PRODUCT SPECIFICATION
产品规格书

PRODUCT /产品名称 ： LED LIPS / LED 二合一电源

P/N /型号 ： SDL-129B-A

CLIENT /客户 ：

CLIENT P/N
客户物料编码 ：

DATE /日期 ： 2022-11-15

APPROVED BY/客户确认栏	NOTE / 备注
CUSTOMER SIGNATURE (S) 客户签章	RoHS Available 环保品

感谢您的信任与支持！

Thank you for your trust and support!

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CONTENT / 目录

Revision Record /变更记录表

No. 序号	Date 变更日期	Version 版本	Reason of revision 变更原因	Content of revision 变更内容	Prepared by 变更人	Approved by 确认人

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1. General Description / 概述

It is LED LIPS and used for IT product.

本产品为 LED 二合一电源，适用于资讯类产品。

2. Features / 特性

High Efficiency, Low Standby Power,GDP / 高效率,低待机功耗,国际能耗标准

Wideworld Voltage Input / 全球电压输入

Input overvoltage Protection / 输入过压保护

Input current overload protected (fuse protect)./ 输入过流保护（保险丝保护）

Short protection / 短路保护功能

Output Over Load protection / 输出过载保护功能

overtemperature Protection / 过温保护

3. Suitable Load / 适用负载

12V+背光 **IT** Products; Used fo LED display panel.

12V+背光 的资讯类产品； 应用于 LED 显示屏.

4. Environmental Condition / 适用环境条件

Operating Temperature / 工作温度 : -10^{0}C～ 40^{0}C

Storage Temperature / 贮存温度 : -20^{0}C～ 80^{0}C

Operating Humidity / 工作湿度 : 0% ～ 90%RH

Storage Humidity / 贮存湿度 : 0% ～ 95%RH

Operation Altitude/工作海拔 : to 10,000FT.

Storage Altitude/贮存海拔 : to 20,000FT.

Cooling Method/冷却方式 : Ventilation cooling/自然冷却

5. Input Electrical Characteristics / 输入电气参数

Station 位号	No. 序号	Item 项目	Symbol 符号	Min 最小值	Type 规格值	Max 最大值	Unit 单位
CN1	1	Input AC voltage / 输入交流电压	Vin	90	----	264	V_{AC}
	2	Normal voltage range/标称输入	Vin	110-240V			V_{AC}
	3	Input AC current / 输入交流电流	Iin	<1.2			A
	4	Input current / 输入频率	Hin	50-60			HZ
	5	Input power / 输入功率	W	----	65	----	W
	6	Power Factor / 功率因数	cosφ	----	----	0.7	cosφ
	7	Operating Efficiency / 工作效率	η	-----	80	-----	%

6. Output Electrical Characteristics / 输出电气参数

6.1Power Supply Output Electrical Characteristics / 电源输出电气参数

Output Voltage 输出电压	Regulation 调整率	Min current 最小电流	Rated current 额定电流	Peak current 峰值电流
+12V	10.8--13.2V	0.1A	2A	3A*

Note:* pulse width within 100ms 脉宽小于 100 毫秒

6.2Power DC Output Ripple & Noise.(输出波纹和噪声)

Output Voltage	Ripple & Noise(Max)
+12V	200mVp-p@25℃；300mVp-p@-10℃

Remark / 备注:

1、Measurements shall be made with an oscilloscope with 20MHz bandwidth.
示波器须设置在 20 兆赫兹带宽

2、Outputs shall be bypassed at the connector with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor to simulate system loading.
离电源板大于 30CM 处输出电源端并联 0.1uF 的陶瓷电容和 10uF 的电解电容来模拟负载测试

6.3 LED Backlight Converter Output Electrical Characteristics / LED 背光转换器输出电气参数

Item 项目	Symbol 符号	Test Conditions 测试条件	Min 最小值	Type 规格值	Max 最大值	Unit 单位
Output Current 输出电流	支持：通过更改 CN7 跳帽的位置来改变背光输出额定电流大小，额定电流分如下几阶:(±7%) 240mA, 300mA, 360mA, 420mA, 480mA, 540mA, 600mA,					mA
Output Voltage 输出电压	Vout	Vin(DC)=12V;	38	----	60	V
Efficiency 效率	η	Vin(DC)=12V;	---	90	---	%

Annotate：The output power of LED Backlight Converter be contained in power supply output,The whole products total power is 48 Watts.

