



DIAMOND FLC-Series

Fiber Lasers for Fine Cutting, Drilling and Welding

The Coherent DIAMOND FLC is a robust and compact fiber laser source, satisfies all criteria for optimized industrial laser material processing.

For laser joining, the DIAMOND FLC allows very small seam geometries at very high welding speeds. The welded joints show maximum strength with minimal heat input to the workpieces.

Laser fine cutting and drilling with DIAMOND FLC results in clean cuts with low heat affected zones and high edge qualities.

Features such as fast turn on, fast parameter switching interlock response, and high modulation frequency provides a speed advantage for high throughput applications.

FEATURES & BENEFITS

- 100 W, 200 W
- High efficiency
- Smallest spot size
- Excellent power stability
- Safety features (industrial standard)
- Analog power control
- Fast Turn ON
- Highest Modulation Frequency
- Fast Parameter Changes
- Fast Recovery after interlock
- Back Reflection Protection

APPLICATIONS

- Fine Cutting
- Fine Drilling
- Fine Welding
- Additive Manufacturing



SPECIFICATIONS	DIAMOND FLC-100	DIAMOND FLC-200
Wavelength ¹ (nm)	1070	1070
Output Power (W) (maximum)	100	200
Modulation Frequency (kHz)	0 to 170	0 to 170
Mode of Operation	CW/Modulated	CW/Modulated
Beam Diameter ² (mm) (1/e ²)	5 ±0.5	5 ±0.5
Beam Divergence (full angle)	Collimated	Collimated
Beam Quality (M ²)	<1.1	<1.1
Free Fiber Length ³ (m)	5	5
Fiber Connection	QCS	QCS
ENVIRONMENTAL AND ELECTRICAL OPERATING CONDITIONS		
Supply Voltage (VAC/A)	110 to 240 V, 1P/N/PE, AC	208 to 240 V, 1P/N/PE, AC
Line Frequency (Hz)	50/60	50/60
Wall Plug Efficiency (%) (maximum)	22	22
Power Consumption (W) (maximum)	750	1,500
Cooling	Air	Air
Weight: Laser Source (kg)	50	50
Dimensions: Output Module (L x W x H)	5 HU x 19" x 493 mm	5 HU x 19" x 493 mm
STANDARDIZED INTERFACES		
Communication via RS-232 interface		
Laser control via TTL signal (gate)		
Power control RS-232 or analog input (0 to 10 V)		
Safety shutter according to DIN EN 13849-1		

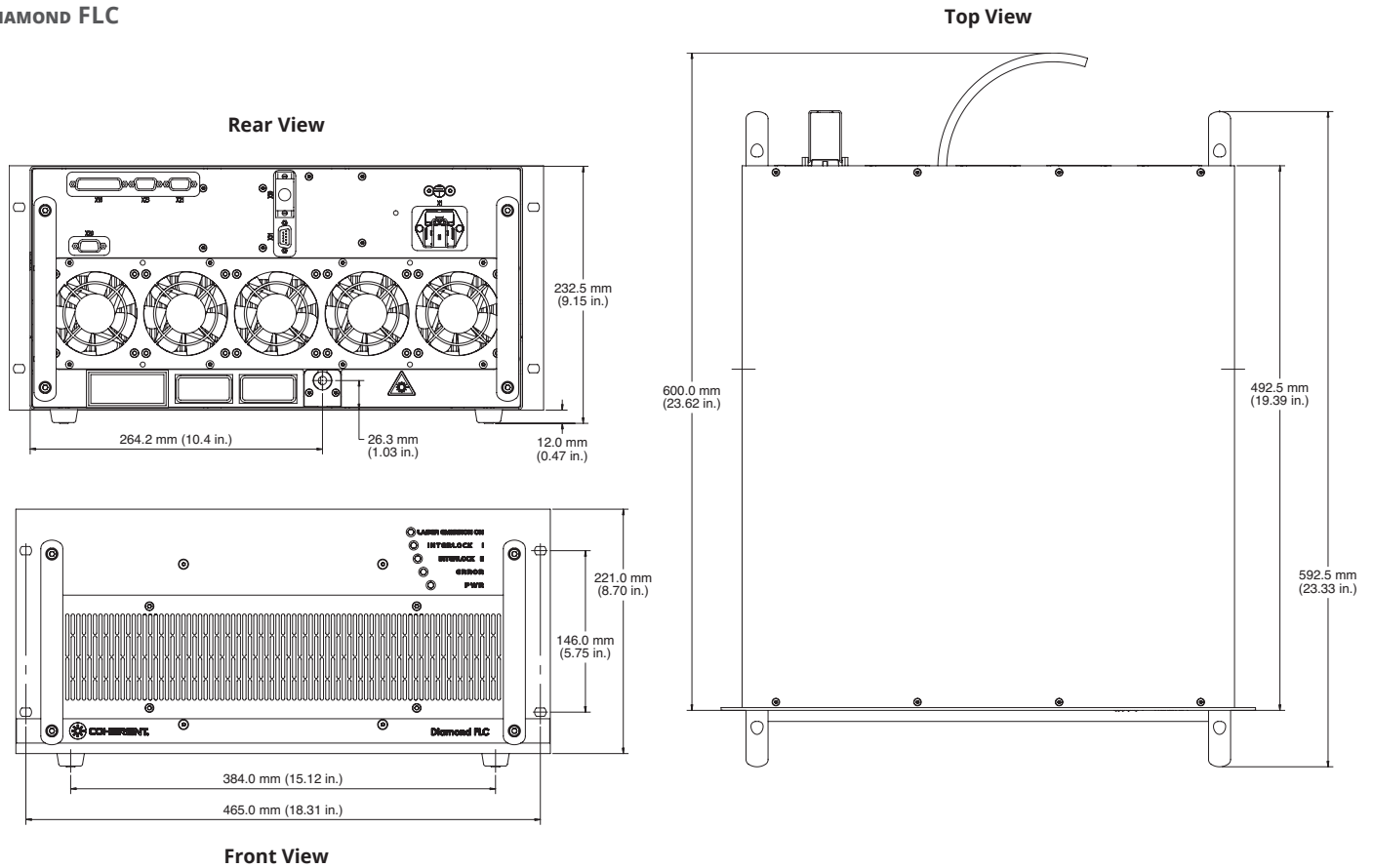
1 Other beam diameters available on request.

2 Other wavelengths available upon request.

3 Other fiber lengths available upon request.

MECHANICAL SPECIFICATIONS

DIAMOND FLC



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

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent offers a limited warranty for all DIAMOND FLC-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. Printed in the U.S.A. MC-008-18-0M0318 Copyright ©2018 Coherent, Inc.