
 SWITCHING POWER SUPPLY	<b>PRODUCT SPECIFICATION</b>	File: EA-A0601HE-12
	Model: SSA-0601HE-12 Rev.: A0(+12V/5A)	Date: Apr. 17, 2015 Page: 1 of 5

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## 1.0 INTRODUCTIONS:

1.1 This document specifies the product model number SSA-0601HE-12 a 60 watt adaptor single output switching mode power supply, this unit is designed to meet the relevant specification and regulation as following.

The specification is typical at nominal line and 25°C ambient.

1.2 Compliant with CEC Level VI and EPA Energy Efficiency Level IV requirements.

1.3 This product is complied with RoHS request for 6 hazarded substances.

## 2.0 AC INPUT CHARACTERISTICS:

- 2.1 Input Voltage rating: 100Vac to 240Vac.
- 2.2 Input Voltage range: 90Vac to 264Vac.
- 2.3 Input Frequency: 47 Hz to 63 Hz.
- 2.4 AC Inrush current (max.): 100A max. for 230Vac at max.load(cold start)
- 2.5 Input current: 2.0A max. for 100~240Vac at max. load.
- 2.6 Leakage current: 3.5mA max at 240Vac 50Hz.
- 2.7 No load power consumption: < 0.15W at 115Vac/60Hz or 230Vac/50HZ

## 3.0 DC OUTPUT CHARACTERISTICS:


3.1 Output specifications table:

Output Voltage	Minimum Load	Maximum Load	Load Regulation	Ripple & Noise
V1: <u>+12</u> V	<u>0</u> A	<u>5</u> A	<u>±5</u> %	<u>120</u> mVp-p

3.2 Line regulation: The line regulation is less than +/-1% while measuring at max. load and +/-10% of input voltage change.

3.3 Output Dynamic Response: +/-8% Max, Excursion for output load 20% to 100% max. load. changes with a 0.1~2.5A/us slew-rate And 1ms / 10ms /20ms.

3.4 Ripple & noise: 120mV at max. load, nominal line. Measuring is done by 20 MHz bandwidth oscilloscope and dc output with a 10uF electrolytic cap parallel 0.1 uF ceramic capacitor.

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#### 4.0 GENERAL SPECIFICATION:

- 4.1 Efficiency: 88% / 89% @ average of 25/50/75/100% load for 115 / 230VAC input. Meet ERP level VI.  
 10% Load efficiency: 79% min.
- 4.2 Hold up time: Minimum 10mS at max load ; 115Vac/60Hz,25°C.
- 4.3 Turn-ON delay Time: 3 Sec max; 90Vac with Full Load
- 4.4 Rise time: 30mS typical at max. load ; 90Vac~264Vac/,25°C
- 4.5 Overshoot: Any overshoot at turn on or turn off shall be less than 10% of the nominal output voltage.
- 4.6 MTBF: MIL-HDBK-217F 80,000 hours at max. load ; 115V/60HZ & 230V/50HZ, 25°C.

#### 5.0 PROTECTION:

- 5.1 Over voltage protection: +12VDC : 18VDC Max can be protected at No-Load.( only external test)
- 5.2 Short circuit protection: Output can be shorted without damage, auto recovery
- 5.3 Over current protection: 130% max with shut-down and auto recovery. (recovers automatically after fault condition is removed.)

#### 6.0 Dielectric Withstand Voltage:


- 6.1 primary to secondary: 3000Vdc 1mA for 1 Sec.
- 6.2 primary to ground: 1500Vac 10mA for 1 Sec.

#### 7.0 SAFETY STANDARD:

- Designed to meet:
- UL60950-1 2<sup>nd</sup>
  - CSA 22.2 NO.60950-1 (CUL).
  - TUV EN60950-1.
  - CB Certificate and report.
  - CCC
  - PSE

#### 8.0 EMI STANDARD (Conducted & Radiation):

- Designed to meet:
- FCC class B.
  - CE (CISPR 22 class B).
  - C-tick,KC,BSMI

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## 9.0 EMS STANDARD:

Designed to meet:

EN55022: 2006 Class B.  
 EN61000-3-2: 2006 Class D.  
 EN61000-3-3: 1995+A1: 2001+A2: 2005.

