

# 规格承认书

## SPECIFICATION FOR APPROVAL

### 客户签核栏 CUSTOMER LINE

经办 HANDLING	审核 CHECK	批准 APPROVAL	承认签印 CONFIRMATION
日期 DATE:			

请签字确认并回传本司 PLEASE SIGN AND RETURN ONE COPY.

签字后，您同意本承认书内容，所有产品将按此要求生产

With your signature, you confirm all the details in this specification, and the products will be made according to below description.

备注 REMARKS: \_\_\_\_\_

客户名称

CUSTOMER

**SK4345**

客户料号

ITEM NUMBER

产品类别

PRODUCT

**电源适配器**

设计编号

DESIGNED NO

**SK-W20180702017**

机种型号

MODEL NO

**SK01T-0500100B**

版本号

VERSION

**001**

机种编号

MODEL NUMBER

**SK4345-0500100B1-03**

**深圳市森树强电子科技有限公司**

**Shenzhen Simsukian Electronics Technology Co., Ltd.**

电话(TEL):0755-27488856

传真(FAX):0755-27488356

地址 ADD: 深圳市龙华区观澜街道大坪社区佳怡工业园 5 号厂房

The 5th plant, Jiayi Industrial Park, Daping Community, Guanlan Street Lon



## 索引 (Index)

1.	描述 (Description) .....	4
2.	电气规格 (Electrical Specification ) .....	4
3.	保护功能 (Protection) .....	5
4.	可靠性 (Reliability) .....	5
5.	环境特性 (Environment) .....	6
6.	安全及 EMI 要求 (Safety and EMI Requirement) .....	7
7.	测试设备清单 (Test Equipment List) .....	8
8.	结构参数 (Mechanical Requirement) .....	8
9.	机械规格 (Mechanical Specifications) .....	9
10.	重量 (Weight) .....	10
11.	铭牌图 (Label Drawing) .....	10
12.	输入/输出线 ( Input/Output cable).....	11
13.	包装图 (Package Drawing) .....	12

MODEL NO.:	SK01T-0500100B	DESIGNED NO.:	SK-W20180702017
------------	----------------	---------------	-----------------

## 1. 描述 ( Description )

本规格书适用于 SK01T-0500100B 型号的开关电源，产品有高效率、高可靠性的特性，并具备有短路保护、过流保护等保护功能。

This specification apply to the Switching power whose model No. is SK01T-0500100B, which has a high efficiency and reliability, and have the over voltage, over current and short circuit function.

## 2. 电气规格 ( Electrical Specification )

### 2.1 输入规格 ( INPUT SPECIFICATION )

输入电压范围 (Input voltage range)	90Vac - 264Vac
额定输入电压 (Rated voltage)	100Vac / 240Vac
输入频率范围 (Input frequency range)	47Hz - 63Hz
额定输入频率 (Rated input frequency)	50Hz / 60Hz
输入电流 (Input current)	0.25A max. @ full load, rated voltage
空载功耗 (No Load Input Power)	0.1W max. @ no loading, rated voltage
空载电流 (No Load Input current)	15mA max. @ no loading, rated voltage
功率因数 (Power factor)	NA
浪涌电流 (Inrush current)	100A type peak @ 220Vac Input, cold start

### 2.2 输出规格 ( OUTPUT SPECIFICATION )

#### 2.2.1 额定输出 (Rated Output )

额定输出电压 Rated Output Voltage (Vdc)	输出电压范围 Output Voltage Range (Vdc)	纹波&噪声 Output Ripple & Noise (mV)	额定输出电流 Rated Output Current (mA)
5	4.75-5.25	≤120	1000

注 (Notes) : “纹波&噪声” 测试条件为示波器带宽设置 20MHz, 输出测试端并联一粒 10uF 的电解电容和一粒 0.1uF 的瓷片电容。(The test condition as with oscilloscope with bandwidth 20MHz . A 10uF E-cap and 0.1uF ceramic-cap shall be connected to the connector in parallel.)

