

# AC VLF Substation Combination Test Set



## Testing Applications

This test set utilizes a very low frequency power supply for cable hi-potting along with DC supplies for fault burning and locating. The test set is capable of testing system feeders ranging from 4 kV through 33 kV and up to 25 microfarad cable capacitance load tested at maximum voltage.

**Models up to 100 kV available**



**Model LFTC60-6X**



## Specifications – Model LFTC60-6X

### Input Power Requirements

Input Voltage (rms)*	208-600 VAC, 3-Phase
Input Current (rms)	144 AAC
Frequency*	50 or 60 Hz
Apparent Power	52 kVA

\*Voltage and frequency required must be specified.

### VLF AC Output

Output Voltage	0 to ± 60 kV
Charging Current	0 to ± 100 mA
Peak Current During a Polarity Reversal	306 A
Frequency	0.1 Hz
Output Voltage Waveform	Cosine Rectangular
Internal Preload Capacitance	1 µF
Maximum Allowed Feeder Capacitance	25 µF
Nominal Polarity Reversal Time at Maximum Feeder Capacitance	16.0 ms
Minimum Allowed Feeder Capacitance	0 µF (no additional external load is required for operation)
Nominal Polarity Reversal Time at Minimum Feeder Capacitance	3.1 ms
Duty Cycle at Maximum Output Power	1 Hour On / 1 Hour Off

### DC Outputs

DC Hipot Output Voltage	0 to 60 kVDC, Positive Polarity
DC Hipot Charging Current	0 to 100 mADC
DC Hipot Output Power	0 to 6 kW
20 kV Burn Supply Output Voltage	20 kVDC, Positive Polarity
20 kV Burn Supply Output Current	1 ADC
20 kV Burn Supply Output Power	20 kW
2 kV Burn Supply Output Voltage	2 kVDC, Positive Polarity
2 kV Burn Supply Output Current	10 ADC
2 kV Supply Output Power	20 kW
Burn Supply Operating Modes	Continuous or Pulse Mode with ½ second on / 2 ½ seconds off
Duty Cycle at Maximum Output Power (All DC supplies)	Continuous

### Capacitor Discharge Output

Maximum Discharge Voltage	25 kV
Maximum Discharge Energy	7.5 kJ
Minimum Charge Time, 0 – 25 kV	6 seconds
Discharge Interval	Adjustable, 6 to 15 seconds
Discharge Switch Type	Motor operated piston type spark gap with tungsten contacts

### Internal Discharge Resistor

Ohmic Value	1,600 Ω
Maximum Nominal Energy Capacity in Single Discharge	400 kJ
Resistor Material	Sintered Ceramic
Discharge Switch Design	Electric Solenoid Open / Gravity Close

### Dimensions and Weight

Width	40" (1016 mm)
Height	82" (2083 mm)
Depth (Writing Top Folded Down)	121 ¼" (3080 mm)
Depth (Writing Top Extended)	132 ¼" (3359 mm)
Weight	5,000 lbs. (2,268 kg)

### Environmental Conditions

Location	Indoor (Standard "Station Set") Truck Mount (Optional "Mobile Set")
Operating Temperature Range	0° to 40° C
Storage Temperature Range	-10° to 50° C
Humidity	≤ 90%, non-condensing
Pollution Level	Low
Altitude Above Sea Level	≤ 1000 meters
Nominal Atmospheric Pressure	0.1 MPa
Daily Average Temperature	≤ 25° Celsius
Maximum Acceleration in All Directions	≈ 0.2 g



VLF AC Hipot Test Screen



DC Hipot Test Screen



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We carry our commitment into the future as we proudly continue to provide the best in **high voltage, high current, high power test systems and components.**



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