



# 产品规格书

SPECIFICATION FOR APPROVAL

Power Adapter/电源适配器

客户:

CUSTOMER NO: \_\_\_\_\_

产品描述:

DESCRIPTION: Input:100~240VAC 50/60Hz Output:5.0-24.0VDC 36W

机种型号:

OUR MODEL NO: LXCP36 系列规格书

文件编号:

DOCUMENT NO: LXC/RD-Spec-259

日期:

DATE: 2022-04-21

客户编号

CUSTOMER NO: \_\_\_\_\_

版本:

VERSION: V01

产品颜色:

SAMPLE COLOR: Black



White



深圳市龙星辰电源有限公司

Shenzhen Longxc Power Supply Co., Ltd.

地址: 深圳市宝安区石岩街道应人石文韬科技园B栋4-5层

Address: 4-5/F, B Building, Yingrenshi Community, Wentao Science

Park, Shiyan Town, Bao'an, Shenzhen, China

Tel: [0755-27784192](tel:0755-27784192)

Fax: [0755-29991201](tel:0755-29991201)

核准/APPROVED BY	审核/CHECKED B	编制/PREPARED BY



深圳市龙星辰电源有限公司  
Shenzhen Longxc Power Supply Co.,LTD

型号/Model: LXCP36 系列

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版本目录/Rev. List

版本/Rev.	日期/Date	描述/ Descriptin	制订/Design
A0	2021-12-21	新版本/New Rev.	尹辉
A1	2022-04-15	更改过流保护/change over current protection	覃林英

目录/Table of content

1. 描述/ DESCRIPTION	3
2. 型号命名规则/MODEL NAME RULE	3
3. 输入特性/INPUT CHARACTERISTICS	3
4. 输出特性/OUTPUT CHARACTERISTICS	4
5. 保护功能/PROTECTION FUNCTION	5
6. 环境要求/ENVIRONMENTAL	5
7. MTBF	6
8. EMC 特性/ELECTROMAGNETIC COMPATIBILITY	7
9. 安全要求/SAFETY	8
10. 结构参数/MECHANICAL	9
11. 线材/DC CABIE DIAMETER	11
12. 铭牌/ NAMEPLATE	11
13. 包装说明/PACKING	12



深圳市龙星辰电源有限公司  
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型号/Model: LXCP36 系列

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## 1. 描述/ DESCRIPTION

本规格书适用于 LXCP36 系列型号的开关电源。

The purpose of the document is to specify the functional requirements of a LXCP36 series switching power supply.

## 2. 型号命名规则/MODEL NAME RULE

LXCP36-aaab

-LXCP= Longxc 医疗适配器/-LXCP= Longxc medical adapter

-36=系列名称/-36=Name of the series

-aaa="050"- "240"为输出电压。"050"是 5.0V, "075"是 7.5V, "090"是 9.0V, "120"是 12.0V, "135"是 13.5V, "150"是 15.0V, "168"是 16.8V, "180"是 18.0V, "190"是 19.0V, "200"是 20.0V, "240"是 24.0V。

-aaa="050"- "240"stands for the output voltage. "050"means 5.0V, "075"means 7.5V, "090"means 9.0V, "120"means 12.0V, "135"means 13.5V, "150"means 15.0V, "168"means 16.8V, "180"means 18.0V, "200"means 20.0V, "240"means 24.0V.

-b='A', "B", "C", "D", "I", "K", "L", "O", "M", "N", "P", "Q", "R", "S", "T". "A"表示国标插头, "B"表示欧规插头, "C"表示英规插头, "D"表示美规插头, "I"表示日规插头, "K"表示巴西规插头, "L"表示韩规插头, "O"表示澳规插头, "M"表示南非插头, "N"表示意大利插头, "P"表示瑞士插头, "Q"表示以色列插头, "R"表示丹麦插头, "S"表示墨西哥插头, "T"表示印度规插头, 没有 C 字符, 表示可拆卸插头。

-b = is optional, it could be "A", "B", "C", "D", "I", "K", "L", "O", "M", "N", "P", "Q", "R", "S", "T". "A" means CN plug, "B" means EU plug, "C" means UK plug and "D" means US plug, "I" means JS plug, "K" means Brazil plug, "L" means Korea plug, "O" means AUS plug, "M" means ZA plug. "N" means IT plug, "P" means CH plug, "Q" means IL plug, "R" means DK plug, "S" means Mexico plug, "T" means Indian plug. and without this "c character means detachable plug type which above-mentionable.

