



# SPECIFICATION FOR APPROVAL

CUSTOMER: IDEAL

---

CUSTOMER P/N: 5211202A-15-3A

---

MODEL NO.: EA11202A-15-3A(507)

REV.:

---

DESCRIPTION: Switching Adapter Wall Mount (US)  
100-240Vac +/-10%, +15V/7.33A (RoHS)

---

ISSUED DATE: 15 JUL, 2009

---

PUBLICATION	CONFIRMATION



Description : Switching Power Supply

## **SUBJECT: SCOPE OF DOCUMENT**

### **CONTAINS :**

**1-0 General Description**

**2-0. Input Requirements**

**3-0. Output Requirements**

**4-0. Reliability**

**5-0. Environment**

**6-0. Safety**

**7-0. Mechanical Characteristics**



## 1-0. General Description

The purpose of the document is to specify a Single phase AC input, single output switching power supply. This specification is suitable for: EA11202A Series

This product is AC to DC switching power transfer device, it can provide for a 15V, 7.33A max & 110W max DC output with constant voltage source.

This Specification defines the input, output, performance characteristics, environment, noise and safety requirement for a power supply.

## 2-0. Input Requirements

### 2-1. Input Voltage

Rated Voltage 100-240 Vac +/- 10% full range. Normal line input 110Vac/220Vac.

### 2-2. Input Frequency

47~63 Hz

### 2-3. Input Current

a. 2.5A (Max.) @ Rated AC input with full load.

b. 1.25A (Max.) @ Rated AC input with full load.

### 2-4. Efficiency

82% typical at normal line input and full load output

### 2-5. Configuration

2-wire AC input (Line, Neutral)

### 2-6. Input Fuse

The hot line side of the input shall have a fuse, rating (T3,15A/250V)

### 2-7. Inrush Current

≤ 50A at 110 Vac

≤ 100A at 220 Vac At cold start, maximum load.

### 2-8. Line Regulation

This line regulation is less than ± 1%, of rated output voltage @ full load .

### 2-9. Hold Up Time

≥ 16 mSec., @ Normal line, with full load.

### 2-10. Rise Time

≤ **50 mSec.**, @ Rated AC input, with full load.  
From 10% to 90% of output voltage.

### 2-11. Turn-ON Time

The output voltage should rise to 90% of rated output voltage in less than **3 SEC.** from AC apply to 110Vac start up.

### 2-12. Harmonic Standard and Power Factor

The adapter complied with IEC 61000-3-2 class D harmonic standard while input power over than 75W. The P.F. shall >0.95 @100Vac input and >0.9 @240Vac input.

## 3-0. Output Requirements

### 3-1. Output Voltage and Current

Output Voltage (Vdc)	Current Min.(A)	Current Max.(A)
<b>+15V</b>	<b>0</b>	<b>7.33A</b>

### 3-2. Load Regulation

Voltage (Vdc)	Tolerance (%)	Regulation (V)
<b>+15V</b>	<b>+5/, -5</b>	<b>14.25~15.75V</b>

### 3-3. Dynamic Load Regulation

**±5%** excursion for **50% - 100%** or **100% - 50%** load change of DC output at any frequency up to 1KHz(duty 50%)

### 3-4. Ripple & Noise

The power supply shall not exceed the following limits on the indicated voltage for 60Hz or 50Hz ripple, Switching frequency ripple and noise and dynamic load variations measured with a 20MHz bandwidth

Output	Ripple/Noise
<u>+15V</u>	<u>2.0% max. of rated output voltage</u>

Ripple / Noise: 60Hz ripple + switching ripple and noise

Ripple & Noise are measured at the end of output cable which are added a 0.1uF ceramic capacitor and a 47uF electrolytic capacitor

### 3-5. Over Voltage Protection

150% Max. of rated voltage.

The output voltage shall be shutdown and latched when OVP occurred.

### 3-6. Over Current Protection

110~150% of rated output current.

The adapter can withstand continuous short at DC output and no damage.

It will enter into normal condition if the fault condition is removed.

### 3-7. Stability

2% Max. at constant load with constant input (after 30 minutes of operation).

### 3-8. Temperature Rise

Less than 45°C on top/bottom case at normal AC input & 80% load of DC output at environment temperature 25°C.

### 3-9. Drop-out (Power Line Disturbance)

Output voltage shall remain within the specified regulation range, through the absence of a line input during 1/2 cycle, at full load and normal AC line input

### 3-10. Voltage Isolation

The DC ground will be isolated from the AC neutral and AC line.

#### **4-0. Reliability**

##### **4-1. MTBF ( MIL-HDBK-217F)**

The power supply shall be designed and produced to have a mean time between failures (MTBF) of 30,000 operating hours at 90% confidence-level while operating under the following conditions.

