

# SPECIFICATION

## High Efficiency Switching Desktop Adapter

### Universal AC Input 48W 12VDC Output

## P/N: A120040FPL

**\*\* Specification Approval \*\***

This specification (total 5 pages including cover page) is approved in it's entirety by:

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Company Name	Print Name	Signature	Date
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This Specification subject to change without prior notice unless agreement is in place.



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## 1. INTRODUCTION OF S.M.P.S

This specification describes the electrical and mechanical characteristics of a single output switch mode power supply.

## 2. ENVIRONMENTAL

Operating temperature : -5°C-+40°C.

Storage temperature : -20°C-+60°C.

Operating humidity : 30%-85%.

Storage humidity : 10%-95%.

## 3. INPUT

Rating input voltage : 100- 240VAC

Input voltage range : 90~264VAC

Rating input frequency : 50-60 Hz

Input frequency range : 47~63Hz

Input current : 1.2Arms max. (at regular input voltage & rating output current)

## 4. INRUSH CURRENT

60A max at 240Vac input for a cold start at 25 C.

## 5. STANDBY POWER

This S.M.P.S standby power consumption 0.5W Max.

## 6. MAIN FUSE

Current fuse

(250V3.15A current fuse/250V3.15A)

## 7. DC INSULATION RESISTANCE

Input-Output : 50M  $\Omega$  minimum (at 500VDC)

Input-Body Case : 50M  $\Omega$  minimum (at 500VDC)

## 8. LEAKAGE CURRENT

0.25mA maximum, at nominal AC input voltage and frequency

## 9. DIELECTRIC WITHSTAND TEST

Input-Output: AC 3000V or DC 4240V minimum (cutoff current 10mA, 60S)

**10. OUTPUT**

Unload output: 12.6VDC MAX

Rated output: 12.0VDC±5%

Rated current: 4000mA

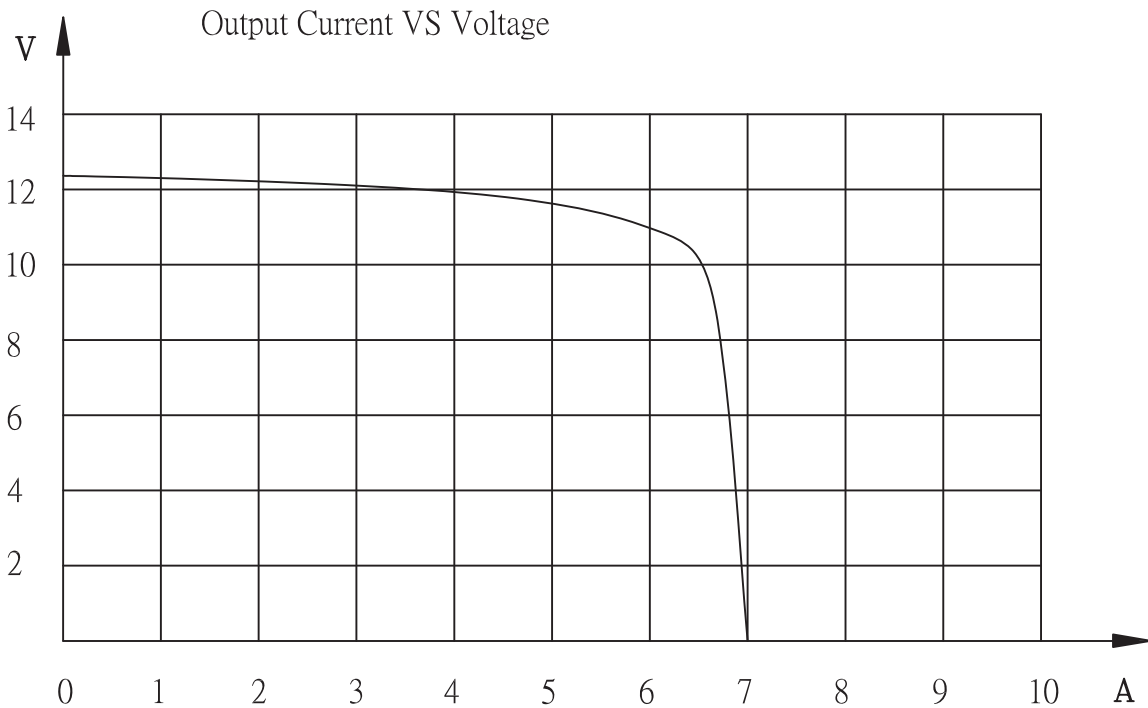
Rated power: 48.0W

Over current protection: 7.0A Max(Input voltage AC 240V).

Full load efficiency: >80%.

Average efficiency can reach energy star IV standard

Typical output characteristics (for Ref.)



