



Arc Lamp Power Supplies

Standard (500-) Xe / HG-XE Arc Lamp Power Supplies

Model	500-150	500-300	500-500	500-1K	500-1.6K	500-3K
Part #	150-9060	150-9044	150-9006	150-9005	150-9007	150-9029
Types of Lamps	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe
Input Voltage (AC)	100 - 240	100 - 240	100 - 240	100- 240	208 - 240	208 - 240
Current Requirement (AC)	5A	5A	10A	15A/10A	15A	20A
Output Current, Adjustable (A)	5 - 12	5 - 20	10 - 35	10 - 50	10 - 75	15 - 110
Output Power (W)	85 - 200	100 - 300	200 - 500	200 - 1000	200 - 1600	300 - 3000
Efficiency	> 80%					
Stability	< 0.5%					
Line Regulation	<0.2%					
Current Ripple	<0.5% of maximum output current					
Power Limit	Limited to maximum power with power fold-back circuit					
Ambient Operating Temperature	0 - 40°C (32°F - 104°F)					
Display	Current, Voltage, Power					
Ignition Voltage	>30kV					
Cooling Fan Interconnection	YES	YES	NO	NO	NO	NO
Dimensions (inches)	3.5 x 13 x 17	3.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 17 x 17
Weight (kg)	6	6	7.5	7.5	7.5	12

Igniter Location

Models 500-150 and 500-300 come with igniters built into the power supply. An optional external igniter upgrade can be purchased for those power supplies.



500- (standard series)



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Arc Lamp Power Supplies

Touchscreen (501-) Xe / HG-XE Arc Lamp Power Supplies

Parameter	501-150	501-300	501-500	501-1K	501-1.6K	501-3K
Part #	Call	150-9054	150-9050	150-9055	150-9056	150-9059
Types of Lamps	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe	Xe, Hg-Xe
Input Voltage (AC)	100 - 240	100 - 240	100 - 240	100 - 240	200 - 240	200 - 240
Output Current (A)	5 - 12	5 - 20	10 - 35	10 - 50	15 - 75	15 - 110
Output Power (W)	85 - 200	100 - 300	200 - 500	500 - 1000	1000 - 1600	1000 - 3000
Dimensions (inches)	3.5 x 13 x 17	3.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 17 x 17
Weight (kg)	6	6	7.5	7.5	7.5	12
Note	Other parameters same as 500 series supplies					

Features

- On board lamp timer and integrated cool down sequence
- Optional integrated shutter and exposure controller
- User friendly interface
- Extended programmability for expert users
- USB2.0 interface
- Standard system can be extended to display temperature and power measurements
- For a full list of features please see the following page



501- (touchscreen series)



Shutter Control Screen



Lamp Timer Screen



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(501—) TOUCHSCREEN POWER SUPPLY OPTIONS

Upgrade Option	Code	Description
Safety Interlock	/SF	The interlock wiring can be connected to a mechanical safety interlock such as a magnetic switch or rocker switch on the lamp house. With the safety interlock option the power supply will turn off, extinguishing the lamp, if the interlock is opened. This helps ensure safety of the lamp house operator.
Programmable Remote Temperature Monitor	/TM	The programmable remote temperature monitor option provides over temperature protection for the lamp house that the power supply is being used with. With this option, an RTD or K-type Thermocouple is wired between the lamp house and power supply. A programmable temperature sensor with relay output is used to program a maximum lamp house temperature. This option ensures that if the cooling fans fail or the temperature inside the housing rises to a dangerous level the power supply will be shut off extinguishing and saving the lamp from catastrophic failure.
Power Connection for Cooling Fans	/PF	The power connection for cooling fans option provides a power pass through connection for the lamp house cooling fans. With this option, the lamp housing cooling fans operation is monitored by the lamp house. When the power supply is turned on the lamp house fans will also turn on automatically. With this option when the lamp is extinguished from the power supply control panel the power supply will run the fan for 10 minutes to cool the lamp house before turning off the cooling fans.
Integrated Shutter and Exposure Controller	/SH	This option provides an onboard shutter and exposure controller built into the power supply. A standard 2-pin connector is provided on the back of the power supply to connect a Sciencetech solenoid driven shutter mechanism. With this option the power supply firmware provides an interface for programming shutter loops and exposure sequences.
RS232 Computer Control	/RS	This option provides RS232 computer control of the power supply through a DB9 connector mounted on the rear panel of the power supply. The power supply current output and lamp ON/OFF is then controlled from a remote terminal. Basic terminal software is provided with this option with instructions on how to operate the power supply remotely.
Wi-Fi Remote Operation	/WF	This option provides remote control of the power supply through a Wi-Fi connection. With this option the power supply current output and lamp ON/OFF can be controlled from a remote terminal.
Monitor Output	/OC	This option provides a male nine pin connector on the rear of the power supply for monitoring the status of the power supply. Parameters that can be monitored: lamp current 0-10V, lamp voltage 0-10V, lamp On/Off (1-5V TTL).
Auto Start Lamp	/AS	The option provides the capability to automatically start the lamp. This allows the user to set a time for the light source to automatically ignite.



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Mercury (Hg) arc lamps require constant power modules. Sciencetech manufactures a line of Mercury arc lamp power supplies for driving DC mercury arc lamps up to 1.6kW in power. Sciencetech also manufactures lamp housings for mercury arc lamps and can design optical systems to efficiently collect and focus, collimate or homogenize light from mercury arc lamps.

Standard (500-) Hg Arc Lamp Power Supplies

Parameter	500-300 Hg	500-500 Hg	500-1K Hg	500-1.6K Hg
Part #	call	150-9051	150-9052	150-9053
Types of Lamps	Hg Arc	Hg Arc	Hg Arc	Hg Arc
Input Voltage (AC)	100- 240	100 - 240	220- 240	220 - 240
Output Current (A)	varies	10-25	10-50	15-75
Output Power (W)	Up to 300W	Up to 500	500 - 1000	1000 – 1600
Dimensions (inches)	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17	5.5 x 13 x 17
Weight (kg)	7	7	7	7

FURTHER OPTIONS:

External igniter option

Standard 50#-150 and 50#-300 series power supplies come with internal igniters. Without an external igniter the power supply must be located within 300mm of the lamp house. If you require a larger distance between power supply and lamp house, order the external igniter option.

To order a 500-300 supply with an external igniter use part #150-9057. To order a 500-150 supply with an external igniter use part # 150-9062.

Light Intensity Stabilizer

Sciencetech's FS-02 Light Intensity Stabilizer can be used with any of Sciencetech's 500 numbered power supplies. The FS-02 unit provides intensity stability over long time periods ensuring that your target receives stable light intensity levels (i.e. 1 Sun) over the duration of the exposure time.



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