

High Current Technologies, Inc., Measurement Capabilities Chart (4/25/00)

PARAMETER	RANGE	NIST TRACEABILITY <i>Note 4</i>	MEASURE	PRODUCE
AC Voltage	0 to 1200 V	T		±0.02%
	0 to 600 V	T	±0.016%	
DC Voltage	0 to 1000 V	T	±0.001%	±0.0015%
DC Current	10 mA to 1000 A	T	±0.02%	±0.04 %
Resistance	100 μΩ to 1 Ω	T		±0.02 %
	10 μΩ to 100 kΩ	T	±0.05%	
Frequency	1Hz to 1 MHz	T	±50 ppm	
AC Current (steady state sinusoidal)	10 mA to 1000 A , 1 Hz to 20 kHz, (non-inclusive)			±0.05%
AC Current ratio (for CT's)	100 A to 1 kA, 50 Hz to 1 kHz	N	±150 ppm	
AC Current (steady state sinusoidal)	100 A to 1000 A, 50 Hz to 1 kHz, <i>Note 1</i>	N	±0.04%	
AC/pulsed currents with complex waveforms	0 to 1400 A peak	T	call for capabilities	
Pulsed AC Current, 60 Hz, Pulsed -1 to 99 cycles	500 A to 100 kA	N	±0.4 to ±0.6%	
Gas Flow	0.1 to 5 scfh	T	±0.75%	
	10 to 250 scfh	T	±0.75%	
Mutual Inductance	0.26, 0.52, and 0.78 μH	N		±0.10%
	0.1 μH to 10 μH			±0.11%
AC/DC 4 terminal shunts/burdens	0.08 to 0.45 ohms	N	±0.04%	±0.04%
Temperature	0 to 600 °C	T	±0.04°C	
Phase angle, 1 Hz to 100 kHz	0 to 360°	T	±0.03°	
Digitizing of analog signals, 1 Msamples/sec 16-Bit (2 systems)	50 mV to 20 V	T	±0.02 %	
4-terminal impedance (current shunts) <i>Note 2</i>	10 μΩ to 200 μΩ	T	±0.05% to ±0.4%	
	200 μΩ to 10 Ω	T	±0.05%	
AC Voltage Ratio	1.1 to 0.00001	T		±10 ppm

NOTES 1) Current can be produced at higher frequencies at reduced current.

2) Uncertainty depends on current level.

3) All uncertainties are basic accuracies and may change depending on actual device or instrument tests being conducted.

4) N – Direct NIST Traceability, T – NIST Traceability through other laboratories or sources