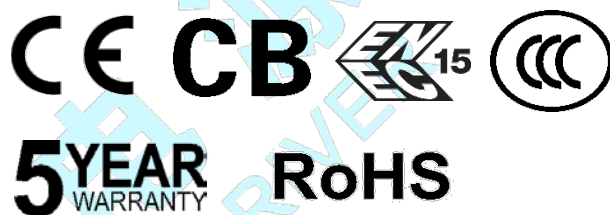
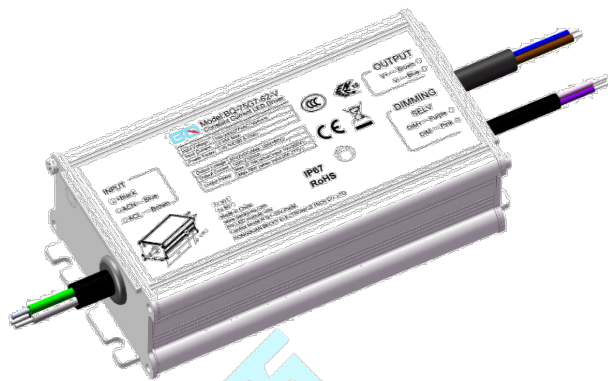


## 产品特性 Product Characteristics

- **效率高达: 90%**  
Efficiency up to 90%
- **调光隔离: 0/1-10V,PWM,电阻, 调光可关断**  
Isolated dimming:0/1-10V, Dim-to-Off
- **功能配置: PC 通讯功能/输出电流可编程/光衰补偿**  
Function: PC communication/Adjustable output current with programmability/Output Lumen Compensation
- **保护功能: 短路/过温/过压/欠压保护**  
Protection: SCP/OTP/OVP/UVF
- **防水等级: IP Rating: IP67**
- **雷击浪涌 Surge: CM:6KV /DM :10KV( For class I )**
- **质保 Warranty: 5Years**



## 产品描述 Product Description

G7系列为双极无频闪隔离恒流驱动电源, 此系列专为工矿灯, 隧道灯, 路灯等应用而设计, 外观设计美观大体, 产品多功能配置满足客户不同的功能设计需求, 超高的效率, 良好的散热, 极大提高了产品的可靠性, 保证寿命, 同时全方位的保护功能确保产品无障碍运作。

G7 Series is a bipolar flicker-free isolated constant-current programmable LED driver, It is created for many lighting applications including high bay,tunnel and roadway,etc. The overall appearance design is aesthetically pleasing, and the multifunctional configuration of the product meets the different functional design needs of customers. The high efficiency and run cooler of these drivers,it greatly improves the reliability of the product and ensures its lifetimes. At the same time, comprehensive protection functions ensure that the product operates without obstacles.

## 型号清单 Model List

| 认证型号<br>Model List           | 输出功率<br>Pout Max.                                       | 输入电压<br>Vin | 输出电压<br>Vout | 推荐工作电压<br>Vout | 输出电流<br>Iout | 效率 Eff.<br>@230Vac | 输出<br>0-10V |
|------------------------------|---------------------------------------------------------|-------------|--------------|----------------|--------------|--------------------|-------------|
|                              | 75                                                      | 100-277     | 54-107       | 72-107         | 700-1050     | 90%                | SELV        |
| “Z”后缀代码<br>Suffix            | Class I                                                 | VP          |              | Class II       | V            |                    |             |
| 功能描述<br>Function Description | 0-10V 调光和输出电流可编程<br>0-10V Dimming and Iout programmable |             |              |                |              |                    |             |

- \*. 温馨提示 Warm prompt: 当使用电流可调功能时, 灯板实际输出电压 X 输出电流不能超最大的输出功率;  
The output voltage \* output current must not exceed the maximum output power when using the current adjustable function;
- \* 输入 AC(100-200V)最大输出功率 50% ;Output Power Max.50%(when input: 100-200V)

