



RECOGNIZED COMPONENT Constructional Data Report (CDR)

1.0 Reference and Address			
Report Number	150800416SHA-001	Original Issued: 15-Oct-2015	Revised: None
Standard(s)	Electric Spas, Equipment Assemblies, and Associated Equipment (UL 1563, Sixth Ed., Rev. March 27, 2015) and Spas, Hot Tubs, and Associated Equipment (CSA C22.2 No. 218.1-13, Rev. March 1, 2013)		
Applicant	Amcli International Corp.	Manufacturer	Amcli International Corp.
Address	5F., No.8, Alley 11, Lane 327, Sec. 2, Chung San Road, Chung Ho, Taipei County	Address	2F, No.14, Lane 327, Sec. 2, Chung San Road, Chung Ho, Taipei County
Country	Taiwan	Country	Taiwan
Contact	Mr. K.C. Huang	Contact	Ms. S.H. Huang
Phone	886-2-2245-8945	Phone	886-2-2245-8552
FAX	886-2-2245-0853	FAX	886-2-2249-3741
Email	kc@ieeeg.com	Email	shhuang@ieeeg.com

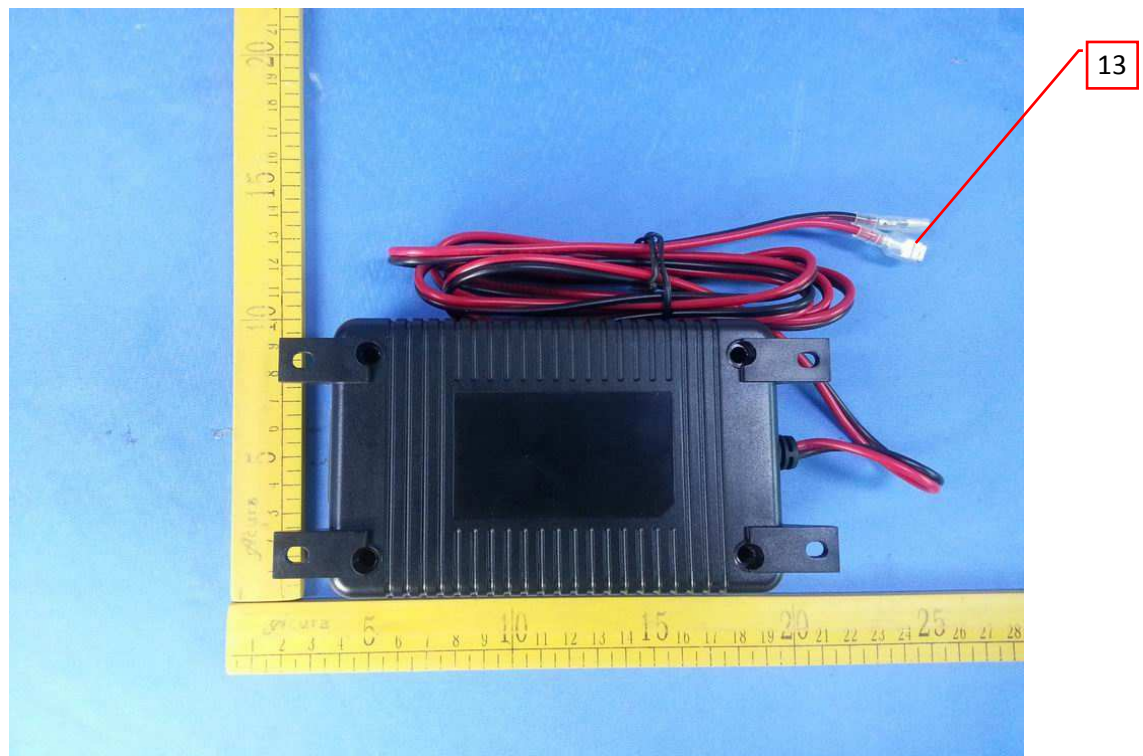
2.0 Product Description	
Product	Component Type - Switching Power Supply
Brand name	AMC
Description	<p>The product covered by this report is a Switching Power Supply for used in spa equipment, and for indoor use. SPS100 is considered as a portable, controlled environment appliance and assembly equipment of spas.</p> <p>The power supply cord of the appliance is not intended to be connected to the mains source and is intended to be connected to a Class A GFCI.</p>
Models	SPS100
Model Similarity	NA
Ratings	Input: 100-240Vac, 50/60Hz, 2.5A Output: 12Vdc, 10A
Other Ratings	NA
Conditions of Acceptability	<p>The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product.</p> <ol style="list-style-type: none"> 1) A suitable enclosure that complies with CSA Enclosure 2 (Dripproof) of CSA Standard C22.2 No. 94, should be provided, and the suitability of the enclosure should be considered during evaluation end-use product. 2) The power supply cord is not intended to be connect directly to the mains source, and is only considered as an internal wiring between component enclosures. 3) This appliance should be only connected to a Class A GFCI. The suitability of power connection should be determined during end-use. 4) The electric isolation of the circuits have not been under consideration. The suitability of the Enclosure shall be evaluated with the end product.

