



# INNOVA Sabre MOTOFRED

## INNOVA Sabre MOTOFRED

Output Power Specifications	SHG <sup>1</sup>		Fundamental <sup>2</sup>	
	Wavelength (nm)	Power (W)	Wavelength (nm)	Power (W)
			Multiline Visible	20.0
	264.3	0.10	528.7	1.0
	257.2	1.00	514.5	8.0
	248.2	0.30	496.5	2.4
	244.0	0.50	488.0	6.5
	238.2	0.10	476.5	2.0
	229.0	0.04	457.9	1.2
			Multiline UV <sup>3</sup>	3.0
			363.8 <sup>3</sup>	1.0
			351.1 <sup>3</sup>	1.0
Beam Parameters <sup>4</sup>	SHG		Fundamental (514.5 nm)	
Beam Diameter (mm)	0.6-0.9 <sup>5</sup>		1.8 <sup>6</sup>	
Beam Divergence <sup>7</sup> (mrad)	0.5-0.85		0.35	
Output Polarization	100:1 horizontal		100:1 vertical	
Power Stability <sup>8</sup>	±1.0%		±0.5%	

<sup>1</sup> At time of purchase, customer must indicate which frequency-doubled wavelength is to be factory-tested and guaranteed. Guaranteed performance at additional wavelengths is available at a supplementary charge to cover optics (where required) and testing.

<sup>2</sup> Fundamental output power is guaranteed for Multiline Visible, 514.5 and 488.0 nm wavelengths. Guaranteed performance at additional wavelengths is available at a supplementary charge to cover optics (where required) and testing.

<sup>3</sup> Additional optics and supplementary charge required for guaranteed performance at Multiline UV, 351.1 and 363.8 nm.

<sup>4</sup> Beam parameter values are typical.

<sup>5</sup> Beam diameter measured at 1/e<sup>2</sup> points 1 m from output bezel.

<sup>6</sup> Beam diameter measured at 1/e<sup>2</sup> points at the output coupler.

<sup>7</sup> Full-angle measurement.

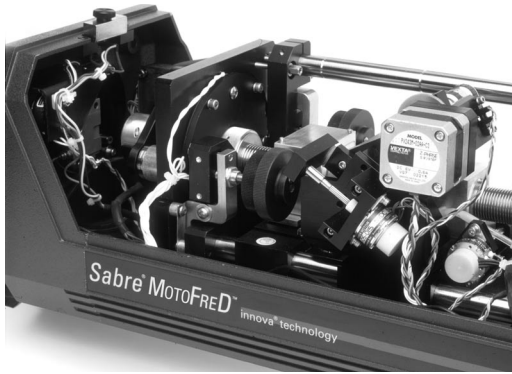
<sup>8</sup> Performance in light regulation with PowerTrack™ over a 30-minute period following a one-hour warm-up.

