

# 参考规格书

## SPECIFICATION FOR REFERENCE

CUSTOMER/客户: \_\_\_\_\_

CUSTOMER P.N./客户物料号: \_\_\_\_\_

MODEL NO./产品型号: MS-T3200J240-075C0

PRODUCT NO./产品编号: SA697-UT0

SAMPLE DATE/送样日期: 2021-09-15

CUSTOMER AUTHORIZED SIGNATURE/客户承认签字		

Please return to us one copy of "SPECIFICATION FOR APPROVAL"  
with you approved signature./客户确认签字,  
盖章后请回传一份承认书给我司.

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## 1. SCOPE/简述

The document detail the electrical, mechanical and environmental specifications of a SMPS, the power supply provide 76.8W continuous output power.

资料详细描述了一款 **76.8W** (连续输出功率)开关电源的电气性,结构性及环境等要求。

The power supply shall meet the **RoHS** requirement.

此款电源符合 **RoHS** 要求。

### 1.1.Description/产品类型

- SMPS Adaptor(Wall mount)/插墙式适配器       SMPS Adaptor(Desk-top)/桌面型适配器  
 Open Frame/开放式结构                               SMPS Unit (With Case)/带铁壳型  
 Others/其他

## 2. Input Characteristics/输入特性

### 2.1.Input Voltage & Frequency/输入电压与频率

The range of input voltage is from 90Vac to 264Vac single phase.

输入电压范围: 从 **90Vac** 到 **264Vac**, 单相输入。

	Minimum/最小	Nominal/额定值	Maximum/最大
Input Voltage/输入电压	90Vac	100Vac-240Vac	264Vac
Input Frequency/输入频率	47Hz	50Hz /60Hz	63Hz

### 2.2.Input AC Current/AC 输入电流

Input Voltage/输入电压	100-240 Vac	Full load
Input AC Current/AC 输入电流	2A Max	Full load

### 2.3.Inrush Current (cold start)/浪涌电流(冷启动)

The energy of inrush current should not be over the I<sup>2</sup>T of fuse & bridge diodes.

冷启动时, 浪涌能量不能超过整流桥和保险丝的 I<sup>2</sup>T, 且不能有损坏。

### 2.4.Type Efficiency/典型效率

86% min. @230Vac/50Hz input (@80% load).

输入电压 **230V/50Hz** 时, **80%**载时效率不低于 **86%**。

### 2.5.Energy Consumption /空载功耗

No load Consumption ≤0.21W(230Vac/50Hz).

在额定输入 **230Vac/50Hz** 时,空载功耗≤**0.21W**。

## 3. Output Characteristics/输出特性

### 3.1.Static Output Characteristics <Vo & R+N>/静态输出特性

Output Rate	Rated Load/额定负载		Output Range 输出电压范围	R+N 纹波与噪声	Remark 备注
	Min. Load	Rate.Load			
+24 V	0.0A	3.2A	22 ~ 27.6V	120mVp-p	115/230V

Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor. (test under the condition of rated input and rated output).

纹波与噪声: 量测时示波器选用 **20MHz** 带宽限制,输出端要并联一颗 **0.1uF** 的陶瓷电容和一颗 **10uF** 的

电解电容。(在额定输入及输出的条件下检测)。

### 3.2.Line/ Load Regulation/线性/负载调整率

Output Rate	Load Condition/负载条件		Line Regulation 线性调整率	Load Regulation 负载调整率	Remark 备注
	Min. Load	Rate.Load			
+24 V	0.0A	3.2A	± 5 %	± 5%	

### 3.3.Turn - on Delay Time/开机延迟时间

3S max. @115Vac to 230Vac input & Full load.

输入电压 115Vac to 230Vac 满载时, 开机延迟时间不超过 3S。

### 3.4.Hold-up Time/关机维持时间

16mS min. @ Full load &230Vac/50Hz input turn off at worst case.

输入电压 230Vac/50Hz 满载时, 关机时间最差情况不小于 16 毫秒。

### 3.5.Rise Time/上升时间

30ms max @Full load/满载.

