

Valhalla Scientific, Inc.
Models 2500EP & 2500EN 10Amp Current Calibrators
(Specifications)

2-1. 2500EP Accuracy (12 months at 20°C to 30°C)

Range	Maximum Output	Maximum Input [1]	Accuracy (DC to 5kHz maximum)	
			DC (% of output)	AC (% of output)
100µA	200µA	2V	± 0.01% ± 40nA	± 0.05% ± 200nA [2][3]
1mA	2mA	2V	± 0.01% ± 400nA	± 0.05% ± 2µA [2]
10mA	20mA	2V	± 0.01% ± 4µA	± 0.05% ± 20µA [2]
100mA	200mA	2V	± 0.01% ± 40µA	± 0.05% ± 200µA [2]
1A	2A	2V	± 0.01% ± 400µA	± 0.05% ± 2mA [2]
10A	10A	1V	± 0.01% ± 4mA	± 0.05% ± 20mA [2]

[1] DC or AC_{RMS}

[2] Add ± 0.01% of range x compliance voltage x frequency (kHz) for compliance voltages greater than 2V_{RMS}.

[3] Add ± 0.5% of output above 1kHz.

2-2. 2500EN Accuracy (12 months at 20°C to 30°C)

Range	Maximum Output	Maximum Input [1]	Accuracy (DC to 500Hz maximum)	
			DC (% of output)	AC (% of output)
100µA	200µA	20V	± 0.01% ± 40nA	± 0.05% ± 200nA [2]
1mA	2mA	20V	± 0.01% ± 400nA	± 0.05% ± 2µA [2]
10mA	20mA	20V	± 0.01% ± 4µA	± 0.05% ± 20µA [2]
100mA	200mA	20V	± 0.01% ± 40µA	± 0.05% ± 200µA [2]
1A	2A	20V	± 0.01% ± 400µA	± 0.05% ± 2mA [2]
10A	10A	10V	± 0.01% ± 4mA	± 0.05% ± 20mA [2]

[1] DC or AC_{RMS}

[2] Add ± 0.01% of range x compliance voltage x frequency (kHz) for compliance voltages greater than 2V_{RMS}.

2-3. General Specifications

Input Impedance.....	100k Ω (10M Ω for 2500EN)
Output Capacitance.....	500pF
Compliance Voltage	10V _{Peak} linearly decreasing to 7V _{Peak} @ 10A _{RMS}
Short-term Maximum Output	12A _{RMS} for 2 minutes maximum (25% max duty cycle)
Maximum Input Voltage.....	3V _{Peak} (30V _{Peak} for 2500EN) without damage
Output Protection	Fuse protected @15 amps
Common Mode Voltage (input→output).....	10V _{Peak} maximum
Common Mode Voltage (to ground).....	100V _{Peak} maximum
CMRR (input→output).....	60dB RTI at DC linearly decreasing to 40dB at 5kHz
Temperature Range.....	Operating 0°C to 50°C (Storage -40°C to 70°C)
Humidity	70% RH maximum @ 45°C (non-condensing)
Temperature Coefficient.....	10% of Accuracy specification per °C
Size	17"(43cm)W x 17"(43cm)D x 5.5"(13.5cm)H
Weight.....	29lbs (13.5kg) net / 36lbs (16.5kg) shipping