



深圳市盈源电子有限公司
SHENZHEN SHI YING YUAN
ELECTRONICS CO.,LTD

Hongye Industrial Park, Baoan District,
Shenzhen, Guangdong 518108, P. R. China
TEL: 86-755-29785880
P.C:518108
FAX: 86-755-29785684
<http://www.szyingyuan.com>

客户承认书

SPECIFICATION FOR APPROVAL

CUSTOMER/客户: _____

CUSTOMER P.N./客户物料号: _____

MODEL NO./产品型号: _____ ICP30A-150-2000

PRODUCT NO./产品编号: _____

SAMPLE DATE/送样日期: _____

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.

ADD: Building 8,Hongye Industrial Park,Lezhujiao,Huangmabu Community,
Xixiang Street,Baoan District,Shenzhen,Guangdong,China

地址:深圳市宝安区西乡九围鸿业工业园8栋7楼

TEL: 86-755-29785880

P.C.: 518108

FAX: 86-755-29785684

<http://www.szyingyuan.com>

拟 制: 夏红振	审 核:	批 准:
-------------	------	------





**** Table Of Content/目录 ****

1. SCOPE	4
1.1. Description	4
2. Input Characteristics/输入特性	4
2.1. Input Voltage & Frequency/输入电压与频率	4
2.2. Input AC Current/AC 输入电流	4
2.3. Inrush Current (cold start)/浪涌电流(冷启动)	4
2.4. Average Efficiency 平均效率	4
2.5. Energy Consumption /空载功耗	4
3. Output Characteristics/输出特性	4
3.1. Static Output Characteristics <Vo & R+N>/静态输出特性	4
3.2. Line/ Load Regulation/线性/负载调整率	5
3.3. Turn - on Delay Time/开机延迟时间	5
3.4. Hold-up Time/关机维持时间	5
3.5. Rise Time/上升时间	5
3.6. Fall Time/下降时间	5
3.7. Output Overshoot / Undershoot/输出过冲/欠冲	5
3.8. Output Load Transient Response/输出负载瞬态响应	5
4. Protection Requirements/保护要求	5
4.1. Over Current Protection/过流保护	5
4.2. Short Circuit Protection/短路保护	5
5. Environment Requirements/环境要求	5
5.1. Operating Temperature and Relative Humidity/操作温/湿度要求	5
5.2. Storage Temperature and Relative Humidity/存储温/湿度要求	5
5.3. Vibration/振动	6
5.4. Drop in/跌落	6
6. Reliability Requirements/可靠性要求	6
6.1. Burn-in/煲机	6
7. EMI/EMS Standards/EMI/EMS 标准	6
7.1. EMI Standards/EMI 标准	6
7.2. EMS Standards/EMS 标准	6
8. Safety Standards/安规标准	8
8.1. Dielectric Strength(Hi-pot)/介电耐压强度(高压)	8
8.2. Leakage Current/漏电流	8
8.3. Insulation Resistance/绝缘阻抗	8
8.4. Regulatory Standards/安规标准	8
9. Match. Outline Drawing/外观示意图	9
10. DC Cord Drawing/DC 线示意图	10



深圳市盈源电子有限公司
SHENZHEN SHI YING YUAN
ELECTRONICS CO.,LTD

Hongye Industrial Park, Baoan District,
Shenzhen, Guangdong 518108, P. R. China
TEL: 86-755-29785880
P.C:518108
FAX: 86-755-29785684
<http://www.szyingyuan.com>

11. I/O Marking Drawing/铭牌示意图.....	11
12. Package Drawing/包装示意图.....	12
13. Sample Test Report/样品测试报告.....	13



1. SCOPE

The document detail the electrical, mechanical and environmental specifications of a SMPS, the power supply provide 30W continuous output power.

