



## **Model 6100A** Automated 100 Amp DC Current Source

*Linear Technology  
Capable of Driving Inductive Loads  
Improved Settling Time  
Two Current Ranges  
IEEE488 Interface*

### **General Description:**

The Model 6100A has been designed as a very stable DC linear supply for use with the MI Resistance and Shunt Measurement Systems (6010B/6011B/6013M/6012M). The Model 6100A offers several improvements over existing switched power supplies in both speed and accuracy, when measuring resistive, capacitive and inductive loads.

The 6100A offers two current ranges, 5 amps and 100 amps. The 5-amp range allows the 6100A to supply precision currents below 1 ampere.

This current source utilizes transconductance amplifier technology as a voltage to current converter; its accuracy dependent on precision current shunts developed by Measurements International. The power supply approaches an ideal current source for the applied load with its extremely high loop gain and high output resistance. Flat bandwidth is inherent to the design of this instrument.

The 6100A will supply precise current to any load impedance whose compliance voltage is within the output voltage limits of the power amplifier. Once the voltage compliance is exceeded, the power supply returns to standby. The compliance voltage is monitored and displayed on the front panel display. The STANDBY circuit that is operated from the front panel STANDBY/OPERATE switch may be operated remotely, however, the front panel switch can always override it. The STANDBY mode disables the output current.

A large vacuum florescent display is used to indicate the current and compliance voltage. The keyboard located on the front panel is used to enter data and configure the output of the 6100A. Both the compliance voltage and current can be read over the IEEE488 Interface bus.

# Model 6100A

## Specifications:

Ranges	0 to 5 Amps DC 5 to 100 Amps DC
Stability	$\pm 100$ ppm of range + 1 bit for 8 hours
Accuracy	$\pm 1.0$ %
Voltage Compliance	5 Volts
Resolution	16 bits
Noise	$< 1.5$ mA + 0.04% of output
DC Offset	$< 5$ mA
Operating Environment	18 to 34°C, 10 to 80% RH
Warranty	1 Year Parts & Labor

## Dimensions:

W435 x D545 x H221

## Weight:

29 kg

## Shipping Weight:

35 kg

## Accessories:

## Operating Power:

100, 120, 220, 240V - 50/60 Hz

## Distributed By:

## How to Order:

Model: 6100A

Automated 100 Amp DC Current Source

*Data Subject to Change*

Printed in Canada



## *Measurements International*

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