD body near motor	26.2	52.5	--	--	--	--
CD-ROM body near motor	27.7	54	--	--	--	--
Enclosure outside near Top	25	51.3	--	--	--	70
--	--	--	--	--	--	Alternate power supply, Zippy Technology Corp, HG2-6400P
Ambient	24.6	45	--	--	--	--
Power Supply AC inlet body	29.4	54.8	--	--	--	--
Power Supply C42 body	27.3	52.7	--	--	--	85
Power Supply T1 coil	40.4	65.8	--	--	--	90
Power Supply T1 core	34.8	60.2	--	--	--	90
Power Supply choke body	29.6	55	--	--	--	105
Power Supply PWB under D8	42.9	68.3	--	--	--	105
Mainboard RTC battery	38.6	64	--	--	--	--
Mainboard PWB under CPU	42.8	68.2	--	--	--	105
Mainboard L8 coil	31.1	56.5	--	--	--	105
Mainboard CM4 body	44.9	70.3	--	--	--	85
Mainboard U6 body	40.3	65.7	--	--	--	--
HDD body near motor	27.3	52.7	--	--	--	--
CD-ROM body near motor	28.7	54.1	--	--	--	--
Enclosure outside near Top	26.6	52	--	--	--	70
--	Maximum Normal Load at 253V, 60Hz, Duration 1.0 hrs.	Maximum Normal Load at 253V, 60Hz, Duration 1.0 hrs.	--	--	--	--
Ambient	24.9	50	--	--	--	--
Power Supply AC inlet body	28	53.1	--	--	--	--
Power Supply C42 body	26.8	51.9	--	--	--	85
Power Supply T1 coil	39.6	64.7	--	--	--	90
Power Supply T1 core	33.9	59	--	--	--	90
Power Supply choke body	28.4	53.5	--	--	--	105
Power Supply PWB under D8	42.1	67.2	--	--	--	105
Mainboard RTC battery	38.5	63.6	--	--	--	--

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Mainboard PWB under CPU	42.7	67.8	--	--	--	105
Mainboard L8 coil	30.9	56	--	--	--	105
Mainboard CM4 body	44.6	69.7	--	--	--	85
Mainboard U6 body	40.3	65.4	--	--	--	--
HDD body near motor	27.3	52.4	--	--	--	--
CD-ROM body near motor	28.6	53.7	--	--	--	--
Enclosure outside near Top	26.4	51.5	--	--	--	70
--	--	--	--	--	--	Alternate Redundant Power Supply: Zippy, MPN3-6570F
--	Maximum Normal Load at 103 V, 60 Hz, Duration 1.6 hrs	Maximum Normal Load at 103 V, 60 Hz, Duration 1.6 hrs	--	--	--	--
Ambient	24.3	50	--	--	--	--
Power Supply2 L3 coil	35.6	61.3	--	--	--	105
Power Supply2 LF1 coil	34.7	60.4	--	--	--	105
Power Supply2 T2 coil	45.5	71.2	--	--	--	90
Power Supply2 C42 body	40.7	66.4	--	--	--	85
Power Supply2 PWB under Q3	46.6	72.3	--	--	--	105
Power Supply2 U9 body	47.3	73	--	--	--	--
Power Supply2 T3 coil	41.8	67.5	--	--	--	90
Power Supply2 T3 core	42.4	68.1	--	--	--	90
Power Supply2 T4 coil	40.2	65.9	--	--	--	90
Power Supply2 T4 core	39.6	65.3	--	--	--	90
Power Supply2 L4 coil	42.7	68.4	--	--	--	105
Power Supply3 L3 coil	34.6	60.3	--	--	--	105
Power Supply3 LF1 coil	33.9	59.6	--	--	--	105
Power Supply3 T2 coil	41.2	66.9	--	--	--	90
Power Supply3 C42 body	39.8	65.5	--	--	--	85
Power Supply3 PWB under Q3	43.8	69.5	--	--	--	105
Power Supply3 U9 body	43.5	69.2	--	--	--	--
Power Supply3 T3 coil	42	67.7	--	--	--	90
Power Supply3 T3 core	40.8	66.5	--	--	--	90
Power Supply3 T4 coil	38.9	64.6	--	--	--	90
Power Supply3 T4 core	39	64.7	--	--	--	90

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Power Supply3 L4 coil	40.7	66.4	--	--	--	105
Power Supply4 L3 coil	32.3	58	--	--	--	105
Power Supply4 LF1 coil	32	57.7	--	--	--	105
Power Supply4 T2 coil	42.1	67.8	--	--	--	90
Power Supply4 C42 body	39.2	64.9	--	--	--	85
Power Supply4 PWB under Q3	42.1	67.8	--	--	--	105
Power Supply4 U9 body	39.5	65.2	--	--	--	--
Power Supply4 T3 coil	42.6	68.3	--	--	--	90
Power Supply4 T3 core	39.8	65.5	--	--	--	90
Power Supply4 T4 coil	34.7	60.4	--	--	--	90
Power Supply4 T4 core	35.2	60.9	--	--	--	90
Power Supply4 L4 coil	37.1	62.8	--	--	--	105
Mainboard PWB under CPU	47.1	72.8	--	--	--	105
Mainboard PWB under U6	39	64.7	--	--	--	105
Mainboard PWB under U7	40.7	66.4	--	--	--	105
Mainboard PWB under U8	44.7	70.4	--	--	--	105
Mainboard RTC battery	33.2	58.9	--	--	--	--
HDD body	31.5	57.2	--	--	--	--
CD-ROM body	29.2	54.9	--	--	--	--
Enclosure outside near T3	33.2	58.9	--	--	--	70
Enclosure outside near Power Supply	28.5	54.2	--	--	--	75
--	Maxi mum Norm al Load at 253 V, 60 Hz, Durati on 2.7 hrs.	Maximu m Normal Load at 253 V, 60 Hz, Duration 2.7 hrs.	--	--	--	--
Ambient	24.3	50	--	--	--	--
Power Supply2 L3 coil	35.8	61.5	--	--	--	105
Power Supply2 LF1 coil	34.7	60.4	--	--	--	105
Power Supply2 T2 coil	40.4	66.1	--	--	--	90
Power Supply2 C42 body	37.7	63.4	--	--	--	85
Power Supply2 PWB under Q3	46	71.7	--	--	--	105
Power Supply2 U9 body	46.7	72.4	--	--	--	--
Power Supply2 T3 coil	41.4	67.1	--	--	--	90
Power Supply2 T3 core	42.1	67.8	--	--	--	90
Power Supply2 T4 coil	39.8	65.5	--	--	--	90
Power Supply2 T4 core	39.1	64.8	--	--	--	90
Power Supply2 L4 coil	42.2	67.9	--	--	--	105
Power Supply3 L3 coil	33.9	59.6	--	--	--	105
Power Supply3 LF1 coil	33.3	59	--	--	--	105
Power Supply3 T2 coil	37.1	62.8	--	--	--	90

