



# 深圳市金驹科技有限公司

## Shenzhen Jinju Technology Co., Ltd.

### 承认书

### ACKNOWLEDGMENT

客户名称 ( client's name ) : \_\_\_\_\_

客户料号 ( Customer item number ) : \_\_\_\_\_

产品型号 ( Product number ) : JJ-32212

产品名称 ( product name ) : RGB 高压恒流驱动电源

编制日期 ( Date of preparation ) : \_\_\_\_\_

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## 产品描述:

★本款产品是一款高稳定性LED/RGB高压隔离恒流驱动电源。内部滤波器件使用品牌绿宝石电容，高频低阻，105℃高温下，时长8000H（部分10000H），低温时间更长。专利的核心元件，较宽的电压输入，高精度的恒流输出，完善的保护功能，以及超薄的外观结构会使您的灯具更加趋于完美。

★本产品采用集成电路设计方案，输出采用芯片恒流。具有超高的恒流精准度，及线路板合理的布局，使产品在工作中温升大大降低，从而提高产品的稳定性能。

★比市面上采用传统的1+1方式（开关电源+程序控制小板）在效率和恒流上都有很大的优势，市面上的都是采用1+1的控制模式，及小板上面都是采用色环电阻限压恒流。这种方案成本低廉，而且由于色环电阻的特性，造成此类产品的输出电流会因长时间点亮造成色环电阻升温，内部阻值的变化而改变电流并且浮动大。对灯珠影响非常大，大大的降低了使用寿命及灯具光衰问题。

## product description:

★ This product is a high stability LED/RGB high voltage isolated constant current drive power supply. The internal filter device uses brand emerald capacitors, high frequency and low resistance, at 105 °C high temperature, duration 8000H (part 10000H), longer low temperature time. Patented core components, wider voltage input, high-precision constant current output, perfect protection function, and ultra-thin appearance structure will make your lamp more perfect.

★ This product adopts the integrated circuit design scheme, and the output adopts the chip constant current. With ultra-high constant current accuracy and reasonable layout of the circuit board, the temperature rise of the product during work is greatly reduced, thereby improving the stability of the product.

★ Compared with the traditional 1+1 method (switching power supply + program control small board) on the market, it has great advantages in efficiency and constant current. The market is all using 1+1 control mode, and the small board The color ring resistance is used to limit voltage and constant current. This kind of solution has low cost, and due to the characteristics of the color ring resistance, the output current of such products will cause the color ring resistance to heat up due to long-time lighting, and the internal resistance changes to change the current and float large. It has a great influence on the lamp beads, greatly reducing the service life and the light decay of the lamp.

## 产品特点:

- ★交流100~265V输入，全球通用。
- ★输入输出采用隔离拓扑。
- ★集成度高，输出3路R G B 单独恒流，每路电流可单独定义（根据客户需求）。
- ★ R G B 三组输出采用共正极的方式连接。
- ★输出开路，短路，过压，过温保护。
- ★采用LED专用防水环氧树脂AB胶，通过导热胶与铝壳接触，散热效果极佳，满负载输出时外壳表面温度不超过65℃（在环境25℃测量），室内户外均可使用，两端各设两个机械固定孔位，适用于多种内部安装应用。

## Features:

- ★ AC 100~265V input, universal use.
- ★ The input and output adopt isolated topology.
- ★ High degree of integration, output 3 channels R G B individually constant current, each current can be defined separately (according to customer needs).
- ★ The three groups of R G B outputs are connected in a common positive way.
- ★ Output open circuit, short circuit, over voltage, over temperature protection.
- ★ Adopt special waterproof epoxy resin AB glue for LED, contact with aluminum shell through thermally conductive glue, the heat dissipation effect is excellent, the surface temperature of the shell does not exceed 65 °C (measured at 25 °C environment) at full load output, both indoor and outdoor can be used, both ends Two mechanical fixing holes are provided for each internal installation application.

