

# 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.

## Advantages

- Models from 650 to 5000 watts
- Ideal for OEM applications
- Reliable "Short Pulse" Ignition
- Power Factor Correction (10 models)
- Low conducted emissions
- Low Ripple < 0.5%

## Applications

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



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# XLB Xenon Arc Lamp Power Supplies

| Model    | Pout max   | Iout max | V lamp     | Input Voltage                    | Size  |
|----------|------------|----------|------------|----------------------------------|---|
| XLB-650  | 650 watts  | 35 A     | 15 to 45 V | 100 to 240 VAC                   | 8.9" x 5.8" x 2.7"<br>226 x 147 x 69mm      |
| XLB-1000 | 1000 watts | 50A      |            |                                  | 10.6" x 8.2" x 3"<br>269 x 208 x 76mm       |
| XLB-1500 | 1500 watts | 75A      |            | 200 to 240 VAC                   | 17" x 16.6" x 3.4"<br>431 x 422 x 108mm     |
| XLB-3000 | 3000 watts | 150A     |            |                                  | 17.3" x 16.6" x 4.25"<br>439 x 422 x 108 mm |
| XLB-5000 | 5000 watts | 170A     |            | 200 to 440VAC<br>3Ø (selectable) |   |

## 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

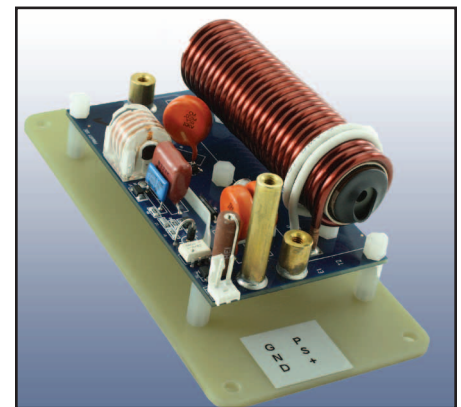
Boost Voltage: 250V  
 Boost Energy: 10 Joules  
 Ignition Voltage:  $>40kV$  (~1uSec rise time)  
 Ignition Energy: 500 milli-joules  
 Igniter Dimensions: 5.5" x 3.6" x 2.6" (XLB-650/1000/1500/3000)  
 140 x 92 x 66 mm

## Performance

Line Regulation:  $<0.02\%$  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



**Short Pulse high energy igniter operates from power supply output. Reliable automatic lamp ignition. (XLB-5000 igniter is enclosed and fan cooled)**

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.

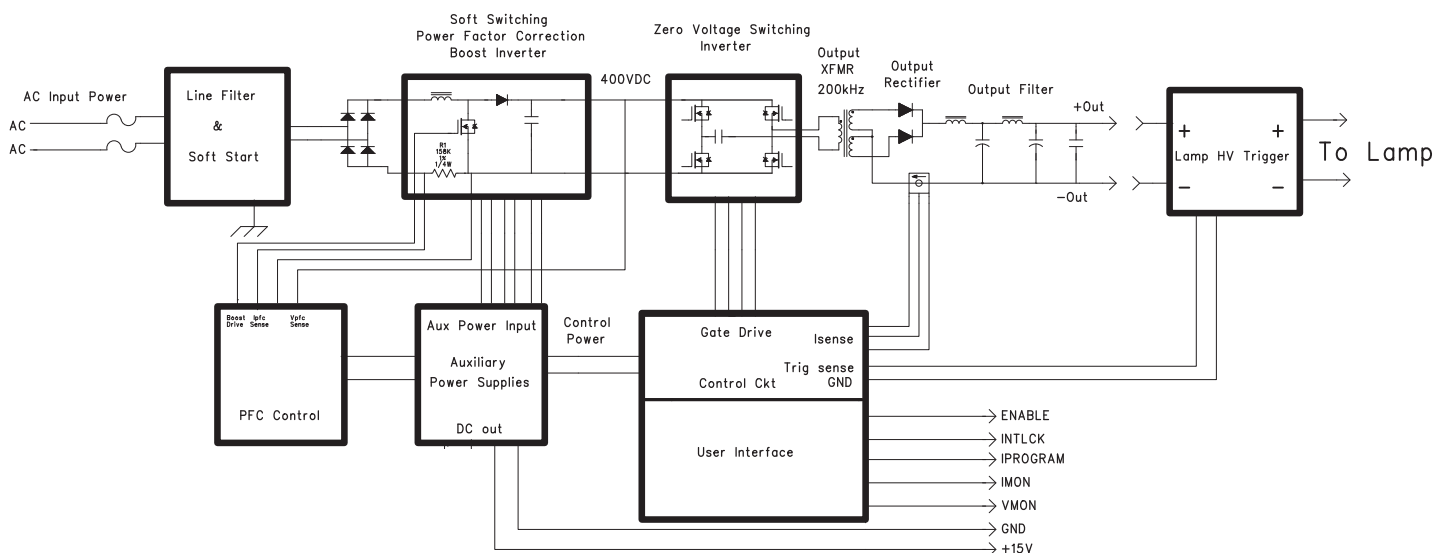
Note: XLB-5000 can be upgraded to 7kW. Contact customer service for details. Units can also be paralleled for higher power applications.

