Test Report

Applicant:	Guangdong East Power Co., Ltd.
Product:	Uninterruptible Power Systems
Trademark:	EAST
Model No:	EA8808, EA8810

Prepared by: Most Technology Service Co., Limited

The safety testing has been performed on the submitted samples and found in compliance with the council LVD directive 2006/95/EC.

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Test Report
EN 62040-1
Uninterruptible power systems (UPS) – Part 1:General and safety requirements for UPS

Report	
Reference No……...:	MTS/GEG/D12110968
Tested by (Name +signature) ……:	Grace Gong
Approved by (Name +signature) ……..:	Yvette Zhou
Date of issue:	November 28, 2012
Testing laboratory	
Name ……..……...:	Most Technology Service Co., Limited
Address ……..……...:	No.5, 2nd Langshan Road, North District, Hi-Tech Industrial park, Nanshan, Shenzhen, Guangdong, China
Testing location .....:	Same as above
Applicant	
Name ……..……...:	Guangdong East Power Co., Ltd.
Address …….. :	No.6 Northern Industry Road, Songshan Lake SCI & TECH industry park, Dongguan City, Guangdong Province, China 523808
Test specification	
Standard ……...:	EN 62040-1: 2008
Procedure deviation ……...:	N/A
Non-standard test method ……:	N/A
Test item	
Description ……..:	Uninterruptible Power Systems
Trademark …… :	EAST
Model/type reference …….. :	EA8810
Rating …… :	Input: AC 230V, 50HZ, 45.5A Battery:DC 192V Output: AC 230V, 50HZ, Capacity:10KVA,
Manufacturer …… :	Guangdong East Power Co., Ltd.
Address …….. :	No.6 Northern Industry Road, Songshan Lake SCI & TECH industry park, Dongguan City, Guangdong Province, China 523808

Test item particulars:

Operation condition ……..: Continuous

Tested IT power system ……..….: No

IT testing, phase-phase voltage (V) ……...: N/A

Class of equipment ……..….: Class I

Mass of equipment (kg) .....: Mention in user manual（68KG）

Mains supply tolerance (%)……..….: +10%, -10%

Protection against ingress of water ……: IP20

Possible test case verdicts:

– test case does not apply to the test object: N/A

– test object does meet the requirement: P (Pass)

– test object does not meet the requirement: F (Fail)

General remarks:

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

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

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

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

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

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

General Product information:

All models are with same principle, constructional and insulation,just different the Capacity and the model names.

Summary of Testing and Conclusions:

The Uninterruptible Power Systems was tested and complied with the requirements of EN 62040-1:2008.

Copy of marking plate:

Uninterruptible Power Systems
Model: EA8810
Input: AC 230V, 50HZ, 45.5A
Battery:DC 192V
Output: AC 230V, 50HZ,
Capacity:10KVA,
Manufacture Date: August, 2012
Guangdong East Power Co., ltd.
MADE IN CHINA

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
4	GENERAL CONDITIONS FOR TESTS		P
4.5	Components		P
	Comply either with the requirements of this standard or with the safety aspects of the relevant IEC component standard	All components comply with the requirements of the standard or with the safety aspects of the relevant IEC component standards See table 4.5 List of critical components	P
1.5.2/RD	Evaluation and testing of components	Components, Which are certified to IEC and/or national standards, are applied correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment.	P
1.5.3/RD	Thermal controls	Thermal controls used are suitable for their intended application and particularly Annex K.	P
1.5.4/RD	Transformers	Transformers used are suitable for their intended application and comply with the relevant requirements of the standard and particularly Annex C	P
1.5.5/RD	Interconnecting cables		P
1.5.6/RD	Capacitors in primary circuits:	Between lines: X capacitors and Y capacitors comply with IEC 60384-14	P
1.5.7/RD	Double insulation or reinforced insulation bridged by components	See below.	P
1.5.7.1/RD	General	See below.	P
1.5.7.2/RD	Bridging capacitors	.	P
1.5.7.3/RD	Bridging resistors	No such resistor	N/A
1.5.7.4/RD	Accessible parts		P
1.5.8/RD	Components in equipment for IT power systems	Not applied for IT power systems.	N/A
4.6	Power interface		P
1.6.1/RD	AC power distribution systems	TN power system.	P
1.6.2/RD	Input current	See table 4.6	P
1.6.4/RD	Neutral conductor	Basic insulation for rated voltage between earthed parts and line and neutral conductors. O/p neutral is not isolated from the i/p neutral.	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.7	Marking and instructions		P
4.7.1	General		P
4.7.2	Power rating	All required markings are affixed on labels located on the rear enclosure of UPS	P
	Input rated voltage/range (V) ..... :	230V~	P
	Input rated current/range (A)..... :	45.5A	P
	Input symbol for nature of supply (d.c.) ..... :	Not designed for "d.c. only". Therefore, no such marking required.	N/A
	Input rated frequency/range (Hz) ..... :	50Hz	P
	Output rated voltage/range (V) ..... :	230V~	P
	Output rated current/range (A) ..... :		P
	Number of output phases (1ϕ - 3ϕ) with/without neutral:	UPS: 1ϕ	P
	Output rated active power (W) ..... :		P
	Output rated apparent power (VA) ..... :	10KVA	P
	Output symbol for nature of supply (d.c.) ..... :		P
	Rated frequency or rated frequency range (Hz)…….:	50Hz	P
	Max. ambient operating temperature range (°C)…….. :	0℃-40℃	P
	Manufacturer's name or trademark or identification mark ..... :	Guangdong East Power Co., Ltd.	P
	Type/model or type reference ..... :	EA8810	P
	Symbol for Class II equipment only ..... :	Class I equipment	N/A
	Other symbols ..... :	Additional symbols or markings do not give rise to misunderstanding.	P
	Certification marks ..... :	CE	P
	Instructions for units with automatic bypass/maintenance bypass, additional input a.c. supply, or external batteries, having text "See installation instructions before connecting to the supply" ..... :	See user manual	P
4.7.3	Safety instructions	See below.	P
4.7.3.1	General	See below.	P
	Safety instructions available as required to avoid introduction of hazards when operating, installing, maintaining, transporting or storing the UPS.	User manual inform adequate information to users and there are such words in user manuals	P
4.7.3.2	Installation		P
	Guidance on the level of competence necessary for installation for operator and service person .....:	User manual inform adequate information to users and there are such words in user manuals	P
	Installation instructions should include reference to national wiring rules.		P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.7.3.3	Operation		P
	Guidance on the level of competence necessary to operate the equipment.	User manual inform adequate information to users and there are such words in user manuals	P
4.7.3.4	Maintenance		P
	Safety instructions to be used during maintenance of the UPS are normally made available only to service persons.		P
4.7.3.5	Distribution related backfeed		P
	For the purpose of warning the electrical service person against backfeed situations not caused by the UPS but that may arise when a particular load fault is present while the UPS operates in stored energy mode or while unbalanced loads are supplied through a particular power distribution system, the installation instructions for permanently connected UPS shall require the fitting of a warning label		P
	Warning label with text "Before working on this circuit, -Isolate Uninterruptible Power System (UPS) -Then check for Hazardous Voltage between all terminals including the protective earth. Risk of Voltage Backfeed		P
4.7.4	Main voltage adjustment .....:	No mains voltage adjustment device	N/A
1.7.4/RD	Supply voltage adjustment .....:	No adjustment.	N/A
	Methods and means of adjustment; reference to installation instructions .....:		N/A
4.7.5 1.7.5/RD	Power outlets .....:	The maximum apparent and active power of the standard outlet is indicated on the rating plate.	P
4.7.6 1.7.6/RD	Fuse identification (marking, special fusing characteristics, cross-reference) .....:	There is a marking located adjacent to each fuse to indicate the specification of the fuse	P
4.7.7 1.7.7/RD	Wiring terminals	See below.	P
1.7.7.1/RD	Protective earthing and bonding terminals .....:	The protective earthing wiring terminal is indicated by the symbol (IEC60417)	P
1.7.7.2/RD	Terminal for a.c. mains supply conductors .....:		N/A
1.7.7.3/RD	Terminals for d.c. mains supply conductors ……..:		N/A
4.7.8	Battery terminals .....:		P
4.7.9 1.7.8/RD	Controls and indicators	See below.	P
1.7.8.1/RD	Identification, location and marking .....:		P
1.7.8.2/RD	Colours ..... :	Colours are acceptable due to only used for information (no safety involved even if disregarded).	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
1.7.8.3/RD	Symbols according to IEC 60417..... :		N/A
1.7.8.4/RD	Markings using figures ..... :	Not used.	N/A
4.7.10 1.7.9/RD	Isolation of multiple power sources ..... :	Only one external supply of hazardous voltage or energy	N/A
4.7.11	IT power systems	Not applied for IT power systems.	N/A
1.7.10/RD	IT power distribution systems		N/A
4.7.12	Protection in building installations	Protection against electric shock does not rely on RCD.	N/A
4.7.13 5.1/RD	High leakage current (mA) ..... :	Leakage current of the equipment does not exceed 3.5 mA.	N/A
4.7.14 1.7.11/RD	Thermostats and other regulating devices	No device is intended to be adjusted during in installation or normal operation mode	N/A
4.7.15 1.7.12/RD	Language(s) ..... :	English	P
4.7.16 1.7.11/RD	Durability of markings	The labels were subjected to the permanence of marking test. The labels were rubbed with cloth soaked with water for 15 s and then again for 15 s with the cloth soaked with petroleum spirit. After this test there was no damage to the labels. The marking on the labels did not fade. There was neither curling nor lifting of the label edges.	P
4.7.17 1.7.12/RD	Removable parts	No removable part in normal operation mode	N/A
4.7.18	Replaceable batteries		P
1.7.13/RD	- if the battery is placed in an OPERATOR ACCESS AREA, there shall be a marking close to the battery or a statement in both the operating and the servicing instructions;		P
	- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or a statement in the servicing instructions.		N/A
4.7.19 1.7.2.5/RD	Operator access with a tool..... :	There is no operator access with a tool in normal operation mode	N/A
4.7.20	Battery	There is a battery warning label in the battery compartment to show the following information --- battery type --- nominal voltage of total battery --- nominal capacity of total battery --- warning label denoting an energy or electrical shock and chemical hazard and reference	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
		See label in Annex Photos	
	Clearly legible information ..... :	Warning label containing below described information placed on enclosure of UPS and battery compartment. Information clearly legible.	P
	Battery type .....:	Lead acid, type as "12Vdc"	P
	Nominal voltage of total battery (V) .....:	192Vdc	P
	Nominal capacity of total battery (optional) ……....:		P
	Warning label .....:		P
	Instructions .....:		P
4.7.21	Installation instructions	No special attention is needed	N/A