# 电气规格(Electrical specifications):

产品型号		JJ-32212				
输入参数	输入电压范围	100~265Vac		安规和电磁干扰	安全规范	EN61347-2-13:2006/EN61347-1:2008
	输入电流	100V/0.191A 220V/0.095A 265V/0.083A			耐压	I/P-0/P:1500Vac
	功率因素	100V/0.637PF 220V/0.583PF 265V/0.574PF			绝缘阻抗	I/P-0/P:>100MΩ
	频率范围	47~63HZ			电磁干扰	设计参考: EN55015
	效率	69%~72%			谐波电流	设计参考: EN6000-3-2/EN600-3-3
	浪涌电压	冷启动:40A/220V			电磁耐受	EN6000-4-2
	漏电流	<0.65mA/265V			总谐波失真	<20% (负载50%~100%)
输出参数	额定功率	12W		环境特性	工作温度	-20~+65℃ (AC220)
	输出电压	16V±2% (覆盖3~4串)			工作湿度	20~80%RH
	电流范围	3路 270~300mA			耐震动	10~500HZ, 2G, 10min/周期, X、Y、Z方向各60min
	电流精度	±3%			温度系数	±0.05%/℃ (0~60℃)
	线性调整率	±2%			储存温度/湿度	-40~+85℃ 10~95%RH
	负载调整率	±2%		其他	寿命	>100000H (25℃)
	输出纹波	<5%			质保	3年
	启动/上升时间	100V/18ms 220V/20ms			平均无故障工作时间	>200000H
	断电保持时间	100V/10ms 220V/15ms			裸机尺寸	L*W*H:65*35*22mm 95g±5g
输出保护	短路	输出无电流, 异常条件移除后可自动恢复				
	开路	不接LED时, 自动限制在16V±2V				
	过温	100℃±10℃ 保护模式: 输出降电流 (外壳表面温度)				
	过压	保护模式: 输出降电流				
注	<ul style="list-style-type: none"> <li>* 为了延长使用寿命, 建议配置负载时多留30%的余量。例如: 设备需要50W的功率, 则应选用不小于80W的电源。</li> <li>* 电源纹波测试方法: 示波器带宽限制在20MHz, 示波器探头接地使用弹簧针, 并在探头输入并联47uF电解电容和0.1uF陶瓷电容。</li> <li>* 所有电气性能测试均在25℃环境下完成, 如未特别说明, 所有规格参数均在230VAC, 环境温度25℃ 测量。</li> </ul>					

# 电性参数(Electrical parameters):

		参数(Parameter)	典型负载(Typical load)	单位(Unit)
Input total power parameter	输入总功率参数	输入电压(Input voltage)	220	V
		输入电流(Input current)	0.095	A
		输入频率(Input frequency)	50~60	HZ
		输入功率(Input power)	12.3	W
		功率因素(Power factor)	0.583	PF
		待机功率(Standby power)	1.29	W
		输出电压(Output voltage)	16	V
		输出电流(Output current)	0.27	A
		输出总功率(Output total power)	8.7	W
R output parameter	R 输出参数	输入电流(Input current)	0.033	A
		输入功率(Input power)	4.09	W
		功率因素(Power factor)	0.55	PF
		输出电压(Output voltage)	8	V
		输出电流(Output current)	0.275	A
		输出功率(Output total power)	2.2	W
G output parameter	G 输出参数	输入电流(Input current)	0.043	A
		输入功率(Input power)	5.39	W
		功率因素(Power factor)	0.562	PF
		输出电压(Output voltage)	12	V
		输出电流(Output current)	0.273	A
		输出功率(Output total power)	3.28	W
B output parameter	B 输出参数	输入电流(Input current)	0.042	A
		输入功率(Input power)	5.34	W
		功率因素(Power factor)	0.565	PF
		输出电压(Output voltage)	12	V
		输出电流(Output current)	0.271	A
		输出功率(Output total power)	3.25	W

注(Note):

