

## SUBJECT: SCOPE OF DOCUMENT

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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: EA11011 H Series

This product is AC to DC switching power transfer device, it can provide for a 12V, 10A max & 120W 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. AC Input Voltage

Maximum Voltage: 264Vac

Normal Voltage : 100~240Vac

Minimum Voltage: 90Vac

### 2-2. AC Input Frequency

Maximum Frequency: 63Hz

Normal Frequency: 50~60Hz

Minimum Frequency: 47Hz

### 2-3. Input Current

a. 2.0A(Max.) @ 115Vac input with full load.

b. 1.0A(Max.) @ 230Vac input with full load.

### 2-4. Energy saving standards:

2-4-0. Designed to meet the following standard :

CoC Tier II

#### 2-4-1. Efficiency

Efficiency 89% ( avg. ) normal input & 25%, 50%, 75% ,100% of max output load

Efficiency 79% normal input & 10% of max output load

#### 2-4-2 No Load Power Consumption.

No Load Watt 0.15W at normal line input.

### 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 (3.15A/250V)

### 2-7. Inrush Current

60A at 110 Vac At cold start, maximum load.

120A at 220 Vac At cold start, maximum load.

## 2-8. Line Regulation

This line regulation is less than  $\pm 1\%$ , of rated input voltage @ full load .

## 2-9. Hold Up Time

10 mSec., @ Normal line, with full load.

## 2-10. Rise Time

50 mSec.,@ 100-240VAC 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)
+12V	0	10.0A

### 3-2. Load Regulation

Voltage (Vdc)	Tolerance (%)	Voltage range(Vdc)
+12V	+5/ , -5	11.4V — 12.6V

### 3-3. Dynamic Load Regulation

$\pm 5\%$  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
+12V	2.0% max. of rated output voltage

Input condition : for rated voltage , Output condition : for max load  
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 latch-off when OVP occurred

### 3-6. Over Current Protection

110%-170% 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. 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. Stability

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

### 3-9. Temperature Rise

Less than 55 °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.

### 3-12. Over shoot

During either Turn-on or Turn-off of the power supply, the output voltage should not exceed  $\pm 10\%V_o$ . No voltage of opposite polarity shall be present on the output during turn-on or turn-off

## 4-0. Reliability

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

The power supply shall be designed and produced to have a mean time between failure ( MTBF) of 100,000 hours at 25 degrees C.

## 5-0. Environment

### 5-1 Temperature

- a. Operating : 0 to 40
- b. Storage : -20 to 85

### 5-2 Humidity

- a. Operating : 10% to 90 %
- b. Storage: 5% to 90 %

### 5-3 Altitude

From sea level to 5,000 Meter ( operation ) and 5,000 Meter ( non operation )

## 6-0. Safety

### 6-1. Hi-Pot Test

- P->S: 3000Vac 2Sec 10mA;
- L,N-->FG: 1800Vac 2Sec 10mA

### 6-2. Insulation Test

500Vdc, 3Sec. between primary and secondary circuit  
IR should 50 MΩ.

### 6-3. Leakage Current

250uA at 240Vac/50 Hz

### 6-4. Safety

UL, CUL, TUV, CB, CE, FCC, BSMI, CU, PSE, RCM, IRAM, CCC, EK

### 6-5. EMS

Items	Specification	Reference
ESD	Contact: ± 4KV	IEC 61000-4-2
	Air: ± 8KV	
RS	Frequency: 80~1000MHz Field Strength: 3V/M , 80% AM(1KHz)	IEC 61000-4-3
EFT	± 1.0 KV on input AC power ports.	IEC 61000-4-4
SURGE	Line to Line: ± 1KV (peak)	IEC 61000-4-5
	Line to F.G : ± 2KV (peak)	

#### 6-6. EMI

Comply with Standards
CISPR 32, EN 55032 Class B FCC PART 15 Class B

#### 7-0. Mechanical Characteristics

7-1. Physical Size : 137mm (L) \* 59 mm (W) \* 34 mm (H)

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

7-3. Output Cable (Reference) : UL1866 #12

#### 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/EN62368)

Products shall be dropped from a height of 1000 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 cannot into hazardous moving  
parts and hazardous voltage circuits need be operational , and need meet Hi-Pot  
19mm to 20mm thick , all supported on a concrete or equivalent non-resilient

7-6. Net Weight (Reference) : 450 +/-10g

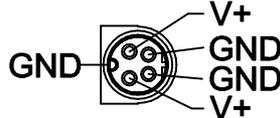
# EDAC EDACPOWER ELEC.

AC ADAPTER 电源适配器 직류전원장치 電源供應器

MODEL 型号 모델명 型號 : EA11011H-1200

AC INPUT 输入 정격입력 輸入:100-240V~, 2.0A, 50-60Hz

DC OUTPUT 输出 정격출력 輸出:12.0V= 10.0A 120.0W



CAUTION 注意 注意

FOR INDOOR USE ONLY 室内产品使用 室内產品使用

I.T.E. USE ONLY

DATE CODE:

20	21	22			1	2	3	4	5
1	2	3	4	5	6	7	8	9	0

出厂日期  
出廠日期



Local Rep: HANJUN Corporation  
Tel : +82-54-461-0629  
KTL: SU10315-19004  
R-R-EPE-EA11011H-1200  
최저소비효율기준 만족 제품



제조업자명: EDAC Power Electronics (Suzhou) Co.,Ltd.