5	FUNDAMENTAL DESIGN REQUIREMENTS		P
5.1	Protection against electric shock and energy hazards		P
5.1.1	Protection for UPS intended to be used in operator access areas	See below.	P
2.1.1.2/RD	Battery compartments..... :		N/A
2.1.1.4/RD	Access to hazardous voltage circuit wiring	No any hazardous voltage circuit wiring can be accessed by operator.	P
2.1.1.5/RD	Energy hazards ..... :	There is no energy hazard in operation access areas	P
2.1.1.6/RD	Manual controls	No conductive controls or handles or alike provided.	N/A
	Permitted to have access to: - bare parts of SELV circuits - bare parts of limited current circuits - TNV circuits under specified conditions		N/A
5.1.2	Protection for UPS intended to be used in service access areas		N/A
5.1.3	Protection for UPS intended to be used in restricted access areas		N/A
	Working voltage (Vpeak or Vrms); minimum distance (mm) through insulation		-
5.1.4	Backfeed protection	See appended table 8.2.	-
	Description of the construction ..... :		P
5.1.5	Emergency switching device		N/A

5.2	Requirements for auxiliary circuits		P
5.2.1	Safety extra low voltage circuits – SELV		P
2.2.1/RD	General requirements		P
2.2.2/RD	Voltages under normal conditions		P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
2.2.3/RD	Voltages under fault conditions		P
2.2.4/RD	Connection of SELV circuits to other circuits	Use isolate transformer and adequate creepage distance and clearance to provide reinforced insulation between RS232 circuit and hazardous voltage circuits	P
5.2.2	Telephone network voltage circuits – TNV		N/A
5.2.3	Limited current circuits		N/A
2.4.1/RD	General requirements See below.		N/A
2.4.2/RD	Limit values See appended table 5.3.		N/A
	Frequency (Hz) .....:		-
	Measured current (mA) .....:		-
	Measured voltage (V).....:		-
	Measured capacitance (μF) .....:		-
2.4.3/RD	Connection of limited current circuits to other circuits		N/A
5.2.4	External signalling circuits		P
3.5/RD	Interconnection of equipment		P
3.5.1/RD	General requirements		P
3.5.2/RD	Types of interconnection circuits		P
3.5.3/RD	ELV circuits as interconnection circuits		N/A
3.5.4/RD	Data ports for additional equipment		N/A
5.2.5 2.5/RD	Limited power source		P
	a) Inherently limited output		N/A
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		P
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)		--
	Current rating of overcurrent protective device (A)		--