# XLB Xenon Arc Lamp Power Supplies

## Interface

| Pin #   | Pin Name                         | Functional Voltage Level                    | Description  |
|---------|----------------------------------|---|--|
| 1       | Lamp On/Off (input)<br>(Note: 1) | High = RUN = +5V to +15V<br>Low = OFF = 0V  | The Lamp On/Off function is the control function which turns the lamp on and off. When the lamp is turned on, a trigger and boost sequence will ignite the lamp and deliver current as programmed via Iprogram, Pin 7. |
| 3       | Interlock (Input)                | Open = OFF<br>Connect to GND = RUN          | The Interlock function can be connected to external interlock switches such as door or over-temp switches.   |
| 4,9, 15 | GND                              |   | Interface Return   |
| 5       | Vout Monitor (output)            | 0-10V = 0-Voutmax                           | The output voltage of the supply can be monitored by Vout Monitor.   |
| 6       | Iout Monitor (output)            | 0-10V = 0-Ioutmax                           | The output current of the supply can be monitored by Iout Monitor.   |
| 7       | Iprogram (input)                 | 0-10V = 0-Ioutmax                           | The power supply output current is set by applying a 0-10V analog signal to Iprogram(+).   |
| 8       | Lamp Status                      | High = lamp off = 15V<br>Low = lamp on = 0V | The status of the lamp can be monitored using this pin   |
| 13,14   | +15V (output)                    |   | Auxiliary 200mA  |

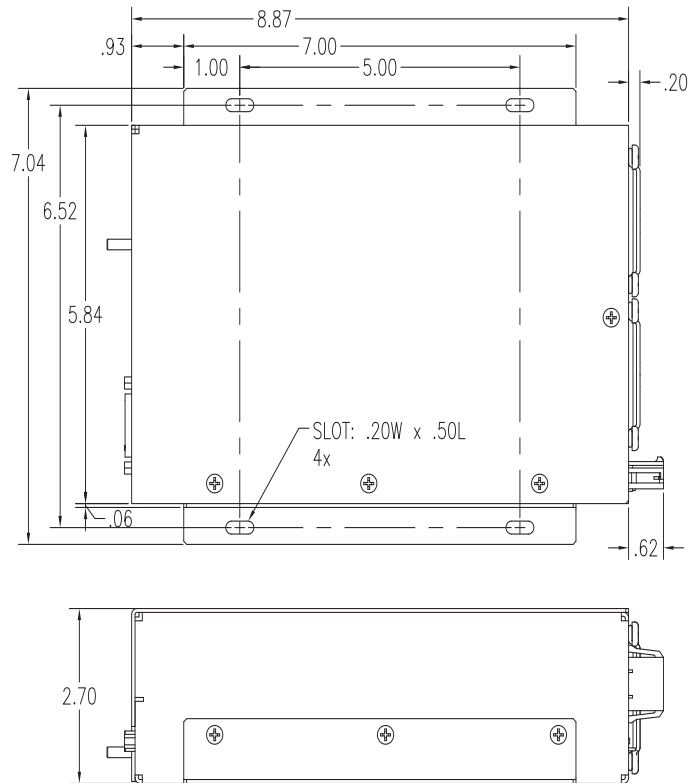
## XLB Series Block Diagram (power factor corrected models)



