

PowerLine C 180/250/450

Versatile CO₂ Laser Scanning Sub-System

The Coherent PowerLine C sub-system integrates a CO₂ laser providing an extensive range of micro material processing applications, like free contour shaping, text or surface structuring of polymers, glass, paper, or natural materials such as leather, vulcanized rubber, or wood.

The wide spectrum of laser powers together with excellent beam quality and scanner deflection head technology allows numerous different kinds of material processing in one system: drilling, cutting, scribing, structuring, or engraving. High processing speeds can be achieved due to the fast scanner heads, high laser power of up to 450 W, and powerful, process enabling control software. Even most complex on-the-fly applications can be achieved in short processing times with excellent quality.



FEATURES & BENEFITS

- High-performance StarFlex software for a user-friendly graphic interface
- Rapid definition of contours and beam parameters
- Laser control based on PC architecture with CAN bus technology
- Standard interfaces to network connections under Windows 2010
- Sealed-off CO₂ laser technology
- No external gas supply necessary
- Minimum maintenance
- Compact - small size 19" rack

OPTIONS

- Available as standard module or stand-alone work station

APPLICATIONS

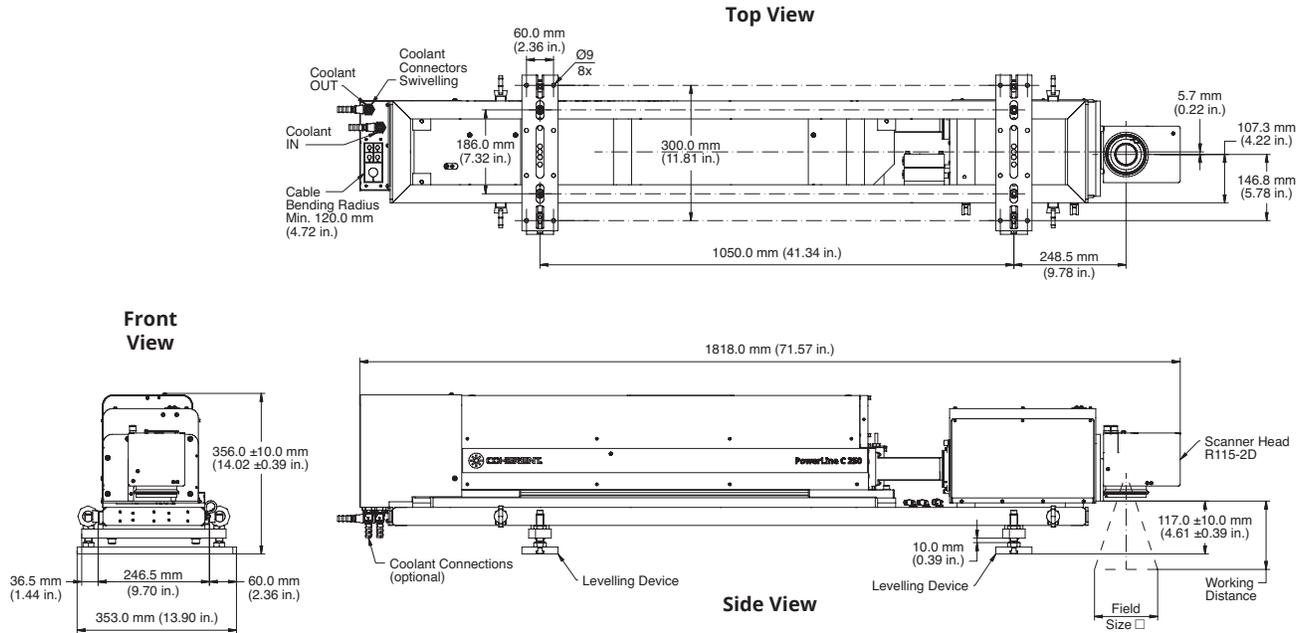
- Cutting
- Degating
- Drilling
- Labeling
- Perforating
- Stripping
- Structuring

