



Shenzhen Longxc Power Supply Co.,Ltd.

(CUSTOMER) :

# SPECIFICATION

MODEL NO.: LXCP90X / LXCP90X(II) SERIES

DOCUMENT NO.: LXC/RD-Spec-133

CUSTOMER NO.:

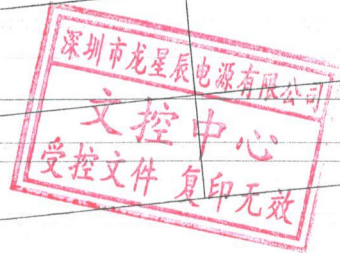
DATE: 2019-11-18

DESCRIPTION: INPUT:100-240VAC 50Hz/60Hz;  
OUTPUT:5-48VDC/0-90W

VERSION: V00

PLEASE RETURN US COPY OF "SPECIFICATION FOR APPROVAL" WITH YOUR APPROVAL SIGNATURES.


	"√"	CUSTOMER'S SIGNATURE	NOTE
FULL APPROVED			
CONDITIONAL APPROVED			
REJECTED			



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# 1 SCOPE

## 1.1 DECRPTION

This document introduces the electrical, mechanical and environmental specifications of a switching power supply.

# 2 MODEL NAME RULE

LXCP90X-aaabbb:

LXCP90X(II)-aaabbb:

-LXCP= Longxc medical adapter

-90X=Name of the series

-(II)= Class II equipment

- aaa="050"-“480” stands for the output voltage. “050”means 5.0V, “090” means 9.0V, “120” means 12.0V, “150” means 15.0V, “168” means 16.8V, “180” means 18.0V, “190” means 19.0V, “200”means 20.0V, “240” means 24.0V, “260” means 26.0V, “280” means 28.0V, “300” means 30.0V, “320” means 32.0V, “360” means 36.0V, “380” means 38.0V, “400” means 40.0V, “420” means 42.0V, “460” means 46.0V, “480” means 48.0V.

- bbb=3 digits with range of "010"-“750” step by1, which stands for output current. "010" means 1.0A, "750" means 7.5A. Details refer to the below table:

Model number	Model number	Output current range
LXCP90X-050bbb	LXCP90X(II)-050bbb	bbb="010"-“750",0.1A-7.5A step by 0.01A
LXCP90X-075bbb	LXCP90X(II)-075bbb	bbb="010"-“750",0.1A-7.5A step by 0.01A
LXCP90X-090bbb	LXCP90X(II)-090bbb	bbb="010"-“750",0.1A-7.5 A step by 0.01A
LXCP90X-120bbb	LXCP90X(II)-120bbb	bbb="010"-“750",0.1A-7.5 A step by 0.01A
LXCP90X-150bbb	LXCP90X(II)-150bbb	bbb="010"-“600",0.1A-6.0A step by 0.01A
LXCP90X-168bbb	LXCP90X(II)-168bbb	bbb="010"-“535",0.1A-5.35A step by 0.01A
LXCP90X-180bbb	LXCP90X(II)-180bbb	bbb="010"-“500",0.1A-5.0A step by 0.01A
LXCP90X-190bbb	LXCP90X(II)-190bbb	bbb="010"-“473",0.1A-4.73A step by 0.01A
LXCP90X-200bbb	LXCP90X(II)-200bbb	bbb="010"-“450",0.1A-4.5A step by 0.01A
LXCP90X-240bbb	LXCP90X(II)-240bbb	bbb="010"-“375",0.1A-3.75A step by 0.01A
LXCP90X-260bbb	LXCP90X(II)-260bbb	bbb="010"-“346",0.1A-3.46A step by 0.01A
LXCP90X-280bbb	LXCP90X(II)-280bbb	bbb="010"-“321",0.1A-3.21A step by 0.01A
LXCP90X-300bbb	LXCP90X(II)-300bbb	bbb="010"-“300",0.1A-3.0A step by 0.01A
LXCP90X-320bbb	LXCP90X(II)-320bbb	bbb="010"-“281",0.1A-2.81A step by 0.01A
LXCP90X-340bbb	LXCP90X(II)-340bbb	bbb="010"-“260",0.1A-2.6A step by 0.01A
LXCP90X-360bbb	LXCP90X(II)-360bbb	bbb="010"-“250",0.1A-2.5A step by 0.01A
LXCP90X-380bbb	LXCP90X(II)-380bbb	bbb="010"-“236",0.1A-2.36A step by 0.01A
LXCP90X-400bbb	LXCP90X(II)-400bbb	bbb="010"-“225",0.1A-2.25A step by 0.01A
LXCP90X-420bbb	LXCP90X(II)-420bbb	bbb="010"-“214",0.1A-2.14A step by 0.01A
LXCP90X-440bbb	LXCP90X(II)-440bbb	bbb="010"-“200",0.1A-2.0A step by 0.01A
LXCP90X-460bbb	LXCP90X(II)-460bbb	bbb="010"-“195",0.1A-1.95A step by 0.01A
LXCP90X-480bbb	LXCP90X(II)-480bbb	bbb="010"-“188",0.1A-1.88A step by 0.01A

