



# D149 SERIES: HIGH VOLTAGE AC DIELECTRIC TESTERS

## The Solution for D149 & IEC 60243-1 Breakdown Testing

### PRODUCT LINE OVERVIEW

The **D149 Series** of AC High Voltage Dielectric Breakdown testers brings the HVI excellence in design and production of high voltage AC technology to this important application. Offered are several popular models rated for the voltage and current needs of most D-149 testing requirements. From 5 kVac - 100 kVac, with 2 kVA - 10 kVA of power, can be supplied with various control configurations to meet the needs of the industry, from simple panel-controlled settings to a programmable PLC. Various test jigs are available, all contained within an interlocked, enclosed cabinet within the test set.

The **HPA Series** of AC Dielectric Test Sets is the basis for our D149 testers, as many of the models can be converted to serve D149 applications. Refer to the HPA Series product information for further details.

### Common Models Produced

MODELS	Output Voltage	Current	kVA
HPA - 202FC3/D149	0 - 20 kVac	100 mAac	2
HPA - 302FC3/D149	0 - 30 kVac	67 mAac	2
HPA - 502FC3/D149	0 - 50 kVac	40 mAac	2
HPA - 1005FC3/D149	0 - 100 kVac	50 mAac	5

Consult Factory for Other Ratings Possible

**D149** - The Standard Test Method for Dielectric Strength of Solid Electrical Insulating Materials and Fluids at Commercial Power Frequencies.

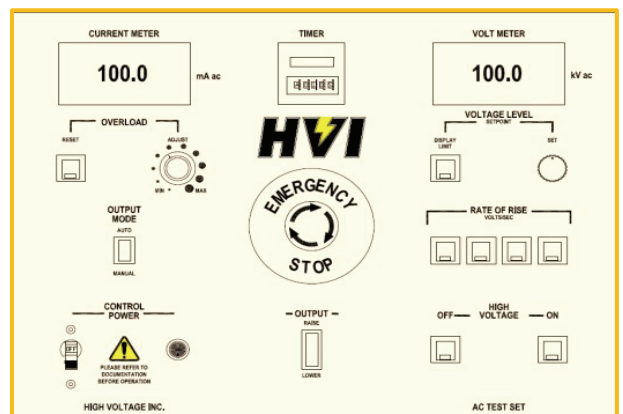


### HPA-302FC3/D-149 Features

- Continuously adjustable motorized output voltage control
- Auto/manual output mode selection
- Selectable rate of rise, 0 - 300/750/1500/3000 v/s
- Fixed primary current overload set to 120% of rated input
- Adjustable secondary current overload: 10 - 110% of output
- Zero start with "Zero Start Bypass" and External Interlock
- Safety interlocked test cage
- Digital voltmeter & current meter, 3.5digit

### Specifications

- Input: 230 V, 50/60 Hz, 10 amps, single ph.
- Output: 0 - 30 kVac, 2 kVA resistive load
- Output Termination: 2 x 1 Toroid in Test Chamber
- Distortion: < 5 %
- Meter Accuracy: 2% of full scale
- Kilovoltmeter: 3 1/2 digit display Scaled 0 - 30.0 kVac
- Current Meter: 3 1/2 digit display Scaled 0 - 66.7 mA
- Size/Weight: 23" w x 30" d x 76.25" h, 310 lbs. 64 w x 763 d x 1940 h mm, 140 kg



### C3 CONTROLLER FEATURES



# Model HPA-1005FC5/D-149: 0 – 100 kVac @ 5 kVA with C5 PLC Controller

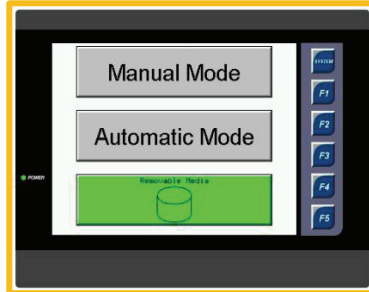


## C5 - PLC Controller Description

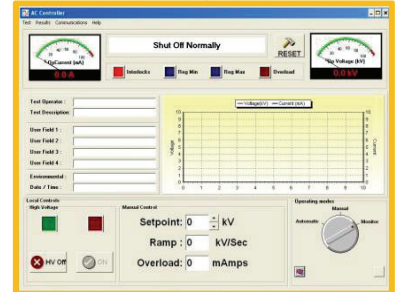
The C5 PLC controller provides an on-board PLC for complete operational and programming control and includes a PC interface to download tests results for report generation. The PLC can fully automate repetitive testing in automatic mode or perform simple hipot tests in manual mode. Test profiles for automatic mode can be pre-set at the factory or can be entered via the touch screen control. Operation is easily modified using Ladder Logic Programming. The C5 controller allows the user to fully program the operation of the set from the PLC and allows complete downloading of test results for report generation using your reporting software.

## Model HPA-1005FC5/D-149 Specifications

- ⚡ Input: 230 V, 50/60 Hz, 30 amps, single phase
- ⚡ Output: 0-100 kVac @ 50 mAac, 5 kVA. Distortion < 5%
- ⚡ Output Terminations: Double 1" x 6" Toroid in Test Chamber
- ⚡ Duty Cycle: 5 kVA - 1 hour ON/1 hour OFF, 4 kVA – Continuous
- ⚡ PLC Metering: 3.5" Digital display, Scaled 0 - 30.0 kVac
- ⚡ 1% of full scale: 3.5" Digital display, Scaled 0 - 100 mAac
- ⚡ Size & Weight: 49.25" w x 30" d x 76.25" h, 760 lbs.  
1251 mm w x 762 mm d x 1937 mm h, 345 kg.



## Other Control Options Available



### Features Include

- 640 x 480 color touch screen display
- Graphical display of output voltage & current
- Output voltage and current final test results
- PC Interface for data download via RS-232
- Save and recall test profiles easily

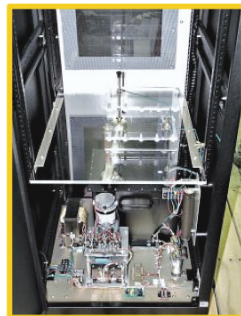
### Standard Controls

- Main Power On/Off breaker
- Control Power panel switch
- HV On/Off via PLC
- Raise /Lower via PLC
- Test Start/Emergency Stop

### User Selectable/Settable Parameters

- Automatic or Manual Mode
- Voltage set point
- Over Current set point
- Test Dwell Timer
- Voltage Rate of Rise (10-100 v/s)

## Other Test Chambers Available



## HVI AC Test Set Lines

- PFT Series:** 10 kVac – 100 kVac  
1 kVA – 3 kVA
- FPA Series:** 6/12 kVac @ 6 kVA
- ALT Series:** 60 kVac – 300 kVac @ 7 kVA
- HPA Series:** 3 kVac – 400 kVac  
3 kVA – 40 kVA
- PAR Series:** 16 kVac – 250 kVac  
80 kVA – 250 kVA

