

# High voltage power supply for portable devices





## Overview

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What is a high-voltage power supply?

The term "high-voltage power supply" refers to a DC power supply that outputs high voltage. At Matsusada Precision, we classify programmable power supplies with meters that can output voltages of 1000 V or more and embedded power supply modules that can output voltages of several hundred volts or more as high-voltage power supplies.

Which high voltage power supply modules are available?

Customized high voltage power supply modules are also available. Advanced Energy's Trek E-Chuck supplies have been a staple in the semiconductor industry for decades. As a part of a numerous High Voltage solutions, Advanced Energy offers high power solutions for a variety of applications.

What is a bench-top high-voltage power supply?

Our bench-top high voltage power supplies range from 1kV to 30kV voltage and 3W to 200W power. Rack-mount high-voltage power supplies are power supplies that are housed in a 19-inch wide rack cabinet. This category includes ultra-high voltage and high-power high-voltage power supplies.

How does a high voltage power supply work?

In high voltage power supplies the output stage is capacitive by nature, which results in stored energy. During an arc discharge, the stored energy inside the power supply is quickly dispersed through an internal limiting resistance and carries high peak currents through the load.



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Portable DC Supply Based on SiC Power Devices for High ...

Jan 28, 2021 · The portable DC supply offers a very high voltage gain: input voltage is 24 V, while the generator requires supply voltages up to 50 kV. Thus, the system contains two stages ...

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Programmable  $\pm$ HV Power Supply With Low Static ...

Apr 1, 2023 · 2 High-Voltage Power Supply Design Using SEPIC The single-ended primary inductance converter is selected to be the topology for a high-voltage power-supply circuit. ...

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Portable DC Supply Based on SiC Power ...

Jan 28, 2021 · The paper describes major issues related to the design of a portable SiC-based DC supply developed for evaluation of a high-voltage ...

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High-Efficiency 150W Multi-Voltage Power Supply for Mobile Devices

Nov 12, 2025 · This charger is perfectly suited for compatibility with a vast array of electronic devices, providing reliable multi-voltage support for countless applications. Crafted with high ...

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High Voltage Power Supply , Tektronix

Find the perfect high voltage power supply for semiconductor testing, insulation breakdown, and high-energy research. Get stable, precision power up to 10kV. Explore Tektronix solutions today!

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Electrospinning High Voltage Power Supply

Nov 15, 2025 · PS35-PV is a compact, lightweight 35 kV high voltage power supply device designed for electrospinning. The analogue control with a ...

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Medical Power Supplies - AC/DC & DC/DC Converters

1 day ago · Certified medical power supplies for clinical and home care devices. AC/DC and DC/DC converters with reinforced isolation, low leakage, and 2MOPP compliance.

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Handheld Ultrasound Imaging Device Power Supply ...

Dec 14, 2024 · The device provides high power density and design flexibility to charge batteries across the full input voltage range for USB Type-C and USB power delivery (USB-PD) ...

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High Voltage Power Supplies , XP Power

In high voltage power supplies the output stage is capacitive by nature, which results in stored energy. During an arc discharge, the stored energy inside the power supply is quickly ...

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High Voltage Power Supplies

The Capacitor Charging High Voltage Power Supply series is designed for reliable, high-



efficiency charging of capacitors in a variety of applications, including energy storage systems, pulse ...

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A Compact High Voltage DC Power Supply Design by High ...

Aug 11, 2024 · The demand for mobile and portable applications is driving the development of compact and miniaturized pulsed power devices. To detach the pulsed power system from the ...

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High Voltage Power Supply , Application

Aug 22, 2019 · Applications of Matsusada Precision's high voltage power supplies: A high voltage power supply is a voltage conversion circuit that ...

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Portable DC Supply Based on SiC Power Devices for High ...

Jul 14, 2023 · The portable DC supply offers a very high voltage gain: input voltage is 24 V, while the generator requires supply voltages up to 50 kV. Thus, the system contains two stages ...

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Portable DC Supply Based on SiC Power Devices for High-Voltage ...

Jan 28, 2021 · The portable DC supply offers a very high voltage gain: input voltage is 24 V, while the generator requires supply voltages up to 50 kV. Thus, the system contains two stages ...

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High Voltage Power Supply For ...

2 days ago · Cost-effective electrospinning module, one of the high voltage power supplies of electrospinning devices. The modules can be controlled ...

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Study, development and related application of a miniature ...

May 1, 2025 · Capacitor-based pulsed power supply (PPS) is widely used in fields related to electromagnetic launch, plasma, and materials' synthesis, modification and processing. As ...

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High Voltage Power Supply , Application , Matsusada Precision

Aug 22, 2019 · Applications of Matsusada Precision's high voltage power supplies: A high voltage power supply is a voltage conversion circuit that boosts a low input voltage potential to a ...

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Miniaturization of High Voltage Power Supply for Portable ...

Aug 19, 2024 · This paper presents the motivation, design, and evaluation of a miniature high-voltage DC (HVDC) power supply for applications in small-scale ESP systems. The power ...

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Electronics , Special Issue : High Voltage ...

Jul 1, 2022 · In recent years, there have been great advances in the development of high voltage output power supplies with the emergence of ...

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