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







Safety agency listed.



Choose from the following at no charge:



The industry-leading production line Ground Bond tester.

Our HYAMP III series of manual Ground Bond testers verifies the integrity of your product's ground circuitry in a convenient cabinet design. Choose from 4 different models with varying output current capabilities in compliance with international standards on the production line or in the lab. Choose to operate the HYAMP III from our intuitive user interface or utilize the PLC I/O. Accurate 4-wire measurement and milliohm offset capability ensure your test results are accurate. Use the HYAMP III stand-alone or interconnect with a Hypot III or HypotULTRA III to form a complete safety compliance test system.



PRODUCTIVITY-ENHANCING FEATURES







Tracks and alerts for calibration



Interconnect with a Hypot III or HypotULTRA III to form a complete safety compliance test system



options available

SAFETY FEATURES







Input	Speci	fications

Voltage 115/230 VAC ± 10%, user selectable

100-120 / 200-240 VAC ± 10%, auto-detection

50/60 Hz ± 5% Frequency

Fuse - 3130 6.3 A, Slow Blow 250 VAC Fuse - 3140 10 A. Slow Blow 250 VAC Fuse - 3145 10 A, Slow Blow 250 VAC Fuse - 3160 15 A. Slow Blow 250 VAC

Ground Bond Test Mode

Output Rating Current 3130: 1.00 - 30.00 AAC

Voltage 3130: 6 VAC, fixed

Current 3140: 1.00 - 40.00 AAC Voltage 3140: 8 VAC, fixed

Current 3145: 1.00 - 40.00 Amps DC Voltage 3145: 8 Volts DC, maximum

Current 3160: 1.00 - 60.00 AAC Voltage 3160: 9 VAC, fixed

Output Frequency 3130/3140/3160

Range: 50 / 60 Hz, User Selectable

Dwell Time Setting Range: 0 and 0.5 - 999.9 secs

O for continuous running

Resolution: 0.1 sec

Accuracy: \pm (0.1% of setting + 0.05 secs)

Maximum & Minimum Range 3130:

Limits

 $0 - 120 \text{ m}\Omega$ for 1 - 30.00 A $0 - 510 \text{ m}\Omega$ for 1 - 10.00 A

Accuracy 3130: \pm (2% of setting + 2 m Ω) Range 3140: 0 - 150 $m\Omega$ for 30.01 - 40.00 A

0 - $200~m\Omega$ for 10.01 - 30.00~A0 - $600~m\Omega$ for 1.00 - 10.00 A

Accuracy 3140: \pm (3% of setting + 3 m Ω) $0 - 150 \text{ m}\Omega$ for 30.01 - 40.00 ARange 3145:

0 – 200 m Ω for 10.01 – 30.00 A 0 – 600 m Ω for 1.00 – 10.00 A Accuracy 3145: ± (2% of reading + 2 counts)

Range 3160: - 150 $m\Omega$ for 30.01 - 60.00 A - $300~m\Omega$ for 15.01 - 30.00~A- $600~m\Omega$ for 1.00 - 15.00 A

Accuracy 3160: \pm (3% of setting + 3 m Ω)

Offset Capability Range: $0 - 100 \text{ m}\Omega$ Resolution: $1 \, \text{m}\Omega$

Accuracy: \pm (2% of setting + 2 m Ω)

Current Display 3130 Range: 0.00 - 30.00 A

Resolution: 0.01 A / step

Accuracy: \pm (3% of reading + 0.03 A)

Range: 0.00 - 40.00 A Current Display 3140

Resolution: 0.01 A

 \pm (3% of reading + 0.03 A) Accuracy:

0.00 - 40.00 A Current Display 3145 Range:

Resolution: 0.01 A

Accuracy: \pm (3% of reading + 0.03 A)

0.00 - 60.00 A Current Display 3160 Range:

Resolution: 0.01 A

± (3% of reading + 0.03 A) Accuracy:

Ground Bond Test Mode (Continued)

Ohmmeter Display 3130 Range: $0 - 510 \, m\Omega$

Resolution: $1 \text{ m}\Omega/\text{step}$

Accuracy: \pm (2% of reading + 2 m Ω)

Ohmmeter Display 3140 Range: $0 - 150 \text{ m}\Omega$ for 30.01 - 40.00 A0 - $200~m\Omega$ for 10.01 - 30.00~A

0 - $600~m\Omega$ for 6.00 - 10.00~A

Resolution: 1 mΩ

Accuracy: \pm (2% of reading + 2 m Ω) $0 - 600 \text{ m}\Omega \text{ for } 1.00 - 5.99 \text{ A}$ Range:

Resolution: $1 \text{ m}\Omega$

 \pm (3% of reading + 3 m Ω) Accuracy:

Ohmmeter Display 3145 Range: $0 - 150 \text{ m}\Omega$ for 30.01 - 40.00 A

> 0 - $200~m\Omega$ for 10.01 - 30.00~A0 - $600~m\Omega$ for 6.00 - 10.00~A

Resolution: 1 mΩ

Accuracy: ± (2% of reading + 2 counts) Range: $0 - 600 \text{ m}\Omega$ for 1.00 - 5.99 A

Resolution: $1 \text{ m}\Omega$

Accuracy: \pm (3% of reading + 3 m Ω)

Ohmmeter Display 3160 Range: 0 - 150 $m\Omega$ for 30.01 - 60.00 A

0 - $300~m\Omega$ for 15.01 - 30.00~A $0 - 600 \text{ m}\Omega$ for 6.00 - 15.00 A

Resolution: $1 \text{ m}\Omega$

Accuracy: \pm (2% of reading + 2 m Ω) $0 - 600 \text{ m}\Omega$ for 1.00 - 5.99 ARange:

Resolution: $1 \text{ m}\Omega$

 \pm (3% of reading + 3 m Ω) Accuracy:

Timer Display Range: 0.0 - 999.9 secs

Resolution: 0.1 secs

Accuracy: \pm (0.1% of reading + 0.05 secs)

General Specifications

Mechanical Bench or rack mount with tilt up feet.

Dimensions 3130 (W x H x D) 8.5 x 4.0 x 15.5 in. (216 x 103 x 390 mm)

includes feet

Dimensions 3140 (W x H x D) 8.5 x 4.0 x 16.9 in. (216 x 103 x 430 mm)

includes feet

Dimensions 3145 (W x H x D) 8.5 x 4.0 x 15.0 in. (216 x 103 x 370 mm)

includes feet

Dimensions 3160 (W x H x D) $16.9 \times 5.1 \times 15.7$ in. $(430 \times 130 \times 400 \text{ mm})$

includes feet

Weight 3130 19.15 lbs (8.7 kg) 30.9 lbs (14 kg) Weight 3140

Weight 3145 11.55 lbs (5.23 kg)

Weight 3160 49.40 lbs (22.40 kg)

Remote Control & The following input and output signals are provided Signal Output through two 9 pin D type connectors:

1. Remote control: Test, Reset, Interlock, and

Withstand Processing

2. Remote recall of memory program #1, #2, and #3

3. Outputs: Pass, Fail, Test-in-process, Start Out

and Reset Out

Program Memory 10 Memories, 3 steps per memory

Interface RS-232 Standard for Model 3145

Optional external RS-232 interface for Model 3130

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.

To find your nearest representative visit us at www.asresearch.com or call us (USA) toll-free at +1-800-858-8378

Associated Research, Inc.

13860 West Laurel Drive Lake Forest, IL U.S.A. 60045 Tel: +1-847-367-4077 Fax: +1-847-367-4080 E-mail: info@asresearch.com