#### 2.2.2 输出电压过冲 (Output Overshoot At Turn On & Turn Off)

额定输出电压 Rated Output Voltage (Vdc)	输出超调电压比例 Proportion of the output voltage overshoot	
	开通 Turn on	关断 Turn off
5	5%	5%

注 (Note) : 测试条件为额定输入电压下, 输出电流分别为空载及满载 (The test condition as : All of output Current from Min to Max)

#### 2.2.3 负载特性 / 调整率 (Combined Load / Line Regulation)

额定输出电压 Rated Output Voltage (Vdc)	最小负载 Min. Loading	额定负载 Rated. Loading	线性调整率 Line Regulation	负载调整率 Load Regulation
5	0A	1A	±3%	±5%

MODEL NO.:	SK01T-0500100B	DESIGNED NO.:	SK-W20180702017
------------	----------------	---------------	-----------------

#### 2.2.4 启动延迟时间 (Turn on delay time) :

当输入电压 115V/60Hz 及输出额定负载时, 产品的启动时间为 3S Max.  
3 Second Max. at 115Vac input and output Max. load.

#### 2.2.5 上升时间 (Rise time) :

当输入电压 115V/60Hz 及输出额定负载时, 产品的上升时间为 40mS Max.  
40mS Max. at 115Vac input and output Max load.

#### 2.2.6 保持时间 (Hold up time) :

当输入电压 115V/60Hz 及输出额定负载时, 产品的保持时间为 5mS Min.  
5mS Min. at 115Vac input and output Min. Load.

#### 2.2.7 平均效率 (Average Efficiency) :

在额定输入电压, 输出电流分别为额定电流的 25%、50%、75%、100%情况下, 并煲机 30 分钟后, 产品的平均效率  $\geq 73.62\%$ , 即达到六级能效的平均效率标准.

In the regular voltage, The output current is at 25%, 50%, 75% and full load cases, The average efficiency of  $\geq 73.62\%$  (warm up 30 minutes), Which meet the standards of energy efficiency level VI.

### 3. 保护特性 (Protection Feature)

#### 3.1 输出短路保护 (Output Short circuit protection) :

输入电压 90V/60Hz 及 264VAC/50Hz, 输出满载并电子负载设置 CC 模式的情况下, 当输出端短路时并短路持续 3 秒的过程中, 输入功率小于 5W; 当解除短路后, 输出电压能 3 秒钟内自动恢复正常该电源供给器在短路解除时能正常工作恢复.

The power supply will be auto recovered after short circuit faults remove.

#### 3.2 过流保护 (Over current Protection) :

输入额定电压, 电子负载设置 CC 模式下, 当输出端过流时, 产品进入到打嗝的保护状态; 当解除过流后, 输出电压能 3 秒钟内自动恢复正常。

The power supply will be auto recovered after over current faults remove.

### 4. 可靠性要求 (Reliability Requirements)

#### 4.1. 老化 (Burn-in)

输出额定负载80%, 环境温度  $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$  条件下, 产品于输入电压90V/60Hz及264VAC/50Hz分别各煲机 2-4 小时后, 输出电压应在输出电压标准之内, 整机应无任何损坏现象。

The power supply shall be burn-in for 2-4 Hours under normal input and 80% rated load at  $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$

#### 4.2. 平均故障间隔时间 (MTBF Qualification)

额定输入电压、输出满载, 及 $25^{\circ}\text{C}$ 环境温度条件下, MTBF至少 20,000 小时。

The MTBF shall be at least 20,000hours at  $25^{\circ}\text{C}$ , Full load and nominal input condition

MODEL NO.:

SK01T-0500100B

DESIGNED NO.:

SK-W20180702017

## 5. 环境要求 (Environment Requirement)

5.1 工作温度 (Operating Temperature) : 0°C-40°C

5.2 储藏温度 (Storage Temperature) : -40°C to 85°C

5.3 工作湿度 (Relative Humidity) : 相对湿度 25%~90% , 非冷凝 Relative Humidity 25%-90%, Non - Condensing