详情见下表/See the table below for details

型号/Model name	输出电压/ Rated output voltage (Vdc)	输出电流/ Output current (A)	输出功率/ Rated output power (W)
LXCP36-050b	5.0	4.00	20.0
LXCP36-075b	7.5	4.00	30.0
LXCP36-090b	9.0	4.00	36.0
LXCP36-120b	12.0	3.00	36.0
LXCP36-135b	13.5	2.66	36.0
LXCP36-150b	15.0	2.40	36.0
LXCP36-168b	16.8	2.14	36.0
LXCP36-180b	18.0	2.00	36.0
LXCP36-190b	19.0	1.89	36.0
LXCP36-200b	20.0	1.80	36.0
LXCP36-240b	24.0	1.50	36.0

## 3. 输入特性/INPUT CHARACTERISTICS

### 3.1 输入电压/Input Voltage:

额定电压/Nominal Voltage:100~240Vac



深圳市龙星辰电源有限公司  
Shenzhen Longxc Power Supply Co.,LTD

型号/Model: LXCP36 系列

客户/Customer:

日期/Date: 2022.04.21

文件编号/ Document No: LXC/RD-Spec-259

调整范围/Variation Range:90~264Vac

### 3.2 输入频率/Input Frequency:

额定频率/ Nominal Frequency: 50/60Hz.

调整频率/Variation Frequency:47~63Hz

### 3.3 输入电流/Input Current:

当输入交流电压为额定值的下限电压负载满载时,最大输入交流电流 0.8A.

0.8Amps max at any input voltage and rated DC output and rated load.

### 3.4 浪涌电流/Inrush Current:

当输出为额定负载,环境温度为 25°C,输入 264Vac 冷态起机时的最大浪涌电流小于 60A.

60Amps Max. Cold start at 264Vac input, with rated load and 25°C ambient.

### 3.5 AC 漏电流/AC Leakage Current:

当输入电压 264Vac 时,正常状态最大漏电流为 0.5mA.

Normal 0.5mA Max. at 264Vac input.

当输入电压 264Vac 时,单一故障状态最大漏电流为 1.0mA.

Single fault 1.0mA Max. at 264Vac input.

## 4. 输出特性/OUTPUT CHARACTERISTICS

### 4.1 输出功率/Power output

型号/Model name	输出电压/ Output Voltage (V)	额定负载/ Rated Load (A)	输出范围 /Output Range (V)	过流保护/Over current protection (A)	效率 /Efficiency (%)	输出功率/ Output power (W)
LXCP36-050	5.0	4.00	4.40~5.60	≤8.0	70	20.0
LXCP36-075	7.5	4.00	6.90~8.10	≤8.0	70	30.0
LXCP36-090	9.0	4.00	8.40~9.60	≤8.0	72	36.0
LXCP36-120	12.0	3.00	11.40~12.60	≤6.0	80	36.0
LXCP36-135	13.5	2.66	12.90~14.10	≤5.0	80	36.0
LXCP36-150	15.0	2.40	14.40~15.60	≤5.0	80	36.0
LXCP36-168	16.8	2.14	16.20~17.40	≤4.0	80	36.0
LXCP36-180	18.0	2.00	17.40~18.60	≤4.0	80	36.0
LXCP36-190	19.0	1.89	18.40~19.60	≤3.6	80	36.0
LXCP36-200	20.0	1.80	19.40~20.60	≤3.6	80	36.0
LXCP36-240	24.0	1.50	23.40~24.60	≤3.0	80	36.0
线性调整率/Line Regulation				±3%		
负载调整/Load Regulation				±8%		

型号/Model: LXCP36 系列



深圳市龙星辰电源有限公司  
Shenzhen Longxc Power Supply Co.,LTD

客户/Customer:

日期/Date: 2022.04.21

文件编号/ Document No: LXC/RD-Spec-259

#### 4.2 纹波和噪音 Ripple and Noise:

测试条件:在额定电压及额定负载条件下,使用示波器带宽为 20MHz 连接到充电器的输出端,同时输出端并联一个 10uF 的 电解电容和一个 0.1uF 的瓷片电容,最大纹波/最大噪音小于 200mVp-p.

Under nominal voltage and rated load, the ripple and noise are less than 200mVp-p when measure with Max. Bandwidth of 20MHz and parallel 10uF/0.1uF, connected at testing point. p-p.

