

Laserglow Product Datasheet

LPS-1064 AOM Q-Switched DPSS Laser System

Laserglow Part Number: PA620B3FW

Similar Products:

For information about the other lasers in this product family visit:

http://www.laserglow.com/PA6

Ordering:

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http://www.laserglow.com/PA620B3FW

Series Specifications:

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



Overview:

The LPS-1064 Series of Diode-Pumped Solid-State (DPSS) AOM Q-Switched Lasers are ideal for applications requiring high peak power and a fast pulse frequency at 1064 nm. The embedded AOM gives the user direct control over the output pulses, enabling a specified frequency or even a single pulse to be emitted.

These lasers are commonly used for materials processing, marking, Raman Spectroscopy, biological experimentation and a broad spectrum of other applications.

Key Features:

- AOM q-switch allows for active control of pulses
- 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 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
- · Hard-shell Carrying Case

Specifications:

This spec sheet has been generated specifically for part number PA620B3FW, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to PA620B3FW have been highlighted below in **red + bold**.

| Output Power (W) | 1, 2 | 3, 5 | 8, 10, 12, 15, 18, 20 | |
|------------------------------------------------|----------------------------|-----------------------------|------------------------------------------|--|
| Single Pulse Energy (µJ) | 100, 200 | 300, 500 | 300, 350, 400, 500, 600, 700 | |
| Optimal Pulse Frequency (Hz) | 10000 | 10000 | 30000 | |
| Output Power Stability (%RMS/4h) | <1, <3 , <5, <10 | <3, <5, <10 | <3, <5, <10 | |
| Central Wavelength (nm) | 1063.2 | | | |
| Wavelength Tolerance (+/- nm) | 1 | 1 | 1 | |
| Divergence (mrad, full angle) | <1.5 | <2 | <1.5 | |
| Beam Dimensions (mm, 1/e²) | 2 | 2.5 | 2 | |
| Warm-up Time (minutes) | 10 | 10 | 10 | |
| Avg. Pulse Duration (ns) | 8 | 10 | 25 | |
| Approx. Timing Jitter (+/- ns) | 10 | 10 | 10 | |
| Approx. Trigger- Pulse Latency (µs) | 200 | 200 | 200 | |
| Approximate Peak Power (W) | 10000, 20000 | 30000, 40000 | 10000, 13000, 15000, 20000, 25000, 30000 | |
| Polarization Ratio | | | >100 | |
| Operating Temperature Range (°C) | 15 to 35 | 15 to 35 | 15 to 35 | |
| Max. TTL Modulation Freq. (Hz) | 200,000 | 200,000 | 200,000 | |
| Modulation Input Signal | 0-5 VDC | 0-5 VDC | 0-5 VDC | |
| Max. Power Input Duty Cycle | 100% | 100% | 100% | |
| Standard Warranty (months) | 12 | 12 | 12 | |
| MTTF (operational hours) | 10000 | 10000 | 10000 | |
| Weight of Product or Laser Head (kg) | 2.6 | 6.1 | 10.2 | |
| Beam Height from Base Plate (mm) | 68.2 | 93.5 | 113 | |
| Dimensions of Product or Laser Head (mm) | 240 (l) x 99 (w) x 94 (h) | 346 (l) x 140 (w) x 125 (h) | 420 (I) x 142 (w) x 144 (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.

| | Power Supply Type: | AN | AZ | AW |
|-----------------------------|-----------------------------|--------------------------------|--------------------------------|--------------------------------|
| FDA-Compliant AOM Driver | Input Power | 85v to 264v | 85v to 264v | 85v to 264v |
| | Power Supply Weight (kg) | 6.2 | 12.4 | 6.88 |
| | Dimensions (mm) | 334 (l) x 300 (w) x 123 (h) | 376 (l) x 485 (w) x 133 (h) | 334 (l) x 300 (w) x 123 (h) |

