

## DCP-110VAC-2000VDC-2000W

2000 W High Voltage Power Supply - 110V AC Input, 2000V DC Output - 1000 mA Max Output

Product ID: 319412



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

### DCP-110VAC-2000VDC-2000W High Voltage Power Supply

**Line In Voltage:** 110 V AC  $\pm 10\%$  @ 50/60 Hz

**Line Out:** 2000 V DC @ 1 Amps, Adjustable (0-2000V DC)

**Watts:** 2000W

**Power Supply Polarity:** Negative

**Front Panel Controls:** Voltage and current are continuously adjustable by ten turn potentiometers with lockable counting dials, ON/OFF circuit breaker/lamp, high voltage ON switch/indicator and high voltage OFF switch/indicator

**Voltage Regulation:** Load: 0.005% of maximum voltage +500mV for full load change.

Line:  $\pm 0.005\%$  of full voltage +500mV over specified input range

**Voltage Regulation Resolution:**  $\leq 10$  mV

**Voltage Regulation Accuracy:** Better than  $\pm 0.02\% \pm 1$  V

**Voltage Monitoring Resolution:**  $\leq 10$  mV

**Voltage Monitoring Accuracy:** Better than  $\pm 0.02\% \pm 1$  V

**Current Regulation:** Load: 0.01% of maximum current  $\pm 100\mu\text{A}$  for full voltage change. Line:  $\pm 0.005\%$  of maximum current for a  $\pm 10\%$  input line change.

**Current Regulation Resolution:**  $\leq 10$  nA.

**Current Regulation Accuracy:** Better than  $\pm 0.2\% \pm 2$  A

**Current Monitoring Resolution:**  $\leq 10$  nA

**Current Monitoring Accuracy:** Better than  $\pm 0.2\% \pm 2$  A

**Ripple:**  $< 8$  mV from 10 Hz to 1 kHz, and  $< 5$  mV from 1 kHz to 20 MHz

**Temperature Coefficient:** Better than  $\pm 100$  ppm/ $^{\circ}\text{C}$

**Stability:** Long-term stability (1 week after warmup) of better than  $\pm 0.02\%$  of full scale

**Local/Remote Control:** Supports both via TCPIP over ethernet

**Metering:** Digital voltage and current meters,  $3\frac{1}{2}$  digit  $\pm 1$  least significant digit.

**Interface Connector:** 25 pin male D connector

### Features

IP67 Rated Waterproof

Overload, Short Circuit, Over Voltage, Over Temperature Protection

NRTL Certified to UL1012

NRTL Certified to UL60950-1

International Lighting Safety Standards Compliant

Suitable For LED Moving Signs

Suitable For Wet or Damp Locations

**Output Cable:** 10' of shielded high voltage cable removable at the rear panel

**AC Line Input Cable:** 6' cable is permanently attached to the unit

**Protection:** Short Circuit/Overload/ Over Voltage/Over Temperature

**Operating Temperature Range:** 5°C ~ +45°C

**Humidity:** 0 to 80% relative humidity, non-condensing

**Mounting:** Mounted on a standard 19" rack

**Dimensions:** 31/2"H(2U) x 19"W x 19"D

**Weight:** 17 lbs

**Special Orders - Special Requirements**

Contact us for special requirements

**Toll Free:** 1-800-369-6671

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**The DCP-110VAC-2000VDC-2000W from Larson Electronics is a Waterproof Power Supply that converts commonly used 110 V AC electrical current to 2000 V DC @ 1 Amps. This converter is designed to be hardwired into building, boat, or vehicle electrical supplies where the voltage is typically within the 110 V AC range and reduces it to 2000 V DC, allowing users to use standard AC power to operate equipment like our LED light bars and spotlights that require 2000 V DC current.**

The DCP-110VAC-2000VDC-2000W power converter provides a safe and effective way for users to tap into and utilize common 110 Volt AC power sources and convert this voltage to 2000 Volts DC for use with equipment that requires 2000 volt DC electrical power. This unit can be operated with input current ranging from 110 V AC and will output 2,000-watt 2000 Volt DC current. This power converter features an IP67 rated waterproof design, making it suitable for indoor or outdoor use and is wet-damp area approved. This converter includes integral short circuit, over voltage, over temperature and overload protection that will shut down the unit or reduce output in case of faults and overloads to protect the unit and connected equipment from damage.

The small size and wide input voltage range of this unit make it ideal for indoor-outdoor operation of Larson Electronics LED light bars and other equipment that requires 2000 V DC current and anywhere 2000 volt DC power is not readily available. The unit is mounted with two conventional screws via slots that allow removal and repositioning simply by loosening the screws.

This converter comes with clearly labeled input and output leads that are approximately 1 foot long and stripped and tinned for hardwired connections using butt splice connectors, wire screws, plates, etc.

This power converter has a -40°C - +90°C operating temperature range and is NRTL certified to UL 1012 and UL 60950-1 standards as well as compliant with worldwide safety regulations for lighting. This unit has a 90% conversion efficiency and is suitable for use with moving LED signs and similar LED equipment. These units also feature Power Factor Correction, adjustable output current range from 0 ~ 3 A either through the output cable or internal potential meter and have an input frequency range of 47 ~ 63Hz.

**NOTE:** In order to obtain the best performance and the longest operational life from these units, it is recommended that you do not exceed 75% of the unit's output amperage. To determine if this converter suits your desired application, add together the total wattage of the equipment you intend to use with this unit and divide this total by 2000 volts to find the total amperage draw that will be placed upon the converter. Running these units at 100% of their capacity can create excess heat and lead to shortened converter life.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message [sales@larsonelectronics.com](mailto:sales@larsonelectronics.com) for more information about our custom options tailored to meet your specific industry needs.







**INPUT**

- ⚡ (GREEN / YELLOW)
- ACN (BROWN)
- ACN (BLUE)



1. 30°C  
2. 50°C

**DCP-25**

**INPUT** 100-240V~ 50/60Hz 3.5A 1.6A

**OUTPUT** 50VDC 500mA

SELV IP65

UL US

LARSONELECTRONICS.COM  
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**OUTPUT**

- (BLACK) Vo-
- (RED) Vo+

Vo ADJ. Vo ADJ.



## **Frequently Asked Questions (FAQ)**