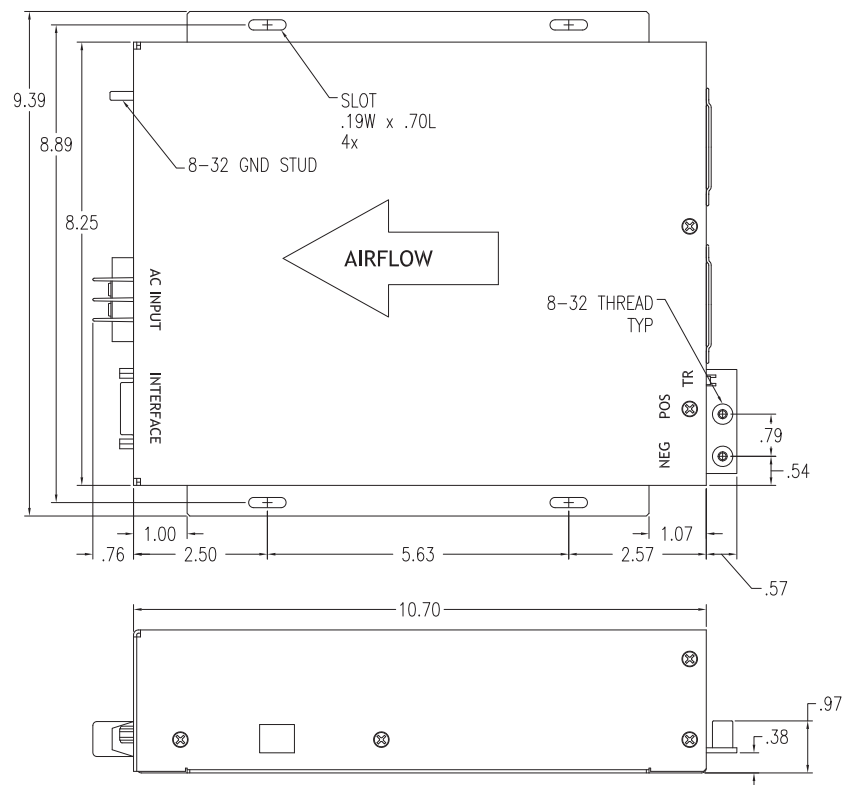
# XLB Xenon Arc Lamp Power Supplies

## Outline Drawings (dimensions in inches)

XLB-650



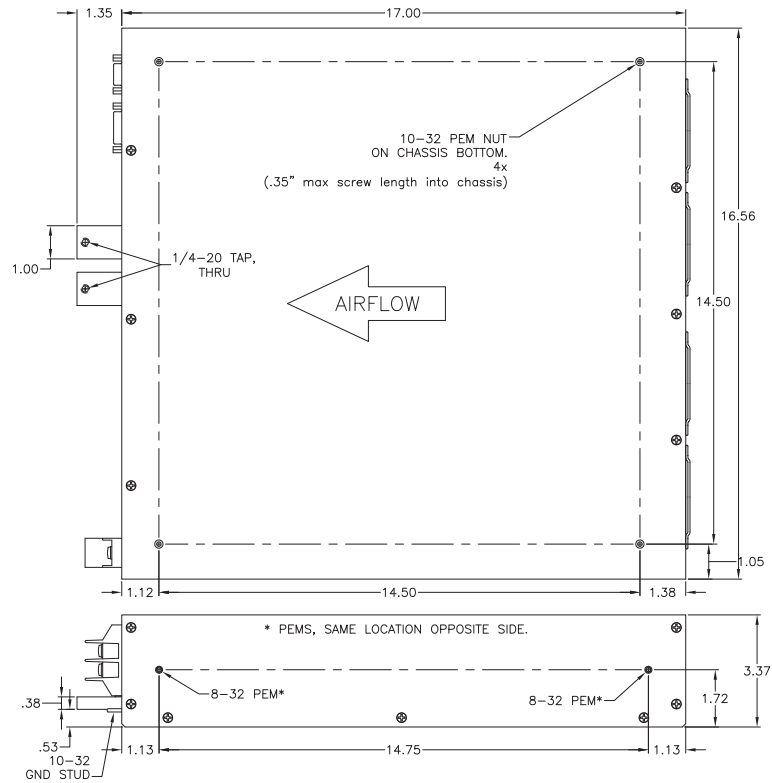
XLB-1000/1500



# XLB Xenon Arc Lamp Power Supplies

## Outline Drawings (dimensions in inches)

XLB-3000



XLB-5000