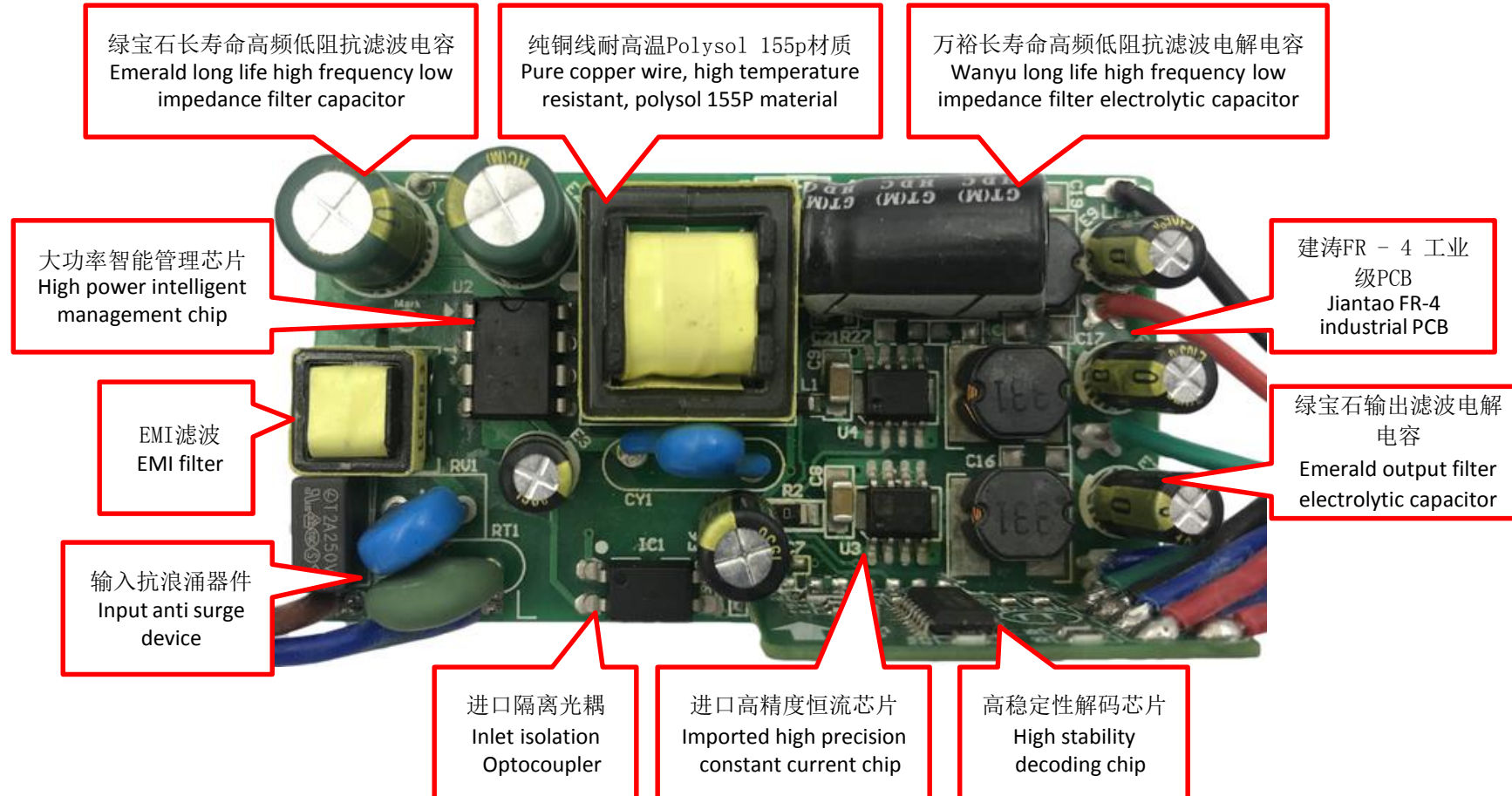
①本列表数据除特殊说明外, Ta:25°C,湿度<75%, 输入标称电压和输出额定负载时测得。(Unless otherwise specified, Ta: 25 °C, humidity < 75%, measured at input nominal voltage and output rated load.)

②本列表数据仅供参考, 实际以产品实物为标准, 偏差范围<5%。(The data in this list is only for reference. In fact, it is based on the actual product, and the deviation range is < 5%.)

## 产品适用范围(Scope of application):

灯珠串并 (String and parallel)	3串3并 (3 series 3 parallel)	4串3并 (6 series and 6 parallel)	
输出电压 (Output voltage)	6-10V	8-14	
输出电流 (Output current)	3*300mA	3*270mA	

# 主板亮点(Motherboard highlights):



注 ( Note ) :

主板兼容多种控制方式: IR RF DMX512 RDM PWM (根据客户需求可定制)。

The motherboard is compatible with a variety of control methods: IR, RF, DMX512 RDM PWM (customizable according to customer needs).

