

# Laserglow Product Datasheet

## LLS-0660 Low-Noise DPSS Laser System



### Series Specifications:

|                    |        |
|--------------------|--------|
| Nominal Wavelength | 639 nm |
| Output Type        | CW     |
| Laser Source Type  | DPSS   |

### Overview:

The LLS-0639 Series of Low-Noise Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring less than 1% noise and output power levels from 10 mW to 500 mW. These 639 nm lasers maintain a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for fluorescence excitation, PIV, Raman Spectroscopy, and a broad spectrum of other applications. The driver is available as a complete FDA-compliant system or as an O.E.M. component with significantly reduced dimensions.

Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.

### Key Features:

- 1% optical noise (20 Hz-20 MHz)
- Air cooled - no need for water cooling or external chiller
- Lightweight, compact design
- Efficient DPSS technology runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- FDA CDRH Compliant Class IIIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

### Package Includes:

- Laser Head
- Driver/Power Supply
- Power Cable
- Keys, Safety Interlock
- Hard-shell Carrying Case

## Specifications:

This spec sheet has been generated specifically for part number L6B-O, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to L6B-O have been highlighted below in **red + bold**.


|   |  |
|---|--|
| Output Power (mW)                               | <b>&gt;10, &gt;50, &gt;100, &gt;200, &gt;300, &gt;500, &gt;800, &gt;1000</b> |
| Output Power Stability (%RMS/4h)                | <b>&lt;1, &lt;2, &lt;3, &lt;5</b>  |
| Wavelength Tolerance (+/- nm)                   | <b>1</b>   |
| Divergence (mrad, full angle)                   | <b>&lt;1.5</b>   |
| Beam Dimensions (mm, 1/e <sup>2</sup> )         | <b>1</b>   |
| Warm-up Time (minutes)                          | <b>10</b>  |
| Optical Noise Amplitude (%RMS @ 20 Hz - 20 MHz) | <b>&lt;1</b>   |
| M <sup>2</sup>                                  | <b>&lt;1.2</b>   |
| Polarization Ratio                              | <b>&gt;100</b>   |
| Beam Pointing Stability (mrad)                  | <b>&lt;0.05</b>  |
| Operating Temperature Range (°C)                | <b>10 to 35</b>  |
| Max. Power Input Duty Cycle                     | <b>100%</b>  |
| Standard Warranty (months)                      | <b>12</b>  |
| MTTF (operational hours)                        | <b>10000</b>   |
| Weight of Product or Laser Head (kg)            | <b>2</b>   |
| Beam Height from Base Plate (mm)                | <b>27.4</b>  |
| Dimensions of Product or Laser Head (mm)        | <b>197 (l) x 70 (w) x 50 (h)</b>   |

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

## Power Supply Options:

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

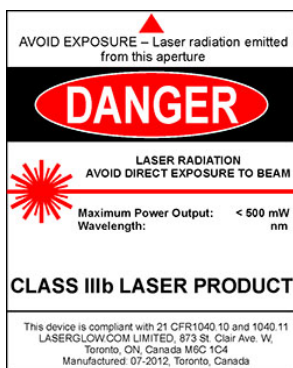
|   |                          |                                    |
|---|--------------------------|------------------------------------|
|  | Power Supply Type:       | <b>FO</b>                          |
|   | Input Power              | <b>85v to 264v</b>                 |
|   | Power Supply Weight (kg) | <b>2.6</b>                         |
|   | Dimensions (mm)          | <b>268 (l) x 145 (w) x 106 (h)</b> |

\*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

\*Dimensions for fiber-integrated (I\_) include laser head packaged inside.

