

## Arktis Laser Product Datasheet

### LWS-0532 Water-Cooled Q-Switched DPSS Laser System



#### Series Specifications:

Nominal Wavelength	532 nm
Output Type	Q-Switched
Laser Source Type	DPSS



#### Overview:

The LWS-0532 Series of Diode-Pumped Solid-State (DPSS) Q-Switched Lasers are ideal for applications requiring the highest available output in 532 nm. At 10 W to 45 W average output power, 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 in the production of PV Solar Cells. 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
- 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 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 W53-B, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to W53-B have been highlighted below in **red + bold**.


Output Power (W)	<b>10, 20, 30, 40, 50, 75, 100</b>
Single Pulse Energy (μJ)	<b>1000, 2000, 3000, 4000, 5000, 7500, 10000</b>
Optimal Pulse Frequency (Hz)	<b>10000, 15000</b>
Output Power Stability (%RMS/4h)	<b>&lt;1, &lt;3, &lt;5</b>
Central Wavelength (nm)	<b>531.65</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, 12, 15</b>
Warm-up Time (minutes)	<b>10</b>
Avg. Pulse Duration (ns)	<b>100</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.

<div>FDA-Compliant LabSpec</div> <div></div>	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 (W53-B) requires the following safety label(s):



**Accessories:**

The most popular accessories for model W53-B are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
 AGF5327XX	LSG-532-NF-7 Fit-Over Safety Goggles 532nm Output: OD 7+ at 190-532 nm CE Certified Full Details: <a href="http://www.arktislaser.com/AGF">www.arktislaser.com/AGF</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.