

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

XLB Xenon Arc Lamp Power Supplies

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

Note: Maximum output voltage is preset. Actual output voltage tracks the impedance of the lamp.

Specifications

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

Interface

Connector: (See interface description page 3)
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

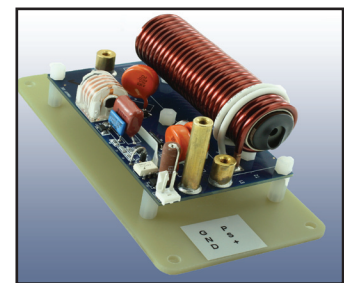
Performance

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

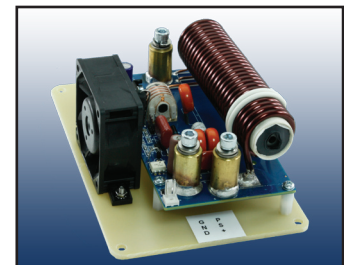
Environment

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

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



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



XLB-5000 Igniter

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

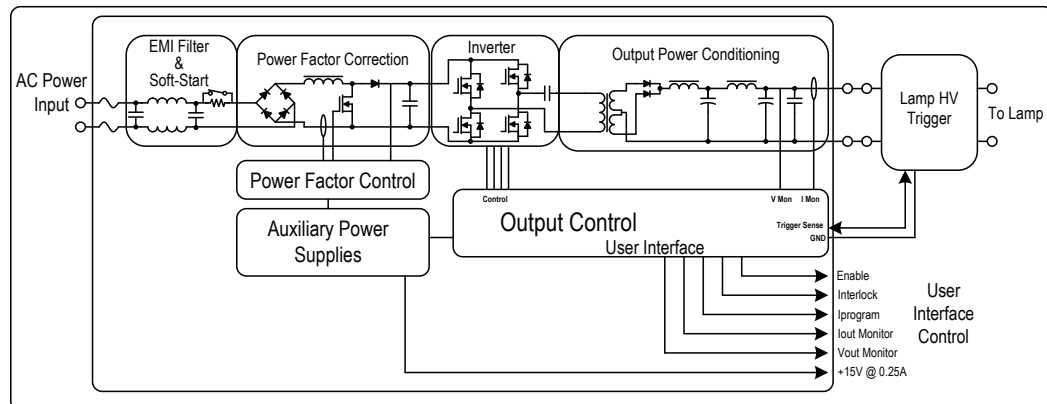
Also Available: The new MLB-series short-arc lamp power supplies designed with constant power output to operate Mercury lamps. Contact customer service or visit our website for more details.

XLB Xenon Arc Lamp Power Supplies

Interface

| Pin # | Pin Name | Functional Voltage Level | Description |
|---------|----------------------------------|---|--|
| 1 | Lamp On/Off (input) (Note: 1) | High = RUN = +5V to +15V 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 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. Note: See selection chart on page 2 for maximum output voltage setting per model. |
| 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 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)

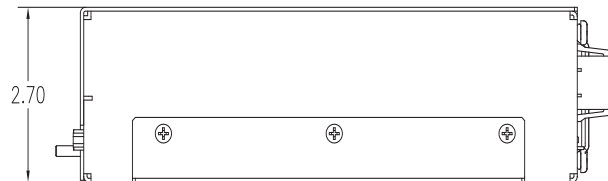
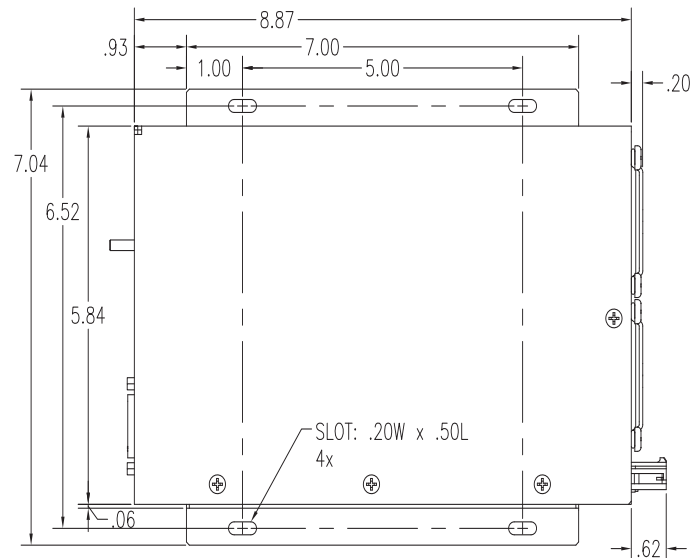