#### 4.3 启动延迟时间/Turn on delay time:

最大启动时间为 3S, 测试条件输入 220Vac 和输出额定负载时.

3 Second Max. at 220Vac input and output rated load.

#### 4.4 上升时间/Rise time:

最大时间为 50mS, 测试条件输入 115Vac 和输出额定负载时.

50mS Max. at 115Vac input and output rated load.

#### 4.5 保持时间/Hold up time:

当输入 115Vac 和输出额定负载时,最小保持时间为 5 mS .

5 mS Min. at 115Vac input and output rated Load.

### 5. 保护功能/PROTECTION FUNCTION

#### 5.1 短路测试/Short circuit test:

该电源供给器在短路解除时能恢复正常工作.

The power supply will be auto recovering when short circuit faults removed.

#### 5.2 过温度保持/ Over temperature protection:

当集成电路温度超过其触发点时, 电源进入停止模式, 当集成电路温度低于规定值时, 电源自动恢复.

The power supply shall go into stop mode when the IC's temperature is over its trigger point and when IC temperature is lower than regulation value, the power supply shall be self-recovering.

### 6. 环境要求/ENVIRONMENTAL

#### 6.1 工作温度/Operating Temperature:

0°C-40°C, 满载, 正常工作.

0°C to 40°C, Rated load, Normal operation.

#### 6.2 储藏温度/Storage Temperature:-20°C to 80°C

带外壳/With package

#### 6.3 储藏湿度/ Storage Humidity: 10%~90%

带外壳/With package

#### 6.4 工作湿度/Relative Humidity:

5%(0°C) ~90%(40°C), 72 小时, 满载, 正常工作.

型号/Model: LXCP36 系列



深圳市龙星辰电源有限公司  
Shenzhen Longxc Power Supply Co.,LTD

客户/Customer:

日期/Date: 2022.04.21

文件编号/ Document No: LXC/RD-Spec-259

5% (0°C) ~90% (40°C) RH, 72Hrs, Rated load, Normal operating.

6.5 大气压力/ Atmospheric pressure:

70-106KPa, 正常工作.

70-106KPa, Normal.

6.6 海拔高度/ Altitude:

5000 米, 超过 5000 米以上, 海拔高度每升高 300 米工作温度降低 1°C.

5000m, Work temp descend 1°C every 300m over 5000m.

6.7 振动/Vibration:

1. 测试标准: 国际电工电子委员会

Operating: IEC GB2423.10

5~9Hz, A=1.5mm

加速度 (9~200Hz, Acceleration 5m/S<sup>2</sup>)

2. 运输/Transportation:

5-9Hz, A:3.5mm

9~200Hz, 加速度 Acceleration:5m/S<sup>2</sup>

200~500Hz, 加速度 Acceleration:15m/S<sup>2</sup>

3. 轴向振动/Axes, 10 cycles per axis.

在测试过程中不能出现永久性的损坏.

No permanent damage may occur during testing.

在电源开启和关闭后, 电源能够恢复到最初条件.

The Power supply can be recovery to normal after power off/on.

6.8 跌落试验/Dropping Packed:

插墙式跌落高度为 1 米、桌面式跌落高度为 760mm;

1M for wall mount type and 760mm for desktop type as above described.

测试台面是厚 13mm 的夹木板, 离地面高 19-20mm

The horizontal surface consists of hardwood at least 13mm thick, mounted on two layers of plywood and away from land 19mm ~ 20mm.

7. MTBF

≥100,000 hours 25°C, 满载, 220Vac

The power supply shall have a minimum predicted MTBF (MIL-STD-217F) of 100000 hours at normal operation condition and normal use.



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型号/Model: LXCP36 系列

客户/Customer:

日期/Date: 2022.04.21

文件编号/ Document No: LXC/RD-Spec-259

## 8. EMC 特性/ELECTROMAGNETIC COMPATIBILITY

Number /序号	Item/项目	Specifications/标准 (或测试条件)	Class/判断标准	Standards/备注
1	传导干扰(CE)	CLASS B	/	IEC/EN60601-1-2; YY0505 GB4824; EN55011; FCC Part 18
2	辐射干扰(RE)	CLASS B	/	IEC/EN60601-1-2; YY0505 GB4824; EN55011; FCC Part 18
3	浪涌(SURGE)	线线±1KV /Line to line±1KV	A	IEC/EN60601-1-2; YY0505
		线地±2KV /Line to GND±2KV	A	IEC/EN61000-4-5; GB17626. 5
4	静电抗扰(ESD)	空气放电±15KV Air discharge±15KV	A	IEC/EN60601-1-2; YY0505
		接触放电±8KV /Contact discharge±8KV	A	IEC/EN61000-4-2; GB17626. 2
5	快速瞬变脉冲群(EFT/B)	±2KV (BURST FREQUENCY=100KHZ)	A	IEC/EN60601-1-2; YY0505 IEC/EN61000-4-4; GB17626. 4
6	电压跌落和短时间中断(DIP)	跌落到 0%Ut, 持续时间 5000ms (250 个周期) / Dropped to 0%Ut, last 5000ms(250cycle)	B	IEC/EN60601-1-2; YY0505 IEC/EN61000-4-11; GB17626. 11
		跌落到 30%Ut, 持续时间 500ms (25 个周期) / Dropped to 30%Ut, last 500ms(25 cycle)	B	
		跌落到 0%Ut, 持续时间 20ms (1 个周期) / Dropped to 0%Ut, last 20ms(1 cycle)	B	
		跌落到 0%Ut, 持续时间 10ms (0.5 个周期) / Dropped to 0%Ut, last 10ms(0.5 cycle)	A	
7	辐射抗扰(RS)	试验频率: 80MHz~2700MHz; / Test frequency: 80MHz~2700MHz; 场强: 10V/m; /Field intensity: 10V/m; 幅度调制: 80%AM(1KHz) Amplitude modulation: 80%AM(1KHz)	A	IEC/EN60601-1-2; YY0505 IEC/EN61000-4-3; GB17626. 3
8	传导抗扰(CS)	试验频率: 0.15MHz~80MHz; / Test frequency: 0.15MHz~80MHz; 场强: 6Vrms; /Field intensity: 6Vrms; 幅度调制: 80%AM(1KHz) / Amplitude modulation: 80%AM(1KHz)	A	IEC/EN60601-1-2; YY0505 IEC/EN61000-4-6; GB17626. 6
9	电流谐波(THD)	满足 CLASSA (配合系统测试) /CLASSA (in system)	/	IEC/EN60601-1-2; YY0505 IEC/EN61000-3-2; GB17625. 1
10	电压波动和闪烁/Voltage Fluctuation and Flicker	Pst 值不大于 1.0; Plt 值不大于 0.65; 相对稳态电压变化 dc 不超过 3.3%; 最大相对电压变化 dmax 不超过 4% 相对电压变化持续时间 > 500mS 时 ≤ 4% / Pst ≤ 1.0; Plt ≤ 0.65; Relative steady-state voltage variation dc under 3.3%; Maximum relative voltage variation (dmax) under 4%	/	IEC/EN60601-1-2; YY0505 IEC/EN61000-3-3; GB17625. 2

型号/Model: LXCP36 系列
客户/Customer:
日期/Date: 2022.04.21
文件编号/ Document No: LXC/RD-Spec-259



11	工频磁场 /Power Frequency Magnetic Field	30A/m	A	IEC/EN60601-1-2; YY0505 IEC/EN61000-4-8; GB17626.8
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**注: / Note:**

- 性能判据 A: 试验中 EUT 在规范极限值内性能正常;
  - 性能判据 B: 试验中 EUT 功能或性能暂时降低或丧失, 但能自行恢复;
  - 性能判据 C: 试验中 EUT 功能或性能暂时降低或丧失, 但需操作者干预或系统重调(或复位) ;
  - 性能判据 D: 试验中 EUT 因装置(或元件)损坏而不可恢复的功能降低或丧失。
- Performance criterion A: Normal performance within limits in this specification.
- Performance criterion B: Temporary loss of some functions or degradation of performance. The recovering performance of which without operator intervention.
- Performance criterion C: Temporary loss of function or degradation of performance .The recovering performance of which requires operator intervention.
- Performance criterion D: Loss of function or degradation of performance which is not recoverable .Owing to damage of hardware software, or loss of data.

**9. 安全要求/SAFETY**

**9.1 安全:符合标准./ Safety: accord with.**

电源设计用于室内使用, 满足 IEC 60601-1/UL60601-1IN 和 60601-1 标准和以下安全规定。  
The power supply is designed for indoor use to meet IEC 60601-1 and EN 60601-1standards and for the following safety regulations.

