



# APPROVAL SHEET

<b>CUSTOMER</b>	<b>AVI VIDRO</b>
<b>CUSTOMER P/N</b>	
<b>DESCRIPTION</b>	<b>24V/3.0A</b> <b>SERIES NO. (L04)</b>
<b>EDAC MODEL</b>	<b>EA10721B-240</b>
<b>DATE</b>	<b>2013-01-25</b>
<b>REVISION</b>	<b>1</b>

<b>APPROVED</b>	<b>DESIGN</b>	<b>PREPARE</b>	<b>RoHS</b>
			
<b>CONCLUSION</b> 判定結果	<b>APPROVED</b> 承認	<b>CONDITON</b> <b>APP'D</b> 有條件承認	<b>CUSTOMER'S</b> <b>SIGNATURE:</b> 客戶簽章:



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## 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: EA10721B Series

This product is AC to DC switching power transfer device, it can provide for a 24Vdc, 3.0A max, 72W 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

### 2-2. Input Frequency

50~60(47~63) Hz

### 2-3. Input Current

2.0A (Max.) @ 100Vac/60Hz-240Vac/50Hz with full load.

### 2-4. Efficiency

85% typical at 115Vac/60Hz&230Vac/50Hz, with full load.

### 2-5. Configuration

3-wire AC input (Line, Neutral, FG)

### 2-6. Input Fuse

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

### 2-7. Inrush Current

90A at 230 Vac At cold start, maximum load.

45A at 115 Vac At cold start, maximum load.

### 2-8. Line Regulation

This line regulation is less than ± 1%, 100Vac/60Hz-240Vac/50Hz, with full load.

### 2-9. Hold Up Time

10 mSec. @ 100Vac/60Hz-240Vac/50Hz, with full load.

### 2-10. Rise Time

50 mSec. @ 100Vac/60Hz-240Vac/50Hz, 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 **3.0 SEC.** 100Vac/60Hz-240Vac/50Hz, with full load.

## 2-12 Fall Time

**25 mSec.**@ 100Vac/60Hz-240Vac/50Hz, with full load.

## 3-0. Output Requirements

### 3-1. Output Voltage and Current

Output Voltage (Vdc)	Current Min.(A)	Current Max.(A)
<b>+24V ±5%</b>	<b>0</b>	<b>3A</b>

### 3-2.Static Load Regulation

**±5%**@ 100Vac,240Vac input, with 0A--full load

### 3-3. Dynamic Load Regulation

**±5%** excursion for **50% - 100%** load @ 100Vac-240Vac input

### 3-4. Drift(Warm-up period)

**±2%** @ 100Vac-240Vac input, with full load for 30Minutes warm up

### 3-5. 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

Ripple&Noise Vp-p **1%** @ 100Vac-240Vac input with full load

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

### 3-6. Over Voltage Protection

**150%** Max. of rated voltage, latch off

### 3-7. Short-Circuit Protection

The adapter can withstand continuous short at DC output and no damage. It will enter into normal condition if the fault condition is removed.

### **3-8. Over current protection**

150% of max current

When Over-Current occurred the output should be shut down and the over –current Situation is removed the output shall be auto-recover without any harm

### **3-9. Temperature Rise**

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

### **3-10. 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

### **3-11. 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 testing 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 2,000 Meters (operation) and 5,000 Meters (non operation)

## 6-0. Safety

### 6-1. Hi-Pot Test

DC 4242V 5mA 3 Sec Or AC 3KV 5mA 3 Sec. between primary and secondary circuit

### 6-2. Insulation Test

500Vdc, 3 Sec. between primary and secondary circuit

IR should 100 M .