## 输入特性 Input Characteristics

| 参数 Parameters                       | 最小值 Min. | 典型值 Typical | 最大值 Max. | 单位 Unit | 测试条件/备注 Testing Conditions/Remark                         |
|-------------------------------------|----------|-------------|----------|---------|-----------------------------------------------------------|
| 额定输入电压<br>Rated Input Voltage Range | 100      | 220/240     | 277      | Vac     | /                                                         |
| 输入电压范围<br>Input voltage range       | 100      | 220/240     | 305      | Vac     | /                                                         |
| 输入频率 Input frequency                | 47       | 50/60       | 63       | Hz      | /                                                         |
| 输入电流 Input current                  | /        | /           | 450      | mA      | @220Vac 满载                                                |
| 输入功率 Input Power                    | /        | /           | 85       | W       | @220Vac 满载                                                |
| 浪涌电流 Inrush Current                 | /        | /           | 100      | A       | @230Vac 100%负载冷机启动<br>100%load at 230Vac input cold start |
| 功率因素 PF                             | 0.95     | /           | /        | N/A     | @230Vac/50Hz 100%full load                                |
|                                     | 0.90     | /           | /        | N/A     | @220-277Vac 70%full load                                  |
| 谐波 THD                              | /        | /           | 10       | %       | @230Vac/50Hz 100%full load                                |
|                                     | /        | /           | 20       | %       | @220-277Vac/50Hz 70%full load                             |
| 频闪 Flicker                          | /        | /           | 5        | %       | @220-240Vac                                               |
| 启动时间 Turn-on Delay Time             | /        | /           | 500      | mS      | @220Vac 满载                                                |
| 待机功耗 Stand-by Power                 | /        | /           | 0.5      | W       | @230Vac                                                   |
| 短路功耗 Short circuit power            | /        | /           | 10       | W       | @100-277Vac(进入打嗝模式)                                       |

## 输出特性 Output Characteristics

| 参数 Parameters                    | 最小值 Min. | 典型值 Typical | 最大值 Max. | 单位 Unit | 测试条件/备注 Testing Conditions/Remark                          |
|----------------------------------|----------|-------------|----------|---------|------------------------------------------------------------|
| 输出电压范围                           | 54       | /           | 107      | Vdc     |                                                            |
| 额定输出电压<br>Rated Output Voltage   | 72       | /           | 107      | Vdc     | /                                                          |
| 额定输出电流<br>Rate Iout (adjustable) | 700      | /           | 1050     | mA      | ±5%<br>额定输出电压*输出电流≤额定功率<br>Rated Vout*Rate Iout≤Rated Pout |
| 额定输出功率 Rated Pout                | /        | /           | 75       | W       | @100% Load at 198-305Vac                                   |
| 空载电压 No-Load Voltage             | /        | /           | 120      | Vdc     | @100-277Vac                                                |
| 效率 Efficiency@220V ac            | 89       | 89.7        | /        | %       | @Full Load Output: 107v/0.7A                               |
| 效率 Efficiency@230V ac            | 89       | 89.7        | /        | %       | @Full Load Output: 107v/0.7A                               |
| 效率 Efficiency@277V ac            | 89       | 90.1        | /        | %       | @Full Load Output: 107v/0.7A                               |
| 线性调整率 Line Regulation            | -2%      | /           | +2%      | %       | @ Full Load                                                |
| 负载调整率 Load Regulation            | -5%      | /           | +5%      | %       |                                                            |
| 电流纹波 Ripple Current              | /        | 5%          | 10%      | %       |                                                            |

## 调光特性 Dimming Characteristics

| 功能<br>Function                   | 参数<br>Parameters                                                                 |                          | 最小值<br>Min. | 典型值<br>Typical | 最大值<br>Max. | 单位<br>Unit | 备注<br>Remark                         |
|----------------------------------|----------------------------------------------------------------------------------|--------------------------|-------------|----------------|-------------|------------|--------------------------------------|
| 0-10V<br>SELV                    | 外加最大电压<br>Applied maximum voltage                                                |                          | 0           | /              | 12          | V          |                                      |
|                                  | 调光输出电流范围<br>Dimming output current range                                         |                          | 0           | /              | 100         | %          | 调光器兼容性强<br>High compatibility        |
|                                  | 调光电压 Dimming Voltage                                                             |                          | 0           | /              | 10          | V          |                                      |
|                                  | 调光电流 Dimming Current                                                             |                          | 90          | 100            | 110         | uA         |                                      |
| 关断电压<br>Dim to Off<br>(Optional) | 0-10V                                                                            | 关断电压<br>Turn-off voltage | 0.7         | 0.8            | 0.9         | V          | 调光线短路关灯<br>Dim short circuit- Off    |
|                                  |                                                                                  | 开启电压<br>Cut-in voltage   | 0.9         | 1.0            | 1.1         | V          |                                      |
|                                  | 1-10V                                                                            |                          | /           | /              | /           |            | 调光短路不灭灯<br>Dim short circuit-Not Off |
| Noted                            | 当调光线不使用时，请将调光线做好绝缘措施<br>Please take isolation if the dimming cable is not in use |                          |             |                |             |            |                                      |