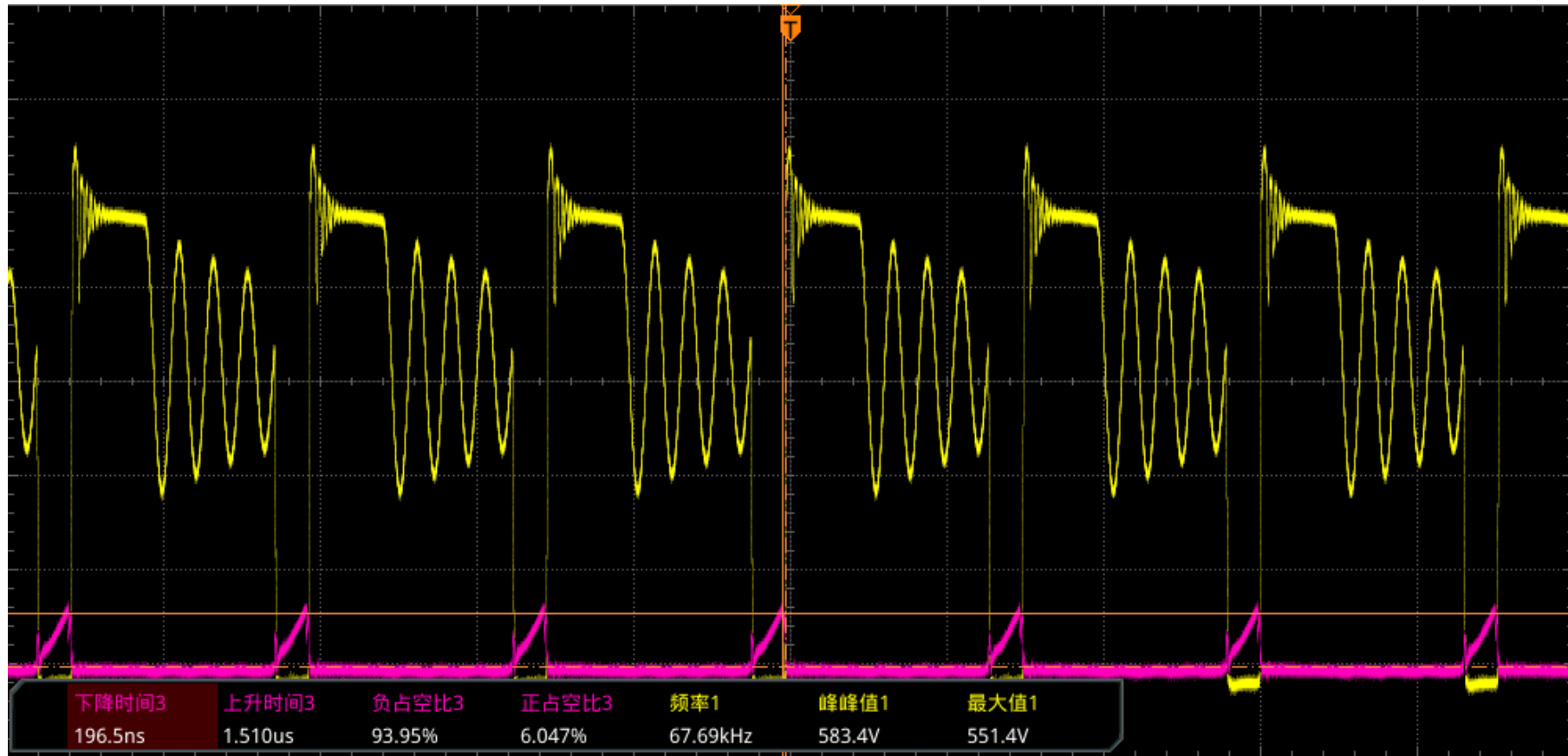
## 工作稳态波形(Working steady state waveform):

测试规格:①输入AC230V 50HZ 12W

②输出电压 (4串) 8-12V 输出电流 270mA

Test specifications: ① Input AC230V 50HZ 12W

② Output voltage (4strings) 8-12V Output current 270mA



注:

- \* 黄色通道为MOS管Vds稳态工作波形, 最高电压为583.4V (DC), 实际使用MOS管为650V耐压, 余量充足。
- \* 紫色为电流Id波形 (标准锯齿波, 变压器无饱和) 。

Note :

- \* The yellow channel is the steady-state working waveform of the MOS tube Vds, the highest voltage is 583.4V (DC), and the actual MOS tube is 650V withstand voltage, and the margin is sufficient.
- \* Purple is the current Id waveform ( Standard sawtooth wave, transformer is not saturated )



