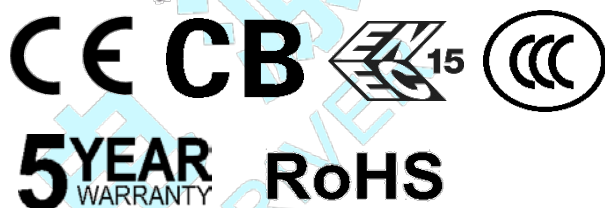


产品特性 Product Characteristics

- **效率高达:** 94%
Efficiency up to 94%
- **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/UVP
- **防水等级 IP Rating:** IP67
- **雷击浪涌 Surge:** CM:6KV /DM :10KV(For class I
- **质保 Warranty:** 5Years



产品概述

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 Model List	输出功率 Pout Max.	输入电压 Vin	输出电压 Vout	推荐工作电 压 Vout	输出电流 Iout	效率 Eff.	输出
						@230Vac	0-10V
BQ-250G7 -357-Z	250	100-277	190-357	238-357	700-1050	94%	SELV
“Z”后缀代码 Suffix	Class I	VP		Class II	V		
产品功能 Function	0-10V 调光和输出电流可编程 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 Rated Input Voltage Range	100	220/240	277	Vac	/
输入电压范围 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	/	/	1300	mA	@220Vac 满载
输入功率 Input Power	/	/	275	W	@220Vac 满载
浪涌电流 Inrush Current	/	/	100	A	@230Vac 100%负载冷机启动 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	190	/	357	Vdc		
额定输出电压 Rated Output Voltage	238	/	357	Vdc	/	
额定输出电流 Rate Iout (adjustable)	700	/	1050	mA	±5%	额定输出电压*输出电流≤额定功率 Rated Vout*Rate Iout≤Rated Pout
额定输出功率 Rated Pout	/	/	270	W	@100% Load at 198-305Vac	
空载电压 No-Load Voltage	/	/	400	Vdc	@100-277Vac	
效率 Efficiency@220V ac	92	94	/	%	@Full Load Output: 310v/0.8A	
效率 Efficiency@230V ac	92	94	/	%	@Full Load Output: 310v/0.8A	
效率 Efficiency@277V ac	93	94	/	%	@Full Load Output: 310v/0.8A	
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 Function	参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
0-10V SELV	外加最大电压 Applied maximum voltage	0	/	12	V	
	调光输出电流范围 Dimming output current range	0	/	100	%	调光器兼容性强 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 Dim to Off (Optional)	0-10V 关断电压 Turn-off voltage	0.7	0.8	0.9	V	调光线短路关灯 Dim short circuit- Off
	0-10V 开启电压 Cut-in voltage	0.9	1.0	1.1	V	
	1-10V	/	/	/		调光短路不灭灯 Dim short circuit-Not Off
Noted 1	当调光线不使用时，请将调光线做好绝缘措施 Please take isolation if the dimming cable is not in use					
Noted 2	当灯珠电压低于最大输出电压的 75% 时，调光关断可能存在余晖，需配合灯具确认。 Please confirm the afterglow when dimming off until the LED voltage is less than 75% of the Voutmax.					

辅助特性 Auxiliary Characteristics

功能 Function	参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
Aux12V 辅助源 (Optional) Class 2	输出电压 Output Voltage	11.5	12	14	V	
	输出电流 Output Current	/	200	/	mA	
	纹波电压 Ripple Voltage	/	/	/	mV	
	动态负载 Performance Load					
oted	◆ 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； 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 Function	参数 Parameters	最小值 Min.	典型值 Typical	最大值 Max.	单位 Unit	备注 Remark
过温保护 OTP (TC)	降电流模式 Current drop mode	90	95	105	℃	过温解除时，电流自动恢复。 Auto recovery
短路保护 SCP	长时间短路不损坏，打嗝模式 Not damaged with long time short circuit, hiccup mode					短路解除后可自动恢复 It Auto recovery
输出开路保护 OVP	输出电压会限制在规定范围 The output voltage will limit the scope					自动恢复模式 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 50000H/ @Tc80°C at full load	/	80	/	°C	参考寿命曲线图 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
☐	UL/CuI	美国/加拿大 USA/Canada	UL 8750	
☒	CCC	中国 China	GB19510.1;GB19510.14 GB17625.1;GB/T17743	
☒	CE-LVD ENEC	欧洲 European	EN61347-2-13; EN61347-1 EN IEC 62384	
☒	CB	CB 成员国 Member states	IEC61347-2-13 IEC61347-1	

