

## SPECTRA-PHYSICS VSL-337 AIR-COOLED NITROGEN LASER SYSTEM

Optical Characteristics	
Wavelength (nm)	337.1
Spectral Bandwidth	0.1 nm
Repetition Rate	1 to 20 Hz, user-supplied trigger
Pulse Width, FWHM	4 ns
Pulse Energy	120 µJ
Pulse to Pulse Energy Stability	≤ 4% std. dev.
Peak Power	30 kW
Average Power	2.4 mW at 20 Hz
Beam Size	3 x 7 mm
Beam Divergence, Full Angle	3 x 8 mrad

Electrical Characteristics	
External Trigger	TTL, Optoisolated
Trigger In to Optical Pulse Out	700 ns; ≤ 40 ns std. dev. jitter
Power Consumption	15 W at 20 Hz

Services and Equipment	
<b>Air Flow Requirements</b>	
	None
<b>Electric Service Requirements</b>	
Voltage (using external supply)	110 or 220 Vac
Voltage (direct)	+12 Vdc
Current	1.6 A average 3.2 A peak at 20 Hz (12 Vdc)
Frequency	50/60 Hz
Current	Single
<b>Environmental</b>	
Temperature Range	4 – 40°C (40 – 105°F)
Humidity (noncondensing)	0 – 95%
Altitude	0 – 3000 m (0 – 9800 ft)

Ordering Information	
VSL-337 110 Vac	P/N 337000-00
VSL-337 220 Vac	P/N 337000-01

### Features and Benefits:

- Modular design
- No alignment required
- Quiet
- Variable pulse rate
- Patented sealed plasma cartridge
- Field-replaceable plasma cartridge
- Power on demand
- Externally triggered
- Low EMI

### Applications:

- MALDI-TOF mass spectrometry
- Laser-induced fluorescence
- Cell ablation
- Medical diagnostics
- Materials research



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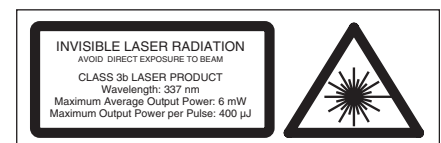


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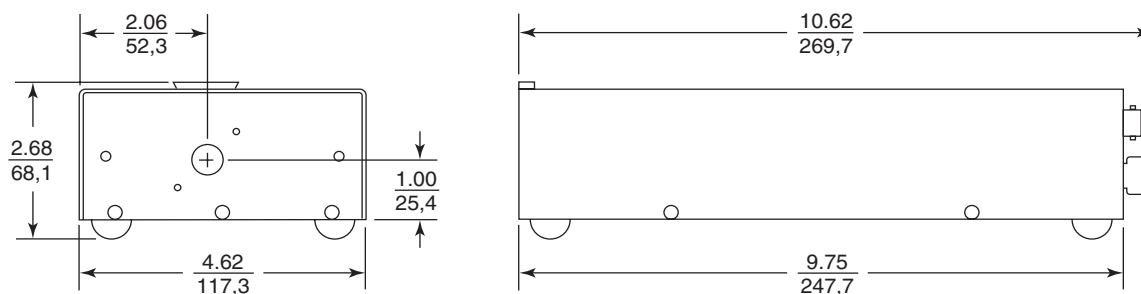


## SPECTRA-PHYSICS VSL-337 AIR-COOLED NITROGEN LASER SYSTEM

The VSL-337 nitrogen laser emits 4 ns pulses in the UV at 337 nm. The pulse repetition rate may be varied from 1 to 20 Hz with a pulse energy of up to 120  $\mu$ J. The laser may be triggered internally or externally by a TTL-level pulse for synchronization with other timed events. Constant pulse shape and good pulse-to-pulse stability were designed into the VSL-337 with our fixed-electrode and discharge-stabilizing pre-ionizers.

The VSL-337 features our user-replaceable plasma cartridge, allowing the customer to regain the performance of a new laser at a fraction of the cost. Our patented design ensures minimal downtime because no adjustments are necessary for the resumption of full-spec performance. The plasma cartridge typically maintains at least 70% of its energy for 20 million pulses.

The VSL-337 was developed specifically for applications requiring low radiated emissions (EMI) and low power consumption for compatible operation with other sensitive electronic equipment. The VSL-337 is powered by a small external power supply. Alternatively, it can be powered by a 12-volt battery, making it ideal for field applications. This versatile laser may also be equipped with one of its dye laser accessories, the DYE 120 or DYE 110, for obtaining tunable output from the IR to the UV.



Dimensions given in  $\frac{\text{inches}}{\text{mm}}$



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<b>VSL-337 Laser</b>
<b>Size (L x W x H)</b>
10.6 x 4.6 x 2.7 in. (270 x 117 x 69 mm)
<b>Weight</b>
5 lb (2.3 kg)