# 高温老化数据(High temperature aging data):



输入参数  
Input parameters

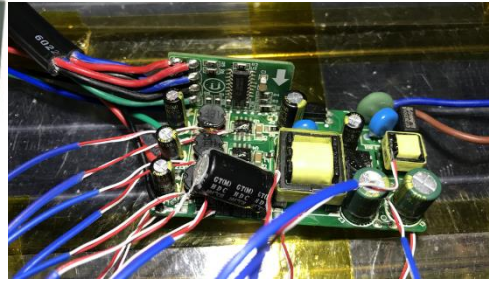
输出参数  
Output parameters



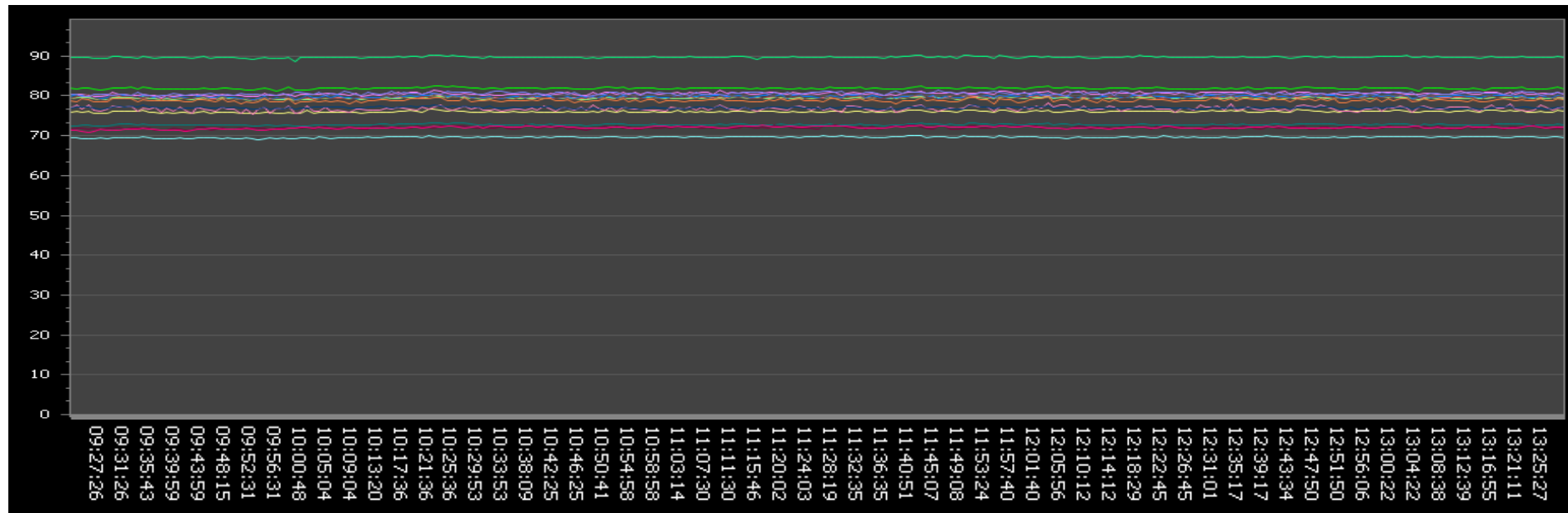
产品工作温度  
Product operating  
temperature



