

Excimer Laser

PSX-100



An innovative multi-gas excimer laser which is both compact and portable and yet is capable of mJ pulse energies and, with a pulse duration of only 2.5 ns, peak powers in excess of 2 mW.

- Compact single unit construction
- Air cooled
- Short, high peak power pulses
- Efficient discharge circuit with negligible reverse aftercurrent
- Long thyratron life
- Halogen compatible construction for minimal repassivation

Applications

- Photoablation and micromachining
- Semiconductor processing
- Surface analysis
- Laser ionization mass spectroscopy
- Fluorescence spectroscopy
- Photochemistry
- Relaxation time studies
- Nonlinear optics

Specifications

Laser Medium	F ₂	ArF	KrCl	KrF	XeCl	XeF	
Wavelength	157	193	222	248	308	351	(nm)
Max. Pulse Energy ¹	1.0	4.0	0.3	5.0	2.0	1.5	(mJ)
Pulse Duration			2.5 to 5.0				(ns)
Max. Peak Power ¹	400	1,400	120	2,000	800	600	(kW)
Max. Repetition Rate			100				(Hz)
Max. Average Power ²	50	400	20	400	150	100	(mW)
Pulse-to-Pulse Stability ³			± 5				%
Beam Dimensions (H x V)	3 x 3	3 x 3	4 x 3	3 x 4	4 x 4	4 x 4	(mm)
Beam Divergence (H x V)	3 x 3	3 x 3	3 x 3	3 x 4	3 x 3	3 x 3	(mr)
Timing Jitter			< ± 1				(ns)
Power Requirements ⁴			110 V, 60 Hz, 1A				
Cooling			Air				

Physical Dimensions

Dimensions (L x W x H)	30 x 26 x 21	(cm)
Weight	13.4	(kg)



¹ Measured at 10 Hz

² Measured at 100 Hz

³ Based on 90% of all pulses

⁴ 220 V, 50 Hz option available

All specifications are typical data and subject to change without notice.

Warranty

PSX-100 excimer lasers are warranted free from defects in materials and workmanship for 1 year from the date of delivery.

Excimer Laser

Ximer 300



New to our smart-value line of Excimer Lasers, the Ultra-Robust 8.5 mJ Ximer 300

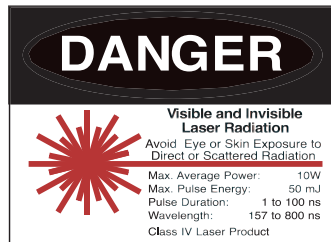
- Compact modular construction with remote control
- Air cooled
- Short, high peak power pulses
- Variable output energy
- Long thyatron lifetime

Applications

- Photoablation and Micromachining
- Fiber Bragg grating writing
- Semiconductor processing
- Surface analysis
- Laser ionization mass spectroscopy
- Fluorescence spectroscopy
- Photochemistry
- Relaxation time studies
- Non-linear optics

Specifications

Laser Medium ¹	F ₂	ArF	KrF	
Wavelength	157	193	248	nm
Max. Pulse Energy ²	1.3	7	8.5	mJ
Pulse Energy Adjustment Range	50 to 100	50 to 100	30 to 100	%
Max. Peak Power ²	n.m.	1.75	1.70	MW
Max. Average Power ³	270	1400	2000	mW
Max. Repetition Rate	300	300	300	Hz
Pulse Duration	n.m.	4	5	ns
Pulse-to-pulse Stability	3	3	3	%
Beam Dimensions (V x H)	2.1 x 2.3	3 x 3	4 x 3	mm
Beam Divergence (V x H)	1.5 x 1.2	1.5 x 1.2	6.5 x 1.5	mrاد
Timing Jitter	< ± 1	< ± 1	< ± 1	ns
Power Requirements ⁴	100...240V, 50...60Hz, 360W			
Cooling	Air			
Laser Dimensions (L x W x H)	38 x 40 x 18			cm
Weight	16			kg



¹ For KrCl (222nm), XeCl (308nm), XeF (351nm) please call.

