

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: X30-V1000R540-054A0-AU

PRODUCT NO./产品编号: SCXXX-S0/XXXXXX

SAMPLE DATE/送样日期: 2022-11-24

CUSTOMER AUTHORIZED SIGNATURE/客户承认签核		

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

The document detail the electrical, mechanical and environmental specifications of a SMPS, the power supply provide 54W continuous output power.

资料详细描述了一款 54W (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

- 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	100 Vac~ 240 Vac	264Vac
Input Frequency/输入频率	47 Hz	60 Hz/ 50Hz	63Hz

2.2. Input AC Current/AC 输入电流

2.0A max. @ 100-240Vac input & Full load.

输入电压 **100-240Vac** 满载时, 输入电流不超过 **2.0A**。

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

100A max. @240Vac input

输入电压 **240Vac** 时, 输入电流不超过 **100A**。

2.4. Averaged Efficiency/平均效率

89% min. @115Vac/60Hz,230Vac/50Hz input (Average@25%, 50%, 75% and 100% of max load)

输入电压 **115Vac/60Hz,230Vac/50Hz** 时, **25%、50%、75%和 100%**载时的平均效率不低于 **89%**

2.5. Energy Consumption /空载功耗

No load Consumption ≤0.21W(115V/60Hz, 230V/50Hz).

在额定输入 **115V/60Hz, 230V/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	Rated Load/额定负载		Output Range	R+N	Remark
Rate	Min. Load	Rate.Load	输出电压范围	纹波与噪声	备注
+54V	0.0A	1.0A	51.3V ~ 56.7V	250mVp-p	100-240V

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	Load Condition/负载条件		Line Regulation	Load Regulation	Remark
Rate	Min. Load	Rate.Load	线性调整率	负载调整率	备注
+54V	0.0A	1.0A	± 3%	± 5%	

3.3. Turn - on Delay Time/开机延迟时间

3S max. @ 100Vac to 240Vac input & Full load.

输入电压 **100-240Vac** 满载时, 开机延迟时间不超过 **3S**。

3.4. Hold-up Time/关机维持时间

10mS min. @ 115V/230V at 90 degree.

输入电压 **115V/230V** 时, 关机时间最差情况不小于 **10** 毫秒。

3.5. Rise Time/上升时间

100mS max. @ Rated load

额定负载时, 上升时间不超过 **100** 毫秒

3.6. Fall Time/下降时间

30 mS 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 51.3-56.7V for load step from 20% to 80%, R/S: 0.5A/uS, frequency: 100Hz duration and 8mS at 80%.

输出电压在 **51.3-56.7V** 之间,负载变化: 从 **20%**到 **80%**,斜率: **0.5A/uS**,频率: **100Hz**, **80%**负载持续时间为 **8mS**。

4. Protection Requirements/保护要求

4.1. Over Current Protection/过流保护

Over Current Point Limited/过流点限制: $2.0A > I > 1.1A$ (100-240Vac)

The output shall hiccup when the over current 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 without on/off powering after removal of the over voltage condition.

当过压保护时,产品输出功率不会损伤,当过压情况解除后,产品恢复正常.

5. Environment Requirements/环境要求

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

0°C to +50°C

20%RH to 90%RH

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

-40°C to +70°C

20%RH to 90%RH non-condensing

5.3. Altitude: 5,000 meters/海拔 5,000 米.

5.4. Vibration/振动

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z

扫描频率: 10 to 300Hz, 恒定加速度: 1.0G(位移: 3.5mm), X, Y, Z 三垂直坐标轴向各振动 1 小时

5.5. Drop Test/跌落

Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm ,6 Surfaces, The electric performance and Hi-Pot test must be OK after the drop tests.

跌落高度:1m, 产品应跌落到厚度为 20mm 的硬木上, 6 面, 跌落后产品电气性能及高压测试 OK。

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 100% rated load at 50°C ± 5°C, the electric performance and Hi-Pot test must be OK.

电源应在正常输入和 50°C ± 5°C 的 100% 额定负载下老化 2 小时, 电性能和 Hi-Pot 测试必须正常。

6.2. MTBF/平均失效时间

The MTBF of power supply shall be over than 2500,000H at 25°C@115Vac & 230Vac with full load, Telcordia SR-332 Issue 3

平均间隔故障时间: 在 25°C,115Vac/230Vac 与满载条件下,至少工作 250 万小时,按 SR-332 Issue 3 计算方法。

7. EMI/EMS Standards/EMI/EMS 标准

7.1. EMI Standards/EMI 标准

AS/NZS CISPR32

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	B
Contact discharge/接触放电	+/- 4KV	B

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	1KV	A
AC-input/交流输入	2KV	B

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	B
Differential mode/差模 +/-4KV	

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)

Primary to Secondary: 3000Vac /10mA max. / 60S (when safety testing).