5.4 储藏湿度 (Storage Humidity) : 相对湿度 10%~90% , 非冷凝 Relative Humidity 10%-90%, Non - Condensing

5.5 振动 (Vibration) :

5.5.1. 测试标准 ( Operating Standard) : IEC 721-3-3 3M3

5~9Hz, A=1.5mm

9~200Hz, 加速度 Acceleration 5m/S

5.5.2. 运输 (Transportation) : IEC 721-3-2 2M2

5~9Hz, A=3.5mm

9~200Hz, 加速度 Acceleration=5m/S

200~500Hz, 加速度 Acceleration=15m/S

5.5.3. 轴向振动 (Axes, 10 cycles per axis) :

在测试过程中不能出现永久性的损坏; 在电源重新开关后, 产品能够恢复正常。

No permanent damage may occur during testing, and The product can restore to its original situation after power off / on.

5.6 跌落试验 (Dropping Packed) :

经过“高度 76 厘米, 一个角/三个棱/六个面”共 10 次跌落后, 产品的机构及功能正常。

After the Dropping test (1 corner, 3 edges, and 6 surfaces, Height:76cm, 10times), function well.

MODEL NO.:

SK01T-0500100B

DESIGNED NO.:

SK-W20180702017

## 6. 安全及 EMI 要求 ( Safety and EMI Requirement ) :

### 6.1 安全方面 (Safety) : 符合以下 ( 打■部分 ) (accord with mark ■ )

certificate	国家/Country	standards	
<input type="checkbox"/> UL/CUL	美国/USA	UL60065	
<input type="checkbox"/> UL/CUL	美国/USA	UL60950	
<input type="checkbox"/> TUV/GS	欧洲/Europe	EN60065	
<input type="checkbox"/> TUV/GS	欧洲/Europe	EN60950	
<input type="checkbox"/> FCC	美国/USA	Class B	
<input type="checkbox"/> CE	欧洲/Europe	EN60065	
<input checked="" type="checkbox"/> CE	欧洲/Europe	EN60950	
<input type="checkbox"/> MEPS	澳洲/Australia	AS/NZS 4665	
<input type="checkbox"/> SAA	澳洲/Australia	AS/NZS 60065	
<input type="checkbox"/> SAA	澳洲/Australia	AS/NZS 60950	
<input type="checkbox"/> CCC	中国/China	GB8898	
<input type="checkbox"/> CCC	中国/China	GB4943	
<input type="checkbox"/> PSE	日本/Japan	J60950 (H22)	
<input type="checkbox"/> CB	欧洲/Europe	IEC60065	
<input type="checkbox"/> CB	欧洲/Europe	IEC60950	
<input type="checkbox"/> C-TICK	澳洲/Australia	AS/NZS CISPR13:2004	
<input type="checkbox"/> EK/KC	韩国/Korea	K60065	
<input type="checkbox"/> EK/KC	韩国/Korea	K60950	

### 6.2 EMI 标准 (EMI STANDARD) : 限值符合以下 (Meets the Limits )

6.2.1. Fcc class B rules

6.2.2. EN55032 class B rules

### 6.3 绝缘强度 (Dielectric Strength Testing) : 绝缘强度满足下表的要求 (Dielectric strength to meet the requirements under the table)

#### 6.3.1 高压测试 (HI-POT TEST) :

项目 (ITEM)	测试规格 (SPECIFICATION)	结果 (REMARK)
输入—输出 Primary to Secondary	3000Vac/5mA/60S	无拉弧 No arcing
输入—地 Primary to P.G	—	—
输出--地 Secondary to P.G	—	—

注: 测试过程前, 输入端的 L/N 短路, 输出端的正极/负极须分别短路并连接牢固。

Note: before testing, input L/N short circuit, make output positive and negative short circuit and connected.