**11. TURN ON TIME**

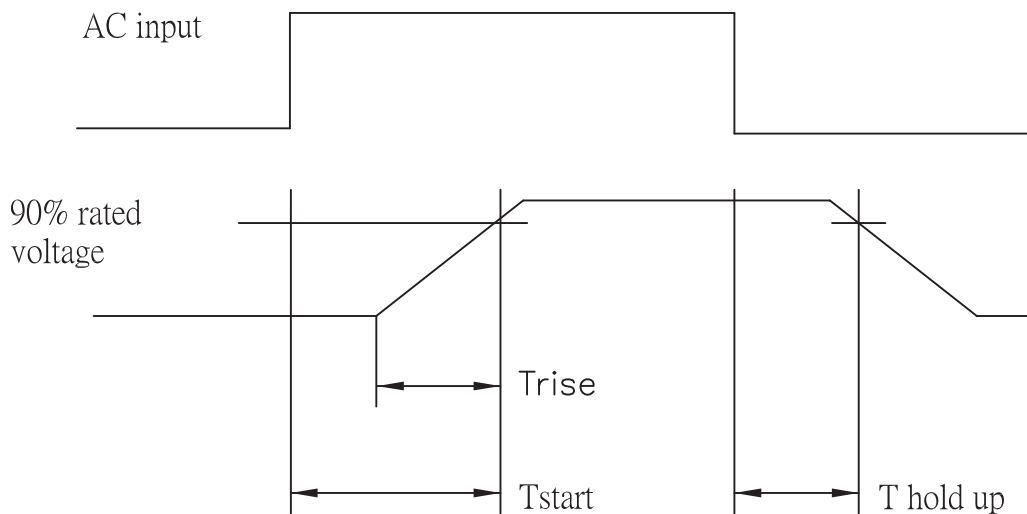
AC switch on time:  $T_{start} \leq 3$  Sec.

**12. OUTPUT RISE TIME**

DC output rise time:  $T_{rise} \leq 20$ ms .

**13. HOLDUP TIME**

DC output hold up time: hold up time  $\geq 3$ ms@240Vac input.



**14. RIPPLE & NOISE**

Ripple & noise voltage:  $< 120\text{mV}_{p-p}$

Test condition: tested by DC loading parallel with a  $10\mu\text{F}/\text{EC}$  and  $0.1\mu\text{F}/\text{CC}$  capacitor and measured band-width with DC-20MHz.

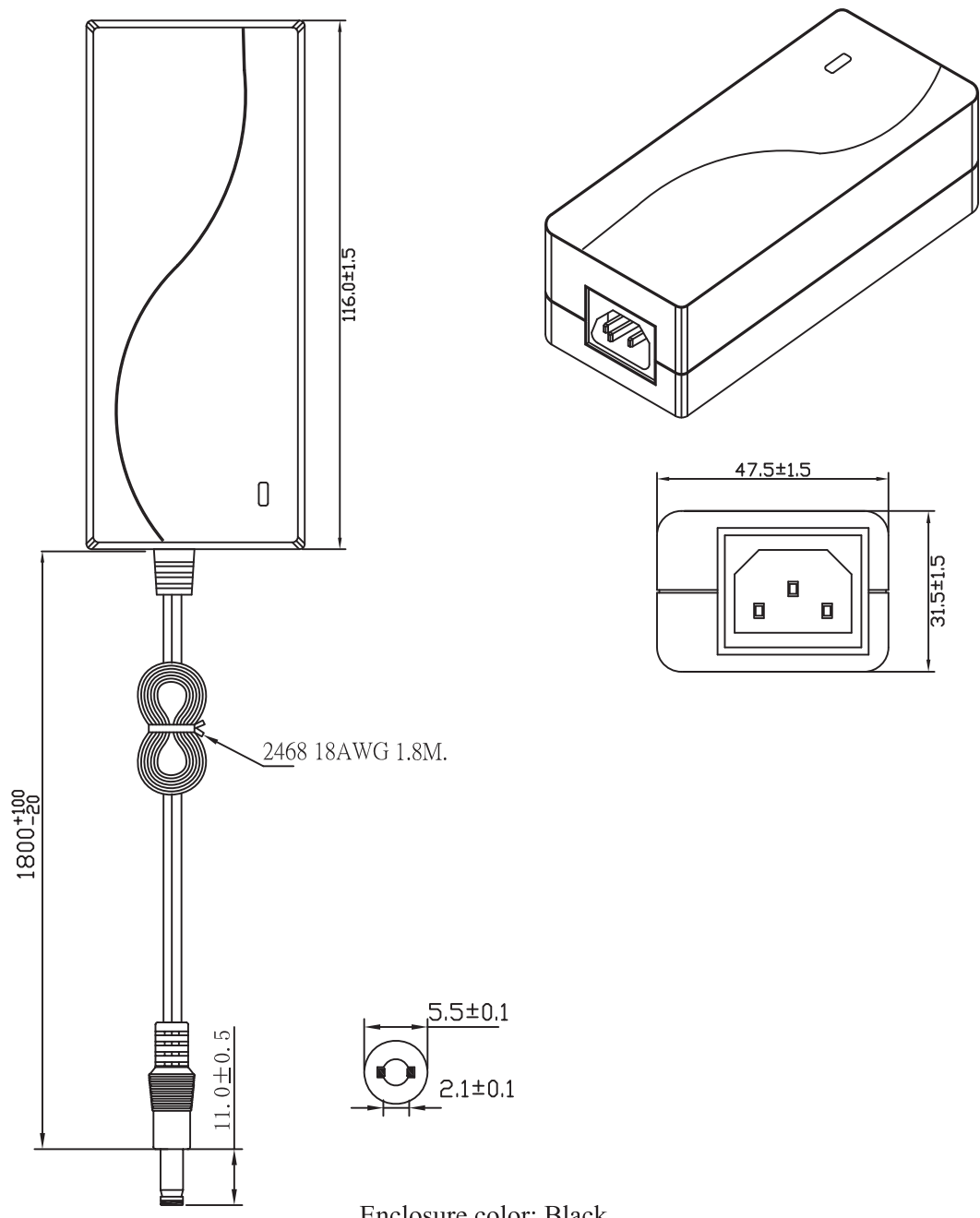
**15. PROTECTIONS**

Over current protection

Over Voltage protection

Short circuit protection

### 16. MECHANICAL DRAWING



Enclosure color: Black  
Unit: mm  
Tolerance: +/-1mm

### 17. LABEL DRAWING

