

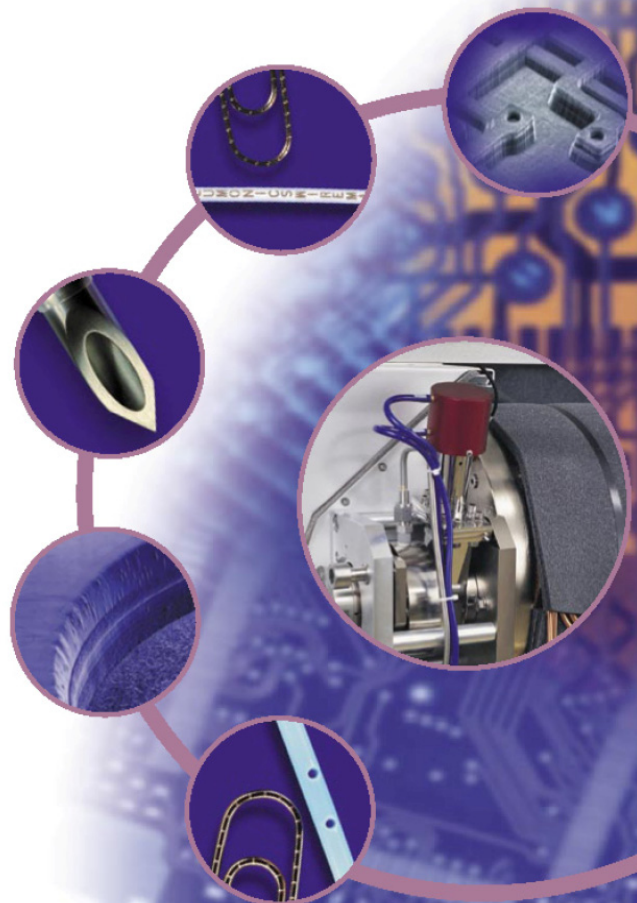
PulseMaster[®] 840 SERIES

General Purpose Excimer Lasers



A comprehensive range of advanced excimer lasers for process development, scientific research and light industrial applications

- **TMC[™] (Total Metal Ceramic) design for long gas lifetimes**
- **Versatile range of models, repetition rates and average powers**
- **EasyClean automated optics seals to retain gas fill and reduce downtime during optics maintenance**
- **Excellent beam quality and stability**
- **Optional High-Brightness optics for applications requiring low beam divergence or extended coherence length**



PulseMaster[®] 840 Series Excimer Lasers

Originally developed by Lumonics and now offered by LightMachinery, **PulseMaster PM-840 Series** lasers are designed for a wide range of applications in process development, scientific research and light industrial manufacturing applications.

TMC™ (Total metal ceramic) construction ensures excellent gas lifetime and low operating costs. Powerful microprocessor controls permit precise control over laser operating parameters, stabilize the laser output power even in burst mode, and simplify routine maintenance procedures.

EasyClean automated valves fitted to the optics ports allow the laser chamber to be sealed and the gas fill / passivation to be retained while resonator optics are removed for cleaning and maintenance – a feature pioneered by Lumonics.

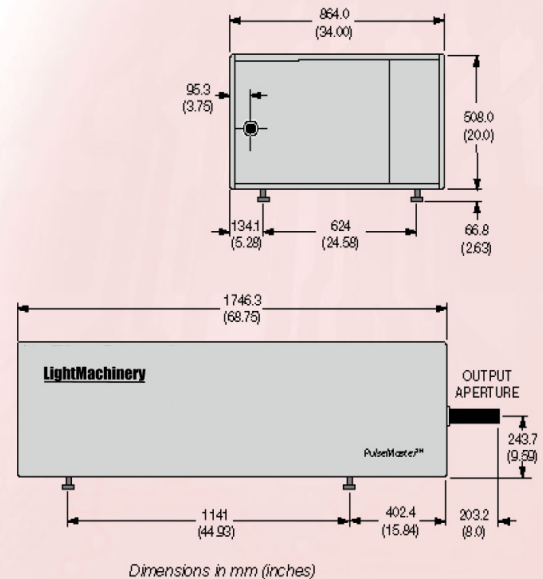
Specifications

	PM-840 Series			
	ArF	KrF	XeCl	XeF
Wavelength (nm)	193	248	308	351
Maximum Pulse Energy (mJ)	230	450	300	275
Stabilised Average Power (W)	PM-848	30	80	50
	PM-846	15	40	25
	PM-844	6	20	12
	PM-842	3	10	6
Maximum Repetition Rate (pps)	PM-848	200	200	200
	PM-846	100	100	100
	PM-844	40	50	50
	PM-842	20	25	25
Pulse Duration (ns) (FWHM, nominal)	12 - 20			
Beam Dimensions (mm) (V x H, nominal)	8 - 12 x 26			
Beam Divergence (mrad) (V x H, nominal)	1 x 3			
Timing Jitter (ns)	± 2			

Facilities

Electrical:	Models PM-848, PM-846: 3-phase, 4-wire, 208 V 30 A or 400 V 20 A 50 / 60 Hz Models PM-844, PM-842: Single-phase, 200 – 240 V, 50 / 60 Hz, 15 A
Cooling water:	10 liters / minute, 5°-20°C, 40-60 psig
Laser gases:	Kr or Xe rare gas, F ₂ or HCl halogen gas, Ne and He buffer gases; or Pre-mixed gas
Weight installed:	230 kg
Shipping weight:	290 kg

Specifications are subject to change. Please consult LightMachinery for latest information.

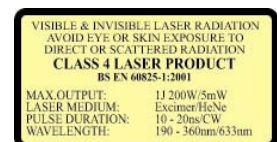


www.lightmachinery.com

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Printed in Canada. September 2008