5.3	Protective earthing and bonding		P
5.3.1	General	See below.	P
2.6/RD	Provisions for earthing and bonding	See below.	P
5.3.1 2.6.1/RD	Protective earthing	UPS are class Ⅰ equipments, connection of relevant	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
		conductive parts to the PE terminal via green/yellow insulated wires.	
2.6.2/RD	Functional earthing	All eartheing is separated from parts at hazardous voltages	P
2.6.3/RD	Protective earthing and protective bonding conductors		P
2.6.3.1/RD	General		P
2.6.3.2/RD	Size of protective earthing conductors	Size of protective earthing conductors comply with the requirements in table 3B/RD See the specification of power cords in table 4.5: List of critical components	P
	Rated current (A), cross-sectional area (mm^2), AWG		-
2.6.3.3/RD	Size of protective bonding conductors	Size of protective earthing conductors comply with the requirements in table 3B/RD Same as 2.6.3.1/RD	P
	Rated current (A), cross-sectional area (mm2), AWG		-
2.6.3.4/RD	Resistance (Ω) of earthing conductors and their terminations, resistance (ohm), voltage drop (V), test current (A), duration (min)	Resistance of the protective bonding conductor is less than 0.1Ω See table 5.3 2.6.3.3/RD Ground continuity Test	P
2.6.3.5/RD	Colour of insulation:	The insulation of the protective eatthing conductor in power cord supplied with equipment and the protective bonding conductor is green-and yellow	P
2.6.4/RD	Terminals	See below.	P
2.6.4.1/RD	General		P
2.6.4.2/RD	Protective earthing and bonding terminals	The equipment is provided with a connection terminal and the test of sub-clause 2.6.3.4/RD was performed for protective bonding conductor and their terminals	P
	Rated current (A), type, nominal thread diameter (mm)		–
2.6.4.3/RD	Separation of the protective earthing conductor from protective bonding conductors	The equipment is provided with a connection terminal	P
2.6.5/RD	Integrity of protective earthing		P
2.6.5.1/RD	Interconnection of equipment		N/A
2.6.5.2/RD	Components in protective earthing conductors and protective bonding conductors	No switch or overcurrent protective device in protective bonding conductors.	P
2.6.5.3/RD	Disconnection of protective earth		P
2.6.5.4/RD	Parts that can be removed by an operator	Input breaker, earthing connected before and disconnected after hazardous voltage. No other operator	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
		removable parts.	
2.6.5.5/RD	Parts removed during servicing	The relevant potential hazard is removed at the same time when protective earthing connection is disconnected for servicing	P
2.6.5.6/RD	Corrosion resistance	All safety earthing connections in compliance with Annex J.	P
2.6.5.7/RD	Screws for protective bonding	Self-tapping screws are used to provided protective bonding connection and is threaded into more than twice the pitch of the screw thread	P
2.6.5.8/RD	Reliance on telecommunication network or cable distribution system	Protective earthing does not rely on a TNV circuit	N/A
5.3.2	Protective earthing		P
5.3.3	Protective bonding		P

5.4	AC and d.c. power isolation		P
5.4.1	General		P
3.4/RD	Disconnection from the mains supply		P
3.4.1/RD	General requirement		P
3.4.2/RD	Disconnect devices		P
3.4.3/RD	Permanently connected equipment		P
3.4.4/RD	Parts which remain energized		P
3.4.5/RD	Switches in flexible cords		N/A
3.4.6/RD	Number of poles-single-phase and d.c. equipment		P
3.4.7/RD	Number of poles- three-phase equipment		N/A
3.4.8/RD	Switches as disconnect devices		N/A
3.4.9/RD	Plugs as disconnect devices		N/A
3.4.10/RD	Interconnected equipment		N/A
3.4.11/RD	Multiple power sources	UPS under test receives power from singe AC source.	N/A
5.4.2	Disconnect devices		P

5.5	Overcurrent and earth fault protection		P
5.5.1	General		P
2.7.3/RD	Short-circuit backup protection		P
2.7.4/RD	Number and location of protective devices ..... :	Over current protection by one Input breaker in equipment Protection devices considered to provide sufficient protection	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
		against earth faults.	
2.7.5/RD	Protection by several devices	Only one protection device provided.	N/A
2.7.6/RD	Warning to service personnel ..... :		N/A
5.5.2	Basic requirements	Equipment relies on circuit breaker in the equipment in regard to L to N short-circuit. Over current protection is provided by the built-in circuit breaker.	P
5.5.3	Battery circuit protection		P
5.5.3.1	Overcurrent and earth fault protection		P
5.5.3.2	Location of protective device		P
5.5.3.3	Rating of protective device		P
5.3.1/RD	Protection against overload and abnormal operation		P
5.6	Protection of personnel – Safety interlocks		P
5.6.1	Operator protection		N/A
2.8/RD	Safety interlocks		N/A
2.8.1/RD	General principles		N/A
2.8.2/RD	Protection requirements		N/A
2.8.3/RD	Inadvertent reactivation		N/A
2.8.4/RD	Fail-safe operation		N/A
2.8.5/RD	Moving parts		N/A
2.8.6/RD	Overriding		N/A
2.8.7/RD	Switches and relays		N/A
2.8.7.1/RD	Contact gaps (mm) ..... :		N/A
2.8.8/RD	Mechanical actuators		N/A
2.8.7.2/RD	Overload test		N/A
2.8.7.3/RD	Endurance test		N/A
2.8.7.4/RD	Electric strength test		N/A
5.6.2	Service person protection	There is no service person access areas while EUT is energized.	P
5.6.2.1	Introduction		N/A
5.6.2.2	Covers		N/A
5.6.2.3	Location and guarding of parts		N/A
5.6.2.4	Parts on doors		N/A
5.6.2.5	Component access		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
2.8.3/RD	Inadvertent reactivation		N/A
5.6.2.6	Moving parts		N/A
5.6.2.7	Capacitor banks		P
5.6.2.8	Internal batteries.		N/A
5.7 2.10/RD	Clearances, creepage distances and distances through insulation		P
2.10.1/RD	General	Adopt the condition-Pollution Degree 2	P
2.10.2/RD	Determination of working voltage	Unit was connected to a 230 V (maximum) TN power system See appended table 8.2	P
2.10.3/RD	Clearances	See below, Annex G was not considered.	P
2.10.3.1/RD	General	Annex F/RD and minimum clearances considered.	P
2.10.3.2/RD	Clearances in primary circuits	Clearance in primary circuits meet the requirement	P
2.10.3.3/RD	Clearances in secondary circuits	Clearance in secondary circuits meet the requirement	P
2.10.3.4/RD	Measurement of transient voltage levels		N/A
2.10.4/RD	Creepage distances	Cree-page distance meets the requirement	P
	CTI tests..... :	CTI rating for all materials of min. 100.	-
2.10.5/RD	Solid insulation	See below.	P
2.10.5.1/RD	Minimum distance through insulation	See appended table.	P
2.10.5.2/RD	Thin sheet material	Transformer insulation sheet	P
	Number of layers (pcs)..... :	three	-
	Electric strength test	3000V 2 layers	-
2.10.5.3/RD	Printed boards		P
	Distance through insulation		P
	Electric strength test for thin sheet insulating material		-
	Number of layers (pcs)..... :		-
2.10.5.4/RD	Wound components		N/A
	Number of layers (pcs)..... :		N/A
	Two wires in contact inside wound component;		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
	angle between 45° and 90° ..... :		
2.10.6/RD	Coated printed boards		N/A
2.10.6.1/RD	General		N/A
2.10.6.2/RD	Sample preparation and preliminary inspection		N/A
2.10.6.3/RD	Thermal cycling		N/A
2.10.6.4/RD	Thermal ageing (°C)..... :		N/A
2.10.6.5/RD	Electric strength test		-
2.10.6.6/RD	Abrasion resistance test		N/A
	Electric strength test		-
2.10.7/RD	Enclosed and sealed parts..... :		N/A
	Temperature $T_1=T_2+T_{ma}-T_{amb}+10K$ (°C) ..... :		N/A
2.10.8/RD	Spacings filled by insulating compound ..... :	Certified sources of Photo-coupler used. No other components applied for.	P
	Electric strength test	Electric strength test was performed during the component approval.	-
2.10.9/RD	Component external terminations		P
2.10.10/RD	Insulation with varying dimensions	No reduction of distances considered.	N/A