Test condition : Input: 220Vac 45 minutes on , 15 minutes off

Output: 80% of rated load

Temperature : 40 +/- 5 °C

Quantity : 45 pcs

Result : without failure after 30 days burn-in

#### **5-0. Environment**

##### **5-1 Temperature**

a. Operating : 0 to 40 °C

b. Storage : -20 to 85 °C

##### **5-2 Humidity**

a. Operating : 10 to 90 %

b. Storage: 5 to 90 %

##### **5-3 Altitude**

From sea level to 10,000Ft ( operation ) and 40,000Ft ( non operation )

#### **6-0. Safety**

##### **6-1. Hi-Pot Test**

4242 Vdc 5mA 3 Sec. between primary and secondary circuit

##### **6-2. Insulation Test**

500Vdc, 3 Sec. between primary and secondary circuit

IR should  $\geq$  50 M $\Omega$ .

##### **6-3. Leakage Current**

$\leq$  250 uA, at 240Vac/50 Hz

##### **6-4. Safety**

UL/CUL, TUV, CE

### 6-5. EMS

Items	Specification	Reference
ESD	Contact: $\pm$ 4KV	IEC 61000-4-2
	Air: $\pm$ 8KV	
RS	Frequency: 1KHz Field Strength: 3V/M	IEC 61000-4-3
EFT	1.0 KV on input AC power ports.	IEC 61000-4-4
SURGE	Line to Line: $\pm$ 1KV (peak)	IEC 61000-4-5
	Line to F.G : $\pm$ 2KV (peak)	

### 6-6. EMI

Comply with Standards
CISPR 22, EN 55022 Class B

### 7-0. Mechanical Characteristics

7-1. **Physical Size** : 170 mm (L) \* 60 mm (W) \* 35 mm (H)

7-2. **Enclosure material** : 94V-1 minimum

7-3. **Output Cable (Reference)** : [UL1571 #14](#)

