承　认　书

SPECIFICATION FOR APPROVAL

客户代码 Customer Code:	W675
客户料号 Customer P/N:	
产品名称 Products Name:	恒流驱动电源 Constant Current Driver
认证型号 Certification Model	BQ-40LD-0800-50-AB
样品编号 Samples No.:	A2412004R1
倍祺料号 Becky P/N:	R40LD0500800AB05-N

输入\输出 特性 Input & Output characteristics			
额定输入电压 Rated Input Voltage	120 -277/ 347	Vac	
输出功率 Output power	40	W max	
输出电压 Output Voltage	30-50	Vdc	
客户灯板电压 Customer light board voltage	NA	V	
输出电流 Output Current	800±5%	mA	
频闪 flicker	Title24	双极无频闪 Bipolar flicker-free	单极去频闪 Unipolar flicker-free
	<30%	<5%	<5%
			☑

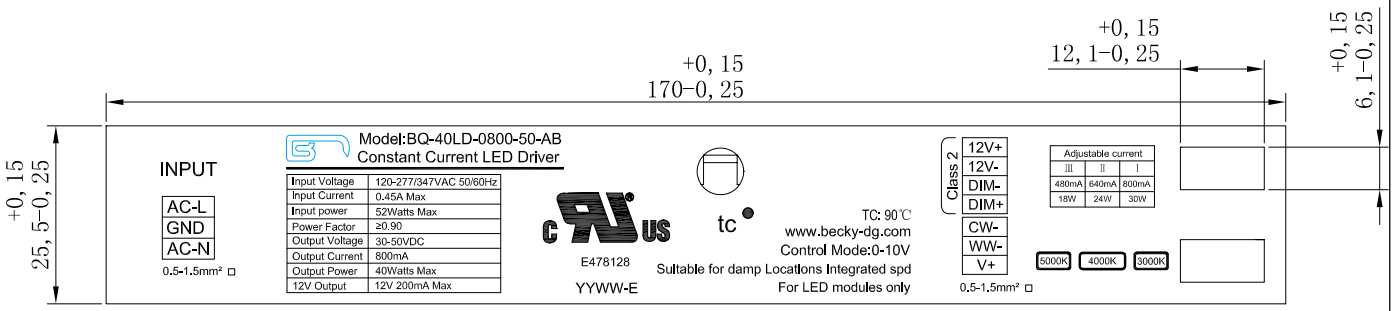
客户承认签署/Approval Of Customer Signature			
品质部 Quality Dept	研发部 R&D	工程部 ENG	零件承认章 Recognition seal

版本 Rev.	日期 Data	制作 Prepared By	审核 Checked By	核准 Approved By
R1	2025/2/13	谭浴淇	谢利进	张安辉

线材规格 Wire specifications

类别 Item	位置 location	颜色 Color	线规 Guage	线号 AWG	长度 Length	出线方式 Method connecting wire	备注 Remark
AC 输入 AC I/P	L	灰色 gray	N/A	N/A	N/A	3PIN 端子	
	GND						
	N						
DC 输出 Dc O/P	12V+	橙灰色 orange-grey	N/A	N/A	N/A	7PIN 端子	
	12V-						
	D-						
	D+						
	CW-						
	WW-						
	V+						

铭牌资料 Nameplate Information:



E: 去频闪 Flicker-Free

铭牌描述 Nameplate Description	材质 Material	表面处理 Surface treatment:	厚度 Thickness:	单位 Unit:	备注
	消银龙 Silver polyester	上光 Polishing	0.13/+0.02	mm	银底黑字 The bottom of the silver black

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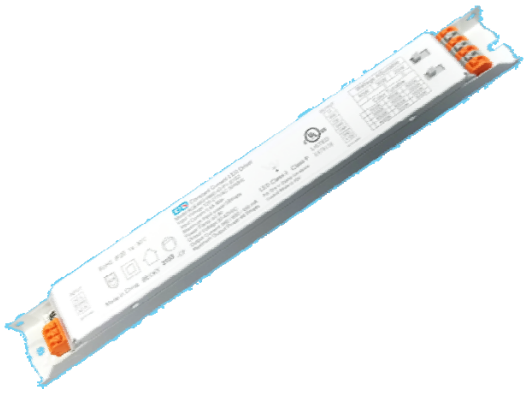
BQ-40LD-0800-50-AB Spec.