© Lumina Power, Inc. All Rights Reserved 3/20/12

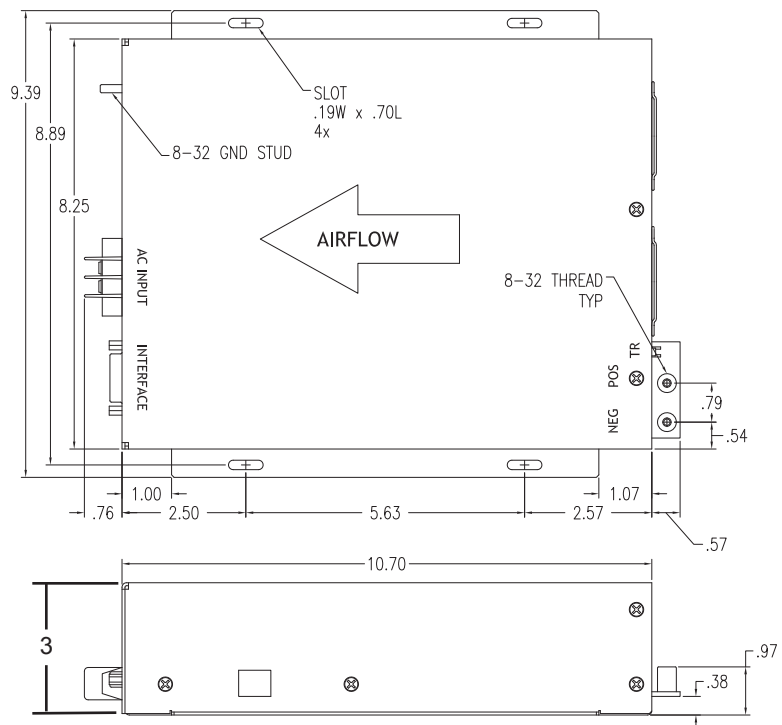
XLB Xenon Arc Lamp Power Supplies

Outline Drawings (dimensions in inches)