	ITEM	COUNTRY	STANDARD
<input type="checkbox"/>	UL	USA	UL60950-1/UL60601-1
<input checked="" type="checkbox"/>	CE	EUROPE	EN60950-1/EN60601-1
<input checked="" type="checkbox"/>	CB	WORLDWIDE	IEC60601-1
<input type="checkbox"/>	TUV	GERMANY	IEC60601-1
<input type="checkbox"/>	NRTL	CUSA	IEC60601-1/UL60601-1
<input type="checkbox"/>	GS	GERMANY	EN60601-1
<input type="checkbox"/>	BS	ENGLAND	EN60601-1
<input type="checkbox"/>	SAA	AUSTRALIA	AS/NZS6-1

**9.2 高压/DIELECTRIC STRENGTH Hi-Pot:**

初级对次级/The primary to secondary: 4000Vac 10mA for 60 seconds





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型号/Model: LXCP36 系列

客户/Customer:

日期/Date: 2022.04.21

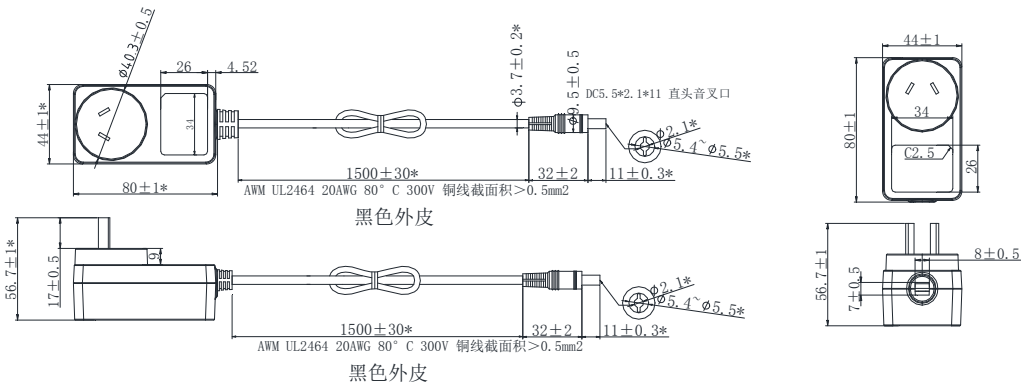
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## 10. 结构参数/MECHANICAL

### 10.1 外壳/Case:

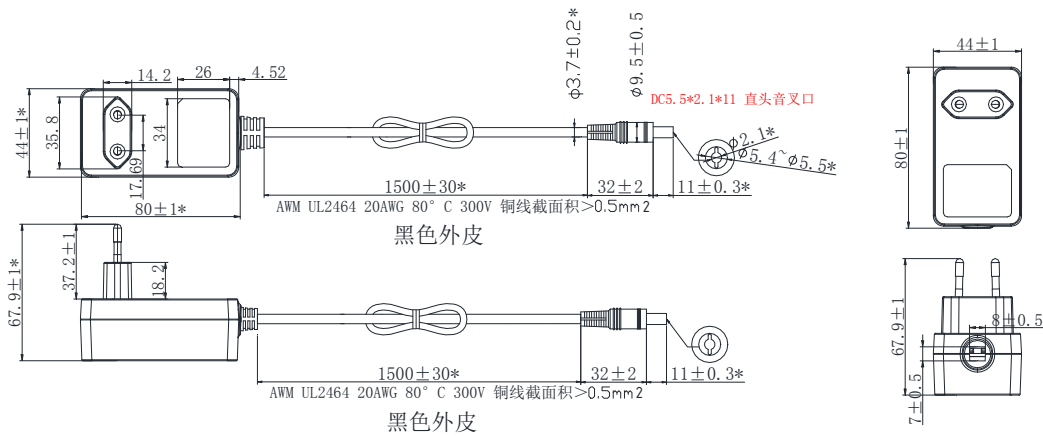
澳规外壳尺寸: L 80.0x W 44.0 x H 56.7mm;

AUS the power supply size: L 80.0 x W44.0 x H 56.7mm;



