

# PORTABLE DC HIPOTS 40 KV-160 KV

## Description

PHENIX Technologies offers a line of DC Hipots that are lightweight, compact, and ruggedly built for use in the lab or field for accurate testing of electrical switchgear, cables, motors, generators, and protective equipment. Five models are available with outputs of 0-40 kV, 0-75 kV, 0-100 kV, 0-120 kV, and 0-160 kV.

Each model includes many advanced features including high accuracy digital meters, analog charging current-meter, adjustable overcurrent, and increased output current ratings.

Establishing a consistent maintenance testing program reduces failures and extends equipment life.



*Model 440-20,  
Model 475-20*



*Model 4120-10,  
Model 4160-5*



*Model 4100-10*



## Design & Safety Features

- Output voltage continuously adjustable
- "Zero Start" Interlock
- Adjustable overcurrent trip point from 10%-110% of each current range
- Large, easy to read, high accuracy digital meters
- Analog 0-100% of range current meter for visual charge indication
- Input Circuit Breaker/Power Switch
- Thermal resettable overload
- Built in discharge circuit
- Integrated cable storage bin
- Removable line cord
- Light weight, portable and enclosed in rugged, high density polyethylene carrying case

## Options

- Custom output lead lengths
- Safety Foot Switch
- Ground Stick
- Discharge Stick



## Ground Stick and Discharge Stick

The PHENIX Ground Stick and Discharge Stick are each a convenient 2-piece design for easy storage and are made of rugged fiberglass and come with a 25 foot ground

lead. For a safe work environment, all circuits must be grounded before handling.



## Specifications

Model Number	440-20	475-20	4100-10
<b>Input*</b> (one voltage must be specified)			
Voltage	120 or 220 VAC, 50/60 Hz	120 or 220 VAC, 50/60 Hz	120 or 220 VAC, 50/60 Hz
Current	5/3 A	10/5 A	10/5 A
<b>Output</b>			
Voltage	0-40 kV	0-75 kV	0-100 kV
Current	20 mA	20 mA	20 mA
Ripple	<2%	<2%	<2%
Polarity	negative, positive ground	negative, positive ground	negative, positive ground
Duty Cycle	Continuous @ 20 mA capacitive charging	Continuous @ 20 mA capacitive charging	Continuous @ 20 mA capacitive charging
<b>Meters</b>			
Voltage Range	0-19.99/40 kV	0-19.99/75 kV	0-19.99/100 kV
Current Range	0-19.99 $\mu$ A /199.9 $\mu$ A/ 1.999 mA /19.99 mA	0-19.99 $\mu$ A/199.9 $\mu$ A/ 1.999 mA /19.99 mA	0-19.99 $\mu$ A/199.9 $\mu$ A/ 1.999 mA /19.99 mA
Type	3 1/2 digit, LCD	3 1/2 digit, LCD	3 1/2 digit, LCD
Accuracy	0.5% FS	0.5% FS	0.5% FS
<b>Dimensions</b>			
	19" (483 mm) W	19" (483 mm) W	22.5" (572 mm) W
	10.5" (266 mm) D	10.5" (266 mm) D	21" (533 mm) D
	20.5" (520 mm) H	20.5" (520 mm) H	16.5" (420 mm) H
Weight*	48 lbs (22 kg)	59 lbs (27 kg)	98 lbs (44 kg)

\*Note: For 220 VAC, the weight increases slightly.

