



Portable AC Hipot Test Sets

0-10 kVac, 0-30 kVac, 0-50 kVac and 0-100 kVac



Model PFT-503CM
(0-50 kVac)



Model PFT-301CM
(0-30 kVac)



Model PFT-1003CM
(0-100 kVac)



Description

The **PFT Series** of portable AC hipot test sets are ideal for a variety of field and repair shop testing applications. These inexpensive, compact and light weight units are rugged and reliable. Our 3 kVA models feature capacitive load compensation enabling full load testing with a power draw of 1.5 kVA while operating from a conventional line input.*

Applications

These units are well suited for testing overhead apparatus, vacuum bottles and interrupters, switch gear, bus duct, motorized vacuum switches, reclosers, bushings, fuses and arrestors, linemans safety products, small transformers, electrical components and motors.

For AC cable testing, we offer a variety of Very Low Frequency AC hipots that are well suited for testing long cable lengths. Please contact our sales office for more information on cable testing applications.

Control Features

Control features on our 3 kVA models include a dual range kilovoltmeter and triple range output current meter. All of our units feature continuously adjustable output voltage control, external safety interlock, zero start safety interlock, self resetting over current protection, guard/ground return mode, HV on/off and main power pushbuttons and ruggedized meters with glass windows that eliminate static buildup.

An optional fault burning mode is available for our 3 kVA models and for increased portability, a hand cart option is available for the PFT-1003CM.

Advantages

We offer four single piece, shielded output cable models: PFT-103CM, PFT-301CM, PFT-303CM and PFT-503CM. A two piece 100kV model PFT-1003CM with a top toroid termination (no output cable) is also available. In addition, we offer an ALT-120/60 that is specialized for Aerial Lift and Bucket Truck testing applications and suitable for general AC high voltage testing applications. Custom models are available from 10kVac to 300kVac output.



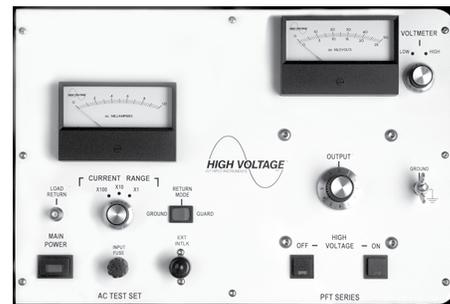
Portable AC Hipot Test Sets

	PFT Model Specifications				
	PFT-301CM	PFT-103CM	PFT-303CM	PFT-503CM	PFT-1003CM
Input	120V, 60 Hz, 10A or 230V, 50/60 Hz, 5A	120 V, 60 Hz, 15A, or 230 V, 50/60 Hz, 8A			
HV Output	0-30 kVac, 1kVA resistive load 33 mA current	0-10 kVac, 1kVA resistive load 3 kVA capacitive load Up to 300 mA current	0-30 kVac, 1kVA resistive load 3 kVA capacitive load Up to 100 mA current	0-50 kVac, 1kVA resistive load 3 kVA capacitive load Up to 60 mA current	0-100 kVac, 1 kVA resistive load 3 kVA capacitive load Up to 30 mA current
No Load Current: at full output voltage in ground mode but not guard mode	2.5 mA	1.0 mA	14 mA	20 mA	2.0 mA
*3 kVA output power is only available with a capacitive load sized to draw 3 kVA at full rated output. Available output current decreases with other loads.					
Output Termination	20 ft. (6m) long shielded output cable with alligator clamp and hook for test connections				Top Toroid (No output cable)
Duty	1kVA, 1 hour ON, 1 hour OFF 700VA: continuous	3kVA: 1 hour ON, 1 hour OFF 1kVA: continuous			
Distortion	<5%				
Meter Accuracy	2% F.S.				
Kilovolt Meter	3.5 inch Scaled 0-30 kVac	3.5 inch Scaled 0-5/10 kVac	3.5 inch Scaled 0-12/30 kVac	3.5 inch Scaled 0-25/50 kVac	3.5 inch Scaled 0-50/100 kVac
Current Meter	3.5 inch Scaled 0-40 mAac	3.5 inch Scaled 0-3.0 mAac with x1, x10 x100 Range Multiplier	3.5 inch Scaled 0-1.0 mAac, with x1, x10, x100 Range Multiplier		
Control Dimensions	17" w x 11.5" d x 14" h 431 mm w x 292 mm d x 365 mm h	21" w x 11.25" d x 15.25" h 533 mm w x 286 mm d x 387 mm h			
H.V. Tank Dimensions	High Voltage Tank included in controls				13" w x 13" d x 22" h 330 mm w x 330 mm d x 559 mm h
Weight	45 lbs. (20kg)	62 lbs. (28kg)	75 lbs. (34kg)	75 lbs. (34kg)	Control-35 lbs. (16kg) HV Tank-85 lbs. (39kg)

Note: For 230 volt line input, an F is suffixed to the model number.



PFT-301CM Control Layout



PFT-503CM Control Layout

Advantages

Models below 100 kVac are single piece units with a shielded cable output for fast and easy test setup. The PFT-103CM, PFT-303CM, PFT-503CM, and PFT-1003CM are compensated enabling testing of 3 kVA loads with a power draw of 1.5 kVA and operate from a conventional electrical source*. In addition, these units include a dual range kilovolt meter, triple range output current meter and a guard/ground return mode enabling the operator to measure the total current to ground or only the current flowing through the sample under test.



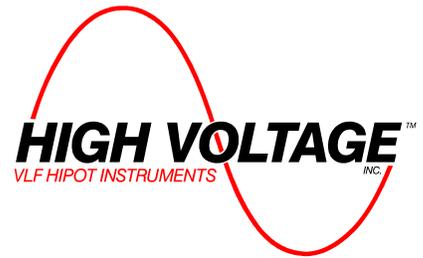
HIGH VOLTAGE, INC.

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High Voltage, Inc. designs and manufactures high voltage test equipment for utility and industrial applications. Also available are Very Low Frequency (VLF) high voltage AC test sets, oil dielectric test sets, AC and DC instrumented test sets, cable fault locators and other products.

HIGH VOLTAGE OUTPUT CABLE

FOR THE ALT-120/60 & PFT-1003CM



For the two models shown above, High Voltage, Inc. does not provide a high voltage output cable. It is the customers' responsibility to provide the proper cable. This will change greatly depending on the application. Anything from a #18 AWG test lead to an aluminum pipe can be used, so long as they are insulated from ground. The output current of the ALT is a maximum of 100 mA and the PFT provides 30 mA of output current. Wire of small size is sufficient for this level of current. What should be used is more a factor of the proximity of the test set with the load and whether a direct line connection can be made or a flexible wire must be used. Generally, larger wire sizes will reduce the corona discharge.

Since these are AC output instruments, shielded output cable is not recommended. If shielded output cable were used, the capacitive leakage current in the output cable alone would consume much of the current rating of the test set. Also, it is difficult to find a shielded cable rated for 120 kVac, even if the leakage current were not an issue.

Whatever is used, unless it is a shielded output cable rated for the output voltage of the test set, it must be insulated from ground by a distance adequate for the voltage.

For further questions, please contact the Engineering Department of High Voltage, Inc.



PFT-1003CM

0 – 100 kVac @ 3 kVA, 30 mA



ALT-120/60

0 - 60 kVac @ 7 kVA, 100 mA
0 - 120 kVac @ 7 kVA, 60 mA