SPECIFICATIONS

INPUT VOLTAGE: 120 Volts, 50/60 Hertz, 1ø

OUTPUTS:

RESISTANCE LOAD/CONTROL SECTION

No. 1: Ohm Spun® Resistance Load
0-25 amperes at 120 volts AC with 0-1.0 ampere vernier for fine control.

No. 2: Second Ohm Spun® Resistance Load
0-25 amperes at 120 volts AC with 0-1.0 ampere vernier for fine control.

No. 3: Ohm Spun® Resistance Load
A front-panel toggle switch parallels Output No. 1 and No. 2..
0-50 amperes at 120 volts AC with two 0-1.0 ampere verniers for fine control.

No. 4: 0-10 amperes at 120 volts half-wave rectified AC current output (resistance load) with 0-1.0 ampere vernier for use in conducting harmonic restraint tests on differential relays.

No. 5: 0-8 volts DC at 5 amperes for testing DC targets, operation indicators and seal-in units.

TRANSFORMER LOAD SECTION (All outputs are isolated)

No. 6: 0-10 volts AC at 100 amperes (1.0 kVA)

No. 7: 0-20 volts AC at 50 amperes (1.0 kVA)

No. 8: 0-40 volts AC at 25 amperes (1.0 kVA)

No. 9: 0-80 volts AC at 12.5 amperes (1.0 kVA)

When the above output voltages are sufficient to push higher than rated current through the impedance of the load circuit, the current ratings can be exceeded for short durations. Up to 250 amperes can be obtained.

No. 10: 0-300 volts AC at 0.5 amperes

No. 11: 0-24 volts AC at 6.0 amperes

No. 12: 0-150 volts AC at 1.0 amperes

No. 13: 0-300 volts AC at 0.5 amperes

No. 14: 0-150 volts DC at 1.0 amperes

No. 15: 0-300 volts DC at 0.5 amperes

No. 16: 500 volt DC insulation resistance source (current limited)

No. 17: Voltage Relay Test — This special circuit simplifies testing of voltage relays (under, over, or over/under voltage) rated up to 300 volts AC. Facilities are provided to adjust and apply a normal operating voltage up to 300 volts to the relay while also independently adjusting a second output to the desired fault voltage up to 300 volts. A switching circuit changes the voltage applied to the relay from the normal operating voltage to the simulated fault voltage and simultaneously starts the timer to measure the operating time of the relay. The timer stops and the test voltage is removed when the relay operates.

INSTRUMENTATION

RESISTANCE LOAD/CONTROL SECTION

AC Ammeter

Measures Outputs No.'s 1 and 3. True rms responding moving iron vane type of instrument equipped with non-reflective glass, mirrored scale, knife-edge pointer and pointer preset mechanism to aid in measuring currents of short duration.

Scales: 5/10/25 amperes

Ranges (switch selected): 0-0.5/1/2.5/5/10/25/50 amperes AC

Accuracy: ± 1% of full scale

AC Ammeter

Measures Output No. 2. True rms responding moving iron vane type of instrument equipped with non-reflective glass, mirrored scale, knife-edge pointer, and pointer preset mechanism to aid in measuring currents of short duration.

Solid-State Digital Timer

A specially designed Multi-Amp® solid-state digital timer is incorporated to measure the elapsed time of the test in seconds or cycles. It has extensive shielding and noise suppression circuitry to ensure accurate and reliable operation under the most demanding field conditions. Incorporating a crystal-controlled oscillator, accuracy of the timer is independent of the power line frequency. The readout display appears as continuous, solid, unbroken digits with no gaps between the segments to impair readability. The high brightness to contrast ratio of the display ensures excellent readability even in high ambient light conditions, including direct sunlight. The flat, planar design of the display allows wide-angle viewing without distortion.

Display:	.375-inch (9.53 mm) flat, planar characters using high-intensity, gas-discharge technology.	
Ranges (switch selected):	a) 0-99.9999 seconds b) 0-9999.99 seconds c) 0-99999.9 cycles	
Accuracy:	Seconds Mode:	± least significant digit or 0.0025% of reading, whichever is greater
	Cycles Mode:	± 0.5 cycle

Protection

Input and outputs are protected from short-circuits and prolonged overloads. Cooling fans are provided in the Resistance Load Section and a temperature sensing interlock prevents overheating.

Enclosure

The test set is housed in two heavy-duty formica cases, each equipped with carrying handles and hinged, removable covers which protect instruments and controls during transportation and storage. A single, multiple conductor cable with appropriate connectors is provided to interconnect the two sections.

Dimensions:	17" H, 22" W, 16" D and 17" H, 14" W, 11" D
Net Weight:	87-1/2 pounds (39.7 kg) and 66 pounds (29.9 kg)

Scales: 5/10/25 amperes

Ranges
(switch selected): 0-1/2.5/5/10/25 amperes AC

Accuracy: ± 1% full scale

DC Ammeter

Measures Outputs No's. 4 and 5. D'Arsonval movement instrument equipped with non-reflective glass, mirrored scale and knife-edge pointer.

Scales: 0.5/5 amperes

Ranges
(switch selected): 0-0.5/5 amperes DC

Accuracy: ± 1% full scale

TRANSFORMER LOAD SECTION

AC Ammeter

Measures Outputs No's. 6, 7, 8 and 9. True rms responding moving iron vane type instrument equipped with non-reflective glass, mirrored scale, knife-edge pointer and pointer preset mechanism to aid in measuring currents of short duration. This ammeter may also be used as an independent instrument in conjunction with the ammeter range switch to measure external currents up to 250 amperes.

Scales: 5/10/25 amperes

Ranges
(switch selected): 0-1/2.5/5/10/25/50/100/250 amperes AC

Accuracy: ± 1% full scale

Multi-Function AC/DC Voltmeter

Measures Outputs No's. 10, 11, 12, 13, 14, 15, 16 and 17. Low burden, rectifier-type instrument equipped with non-reflective glass, mirrored scale and knife-edge pointer. This voltmeter may be used as an independent instrument in conjunction with the voltmeter range switch to measure external AC or DC voltages up to 300 volts.

Scales: 15/30/75 volts AC; 50 megohms; 15/30/75 volts DC

Ranges
(switch selected): 0-1.5/7.5/30/75/150/300 volts AC or DC; 10 megohms

Accuracy: ± 1% full scale