Model Number**	4120-10**	4160-5**
<b>Input*</b> (one voltage must be specified)		
Voltage	120 or 220 VAC, 50/60 Hz	120 or 220 VAC, 50/60 Hz
Current	10/5 A	10/5 A
<b>Output</b>		
Voltage	0-120 kV	0-160 kV
Current	10 mA	5 mA
Ripple	<2%	<2%
Polarity	negative, positive ground	negative, positive ground
Duty Cycle	Continuous @10mA capacitive charging	Continuous @5mA capacitive charging
<b>Meters</b>		
Voltage Range	0-19.99/120 kV	0-19.99/160 kV
Current Range	0-19.99 $\mu$ A /199.9 $\mu$ A/ 1.999 mA /19.99 mA	0-19.99 $\mu$ A /199.9 $\mu$ A/ 1.999 mA /19.99 mA
Type	3 1/2 digit, LCD	3 1/2 digit, LCD
Accuracy	0.5% FS	0.5% FS
<b>Dimensions</b>		
	<b>Controls / HV Module</b>	<b>Controls / HV Module</b>
	21" (533 mm) / 17.5" (440 mm) W	21" (533 mm) / 18" (460 mm) W
	17" (432 mm) / 12" (305 mm) D	17" (432 mm) / 12.75" (325 mm) D
	14" (355 mm) / 22" (560 mm) H	14" (355 mm) / 28" (710 mm) H
Weight*	33 lbs (15 kg) / 111 lbs (50 kg)	33 lbs (15 kg) / 150 lbs (68 kg)

\*Note: For 220 VAC, the weight increases slightly.

\*\*Note 2 Piece Units=Controls & HV Module

### LEADS INCLUDED:

#### Models 440-20, 475-20, 4100-10

7 ft. (2 m)	Input Lead
20 ft. (6 m)	HV Lead
20 ft. (6 m)	Return Lead
20 ft. (6 m)	Ground Lead

#### Models 4120-10, 4160-5

7 ft. (2 m)	Input Lead
20 ft. (6 m)	HV Lead
20 ft. (6 m)	Return Lead
20 ft. (6 m)	Ground Lead
25 ft. (8 m)	Interconnect

### CALIBRATION:

Meters calibrated with standards certified by NIST. A traceable sticker is affixed to the faceplate and a Certificate of Calibration is included.



## Company Profile

PHENIX Technologies is a leading manufacturer of high voltage, high current, and high power test systems and components. Our test systems are in operation around the world satisfying the testing requirements of our customers.

Our 70,000 square foot headquarters is a modern manufacturing facility where all the major components of our systems are produced. All aspects of electrical and mechanical design, software design, and actual production are performed in this facility and controlled by an ISO9001 quality program. Our engineers offer a unique blend of

theoretical knowledge and practical experience. Our ever-expanding Service and Calibration Department stands ready to assist you during and after installation to insure years of trouble-free service.

Our engineering resources, manufacturing capability, and commitment to flexibility have earned us the reputation as the supplier of choice. From portable test equipment to large, cutting edge automated test systems, Phenix Technologies provides solutions for your testing needs. You owe it to yourself to discuss your testing requirements with Phenix Technologies today.

## The PHENIX Technologies Product Line

- High Voltage AC Dielectric Test Sets
- Resonant Test Sets
- Variable Frequency Resonant Test Sets
- DC Hipots and Insulation Test Sets
- Automatic Insulating Material Testers (D149)
- Microhmmeters
- Liquid Dielectric Test Sets
- Megohmmeters
- Battery Testing Equipment
- AC/DC Kilovoltmeters
- Partial Discharge Detector
- Vacuum/Oil Interrupter Testers
- Bucket Truck Testers
- High-Frequency Cable Aging Test Sets
- Heat Cycling Test Sets
- Rubber Goods-Protective Equipment Testers
- Core Loss Testers
- AC, DC and AC/DC Motor Test Sets
- Water Brake Dynamometers
- Transformer Test Sets
- Transformer Turns Ratio Test Sets
- Frequency Response Analyzer
- High Current / Circuit Breaker Test Sets
- Recloser Test Sets
- DC Power Supplies
- High Voltage DC Cable Thumpers
- High Voltage Terminations
- High Power Column-Type Variable Transformers
- High Power Thoma-Type Variable Transformers
- Voltage and Current Stabilizers
- Impulse Generators/Standard Capacitors/Coupling Capacitor

Your local representative is

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