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

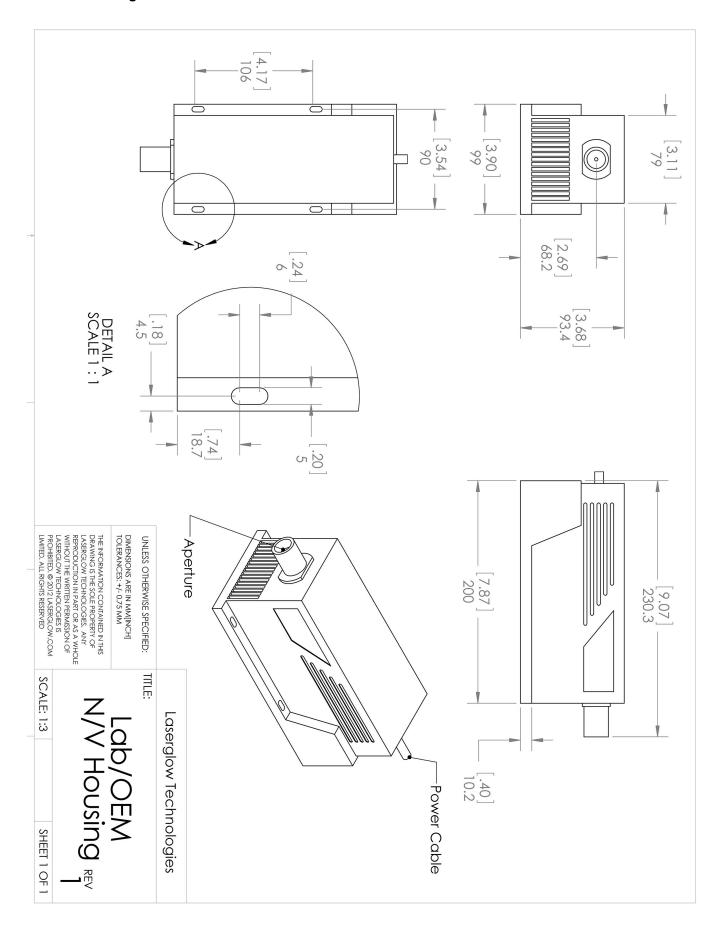
Regulatory Classification:

The model you have selected (PA620B3FW) requires the following safety label(s):

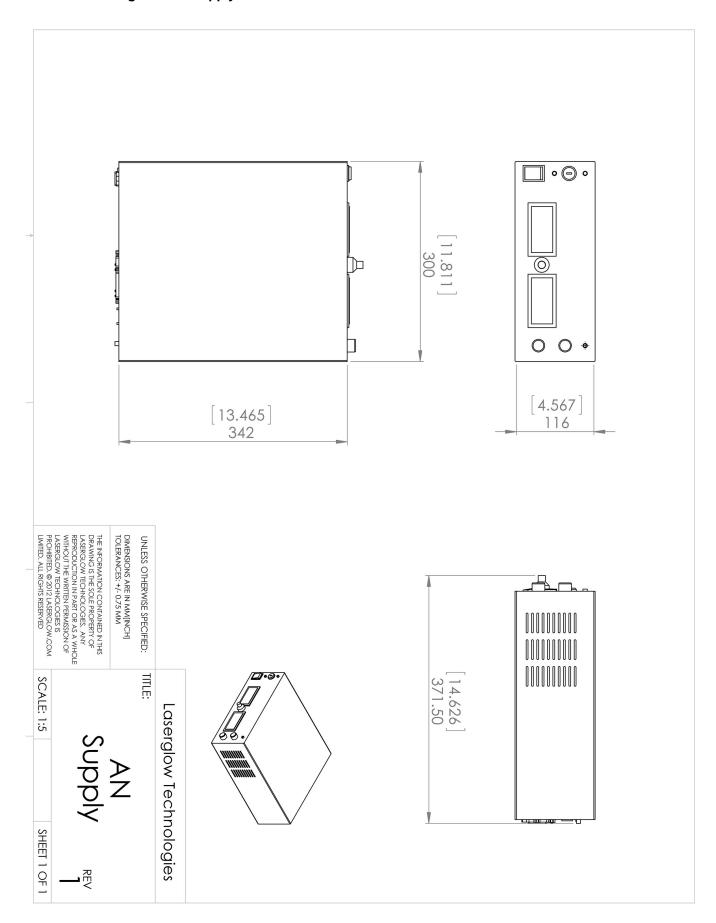


^{*}Dimensions for fiber-integrated (I_) include laser head packaged inside.

Dimensional Drawing - Laser Form Factor: N:



Dimensional Drawing - Power Supply Form Factor: AN:



Accessories:

The most popular accessories for model PA620B3FW are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| ACFMIRHXA | FC/PC Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACF | |
| ACSMIRHXA | SMA-905 Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACS | |
| ACALBNWXX | Carrying Case-104 Holds Lab/OEM N or W size Standard/Labspec laser Full Details: www.laserglow.com/ACA | Included With Laser |
| AFF2002XX | Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: www.laserglow.com/AFF | |
| AFS2002XX | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: www.laserglow.com/AFS | |
| AGFKTP59X | LSG-KTP-NF-6 Fit-Over Safety Goggles 532/808/1064nm Output: OD 6+ at 190-534/740-1064 nm CE Certified Full Details: www.laserglow.com/AGF | |

FOR MORE INFORMATION PLEASE CONTACT:

LASERGLOW TECHNOLOGIES
99 Ingram Dr. Unit B, North York, ON, Canada M6M2L7
Tel. (416) 729-7976 Fax (716) 322-3510
sales@laserglow.com www.laserglow.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.