产品特性 Product Characteristics

- 效率高达 :87%
  Efficiency up to 87%
- 调光隔离：0/1-10V,调光可关断
  Isolated dimming:0/1-10V, Dim-to-Off
- 功能配置：调光/不调光/12V（内置调功率与调色温），满足客人不同产品需求可选
  Functional: Dim/Non-Dim/Aux 12V（Built-in power regulation Rate and color adjustment temperature）. meet different customer requirement is optional.
- 雷击浪涌 Surge：DM(L/N):1KV,CM (L/N-PE) :2KV
- 质保 Warranty：5Years



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产品概述 Product Description

BQ-40LD-X-Y-Z系列为长条形非隔离恒流驱动电源，此系列专为TROFFER、LINEAR STRIP、WRAP而设计开发，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.

BQ-40LD-X-Y-Z series products are linear non-isolated constant current led driver, which are especially developed for Troffer,Linesr Strip, Wrap. With beautiful apperance design and multi-function configuration, it can greatly satisfy customers' demands. Moreover, the ultra-high efficiency and good heat dissipation greatly improve the reliability and life-span of the products. At the same time, all-round protection function ensures trouble-free operation of the product

型号清单 Model List

电源型号 Model List		输出功率 Pout	拔码调功率 Pout W	输入电压 Vin	输出电压 Vout	输出电流 Iout	效率 Eff. 347Vac	0-10V Aux12V
BQ-40LD-0800-50-Z		40	30/24/18	120-277/347	30-50	800	87%	Class 2
产品功能 Function "Z"	N	V	A	AB	/	/		
				☑				

Z= N：不调光，V：0-10V 调光，A：0-10V 调光+12V,AB:0-10V 调光+12V+调功率+调色温
Z= N：No Dimming，V：0-10V Dimming，A：0-10V Dimming and Aux12V，AB:0-10V dimming +12V+ power dimming + color temperature

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	120	/	347	Vac	/
输入电压范围 Input voltage range	108	/	380	Vac	/
输入频率 Input frequency	47	50/60	63	Hz	/
输入电流 Input current	/	/	450	mA	@120Vac
浪涌电流 Inrush Current	/	/	80	A	@347Vac 100%负载冷机启动 100%load at 347Vac input cold start
功率因素 PF	0.9	/	/	N/A	@120-347Vac 80%full load
谐波 THD	/	/	20	%	@120-347Vac 80%full load
频闪 Flicker	/	/	5	%	@120-347Vac
启动时间 Turn-on Delay Time	/	/	750	mS	@120Vac
空载功耗 No Load Power	/	/	5	W	@120-347Vac
短路功耗 Short circuit power	/	/	/	W	/

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
额定输出电压 Rated Output Voltage	30	/	50	Vdc	/
额定输出电流Ⅰ Rate Iout	/	800	/	mA	±5%
额定输出电流Ⅱ Rate Iout	/	640	/	mA	±6%
额定输出电流Ⅲ Rate Iout	/	480	/	mA	±7%
额定输出功率 Rated Pout	/	/	40	W	@100% Load at120-347Vac
空载电压 No-Load Voltage	/	/	68	Vdc	@120-347Vac
效率 Efficiency@120V ac	88	89	/	%	@Full Load Output: 50v/0.8A
效率 Efficiency@230V ac	87	88	/	%	@Full Load Output: 50v/0.8A
效率 Efficiency@347V ac	86.5	87.5	/	%	@Full Load Output: 50v/0.8A
线性调整率 Line Regulation	-5%	/	+5%	%	@ 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 Class 2	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	0.6	0.8	1.0	V	调光线短路关灯 Dim short circuit- Off
		开启电压 cut-in voltage	0.7	0.95	1.2	V	
	1-10V		/	/	/		调光短路不灭灯 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 Please take good insulation measures if the dimming cable is not in use						

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	12	13	V	
		输出电流 Output Current	0	/	200	mA	
		纹波电压 Ripple Voltage	/	/	500	mV	
		动态负载 Dynamic Load	◆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.				
	三档调功率 Adj.Power		480	640	800	mA	L/M/H 三档输出电流（误差范围:7%-6%-5%）
	三档调色温 3CCT		5000	4000	3000	K	CW:冷白;混色 CW/WW;WW 暖白

