



# ENGINEERING CHANGE REQUEST

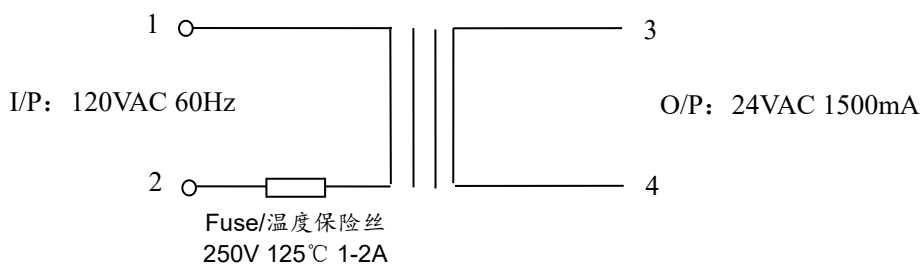
ORIGINAL/修改前			REVISION/修改后	
REV	DATE	DESCRIPTION	REVISION OF CAUSES/修改原因:	
DRAWER/制定	CHECKED/审核	APPROVED/核准	CUSTOMER/客户	
			MODEL NO/型号	GPU572401500WAOO
			REV/版本	A
			DATE/日期	January 11, 2016
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**1.ELECTRICAL PERFORMANCE/电气特性:**

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
3~4	24VAC±5%	1500mA		27.5VAC±5%

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

初级空载电流(Io): 有效值最大 60mA 输入 120VAC 60Hz

Loading(IL): 450mA rms max.

初级负载电流(IL): 有效值 450mA 最大

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

初级直流电阻: 1Ω±15%,环境温度 25°C

1-6.Empty loss max: 3 watts max, at input 120VAC 60Hz

最大空损: 3 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 50Hz 60 秒 (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 (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 1500mA 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 1500mA 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, 10 lbs to output cord for 60 seconds each, there shall be no breakage displacement.

S/R 吊重试验: 在正常位置,输出线需吊重 10 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

◇T-MARK

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
- ◆ Appearance/外观检查

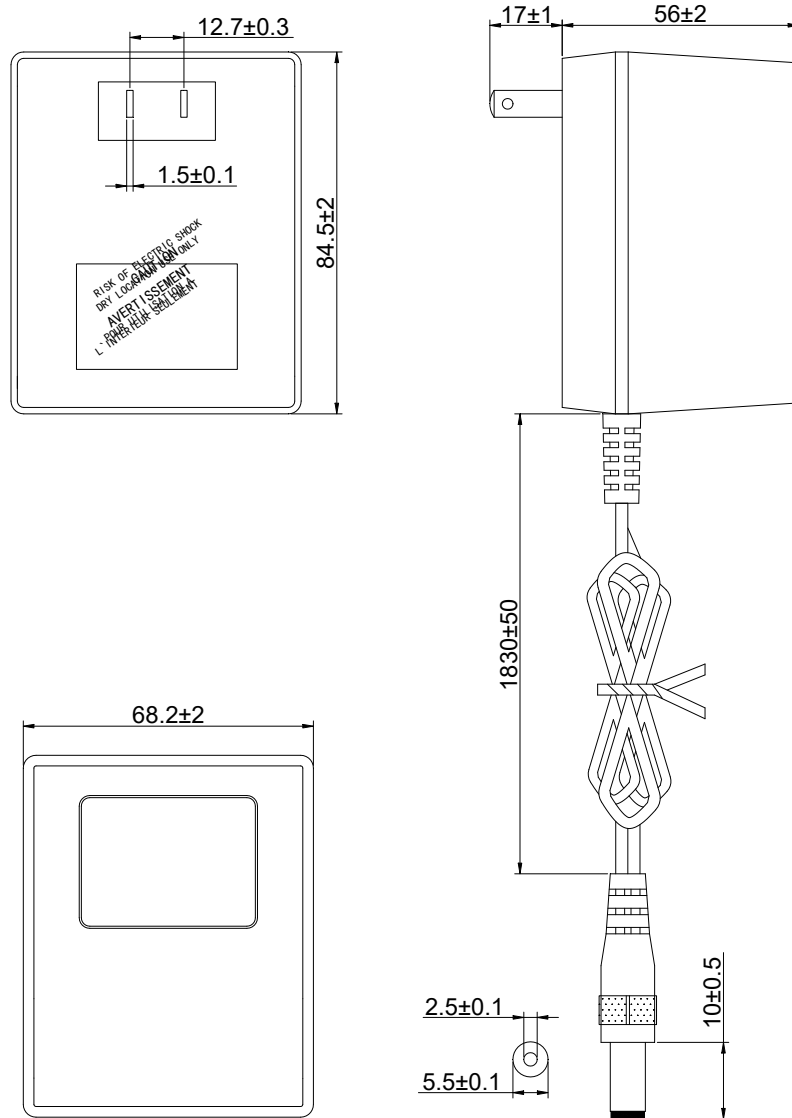
7-2. The test item for part of products/抽测项目:

- ◆ 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 770g**

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

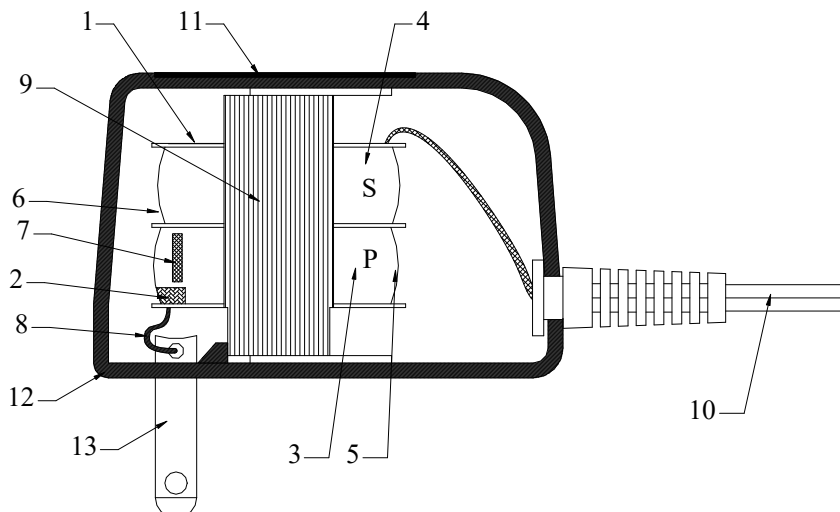


OUTPUT CORD/输出线：UL2468#20AWG 线长 1.83m

PLUG/DC 插头： $5.5 \pm 0.1$ mm\* $2.5 \pm 0.1$ \* $10 \pm 0.5$ mm 直头

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10.MATERIAL LIST /材料明细:



