

C-DC Hipots

HIGHEST RESOLUTION AND ACCURACY
WITH LOW COST



Dielectric Testing

C-DC Hipots


Lightest weight testers available.
Improved sensitivity of test over AC Testers.
Eliminating the requirement for Insulated.

5 different configuration:

- * 50kV – 10 ma (right in the picture)
- * 60kV – 7 ma (right in the picture)
- * 100kV – 5 ma (middle in the picture)
- * 120kV – 4 ma (middle in the picture)
- * 170kV – 3 ma (left in the picture)

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The Amperis Products a complete line of Aerial Lift Test Sets. The model C50 is the most popular unit for distribution class trucks (Category C and Category A&B to 69kV). Its 100kV output allows for testing of all Category C trucks and the largest bucket liners. The use of DC allows testing of even the largest bucket liners without purchasing extra-large and heavy testers required of AC testers. All Amperis testers are RATED FOR CONTINUOUS DUTY at full power, allowing continuous operation without concern for damaging the tester, unlike many competitive units.

The model C-170 provides for testing of category A&B trucks up to the 138kV class. C series topping units can be used to extended testing up to cover even 500kV trucks. DC testing of Aerial Lift provides several distinct advantages over AC testing. While leakage currents are similar for both methods, AC units have to provide for capacitive coupling currents that greatly affect the readings. These capacitive coupling currents can mask a dirty or defective boom that would be detected by DC. These currents also require AC units to have very high output ratings (5kVA-15kVA) as opposed to DC units, which are typically 500W, or less.

FIVE DIFFERENT MODELS:

	C50	C60	C100	C120	C170
Output Voltage	0-50kV DC, negative polarity	0-60kV DC, negative polarity	0-100kV DC, negative polarity	0-120kV DC, negative polarity	0-170kV DC, negative polarity
Output Current	50mA to 50kV continuous duty	7mA to 60kV continuous duty	5mA to 100kV continuous duty	4mA to 120kV continuous duty	3mA to 170kV continuous duty
Ripple	Less than 1% in normal use.				
Input Voltage	110V to 150V, 50-500 hertz, 4 amps for continuous current rating. 240 volt/120 volt available as option E				
Kilovolt Meter	Dual-range 0-30kV, 0-50kV, ±2% of full scale accuracy	Dual-range 0-30kV, 0-60kV, ±2% of full scale accuracy	Dual-range 0-30kV, 0-100kV, ±2% of full scale accuracy	Dual-range 0-30kV, 0-120kV, ±2% of full scale accuracy	Dual-range 0-60kV, 0-170kV, ±2% of full scale accuracy
Output Current Metering	A magnetically and electrostatically shielded and guarded output meter assembly in the HIGH VOLTAGE LEAD with 0-100 µA and 0-1 mA ranges. Current metering also available in the ground return path (CG series or for metering in both output and return paths choose option D)				
Output Termination	Units terminated with 1 megohm 100kV protective output resistor and corona suppression balls.				
Sectionalized Discharge Stick	Overall length of 39" (99cm) consisting of two insulating sections, one 7.5 megohm resistive section, one hook, one insulating shield, and one ground connecting strap. Unit collapses to store inside control box.				Overall length of 65" 165cm) consisting of three insulating sections, two 7.5 megohm resistive section, one hook, one insulating shield, and one ground connecting strap. Unit collapses to store inside control box.
Dimensions High Voltage Section	18.5" (47.0cm) x 21.25" (54.0cm) x 10.5" (26.7cm), 40 lbs. (18.kg)		25.5" (64.8cm) x 21.25" (54.0cm) x 10.5" (26.7cm), 54 lbs. (24.5kg)		39.5"(100.3cm) x 21.25" (54.0cm) x 10.5" (26.7cm), 75 lbs. (34kg)
Dimensions Control Box	16.25" (41.3cm) x 13.5" (34.3cm) x 8" (20.3cm), 27.3 lbs. (12.4kg)				
Dimensions Protective Output Resistor	19" (48.3cm) long, 2.5" (6.4cm) diameter, 2.75 lbs. (1.3kg)				

EACH HIGH VOLTAGE BASE CABINET CONTAINS:

- A 625 volt amp, 110v to 20kv or 220v to 20kv (Option E), air-insulated, epoxy-impregnated, high voltage transformer.
 - A Cockcroft-Walton voltage multiplier circuit specially engineered for this particular application.
 - A kilovoltmeter multiplier resistor connected directly to the high voltage guard circuit. This gives direct voltage measurement of the high voltage output.
 - A magnetically and electrostatically shielded and guarded output meter assembly in the HIGH VOLTAGE LEAD with ranges of 0-100 microamp and 0-1 milliamp. Each meter is individually protected by a special bypass circuit. Range changing is accomplished automatically. Special ranges can be furnished. This assembly is replaced by a multirange 0-10 microammeter in the control box in the Model CG. The overlapping ranges are 0-10/30/100/300/1,000/3,000/10,000/30,000 microamps.
 - A neon protective tube to limit the kilovoltmeter circuit to 50 volts.
 - A high voltage hot guard (non-measured) connection when current metering is provided in the high voltage lead.
 - A cold guard (non-measured) connection when current metering is provided in the ground return lead. (Model CG and units with option D).
 - A metal ball suitable for corona free operation at maximum voltage is provided on the output terminal for use on top of the protective output resistor.
- These units can be extended to 500KV with Amperis topping units. The maximum output voltage level is limited by the required output current at that voltage



EACH CONTROL BOX CONTAINS:



- A variable autotransformer for adjusting the output voltage from zero to maximum rated test set voltage.
 - An instantaneous circuit breaker.
 - A ground relay circuit so arranged that the high voltage cabinet must be grounded in order to operate the unit.
 - A linear rectifier-type primary 0-5 A.C. ammeter permits extrapolation of the D.C. output current from 1 milliamp to 5 milliamps. This is omitted in the Model CG and units with option D with output current metering in both the high voltage output lead and the ground return.
 - A 50 microampere special high torque kilovoltmeter with its calibrating circuits. Each unit has two ranges. They are 0-15/50kv or 0-15/60kv or 0-30/100kv or 0-30/120kv or 0-60/170kv. Additional 0-5/10kv ranges (50kv to 120kv units) and 0-10/20kv ranges (170kv units) are available as option A.
- A four or six conductor cord for connecting from the control box to the high voltage cabinet.
 - A storage compartment 5" (12.7cm) x 5-1/2" (14.0cm) x 12" (30.5cm) to hold the connecting cords and sectionalized discharge stick.
 - Varistors across the incoming line to the case ground constitute an alternate safety ground and provide surge protection to the test equipment.
 - A three wire cord with three wire grounding male cap plug.
 - A pilot light.
 - A cold guard selector switch with metered isolated return and metered ground return positions is furnished on the Model CG units and units with option D.
 - Two instruction manuals.

SECTIONALIZED DISCHARGE STICK:

Units rated 50kv, 60kv, 100kv and 120kv have a stick with an overall length of 39" (99cm) and consist of two insulating sections, one resistive section (4 megohm for 50kv & 60kv, 7.5 megohm for 100kv & 120kv units), one hook, one insulating shield, and one ground connecting strap. Units rated 170kv have a stick with an overall length of 65" (165cm) and consist of three insulating sections, two resistive sections-7.5 megohms, one hook, one insulating shield, and one ground connecting strap.