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Power Supply3 C42 body	37	62.7	--	--	--	85
Power Supply3 PWB under Q3	43.4	69.1	--	--	--	105
Power Supply3 U9 body	43.1	68.8	--	--	--	--
Power Supply3 T3 coil	41.5	67.2	--	--	--	90
Power Supply3 T3 core	40.3	66	--	--	--	90
Power Supply3 T4 coil	38.5	64.2	--	--	--	90
Power Supply3 T4 core	38.5	64.2	--	--	--	90
Power Supply3 L4 coil	40.3	66	--	--	--	105
Power Supply4 L3 coil	32.1	57.8	--	--	--	105
Power Supply4 LF1 coil	31.7	57.4	--	--	--	105
Power Supply4 T2 coil	37.1	62.8	--	--	--	90
Power Supply4 C42 body	36.4	62.1	--	--	--	85
Power Supply4 PWB under Q3	41.8	67.5	--	--	--	105
Power Supply4 U9 body	39.3	65	--	--	--	--
Power Supply4 T3 coil	42.2	67.9	--	--	--	90
Power Supply4 T3 core	39.2	64.9	--	--	--	90
Power Supply4 T4 coil	34.5	60.2	--	--	--	90
Power Supply4 T4 core	34.9	60.6	--	--	--	90
Power Supply4 L4 coil	36.7	62.4	--	--	--	105
Mainboard PWB under CPU	47.9	73.6	--	--	--	105
Mainboard PWB under U6	40.4	66.1	--	--	--	105
Mainboard PWB under U7	41.9	67.6	--	--	--	105
Mainboard PWB under U8	45.6	71.3	--	--	--	105
Mainboard RTC battery	34.8	60.5	--	--	--	--
HDD body	31	56.7	--	--	--	--
CD-ROM body	28.8	54.5	--	--	--	--
Enclosure outside near T3	32.4	58.1	--	--	--	75
Enclosure outside near Power Supply	28.1	53.8	--	--	--	75
--	--	--	--	--	--	Alternate Redundant Power Supply: Zippy, MPN4- 6810F
--	Maxi mum Norm al Load at 103 V, 60 Hz, Durati on 3.0 hrs.	Maximu m Normal Load at 103 V, 60 Hz, Duration 3.0 hrs.	--	--	--	--
Ambient	24.3	50	--	--	--	--

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Power Supply1 L3 coil	32.3	58	--	--	--	105
Power Supply1 LF1 coil	31.9	57.6	--	--	--	105
Power Supply1 T2 coil	38.8	64.5	--	--	--	90
Power Supply1 C42 body	37.8	63.5	--	--	--	85
Power Supply1 PWB under Q3	42.3	68	--	--	--	105
Power Supply1 U9 body	40.6	66.3	--	--	--	--
Power Supply1 T3 coil	42.8	68.5	--	--	--	90
Power Supply1 T3 core	40.7	66.4	--	--	--	90
Power Supply1 T4 coil	37.2	62.9	--	--	--	90
Power Supply1 T4 core	35.9	61.6	--	--	--	90
Power Supply1 L4 coil	38.7	64.4	--	--	--	105
Power Supply2 L3 coil	32.7	58.4	--	--	--	105
Power Supply2 LF1 coil	32.7	58.4	--	--	--	105
Power Supply2 T2 coil	45.4	71.1	--	--	--	90
Power Supply2 C42 body	39.7	65.4	--	--	--	85
Power Supply2 PWB under Q3	46.1	71.8	--	--	--	105
Power Supply2 U9 body	46.5	72.2	--	--	--	--
Power Supply2 T3 coil	42.7	68.4	--	--	--	90
Power Supply2 T3 core	42.9	68.6	--	--	--	90
Power Supply2 T4 coil	41.6	67.3	--	--	--	90
Power Supply2 T4 core	40.4	66.1	--	--	--	90
Power Supply2 L4 coil	42.6	68.3	--	--	--	105
Power Supply3 L3 coil	32.9	58.6	--	--	--	105
Power Supply3 LF1 coil	32.6	58.3	--	--	--	105
Power Supply3 T2 coil	40.9	66.6	--	--	--	90
Power Supply3 C42 body	38.8	64.5	--	--	--	85
Power Supply3 PWB under Q3	43.6	69.3	--	--	--	105
Power Supply3 U9 body	43.7	69.4	--	--	--	--
Power Supply3 T3 coil	41.5	67.2	--	--	--	90
Power Supply3 T3 core	40.5	66.2	--	--	--	90
Power Supply3 T4 coil	38.4	64.1	--	--	--	90
Power Supply3 T4 core	38.8	64.5	--	--	--	90
Power Supply3 L4 coil	39.9	65.6	--	--	--	105
Power Supply4 L3 coil	30.6	56.3	--	--	--	105
Power Supply4 LF1 coil	30.5	56.2	--	--	--	105
Power Supply4 T2 coil	41.2	66.9	--	--	--	90
Power Supply4 C42 body	37.6	63.3	--	--	--	85
Power Supply4 PWB under Q3	41	66.7	--	--	--	105
Power Supply4 U9 body	38.8	64.5	--	--	--	--
Power Supply4 T3 coil	41.7	67.4	--	--	--	90
Power Supply4 T3 core	39.1	64.8	--	--	--	90
Power Supply4 T4 coil	34	59.7	--	--	--	90
Power Supply4 T4 core	34.4	60.1	--	--	--	90
Power Supply4 L4 coil	35.8	61.5	--	--	--	105
Mainboard PWB under CPU	46.5	72.2	--	--	--	105
Mainboard PWB under U6	39.7	65.4	--	--	--	105
Mainboard PWB under U7	43.5	69.2	--	--	--	105

