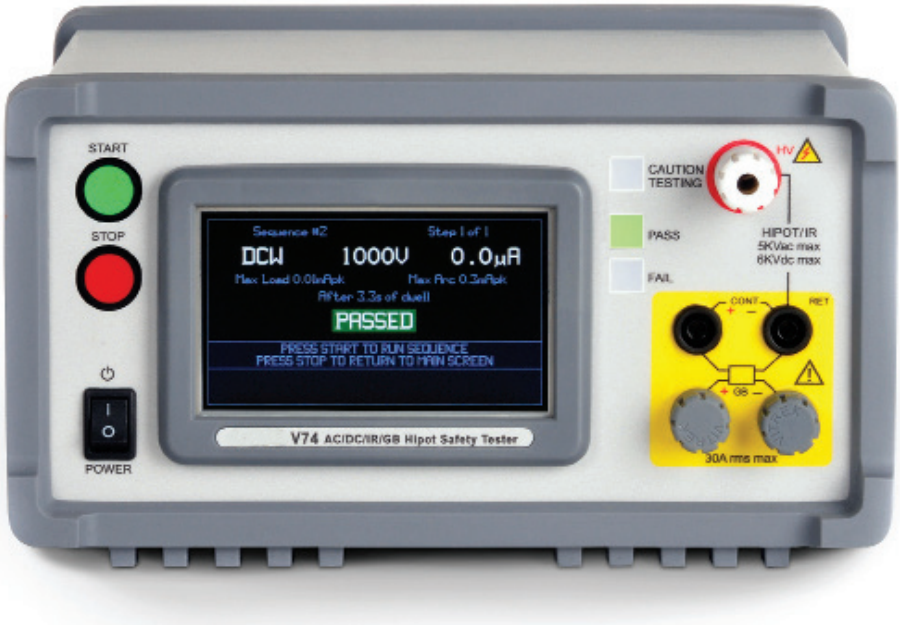
PX ELECTRONICS

PXe-V7x Series Hipot Testers



Electrical safety testing will never be the same.

With color touch LCD and high speed DSP technology, the compact and rugged PXe-V7x sets the standard for price/performance ratio. Made in the USA to meet tough UL, CSA, TUV and IEC Hipot requirements. provides unbeatable speed, accuracy, user safety and reliability.

Choose from six low cost models offering AC and DC Hipot to 5KV, leakage current measurement to 100 nano-amps, Insulation Resistance to 450GΩ, Ground Bond to 30 amps and built-in switching. Combine all that with USB, RS232 and Digital I/O interfaces, plus a two year warranty.

The PXe-V7x is simply unbeatable.

PX Electronics PXe-V7x Series

The Hipot Experience has been Redefined

Our goal for the PXe-V7x series has been to achieve the unheard of. To provide state-of-the-art performance in a powerful yet compact multi-function hipot tester—and do it at an entry level price. From our easy-to-use Touch user interface, to its ultra-reliability, high efficiency, fan free design—the PXe-V7x provides unrivaled performance. Have we met our goal? You be the judge—compare the V7x to our made in China competitors and see how well American engineering stands up. We build PX Electronics Hipot Testers. What's on your production line?

Test 8 DUTs at a Time with the V76

For multi-channel hipot testing—choose the V76 with 24 channels of built-in high voltage switching. With the versatile V76, you can test hipot or IR for any combination of up to eight test points and you can measure low resistance (from .001 ohm to 60K ohms) on up to eight conductors. All automatically with a single touch and all from a single compact tester. For requirements exceeding eight points, the V7x can control up to four PX Electronics 964i 64 channel HV Switching Systems—providing up to 256 channels of Hipot test capability. Simple, fast, automatic multi-point hipot—make the switch to the PX Electronics V7x. You will be glad you di

