**Benefits**

- **Greater flexibility**
  - Range of pulses for new and improved applications
- **Superior quality**
  - Industry leading reliability and product warranty
- **Increased productivity**
  - Higher powers and pulse rates for faster processing
- **Improved profitability**
  - Low cost of ownership with no service requirements

**Applications**

- **Ablation**
- **Cleaning**
- **Drilling**
- **Engraving**
- **Marking**
- **Micro-machining**
- **Precision cutting**
- **Scribing**
- **Solar cell processing**
- **Thin film patterning**
- **Thin foil cutting**
- **Welding**

**50W EP-Z is ideal for...**

**High quality cutting & drilling**

- With pulse energy >1mJ
  - Cutting metal foils up to 0.5mm
  - Drilling holes down to 60µm

**High quality engraving**

- With peak power >10kW
  - Engraving metals
  - Surface texturing

**High speed marking**

- With PRF up to 1MHz
  - Paint on plastics/metals
  - White/black mark on metals

**To Purchase:** Call us on +44 (0) 1489 779 696
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SM-S00548_A
PulseTune functionality

EP Series

- Up to 40 optimised PulseTune waveforms
- Single shot to 4 MHz pulse repetition frequency

Beam quality

Z Type (M² < 1.6)

- Higher peak power and pulse energy with only minor increase in spot size and good depth of focus

Laser characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>SP-050P-A-EP-Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central emission wavelength</td>
<td>nm</td>
<td>1059 - 1065</td>
</tr>
<tr>
<td>Nominal average output power</td>
<td>W</td>
<td>50</td>
</tr>
<tr>
<td>M²</td>
<td></td>
<td>&lt;1.6</td>
</tr>
<tr>
<td>Collimated beam diameter</td>
<td>mm</td>
<td>3 / 5 / 7.5 / 10</td>
</tr>
<tr>
<td>PulseTune waveforms</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Maximum pulse energy</td>
<td>mJ</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Maximum peak power</td>
<td>kW</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Pulse duration range</td>
<td>ns</td>
<td>6 - 500</td>
</tr>
<tr>
<td>Pulse repetition frequency (PRF) range</td>
<td>kHz</td>
<td>1 - 1000</td>
</tr>
<tr>
<td>CW mode (with modulation)</td>
<td>kHz</td>
<td>YES (1 - 100)</td>
</tr>
</tbody>
</table>

System integration details

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>SP-050P-A-EP-Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling</td>
<td>Air</td>
<td></td>
</tr>
<tr>
<td>Beam delivery cable length</td>
<td>m</td>
<td>3</td>
</tr>
<tr>
<td>Laser module dimensions</td>
<td>mm</td>
<td>347 x 201 x 95</td>
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<tr>
<td>Power supply voltage</td>
<td>V DC</td>
<td>24</td>
</tr>
<tr>
<td>Power supply requirement</td>
<td>W</td>
<td>300</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>°C</td>
<td>0 to +40</td>
</tr>
<tr>
<td>Relative humidity range</td>
<td></td>
<td>5-95% RH (non-condensing)</td>
</tr>
</tbody>
</table>

To learn more about our redENERGY G4 Fiber Laser products visit our website: www.spilasers.com

Terms and Conditions

All product information is believed to be accurate and subject to change without notice. A complete product specification will be issued on request and also at time of order acknowledgement. The user assumes all risks and liability whatsoever in connection with the use of the product and its application. These lasers are designed as products for incorporation or integration into other equipment.