

product mini-catalog

High Voltage Modules

Precision HV Power Supplies

High Voltage Amplifiers

Test Fixtures

High Voltage Systems

Microsize/Micropower HV

Accessories



1-800-9HV-POWER

1-800-948-7693 +1 (631) 471-4444 csd@ultravolt.com

 **ULTRAVOLT**
Making High Voltage Easier!®

About UltraVolt, Inc.

UltraVolt, Inc. was founded in 1990 to take advantage of over 35 years of experience in the military and aerospace marketplace. UltraVolt's product designs incorporate a fixed-frequency high voltage topology that provides wide input and output operating ranges, while retaining excellent stability and efficiencies ranging up to 92%. Standard accessories and options create more than 8500 application-specific configurations.

UltraVolt's product line includes over 600 models from 0 to 62V to 0 to 50kV at output power from 0 to 100mW through 0 to 250W. UltraVolt offers a cost-effective solution to most high voltage needs, while maintaining a level of flexibility rivaling custom designs. Various UltraVolt HV power supplies are safety agency approved through component listing programs UL/CUL, with CB test certifications supporting the UL/CUL, CE, and DEMKO marks. UltraVolt power supplies are also offered with full RoHS compliance. Stock is to 3 weeks. Modified standards featuring flying leads, alternate HV connectors, re-ranged output voltage and/or output current available to meet your specific needs. Contact the factory for more information.

Over 600 models of HVPS - Output Voltages 0 to 50kV - Power 0 to 250W - No Minimum Order Quantity

STANDARD SINGLE OUTPUT MODULES

A SERIES and AA SERIES

Our A Series and AA Series provide 0 to 62V through 0 to 6kV at 0 to 4W and 0 to 30W in only 70.5cc (A Series) and 54.8cc (AA Series).



C SERIES

Our C Series models are designed for fast rise time capacitor charging applications from 0 to 62V through 0 to 6kV at 0 to 20W to 0 to 30W.



HIGH POWER C SERIES

Our High Power C Series units extend the 0 to 125V through 0 to 6kV C Series to 60W, 125W, or 250W.



10A-25A SERIES and 30A-40A SERIES

Our 10A-40A Series extends the A Series to 0 to 10kV through 0 to 40kV with the same 4W to 30W power output.



HIGH POWER 8C-30C SERIES

Our High Power 8C-30C Series of high power density high voltage power supplies provide 0 to 8kV through 0 to 30kV at 60W & 125W.



CP SERIES

Our CP Series has the unique capability of operating in constant-voltage, constant-current, or constant-power modes. Outputs range from 0 to 15kV at 10W of output power.



PRECISION HVPS

E SERIES

Our E Series operates from 0 to 1kV through 0 to 15kV at 4W, 15/20W or 30W. This series offers PPM level temperature coefficients, line and load regulation, and ripple.



HV AMPLIFIERS

HVA SERIES

Our HVA Series high voltage amplifier line can both source and sink current. Bipolar models available at 0 to ± 5 kV at 1W; unipolar modules available at 0 to 10kV at 1W.



MULTI-OUTPUT HVPS

BIPOLAR C SERIES

Our Bipolar High Power C Series units feature dual independent HV outputs from 0 to ± 125 Vdc through 0 to ± 6 kV at 0 to 125W (62W x 2) and 250W (125W x 2).



MICROSIZE SINGLE OUTPUT MODULES

XS SERIES and US SERIES

Our XS Series and US Series lines provide 0 to 100V (XS Series) or 0 to 500V (US Series) at 100mW of power in only 1.3cc (XS Series) or 5.75cc (US Series).



D SERIES

Our D Series models offer a light weight design with excellent voltage regulation. Output voltages range from 0 to 6kV at 0 to 6W of power and a volume starting at 36.3cc.



V SERIES and M SERIES

Our V Series and "M" Series offer 0 to 1.5kV at 0 to 1W of power in a volume of only 13.8cc (V Series) or 20.9cc (M Series).



