

Vitrek 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 (90M Ω per volt)

Min IR: 150K Ω

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 % + 0.015 Ω (<13 Ω), 3% + 1ohm (<1K Ω), 5 % (< 13K Ω)

Resolution : Down to 0.001 Ω

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% + 3m Ω (<2A), 2m Ω (<6.5A), 1m Ω (otherwise)

Resolution : 0.1m Ω (>6.5A), 1m Ω (otherwise)

Resistance Offset

Test leads/fixture measurement offset may be universally applied.

Test Timing

Ramp Time

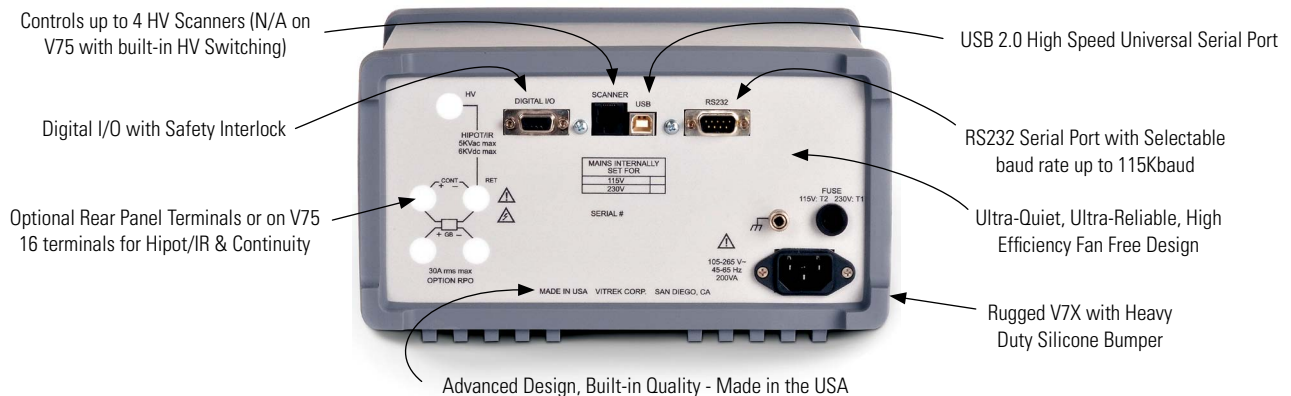
For AC/DC Hipot: 0 to 99.9sec (0.1sec resolution, 0.05sec accuracy)

Test/Dwell Time

0.1 to 9999sec or user end (0.1sec resolution, 0.15sec accuracy)

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.



Vitrek V7X Series Performance Specifications (continued)

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 30mA, 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 Vitrek 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

Calibration

Two year accuracy specifications and recommended calibration interval, ANSI/ NCSL Z540 NIST Traceable cal cert with data included at no additional charge.

Safety

CE mark certified to EN61010

Power

115 or 230VAC $\pm 10\%$ 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

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

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