

High Frequency High Voltage Power Supply



鞍山雷盛电子有限公司
China Anshan Leadsun Electronics Co.,Ltd

[Http://www.hvpower.cn](http://www.hvpower.cn)

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公司简介

lead⁺sun雷盛电子是国内高压整流器件、高压电源制造商。公司拥有三十多年的在高压整流器件方面的设计、制造及应用经验，是国内高压器件领域重要的制造企业之一，雷盛电子同时拥有国内领先的高压电源的设计及生产技术。雷盛新一代高频高压电源系列产品，拥有完全的一系列自主知识产权，具备众多的领先技术，其产品性能已达到或超过国际同类产品的技术要求，是国内真正意义上采用高频技术单机突破10KW功率的制造企业。

lead⁺sun雷盛高压电源采用目前国际上流行的先进设计理念，创造性的采用单元化分控设计思想，可针对客户的具体使用进行拆分，使其具有更加广泛的使用领域，从传统的静电除尘、油烟净化的恶劣工况现场到先进的激光焊接、切割、X光检测、高能核物理试验的科技应用平台，均有雷盛电源优异的应用表现。

lead⁺sun雷盛高频高压电源由于其具有传统电源无法比拟的众多优势，以及对应的高端前沿的应用领域，有着无限美好的市场前景，未来在新一代高频静电除尘、油烟净化，激光焊接、切割，X射线分析、检测，静电治疗，静电分选，静电杀菌，高能物理试验，电子加速，高压测试，教学试验，生物工程，纳米制造，电力航天、军工等一切用高压直流电源的领域，将会出现更多的Leadsun-雷盛高频高压电源的身影，参与并带动该行业的快速发展。

lead⁺sun 致力于国际一流的高压电源制造商，努力打造国内最大最专业的
高压电源设计及生产基地。



Company profile

Leadsun Electronics Co., Ltd is a professional manufacturer of high voltage rectifiers and high frequency high voltage power supplies. With 30 years' experience of designing, producing and performing of HV rectifiers, Leadsun Electronics has become one of main companies in this field.

Through 5 years of developing, we have worked out a new generation of high frequency high voltage power supplies, enjoying our own Independent Property Right. Our products adopting high frequency techniques can output power over 10KW in one machine, which is leading in our country.

With the technical advantages over traditional power supplies, Leadsun high frequency high voltage power supply will step forward to the high-tech fields. High frequency electrostatic cleaning, exhausting smoke, laser cutting and jointing, X-ray analysis and testing, electrostatic curing, electrostatic separation, electrostatic sterilization, high-energy physics testing, electrical accelerator, high voltage testing, laboratories, bioengineering, NM producing, aviation and lighting.

All in all, Leadsun Electronics will keep pace with the world market and go on investing on the developing and innovation of high frequency high voltage power supplies to make our products suitable for different applications to realize our aim to become the top manufacturer of high frequency high voltage power supplies and contribute more to our staff, customers and society.



HIGH FREQUENCY HIGH VOLTAGE POWER SUPPLY

lead^{sun} 雷盛系列高频高压电源

(功率范围: 50W~10KW)

DESCRIPTION:

lead^{sun} high frequency high voltage power supply is a new generation of power supply converters, which can be widely used in the fields of laser power supply, X-ray generator, HV testing, ozone generation, air purification and electrostatic precipitator. With advanced technique and flexible frame, our DC high voltage power supply has become the first choice instead of traditional line frequency power supply. Leadsun power supply adopts switching-mode converting circuit which converts the state of power supply from one to another. Meantime, the whole converting process has protection setting and automatic control around which can assure stable voltage output. Because of the key spares working in high frequency condition as well as the low cost, the efficiency of power supply can reach 70%-90%. Small volume high frequency transformer, filter and radiator are used to realize voltage changing and power isolation. Furthermore, the intelligent interface can be convenient to connect with customers's assemblies.