初级对次级: 3000Vac / 10mA max. / 60 秒 (安规试验) .

Primary to Secondary: 3300Vac /5mA max. / 3S (when production).

初级对次级:3300Vac / 5mA max. /3S(生产作业).

8.2. Leakage Current/漏电流

0.25mAmax. at 264Vac / 60Hz.

8.3. Insulation Resistance/绝缘阻抗

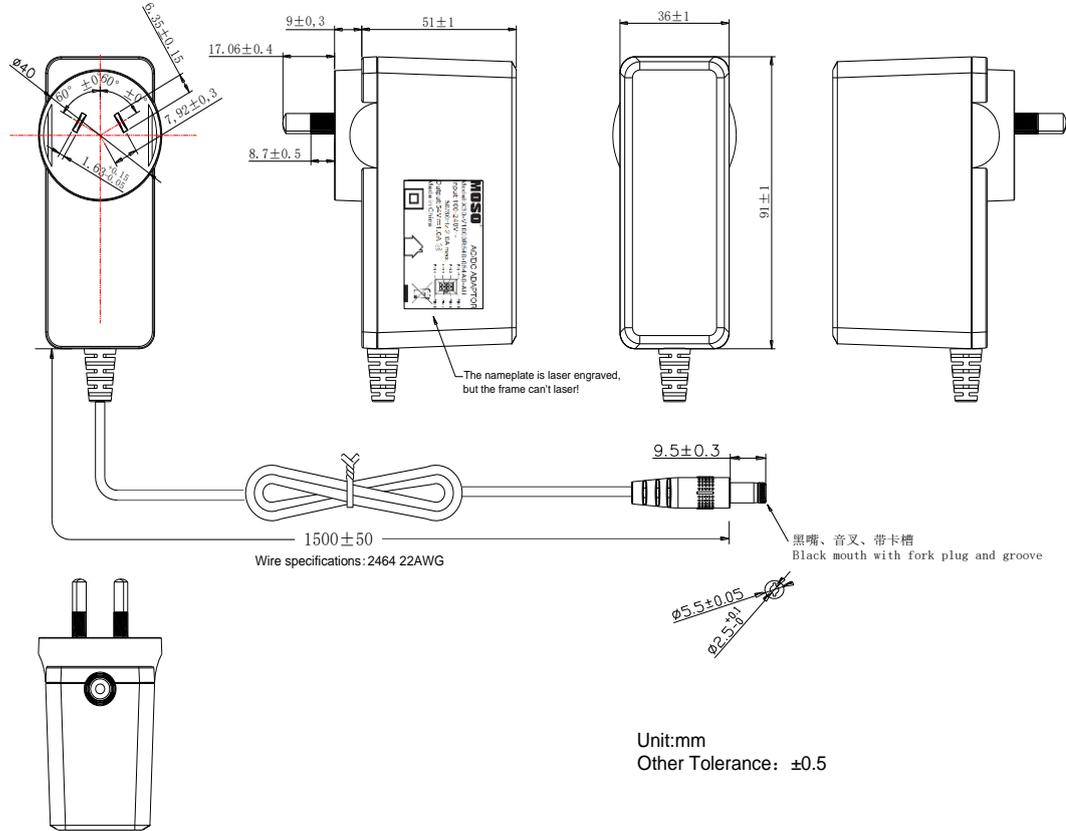
50MΩ min. at primary to secondary add 500Vdc test voltage.

在初级与次级之间加载测试电压 500V 测试, 绝缘阻抗最小 50MΩ.

8.4. Regulatory Standards/安规标准

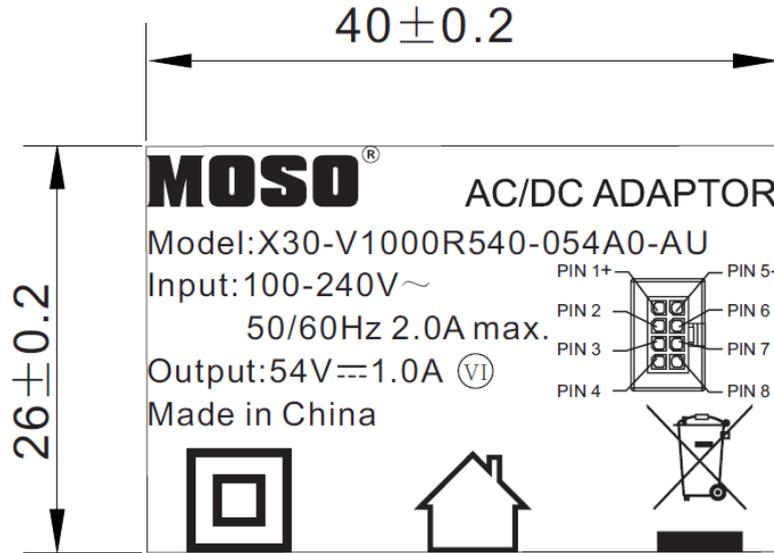
Type/安规	Country/国家	Standard/标准	State/状况	
RCM	Australia	AS/NZS62368.1	APPROVAL	

