

# product mini-catalog

High Voltage Systems



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 **ULTRAVOLT**  
Making High Voltage Easier!®

**When considering a High Voltage System and supplier ask yourself...**

**Am I working with a HV expert who can help me make my project a success?**

UltraVolt has HV technical Applications Engineers ready to assist you in definition, acquisition, installation, and optimization as well as experienced design and manufacturing teams in the USA and Europe to deliver your requirements.

**Do you have a high-voltage power system that meets all of your needs?**

UltraVolt offers HV systems with high quality of engineering & manufacturing in levels of performance, features, and functions from basic through nominal to precision. Our product lines include standard products, modified standard, systems integration with standard products, and full custom. Our system product line includes models with output voltage from **0 to 6.5V to 0 to 300kV** at output power from **100mW to 300kW** with both analog & digital controls. These can range from raw power sources to PPM level precision supplies with advanced features to support applications such as capacitor charging, pulse power capability, multi-output E-beam / I-beam / tube / EDM drive for industrial and scientific applications, lasers, linacs, electrostatic power sources, sub-sea cable power, green power systems testing, hybrid vehicle testing, factory floor ATE, superconductors, medical patient diagnostic & patient treatment, as well as semiconductor tools.

**UltraVolt's systems work in hundreds of applications and UltraVolt is an excellent partner for your project!**

Configurable systems are available and may include units from our selection of over 600 modules. UltraVolt's HV modules range from 0-62V to 0-50kV at output power from 0-100mW to 250W.

**UltraVolt is Making High Voltage Easier!® with Higher Service, Higher Performance, Higher Reliability**

**CONFIGURABLE SYSTEMS**

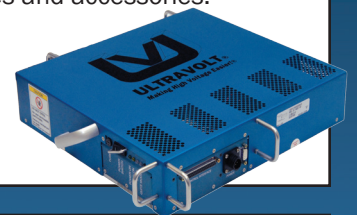
**HV Rack Configurable Series**

Our HV Rack Configurable Series can have up to 4 independent channels, selected from among our over 600 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-cross over, and simultaneous voltage and current monitoring of all channels. Configuration options include floating channels, green meters, and the USB Interface.



**MMS-eB Series**

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-, 5-bias supplies for precision micro-focus electron guns including beam, filament, extractor, suppressor, and lens. MMS-eB systems utilize UltraVolt's off-the-shelf high voltage power supplies and accessories.



**BENCH TOP SYSTEMS**

**BT Series**

Our BT Series is a benchtop system with a single positive or negative output. The BT Series accepts standard modules from 62V to 15kV of output voltage at 100mW to 20W of output power, and has a universal 85-264VAC input. This compact power system offers stand-alone and remote operation modes. USB control and monitoring is also available. Features include current and voltage monitoring and protection against overloading, short circuiting, and arcing.



**BT-GP Series**

BT-GP Series general purpose bench-top high voltage power systems offer adjustable output voltage, digital voltage reading, highly stable output, and low ripple with either in AC or DC input. Available from 0 to 1kV through 0 to 30kV at up to 30W of output power. Units are available in both positive and negative polarities.



**RP-L/C Series**

Our RPL (DC bias) and RPC (Capacitor charger) Series of rugged, high performance laboratory and capacitor charging power supplies allow users to reverse polarity by simply changing the output plugs. Units offer low ripple and good electromagnetic compatibility (EMC). Output voltages range from 5kV to 70kV at 500W to 1.8kW. Digital interfaces available.





## HIGH POWER HIGH VOLTAGE SYSTEMS

### HCP/MCP Series

These series provide a range of 0 to 125V thru 0 to 300kV at 14W to 15kW. Units provide high performance which includes low ripple, excellent regulation, floating output and a low stored energy. Efficiency to 90%.



### HCH Series

This series offers 0 to 650V thru 0 to 300kV at 0 to 10kW thru 0 to 50kW. Units provide voltage and current regulation with automatic sharp transition. Efficiency to 90%. Digital interfaces available.



### HPV Series

Our HPV Series of high-power high voltage power supplies is available from 0 to 60kV thru 0 to 200kV at 0 to 6kW thru 0 to 60kW. Units offer high control speed, high efficiency, and high performance.



## HIGH POWER THYRISTOR REGULATED SYSTEMS

### NYN Series

These high power systems are available as single or double 19" cabinets. Units are available from 12.5V to 350V at 0 to 7kW thru 0 to 100kW. Units are suitable for inductive and capacitive loads and limit inrush current on power on. Digital interfaces available.