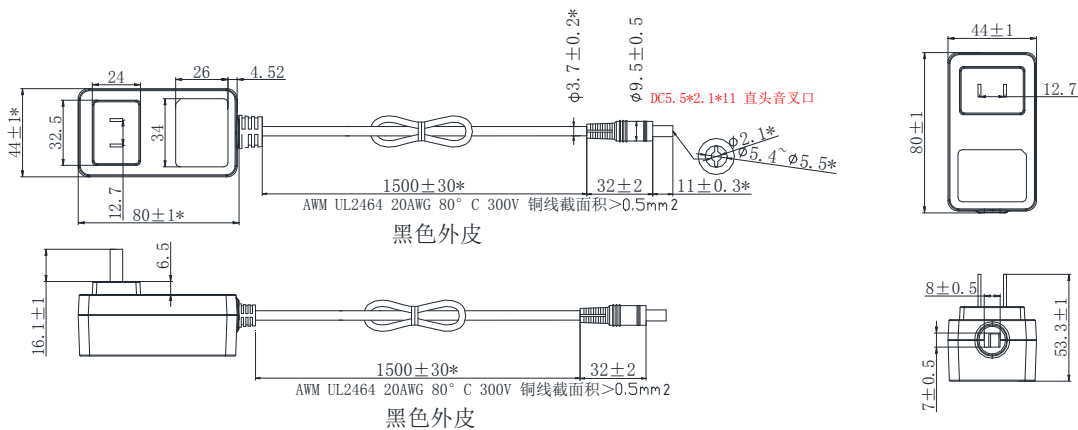
欧规外壳尺寸: L 80.0x W 44.0 x H67.9mm;

EU the power supply size: L 80.0 x W 44.0 x H 67.9mm;



中规外壳尺寸: L 80.0x W 44.0 x H 53.3mm;

CN the power supply size: L 80.0 x W44.0 x H 53.3mm;





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型号/Model: LXCP36 系列

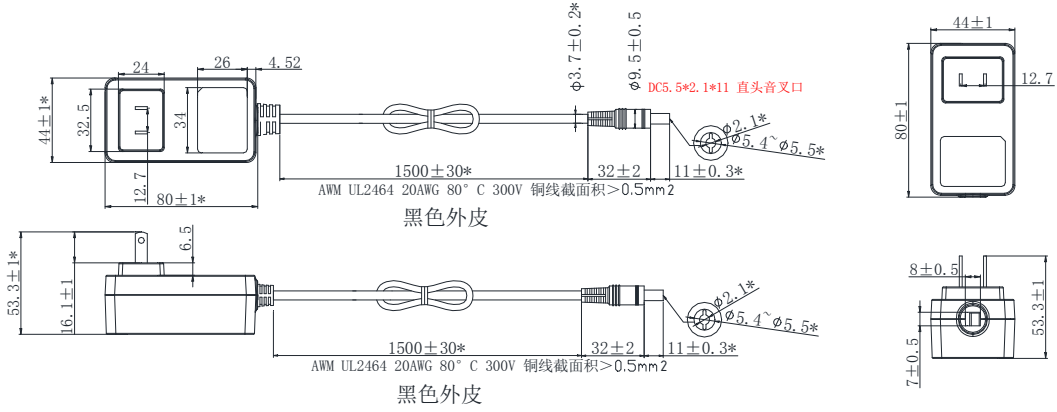
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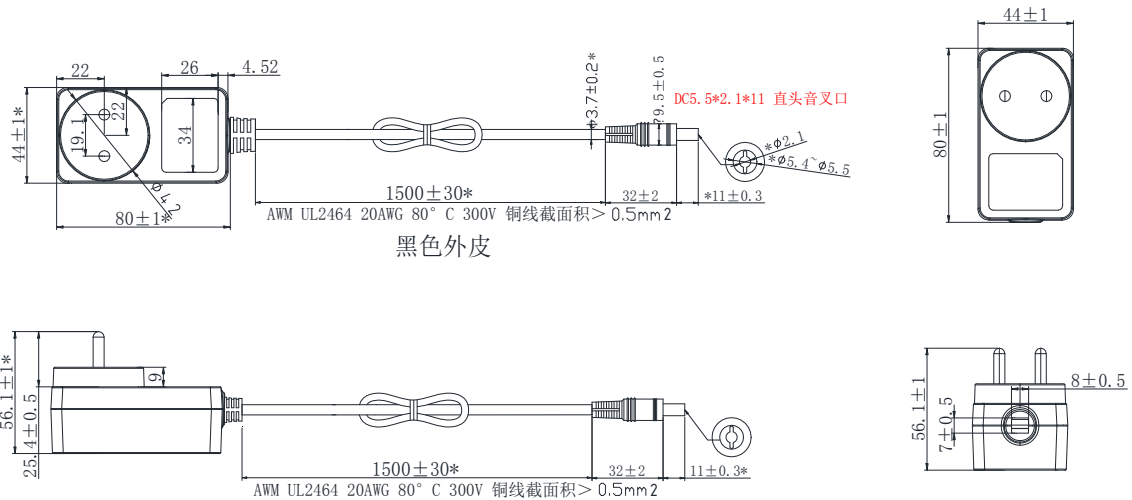
美规外壳尺寸: L 80.0x W 44.0 x H 53.5mm;

