

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 |
|----------------|-------------|----------------|----------------------|
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| 日期 DATE: | | | |

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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

SK4345

CUSTOMER _____

客户料号

ITEM NUMBER _____

产品类别

电源适配器

PRODUCT _____

设计编号

SK-W20180709005

DESIGNED NO _____

机种型号

SK01T-0500100B

MODEL NO _____

版本号

001

VERSION _____

机种编号

SK4345-0500100B1-02

MODEL NUMBER _____

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| MODEL NO.: | SK01T-0500100B | DESIGNED NO.: | SK-W20180709005 |
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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% |

| | | | |
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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°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°C , Full load and nominal input condition

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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.

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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

| | | | |
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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.

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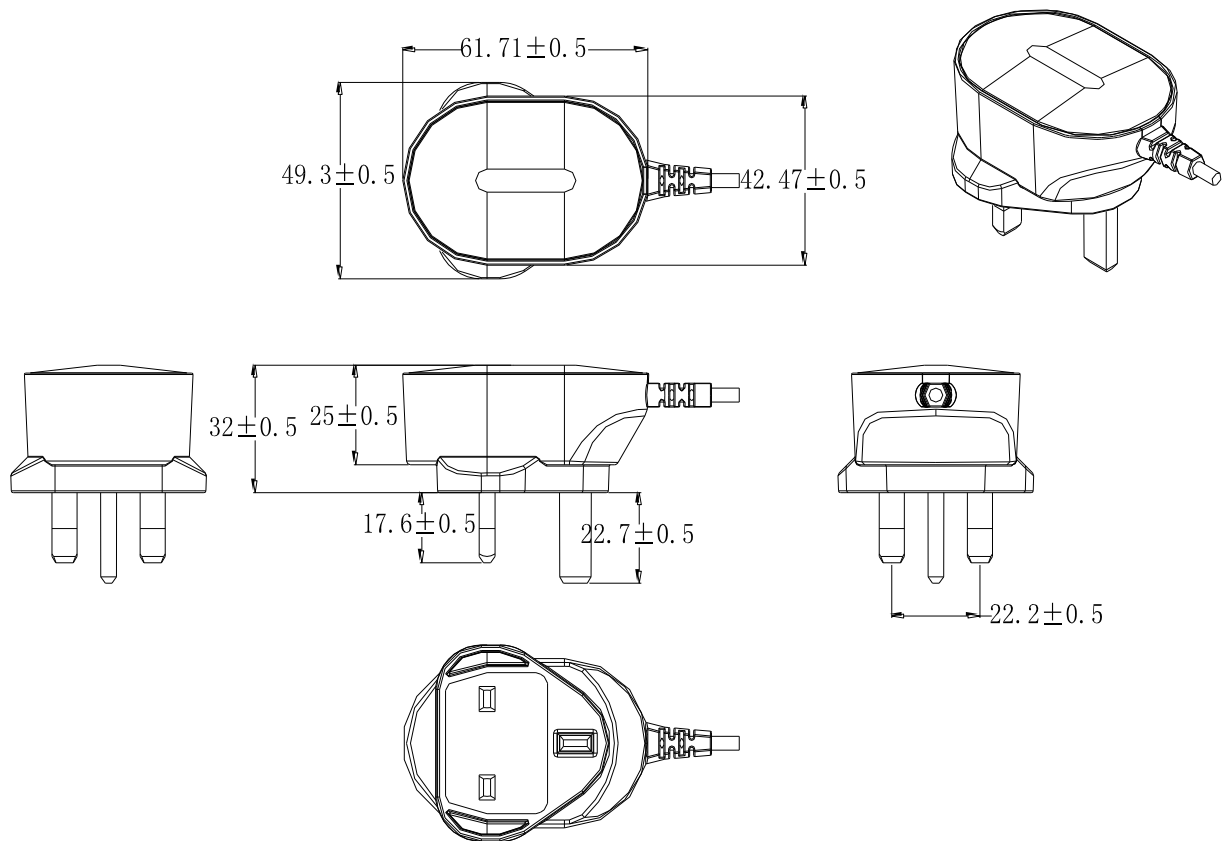
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9. 机械规格 (MECHANICAL SPECIFICATIONS)

9.1 外壳尺寸图 (Dimension) :