XLB-650

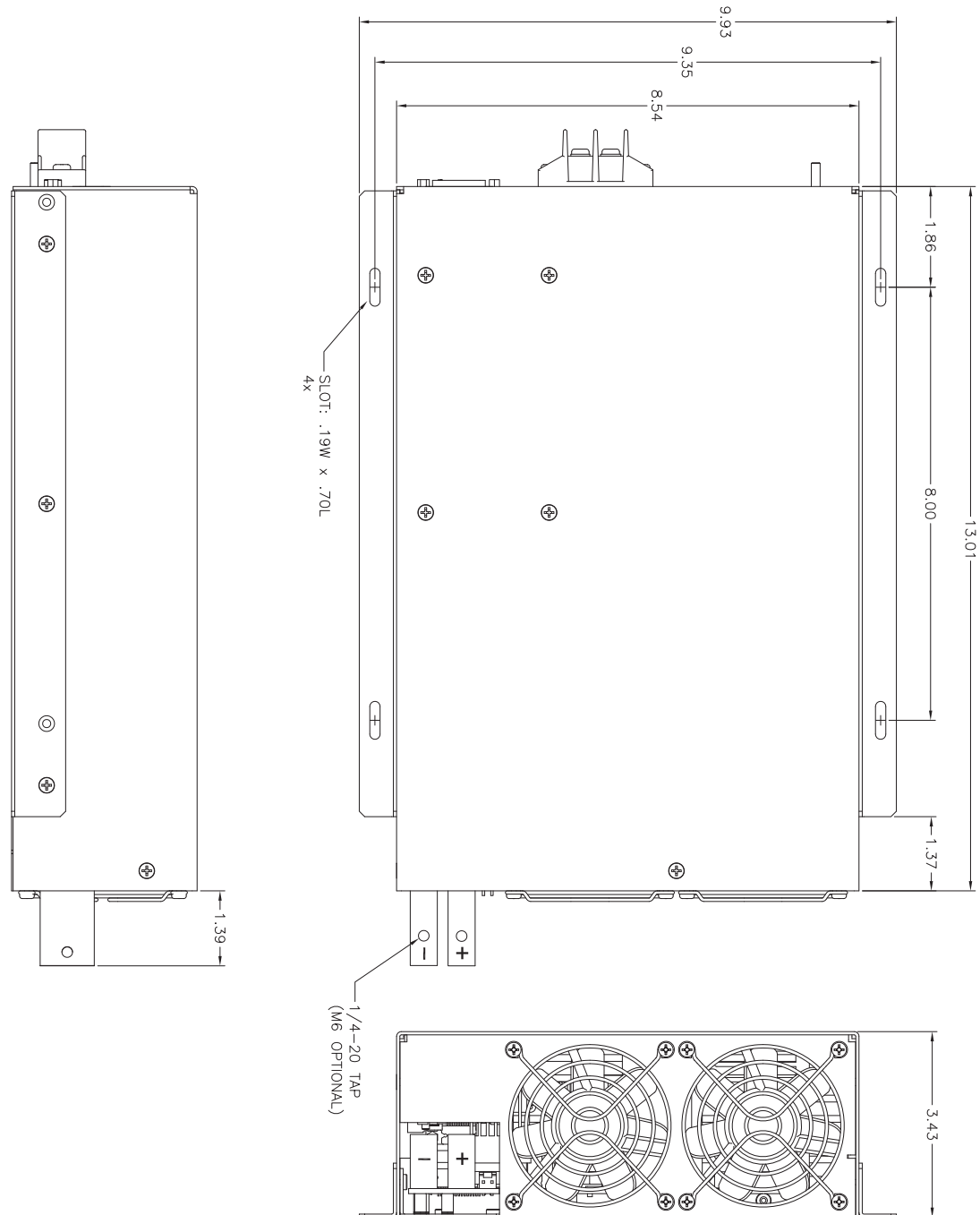


XLB-1000/1500



XLB Xenon Arc Lamp Power Supplies

XLB-2500

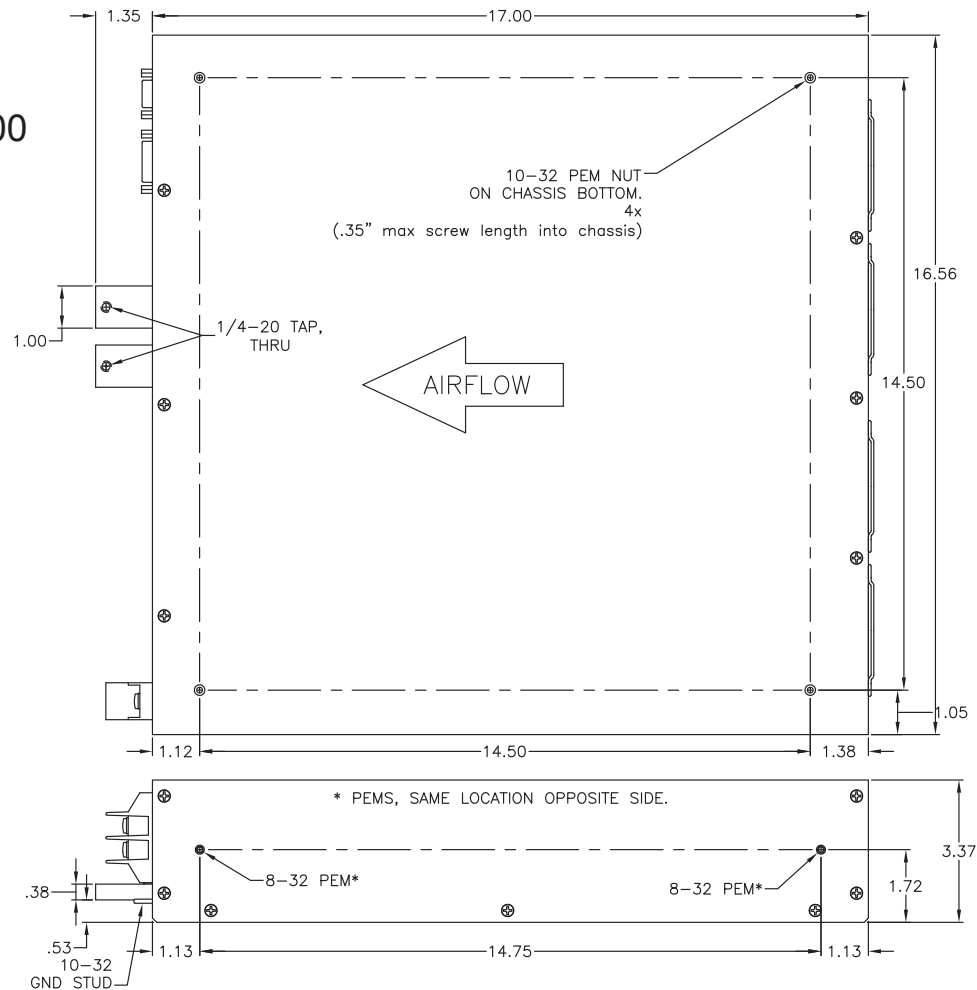


© Lumina Power, Inc. All Rights Reserved 3/20/12

XLB Xenon Arc Lamp Power Supplies

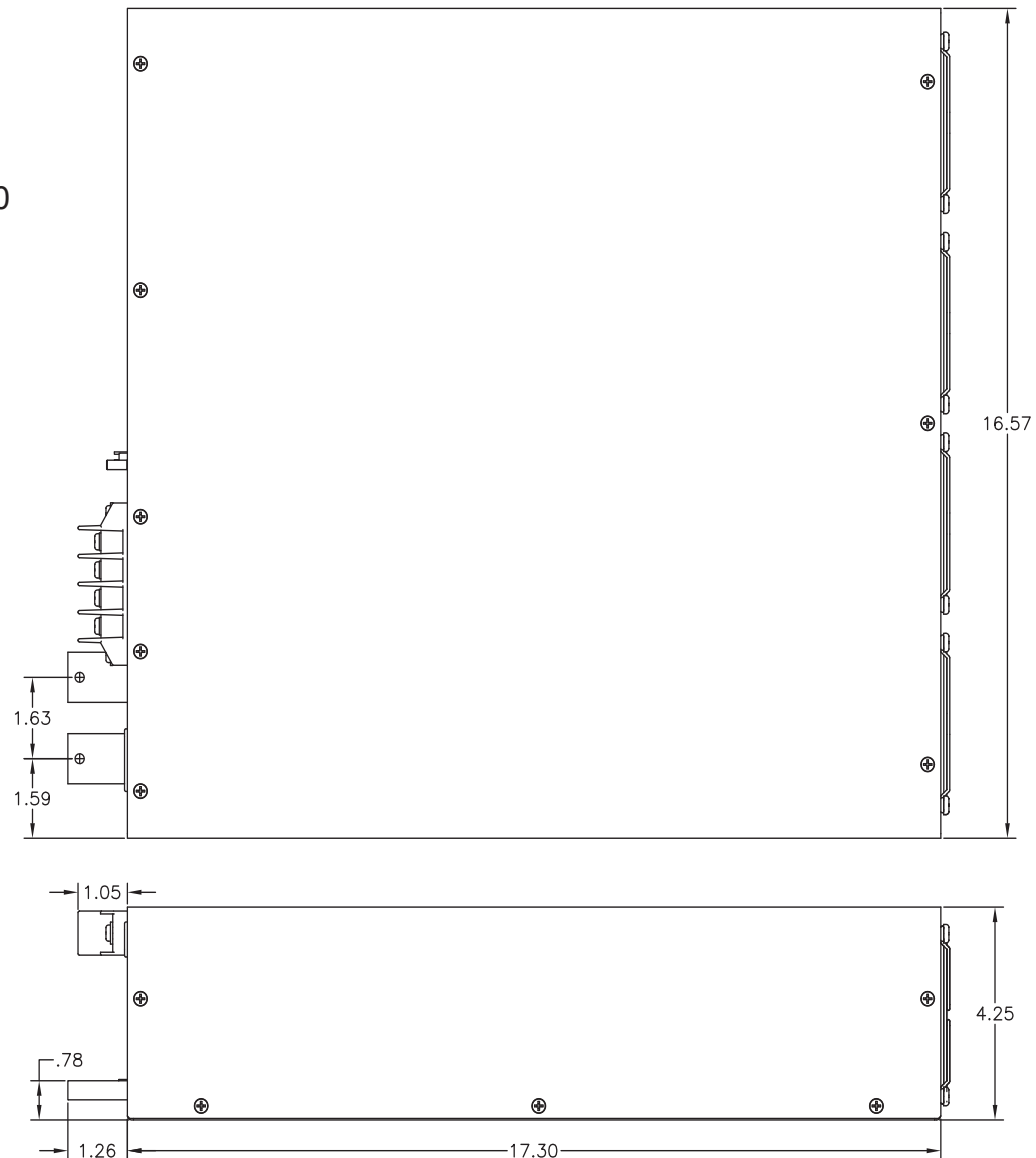
Outline Drawings (dimensions in inches)

XLB-3000



XLB Xenon Arc Lamp Power Supplies

XLB-5000



Lumina Power reserves the right to change the specifications of this product without notice or liability. Contact customer service for latest specifications.

© Lumina Power, Inc. All Rights Reserved 3/20/12