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Mainboard PWB under U8	45.1	70.8	--	--	--	105
Mainboard RTC battery	34.1	59.8	--	--	--	--
HDD body	31.5	57.2	--	--	--	--
CD-ROM body	29	54.7	--	--	--	--
Enclosure outside near T3	33.1	58.8	--	--	--	70
Enclosure outside near Power Supply	32.4	58.1	--	--	--	70
--	Maxi mum Norm al Load at 253 V, 60 Hz, Durati on 1.9 hrs.	Maximu m Normal Load at 253 V, 60 Hz, Duration 1.9 hrs.	--	--	--	--
Ambient	24.7	50	--	--	--	--
Power Supply1 L3 coil	32.5	57.8	--	--	--	105
Power Supply1 LF1 coil	32.3	57.6	--	--	--	105
Power Supply1 T2 coil	35	60.3	--	--	--	90
Power Supply1 C42 body	36.2	61.5	--	--	--	85
Power Supply1 PWB under Q3	42.3	67.6	--	--	--	105
Power Supply1 U9 body	40.6	65.9	--	--	--	--
Power Supply1 T3 coil	42.9	68.2	--	--	--	90
Power Supply1 T3 core	40.8	66.1	--	--	--	90
Power Supply1 T4 coil	37.3	62.6	--	--	--	90
Power Supply1 T4 core	36	61.3	--	--	--	90
Power Supply1 L4 coil	38.9	64.2	--	--	--	105
Power Supply2 L3 coil	32.7	58	--	--	--	105
Power Supply2 LF1 coil	32.4	57.7	--	--	--	105
Power Supply2 T2 coil	39.6	64.9	--	--	--	90
Power Supply2 C42 body	37.1	62.4	--	--	--	85
Power Supply2 PWB under Q3	45.7	71	--	--	--	105
Power Supply2 U9 body	46.1	71.4	--	--	--	--
Power Supply2 T3 coil	42.5	67.8	--	--	--	90
Power Supply2 T3 core	42.5	67.8	--	--	--	90
Power Supply2 T4 coil	41.4	66.7	--	--	--	90
Power Supply2 T4 core	40.2	65.5	--	--	--	90
Power Supply2 L4 coil	42.5	67.8	--	--	--	105
Power Supply3 L3 coil	32.9	58.2	--	--	--	105
Power Supply3 LF1 coil	32.6	57.9	--	--	--	105
Power Supply3 T2 coil	37.2	62.5	--	--	--	90
Power Supply3 C42 body	37	62.3	--	--	--	85
Power Supply3 PWB under Q3	43.3	68.6	--	--	--	105
Power Supply3 U9 body	43.4	68.7	--	--	--	--
Power Supply3 T3 coil	41.2	66.5	--	--	--	90

IEC 60950-1						
Clause	Requirement + Test		Result - Remark			Verdict
Power Supply3 T3 core	40.3	65.6	--	--	--	90
Power Supply3 T4 coil	38.3	63.6	--	--	--	90
Power Supply3 T4 core	38.6	63.9	--	--	--	90
Power Supply3 L4 coil	39.8	65.1	--	--	--	105
Power Supply4 L3 coil	31	56.3	--	--	--	105
Power Supply4 LF1 coil	30.8	56.1	--	--	--	105
Power Supply4 T2 coil	36.7	62	--	--	--	90
Power Supply4 C42 body	35.9	61.2	--	--	--	85
Power Supply4 PWB under Q3	41	66.3	--	--	--	105
Power Supply4 U9 body	38.8	64.1	--	--	--	--
Power Supply4 T3 coil	41.6	66.9	--	--	--	90
Power Supply4 T3 core	39	64.3	--	--	--	90
Power Supply4 T4 coil	33.9	59.2	--	--	--	90
Power Supply4 T4 core	34.4	59.7	--	--	--	90
Power Supply4 L4 coil	35.9	61.2	--	--	--	105
Mainboard PWB under CPU	46.5	71.8	--	--	--	105
Mainboard PWB under U6	39.9	65.2	--	--	--	105
Mainboard PWB under U7	41.9	67.2	--	--	--	105
Mainboard PWB under U8	45.2	70.5	--	--	--	105
Mainboard RTC battery	34.4	59.7	--	--	--	--
HDD body	31.5	56.8	--	--	--	--
CD-ROM body	29.2	54.5	--	--	--	--
Enclosure outside near T3	32.7	58	--	--	--	70
Enclosure outside near Power Supply	32.4	57.7	--	--	--	70
--	--	--	--	--	--	--
--	Maximum Normal Load at 90V, 60Hz, duration 2.1hrs	Maximum Normal Load at 90V, 60Hz, duration 2.1hrs	Maximum Normal Load at 264V, 60Hz, duration 1.5hrs	Maximum Normal Load at 264V, 60Hz, duration 1.5hrs	--	--
Ambient	21.1	50	21.9	50	--	--
Power board	--	--	--	--	--	--
AC inlet near line (Right)	24.9	53.8	25.4	53.5	--	70
AC inlet near line (Left)	24.8	53.7	25.1	53.2	--	70
Right power	--	--	--	--	--	--
T1 coil	31.3	60.2	31.1	59.2	--	90
T1 core	28.6	57.5	28.5	56.6	--	90
T2 coil	22.8	51.7	23.3	51.4	--	90
T2 core	23.7	52.6	24.1	52.2	--	90
U8 body	30.3	59.2	30	58.1	--	--
U7 body	29	57.9	28.7	56.8	--	--

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

Left power	--	--	--	--	--	--
T1 coil	27.5	56.4	27.6	55.7	--	90
T1 core	27.2	56.1	27.2	55.3	--	90
T2 coil	23.8	52.7	24.1	52.2	--	90
T2 core	24.3	53.2	24.6	52.7	--	90
U8 body	31.2	60.1	30.9	59	--	--
U7 body	28.7	57.6	28.5	56.6	--	--
Main board	--	--	--	--	--	--
PWB under U19	28.9	57.8	28.7	56.8	--	105
PWB under U2	28.2	57.1	28.1	56.2	--	105
PWB under CPU	27.6	56.5	27.6	55.7	--	105
RTC body	28.5	57.4	28.5	56.6	--	--
HD body	23.4	52.3	23.9	52	--	--
CD-ROM body	22.8	51.7	23.2	51.3	--	--
FDD body	22.2	51.1	22.9	51	--	--
Enclosure inside near power	23.5	52.4	23.8	51.9	--	--
Enclosure outside near power	22.9	51.8	23.5	51.6	--	70
temperature T of winding:		$R_1 (\Omega)$	$R_2 (\Omega)$	T (°C)	allowed Tmax (°C)	insulation class
--	--	--	--	--	--	--

supplementary information:

Comments:

The temperatures were measured under worst case normal mode defined in 1.2.2.1 and as described in 1.6.1 at voltages as described in 1.4.5.

With a specified ambient temperature of 50°C, the max. temperature is calculated as follows:

Winding components:

- class A $T_{max}(^{\circ}\text{C}) = 100^{\circ}\text{C} - 10^{\circ}\text{C} = 90^{\circ}\text{C}$

Components with:

- max. absolute temp. of 105°C (Line choke) $T_{max}(^{\circ}\text{C}) = 105^{\circ}\text{C}$

- max. absolute temp. of 85°C (Capacitor) $T_{max}(^{\circ}\text{C}) = 85^{\circ}\text{C}$

- max. absolute temp. of 105°C (PCB) $T_{max}(^{\circ}\text{C}) = 105^{\circ}\text{C}$

- when no class of insulation is given, min. insulation 105°C assumed.

User accessible area:

- material is metal (70°C) $T_{max}(^{\circ}\text{C}) = 75^{\circ}\text{C}$

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

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

4.7	TABLE: resistance to fire				Pass
part	manufacturer of material	type of material	thickness(mm)	flammability class	
PWB	Various	--	--	V-1 minium	
supplementary information:					
See Table 1.5.1 for details.					