资料详细描述了一款 **30W**(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	100Vac~240Vac	264Vac
Input Frequency/输入频率	47Hz	60Hz/50Hz	63Hz

2.2. Input AC Current/AC 输入电流

0.8Amax. @ 100-240Vac input & Full load/满载

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

60Amax. @ 264Vac input

2.4. Average Efficiency 平均效率

86.95%min.@ Nominal input /额定输入

2.5. Energy Consumption /空载功耗

在额定输入 100-240V 时,空载功耗 $\leq 0.1W$

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	Max. Load	输出电压范围	纹波与噪声	备注
+15V	0.0A	2A	14.25V ~15.75V	200mVp-p	

Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 47uF electrolysis 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 **47uF** 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	Max. Load	线性调整率	负载调整率	备注
+15V	0.0A	2A	± 1%	± 5%	

3.3. Turn - on Delay Time/开机延迟时间

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

3.4. Hold-up Time/关机维持时间

10mS min. @ Full load & 115Vac/60Hz input turn off at worst case/在最差情况关机

20mS min. @ Full load & 230Vac/50Hz input turn off at worst case/在最差情况关机

3.5. Rise Time/上升时间

20mS max. @ Rated load/额定负载

3.6. Fall Time/下降时间

20mS max. @ Full load/满载

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

10% max. When the power on or off/当电源开/关机时

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

Output voltage within 14.75V ~ 15.75V 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 5%

输出电压在 14.25V ~ 15.75V 之间,负载变化: 从 25% to 50% to 25%, 50% to 75% to 50%斜 0.25A/uS, 动态响应恢复时间: 200uS, 动态响应过冲±5%

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. 4A-4A(100-240Vac)

When the overcurrent occurs, the output will enter the protection mode. When the overcurrent is removed, the product will automatically return to normal.

当过电流时,输出将进入保护模式,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 self-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

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 @ Sea level shall be low 2,000 meter/低于 2,000 米.

5.3. 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, 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

5.4. Drop in/跌落

Height: 1m; the product should be fell off on the hardwood with the thickness of 20mm, and the hardwood should be put on the base of the cement or on the ground without flexibility. Apply one times on all surface. Apply one times on all corner.
跌落高度:1 米, 并跌落到厚度为 20mm 的硬木上, 且硬木应放在水泥基座或等同的无弹性地面上, 每面各 1 次, 每角各 1 次。

6. Reliability Requirements/可靠性要求

6.1. Burn-in/老化

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

产品至少要在 $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 的环境及 80%额定负载条件下煲机 4 小时

7. EMI/EMS Standards/EMI/EMS 标准

7.1. EMI Standards/EMI 标准

EN55022
EN61000-3-2
FCC Part15 CLASS B
SAA-151995-EA

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
3V/m (r.m.s)	A
80-1000MHz,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	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 N/A	A
Differential mode/差模 1KV	

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
0.15-80 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} / 60 second

初级对次级: **3000Vac / 10mA_{Max} / 60 秒**

Primary to Secondary: 3300Vac / 5mA_{Max} / 3S

初级对次级: **3300Vac / 5mA_{Max} / 3S**

8.2. Leakage Current/漏电流

0.25mA_{max}. at 264Vac / 50Hz

8.3. Insulation Resistance/绝缘阻抗

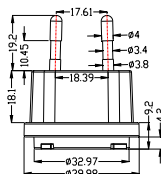
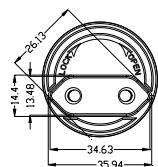
50MΩ min. at primary to secondary add 500Vdc test voltage

在初级与次级间加 **500Vdc** 进行测试

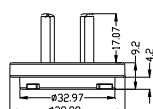
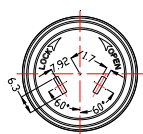
8.4. Regulatory Standards/安规标准

Type/安规	Country/国家	Standard/标准	State/状况	Note/备注
CE/GS	Europe	EN62368	已认证	
UL/FCC	USA	UL62368	已认证	
SAA	Australia	AS/NZS61558	已认证	