US the power supply size: L 80.0 x W44.0 x H 53.3mm;



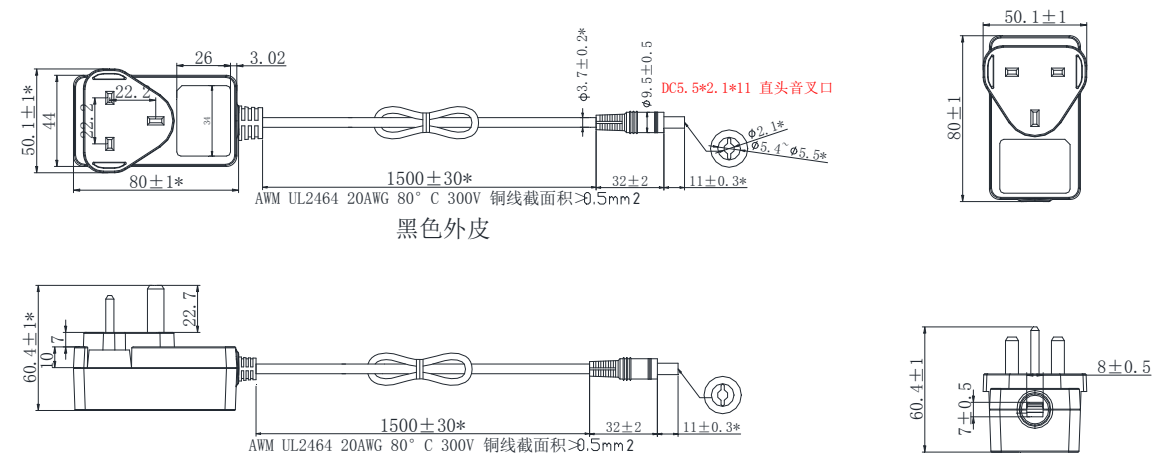
印度规外壳尺寸: L 80.0x W 44.0 x H 56.1mm;

Indian the power supply size: L 80.0 x W44.0 x H 56.1mm;



英规外壳尺寸: L 80.0x W 44.0 x H 56.1mm;

UK the power supply size: L 80.0 x W44.0 x H 56.1mm;





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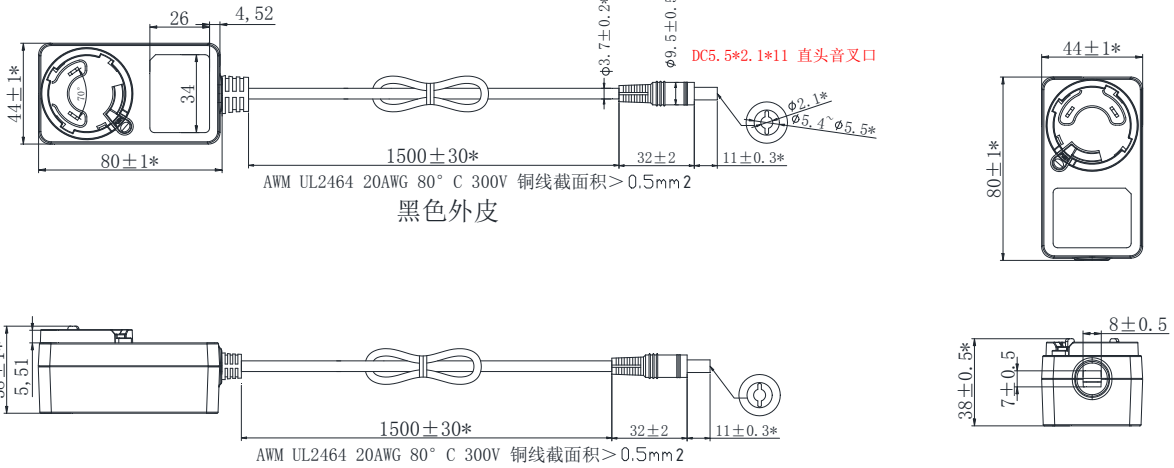
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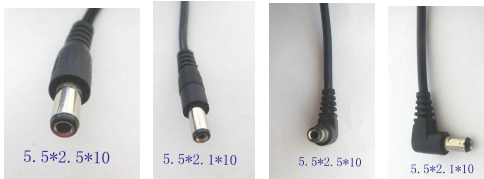
转外壳尺寸: L 80.0x W 44.0 x H 38.1mm;

