## MOPA 266-50

Diode pumped passively Q-switched solid state laser

- 266 nm
- Single Pulse
- \( \leq 1.0 \) ns
- 1 – 1000 Hz
- > 50 \( \mu J \)
- External / Internal Trigger Mode

### Optical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength</td>
<td>266 nm</td>
</tr>
<tr>
<td>Peak Power</td>
<td>&gt; 50 kW @ 1000 Hz</td>
</tr>
<tr>
<td>Pulse Energy</td>
<td>&gt; 50 ( \mu J @ 1000 ) Hz</td>
</tr>
<tr>
<td>Beam Divergence (full angle)</td>
<td>( &lt; 2.0 ) mrad</td>
</tr>
<tr>
<td>Beam Ellipticity</td>
<td>( &lt; 2 : 1 )</td>
</tr>
<tr>
<td>Beam Diameter</td>
<td>0.5 ( \pm 0.3 ) mm (at laser exit)</td>
</tr>
<tr>
<td>Spatial Mode</td>
<td>TEM(_{00})</td>
</tr>
<tr>
<td>Pulse Repetition Rate (with external trigger)</td>
<td>1 - 1000 Hz</td>
</tr>
<tr>
<td>Pulse Width (FWHM)</td>
<td>( \leq 1.0 ) ns</td>
</tr>
<tr>
<td>Polarization Ratio</td>
<td>&gt; 100:1, vertical</td>
</tr>
<tr>
<td>Pulse Energy Drift (^1)</td>
<td>( &lt; \pm 3 % )</td>
</tr>
<tr>
<td>Pulse-to-Pulse Energy Stability (^2)</td>
<td>( &lt; 2 % ) rms</td>
</tr>
<tr>
<td>Laser Classification</td>
<td>4 / IV</td>
</tr>
</tbody>
</table>

### Optical Output

- Free Beam

### Electrical Data

- Electrical Power Consumption: < 250 W (maximum)
- Line Voltage: 100 - 240 V AC (50-60 Hz)

### Interface

- USB
- BNC connector for external triggering (TTL)
- SMB connector for 24 V DC output

### Miscellaneous

- Warm-up Time: \(< 10 \) min
- Operating Temperature: 18 - 38 °C
- Laser Head Size: 61 x 150 x 326 mm (H x W x L)
- Stand Alone Unit Size: 184 x 356 x 375 mm (H x W x L)

### Options

- External telescope (beam expander)
- Manual or electrical attenuator
- Synchronization signal output (rise time < 2 ns)
- Manual or electrical wavelength switch (266nm – 532nm) or electrical beam blocker

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\(^1\) Drift over 8 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation \( \pm 3 \) °C and \(< 3 \) °C/hour, with activated closed loop control for the pulse energy

\(^2\) RMS over 1000 pulses after 5 min of continuous operation.
Laser Head and Controller

Laser Head
(height = 61; width = 150; length = 255 core dimensions in mm)

Stand Alone Unit
(height = 184, width = 343; length = 375 core dimensions in mm)

Laser Safety Labels
The MOPA 266-50 lasers are class 4 / IV according to IEC 60825-1:2014

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