6	WIRING, CONNECTIONS AND SUPPLY		P
6.1	General		P
6.1.1 3.1/RD	Introduction		P
3.1.1/RD	Current rating and overcurrent protection	All wirings meet the requirement	P
3.1.2/RD	Protection against mechanical damage	Wires do not touch sharp edges and heatsinks, which could damage the insulation and cause hazard.	P
3.1.3/RD	Securing of internal wiring	Internal wirings are routed, supported, clamped, secured in place	P
3.1.4/RD	Insulation of conductors		P
3.1.5/RD	Beads and ceramic insulators	Not used.	N/A
3.1.6/RD	Screws for electrical contact pressure	All screws for electrical contact pressure are threaded into	P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
		more than two complete threads	
3.1.7/RD	Insulating materials in electrical connections	There is not non-metallic material to be used in electrical connections in EUT	N/A
3.1.8/RD	Self-tapping and spaced thread screws	No self- tapping or spaced thread screws used for connection of current-carrying parts.	N/A
3.1.9/RD	Termination of conductors		P
3.1.10/RD	Sleeving on wiring		P
6.1.2	Dimensions and ratings of busbars and insulated conductors		P
6.2	Connection to power		P
6.2.1	General provisions for connection to power		P
3.2.2/RD	Multiple supply connections	Single supply connection	N/A
3.2.3/RD	Permanently connected equipment		P
	Number of conductors, diameter (mm) of cable and conduits .....:		-
3.2.4/RD	Appliance inlets		N/A
3.2.5/RD	Power supply cords		N/A
3.2.5.1/RD	AC power supply cords		N/A
	Type ..... :		-
	Rated current (A), cross-sectional area (mm^2), AWG .....:		-
3.2.5.2/RD	DC power supply cords		N/A
3.2.6/RD	Cord anchorages and strain relief		N/A
3.2.7/RD	Protection against mechanical damage		N/A
3.2.8/RD	Cord guards		N/A
	D (mm); test mass (g) ..... :		-
	Radius of curvature of cord (mm) ..... :		-
6.2.2	Means of connection ..... :		P
	More than one supply connection ..... :		P
6.3	Wiring terminals for external power conductors		P
3.3.1/RD	Wiring terminals		P
3.3.2/RD	Connection of non-detachable power supply cords		N/A
3.3.3/RD	Screw terminals		P
3.3.4/RD	Conductor sizes to be connected		P
	Rated current (A), cord/cable type, crosssectional area (mm^2)..... :		-