注：LED 背光转换器输出功率包含在电源输出功率内，整机输出总功率为 48 W。

7.Accreditation Characteristics / 信赖性参数

Station 位号	Item 项目	Conditions 测试条件	Type 规格值	Mark 备注
1	可靠性(RELIABILITY)	MTBF	>30 kHours at 25 ℃	
2	保持时间(Hold-Up Time)	220V	≥10 mS	
3	绝缘阻抗(MΩ)	室温	DC500V 50MΩmin	
4	绝缘耐压(KV)	/	1800Vac 50Hz 1minute ≤5mA	
5	振动试验(VIBRATION)	Normal	10-55Hz, 49.0m/s²(5G), 3minutes period, 60minutes each along X, Y and Z axis	
6	冲击试验(IMPACT)	Normal	196.1m/s2(20G),11ms,once each X,Y,Z axis	
7	电磁干扰(EMI)	/	CISPRPub12	
8	电磁抗扰(EMS)	/	CISPRPub12	
9	抗静电(ESD)	/	8KV, CRITERIA B	
10	安全标准(SAFETY)	/	CCC.CE.UL.VDE.BSI.CSA	

8 输出补充说明(Output Added Characteristics)

8.1 输出动态响应（Output Transient Response）

Voltage Tolerance Limit	Slew Rate	Load Change
+12.0V±10%	0.2A/uS	Min. to 50% load and 50% to Max. load
Vo±10%	0.2A/uS	Min. load to Max. load

Notes/说明**:** Transient response measurements shall be made with a load changing repetition rate of 50Hz to 10kHz.

在负载变化率为 50Hz to 10kHz 范转内测量动态响应.

8.2 输出保持时间（DC Output Hold-Up Time）

Output Voltage	110Vac	220Vac
+12V	≥10 mS	≥10 mS

Notes/说明**:** All of dc output at full load.

满负载状态下测试

8.3 输出超调（DC Output Overshoot At Turn On & Turn Off）

Output(V)	Over shoot voltage(V)	
	Turn on	Turn off
+12V	10%	10%

Notes/说明**:** All of dc output current from Min. to Max..

电流从最小到最大状态下测试.

8.4 输出上升时间（DC output voltage rise time）

Output Voltage	110Vac&Full Load	230Vac&Full Load
+12V	≤100 mS	≤100mS

Notes/说明**:** The output voltages shall rise from10% to 90% of their output voltage.

输出电压从 10 %升至 90 %.

9.Efficiency / 效率

80% minimum at 220V AC input voltage and full load.

在 220VAC 输入电压、满载条件下，电源的效率不小于 80%。

10.Protection / 保护功能

10.1 Input overcurrent Protection / 输入过流保护

The power supply has a 3.15A 250V Current fuse to protect itself.

电源使用一个 3.15 安 250 伏的保险丝自动保护。

10.2 Output Short Circuit Protection / 输出短路保护

The unit shall be shutdown when the output short circuit. Removal of output short conditions, the unit shall automatic recovery of the output voltage.

本产品具有输出短路保护功能，当输出端短路时，整机停止工作，当短路条件消除后，重新启动本机，自动恢复到正常输出。

10.3 Over Load Protection / 输出过载保护

The unit shall be shutdown when the output Over Load. Removal of output Over Load conditions, the unit shall automatic recovery of the output voltage.

本产品具有输出过载保护功能，当输出端过载时，整机停止工作，当过载条件消除后，重新启动本机，自动恢复到正常输出。

11. Temperature Rise Test / 温升测试

The power supply' surface temperature is tested after it is fully loaded for 2 hours at 30℃.

在环境温度 30℃下，满载工作 2 小时后，电源表面的温度测试.

Annotate: Temperature rise means experiment temperature minus ambient temperature 20℃.

注：所测温度值减去环境温度 20℃为电源的温升

12. Normal Condition Testing / 常规工作测试

Damage to the device must not occur such as fire, smoke, break, and molten metal in equipment.

正常工作条件下，不可出现起火、高温、击穿、出现熔出金属等现象.

13.Reliability and quality control / 可靠性及品质控制

BURN-IN/ 烘烤 The power supply shall under go aminimun of 8 hours Burn-In test under full load at 40℃±5℃ and 220Vac input voltage

