



## PORTABLE DC HIPOTS

### Description

PHENIX Technologies offers a line of conservatively designed and ruggedly built portable DC Hipots for use in testing electrical switchgear, cables, motors, generators, and protective equipment. DC testing is popular because the equipment is more compact and lighter in weight than comparable AC equipment and is also generally less expensive.

The DC Hipots offered by PHENIX Technologies are suitable for lab or field use and are especially helpful when it is needed to determine the adequacy of newly installed insulation or to determine when corrective steps are necessary to return equipment to a safe operating condition. The results of DC tests will help predict the useful life of insulation. Establishing a consistent maintenance testing program reduces failures and extends equipment life.

### Design & Safety Features

- Continuously adjustable output
- Negative output, positive ground
- Guard circuit for stray leakage current bypass
- Three range voltmeters
- Zero start interlock
- CONTROL POWER ON switch with indicator
- HV ON/OFF pushbuttons with indicators
- External interlock provision
- Surge and transient protection
- Rugged impact/corrosion resistant rotomolded cases with carrying handles and cable storage
- 6-foot input cord (three wire)
- 20-foot test leads (3) with clips and boots
- 25-foot interconnect cable (4120-5, 4160-2)

### Options

- Adjustable overcurrent trip on selected models—please inquire
- Grounding stick
- Other output voltages
- Discharge Stick
- Digital meters
- Output and return lead lengths can be specified



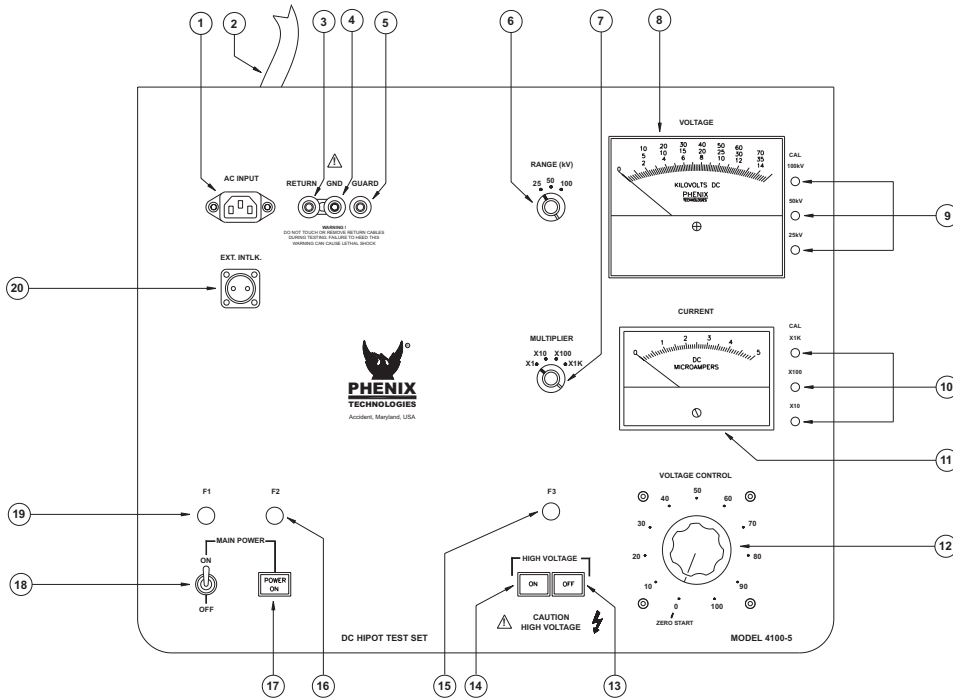
### Technical Data\*

MODEL	430-5	470-5	4100-5
<b>INPUT</b>			
Voltage		120 or 220 VAC, 50/60 Hz	
Current	1.8/9A	4.4/2.2A	6/3A
<b>OUTPUT</b>			
Voltage	0-30kV	0-70 kV	0-100 kV
Current	5 mA	5 mA	5 mA
Ripple		< 2.5%	
Polarity		negative, positive ground	
Duty Cycle		1 hour on/1 hour off	
<b>METERS</b>			
Voltage ranges	0-6/12/30 kV	0-14/35/70 KV	0-25/50/100 kV
Current ranges		0-5/50/500/5000 $\mu$ A	
Type		4½ in., analog	
Accuracy		+/- 2% FS	

MODEL	4120-5	4160-2
<b>INPUT</b>		
Voltage		120 or 220 VAC, 50/60 Hz
Current	6.6/3.3A	6.6/3.3 A
<b>OUTPUT</b>		
Voltage	0-120 kV	0-160 kV
Current	5 mA	2 mA/5 mA charging
Ripple		< 2.5% peak-to-peak
Polarity		negative, positive ground
Duty Cycle	1 hour on/1 hour off	2 mA @ 1 hour on 1 hour off /5 mA @ 5 min. on /15 min off duty cycle
<b>METERS</b>		
Voltage ranges	0-30/60/120 kV	0-40/80/160 kV
Current ranges	0-5/50/500/5000 $\mu$ A	0-5/50/500/5000 $\mu$ A
Type	4½ in., analog	4½ in., analog
Accuracy	+/- 2% FS	+/- 2% FS

\*Based on our commitment to continual research and development PHENIX Technologies reserves the right to update product specifications without notice!

## Control Panel Layout



1. AC power cord
2. Output lead
3. Return terminal
4. Ground terminal
5. Guard terminal
6. Voltmeter range selector
7. Currentmeter range selector
8. Three-range voltmeter
9. Voltmeter calibration potentiometers
10. Currentmeter calibration potentiometers
11. Four-range currentmeter
12. Output voltage control
13. High Voltage OFF
14. High Voltage ON
15. Backup fuse
16. Main fuse
17. Control power indicator
18. Control power switch
19. Main fuse
20. External interlock

## Dimensions/Weights\*

MODEL	430-5	470-5	4100-5
Dimensions	21" W x 17" D x 14" H (533mm) x (432mm) (355mm)	21" W x 17" D x 14" H (533mm) x (432mm) (355mm)	22.5" W x 20" D x 16.5" H (572mm) (508mm) (420mm)
Weight*	53 lbs. (24kg)	80 lbs. (36kg)	106 lbs. (48kg)
MODEL	4120-5	4160-2	
Control Module	21" W x 17" D x 14" H (533mm) (432mm) (355mm) 33 lbs. (15kg)	21" W x 17" D x 14" H (535mm) (435mm) (355mm) 33 lbs. (15kg)	
HV Module	17.5" W x 12" D x 22" H (440mm) (305mm) (560mm) 111 lbs. (50kg)	18" W x 12.75" D x 28" H (460mm) (325mm) (710mm) 150 lbs. (68kg)	

\*Note: for 220 VAC, add 10 lbs. (4.5kg) to 470-5, 4100-5, 4120-5 and 4160-2 controls; 4 lbs. (1.8kg) to 430-5.

## The PHENIX Technologies Product Line

- AC Dielectric Test Sets
- Resonant Test Sets
- DC Hipots and Insulation Test Sets
- Automatic Insulating Material Testers (DI49)
- Liquid Dielectric Test Sets
- Megohmmeters
- 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
- Transformer Test Systems
- Computerized Circuit Breaker Test Sets
- Computerized 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

Your local representative is



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