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
3.3.5/RD	Wiring terminal sizes		P
	Rated current (A), type and nominal thread diameter (mm) ..... :		-
3.3.6/RD	Wiring terminals design		P
3.3.7/RD	Grouping of wiring terminals		P
3.3.8/RD	Stranded wire		P
7	PHYSICAL REQUIREMENTS		P
7.1	Enclosure	The frame or chassis of EUT is not use to carry current during intended operation	P
7.2	Stability	See below.	P
4.1/RD	Angle of 10°	The unit does not overbalance Tilted to an angle of 10°	P
	Test: force (N) ..... :		P
7.3	Mechanical strength		P
4.2.1/RD	General	Tests performed and passed. Results see below. After tests, unit complied with the requirements of sub-clauses 2.1.1/RD, 2.6.1/RD and 2.10/RD.	P
4.2.2/RD	Steady force test, 10 N	10 N applied to all components other than enclosure.	P
4.2.3/RD	Steady force test, 30 N		N/A
4.2.4/RD	Steady force test, 250 N	250 N applied to outer enclosure.	P
4.2.5/RD	Impact test	See below.	P
	Fall test	No hazard as result from steel ball fall test.	P
	Swing test	No hazard as result from steel ball swing test.	P
4.2.6/RD	Drop test	Not required for this equipment.	N/A
4.2.7/RD	Stress relief test Test	performed at 70°C no distortion found on front panel.	P
4.2.8/RD	Cathode ray tubes	No CRT in the unit.	N/A
	Picture tube separately certified..... :		N/A
4.2.9/RD	High pressure lamps No high pressure lamp provided.		N/A
4.2.10/RD	Wall or ceiling mounted equipment; force (N) . :		N/A
7.4	Construction details		P
7.4.1	Introduction		P
4.3.1/RD	Edges and corners	All edges and corners are rounded and smoothed	P
4.3.2/RD	Handles and manual controls; force (N) ..... :	No handles or manual controls provided. No axial pull applied to push-buttons.	N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.3.3/RD	Adjustable controls	There is not such adjustable control device in EUT	N/A
4.3.4/RD	Securing of parts	There is not such part of securing in EUT	P
4.3.5/RD	Connection of plugs and sockets	No mismating of connectors, plugs or sockets possible.	P
4.3.7/RD	Heating elements in earthed equipment	No heating elements provided.	N/A
4.3.11/RD	Containers for liquids or gases	No container for liquids or gases provided.	N/A
4.4/RD	Protection against hazardous moving part		N/A
4.4.1/RD	General	No such moving part used.	N/A
4.4.2/RD	Protection in operator access areas		N/A
4.4.3/RD	Protection in restricted access locations		N/A
4.4.4/RD	Protection in service access areas		N/A
4.5/RD	Thermal requirements		P
4.5.1/RD	General	See table 7.7 for details.	P
4.5.2/RD	Temperature tests		P
	Normal load condition per Annex L		--
4.5.3/RD	Temperature limits for materials	See Table 7.7 for details.	P
4.5.4/RD	Touch temperature limits	See Table 7.7 for details.	P
4.5.5/RD	Resistance to normal heat	(see appended table 7.7)	P
7.4.2	Openings		P
7.4.3	Gas concentration		N/A
7.4.4	Equipment movement	No castors provided.	N/A
7.5 4.7/RD	Resistance to fire		P
4.7.1/RD	Reducing the risk of ignition and spread of flame	See below.	P
	Method 1, selection and application of components wiring and materials	Use of materials with the required flammability classes.	P
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2/RD	Conditions for a fire enclosure	See below.	P
4.7.2.1/RD	Parts requiring a fire enclosure	With having the following components: Components in primary circuits Insulated wiring The fire enclosure is required.	P
4.7.2.2/RD	Parts not requiring a fire enclosure		N/A
4.7.3/RD	Materials		P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
4.7.3.1/RD	General	PCB rated accordingly. For details see table 4.3.	P
4.7.3.2/RD	Materials for fire enclosures	Metal enclosure with thermoplastic front panel. For details see table 4.3.	P
4.7.3.3/RD	Materials for components and other parts outside fire enclosures	See subclause 4.7.2/RD.	N/A
4.7.3.4/RD	Materials for components and other parts inside fire enclosures	Internal components except small parts are V-2, HF-2 or better.	P
4.7.3.5/RD	Materials for air filter assemblies	No air filters provided.	N/A
4.7.3.6/RD	Materials used in high-voltage components	No high voltage components provided.	N/A
7.6	Battery location		N/A
7.6.1	Battery location and installation		N/A
7.6.2	Accessibility and maintainability		N/A
7.6.3	Distance		N/A
7.6.4	Case insulation		N/A
5.2/RD	Electric strength		N/A
5.2.1/RD	General		N/A
5.2.2/RD	Test procedure		N/A
7.6.5	Wiring		N/A
7.6.6	Electrolyte spillage		N/A
7.6.7	Ventilation		N/A
7.6.8	Charging voltages		N/A
7.7	Temperature rise		P
	Maximum temperatures	No excessive temperatures	P
4.5/RD	Thermal requirements		P
4.5.1/RD	General	See table 7.7 for details.	P
4.5.2/RD	Temperature tests		P
	Normal load condition per Annex L		--
4.5.3/RD	Temperature limits for materials	See Table 7.7 for details.	P
4.5.4/RD	Touch temperature limits	See Table 7.7 for details.	P
4.5.5/RD	Resistance to normal heat	See Table 7.7 for details.	P
8	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		P
8.1 5.1.1/RD	General provisions for earth leakage		P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
	Earth leakage current	See subclause 5.1.2/RD below.	P
5.1.2/RD	Equipment under test (EUT)	Only one AC main supply	P
5.1.7/RD	Equipment with touch current exceeding 3.5 mA :	Touch current of the equipment does not exceed 3.5 mA.	P
8.2	Electric strength		P
5.2.1/RD	General	See appended table 8.2.	P
5.2.2/RD	Test procedure	See appended table 8.2.	P
8.3	Abnormal operating and fault conditions		P
8.3.1	General		P
5.3.1/RD	Protection against overload and abnormal operation	No hazards	P
5.3.2/RD	Motors	DC fan are blocked off	P
5.3.3/RD	Transformers	See appended Annex C.	P
5.3.4/RD	Functional insulation ..... :	EUT meet the requirement	P
5.3.5/RD	Electromechanical components	No electromechanical component (except for approved relays) provided.	N/A
5.3.9/RD	Compliance criteria for abnormal operating and fault conditions		P
5.3.9.1/RD	During the tests	---No fire accurs ---EUT do not emit molten metal ---Enclosures do not deform	P
5.3.9.2/RD	After the tests	After all abnormal test ---reinforced and basic insulation does show visible signs of damage ---the clearance and creepage distance do not reduce below the value specified in 2.10/RD	P
8.3.2	Simulation of faults	No hazards	P
8.3.3	Conditions for tests	No hazards	P
9	CONNECTION TO TELECOMMUNICATION NETWORKS		N/A
6.1/RD	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/RD	Protection from hazardous voltages		N/A
6.1.2/RD	Separation of the telecommunication network from earth		N/A
6.1.2.1/RD	Requirements		N/A
	Test voltage (V) ..... :		_
	Current in the test circuit (mA) ..... :		-

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
6.1.2.2/RD	Exclusions ..... :		N/A
6.2/RD	Protection of equipment users from overvoltages on telecommunication networks		N/A
6.2.1/RD	Separation requirements		N/A
6.2.2/RD	Electric strength test procedure		N/A
6.2.2.1/RD	Impulse test		N/A
6.2.2.2/RD	Steady-state test		N/A
6.2.2.3/RD	Compliance criteria		N/A
6.3/RD	Protection of the telecommunication wiring system from overheating		N/A
	Max. output current (A) ..... :		-
	Current limiting method..... :		-
2.1.3/RD	Protection in restricted access locations	The unit is not limited to be used in restricted access locations.	N/A
2.3/RD	TNV circuits		N/A
2.3.1/RD	Limits		N/A
	Type of TNV circuits..... :		-
2.3.2/RD	Separation from other circuits and from accessible parts		N/A
	Insulation employed ..... :		–
2.3.3/RD	Separation from hazardous voltages		N/A
	Insulation employed ..... :		–
2.3.4/RD	Connection of TNV circuits to other circuits		N/A
	Insulation employed ..... :		–
2.3.5/RD	Test for operating voltages generated externally		N/A
2.6.5.8/RD	Reliance on telecommunication network or cable distribution system		N/A
2.10.3.3/RD	Clearances in secondary circuits		N/A
2.10.3.4/RD	Measurement of transient voltage levels		N/A
2.10.4/RD	Creepage distances		N/A
3.5/RD	Interconnection of equipment		N/A
3.5.1/RD	General requirements		N/A
3.5.2/RD	Types of interconnection circuits..... :		N/A
M/RD ANNEX M,	CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1/RD)		N/A
M.1/RD	Introduction		N/A
M.2 /RD	Method A		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
M.3/RD	Method B		N/A
M.3.1/RD	Ringing signal		N/A
M.3.1.1/RD	Frequency (Hz) ..... :		–
M.3.1.2/RD	Voltage (V) ..... :		–
M.3.1.3/RD	Cadence; time (s), voltage (V) ..... :		–
M.3.1.4/RD	Single fault current (mA) ..... :		–
M.3.2/RD	Tripping device and monitoring voltage ..... :		N/A
M.3.2.1/RD	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2/RD	Tripping device		N/A
M.3.2.3/RD	Monitoring voltage (V) ..... :		-
A/RD	ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE		N/A
A.1/RD	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18kg, and of stationary equipment (see 4.7.3.2)	Metal enclosure	N/A
A.1.1/RD	Samples ……..……:		-
	Wall thickness (mm) ……:		-
A.1.2/RD	Conditioning of samples; temperature (℃) ……..:		N/A
A.1.3/RD	Mounting of samples ……:		N/A
A.1.4/RD	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D ……:		-
	Test procedure		N/A
	Compliance criteria		N/A
A.1.6/RD	Sample 1 burning time (s) ……..:		-
	Sample 2 burning time (s) ……..:		-
	Sample 3 burning time (s) ……...:		-
A.2/RD	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1/RD	Samples, material ……:		-
	Wall thinkness (mm)		-
A.2.2/RD	Conditioning of samples		N/A
A.2.3/RD	Mounting of samples		N/A
A.2.4/RD	Test flame (see IEC 60695-11-4)		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
	Flame A, B or C ……:		-
A.2.5/RD	Test procefure		N/A
A.2.6/RD	Compliance criteria		N/A
	Sample 1 burning time (s) ……..:		-
	Sample 2 burning time (s) ……..:		-
	Sample 3 burning time (s) ……..:		-
A.2.7/RD	Alternative test acc. to IEC 60695-2-2, cl. 4 and 8		N/A
	Sample 1 burning time (s) ……..:		-
	Sample 2 burning time (s) ……..:		-
	Sample 3 burning time (s) ……..:		-
A.3/RD	Hot flaming oil test (see 4.6.2)		N/A
A.3.1/RD	Mounting of samples		N/A
A.3.2/RD	Test procedure		N/A
A.3.3/RD	Compliance criterion		N/A

