

# 納入仕様書

## APPROVAL SHEET

Customer : B010  
Part No. : \_\_\_\_\_  
Design No. : GQ090432  
Model No. : GPU410500500WD00  
Safety : UL/CUL  
Rev : A  
Date : July 17, 2009

客戶承認合格章  
APPROVED BY CUSTOMER

總公司 : 祥譽電子股份有限公司

Head office: Mitra Electronics Co., Ltd

地址 : 台北市內湖区康樂街 136 巷 3 弄 22 号 3F-1

Address : 3F-1, NO. 22, ALLY 3, LANE 136, KANG-LE STREET, NEI HU, TAIPEI, TAIWAN.

Tel: (02) 2634-6469 Fax: (02) 2634-6050

工廠 : 禾祥電子(深圳)有限公司

Factory : Mitra Electronics (SHEN ZHEN) Co., Ltd

地址 : 中國廣東省深圳市寶安區福永懷德翠湖工業園第四棟

Address : Building 4, CuiHu Industrial, FuYong Huaide, Baoan District.

Tel: 86-755-27311326 Fax: 86-755-27311331

工廠 : 港奇電子有限公司

Factory : GangQi Electronic Co., Ltd

地址 : 中國廣東省東莞市橫瀝鎮石湧民營工業區

Address : Privately operated industrial District Shi Yong, Hengli Town, DongGuan City.

# ENGINEERING CHANGE REQUEST

ORIGINAL/修改前	REVISION/修改后
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REV	DATE	DESCRIPTION	REVISION OF CAUSES/修改原因:

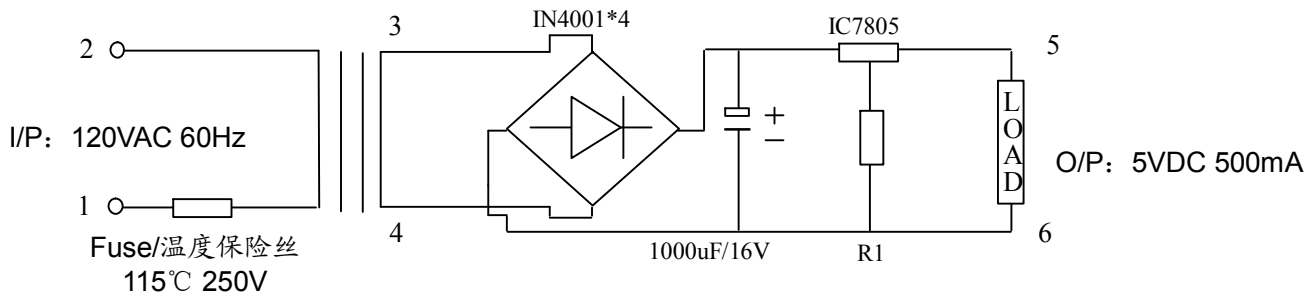
DRAWER/制定	CHECKED/审核	APPROVED/核准	CUSTOMER/客户	
			MODEL NO/型号	GPU410500500WD00
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**1.ELECTRICAL PERFORMANCE/电气特性:**

1-1.Primary rated voltage and frequency: 120VAC 60Hz.

初级额定电压及频率: 120VAC 60Hz.

1-2.ELECTRICAL CHARACTERISTICS/电气原理图:



1-3.Secondary rated voltage and current/次级额定电压及电流:

TEST POINT /测试点	FULL LOAD RATED VOLTAGE /负载额定电压	RATED CURRENT /额定电流	VOLTAGE REGULATION /电压调整率	NO LOAD VOLTAGE /空载电压
5~6	5VDC±5%	500mA		5VDC±5%

1-4.Primary exciting current(Io): 55 mA rms max,at input 120VAC 60Hz

初级空载电流(Io): 有效值最大 55mA 输入 120VAC 60Hz

Loading(IL):  / mA rms max.

初级负载电流(IL): 有效值  / mA 最大

1-5.D.C.Resistance: Primary:  /Ω±15%,measured at 25°C

初级直流电阻:  /Ω±15%,环境温度 25°C

1-6.Empty loss max:  /watts max,at input 120VAC 60Hz

最大空损:  /watts,输入 120VAC 60Hz

1-7.Temperature rise: 85°C max on primary coil by the resistance method,and 45°C max on the surface of the case by the thermometer method at 25°C ambient,rated load condition.

