

# SPECIFICATION

## High Quality Switching PowerAdapter Wallmount

Universal AC Input  
7.5W 5VDC 1.5A Output

**P/N: W050015EE-US**

**\*\* SpecificationApproval\*\***

This specification (total 9 pages including cover page) is approved in it's entirety by:

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## 1.0 SCOPE

This document details the electrical, mechanical and environmental specifications of a **100VAC~240VAC** input, **+5V 7.5Watts** output switching power supply.

## 2.0 INPUT REQUIREMENTS

### 2.1 VOLTAGE

The range of input voltage is from **100Vac** to **240Vac**.

### 2.2 FREQUENCY

The range of input frequency is from **47Hz** to **63Hz**.

### 2.3 CURRENT

The maximum input current is **0.35A**.

### 2.4 INRUSH CURRENT

The inrush current will not exceed **30A**.

## 3.0 OUTPUT REQUIREMENTS

### 3.1 Static load

Output#	Voltage	Minimum load	Maximum load	Peak load
1	+5.0V	0A	1500mA	

Table 3.1.1

### 3.2 Output voltage:

The output voltage shall be statically regulated for all combinations of load, line and environment including cross regulation as shown.

Output#	Voltage	Range	Tolerance
1	+5.0V	+4.75V~5.25V	± 5%

Table 3.1.2

### 3.3 Ripple and Noise

Output#	Voltage	Maximum peak to peak ripple Noise
1	+5.0V	100m Vp-p

Table 3.1.3

Peak to peak with 20Mhz bandwidth and 10uF in parallel with a 0.1uF capacitor .

### 3.4 Temperature Coefficient

$\pm 0.05\%/^{\circ}\text{C}$  typical on output.

### 3.5 Turn on delay

During turn on and turn off, no voltage shall exceed its nominal voltage by more than 10% and no output will change its polarity with respect to its return line. All output shall reach their steady state values within **3 seconds** of turn on.

### 3.6 Hold– up time

10 microseconds minimum from loss of nominal AC input at full load condistion 115/50Hz input, output wil remain within regulation.

### 3.7 Efficiency:

The efficiency (watts out / watts in) is higher than **65 %** typical while measuring at nominal line and rated load.

### 3.8 Transient Response and Deviation

The power supply will meet specifications and maintain output voltage regulation within 4% of steady state with up to a current change of 50% of maximum current in load for the output #1 no output exceed the maximum rating set in table 3.1.2.

## 4.0 PROTECTION REQUIREMENTS

### 4.1 Over-voltage Protection

The power supply shall be shutdown when +5.0V output voltage reaches to its over-voltage protection trigger point of 6.8V Max.

### 4.2 Over-current Protection

No damage to the power supply shall be sustained when operating output current over rating current 140%~250% any line condition, into an over load condition for an indefinite period of time. The power supply shall be self – recovering when fault condition is removed.

#### 4.3 Short circuit protection:

No damage to the power supply shall be sustained when operating any output under any line condition, into a short circuit condition for an indefinite period of time. The power supply shall be self – recovering when fault condition is removed.

## 5.0 ENVIRONMENTAL CONDITIONS

### 5.1 Operating:

The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions.

5.1.1 Ambient Temperature : 0°C ~ 40°C

5.1.2 Relative Humidity : 10 % ~ 90 %

5.1.3 Altitude : Sea level to 10,000

5.1.4 Vibration: 1.00mm, 10-25Hz, 15 minutes per cycle for each axis (X, Y, Z)

5.1.5 Cooling: The power supply will operate with convection cooling.  
Blocking of vents must not cause damage to the power supply.

### 5.2 Non - operating:

The power supply shall be capable of standing the following environmental conditions extended periods of time, without sustaining electrical or mechanical damage and subsequent operational deficiencies.

5.2.1 Ambient Temperature : -20°C ~ 65°C

5.2.2 Relative Humidity : 10 % ~ 90 %

5.2.3 Sea level to 10,000 feet

5.2.4 Vibration and Shock

The power supply shall be designed to withstand normal transportation vibration per MIL-STD-810D, method 514 and procedures X, as it is mounted in the chassis assembly and packed for shipping.

## 6.0 INTERNATIONAL STANDARDS

### 6.1 EMI standards

The power supply meets FCC Part 15 Class B radiated and conducted emissions requirements.

## 7.0 RELIABILITY AND QUALITY CONTROL

### 7.1 Burn-In

Burn-in shall be performed for a minimum 2 hours at  $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  under full load.

### 7.2 Component dating

Semiconductor junction temperatures shall not exceed manufacturers maximum thermal rating.

## 8.0 MECHANICAL

### 8.1 Introduction

The power supply will provide input connectors and in below table.

AC INPUT	2 PIN UL PLUG
DC OUTPUT	22AWG 2468 3.5*1.1*10mm

### 8.2 Weight:

The weight of the power supply is about **80 g.**

## 9. Safety

### 9.1 Safety

The power supply series is certified under following international standards, depending on AC plug.