9. Mach. Outline Drawing/外观示意图



- 外壳材质: PC 耐温: 120°C.
 PC+ABS 耐温: 95°C.
 备注: 1)PC 材质符合球压测试要求.
 2)外壳与 DC 线为黑色.

10. I/O Marking Drawing/铭牌示意图



Remark:

1. Above label is laser engraved.
2. The dimension of double insulation mark can NOT less than 5mm.
3. The dimension of garbage bin mark can NOT less than 7mm.



P/N对应外箱标签上的CIG物料编码

S/N码解析(CODE 128):

132714224800001

—— 流水码 (00001-99999)

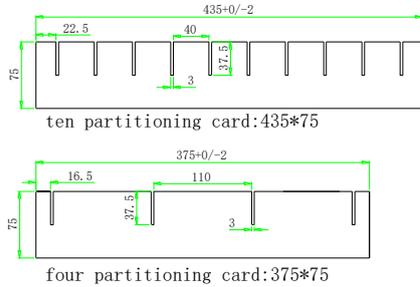
—— 生产年周, 如2248表示
2022年第48周

—— CIG物料编码901-01327-14后六位

备注:

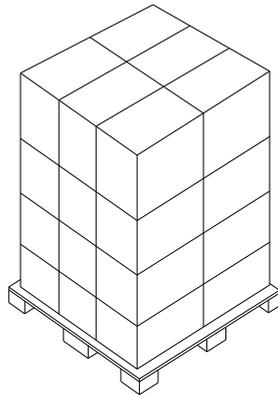
1. 材质: 80p铜版纸+上光,
2. 颜色: 白底黑字
3. ROHS且符合茂硕环保要求
4. 背附胶
5. 条码明码与暗码一致
料号: 3230200001

11. Package Drawing/包装示意图

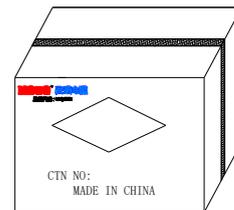
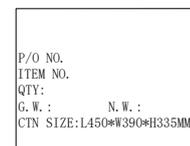
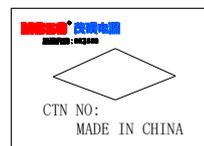
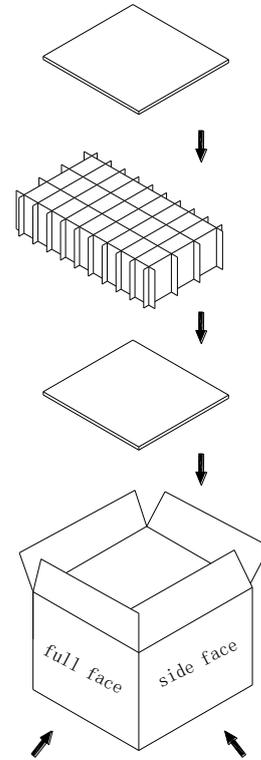


Packing Instruction:

- I. the product put in the PE bag, then the packing product put in the partitioning card groove, 27PCS/floor, 4 floors in all, 108PCS/box
such as: 27pcs/floor*4floor=108 PCS/box
- II. the usage of the packing materials:
 1. the usage of the ten partitioning card 435*75:16PCS
 2. the usage of the four partitioning card 375*75:40PCS
 3. the usage of the PE bag 150*120: 108PCS
 4. the usage of the flat 435*375:5PCS
 5. carton box 450*390*335: 1PCS
- III. Pallet stack instruction:
 1. Pallet size is: L1200*W950*H135mm
 2. per floor set 6pcs
 3. stack per 4floor*6pcs carton
total 24 pcs carton



The pallet stack drawing



The product will be packed in the carton box and the box will be sealed by the sticker

- PE 袋包装要求: PE 袋不用胶带封口;
 PE 袋用胶带封口;
 其它要求;

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