

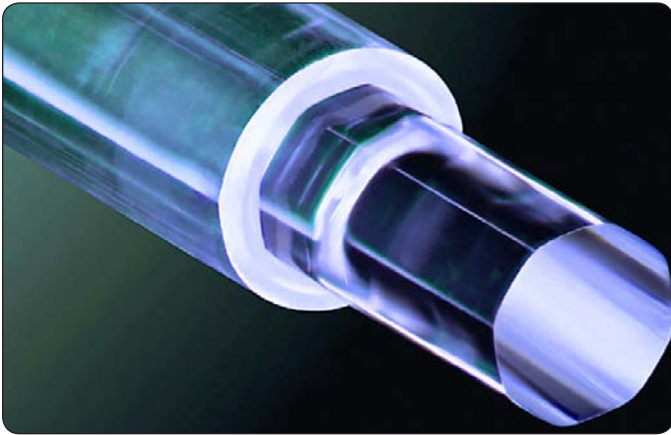
# BraggStar M Laser

Excimer Laser Optimized for FBG Writing

## High Energy, High Precision Processing

The BraggStar M delivers high pulse energy and great spatial coherence for Fiber Bragg Grating (FBG) writing. High pulse energy is a critical advantage in some FBG writing applications, and high spatial coherence is always beneficial since it enables creation of FBGs with higher contrast and/or longer length.

The BraggStar M uses a coherence enhanced optical design at the typical FBG-wavelength of 248 nm resulting in significantly higher spatial coherence compared to conventional broad-use excimer.



**Superior Reliability & Performance**

## BraggStar M Features:

- Coherence optimized resonator
- Enables the writing of large area high contrast FBGs
- Unmatched pulse-to-pulse stability
- Increased static gas lifetime

## BraggStar M Options:

- Tube Temperature Stabilization

## BraggStar M Applications:

- Fiber Bragg Grating

# BraggStar M Laser

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## System Specifications<sup>1</sup>

## BraggStar M

Wavelength (nm)	248
Pulse Energy <sup>1</sup> (mJ)	140
Max. Rep. Rate (Hz)	100
Average Power <sup>2</sup> (W)	12
Spatial Coherence <sup>3</sup> (μm) Horizontal Beam Direction	800
Energy Stability (1 sigma)(%)	≤1
Pulse Duration <sup>3</sup> (ns)	20
Beam Dimensions <sup>3</sup> (V x H)(mm <sup>2</sup> )	12 x 4.5
Beam Divergence <sup>3</sup> (V x H)(mrad <sup>2</sup> )	≤0.3 x 0.2
Dimensions (L x W x H)	1282 x 375 x 793 mm <sup>3</sup> (51 x 15 x 31 in. <sup>3</sup> )
Weight	275 kg (605 lbs.)
Electrical	230 V ±10 %, 16A, 50/60 Hz switchable, 1-phase 115 V ±10 %, 25A, 50/60 Hz switchable, 1-phase
Water Cooling <sup>4</sup>	2 to 3 l/min. (0.5 to 0.8 gal./min.), 15 to 20°C, connection: 1/2"

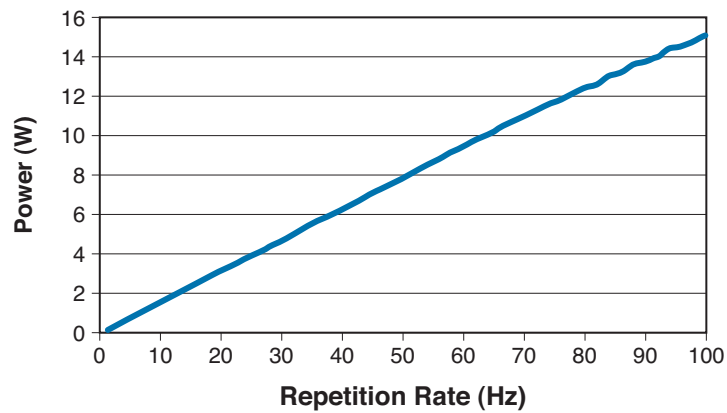
<sup>1</sup> Measured at low repetition rate.

