Laser Marking and Engraving

# PowerLine PS 30

## Picosecond Laser Marker for Medical Devices, Micromachining, and Glass Marking

PowerLine PS 30 brings high throughput to precision marking and micromachining applications. Based on a 30 Watt picosecond laser, this powerful marker offers a choice of high-performance scanners plus an internal power meter. This enables the customer to track the actual output power of the laser source for high process stability and consistent long-term marking results. Complete process control is integrated under the objectdriven Laser FrameWork operating system. With the optional Fast Focusing Module, the SmartMap3D software function simplifies marking onto 3D freeform geometries: either by unfolding of the surface or direct attachment to a parallel projection of the part.


## FEATURES

- 28 Watt output power for high throughput
- Picosecond pulses minimize mechanical post-processing
- High infrared peak power marks glass and tough materials
- Laser FrameWork simplifies job design and execution
- Option to mark 3D freeform geometries

## APPLICATIONS

- Corrosion-resistant black marking of medical devices
- Edge shaping for hard metal machine tools
- Micromachining for general industry
- Traceability and functional marking on glass medical vials

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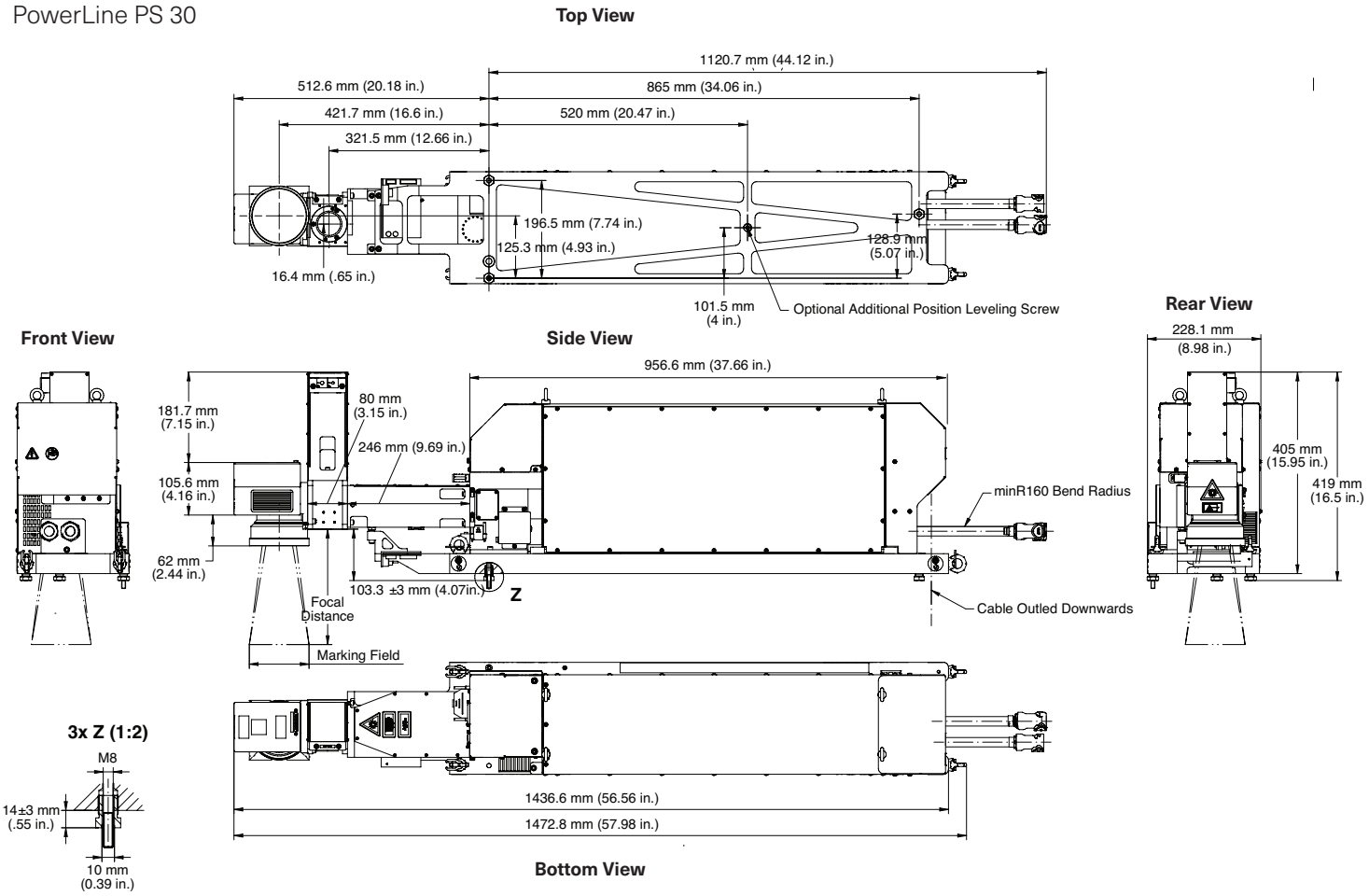
| Specifications | PowerLine PS 30 |
|---|---|
| Wavelength (nm) | 1064 |
| Average Power[1] (W) | 28 |
| Frequency Range (kHz) | Single Shot to 5000 |
| Maximum Pulse Energy[1] (µJ) | 250 (Single-Pulse Operation) |
| Pulse Width (ps) | <10 |
| $M^2$ | <1.3 |
| Beam Waist (mm) | 3.0 ±0.3 |
| Controller | RCU - ITX |
| Operating System | Windows 10 |
| Chiller | Water-to-Air or Water-to-Water (optional) |
| Dimensions[2] (L x W x H) | Supply Unit: 531.5 x 482.6 x 174 mm (20.9 x 19 x 6.9 in.)<br>Chiller: 652 x 483 x 267 mm (25.7 x 19 x 10.5 in.)<br>Without TTL camera: 1392.8 x 228,1 x 357 mm (54.8 x 9.0 x 14.1 in.)<br>With TTL camera: 1472.8 x 228.1 x 419 mm (58.0 x 9.0 x 16.5 in.) |