3.0 Product Photographs

Photo 1 - Front view



Photo 2 - Back view



3.0 Product Photographs

Photo 3 - Internal view



Photo 4 - PCB



3.0 Product Photographs

Photo 5 - PCB

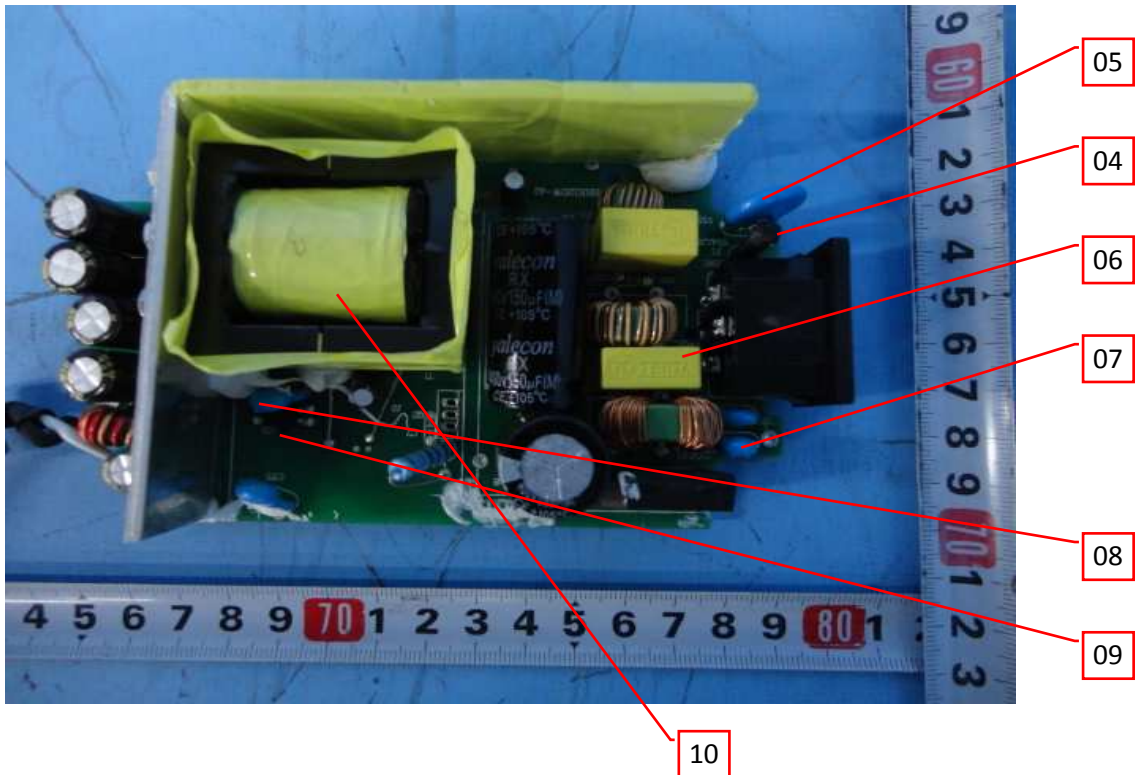
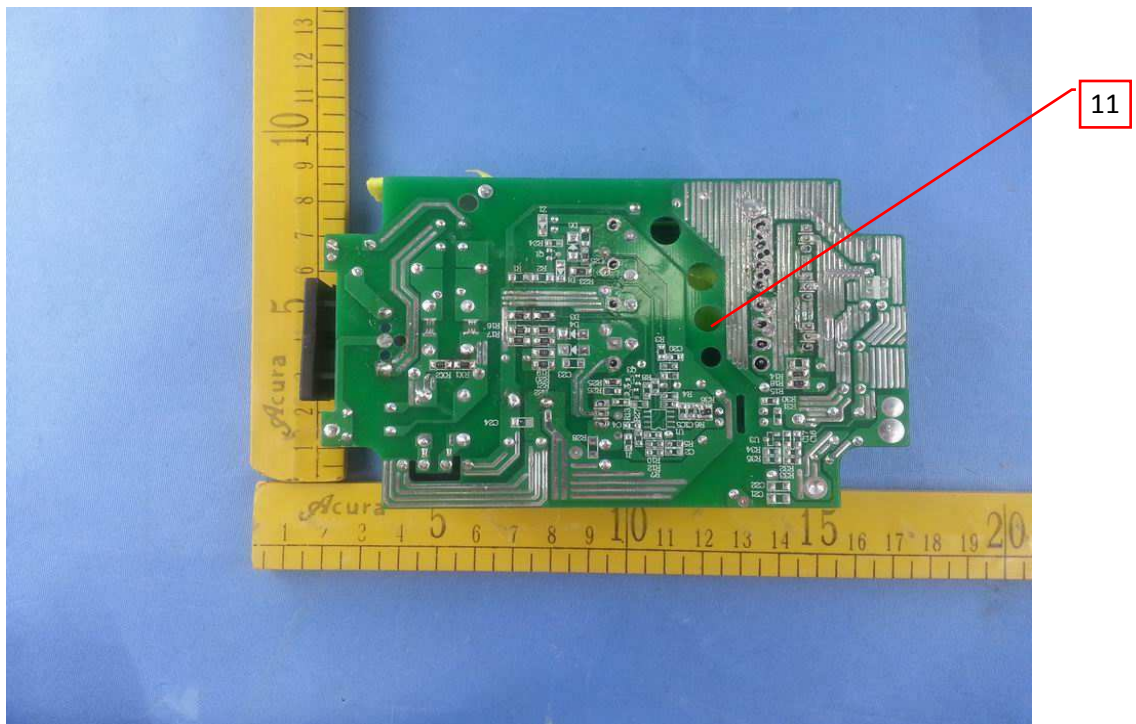