Remark:

LXCP90X-aaabbb: For Class I Product, the Earth leakage current less than 300uA at 264Vac,60Hz.

LXCP90X(II)-aaabbb: For Class II Product , the Earth leakage current less than 100uA at 264Vac,60Hz.

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### 3 INPUT CHARACTERISTICS

#### 3.1 INPUT VOLTAGE & FREQUENCY

	Minimum	Nominal	Maximum
Input Voltage	90Vac	100-240Vac	264Vac
Input Frequency	47Hz	50Hz/60Hz	63Hz

#### 3.2 INPUT CURRENT

The maximum input current is 1.8A at nominal AC input voltage and full load.

#### 3.3 INRUSH CURRENT

The inrush current will not exceed 50A at 264Vac input for a cold start at 25°C.

#### 3.4 STATIC LOSS

The static loss is less than 0.5W at normal input voltage.

#### 3.5 EFFICIENCY

The efficiency shall be higher than 84% while measuring at 115VAC&230VAC input voltage, full load.

### 4 OUTPUT CHARACTERISTICS

Item	Model number		OUTPUT CHARACTERISTICS					notes
	LXCP90X series	LXCP90X(II) series	Rated output voltage(V)	Output voltage range(V)	Rated output current(A)	Rated output power(W)	Efficiency (%)	
Model number	LXCP90X-050	LXCP90X(II)-050	5.0	4.40~5.60	7.50	37.50	84	
	LXCP90X-075	LXCP90X(II)-075	7.5	7.10~8.00	7.50	56.00		
	LXCP90X-090	LXCP90X(II)-090	9.0	8.40~9.60	7.50	67.50		
	LXCP90X-120	LXCP90X(II)-120	12.0	14.40~15.60	7.50	90.00	86	
	LXCP90X-150	LXCP90X(II)-150	15.0	14.40~15.60	6.00	90.00		
	LXCP90X-168	LXCP90X(II)-168	16.8	16.40~17.40	5.35	89.88		
	LXCP90X-180	LXCP90X(II)-180	18.0	17.40~18.60	5.00	90.00		
	LXCP90X-190	LXCP90X(II)-190	19.0	18.40~19.60	4.73	89.87		
	LXCP90X-200	LXCP90X(II)-200	20.0	19.40~20.60	4.50	90.00		
	LXCP90X-240	LXCP90X(II)-240	24.0	23.40~24.60	3.75	90.00		
	LXCP90X-260	LXCP90X(II)-260	26.0	25.40~26.60	3.46	89.96		
	LXCP90X-280	LXCP90X(II)-280	28.0	27.40~28.60	3.21	89.88		
	LXCP90X-300	LXCP90X(II)-300	30.0	29.40~30.60	3.00	90.00		
	LXCP90X-320	LXCP90X(II)-320	32.0	31.40~32.60	2.81	89.92		
	LXCP90X-340	LXCP90X(II)-340	34.0	33.40~34.60	2.60	88.40		
	LXCP90X-360	LXCP90X(II)-360	36.0	35.40~36.60	2.50	90.00		
	LXCP90X-380	LXCP90X(II)-380	38.0	37.40~38.60	2.36	89.68		
	LXCP90X-400	LXCP90X(II)-400	40.0	39.40~40.60	2.25	90.00		
	LXCP90X-420	LXCP90X(II)-420	42.0	41.40~42.60	2.14	89.88	90	
	LXCP90X-440	LXCP90X(II)-440	44.0	44.40~44.60	2.00	88.00		
LXCP90X-460	LXCP90X(II)-460	46.0	45.40~46.60	1.95	89.70			
LXCP90X-480	LXCP90X(II)-480	48.0	47.40~48.60	1.88	90.24			

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load regulation	$\pm 3\%$	
voltage regulation	$\pm 2.5\%$	
overshoot	$\leq 5\%$	ab value
Hold up time	$\geq 5$ mS	@220VAC
Over current protection(A)	$\leq 150\% I_{out}$	
Ripple and noise	$\leq 200$ mV (measured by 20MHz bandwidth oscilloscope and terminated each output with a 0.1uF ceramic capacitor and a10uF aluminum electrolytic capacitor)	
Over temperature protection	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.	
Short circuit protection	The power supply shall withstand continuous current of short circuit on output no any damage. When the fault condition is removed the power supply shall be self-recovering.	

