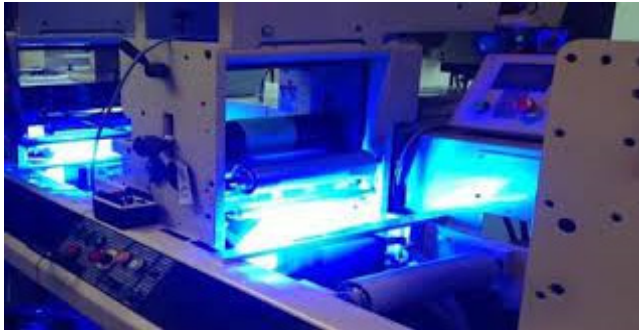


UV Curing



Arc Lamp Equipment

## Arc Lamp Power Supplies



Spectrofluorometers

26 Ward Hill Avenue, Bradford, MA 01835  
Ph: 978-241-8260 / Fx: 978-241-8262  
[www.luminapower.com](http://www.luminapower.com)  
[sales@luminapower.com](mailto:sales@luminapower.com)



## Why Lumina Power?

Lumina is the largest supplier of OEM laser power supplies  
Our excellent pricing and fast delivery services earn us lifelong customers  
We offer the most complete line of high power Laser Diode Drivers  
Capacitor Charging power supplies with all popular options  
Xenon & Mercury Arc Lamp power supplies and “short pulse” ignitors  
Innovative custom products from prototype to volume manufacturing  
Reliable sales & technical support worldwide.

With experience in high voltage ( $>300\text{kV}$ ) and high power ( $>150\text{kW}$ ), our R&D department can adapt configurations from our library of power supply topologies to meet any requirement imaginable.

Lumina Power, Inc. manufactures a complete line of Capacitor Charging Power Supplies, Capacitor Chargers, laser diode drivers, laser power supplies and Xenon arc lamp power supplies. With over twenty-five years of cumulative power supply design and manufacturing expertise, Lumina Power is able to offer standard and custom laser power designs that solve challenging OEM applications and meet stringent agency safety and emission requirements. Lumina Power's products include high power laser diode drivers, capacitor charging power supplies and Xenon & Mercury arc lamp power supplies.



## Arc Lamp Power Supplies

Xenon & Mercury Short-Arc Lamp Power Supplies



With arc lamp power supply models from 150W to over 7kW we have arc lamp power supplies for lamps offered by all major manufacturers worldwide. All models feature active power factor correction (single phase models) or universal 3 phase mains at 5kW and up. Compact switch mode design reduces size and improves the ripple spec to less than 0.5% on all models.

The XLB series lamp ballasts are offered in 7 sizes from 150 to 6000 watts and are constant current sources designed for precision operation of short-arc Xenon lamps. The MLB series Mercury lamp ballasts are offered in 5 sizes from 650 to 7000 watts.

With arc lamp power supply models from 150W to over 7kW we have arc

# XLB Xenon Arc Lamp Power Supplies



The XLB series Xenon lamp ballasts are designed for the OEM customer. The XLB series is ideal for high power applications where economy is important and performance cannot be compromised.

Compact size is possible due to the low-loss Zero Voltage Switching inverter and incorporation of planar magnetics. Power factor is greater than 0.99 and conducted emissions meet stringent European regulations. No additional line filter is required to meet EN 55011 emission requirements.

The XLB Lamp Ballasts set the standard for reliable lamp ignition and long term high power operation in a low cost, compact package. All 5 models offer precision regulation and the lowest ripple specifications in the industry.

They are ideal for medical, projection and industrial applications where a stable light source is essential.



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## Advantages

- Models from 650 to 5000 watts
- Ideal for OEM applications
- Reliable "Short Pulse" Ignition
- Power Factor Correction (1Ø models)
- Low conducted emissions
- Low Ripple < 0.5%

## Applications

- Digital Projection
- Film Projection
- Stage Lighting
- UV Sterilization
- Search Lights
- Solar Simulators
- Medical Illumination

# XLB Xenon Arc Lamp Power Supplies

Model	Pout max	Iout max	V lamp	Input Voltage	Size	
XLB-650	650 watts	35 A	30V.	100 to 240 VAC	8.9" x 5.8" x 2.7" 226 x 147 x 69mm	
XLB-1000	1000 watts	50A	35V		200 to 240 VAC	10.6" x 8.2" x 3" 269 x 208 x 76mm
XLB-1500	1500 watts	75A		13.0" x 8.5" x 3.4" 330 x 215.9 x 86.4mm		
XLB-2500	2500 watts	120A				17" x 16.6" x 3.4" 431 x 422 x 108mm
XLB-3000	3000 watts	150A				
XLB-5000	5000 watts	170A		200 to 440VAC 3Ø (selectable)	17.3" x 16.6" x 4.25"	

Note: Maximum output voltage is preset. Actual output voltage tracks the impedance of the lamp. Higher output voltages available. The XLB-650 can also operate lower power lamps from 150 through 500 watts. (see igniter options page 4)

## Specifications

Input Voltage: See table:  
All input voltages  $\pm 10\%$ , 50/60Hz  
Power Factor:  $>.98$  (1Ø Models)  
Efficiency:  $>80\%$

## Interface

(See interface description page 3)

