# Diode Pumped Infrared 1047 nm CrystaLaser®

## Specifications

### Wavelength
- 1047 nm

### Laser crystal
- Nd:YLF

### Laser version
- Standard version
- SLM version

<table>
<thead>
<tr>
<th>Model No. and output power</th>
<th>Standard version</th>
<th>SLM version</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL1047-2W5</td>
<td>2.5 W</td>
<td>CL1047-300-S</td>
</tr>
<tr>
<td>CL1047-2W0</td>
<td>2 W</td>
<td>CL1047-150-S</td>
</tr>
<tr>
<td>CL1047-1W5</td>
<td>1.5 W</td>
<td></td>
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<tr>
<td>CL1047-1W0</td>
<td>1 W</td>
<td></td>
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<tr>
<td>CL1047-800</td>
<td>800 mW</td>
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<tr>
<td>CL1047-500</td>
<td>500 mW</td>
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<tr>
<td>CL1047-300</td>
<td>300 mW</td>
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<tr>
<td>CL1047-150</td>
<td>150 mW</td>
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<tr>
<td>CL1047-300-S</td>
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<td>CL1047-150-S</td>
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<td></td>
</tr>
</tbody>
</table>

### Longitudinal mode spectrum
- Multiple
- Single

### Coherence length
- 1 - 5 mm
- > 300 meters

### Linewidth
- 0.3 nm, nominal
- < 10⁻⁵ nm

### Modulation options
- TTL 1kHz, 3 kHz, 10 kHz, 50kHz
- Analog control, Analog modulation
- TTL on/off option

### Output stability (rms)
- < 1% over 24 hours; ultra-stable option: 0.25% over 24 hours

### Transverse mode
- Single mode, TEM₀₀, M² = 1.0 - 1.2

### Beam diameter (1/e²)
- 0.4 mm
- Option: 2X - 5X laser beam expanders are available to change beam size and divergence e.g. 0.8 mm beam with 2 mrad divergence; or 2 mm beam with 0.8 mrad divergence

### Beam divergence
- 4 mrad

### Beam pointing stability
- < 0.005 mrad/°C

### Polarization ratio
- 100:1; Horizontal linear polarization

### Operation temperature
- 10 °C to 35 °C

### Warm-up time
- < 1 minute

### Operation voltage
- 90-250 VAC or 12VDC OEM version 11-16VDC; Typical power consumption: 10 W

### Dimensions and weight of laser head
- 3x3x12 cm³ (1.2x1.2x4.7 in³) with a fixed 6 mm thick plate, 0.3kg (0.6 lb)
- 7x3.6x18.5 cm³ (2.8x1.4x7.3 in³), 0.6 kg (1.3 lb) for lasers ≥ 2 W, type 2 size

### Dimensions and weight of power supply
- AC: 5x14x15 cm³ (2x5.5x6 in³), 0.5 kg (1 lb)
- DC: 8.5x3.5x12.7 cm³ (3.3x1.4x5 in³), 0.2 kg (0.5 lb);
- option CL-2005 power display AC: 5 x 16 x 15 cm³

**Fiber coupling option:** Single mode and multi-mode fiber delivery.

**CL-2005 power supply option:** Power adjustable and power digital display.

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**Made in the USA**

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### Laser Head

#### Top View
- 4.5 mm diameter hole, 4 places
- 2 screw holes, M3

#### Front View
- Laser beam is output from this aperture

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Mechanical dimensions of the laser head and power supply of infrared laser are the same as the green laser.