Photo 6 - Back view of PCB



3.0 Product Photographs

Photo 7 - Transformer

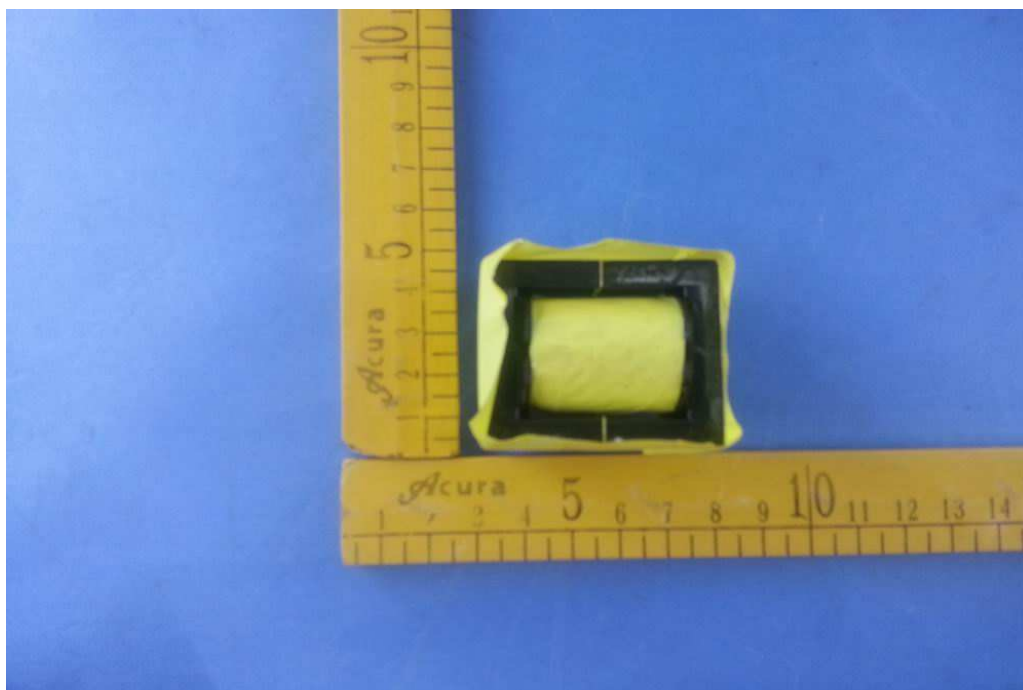
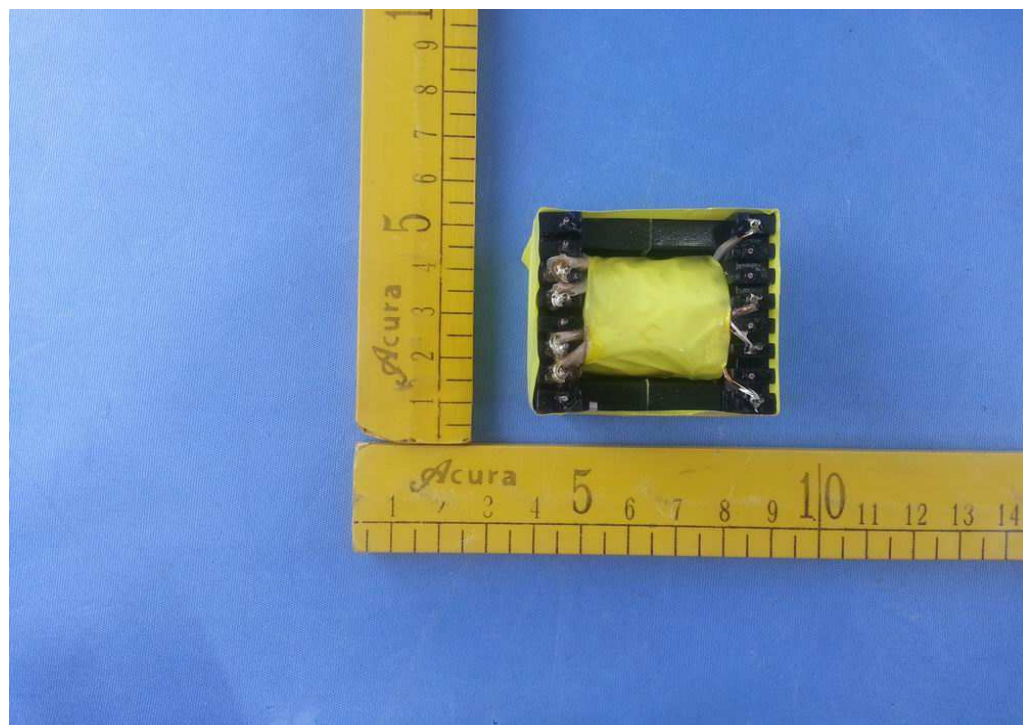


