



Lambda Physik

# Introducing the EMG 1000i Excimer Laser Series



**The new  
"state of the art"  
excimer laser**

- up to 50 W average power
- up to 500 pulses per second
- up to 50 million pulses at constant power

The excimer laser EMG 1000i is based on the most successful EMG 100 MSC series. It incorporates all the advantages of modern excimer laser technology in a single housing:

1. The MSC technology allows to operate the thyatron well within its specifications.
2. The Intelligent Laser Control (ILC) provides constant output power at preselected level continuously.
3. The Lambda Physik gas processor keeps windows clean longer.
4. The EMG 1000i is equipped with a modern switch mode power supply.

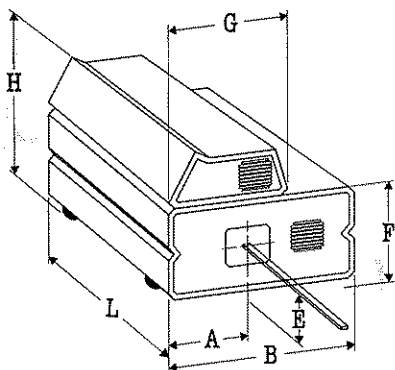


**Specifications for EMG 1000i series**

Laser medium	ArF	KrCl	KrF	XeCl	N <sub>2</sub>	XeF	
Wavelength	193	222	248	308	337	351	(nm)
Pulse energy	200	35	250	150	5	80	(mJ)
Average power							
EMG 1001i	6	1.2	12	6.5	0.2	4	(W)
EMG 1002i	12	2.5	25	13	0.5	8	(W)
EMG 1003i	25	5	50	25	1	15	(W)
EMG 1004i	10		25	20			(W)
Maximum pulse rate							
EMG 1001i				50			(Hz)
EMG 1002i				100			(Hz)
EMG 1003i				200			(Hz)
EMG 1004i	400		500	500			(Hz)
Pulse width (typ.)	17	10	23	17	4	20	(ns)
Pulse to pulse stability	6	10	4	3	1	6	(±%)
Number of shots at constant power level (using the GP 2000* gas purifier)	5	n.m.	10	20	n.m.	n.m.	(10 <sup>6</sup> )
Beam dimensions							
EMG 1001i – EMG 1003i				hor. 22, vert. 6–10			(mm)
EMG 1004i				hor. 18, vert. 5–10			(mm)

\* GP 2000 Gas Purifiers are manufactured for Lambda Physik by Oxford Lasers LTD., Oxford, U.K.

**Physical dimensions**



Vacuum pump ca. 23x24x53, 23 kg  
 Power requirements: 380 V/50 Hz or 208 V/60 Hz  
 or 208V/50 Hz. 4.5 kVA.  
 Water cooling: up to 4 liters per minute

A = 360  
 B = 840  
 E = 250 – 280 adj  
 F = 450 – 480 adj  
 H = 690 – 740 adj  
 G = 540  
 L = 1400

**Lambda Physik GmbH**

Hans-Böckler-Straße 12 · D-3400 Göttingen · Telefon (0551) 6938-0 · Telex 96633 · Telefax (0551) 68691 (G III)  
 Main U.S. Office: 289 Great Road · Acton · MA 01720 · Phone (617) 263-1100 · Telefax 617-263-4296