Features and Benefits

- 4.3" Color Touch Display—Easy To Use Intuitive User Interface
- 6 Functions to Choose From—AC/DC Hipot, IR, Ground Bond, Continuity and Built-in Switching
- Made in the USA—Designed and Built in San Diego CA
- Compact, Lightweight, Rugged, Fan Free, Fast (100mS min test time) and Accurate
- 5KV AC/DC Hipot, 20mA max source current
- Ground Bond 1-30A RMS (42 A peak), 100µΩ Resolution
- 100 nano-Amp Leakage Current Resolution
- Low Cost of Ownership—Two Year Calibration Interval
- USB 2.0, Serial/RS232, Digital I/O Interfaces are Standard
- Continuously Variable Insulation Resistance 20-5000V, 450GΩ Max
- Multi Mode IR with Steady/Rising Pass Mode
- Test Memory Stores up to 999 Steps and 60 Test Sequences
- Internal Self Test Fully Exercises Output and Verifies Current Accuracy
- Pre-Programmed Daily Verification Test With Optional PVD Test Load
- 150µS Safety Shutdown
- Ramped Discharge Capability
- Selectable ARC Detection 1-30mA
- Meets UL, CSA, IEC Safety Tester Requirements
- CE Safety Mark Certified to EN61010
- Two Year Parts and Labor Warranty

PX Electronics PXe-V7x Series Performance Specifications

AC Hipot

Output Voltage
10 to 5000V RMS, 50/60 Hz (2500V max on V76)
Accuracy : 1% of setting +5V, No load to full load
Resolution : 1V at all levels
Max load current : 20mArms
Leakage Current
Accuracy : 1% of reading +5uA
Resolution : 1uA

DC Hipot

Output Voltage
20 to 5000V (2750V max on V76)
Accuracy : 1% of setting+ 5V, No load to full load
Resolution : 1V at all levels
Max load current : 10mA
Leakage Current
Accuracy : 1% of reading +1uA
Resolution : 0.1uA

IR - Insulation Resistance

Test Voltage
20 to 5000VDC (2750V max on V76)
Accuracy : 2.5% of setting +5V, No load to full load
Resolution : 1V at all levels
Max Charge Current: 5mA automatic
Max Capacitive Load: 2uF
Resistance
Max IR: 450Gigohm (90MΩ per volt)
Min IR: 150KΩ
Accuracy : 2% (rdg <5% of max IR), 5% (< 15% of max IR), 10% (< 30% of max IR), 20% (above 30% of max IR)
Max Resolution : 0.1% of value
Min/Max Limits : Defined for each step, max may be set to none

Test Functions

	V70	V71	V73	V74	V76	V79
AC Hipot	•	•	•	•	•	
DC Hipot		•	•	•	•	
IR			•	•	•	
Ground Bond				•		•
Low Resistance	•	•	•	•	•	•
16 Ch HV Scanner					•	

Test Completion
End on Time: Determination on final reading
End on Pass: Test ends with PASS for any reading within limits
End on Fail: Test ends with FAIL for any reading outside limits
End on Steady: Test ends with PASS for a steady/rising reading within limits

Low Resistance

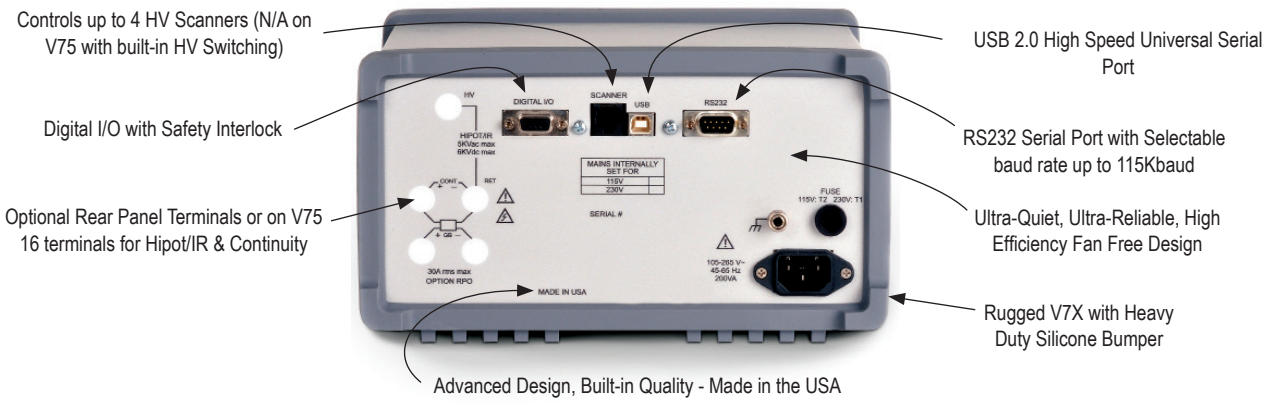
Resistance
Range: 0ohm to 60Kohm
Accuracy : 1.5 %+0.015Ω (<13Ω), 3%+1ohm (<1KΩ), 5 %(< 13KΩ)
Resolution : Down to 0.001Ω
Min test time: 60 mS
Test Method
2 terminal measurement, 10.5mA/ 4.15V max
Resistance Offset
Test leads/fixture measurement offset may be universally applied