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
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 Automatic recovery after short circuit release
输出开路保护 OVP	输出电压会限制在规定范围 Output voltage will be limited to the specified range.					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	℃	Tc
储存温度/湿度 Storage Temp.	-40	/	90	℃	RH:5%~95%
Tc 温度/Tc Temp.	/	/	90	℃	
寿命/Life Time 50000H/ @Tc80℃ at full load	/	80	/	℃	参考寿命曲线图 Refer to the life curves.
MTBF500000 H/@ 25℃	/	25	/	℃	80%负载MIL-HDBK-217F

安全与电磁兼容 Safety and EMI Standards

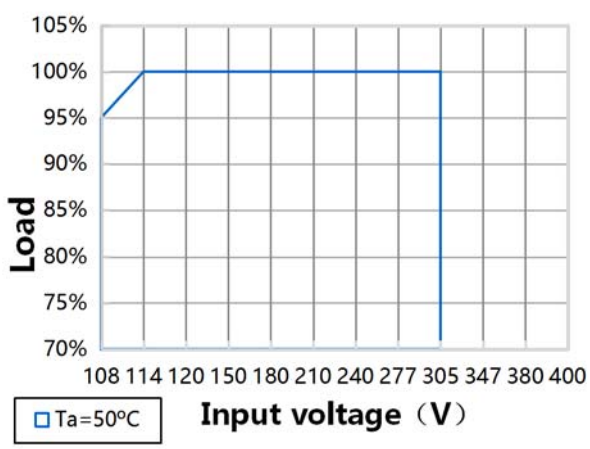
认证状况 Status	认证 Certification	国家地区 Country	标准 Safety Standard	备注 Remark
☑	**UL/CuI**	美国/加拿大 USA/Canada	UL 8750	
	CCC	中国 China	GB19510.1;GB19510.14 GB17625.1;GB/T17743	
	CE-LVD **ENEC**	欧洲 European	EN61347-2-13; EN61347-1 EN62384	
	CB	CB 成员国 Member states	IEC61347-2-13 IEC61347-1	
	SAA	Australia	AS/NZS61347.1+AS/NZS61347.2.13	

EMI/EMS	地区 Area	标准 Standard	Requirement
FCC	USA	Part 15,ANSI C63.4	Class B
EMC	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:1KV 共模 CM:2KV
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.			

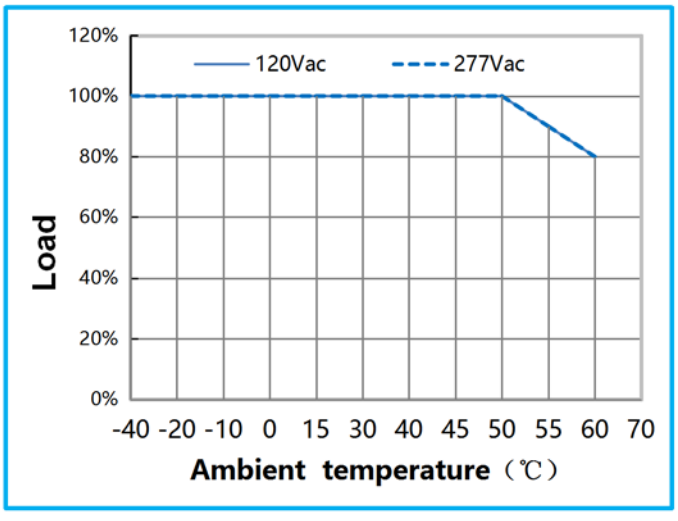
绝缘要求 InsulationRequirements	UL	TUV	CCC	单位 Unit	备注 Remark
输入对外壳 Input-Case	2U+1000	/	/	**Vac**	
输入对调光 Input-Dim	2U+1000	/	/	**Vac**	Reinforced insulation 2U+1000V
调光对外壳 Dim-Case	500	/	/	**Vac**	Basic insulation
绝缘阻抗 Insulation Resistance	> 10	/	/	**MΩ**	Input-Dim@500Vdc/25℃
接地电阻 Ground Resistance	< 0.1	/	/	**Ω**	地线对外壳,PE-Case,25A/1min
漏电流 Leakage Current	≤0.75	/	/	**mA**	@347Vac

