**DSS 1064-3000**

Diode pumped passively Q-switched solid state laser

- 1064 nm
- single pulse
- < 2.5 ns
- 1 – 80 Hz
- > 2500 µJ

### Optical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>1064 nm</td>
</tr>
<tr>
<td>Spatial Mode</td>
<td>TEM₀₀</td>
</tr>
<tr>
<td>Beam Divergence (full angle)</td>
<td>&lt; 9 mrad</td>
</tr>
<tr>
<td>Beam Ellipticity</td>
<td>&lt; 2:1</td>
</tr>
<tr>
<td>Waist Diameter</td>
<td>600 ± 150 µm (located at about 110mm inside the laser head)</td>
</tr>
<tr>
<td>Beam Diameter</td>
<td>1200 ± 400 µm (at laser exit)</td>
</tr>
<tr>
<td>Peak Power</td>
<td>&gt; 1250 kW @ 20 Hz</td>
</tr>
<tr>
<td>Pulse Energy</td>
<td>&gt; 2500 µJ @ 20 Hz</td>
</tr>
<tr>
<td>Pulse Repetition Rate (with external trigger)</td>
<td>1 - 80 Hz</td>
</tr>
<tr>
<td>Pulse Width (FWHM)</td>
<td>&lt; 2.5 ns</td>
</tr>
<tr>
<td>Polarization Ratio</td>
<td>&gt; 50:1, vertical</td>
</tr>
<tr>
<td>Long term pulse energy stability (6 hours)</td>
<td>&lt; ± 6 %</td>
</tr>
<tr>
<td>Pulse-To-Pulse Stability</td>
<td>&lt; 5 % rms</td>
</tr>
<tr>
<td>Laser Classification</td>
<td>3B / IIIb</td>
</tr>
</tbody>
</table>

### Optical Output

- Free Beam

### Electrical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Power Consumption</td>
<td>&lt; 150 W</td>
</tr>
<tr>
<td>Line Voltage</td>
<td>100 - 240 V AC (50-60 Hz) or 24 V DC</td>
</tr>
</tbody>
</table>

### Interface

- RS 232, USB

### Miscellaneous

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up Time</td>
<td>&lt; 15 min</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>18 - 38 °C</td>
</tr>
<tr>
<td>Laser Head Size</td>
<td>217 x 65 x 45 mm (core dimensions)</td>
</tr>
</tbody>
</table>

### Options

- SMA-connector for fiber with core diameter ≥ 600 µm
- Synchronization signal output (rise time < 2 ns)
- Manual shutter or electrical beam blocker
- Manual or electrical attenuator
- Stand Alone System (incl. key-switch, heat sink, manual shutter; CDRH compliant)
- Heat sink with fan (recommended for repetition rates > 20 Hz)

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1) Drift over 6 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation < 3 °C/hour.
2) RMS over 1000 pulses after 5 min of continuous operation.
Laser Head and Controller

Laser Safety Labels
The DSS1064-3000 lasers are class 3B / IIIb according to IEC 60825-1:2014

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Product specifications are subject to change without notice.