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<p style="text-align: center;"><b>24W</b> Switching Power Adapter <b>SPECIFICATION</b></p>
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**Model No.** : **STD-24010U (USA/RoHS)**

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**Description** : **24Volts / 1Amps**

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**Part No.** : **RXTD24010U415201**

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**Version** : **2.0**

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**Date** : **26-Sep.-2007**

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<b>Approved</b>	<b>Checked</b>	<b>Prepared</b>

## 1. Feature :

- ◆ **Input** : **Universal 100 ~ 240 Vac / 47 ~ 63 Hz Input, without any slide switch.**
- ◆ **Output** : **+24V / 0~1A**
- ◆ **Case Dimension** : **72(L) \* 34(W) \* 57(H) mm**
- ◆ **Efficiency** : **79% Typical**
- ◆ **Safety** : **PSE**
- ◆ **EMI** : **Class B ; Conduction & Radiation Met.**
- ◆ **Protection** : **OVP (Over Voltage Protection) 、 SCP (Short Circuit Protection) 、 OCP (Over Current Protection)**
- ◆ **High frequency design , less power consumption.**
- ◆ **Suitable for usage at Telecommunication, Computer, Industrial Controller, & OA System.**

## 2. Input :

2.1 Voltage	Universal 100~240Vac, single phase
2.2 Frequency	47 ~ 63 Hz
2.3 Current	0.58A Max.
2.4 Inrush Current	30A Max. / 100Vac ; 45A Max. / 240Vac (Cold Start At 25 °C , Full Load)
2.5 Efficiency	79% Typical (At Nominal Line Voltage , Full load)
2.6 Power Consumption	$P_i \leq 0.5 \text{ W}$ ( At 240Vac & No Load)

## 3. Output :

3.1 DC Output	Voltage	+24V $\pm$ 5%
	Current	1 A Max.
	Regulation	22.8Vmin. ~ 24.0Vtyp. ~ 25.2Vmax.
	Ripple & Noise	100 mV Max.
	Total Power	24W Max.

**Remark :** For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1 $\mu$ F multilayer Cap. and a Low ESR Electrolytic Cap. (10  $\mu$ F) at output connector terminals. (At nominal line voltage, Full Load)

#### 4. Protection :

4.1 Over Voltage Protection (OVP)	27V (MAX)
4.2 Short Circuit Protection (SCP)	Automatic recovery after short-circuit fault being removed
4.3 Over Current Protection(OCP)	2.5A (MAX)

Remark : When Short Circuit Protection or Over Current Protection is activated,the power supply will shutdown automatically.  
Once the abnormal condition resulting in the failure being removed, the power supply will restart accordingly. When Over Voltage Protection is activated, the power supply will shutdown forever.

#### 5. Safety 、 EMI and EMC Requirement :

##### 5.1 Safety Requirement

- a. Safety : PSE  
b. Dielectric Strength : 10mA Max. Cut off current

(1)	Primary to Secondary	3000Vac for 1 Minute
(2)	Primary to Frame Ground	1500Vac for 1 Minute

##### c. Insulation Resistance :

(1)	Primary to Secondary	10 M OHMS for 500Vdc
(2)	Primary to Frame Ground	10 M OHMS for 500Vdc

5.2 EMI Requirement : Class B ; Conduction & Radiation Met.

5.3 Leakage Current : Less than 0.25mA

#### 6. Operation and Environment Performance :

##### 6.1 Temperature Range

Operating	+ 0°C ~ + 40°C
Storage	- 20 °C ~ + 70 °C

##### 6.2 Humidity Range(Non-condensing)

Operating	15% ~ 95% RH
Storage	5% ~ 95% RH

6.3 Cooling : By natural air

7. M.T.B.F. : 50000 Hrs.( At 25°C , Full Load )

8. QC: All of the quantity shall be checked before shipment in accordance with the Enforcement.

Regulations of the Electrical Appliances and Material Safety Law Article 11 and Appendix 3.

## 9.Mechanical :

9.1 Weight : 165 g Typical

9.2 Cable Type : Black UL2468 AWG18  
( Wire + Plug )

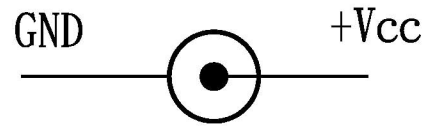
Plug :  $\phi 5.5 * \phi 2.1 * 9.5 \text{mm}$   
( Tuning Fork & Cannelure )