B/RD	ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2/RD and 5.3.2/RD)		P
B.1/RD	General requirements	d.c. fan motors in SECONDARY CIRCUITS	P
	Position ……:	Rear of the enclosure	-
	Manufacturer ……:	See table4.3	-
	Type ……..:	See table4.3	-
	Rated values ……:	See table4.3	-
B.2/RD	Test conditions	The test in the equipment	P
B.3/RD	Maximum temperatures	No excessive temperatures	P
B.4/RD	Running overload test		N/A
B.5/RD	Locked-rotor overload test		N/A
	Test duration (days) ……:		-
	Electric strength test: test voltage (V) ……:		-
B.6/RD	Running overload test for d.c. motors in secondary circuits	No possible	N/A
B.6.1/RD	General		N/A
B.6.2/RD	Test procedure		N/A
B.6.3/RD	Alternative test procedure		N/A
B.6.4/RD	Electric strength test		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
B.7/RD	Locked-rotor overload test for d.c. motors in secondary circuits		P
B.7.1/RD	General		P
B.7.2/RD	Test procedure	Block until steady conditions are established	P
B.7.3/RD	Alternative test procedure; test time (h) ……:	Temp. not exceed the values specified in Table B.1. after test 2h until steady conditions are established	P
B.7.4/RD	Electric strength test	Operation voltage Not exceed 60 V d.c	N/A
B.8/RD	Test for motors with capacitors		N/A
B.9/RD	Test for three-phase motors		N/A
B.10/RD	Test for series motors		N/A
	Operating voltage (V) ……..:		-
C/RD	ANNEX C, TRANSFORMERS (see 1.5.4/RD and 5.3.3/RD)		P
	Position ……..……...:	See table 4.3	-
	Manufacturer ……..……:		-
	Type ……..……...:		-
	Rated values ……..……:		-
	Method of protection ……..……:		-
C.1/RD	Overload test	No excessive temperature	P
C.2/RD	Insulation		P
	Protection from displacement of windings ……:		N/A
	Safety isolation transformer		P
With AC 3000V after humidity treatment			
Result		-	
D/RD	ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4/RD)		P
D.1/RD	Measuring instrument		P
D.2/RD	Alternative measuring instrument	Not used	N/A
E/RD	TEMPERATURE RISE OF A WINDING (see 1.4.13)		N/A
	Thermocouple method used		-
F/RD	MEASURING OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10)		P

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
G/RD	ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES		N/A
G.1/RD	General		N/A
G.1.1/RD	General		N/A
G.1.2/RD	Summary of the procedure for determining minimum clearances		N/A
G.2/RD	Determination of mains transient voltage (V) ……..:		N/A
G.2.1/RD	AC mains supply		N/A
G.2.2/RD	Earthed d.c. mains supplies		N/A
G.2.3/RD	Unearthed d.c. mains supplies		N/A
G.2.4/RD	Battery operation		N/A
G.3/RD	Determination of telecommunication network transient voltage (V) ……:		N/A
G.4/RD	Determination of required withstand voltage (V) ……..:		N/A
G.4.1/RD	Mains transients and internal repetitive peaks		N/A
G.4.2/RD	Transients from telecommunication networks		N/A
G.4.3/RD	Combination of transients		N/A
G.4.4/RD	Transients from cable distribution systems		N/A
G.5/RD	Measurement of transient levels (V) ……..:		N/A
G.6/RD	Determination of minimum clearances ……..:		N/A
H/RD	ANNEX H, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER AND FOREIGN OBJECTS (see IEC 60529)		N/A
J/RD	ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6/RD)		P
	Metal used ……:	Screw: steel plated with Zn; Enclosure: mild metal Nut and washer: steel plated with Zn The max electrochemical potential is :0. 3V for metal with Zn	-
K/RD	ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.7)		N/A
K.1/RD	Marking and breaking capacity		N/A
K.2/RD	Thermostat reliability; operating voltage (V) ……:		N/A
K.3/RD	Thermostat endurance test; operating voltage (V) ….:		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
K.4/RD	Temperature limiter endurance; operating voltage (V) :		N/A
K.5/RD	Thermal cut-out reliability		N/A
K.6/RD	Stability of operation		N/A
L	ANNEX L, BACKFEED PROTECTION TEST		P
L.1	General		P
L.2	Test for pluggable equipment type A or pluggable equipment type B UPS		P
L.3	Test for permanently connected UPS	Not applicable.	N/A
L.4	Single-fault conditions	No hazards	P
M	ANNEX M, EXAMPLES OF REFERENCE LOAD CONDITIONS		P
M.1	General	See below.	P
M.2	Reference resistive load		N/A
M.3	Reference inductive-resistive load		N/A
M.4	Reference capacitive-resistive loads	Worst-case power factors as specified by the manufacturer maintained during the relevant tests.	P
M.5	Reference non-linear load		N/A
M.5.1	Test method		N/A
M.5.2	Connection of the non-linear reference load		N/A
N	ANNEX N, VENTILATION OF BATTERY COMPARTMENTS		N/A
N.1	General		N/A
N.2	Hydrogen concentration		N/A
N.3	Blocked conditions		N/A
N.4	Overcharge test		N/A
U/RD	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4/RD)		N/A
U.1/RD	Wire construction	No such wires used	N/A
U.2/RD	Type tests		N/A
U.2.1/RD	Electric strength		N/A
U.2.2/RD	Flexibility and adherence		N/A

EN 62040-1			
Clause	Requirement – Test	Result - Remark	Verdict
U.2.3/RD	Heat shock		N/A
U.2.4/RD	Retention of electric strength after bending		N/A
U.3/RD	Tests during manufacture		N/A
U.3.1/RD	Routine testing		N/A
U.3.2/RD	Sampling tests		N/A
X	ANNEX X, GUIDANCE FOR DISCONNECTION OF BATTERIES DURING SHIPMENT		N/A
X.1	Applicable products	Currently this annex is only informative.	N/A
X.2	Battery disconnection		N/A
X.3	Package labelling/marking		N/A
X.4	Damage inspection		N/A
X.5	The importance of safe handling procedures		N/A
Y/RD	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see clause 4.3.13.3/RD)		N/A
Y.1/RD	Test apparatus ……..:		N/A
Y.2/RD	Mounting of test samples ……..:		N/A
Y.3/RD	Carbon-arc light-exposure apparatus ……..:		N/A
Y.4/RD	Xenon-arc light exposure apparatus ……..:		N/A

