

HighLight FL-Series

Industrial Multi kW Fiber Laser

The new HighLight FL series employs Coherent's unique modular architecture, which allows OEM customers and system integrators alike the choice of systems with turn-key operation, or modules to build their own custom fiber laser systems. HighLight FL lasers at all power levels are available with a range of output delivery options optimized for cutting and welding of a broad spectrum of metals and alloys.



Superior Reliability & Performance

HighLight FL-Series Features:

- Multi kW CW output power
- Back reflection insensitive
- Beam quality optimized for cutting and welding
- High digital and analog modulation up to 10 kHz
- Industrial interface with fieldbus and real-time Ethernet options
- Range of delivery fiber options
- Beam switch options
- Low maintenance
- Global service

HighLight FL-Series Applications:

- Cutting of metals (Aluminum, Brass, Copper, Steel)
- Welding of metals
- Cladding
- Heat Treatment

HighLight FL-Series

Industrial Multi kW Fiber Laser

System Specifications

	HighLight 2000FL	HighLight 3000FL
Laser Output Power (kW)	2	3
Wavelength (nm)	1080 ±10	
Operation Mode	CW and modulated	
Modulation Frequency (Hz)	10k (max.)	
Power Stability (% over 8 hours)	<2	
Fiber Diameter (µm)	100 (others on request)	
Beam Quality ¹ (mm*mrad)	5	
Beam Share Options	2 way time share	
Delivery Fiber Options ²	5, 10, 15, 20 m (16.4, 32.8, 49.2, 65.6 ft.)	

Mechanical Specifications

Dimensions (H x W x D)	1193.8 x 584.2 x 1000 mm (47.0 x 23.0 x 39.3 in.)	
Weight (incl. power supply)	245 kg (540 lbs.)	270 kg (595 lbs.)

Facilities Requirements

Water Cooling (tap water)		
Cooling Capacity (kW)	6	9
Water Temperature	25°C (77°F)	
Temperature Stability	±1°C (±2°F)	
Flow Rate (lpm)	18	27
Input Pressure (max.)	4.5 bar (65 psi)	
Particle Filter Size (µm)	20	
Water Connections	1" barb fittings	
Electrical		
Operating Voltage (V)	380/480 (3-phase)	
Frequency (Hz)	47 to 63	
Maximum Current Draw (A)	13	20
Interface		
Standard Interface	PLC compatible I/O, Ethernet, RS-485	
Interface Options	EtherCAT, DeviceNet, Profibus	

Environmental Conditions

Operating Temperature	5 to 40°C (41 to 104°F)	
Storage Temperature ³	-20 to 65°C (-4 to 149°F)	
Operating Humidity (%)	10 to 80, non-condensing	

¹ 100 µm fiber diameter.

² Other options available upon request.

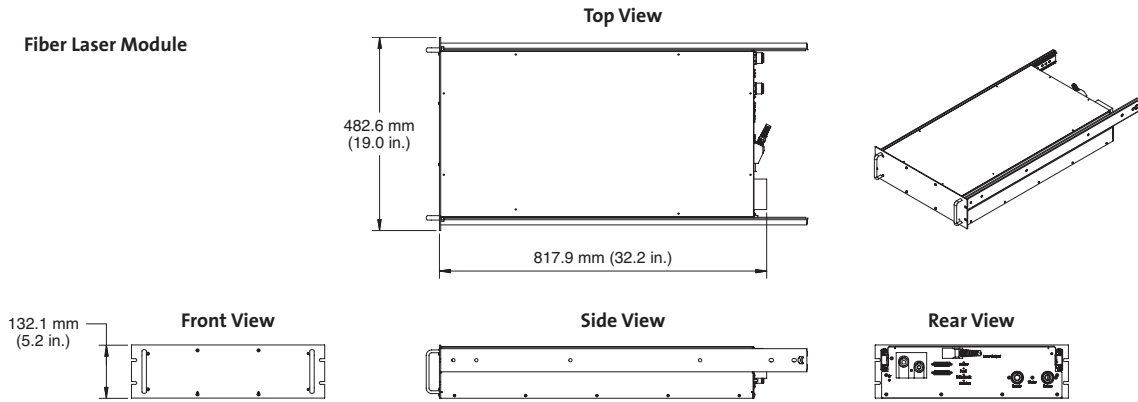
³ If coolant circuit is purged.