额定负载下电阻法线圈最大温升 85°C.热偶法外壳表面最大温升 45°C,环境温度 25°C.

1-8.Insulation resistance: 500VDC supplied,100M ohms minimum between winding & core.

绝缘电阻: 线圈与铁芯间加 500VDC,绝缘电阻不小于 100MΩ.

1-9.HI-pot test: 1250VAC 50Hz for 60Seconds (leakage current 1mA) primary to secondary&core Potential 20% higher may be applied for one second..

耐压强度测试: 初级-次级、初级-铁芯压 1250VAC 60Hz 60 秒钟 (漏电流 1 毫安) 无击穿、无拉弧. 或者提高 20%电压 1 秒.

500VAC 50Hz for 60Seconds (leakage current 1mA) secondary to core. Potential 20% higher may be applied for one second.

次级-铁芯 500VAC 50Hz 60 秒钟 (漏电流 1 毫安) 无击穿、无拉弧. 或者提高 20%电压 1 秒.

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1-10. Induce voltage: All secondary opened, primary should withstand 240V 360Hz for 60second without breakdown.

倍频倍压测试: 所有次级开路, 初级需承受电压 240V 360Hz 60 秒而无击穿.

1-11. Life test: In an ambient temperature of 25°C, 90-95% R.H., applying a power source of 120VAC 60Hz to primary, with full load 500mA for 24hours continuously, unit output normally and meet the requirements of item 1-8、1-9.

老化测试: 环境温度 25°C, 相对湿度 90-95%, 输入电压 120VAC 60Hz 时, 带额定负载 500mA 连续工作 24 小时, 产品输出正常且满足 1-8、1-9 项特性要求.

1-12. Humidity test: In an ambient temperature of 25±2°C and 90-95% R.H. for 48 hours after 10 minutes out of the oven, the unit should meet item 1-9 requirements, and insulation Resistance shall be 10M ohms minimum.

耐湿测试: 在环境温度 25±2°C, 相对湿度 90-95% 条件下放置 48 小时, 取出 10 分钟后, 产品需满足第 1-9 项要求, 且绝缘电阻不小于 10MΩ

## 2. MECHANICAL CHARACTERISTICS/机械特性:

2-1. Drop test: Dropped freely from 3 feet height onto a concrete floor covered with 1/8 inch vinyl tile 3 times from 3 different surface, the unit should meet the item 1-9

落地测试: 从 3 英尺高自由落下到表面铺有 1/8 英寸厚聚乙稀垫的水泥地板上, 三个不同面各一次, 产品需符合 1-9 项特性要求.

2-2. Strain relief test: At normal position, 20 lbs to output cord for 60 secods each, there shall be no breakage displacement.

S/R 吊重试验: 在正常位置, 输出线需吊重 20 英磅, 持续 60 秒钟不可断裂. S/R 不可有移位现象.

2-3. Bending test: The plug and S/R should withstand weight of 200 gram, swinging from left to right at an angle of 120 degree for 1000 cycles, and 15-20cycles per minute. The cord shall be conductible.

摇摆测试: 输出线吊重 200 克, 摆动角度 120 度, 每分钟 15-20 来回, 1000 个来回后仍需导通.

## 3. SAFETY STANDARD/安规标准:

◆ Meet/符合

◇ Approved/认可

◆ UL/CUL

◇ CSA

◇ TUV/CE

◇ BSI/CE

◇ PSE

◇ CQC

◇ CCC

## 4. INSULATION SYSTEM/绝缘系统:

◇ CLASS A (105°C)

◇ CLASS E (120°C)

◆ CLASS B (130°C)

◇ CLASS F (155°C)

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**5. MECHANICAL REQUIRMENTS/外观要求:**

5-1. Appearance: Damage and rusting are not permitted.