FEATURE:

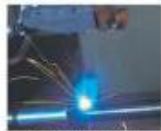
- Max output power can reach 10KW, max output voltage can reach 200 KV.
- Full bridge high frequency transforming, PWM control.
- Insulating step-up transformer, high reliable and reasonable voltage multiplier circuit.
- Integrated control system of constant current, voltage, power outputting.
- Complete protection of flashover, shorts, max voltage outputting, system temperature and 220VAC input.
- High efficiency, small volume, light weight, low ripple coefficient
- Digital meter displaying simultaneously.
- Independent inner control system of power supply, PCB mounting.
- For frequent shorts and flash discharging conditions.



SPECIFICATIONS:

Items	Rated Value	Remarks
Input Voltage	110VAC/DC or 220VAC/DC or 380VAC three phase $\pm 20\%$	DC input products can be ordered in quantities
Rated Power	below 10KW	full load, output U_{max} , I_{max}
Rated Output Voltage	below 200KV	no load to full load
Load Regulation	0.1% of rated output	
Voltage Regulation	1%~5%	
Relative Voltage Accuracy	0.1%	$U_o=80\%*U_{max}$
Absolute Voltage Accuracy	0.1%	$U_o=80\%*U_{max}$
Voltage program Accuracy	better than 1%	
Temperature Coefficient	less than 0.01% per degree centigrade	-20 to 50 degree centigrade
Ripple Coefficient	1%	
Stability	0.01~1%(in accordance to different types)	
Constant Voltage Mode	PWM	
Voltage Control Mode	constant average current, peak value testing	overload within 100nS stop and automatically restart
Response time	better than 20mS	
Voltage/Temperature Drift	100V/1K	
Ambient Temperature	-20 ~ 50 °C	
Cooling Mode	forced air cooling	
Starting Mode	soft starting	
Working Frequency	20k~200kHz	
Converting Efficiency	better than 80%	
Protection Mode	over voltage, under voltage, over current	output voltage 50%~75%, efficiency 80%~90%
Spark Counting	3/10 time, or unuse	

APPLICATIONS:



Laser Welding



Laser Cutting



Fume Extraction



Electrostatic Spraying



Shock Wave



HV Testing



Electron Beam Welding



X-Ray, Vacuum tube



High frequency tube



Oil&smoke purifier



Nondestructive testing



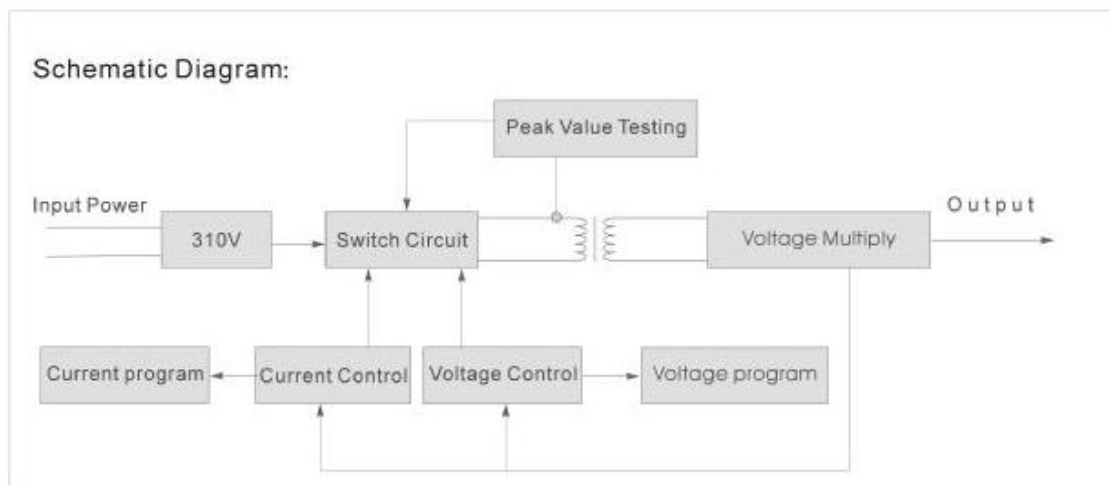
Medical CT scanner

- Electrostatic dedusting
- Electrostatic flocking
- Electrostatic Spraying
- Electrostatic Sterilization
- Electrostatic Separation
- Electrostatic Precipitator
- Laser Cutting
- Laser Processing
- Laser Ranging
- Laser testing
- Air Purification
- Electrostatic Polarization
- X-ray diffraction
- X-ray nondestructive testing
- Shock-wave generator
- High Accuracy X-ray
- HV capacitor charging
- Voltage withstanding testing

STANDARD TYPES :

OUTPUT POWER	TYPES	OUTPUT VOLTAGE	APPLICATIONS
1 - 4KW	LA series	5KV - 30KV	Laser power supply
1 - 20KW	ESP series	40KV - 100KV	Environmental protection, air purification
80W - 8KW	X-RAYseries	30KV - 200KV	X-Ray Application
10W - 50W	SX-RAY series	20KV - 80KV	high precision X-ray generator
10W - 500W	TP series	5KV - 200KV	voltage withstanding testing, MARX generator

Schematic Diagram:



LASER POWER SUPPLY SERIES

lead4sun 雷盛激光高频开关电源

(功率范围: 50W~10KW)

DESCRIPTION:

lead4sun LA series laser power supply, combining our latest working items, is a new designed and produced high frequency high voltage converter, which steps forward to world laser industry. For the various applications in X-ray field, there are 2 main types of LS-LA series power supplies for you to choose, one is high efficiency big power HV power supply, which power can reach 4000W; the other is small power high accuracy.

FEATURES:

- PWM voltage control mode.
- Independent inner control system, PCB mounting.
- Constant current, output current and voltage can be programmed.
- For the working conditions of shorts and flash discharging.
- Fast outputting adjustment, reliable protection.
- Over current, over voltage protection.
- Simultaneous display of voltage and current by four and a half digits
- Voltage accuracy 0.01KV, current resolution 0.01mA.



Tracking display

SPECIFICATIONS:

Items	Rated Value	Remarks
Input Voltage	110VAC/DC or 220VAC/DC or 380VAC three phase $\pm 20\%$	DC input products can be ordered in quantity
Rated Power	200W~1500W	full load, outputting U_{max} , I_{max}
Rated Output Voltage	5KV~20KV	
Line Regulation	0.1% of rated output	changing rate of input voltage: 10%
Load Regulation	0.1% of rated output	no load to full load
Voltage Regulation	1%~5%	
Relative Voltage Accuracy	1%	$U_0=80\% \cdot U_{max}$
Absolute Voltage Accuracy	3%	$U_0=80\% \cdot U_{max}$
Voltage Program Accuracy	better than 1%	
Temp Coefficient	<0.01% per degree centigrade	
Ripple Coefficient	1%	
Stability	1%	
Voltage Outputting Range	adjustable	
Output Limiting Current	120% I_e	
Constant Voltage Control	PWM	
Current Control	Average constant current, peak value testing	Overload within 100nS, stop and automatically restart
Response Time	better than 20mS	
Voltage/temperature Drift	100V/1K	
Ambient Temp.	-20 ~ 50 °C	
Ambient Humidity	10%~90% no atomization	
Cooling Mode	Forced air cooling	
Starting Mode	Soft starting	
Working Frequency	20k~200kHz	
Converting Efficiency	Better than 80%	output voltage 50%~75%, efficiency 80%~90%
Current, Voltage Program	Potentiometer adjustment	
Protection Mode	over voltage, under voltage, over current	