## 辅助特性 Auxiliary Characteristics

| 功能<br>Function                         | 参数<br>Parameters                                                                                                                                        |  | 最小值<br>Min. | 典型值<br>Typical | 最大值<br>Max. | 单位<br>Unit | 备注<br>Remark |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|----------------|-------------|------------|--------------|
| Aux12V<br>辅助源<br>(Optional)<br>Class 2 | 输出电压 Output Voltage                                                                                                                                     |  | /           | /              | /           | V          |              |
|                                        | 输出电流 Output Current                                                                                                                                     |  | /           | /              | /           | mA         |              |
|                                        | 纹波电压 Ripple Voltage                                                                                                                                     |  | /           | /              | /           | mV         |              |
|                                        | 动态负载<br>Performance Load                                                                                                                                |  |             |                |             |            |              |
| Noted                                  | ◆ 请在使用 12V 辅助源或其它感应器时注意与电源相互匹配性验证；<br>Please pay attention to the compatibility verification with the LED Driver when using the Aux12V or other sensor. |  |             |                |             |            |              |

## 保护功能 Protection Function

| 功能<br>Function     | 参数<br>Parameters                                                       | 最小值<br>Min. | 典型值<br>Typical | 最大值<br>Max. | 单位<br>Unit | 备注<br>Remark                   |
|--------------------|------------------------------------------------------------------------|-------------|----------------|-------------|------------|--------------------------------|
| 过温保护<br>OTP ( TC ) | 降电流模式<br>Current drop mode                                             | 90          | 95             | 105         | ℃          | 过温解除时，电流自动恢复。<br>Auto recovery |
| 短路保护<br>SCP        | 长时间短路不损坏，打嗝模式<br>Not damaged with long time short circuit, hiccup mode |             |                |             |            | 短路解除后可自动恢复<br>It Auto recovery |
| 输出开路保护<br>OVP      | 输出电压会限制在规定范围<br>The output voltage will limit the scope                |             |                |             |            | 自动恢复模式<br>Auto recovery        |
| 其它 Others          |                                                                        |             |                |             |            |                                |

**环境要求**
**Environmental Characteristics**

| 参数 Parameters                                | 最小值 Min. | 典型值 Typical | 最大值 Max. | 单位 Unit | 备注 Remark                            |
|----------------------------------------------|----------|-------------|----------|---------|--------------------------------------|
| 工作温度 Operating Temp.                         | -40      | /           | 90       | °C      | Tc                                   |
| 储存温度/湿度 Storage Temp.                        | -40      | /           | 90       | °C      | RH:5%~95%                            |
| Tc 温度/Tc Temp.                               | /        | /           | 90       | °C      |                                      |
| 寿命 Life Time<br>50000H/ @Tc80°C at full load | /        | 80          | /        | °C      | 参考寿命曲线图<br>Refer to the life curves. |
| MTBF200000 H/@ 25°C                          | /        | 25          | /        | °C      | 80%负载MIL-HDBK-217F                   |

**安全与电磁兼容**
**Safety and EMI Standards**

| 认证状况 Status                         | 认证 Certification | 国家地区 Country            | 标准 Safety Standard                          | 备注 Remark |
|-------------------------------------|------------------|-------------------------|---------------------------------------------|-----------|
| <input type="checkbox"/>            | UL/CUL           | 美国/加拿大<br>USA/Canada    | UL 8750                                     |           |
| <input checked="" type="checkbox"/> | CCC              | 中国<br>China             | GB19510.1;GB19510.14<br>GB17625.1;GB/T17743 |           |
| <input checked="" type="checkbox"/> | CE-LVD<br>ENEC   | 欧洲<br>European          | EN61347-2-13; EN61347-1<br>EN IEC 62384     |           |
| <input checked="" type="checkbox"/> | CB               | CB 成员国<br>Member states | IEC61347-2-13<br>IEC61347-1                 |           |