特 性 曲 线 Performance Curves

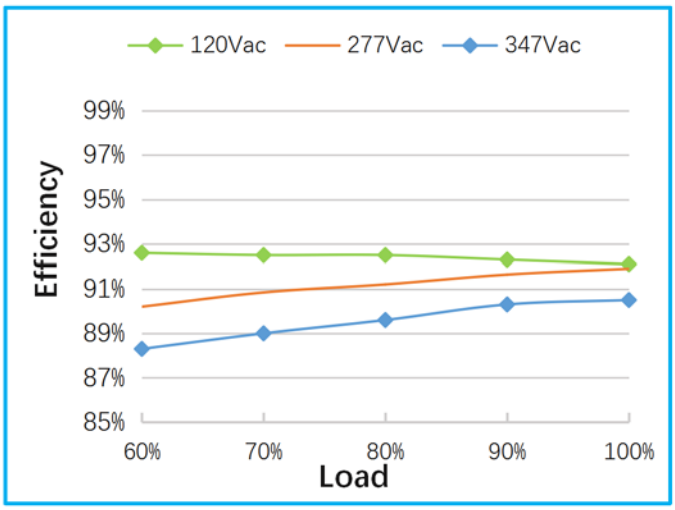
✧ **Derating curve**



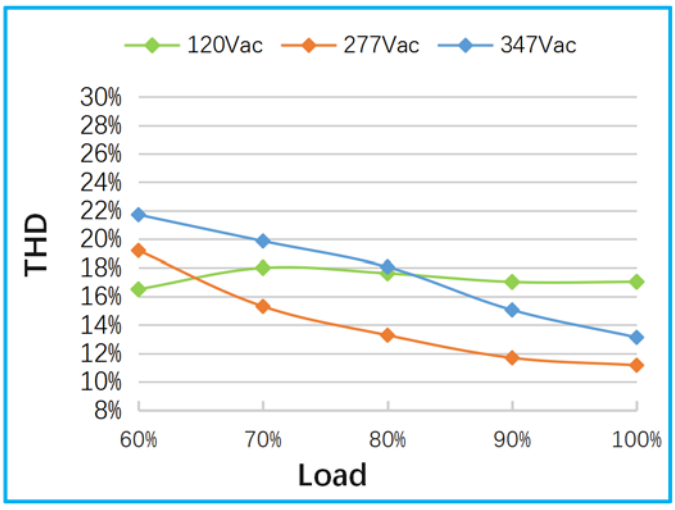
✧ **Ta Vs. Load**



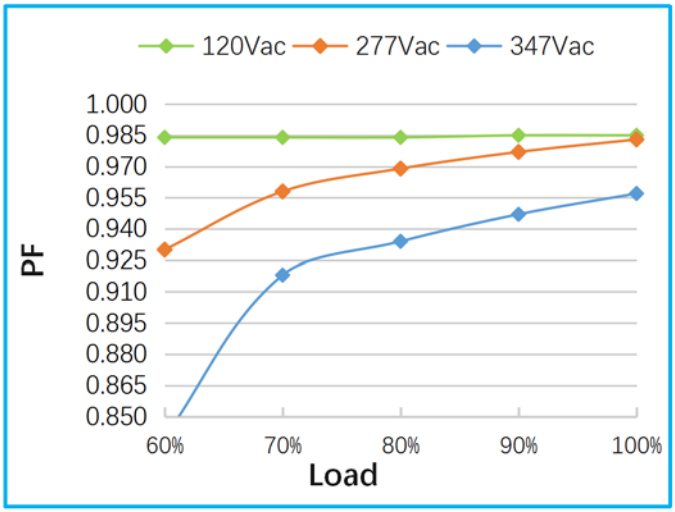
✧ Efficiency vs. Load Curve



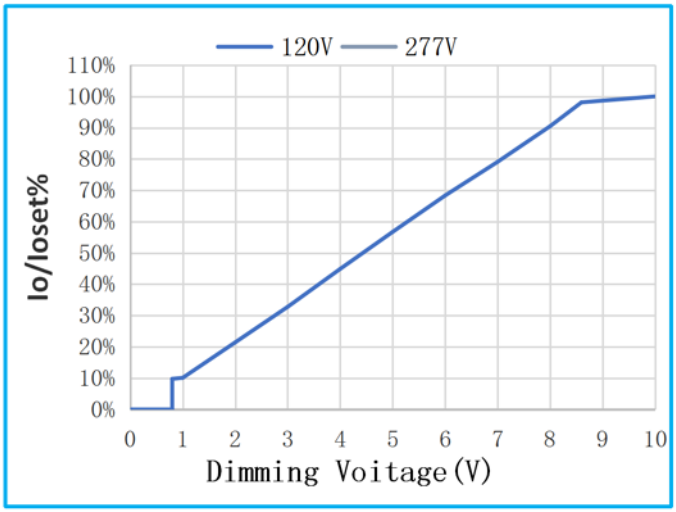
✧ THD vs. Load Curve



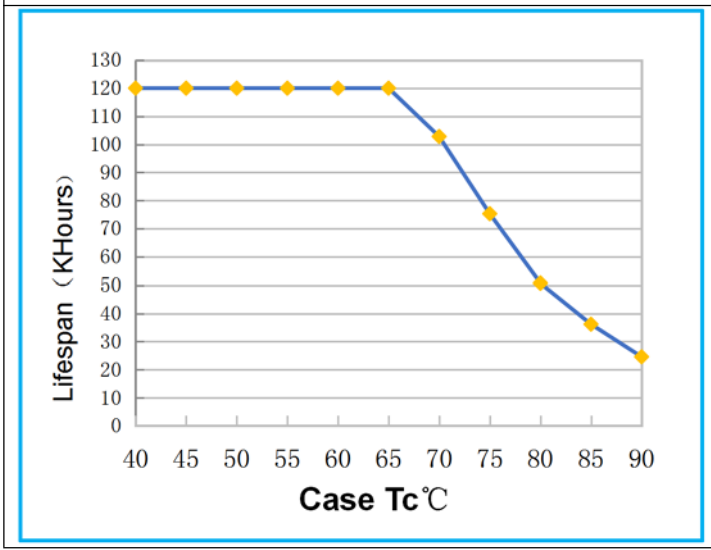
✧ PF Vs.Pout



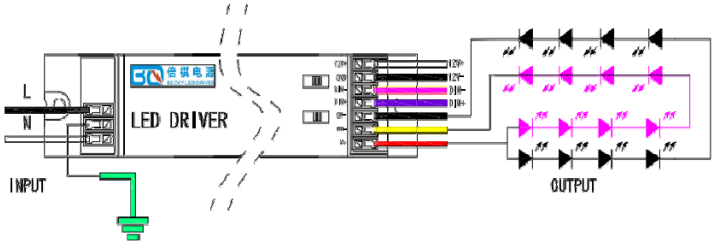
✧ Dimming Curve



✧ Life-time VS Case Tc℃

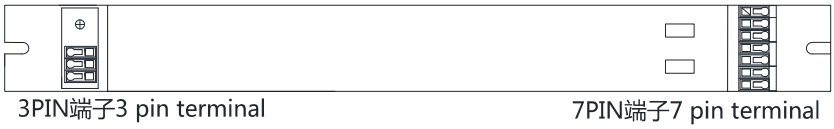


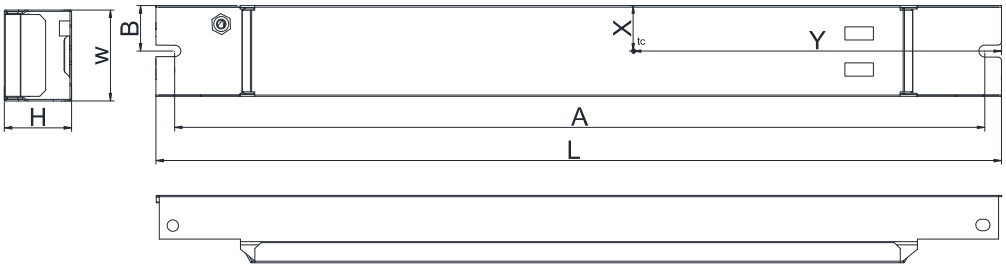
典 型 应 用 Typical Applications



结 构 尺 寸 MechanicalCharacteristics

外壳材质 Material of case	外壳尺寸 mm Dimension for case					Tc 位置 Tc position		公差 Tolerance	工艺 technology	公差 Tolerance
	A	B	L	W	H	X	Y			
铁壳 Iron	224	14.75	235	29.5	23	16.5	115	±2mm	点白胶 White glue	±2g





类别 Item		颜色 Color	线规 AWG	线号 AWG	出线方式	备注
输入线	ACL		3PIN 端子 3 pin terminal			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；Only for customers to select the reference, the detailed wire specifications and wire length and the color of the wire to acknowledge the sample after the specification page 2 shall be subject to;
	ACN					
	GND					
输出线	LED+		7PIN 端子 7 pin terminal			
	LED-					
调光线 Aux 12v	Dim+					
	Dim-					
	12v					

1) 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).