### MYN Series

The MYN Series is available from 0 to 650V thru 0 to 2kV at 0 to 7kW thru 70kW. Units are suitable for inductive and capacitive loads and limit inrush current on power on. Output isolation available up to 2kV.



### HYN Series

The HYN Series of high power systems is available from 0 to 3.5kV thru 0 to 20kV at 0 to 10kW thru 0 to 50kW. Units are suitable for inductive and capacitive loads and limit inrush current at power on. Efficiency to 90%. Digital interfaces available.



## HIGH POWER LV

### NTN Series

The NTN Series of high power low voltage systems is available from 0 to 6.5V thru 0 to 350V at 0 to 35W thru 0 to 100kW. Parallel and series connections are possible. Efficiency to 90%. Digital interfaces available.



## BI-POLAR

### NLB Series

The NLB Series of bi-polar power systems is available from 0 to  $\pm 6.5V$  thru 0 to  $\pm 350V$  at 0 to 30W thru 0 to 1.4kW. Units are able to operate as a 4-quadrant power amplifier with fast output slew rate including current sinking.



### HCB Series

The HCB Series of bi-polar power systems is available from 0 to  $\pm 1.25kV$  thru 0 to  $\pm 20kV$  at 0 to 1.4W thru 0 to 200W. Units are able to operate as a zero crossing power amplifier with fast output slew rate including current sinking.



## ELECTRON BEAM

### HCV Series

The HCV Series is available from 0 to 6kV thru 0 to 200kV at 5kW to 300kW. Units offer high efficiency and high performance. Available with Heater, Grid, and Surge outputs floating on the beam.



## CAP CHARGING

### HCK Series

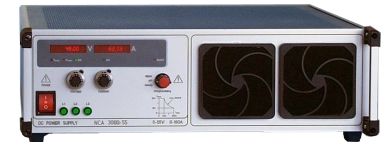
HCK Series systems are available from 0 to 2kV thru 0 to 65kV at 3mA to 20A, 100J/s to 20kJ/s as a building block or a total solution. Suitable for continuous or compensation charging.



## CONSTANT POWER

### MCA/NCA Series

These high efficiency series are available from 55V to 3kV at 750W to 9kW. Floating output (to 3kV) is optional. Digital interfaces available.



## EURO CASSETTE

### HCE Series

The HCE Series of light weight, high voltage euro-cassette power supplies offers 0 to 125V thru 0 to 35kV at 0 to 7W thru 0 to 350W and plug into a chassis. Bench top or rack mount versions available.



## LINEAR LOW VOLTAGE

### NLN Series

The NLN Series of linear, regulated power supplies is available from 0 to 6.5V thru 0 to 500V at 0 to 35W thru 0 to 1.4kW. Systems offers low noise, high stability, and fast output slew rate including current sinking. Digital interfaces available.



## FLOATING ISOLATION

### HTS Series

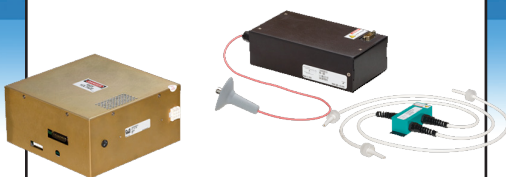
The HTS Series of isolated transformers provide mains supply to loads located on a high voltage potential. Isolation voltages offered include 50kV DC at 100VA to 3kVA and 300kV DC at 1kVA to 100kVA.



## SYSTEMS INTEGRATION

### Systems Integration

UltraVolt offers form-fit-function replacements of subsystems in a variety of industries, including industrial, military COTS, and aerospace. Applications range from electrostatics and e-beam to pulsed power high voltage.



## TEST FIXTURES

### HMT/HMG Series

HMT & HMG Series high-voltage dividers allow for precise measurements of high DC and AC voltages (to 100Hz) and of superimposed AC components. DC & AC Accuracy of  $\pm 1\%$ . Temperature coefficients of 100ppm.



### TF SERIES

Our TF series of compact inline test fixtures provide convenient inline measurement of HV power supplies and HV system performance. When used with an oscilloscope or conventional meter measure HV DC to 0.1% @25PPM, compensated high speed bandwidth of DC to 2Mhz @2% accuracy, AC measurement of 35Hz to 10Mhz at 5% accuracy and monitor AC to 20Mhz. EZ measurement of ripple, noise, pulses, absolute DC, DC stability, line/load regulation, & calibration.