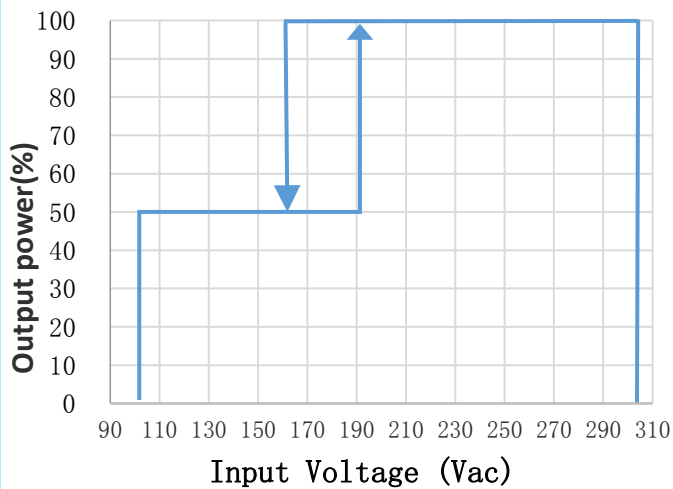
| EMI/EMS                          | 地区 Area        | 标准 Standard                                            | Requirement                                    |
|----------------------------------|----------------|--------------------------------------------------------|------------------------------------------------|
| EMI                              | 欧洲<br>European | EN55015:2013+A1:2015                                   | Class B                                        |
| Harmonic<br>Current<br>Emissions | 欧洲<br>European | EN/IEC55015; EN61547<br>EN/IEC61000-3-2<br>EN61000-3-3 | Class C                                        |
| 雷击浪涌<br>Surge                    | 欧洲<br>European | IEC/EN61000-4-5                                        | 差模 DM:6KV<br>共模 CM:10KV (For class I)          |
| 振铃波<br>Ring wave                 | USA            | IEC/EN 61000-4-12; ANSI/C82.77-5                       | 2.5KV                                          |
| ESD                              | 欧洲<br>European | EN 61000-4-2                                           | 8 KV air discharge ;<br>4 KV contact discharge |

驱动电源本身是满足 EMI 标准,但驱动电源作为灯具零部件的一部分,需结合成品灯具进行 EMI 相关确认。  
Remark: The LED Driver itself complies with EMC standard. However, the LED Driver's EMC should be re-checked with lamp when integrated into lighting systems.

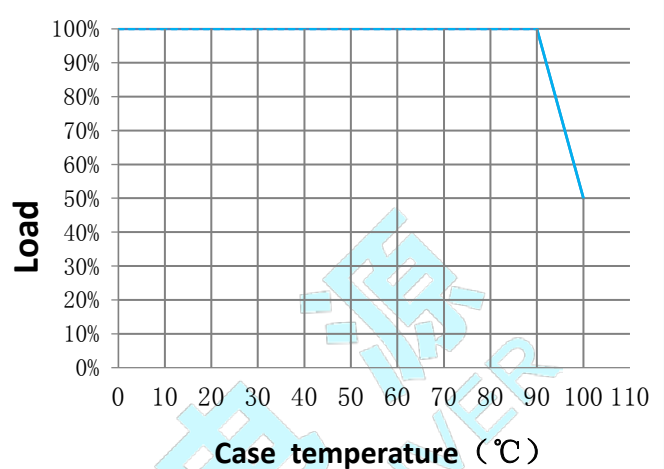
| 绝缘要求<br>Insulation Requirements | UL | ENEC  | CCC  | 单位<br>Unit | 备注<br>Remark               |
|---------------------------------|----|-------|------|------------|----------------------------|
| 输入对外壳 Input-Case                | /  | 1500  | 1875 | Vac        | 基本绝缘 basic insulation      |
| 输入对输出                           | /  | 3000  | 3750 | Vac        | 加强绝缘 Reinforced insulation |
| 输入对调光 Input-Dim                 | /  | 3000  | 3750 | Vac        | 加强绝缘 Reinforced insulation |
| 输出对调光                           | /  | 1000  | 1000 | Vac        | 基本绝缘 basic insulation      |
| 输出对外壳                           | /  | 1000  | 1000 | Vac        | 基本绝缘 basic insulation      |
| 调光对外壳 Dim-Case                  | /  | 250   | 500  | Vac        | 基本绝缘 basic insulation      |
| 绝缘阻抗 Insulation Resistance      | /  | > 10  | /    | MΩ         | Input-Dim@500Vdc/25°C      |
| 接地电阻 Ground Resistance          | /  | < 0.1 | /    | Ω          | 地线对外壳,PE-Case,25A/1min     |
| 漏电流 Leakage Current             | /  | ≤0.75 | /    | mA         | @277Vac                    |