ISOLATED LVPS

FL SERIES and EFL SERIES

Our FL and EFL Series provide floating LV power supplies with isolated controls, allowing HV power supplies, filaments, and electronics to operate while floating on up to 15kV. The EFL Series provides two precision analog channels and improved faraday shielding.



FILAMENT SUPPLIES

FIL SERIES

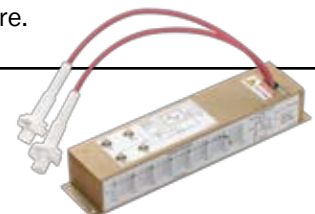
Our FIL Series is a precision, center-tapped, non-isolated low-voltage filament supply rated for 0 to 5VDC at 0 to 3 Amps. It offers excellent linearity and accuracy of control, allowing users to properly operate the filament to maximize performance and life.



TEST FIXTURES

TF SERIES

Our TF Series of test fixtures provides convenient inline measurement of HV power supplies and HV system performance in only 16.24in³. When coupled with an oscilloscope or conventional meter it becomes a stand alone test fixture, which can measure ripple, noise, pulses, absolute DC, DC stability, DC line regulation, DC load regulation, and more.



HIGH VOLTAGE SYSTEMS

HV RACK® SERIES HIGH VOLTAGE POWER SYSTEM

Our HV Rack® Series is configurable with up to 4 independent channels, selected from among our >500 standard HVPS, for a 4W to 1kW total HV output capability. Features include local and remote controls, preset before and during bias, CV/CC regulation auto-crossover, and simultaneous voltage and current monitoring of all channels. Configuration options include floating channels, green meters, and the USB Interface.



MMS-eB SERIES MULTI-MODULE SOLUTION - ELECTRON BEAM

Our MMS-eB Series provides all the power sources needed to operate a variety of industry-standard precision electron guns and is available with PPM level temperature coefficient, ripple, regulation, and stability. Systems are configurable as 3-, 4-, or 5-bias electron gun HVPS for beam, filament, extractor, suppressor, and lens voltages. MMS-eB systems utilize UltraVolt's off-the-shelf HVPS and accessories ranging from 0 to 15kV at 4W to 30W.



Contact the factory to learn more about our systems integration capabilities at csd@ultravolt.com or +1 (631) 471-4444.

ACCESSORIES AND OPTIONS

-H OPTION - HEAT SINK

Heat Sink for PCB mounted >4W AA,A, 10A-40A, FIL, C, High Power C, High Power 8C-30C, and Bi-Polar C Series units.



-E OPTION - EARED MOUNTING PLATE

Eared Mounting Plate for chassis mounting AA, A, 10A-40A, FL, EFL, FIL, and C Series plastic package units.



-M OPTION - MU-METAL SHIELD

Mu-Metal Shield attenuates EMI, RFL, and HV electrostatic fields. This six-sided wrap-around feature is compatible with all accessories. Available on the AA, A, 10A-40A, FIL, FL, EFL and C Series.



-C OPTION - RF TIGHT METAL CASE

RF-Tight aluminum enclosure for ruggedized chassis mounting of any 4W to 30W A & C Series units.



-F OPTION - F SERIES RIPPLE STRIPPER® MODULE

-F Option (also referred to as the F Series) reduces ripple 10 to 100 times on the A Series and 10A-40A Series units.



BR- ACCESSORY - CASE MOUNTING BRACKET

Bracket kits for chassis mounting A & C Series plastic package units.