High Voltage Output Terminal



Integrated control system



step-up voltage part

雷盛高频高压电源系列

Small Power Series

Output Power	Input Voltage	Output Voltage	Output Current	Output Accuracy	Output Frequency
200W	220VAC	5KV~20KV	10mA~40mA	0.1%、1%、3%、5%	50KHz
300W	220VAC	5KV~20KV	15mA~60mA	0.1%、1%、3%、5%	50KHz
400W	220VAC	5KV~20KV	20mA~80mA	0.1%、1%、3%、5%	50KHz
500W	220VAC	5KV~20KV	25mA~100mA	0.1%、1%、3%、5%	50KHz
600W	220VAC	5KV~20KV	30mA~120mA	0.1%、1%、3%、5%	50KHz
700W	220VAC	5KV~20KV	35mA~140mA	0.1%、1%、3%、5%	50KHz
800W	220VAC	5KV~20KV	40mA~160mA	0.1%、1%、3%、5%	50KHz
900W	220VAC	5KV~20KV	45mA~180mA	0.1%、1%、3%、5%	50KHz
1000W	220VAC	5KV~20KV	50mA~200mA	0.1%、1%、3%、5%	50KHz

Big Power Series

Output Power	Input Voltage	Output Voltage	Output Current	Output Accuracy	Output Frequency
1500W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz
2000W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz
2500W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz
3000W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz
3500W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz
4000W	220VAC	5KV~20KV	200mA以下	0.1%、1%、3%、5%	50KHz

APPLICATIONS



激光打标
激光切割
激光焊接
激光雕刻
激光打标
激光检测
激光测距
激光测速
激光测距仪



Notes:

- For specific information and special requirements, please contact technical department, we will customize for you.

E-mail: Support@hv-semi.com

X-RAY POWER SUPPLY SERIES

lead^{sun} 雷盛X光机高频高压电源

(功率范围: 50W~10KW)

DESCRIPTION:

lead^{sun} X-RAY series high frequency high voltage power supply, reference to the world popular design, is specially used as high-tech X-ray testing high frequency high voltage power supply. This product has 4 parts, HV supplying, filament power supply, tube current control, safe interlock, which can be widely used in the fields of industrial nondestructive testing, nondestructive detection, medical X-ray testing, X-ray thickness measuring, PCB picturing and so on.



FEATURES:

- Complete X-ray control system.
- Over temperature, shorts protection.
- High accuracy control system, accuracy of voltage and current can reach 0.01%.
- Low temperature coefficient, 5PPM voltage sample.
- Low ripple coefficient.
- Compact frame.
- Big compatibility convenient to connect with other assemblies.



SPECIFICATIONS:

Items	Rated Value	Remarks
Input Voltage	110VAC/DC or 220VAC/DC or 380VAC three phase $\pm 20\%$	wave <10% full load, output U_{max} , I_{max}
Rated Power	<8KW	
Rated Output Voltage	<200KV	$U_o = 80\% * U_{max}$
Relative Voltage Accuracy	<3%	$U_o = 80\% * U_{max}$
Absolute Voltage Accuracy	<5%	
Voltage/temp Drift	100V/1K	
Voltage Programme Accuracy	better than 1%	
Voltage Output range	adjustable in rated range	
Output Limiting Current	120% I_o	
Response Time	better than 20mS	
Ambient Teperature	-20 ~ 50 °C	
Ambient Humidity	10%-90% no atomization	
Cooling Mode	forced air cooling	
Start Mode	soft start	
Constant Voltage Control Mode	PWM	
Current Control Mode	average constant current peak value testing	overload within 100mS, stop and automatically restart
Working Frequency	20k~200kHz	
Conversion Efficiency	better than 80%	output voltage 50%-75%, efficiency 80%-90%
Voltage Regulation	1%, 3%, 5%	
Line Regulation	0.1% of rated output value	
Load Regulation	0.1% of rated output value	
Current and Voltage Program	adjusted by potentiometer	
Protection Mode	over voltage, under voltage, over current	