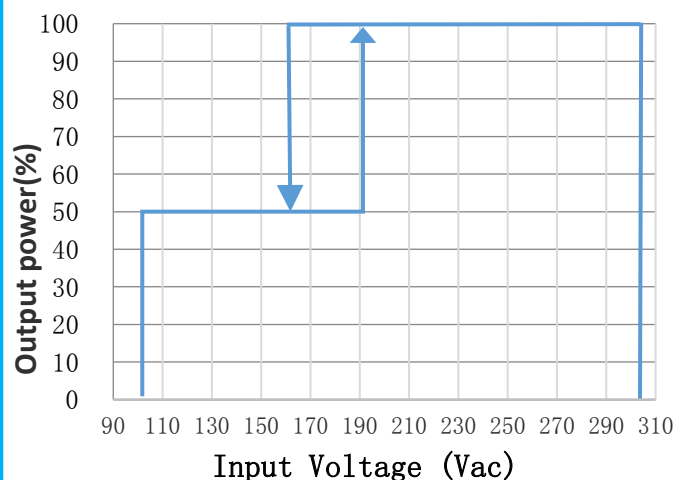
EMI/EMS	地区 Area	标准 Standard	Requirement
EMI	欧洲 European	EN55015:2013+A1:2015	Class B
Harmonic Current Emissions	欧洲 European	EN/IEC55015; EN61547 EN/IEC61000-3-2 EN61000-3-3	Class C
雷击浪涌 Surge	欧洲 European	IEC/EN61000-4-5	差模 DM:6KV 共模 CM:10KV (For class I)
振铃波 Ring wave	USA	IEC/EN 61000-4-12; ANSI/C82.77-5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

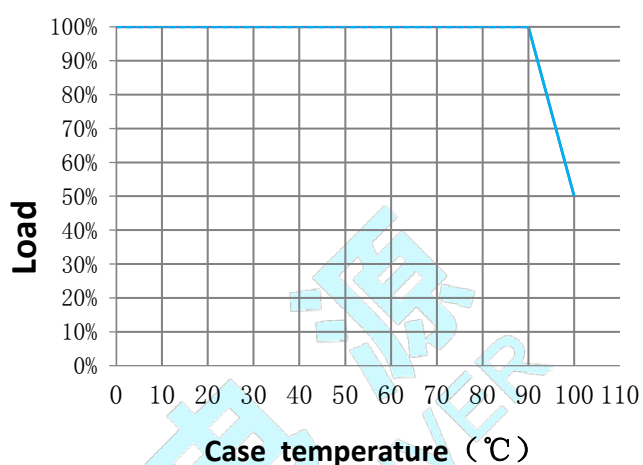
绝缘要求 Insulation Requirements	UL	ENEC	CCC	单位 Unit	备注 Remark
输入对外壳 Input-Case	/	1500	1875	Vac	基本绝缘 basic insulation
输入对输出	/	3000	3750	Vac	加强绝缘 Reinforced insulation
输入对调光 Input-Dim	/	3000	3750	Vac	加强绝缘 Reinforced insulation
输出对调光	/	1000	1000	Vac	基本绝缘 basic insulation
输出对外壳	/	1000	1000	Vac	基本绝缘 basic insulation
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