### 3.6.Fall Time/下降时间

30mS max. @ Full load.

满载时, 下降时间不超过 30 毫秒。

### 3.7.Output Overshoot / Undershoot/输出过冲/欠冲

10% max. When the power on or off, when it is the full input voltage and full load.

开关机时, 输出过冲/欠冲均不大于 10%。

### 3.8.Output Load Transient Response/输出负载瞬态响应

Output voltage within 21.6~26.4 V for load step from 25% to 50% to 25%,50% to 75% to 50% R/S: 0.25A/uS, Transient Response Recovery Time :200uS, Dynamic response overshoot 10%.

输出电压在 21.6~26.4 V 之间,负载变化: 从 25% to 50% to 25%, 50% to 75% to 50%斜率: 0.25A/uS, 动态响应恢复时间: 200uS, 动态响应过冲±10%。

## 4. Protection Requirements/保护要求

### 4.1.Over Power Protection/过载保护

Over Power Point Limited/过载点限制: 110%~150% Full load (@115/230Vac)

The output shall hiccup when the over power applied to the output rail, and shall be auto-recovery when the fault condition is removed.

当过电流时,输出将进入打嗝模式,当过流情况解除后,产品将会自动恢复正常。

### 4.2.Short Circuit Protection/短路保护

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be auto-recovery when the fault condition is removed.

当输出短路时,产品输入功率降低且不会损伤,当短路情况解除后,产品将会自动恢复正常。

### 4.3.Over Voltage Protection/过压保护

The power supply has to be protected against over voltage conditions. No damage allowed. The power supply must come back to nominal working the AC voltage will be restarted after removal of the over voltage condition. 27.6 ~ 32.4V

当过压保护时,产品输出功率不会损伤,当过压情况解除后,重启 AC 电压, 产品恢复正常。27.6 ~ 32.4V

## 5. Environment Requirements/环境要求

### 5.1. Operating Temperature and Relative Humidity/操作温/湿度要求

0°C to +40°C

10%RH to 90%RH

### 5.2. Storage Temperature and Relative Humidity/存储温/湿度要求

-20°C to +80°C

5%RH to 95%RH non-condensing

### 5.3. Sea level shall be low 2.000 meters/低于 2000 米.

### 5.4. Vibration/振动

10 ~ 500Hz, 5G 10 minutes/cycle, X, Y, Z axis each 60 minutes.

10 ~ 500Hz, 5G 10 分钟/周期, X、Y、Z 轴各 60 分钟

## 6. Reliability Requirements/可靠性要求

### 6.1. Burn-in/煲机

The power supply shall be burn-in for 2 Hours under normal input and 80 % rated load at 40°C ± 5°C.

产品至少要在 40°C ± 5°C 的环境及 80% 额定负载条件下煲机 2 小时.

### 6.2. MTBF : ≥ 265K hrs. MIL-HDBK-217F (25°C)

## 7. EMI/EMS Standards/EMI/EMS 标准

### 7.1. EMI Standards/EMI 标准

EN55032 EN55035 GB/T9254 GB17625.1

FCC Part 15 Subpart B Class B

### 7.2. EMS Standards/EMS 标准

#### 7.2.1. EN 61000-4-2, electrostatic discharge(ESD) requirement/静电抗扰度要求

Discharge characteristic/静电规格	Test level/测试条件	Test criteria/测试标准
Air discharge/空气放电	+/- 8KV	A
Contact discharge/接触放电	+/- 4KV	A

#### 7.2.2. EN 61000-4-3, radiated electromagnetic field susceptibility(rs)/辐射骚扰场强

Test level/测试条件	Test criteria/测试标准
10V/m (r.m.s)	A
30-1000MHz, 80%AM(1KHz) sine-wave	

#### 7.2.3. EN 61000-4-4, electric fast transients(burst) immunity requirement/电快速瞬变脉冲群

Coupling/测试端口	Test level/测试条件	Test criteria/测试标准
AC-input/交流输入	0.5KV	A
AC-input/交流输入	1KV	A