9. Match. Outline Drawing/外观示意图

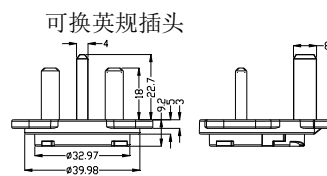
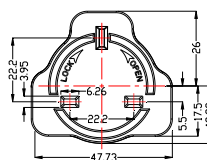


可换欧规插头

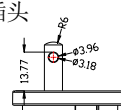
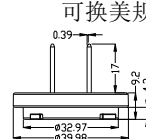
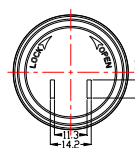


外观尺寸图

可换澳规插头

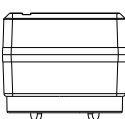
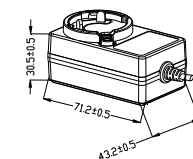
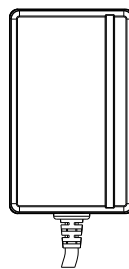
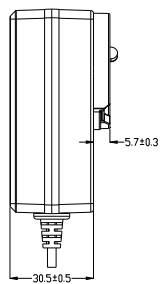
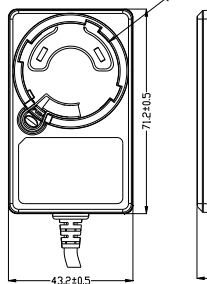
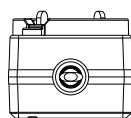


