



6311A Precision Current Divider



Featuring

- ▶ 10A (100:1) and 300A (1000:1) ranges
- ▶ No stabilization period
- ▶ No power coefficient
- ▶ No temperature coefficient
- ▶ DC and AC operation

Overview

Measurements International has developed the 6311A Precision Current Divider with the aim to replace/improve the outdated and often inaccurate Current Shunts being used. The 6311A is a 100:1 and 1000:1 Current Divider that works on the principal of the world renowned MI Resistance Bridge and Extenders. Traditional Current Shunts suffer from temperature stabilities and the power coefficient issues that greatly affect the users ability to make accurate measurements. The current transformer used in the 6311A has no such issues. Simply apply power and measure the divided output. The 100:1 range has a

maximum current of 10A and the 1000:1 range has a maximum current of 300A. Both ranges can accept both DC and AC current to 1kHz with uncertainty of < 5 and < 20 parts in 10^6 respectively. In comparison, a DC Current Shunt will have a calibration uncertainty of 0.01% or larger in most cases.

Since 1993, MI has earned a worldwide reputation for Dependability, Quality, and Performance. The 6311A uses the ratio of two sets of winding on a DC Current Comparator (DCC) to measure.

Feature	Benefit
No temperature coefficient	Reduces uncertainty
No stabilization period	Measurements can be made immediately
No power coefficient	No error difference from 5% to 100% of range
AC/DC	Works at DC and AC up to 1kHz
CT/Current Divider	Current In is divided by either 100 or 1000
< 5 ppm DC / 20 ppm AC	Approximately 1/20 th of a traditional Current Shunt



Measurements International

Metrology is Our Science, Accuracy is Our Business™

6311A PRECISION CURRENT DIVIDER

Specifications: Rev 0

	Rating (Amps)	Resistance (Ohms)	Power Rating (Watts)	Time Constant	DC Accuracy	AC Accuracy ($\pm \mu\text{A} / \text{A}$)	Stability 1 year ($\pm \mu\text{A} / \text{A}$)	Temperature Coefficient ($\pm \mu\text{A/A/}^\circ\text{C}$)	Power Coefficient ($\pm \mu\text{A/A/W}$)
Typical Shunt	10	0.1	140	> 10 minutes	0.01%	No spec	10	4	4
Typical Shunt	300	0.001	100	> 10 minutes	0.01%	No spec	10	4	4
6311A	10	0	N/A	< 10 seconds	< 0.0005%	< 20	0.05	0	0
6311A	300	0	N/A	< 10 seconds	< 0.0005%	< 20	0.05	0	0

Dimensions (L x W x H):

26" x 23" x 10.5"

Weight:

45lbs

Shipping Weight:

65lbs

Mains Power:

100-120V_{ac}, 220-240V_{ac}, 50/60Hz

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