#### 6.3.2. 绝缘测试 (isolation Test) : 输入对输出之间 500Vdc/2Sec , 绝缘电阻>50M ohm 。

Input to output 500Vdc/2Sec, isolation resistance > 50M ohm

注: 测试过程中, 输入端的 L/N 短路, 输出端的正极/负极短路

Note: at the test, input L/N short circuit, make output positive and negative short circuit

MODEL NO.:

SK01T-0500100B

DESIGNED NO.:

SK-W20180702017

## 7. 测试设备清单 (Test Equipment List)

项目	设备名称	制造	型号
1	变频电源 (AC power source)	Chroma	6120
2	示波器 (Oscilloscope)	Tektronix	TDS1002B
3	电子负载仪 (Electronic load)	TET	T3515
4	万用表 (Multimeter)	FLUCK	87III
5	功率计 (Dynamometer)	Chroma	2100
6	温度表 (Thermograph)	LUTRON	TW-902C
7	插头引线弯折试验机 (Plug lead bend test machine)	联欣	LX-817
8	盐雾试验机 (Salt spraying tester)	联欣	LX-8827B
9	震动台 (Vibration table)	精技实验	FZD-25
10	跌落测试台 (Drop test bed)	自制	
11	数显卡尺 (Digimatic caliper)	上海量具	0-150mm

## 8. 结构参数 (MECHANICAL REQUIREMENT) :

### 8.1 外壳 (Enclosure) :

外壳尺寸:  $L * W * H = 61.71\text{mm} * 49.3\text{mm} * 32\text{mm}$  ;

The power supply size:  $L * W * H = 61.71\text{mm} * 49.3\text{mm} * 32\text{mm}$  ;

### 8.2 输入连接 (Input Connector) :

3 Pin 插脚

Three pin input plug.

MODEL NO.:

SK01T-0500100B

DESIGNED NO.:

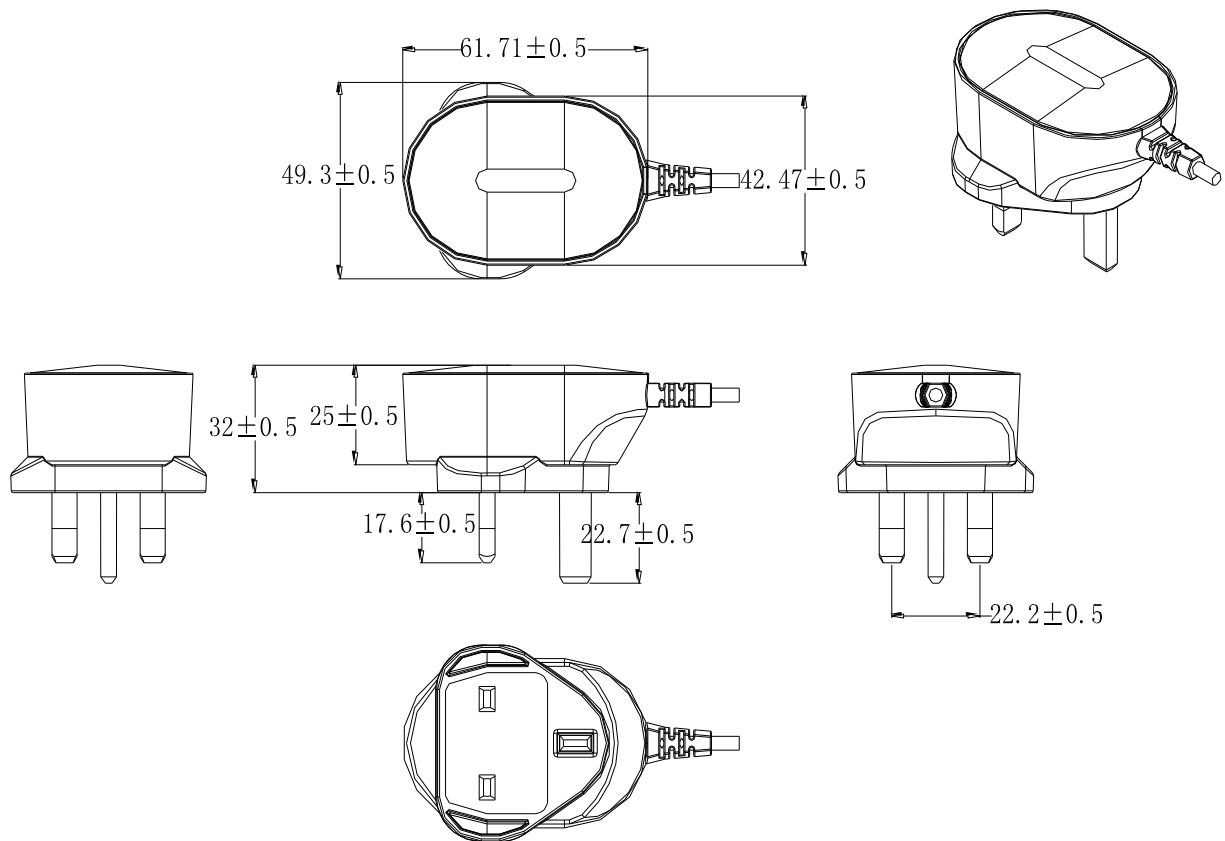
SK-W20180702017



## 9. 机械规格 (MECHANICAL SPECIFICATIONS)

### 9.1 外壳尺寸图 ( Dimension ) :

L \* W \* H = 61.71mm X49.3mm X32mm, 如下图 as below



MODEL NO.:

SK01T-0500100B

DESIGNED NO.:

SK-W20180702017

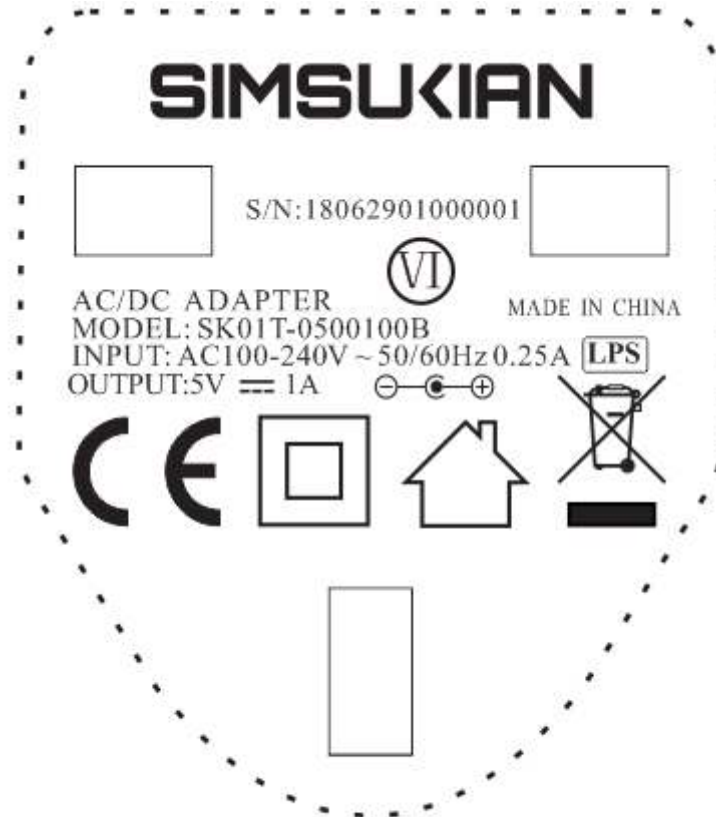
## 10. 重量 (Weight)