	Standard
UL	UL 60950
CUL	CSA C22.2 NO.950
TUV	TUV/ VDE – EN60950
CE	Declared & CE Mark
PSE	J60950
CCC	GB4943

## 9.2 Insulation resistance

9.2.1 Input to output: 50M OHM at 500VDC

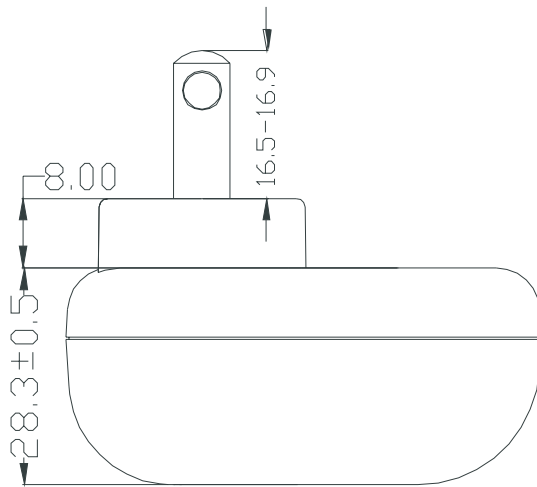
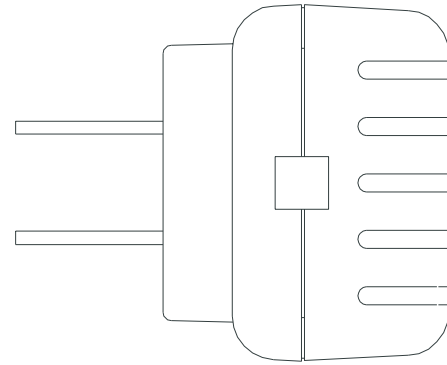
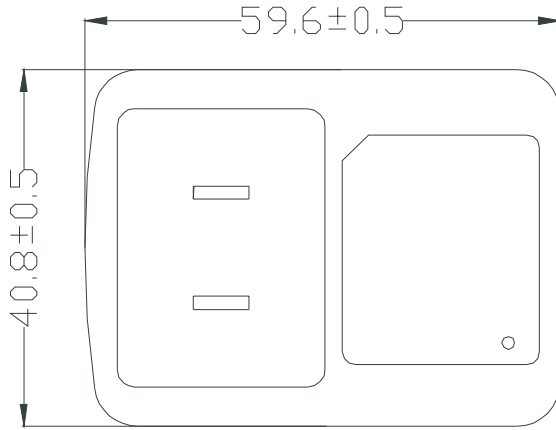
## 9.3 Dielectric Strength (Hi-Pot)

9.3.1 Primary input AC short to Secondary output: AC 3000V 10mA, for 60 sec.

# 10. Mechanical Drawing

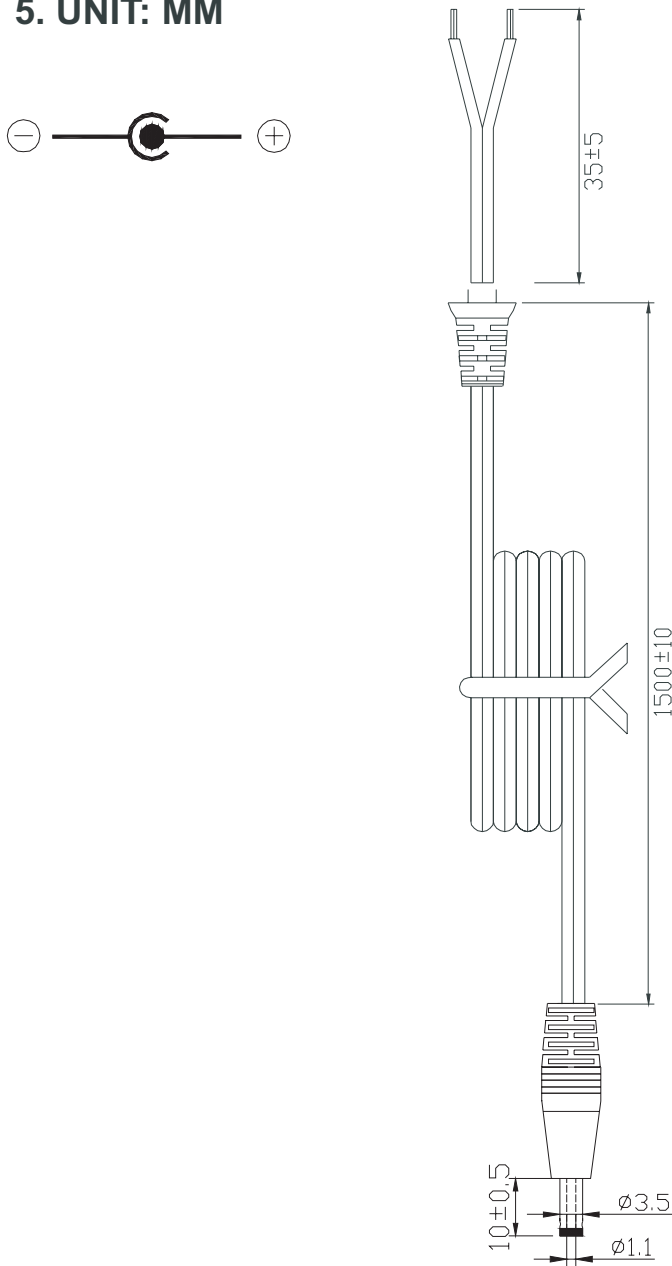
NOTE:1. Case color :Black.

2. Unit:mm



## 11. Cable Specification:

1. CORD MATERIAL: 2468 #22\*2C (UL APPROVAL)
2. OUTJACKET: PVC COLOR Black
3. TEMPERATURE 80°
4. RoHS CABLE
5. UNIT: MM





## 12. Label