#### 7.2.4. EN 61000-4-5, surge capability requirement/浪涌抗扰度要求

Surge voltage/雷击电压	Test criteria/测试标准

Common mode/共模 +/- 4KV	A
Differential mode/差模 +/-2KV	

7.2.5. EN 61000-4-6, Induced radio frequency fields conducted disturbances immunity requirement/电源端子传导骚扰实验

Test level/测试条件	Test criteria/测试标准
3V	A
0.15-30 MHz, 80%AM(1KHz)	

7.2.6. Assessment criteria /评估标准

Acceptance criteria 可接受标准	Performance 性能
A	Agreed operational behavior within the specified limits 性能不允许变化; 如果性能会发生变化, 则变化的范围在产品规格书规定的范围内.
B	Time limited functional diminishment or malfunction during the tests is permitted. The function is self-reactivated by the unit following completion of the tests. 设备在测试过程中,性能降低允许在产品规格书要求范围内,干扰消除后,设备能恢复正常,不允许出现复位和任何方式的人工干预.
C	Malfunction is permitted .The function can be reactivated either by reconnection to the mains or by operator intervention. 在测试过程中,设备允许出现业务中断,测试完毕后允许自行恢复或者人工干预恢复(包括硬件上干预);测试中只允许初级防护器件损坏,并且更换损坏的初级防护器件后,设备能恢复正常

## 8. Safety Standards/安规标准

### 8.1. Dielectric Strength(Hi-pot)/介电耐压强度(高压)

I/P- O/P: 3KVac / 5 mA max. / 60 second .

输入对输出: 3KVac / 5mA max. / 60 秒.

I/P-FG: 2KVac / 5 mA max. / 60 second .

输入对地: 2KVac / 5 mA max. / 60 秒

O/P-FG: 0.5K Vac / 5 mA max. / second.

输出对地: 0.5KVac / 5 mA max. / 60 秒.

### 8.2. Leakage Current/漏电流

2.0mA max. at 264Vac / 50Hz./输入 264V AC,漏电流小于 2.0mA

### 8.3. Insulation Resistance/绝缘阻抗

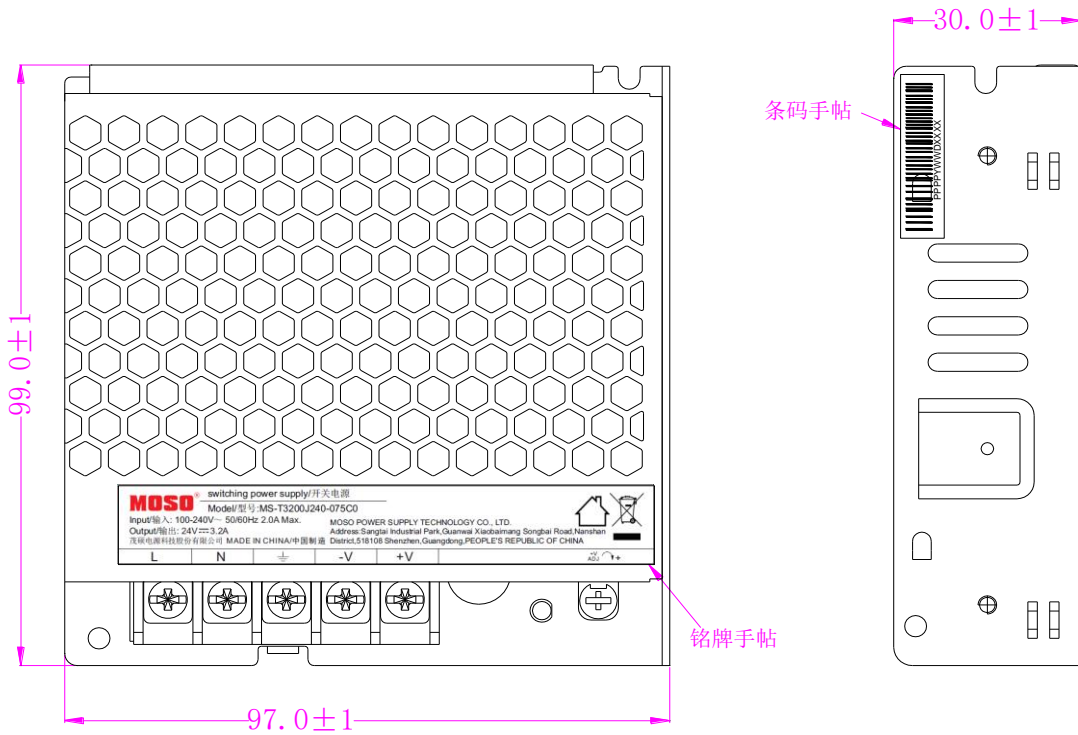
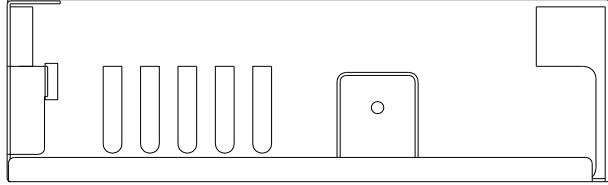
100MΩ min. at primary to secondary add 500Vdc test voltage.