4.3	TABLE: list of critical components and materials			P
Object/Part No.	Manufacturer /Trademark	Type/Model	Technical Data	Mark(s) of Conformity1)
PCB	Various	Various	130°C, V-0	UL
Fuse	BEL and Various	Various	6.3A/ 15A	VDE
Fuse	Various	Various	20A, 250V	VDE
Fuse	Various	Various	32A,600V;	VDE
Fuse	LITTLE	30A600VDC	600VDC 30A	VDE
Air circuit-breaker	PEOPLE ELE.APPLIANCE GROUP CHINA	RDX2-100 1P C100A RDX2-100 2P C100A	380V 100A	VDE
Relay	Songchuan group companies	832A-1C-F-C	12VDC 30A	VDE
DC FAN	Yate loon Electronics Corp.	D80BH-12	DC12V,0.18A, 42.1(ft2/min)	TUV R09954588
X2-cap.	Jimson Electonics (Xiamen) Co., Ltd.	MKP	0.47uF,275V	VDE
X2-cap.	Jimson Electonics (Xiamen) Co., Ltd.	MKP	1.0uF,275V	VDE
(Alternative)	Various	Various	0.47uF,275V; 1.0uF,275V	VDE
Y1 cap.	Nanjing Yuyue, electronics Co., Ltd.	CT7	Y2, 4700pF	VDE
(Alternative)	Various	Various	Y2, 4700pF	VDE
Front panel	CHIMEI	PA765A	thickness>2.54mm	UL E56070
Inductor Winding	Dongguan FuYong YuYuan Power Co.Ltd.	T250-34	180℃	UL
Transformer	Guanghua Industrial Co. Ltd.	DSP EA8810 INV 8K	Class B	Test with the appliance
core	FDK or HENLI	EE16	--	--
Wire	TAI-I	MW75	130℃,94V-0	UL E85640
Tape	YAHUA	PZ	130℃,94V-0	UL E165111(N)
Bobbin	CHANG CHUN PLASTICS	EE16	150℃,94V-0	UL E59481(S)
Varnish	HANG CHEUNG PETROCHEMICAL LTD	8562/C	130℃	UL E200154
Margin	YAHUA	WF	130℃,94V-0	UL E165111(N)

4.6	TABLE: input current test						P
EUT	Fuse#	Irated(A)	U(V)	P(kw)	I(A)	I fuse(A)	Condition/status
EA8810	Input breker	45.5	207	10.134	44.9	44.9	Normal operation at rated load
EA8810	Input breker	45.5	230	10.451	43.8	43.8	Normal operation at rated load

EA8810	Input breker	45.5	253	10.819	43.1	43.1	Normal operation at rated load
Note(s): measure the input currents with full load.							

5.3 2.6.3.3/RD	TABLE: Provisions for protective earthing		P
EUT	Location	Resistance measured(mΩ)	comments
EA8810	I/P earth →O/P earth	40	Tested at 25A/2munite
	I/P earth →metal enclosure	44	Tested at 25A/2munite
	I/P earth →earth on PCB	53	Tested at 25A/2munite

7.7	TABLE: maximum temperatures				P
	Test voltage (V) ……:	See below			—
	t1(℃) ……..……..:	--			—
	t_2(℃) ……..…..:	--			—
Maximum temperature T of part/at:	T (℃) 207V/ 50Hz		T (℃) 253V/ 50Hz		Allowed T_{max}(℃)
	-	-	-	-	
Internal wiring	39.8	--	37.1	--	80-(40-25)=65
Electrolyte capacitor(C1)	53.2	--	52.5	--	105-(40-25)=90
Cap. Y surface	58.3	--	58..2	--	125-(40-25)=110
T1 winding	67.5	--	62.9	--	130-10-(40-25)=95
T1 core	66.3	--	62.0	--	130-10-(40-25)=95
U1 surface	53.8	--	52.8	--	100-(40-25)=85
PCB under T1	63.0	--	65.3	--	130-(40-25)=115
Enclosure inside near transformer component	53.3	--	55.6	--	85-(40-25)=70
Enclosure outside near transformer component side	43.6	--	43.3	--	85-(40-25)=70
RY1	48.3	--	47.9	--	115-(40-25)=100
L1	80.5	--	82.1	--	130-(40-25)=95
Panel	30.7	--	31.2	--	80
Ambient	25.2	--	25.3	--	--

Note(s): 1. The temperatures were measured under worst normal mode defined in 1.2.2.1 and as described in 1.2.2.1 and as described in sub-clause 1.6.2 and at voltages as described above.

2. The maximum ambient temperature permitted by the manufacturer's specification is 40℃

8.1	**TABLE: earth leakage current**				**P**
EUT	Condition	L→PE (mA)	N→PE (mA)	Limit (mA)	
EA8810	Line mode	1.43	1.54	3.5	Swith on
	Line mode	1.25	1.50	3.5	Swith off
	RS232 to L/N	0.01	0.02	0.25	Swith on

5.3,7 and 8.2	**TABLE:electric strength tests,impulse tests and voltage surge tests**	**P**
Test voltage applied between:	Test voltage(V)	Breakdown Yes/No
Primary to SELV	3000Vac	No
Input L/N to front LED Panel	3000Vac	No
Input L/N to earth	2121Vdc	No
Output L/N to earth	2121Vdc	No
TX1(Pri-Sec) on CNTL PCB	3000Vac	No
TX1(Pri-core) on CNTL PCB	1500Vac	No
TX1(Sec-core) on CNTL PCB	1500Vac	No

7.5 and 8.3	**TABLE:fault condition tests**						**P**
	Ambient temperature (℃)		25℃				--
	Model/type of power supply		See nameplate for details				--
	Manufacturer of power supply		See nameplate for details				--
	Rated markings of power supply		See nameplate for details				--
Component No.	Fault	Test voltage (V)	Test time	Fuse No.	Fuse current (A)	Result	
Output	s-c	230	1s	FUSE	--	EUT shut down with long-alarm. no hazard, no breakdown.	
DC FAN	Block	230	30mins	Input breaker	--	EUT shout down within 30 minutes, UPS alarm with over-temp. fault. No hazard.	
Ventilation	Block	230	20mins	Input breaker	--	EUT shout down within 30 minutes, UPS alarm with over-temp. fault. No hazard	
C101	s-c	230	1 min	FUSE	--	Unit shutdown immediately, fuse opened immediately, no hazard, no breakdown.	
C103	s-c	230	1 min	FUSE	--	Unit shutdown immediately, fuse opened immediately, no hazard, no breakdown.	