| Weight[2] (kg) | 100 |
| Cable Length Between Laser Head and Supply Unit | 3 m (5 m optional) |
| Environmental Temperature | 15 to 30°C (59 to 86°F) |
| Positioning Help Laser | Yes |
| Mounting of Laser Subsystem | Only horizontal mounting is possible |
| Supply Unit | 19” rack mount unit, height: 4 rack units |
| Interfaces (PLC Control) | Parallel interface (digital I/Os). Encoder devices can be connected to differential I/Os. |
| Interfaces[3] (PC Control) | LAN (TCP/IP), RS-232[4] |
| Fieldbus Control[5] | Profibus DP, Profinet IO |
| Variable Data | Keyboard input, local file (lot file), barcode reader, via LAN (TCP/IP)[3], Matrix objects |
| Standard Software | VisualLaserMarker (VLM 5.3), Laser FrameWork (LFW) or Visual Marking Controller (VMC2), Laser Console, RCU.exe |
| Marking Objects | Vector graphics, text, logos, ring, bitmap, banding |
| Barcodes | GS1 DataBar, Code 39, Code 128, EAN8, EAN13, UPC-A, UPC E, BookLan and others |
| 2D Codes | ECC200, Code 49, Micro-PDF417 and other data matrix and QR codes |
| Optional Software Features | MJC (Marker Job Control), HK (Host Coupling), Marking-on-the-Fly (MoF), SmartMap3D, CAD Extension, AI, PDF and PS Import, SECS/GEM |
| Certificates | PowerLine PS 30 subsystems are class IV subsystems according to DIN EN 60825-1:2014 and are certified according to the following international standards (among others): EN 12100 (Risk Analysis), EN 13849-1 & EN ISO 60204-1 (Safety of machinery), EN 55011 (Radio-frequency disturbance characteristics) |

Notes:
1. Measured on workpiece (at 1000 kHz).
2. Exact dimensions and weight depend on chosen laser configuration.
3. Requires Host Coupling (HK), Marker Job Control (MJC) or SECS/GEM software feature.
4. Requires an RS-232-to-USB-adapter.
5. The fieldbus interface is provided by a fieldbus coupler. The fieldbus coupler is connected to the supply unit by Fast Ethernet connection.

