ALL-NEW

HypotULTRA®

THE MOST FLEXIBLE AND FEATURE-RICH AUTOMATED DIELECTRIC ANALYZER AVAILABLE

SCAN TO VIEW QUICK START VIDEO

3 year Warranty

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. Get even more out of your instrument with direct barcode connection, this all-new feature increases efficiency and production throughput. HypotULTRA® will improve the productivity and safety of your production line in every single way.

Find the Right Model that Fits Your Testing Needs

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

*Meets 200 mA short circuit requirements

AVAILABLE INTERFACES

USB · RS-232 · Ethernet · GPIB

SAFETY & PRODUCTIVITY FEATURES

Smart GFI® Automatic operator shock protection

Remote Safety Interlock Easily disable HV output

Data Transfer Easily import/ export test files and data via USB

Barcode Capability Direct barcode connection

Multiple Languages Multi-Language user interface

BatchTEST® Reduce test time with simultaneous DUT testing

ProVOLT™ Multi-dwell cycles at different voltages for ACW/DCW/IR

Internal Scanner Available with optional HV scanning matrix

Modular Scanner Compatible with SC6540 scanning matrix

FailCHEK™ Confirms failure detection

Prompt & Hold Provides alerts & instructions between tests

Touch Screen Interact with your instrument like a smartphone

Autoware®3 Advanced Automation Control Software

Advanced User Security Customize ID & password protection

Ramp-HI® Reduce ramp time during DC Hipot

Charge-LO® Confirms proper DUT connection

Accredited Cal Accredited calibration options available

Negative DC Hipot Reverse polarity DC Hipot (optional)

INPUT SPECIFICATIONS

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	
Output Regulation	±(1% of output + 5 V)	
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, 0.2 – 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	Range: 1 - 9 ranges (9 is most sensitive)	

DC WITHSTAND VOLTAGE (7850 & 7800 ONLY)

Output Voltage	Range:	0 -6000 VDC
DC Output Ripple	<4 % (6KV/10mA at Resistive Load)	
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:	1000 - 10000 µA
	Resolution:	1 µA
	Accuracy:	± (2% of setting + 2 counts)
Ramp Up Timer	Range:	0.4 - 999.9 sec. 0.5-999.9 sec., Low Range is ON
Ramp Down Timer	Range:	0.0, 1.0 - 999.9 sec. (0=OFF)
Dwell Timer	Range:	0, 0.4 - 999.9 sec.,(0=Continuous) 0,1.0-999.9 sec., Low Range is ON
RAMP-HI Selectable	Range:	0-10 mA, Selectable
Charge-LO	Range:	0.0 - 350.0 µA DC or Auto Set,
Discharge Time	< 50 ms for no load < 100 ms for capacitive load	
Maximum Capacitive Load DC Mode	1µF < 1kV 0.75 µF < 2 kV 0.5 µF < 3 kV	0.08 µF < 4 kV 0.04 µF < 5 kV 0.015 µF < 6 kV
Arc Detection	Range:	1 - 9 ranges (9 is most sensitive)

INSULATION RESISTANCE (7850 & 7800 ONLY)

Output Voltage, DC	Range:	10-1,000 VDC
	Resolution:	1 VDC
	Accuracy:	± (2% of reading + 2 counts)
	Range:	1001-6000 VDC
	Resolution:	1 VDC
	Accuracy:	± (2% of setting + 5 V)
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 M
	Accuracy:	±(2% if setting + 2 counts)
	Range:	100.0 M – 999.9 M
	Resolution:	0.1 M
	Accuracy:	1,000-9,999 ±(5% if setting + 2 counts)
	Range:	1,000 M – 50,000 M
	Resolution:	1 M
	Accuracy:	10,000-50,000 M ±(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	1A for 0.000 - 1.000 Ω 0.1A for 1.01-10.00 Ω 0.01 A for 10.01 - 100 Ω 0.001 A for 101-1,000 Ω 0.0001 A for 1001-10,000 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:	1001 – 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.
SmartGFI®	0, 0.4-5.0-5.0mA (0=OFF)
Dimensions (W x H x D)	Bench or rack mount (2U height) w/ feet 16.92 x 3.50 x 15.75in, (430 x 88.1 x 400) mm
Weight	7820 = 34 lb (15.4 kg), 7850 = 35 lb (15.9 kg), 7800 = 45 lb (20.4 kg)

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 1V then 2 counts=2V.

Specifications subject to change without notice.