SCR102	s-c	230	1 min	FUSE	--	Unit shutdown immediately, fuse opened immediately, no hazard, no breakdown.
U8	s-c	230	1 min	FUSE	--	Unit shutdown immediately, no hazard.
R101	s-c	230	1 min	FUSE	--	Unit shutdown immediately, no hazard.
Note(s): The unit passed 3000V hi-pot test between primary and accessible parts after single fault test above. s-c means short-circuit.o-l means overload.o-c means open-circuit.						

Appendix 1

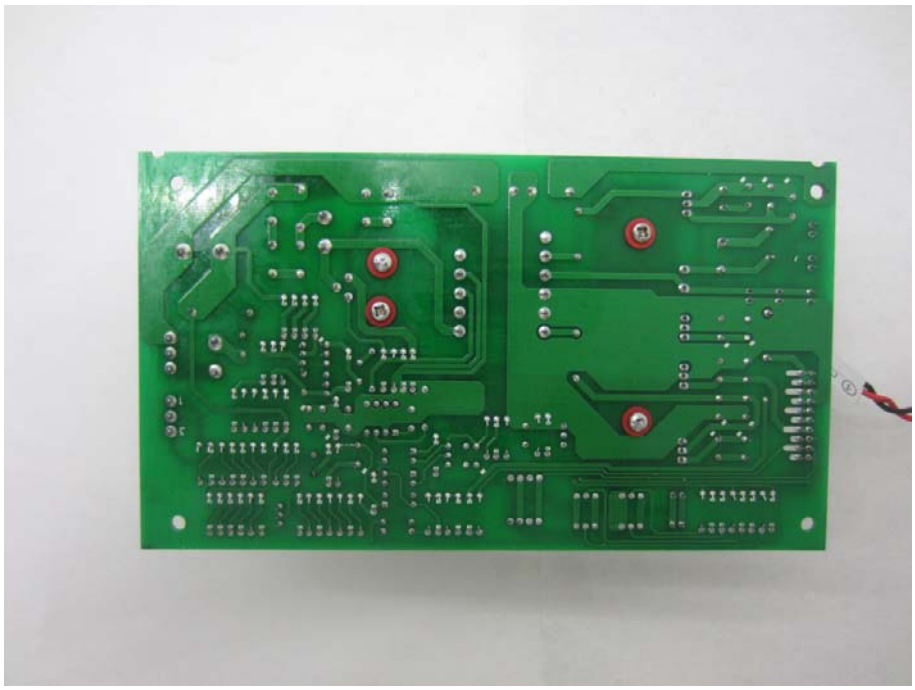
Whole views of 'Uninterruptible Power Systems'
Model: EA8810

Appendix 2

Internal views of 'Uninterruptible Power Systems'
Model: EA8810

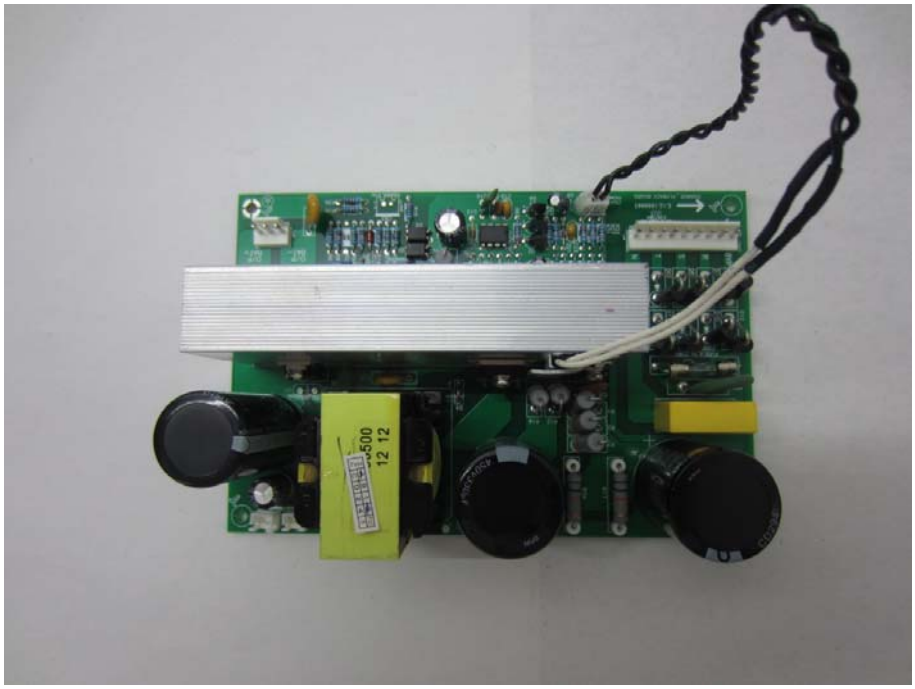
Appendix 3

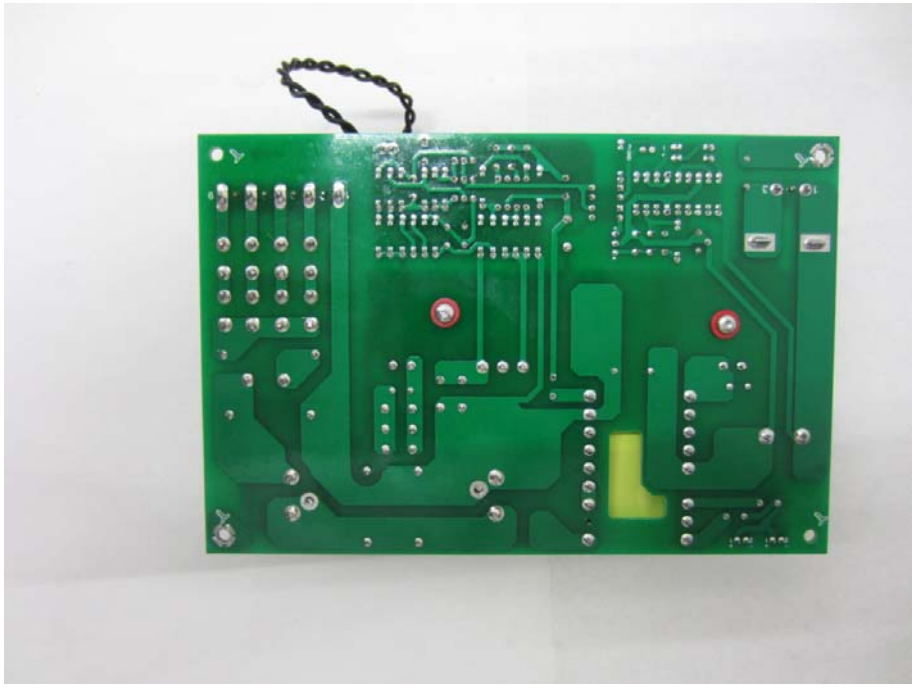
PCB views of 'Uninterruptible Power Systems'
Model: EA8810



Appendix 4

PCB views of 'Uninterruptible Power Systems'
Model: EA8810





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