**特性曲线 Performance Curves**

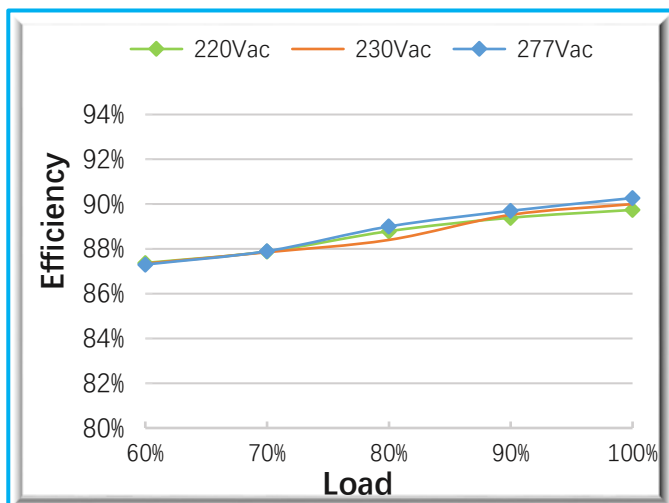
◇ **Derating curve**



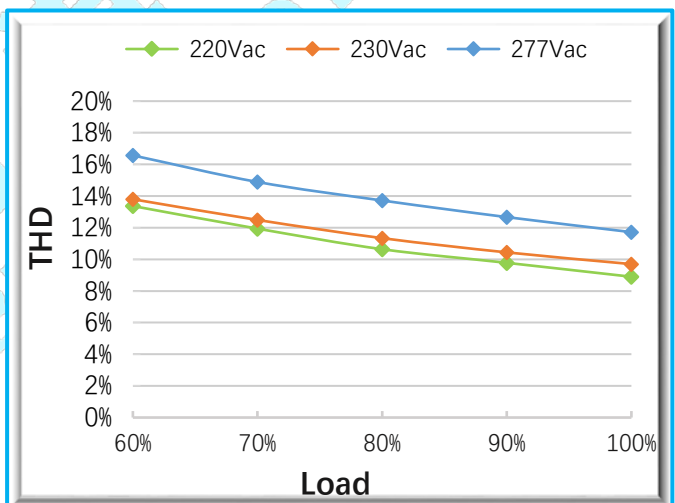
◇ **TC Vs. Load**



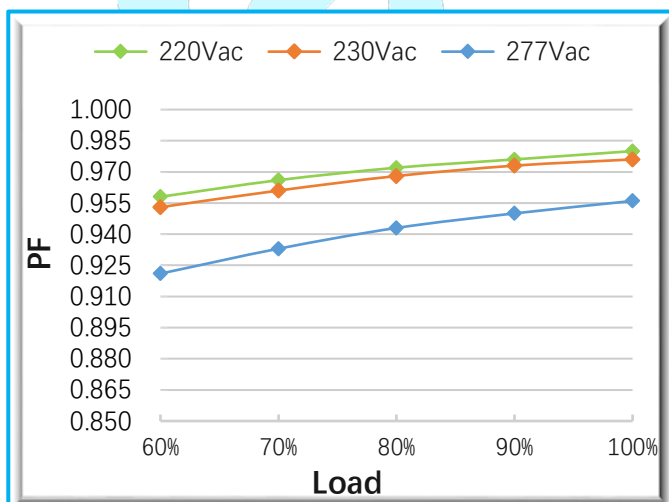
◇ **Efficiency vs. Load Curve**



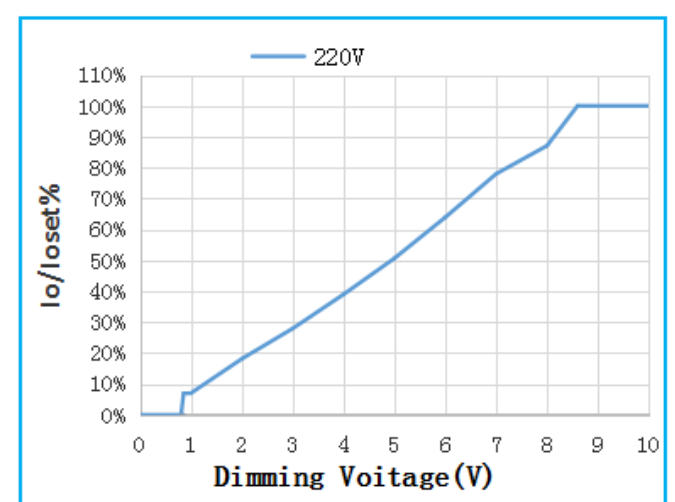
◇ **THD vs. Load Curve**



◇ **PF Vs. Pout**

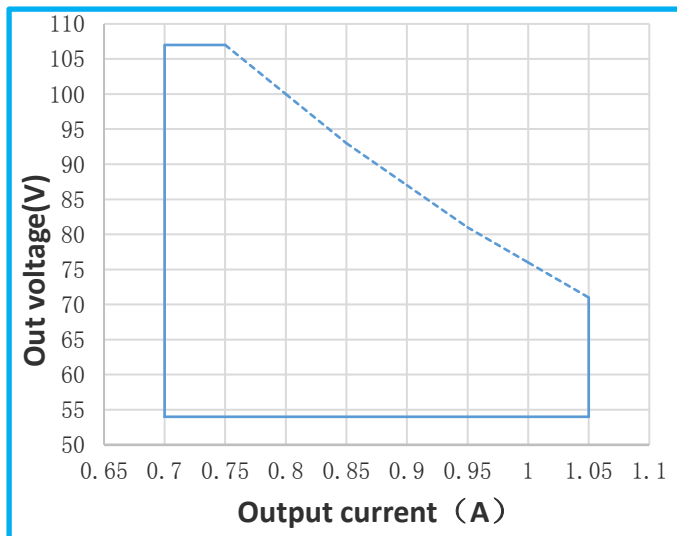
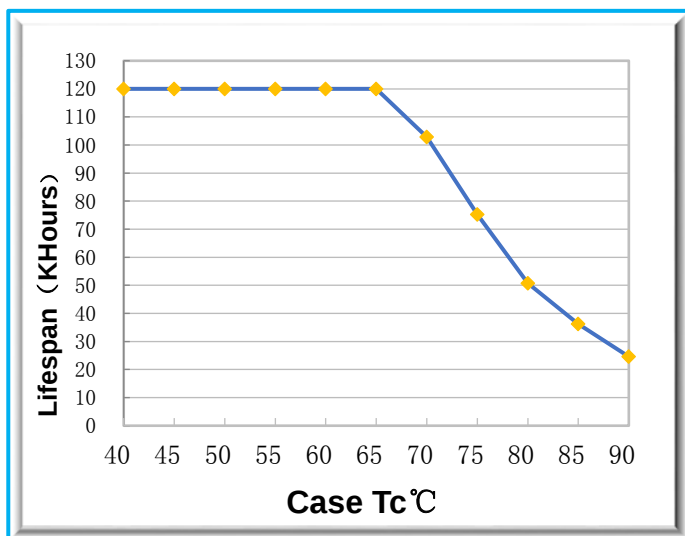


◇ **Io/IoSet vs. Dimming Voltage**



