



Figure 1. -hp- Model 11050A Thermal Converter

**1. GENERAL**

2. The -hp- Model 11049A, 11050A, 11051A Thermal Converters are used to accurately compare the rms value of ac input voltages at a specified frequency to the rms value of input voltages at one or more different frequencies. Two versions of these Thermal Converters are available: a standard and an Option 003 version. Each standard version is tested at the specified frequencies listed in Table 1. The Option 003 versions have correctional data supplied for specific frequencies up to 100MHz. Refer to paragraph 5 for more information on Option 003 converters. The operating characteristics for both versions of the converters are shown in Table 2.

**Table 1. 11049A, 11050A, and 11051A Specifications**

Frequency	Input Error with Respect to 1kHz (±%)	Measurement Uncertainty (±%)
30kHz	.03	.02
100kHz	.03	.02
300kHz	.03	.06
1MHz	.03	.06
3MHz	.06	.12
8MHz	.06	.12
10MHz	.06	.12

**Table 2. 11049A, 11050A, and 11051A Characteristics**

Maximum Input Voltage: 11049A: 3 volts rms 11050A: 1 volts rms 11051A: 0.5 volts rms
Input Resistance: 50 ohms ±.15 ohms
Output Resistance: less than 10 ohms
Output Voltage (with Full Range Input): Nominal 7.0mV