Connector: 15 Pin "D" Sub Female

## Ignition/Boost

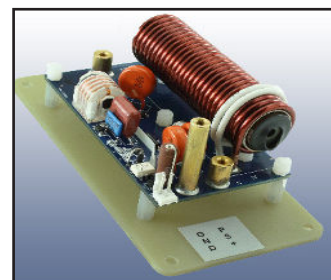
Boost Voltage: 250V  
Boost Energy: 500 mj.  
Ignition Voltage: Up to 45kV (~1uSec rise time)  
Igniter Polarity: Positive or Negative (Factory Set)  
Ignition Energy: 65mj.  
Igniter Dimensions: (XLB-650/1000/1500/2500/3000) 5.5" x 3.6" x 2.6"  
140 x 92 x 66mm  
(XLB-5000) 7.0" x 4.625" x 2.5" / 177 x 116 x 63mm

## Performance

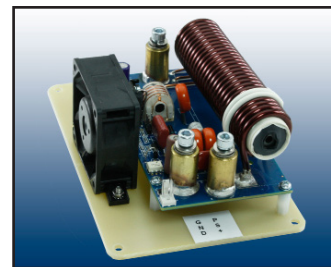
Line Regulation:  $<0.2\%$  of maximum output current  
Current Regulation:  $<0.5\%$  of Maximum output current  
Current Ripple:  $<0.5\%$  of maximum output current  
Power Limit: Limited to maximum power with power fold-back circuit

## Environment

Operating Temp: 0 to 40°C  
Storage: -25 to 85°C  
Humidity: 0 to 95% RH non-condensing  
Cooling: Forced air



XLB-650/1000/1500/2500  
/3000 Igniter



XLB-5000 Igniter

Short Pulse high energy igniters operate from power supply output. Reliable automatic lamp ignition.

Also Available: The new MLB-series short-arc lamp power supplies designed with constant power output to operate Mercury lamps. Contact customer service or visit our website for more details.

Note: XLB-5000 can be upgraded to 7kW. Contact customer service for details. Units can also be paralleled for higher power applications.



# MLB Mercury Lamp Power Supplies



The MLB series Mercury lamp ballasts are designed for the OEM customer. MLB power supplies provide a precise constant power output that will track the varying impedance of the mercury lamp for stable light output. Combined with our "Short Pulse" igniter the system is offered in a wide range of voltage and current combinations and will operate lamps from all manufacturers.

Compact size is possible due to the low-loss Zero Voltage Switching inverter and incorporation of planar magnetics. Power factor is greater than 0.99 (1Ø models) and conducted emissions meet stringent European regulations. No additional line filter is required to meet EN 55011 emission requirements.

The MLB Lamp Ballasts set the standard for reliable lamp ignition and long term high power operation in a low cost, compact package. All 5 models offer precision regulation and the lowest ripple specifications in the industry.



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## Advantages

- Models from 650 to 5000 watts
- Constant Power Output
- Reliable "Short Pulse" Ignition
- Power Factor Correction (1Ø models)
- Low conducted emissions
- Low Ripple < 0.5%

## Applications

- Semiconductor Processing
- UV Sterilization
- UV Curing
- Medical Applications

# MLB Mercury Lamp Power Supplies

Model	Pout max	Iout max	V lamp	Input Voltage	Size
MLB-650	650 watts	35 A	15 to 150 V  (Depending upon lamp model)	100 to 240 VAC	8.9" x 5.8" x 2.7" 226 x 147 x 69mm
MLB-1000	1000 watts	50A			10.6" x 8.2" x 3" 269 x 208 x 76mm
MLB-1500	1500 watts	75A		200 to 240 VAC	13" x 8.5" x 3.4" 33.2 x 21.6 x 8.6 cm
MLB-2500	2500 watts	150A			17" x 16.6" x 3.4" 431 x 422 x 108mm
MLB-3000	3000 watts	150A			
MLB-5000	5000 watts	170A		200 to 440VAC 3Ø (selectable)	17.3" x 16.6" x 4.25" 439 x 422 x 108mm

## Specifications

Input Voltage: See table:  
 All input voltages  $\pm 10\%$ , 50/60Hz  
 Power Factor:  $>.98$  (1Ø Models)  
 Efficiency:  $>80\%$

## Interface

(See interface description page 3)  
 Connector: 15 Pin "D" Sub Female

## Ignition/Boost

Boost Voltage: 250V  
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 Ignition Voltage: Up to 45kV (~1uSec rise time)  
 Igniter Polarity: Positive or Negative (Factory Set)  
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 Igniter Dimensions: 5.5" x 3.6" x 2.6", 140 x 92 x 66mm

## Performance

Line Regulation:  $<0.2\%$  of maximum output current  
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 Current Ripple:  $<0.5\%$  of maximum output current  
 Power Limit: Limited to maximum power with power fold-back circuit

## Environment

Operating Temp: 0 to 40°C  
 Storage: -25 to 85°C  
 Humidity: 0 to 95% RH non-condensing  
 Cooling: Forced air

Note: MLB-5000 can be upgraded to 7kW. Contact customer service for details. Units can also be paralleled for higher power applications.



Short Pulse high energy igniters operate from power supply output. Reliable automatic lamp ignition.

Also Available: The XLB-series short-arc lamp power supplies designed with constant current output to operate Xenon lamps. Contact customer service or visit our website for more details.

For low power applications from 75 to 300 watts please refer to the XLB-150/300 data sheet.



We Excel at Customer Service!

Lumina Power is dedicated to providing immediate response to our customers. To place an order, get technical assistance, delivery updates or quotations, please contact our customer service group: 978-241-8260 or send us an email for a quick response. Hours of operation are 8AM to 4:30PM (GMT-5), Monday through Friday.

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