产品工作环境  
Product working  
environment



(Temperature)  
温度



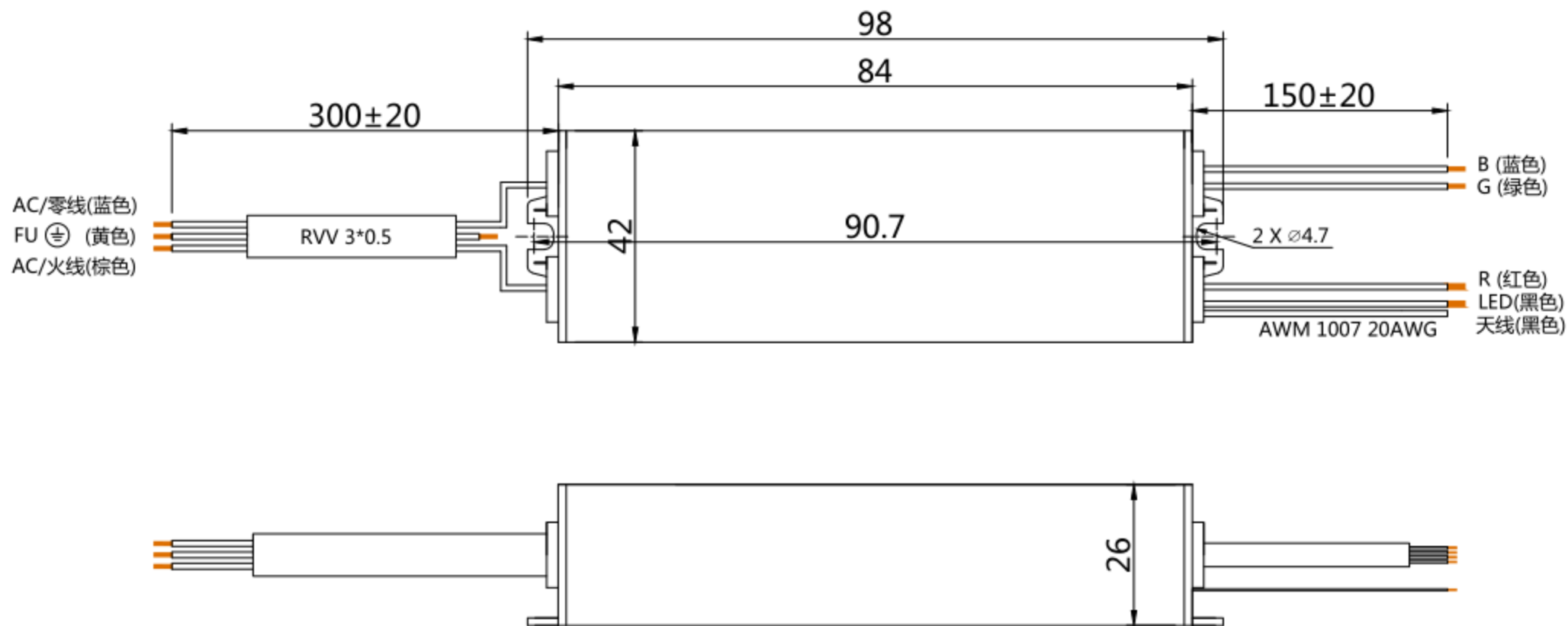
温度曲线  
Temperature curve

时间 (Time)

# 安装尺寸图(Installation dimension drawing):

机壳型号：4226-80

单位：mm



## 产品使用说明(Product instructions):

★本产品只适用于LED灯具(洗墙灯, 投光灯, 舞台灯等, 景观亮化场所), 整机功率为**12W**。

★产品输入端是交流电输入, 对应产品标签上的AC “L” 和AC “N”, 输出端标识 “LED+”、“R-”、“G-”、“B-”、“W-”。“LED+”为输出(三色或四色) 供阳端, 接LED供阳正极, “R-”、“G-”、“B-”、“W-”为输出负极, 接LED负极。

★本产品为防水产品, 防水等级为IP67。

★安装时请注意安全, 接高压电时, 接头处做好加强绝缘防护, 防止漏电。

★使用裸板时, 请将产品做好绝缘处理。

**注: 在使用本电源时, 请注意区分输入端和输出端, 确定正确接线, 核对无误在通电。**

★ This product is only suitable for LED lamps (wall washing lights, flood lights, stage lights, etc., landscape lighting places), the power of the whole machine is **12W**.

★ The input end of the product is an AC input, corresponding to AC "L" and AC "N" on the product label, and the output ends are marked "LED+", "R-", "G-", "B-", "W-". "LED+" is the output (three-color or four-color) for the positive terminal, then connect the positive pole of the LED, "R-", "G-", "B-", "W-" are the negative pole of the output, and then connect the negative pole of the LED.

★ This product is a waterproof product with a waterproof rating of IP67.

★ Please pay attention to safety during installation. When high voltage is connected, reinforce insulation protection at the joint to prevent leakage.

★ When using a bare board, please insulate the product.

**Note: When using this power supply, please pay attention to distinguish the input end and output end, make sure the correct wiring, and check that the power is on.**

# 常见故障及处理方法(Common faults and treatment methods):

🔊 灯具不亮  
The light is not bright

1 检查输入端接线是否有误  
Check if the input wiring is incorrect.

2 是否进入关机状态 (RF版本)  
Whether to enter the shutdown state (RF version)

3 地址码是否正确 (DMX版本)  
Is the address code correct (DMX version)

🔊 灯具抖闪  
Lamp flashing

1 输入电压是否在产品工作位范围之内  
Is the input voltage within the product operating range

2 灯具参数是否与驱动电压匹配  
Whether the lamp parameters match the driving voltage

3 LED灯线是否接触良好  
Is the LED light wire in good contact