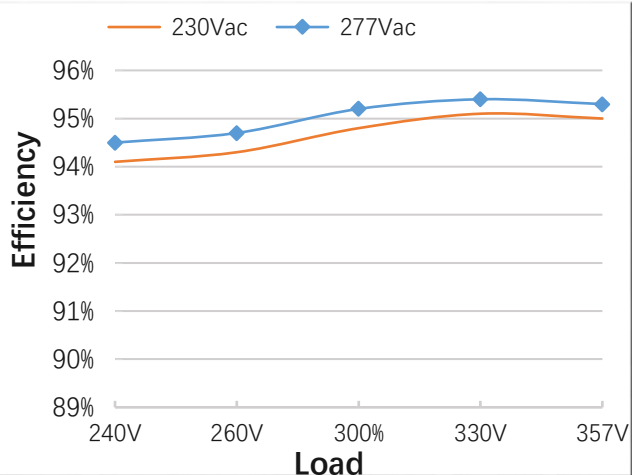
◇ **Derating curve**



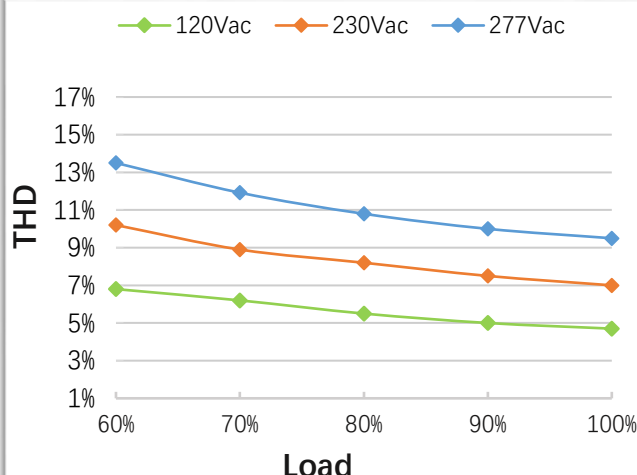
◇ **TC Vs. Load**



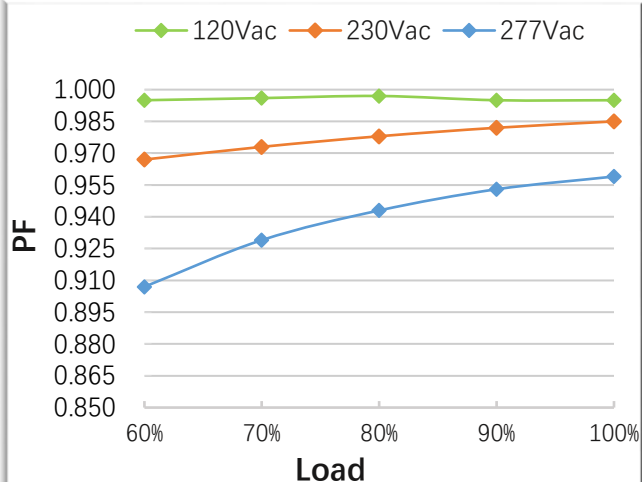
◇ **Efficiency vs. Load Curve (I₀=4.16A)**