◇ Life-time VS Case Tc°C

◇ Output voltage vs. output current



## 典型应用 Typical Applications

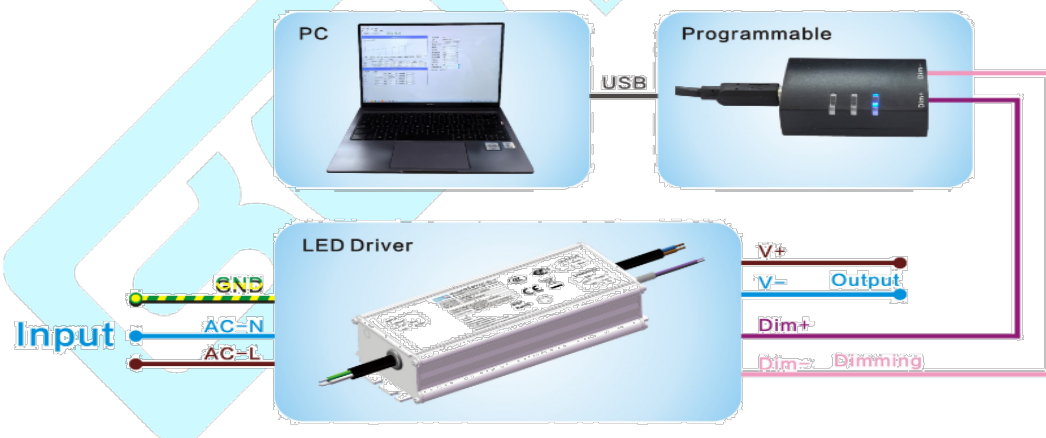
### 1.编程连线图 : Programmable Connection Diagram

①在编程过程中，LED 驱动器无需上电，即可实现全部编程功能；

The driver does not need to be powered on during the programming process

②对正在通电使用中的 LED 驱动器无需断电，即可实现全部编程功能；

The LED driver that is being powered on does not need to be powered off to achieve all programming



