Measurements International Inc.

Metrology is Our Science, Accuracy is Our Business™

DATA SHEET

MODEL 6010-100



Automated Resistance System 100 Amp

- 10uA to 100 Amps
- System Accuracy to <.2 PPM
- $1m\Omega$ to $13k\Omega$
- Linearity 0.01 PPM
- IEEE488
- Automatic Measurements to 30A
- Completely "Turn-Key" System
- All Interconnecting Cables

MODEL INFORMATION

The model 6010-100 is a completely "turn-key" system for measurement ratios of 1:1000 (1m Ω directly against 1 Ω) up to 13:1 (1 Ω to 13 k Ω). This resistance measurement system offers a totally automated solution for calibrating standard resistors and current shunts up to 100A. The system is capable of determining temperature and power characteristics of the unit under test to very low uncertainties.

This system combines the newest current comparator technology, multiplexing capability and a 100 Amp DC Linear Source, for obtaining the best uncertainties commercially available. Standard 19" equipment racks, IEEE488 interface and windows operating software are included as a complete system. Comparisons of .001 Ohm directly to a 1 Ohm standard is accomplished quickly and efficiently, while taking many data points for

determining factors normally associated with high current, resistance measurements.

The system is comprised of the model 6010 Resistance Bridge, the model 6011 100A Range Extender, The model 6100 100A Linear Power Supply and a 30A Four Terminal Matrix Scanner, model 4220A/30 housed in a 4 or 6 foot rack with smoked glass door.

An optional temperature measurement system, option 01, for automatically measuring the temperature of the shunt under power is also available.

Combined with the Measurements International model 9301JW series of oil baths, alpha and beta calculations can be performed automatically on resistors under test. All data can be exported directly to Excel for various test patterns or mainframe applications. External atmospheric pressure, humidity and temperature





indicators are optional and the entire system can be enclosed in a 4 or 6 ft. rack. Resistor baths (oil or air), instrument controllers, printers, system software, IEEE

interface, installation and training are all available for complete system packages.

Specifications:

>198,65546 65612,23 >198,65546 65612,23 >152,698016 68818,28

Ratio	Models	Accuracy	Max Current	Current Source
10:1	6010	<0.05 ppm	150 mA	Internal
1:1	6010	<0.1 ppm	150 mA	Internal
1:10	6010/6011	<0.2 ppm	1.0 A	6100A
1:100	6010/6011	<0.2 ppm	10 A	6100A
1:1,000	6010/6011	<0.2 ppm	100 A	6100A
Product Details				
Operating Environment			18 to 34°C, 10 to 80% RH	
Warranty			1 Year Parts & Labor	
Dimensions (W x H x D)			600 x 2072 x 875 mm	
Weight			140 kg	
Shipping Weight			160 kg	
Operating Power			100, 120, 220, 240V - 50/60Hz	

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