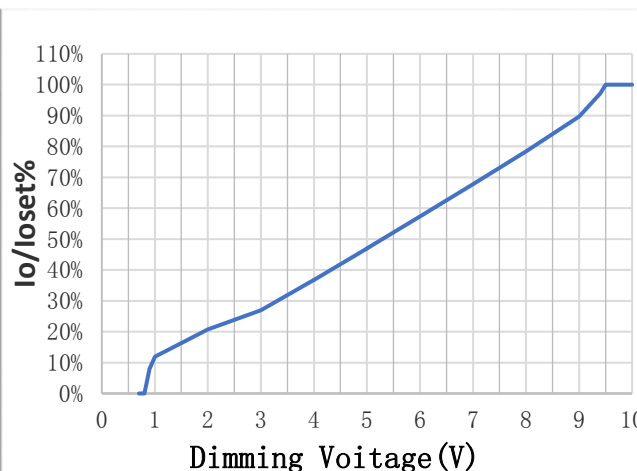
◇ **THD vs. Load Curve**



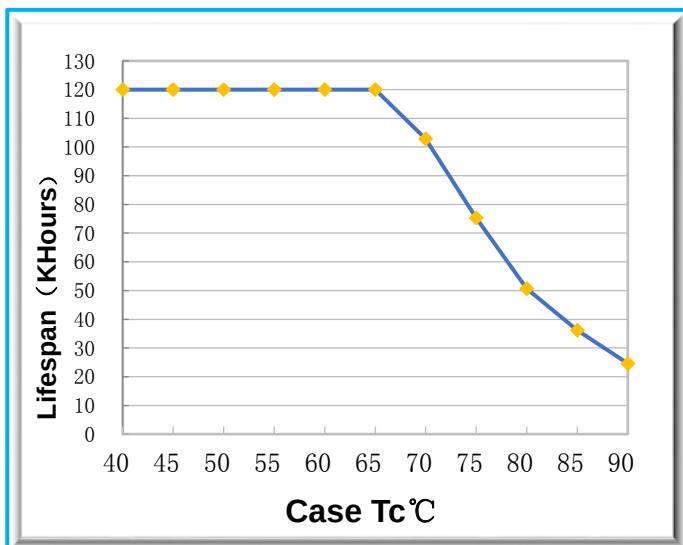
◇ **PF Vs. Pout**



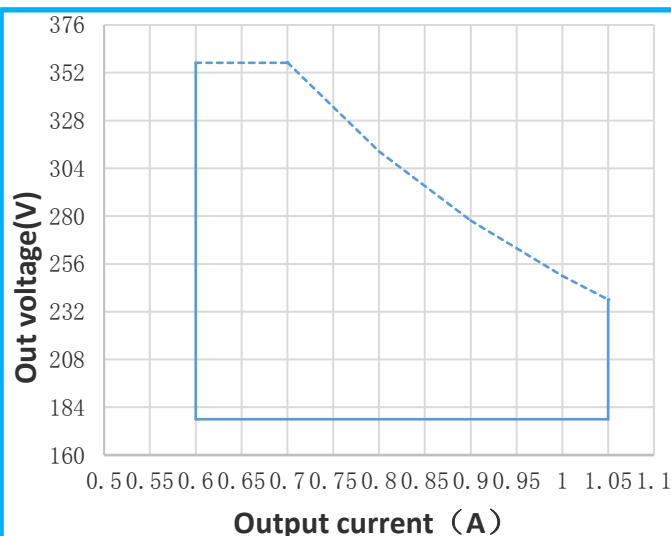
◇ **I_o/I_oset vs. Dimming Voltage**



◇ Life-time VS Case Tc°C



◇ Output voltage vs. output current



典型应用 Typical Applications

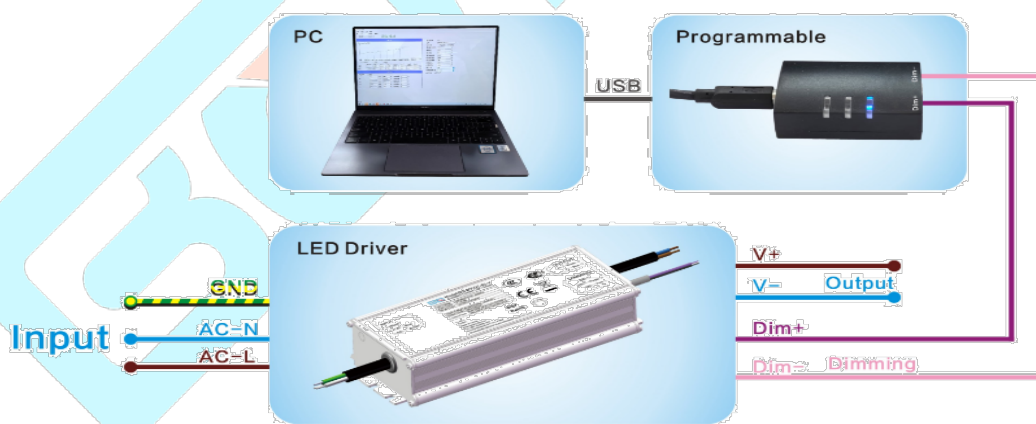
1.编程连线图 : Programmable Connection Diagram