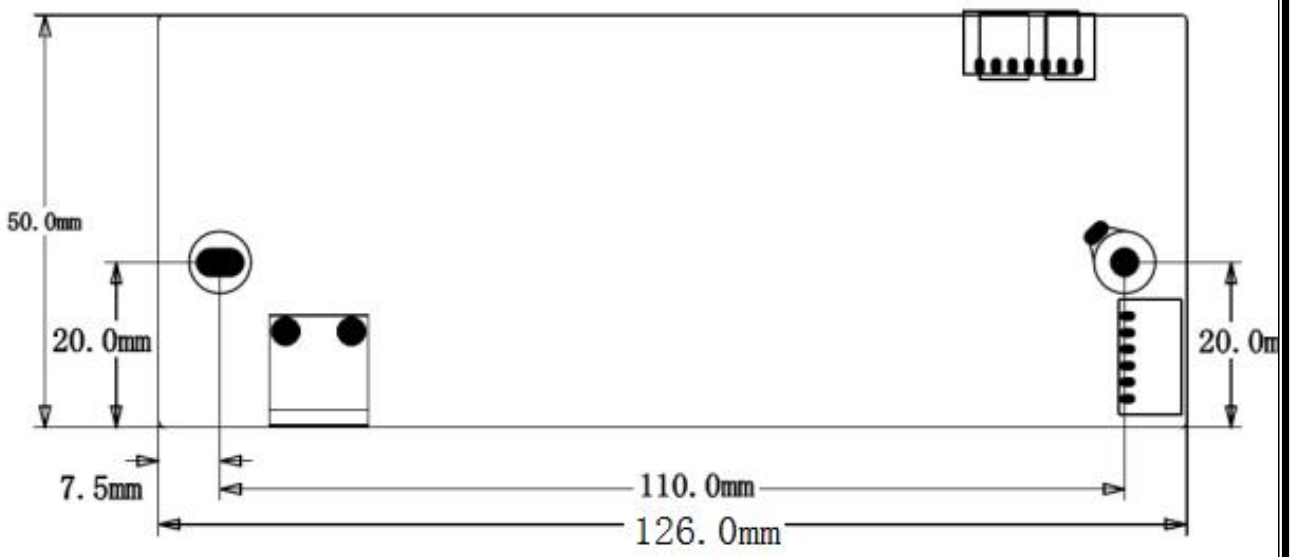
电源应在 40℃±5℃ and 220Vac 输入和满载条件下烘烤 8 小时。

14. Mechanical Dimension / 结构示意图

Dimension of CASE/壳具尺寸

Unit/单位: mm

Tolerance/公差: ±0.5mm **长:126.0 宽:50.0 高:15.0 MAX(板上高度）**



15. Pin Connection（连接器脚位定义）

Output connector /输出插座: CN3 –Connection, pitch:2.0mm, 2PIN HEADER;			
Pin No./引脚	**Symbol/符号**	**Description/描述**	**Parameter/参数**
1	**LED+**	LED Power Supply	
2	**LED-**	LED Current Sense for String	

Output connector /输出插座: CN4 –Connection, pitch:2.0mm, 4PIN HEADER;			
Pin No./引脚	**Symbol/符号**	**Description/描述**	**Parameter/参数**
1.2	**LED+**	LED Power Supply	
3.4	**LED-**	LED Current Sense for String	

Output connector /输出插座: CN2–Connection, pitch:2.0mm, 6PIN HEADER;			
Pin No./引脚	**Symbol/符号**	**Description/描述**	**Parameter/参数**
1,2	**+12V**	Output 12VDC/输出 12VDC	10.8V----13.2V
3	**EN**	On/Off Voltage/ 开关机控制	2-5V On / 0-1V Off
4	**ADJ**	Bright Voltage/ 亮度控制	0-5V 0V 最亮
5,6	**Gnd**	Ground/接地	0V

Input connector / CN1–Connection, pitch:3.96mm, 3PIN HEADER;			
Pin No./引脚	**Symbol/符号**	**Description/描述**	**Parameter/参数**
1	**L**	Supply voltage/供电	110-240VAC
2		空	空
3	**N**	Supply voltage/供电	110-240VAC

16.Design Reference Standards / 设计参照标准

16.1 EMI Standards / EMI 参照标准

Conductive & Radiation limits: CISPR 22 Class B

传导,幅射的设计标准依据：CISPR 22 Class B

16.2 EMS Standards / EMS 参照标准

e) Electrostatic Discharge Immunity Test: IEC-61000-4-2，Criteria B

防静电测试标准：IEC-61000-4-2，Criteria B

f) EFT/Burst Immunity Test: IEC-61000-4-4，Lever 3.

快速脉冲群测试标准：IEC-61000-4-4, Lever 3.

g) Surge Immunity Test: IEC-61000-4-5 , Lever 3.

防雷击测试标准：IEC-61000-4-5, Lever 3.

h) Voltage Dips, Short Interruptions and Voltage Variations Immunity Test. IEC-61000-4-11，Criteria B

电压跌落、短时中断和电压变化测试标准：IEC-61000-4-11，Criteria B

17.3 Safety Compliance / 安规参照标准

1）UL60950

2）EN60950

3）GB4943.1-2011

18. Weight / 重量

The weight of the power supply shall be about 130g.

电源的重量大约为 130g.

19.Notice/注意事项

A. For continued protection against risk of electrical and fire. Please replace the same type and rating of fuse only.

为防止产生电气危险及着火等危险，如需要替换保险丝，请务必使用相同类型及规格的保险丝进行替换。

B. Products are not intended for use in systems in which failures of product could result in personal injury.

请勿将本产品使用在非适用范围的产品上，以免造成意外伤害。

C. For safety issue, please keep 4.0mm at least from the metal parts of the system to the unit. Or put a suitable insulator between the unit and the metal parts to avoid the situation of breakdown or arcing etc.

基于安全问题,请在组装本产品时,确保本产品和整机中的金属材料间保持至少 4mm 以上的距离，或者使用足够绝缘等级的绝缘材料进行隔离,避免高压放电而产生危险。

D. Don't twist, deform, drop or knock the unit during assembly.

请在组装本产品时,避免扭曲,弯折,大力碰撞及跌落产生损害。

E. Guarantee to offer ESD shield bag to protect the product from electrostatic or magnetic interference during delivery. Due to the inverter is usually designed without the enclosure. Please take care about ESD at anytime.

在产品交付的整个过程中均保证采用 ESD 屏蔽袋包装处理,因为该产品无外壳保护，请务必随时注意防静电措施。