QUICK SELECT CHART - SPECIALTY PRODUCTS

HIGH VOLTAGE AMPLIFIERS

Model	Output Voltage	Features
1HVA	0 to 1kV, 0 to ±1kV	Unipolar or Bipolar Precision High Voltage Amplifier
2HVA	0 to 2kV, 0 to ±2kV	Unipolar or Bipolar Precision High Voltage Amplifier
4HVA	0 to 4kV, 0 to ±4kV	Unipolar or Bipolar Precision High Voltage Amplifier
5HVA	0 to ±5kV	Bipolar Precision High Voltage Amplifier
6HVA	0 to 6kV	Unipolar Precision High Voltage Amplifier
10HVA	0 to 10kV	Unipolar Precision High Voltage Amplifier

BIPOLAR HVPS

Model	Output Voltage	Output Power	Features
1/8C to 6C	0 to ±125V to 0 to ±6kV	NP-125 & NP-250	Independently controllable dual outputs

CONSTANT POWER HIGH VOLTAGE

Model	Output Voltage	Features
1CP	0 to 1kV	Constant 10W from 0.1kV to 1kV
2CP	0 to 2kV	Constant 10W from 0.2kV to 2kV
4CP	0 to 4kV	Constant 10W from 0.4kV to 4kV
6CP	0 to 6kV	Constant 10W from 0.6kV to 6kV
10CP	0 to 10kV	Constant 10W from 1kV to 10kV
15CP	0 to 15kV	Constant 10W from 1.5kV to 15kV

FILAMENT SUPPLIES

Model	Features
FIL-5V-3A	Output load regulation is <0.5% in constant voltage mode, no load to full load; <0.05% in constant current mode, short circuit to full load. Output line regulation is <0.01% in CV or CC mode (+21.6VDC to +26.4VDC). Accuracy ±0.1% & linearity error of <0.01%. Temperature coefficient of 15ppm/°C in CC mode.

ISOLATED LOW VOLTAGE POWER SUPPLIES

Model	Floating Output Voltage	Features
15FL12	+12VDC, -12VDC, +5VDC	Floating Low Voltage Power Supply & Analog/Digital Controls
15FL24	+24VDC, -12VDC, +5VDC	Floating Low Voltage Power Supply & Analog/Digital Controls
15EFL12	+12VDC, +15VDC, -15VDC, +5.1VDC	Enhanced Floating Low Voltage Power Supply & Analog/Digital Controls
15EFL24	+24VDC, +15VDC, -15VDC, +5.1VDC	Enhanced Floating Low Voltage Power Supply & Analog/Digital Controls

TEST FIXTURES

Model	Features
40TF-DCD	Precision 10,000:1 divider, ±1%, ±25PPM per °C, voltage coefficient is <1% per 40kV. DC Loading is 1 GigΩ.
40TF-ACV&DCD	1:1 AC viewing capacitor, 35Hz to 10Mhz (Monitor 10Hz to 20Mhz), 1mV to 75V Pk, 1000:1 DC divider, ±2%, ±100 PPM per °C. DC Loading is 2 GigΩ. Capacitive loading is < 50pF
40TF-DCD&CLOAD	Compensated 1,000:1 DC Divider, ±2%, ±100 PPM per °C, showing Trise, Tfall, overshoot & settling over a bandwidth of 35Hz to 10Mhz (Monitor 10Hz to 20MHz), 300pF capacitive load, DC Loading is 1 GigΩ.

HIGH VOLTAGE SYSTEMS

Model	Model	Features	Model	Features
HV-RACK-1-250	HV-RACK-4-250	48cm Rack with 1 to 4 channels of meters & controls. Individual CV/CC controls & limits. Floating channel config. available. Wide selection of HV output connectors. Available with USB Interface and Labview drivers. Configurable product to meet project-specific needs.	MMS-EB	Provides Beam, Filament, Suppressor, Extractor, and Lens bias supplies. Precision control & monitoring, Low ripple & noise, tight stability. Convection cooled design for mounting near the source. Integral HV cables to reduce cost and increase reliability. Configurable product to meet product-specific needs.
HV-RACK-2-250	HV-RACK-4-500			
HV-RACK-2-500	HV-RACK-4-750			
HV-RACK-3-250	HV-RACK-4-1000			
HV-RACK-3-500				
HV-RACK-3-750				