LASER SYSTEM SPECIFICATIONS	PowerLine C 180	PowerLine C 250	PowerLine C 450
Type	CO ₂ laser, sealed-off, slab, no gas supply		
Beam Quality	M ² <1.2		
Pulse Length (µs)	2 to 1000	2 to 1000	2 to 800
Pulse Frequency (kHz)	0 to 200		
Wavelengths (µm)	9.3 10.25 10.6		
Nominal Output (W)	160 150 180	250 225 250	400 400 450
PROCESSING UNIT			
Deflector Unit	Galvanometer deflector system		
Optics	f-theta lenses and lens system for 3 axes		
Processing Area (mm ²)			
2 axes	70 x 70 up to 340 x 340		
3 axes	100 x 100 up to 1250 x 1250		
CONTROL UNIT			
Interfaces	PC with Windows 10 and CO ₂ Control Unit (CCU ITX), host coupling, digital I/O		
SOFTWARE			
User Interface	StarFlex		
CAD System	VLM with CAD Extension		
Operating System	Windows 10		
Languages	All commands and menus are available in a choice of 12 languages		
Options	On-the-fly processing and axes		
COOLING & ELECTRICAL REQUIREMENTS			
Electrical	400 VAC/3 Ph/PE 50/60 Hz ; 230 VAC/ N/ PE 50/60 Hz		
Cooling	Anti-corrosion treated water		
Cooling Capacity (kW)	>3.5	>5.5	>10
Water Flow (l/min.)	≥7.5	≥7.5	≥12
Coolant Setpoint Temperature Range	21 to 25°C (69.8 to 77°F)		
Coolant Temperature Stability (max.)	±1.0°C (±1.8°F)		
ENVIRONMENTAL CONDITIONS			
Temperature Operating Range	15 to 35°C (59 to 95°F) ¹		
DIMENSIONS & WEIGHT			
Laser Head with Deflector Unit (L x W x H)			
2 axes	1564 x 353 x 356 mm (61.57 x 13.90 x 14.02 in.)	1818 x 353 x 356 mm (71.57 x 13.90 x 14.02 in.)	2040 x 353 x 356 mm (80.31 x 13.90 x 14.02 in.)
3 axes	1962 x 353 x 356 mm (77.24 x 13.90 x 14.02 in.)	2196 x 353 x 356 mm (86.46 x 13.90 x 14.02 in.)	2418 x 253 x 356 mm (95.20 x 13.90 x 14.02 in.)
Weight of Processing Unit			
2 axes	82 kg (180.78 lbs.)	94 kg (207.24 lbs.)	112 kg (246.92 lbs.)
3 axes	96 kg (211.64 lbs.)	110 kg (242.51 lbs.)	126 kg (277.78 lbs.)
Supply Cabinet Dimensions (L x W x H)			
Basic	600 x 850 x 710 mm (23.62 x 33.46 x 27.95 in.)		
Performance	598 x 850 x 790 mm (23.54 x 33.46 x 31.10 in.)		

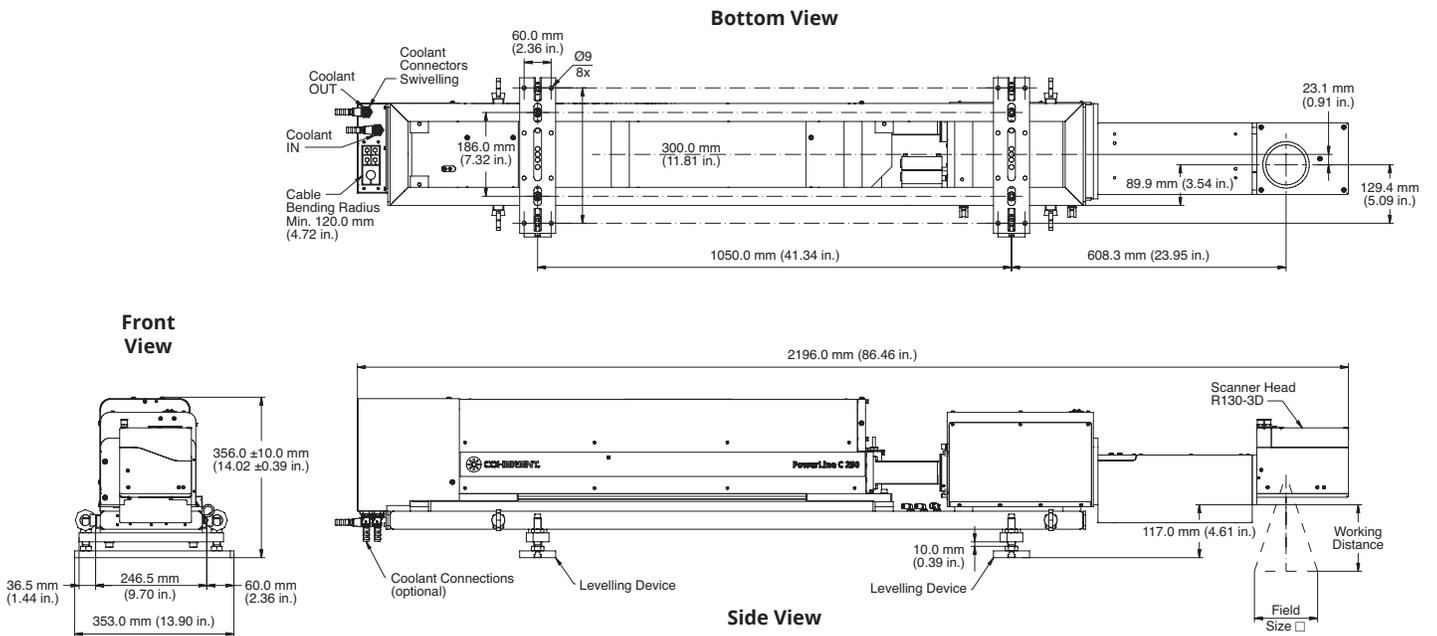
¹ For highest precision.