外观: 无损伤无锈迹

**6. ENVIROMENTAL CONDITION/外部条件:**

6-1. Operating temperature range: -10°C---+40°C

正常工作温度: -10°C---+40°C

6-2. Storage temperature range: -20°C---+80°C

存贮温度: -20°C---+80°C

6-3. Operation humidity range: 30---85% R.H

正常工作湿度: 30---85% R.H

**7. INSPECTION ON LINE/线上检测:**

7-1. The test items for each produce/全检项目

- ◆ Primary exciting current/初级激磁电流
- ◆ Core loss/铁芯损耗
- ◆ Output voltage/输出电压
- ◆ Input current and power at rated load/输入电流及功率
- ◆ Foreign mass by shock/敲击听异物
- ◆ Polarity of output plug/输出极性
- ◆ Hi-pot test/耐压测试
- ◆ Apperance/外观检查

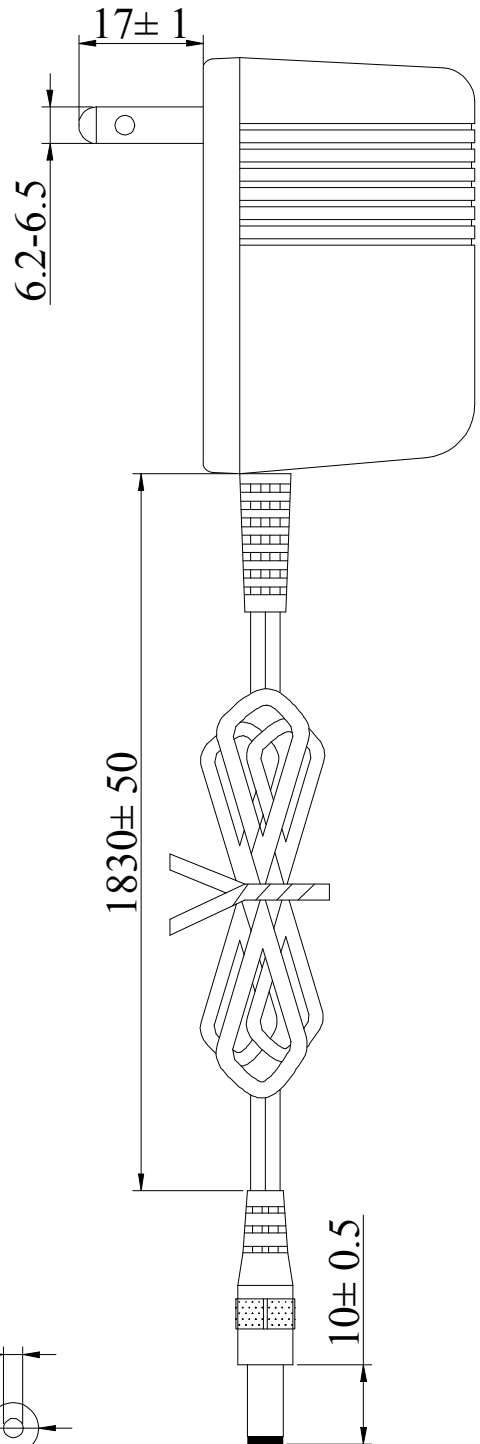
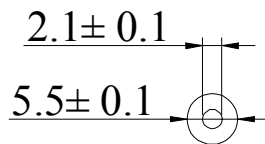
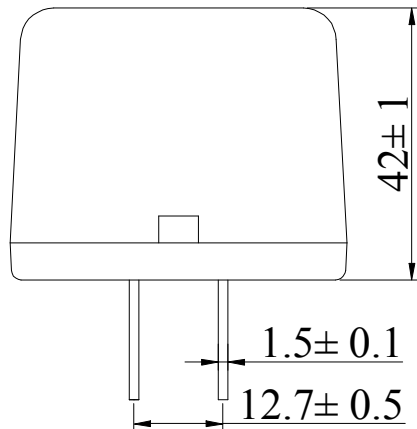
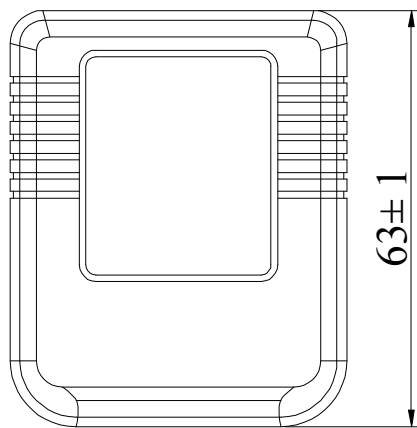
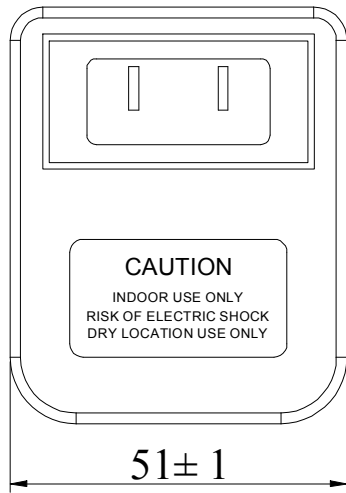
7-2. The test item for part of products/抽测项目:

- ◆ Hum operating at rated load/额定负载时哼声
- ◆ D.C. Resistance/直流电阻
- ◆ Insulation test/绝缘测试

**8. NET WEIGHT/单体净重/g**

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9.APPEARANCE DIMENSION/外观尺寸图：(UNIT/单位：mm)



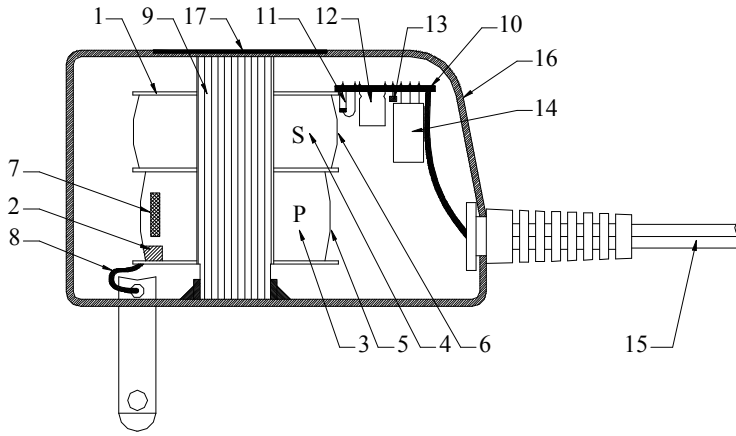
OUTPUT CORD/输出线：2468#24AWG 线长 1.83m

PLUG/DC 头：5.5<sup>±0.1</sup>mm\*2.1<sup>±0.1</sup>\*10<sup>±0.5</sup>mm

中心为：“+”极

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10.MATERIAL LIST /材料明细:



ITEM 序号	PARTS NAME 材料名称	MATERIAL&SPEC 材质	MANUFATURER 供应商
1.	BOBBIN/线架	PA66 THICK0.71mm MIN	E I DUPONT DE NEMOURS&CO INC.E41938
2.	Primary Crossover Insulation/初级直立绝缘	ACETATE CLOTH TAPE CLASS B/皱纹胶	DUCK SUNG TAPE CO.,LTD.E105147
3.	PRI.WINDING 初级线圈	2UEW MAGNET WIRE CLASS B 2UEW 漆包线	PACIFIC ELECTRIC WIRE & CABLE CO., LTD E201757 JUNG SHING WIRE CO., LTD.E174837
4.	SEC.WINDING 次级线圈	2UEW MAGNET WIRE CLASS B 2UEW 漆包线	
5.	PRI.OUTER INSULATION 初级绝缘	MYLAR TAPE 0.025mm 玛拉胶带 0.025mm CLASS B	JING JIANG PRESSURE SENSITIVE GLUE FTY. E165111 SUZHOU JINGYI SPECIAL ADHESIVE TAPE CO.,LTD.E188295
6.	SEC.OUTER INSULATION 次级绝缘	MYLAR TAPE 0.025mm 玛拉胶带 0.025mm CLASS B	
7.	PROTECTION 保护器	THERMAL CUTOFF 温度保险 115°C2A 250V	JOINT FORCE METAL RESEARCH & CO LTD. E142267
8.	LEAD WIRE/引线	UL1015# AWG22	SHENZHEN DONGJU WIRE&CABLE CO.,LTD. E189674
9.	CORE 铁芯	E-I LAMINATED SILICON STEEL E-I 硅钢片	BEST LEGEND HUI DINGS LTD.
10.	RECTIFIER BOARD 电路板	P.C.BOARD(94-V0) CLASS B 阻燃等级 94-V0 1.60mm THICK	KINGBOARD LAMINATES(MACAO COMMERCIAL OFFSHORE) LTD.E123995
11.	DIODE 二极管	SILICON RECTIFIERS 硅二极管 IN4001*4	DONGGUAN DE HUI ELECTRONIC CO.,LTD.
12.	CAPACITOR 电容	ELECTROLYTI/电解电容 C1:1000uF 16V	DONGGUAN DE HUI ELECTRONIC CO.,LTD. YUH YIN ELECTRONIC(SHEN ZHEN)CO.,LTD.
13.	RESIST OR CHIP RESIST	电阻 Ω	DONGGUAN DE HUI ELECTRONIC CO.,LTD. OR OTHER EQUIVALENT.
14.	IC 配散热片	IC7805 配铝材散热片	DONGGUAN DE HUI ELECTRONIC CO.,LTD. OR OTHER EQUIVALENT.
15.	OUTPUT CORD/输出线	2468#24AWG	XIN LONG ENTERPRISE CO.E207567 DESAY WIRE CO.,LTD.E252840/E214500
16.	ENCLOSURE/外壳	41#UL 插 SE-100	SABIC INNOVATIVE PLASTICS JAPAN LLC.E45587
17.	NAMEPLATE 铭牌	PET(UL/CSA)OR ALUMINUM PET(UL/CSA 认可)或铝质	JING XING PRINTING FACTORY MH45133 GUANG NING YOU TONG.MH27610
NOTE	Varnish 凡立水	V821A	QUALIPOLY CHEMICAL CORP.E213437