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

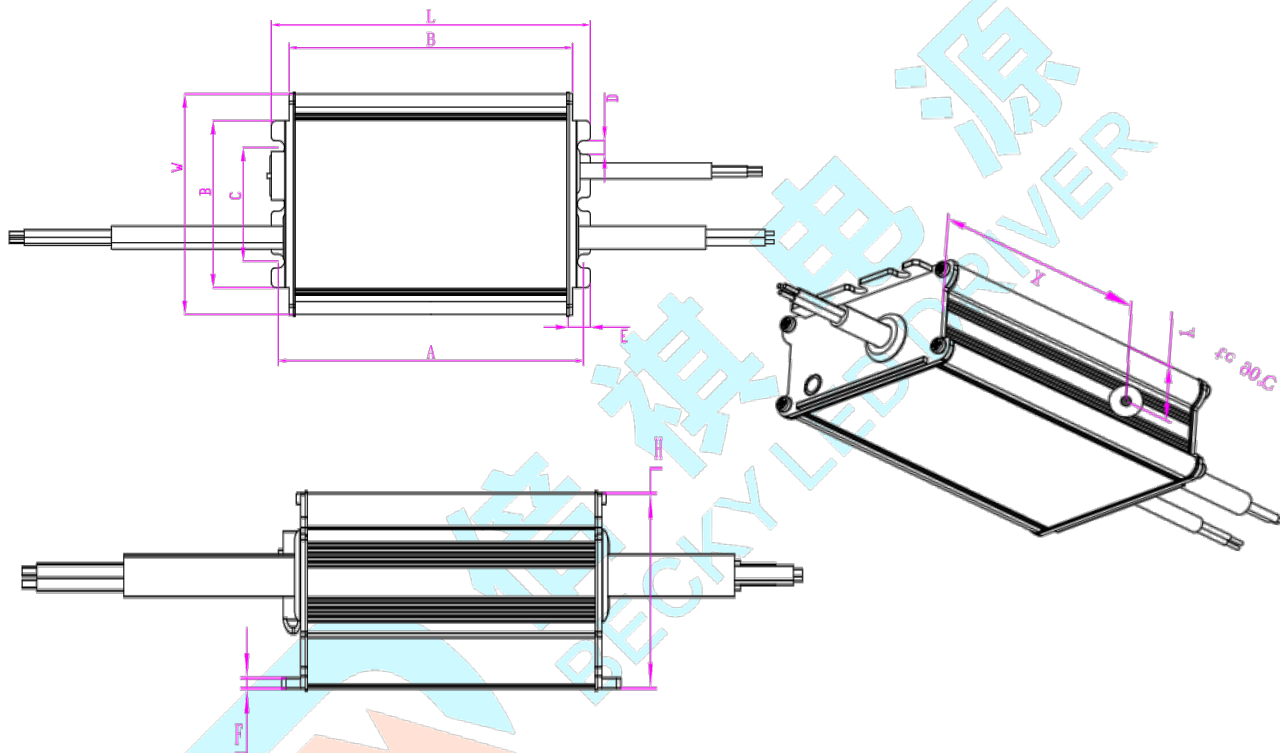


2.LED 驱动接线 LED Driver Connection Diagram



结构尺寸 Mechanical Characteristics

外壳材质 Material of case	外壳尺寸 mm Dimension for case									Tc 位置 Tc positio		公差 Tolerance	重量 weight	工艺 Process
	A	B	C	D	E	F	L	W	H	X	Y			
铝壳 Aluminum	164	151	34	4	10	1.65	172	68	37	125	10	±2mm	850g ±50g	灌胶 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 ²	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 ²	
调光线	Dim+:Purple ,Dim-:Pink ,UL21996, 2*22AWG	