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



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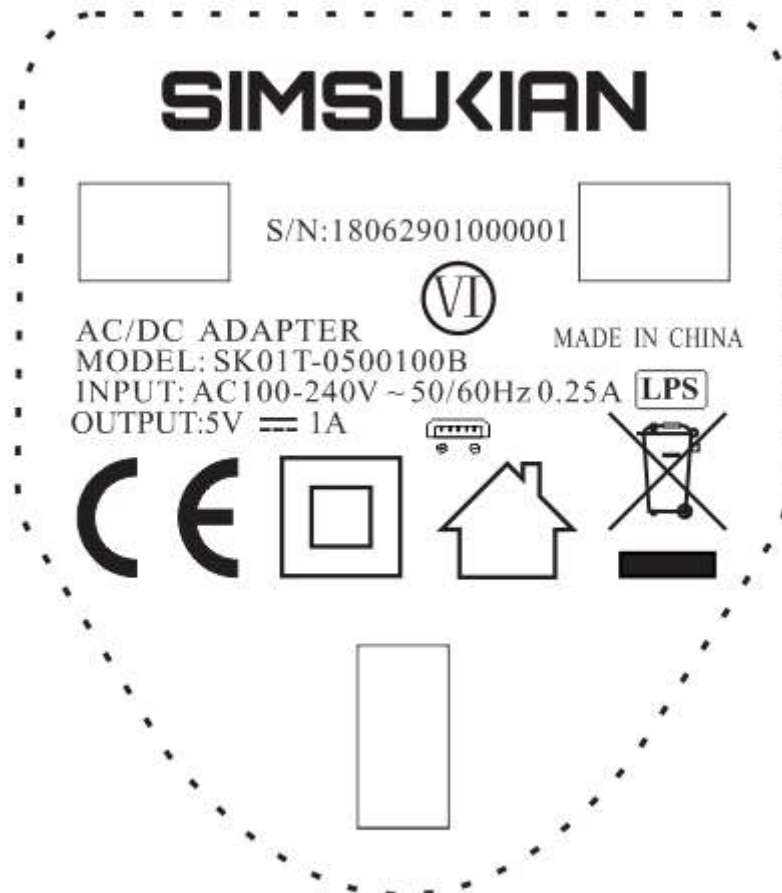
10. 重量 (Weight)

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)

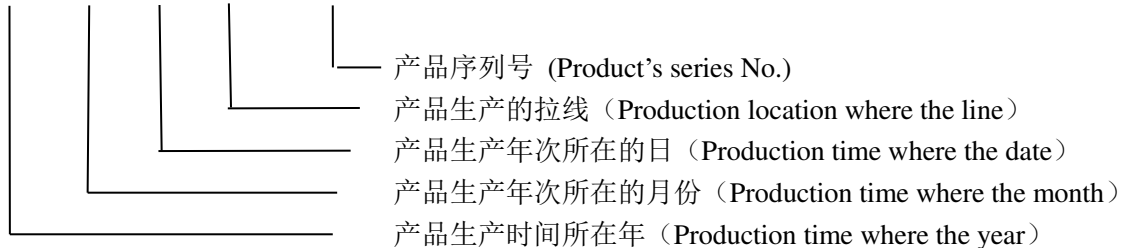
11.1 铭牌内容 (Label): 见下图 as below



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

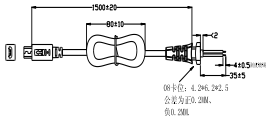
For example "18062901000001" show on label

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 29th, 01 means Production location where the line,
000001 means product series No. is 1.

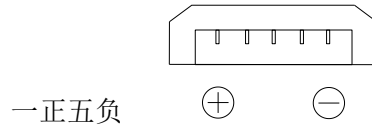
| | | | |
|------------|-----------------------|---------------|------------------------|
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12 输入线/输出线 (DC cable) :

12.1 DC 输出线尺寸图 (Wire size chart) : 2464\1.5M\20AWG\一端 08 卡,一端 MICRO 5 PIN(One end 08, one end MICRO 5 PIN),见下图 as below



12.2 DC 输出线输出极性(Polarity) : 见下图



12.3 输入线 (Wire size chart) : NA

MODEL NO.:

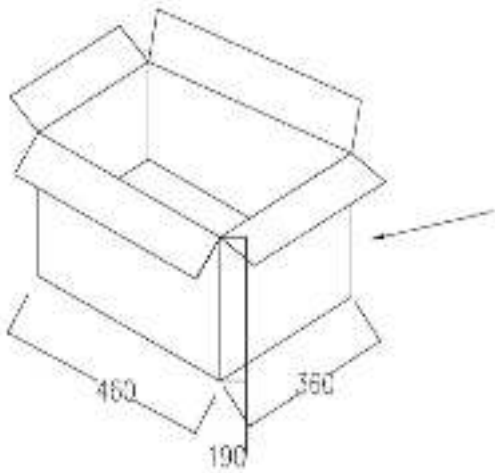
SK01T-0500100B

DESIGNED NO.:

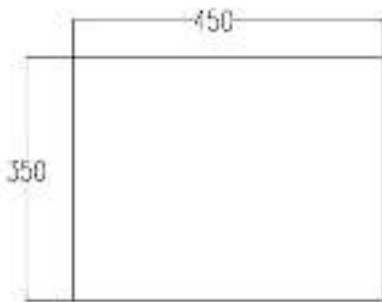
SK-W20180709005

13 包装图 (Package Drawing)

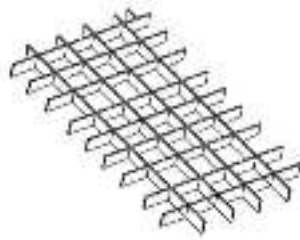
100PCS/箱



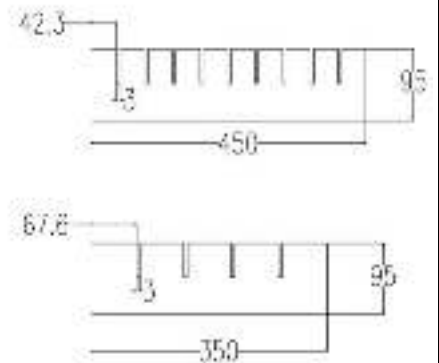
平板:



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.

此款机种为黑底白盖(This model is black and white)

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