**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

**70W HS-H is ideal for...**

- **High quality welding**
  - With >1.25mJ pulse energy
  - Foils up to 0.4mm
  - Dissimilar metals

- **Cost effective cleaning**
  - With large spot sizes (M² ~ 3)
  - Rust & paint removal
  - Metal polishing

- **High quality engraving**
  - With peak power >20kW
  - Deep engraving metals
  - Reflective metal processing

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SM-S00569_A
PulseTune functionality

- Up to 25 PulseTune waveforms
- Single shot to 1 MHz pulse repetition frequency

Beam quality

H Type ($M^2$ 2.5 – 3.5)

- Higher pulse energies, peak powers and bigger spots ideal for large area coverage

Laser characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit</th>
<th>SP-070P-A-HS-H</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>70</td>
</tr>
<tr>
<td>$M^2$</td>
<td></td>
<td>3 / 5 / 7.5 / 10</td>
</tr>
<tr>
<td>Collimated beam diameter</td>
<td>mm</td>
<td>7.5</td>
</tr>
<tr>
<td>PulseTune waveforms</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Maximum pulse energy</td>
<td>mJ</td>
<td>&gt;1.25</td>
</tr>
<tr>
<td>Maximum peak power</td>
<td>kW</td>
<td>&gt;20</td>
</tr>
<tr>
<td>Pulse duration range</td>
<td>ns</td>
<td>10 - 250</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-070P-A-HS-H</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 / 5</td>
</tr>
<tr>
<td>Laser module dimensions</td>
<td>mm</td>
<td>377 x 249 x 95</td>
</tr>
<tr>
<td>Power supply voltage</td>
<td>V DC</td>
<td>24</td>
</tr>
<tr>
<td>Power supply requirement</td>
<td>W</td>
<td>530</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
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