INSTRUMENTS FOR

ELECTRICAL SAFETY COMPLIANCE TESTING

HIPOT TESTERS
GROUND BOND TESTERS
INSULATION RESISTANCE TESTERS
LINE LEAKAGE TESTERS
MEDICAL TEST SYSTEMS
HV/HC SCANNING MATRICES
SOFTWARE SOLUTIONS
FUNCTIONAL RUN TESTERS
CUSTOM INSTRUMENTS

ASSOCIATED RESEARCH, INC.
Fully-Automated Line Leakage Tester

The 620L is a stand alone Line Leakage tester with an enhanced graphic LCD which automates leakage testing in production and laboratory environments. The 620L is configured for up to 40 Amps of current draw for DUT input power. It is designed to test to most safety agency standards for Line Leakage testing. The 620L comes standard with USB and RS-232 interfaces. Ethernet, GPIB, and RS-485 interfaces are also available.

Model 620L - Fully-Automated Line Leakage Tester

Features and Benefits

- Test operators can configure the 620L to perform all eight required Line Leakage tests
- Leakage current readings can be monitored using both PEAK and RMS measurements
- Most common measuring devices are already incorporated into the instrument’s intuitive menu system
- 50 Memories with 30 steps per memory can be stored and recalled in any alphanumeric combination
- Compact 3U Rack Mount Design
- Optional Functional Run Testing for additional measurements
- Interconnection to APT Brand AC Power Source
- Interconnection to SC6540 Modular Scanner provides automated control of multiple test points
- Graphic LCD and intuitive menu system to simplify the entire testing process
- Patented CAL-ALERT® alerts the operator that the 620L is due for re-calibration
- Handles up to 40 Amp maximum continuous DUT Current
- Optional cold resistance measurement capability
- USB/RS-232, GPIB, Ethernet, or RS-485 automation interfaces available
- Easily Interconnect to any automated Associated Research Hipot Tester
- Autoware Testing Software available for complete Automation Control

APT AC Power Source Compatible

www.aspowertechnologies.com

Safety agency listed.
**Input Specifications**

- **Voltage**: 115/230 VAC ± 10%, user selection
- **Frequency**: 50/60 Hz ± 5%
- **Fuse**: 2 A Slow Blow 250 VAC

**Line Conditions**

- **Reverse Power Switch**: Reverse polarity switch for normal condition
- **Neutral Switch**: Neutral switch on/off selection for single fault
- **Ground Switch**: Ground switch on/off selection for class I single fault

**Probe Settings**

- **Surface to Surface (PH - PL)**
- **Surface to Line (PH - L)**
- **Ground to Line (G - L)**

**Leakage Limit Settings**

- **Touch Current**
  - **High/Low Limit (RMS)**: Range: 0.0 µA - 999.9 µA / 1000 µA - 9999 µA / 10.00 mA - 20.00 mA
  - **Resolution**: 0.1 µA / 1 µA / 0.01 mA
  - **Accuracy**: ±(2% of reading + 3 counts)

- **Touch Current**
  - **High/Low Limit (Peak)**: Range: 0.0 µA - 999.9 µA / 1000 µA - 9999 µA / 10.00 mA - 30.00 mA
  - **Resolution**: 0.1 µA / 1 µA / 0.01 mA
  - **Accuracy**: ±(2% of reading + 3 counts)

**Display**

- **Touch Current**
  - **Display (RMS)**: Range: 0.0 µA - 550 µA, frequency DC, 15 Hz - 1 MHz
  - **Resolution**: 0.1 µA
  - **Accuracy**: ±(2% of reading + 3 counts), 100 kHz ≤ f ≤ 1 MHz: ±5% of reading, (10.0 µA - 999.9 µA)
  - Range: 400 µA - 8500 µA, frequency DC, 15 Hz - 1 MHz
  - **Resolution**: 1 µA
  - **Accuracy**: ±(2% of reading + 3 counts), 100 kHz ≤ f ≤ 1 MHz: ±5% of reading, (10 µA - 8500 µA)
  - Range: 8.00 mA - 20.00 mA, frequency DC, 15 Hz - 1 MHz
  - **Resolution**: 0.01 mA
  - **Accuracy**: ±(2% of reading + 3 counts), 100 kHz ≤ f ≤ 1 MHz: ±5% of reading, (0.01 mA - 20.00 mA)

- **Touch Current**
  - **Display (Peak)**: Range: 0.0 µA - 550 µA, frequency DC - 1 MHz
  - **Resolution**: 0.1 µA
  - **Accuracy**: ±(2% of reading + 3 counts), 15 Hz ≤ f ≤ 1 MHz: ±10% of reading +2 µA
  - Range: 400 µA - 8500 µA, frequency DC - 1 MHz
  - **Resolution**: 1 µA
  - **Accuracy**: ±(2% of reading + 3 counts), 15 Hz ≤ f ≤ 1 MHz: ±10% of reading +2 µA
  - Range: 8.00 mA - 30.00 mA, frequency DC - 100 kHz
  - **Resolution**: 0.01 mA
  - **Accuracy**: ±(2% of reading + 3 counts), 15 Hz ≤ f ≤ 100 kHz: ±10% of reading +2 µA

**Measuring Device Module**

- **MD1**: UL544NP, UL484, UL923, UL471, UL867, UL697
- **MD2**: UL544P
- **MD3**: IEC 60601-1
- **MD4**: UL1563
- **MD5**: IEC60990 Fig4 U2, IEC60950-1, IEC60335-1, IEC60958-1, IEC60665, IEC61010
- **MD6**: IEC60990 U2, IEC60598-1
- **MD7**: IEC60950, IEC61010-1 Fig A.2 (2 kohm) for Run function
- **External MD**: Basic measuring element 1 kohm
- **MD Voltage Limit**: 70 VDC

**DUT Power**

- **AC Voltage**: 0.0 - 277.0 V
- **AC Current**: 40 A max continuous

- **High/Low Limit**
  - **Resolution**: 0.1 V/step
  - **Accuracy**: ±(2% of reading + 3 counts)
  
**Delay time setting**

- **Range**: 0.5 – 999.9 sec
- **Resolution**: 0.1 sec
- **Accuracy**: ±0.1% of reading + 0.05 seconds

**Dwell time setting**

- **Range**: 0, 0.5 – 999.9 sec (0=Continuous)
- **Resolution**: 0.1 sec
- **Accuracy**: ±0.1% of reading + 0.05 seconds

**Failure Protection**

- **(Start-Up) - Neutral Voltage Check (Neutral-V)**
- **Over current and ground current check (Line - OC)**

**General Specifications**

- **Dimension**: (W x H x D) 16.93 x 5.24 x 11.81 (430 x 133 x 300 mm)
- **Weight**: 26.45 lbs (12 kg)
- **Display**: 320 X 240 graphic LCD
- **Mechanical**: Bench or rack mount with tilt up feet
- **Memory**: 50 Memories, 30 steps per each memory
- **File locations can link 900 steps max
- **Interface**: USB/RS232 Standard, Ethernet, GPIB, Data Storage (RS-485) Optional

**Specifications subject to change without notice.**


For more information on testing to a specific standard, refer back to the Common Safety Standard Reference Chart.
We have local sales offices throughout the world to serve you more efficiently.

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