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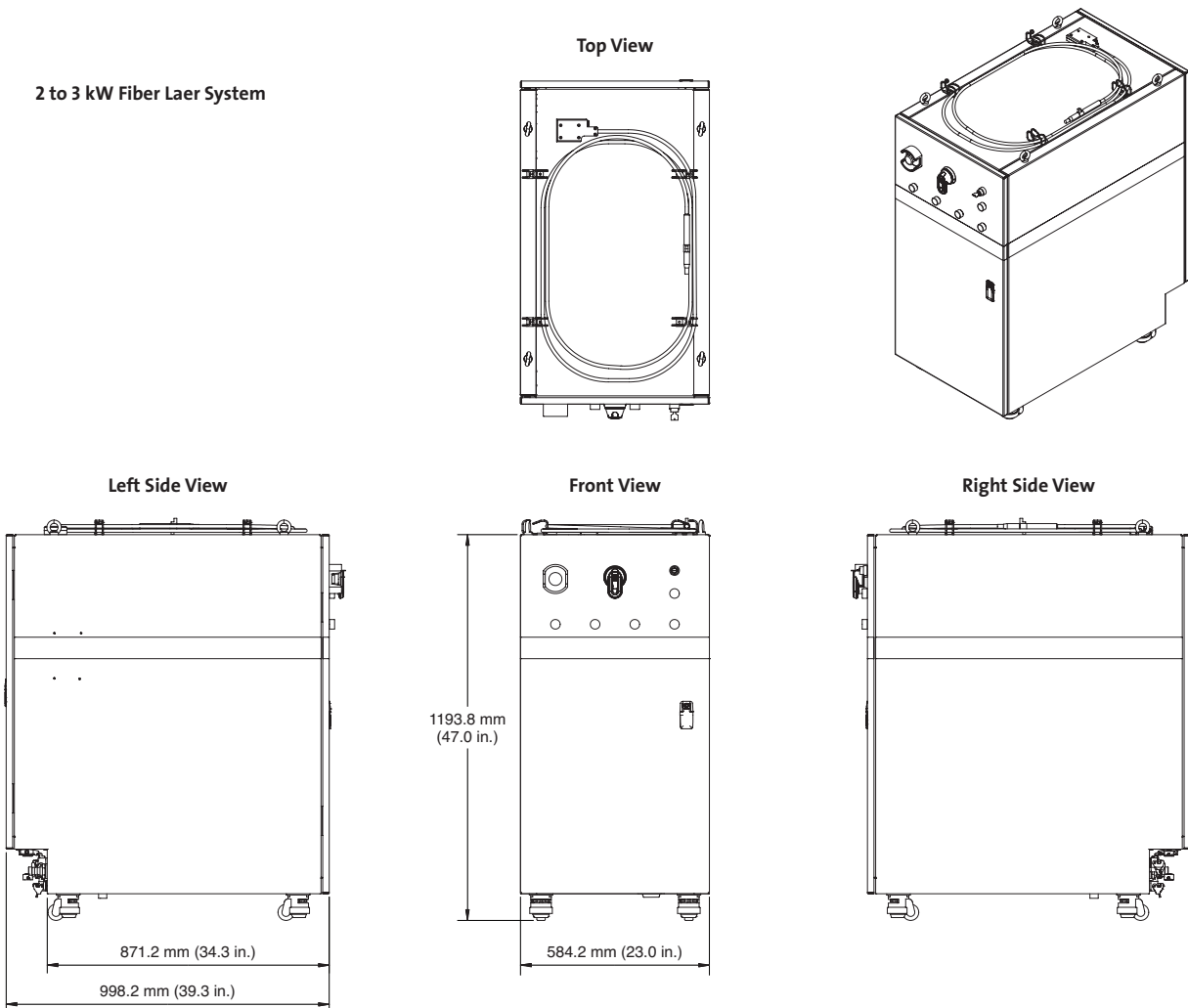
Industrial Multi kW Fiber Laser

Mechanical Specifications

Fiber Laser Module



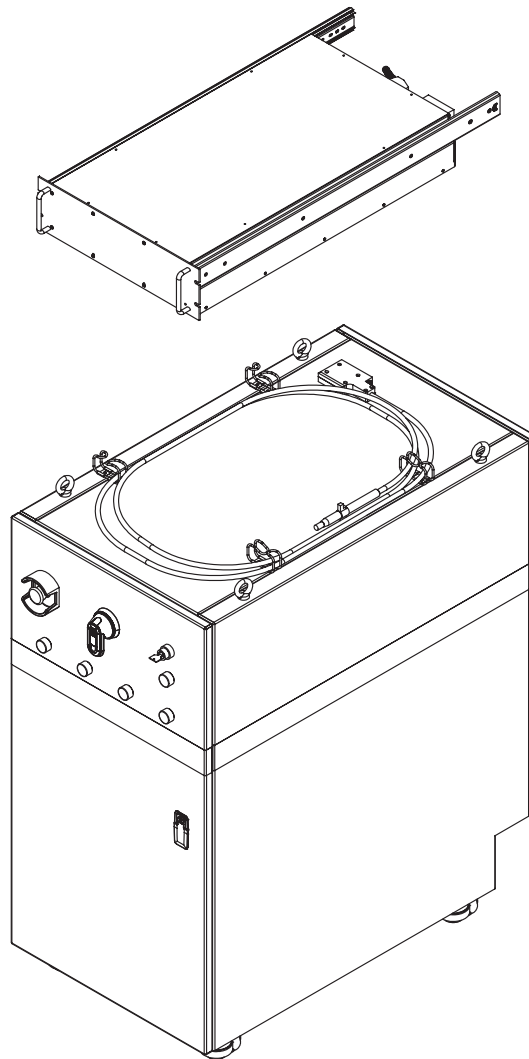
2 to 3 kW Fiber Laser System



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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 HighLight FL-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.