## Specifications

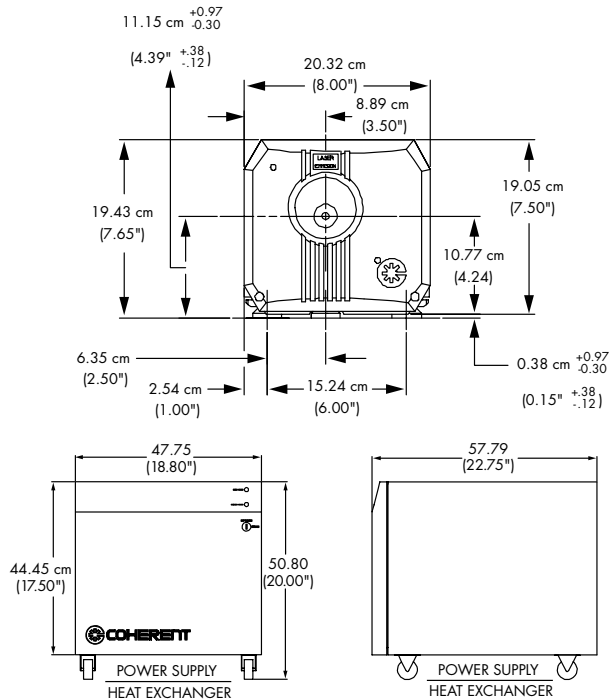
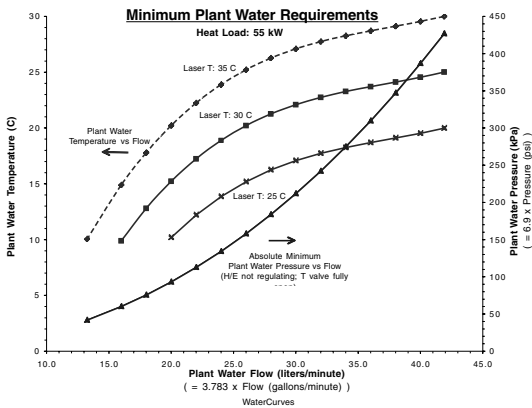
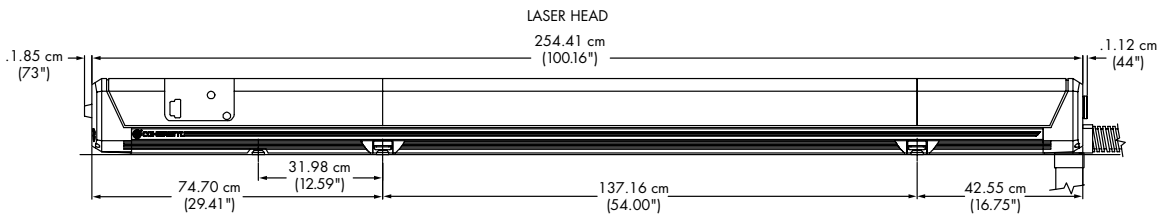
Utility and Environmental Requirements	Input Power	3-phase with ground
	Voltage	480 ±10% vac, 50 or 60 Hz
	Maximum Current Draw	70 amp/phase @ 480 vac
	Recommended Plant Water Temperature	≤25°C
	Recommended Plant Water Pressure	150 kPa (22 psi)
	Purge	0.5-1.0 SCFH (Standard Cubic Feet per Hour) Scientific Grade N <sub>2</sub> -99.999%
	System Weights	
Laser Head	Crated 213 kg (470 lb), Uncrated 122 kg (270 lb)	
Power Supply <sup>3</sup>	Crated 134 kg (295 lb), Uncrated 107 kg (235 lb)	
Heat Exchanger	Crated 102 kg (225 lb), Uncrated 75 kg (165 lb)	

# Sabre MOTOFRED

INNOVA Sabre MOTOFRED



The Innova® Sabre® MotoFred™ ion laser utilizes intra-cavity frequency doubling in BBO crystals to produce deep-UV, CW light at several wavelengths in the range 229-264.3 nm. In addition to a motorized crystal shifter, the system offers the most comprehensive range of automation and stabilization features, combined with specified output powers up to 1W, for high-volume manufacturing applications.



## LASER DIVISION

A member of  
Coherent Photonics Group  
5100 Patrick Henry Drive  
Santa Clara, CA 95054  
Phone: 1-800-527-3786  
1-408-764-4983  
Fax: 1-800-362-1170  
1-408-988-6838  
Email: tech.sales@CoherentInc.com  
Web: www.CoherentInc.com

## LOCAL OFFICES

Japan +81 (3) 5635 8700  
Benelux +31 (30) 280 6060  
France +33 (1) 6985 5145  
Germany +49 (6071) 9680  
Italy +39 (02) 34 530 214  
UK +44 (1353) 658 800

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

Coherent offers a limited warranty for all Innova systems. For full details of this warranty coverage, please refer to the Service and Support section at [www.CoherentInc.com](http://www.CoherentInc.com) or contact your local Sales or Service Representative.

Printed in the U.S.A. MC-031-01-5M1001  
Copyright ©2001 Coherent, Inc.



Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