ITEM 序号	PARTS NAME 材料名称	MATERIAL&SPEC 材质	MANUFACTURER 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 醋酸布	SUZHOU JINGYI SPECIAL ADHESIVE TAPE CO LTD E188295	
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 125°C 250V	JOINTFORCEMETALRESEARCH&CO D.E142267	
8.	LEAD WIRE/引线	UL1015# AWG22	SHENZHENDONGJUWIRE&CABLE CO.,LTD.E189674	
9.	CORE 铁芯	E-I LAMINATED SILICON STEEL/E-I 硅钢片 H09 0.35A	BEST LEGEND HUI DINGS LTD.	
10.	OUTPUT CORD/输出线	UL2468#20AWG PVC	MAINLAND ELECTRIC WIRE & CABLE CO.,LTD. E235789/CHICK YUET PLASTIC FACTORY.E205423	
11.	NAMEPLATE 铭牌	PET(UL/CSA)OR ALUMINUM PET(UL/CSA 认可)或铝质	JING XING PRINTING FACTORY MH45133 SANLI PRINTING FACTORY.MH20917 GUANG NING YOU TONG.MH27610	
12.	ENCLOSURE/外壳	57#UL 插 SE-100	SABICINNOVATIVEPLASTICSJAPAN LC.E45587 GE PLASTICS AUSTRALIA.E101788	
13.	BLADE	NICKEL/镀镍	WEIDA INDUSTRIAL CO.,LTD OROTHER EQUIVALENT.	
NOTE	Varnish 凡立水	V821A	QUALIPOLY CHEMICAL CORP.E213437	
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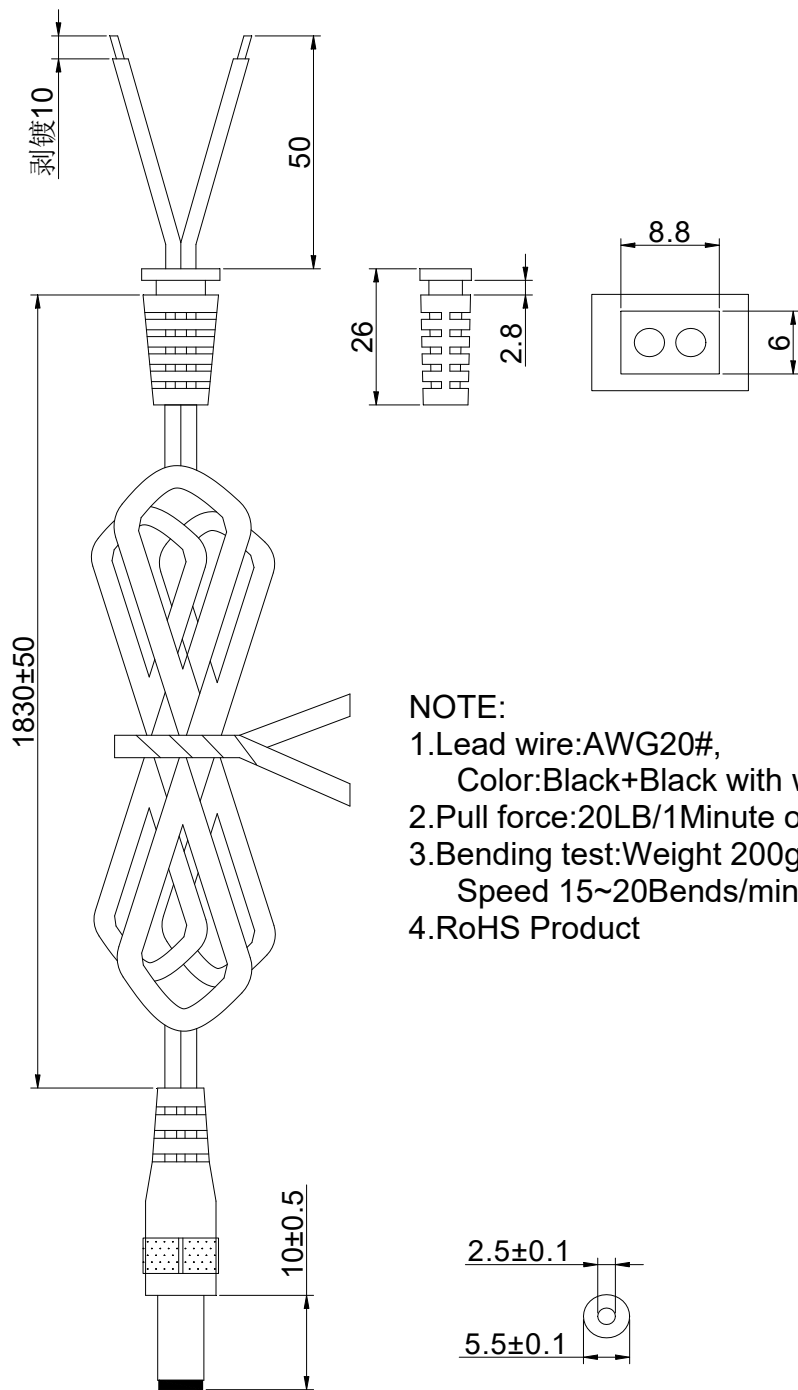
## 11.SAMPLE TEST DATA/样品测试报告:

