

## 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**.

|   |                                      |
|---|--------------------------------------|
| Laser Form Factor                           | <b>B</b>                             |
| Output Power (W)                            | <b>20, 30, 50, 75, 100</b>           |
| Single Pulse Energy ( $\mu$ J)              | <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>           |
| FDA Safety Class                            | <b>IV</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>                             |
| Longitudinal Modes                          | <b>Multiple</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 ( $^{\circ}$ C) | <b>15 to 35</b>                      |
| Storage Temperature Range ( $^{\circ}$ C)   | <b>-10 to 50</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>                          |
| Cooling Method                              | <b>Water (Closed Loop)</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.

## Specifications Page 2:


Laser Form Factor **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>                          |
|  | 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:**

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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.