电源成品重量大约为 66.5g 。

The weight of the power supply shall be about 66.5g 。

## 11. 铭牌图 (Label Drawing)

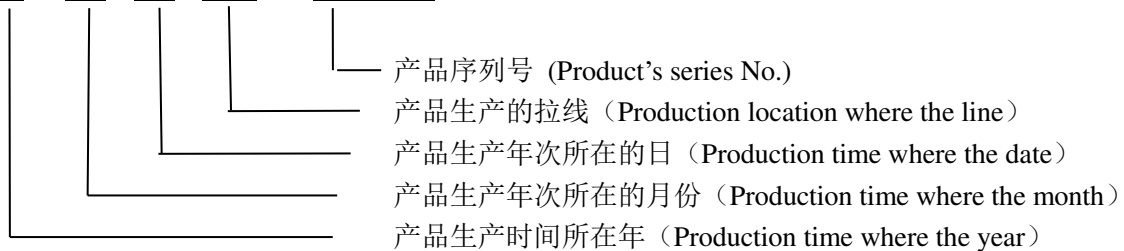
### 11.1 铭牌内容 (Label): 见下图 as below



边框不需要镭雕

### 11.1 周期码说明 (Cycle code) :

S/N: XX XX XX XX XXXXXX



例如上铭牌所示的 18062901000001

For example "18062901000001" show on label

18 代表 2018 年,06 代表 2018 中第 06 月,29 代表 06 月 29 日, 01 代表产品生产的拉线,000001 代表产品序列号  
18 means 2018, 06 means June, 29 means production location date 29<sup>th</sup>, 01 means Production location where the line,  
000001 means product series No. is 1.

MODEL NO.:

SK01T-0500100B

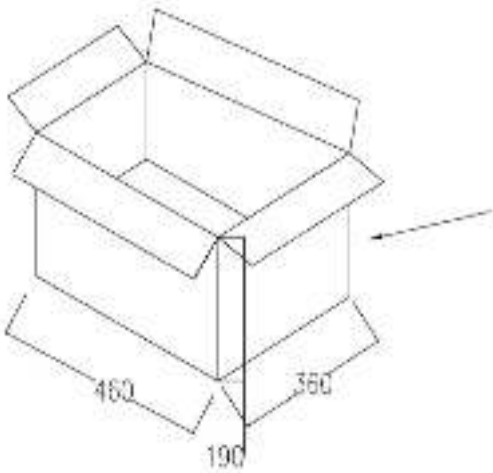
DESIGNED NO.:

SK-W20180702017

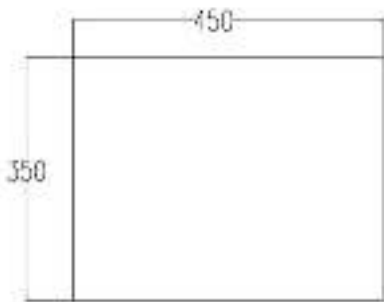


### 13 包装图 (Package Drawing)

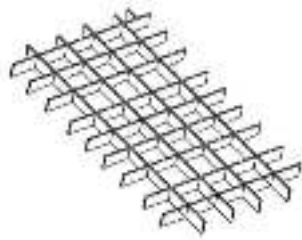
100PCS/箱



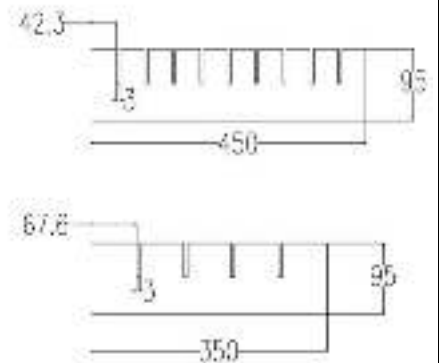
平板:



刀卡组合:



刀卡:



**包装说明 (PACKING):**

若客户未提出包装方式时, 均使用本公司之包装方式。

Our own packing style will be adopted if no special packing required .

a 内包装/inner package

CPE 袋/CPE bag

b 外包装/ Outer package

纸箱/ paper-box.

尺寸: 460×360×190mm ,4×9刀卡加平板3张450X350mm

Size: 460×360×190mm, 4 × 9 card packaging plate 3 sheet 450X350mm

c 外包装箱标识/ Outer package notes include the information

客户、订单号、品名、数量、日期等信息

Customer Name, LOT Number, Model No., Date, and so on.

此款机种为黑色(This model is black)

MODEL NO.:	SK01T-0500100B	DESIGNED NO.:	SK-W20180702017
------------	----------------	---------------	-----------------