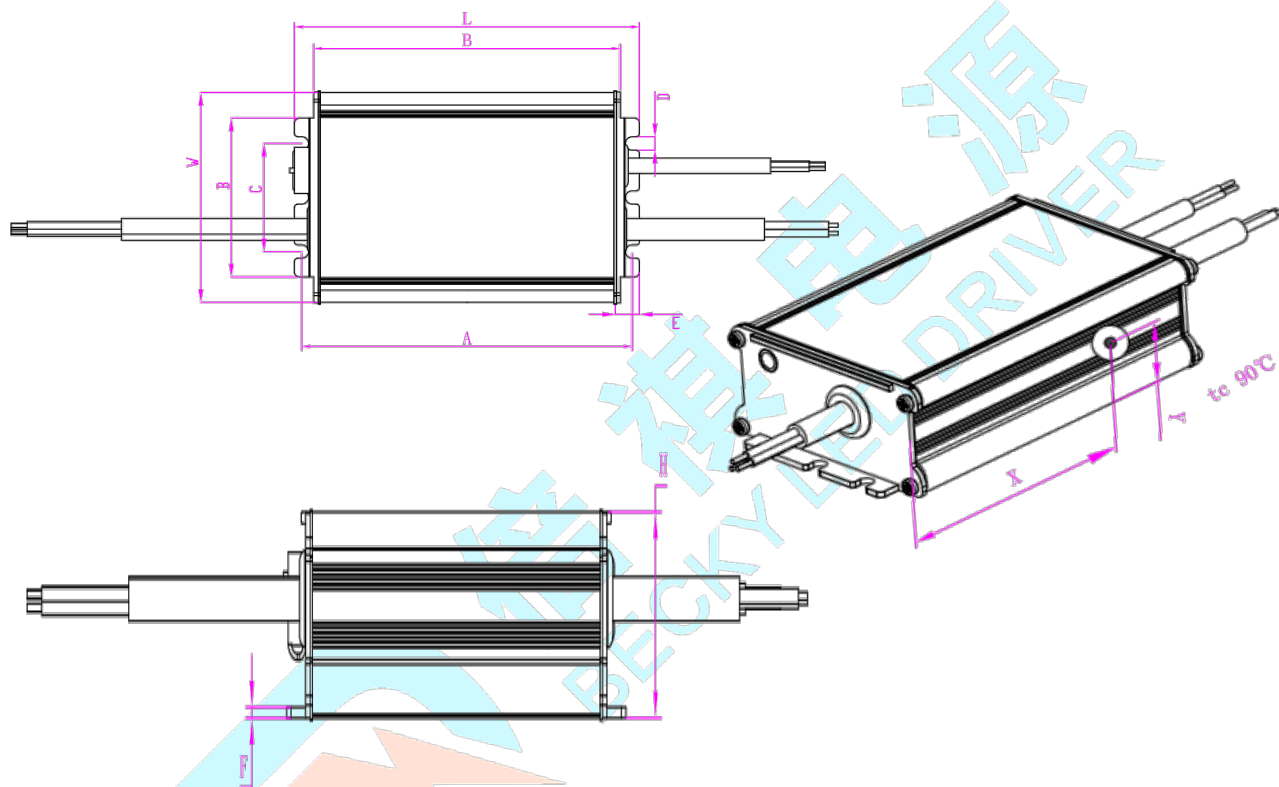
### 2.LED 驱动接线图 : LED Driver Connection Diagram



**结构尺寸**

**Mechanical Characteristics**

| 外壳材质<br>Material of case | 外壳尺寸 mm<br>Dimension for case |     |    |   |    |      |     |    |    | Tc 位置<br>Tc positio |    | 公差<br>Tolerance | 重量<br>weight | 工艺<br>Process |
|--------------------------|-------------------------------|-----|----|---|----|------|-----|----|----|---------------------|----|-----------------|--------------|---------------|
|                          | A                             | B   | C  | D | E  | F    | L   | W  | H  | X                   | Y  |                 |              |               |
| 铝壳<br>Aluminum           | 129                           | 122 | 34 | 4 | 10 | 1.65 | 138 | 66 | 32 | 70                  | 16 | ±2mm            | 570g<br>±50g | 灌胶<br>Glue    |



后缀：VP 机型线材

| 类别  | 颜色 线规 线号                                                             | 备注                                                  |
|-----|----------------------------------------------------------------------|-----------------------------------------------------|
| 输入线 | L : Brown ,N : Blue, GND : Green/Yellow H05RN-F 3*1.0mm <sup>2</sup> | ☞ 仅供客户选型的时候参考，详细的线材规格和线材长度以及线材的颜色以承认样品后的规格书第 2 页为准； |
| 输出线 | LED+ : Brown ,LED- : Blue, H05RN-F 2*1.0mm <sup>2</sup>              |                                                     |
| 调光线 | Dim+:Purple ,Dim-:Pink ,UL21996, 2*22AWG                             |                                                     |