ITEM/项目		SPEC/范围	SAMPLE/样品编号				
			#1	#2	#3	#4	#5
PRIMARY EXCITING CURRENT 初级空载电流(I0) I/P: 120VAC 60Hz		60mA MAX	29	30			
PRIMARY FULL LOAD CURRENT 初级负载电流(IL) I/P: 120VAC 60Hz		450mA MAX	356	358			
SECONDARY VOLTAGE 次级电压 NO LOAD/空载(VO)		27.5VAC±5%	27.5	27.53			
SECONDARY VOLTAGE 次级电压(VL) FULL LOAD/负载: AC 1500mA		24VAC±0.5%	24.1	24.1			
Hi-pot test 耐压	PRI.TO SEC-CORE 初级-次级-铁芯	AC 1250V/1mA/50Hz/60Seconds 交流 1250V/1mA/50Hz/60 秒	OK	OK			
	SEC.TO CORE 次级-铁芯	AC 500V/1mA/50Hz/60Seconds 交流 500V/1mA/50Hz/60 秒	OK	OK			
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12. DC CORD DRAWING/DC 线图案:

Unit: mm  
单位: (mm)

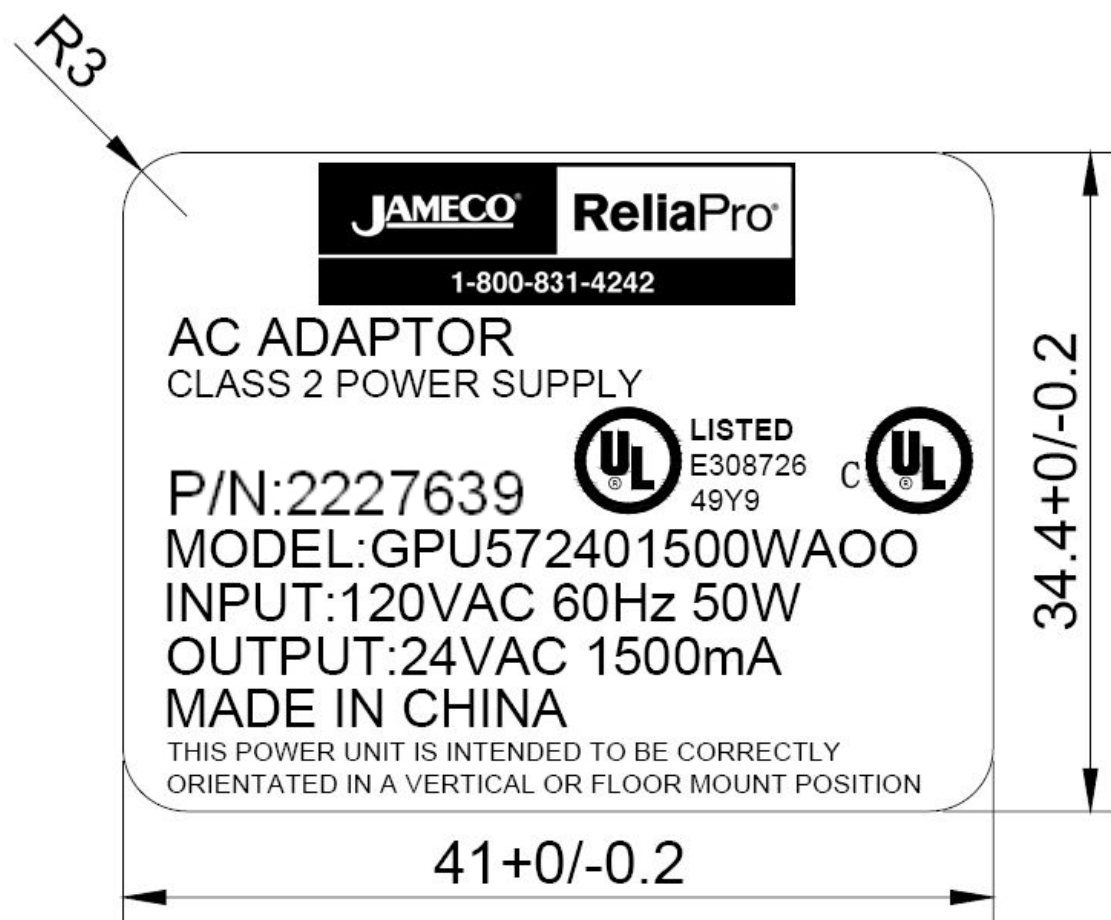


- NOTE:
1. Lead wire: AWG20#,  
Color: Black+Black with white Stripe
  2. Pull force: 20LB/1Minute of S/R
  3. Bending test: Weight 200g, Angle 120°  