detachable the power supply size: L 80.0 x W44.0 x H 38.1mm;



## 11. 线材/DC CABLE DIAMETER

### 11.1 可选直流插头图/ optional DC plug



注意:详细信息从LXC\_线材库图纸 xls 文件中选择

Note: Details are selected from the LXC\_Wire Library drawing XLS file

## 12. 铭牌/ NAMEPLATE

标签尺寸/ label size: 34mm\*26mm



型号/Model: LXCP36 系列

客户/Customer:

日期/Date: 2022.04.21

文件编号/ Document No: LXC/RD-Spec-259



深圳市龙星辰电源有限公司  
Shenzhen Longxc Power Supply Co.,LTD

铭牌符号说明 :/ Symbol explanation on nameplate:



:环保标志/ RoHS mark



:CE 标志/ CE mark



: 直流标志/Direct current



:输出极性标志/ DC Cable



: 室内使用/In-door use only



:限功率电源/Limited power source



: 二维码/Two-dimensional code



:保护环境 —— 废弃电器产品应统一回收处理, 不能随意丢弃/ Environment

protection- waste electrical products should not be disposed of with household waste. Please follow the local government guidelines

SN: 代表序列号/SN: Serials number

X 代表 RoHS (1 位) : RoHS 区分 0 为 RoHS, 1 为非 RoHS; /1bit:0=RoHS, 1=NO RoHS

XX 代表 生产批次 (2 位) : 如第一批为 01……以此类推; /2bit:batch

XX 代表 电源型号 (2 位) : LXCP36 系列为 36; /2bit:model no

X 代表 生产加工商 (1 位) : LXC 为 1; /1bit: manufacturer

XX 代表 PCB 版本 (2 位) : 01 为 01, 02 代表 02 号……以此类推; /2bit: PCB versions

XX 代表 生产年份 (2 位) : 2020 为 20, 2021 代表 21……以此类推; /2bit:year

XX 代表 生产周期 (2 位) : 第 1 周为 01, 02 周为 02……52 周代表 52; /2bit:wee

XXXXX 代表 订单数量 (5 位) : 如订单量为 10000 个, 标识为 00001-10000。/5bit: number

### 13. 包装说明/PACKING

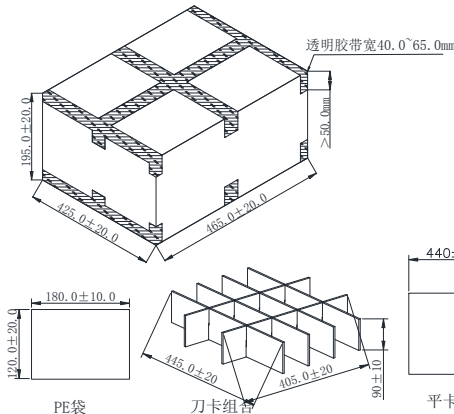
- 电源重量: 约 180g
- The weight of the power supply shall be about 180g.
- 包装方式: 60pcs/箱 (尺寸: 465.0\*425.0\*195.0mm)
- Packing Q'ty : 60cs/CTN (Size: 465.0\*425.0\*195.0mm)
- 重量: 约 11.4kg
- weigh : about 11.4kg

纸箱: 465.0×425.0×195.0mm

30台/层×2=60台/箱

重量: 约11.4千克/箱

外箱丝印:



深圳市龙星辰电源有限公司

Shenzhen LongXC Power Supply Co., LTD.  
Add: 深圳市宝安区石岩街道应人石文韬科技园B栋4-5层  
4-5/F, B Building, Yingrenshi Community, Wentao Science Park,  
Shiyan Town, Bao'an, Shenzhen, China  
Tel: 0755-27784192 27864721  
Fax: 0755-29991201  
Web: http://www.longxc.com