MECHANICAL SPECIFICATIONS

**PowerLine C 250
2 axes version**

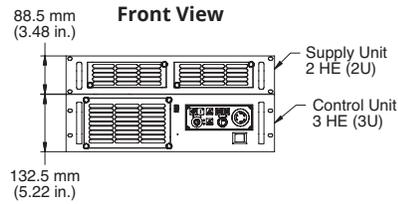
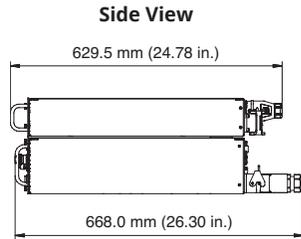


**PowerLine C 250
3 axes version**

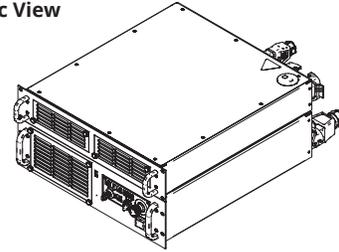


ELECTRICAL COMPONENTS

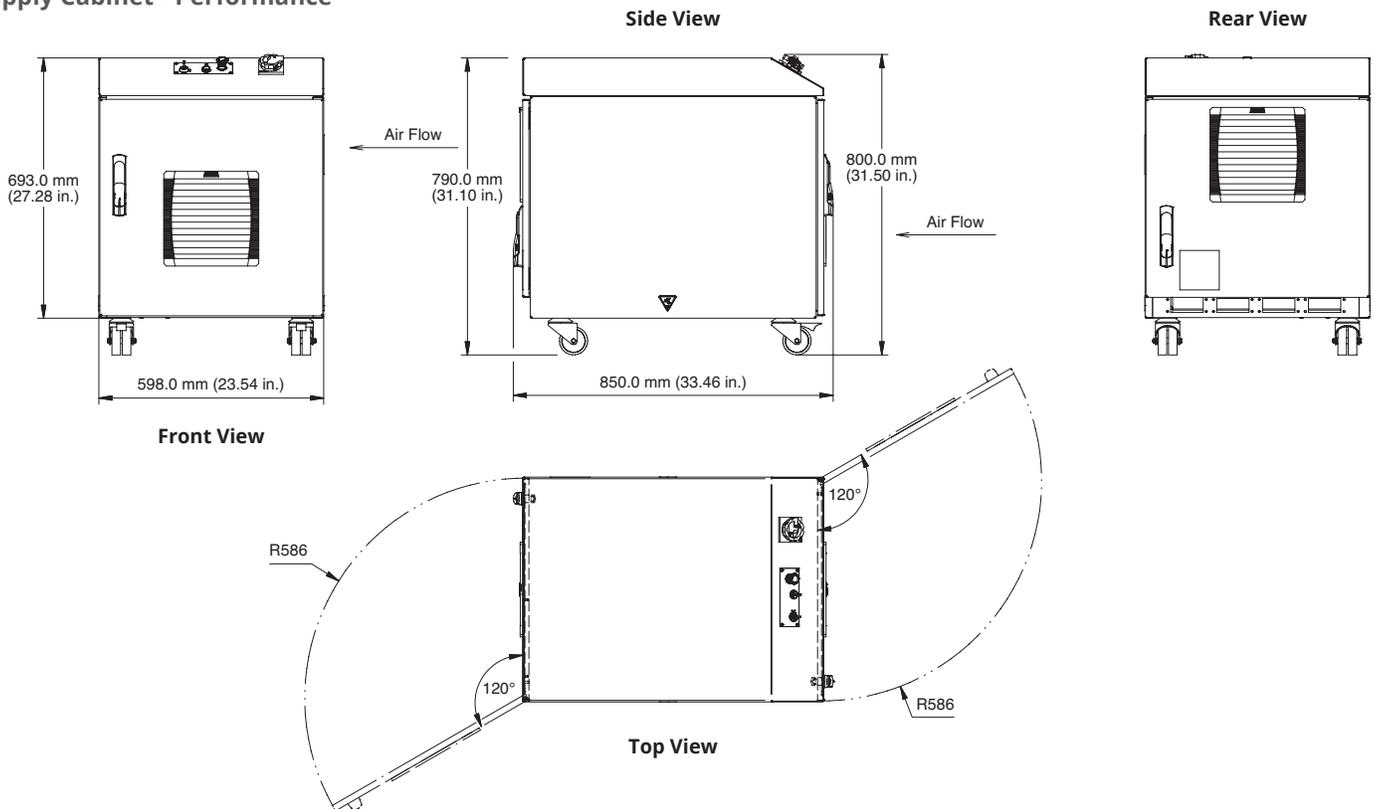
PowerLine C 19" Rack-Mountable Unit



Isometric View



Supply Cabinet - Performance



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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 C 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.
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