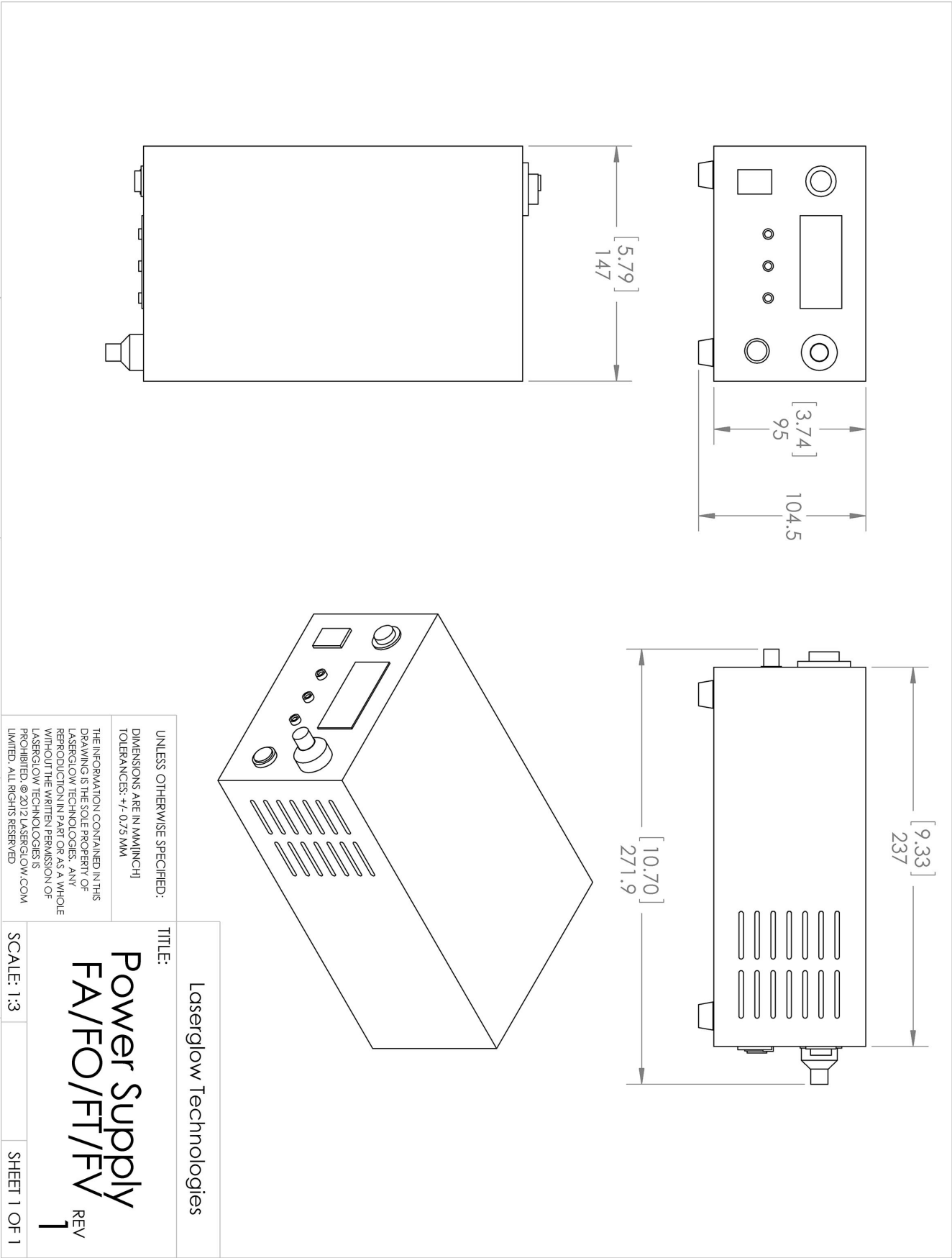
## Regulatory Classification:

The model you have selected (L6B-O) requires the following safety label(s):










Dimensional Drawing - Power Supply Form Factor: FO:



## Accessories:

The most popular accessories for model L6B-O are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number  | Description  |  |
|--|--|--|
| <br>AFF2002XX   | Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length<br>Full Details: <a href="http://www.laserglow.com/AFF">www.laserglow.com/AFF</a>   |  |
| <br>AFS2002XX   | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length<br>Full Details: <a href="http://www.laserglow.com/AFS">www.laserglow.com/AFS</a>  |  |
| <br>AGF6605XX   | LSG-660-NF-5 Fit-Over Safety Goggles 660nm<br>Output: OD 5+ at 600-694 nm<br>CE Certified<br>Full Details: <a href="http://www.laserglow.com/AGF">www.laserglow.com/AGF</a>  |  |
| <br>ACFVISHXA   | FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm)<br>(installed and aligned)<br>11mm diameter input lens<br>Full Details: <a href="http://www.laserglow.com/ACF">www.laserglow.com/ACF</a>   |  |
| <br>ACSVISHXA | SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm)<br>(installed and aligned)<br>11mm diameter input lens<br>Full Details: <a href="http://www.laserglow.com/ACS">www.laserglow.com/ACS</a> |  |

## FOR MORE INFORMATION PLEASE CONTACT:

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E&OE: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.