

## Arktis Laser Product Datasheet

### LLS-1064 Low-Noise DPSS Laser System



#### Series Specifications:

Nominal Wavelength	1064 nm
Output Type	CW
Laser Source Type	DPSS

#### Overview:

The LLS-1064 Series of Low-Noise Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring less than 1% noise and output power levels from 100 mW to 20 W. These 1064 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 various scientific purposes such as biological experiments, communications research, 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 LA6-M, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to LA6-M have been highlighted below in **red + bold**.


Output Power (mW)	<b>&gt;100, &gt;300, &gt;500, &gt;1000</b>	>2000	>4000, >5000	>10000, >15000, >20000
Output Power Stability (%RMS/4h)	<b>&lt;1, &lt;3, &lt;5</b>	<1, <3, <5	<1, <3, <5	<1, <3, <5
Central Wavelength (nm)	<b>1063.2</b>	1063.2	1063.2	1063.2
Wavelength Tolerance (+/- nm)	<b>1</b>	1	1	1
Divergence (mrad, full angle)	<b>&lt;1.5</b>	<1.5	<1.5	<2
Beam Dimensions (mm, 1/e <sup>2</sup> )	<b>1.5</b>	3	3	5
Warm-up Time (minutes)	<b>10</b>	10	10	10
Optical Noise Amplitude (%RMS @ 20 Hz - 20 MHz)	<b>&lt;1</b>	<1	<1	<1
Spectral Linewidth (nm)	<b>&lt;0.03</b>			
M <sup>2</sup>	<b>&lt;1.5</b>	<3	<3	<6
Polarization Ratio	<b>&gt;100</b>	>100	>100	>100
Beam Pointing Stability (mrad)	<b>&lt;0.05</b>	<0.05	<0.05	<0.05
Operating Temperature Range (°C)	<b>10 to 35</b>	10 to 35	10 to 35	10 to 35
Total Power Consumption (W)	<b>22, 30, 35</b>	70		
Max. Power Input Duty Cycle	<b>100%</b>	100%	100%	100%
Standard Warranty (months)	<b>12</b>	12	12	12
MTTF (operational hours)	<b>10000</b>	10000	10000	10000
Weight of Product or Laser Head (kg)	<b>0.6</b>	0.9	2.6	6.1
Beam Height from Base Plate (mm)	<b>24.8</b>	29	68.2	93.5
Dimensions of Product or Laser Head (mm)	<b>140.8 (l) x 73 (w) x 46.2 (h)</b>	155 (l) x 77 (w) x 60 (h)	240 (l) x 99 (w) x 94 (h)	346 (l) x 140 (w) x 125 (h)

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:	SM	SW	SH	SN
	Input Power	85v to 264v	85v to 264v	85v to 264v	85v to 264v
	Power Supply Weight (kg)	1.2	5.1	2.3	2.3
	Dimensions (mm)	133 (l) x 130 (w) x 65 (h)	307 (l) x 168 (w) x 123 (h)	238 (l) x 146 (w) x 102 (h)	238 (l) x 146 (w) x 102 (h)

\*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.

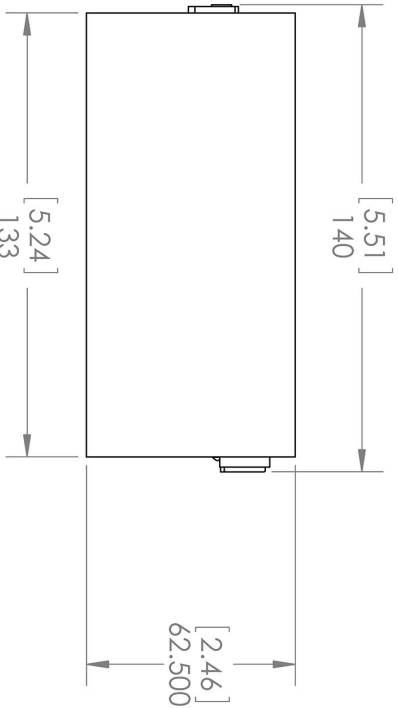
## Regulatory Classification:

The model you have selected (LA6-M) requires the following safety label(s):





Dimensional Drawing - Power Supply Form Factor: SM:



UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MM(INCH)  
TOLERANCES: +/- 0.75 MM

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Laserglow Technologies

TITLE:

Power Supply  
SM/SR








REV  
1

SCALE: 1:2

SHEET 1 OF 1

## Accessories:

The most popular accessories for model LA6-M are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
 AGFA647XX	LSG-1064-NF-7 Fit-Over Safety Goggles 1064nm Output: OD 7+ at 950-1070 nm CE Certified Full Details: <a href="http://www.arktislaser.com/AGF">www.arktislaser.com/AGF</a>	
 ACFMIRHXA	FC/PC Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="http://www.arktislaser.com/ACF">www.arktislaser.com/ACF</a>	
 ACSMIRHXA	SMA-905 Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="http://www.arktislaser.com/ACS">www.arktislaser.com/ACS</a>	
 AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <a href="http://www.arktislaser.com/AFS">www.arktislaser.com/AFS</a>	
 AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <a href="http://www.arktislaser.com/AFF">www.arktislaser.com/AFF</a>	
 TBK	Complete optics kits with breadboard mounting hardware. External modulators, variable attenuators, free-space fiber launch systems Full Details: <a href="http://www.arktislaser.com/TBK">www.arktislaser.com/TBK</a>	
 ACALBMXXX	Carrying Case-102 Holds Lab/OEM M, R and S size, standard or LabSpec laser Full Details: <a href="http://www.arktislaser.com/ACA">www.arktislaser.com/ACA</a>	Included With Laser

## 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.