HypotULTRA®

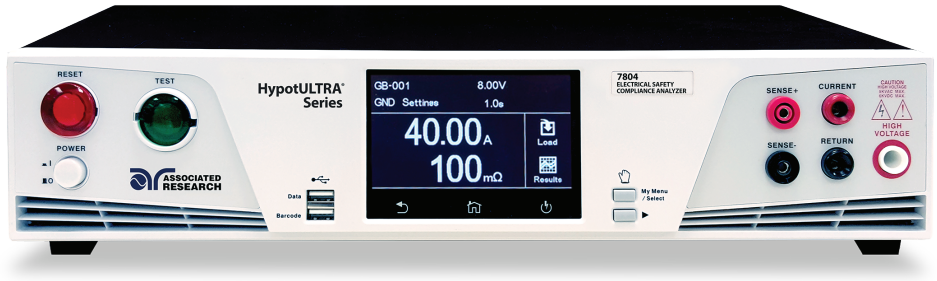
THE MOST FLEXIBLE AND FEATURE-RICH AUTOMATED DIELECTRIC ANALYZER AVAILABLE

SCAN TO VIEW QUICK START VIDEO

3 year Warranty

Our new HypotULTRA® models provide all the tools you need to modernize your production line with best-in-class 4-in-1 test capability and a slim 2U design. We've added 40A AC Ground Bond test capability to HypotULTRA®'s already impressive feature list for manufacturers that aim to adopt best testing practices without sacrificing productivity. Whether you're looking to improve traceability with on-board data storage, increase efficiency with our intuitive touch screen interface and direct barcode scanner connection, or automate with a variety of communication interfaces, HypotULTRA® was designed to take your production line to the next level.

EN 50191 COMPLIANT



Find the Model that Fits Your Testing Needs

		AC Hipot	DC Hipot	Ground Bond	Ground Continuity	Insulation Resistance
	7800*	500 VA*	•		•	•
NEW 2017	7804	•	•	•	•	•
	7820	•			•	
	7850	•			•	•
NEW 2017	7854	500 VA*	•	•	•	•

*Meets 200 mA short circuit requirements

AVAILABLE INTERFACES

- **USB**
- **RS-232**
- **Ethernet** (Optional)
- **GPIB** (Optional)

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 Multiplexer
Available with optional HV multiplexer (4 or 8 ports)

Modular Multiplexer
Compatible with SC6540 multiplexers

FailCHEK™
Confirms failure detection

Prompt & Hold
Provides alerts & instructions between tests

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)

Ground Bond Voltage Drop
Monitor voltage drop vs resistance

INPUT SPECIFICATIONS

Voltage	100 – 120 VAC / 200 – 240 VAC±10% Auto Range
Frequency	50/60 Hz ± 5%"
Fuse	7804/7820/7850: 6.3 A, Slow Blow 250 VAC 7800/7854: 15 A, Fast-acting 250 VAC

AC WITHSTAND TEST MODE (ALL MODELS)

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 & 7854)
	Resolution:	0.01 mA
	Accuracy:	7804, 7820 & 7850 ± (2% of setting + 2 counts) 7800 & 7854: ± (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 & 7854)
	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	Current:	DC 0.1 A ± 0.01 A, fixed
	Max. ground resistance:	1.0 Ω ± 0.1 Ω
Arc Detection	Range: 1 - 9 ranges (9 is most sensitive)	

DC WITHSTAND TEST MODE (7800, 7804, 7850 & 7854 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 - 20000 mA
	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:	0-20 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	0.08 µF < 4 kV
	0.75 µF < 2 kV	0.04 µF < 5 kV
	0.5 µF < 3 kV	0.015 µF < 6 kV
Arc Detection	Range:	1 - 9 ranges (9 is most sensitive)

INSULATION RESISTANCE (7800, 7804, 7850 & 7854 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 > 20 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:	1.0 – 999.9 sec
Dwell Timer	Range:	0.5 – 999.9 sec or 0
Delay Timer	Range:	0.5 – 999.9 sec or 0
Charge-LO	0.000-3.500 µA or Auto Set	

CONTINUITY TEST (ALL MODELS)

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:	1Ω
	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

GROUND BOND TEST MODE (7804 & 7854 ONLY)

Output Voltage (Open Circuit Voltage)	Range:	3.00 – 8.00 VAC
	Resolution:	0.01 VAC
	Accuracy:	±(2% of setting + 3 counts) Open Circuit
Output Current	Range:	1.00 – 40.00 A
	Resolution:	0.01 A
	Accuracy:	±(2% of setting + 0.02 A)
Maximum Loading	1.00 – 10.00 A, 0 – 600 mΩ 10.01 – 30.00 A, 0 – 200 mΩ 30.01 – 40.00 A, 0 – 150 mΩ	
HI and LO-Limit	Range:	0 – 150 mΩ for 30.01 – 40.00 A 0 – 200 mΩ for 10.01 – 30.00 A 0 – 600 mΩ for 1.00 – 10.01 A
	Resolution:	1 mΩ
	Accuracy:	±(2% of setting + 2 mΩ)
	Range:	0 – 600 mΩ for 1.00 – 5.99 A
	Resolution:	1 mΩ
	Accuracy:	±(3% of setting + 3 mΩ)
Dwell Timer	Range:	0, 0.5 – 999.9 sec (0 = Continuous)
Milliohm Offset	0 – 200 mΩ	

GENERAL SPECIFICATIONS

Memory	2,000 steps 200 steps per test file max
Interface	Standard: USB/RS-232 Optional: GPIB (IEEE-488.2), Ethernet or USB Printer
SmartGFI®	0, 0.4-5.0-5.0 mA (0=OFF)
Dimensions (W x H x D)	Bench or rack mount (2U height) w/ feet 16.92 x 3.50 x 15.75 in, (430 x 88.1 x 400) mm
Weight	7804 = 41lbs (18.6kg), 7820 = 34 lbs (15.4 kg), 7850 = 35 lb (15.9 kg), 7854 = 46.3lbs (21 kg), 7800 = 45 lbs (20.4 kg)