

# 承認書

## Specification For Approval

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COMPANY NAME	
CUSTOMER P/N	
PRODUCT NAME	AC/DC ADAPTER
PARTS P/N	CP-1250
DATE	2009-8-4

APPROVED BY	CHECKED BY	PREPARED BY	CUSTOMER APPROVAL SIGNATURE

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# **POWSUN CO.,LTD SPECIFICATION FOR APPROVAL**

## **1. FEATURE:**

- INPUT :UNIVERSAL 100-240 Vac/47-63 Hz INPUT, WITHOUT ANY SLIDE SWITCH
- OUTPUT :+12V / 0-5A
- DIMENSION :117(D)\*64(W)\*35(H)
- EFFICIENCY :82% TYPICAL
- SAFETY :UL/BSMI/CB/CE/TUV/C-Tick/DOFT/PSE/CCC/KE
- EMI :CISPR 22 / FCC /VCCI CLASS B; CONDUCTED & RADIATED MEETED
- HIGH FREQUENCY DESIGN, LESS POWER CONSUMPTION
- OVER VOLTAGE PROTECTION, SHORT CIRCUITED PROTECTION, OVER POWER PROTECTION
- CAN BE USED AT TEL COMMUNICATION, COMPUTER, INDUSTRIAL CONTORLLER & OA SYSTEM

## **2. INPUT:**

2.1 VOLTAGE	UNIVERSAL 100~240Vac,SINGLE PHASE
2.2 FREQUENCY	47HZ~63HZ
2.3 CURRENT	1.8A Max
2.4 INRUSH CURRENT	42A Max/100Vac;84A Max/240Vac (COLD STABT AT 25°C FULL LOAD)
2.5 EFFICIENCY	82% TYPICAL (AT NOMINAL LINE VOLTAGE FULL LOAD)
2.6 INPUT POWER DISSIPATION	UNDER 0.5W < ZERO LOAD 115V/60HZ INPUT
	UNDER 0.5W < ZERO LOAD 230V/50HZ INPUT

## **3. OUTPUT:**

3.1 DC OUTPUT	VOLTAGE	+12.00V
	CURRENT	5.0A Max
	REGULATION	11.40V Min~12.00V Typ.~12.60V Max
	RIPPLE & NOISE	120mV Max
	TOTAL POWER	60W Max

NOTE: FOR RIPPLE & NOISE MEASUREMENT, USE A 20MHZ BAND WIDTH FREQUENCY OSCILLOSCOPE, AND ADD A 0.1uF MULTILAYER CAP. AND A LOW ESR ELECTROLYTICCAP. (10uF) AT OUTPUT CONNECTOR TERMINALS. (AT NOMINAL LINE VOLTAGE FULL LOAD)

## **4. PROTECTION:**

4.1 OVER VOLTAGE PROTECTION	$V_{out}*(110\%-140\%)$
4.2 SHORT CIRCUIT PROTECTION	AUTOMATIC RECOVERY AFTER SHORT-CIRCUIT FAULT REMOVED
4.3 OVER POWER PROTECTION	THE ADAPTER PROVIDE PROTECTION AT 110-140% OF RATED OUTPUT POWER

NOTE: WHEN PROTECTION CIRCUIT IS WORKING THE POWER SUPPLY WILL SHUTDOWN, ONCE THE ABNORMAL CONDITIONS ARE REMOVED. THE POWER SUPPLY WILL RESTART AUTOMATICALLY.

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## **5. SAFETY AND EMI REQUIREMENT:**

### 5.1 SAFETY REQUIREMENT

- a. SAFETY : UL/BSMI/CB/CE/TUV/C-Tick/DOFT/PSE/CCC/KE
- b. DIELECTRIC STRENGTH :10mA Max. CUT OFF CURRENT

(1):PRIMARY TO SECONDARY	: 1500Vac FOR 1 MINUTE
(2):PRIMARY TO FRAME GROUND	: 1500Vac FOR 1 MINUTE

### c. INSULATION RESISTANCE:

(1):PRIMARY TO SECONDARY	: 10 M OHMS FOR 500Vdc
(2):PRIMARY TO FRAME GROUND	: 10 M OHMS FOR 500Vdc

5.2 EMI REQUIREMENT MEET CISPR 22/FCC/VCC1, CLASS B

5.3 LEAKAGE CURRENT LESS THAN 3.5mA

## **6.OPERATION & ENVIRONMENT PERFORMANCE:**

### 6.1 TEMPERATURE RANGE

OPERATING	0°C ~ +40°C
STORAGE	-40°C ~+70°C

### 6.2 HUMIDITY RANGE (NON CONDENSING)

OPERATING	10% ~ 90% RH
STORAGE	5% ~ 95% RH

### 6.3 COOLING

SHOULD OPERATE WITHOUT FAN

## **7.M.T.B.F.:**

50000 HOURS Min ; 40°C SEE CONDITION

# **TEST REPORT**

## **(I). LINE REGULATION TEST**

Test result:

Test condition	Spec.	Reading
90Vac / 50% load	11.40~12.60V	12.05V
115Vac / 50% load	11.40~12.60V	12.05V
132Vac / 50% load	11.40~12.60V	12.05V
180Vac / 50% load	11.40~12.60V	12.05V
230Vac / 50% load	11.40~12.60V	12.05V
264Vac / 50% load	11.40~12.60V	12.05V

## **(II). EFFICENCY TEST**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	84% Typical	84.5%
230Vac / 100% load	84% Typical	84.2%

## **(III). LOAD REGULATION TEST**

Test result:

Test condition	Spec.	Reading
115Vac / 0% load	11.40~12.60V	12.40V
115Vac / 50% load	11.40~12.60V	12.05V
115Vac / 100% load	11.40~12.60V	11.68V
230Vac / 0% load	11.40~12.60V	12.40V
230Vac / 50% load	11.40~12.60V	12.05V
230Vac / 100% load	11.40~12.60V	11.68V

## **(IV).RIPPLE & NOISE TEST**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	120mV Max	60mV
230Vac / 100% load	120mV Max	50mV

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## **(VI). OVER VOLTAGE PROTECTION**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	Vout*(110%~140%)	119%
230Vac / 100% load	Vout*(110%~140%)	126%

## **(VII). RISE TIME**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	50mS Max	OK
230Vac / 100% load	50mS Max	OK

## **(VIII). OVER CURRENT PROTECTION**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	Iout*(110%~140%)	125%
230Vac / 100% load	Iout*(110%~140%)	128%

## **(IX). SHORT CIRCUIT PROTECTION**

Test result:

Test condition	Spec.	Reading
115Vac / 100% load	Under 1W	OK
230Vac / 100% load	Under 1W	OK

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