5.2	TABLE: electric strength tests, impulse tests and voltage surge tests			Pass
test voltage applied between:		test voltage (V) a.c./d.c.	breakdown Yes / No	
Primary to SELV		DC 4242	No	
Primary to Earth		DC 3000	No	
Power Supply: Zippy, HP2-6500P		--	--	
Primary to SELV		4242	No	
Primary to Earth		2913	No	
Power Supply: Zippy, HG2-6400P		--	--	
Primary to SELV		4242	No	
Primary to Earth		3100	No	
Redundant Power Supply: Zippy, MPN3-6570F		--	--	
Primary to SELV		4242	No	
Primary to Earth		3000	No	
Redundant Power Supply: Zippy, MPN4-6810F		--	--	
Primary to SELV		4242	No	
Primary to Earth		3000	No	
Alternate Power Supply: Zippy Technology Corp., RHI-6460P		--	--	
Primary to SELV		4242 Vdc	No	
Primary to Earth		2640 Vdc	No	
supplementary information:				
N/A				

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

5.3	TABLE: fault condition tests						Pass
	ambient temperature (°C) : 25						—
	model/type of power supply : --						—
	manufacturer of power supply : --						—
	rated markings of power supply : --						—
component No.	fault	test voltage (V)	test time	fuse No.	fuse current (A)	result	
Ventilation openings	Blocked	230 / 60Hz	3.0 hrs	--	--	NB, NC, NT, (see 4.5.1 Heating Test for details)	
System fan	Stalled	230 / 60Hz	2.5 hrs	--	--	NB, NC, NT, (see 4.5.1 Heating Test for details)	
One power supply kid	Removed	230 / 60Hz	3.0 hrs	--	--	NB, NC, NT, (see 4.5.1 Heating Test for details)	
Power fan	Stalled	230 / 60Hz	2.5 hrs	--	--	NB, NC, NT, (see 4.5.1 Heating Test for details)	
PS/2 pin 1, 5, 6	Overload	240 / 60Hz	--	--	--	Circuit measures 0 volts.	
PS/2 pin 2	Overload	240 / 60Hz	1 hr	--	--	NB, NC, NT, open circuit 5.04V, Max. available current 2100 mA	
PS/2 pin 3, 4	Overload	240 / 60Hz	--	--	--	Circuit measures less than 12.5mA	
VGA pin 1, 6~8, 10, 11	Overload	240 / 60Hz	--	--	--	Circuit measures 0 volts.	
VGA pin 12~15	Overload	240 / 60Hz	--	--	--	Circuit measures less than 12.5mA	
VGA pin 9	Overload	240 / 60Hz	1 hr	--	--	NB, NC, NT, open circuit 5.04V, Max. available current 2000 mA	
RJ-45 pin 1~8	Overload	240 / 60Hz	--	--	--	Circuit measures 0 volts.	
COM1 pin 1~9	Overload	240 / 60Hz	--	--	--	Circuit measures 0 volts.	
Power Supply: Zippy, HP2-6500P	--	--	--	--	--	--	
--	--	--	--	--	--	5.3.1 Abnormal operation	
Ventilation openings	Blocked	230 / 60Hz	2.4 hrs	-	0.750	NB, NC, NT, CT, Ambient: 23.8°C; PWB under D8: 73.4°C	
Power fan	Stalled	230 / 60Hz	4.0 hrs	-	0.810	NB, NC, NT, CT, Ambient: 25.2°C; PWB under D8: 47.1°C	

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
All system fan	Stalled	230 / 60Hz	4.5 hrs	-	0.671	NB, NC, NT, CT, Ambient: 25.3°C; PWB under CPU: 79.8°C
CPU fan	Stalled	230 / 60Hz	2.16 hrs	-	0.802	NB, NC, NT, CT, Ambient: 25.6°C; PWB under CPU: 47.5°C
--	--	--	--	--	--	5.3.6 Overload Of Operator Accessible Connector Test
RS232 All pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
RJ 45 All Pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 1, 6-8, 10-15	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 2	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.98 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 3	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.72 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 5	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.98 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 9	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.08 V, 1950 mA.
PS/2 Pin 1, 2, 6	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
PS/2 Pin 3, 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA.
PS/2 Pin 5	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.07 V, 1950 mA.
Power Supply: Zippy, HP2-6400P	--	--	--	--	--	--
--	--	--	--	--	--	5.3.1 Abnormal operation
Ventilation openings	Blocked	230 / 60Hz	3.5 hrs	-	0.832	NB, NC, NT, CT, Ambient: 24.1°C; PWB under CPU: 68.5°C
Power fan	Stalled	230 / 60Hz	3.0 hrs	-	0.794	NB, NC, NT, CT, Ambient: 23.8°C; PWB under D8: 50.9°C
All system fan	Stalled	230 / 60Hz	4.8 hrs	-	0.668	NB, NC, NT, CT, Ambient: 22.1°C; PWB under CPU:

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
CPU fan	Stalled	230 / 60Hz	2.0 hrs	-	0.786	79.4°C NB, NC, NT, CT, Ambient: 24.1°C; PWB under CPU: 47.4°C
--	--	--	--	--	--	5.3.6 Overload Of Operator Accessible Connector Test
RS232 All pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
RJ 45 All Pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 1, 6-8, 10-15	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 2	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.98 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 3	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.72 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 5	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 4.98 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 9	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.08 V, 1950 mA.
PS/2 Pin 1, 2, 6	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
PS/2 Pin 3, 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA.
PS/2 Pin 5	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.07 V, 1950 mA.
Alternate Redundant Power Supply: Zippy, MPN3- 6570F	--	--	--	--	--	--
--	--	--	--	--	--	5.3.1 Abnormal operation
Ventilation openings	Blocked	230 / 60Hz	2.9 hrs	--	1.87	NB, NC, NT, CT, Ambient: 26.0 °C; Power4 T3 coil: 61.0°C; T3 core: 57.5°C
System fan	Stalled	230 / 60Hz	4.6 hrs	--	1.85	NB, NC, NT, CT, Ambient: 24.5°C; Power4 T3 coil: 54.5°C; T3 core: 51.6°C
Power fan	Stalled	230 / 60Hz	3.0 hrs	--	1.90	NB, NC, NT, CT, Ambient:

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
(Left-Top side)						25.0°C; Power3 T3 coil: 58.9°C; T3 core: 57.8°C
Power fan (Left-bottom side)	Stalled	230 / 60Hz	4.1 hrs	--	1.85	NB, NC, NT, CT, Ambient: 24.7°C; Power3 T3 coil: 54.7°C; T3 core: 54.5°C
Power fan (Right side)	Stalled	230 / 60Hz	2.1 hrs	--	1.86	NB, NC, NT, CT, Ambient: 24.0°C; Power4 T3 coil: 55.4°C; T3 core: 55.8°C
CPU fan	Stalled	230 / 60Hz	5.0 hrs	--	1.90	NB, NC, NT, CT, Ambient: 23.6°C; Power4 T3 coil: 40.2°C; T3 core: 37.5°C
One Power	Removed	230 / 60Hz	3.2 hrs	--	1.85	NB, NC, NT, CT, Ambient: 23.2°C; Power4 T3 coil: 47.4°C; T3 core: 47.4°C
--	--	--	--	--	--	5.3.6 Overload Of Operator Accessible Connector Test
RS232 All pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
RJ 45 All Pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 1-8, 10, 11, 15	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 12	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 14	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 18 mA. Circuit measures less than 12.5mA
VGA pin 9	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.06 V, 2100 mA.
PS/2 Pin 1, 2, 6	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
PS/2 Pin 3	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 5 mA. Circuit measures less than 12.5mA.
PS/2 Pin 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 4 mA. Circuit measures less than 12.5mA.
PS/2 Pin 5	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.06 V, 2050 mA.
Alternate Redundant Power Supply: Zippy, MPN4-	--	--	--	--	--	--