Photo 8 - Transformer



4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
1	1	Enclosure	Nan Ya Plastics (Hui Zhou) Corp Ltd	4410G4	Rated V-0, RTI(150, 130, 130), HWI=0, HAI=3, Min. thick 1.5mm, secured by screws. (E235269)	cURus
3	2	Appliance inlet	Yueqing Yanhui Electronic Co Ltd	DB-14	Rated AC250V, 10A, IEC 320 Config: C14. (E334847)	UL,CSA
			Zhejiang Leci Electronics Co Ltd	DB-14	Rated AC250V, 10A, IEC 320 Config: C14. (E302229)	
			Various	Various	Rated AC250V, 10A, IEC 320 Config: C14.	
3	3	Detacheable Power Cord Set (not shown)	Various	Various	Rated 250 Vac, 10 A. 105 °C, 18/3C AWG, SJTW with a molded-on NEMA 5-15P APC and IEC 320 cord connector body, finished length 1.5 m.	UL,CSA
5	4	Fuse	CONQUER ELECTRONICS CO LTD	PTU	T5A, 250V, (E82636)	cURus
			SHENZHEN LANSON ELECTRONICS CO LTD	3N	T5A, 250V, (E221465)	cURus
			HONG HU BLUELIGHT ELECTRONIC CO LTD	L3CT, L3T	T5A, 250V,(E324232).	cURus
			XC ELECTRONICS (SHENZHEN) CORP LTD	3T	T5A, 250V,(E249609).	cURus
5	5	VDR (VR2) (optional)	Thinking Electronic Industrial Co Ltd	TVR10471K, TVR10511K, TVR10561K, TVR10621K, TVR10681K, TVR14471K, TVR14511K, TVR14561K, TVR14621K, TVR14681K	Rated Min.300Vac. (E314979)	cURus
			Shantou High-New Technology Developmnt Zone Songtian Enterprise Co Ltd	10D471K, 10D511K, 10D561K, 10D621K, 10D681K, 14D471K, 14D511K, 14D561K, 14D621K, 14D681K	Rated Min.300Vac. (E330837)	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
18	6	X Capacitor (CX1, CX2)	Shenzhen Surong Capacitors Co Ltd	MPX	Max. 0.47μF, Min. 275VAC, 100° C, X2 type	cURus
			Shantou High-New Technology Developmnt Zone Songtian Enterprise Co Ltd	MPX	Max. 0.47μF, Min. 275VAC, 100° C, X2 type	
			Liaoning Diya Capacitor Co Ltd	MKP-X2	Max. 0.47μF, Min. 275VAC, 100° C, X2 type	
			Europtronic (Taiwan) Industrial Corp	MPX2 Series	Max. 0.47μF, Min. 275VAC, 100° C, X2 type	
5	7	Y capacitor (CY1, CY2)	Shantou High-New Zone Songtian Enterprise Co., Ltd	CD	Max. 1000pF, Min.400VAC, 125°C, Y1 type, 2 pieces.	cURus
			Hsuan Tai Electronics Co Ltd	CY Series	Max. 1000pF, Min.400VAC, 125°C, Y1 type,2 pieces.	
			Yinan Don's Electronic Component Co Ltd	CT81	Max. 1000pF, Min.400VAC, 125°C, Y1 type,2 pieces.	
5	8	Y capacitor (CY3, CY4)	Shantou High-New Zone Songtian Enterprise Co., Ltd	CD	Max. 2200pF, Min.400VAC, 125°C, Y1 type, 2 pieces.	cURus
			Hsuan Tai Electronics Co Ltd	CY Series	Max. 2200pF, Min.400VAC, 125°C, Y1 type,2 pieces.	
			Yinan Don's Electronic Component Co Ltd	CT81	Max. 2200pF, Min.400VAC, 125°C, Y1 type,2 pieces.	
5	9	Optical isolators (U2)	Bright Led Electronics Corp	BPC-817 (Series)	Dti=0.4mm, int.dcr=5.2mm, Ext.dcr=8.0mm, 100°C	cURus
			Sharp Corp Electronic Components And Devices Div	PC817	Dti=0.4mm, int.dcr=5.2mm, Ext.dcr=8.0mm, 100°C	
			Shenzhen Orient Components Co Ltd	ORPC-817 (Series)	Dti=0.4mm, int.dcr=5.2mm, Ext.dcr=8.0mm, 100°C	
5	10	Transformer	Shenzhen Anpinyuan Technology Co Ltd	SUN1139B	Class B	See 5.0
6	11	PCB	Various	Various	V-0, 130°C, 1.6mm thickness.	cUR us