在初级与次级间加 500Vdc 进行测试.

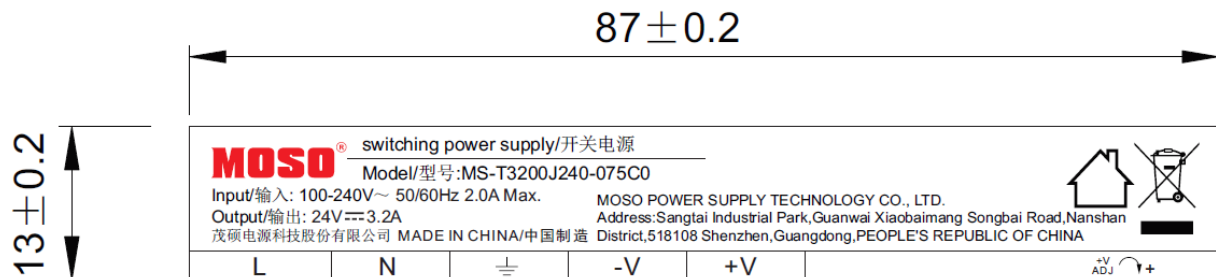
### 8.4. Regulatory Standards/安规标准

Type/安规	Country/国家	Standard/标准	State/状况	Note/备注
CQC	China	GB4943.1	Meet	
CE	Europe	EN62368-1	Meet	
UL	USA	UL62368-1	Meet	

## 9. Mechanical Outline Drawing/外观示意图

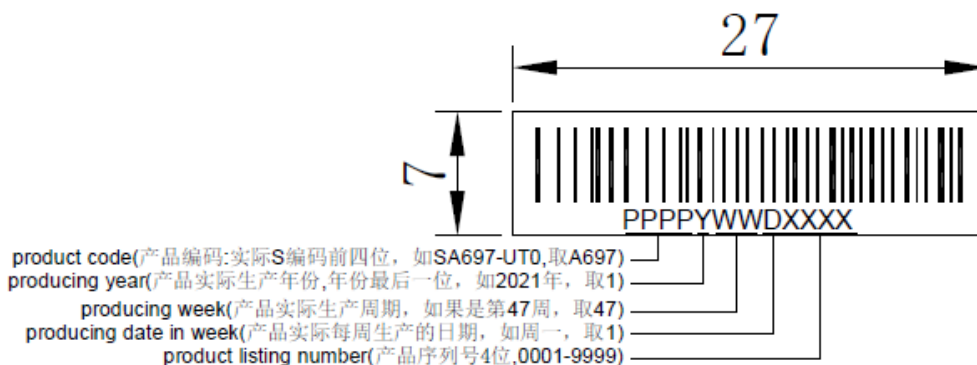


### 10. I/O Marking Drawing/铭牌示意图



备注:

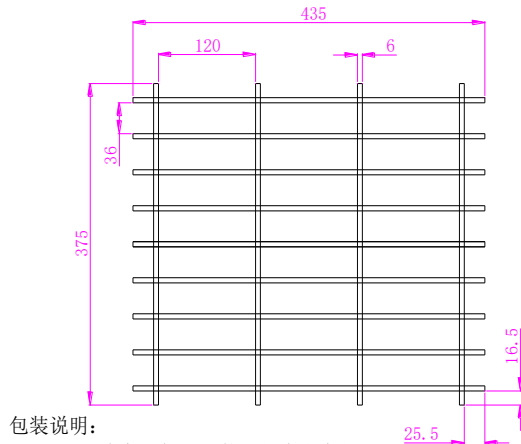
- 1.材质:50#消银龙+光膜
  - 2.颜色:银底黑字(LOGO 红字)
  - 3.符合REACH,ROHS 与MOSO环保要求
  - 4.The size of garbage bin is no less than 7mm
  - 5.The size of "回" mark and CE mark is no less than 5mm.
- 背胶耐温90℃,96h内不翘角,不脱落,不起泡.



Remark:

- 1.Material:PET
  - 2.black words with white ground
- 条码格式: CODE 128A  
料号: 323020000

## 11. Packing instructions/包装说明



包装说明:

一、将产品每PCS装入气泡袋中包好，  
再将包装的产品放入刀卡槽中，每层装24PCS，  
共装3层，每箱装72PCS

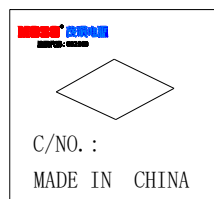
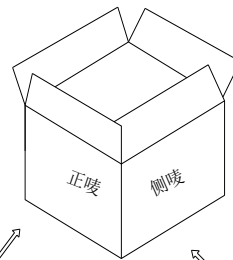
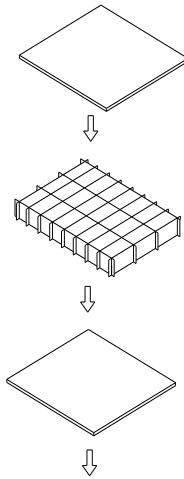
即：24pcs/层\*3层=72PCS/箱

二、包装材料使用说明为：

- 1、组合刀卡用量：3PCS
- 2、气泡袋200\*165用量：72PCS
- 3、平卡435\*375用量：4PCS
- 4、纸箱450\*390\*335：1PCS

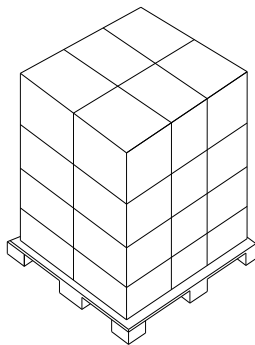
三、栈板堆放说明为：

- 1、栈板尺寸为：  
L1200\*W950\*H135mm
- 2、每层放2行\*3列=6箱
- 3、竖直堆放4层\*6箱共24箱

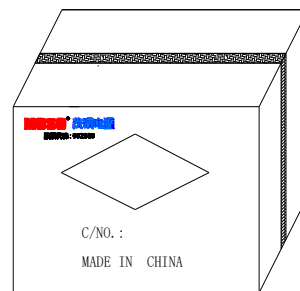


P/O NO.  
ITEM NO.  
QTY  
G. W. : N. W. :  
CTN SIZE:

纸箱的外尺寸：450L\*390W\*335H



栈板堆放示意图



产品装入包装箱用胶袋封箱，位置参考图中  
所示。

气泡袋包装要求：气泡袋不用胶带封口；

气泡袋用胶带封口；

其它要求；

备注：若客户未进行选择气泡袋包装要求或备注时，  
我司默认采用气泡袋不用胶带封口包装方式。