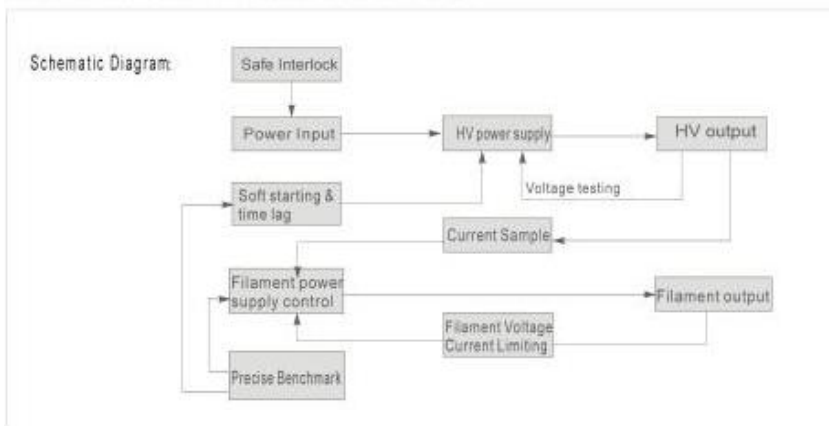
S-X-RAY POWER SUPPLY SERIES

lead^{sun} 雷盛S-X光机高频高压电源

(功率范围: 50W~10KW)

DESCRIPTION:

lead^{sun} SX-RAY series X-Ray power supply, is a precise equipment combined with filament power supply and anode power supply, which is the key of X-ray generator. Adopting the hi-tech assemblies, the function of this power supply can reach and pass the level of other products in this fields. Good interface for connecting with user's facilities.



SPECIFICATIONS:

Input Voltage

+24VDC \pm 10%

Output

Power: 10W~50W

Voltage: 20KV~80KV

Voltage Control

Local: potentiometer setting, voltage adjustable from 0 to rated range.

Remote: output voltage in proportions to 0~10VDC (error \pm 1%, inner resistance 10Mohm)

Emission Control

Local: potentiometer regulating electron beam current.

Remote: output voltage in proportions to 0~10VDC (error \pm 1%, inner resistance 10Mohm)

Filament Power Supply

Current: 3.5A adjustable

Voltage: 5.5V

Voltage Adjustment

Local regulation: 0.01% of rated value, from no load to full load.

Line regulation: 0.01% of rated value as changing rate of input voltage is 10%

Current Regulation

Load regulation: 0.01% of rated value, from no load to full load.

Line regulation: 0.01% of rated output.

Ripple Coefficient: 25% of output voltage (peak-peak)

Temperature

Range: -20 $^{\circ}$ C~50 $^{\circ}$ C

Temp Coefficient: 0.01%/1 $^{\circ}$ C

Stability

Warming up 30 minutes, 0.05%/8 hours

FEATURES:

- Integrated filament power supply control
- Over current, shorts protection, constant power
- Adjustable of current, voltage in rated range.
- Terminals of local and remote control
- Safe interlock

APPLICATIONS:

- X-ray diffraction
- X-ray micro detection
- Digital radiography
- Other precise equipments

**LS-ESP ELECTROSTATIC DEDUSTING
POWER SUPPLY SERIES**

lead4sun 雷盛LS-ESP系列高频高压电源

(功率范围: 50W~10KW)

DESCRIPTION:

lead4sun LS-ESP high frequency high voltage power supply, sight on the tendency of environmental protection industry, is specially designed for electrostatic precipitator and electrostatic dedusting. This power supply, reference to international techniques, can contribute more to solving air pollution problem than traditional SCR power supply, which is widely used for electrostatic fields of dedusting, acid mist, textile, flocking, imaging and separation; food industry, oil&smoke purification.



FEATURES:

- Independent inner control system, PCB mounting.
- PWM voltage control, supplying HV power for next facility.
- High frequency inverting, high voltage rectification in main circuit.
- Constant current, constant voltage outputting, Constant working in rated range, current and voltage can be programmed separately.
- Fast output adjustment, high reliable protection.
- For the conditions of frequent shorts and flash sparking.
- Over current, over voltage, under voltage protection.
- Simultaneously display of voltage and current in four and a half digits.
- Voltage accuracy 0.01KV, current regulation 0.01mA.