9.3 Cable Length : 1500mm

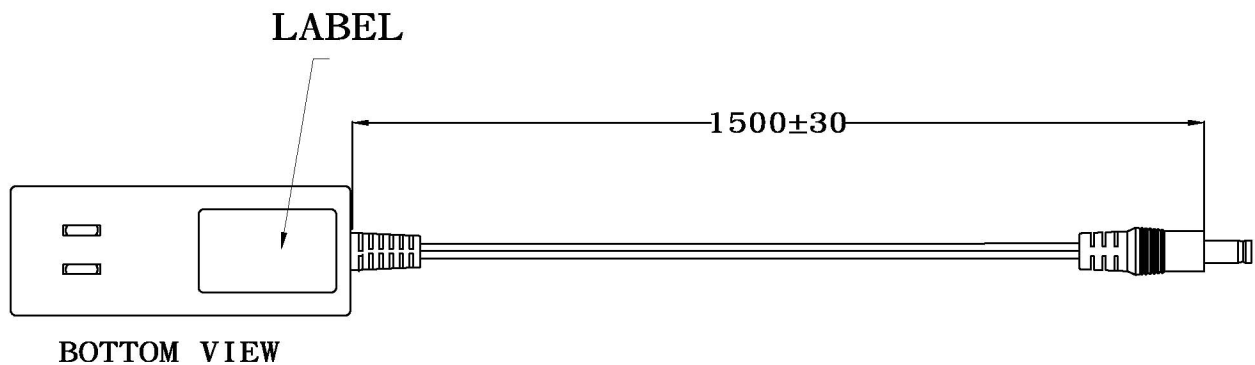
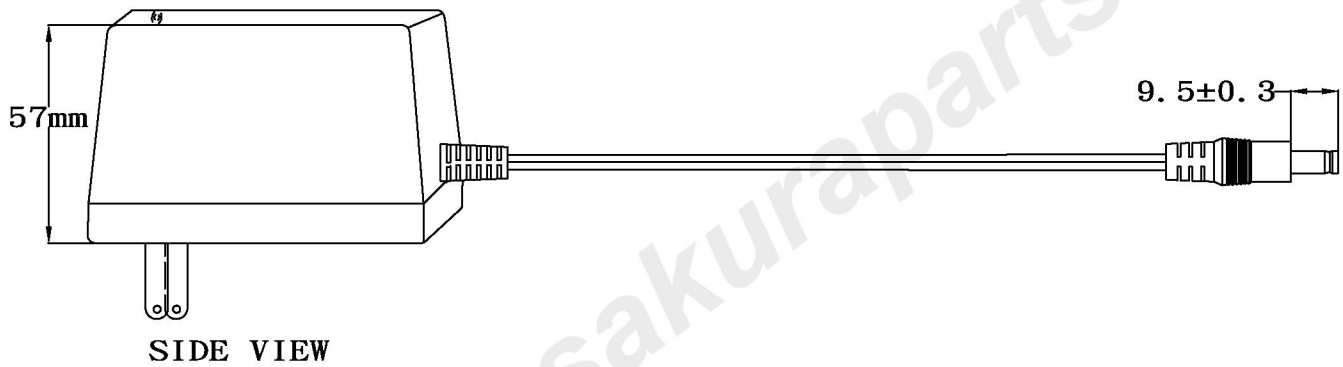
9.4 Case Dimension : 72mm(L)\*34mm(W)\*57mm(H)

9.5 Material Flammability : UL 94V-0

9.6 External Apperance : As drawing below ( Scale  $\rightarrow$  mm )



Output Cable Plug Pin Assignment



9.7 Spec. Label Materials : Metalized Polyester Label ( Silver Gloss )  
 Color : Black Background with Sliver Printing  
 Label Dimension : 34mm(L)\*24mm(W)+/-0.1mm

100%



400%



"XXX"

Label supplier's code.  
 It is accurate that the number  
 of words depends on the real  
 finished product.

ID NO."X"

Label manufacturer's code.  
 It is accurate that the number  
 of words depends on the real  
 finished product.

**Label Part No. : 9443006570**

## A. Line Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	22.8~25.2 V	23.99 V	24.37 V	24.31 V
115Vac / 50 % Load	22.8~25.2 V	23.98 V	24.38 V	24.30 V
132Vac / 50 % Load	22.8~25.2 V	23.99 V	24.37 V	24.30 V
180Vac / 50 % Load	22.8~25.2 V	23.99 V	24.37 V	24.31 V
230Vac / 50 % Load	22.8~25.2 V	23.99 V	24.38 V	24.30 V
264Vac / 50 % Load	22.8~25.2 V	23.98 V	24.38 V	24.30 V

## B. Efficiency Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	79 % Min.	85.69 %	84.88 %	84.98 %
230Vac / 100 % Load	79 % Min.	84.77 %	84.47 %	84.33 %

## C. Load Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 0 % Load	22.8~25.2 V	24.10 V	24.09 V	24.15 V
115Vac / 50 % Load	22.8~25.2 V	23.98 V	24.03 V	24.10 V
115Vac / 100 % Load	22.8~25.2 V	23.90 V	23.97 V	24.07 V
230Vac / 0 % Load	22.8~25.2 V	24.10 V	24.09 V	24.15 V
230Vac / 50 % Load	22.8~25.2 V	23.99 V	24.03 V	24.11 V
230Vac / 100 % Load	22.8~25.2 V	23.91 V	23.96 V	24.07 V

## D. Ripple & Noise Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	100mVpp Max	60.4mVpp	58.8mVpp	57.9mVpp
230Vac / 100 % Load	100mVpp Max	52.4mVpp	52.7mVpp	54.5mVpp

## E. Inrush Current

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	30A Max	27.8 A	27.9A	27.5A
230Vac / 100 % Load	45A Max	42.6 A	43.2A	43.3A

## F. Over Current Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	2.5A Max.	1.463A	1.476A	1.473A
230Vac / 100 % Load	2.5A Max.	1.556 A	1.576A	1.520A

## G. Short Circuit Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Auto Recovery	OK	OK	OK
230Vac / 100 % Load	Auto Recovery	OK	OK	OK

## H. Input Power Consumption(No Load)

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
240Vac / 0 % Load	$\leq 0.5$ W	0.41 W	0.42 W	0.42 W