

# HYPOT<sup>®</sup> III

## The production line Hipot instrument that sets the standard.



Our Hypot III series of manual Hipot instruments 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 instrument 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.



Choose from the following at no charge:



|      |         |   |  |   |
|------|---------|---|--|---|
| 3765 | ✓       | ✓ |  | ✓ |
| 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



Request a Live Web Demo

### 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<br>6000 V @ 7.5 mADC   |
| 3780                      | 5000 V @ 100 mAAC   |
| Maximum Limit             |   |
| 3705/3765/3770 AC         | Range: 0.00 - 20.00 mA<br>Resolution: 0.01 mA   |
| DC                        | Range: 0 - 7500 µA<br>Resolution: 1 µA<br>Accuracy: AC and DC ± (2% of setting + 2 counts)  |
| 3780 AC                   | Range: 0.00 - 99.99 mA<br>Resolution: 0.01 mA<br>Accuracy: ± (2% of setting + 6 counts)   |
| Minimum Limit             |   |
| 3705/3765/3770 AC         | Range: 0.000 - 9.999 mA<br>Resolution: 0.001 mA   |
| DC                        | Range: 0.0 - 999.9 µA<br>Resolution: 0.1 µA<br>Accuracy: AC and DC ± (2% of setting + 2 counts)   |
| 3780 AC                   | Range: 0.000 - 9.999 mA<br>Resolution: 0.001 mA<br>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)<br>HV Shut Down Speed: < 1ms  |
| Current Display           |   |
| 3705/3765/3770            | Auto Range  |
| AC                        | Range 1: 0.000 - 3.500 mA<br>Range 2: 3.00 - 20.00 mA   |
| DC                        | Range 1: 0.0 µA - 350.0 µA<br>Range 2: 0.300 mA - 3.500 mA<br>Range 3: 3.00 mA - 7.50 mA<br>Accuracy: All Ranges ± (2% of reading + 2 counts)                                   |
| 3780                      | Auto Range  |
| AC                        | Range 1: 0.000 mA - 3.500 mA<br>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<br>The maximum capacitive load vs output voltage:<br>0.20 µF < 1 kV      0.050 µF < 4 kV<br>0.10 µF < 2 kV      0.040 µF < 5 kV<br>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)<br>DC 0, 0.4 - 999.9 sec (0 = Continuous)   |
| Ramp Timer                |   |
|                           | Range: Ramp-Up: 0.1 - 999.9 sec<br>Ramp-Down: AC 0.0 - 999.9 sec<br>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             |  | Range: 0.0 Ω - 1.50 Ω                |
| Maximum Limit                 |  | Resolution: 0.01 Ω                   |
| Minimum Limit                 |  | 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<br>Resolution: 1 V<br>Accuracy: ± (2% of setting + 5 V)  |
| Resistance Display |  | Range: 1 - 9999 MΩ (4 Digit, Auto Ranging)<br>Resolution: 500 VDC - 1000 VDC<br>MΩ      MΩ<br>0.001    1.000 - 9.999<br>0.01     10.00 - 99.99<br>0.1      100.0 - 999.9<br>1        1000 - 9999  |
| Maximum Limit      |  | Accuracy: ± (2% of reading + 2 counts) at test voltage 500 - 1000 V and 1 - 999.9 MΩ<br>± (5% of reading + 2 counts) at test voltage 500 - 1000 V and 1000 - 9999 MΩ<br>± (8% of reading + 2 counts) at test voltage 30 - 500 V and 1 - 1000 MΩ |
| Minimum Limit      |  | Range: 0, 1 - 9999 MΩ (0=OFF)<br>Resolution: 1 MΩ<br>Accuracy: Same as Resistance Display   |
| Ramp Timer         |  | Range: Ramp-Up: 0.1 - 999.9 sec<br>Ramp-Down: 1.0 - 999.9 sec (0=OFF)<br>Resolution: 0.1 sec<br>Accuracy: ± (0.1% of reading + 0.05 sec)  |
| Delay Timer        |  | Range: 0, 0.5 - 999.9 sec (0 = Continuous)<br>Resolution: 0.1 sec<br>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                           |

#### 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.