## 5 ENVIRONMENTAL REQUIREMENTS

### 5.1 OPERATING CONDITION

The power supply shall be compliant with each item in this specification for the following environmental conditions.

Ambient Temperature	-10℃~40℃
Relative Humidity	20%~90%

### 5.2 STORAGE CONDITION

Ambient Temperature	-20℃~80℃
Relative Humidity	10%~90%

### 5.3 COOLING METHOD

Free air convection

### 5.4 ALTITUDE

Less than or equal to 5000m

## 6 ELECTROMAGNETIC COMPATIBILITY

Number	Item	Specifications	class	standards
1	CE	CLASS B	/	IEC/EN60601-1-2 YY0505 GB4824 EN55011 FCC Part 18
2	RE	CLASS B	/	IEC/EN60601-1-2 YY0505 GB4824 EN55011 FCC Part 18

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3	SURGE	Line to line±1KV	A	IEC/EN60601-1-2 YY0505
		Line to GND±2KV	A	IEC/EN61000-4-5 GB17626.5
4	ESD	air discharge±15KV	A	IEC/EN60601-1-2 YY0505
		Contact discharge±8KV	A	IEC/EN61000-4-2 GB17626.2
5	EFT/B	±2KV (BURST FREQUENCY=100KHZ)	A	IEC/EN60601-1-2 YY0505 IEC/EN61000-4-4 GB17626.4
6	DIP	Dropped to 0%Ut, last 5000ms(250cycle)	B	IEC/EN60601-1-2 YY0505
		Dropped to 30%Ut, last 500ms(25 cycle)	B	IEC/EN61000-4-11
		Dropped to 0%Ut, last 20ms(1 cycle)	B	GB17626.11
		Dropped to 0%Ut, last 10ms(0.5 cycle)	A	
7	RS	Test frequency: 80MHz~2700MHz; field intensity: 10V/m; Amplitude modulation: 80%AM(1KHz)	A	IEC/EN60601-1-2 YY0505 IEC/EN61000-4-3 GB17626.3
8	CS	Test frequency: 0.15MHz~80MHz; field intensity: 6Vrms; Amplitude modulation: 80%AM(1KHz)	A	IEC/EN60601-1-2 YY0505 IEC/EN61000-4-6 GB17626.6
9	THD	CLASSA(in system)	/	IEC/EN60601-1-2 YY0505 IEC/EN61000-3-2 GB17625.1
10	Voltage Fluctuation and Flicker	Pst≤1.0;Plt≤0.65;Relative steady-state voltage variation dc under3.3%;Maximum relative voltage variation (dmax) under4%	/	IEC/EN60601-1-2 YY0505 IEC/EN61000-3-3 GB17625.2
11	Power Frequency Magnetic Field	30A/m	A	IEC/EN60601-1-2 YY0505 IEC/EN61000-4-8 GB17626.8


Note:

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.



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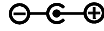
Performance criterion D: Loss of function or degradation of performance which is not recoverable .Owing to damage of hardware , software, or loss of data.

## 7 MTBF

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

## 8 MECHANICAL

### 8.1 CONNECTOR TYPE

AC INPUT	CE PLUG
DC OUTPUT	DC Cable 

### 8.2 WEIGHT

The weight of the power supply shall be about 290g.

## 9 SAFETY

### 9.1 SAFETY STANDARD

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	IEC 60601-1
<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
<input type="checkbox"/>	CCC	CHINA	GB4943/GB9706

### 9.2 DIELECTRIC WITHSTAND VOLTAGE

Primary to Secondary: 4KVac for 60 seconds, 5mA(max)

### 9.3 LEAKAGE CURRENT

According to the class II with Leakage current less than 0.1mA.