## Mechanical Specifications

PowerLine PS 30



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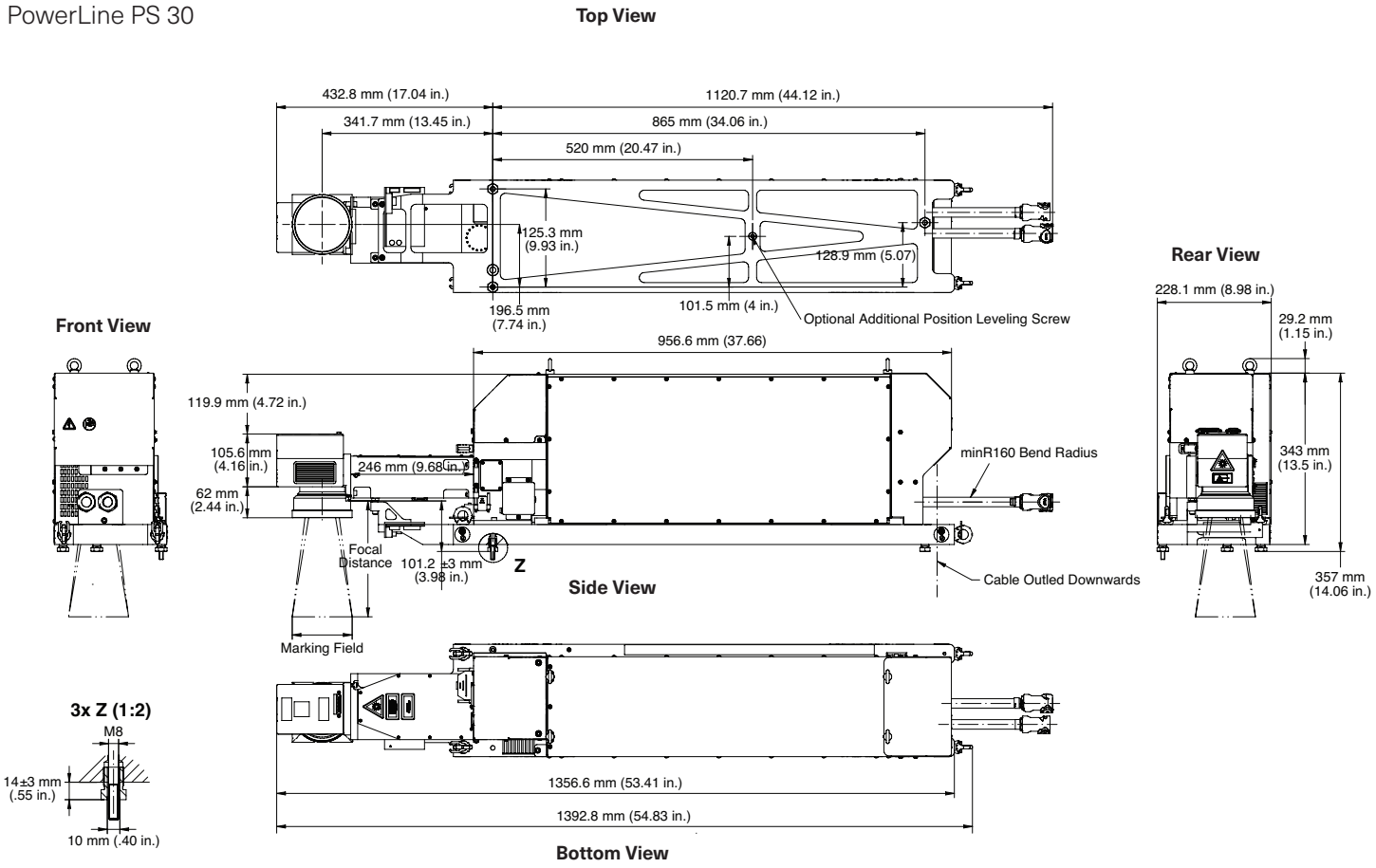





For more information
www.coherent.com