SPECIFICATIONS:

Items	Rated Value	Remarks
Input Voltage	110VAC/DC or 220VAC/DC or 380VAC three phase $\pm 20\%$	Wave < 10%
Rated Power	3kW~10kW	full load, output U_{max}, I_{max}
Rated Output Voltage	40kV~100kV	
Relative Voltage Accuracy	< 3%	$U_{ic} = 80\% * U_{max}$
Absolute Voltage Accuracy	< 5%	$U_{ic} = 80\% * U_{max}$
Voltage Program Linearity	better than 1%	
Range of Voltage Output	adjustable in rated range	firing voltage: desired by real condition
Max. Output Current	120% I_c	
Constant Voltage Control	PWM	
Current Control Mode	average constant current, peak value testing	overloading within 100ms, stop and automatically restart
Working Mode	constant working	on the conditions of constant current, constant voltage
Response Time	better than 20ms	
Voltage / Temperature Drift	100V/1K	
Ambient Temperature	-20 ~ 50 °C	
Ambient Humidity	10%-90% no stormization	
Cooling Mode	forced air cooling	
Start Mode	Soft start	
Working Frequency	20k~200kHz	
Efficiency of Converting	better than 80%	output voltage from 50%-75%, efficiency 80%-90%
Voltage Regulation	1%, 3%, 5%	
Voltage&Current Program	ten-roll potentiometer with indicator or 15 pins automatic interface	
Protection Mode	shorts, over voltage, under voltage, over current	
Sparks Counting	3/10 time	

LS-SESP ELECTROSTATIC PRECIPITATOR
POWER SUPPLY SERIES

lead^{sun} 雷盛LS-SESP系列高频高压电源

(功率范围: 50W-10KW)

DESCRIPTION:

lead^{sun} LS-SESP series high frequency high voltage power supplies, based on the functions of LS-ESP series, specially designed for industry, oil and smoke purification and food service. This power supply adopts integrated HV transformer, specially designed HV cable and output terminals, which improve the reliability and aging resistance a lot. The circuit has opens and shorts protection, also can delay and restart when the equipments are in trouble, which not only make sure the normal performance without people, also keep electric field, electric polarization and power supply itself safe when the system has faults.

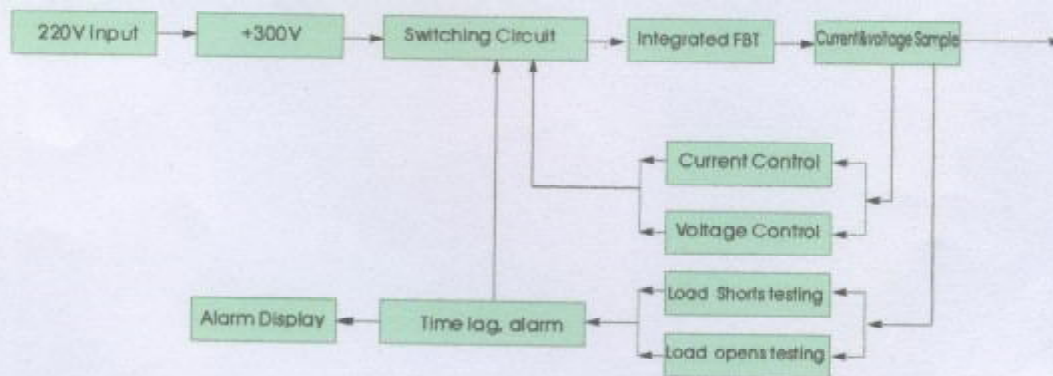


FEATURES:

- Small volume, reliable functions, high stability, flexibility.
- Automatically functional control circuit, good practicability.
- Over current, over voltage protection, safe performance.
- Digital display of control circuit, tracking simultaneously.



Schematic Diagram:



For air purification equipments



lead⚡**un** 雷盛



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品牌实名: 高频高压电源、高压开关电源