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
6810F						
--	--	--	--	--	--	5.3.1 Abnormal operation
Ventilation openings	Blocked	230 / 60Hz	2.9 hrs	--	2.01	NB, NC, NT, CT, Ambient: 26.2 °C; Power2 T3 coil: 62.5°C; T3 core: 62.9°C
System fan	Stalled	230 / 60Hz	4.8 hrs	--	2.02	NB, NC, NT, CT, Ambient: 23.8°C; Power4 T3 coil: 50.2°C; T3 core: 47.8°C
Power fan (Left-Top side)	Stalled	230 / 60Hz	4.0 hrs	--	2.01	NB, NC, NT, CT, Ambient: 23.5°C; Power2 T3 coil: 56.5°C; T3 core: 50.9°C
Power fan (Right-Top side)	Stalled	230 / 60Hz	5.1 hrs	--	2.03	NB, NC, NT, CT, Ambient: 22.9°C; Power3 T3 coil: 53.9°C; T3 core: 52.7°C
Power fan (Left-Bottom side)	Stalled	230 / 60Hz	2.1 hrs	--	2.02	NB, NC, NT, CT, Ambient: 24.9°C; Power2 T3 coil: 53.7°C; T3 core: 50.2°C
Power fan (Right-Bottom side)	Stalled	230 / 60Hz	1.6 hrs	--	2.01	NB, NC, NT, CT, Ambient: 24.2°C; Power3 T3 coil: 55.1°C; T3 core: 55.0°C
CPU fan	Stalled	230 / 60Hz	3.3 hrs	--	2.03	NB, NC, NT, CT, Ambient: 22.9°C; Power2 T3 coil: 39.5°C; T3 core: 40.1°C
One Power	Removed	230 / 60Hz	2.7 hrs	--	2.02	NB, NC, NT, CT, Ambient: 22.2°C; Power4 T3 coil: 43.2°C; T3 core: 44.5°C
RS232 All pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
RJ 45 All Pin	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 1-8, 10, 11, 15	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
VGA pin 12	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.03 V, 10 mA. Circuit measures less than 12.5mA
VGA pin 14	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 18 mA. Circuit measures less than 12.5mA
VGA pin 9	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.06 V, 2100 mA.
PS/2 Pin 1, 2, 6	Overload	230 / 60 Hz	--	--	--	C Circuit measures 0 volts.
PS/2 Pin 3	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 5 mA. Circuit measures less than 12.5mA.

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
PS/2 Pin 4	Overload	230 / 60 Hz	1 sec	--	--	B, Measure 5.04 V, 4 mA. Circuit measures less than 12.5mA.
PS/2 Pin 5	Overload	230 / 60 Hz	1 hr	--	--	NB, NC, NT, Measure 5.06 V, 2100 mA.
Alternate Power Supply: Zippy Technology Corp., RHI-6460P	--	--	--	--	--	--
--	--	--	--	--	--	5.3.1 Abnormal operation
Ventilation openings	Blocked	240	3.1 hrs	--	0.729	NB, NC, NT, CT Ambient: 22.7 degree C, Right power: T1 coil: 38.0 degree C; T1 core: 35.2 degree C, T2 coil: 31.0 degree C, T2 core: 30.0 degree C, Left power: T1 coil: 33.5 degree C; T1 core: 33.9 degree C, T2 coil: 31.2 degree C, T2 core: 30.6 degree C
Power Fan Locked (Right Fan Locked)	Stalled	240	3 hrs	--	0.73	NB, NC, NT, CT Ambient: 22.3 degree C, Right power: T1 coil: 30.9 degree C; T1 core: 28.6 degree C, T2 coil: 24.5 degree C, T2 core: 23.5 degree C, Left power: T1 coil: 36.3 degree C; T1 core: 34.9 degree C, T2 coil: 33.5 degree C, T2 core: 35.3 degree C
Power Fan Locked (Left Fan Locked)	Stalled	240	2.3 hrs	--	0.731	NB, NC, NT, CT Ambient: 22.4 degree C, Right power: T1 coil: 46.2 degree C; T1 core: 46.0 degree C, T2 coil: 36.4 degree C, T2 core: 37.3 degree C, Left power: T1 coil: 27.9 degree C; T1 core: 27.3 degree C, T2 coil: 24.6 degree C, T2 core: 24.0 degree C
System Fan Locked (Right Fan Locked)	Stalled	240	3.6 hrs	--	0.731	NB, NC, NT, CT Ambient: 21.9 degree C, Right power: T1 coil: 32.2 degree C; T1 core: 29.6 degree C, T2 coil: 25.6 degree C, T2

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
						core: 24.5 degree C, Left power: T1 coil: 28.8 degree C; T1 core: 29.1 degree C, T2 coil: 26.1 degree C, T2 core: 25.6 degree C
System Fan Locked (Left Fan Locked)	Stalled	240	3.4 hrs	--	0.732	NB, NC, NT, CT Ambient: 21.3 degree C, Right power: T1 coil: 32.3 degree C; T1 core: 29.4 degree C, T2 coil: 25.3 degree C, T2 core: 24.2 degree C, Left power: T1 coil: 27.7 degree C; T1 core: 27.5 degree C, T2 coil: 24.8 degree C, T2 core: 24.4 degree C
System Fan (Middle Fan Locked)	Stalled	240	3.4 hrs	--	0.73	NB, NC, NT, CT Ambient: 21.7 degree C, Right power: T1 coil: 32.0 degree C; T1 core: 29.4 degree C, T2 coil: 25.1 degree C, T2 core: 24.1 degree C, Left power: T1 coil: 28.4 degree C; T1 core: 28.7 degree C, T2 coil: 25.6 degree C, T2 core: 25.2 degree C
CPU Fan Locked	Stalled	240	2 hrs	--	0.729	NB, NC, NT, CT Ambient: 22.1 degree C, Right power: T1 coil: 31.8 degree C; T1 core: 29.3 degree C, T2 coil: 24.7 degree C, T2 core: 23.7 degree C, Left power: T1 coil: 27.7 degree C; T1 core: 27.5 degree C, T2 coil: 24.8 degree C, T2 core: 24.2 degree C
Power supply	Remove	240	2.1 hrs	--	0.61	NB, NC, NT, CT Ambient: 22.9 degree C, Right power: T1 coil: 32.3 degree C; T1 core: 29.7 degree C, T2 coil: 24.3 degree C, T2 core: 23.4 degree C, Left power: T1 coil: 24.0 degree C; T1 core: 24.9 degree C, T2 coil: 22.8 degree C, T2 core: 22.3 degree C
--	--	--	--	--	--	5.3.6 Overload Of Operator Accessible Connector Test
PS/II Pin 1,	Overload	240	--	--	--	Open Voltage: 0V, C