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
2	12	Output wire	Various	SPT-2 or 2464 or 1185	300V, 20AWG min., 60°C	cURus
2	13	Quick connector	Various	Various	Width:4.8mm, with insulator	cURus
2	14	Label (not show)	Various	Various	85°C.	cURus

NOTES:

- 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.
- 2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.
- 3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

5.0 Critical Unlisted CEC Components

Transformer Spec.

Photo #	Item no.	Name	Manufacturer/Trademark	Type / model
5	10	Transformer	Shenzhen Anpinyuan Technology Co Ltd	SUN1139B

Electrical Rating: / Insulation class B

Component Standard used: UL 5085-1, UL 5085-2

MATERIALS LIST

Component	Manufacturer	Type/model	Dimensions/thickness/assembly information
Core	Various	Various	Ferrite
Bobbin	Chang Chun	T375J	Phenolic, V-0,150°C, min Thick.:1.0mm
Tipple Insulation Wire for secondary winding	Furukawa Electric Co Ltd	TEX-B	130°C, reinforced insulation
Insulation tape	3m Company Electrical Markets Div (Emd)	1350F-1	130°C
	Jingjiang Yahua Pressure Sensitive Glue Co Ltd	PZ, CT, WF	130°C
	Symbio Inc	35660	130°C
Varnish	Hitachi Chemical Co., Ltd	WP-2952F-2G	130°C
Margin tape	Jingjiang Yahua Pressure Sensitive Glue	PZ	130°C

WINDING(S) RESISTANCE

Winding Designation	Wire Size (AWG or mm ²)	Wire Type	Turns	Volts	Amps	DC resistance (Ω) +/- 10%:
N1 Coil	0.55X6	TEX-B	6	/	/	/
N5 Coil	0.3X4mm	2UEW	18	/	/	/
N4 Coil	0.5x2	2UEW	43	/	/	/
N3 Coil	0.3X4mm	2UEW	8	/	/	/
N2 Coil	0.55X6	TEX-B	6	/	/	/

VERIFICATION PROCESS

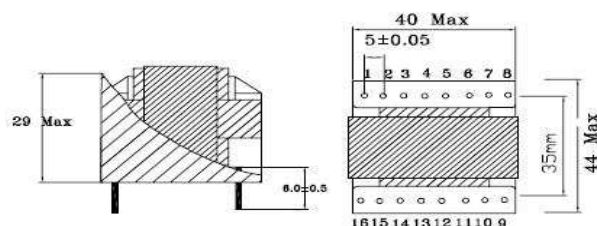
Frequency: **Annual** Test Site: **CEC** Number of samples to test: **3**

Test Name	Test Parameters
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Winding resistance	See resistance per winding above(check turn number).
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Dielectric Strength	Apply voltage Between	Test Voltage	Test Time
	Primary to core	1000	60s
	Primary to secondary	2500	60s
	Secondary to core	500	60s

Illustration for transformer spec.



6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification

body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, minimum spacings are maintained **2.4** mm through air and **3.0** over surfaces of insulating material between current-carrying parts of opposite polarity and between current-carrying parts and dead-metal parts. The spacings between field wiring terminals of opposite polarity or between the field wiring terminal and other uninsulated metal parts, not of the same polarity, are minimum **6.4** mm through-air and over-surface. The spacings between a Class 2 circuit and non-Class 2 circuits, and accessible metal, and grounded metal shall not be less than **2.4** mm.
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a metal and non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord.
6. Polarized Connection - NA
7. Internal Wiring - NA(no internal wire)
8. Schematics - No shown.
9. Markings - The product is marked on a labeling system as described in item No.14 of Section 4.0 as follows: manufacturer's name, brand name, model number, date of manufacturer, electrical ratings.Refer to 7.0 Illustrations No.1 for details..
10. Cautionary Markings - None.
11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. Refer to Illustration No(s).2-8 for details.

