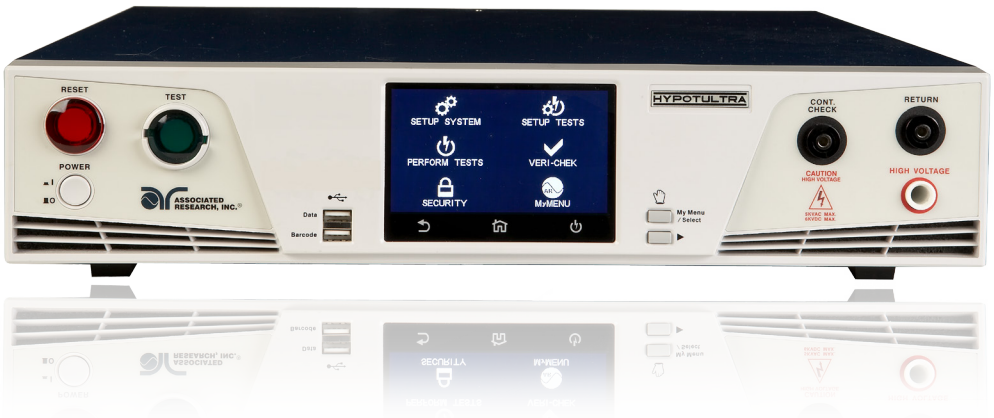
All-New

HypotULTRA®

THE MOST FLEXIBLE AND FEATURE-RICH AUTOMATED DIELECTRIC ANALYZER AVAILABLE



The best dielectric analyzer available just got better. We've combined superior testing power and ease of use, with an innovative sleek design that showcases all of our productivity and safety enhancing features. Our touch screen capability allows you to interact with your instrument as intuitively as you would with a smart phone. This simplifies setting up your system and test parameters. You can also easily drag, drop and swap test screen meters to prioritize the ones you want to see. Get even more out of your instrument with direct barcode connection, the all-new feature increases efficiency and production throughput. The addition of on-board data storage takes the pain out of your data transfer with on-board flash drive support and local data storage. HypotULTRA will improve the productivity and safety of your production line in every single way.

MODELS

	AC Hipot	500 VA	DC Hipot	Insulation Resistance	Ground Continuity
7820	•				•
7850	•		•	•	•
7800	•	•	•	•	•

AVAILABLE INTERFACES

USB · RS-232 · Ethernet · GPIB

SAFETY AND PRODUCTIVITY FEATURES

SmartGFI® — Automatic operator shock protection

Prompt & Hold (NEW!) — Provides alerts & instructions between tests

Remote Safety Interlock — Easily disable HV output

Multi-Language (NEW!) — Multi-Language User Interface

Touch Screen (NEW!) — Interact with your instrument like a smartphone

Data Transfer (NEW!) — Easily import/ export test files and data via USB

Barcode Capability (NEW!) — Direct barcode connection

ProVOLT™ (NEW!) — Multi-dwell cycles at different voltages for ACW/DCW/IR

Autoware3 (NEW!) — Advanced Automation Control Software

Advanced User Security (NEW!) — Customize ID & password protection

Internal Scanner — Available with optional HV scanning matrix

Modular Scanner — Compatible with SC6540 scanning matrix

FailCHEK™ — Confirms failiure detection

Ramp-HI® — Reduce ramp time during DC Hipot

Charge-LO® — Confirms proper DUT connection

PLC Remote — Basic PLC relay control

Arc Detection — High frequency filter for corona protection

Accredited Cal — Accredited calibration options available

INPUT

Voltage	100 - 120 VAC / 200 - 240 VAC±10% Auto Range
Frequency	50/60 Hz ± 5%
Fuse	7820 and 7850: 6.3A / 250 VAC Slow-Blow, 7800: 15 A / 250 VAC Fast- Blow

AC WITHSTAND TEST MODE

Output Voltage	Range:	0-5,000 VAC
	Resolution:	1 VAC
	Accuracy:	± (2% of setting + 5 V)
Output Frequency	50/60 Hz ± 0.1% , User Selection	
Output Waveform	Sine Wave , Crest Factor = 1.3 - 1.5	
HI and LO-Limit	Total	Range: 0.000 – 9.999 mA Resolution: 0.001 mA Range: 10.00 – 30.00 mA (10-99.99 mA, Model 7800) Resolution: 0.01 mA Accuracy: 7820 & 7850 ± (2% of setting + 2 counts), 7800: 2% of setting + 6 counts)
	Real	Range: 0.000 – 9.999 mA Resolution: 0.001 mA Range: 10.00 – 30.00 mA (10-99.99 mA, Models 7800) Resolution: 0.01 mA Accuracy: ± (3% of setting + 50 µA)

Ramp Up Timer	Range: 0.1 – 999.9 sec.
Ramp Down Timer	Range: 0.0 – 999.9 sec.
Dwell Timer	Range: 0, 0.3 – 999.9 sec. (0=continuous)
Ground Continuity	Current: DC 0.1 A ± 0.01 A, fixed
Current	Max. ground resistance: 1.0 Ω ± 0.1 Ω
Arc Detection	1 - 9 ranges (9 = Highest Sensitivity)

