Characteristics

GENERAL

The PS²L-500 and PS²L-1000 provide DC loading capabilities, both static and dynamic, for an infinite number of voltage-current combinations, both as constant current and constant resistance. In addition, two levels of either current or resistance are available without continual manual readjustment.

For dynamic loading, these solid state loads are provided with a program input for external connection of a signal generator. Dynamic current changes can be monitored directly on the PS²L without use of an external shunt.

The PS²L units provide a meter that functions both as a dual scale voltmeter and a dual scale current meter for direct visual readings. Also provided on the front panel is a LED display to indicate which of two operational modes is controlling the load current and any protective shutdown mode which may occur.

The PS²L units are set at the factory for 115 Volts AC operation. The unit can easily be converted to 230 Volts AC operation by removing the top cover of the unit, changing a voltage selection plug, and changing the primary fuse type and value.

ELECTRICAL CHARACTERISTICS

	PS²L-500	PS²L-1000
Operating Ambient	0° C - 55° C	0° C - 55° C
Input Voltage Requirements	115/230 VAC ±10%	115/230 VAC ±10%
Input Frequency Range	47-63 Hz	47-63 Hz
Maximum Input Current	1 Amp	1 Amp
Input Fuse Rating @ 115 VAC	2 Amp Type MDX	2 Amp Type MDX
@ 230 VAC	1 Amp Type MDL	1 Amp Type MDL
Maximum Loading Power @ 25°C	500 Watts	1000 Watts
Maximum Loading Voltage	60 VDC	60 VDC
Maximum Loading Current	55 ADC	110 ADC
Minimum Loading Voltage	(1.0.036I) VDC	(1-0.018I) VDC
Overvoltage Crowbar Point	70 VDC-78 VDC	70 VDC-78 VDC
Typical Constant Resistance Range	.036 - 2000	.018 - 2000
Typical Program Input Impedance	50 K	50 K
Programming Input Volt Requirement	2V/10 Amp load	1V/10 Amp load
Typical Current Monitor Output	-100MV/Amp load	-50MV/Amp load
Typical Square Wave Response Time (constant current mode)	60 μ sec for 50 Amp step	80 μ sec for 100 Amp step
Typical Regulation (constant current, constant resistance)	1%	1%

VENTILATION

The PS²L units are forced air cooled. A minimum of 3" unobstructed clearance on both ends of the load is recommended for adequate ventilation. Exhaust air should not be allowed to recirculate. A thermal cutout protects the PS²L from overheating.