7.0 Illustrations

Illustration 1- Label



CAUTION: FOR INDOOR USE ONLY
EMPLOYER UNIQUEMENT A L'INTERIEUR

**CAUTION: CONNECT ONLY TO A CIRCUIT PROTECTED BY A CLASS A GROUND FAULT
CIRCUIT INTERRUPTER.**

**ATTENTION: CONNECTER UNIQUEMENT À UN CIRCUIT PROTÉGÉ PAR UN
DISJONCTEUR DIFFÉRENTIEL DE CLASSE A.**

Remark:

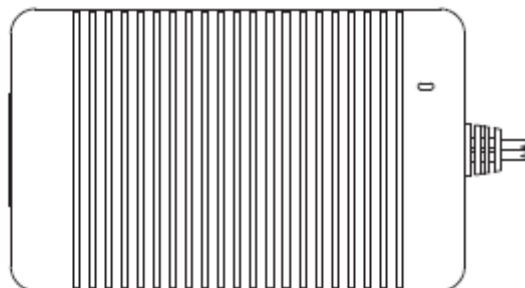
1. The control number and wording "CONFORMS TO UL STD.1563 CERTIFIED TO CSA STD C22.2 No. 218.1" shall be at least 1.5 mm high.
2. The ETL&cETL logo shall not be less than 8 mm in width and 8 mm in height, the "US", "C" and control number shall not be less than 2 mm in height. The "CM" shall not be less than 1mm in height."Intertek"shall not less than 3 mm in height.
3. Date code of manufacture (Series No.) (not shown):
"Month/YYYY " represent the month and after four numbers"YYYY " represent the year.

7.0 Illustrations

Illustration 2- Manual











CONFORMS TO
ANSI/UL STD. 1012
UL STD. 1563
CERTIFIED TO
CAN/CSA STD. C22.2 NO.107.1
CAN/CSA STD. C22.2 NO.218.1-M89
RECOGNIZED COMPONENT



INSTRUCTIONS FOR INSTALLATION AND OPERATION

7.0 Illustrations

Illustration 3- Manual

 CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN		 ATTENTION: RISQUE DE CHOC ELECTRIQUE N OUVRIRE PAS		 PRECAUCION: RISGO DE ELECTROCHOQUE NO ABRIR LA TAPA	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		AFIN DEVIETIR UN CHOC ELECTRIQUE ET LES CONSEQUENCES GRAVES QUI POURRAIENT EN RESULTER, TENETZ PAS D'OUVRIR L'APPAREIL ET DE TOUCHER AUX COMPOSANTS INTERNES SANS LA PRESENCE D'UNE PERSONNE QUALIFIEE.		PARA REDUCIR EL RIESGO DE SACUDIDAS ELECTRICAS, NO DEBERA QUITARSE LA TAPA (NI PARTE POSTERIOR). CONSULTESE AL PERSONAL CAPACITADO PARA LAS REPARACIONES INTERNAS.	
WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. ADVERTENCIA: PARA EVITAR EL RIESGO DE INCENDIO O SACUDIDA ELECTRICA, NO DEBERA EXPONERSE ESTE APARATO A LA LLUVIA O HUMEDAD.					
CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARISED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.. ATTENTION: POUR PREVENIR LES CHOCES ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR. UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SILES LAMES PEUVENT ETRE INSEERES A FOND SANS EN LAISSER AUCUNE PARTIE FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT. PRECAUCION: PARA EVITAR SACUDIDAS ELECTRICAS, NO DEBERA UTILIZARSE ESTA CLAVIJA POLARIZADA CON UN CORDON DE PROLONGACION, RECEPTACULO U OTRO TIPO DE SALIDA A MENOS QUE SE HAYAN INSERTASO COMPLETAMENTE LAS LENGÜETAS PARA EVITAR SU EXPOSICION.					
NOTE: Some AMC products are equipped with dual or multi-voltage transformers (which is indicated on the back panel). If you wish to change the voltage, please bring your unit to an authorised AMC service technician for internal conversion. ATTENTION: Quelques pièces AMC sont munies de transformateurs à double ou à multi-voltage (indiqué au panneau arrière). Si vous voulez changer le voltage, veuillez apporter votre appareil au fournisseur de AMC pour le transformer. ZUR BEACHTUNG: Einige AMC Geräte sind mit Umschaltern für unterschiedliche Netzspannungen ausgerüstet (Ein Vermerk auf der Rückseite weist darauf hin). Die Anpassung, wenn notwendig, muß von einem qualifizieren Techniker in einer AMC Servicestation vorgenommen werden. NOTA: Ciertos componentes de AMC están dotados de transformadores de doble tensión o de varias tensiones (lo que se indica en el panel posterior). Si se desea cambiar la tensión, sírvanse llevar el aparato a un técnico autorizado por AMC para su conversión interna.					
NOTE TO CATV systems installer: This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical. NOTA PARA EL INSTALADOR DE ANTENAS DE TELEVISION COLECTIVAS: La presente advertencia se provee para llamar la atención del instalador al Artículo 820-22 de NEC (Código Eléctrico Nacional) donde se facilitan las directrices para la pertinente puesta a tierra y que especifica en particular que el conductor a tierra del cable debe conectarse al sistema de conexión a tierra del edificio, lo más proximo posible al punto de entrada del cable.					
 <p>The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated* dangerous voltage* within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.</p>	 <p>The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.</p>				