Speed 15~20Bends/min≥1000Time
  4. RoHS Product

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13.NAMEPLATE DRAWING/铭牌图案:

Unit: mm  
单位: (mm)

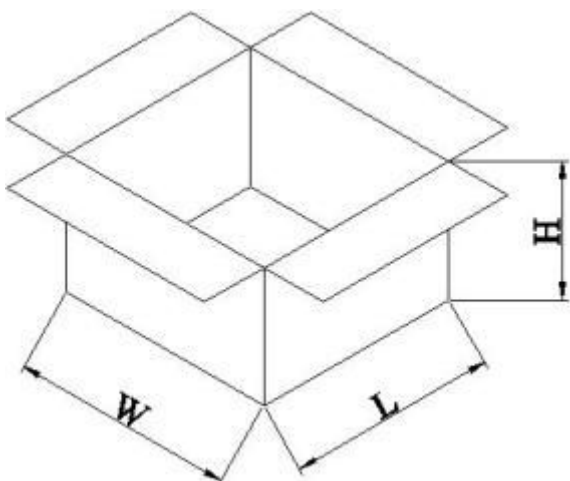


NOTE:

- 1、材质 PET 0.27mm THICK MIN
- 2、银底黑字
- 3、自粘型
- 4、“YYMM”表示生产周期，“YY”表示年份，“MM”表示月份

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## 14.PACKING/包装



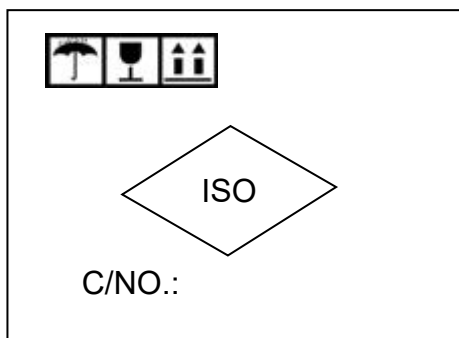
### 14-1: 纸箱

- 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-57。
- 4、隔板 3PCS，尺寸为 360\*230mm

外箱尺寸：

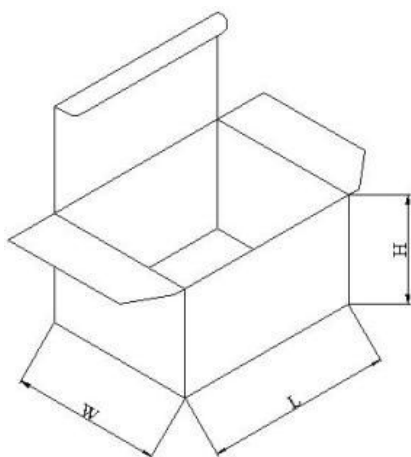
L: 370mm W: 250mm H: 190mm

正唛：



侧唛：

订单号码:	
型号	
规格	120VAC 60Hz 24VAC 1500mA
数量	20 PCS
净重	15.4 KG
毛重	17.4 KG
尺寸	370*250*190mm



### 14-2: 白盒

- 1、尺寸为外径尺寸；
- 2、材质：W9C。
- 3、扣底小白盒

白盒尺寸：

L: 110mm W: 70mm H: 80mm

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