DC POWER SUPPLIES

High Voltage DC Power Supplies

HIPOTRONICS high power ranges of supplies are either air or oil insulated. There are numerous protection features provided in these power supplies including input and backup breakers, user defined overload and overvoltage settings, fast overload sensor, zero-start interlock plus provision for external safety interlock, current-limiting resistor in output circuit, output shorting solenoid (and/or stiff resistive bleeders), and fuse or circuit breaker protection of controls.

Rated current is available from zero to maximum voltage. All power supplies feature solid-state rectifiers, meter calibration, surge/transient protection of meters, relays, and voltage regulators. Controls include optional meter polarity-reversing output button in addition to input power and overload circuits.

DC Power Supplies are available in a wide range of voltage (1kV to 200kV) and power ratings (1kW to 25kW) with exceptional reliability, durability, and functionality. For higher ratings, consult factory.

No matter your test requirements, HIPOTRONICS has highly reliable test solutions to meet your testing needs.



| Automatic | Reports Review Test Data |
|-----------|-----------------------------|
| • | |
| Manual | Settings |

FEATURES

- ☑ Continuously adjustable test voltage from 0.5% to 100% of rated voltage
- ☑ **Microprocessor controller** provides better regulation accuracy and measuring accuracy
- Shielded output cable
- ☑ Adjustable Overload from 0% to 110% of rated current output
- Backup Breaker overload safety situation
- Zero start interlock ensures that the voltage control is at zero before HV can be energized
- Shorting solenoid grounds output cable and object under test

BENEFITS

- ☑ Simple to Use minimal amount of setup time and simple control panel allows simple testing
- Operator Safety the power supply and test object are automatically grounded when high voltage is turned off
- ☑ Output Connected Meters allows for fast accurate readings
- Shielded Coaxial Output Cable allows for easy connection to test object

APPLICATIONS

- ☑ Accelerators
- ☑ X-Ray Systems
- DC Transmission Line Components
- High Voltage Power Sources

HIPOTRONICS

TECHNICAL SPECIFICATIONS

| Output Voltage | Up to 200kV | | |
|---------------------------|---|--|--|
| Output Power | Up to 25kW | | |
| Output Polarity | Positive or Negative output in respect to ground* | | |
| Voltage Metering Accuracy | ±1.5% of reading ± 0.2% of full scale | | |
| Regulation | Between 10% to 18% No Load to Full Load ** | | |
| Ripple | Between 2% rms and 5% rms *** | | |
| Ramp Rate Accuracy | +/- 5% | | |
| Measurement Resolution | 0.01kV, 0.01mA | | |
| Step Resolution | 0.5% of Full Scale | | |
| Partial Discharge Rating | Available for certain models. Consult Factory | | |
| Input Frequency | 50/60Hz | | |
| Input Voltage | 115V – 480V, 1Φ or 3Φ **** | | |
| Duty Cycle | Continuous | | |
| Languages | English, French German, Mandarin, Spanish, Portuguese | | |
| ECCN: 3A992.A | HTS US: 9030.39.0100 | | |

Notes: Higher output rating combinations available. Consult Factory with your testing requirements.

* Reversible Polarity option available for certain models. Consult Factory.

** Value dependent on voltage and power rating.

*** Value dependent on voltage and power rating. 1% rms ripple option available in certain models.

**** Input voltage and configuration dependent on system's power rating. Consult Factory.

| | Electronic Components | | High Voltage Components | |
|-----------|-----------------------|--------------------------------|-------------------------|--------------------------------|
| | Temperature | Humidity (r.h. non-condensing) | Temperature | Humidity (r.h. non-condensing) |
| Operation | +5°C +40°C | 5 95% | -10°C +45°C | 5 90% |
| Storage | -20°C +70°C | 5 95% | -10°C +55°C | 5 90% |

SCOPE OF SUPPLY

STANDARD OPTIONS

| Embedded controller | HHDA13-280 – 120kV rated grounding stick |
|---|---|
| All-in-one cabinet or separate regulator and HV transformer | DI-REM-SFTW – Remote control Software with external E-stop button |
| HV warning lamp | DI-FO – Fiber optic connection to computer (customer supplied) |
| Manual and Test Report | GND Braid – Grounding material |
| | HH-800-HS – Hand operated interlock switch |
| CUSTOMER SUPPLIED | HH-800-FS – Foot operated interlock switch |

Input/output regulator power cables (if applicable) High voltage output connection to test object Grounding materials **Casters** – Set of casters for regulator & HV tank (if applicable)