IEC 60950-1						
Clause	Requirement + Test			Result - Remark		Verdict
2, 4, 6(Mouse)						
PS/II Pin 3	Overload	240	1 sec	--	--	Open Voltage: 5.01V; Maximum Current: 10mA, B
PS/II Pin 5	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 2000mA, NB, NC, NT
PS/II Pin 1, 2, 6(Keyboard)	Overload	240	--	--	--	Open Voltage: 0V, C
PS/II Pin 3, 4	Overload	240	1 sec	--	--	Open Voltage: 5.01V; Maximum Current: 10mA, B
PS/II Pin 5	Overload	240	1 hr	--	--	Open Voltage : 5.06V; Max. Current: 2100mA, NB, NC, NT
USB1 Pin1	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 34200mA, NB, NC, NT
USB1 Pin2-4	Overload	240	--	--	--	Open Voltage: 0V, C
USB2 Pin1	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 4200mA, NB, NC, NT
USB2 Pin2-4	Overload	240	--	--	--	Open Voltage: 0V, C
USB3 Pin1	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 4200mA, NB, NC, NT
USB3 Pin2-4	Overload	240	--	--	--	Open Voltage: 0V, C
USB4 Pin1	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 4200mA, NB, NC, NT
USB4 Pin2-4	Overload	240	--	--	--	Open Voltage: 0V, C
RJ45x2 All pin	Overload	240	--	--	--	Open Voltage: 0V, C
RS232 All pin	Overload	240	--	--	--	Open Voltage: 0V, C
VGA Pin 1-8, 10, 11, 15	Overload	240	--	--	--	Open Voltage: 0V, C
VGA Pin 9	Overload	240	1 hr	--	--	Open Voltage: 5.06V; Maximum Current: 1950mA, NB, NC, NT
VGA Pin 12	Overload	240	1 sec	--	--	Open Voltage: 3.32V; Maximum Current: 10mA, B

IEC 60950-1						
Clause	Requirement + Test				Result - Remark	Verdict
VGA Pin 13	Overload	240	1 hr	--	--	Open Voltage: 4.66V; Maximum Current: 170mA, NB, NC, NT
VGA Pin 14	Overload	240	1 hr	--	--	Open Voltage: 5.03V; Maximum Current: 190mA, NB, NC, NT
supplementary information:						
NB - No indication of dielectric breakdown; NC - Cheesecloth remained intact; NT - Tissue paper remained intact B - Circuit measures less than 12.5 mA C - Circuit measures 0 Volts						

Enclosure
National Differences

(Total 10 Pages including this Cover Page)

USA / Canada

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

USA / Canada - Differences to IEC 60950-1:2001, 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.	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.		Pass
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

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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
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.		N/A
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.		N/A
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.		Pass
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.		N/A
3.1.1	Permissible combinations of internal wiring/external		N/A

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	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.		N/A
3.2.1	Permitted use for flexible cords and plugs.		Pass
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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
	Part 1.		
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm ²) 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.		Pass
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		Pass
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 than 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 mm ²) or smaller conductor if provided with upturned lugs. cupped		N/A

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

IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).	Evaluated in separate component evaluation.	N/A
4.7	Automated information storage equipment intended to contain more than 0.76 mm ³ 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 m ² 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.	Internal wiring is UL Recognized, rated VW-1 or FT-1(where needed).	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 appended table 5.3)	Pass
5.3.6	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.8.1	Test interrupted by opening of wire or trace subject to certain conditions.		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

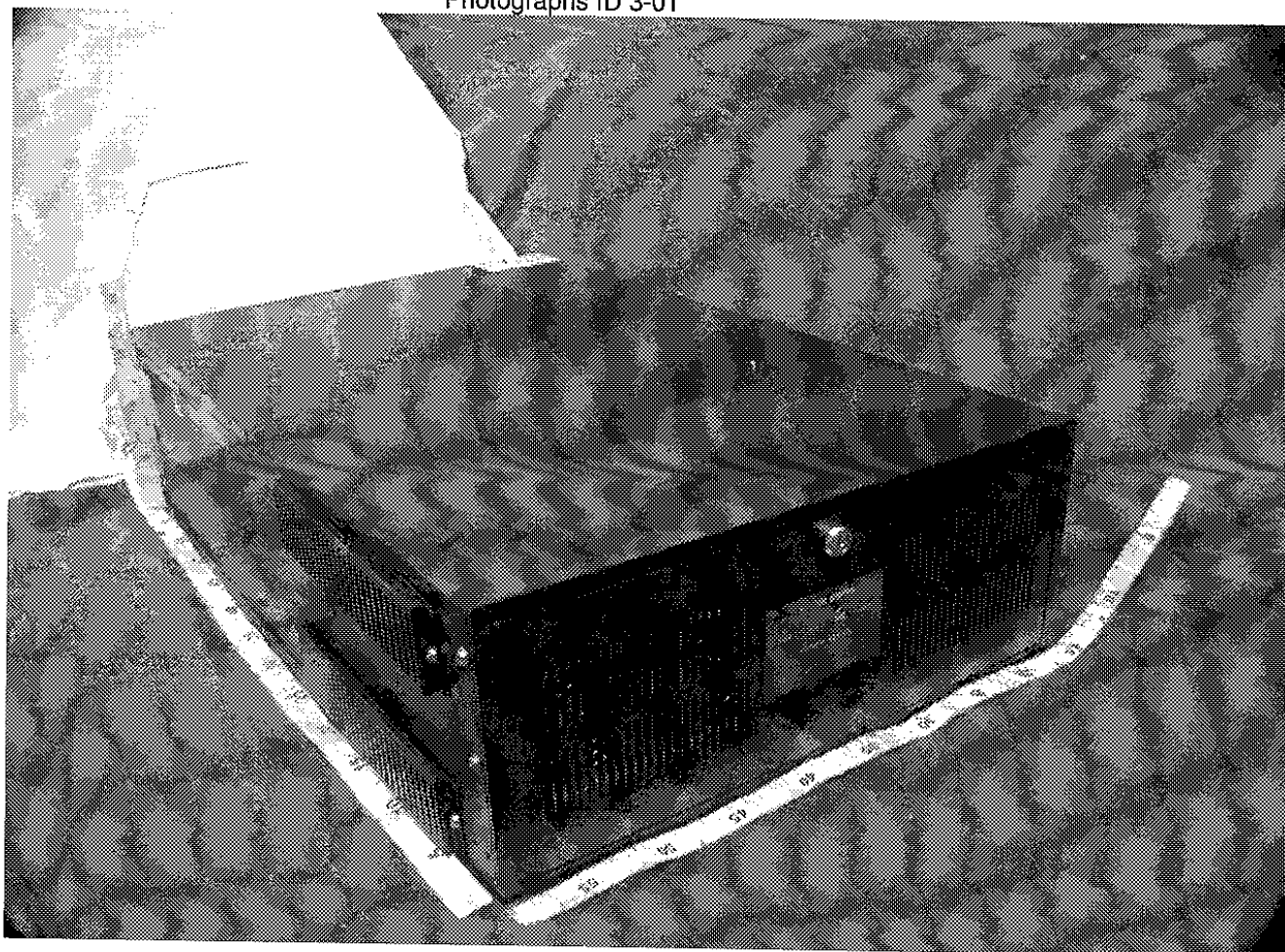
IEC 60950-1			
SubClause	Difference + Test	Result - Remark	Verdict
6.2.1	Special requirements for enameled wiring used as electrical separation provided between parts connected to telecommunication network and telecommunication circuitry intentionally isolated from network.		N/A
6.2.1	Digital line termination 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
H	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		N/A

