

Instruments for
ELECTRICAL SAFETY COMPLIANCE TESTING



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

HYPOT® III

The production line Hipot tester that sets the standard.



Our Hypot III series of manual Hipot testers sets the standard for production line safety compliance testing. We've packed these instruments with productivity-enhancing features and proven safety technology to reduce the safety compliance bottleneck on the production line. All models include basic Continuity test capability for compliance with international standards as well as advanced functions like our patented SmartGFI operator safety circuit and PLC I/O. Interconnect the Hypot III with a HYAMP III Ground Bond tester to form a complete safety compliance test system. Interested in automation and data collection? The Hypot III series is now available with a standard RS-232 interface.

Safety agency listed.



Models 3705, 3765 & 3770.

Model 3780.

Choose from the following at no charge:



	AC Hipot	DC Hipot	Insulation Resistance	Ground Continuity
3705	✓			✓
3765	✓	✓		✓
3770	✓	✓	✓	✓
3780	500 VA*			✓

*meets 200 mA short circuit requirements

PRODUCTIVITY-ENHANCING FEATURES



Basic PLC relay control



Includes preset verification tests



Tracks and alerts for calibration



Interface with a HYAMP III to form a complete safety compliance test system



Accredited calibration options available

SAFETY FEATURES



Automatic operator shock protection



Easily disable HV output

Input Specifications

Voltage	
3705/3765/3770	115/230 VAC ± 10%, user selectable
3780	115/230 VAC ± 15%, automatically selected
Frequency	
	50/60 Hz ± 5%
Fuse	
3705/3765/3770	3.15 A, fast acting 250 VAC
3780	15 Amp, Slow Blow 250 VAC

Dielectric Withstand Test Mode

Output Rating	
3705/3765/3770	5000 V @ 20 mAAC 6000 V @ 7.5 mADC
3780	5000 V @ 100 mAAC
Maximum Limit	
3705/3765/3770 AC	Range: 0.00 - 20.00 mA Resolution: 0.01 mA
DC	Range: 0 - 7500 µA Resolution: 1 µA Accuracy: AC and DC ± (2% of setting + 2 counts)
3780 AC	Range: 0.00 - 99.99 mA Resolution: 0.01 mA Accuracy: ± (2% of setting + 6 counts)
Minimum Limit	
3705/3765/3770 AC	Range: 0.000 - 9.999 mA Resolution: 0.001 mA
DC	Range: 0.0 - 999.9 µA Resolution: 0.1 µA Accuracy: AC and DC ± (2% of setting + 2 counts)
3780 AC	Range: 0.000 - 9.999 mA Resolution: 0.001 mA Accuracy: ± (2% of setting + 6 counts)
Arc Detection	
	Range: 0 - 9, 0 disabled
Ground Fault Interrupt	
	GFI Trip Current: 450 µA max (AC or DC) HV Shut Down Speed: < 1ms
Current Display	
3705/3765/3770	Auto Range
AC	Range 1: 0.000 - 3.500 mA Range 2: 3.00 - 20.00 mA
DC	Range 1: 0.0 µA - 350.0 µA Range 2: 0.300 mA - 3.500 mA Range 3: 3.00 mA - 7.50 mA Accuracy: All Ranges ± (2% of reading + 2 counts)
3780	Auto Range
AC	Range 1: 0.000 mA - 3.500 mA Range 2: 3.00 - 99.99 mA
DC Output Ripple	
	≤ 5% Ripple rms at 6 kVDC @ 7.5 mA, Resistive Load
Discharge Time	
	≤ 200 ms The maximum capacitive load vs output voltage: 0.20 µF < 1 kV 0.050 µF < 4 kV 0.10 µF < 2 kV 0.040 µF < 5 kV 0.06 µF < 3 kV 0.015 µF < 6 kV
AC Voltage Waveform	
	Sine Wave, Crest Factor = 1.3 - 1.5
Output Frequency	
	Range: 50 or 60 Hz, User Selectable
Output Voltage Regulation	
	± (1% of output + 5 V) from no load to full load and over input voltage range.
Dwell Timer	
	Range: AC 0, 0.3 - 999.9 sec (0 = Continuous) DC 0, 0.4 - 999.9 sec (0 = Continuous)
Ramp Timer	
	Range: Ramp-Up: 0.1 - 999.9 sec Ramp-Down: AC 0.0 - 999.9 sec DC 1.0 - 999.9 sec (0=OFF)

Dielectric Withstand Test Mode (continued)

Ground Continuity Current		DC 0.1 A ± 0.01 A, fixed
Ground Continuity		
Maximum Limit	Range:	0.0 Ω - 1.50 Ω
Minimum Limit	Resolution:	0.01 Ω
	Accuracy:	± (3% of setting + 0.02 Ω)
Ground Continuity Auto Offset		
	Range:	0.0 Ω - 0.50 Ω
	Resolution:	0.01 Ω
	Accuracy:	± (3% of setting + 0.02 Ω)
Output Short Circuit Current		
3780		> 200 mA

Insulation Resistance Test Mode

Voltage Setting		Range: 30 - 1000 VDC Resolution: 1 V Accuracy: ± (2% of setting + 5 V)
Resistance Display		
	Range:	1 - 9999 MΩ (4 Digit, Auto Ranging)
	Resolution:	500 VDC - 1000 VDC MΩ MΩ
	0.001	1.000 - 9.999
	0.01	10.00 - 99.99
	0.1	100.0 - 999.9
	1	1000 - 9999
Accuracy: ± (2% of reading + 2 counts) at test voltage 500 - 1000 V and 1 - 999.9 MΩ ± (5% of reading + 2 counts) at test voltage 500 - 1000 V and 1000 - 9999 MΩ ± (8% of reading + 2 counts) at test voltage 30 - 500 V and 1 - 1000 MΩ		
Maximum Limit		
	Range:	0, 1 - 9999 MΩ (0=OFF)
	Resolution:	1 MΩ
	Accuracy:	Same as Resistance Display
Minimum Limit		
	Range:	1 - 9999 MΩ
	Resolution:	1 MΩ
	Accuracy:	Same as Resistance Display
Ramp Timer		
	Range:	Ramp-Up: 0.1 - 999.9 sec Ramp-Down: 1.0 - 999.9 sec (0=OFF)
	Resolution:	0.1 sec
	Accuracy:	± (0.1% of reading + 0.05 sec)
Delay Timer		
	Range:	0, 0.5 - 999.9 sec (0 = Continuous)
	Resolution:	0.1 sec
	Accuracy:	± (0.1% of reading + 0.05 sec)
GFI Trip Current		
		450 µA max
HV Shut Down Speed		
		< 1 ms

General Specifications

Mechanical	Bench or rack mount with tilt up feet
Dimensions	
3705/3765/3770	(W x H x D) 8.46 x 3.5 x 14.57 in. (215 x 89 x 370 mm)
3780	(W x H x D) 16.93 x 5.24 x 13.78 in. (430 x 133 x 350 mm)
Weight	
3705/3765/3770	20.96 lbs (9.53 kg)
3780	49 lbs (23 kg)
Interface	
	RS-232 interface standard for entry-level automation
Memory	
	10 Memories, 3 steps per memory

Specifications subject to change without notice.

For more information on testing to a specific standard, refer back to the Common Safety Standard Reference Chart.



Safety Is Our Only Focus™

Instruments for
ELECTRICAL SAFETY COMPLIANCE TESTING

**We have local sales offices throughout
the world to serve you more efficiently.**

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