后缀：V 机型线材

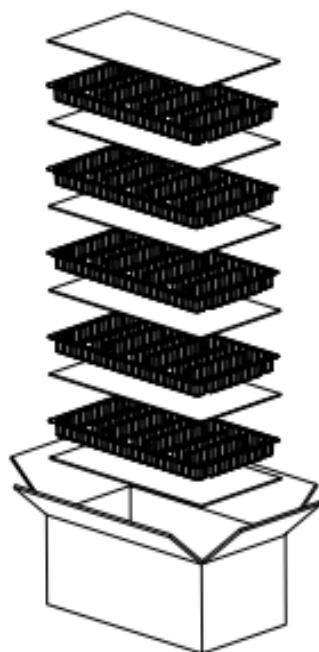
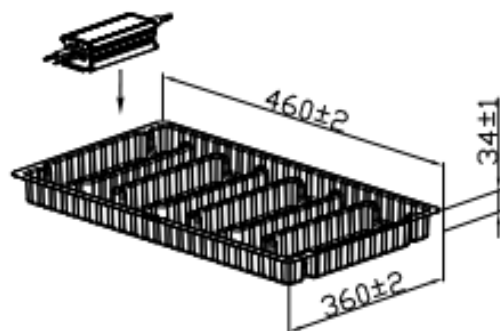
| 类别  | 颜色 线规 线号                                                     | 备注                                                  |
|-----|--------------------------------------------------------------|-----------------------------------------------------|
| 输入线 | L : Brown ,N : Blue, GND: Black H05RN-F 3*1.0mm <sup>2</sup> | ☞ 仅供客户选型的时候参考，详细的线材规格和线材长度以及线材的颜色以承认样品后的规格书第 2 页为准； |
|     | L : Brown ,N : Blue H05RN-F 2*1.0mm <sup>2</sup>             |                                                     |
| 输出线 | LED+ : Brown ,LED- : Blue, H05RN-F 2*1.0mm <sup>2</sup>      |                                                     |
| 调光线 | Dim+:Purple ,Dim-:Pink ,UL21996, 2*22AWG                     |                                                     |

产品符合欧盟RoHS2.0指令(2011/65/EU)和REACH(No.1907/2006)要求  
The Products comply with RoHS Directive (2011/65/EU) and REACH(No.1907/2006).

**包装资料**

**Packaging information**

**包装方法**  
**PACKING DRAWING**



产品平放在吸塑内，每层放1\*4PCS 共4层共16PCS  
The product is placed flat in the blister box, with  
1\*4PCS per layer, a total of 16PCS in 4layers

BQ-(30-100)G7  
BQ-(20-120)G6  
包装图纸



**非隔离电源领航者**

The Leader of Non-Isolated LED Driver

**户外LED电源专业制造商**

Professional Manufacturer of Outdoor LED Driver

Web: <http://www.becky-dg.com> <http://www.becky-usa.com>

地址：东莞市横沥镇金马路银涌工业区

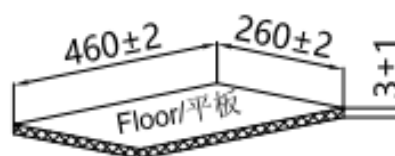
Address: Yinyong Industrial Zone Jinma Road  
Hengli Town Dongguan City



|               |       |     |
|---------------|-------|-----|
| Qty :         | _____ | PCS |
| G.W :         | _____ | Kgs |
| N.W :         | _____ | Kgs |
| SIZE :        | X X   | cm  |
| Made in china |       |     |

**侧唛/Side marking**

印字根据纸箱尺寸  
等比例缩放  
印刷面比例: 2: 3  
两正唛/两侧唛



**包装箱/Packing Box**

没有比例/Not in Scale  
仅供参考/For reference only  
单位/Unit: mm

| 物料名称<br>Material   | 物料编号<br>Material part list | 规格/尺寸<br>Size              | 用量/Dosage<br>PCS | 包装总数<br>Total amount |
|--------------------|----------------------------|----------------------------|------------------|----------------------|
| 平板<br>Floor        |                            | 460x 260mm(B535B)单坑瓦楞纸     | 6/箱 6/Box        | 20Pcs                |
| 吸塑<br>Blister Box  |                            | 460 x 260 x 43 x 0.35mm    | 5/箱 5/Box        |                      |
| 包装箱<br>Packing Box |                            | 475 x 272 x 205mm(A636A)双坑 | 1/箱 1/Box        |                      |