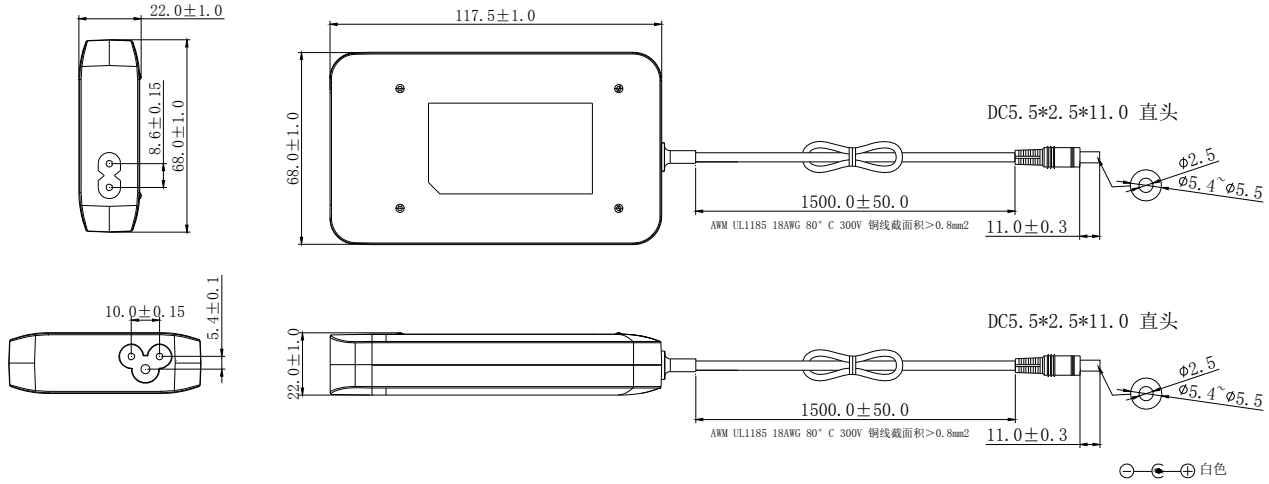
## 10 OUTLINE AND LABEL ARTWORK(UNIT: mm)





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**L\*W\*H 117.5\*68.0\*22.0**



**11 DC PLUG FIGURE(Detail information selection from file of LXC\_Dcline\_Library.xls)**



**Optional input plug:**

The AC input line shall be required for VDE or UL certification.

**12 NAMEPLATE**

LXCP90X-120750

**Medical Switching Power Supply**  
 MODEL(型号): LXCP90X-120750  
 INPUT(输入): 100-240V~,50/60Hz,1.8A Max.  
 OUTPUT(额定输出):12V  7.5A   
 Http://www.longxc.com    
 SN:XXXXXXXXXXXXXXXXXX  
 Shenzhen Longxc Power Supply Co.,LTD.  
 制造商: 深圳市龙星辰电源有限公司



LXCP90X(II)-120750

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LXCP90X(II)-120750

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**Symbol explanation on nameplate:**


: Direct current

: RoHS mark

: DC Cable


: Limited power source


: Class II equipment, earth-free

: In-door use only

: CE mark

: CB mark

: Two-dimensional code

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

### 13 LNOTICE

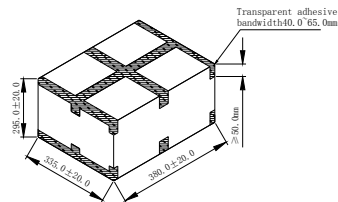
- The power supply shall be transported by cars, boats or aircraft and it should be pay attention to sun,moisture and handing in transit.
- At the termination of the products use, the power supply should be needed reasonable processing according to the requirements of the local government.

### 14 PACKING REQUIREMENT (UNIT :mm)

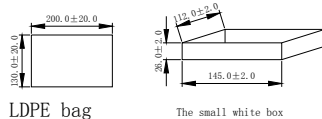
- Each power adapter is packed in a PE bag(Size: 130.0\*200.0mm)
- White Box (Size: 145.0\*26.0\*112.0 mm) packing for each power adapter
- Packing Q'ty 32pcs/CTN (Size: 380.0\*335.0\*295.0mm)
- Outline just for reference
- weigh about 12Kg

The cartons: 380.0×335.0×295.0mm  
 16sets/floor×2=32sets/box  
 Weight: about12kg/box

Box screen printing:

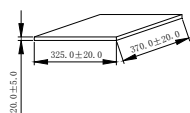
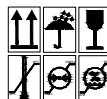


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 Fax: 0755-29991201  
 Web: http://www.longxc.com



LDPE bag

The small white box



Pearl cotton board