7.0 Illustrations

Illustration 4- Manual

APPLICATION AND FEATURE LIST

Features of the AMC model SPS100

- * Universal Switching Mode Power Supply
- * Over voltage protection
- * Over current protection
- * Short circuit protection
- * Power On and Protection LED indicator
- * Output : DC12V, 10A
- * 100% Full load burn-in
- * Safety/EMC Certificated

CONFORMS TO

ANSI/UL STD. 1012

UL STD. 1563

CERTIFIED TO

CAN/CSA STD. C22.2 NO.107.1

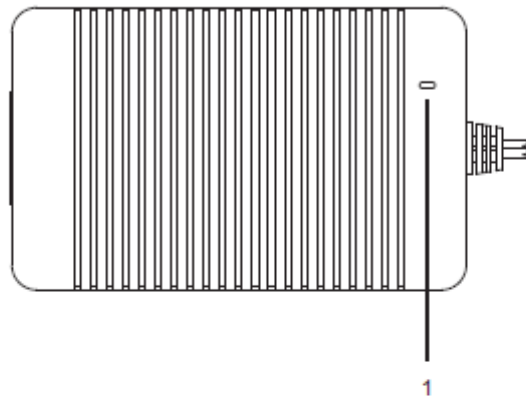
CAN/CSA STD. C22.2 NO.218.1-M89

RECOGNIZED COMPONENT

7.0 Illustrations

Illustration 5- Manual

PANEL CONTROLS

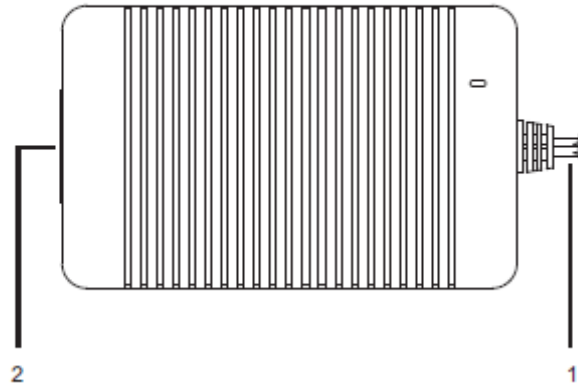


1. Power LED:
The green LED lights when the SPS100 is turned on.

7.0 Illustrations

Illustration 6- Manual

CONNECTIONS



1. Output Terminal:
output terminal.

2. Power Cord:
Use only a polarized 3-wire AC outlet. This assures that SPS100 is connected to a good earth ground.

7.0 Illustrations

Illustration 7- Manual

SPECIFICATIONS

Output DC Voltage.....	12Vdc
Output Rated current.....	10A
Output Current Range	0 ~ 10A
Output Ripple.....	<200mVpp
Output Load Regulation.....	+ - 5%
AC Input Voltage Range.....	100 ~240VAC
AC Inrush Current.....	Cold Start < 15A @ 120VAC, 30A@230V
AC Input Frequency.....	50/60Hz
Efficiency.....	Typical 75%
Safety Certifications	UL (UL1012) (UL1563) CSA (CSA-C22.2 No. 107.2-01) (CSA-c22.2 No.218.1) CE (IEC61558-1) (IEC61558-2-17)
EMC Standards.....	EN 61204 - 3
Operating Temp Range	0 ~ +40°C at 100% load
Storage Temp Range	-20 ~ +80°C
Overall Size	3.6" x 5.7" x 1.8" (W x H x D)

Weltronics Corp. reserved the right to improve its products at any time. Specifications are subject to change without notice.

7.0 Illustrations

Illustration 8- Manual

IMPORTANT SAFETY INSTRUCTIONS

1. READ INSTRUCTIONS

All the safety and operating instructions should be read before the appliance is operated.

2. RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

3. HEED WARNINGS

All warnings on the appliance and in the operating instructions should be adhered to.

4. FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

5. WATER AND MOISTURE

Keep the apparatus away from water and moisture.