后缀：V 机型线材

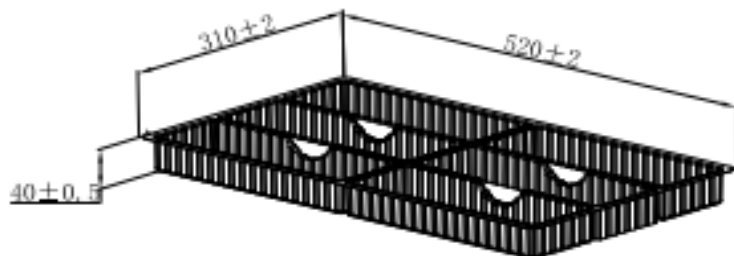
类别	颜色 线规 线号	备注
输入线	L : Brown ,N : Blue, GND: Black H05RN-F 3*1.0mm ²	仅供客户选型的时候参考，详细的线材规格和线材长度以及线材的颜色以承认样品后的规格书第 2 页为准；
	L : Brown ,N : Blue H05RN-F 2*1.0mm ²	
输出线	LED+ : Brown ,LED- : Blue, H05RN-F 2*1.0mm ²	
调光线	Dim+:Purple ,Dim-:Pink ,UL21996, 2*22AWG	

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).

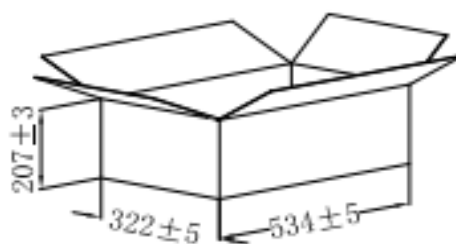
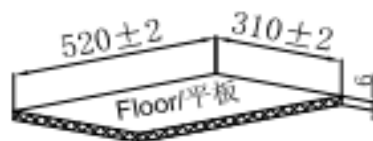
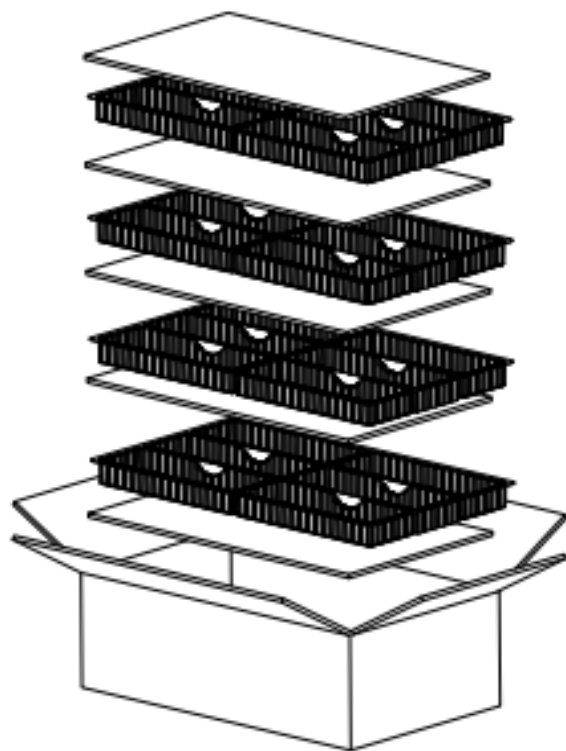
包装资料

Packaging information

包装方法
PACKING DRAWING



250B-3 包装图
80-200B/D-3包装图
0-320F6 线长500MM左右
BQ-150-250G7



包装箱/Packing Box

产品平放在吸塑内，每层放1*6PCS 共4层共24PCS
The product is placed flat in the blister box, with 1*6PCS per layer, a total of 24PCS in 4 layers

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

物料名称 Material	物料编号 Material part list	规格/尺寸 Size	用量/Dosage PCS	包装总数 Total amount
平板 Floor	JD520310A6320000	520x310mm (A636A) 双坑瓦楞纸	5/箱 5/Box	24Pcs
吸塑 Blister Box	UT5231040W020000	520x310x40x0.5mm	4/箱 4/Box	
包装箱 Packing Box	JC533221A6320000	534x322x207mm (A636A) 双坑	1/箱 1/Box	

[illegible]