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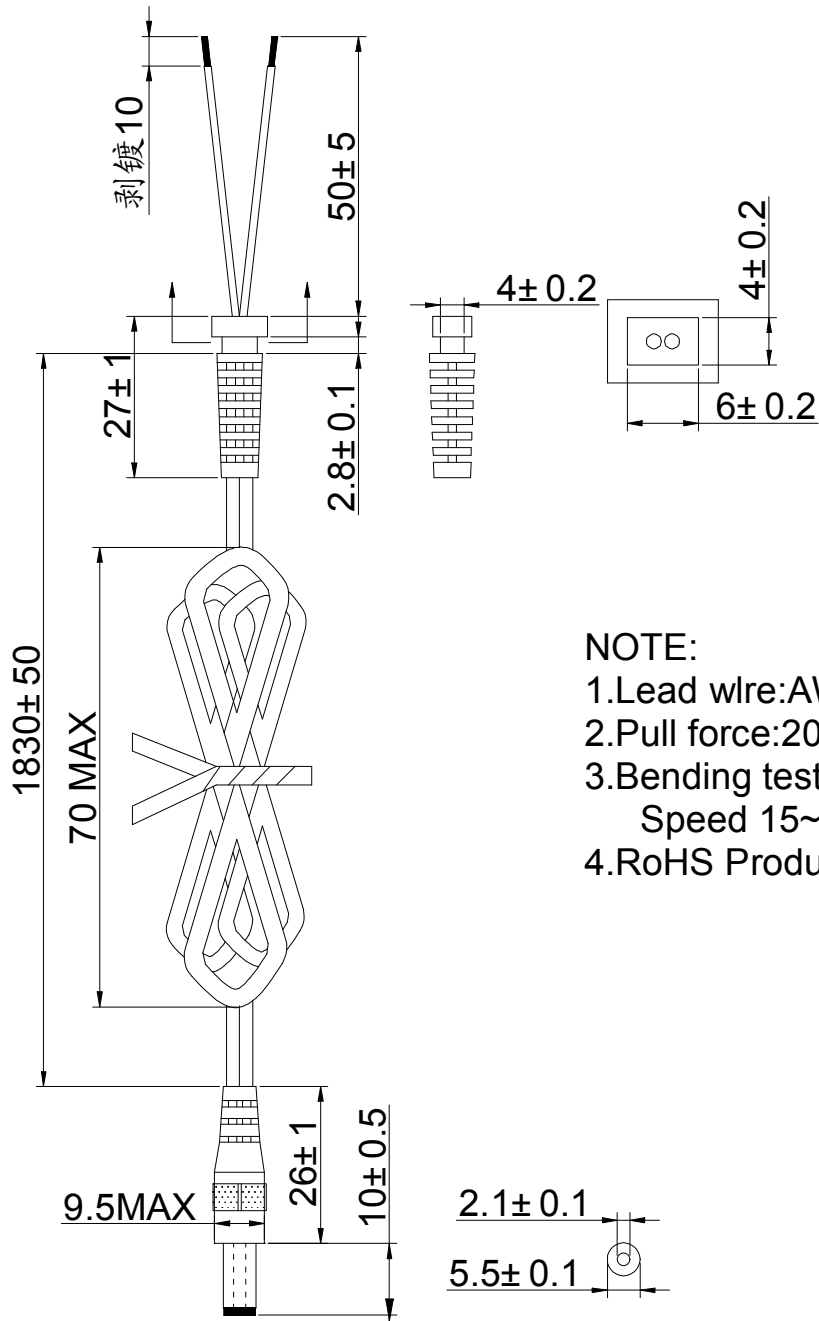
# 11.SAMPLE TEST DATA/样品测试报告:

ITEM/项目		SPEC/范围	SAMPLE/样品编号					
			#1	#2	#3	#4	#5	#6
PRIMARY EXCITING CURRENT 初级空载电流(I0) I/P: 120VAC 60Hz		55mA MAX						
PRIMARY EXCITING CURRENT 次级负载电流(IL) I/P: 120VAC 60Hz		mA MAX						
SECONDARY VOLTAGE 次级电压 NO LOAD/空载(VO)		5VDC±5%						
SECONDARY VOLTAGE 次级电压(VL) LOAD/负载: DC 500mA		5VDC±5%						
Hi-pot test 耐压	PRI.TO SEC-CORE 初级-次级-铁芯	AC 1250V/1mA/50Hz/60second 交流 1250V/1mA/50Hz/60 秒钟						
	SEC.TO CORE 次级-铁芯	AC 500V/1mA/50Hz/60second 交流 500V/1mA/50Hz/60 秒钟						
DRAWER/制定		CHECKED/审核	APPROVED/核准	CUSTOMER/客户				
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12. DC CORD DRAWING/DC 线图案:

Unit: mm  
单位: (mm)



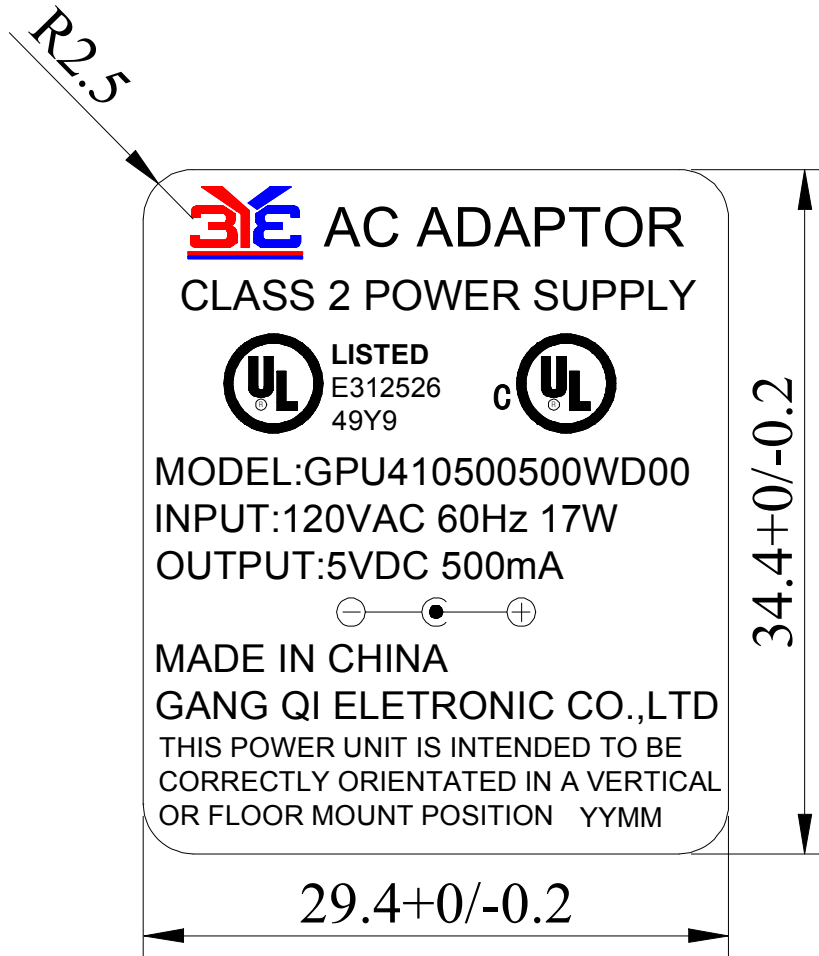
NOTE:

1. Lead wire: AWG24#
2. Pull force: 20LB/1Minute of S/R
3. Bending test: Weight 200g, Angle 120°  
Speed 15~20Bends/min ≥ 1000Time
4. RoHS Product

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13.NAMEPLATE DRAWING/铭牌图案:

Unit: mm  
单位: (mm)

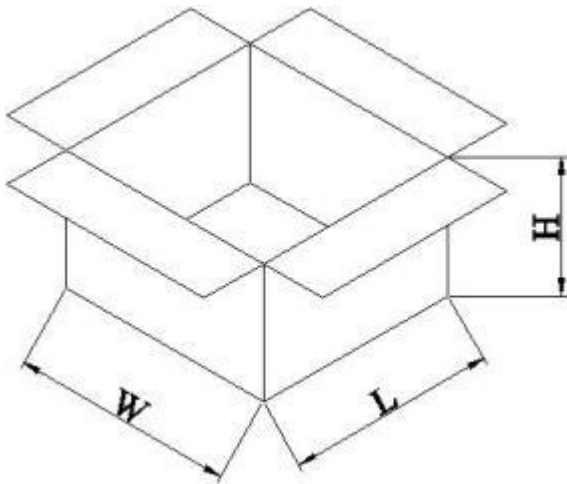


NOTE:

- 1、PET0.27mm THICK MIN
- 2、银底黑字
- 3、自粘型
- 4、YYMM: 生产周期, YY: 年份, MM: 月份

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### 13.PACKING/包装



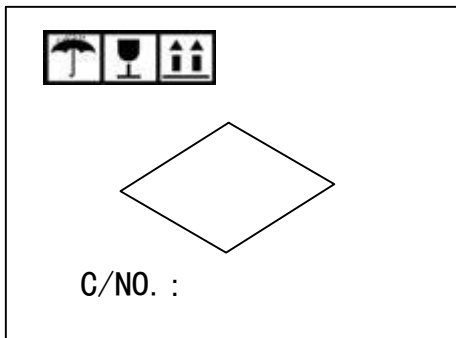
#### 13-1: 纸箱

- 1、依照图面尺寸制作，尺寸为外径尺寸；
- 2、材质：外箱使用 A=A 纸；
- 3、使用机种：EI-41。
- 4、隔板 3PCS，尺寸为 320\*260mm

外箱尺寸：

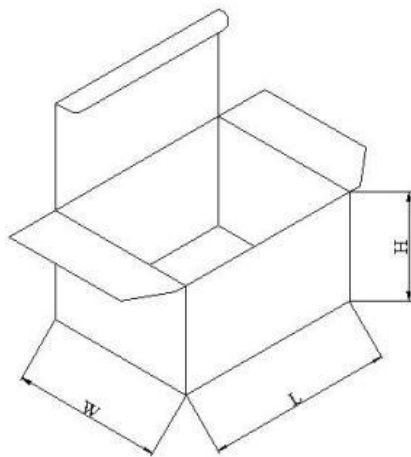
L: 340mm W: 280mm H: 230mm

正唛：



侧唛：

订单号码：	
型号	
规格	120VAC 60Hz 5VDC 500mA
数量	60 PCS
净重	KG
毛重	KG
尺寸	340*280*230mm



#### 13-2: 白盒

- 1、尺寸为外径尺寸；
- 2、材质：450g 纸。
- 3、扣底小白盒

白盒尺寸：

L: 80mm W: 51mm H: 64mm

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