EN55024: (1998)+A1: 2001+A2: 2003  
 IEC 61000-4-2:2001 B.  
 IEC 61000-4-3:2006 A.  
 IEC 61000-4-4:2004 B.  
 IEC 61000-4-5:2005 B.  
 IEC 61000-4-6:2006 A.  
 IEC 61000-4-8:2001 A.  
 IEC 61000-4-11:2004

## 10.0 ENVIRONMENTAL:

10.1 Temperature: 0°C to 40°C (operating).  
-25°C to 75°C (storage).

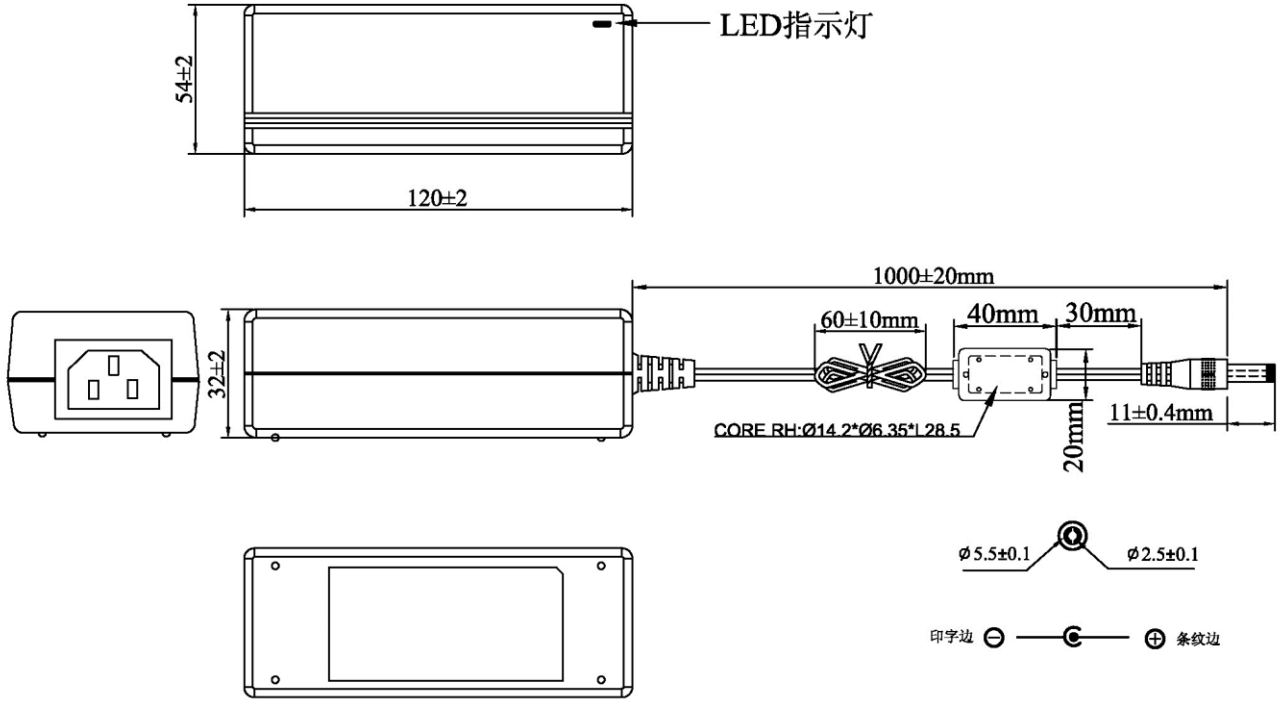
10.2 Temperature coefficient: 0.04% per °C.

10.3 Relative humidity: Non-condensing 10% to 85% (operating).  
 Non-condensing 0% to 90% (storage).

10.4 Vibration: Non-operating: 5~500Hz, Acceleration:1G,  
Sweep rate:1 oct/min.  
 Axis:X,Y,Z (10 minutes for each axis).

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## 11.0 Mechanical Specifications :



DC PLUG: 5.5X2.5X11mm Cable: 1.0M