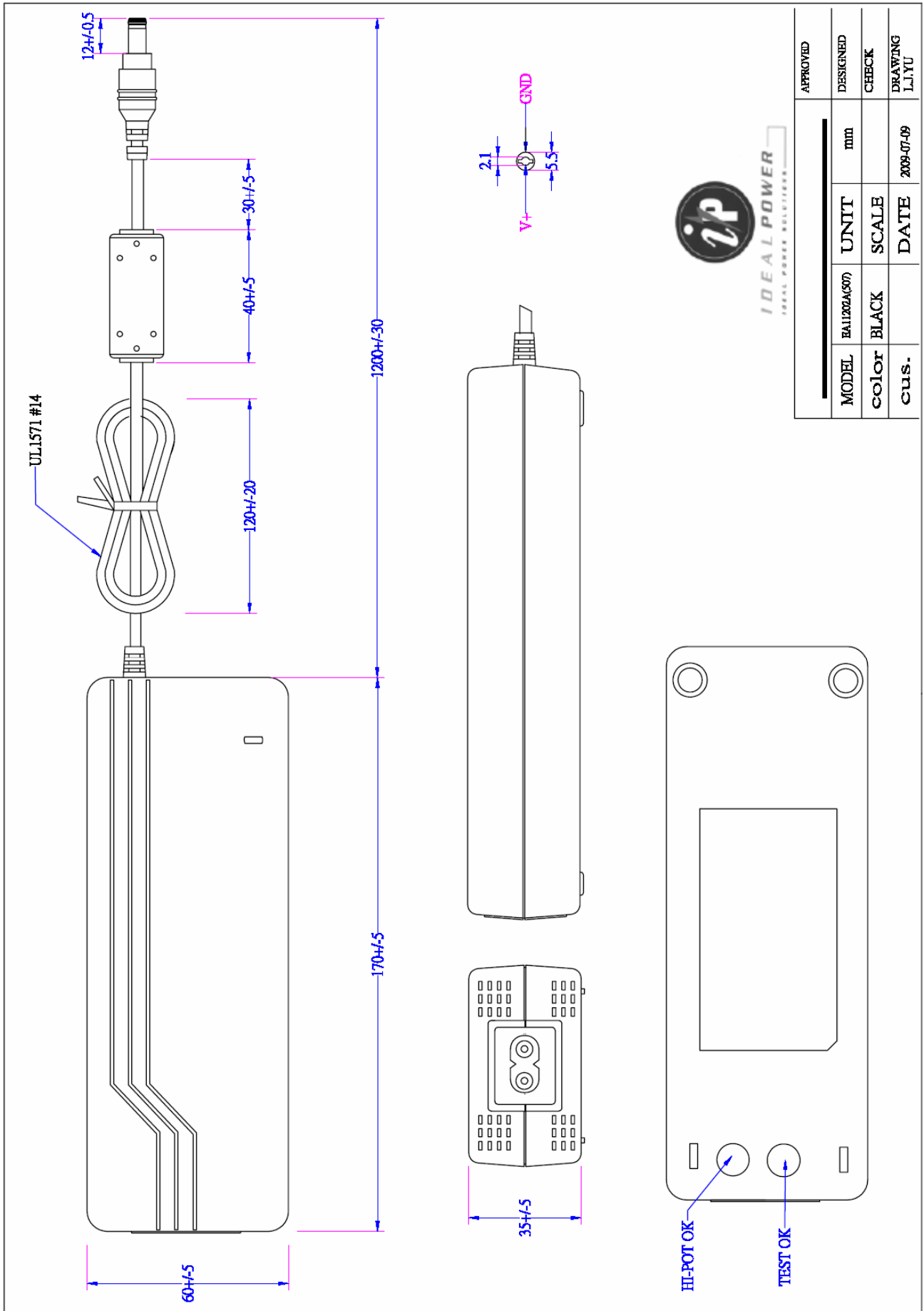
### 7-4. Vibration Test

The vibration frequencies are set at 20Hz, with total amplitude of 1.5mm  
Along the 3 directions namely X-Y-Z. The each direction should be vibrated  
for 60 minutes, after testing no abnormal electrical or mechanical should occur.

7-5. **Drop Test** (Referencing to CSA C22.2 No.950/UL1950/UL1310/EN60950)

Products shall be dropped from a height of 900 mm onto a horizontal surface  
consists of hardwood at 13mm thick, mounted on two layers of plywood each  
19mm to 20mm thick, all supported on a concrete or equivalent non-resilient  
floor. Upon conclusion of test, the equipment need not be operational.

7-6. **Net Weight (Reference)** : [510 g](#)



APPROVED			
DESIGNED			
CHECK			
DRAWING			
L.J.YU			
MODEL	EAI1202AG007	UNIT	mm
color	BLACK	SCALE	
cus.		DATE	2009-07-09

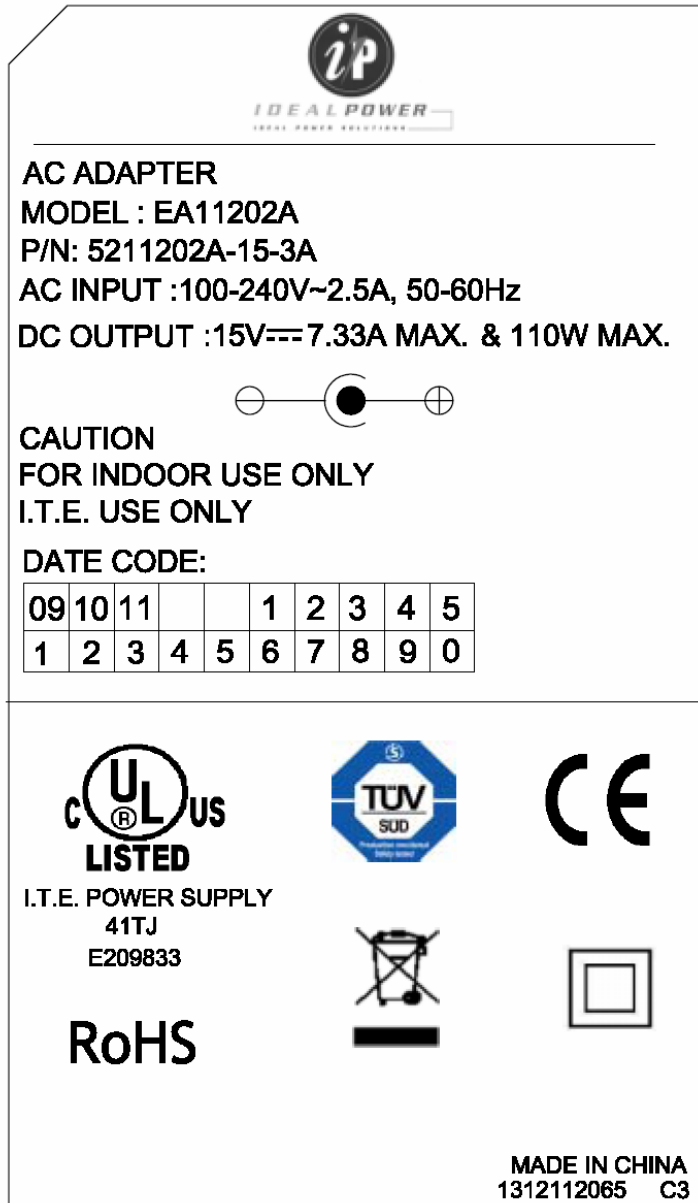





IDEAL POWER  
IDEAL POWER SOLUTIONS

3.5

3.5




**AC ADAPTER**  
**MODEL : EA11202A**  
**P/N: 5211202A-15-3A**  
**AC INPUT :100-240V~2.5A, 50-60Hz**  
**DC OUTPUT :15V===7.33A MAX. & 110W MAX.**





**CAUTION**  
**FOR INDOOR USE ONLY**  
**I.T.E. USE ONLY**

**DATE CODE:**


09	10	11			1	2	3	4	5
1	2	3	4	5	6	7	8	9	0


  
**LISTED**  
 I.T.E. POWER SUPPLY  
 41TJ  
 E209833





**RoHS**





**MADE IN CHINA**  
 1312112065 C3

71

41

EDAC P/N.: 312112065  
Background: Silver color  
Character: Black color  
Unit: mm