² Measured at 25 Hz

³ Measured at 300 Hz

⁴ Universal Input

All specifications are typical data and subject to change without notice.

Warranty

Ximer-300 lasers are warranted free from defects in materials and workmanship for 1 year from the date of delivery.

Excimer Laser

MSX-250



With its excellent beam quality, pulse-to-pulse stability and low timing jitter, the MSX-250 truly represents an affordable, high-performance, compact excimer laser, ideally suited for research and light industrial applications.

- All-metal-ceramic construction
- Innovative soft pre-ionization scheme
- Long-life discharge circuit components
- Single compact unit
- Pulse energies up to 50 mJ (at 248 nm)
- Repetition rates to 100Hz
- Excellent beam quality and pulse-to-pulse stability

Applications

- Fiber Bragg grating writing
- Laser ionization mass spectroscopy
- Fluorescence spectroscopy
- Photochemistry
- Photoablation and micromachining
- Surface analysis

Specifications

Laser Medium	F ₂	KrF	XeCl	XeF	
Wavelength	157	248	308	351	(nm)
Max. Pulse Energy ¹	4	50	30	35	(mJ)
Max. Repetition Rate	100	100	100	100	(Hz)
Max. Average Power ²	0.35	4.5	2.5	3.0	(W)
Pulse-to-Pulse Stability ³	n.m.	≤ ±2	≤ ±2	≤ ± 2	(%)
Pulse Duration	n.m.	15	12	15	(ns)
Timing Jitter	n.m.	< ±2	< ±2	<±2	(ns)
Beam Dimensions (V x H)	4 X 8	6 x 12	6 x 12	5 x 12	(mm)
Beam Divergence (V x H)	2 x 2	2 x 4	2 x 4	2 x 4	(mr)
Power Requirements ⁴	230 V, single phase, 50 Hz, 10 A				

Physical Dimensions

Dimensions (L x W x H)	51 x 31 x 43	(cm)
Weight	45	(kg)



¹ Measured at 10 Hz

² Measured at maximum repetition rate

³ Based on 99% of all pulses and measured at repetition rates of 1 ±10 Hz. Depends on used value of HV and on age of gas mixture.

⁴ 110 V, single phase, 60 Hz option available

All specifications are typical data and subject to change without notice.

Warranty

MSX-250 excimer lasers are warranted free of defects in materials and workmanship for 1 year from the date of delivery.

Excimer Laser

ASX-750



Provides the research scientist or engineer with a reliable, low-maintenance, high-performance source of UV radiation

- Soft, corona pre-ionization
- Efficient micro-particle filter
- Long thyatron life
- Pulse energies up to 360 mJ (at 248nm)
- Repetition rates up to 60Hz
- Excellent beam quality and pulse-to-pulse stability
- Easy installation and operation
- Easy and quick gas refilling
- Single-phase AC power

Applications

- Fiber Bragg grating writing
- Spectroscopy
- Photochemistry
- Dye laser pumping
- Materials processing investigations

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Laser Medium	ArF	KrF	XeCl	XeF	
Wavelength	193	248	308	351	(nm)
Max. Pulse Energy ¹	220	360	270	140	(mJ)
Max. Repetition Rate	60	60	60	60	(Hz)
Max. Average Power ²	10	20	15	8	(W)
Pulse-to-Pulse Stability ³	±3	±2	±2	±2	(%)
Pulse Duration	20	26	27	20	(ns)
Timing Jitter		±2			(ns)
Beam Dimensions (V x H)		6 - 8 x 22			(mm)
Beam Divergence (V x H)		2 x 4			(mr)
Power Requirements ⁴	208V, single phase, 60 Hz, 1.5 KVA max.				

Physical Dimensions

Dimensions (L x W x H)	111 x 51 x 64	(cm)
Weight	165	(kg)



¹ Measured at 10 Hz

² Measured at maximum repetition rate

³ Based on 99% of all pulses

⁴ 220 V, single phase, 50 Hz option available

All specifications are typical data and subject to change without notice.

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ASX-750 excimer lasers are warranted free of defects in materials and workmanship for 1 year from the date of delivery.