

69900 Series Digital Arc Lamp Power Supply.

- Highly regulated source of constant current or power for arc lamps rated to 1600 W
- Digital display of lamp power, current, voltage, and usage time
- Standard RS 232 and optional IEEE 488 (GPIB) PC interfaces for remote lamp operation and monitoring
- Power factor correction
- CE Compliant

The 69900 Series is our fully featured family of digital arc lamp power supplies. These supplies offer superior performance, advanced features, and are small and light weight.

OPERATE THESE ARC LAMPS

These supplies run our standard arc lamps from 50 to 1600 W. Refer to Table 1 to select the appropriate supply for your lamp. Our supplies can also run a number of lamps not offered by Newport. Please contact us if you need to operate a lamp not shown in Table 1, or refer to page 4-47 for our OEM power supply offering.

Table 1 Lamps Operated by 69900 Series Power Supplies

This Power Supply	Operates These Lamps
69907 Universal Supply	75 W Xenon 100 W Xenon 150 W Xenon 50 W Mercury 100 W Mercury 200 W Mercury 200 W Mercury (Xenon)
69910 Mercury Supply	200 W Mercury 350 W Mercury 500 W Mercury
69911 Xenon Supply	300 W Xenon 200 W Mercury (Xenon) 500 W Mercury (Xenon)
69920 Universal Supply	450 W Xenon 500 W Xenon 1000 W Xenon 1000 W Mercury 500 W Mercury (Xenon) 1000 W Mercury (Xenon)
69922 Universal Supply	1000 W Xenon 1000 W Mercury 1000 W Mercury (Xenon) 1600 W Xenon 1600 W Mercury (Xenon)

SUPERIOR REGULATION AND LOW RIPPLE

Output stability is critical for many spectroscopic applications. The power supply's contribution to output stability is significant. The output of these power supplies changes by less than 0.02% even for large swings in the line voltage. Light ripple is an impressive <1% r.m.s.

The lamp itself and the lamp housing also contribute to the output stability of the source. Arc lamps suffer from arc fluctuations due to convection currents inside the lamp and arc migration on the electrodes, as well as overall aging. To minimize signal changes beyond the power supply's control, we recommend that you use our 68950 Light Intensity Controller described on page 9-4.

CONTROL AND MONITOR LAMP REMOTELY, VIA PC

Power the lamp on and off; set the current/power preset and limit; and monitor the lamp's voltage, current, power, and operating time, all via your PC. These supplies include an RS 232 PC interface. An optional IEEE 488 (GPIB) interface board is available. Via one of these interfaces you have full access to all the control and monitoring features of the power supply, from your computer.

Analog signals are available for remote metering of voltage, current and power, as well as lamp start and stop, for users who do not wish to use a computer.

SAVE SET-UPS FOR MULTIPLE LAMPS

You can store up to five lamp set-ups, eliminating the need to program the lamps' parameters every time you power a different lamp type.

MONITOR LAMP USAGE

Lamp output degrades with age. We give the expected life for each lamp on page 4-29; this is the amount of time in which a lamp still produces 75%, or greater, of its initial light output. Our 69900 Series Supplies let you monitor your lamp's usage in accumulated lamp hours.

FOR CUSTOM REQUIREMENTS...

These three pages describe our fully featured line of arc lamp power supplies. These are the supplies we include with our Research Arc Lamp Sources. We also offer a line of power supplies for Systems Integrators. These have the same superior stability, reliability and safety of the models discussed on this page, without all of the user features and finished packaging. We discuss our custom power supply capabilities on page 4-47.

SPECIFICATIONS

	Model 69907	Model 69910	Model 69911	Model 69920	Model 69922
Input ratings:					
Power factor:	>0.99	>0.99	>0.99	>0.99	>0.99
Voltage:	95 - 264 VAC	95 - 264 VAC	95 - 264 VAC	95 - 264 VAC	190 - 264 VAC
Current (max):	4 A	8 A	8 A	15 A	12 A
Frequency:	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz
Output ratings:					
Power:	40 - 300 W	160 - 600 W	160 - 600 W	350 - 1200 W	800 - 1600 W
Current:	1.5 - 10 A	3 - 12 A	6.5 - 25 A	17.5 - 50 A	25 - 70 A
Voltage (open circuit):	200 VDC	200 VDC	200 VDC	200 VDC	200 VDC
Voltage (loaded):	0 - 70 VDC	0 - 90 VDC	0 - 45 VDC	0 - 45 VDC	0 - 45 VDC
Line regulation:	0.01%	0.01%	0.01%	0.01%	0.01%
Voltage ripple into ohmic load (load, power)	3.4 Ω, 200 W	10 Ω, 500 W	1.0 Ω, 500 W	0.5 Ω, 1000 W	0.3 Ω, 1600 W
%Voltage ripple (true RMS):	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%
Light ripple true:	<0.5%	<1%	<1%	<1%	<1%
Meter accuracy (% full scale):	<0.05%	<0.05%	<0.05%	<0.05%	<0.05%
Digital meter resolution:					
Voltage:	0.1 VDC	0.1 VDC	0.1 VDC	0.1 VDC	0.1 VDC
Power:	1 W	1 W	1 W	1 W	1 W
Current:	0.1 A	0.1 A	0.1 A	0.1 A	0.1 A
Safety interlock voltage:	12 VDC/GND	12 VDC/GND	12 VDC/GND	12 VDC/GND	12 VDC/GND
Operating modes:					
	Constant power Constant current	Constant power Constant current	Constant power Constant current	Constant power Constant current	Constant power Constant current
Ambient operating temperature:	0 - 45 °C	0 - 45 °C	0 - 45 °C	0 - 45 °C	0 - 45 °C
Weight:	20 lbs (9 kg)	20 lbs (9 kg)	20 lbs (9 kg)	20 lbs (9 kg)	20 lbs (9 kg)

ORDERING INFORMATION

69907	50 to 200 W Universal Arc Lamp Power Supply
69910	200 to 500 W Mercury Arc Lamp Power Supply
69911	200 to 500 W Xenon Arc Lamp Power Supply
69920	450 to 1000 W Universal Arc Lamp Power Supply
69922	800 to 1600 W Universal Arc Lamp Power Supply
69900	Optional IEEE 488 Interface Card
69895	3U Rack Mounting Kit

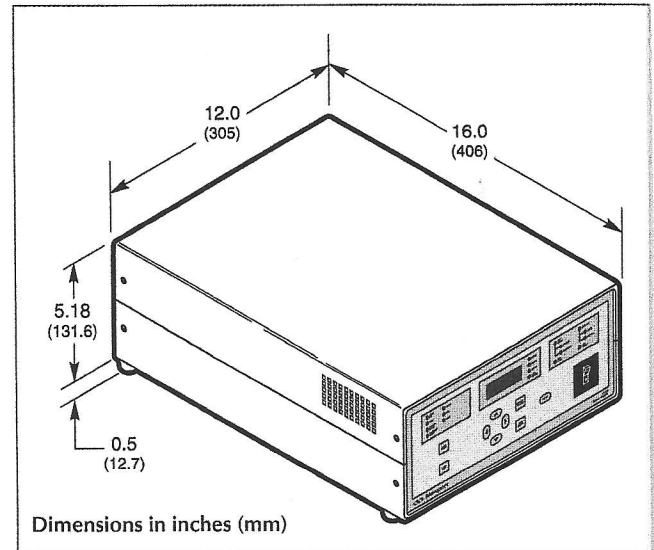


Fig. 1 Dimensional diagram of 69900 Series Arc Lamp Power Supplies.