I.T.E. POWER SUPPLY  
41TJ  
E209833



R33147  
RoHS



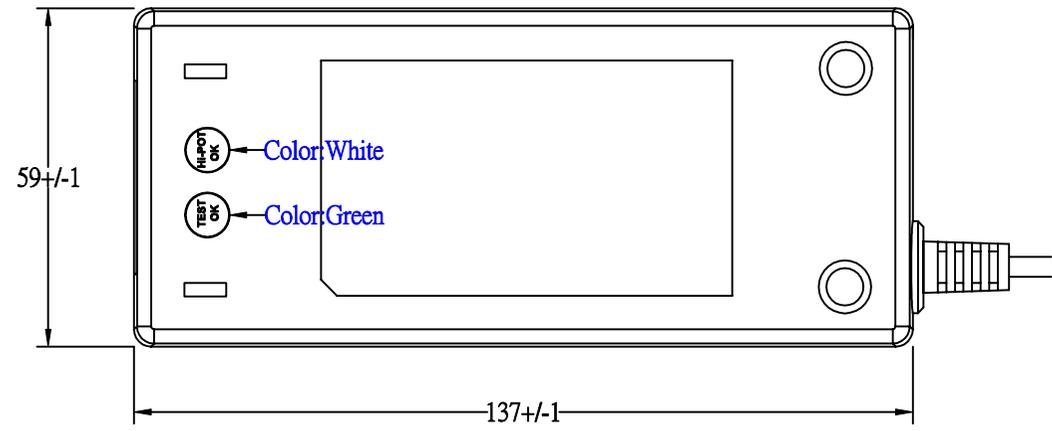
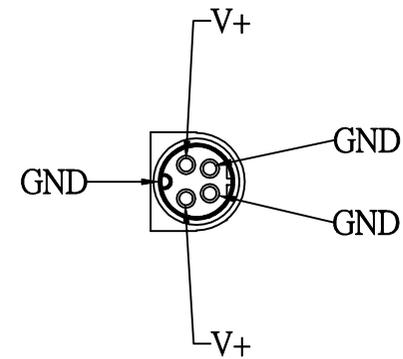
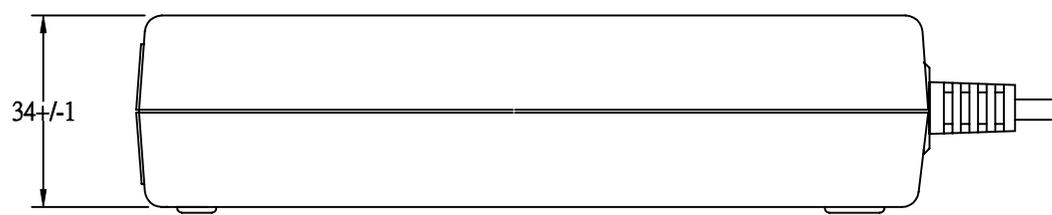
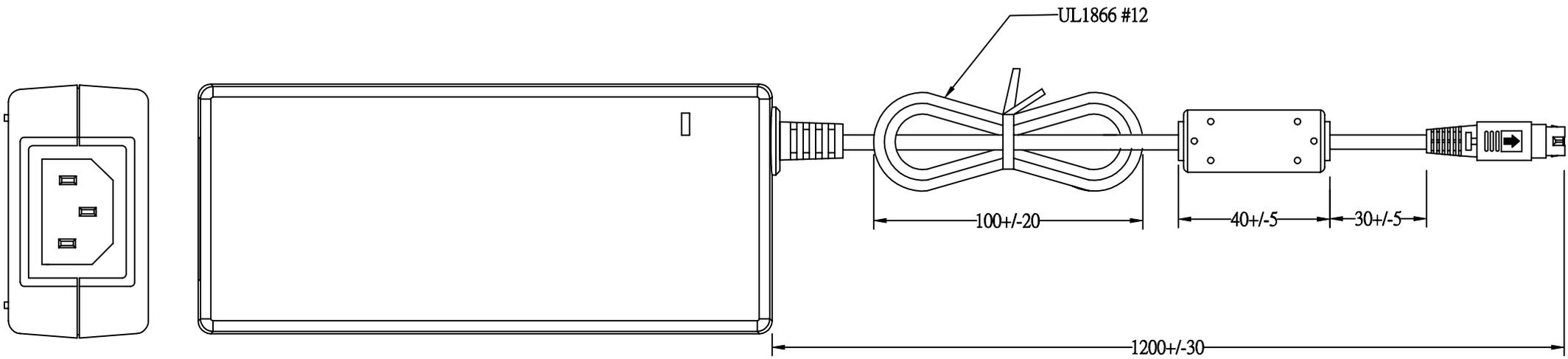
制造商: 翌胜电子股份有限公司

13128



MADE IN CHINA 中国制造 中國製造

EDAC P/N.: 3128  
Background: Black color  
Character: Silver color  
Unit: mm



<b>EDAC POWER ELECTRONICS CO., LTD.</b>				APPROVED
MODEL	EA11011H(T08)	UNIT	mm	DESIGNED
color	BLACK	SCALE		CHECK
cus.		DATE	2020-05-25	DRAWING L.J.YU