DC WITHSTAND VOLTAGE (7850 & 7800 ONLY)

Output Voltage	Range: 0 -6,000 VDC
DC Output Ripple	<4 % (6 kV/10 mA at Resistive Load)
Output Regulation	±(1%) of output + 5 V)
HI and LO-Limit	Range: 0.0000-0.9999 µA Resolution: 0.0001 µA Accuracy: ± (2% of setting + 10 counts) Low Range is ON. Range: 1.000 - 9.999 µA Resolution: 0.001 µA Accuracy: ± (2% of setting + 10 counts) Low Range is ON. Range: 10.00 - 99.99 µA Resolution: 0.01 µA Accuracy: ± (2% of setting + 10 counts) Low Range is ON. Range: 100.0 - 999.9 µA Resolution: 0.1 µA Accuracy: ± (2% of setting + 2 counts) Range: 1,000 - 10,000 µA Resolution: 1 µA Accuracy: ± (2% of setting + 2 counts)

Ramp Up Timer	Range: 0.4 - 999.9 µA
Ramp Down Timer	Range: 0.0, 1.0 - 999.9 µA
Dwell Timer	Range: 0, 0.4 - 999.9 µA,(0=continuous)
RAMP-HI Selectable	Range: 0-10 mA
Charge-LO	Range: 0.0 - 350.0 µA DC or Auto Set,
Discharge Time	< 50 ms for no load < 100 ms for capacitor load (all capacitance values in MAX load spec below)

Maximum	1 µF < 1 kV	0.08 µF < 4 kV
Capacitive	0.75 µF < 2 kV	0.04 µF < 5 kV
Load DC Mode	0.5 µF < 3 kV	0.015 uF < 6 kV
Arc Detection	1 - 9 ranges (9 = Highest Sensitivity)	

INSULATION RESISTANCE (7850 & 7800 ONLY)

Output Voltage	Range:	10-1,000 VDC
DC	Resolution:	1 VDC
	Accuracy:	± (2% of reading + 2 counts) Low Range is ON
	Range:	1001-6000 VDC
	Resolution:	1 VDC
	Accuracy:	± (2% of setting + 10 counts) Low Range is ON
Charging Current	Maximum > 10 mA peak	
HI & LO-Limit	Range: 0.10 M– 99.99 MΩ (HI-Limit: 0 = OFF) 1.00 - 99.99 when voltage > 1,000 V Resolution: 0.01 MΩ Accuracy: 0.10-999.9, ±(2% if setting + 2 counts) Range: 100.0 M – 999.9 MΩ Resolution: 0.1 MΩ Accuracy: 1,000-9,999 ±(5% if setting + 2 counts) Range: 1,000 M – 50,000 MΩ Resolution: 1 M Accuracy: 10,000-50,000 MΩ ±(15% if setting + 2 counts)	

Ramp Up Timer	Range: 0.1 – 999.9 sec.
Ramp Down Timer	Range: 0.0, 1.0 – 999.9 sec.
Dwell Timer	Range: 0, 0.5 – 999.9 sec. or 0
Delay Timer	Range: 0, 0.5 – 999.9 sec. or 0
Charge-LO	0.000-3.500 µA or Auto Set

CONTINUITY TEST

Output Current, DC	1 A for 0.000 - 1.000 Ω 0.1 A for1.01-10.00 Ω 0.01 A for 100.0 Ω 0.001 A for 101-1,000 Ω 0.0001 A for 1,001-10,000 Ω 1 A is Max

Resistance Display Max & Min

Max-Lmt	Range: 0.000 – 1.000 Ω Resolution: 0.001 Ω Accuracy: ± (1 % of setting + 3 counts) Range: 1.01 – 10.00 Ω Resolution: 0.01 Ω Accuracy: ± (1 % of setting + 3 counts) Range: 10.1 – 100.0 Ω Resolution: 0.1 Ω Accuracy: ± (1 % of setting + 3 counts) Range: 101 – 1,000 Ω Resolution: 1 Ω Accuracy: ± (1 % of setting + 3 counts) Range: 1,001 – 10,000 Ω Resolution: 1 Ω Accuracy: ± (1 % of setting + 10 counts)
Dwell Timer	Range: 0, 0.4 – 999.9 sec. (0=continuous)
Resistance Offset	Range: 0.000-10.00 Ω

GENERAL SPECIFICATIONS

Memory	2,000 steps 200 steps per test file max
Interface	Standard: USB/RS232, Optional: GPIB (IEEE-488.2), RS232/Ethernet or USB Printer.
Dimensions	Bench or rack mount (2U height) with tilt up front feet (w x h x d) 16.92 x 3.50 x 15.75in, (43 x 88.1 x 400) mm
Weight	35.3 lbs 16 kgs

Why We Use Counts

Associated Research publishes some specifications using "counts" which allows us to provide a better indication of the tester's capabilities across measurement ranges. A "count" refers to the lowest resolution of the display for a given measurement range. For example, if the resolution for voltage is 1 V then 2 counts=2 V.

Specifications subject to change without notice.