可换英规插头



可换美规插头

外观尺寸图



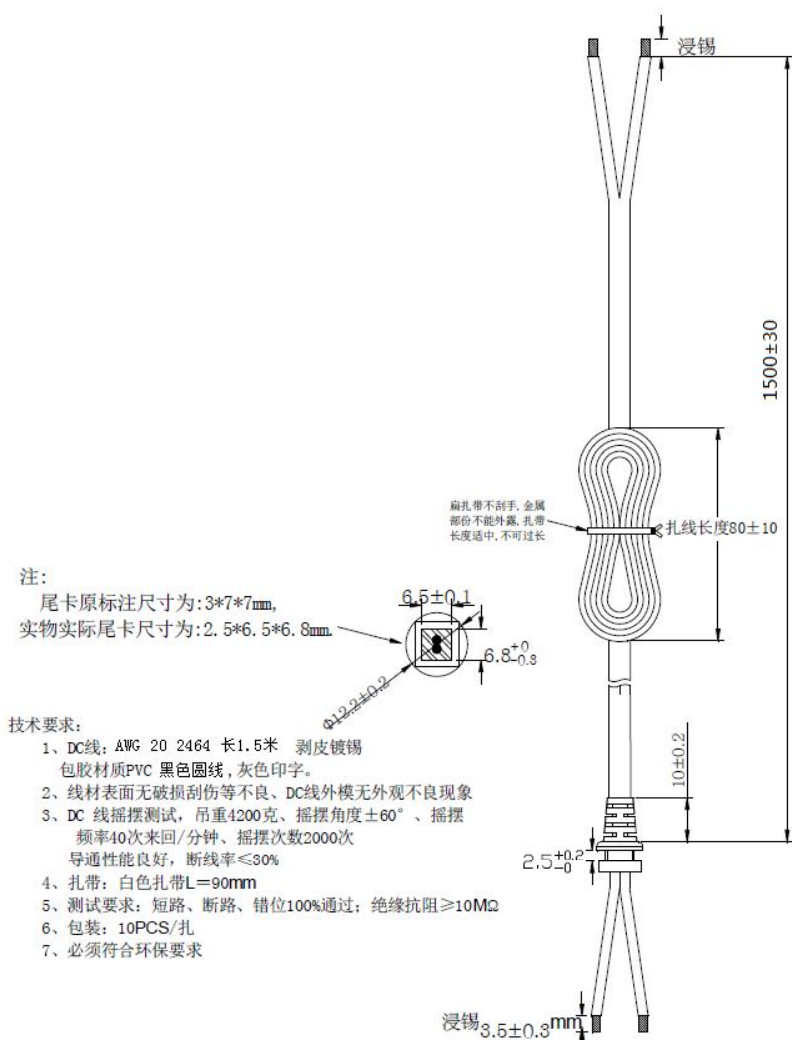
可换头主体

黑色胶壳

外壳材质：■PC 耐温：120℃

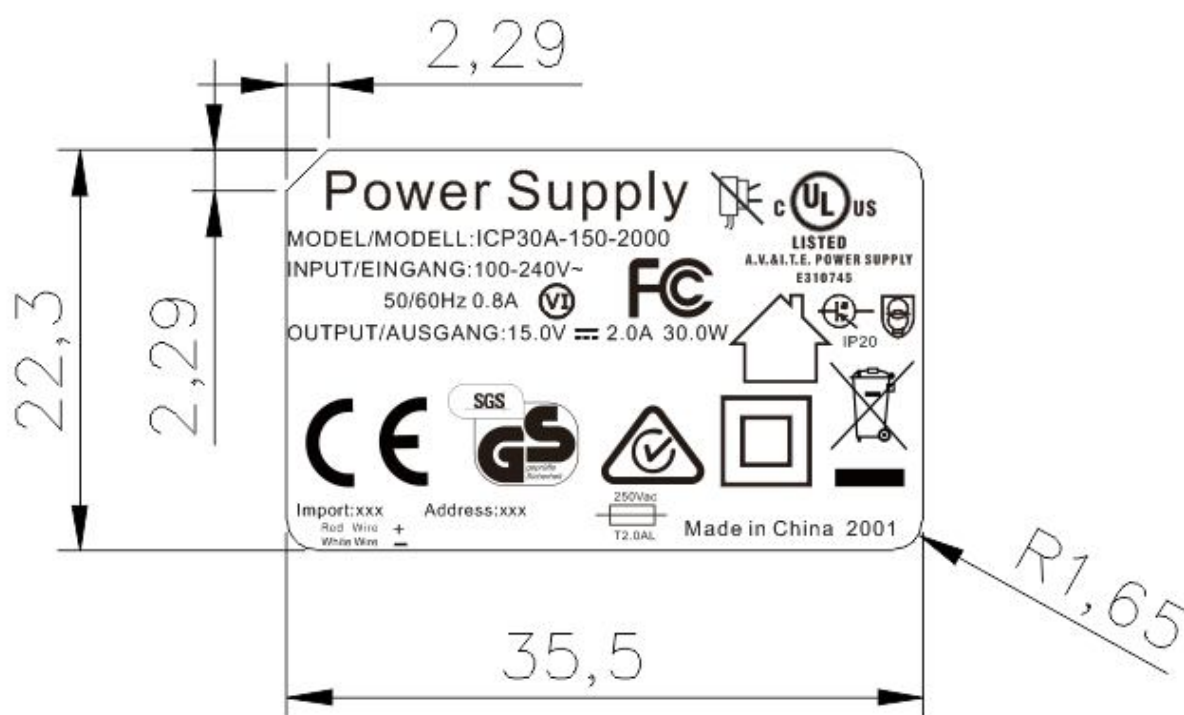
备注：PC 材质符合球压测试要求

10. DC Cord Drawing/DC 线示意图



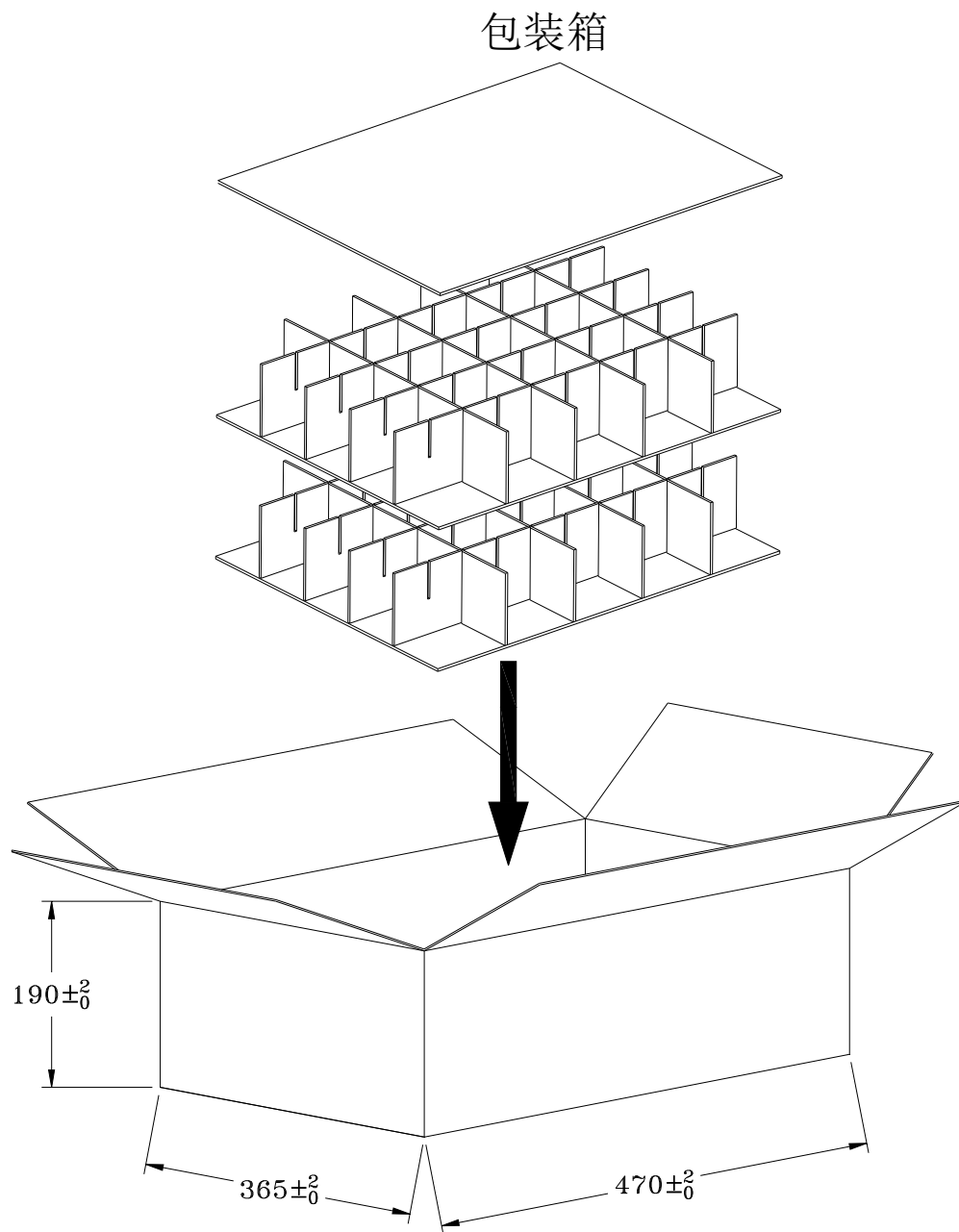
11. I/O Marking Drawing/铭牌示意图

注：镭雕图档



备注：Import:xxx 表示进口商 Address:xxx 表示地址
1909 为年月期码，根据订单日期做相应变动

12. Package Drawing/包装示意图



- 1、装箱数量：50PCS/1箱
- 2、标注尺寸为外尺寸(470*365*190mm)



深圳市盈源电子有限公司
SHENZHEN SHI YING YUAN
ELECTRONICS CO.,LTD

Hongye Industrial Park, Baoan District,
Shenzhen, Guangdong 518108, P. R. China
TEL: 86-755-29785880
P.C:518108
FAX: 86-755-29785684
<http://www.szyingyuan.com>

13. Sample Test Report/样品测试报告