6. CARTS AND STANDS

The appliance should be used only with a cart or stand that is recommended by the manufacturer.

- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



7. WALL OR CEILING MOUNTING

This equipment is not designed for use mounted on a wall or a ceiling.

8. VENTILATION

Place the apparatus in a good ventilated open and cool position. Do not block the flow of air through the ventilation openings.

9. HEAT

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

10. CLEANING

The apparatus should be cleaned only with dry cloth.

11. POWER SOURCES

The apparatus should be connected to a power supply only of the type described in the operating instructions or as marked on the apparatus.

NOTE: Some products are equipped with multiple voltage selector, be sure voltage selector is in correct voltage position before plugging in. For use in the U.S.A., the voltage switch must be placed in the 120 volt position. For use in countries other than the U.S.A., the voltage selector may need to be placed in other than the 120 volt position. Confirm the voltage available at each country location before using the product. For connection to a supply not in the U.S.A., use an attachment plug adapter of the proper configuration for the power outlet.

12. POWER CORD PROTECTION

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

13. POLARIZED PLUG

Do not defeat the safety purpose of the polarized or

grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

14. UNPLUG POWER CORD

Unplug this apparatus during lightning storms or when unused for long periods of time.

15. OBJECT AND LIQUID ENTRY

No object filled with liquids, such as vases, etc. shall be placed on the apparatus.

16. ACCESSORIES

Only use attachments/accessories specified by the manufacturer.

17. SERVICING

The user should not attempt to service the apparatus beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

18. DAMAGE REQUIRING SERVICE

The apparatus should be serviced by qualified service personnel when:

- a) The power-supply cord or the plug has been damaged; or
- b) Objects have fallen, or liquid has been spilled into the appliance; or
- c) The apparatus has been exposed to rain; or
- d) The apparatus does not appear to operate normally or exhibits a marked change in performance; or
- e) The apparatus has been dropped, or the enclosure is damaged.

19. WARNING

To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

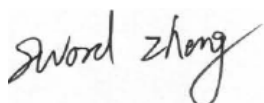

20. DANGER

Risk of injury

- a) Replace damaged cord immediately.
- b) Do not bury cord.
- c) Connect to a grounded, grounding type receptacle only.

21. WARNING

For indoor use only. This unit is not intended for outdoor use.

8.0 Test Summary			
Evaluation Period	2015-08-06 to 2015-09-28		Project No. 150800416SHA
Sample Rec. Date	5-Aug-2015	Condition	Prototype
			Sample ID. 0150805-04-001--003
Test Location	Building No. 86, 1198 Qinzhou Road (North), Shanghai 200233, P. R. China		
Test Procedure	Testing Lab		
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.			
The following tests were performed:			
Test Description	UL 1563, Sixth Ed., Rev. March 27, 2015 Clause		
Leakage Current Test	43		
Available Current Test	44		
Insulation Resistance Test	45		
Power Input Test	47		
Leakage Current Test or Insulation Resistance Test Following Humidity Conditioning	48		
Dielectric Voltage-Withstand Test	49		
Temperature Test	50		
Test for Resistance to Impact	56		
Abnormal Operation Tests	58		
Test Description	CSA C22.2 No. 218.1-13, Rev. March 1, 2013 Clause		
Rating (input)	6.2		
Temperature	6.3		
Leakage current	6.4		
Abnormal operation	6.6		
Dielectric voltage withstand	6.8		
8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Sword Zheng	Reviewed by:	Shelway Wu
Title:	Project engineer	Title:	Technical manager
Signature:		Signature:	

9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

BASIC LISTEE	Amcli International Corp.
Address	5F., No.8, Alley 11, Lane 327, Sec. 2, Chung San Road, Chung Ho, Taipei County
Country	Taiwan
Product	Component Type - Switching Power Supply

MULTIPLE LISTEE 1	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	

ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issue by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

Note to Intertek Follow Up Inspector: The Component Evaluation Center, CEC, will notify you in writing when these components must be selected and sent to the CEC for re-evaluation

Ship the samples to:
Intertek Testing Services Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Dansy Xu

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

- Dielectric Voltage Withstand Test
- Grounding Continuity Test

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Products Requiring Dielectric Voltage Withstand Test:

<u>Product</u>	<u>Test Voltage</u>	<u>Test Time</u>
All products covered by this Report.	1000V	60 s
	or	
	1200V	1 s

11.2 Grounding Continuity Test

Method

Each unit that has a power supply cord having a grounding conductor shall be tested for continuity between the grounding blade of the attachment plug and the inaccessible dead metal parts of the appliance that are required to be grounded. This may require testing before final assembly of the enclosure.

Any indicating device (an ohmmeter, a battery-and-buzzer combination, or the like) may be used to determine compliance with the grounding continuity.

Products Requiring Dielectric Voltage Withstand Test:

Product

All products covered by this Report.