### 6-3. Leakage Current

750 uA, at 240Vac/50 Hz

### 6-4. Safety

UL, CUL, TUV, CE, FCC, PSE, DOIR+C-TICK, CCC, BSMI, GOST-R

### 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	$\pm 1KV$ (peak)	IEC 61000-4-5

### 6-6. EMI

Comply with Standards
CISPR 22, EN 55022 Class B FCC PART 15 Class B

## 7-0. Mechanical Characteristics

**7-1. Physical Size :** 132 mm (L) \* 54 mm (W) \* 31 mm (H)

**7-2. Enclosure material :** 94V-0 minimum

**7-3. Output Cable (Reference) :** SPT-1 #18

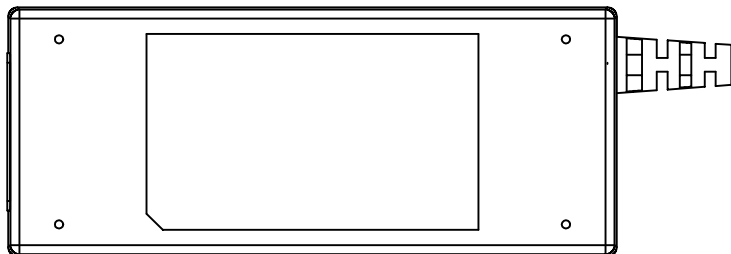
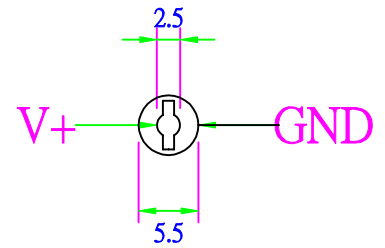
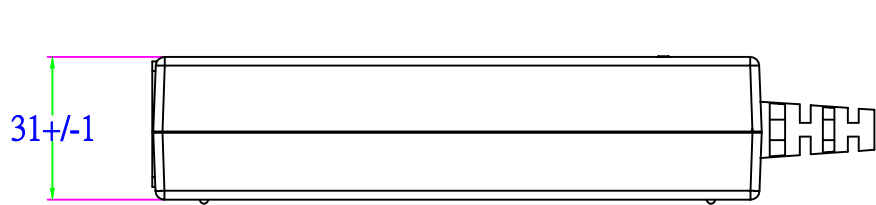
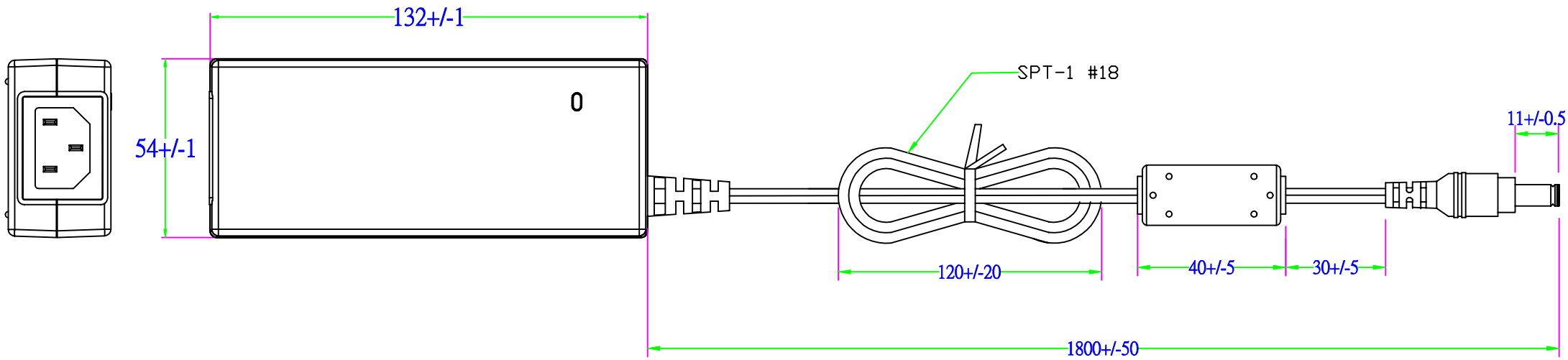
**7-4. Vibration Test**

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.





EDAC POWER ELECTRONICS CO., LTD.			APPROVED
MODEL	EA10721B(L04)	UNIT	mm
color	BLACK	SCALE	CHECK
cus.		DATE	2011-12-06
			DRAWING L.J.YU

3.5

**EDAC**  
EDACPOWER ELEC.

**AvivEnergy** tech ltd.

AC ADAPTER 电源适配器 電源供應器  
 MODEL 型号 型號: EA10721B-240  
 AC INPUT 输入 輸入: 100-240V~2.0A, 50-60Hz  
 DC OUTPUT 输出 輸出: 24V===3.0A

CAUTION 注意 注意  
 FOR INDOOR USE ONLY 室内产品使用 室內產品使用  
 I.T.E. USE ONLY

DATE CODE: 

13	14	15			1	2	3	4	5
1	2	3	4	5	6	7	8	9	0

  
 出厂日期  
 出廠日期

     
 I.T.E. POWER SUPPLY  
 41TJ  
 E209833      
     
 制造商: 翌胜电子股份有限公司  
 此产品仅适用于非热带气候条件海拔2000m以下的地区  
 Output connector polarity  
 **MADE IN CHINA** 中国制造 中國製造  
 23120721013 C3

71

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EDAC P/N.: 3120721013  
 Background: Black color  
 Character: Silver color  
 Unit: mm