

## Arktis Laser Product Datasheet

### LQS-3800 Passively Q-Switched Laser System



#### Series Specifications:

Nominal Wavelength	3800 nm
Output Type	Q-Switched
Laser Source Type	DPSS

#### Overview:

The LQS-3800 Series of Diode-Pumped Solid-State (DPSS) Q-Switched Lasers are ideal for applications requiring a very high peak power or short pulse duration at 3800 nm.

These lasers are commonly used for Raman spectroscopy, material processing, and a broad range of other applications. The driver is available as a plug-and-play benchtop system or an O.E.M. component designed for system integration.

#### Key Features:

- Pulse energy of 7 uJ - 20 uJ
- Pulse repetition rate of 5 kHz - 15 kHz
- Pulse duration in the range of 5-10 ns
- Air cooled
- Runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- 10,000 hour maintenance-free operating life (Expected)
- FDA/CDRH compliant Class IV enclosure

#### Package Includes:

- Laser Head
- Driver/Power Supply
- Power Cable
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock
- Hard-shell Carrying Case

## Specifications:

This spec sheet has been generated specifically for part number Q3G-N, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to Q3G-N have been highlighted below in **red + bold**.


Output Power (mW)	<b>&gt;100, &gt;200, &gt;300</b>
Single Pulse Energy (μJ)	<b>7, 13, 20</b>
Optimal Pulse Frequency (Hz)	<b>15000</b>
Output Power Stability (%RMS/4h)	<b>&lt;3, &lt;5, &lt;10</b>
Central Wavelength (nm)	<b>3800</b>
Wavelength Tolerance (+/- nm)	<b>20</b>
Divergence (mrad, full angle)	<b>&lt;1.5</b>
Beam Dimensions (mm, 1/e <sup>2</sup> )	<b>3</b>
Warm-up Time (minutes)	<b>10</b>
Avg. Pulse Duration (ns)	<b>5</b>
Approximate Peak Power (W)	<b>4000, 5000, 6000</b>
Operating Temperature Range (°C)	<b>10 to 35</b>
Max. TTL Modulation Freq. (Hz)	<b>20000</b>
Minimum Pulsing Frequency (Hz)	<b>5000</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>2.6</b>
Beam Height from Base Plate (mm)	<b>68.2</b>
Dimensions of Product or Laser Head (mm)	<b>240 (l) x 99 (w) x 94 (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 Standard</div> <div></div>	Power Supply Type:	<b>SN</b>
	Input Power	<b>85v to 264v</b>
	Power Supply Weight (kg)	<b>2.3</b>
	Dimensions (mm)	<b>238 (l) x 146 (w) x 102 (h)</b>

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

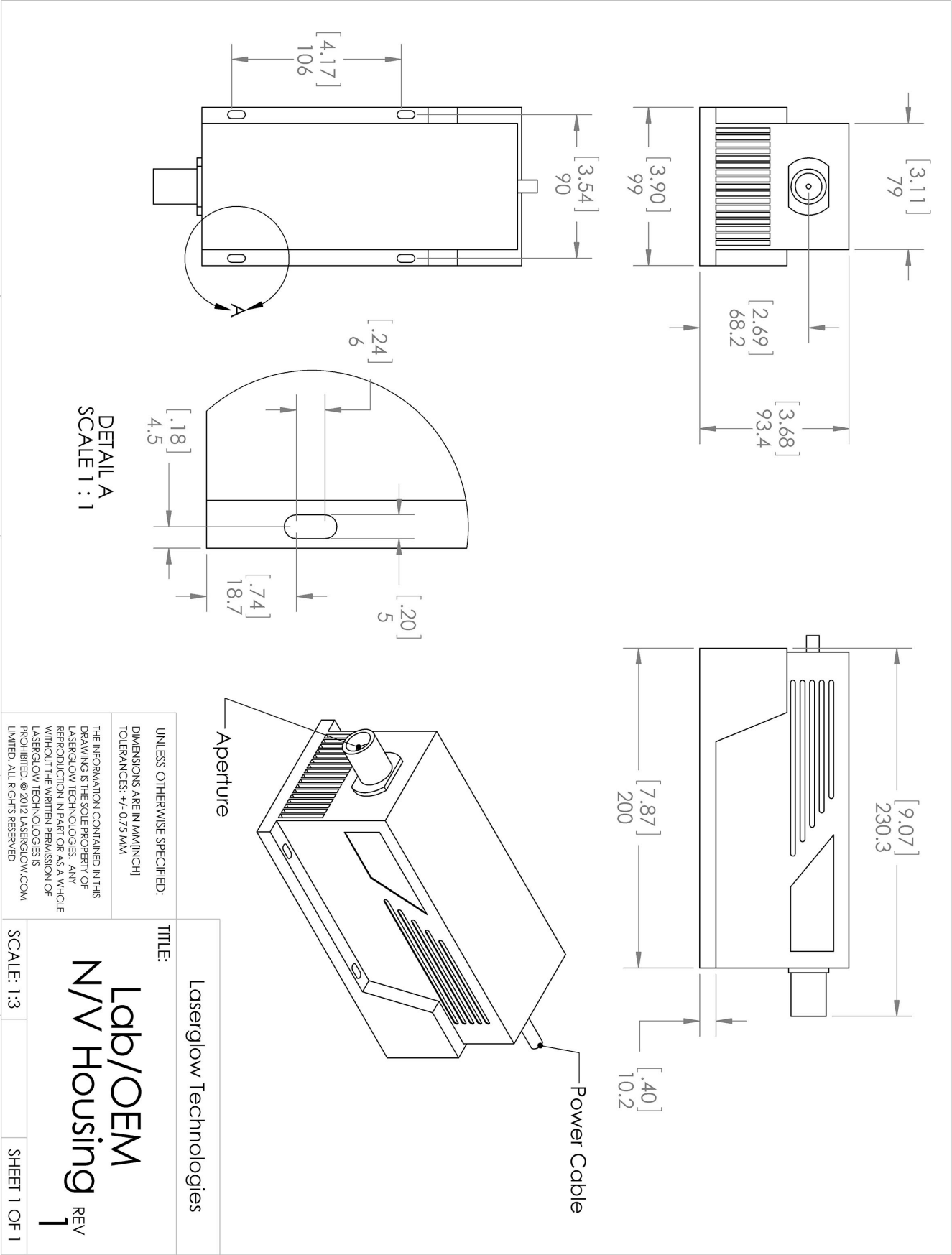
\*Dimensions for fiber-integrated (I\_) include laser head packaged inside.

## Regulatory Classification:

The model you have selected (Q3G-N) requires the following safety label(s):



Dimensional Drawing - Laser Form Factor: N:



Dimensional Drawing - Power Supply Form Factor: SN:



**Accessories:**

The most popular accessories for model Q3G-N are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
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**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.