

## Arktis Laser Product Datasheet

### LWS-1064 Water-Cooled Q-Switched DPSS Laser System



#### Series Specifications:

|                    |            |
|--------------------|------------|
| Nominal Wavelength | 1064 nm    |
| Output Type        | Q-Switched |
| Laser Source Type  | DPSS       |



#### Overview:

The LWS-1064 Series of Diode-Pumped Solid-State (DPSS) AOM Q-Switched Lasers are ideal for applications requiring the highest available output in 1064 nm. At over 100 W average output this series maintains a high level of long-term output power stability and a long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for fluorescence excitation, PIV, Raman Spectroscopy, laser display and a broad spectrum of other applications including materials processing. 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:

- Closed Loop Water Cooling - no need for external plumbing connection
- Lightweight, compact design
- Pulse energy and frequency are user-adjustable
- 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
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock

## Specifications:

This spec sheet has been generated specifically for part number WA6-B, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to WA6-B have been highlighted below in **red + bold**.


|  |                                      |
|--|--------------------------------------|
| Output Power (W)                         | <b>20, 30, 50, 75, 100</b>           |
| Single Pulse Energy (µJ)                 | <b>2000, 3000, 5000, 7500, 10000</b> |
| Optimal Pulse Frequency (Hz)             | <b>10000</b>                         |
| Output Power Stability (%RMS/4h)         | <b>&lt;1, &lt;3, &lt;5</b>           |
| Central Wavelength (nm)                  | <b>1063.2</b>                        |
| Wavelength Tolerance (+/- nm)            | <b>1</b>                             |
| Divergence (mrad, full angle)            | <b>&lt;3.5</b>                       |
| Beam Dimensions (mm, 1/e <sup>2</sup> )  | <b>7</b>                             |
| Warm-up Time (minutes)                   | <b>10</b>                            |
| Avg. Pulse Duration (ns)                 | <b>85</b>                            |
| Beam Pointing Stability (mrad)           | <b>&lt;0.05</b>                      |
| Operating Temperature Range (°C)         | <b>15 to 35</b>                      |
| Max. TTL Modulation Freq. (Hz)           | <b>100,000</b>                       |
| Modulation Input Signal                  | <b>0-5 VDC</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>15</b>                            |
| Beam Height from Base Plate (mm)         | <b>65</b>                            |
| Dimensions of Product or Laser Head (mm) | <b>426 (l) x 150 (w) x 130 (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.

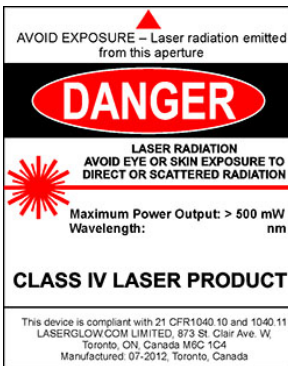
|  |                          |                                    |
|--|--------------------------|------------------------------------|
|  | Power Supply Type:       | <b>FB</b>                          |
| FDA-Compliant LabSpec<br> | Input Power              | <b>85v to 264v</b>                 |
|  | Power Supply Weight (kg) | <b>18.5</b>                        |
|  | Dimensions (mm)          | <b>340 (l) x 463 (w) x 221 (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 (WA6-B) requires the following safety label(s):



**Accessories:**

The most popular accessories for model WA6-B are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description |  |
|-------------|-------------|--|
|-------------|-------------|--|

**FOR MORE INFORMATION PLEASE CONTACT:**

Arktis Laser  
112 Elizabeth St, Unit 5-331, Toronto, ON, Canada M5G 1P5  
Tel. 1-416-886-1178 Fax 1-647-874-7129  
[sales@arktislaser.com](mailto:sales@arktislaser.com) [www.arktislaser.com](http://www.arktislaser.com)

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

Please confirm critical specifications with our staff prior to ordering.