PowerLine F Series

Cost-Effective Marking Solution

PowerLine F are Class IV laser marking sub-systems, which offer a cost-effective means for producing high quality marks on both metals and plastics. These Class IV laser products incorporate a source, scanner, software and all associated drive electronics, making them simple to integrate into a production system. PowerLine F sub-systems employ pulsed, infrared fiber laser technology, which delivers the optimum mix of economy and mark quality for most applications. This is further enhanced by the use of MOPA architecture, which allows for pulse width selection, enabling effective optimization of marking results for specific materials.

FEATURES & BENEFITS

• Compact design
• Powerful VLM marking software
• Laser positioning help (optional)
• Fast-focus module (optional)

APPLICATIONS

• Marking of Organic Materials and Metals
• Marking on-the-fly (conveyor belt or rotational axis)
• Label Marking
• Through-the-lens Alignment
• 3D Marking
# PowerLine F Series Datasheet

## MODEL

<table>
<thead>
<tr>
<th></th>
<th>PL F 20-1064</th>
<th>PL F 30-1064</th>
<th>PL F 50-1064</th>
<th>PL F 100-1064</th>
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</thead>
<tbody>
<tr>
<td>Laser Type</td>
<td>Fiber</td>
<td>Fiber</td>
<td>Fiber</td>
<td>Fiber</td>
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<tr>
<td>Wavelength (nm)</td>
<td>1064</td>
<td>1064</td>
<td>1064</td>
<td>1064</td>
</tr>
<tr>
<td>Average Power (W)</td>
<td>19</td>
<td>28</td>
<td>48</td>
<td>95</td>
</tr>
<tr>
<td>Frequency Range (kHz)</td>
<td>20 to 100</td>
<td>30 to 100</td>
<td>50 to 200</td>
<td>5.1 to 200</td>
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<tr>
<td>Pulse Width (ns)</td>
<td>100 (20 kHz)</td>
<td>100 (30 kHz)</td>
<td>120 (50 kHz)</td>
<td>100 (100 kHz)</td>
</tr>
<tr>
<td>M²</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
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<tr>
<td>Cooling</td>
<td>Air</td>
<td>Air</td>
<td>Air</td>
<td>Air</td>
</tr>
<tr>
<td>Control System</td>
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<td>RCU-ITX</td>
<td>RCU-ITX</td>
<td>RCU-ITX</td>
</tr>
</tbody>
</table>

## MODEL

<table>
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<tr>
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<th>PL F 20 Varia</th>
<th>PL F 50 Varia</th>
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</thead>
<tbody>
<tr>
<td>Laser Type</td>
<td>Fiber/MOPA</td>
<td>Fiber/MOPA</td>
</tr>
<tr>
<td>Wavelength (nm)</td>
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<td>1064</td>
</tr>
<tr>
<td>Average Power (W)</td>
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<td>47</td>
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<tr>
<td>Frequency Range (kHz)</td>
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<td>Pulse Width¹ (ns)</td>
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<tr>
<td>M²</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Cooling</td>
<td>Air</td>
<td>Air</td>
</tr>
<tr>
<td>Control System</td>
<td>RCU-ITX</td>
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</tr>
</tbody>
</table>

¹ Pulse width is selectable. Available frequency range depends on selected pulse width.
MECHANICAL SPECIFICATIONS

PowerLine F 20-1064 / 30-1064 / 50-1064 / 100-1064 / 50 Varia / 100 Varia

Bottom View

- Clearance for Sliding Glass Lens Protection
- Detail Z (1:2)

Side View

- 184.0 ±8 mm (7.24 ±0.31 in.)
- Focal Distance
- Ø8.9 mm (0.35 in.)
- R135
- Mn. Bend Radius
- Ø8.9 mm (0.35 in.)

Front View

- 119.0 mm (4.69 in.)
- ~100.0 mm (~3.94 in.)
- ~50.0 mm (~1.97 in.)

Top View

- 184.0 mm (7.24 in.)
- 120 mm (4.72 in.)
- 744.15 mm (29.30 in.)
- 26.0 mm (1.02 in.)
- 544.0 mm (21.38 in.)

- Marking Field

- Min. Bend Radius

- Ø6.5 mm (0.26 in.)
- M6

26.5 mm (1.04 in.)
MECHANICAL SPECIFICATIONS

PowerLine F 20-1064 / 30-1064 (short housing / no positioning laser)

Bottom View

Side View

Front View

Top View

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent’s scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all PowerLine F Series Lasers. For full details of this warranty coverage, please refer to the Service section at www.coherent.com or contact your local Sales or Service Representative.

Coherent, Inc.
5100 Patrick Henry Drive Santa Clara, CA 95054
p. (800) 527-3786 | (408) 764-4983
f. (408) 764-4646

tech.sales@coherent.com  www.coherent.com

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