Ground Bond

Test Current
1 to 30Arms (42A peak), 50/60Hz
Accuracy : 2.5%+10mA
Resolution : settable to 0.01A at all levels
Compliance: > 4.5Vrms (6V pk) for all currents
Method
4 terminal measurement
Resistance
Max Resistance: Up to compliance V limit at defined test current (4.5ohms max)
Min/Max Limits : Defined for each step, min may be set to none
Accuracy : 2.5%+3mΩ (<2A), 2mΩ (<6.5A), 1mΩ (otherwise)
Resolution : 0.1mΩ (>6.5A), 1mΩ (otherwise)
Resistance Offset
Test leads/fixture measurement offset may be universally applied.

Test Timing

Ramp Time
For AC/DC Hipot: 0 to 99.9sec (0.1sec resolution, 0.05sec accuracy)
Test/Dwell Time
0.1 to 9999sec or user end (0.1sec resolution, 0.15sec accuracy)



PX Electronics PXe-V7x Series Performance Specifications (continued)

Ramp Down
May be set to 0sec or same as Ramp time, automatically skipped if no failure and next step is same AC/DC or IR test type.
Shutdown
Breakdown : within 150us
HV Safety : within 1ms
User Stop or Interlock opened : within 2ms
Resistance/Current Limit : within 100ms
Breakdown
For Hipot tests, automatically checks for sudden uncontrolled increases of load current throughout test, no min/max leakage required.
Arc Detect
For Hipot tests, settable to none or adjustable level between 1 and 30mApk, 5MHz bandwidth.
Pause Step
A timed pause of defined length between 0.1s and 999.9s.
Hold Step
A user continued hold step with a two line message to be displayed to the user while the step is executing.
Switch Step
Provides control of built-in 24 relay switching for hipot/IR and continuity (V76 only). For all other V7X models, provides control of up to 4 PX Electronics 964 switch units, each switch step allows complete control over the states of all switches.
Test Memory
Up to 999 total test steps may be defined in up to 60 different sequences.

General Specifications

DSP Measurement
40,000 samples per second for output control and parameter measurement
Display
4.3" 480 x 272 Color touch LCD user interface
Interfaces
USB 2.0, Scanner Control port (N/A on V75), RS232 and Contact Closure Digital I/O with Safety Interlock
Factory Warranty
Two year parts and labor
Standard Accessories
Alligator test leads for hipot and continuity units (TL-209), 4-wire alligator test leads for GB units (K-2R), operator's manual CD, QT Pro V utility software, evaluation version QT Pro test automation software and power cord

Ordering Information

V70	AC Hipot Tester
V71	AC/DC Hipot Tester
V73	AC/DC/IR Hipot Tester
V74	AC/DC/IR/GB Hipot Tester
V76	AC/DC/IR Hipot Tester with Built-in Scanner
V79	Ground Bond Tester
V7X-230V	Factory Set for 230V Line
QT Pro 7	QuickTest Software
TL-115-1	115V Receptacle Hipot Test Adaptor
TL-115-2	115V Receptacle Hipot & GB Test Adaptor
TL-209	Additional HV/Continuity Test Lead set
K-2R	Additional Ground Bond Lead Set
HVW-7	High Voltage Warning Light
RSS-7	Remote Start Switch
RSF-7	Remote Start Footswitch
TL-TP1	High Voltage Test Pistol
HC-V7X	Hard Carrying Case with Die Cut Foam

Calibration
Two year accuracy specifications and recommended calibration interval, NIST Traceable certificate standard and ISO17025 Accredited with data available.
Safety
CE mark certified to EN61010
Power
115 or 230VAC ±10% factory set, 50-60Hz, 200VA max
Dimensions
5.25" (133mm) H x 9.5" (240mm) W x 11" (280mm) D
Weight
12 lbs, 5.5kg net (V70-73 and V75), 16 lbs, 7.3kg net (V74 and V79)
Country of Origin
Made in the USA

PX ELECTRONICS

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