<sup>2</sup> Measured at max. repetition rate.

<sup>3</sup> Typical, FWHM.

<sup>4</sup> Only required above 20 Hz repetition rate.

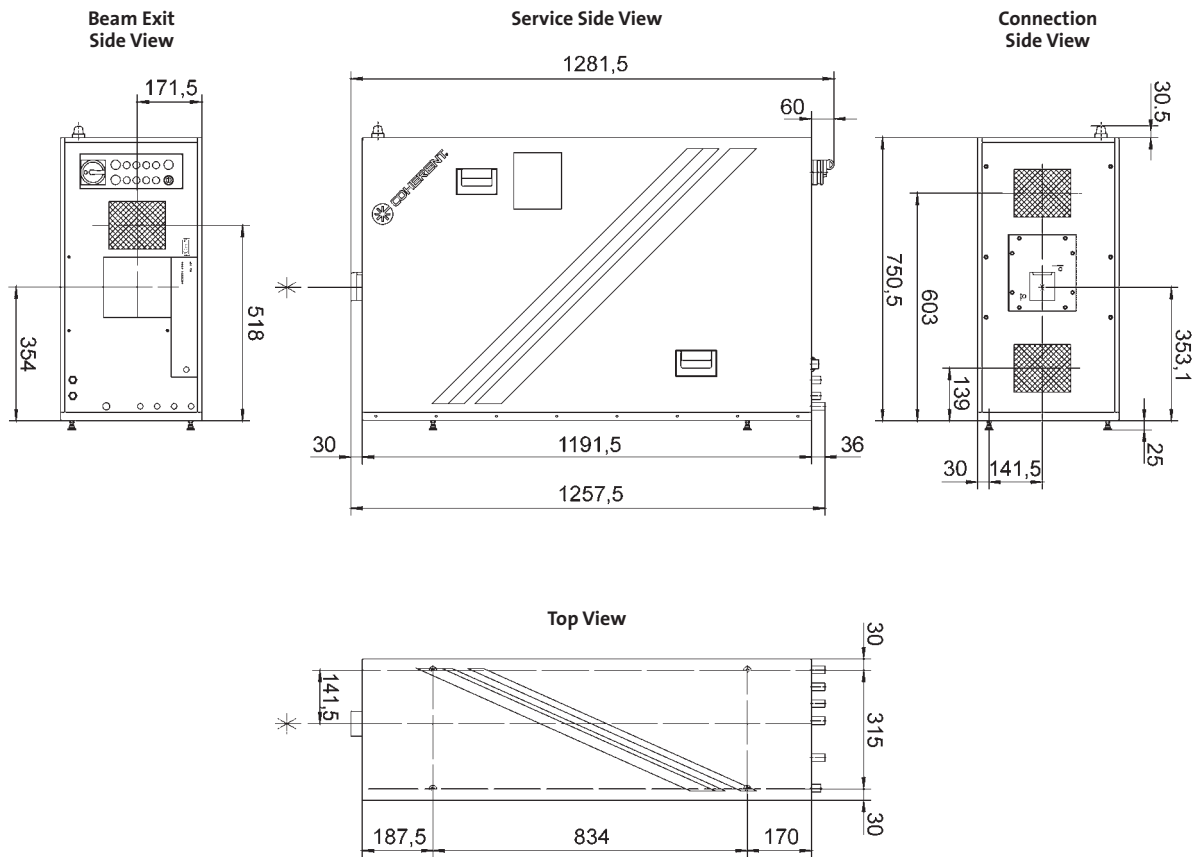
## BraggStar M Performance



# BraggStar M Laser

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## Mechanical Specifications



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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 BraggStar M lasers. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative.