2) **非隔离电源灯板设计注意事项：Notes for design of non-isolated driver light board:**

2.1 灯珠排列方式建议先并后串；
The arrangement of lamp beads is recommended to design parallel first then series;

2.2 铝基板耐压满足>3KV以上；
Withstand voltage of dielectric layers between aluminum PCB and LED>3KV.

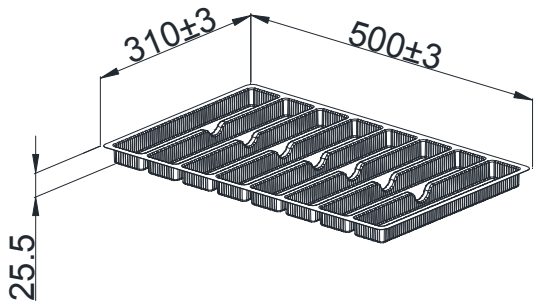
2.3 所有走线到板边铜箔建议距离>4.7mm以上；
Safety space between aluminum base and LED coppers coil than 4.7mm

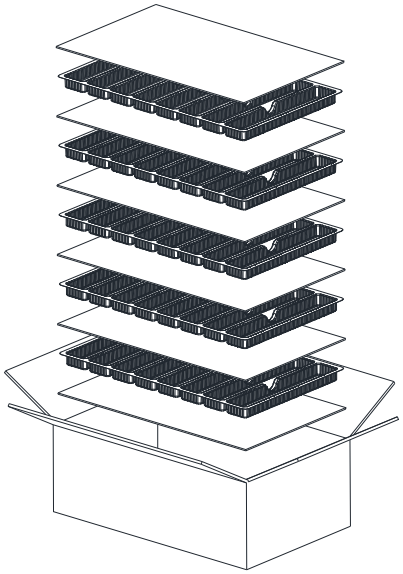
2.4 铝基板上LED+与LED-爬电距离 > 2.5mm；
The creepage distance than 2.5mm between LED+ and LED- on the aluminum substrate

2.5 铝基板上不覆多余的散热铜箔；
Aluminum substrate is not covered with excess heat dissipation copper foil

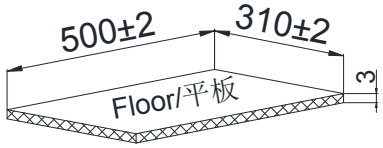
包 装 资 料 Packaging information

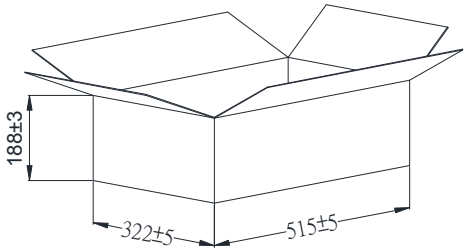
PACKING DRAWING
包装方法





2PCS产品底壳与底壳靠在一起侧放于吸塑内，每层放2*8PCS.共5层





Packing Box/包装箱

没有比例/Not in Scale
仅供参考/For reference only
单位/Unit: mm
未标注公差参考±2mm

Material 物料名称	Material part list 物料编号	Size 规格/尺寸	用量(PCS)	Total amount: 包装总数
Floor 平 板	JD500310B3320000	500 x 310mm(B33B) 单坑瓦楞纸	6/箱	
吸塑	UT5031026W020000	500x310x25.5x 0.35mm	5/箱	80Pcs
Packing Box 包 装 箱	JC523219K5120000	515x322x188mm(K515K)双坑	1/箱	

变更记录Change History				
版本 Version	变更日期 Change Date	变更描述 Description of Change	变更原因 Reason	核准 Approva
R0	2024/12/10	首次发行 First issue	NA	谢利进 LiJinXie
R1	2025/2/13	1. 第2页铭牌取消“Made in china”字样 2. 第10页改为空白纸箱 1. The name plate on page 2 removes the words "Made in china" 2. Change page 10 to a blank carton	客户要求 Clients requirement	谢利进 LiJinXie