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

Enclosure**Photographs**

Supplement Id	Description
3-01	Front View
3-02	Rear View
3-03	Interior View
3-05	Interior mainboard-1
3-06	Interior mainboard-2
3-07	internal view
3-08	internal view

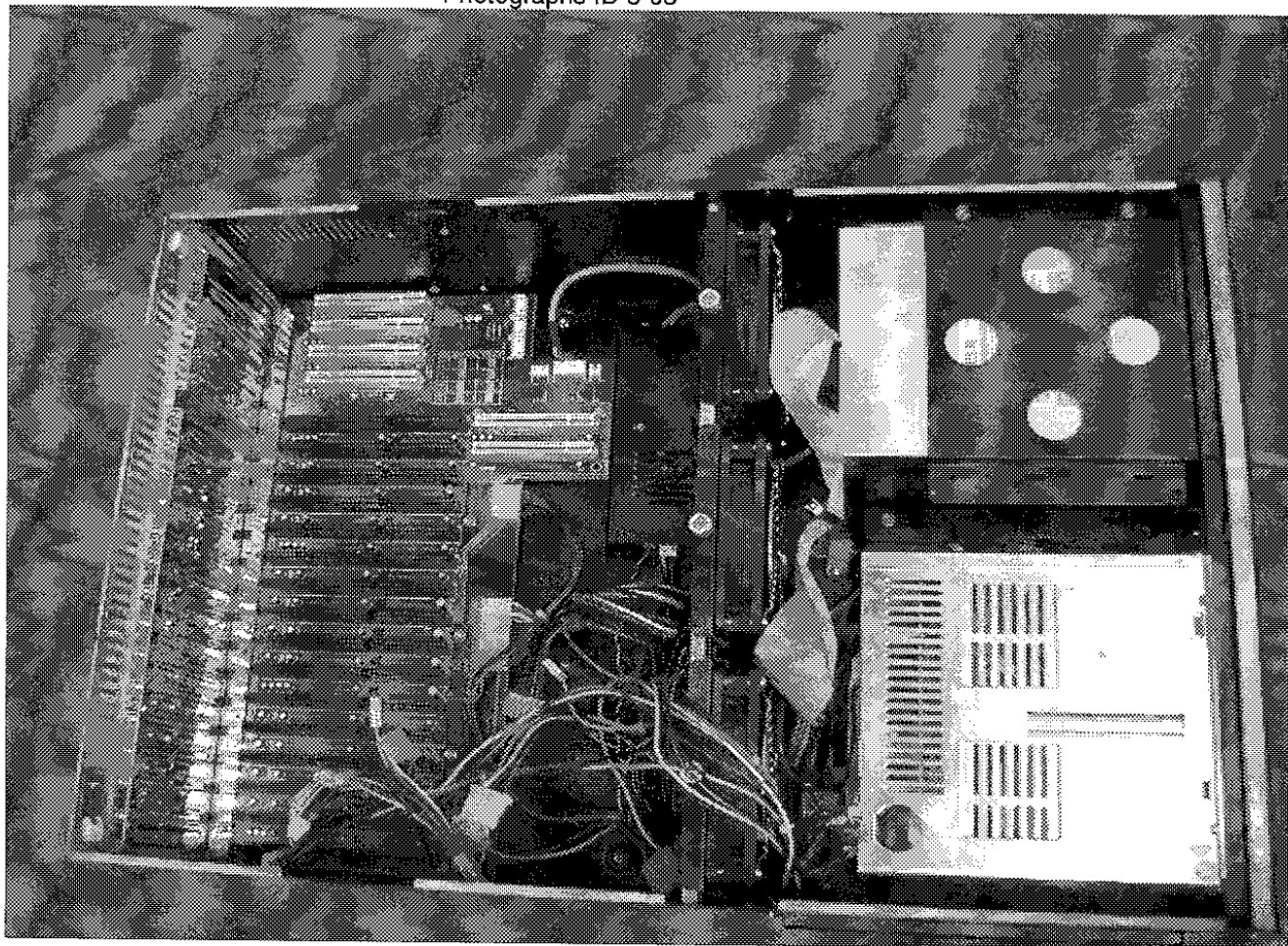
Photographs ID 3-01



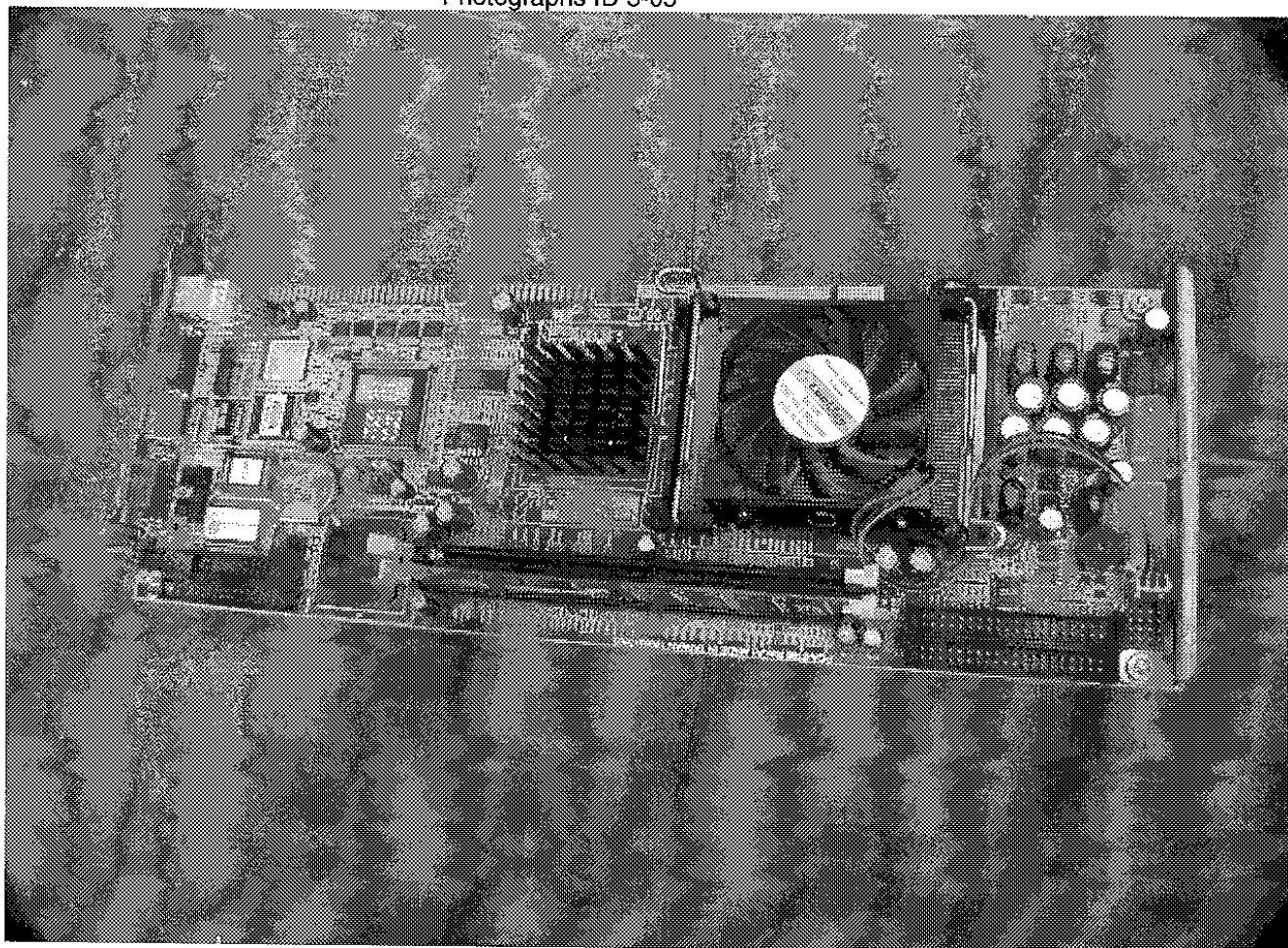
Photographs ID 3-02



Photographs ID 3-03



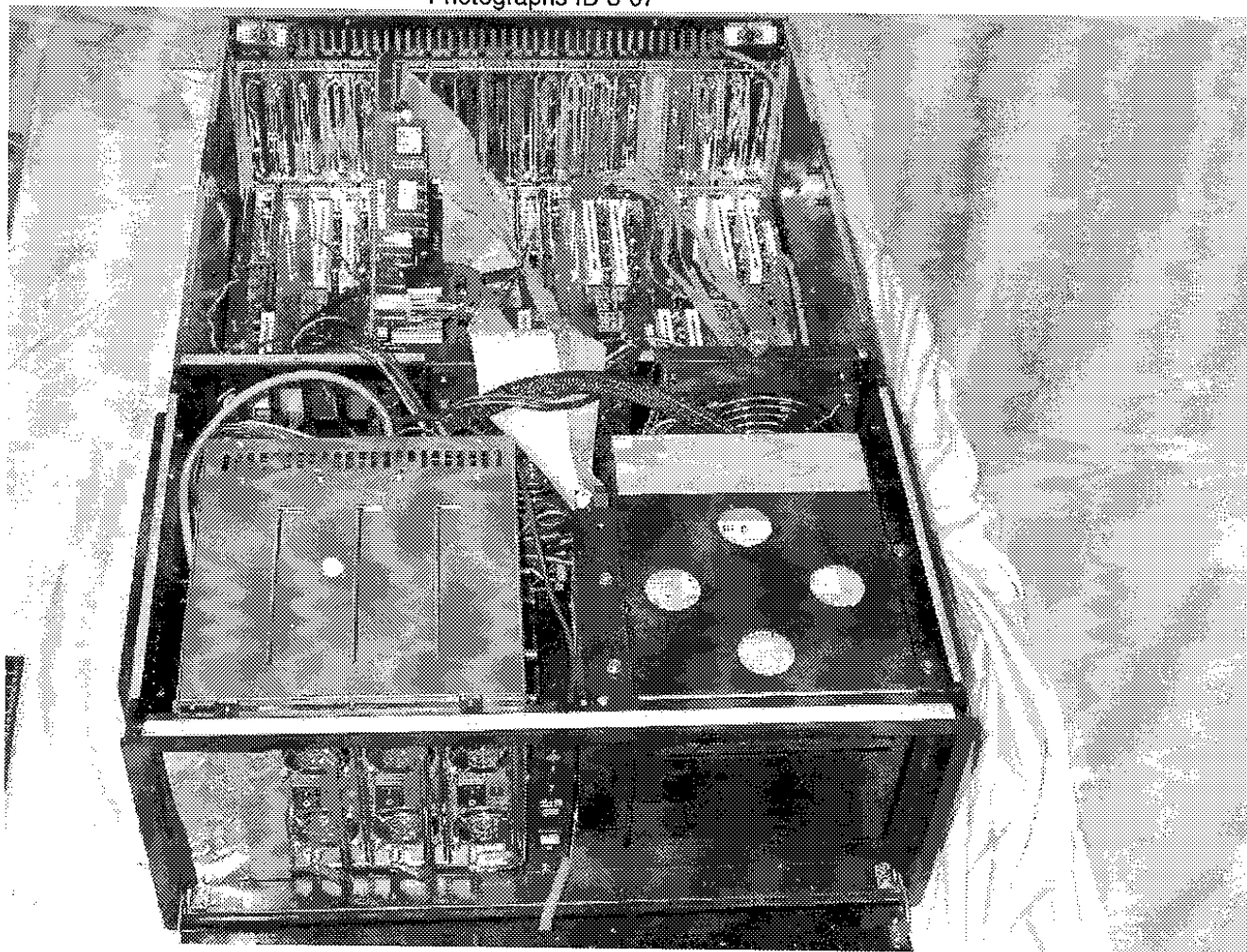
Photographs ID 3-05



Photographs ID 3-06



Photographs ID 3-07



Enclosure

Test Record

Description
Test Record 1
CRD

Test Record No. 1

-The manufacturer submitted representative production sample(s) of Industrial Computer, Model IPC-623XXX-XXXXX, SYS-4U623XX-XXXXX employing upgrade standard to UL60950-1, First Edition. -No tests were performed on Model IPC-623XXX-XXXXX, SYS-4U623XX-XXXXX employing upgrade standard to UL60950-1 due to testing previous performed on the subject unit.

The following tests were conducted:

Test	Comments
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Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard.